



## Oil and Gas Prices and Louisiana's Fiscal Outlook

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## Distributional Effects of Price Shocks

- The differential **impact of oil and gas booms and busts** on a state is highly **dependent upon the makeup of that state's economy**.
  - A state like Louisiana, that has historically had a large share of oil and gas workers, **benefits when the oil price increases**.
  - A state like Mississippi, with no oil and gas activity to speak of, can get the **brunt of the increased prices at the pump** when the price rises, **with no benefit associated with the booming industry**.

*Thus, while the net impact of an oil price shock on the aggregate economy can be debated (and has been debated heavily for decades), the individual impact on different regions of the country can be quite clear.*

***So where does Louisiana fall into this mix???***

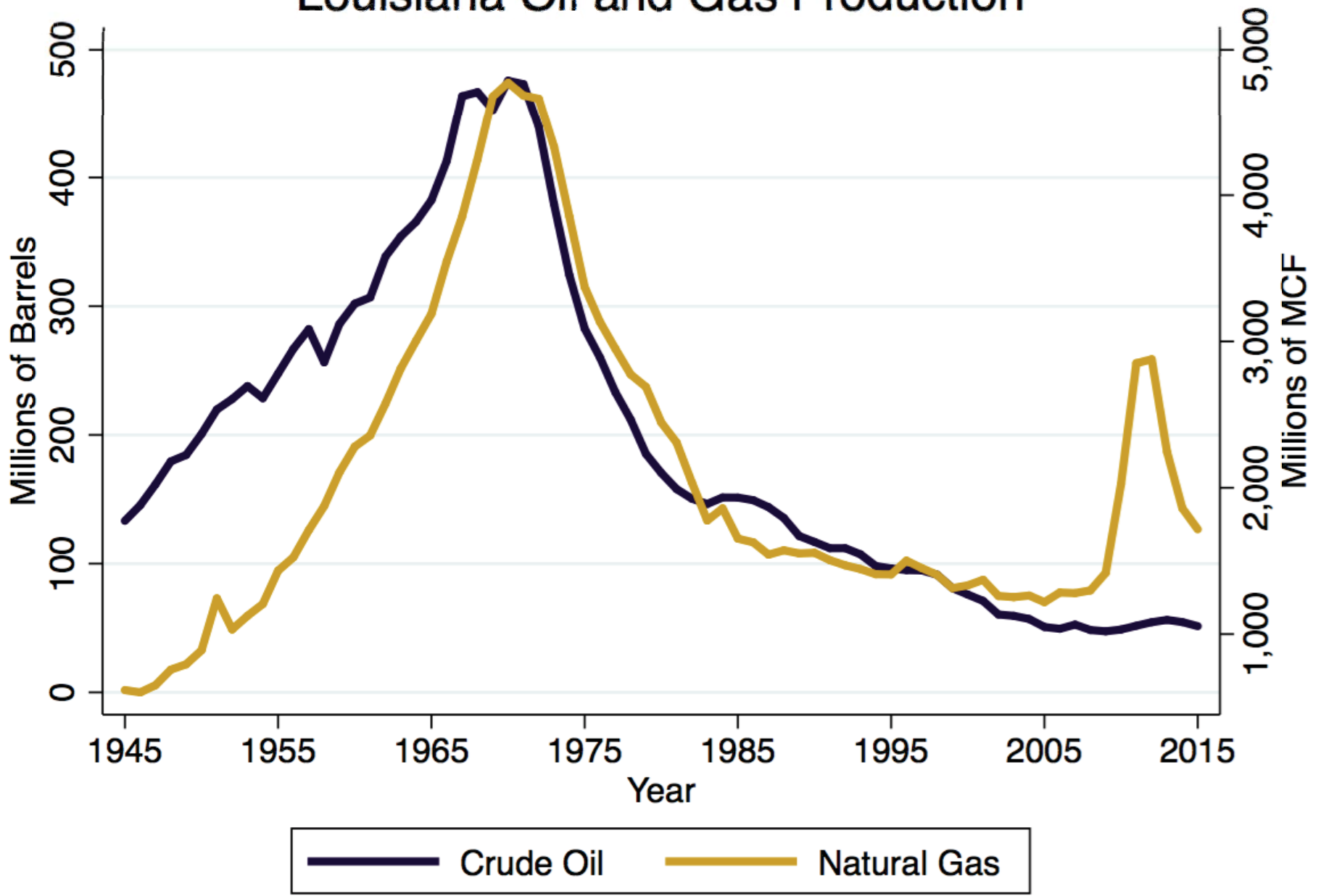
## Louisiana State Budget

**Louisiana's state budget** has historically been particularly susceptible to oil and gas price shocks for two reasons.

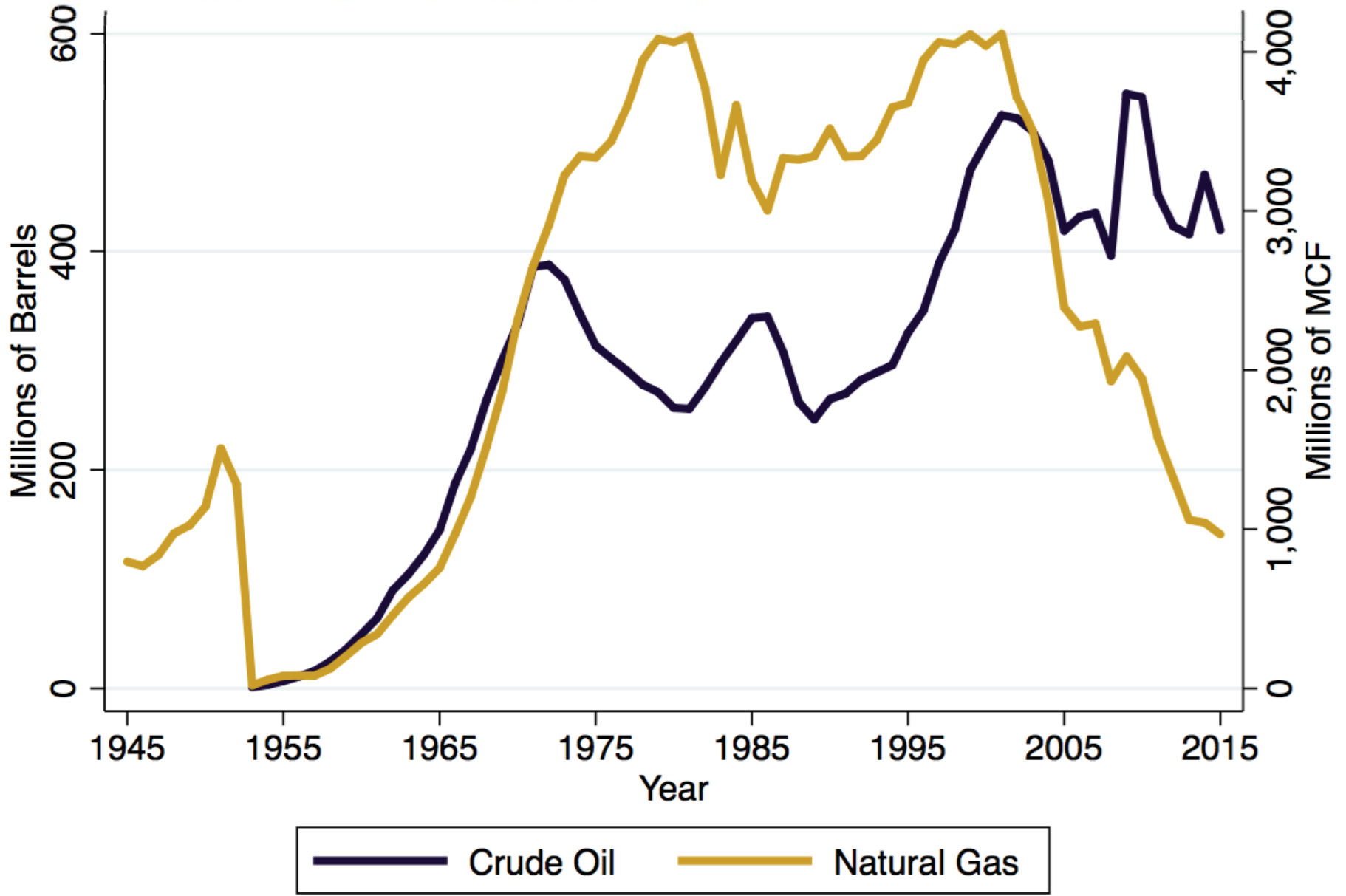
1. Historically **a significant share of Louisiana's tax revenues** have come directly from **severance taxes**; the tax assessed on oil and gas at the point from which it is severed from the ground.
  - When the price of oil and/or gas drops, two things occur.
    1. The actual **value** of the severance tax declines with the price.
    2. Further decreased revenues through a decrease in **production**.
2. The largest revenue generators for the state are from **sales tax** and **income tax** receipts.
  - When oil field workers are laid off, they earn less income (less income tax revenues) and have less money to spend (less sales tax revenues).
  - Countervailing effects are present in the savings for consumers and businesses in the form of cheaper fuel.

***Therefore, there is simply not a straightforward way to calculate the effect of a drop of the price of oil on the state's budget!***

# Louisiana Oil and Gas Production

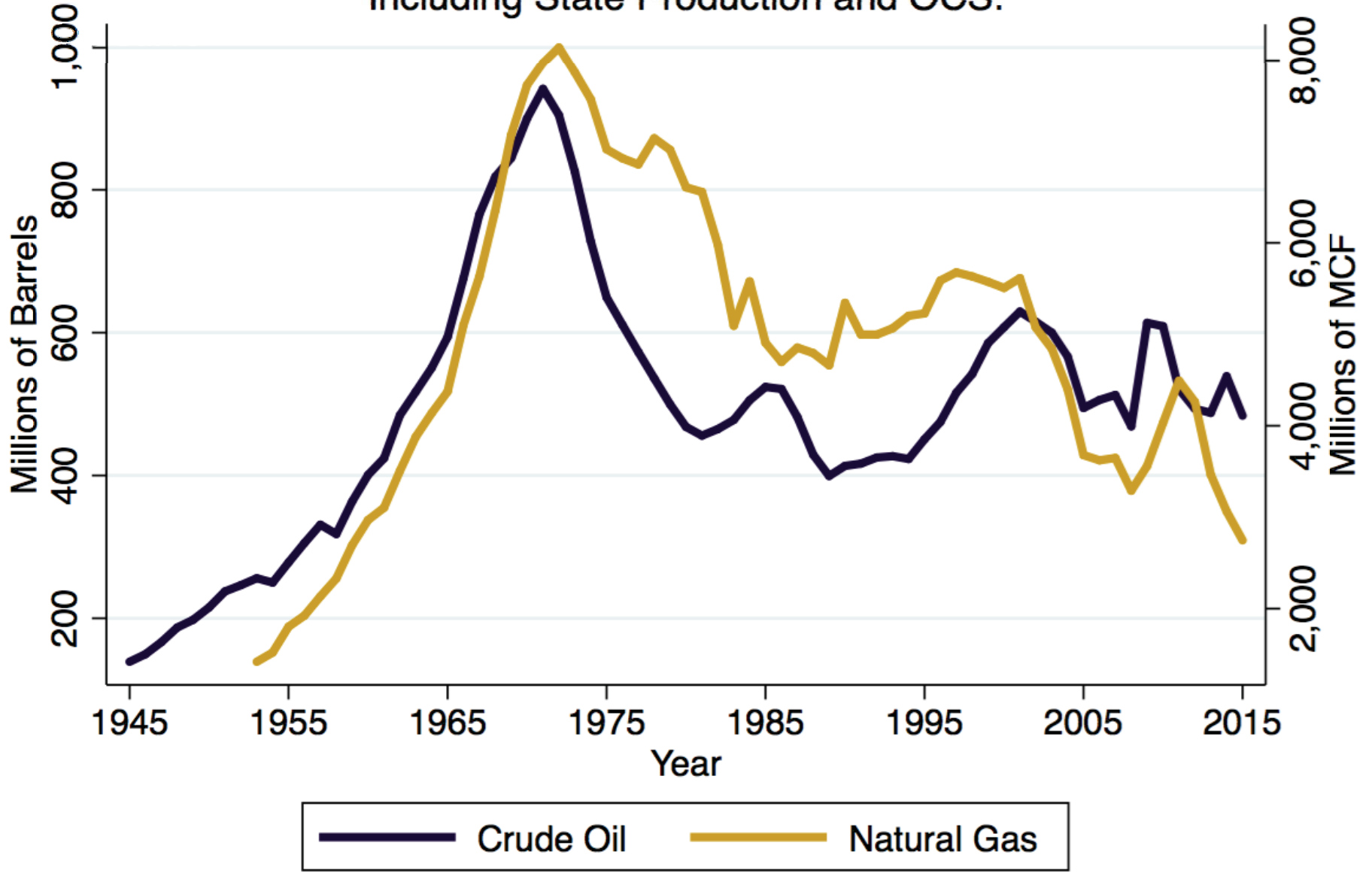


# Louisiana Federal OCS Oil and Gas Production



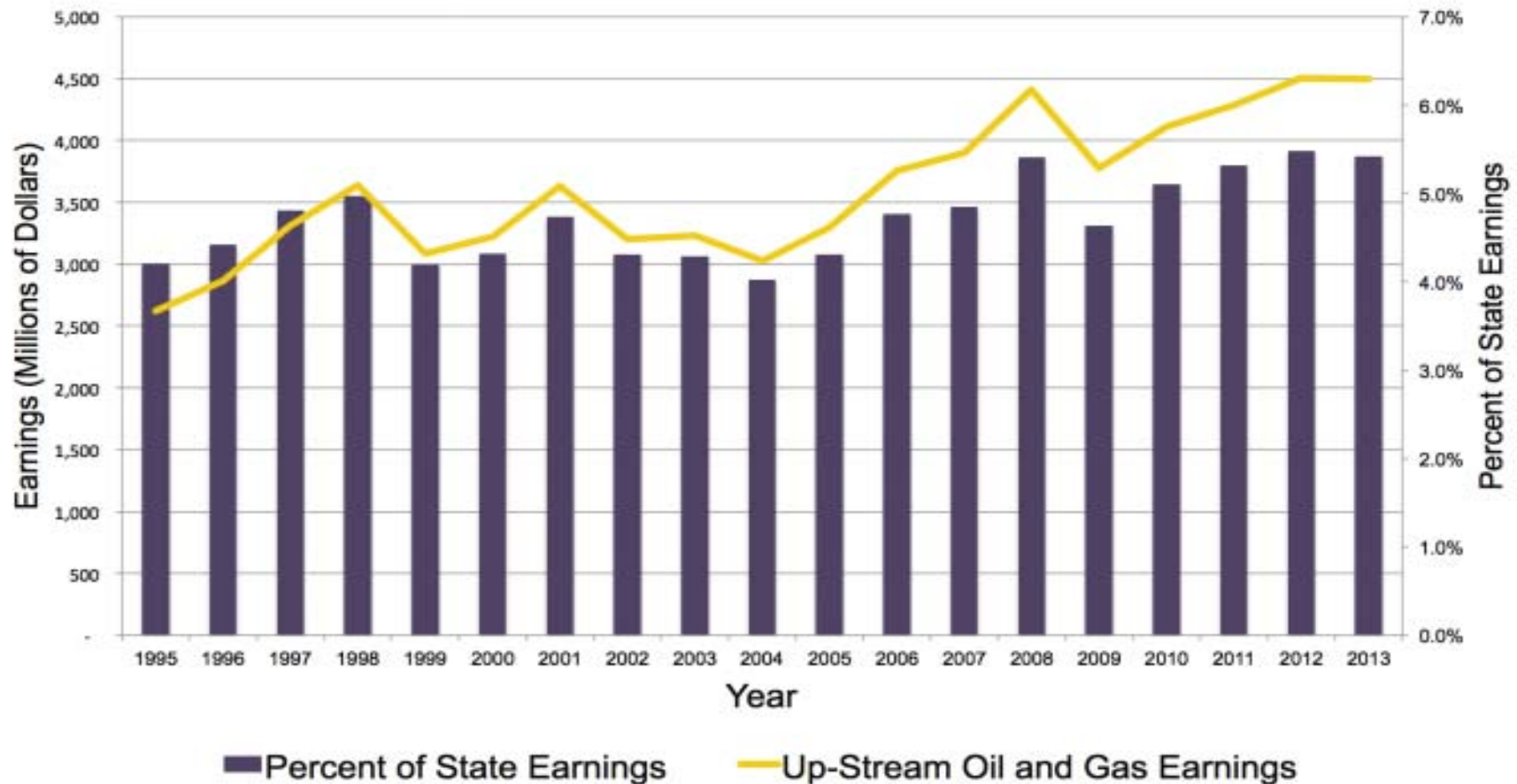
# Louisiana Total Oil and Gas Production

Including State Production and OCS.



# History of Oil and Gas Industry

## Oil and Gas Share of Louisiana Economy



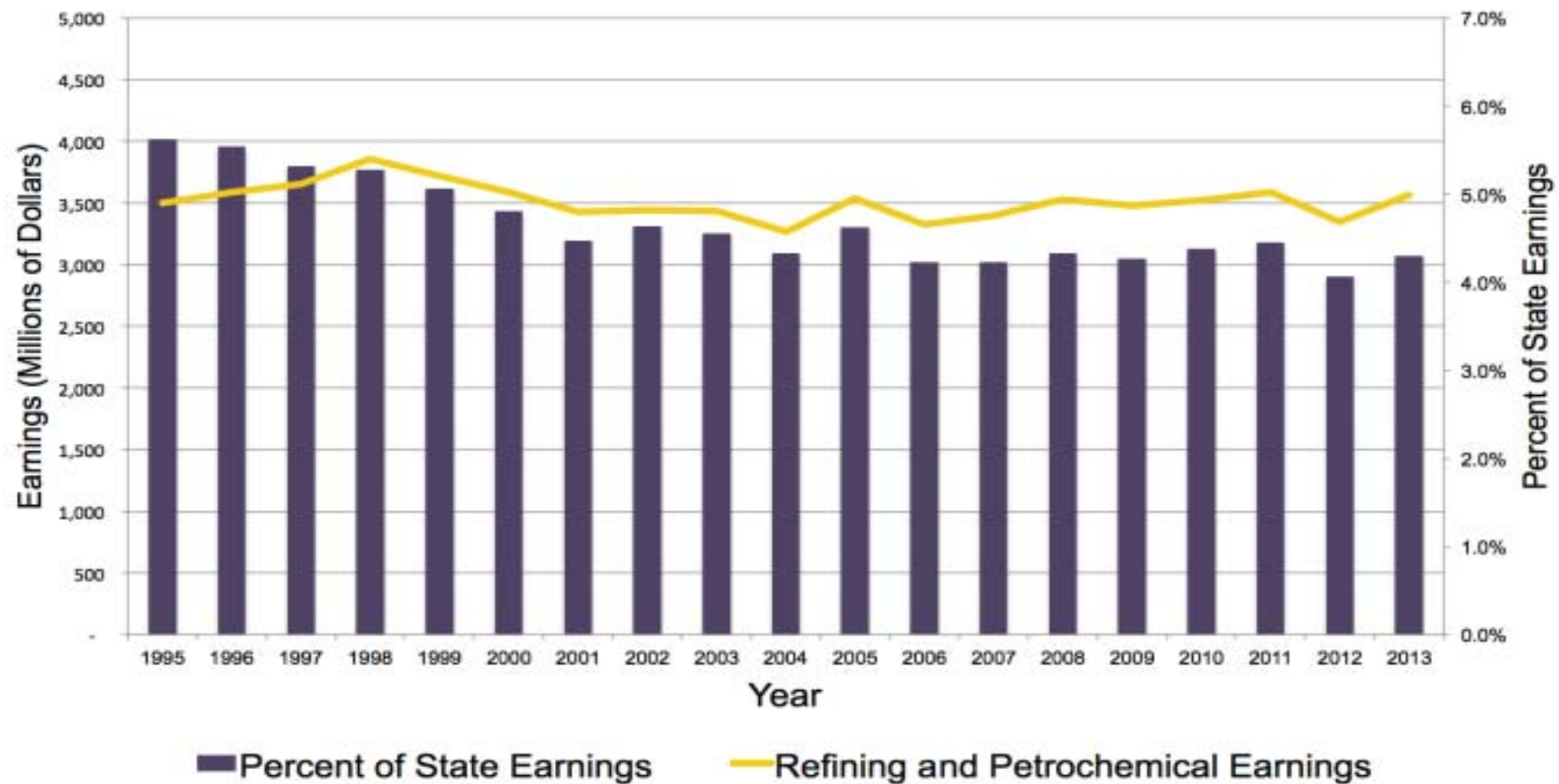
**Figure 3.3: Louisiana Upstream Oil and Gas Earnings**

Source: U.S. Census Bureau Quarterly Workforce Indicators and Author's Calculations

Source: Upton, G.B. Crude oil exports and the Louisiana economy: A discussion of U.S. policy of restricting crude oil exports and its implications for Louisiana. LSU CES Whitepaper.

# History of Oil and Gas Industry

## Oil and Gas Share of Louisiana Economy



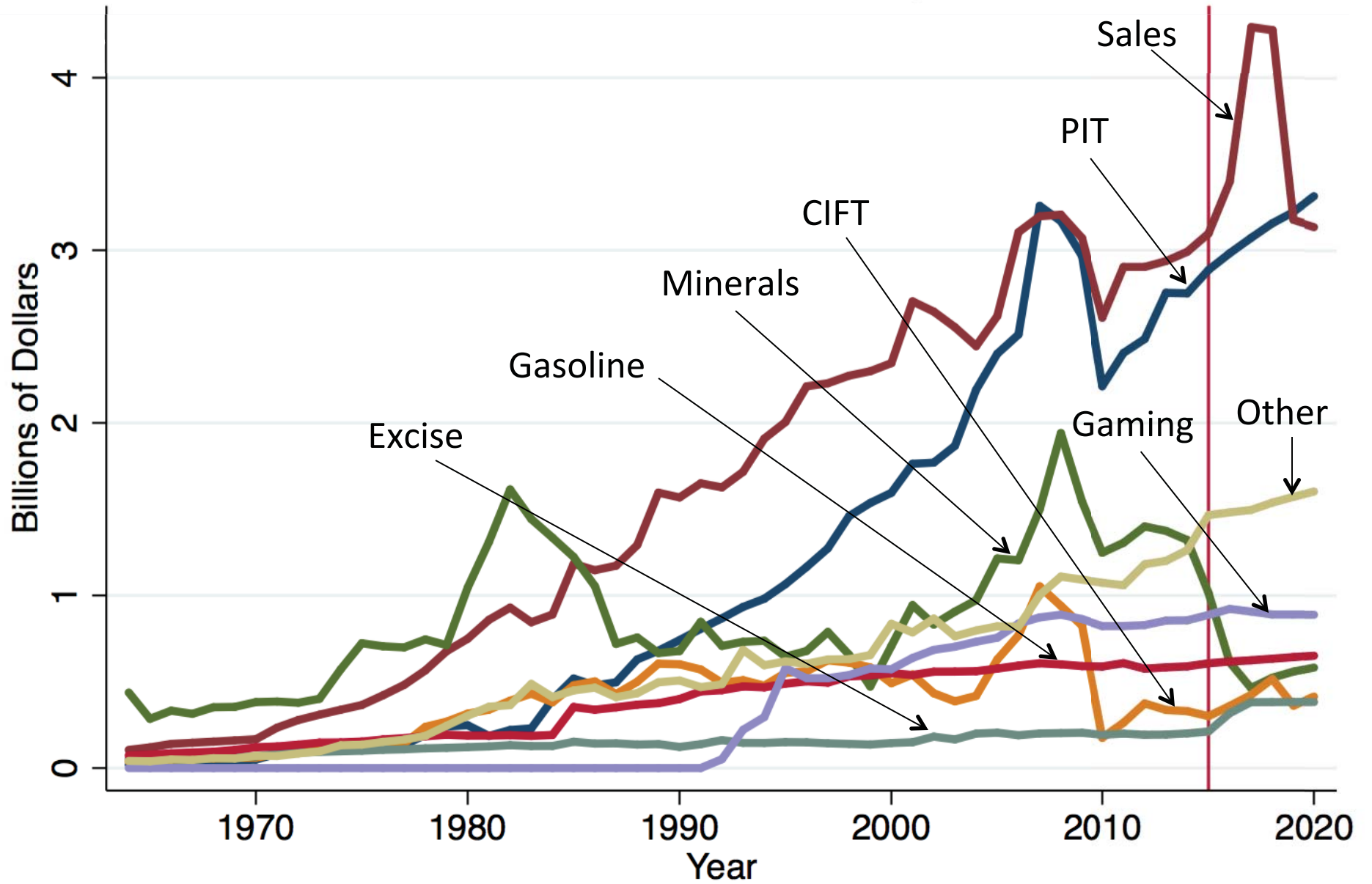
**Figure 3.5: Louisiana Refining and Petrochemical Earnings**

Source: U.S. Census Bureau Quarterly Workforce Indicators and Author's Calculations

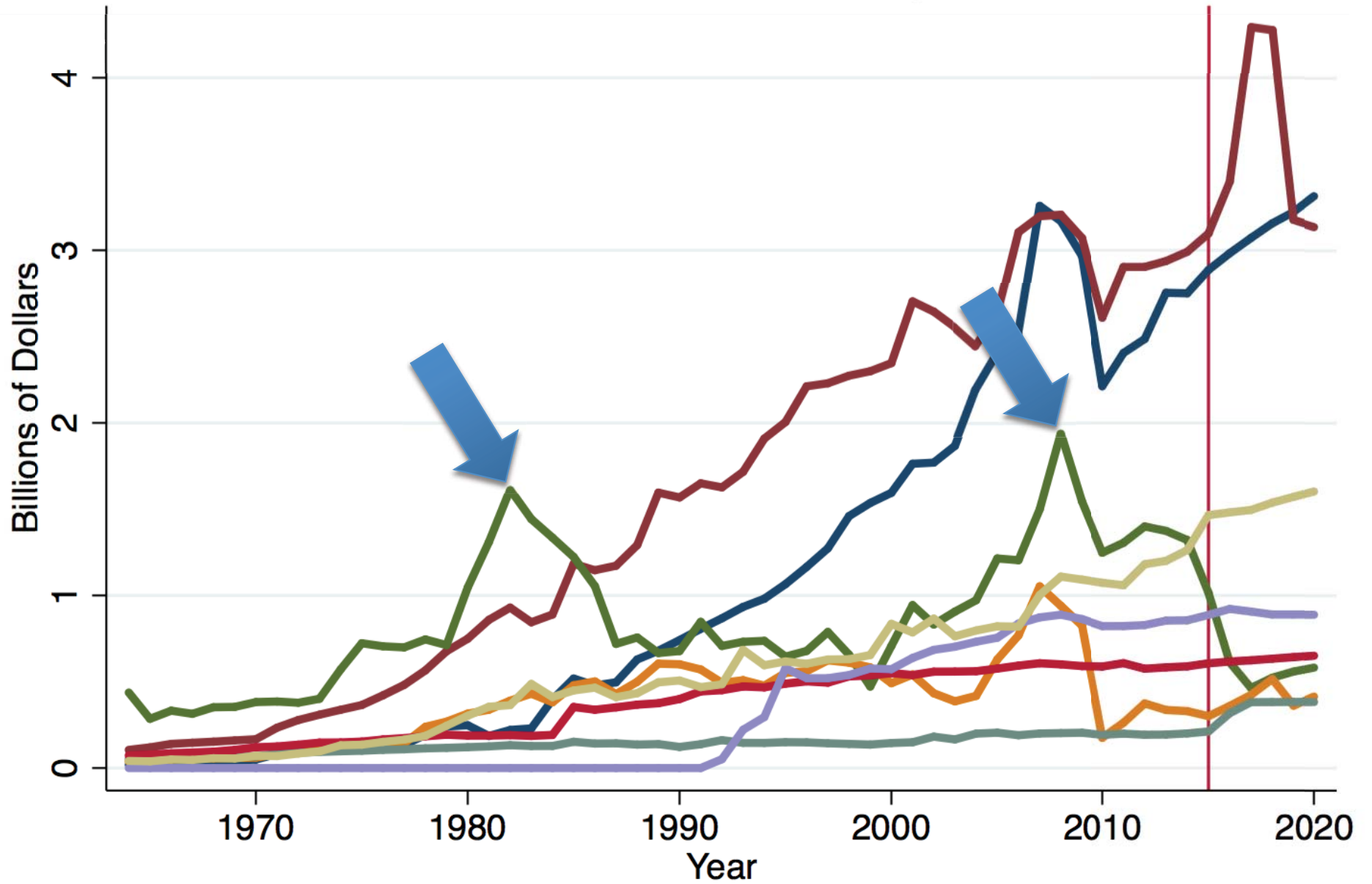
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# Louisiana Tax Revenues by Source



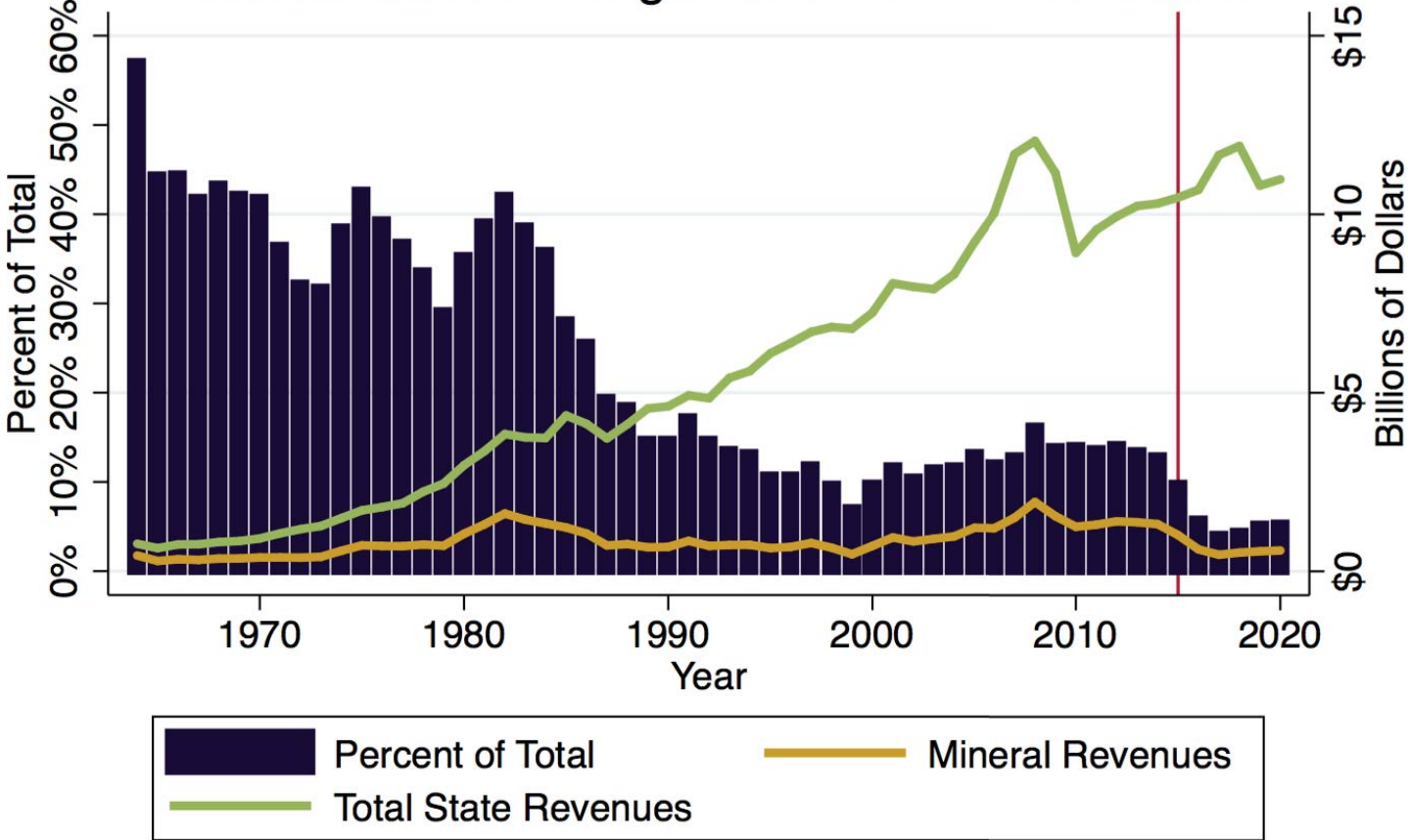
# Louisiana Tax Revenues by Source



Source: LLFO.

History of Tax Revenues

Louisiana State Budget and Mineral Revenues

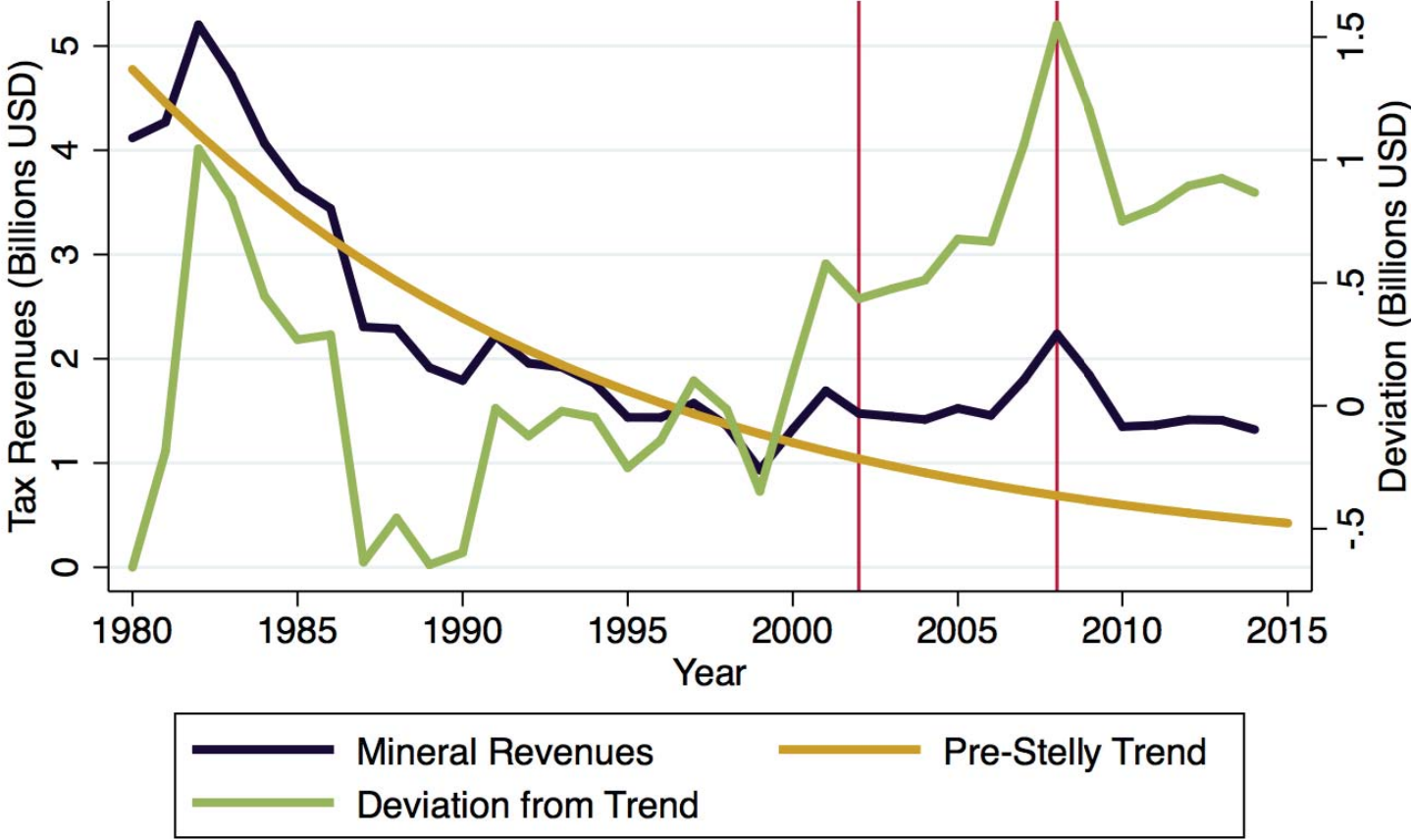


State Revenues include all taxes, licenses, and fees.  
Mineral revenues include both severance taxes and mineral revenues from state lands.

Source: LLFO and author's calculations

History of Tax Revenues

Louisiana Mineral Revenues  
Pre-Stelly Path



Adjusted by Louisiana GSP Inflator - 2014 Base Year

Source: LLFO, BEA, and author's calculations

### Mineral Tax Revenue's Contribution to Budget Crisis

“Back of the envelope” estimates suggest that a \$1 sustained drop in the oil price for an entire year lead to \$12,000,000 drop in state mineral revenues.

In FY 2014-2015, the average price of crude sold in Louisiana was \$96.83. In 2015-2016, the average price dropped to \$73.27.

$$\begin{aligned} & \$105.20 - \$73.27 = \$31.93 \\ & \$31.93 \times \$12 \text{ Million} = \$383.16 \text{ Million} \end{aligned}$$

**Or about 3.6 percent of the state's \$10.47 billion in revenues.**

### Mineral Tax Revenue's Contribution to Budget Crisis

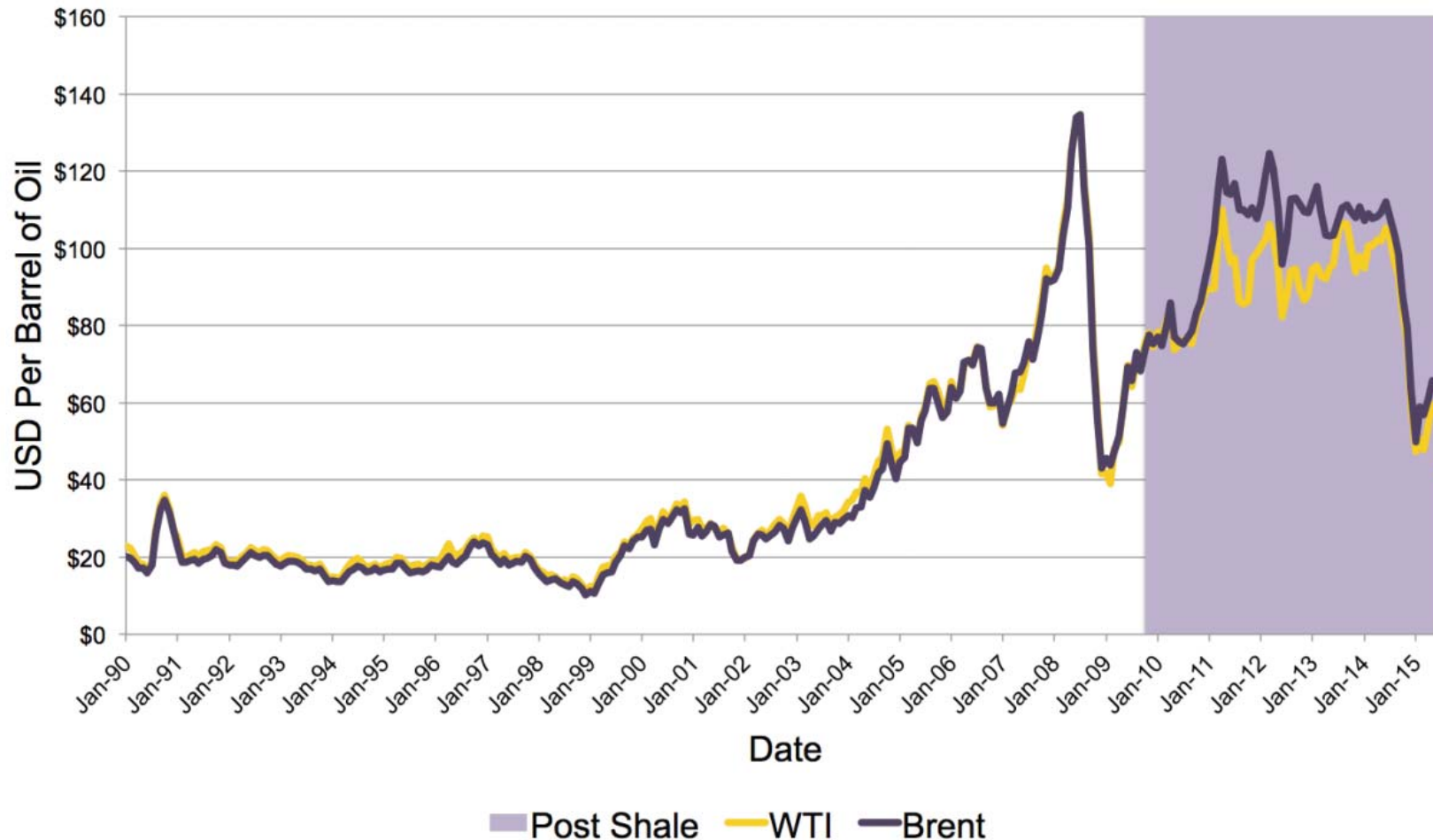
What can we expect for 2016-2017 FY?

In FY 2015-2016, the average price of crude sold in Louisiana was \$73.27. Current oil prices are approximately \$40 per barrel:

$$\begin{aligned} \$73.27 - \$40.00 &= \$33.27 \\ \$33.27 \times \$12 \text{ Million} &= \$399.24 \text{ Million} \end{aligned}$$

**Or about 3.8 percent of the state's \$10.47 billion in revenues**

## Price Differentials

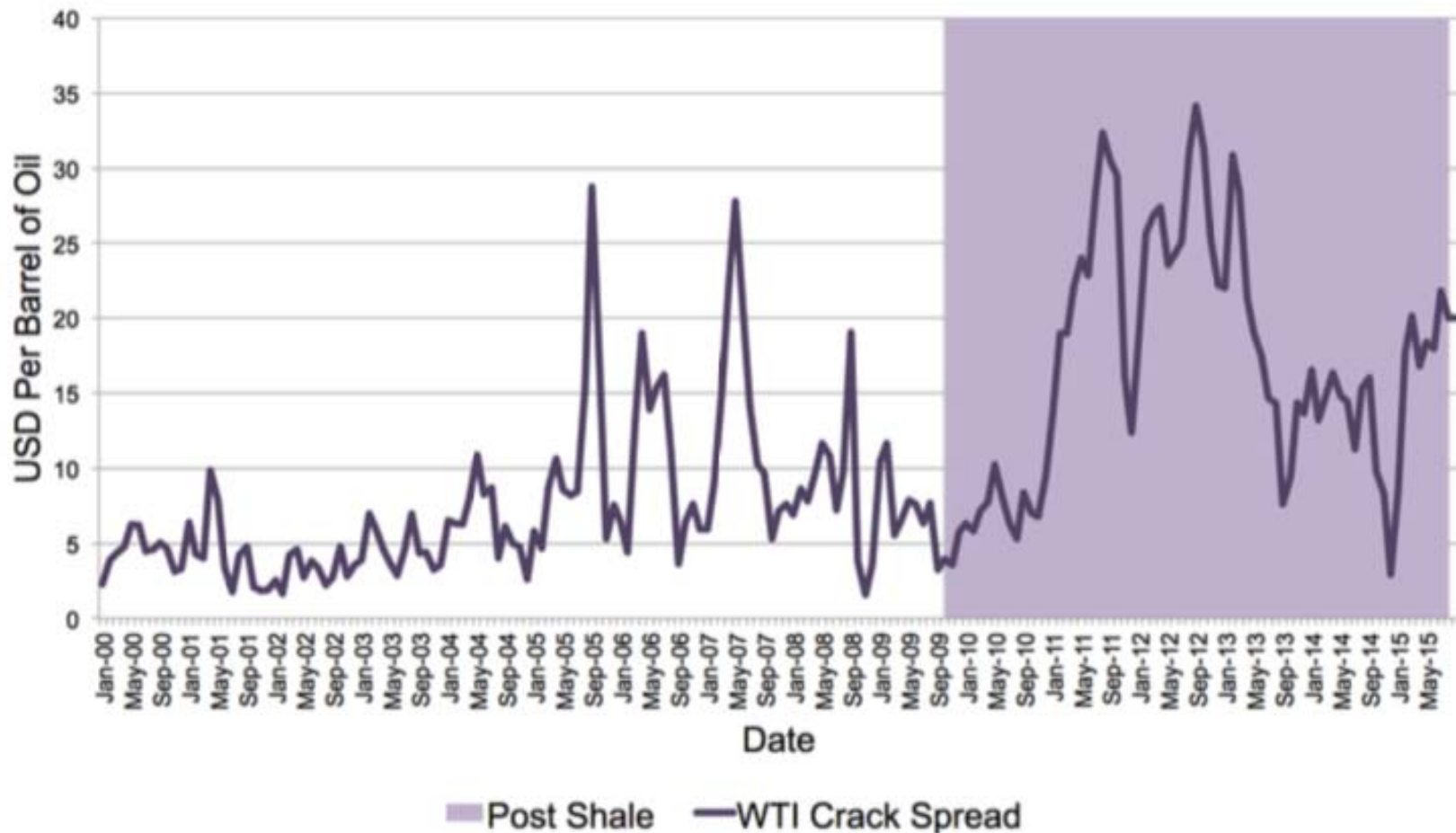


**Figure 2.7: Comparison of WTI and Brent Spot Prices**

Source: Bloomberg and Author's Calculations

Source: Upton, G.B. Crude oil exports and the Louisiana economy: A discussion of U.S. policy of restricting crude oil exports and its implications for Louisiana. LSU CES Whitepaper.

## Louisiana Refining and Petrochemicals



**Figure 2.11: Crack Spread**

Source: Energy Information Administration, U.S. Department of Energy.

Source: Upton, G.B. Crude oil exports and the Louisiana economy: A discussion of U.S. policy of restricting crude oil exports and its implications for Louisiana. LSU CES Whitepaper.



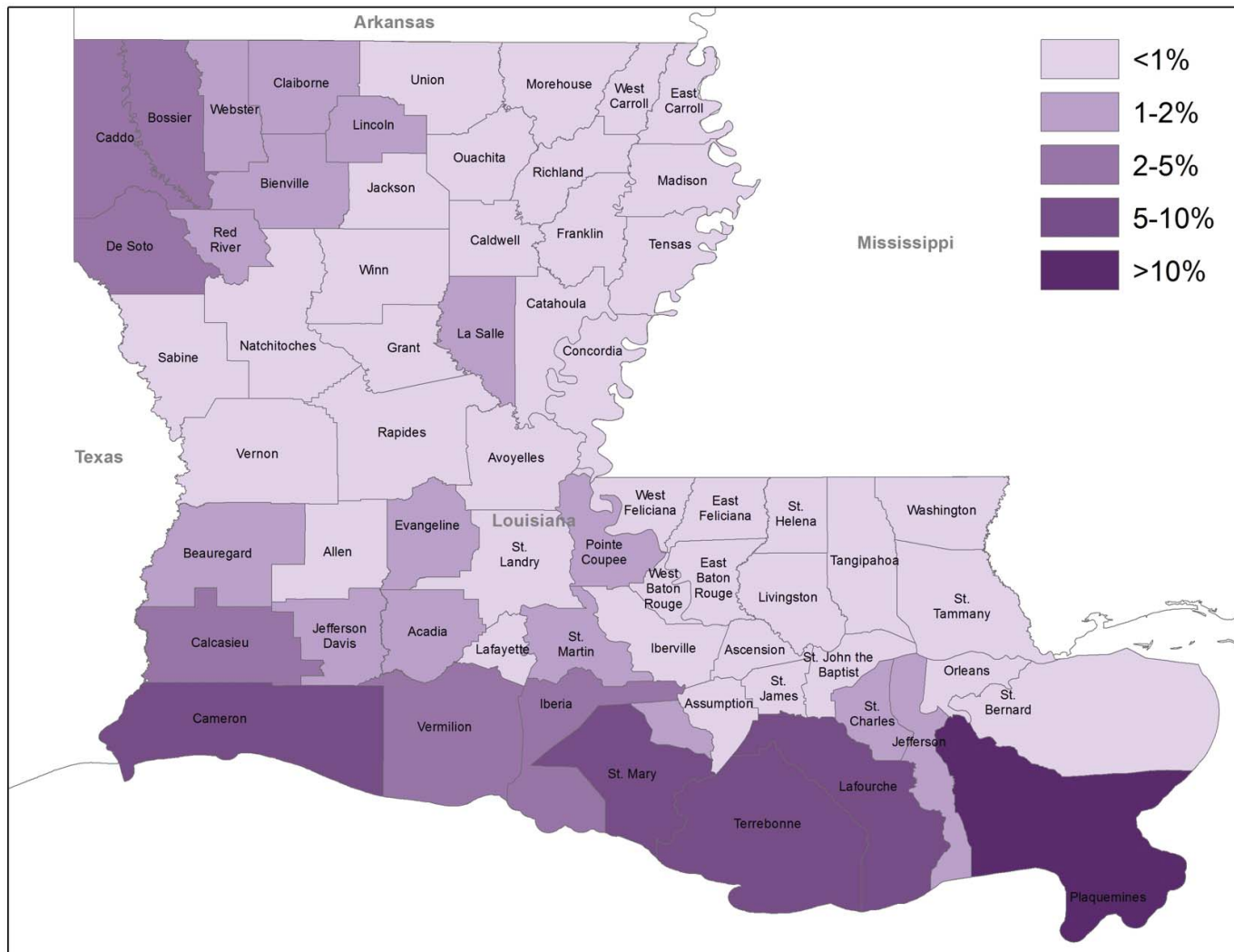


## **Impact on Specific Parishes**



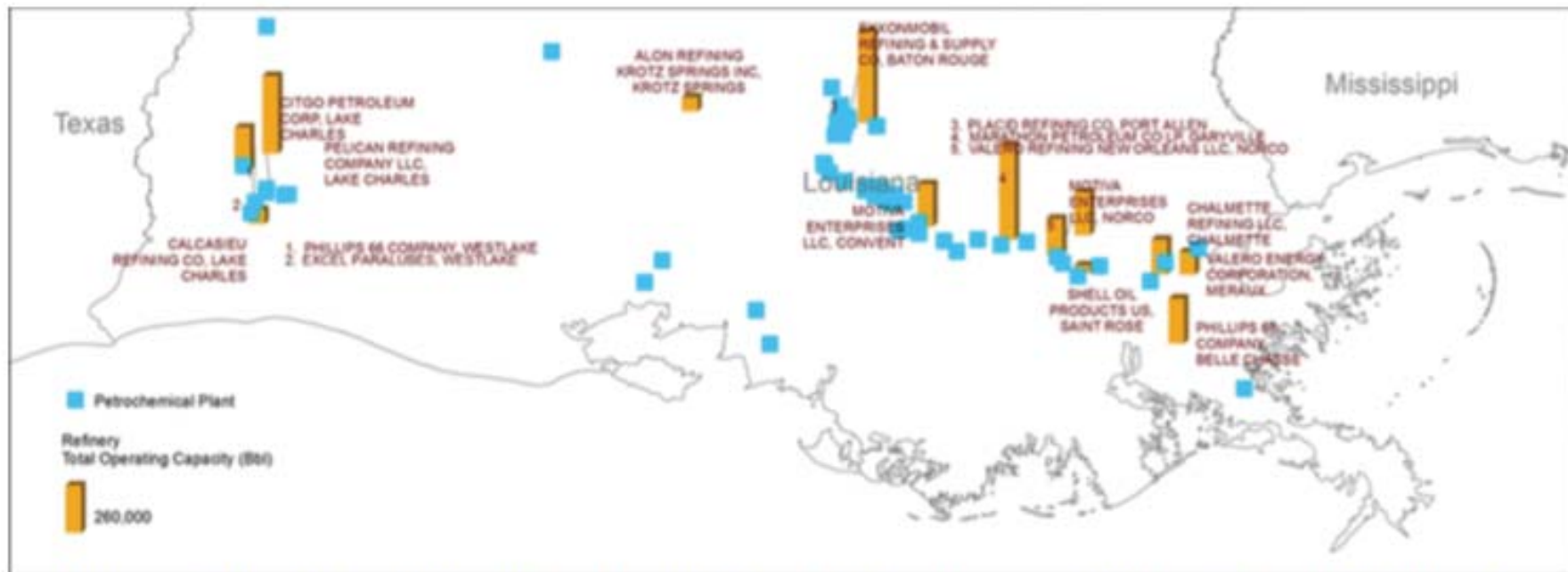
# Parish Specific Impacts

## Mineral Revenues by Parish



Source: LA DNR.

## Louisiana Refining and Petrochemicals



**Figure 3.2: Map of Southern Louisiana Refineries and Petrochemical Plants**

*Source: Author's Compiled Research*

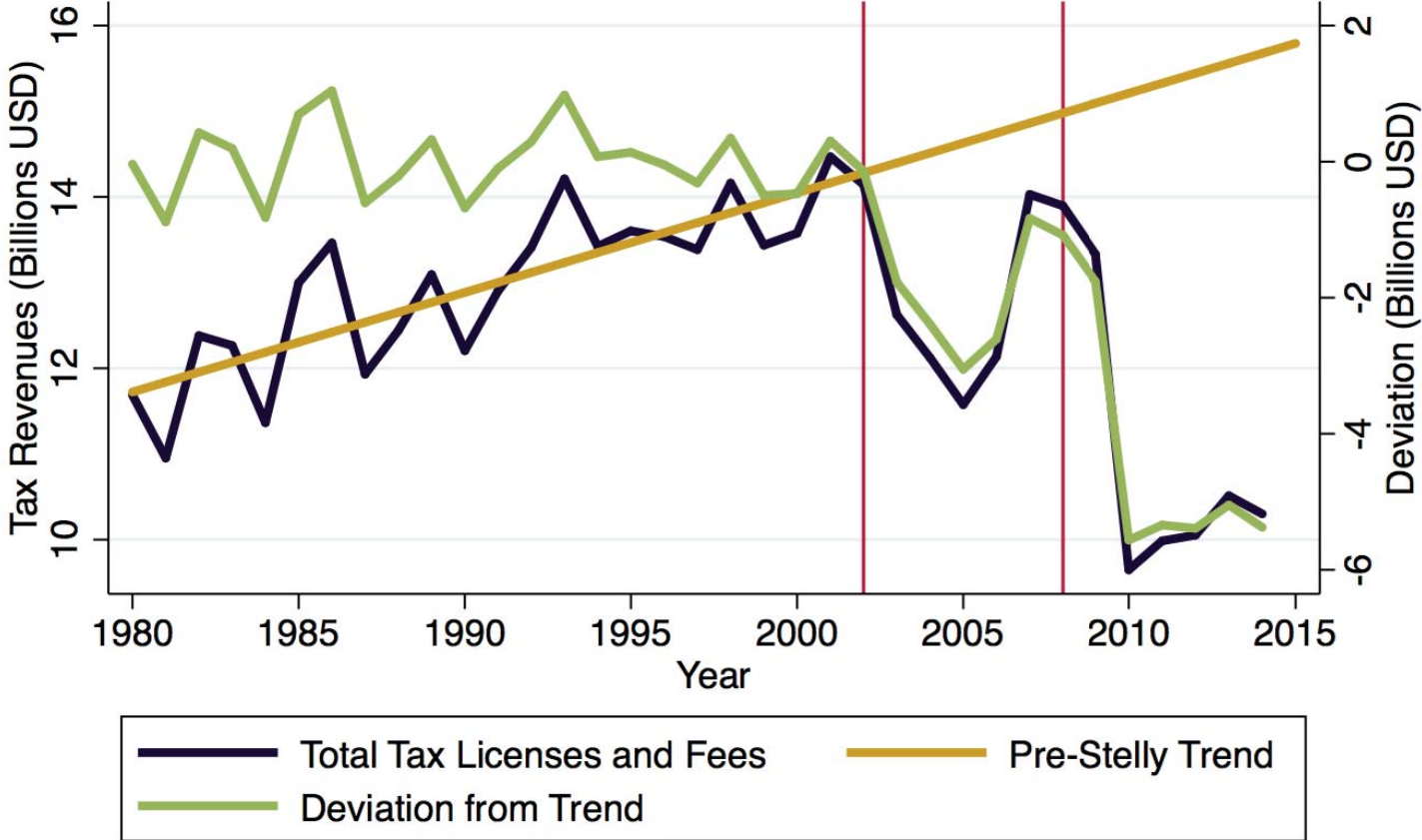
Source: Upton, G.B. Crude oil exports and the Louisiana economy: A discussion of U.S. policy of restricting crude oil exports and its implications for Louisiana. LSU CES Whitepaper. mess



## **A Note About Louisiana's General Fiscal Outlook**

Louisiana Refining and Petrochemicals

Louisiana Tax, Licenses and Fees  
Pre-Stelly Path



Adjusted by Louisiana GSP Inflation - 2014 Base Year

Source: LLFO, BEA, and author's calculations

Questions, Comments and Discussion

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