Testimony

Before

U.S. House of Representatives Committee on Energy and Commerce

Subcommittee on Energy and Power

Draft on the Jobs and Energy Permitting Act of 2011

The Importance of Alaska Crude Production

To the West Coast of the United States

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The Importance of Alaska Crude Production
To the West Coast of the United States
Summary of Testimony

- The West Coast of the United States is an isolated market with no access to crudes produced elsewhere in the country.

- Through most of the 80's and 90's the West Coast had a surplus of crude production and had little dependence on foreign imports

- With the decline in production from Alaska and California, the area now imports about 50% of its crude demand

- Of current imports, about 55% come from OPEC countries, which have supplied over 75% of the growth in imports since 2000

- Growing dependence on imports have raised relative crude prices on the West Coast by approximately $2.15per barrel or about 5 cents per gallon

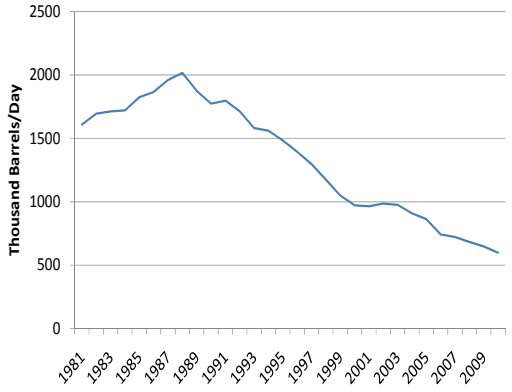
- Without continued production in Alaska, the West Coast will grow more dependent on imports from OPEC

The Importance of Alaska Crude Production
To the West Coast of the United States

In terms of crude oil and refined products markets, the West Coast of the United States is comprised of the states of Alaska, Washington, Oregon, California, Nevada, Arizona, and Hawaii, known as PADD 5. This area of the country is unique in its market dynamics and dependence on domestic crude production. Its most distinguishing characteristic is its logistical isolation due to a lack of pipeline capacity into the area from other parts of the country. The West Coast receives no domestic crude from other areas of the United States, as contrasted for instance to the East Coast which receives over 43% of its crude requirements from other parts of the country. Likewise on refined products, the West Coast only receives 17% of its product demand from other areas, whereas a market like the Mid West receives over two-thirds of its needs from pipelines originating primarily on the Gulf Coast. The isolation of the West Coast from other domestic crude sources is understandable given the history of crude production in the area.

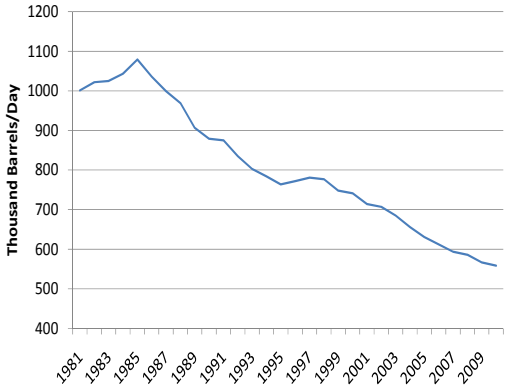
ANS crude production on the West Coast peaked in 1988 at just over 2 million barrels per day and California production peaked in 1985 at slightly more than 1 million barrels per day (see Figures 1 & 2).

Figure 1
Alaska Crude Production



Source: EIA

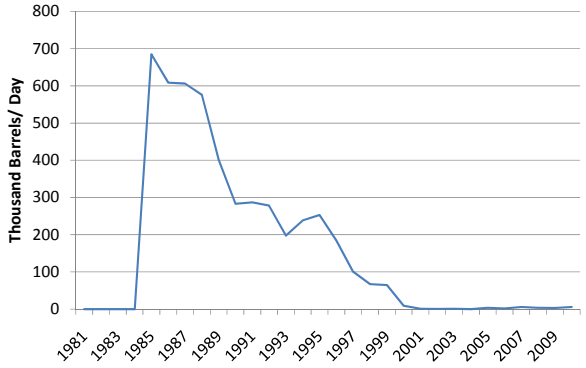
Figure 2
California Crude Production



Source: EIA

With a demand for only 2.5 million barrels per day, the West Coast became a major exporting area for crude to the rest of the country through the 1980's shipping some 600,000 barrels per day at the peak (see Figure 3).

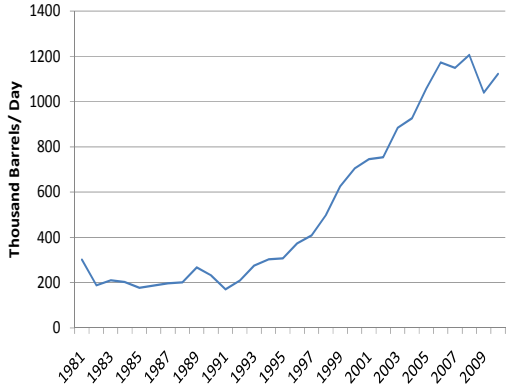
Figure 3
West Coast Crude
Domestic Shipments



Source: EIA

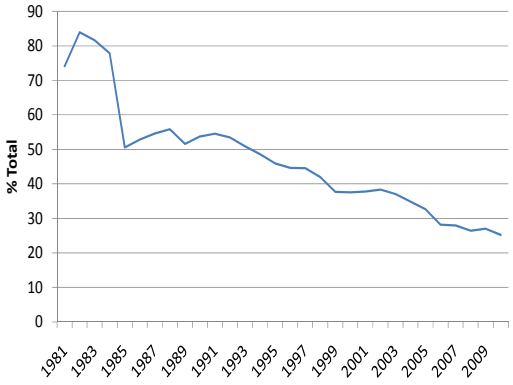
During this time, the area only imported less than 10% of its requirements from overseas, 35% of which was for use in the two refineries located in Hawaii, and ANS represented some 84% of the areas crude requirements in 1982 (see Figures 4 & 5).

Figure 4
West Coast Crude Imports



Source: EIA

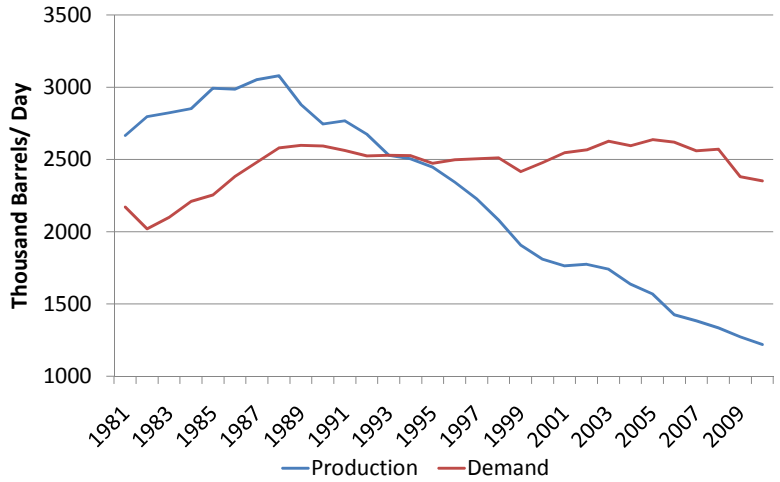
Figure 5
West Coast ANS Crude Runs



Source: EIA

By 1993, with production from Alaska and California declining at about 4% per year, domestic supplies of crude fell below refinery demand and the area became a net importer of crude (see Figure 6).

Figure 6
West Coast Crude
Production/Demand



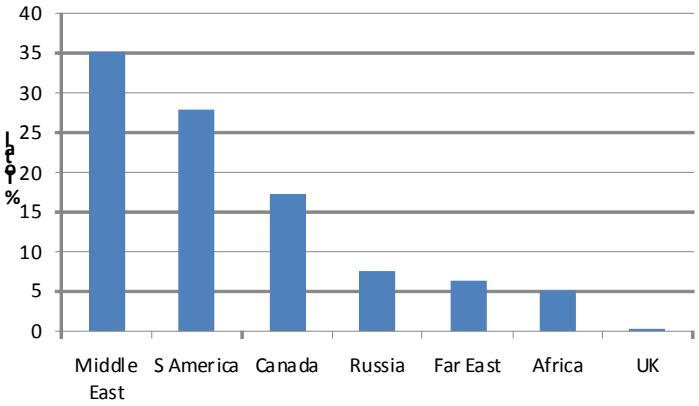
Source: EIA

Exports to the rest of the country fell and by 2001, shipments out of the area ceased altogether. Crude production has continued to decline by about 4% per year so that by 2010, Alaska production has declined to about 600 thousand barrels per day, about 30% of its peak, and California production now stands at about 560 thousand barrels per day, or about 56% of its peak. The West Coast is now heavily dependent on foreign sources for its crude requirements.

Last year, the West Coast imported about 1.1 million barrels per day of crude. This represented almost 48% of its total demand. This number is artificially low, however, since crude demand has fallen due to the effects on gasoline demand of the recent recession. At normal demand levels, the West Coast would have imported over 1.4 million barrels of crude last year or about 53% of its demand. This contrasts to the rest of the county which in 2010 imported over 65% of its needs for crude. The imports into the West Coast have come primarily from the

Middle East, South America, and Canada (80%) with 20% coming from other parts of the world (see Figure 7).

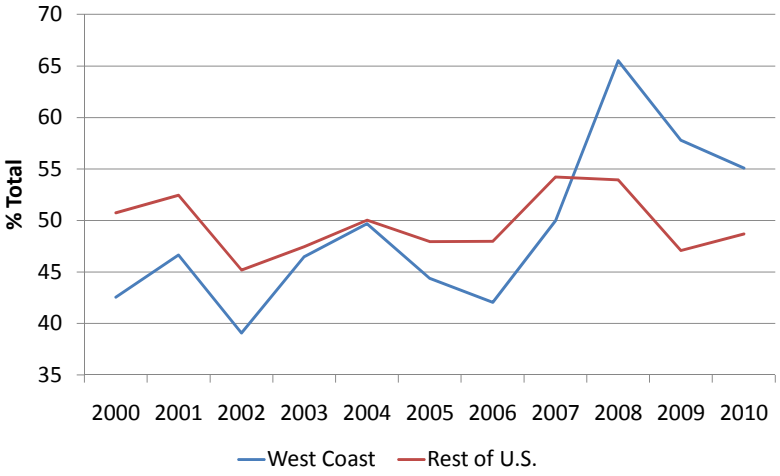
Figure 7
West Coast 2010 Crude Imports



Source: EIA

While the West Coast is not yet as dependent on foreign sources of crude as the rest of the country, it is more dependent on OPEC than the rest of the country as a whole (see Figure 8).

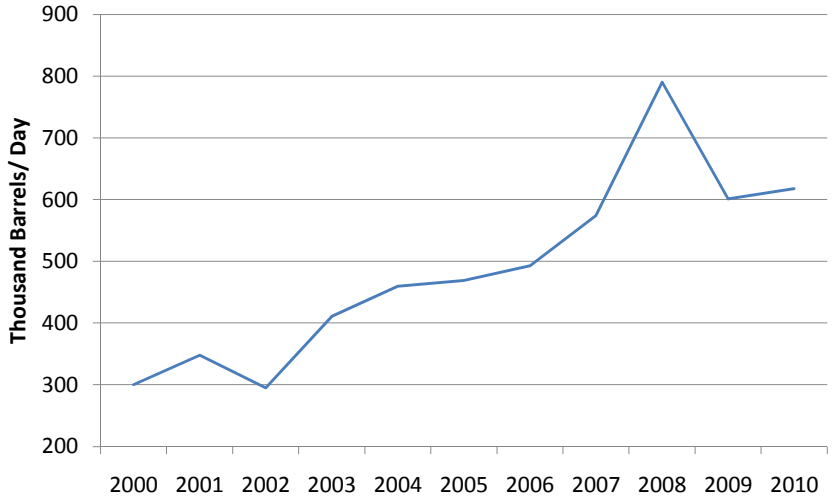
Figure 8
OPEC Crude Imports



Source: EIA

Since 2000, West Coast imports from OPEC countries have more than doubled and these sources have been responsible for over 75% of the growth in imports into the area (see Figure 9).

Figure 9
West Coast OPEC Crude Imports



Source: EIA

This trend would have been even more exaggerated had product demand on the West Coast not been affected by the recession. The obvious conclusion from this historical examination is that as crude production in Alaska has declined, the West Coast has turned more and more to OPEC for its crude oil requirements.

So in the past 30 years, the West Coast has moved from being a large exporter of crude to being a large importer. This has had the predictable outcome of raising relative crude prices in the region. During the early 90's, when crude production on the West Coast was in excess of demand, ANS crude sold for an average of $2.78/barrel below the price of the benchmark Gulf Coast crude, WTI. As production and exports of ANS fell, however, this differential declined to $1.75/barrel between 1996 and 2000, and $2.22/barrel from 2001 to 2005. In more recent history, this differential has averaged only $0.63/barrel in the last five years (see Figures 10 & 11).

Figure 10
ANS Crude vs WTI Crude Price

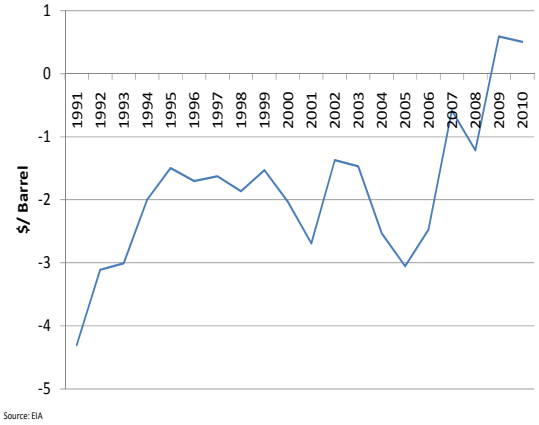
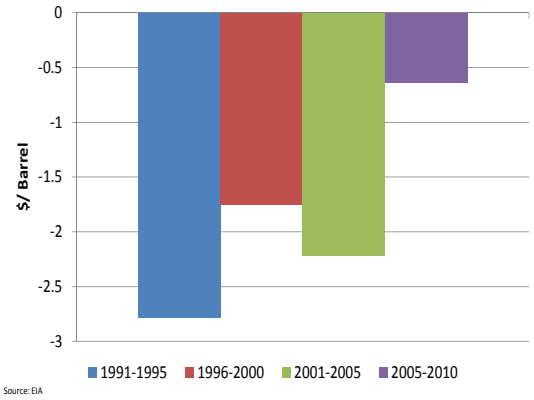


Figure 11
ANS Crude vs WTI Crude Price



The relative increase in price for ANS from $2.78/ barrel below WTI to $0.63/barrel below means that ANS has become $2.15 per barrel more expensive due to production declines on the West Coast. Crude costs, then, have now risen by more than $1 billion/year from the time of abundant ANS crude production and have contributed approximately 5 cents per gallon to the cost of gasoline in the area. In addition to the increase in cost, replacing domestic crude from Alaska with imports has also lowered the security of supplies to the West Coast. Instead of being able to rely on supplies only days away by ship, imports from areas such as the Middle East now take months to arrive and are not easily adaptable to respond to changes in demand or supply in the area.

At its historic decline rate of 4% per year, production of Alaskan crude will fall below the minimum operating rate for the Trans Alaska Pipeline in the early 2030's. The economics of production, however, may cause the cessation of supplies well before that time. As evidenced from the past, declines in ANS crude will likely be replaced by supplies from OPEC countries, which will make the West Coast the most heavily dependent on OPEC supplies of any area in the U.S. . Had there been no ANS Crude in 2010, the West Coast would have imported over 73% of its crude requirements and 71% of those imports would have come from OPEC. In addition, the 194,000 barrels per day of Canadian imports (17% of the total) into the region in 2010 are in jeopardy of being reduced by the California Low Carbon Fuel Standard (LCFS). Under this regulation, crude produced by mining or

enhanced recovery techniques, such as oil sands in Canada, will be penalized with a carbon footprint 20% higher than conventional crudes. Products refined from this crude, then, will make it much more difficult for refiners to reduce their carbon footprints as required. This could divert current Canadian supplies away from the West Coast, making production from Alaska even more critical to supplying the area. The importance of providing abundant, secure supplies of transportation fuels to this part of the country, and the lack of infrastructure into the area from other parts of the U.S., seem to make a compelling case for any actions that can increase domestic supplies on the West Coast.

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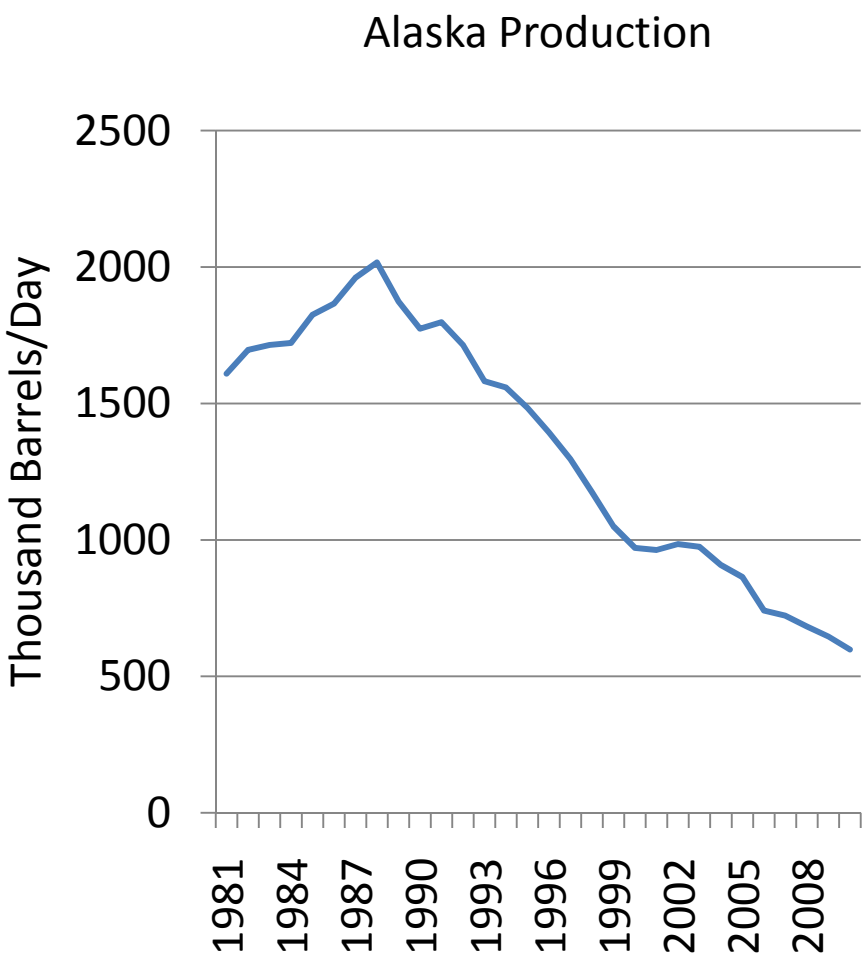
to the West Coast of the United States

Figure 1:
West Coast Crude Production



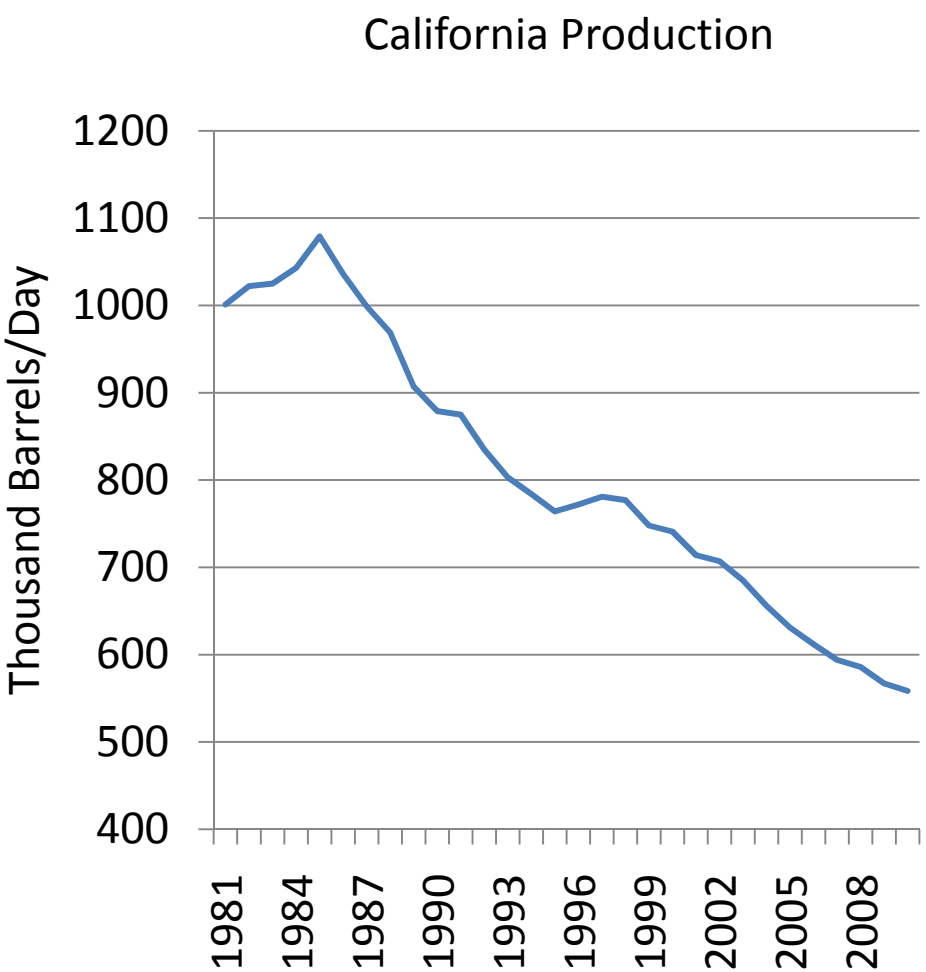
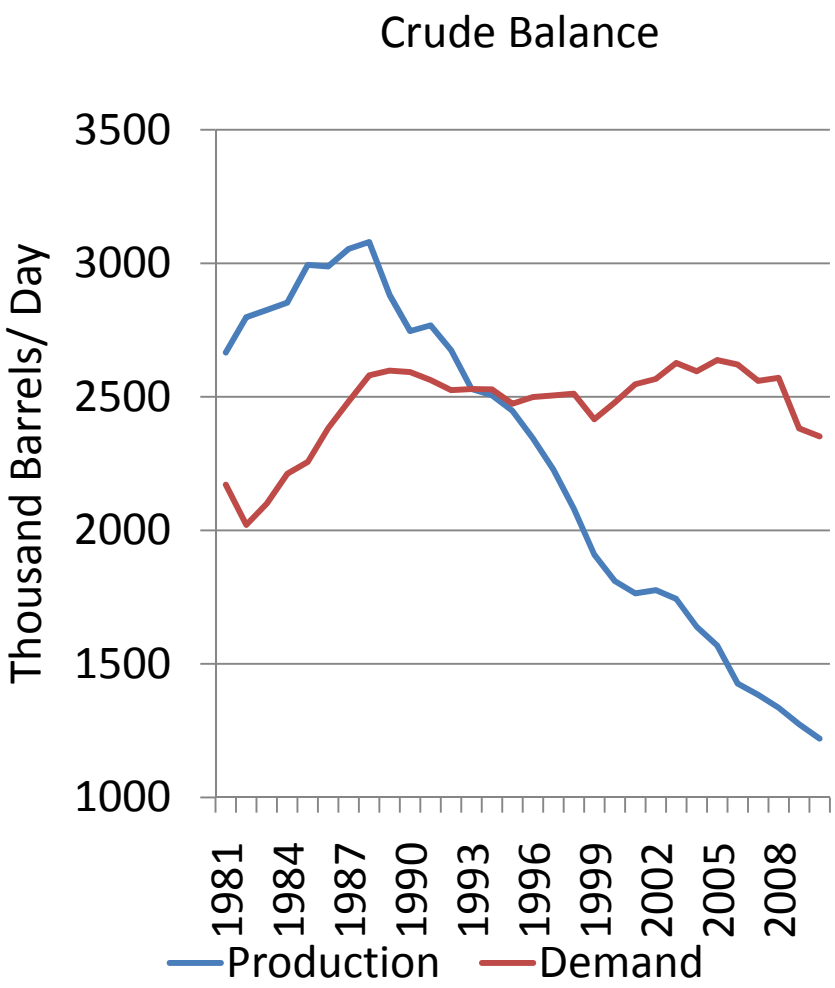


Figure 2:
West Coast Crude Balance/Imports



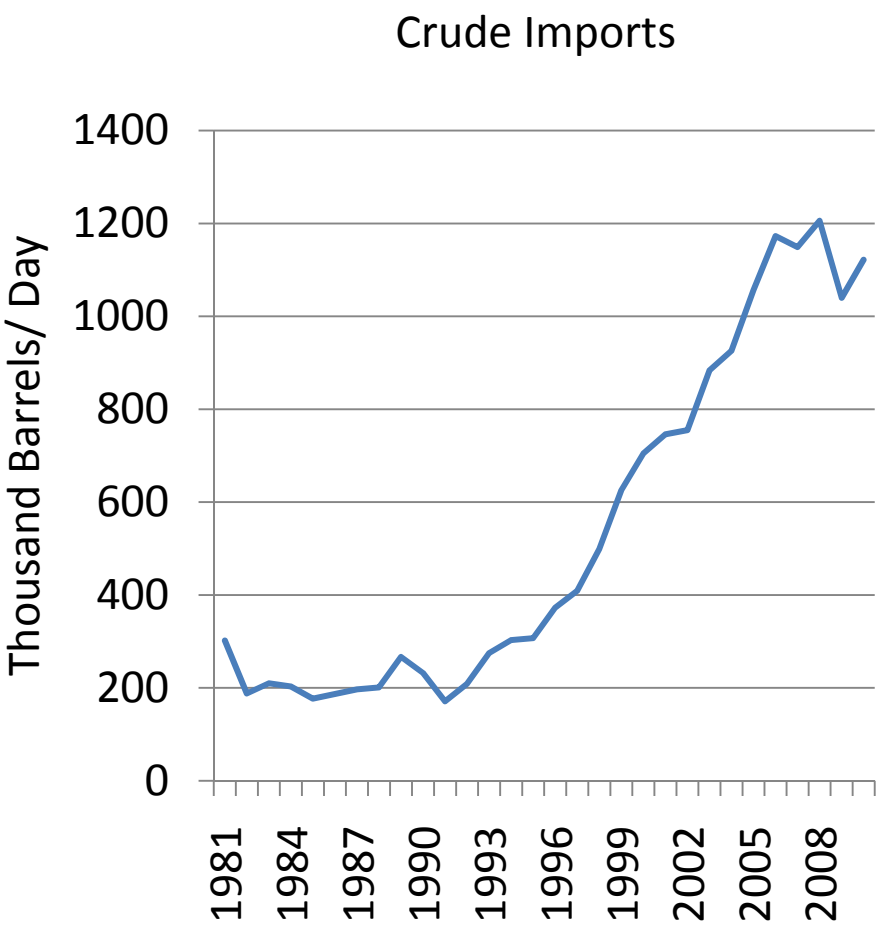


Figure 3:
West Coast 2010 Crude Imports

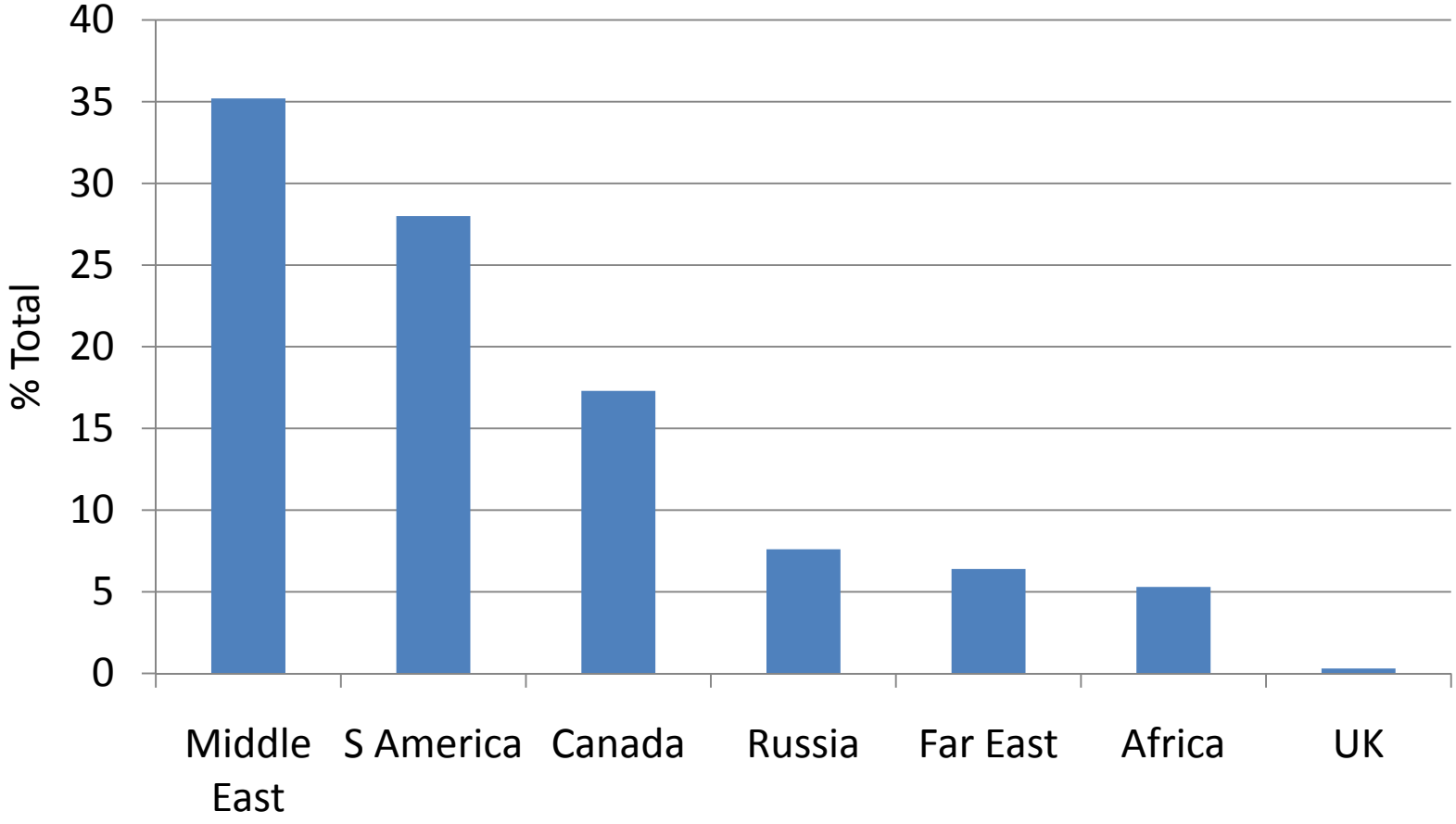


Figure 4:
West Coast OPEC Crude Imports

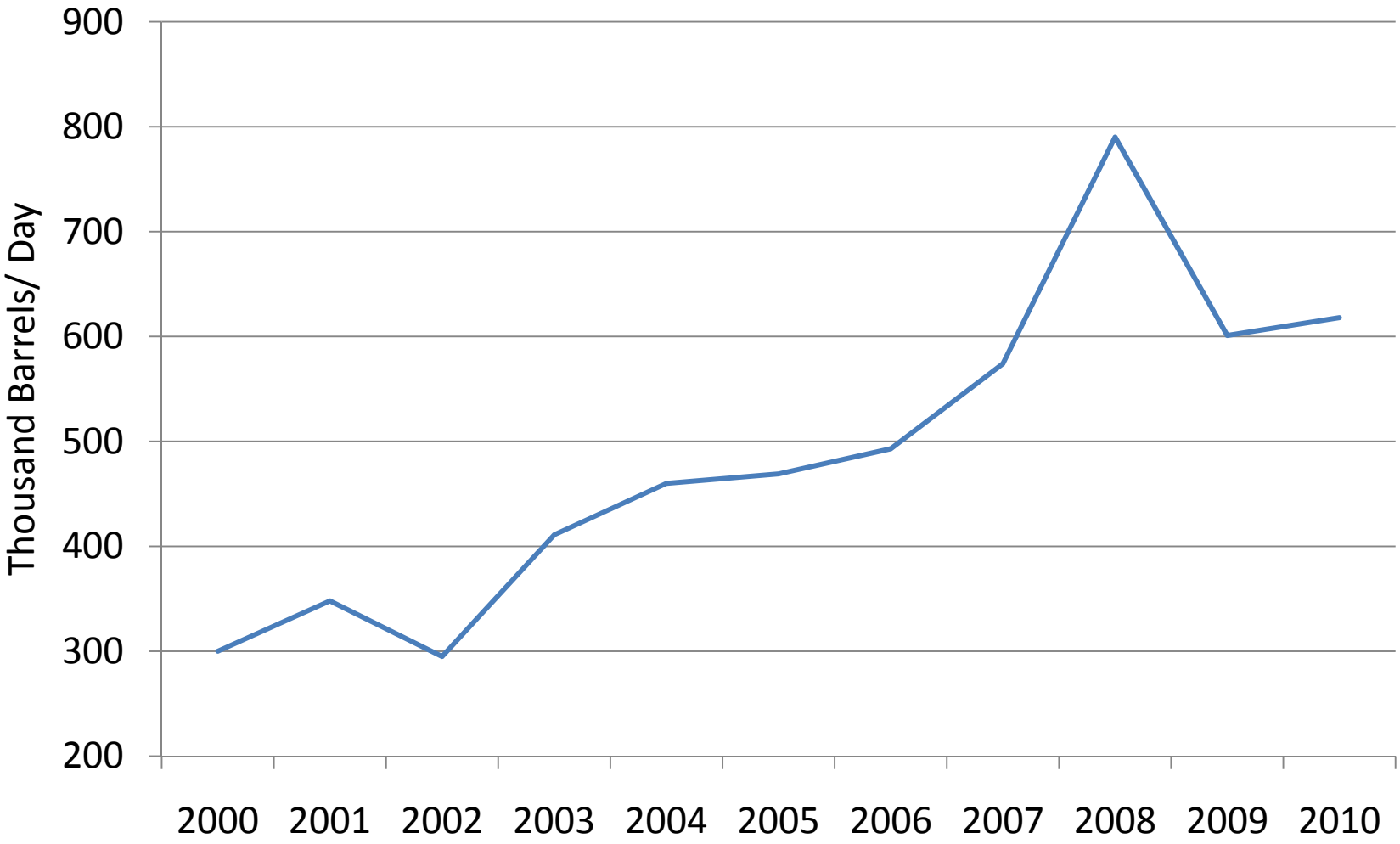
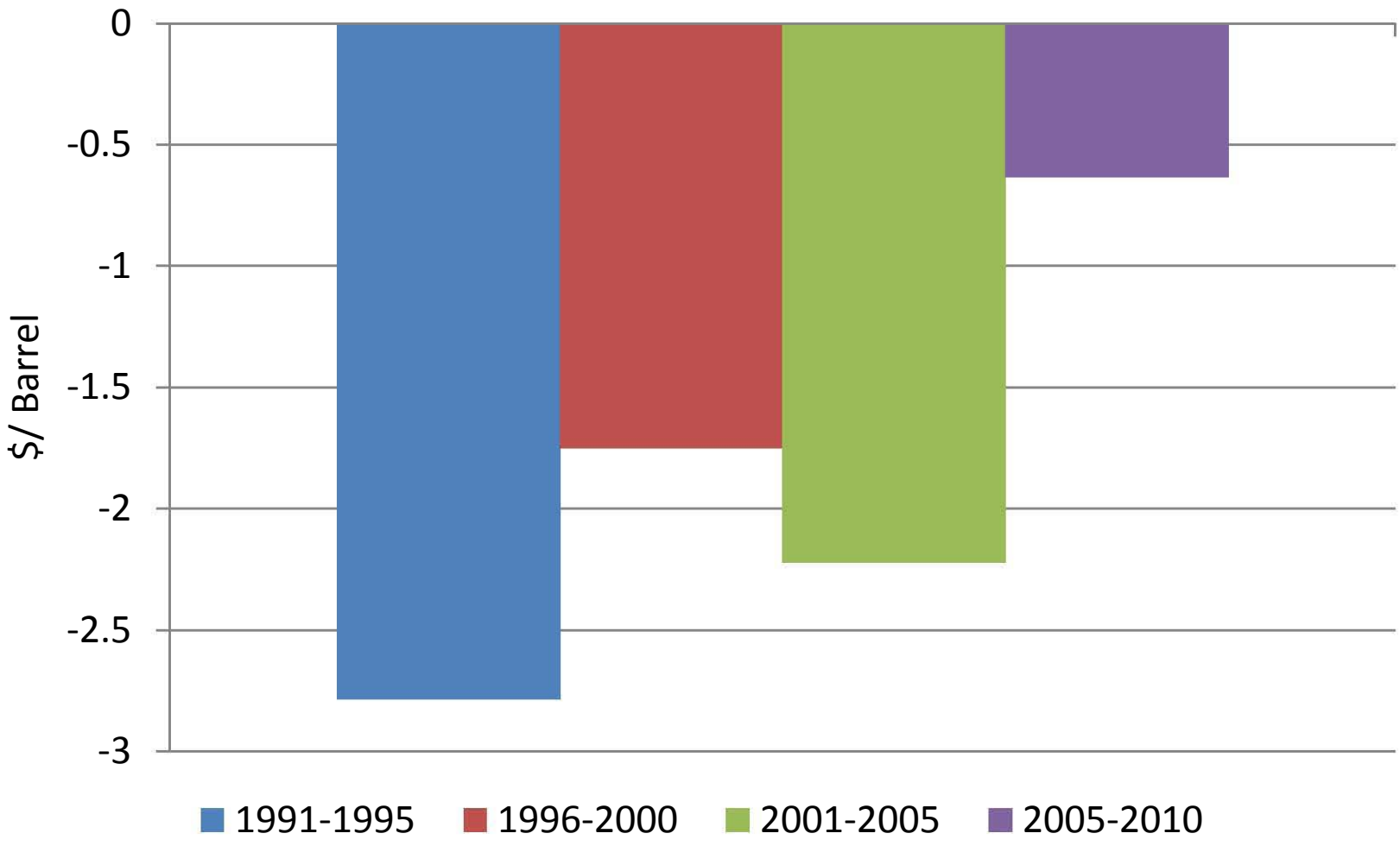



Figure 5:
ANS Crude vs WTI Crude Price