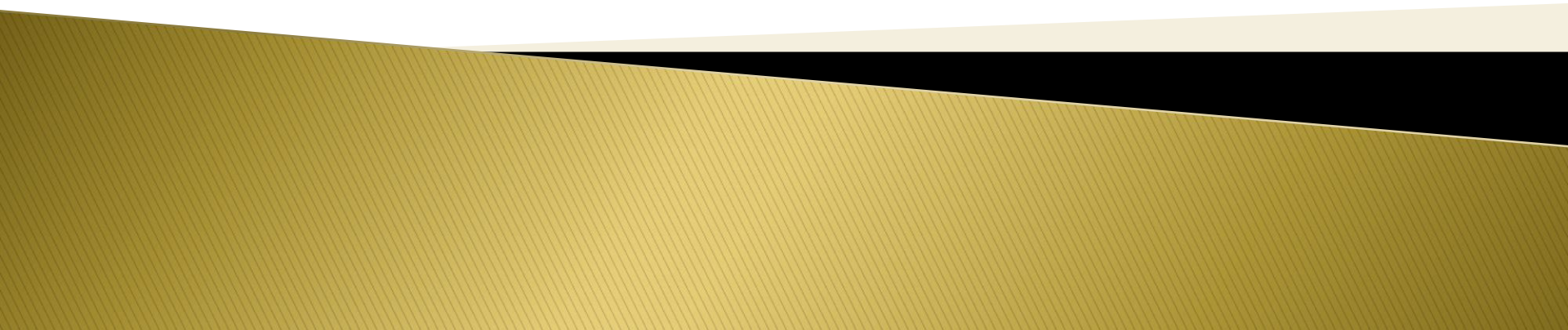


Purdue Cooperative Extension Service

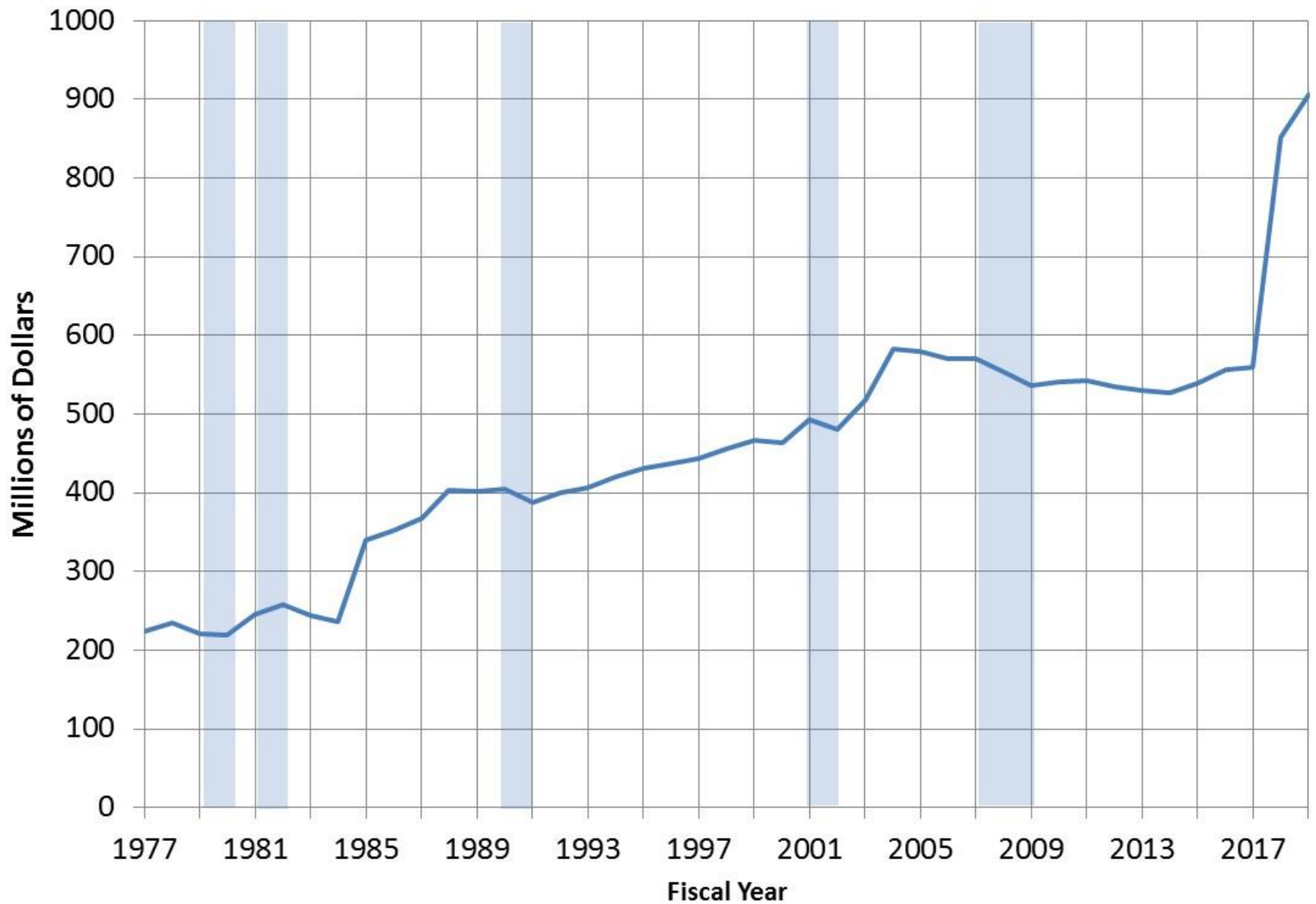
The Gasoline Tax and the Road Funding Problem

December 2019

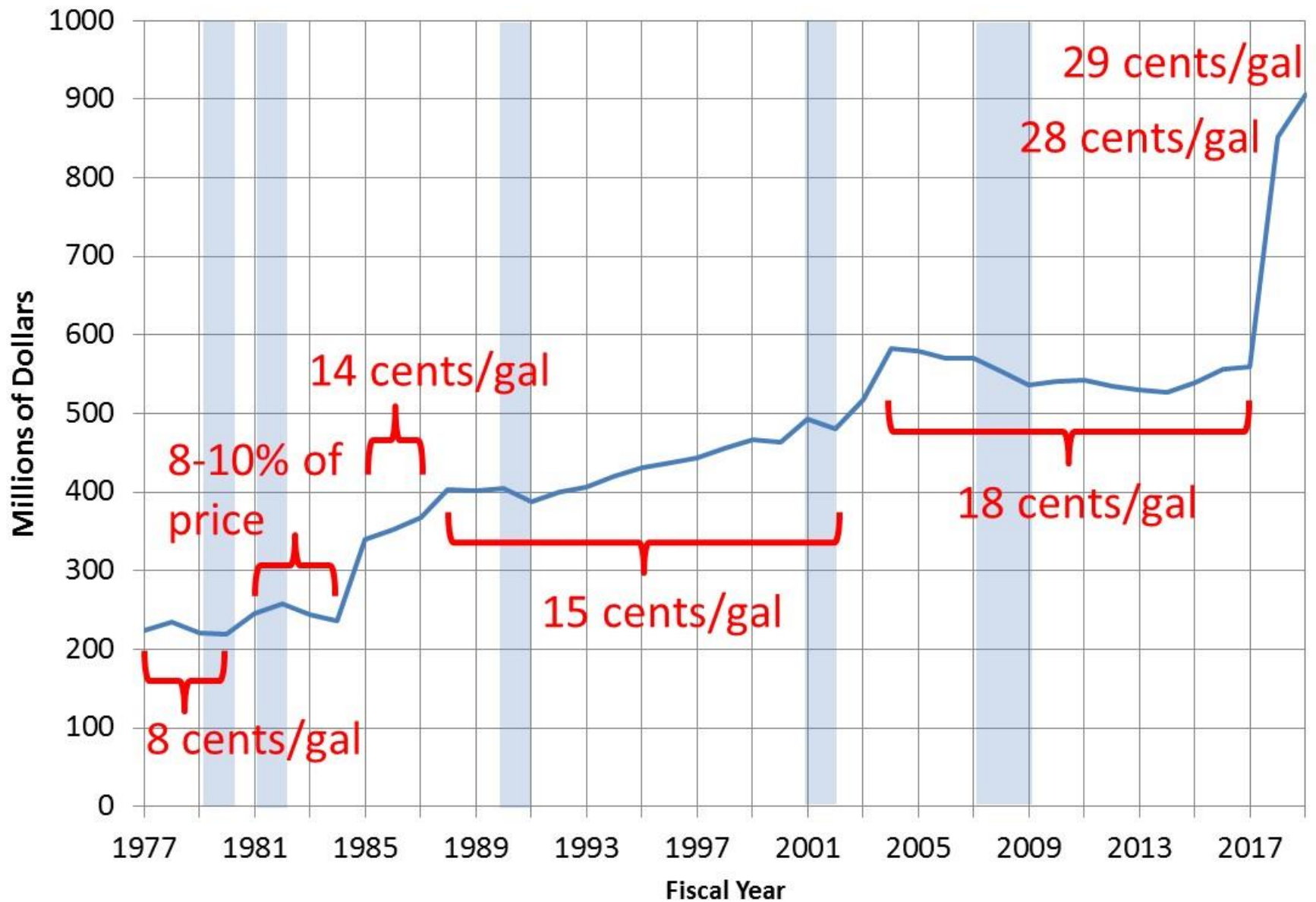
Larry DeBoer
Department of Agricultural Economics
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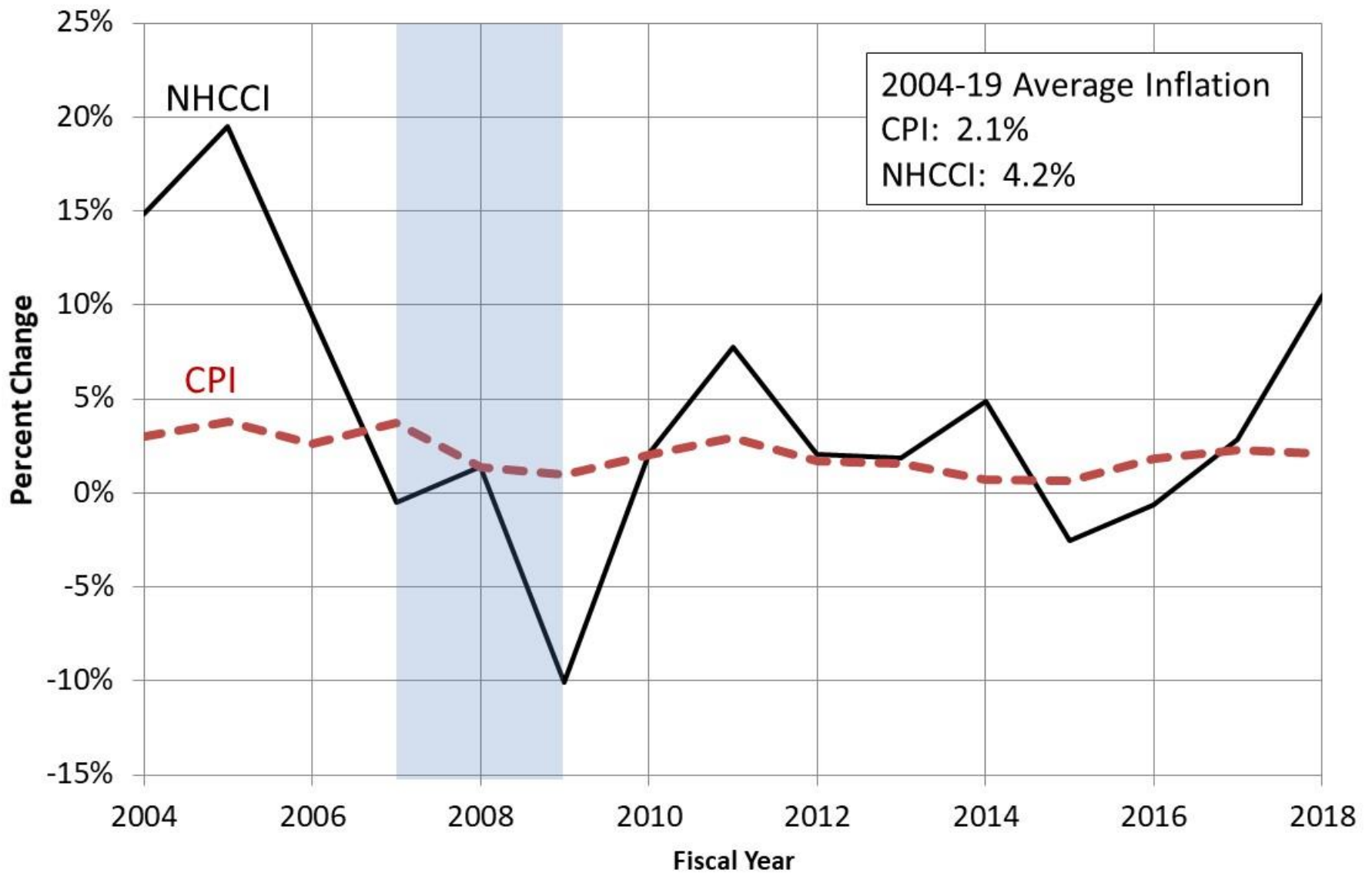
Gasoline Tax Revenue, Indiana, 1977-2019



Gasoline Tax Revenue, Indiana, 1977-2019

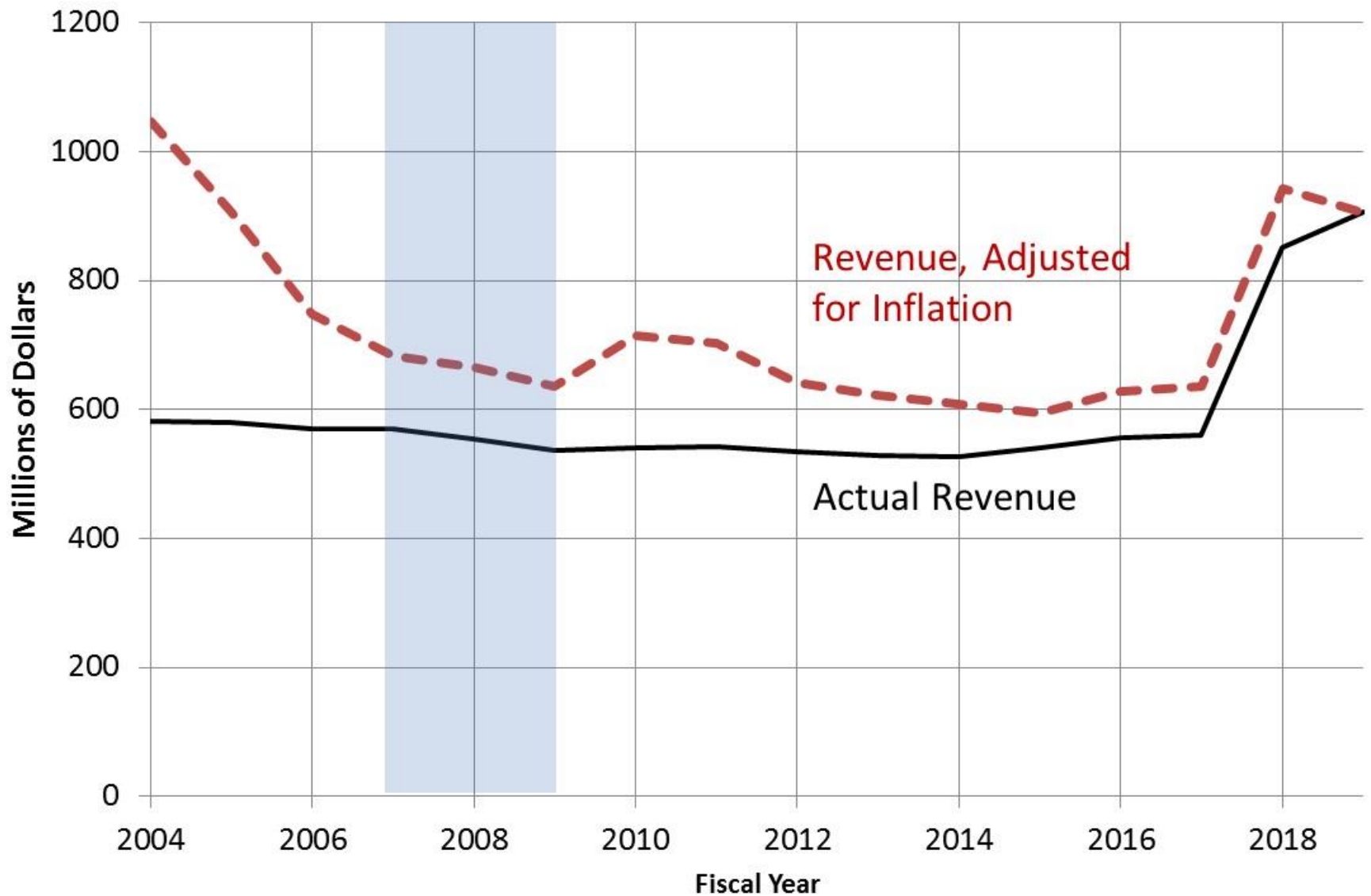


Inflation, National Highway Construction Cost Index and Consumer Price Index

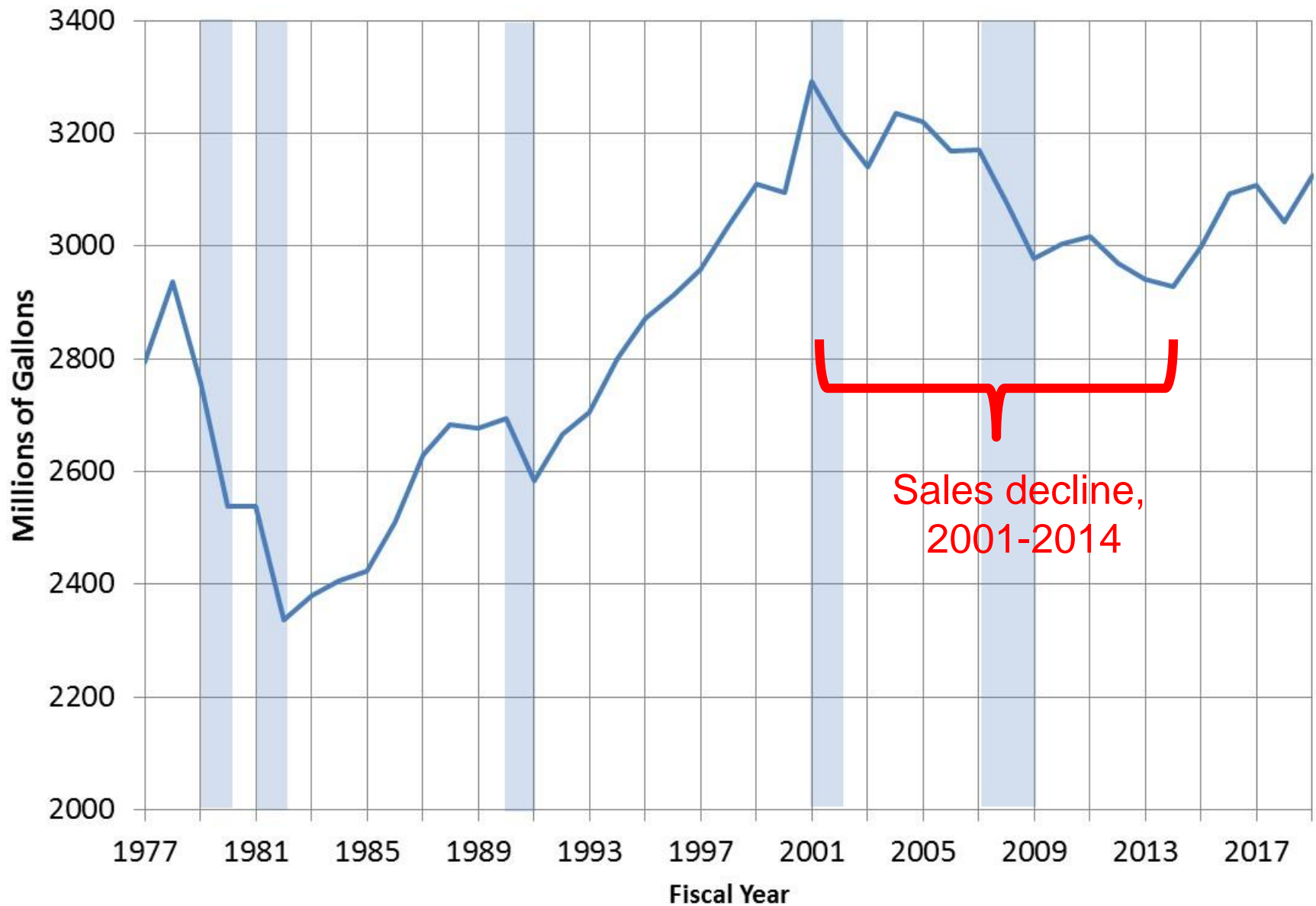


Gasoline Tax Revenue, Indiana, 2004-2019

(Inflation Adjusted using Highway Cost Index, 2019 Dollars)



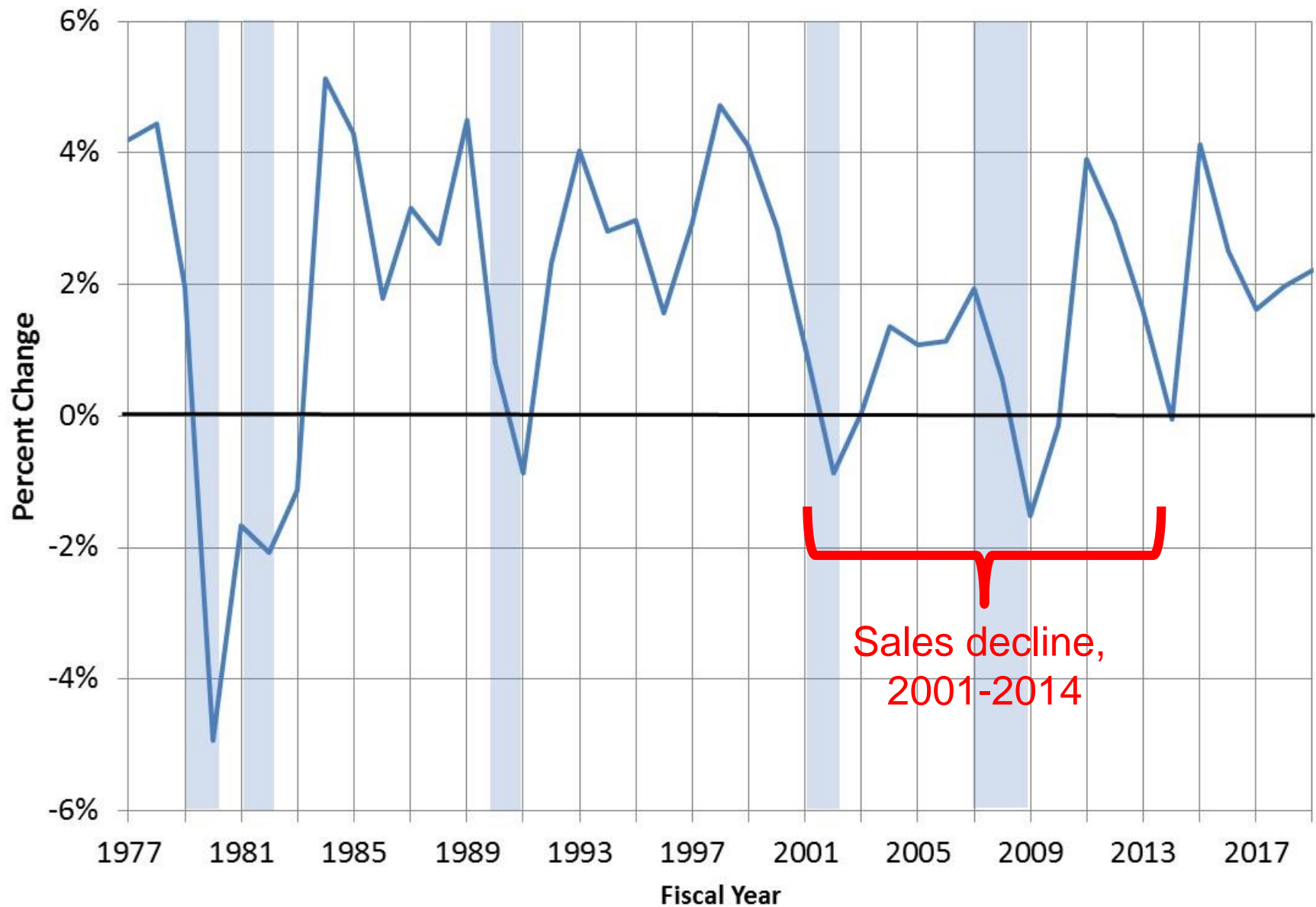
Estimated Gallons of Gasoline Sold in Indiana, 1977-2019



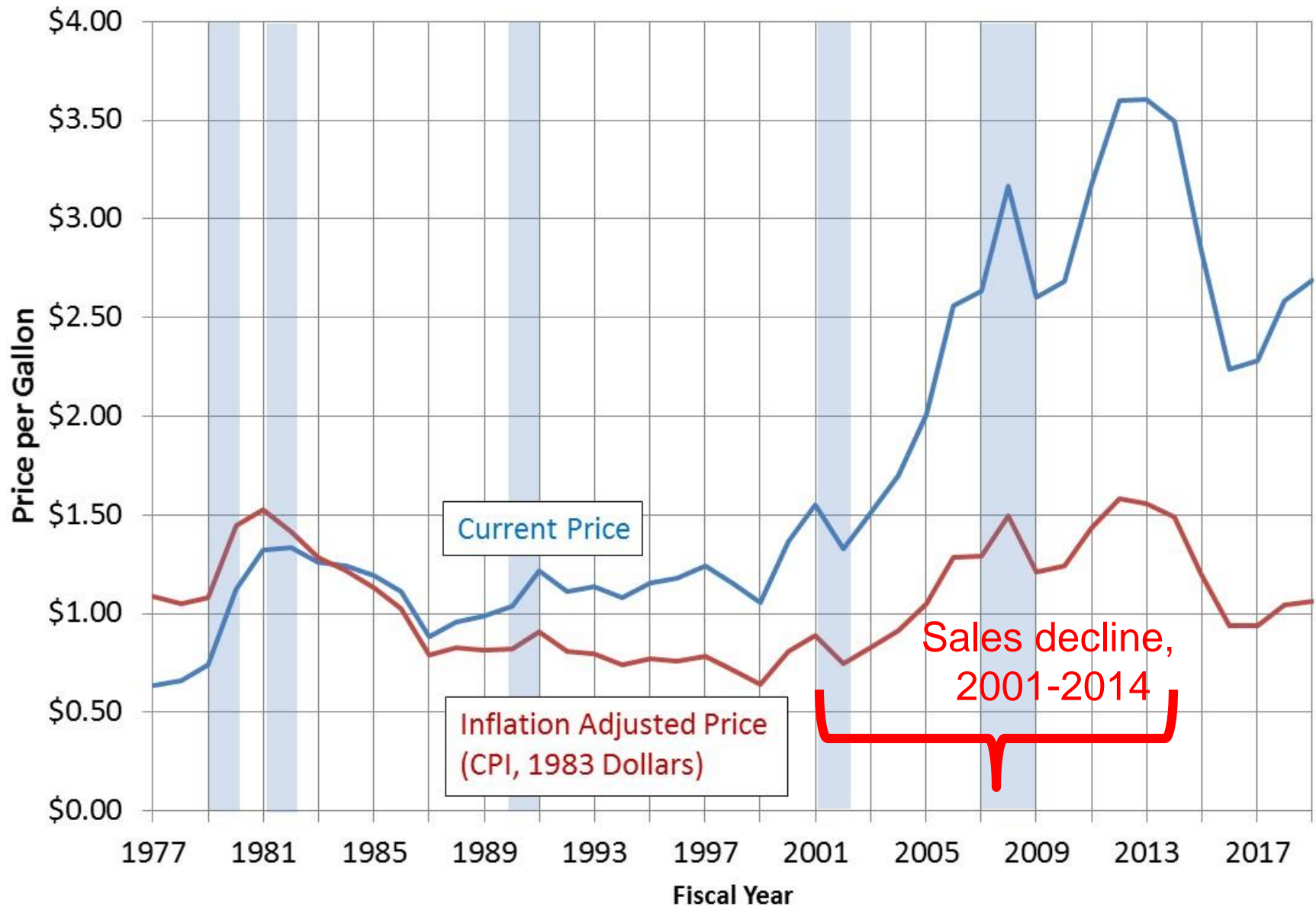
What Affects Gasoline Sales?

- ▶ Incomes of Indiana people
 - People drive more when they can afford it
 - Both incomes and miles driven fall during recessions
- ▶ Gasoline price
 - “Law of Demand”: when a product is more costly, people buy less
 - Short run response is small, long run is larger
- ▶ Average fuel efficiency of the automobile fleet
 - Higher miles per gallon means less gasoline purchased
- ▶ “Momentum”
 - Incomes and prices in the past change the fuel efficiency of the existing fleet

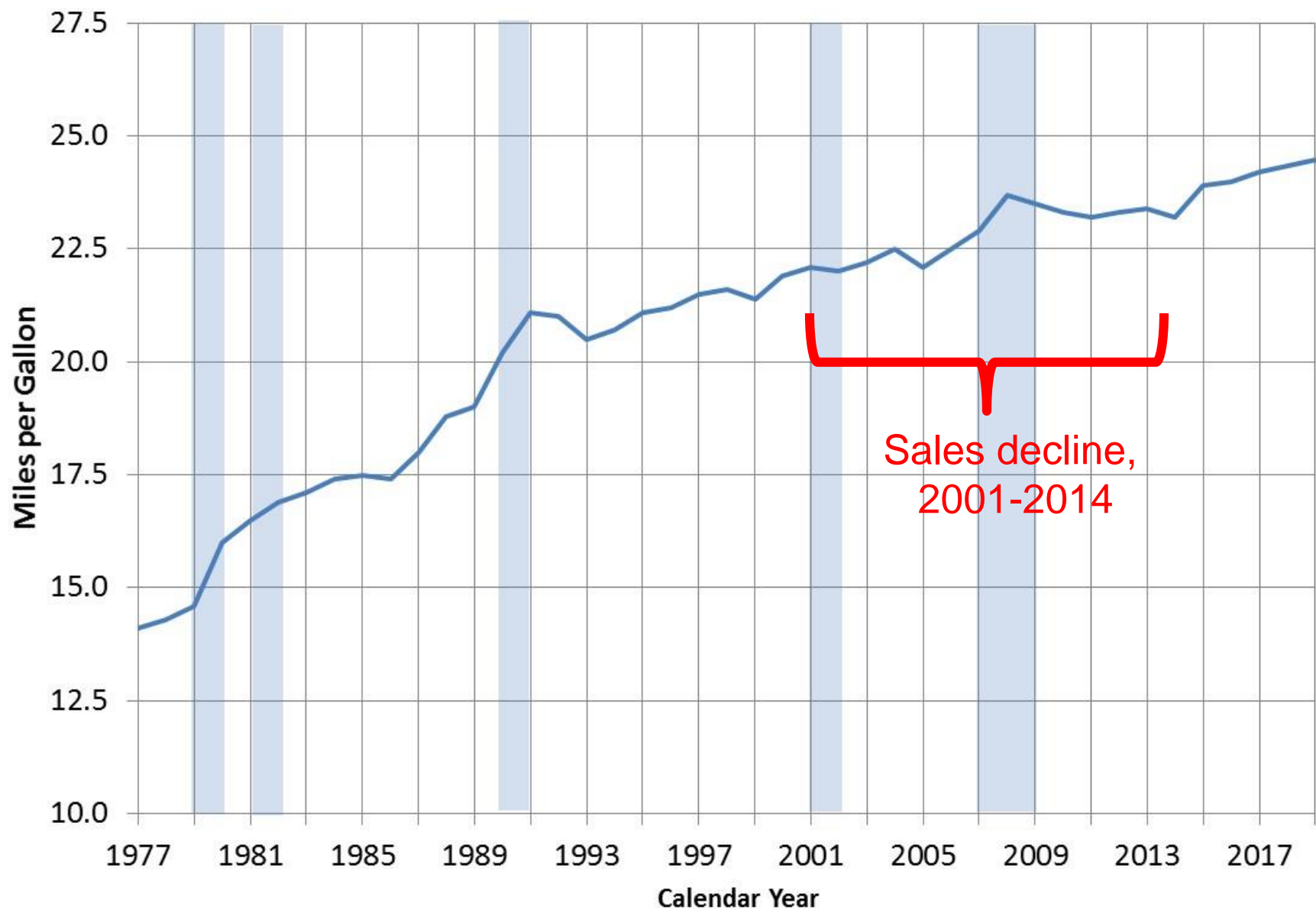
Indiana Real Personal Income Annual Growth, 1977-2019



Average Gasoline Price, United States, 1977-2019



Average Miles per Gallon, Automobiles, United States, 1977-2019



What Affected Gasoline Sales, 2001–2014?

- ▶ Incomes of Indiana people
 - Recession, 2001; Recession 2007–09
 - Slow growth during 2001–07 expansion
- ▶ Gasoline price
 - Average price rises from \$1.50 to \$3.50 per gallon
 - Price rose twice as fast as inflation
- ▶ Average fuel efficiency of the automobile fleet
 - Grew slowly during 2001–08, flat during 2009–14
- ▶ “Momentum”
 - People adjust their cars and commutes to reduce their gasoline purchases

November 12, 2019

Global Oil Demand Growth to Slow From 2025-IEA

By Reuters

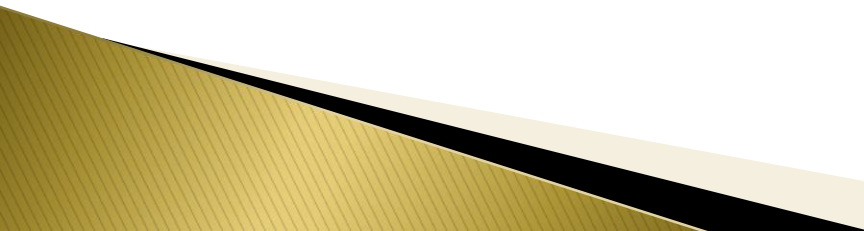
Global oil demand growth is expected to slow from 2025 as fuel efficiency improves and the use of electrified increases but is unlikely to peak in the next two decades, the International Energy Agency (IEA) said on Wednesday.

"There is a material slowdown after 2025, but this does not lead to a definitive peak in oil use," the IEA said, citing increased demand from trucks and the shipping, aviation and petrochemicals sectors.

Oil use in passenger cars is, however, seen peaking in the late 2020s as drivers switch to electric vehicles.

Must drivers pay for roads?

Gasoline Tax Increases

- ▶ Gas tax increased from 29 to 30 cents on July 1, 2019
 - ▶ The tax rate will increase with inflation and income growth, up to one cent per year
 - ▶ Likely to increase one cent per year as long as inflation continues near 2% per year and income growth continues near 4% per year
 - ▶ On average one cent tax raises about \$31 million
- 

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