



THE CHAIRMAN

FEDERAL TRADE COMMISSION  
WASHINGTON, D.C. 20580

October 19, 2006

The Honorable Maria Cantwell  
United States Senate  
Washington, D.C. 20510

Dear Senator Cantwell:

Thank you for your letter regarding prices for gasoline and diesel fuel in Washington State. In your letter, you express concern about higher prices for gasoline and diesel fuel in Spokane relative to prices in Seattle and Tacoma, and also about higher prices for diesel fuel relative to gasoline prices. This reply responds to the four questions that you posed and provides a number of graphs showing supporting data.

The enclosed graphs were generated by means of data gathered in the FTC's Gasoline and Diesel Price Monitoring Project, as well as additional data that we purchased specifically for this response. As you may know, in addition to our formal investigations in the petroleum sector, the Commission monitors gasoline and diesel fuel price movements continuously in 20 wholesale regions and approximately 360 retail areas across the nation – including Seattle, Tacoma, Spokane, Richland-Kennewick-Pasco, and five other areas in Washington State – to identify conduct that may violate the antitrust laws. The Commission's Bureau of Economics developed a statistical model to identify unusual movements in gasoline and diesel prices at both the wholesale and retail levels.<sup>1</sup>

An unusual price movement in a given area is a price that is significantly out of line with the statistical model's predicted range, which in turn is determined on the basis of the historical relationship between the average price in that area and the average prices prevailing on the Gulf Coast.<sup>2</sup> Commission attorneys and economists examine each unusual price movement to assess

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<sup>1</sup> To help detect any unlawful practices in any area, the Price Monitoring Project includes scrutiny of all gasoline price information that we receive through public and Congressional correspondence, as well as from U.S. Department of Energy ("DOE") Gasoline Hotline complaints and similar information provided to the FTC by state and local officials.

<sup>2</sup> The Gulf Coast is a portion of the country with substantial unconcentrated refining and retailing sectors, and it receives significant imports of crude oil and refined product. The Gulf Coast area also exports refined petroleum products to the rest of the country.

whether it might result from any unlawful anticompetitive conduct, or instead from movements in crude oil prices, unusual changes in demand, motor fuel formulation changes, or other market factors.

**Question:** *Does the Commission agree that the current price differential for gasoline and diesel between the Spokane and Seattle/Tacoma areas exceeds historical averages?*

**Answer:** As shown in the following table – which is expressed in terms of cents per gallon (“cpg”) – annual averages indicate that gasoline prices (excluding taxes) in Seattle generally have exceeded those in Spokane, and that the two cities’ diesel fuel prices (excluding taxes) have been closer:

The Difference in the Retail Price of Fuel (less tax)  
(Seattle minus Spokane)<sup>3</sup>

Year	Gasoline	Diesel
2002	8.949	3.898
2003	4.968	-0.532
2004	4.344	0.468
2005	2.344	0.146
2006 (to date)	2.121	-3.532

Annual averages, however, do not tell the full story. Figures 1 and 2 show retail price differences for gasoline and diesel fuel, respectively, in Spokane and Seattle. As shown in those Figures, it is not unusual for fuel prices in Spokane to be higher than those in Seattle and for price differences between Seattle and Spokane to shift quite a bit.

In recent weeks, Spokane’s fuel prices have exceeded Seattle’s by the highest amounts seen within the 57-month period covered. As shown in Figure 1, from the week that ended on August 5, 2006, to the week that ended on October 7, 2006, gasoline prices in Spokane were on average 14 cpg higher than prices in Seattle. On the other hand, gasoline prices in Seattle were on average 17 cpg higher than those in Spokane during the first four months of 2002. As shown in Figure 2, diesel prices in Spokane were on average 12 cpg higher than Seattle prices from the week that ended on July 1, 2006, to the week that ended on October 7, 2006; by contrast, diesel prices in Seattle were on average 8 cpg higher than Spokane’s during the first four months of 2002.

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<sup>3</sup> Prices in Tacoma correlate closely with those in Seattle.

Such price variations between eastern and western Washington are to be expected in light of the distinct supply conditions that govern each region. As shown by the enclosed Petroleum Supply Infrastructure map (Figure 3), the eastern part of the state receives refined petroleum products principally through pipelines flowing from refineries in PADD IV (the Rocky Mountain region).<sup>4</sup> Western Washington, however, has a different source of supply, receiving refined products via pipeline from refineries located in northern PADD V (to the west of the Cascade Range in Washington) and also via waterborne imports. No pipelines connect the eastern and western parts of Washington State. Figures 4 and 5 illustrate the distinct wholesale price patterns for gasoline in Spokane and Seattle; those Figures also show how retail gasoline prices correlate with wholesale prices in each of the two cities.<sup>5</sup>

As discussed below, Spokane's relationship to PADD IV explains the recent higher prices in Spokane relative to Seattle. Figures 6-8 show how actual retail gasoline prices in Spokane, Seattle, and Salt Lake City for 2006 to date compare with the range of retail prices predicted by the statistical model that we use in our Price Monitoring Project. We have included Salt Lake City because it is a major refining center within PADD IV and thus is linked to Spokane's fuel supply. Because Spokane and Salt Lake City share supply sources, it is not surprising that the graphs show a closer correlation – in terms of timing, duration, and degree – between those two cities' recent price increases than they do between Spokane and Seattle. Gasoline prices in Spokane and Salt Lake City were in line with – or even below – the predicted range throughout the first eight months of this year, then began to exceed it in early September. Since the beginning of September, Spokane's and Salt Lake City's gasoline prices have been above the predicted range by, on average, 19 and 18 cpg, respectively. Gasoline prices in Seattle have been in line with or below the predicted range throughout the year.<sup>6</sup>

Figures 9-11 show how actual retail diesel prices for Spokane, Seattle, and Salt Lake City for 2006 compare with the range of retail prices predicted by our statistical model. Although the patterns are similar to those for gasoline, diesel prices for Spokane and Salt Lake City went out of the predicted range sooner – and then returned to that range more quickly – than gasoline prices. As I discuss in more detail in answer to your fourth question, many refineries can substitute between producing gasoline and producing diesel. As diesel prices increased more

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<sup>4</sup> "PADD" is an acronym for "Petroleum Administration for Defense District."

<sup>5</sup> With regard to the pricing of diesel fuel, wholesale prices in Spokane and Seattle are also distinct, and a comparison of retail and wholesale prices within each area shows a correlation similar to those for gasoline.

<sup>6</sup> Small, temporary deviations in actual prices from predicted ranges (either above or below) are not unusual and may be due to chance or short-term transitional factors.

sharply – not only in Spokane and Salt Lake City but also (as illustrated by Figure 12) throughout PADD IV – it became more profitable for PADD IV refiners to produce diesel relative to producing gasoline. If refiners at that time decided to maximize profits by increasing the production of diesel at the expense of gasoline production, that would explain why gasoline prices are above predicted values just as diesel prices are quickly returning to predicted values after reaching their zenith. We will continue to monitor the elevated gasoline prices throughout areas served by PADD IV, including eastern Washington State.

Developments in PADD IV – where refiners experienced midyear production problems and correspondingly lower midyear output – likely have contributed to recent elevations in diesel and gasoline prices in both Salt Lake City and Spokane. According to data from DOE’s Energy Information Administration, 2006 midyear production (from June through August) at refineries located in PADD IV was 3 percent lower for gasoline and 1.9 percent lower for diesel fuel than during midyear 2005. By contrast, PADD IV gasoline output for March through May 2006 was only 0.8 percent lower than during the same period last year, while diesel output from March through May 2006 actually exceeded last year’s level by 2.5 percent.

PADD IV evidently experienced lower midyear production because that region encountered greater difficulty in handling this year’s nationwide conversion to ultra-low-sulfur diesel (“ULSD”) fuel. New EPA regulations called for refiners and importers nationwide to ensure that at least 80 percent of the volume of the highway diesel fuel they produce or import was ULSD-compliant by June 1, 2006, and for such ULSD quantities to reach distribution and marketing points downstream from refineries – *i.e.*, pipelines, distributors, terminals, and transporters – by September 1, 2006. Consistent with predictions by DOE, industry observers, and the industry<sup>7</sup> that there would be special supply problems and higher costs in PADD IV during the ULSD phase-in, there were reports of PADD IV diesel supply shortages in August

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<sup>7</sup> In analyzing potential price and supply effects of the transition to ULSD scheduled for 2006, a report issued by DOE in 2001 pointed to the specter of higher costs in PADD IV (“Sixty-four percent of the refineries in PADD IV that are assumed to produce ULSD in Scenario 4 have estimated costs greater than 5 cents per gallon compared to 31 percent in PADD III, 22 percent in PADD II, and 17 percent in PADD I.”). *See The Transition to Ultra-Low-Sulfur Diesel Fuel: Effects on Prices and Supply*, available at <http://www.eia.doe.gov/oiaf/servicerpt/ulsd/index.html>. In May 2006, DOE warned that supply problems could arise as refiners reduced sulfur content in transportation diesel fuel to meet new government standards starting the following month. DOE, *Energy Assurance Daily*, “Bodman Says Switch to Ultra Low Sulfur Diesel (ULSD) May Cause Supply ‘Hiccups’” (May 19, 2006), available at <http://www.oe.netl.doe.gov/docs/eads/ead051906.pdf>. *See also, e.g.*, DOE, *Energy Assurance Daily*, “Consultant Sees ULSD Supply Problems for Certain U.S. Cities and Regions” (Mar. 13, 2006) (PADD IV and a few other areas are likely to experience supply problems during the ULSD conversion process), available at <http://www.oe.netl.doe.gov/docs/eads/ead031306.pdf>.

linked to the ULSD conversion process.<sup>8</sup> One industry observer commented in August regarding PADD IV's problems that "toward the end of the summer supply has been tight because refiners are trying to make a new spec of diesel. There had been some trouble getting on-spec diesel. Some haven't reached a low enough spec on certain batches."<sup>9</sup> The shortage in Colorado was so severe in August that both branded and unbranded diesel was rationed to suppliers; the state permitted fuel truck drivers to work unlimited hours; and some trucking companies warned their drivers to avoid refueling in Colorado. The reports also indicated that several factors beyond the ULSD conversion process were compounding the diesel shortage in PADD IV, including increased demand from farmers running irrigation equipment during a drought and several refinery problems caused by power outages. In addition, because problems at a refinery usually affect the output of all of the refinery's products, it is likely that the bumpy ULSD conversion process in PADD IV also contributed to the reduced midyear output of gasoline in that PADD.

Although retail diesel prices in PADD IV began to increase relative to the U.S. average in May, the price in PADD IV exceeded the national average by more than 30 cpg in August as the switchover to ULSD progressed. The price of diesel in PADD IV and those areas of PADD V served by refineries in PADD IV (e.g., Spokane) has returned to the predicted range, however, as illustrated in Figure 9 (Spokane) and Figure 11 (Salt Lake City).

**Question:** *In the Commission's view, how does the level of market concentration and the overall ownership structure of fuel retailers in the Spokane area compare to the Seattle and Tacoma areas?*

**Answer:** To respond to your question, the Commission purchased data on the current number of gasoline stations by brand in both Spokane and Seattle. These data demonstrate that the retail concentration levels in both Spokane and Seattle are at the lower end of the moderately

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<sup>8</sup> *Fleet Owner*, "ULSD Fires Up Prices in the Rockies" (Aug. 9, 2006), available at [http://fleetowner.com/news/topstory/ulsd\\_rocky\\_mountain\\_nebraska\\_colorado\\_diesel\\_shortage\\_080906/index.html](http://fleetowner.com/news/topstory/ulsd_rocky_mountain_nebraska_colorado_diesel_shortage_080906/index.html); *Fleet Owner*, "Rocky Road to ULSD" (Aug. 22, 2006), available at [http://fleetowner.com/news/rocky\\_mountain\\_ulsd\\_transition\\_terminal\\_retail\\_opis\\_npra\\_truck\\_082206/index.html](http://fleetowner.com/news/rocky_mountain_ulsd_transition_terminal_retail_opis_npra_truck_082206/index.html); *The Gazette*, "Diesel Prices Traced to New Sulfur Rules" (Aug. 30, 2006), available at [http://www.findarticles.com/p/articles/mi\\_qn4191/is\\_20060380/ai\\_n16698051](http://www.findarticles.com/p/articles/mi_qn4191/is_20060380/ai_n16698051); DOE, *Energy Assurance Daily*, "Switch to Ultra-Low Sulfur Diesel Blamed for Shortages, Rationing in Colorado" (Aug. 18, 2006), available at <http://www.oe.netl.doe.gov/docs/eads/ead081806c.pdf>.

<sup>9</sup> *Fleet Owner*, "Rocky Road to ULSD," *supra* note 8 (quoting Randy Lusby, Markets Editor for the Oil Price Information Service).

concentrated range, with Seattle modestly more concentrated than Spokane.<sup>10</sup> Moreover, for at least two reasons, even these moderate levels of concentration overstate the actual market concentration in Spokane and Seattle. In the first place, these concentration statistics lump together all the stations operating under a given brand – regardless of whether a particular station is company-owned-and-operated – even though there are many branded stations that operate as independent franchisees and therefore contribute to the determination of retail prices. Viewing all of these disparate operators under the same brand as a unitary entity results in a significant overestimate of the level of concentration. Second, the concentration levels do not account for the fact that non-traditional “hypermarket” retail outlets (e.g., Costco, Safeway, Sam’s Club) sell more gasoline than regular stations, and therefore they account for a disproportionately large amount of gasoline sales in relation to their actual number of outlets.

As you can see in Figures 4 and 5, which show wholesale and retail gasoline prices in Spokane and Seattle, the difference in retail prices between those two cities is not being driven primarily by a difference in the retail markup. Rather, those differences stem largely from changes in wholesale prices, which in turn appear to be driven by bulk supply conditions. In other words, retail margins, which can be influenced by the level of retail competition, are not the reason why fuel prices differ between Spokane and Seattle.

**Question:** *What specific factors are currently contributing to the slower pace at which fuel prices are falling in Spokane, compared to these areas in western Washington?*

**Answer:** As I discussed above, the eastern and western parts of Washington receive their fuel supply from two different sources. Because there are no pipeline connections or other efficient ways to ship fuel between eastern and western Washington, it is relatively difficult to ship fuel between the two regions.<sup>11</sup> Therefore, shocks to the sources of supply to either the eastern or the western part of the state can lead to a price differential between the two areas, until the supply issues are resolved.

The specific factor that has contributed to the recent higher fuel prices in eastern

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<sup>10</sup> The Commission and the Department of Justice measure market concentration by means of the Herfindahl-Hirschman Index (“HHI”), which is calculated by summing the squares of the market shares of all firms in the market. *FTC and Department of Justice Horizontal Merger Guidelines* (“*Merger Guidelines*”) § 1.5. The retail HHIs we computed for Seattle and Spokane are 1,400 and 1,300, respectively. Markets with HHIs between 1,000 and 1,800 are deemed “moderately concentrated,” while markets with HHIs exceeding 1,800 are deemed “highly concentrated.” *Merger Guidelines* § 1.51.

<sup>11</sup> Transport fuel typically is shipped by pipeline, barge, or truck. Tanker trucks most often supply retail stations within a limited radius, such as 50 to 75 miles. It is approximately 280 miles from Seattle to Spokane.

Washington relative to those in western Washington is eastern Washington's dependence on supplies from PADD IV refiners – whose production recently has been reduced due to difficulties in handling this year's conversion to ULSD. As shown in Figures 9 and 11, the prices of diesel in Spokane and Salt Lake City – which, as discussed above, share supply links – have returned to predicted levels; and as shown in Figures 6 and 8, the prices of gasoline in those cities appear to be returning to predicted levels as well.

**Question:** *Why are diesel fuel prices demonstrably higher than more refined types of petroleum fuels?*

**Answer:** As shown in Figure 13, the national average prices of gasoline and diesel (net of taxes) track each other over time.<sup>12</sup> The demand for gasoline and that for diesel each show seasonal variations. Gasoline demand typically peaks during the summer driving season, as do prices for gasoline (controlling for changes in the price of crude oil). Diesel prices tend to rise gradually during the fall, decline in the late winter, rise through the early spring, and then drop slightly in the summer. Diesel prices experience upward pressure as farmers use the fuel, and also as trucks transport goods so that stores can build inventories during the winter holiday season. Another time of seasonal pressure on diesel prices is the cold-weather season in the Northeast, where most heating oil (which is a type of diesel fuel) is consumed.<sup>13</sup> As shown in Figure 13, the average difference between diesel prices and gasoline prices over 42 months was less than 5 cpg. The price of gasoline typically increases relative to the price of diesel fuel in the summer, and vice-versa in the winter.

There are two primary reasons why diesel and gasoline prices are linked. In the first place, of course, both are produced from the same input – crude oil – which currently determines about 55 percent of the price of the refined product. Second, depending on the relative prices of the two products, many refineries can engage in limited substitution between producing diesel and producing gasoline.<sup>14</sup>

One important difference between diesel and gasoline supply in the United States is that the nation imports more than 10 percent of its gasoline supply but only 5 to 6 percent of diesel consumed. When the United States has a problem with diesel fuel supplies, the number of foreign sources on which it can call is much more limited than in the event of a gasoline

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<sup>12</sup> It is important to subtract the taxes because the federal tax on diesel is 6 cpg more than the federal gasoline tax.

<sup>13</sup> For more detail on aggregate diesel pricing trends and on the differences between on-road diesel and heating oil, *see* <http://www.eia.doe.gov/bookshelf/brochures/diesel/dieselprices2006.html>.

<sup>14</sup> *See* the Refinery Schematic included as Figure 14.

Hon. Maria Cantwell

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shortage. Thus, when a number of refineries were offline last fall and winter due to Hurricanes Katrina and Rita, increased imports helped bring gasoline prices down more quickly than diesel prices. In other words, when gasoline or diesel fuel prices in the United States are high relative to prices in Europe, the country is better able to alleviate the gasoline situation through imports.

We believe that diesel prices in August and September were higher than gasoline prices in Rocky Mountain states and in parts of the country primarily served from the Rocky Mountain refineries (e.g., Spokane) because, as discussed above, PADD IV's conversion to ULSD entailed a number of special transitional difficulties that caused a temporary shortage of diesel fuel.

The Commission appreciates your concern about consumers in petroleum markets, and we will maintain our efforts to identify, prosecute, and prevent any unlawful anticompetitive practices in those markets. We also will continue to educate U.S. consumers, and I have enclosed a copy of a news release entitled "FTC Offers Tips for Fewer Trips to the Pump"<sup>15</sup> that may be of assistance to your constituents. If you or your staff have any additional questions or comments or wish to provide additional information, please contact me or have your staff call Jeanne Bumpus, the Director of our Office of Congressional Relations, at (202) 326-2195.

Sincerely,



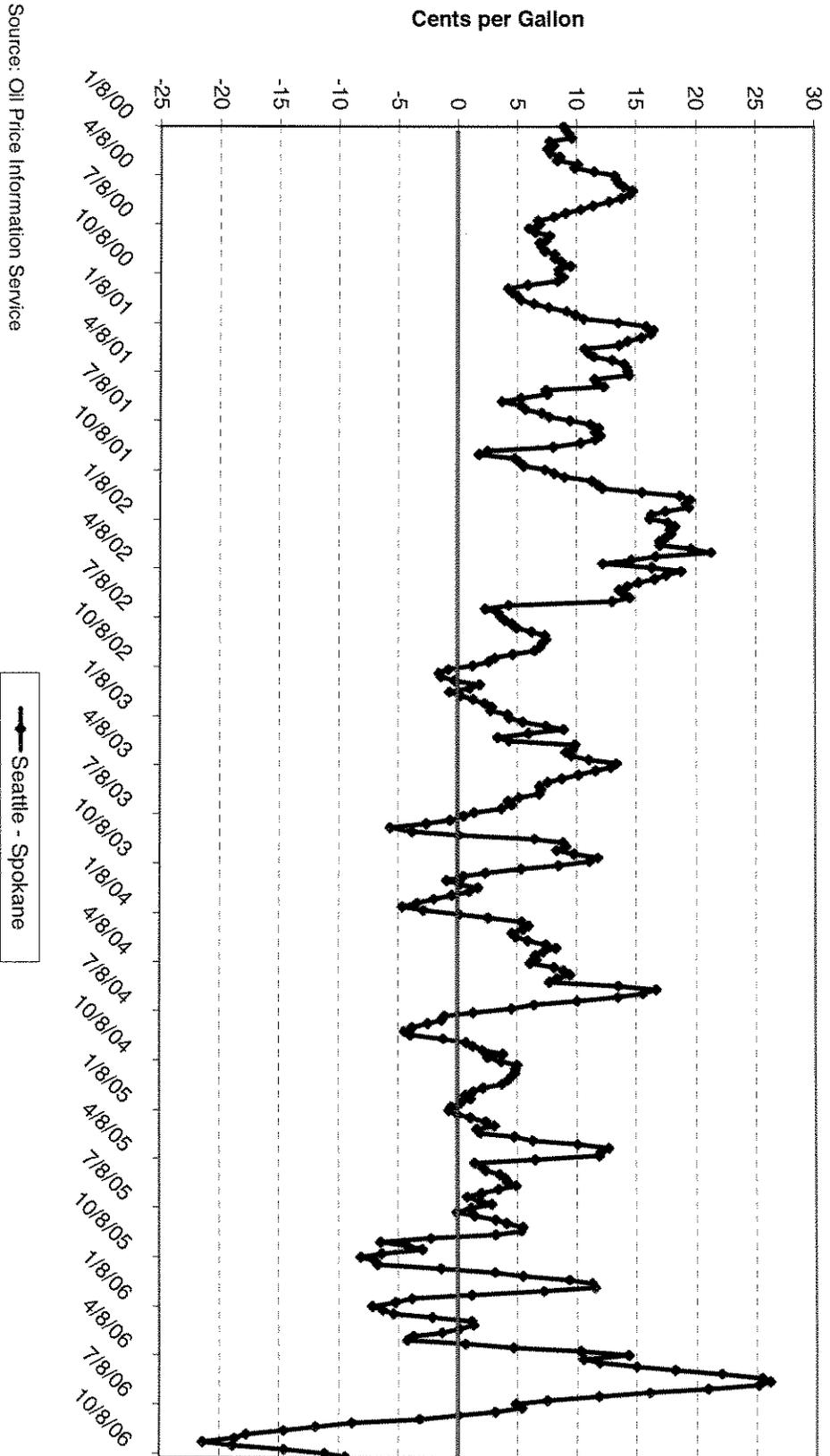
Deborah Platt Majoras  
Chairman

Enclosures

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<sup>15</sup> The news release is also available at  
<http://www.ftc.gov/opa/2005/09/gaspricesci.htm>.

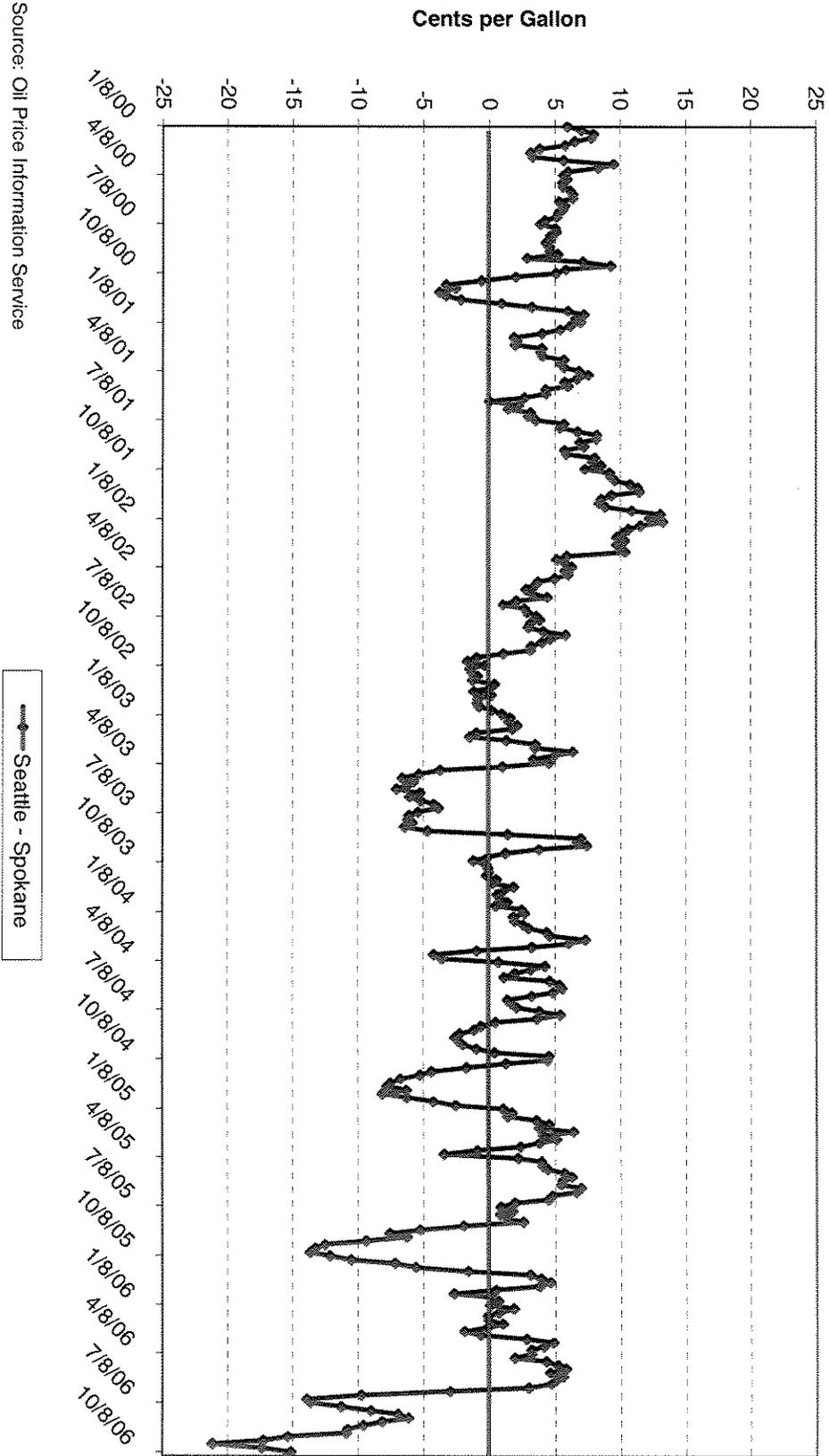
Figure 1.  
The Average Weekly Difference in Retail Gasoline Prices  
(Seattle minus Spokane)  
January 2000 - October 2006



Source: Oil Price Information Service

Seattle - Spokane

Figure 2.  
The Average Weekly Difference in Retail Diesel Prices  
(Seattle minus Spokane)  
January 2000 - October 2006



Source: Oil Price Information Service

Seattle - Spokane

Figure 3  
Petroleum Supply Infrastructure

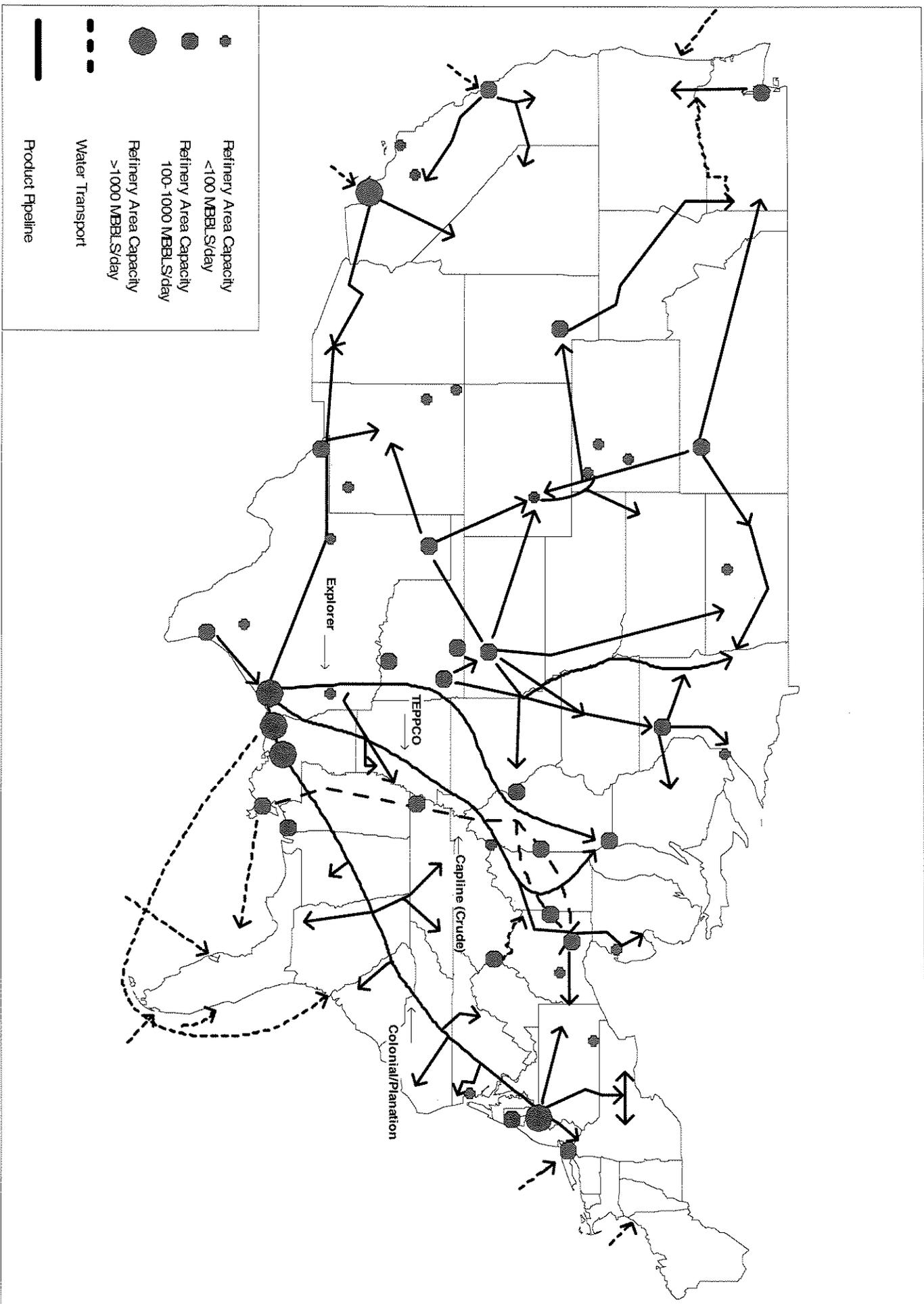
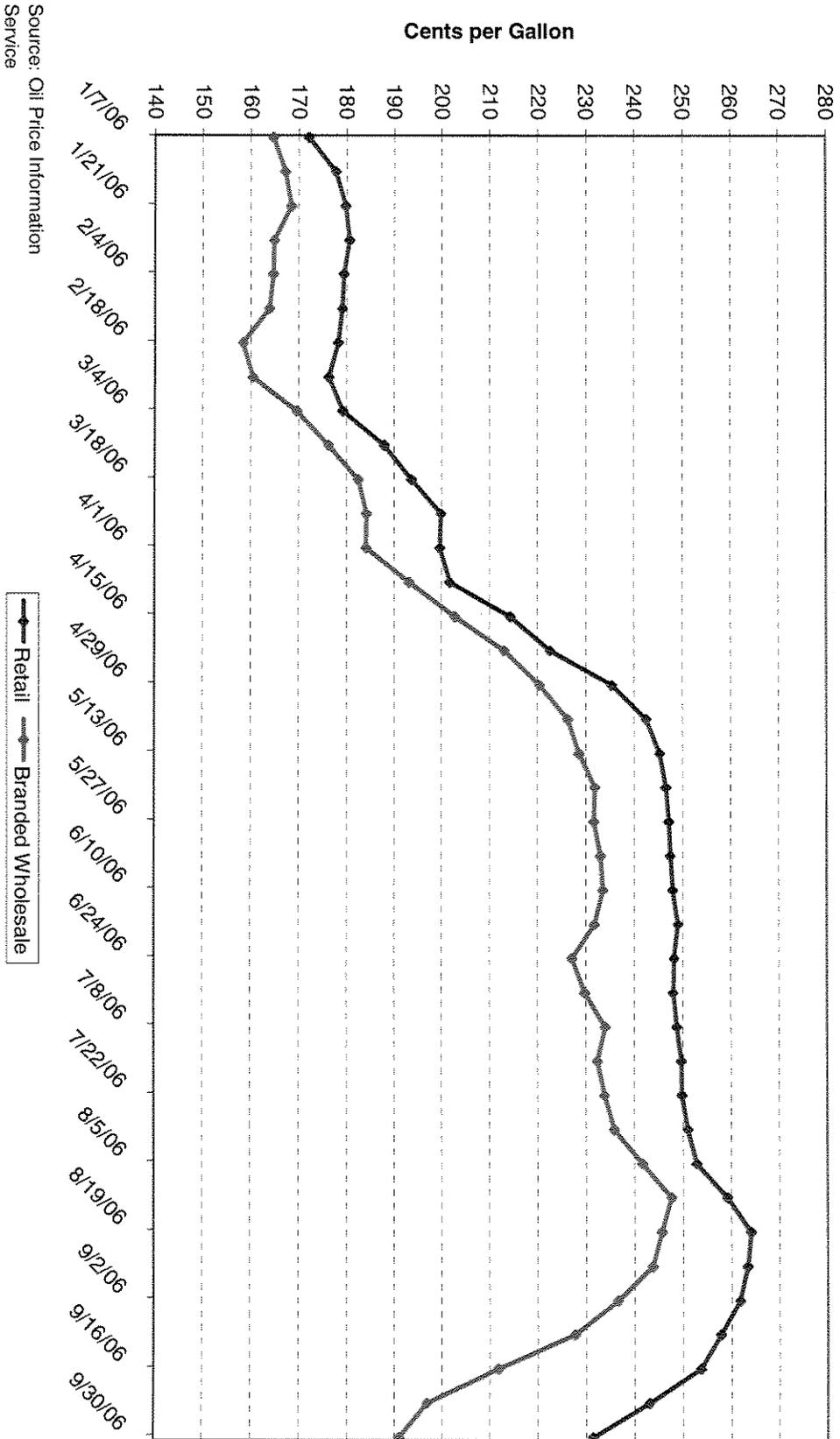
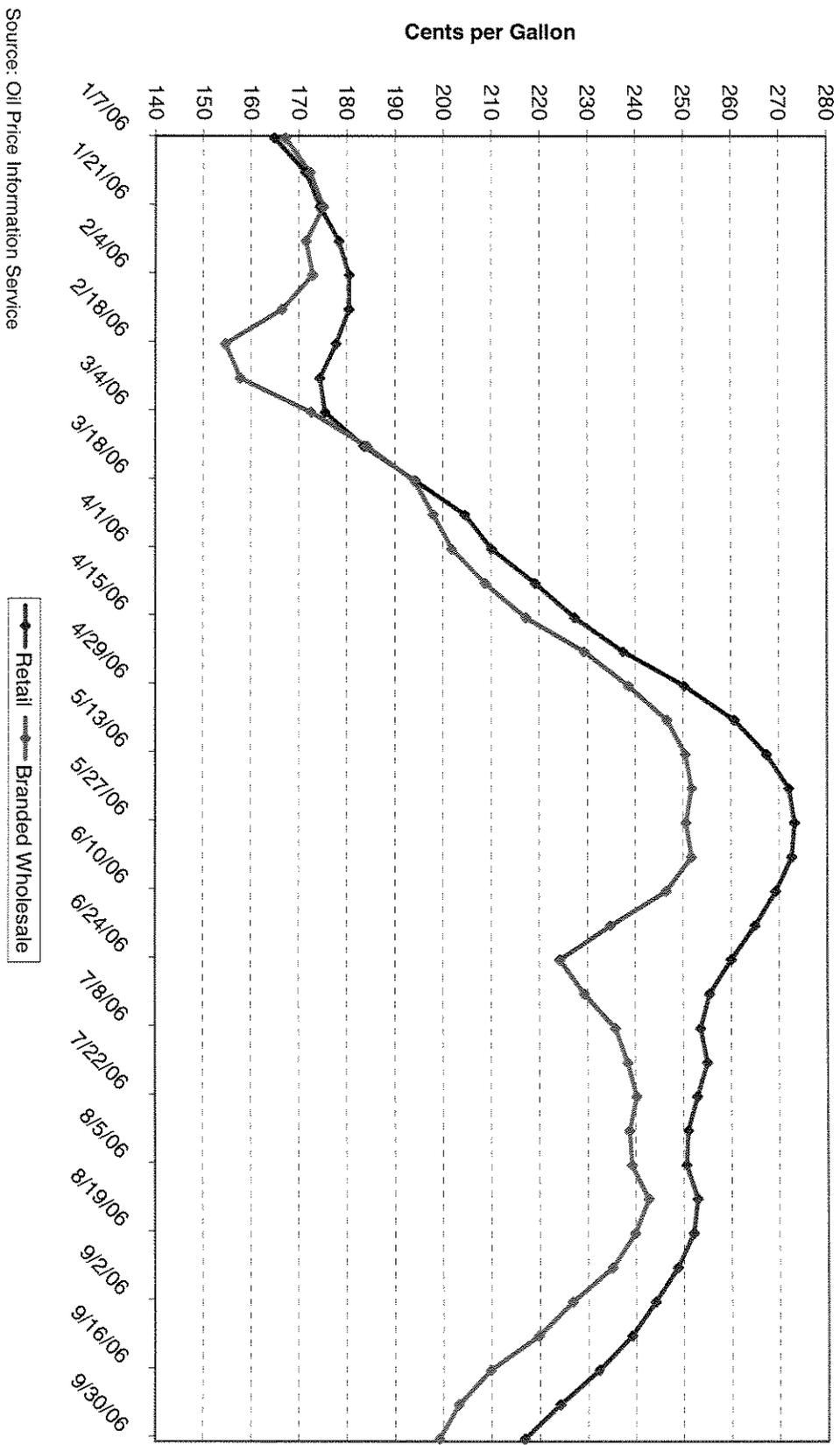


Figure 4.  
 Average Weekly Retail and Branded Wholesale Price of Gasoline in Spokane, WA  
 Excluding Taxes, YTD 2006



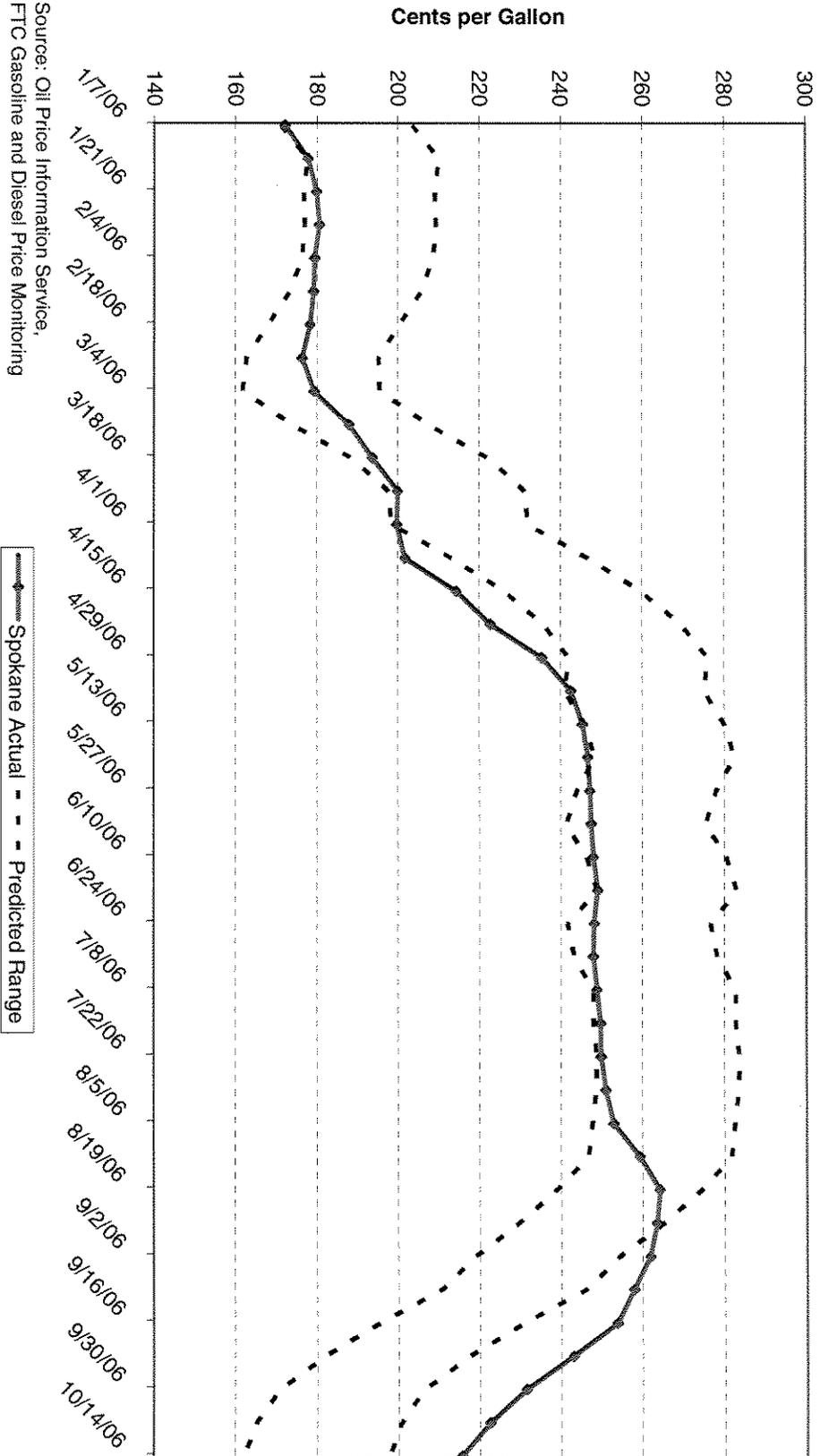
Source: Oil Price Information Service

Figure 5.  
 Average Weekly Retail and Branded Wholesale Price of Gasoline in Seattle, WA  
 Excluding Taxes, YTD 2006



Source: Oil Price Information Service

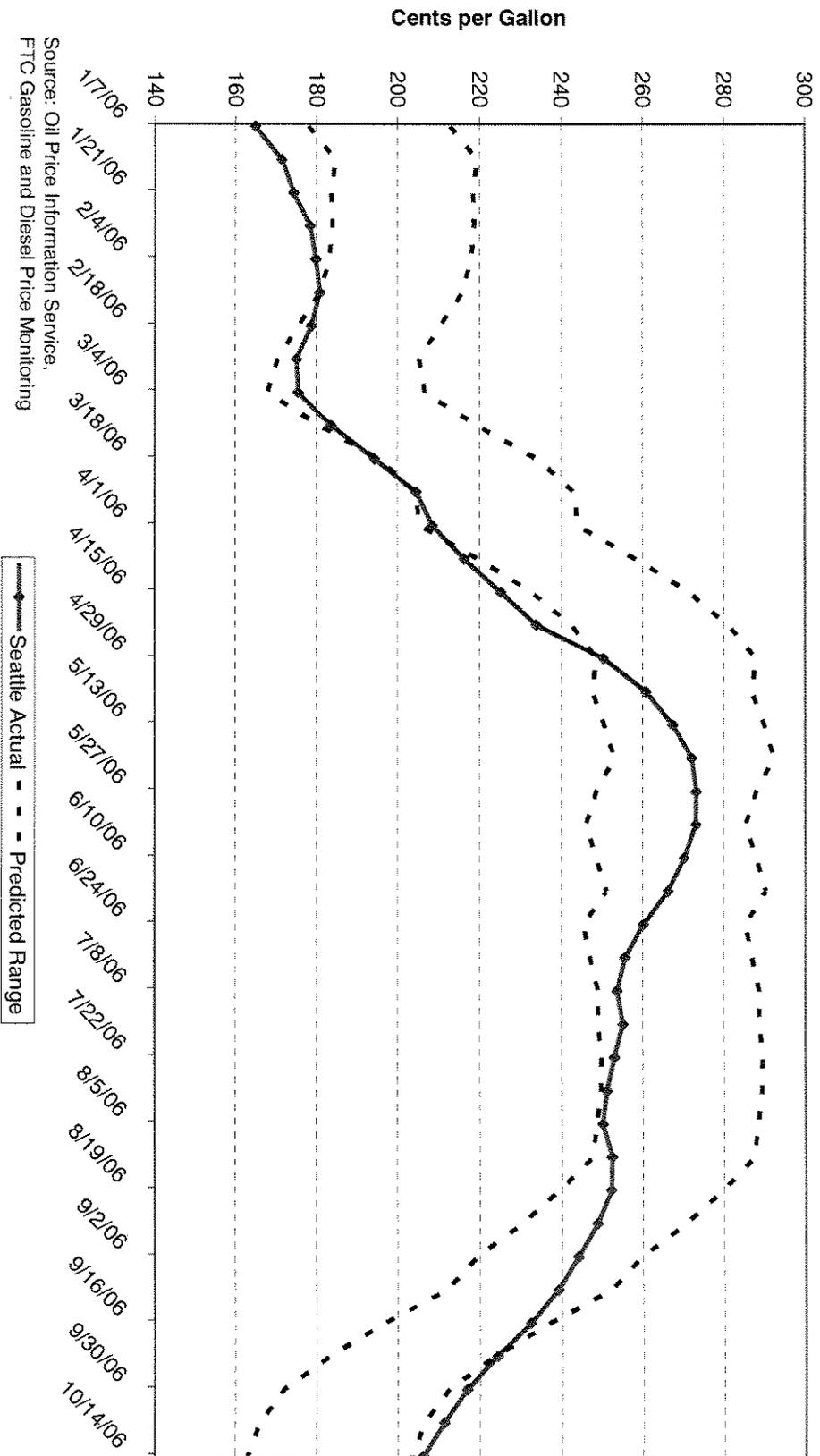
Figure 6.  
 Average Weekly Retail Price and Predicted Price Range of Gasoline  
 Spokane  
 YTD 2006 Excluding Taxes



Source: Oil Price Information Service,  
 FTC Gasoline and Diesel Price Monitoring

Spokane Actual - - Predicted Range

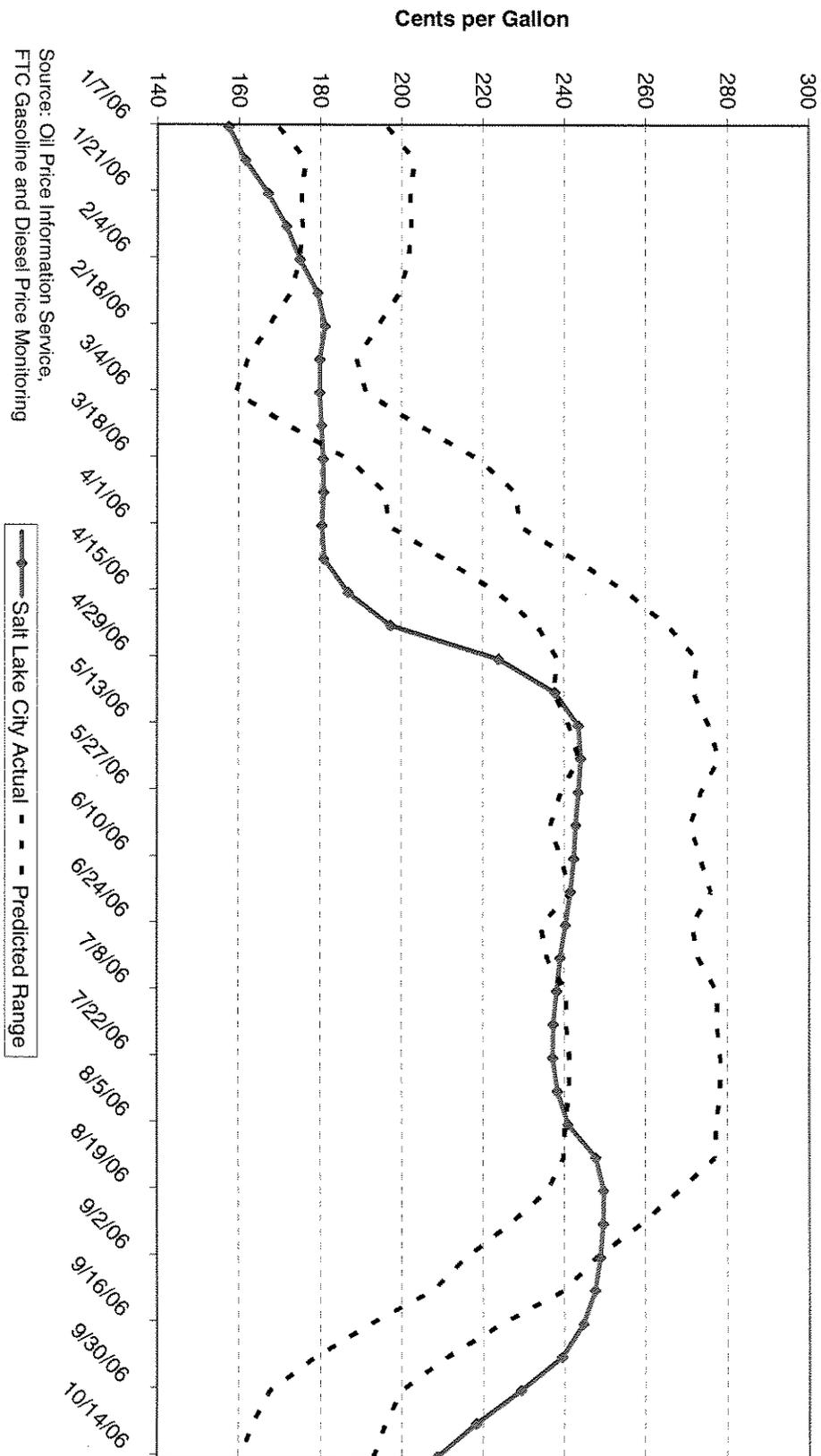
Figure 7.  
 Average Weekly Retail Price and Predicted Price Range of Gasoline  
 Seattle-Bellevue-Everett  
 YTD 2006 Excluding Taxes



Source: Oil Price Information Service,  
 FTC Gasoline and Diesel Price Monitoring

Seattle Actual - - - Predicted Range

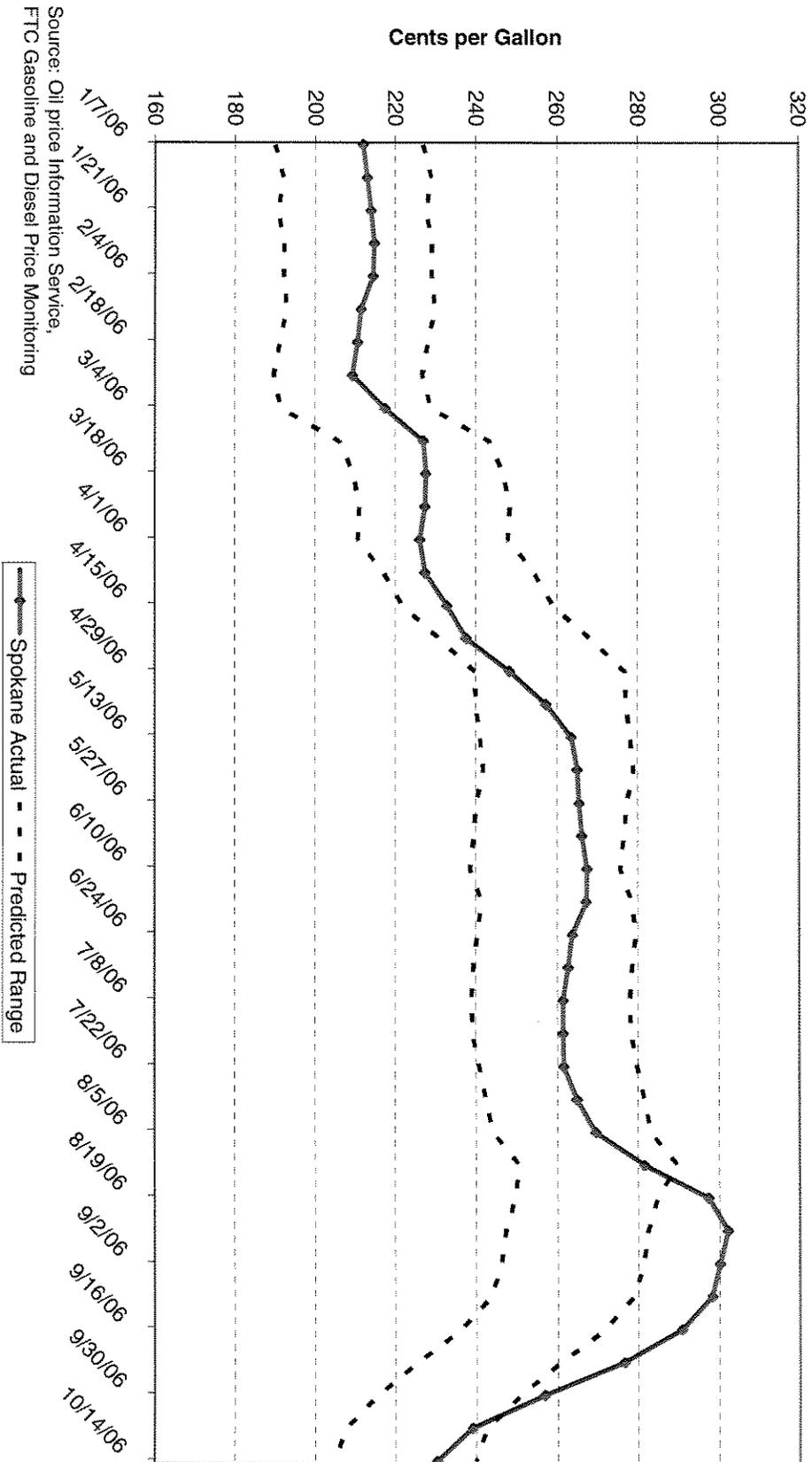
Figure 8.  
 Average Weekly Retail Price and Predicted Price Range of Gasoline  
 Salt Lake City  
 YTD 2006 Excluding Taxes



Source: Oil Price Information Service,  
 FTC Gasoline and Diesel Price Monitoring

—◆— Salt Lake City Actual    - - - Predicted Range

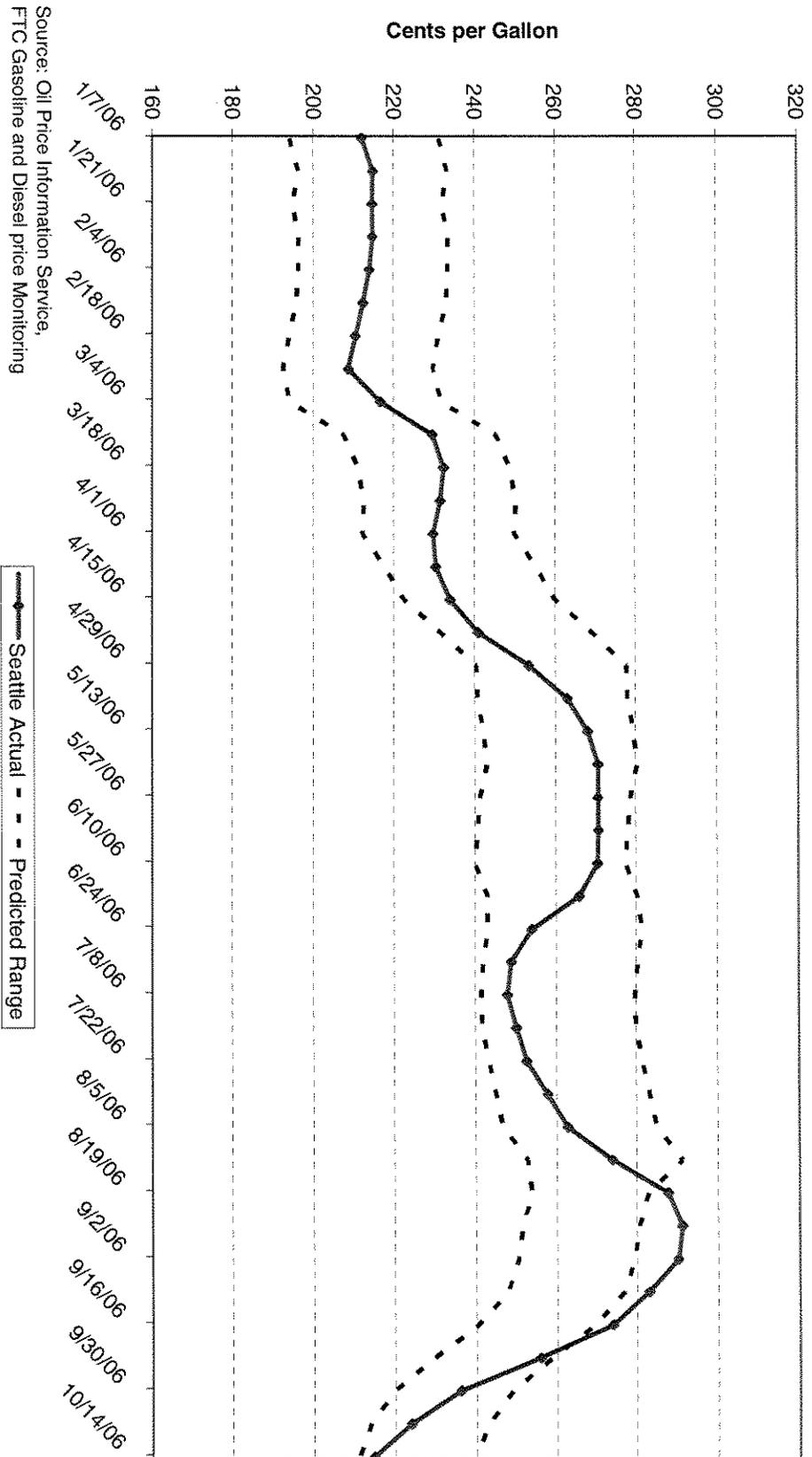
Figure 9.  
 Average Weekly Retail Price and Predicted Price Range of Diesel  
 Spokane  
 YTD 2006 Excluding Taxes



Source: Oil price Information Service,  
 FTC Gasoline and Diesel Price Monitoring

Spokane Actual - Predicted Range

Figure 10.  
 Average Weekly Retail Price and Predicted Price Range of Diesel  
 Seattle-Bellevue-Everett  
 YTD 2006 Excluding Taxes



Source: Oil Price Information Service,  
 FTC Gasoline and Diesel price Monitoring

Seattle Actual - - Predicted Range

Figure 11.  
 Average Weekly Retail Price and Predicted Price Range of Diesel  
 Salt Lake City  
 YTD 2006 Excluding Taxes

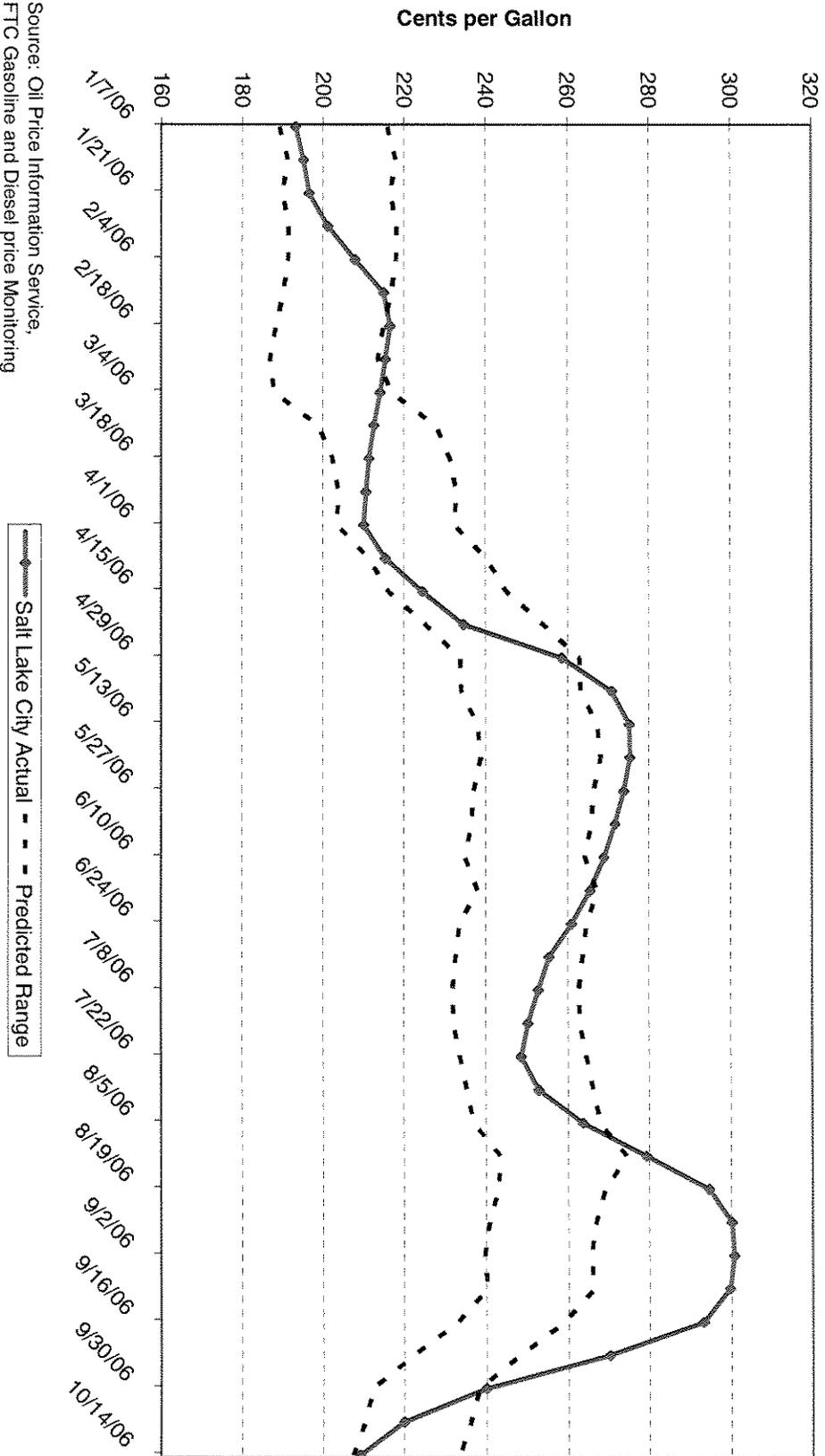
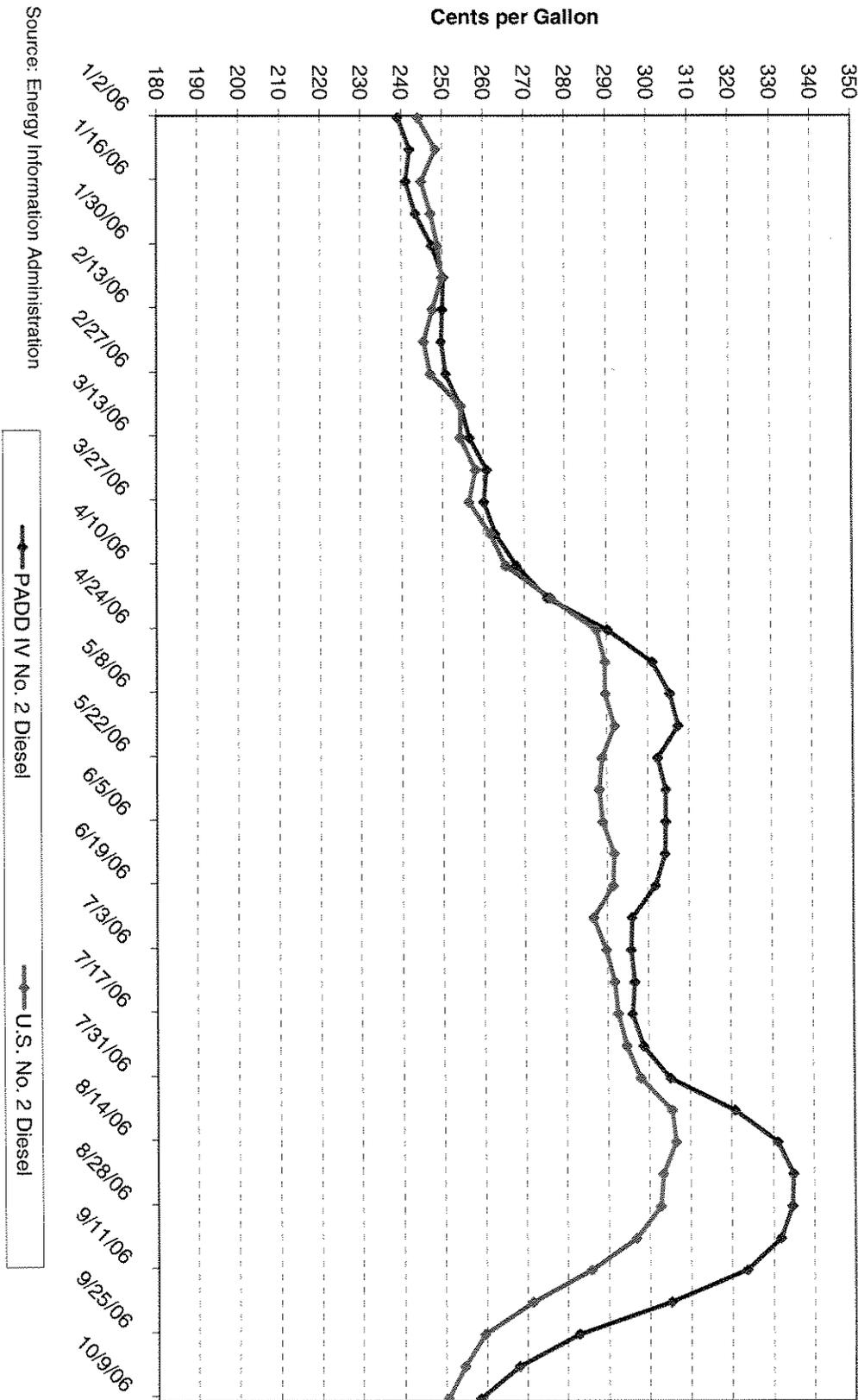
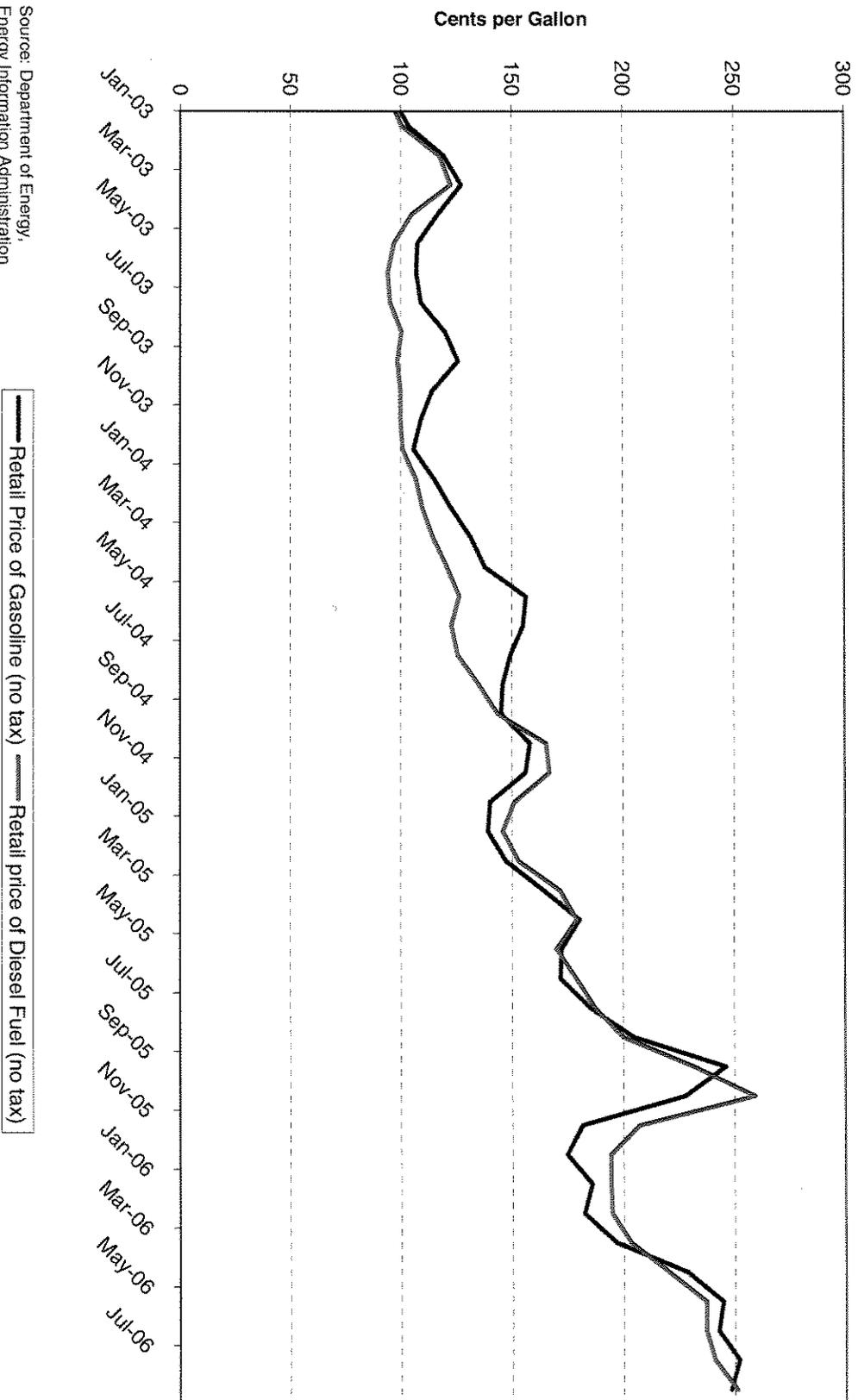


Figure 12.  
 U.S. Average Weekly Diesel Retail Prices, US and PADD IV  
 YTD 2006



Source: Energy Information Administration

Figure 13.  
 U.S. Average Retail Price of Gasoline and Diesel Fuel (No Tax)  
 January 2003-August 2006



Source: Department of Energy,  
 Energy Information Administration





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Consumer Information:

Consumer Information:

## FTC Offers Tips for Fewer Trips to the Pump

- Good, Better, Best: Improve Gas Mileage

### *Alert Tells Consumers How to Improve Gas Mileage*



Consumers everywhere are looking for ways to decrease the amount of money they spend filling up at the gas pump. The Federal Trade Commission is releasing an updated Consumer Alert with tips on using fuel efficiently to help consumers save money by getting the best mileage out of their gas purchases.

**“Good, Better, Best: How to Improve Gas Mileage”** can be found online at <http://www.ftc.gov/bcp/online/pubs/alerts/fuelairt.htm>. Tips for using fuel more efficiently include: driving more efficiently; maintaining your car; using the octane level you need; being skeptical of claims about “gas-saving” gadgets; and considering alternative fuel or hybrid electric vehicles.

Copies of the consumer alert are available from the FTC’s Web site at <http://www.ftc.gov/bcp/online/pubs/alerts/fuelairt.htm>, [www.ftc.gov/bcp/online/pubs/alerts/fuelairt.pdf](http://www.ftc.gov/bcp/online/pubs/alerts/fuelairt.pdf) and also from the FTC’s Consumer Response Center, Room 130, 600 Pennsylvania Avenue, N.W., Washington, D.C. 20580. Call toll-free: 1-877-FTC-HELP.

### MEDIA CONTACT:

*Office of Public Affairs*  
202-326-2180

(<http://www.ftc.gov/opa/2005/09/gaspricesci.htm>)

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# FTC Consumer Alert

Federal Trade Commission ■ Bureau of Consumer Protection ■ Office of Consumer & Business Education

## Good, Better, Best: How to Improve Gas Mileage

Whether you are shopping for a new car or just trying to maintain the one you have, you can take some steps to get the best mileage out of your gas purchases. The Federal Trade Commission (FTC), the nation's consumer protection agency, offers these tips to use fuel efficiently:

### ***On the Road: Drive More Efficiently***

- *Stay within posted speed limits.* Gas mileage decreases rapidly at speeds above 60 miles per hour.
- *Stop aggressive driving.* You can improve your gas mileage up to five percent around town if you avoid “jackrabbit” starts and stops by anticipating traffic conditions and driving gently.
- *Avoid unnecessary idling.* It wastes fuel, costs you money, and pollutes the air. Turn off the engine if you anticipate a wait.
- *Combine errands.* Several short trips taken from a cold start can use twice as much fuel as one trip covering the same distance when the engine is warm.
- *Use overdrive gears and cruise control when appropriate.* They improve the fuel economy of your car when you're driving on a highway.
- *Remove excess weight from the trunk.* An extra 100 pounds in the trunk can reduce a typical car's fuel economy by up to two percent.
- *Avoid packing items on top of your car.* A loaded roof rack or carrier creates wind resistance and can decrease fuel economy by five percent.

### ***At the Garage: Maintain Your Car***

- *Keep your engine tuned.* Tuning your engine according to your owner's manual can increase gas mileage by an average of four percent. Increases vary depending on a car's condition.
- *Keep your tires properly inflated and aligned.* It can increase gas mileage up to three percent.
- *Change your oil.* According to the U.S. Department of Energy (DOE) and Environmental Protection Agency (EPA), you can improve your gas mileage by using the manufacturer's recommended grade of motor oil. Motor oil that says “Energy Conserving” on the performance symbol of the American Petroleum Institute contains friction-reducing additives that can improve fuel economy.
- *Check and replace air filters regularly.* Replacing clogged filters can increase gas mileage up to ten percent.

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### ***At the Pump: Use the Octane Level You Need***

- Your owner's manual recommends the most effective octane level for your car. For most cars, the recommended gasoline is regular octane. In most cases, using a higher octane gas than the manufacturer recommends offers no benefit. Unless your engine is knocking, buying higher octane gasoline is a waste of money.

### ***In Advertising: Check Out Claims About "Gas-Saving" Gadgets***

- Be skeptical of claims for devices that will "boost your mileage by an extra 6 miles per gallon," "improve your fuel economy up to 26 percent," or the like. EPA has tested over 100 supposed gas-saving devices — including mixture "enhancers" and fuel line magnets — and found that very few provide any fuel economy benefits. The devices that work provide only marginal improvements. Some "gas-saving" devices may damage a car's engine or increase exhaust emissions. For more information and a full list of tested products, check [www.epa.gov/otaq/consumer.htm](http://www.epa.gov/otaq/consumer.htm).

### ***In the Showroom: Consider the Alternatives***

- **Alternative Fuel Vehicles (AFVs)** operate on alternative fuels, such as methanol, ethanol, compressed natural gas, liquefied petroleum gas, electricity, and others designated by the DOE. Using these alternative fuels in vehicles may reduce harmful pollutants and exhaust emissions. FTC Rules require labels on all new AFVs to give the vehicle's estimated cruising range and general descriptive information. Find out how many miles a new AFV travels on a tank or supply of fuel because, gallon for gallon, some don't travel as far as gasoline-powered vehicles.
- **Hybrid Electric Vehicles** offer another option for car buyers. According to DOE and EPA, these vehicles combine the benefits of gasoline engines and electric motors and can be configured to achieve different objectives, such as improved fuel economy and increased power.

For more information on alternative fuel vehicles, call the DOE's toll-free National Alternative Fuels Hotline, 1-800-423-1DOE, or visit DOE's Alternative Fuels Data Center website at [www.afdc.doe.gov](http://www.afdc.doe.gov). More information about both hybrid-electric and alternative fuel vehicles is at [www.fueleconomy.gov/](http://www.fueleconomy.gov/).

For more energy saving tips for cars, click here to visit the DOE's website.

The FTC works for the consumer to prevent fraudulent, deceptive, and unfair business practices in the marketplace and to provide information to help consumers spot, stop, and avoid them. To file a complaint or to get free information on consumer issues, visit [ftc.gov](http://ftc.gov) or call toll-free, 1-877-FTC-HELP (1-877-382-4357); TTY: 1-866-653-4261. The FTC enters Internet, telemarketing, identity theft, and other fraud-related complaints into Consumer Sentinel, a secure, online database available to hundreds of civil and criminal law enforcement agencies in the U.S. and abroad.

