



*A Policy Research Partnership  
to Reduce Youth Substance Use*

Supported by  
The Robert Wood Johnson Foundation

# **The Role of Tax Increases In Reducing Consumption**

**Frank J. Chaloupka**

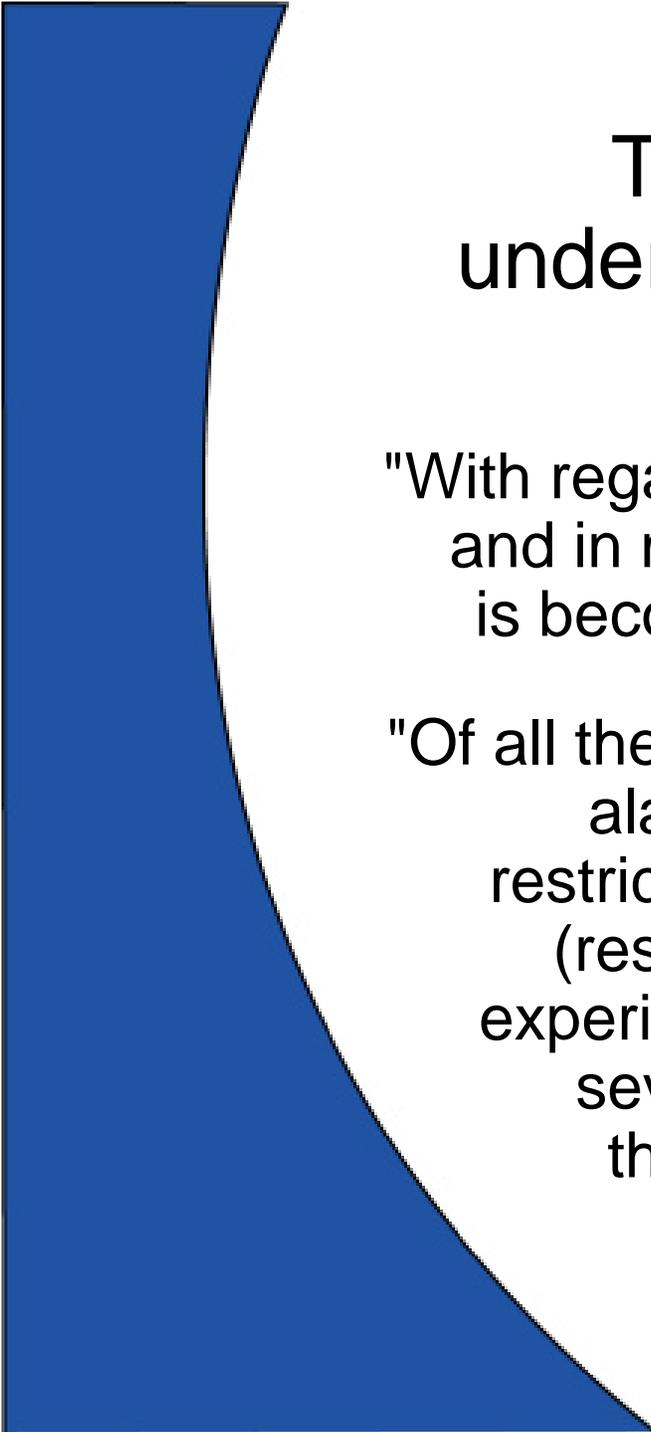
**Director, ImpactTeen, University of Illinois at Chicago**

**[www.uic.edu/~fjc](http://www.uic.edu/~fjc)**

**[www.impactteen.org](http://www.impactteen.org)**

**[www.tobaccoevidence.net](http://www.tobaccoevidence.net)**

*Funding provided by The Robert Wood Johnson Foundation,  
The Centers for Disease Control and Prevention,  
and the National Cancer Institute*



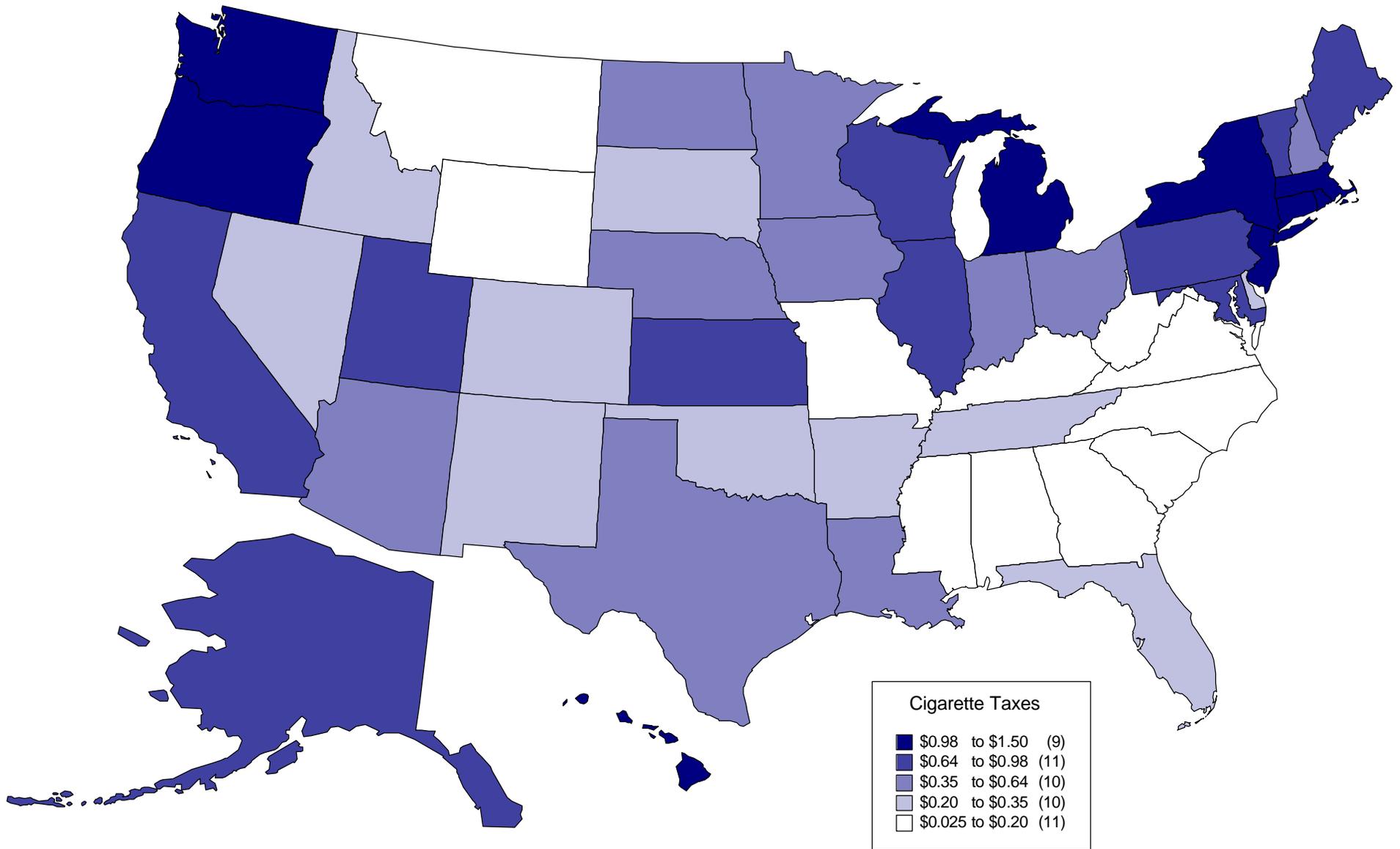
## Tobacco industry clearly understands the impact of tobacco taxation

"With regard to taxation, it is clear that in the US, and in most countries in which we operate, tax is becoming a major threat to our existence."

"Of all the concerns, there is one - taxation - that alarms us the most. While marketing restrictions and public and passive smoking (restrictions) do depress volume, in our experience taxation depresses it much more severely. Our concern for taxation is, therefore, central to our thinking...."

Philip Morris, "Smoking and Health Initiatives", 1985

# State Cigarette Excise Taxes



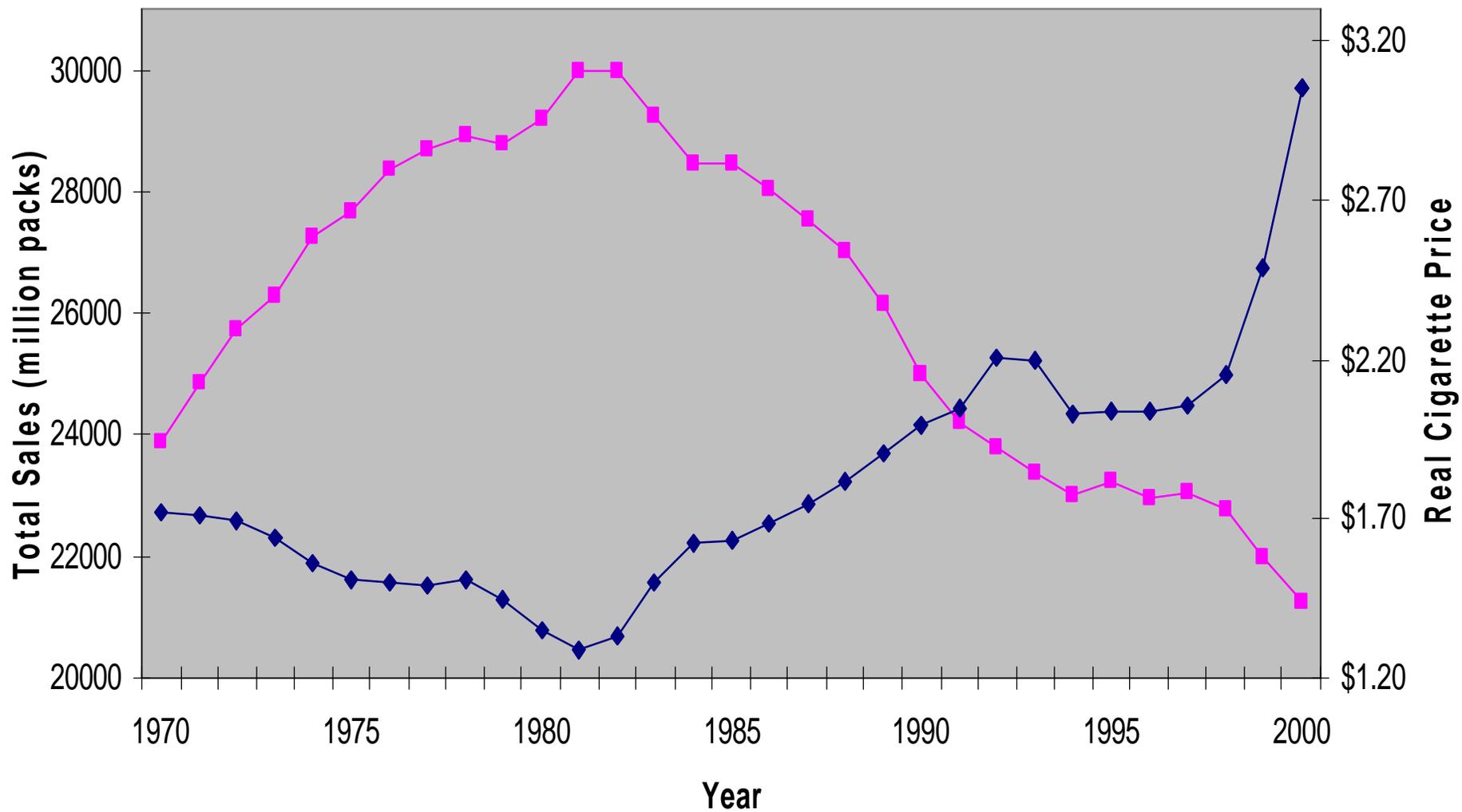
Tax rates currently in effect or scheduled to take effect in 2002

# Tobacco Taxes and Tobacco Use

- Higher taxes induce quitting, prevent relapse, reduce consumption and prevent starting.
- Estimates from high-income countries indicate that 10% rise in price reduces overall cigarette consumption by about 4%
- About half of impact of price increases is on smoking prevalence; remainder is on average cigarette consumption among smokers
  - Some evidence of substitution among tobacco products in response to relative price changes

Source: Chaloupka *et al.*, 2000

## Total Cigarette Sales and Cigarette Prices, 1970-2000



# Cigarette Prices and Smoking Cessation

- Growing evidence that higher cigarette prices Induce smoking cessation
  - 10% price increase reduces duration of smoking by about 10%
  - 10% price increase raises probability of cessation attempt by 10-12%
  - 10% price increase raises probability of successful cessation by 1-2%

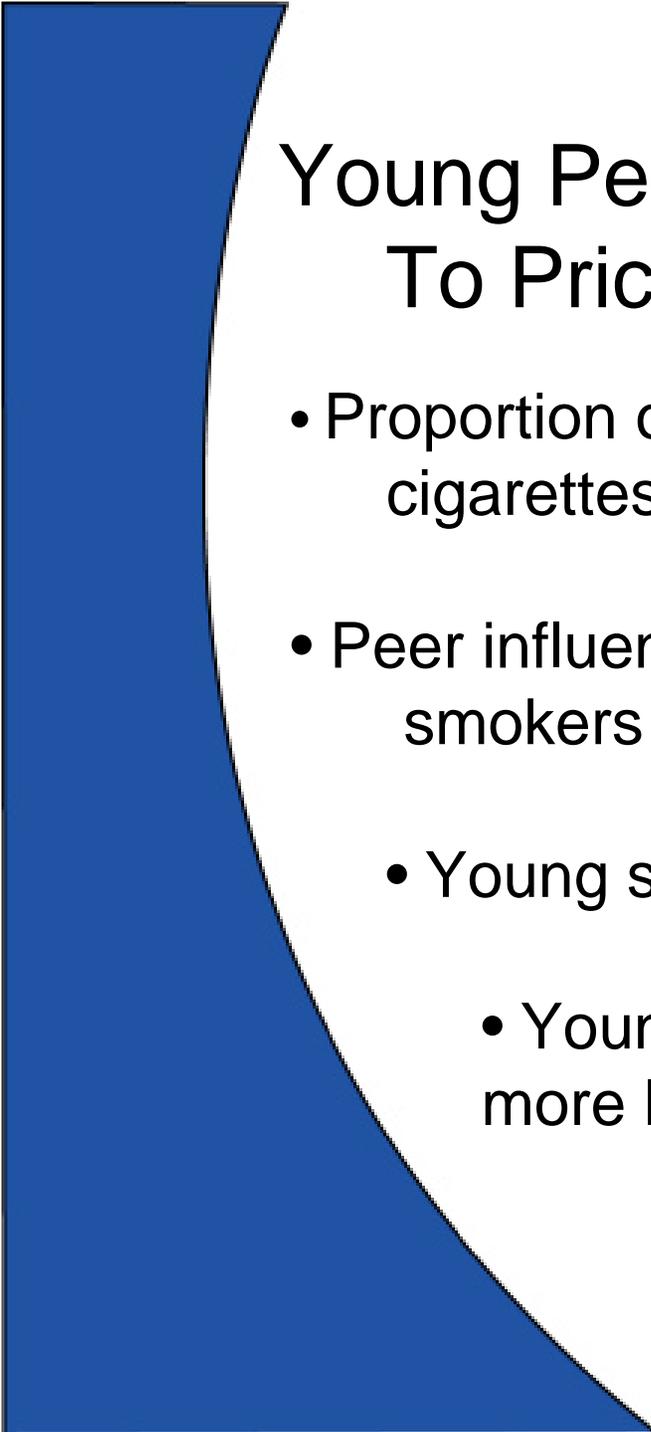
Sources: Douglas, 1999; Tauras and Chaloupka, 2001; Tauras, 2001

# Lower SES populations are more price responsive

- Growing international evidence shows that cigarette smoking is most price responsive in lowest income countries
- Evidence from U.S. and U.K. shows that cigarette price increases have greatest impact on smoking among lowest income and least educated populations
  - In U.S., for example, estimates indicate that smoking in households below median income level about 70% more responsive to price than those above median income level

Implies tax increases may be progressive

Sources: Farrelly, et al., 1999; Chaloupka et al., 2000



# Young People More Responsive To Price Increases

- Proportion of disposable income youth spends on cigarettes likely to exceed that for adults
- Peer influences much more important for young smokers than for adult smokers
- Young smokers less addicted than adult smokers
  - Young people tend to discount the future more heavily than adults

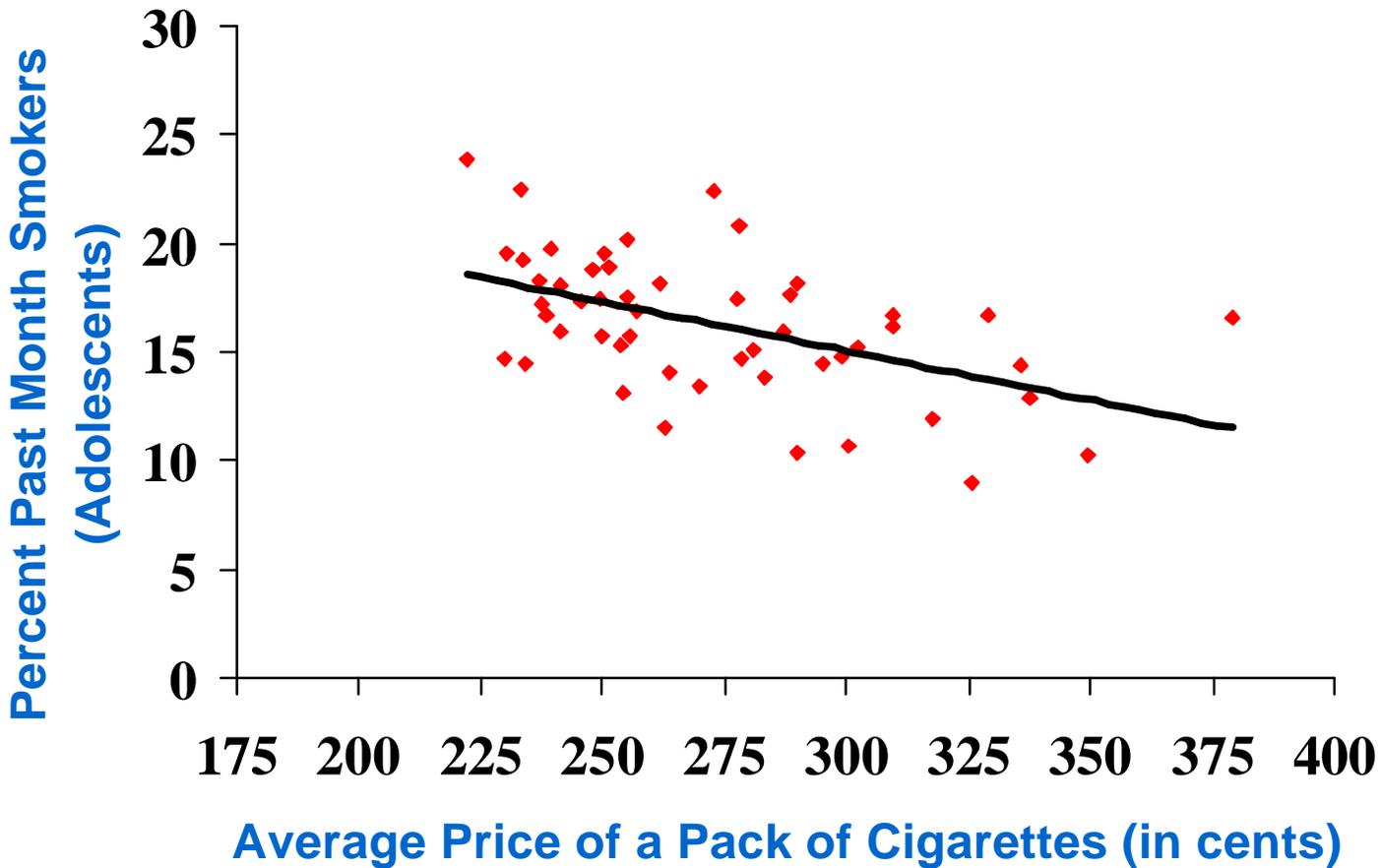
Sources: Grossman and Chaloupka, 1997

# Cigarette Prices And Kids

- A 10% increase in price reduces smoking prevalence among youth by nearly 7%
- A 10% increase in price reduces conditional demand among youth by over 6%
- Higher cigarette prices significantly reduce teens' probability of becoming daily, addicted smokers; prevent moving to later stages of uptake.
- 10% price increase reduces probability of any initiation by about 3%, but reduces probability of daily smoking by nearly 9% and reduces probability of heavy daily smoking by over 10%

Sources: Chaloupka and Grossman, 1996; Tauras, *et al.*, 2001; Ross, *et al.*, 2001

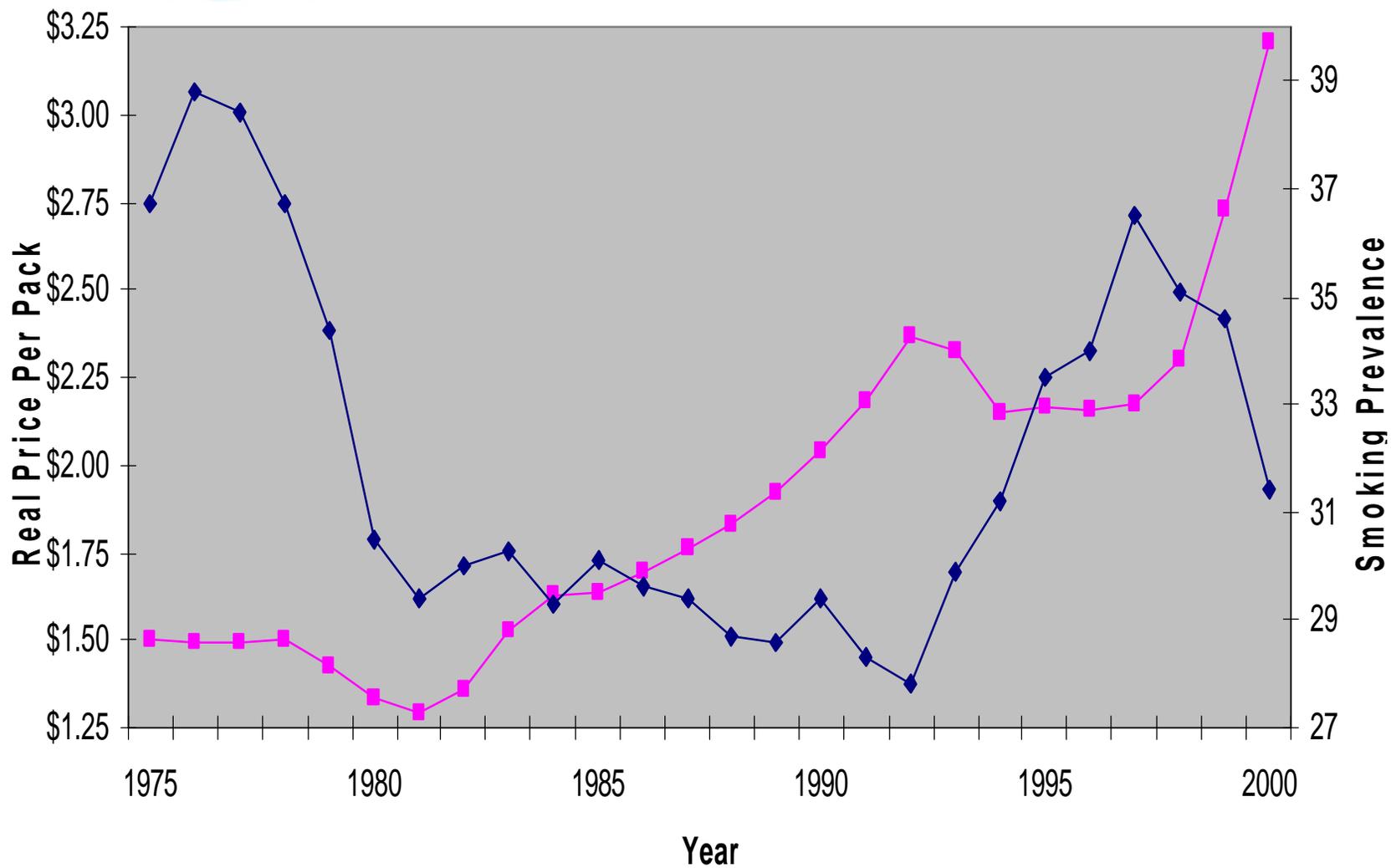
## Cigarette Smoking Among Youth by the Average Price of a Pack of Cigarettes in 50 States and the District of Columbia, 1999



Data: 1999 NHSDA (12-17 year olds); 1999 *Tax Burden On Tobacco*

Source: *Giovino, et al., 2001*

## 12th Grade 30 Day Smoking Prevalence and Price



# Impact of Federal Tax Increase

Based on these estimate, a \$1.00 per pack increase in the Federal cigarette tax would:

- Reduce cigarette sales by over 2.1 billion packs per year
- Generate over \$17.1 billion in new revenues
- Lead more than 2.3 million current smokers to quit
  - Prevent over 3 million youth from taking up smoking
  - Prevent nearly 1.5 million premature deaths caused by smoking



# Myths About Economic Impact of Tobacco Taxation and Tobacco Control

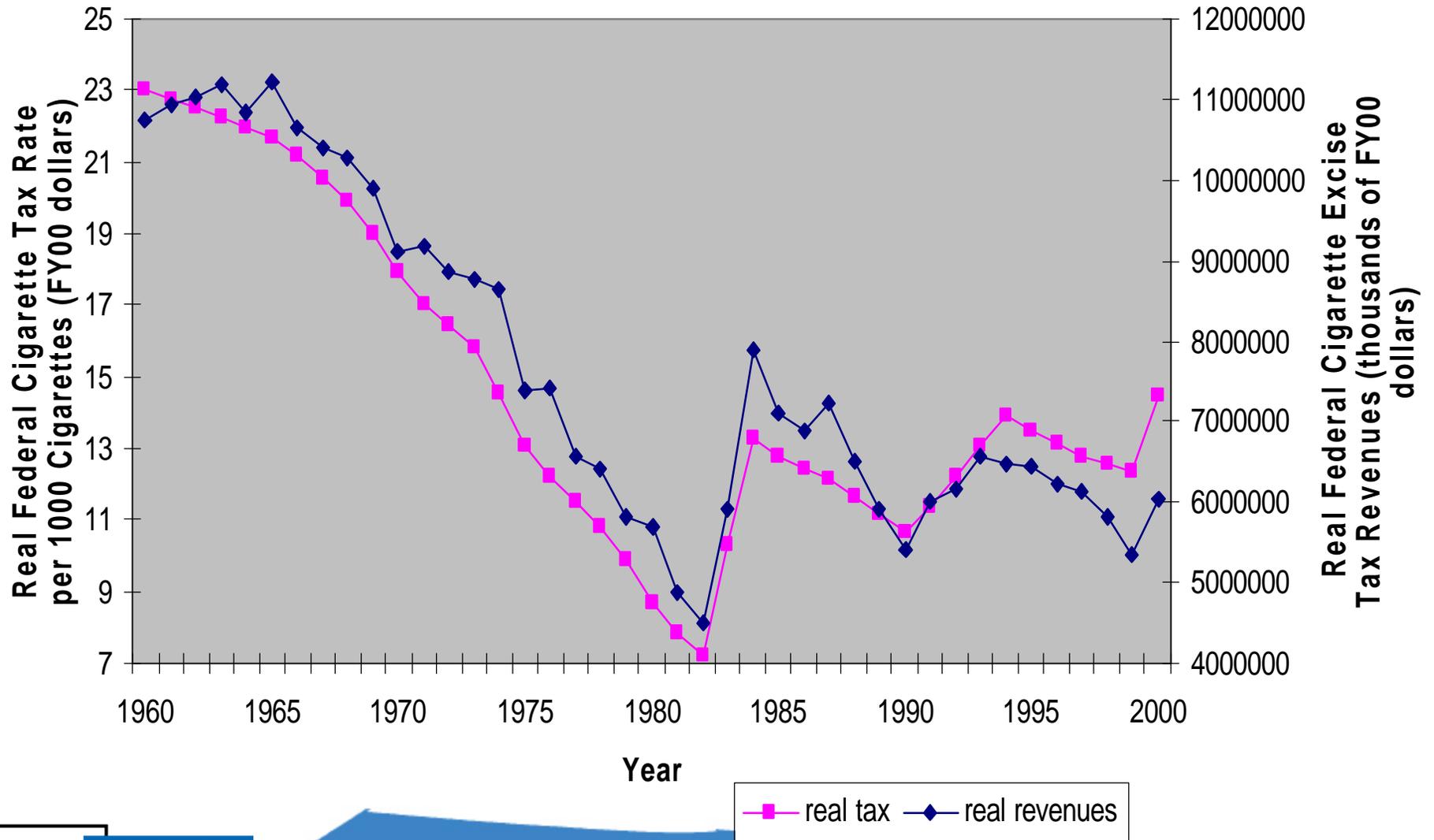
- Impact on Revenues?

*Myth: Government revenues will fall as cigarette taxes rise, since people buy fewer cigarettes*

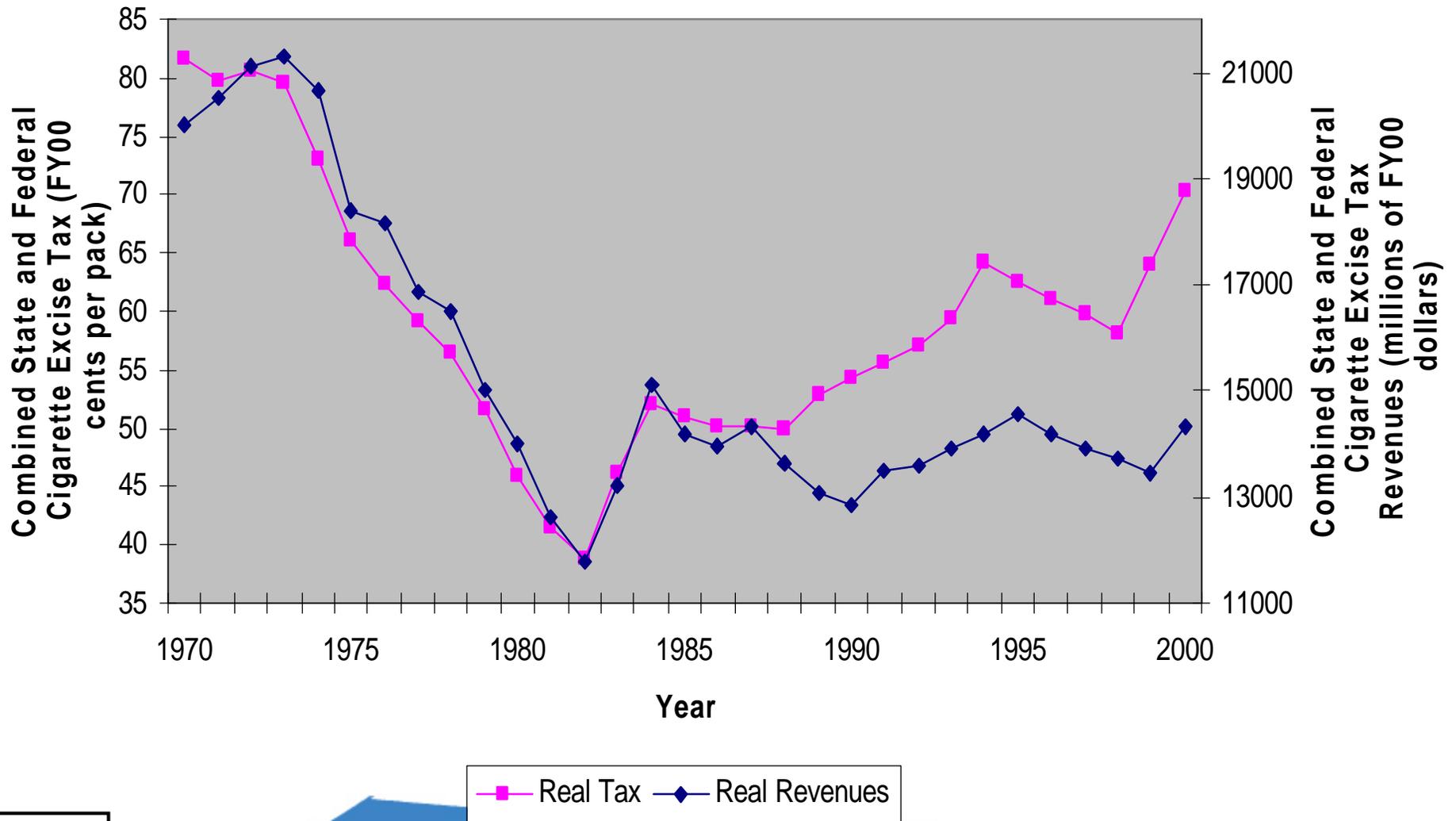
Truth: Cigarette tax revenues rise with cigarette tax rates, even as consumption declines

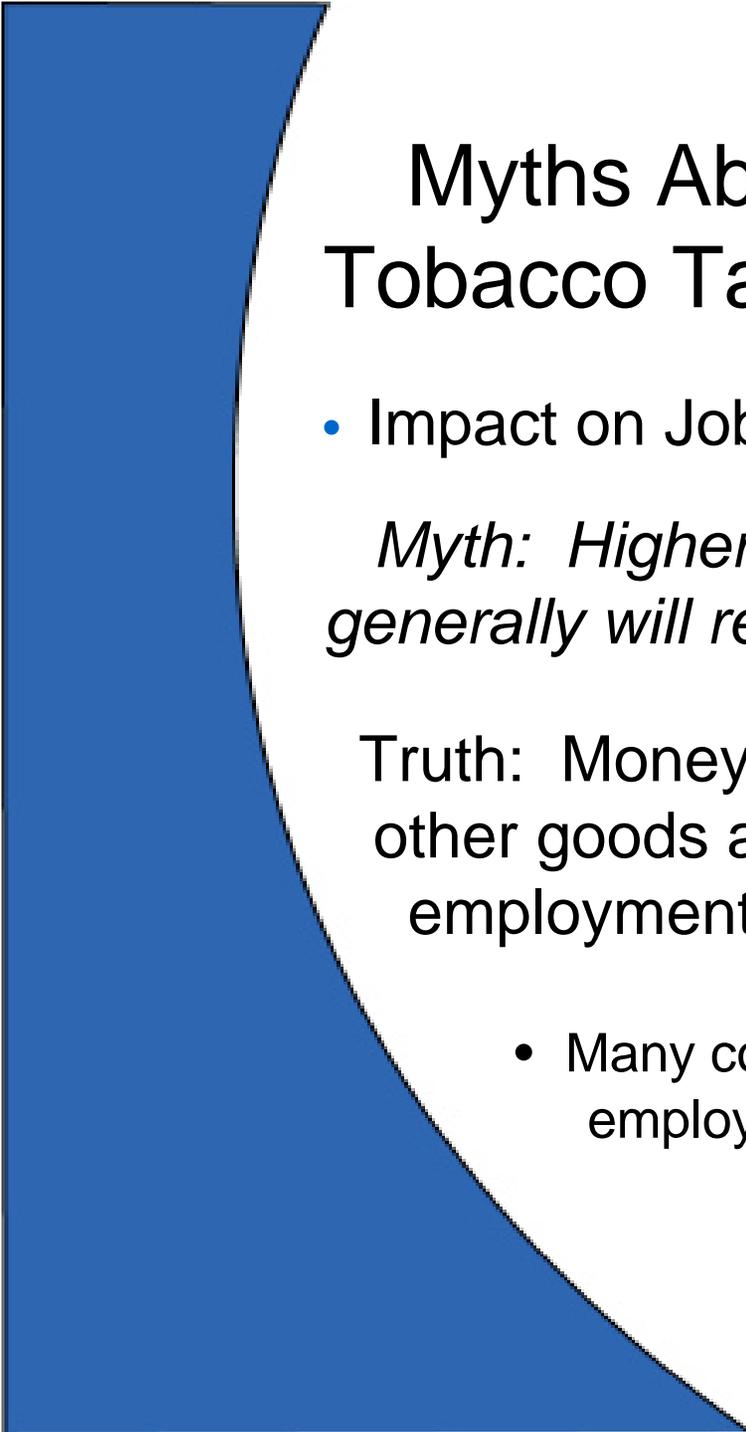
- Every significant increase in federal and state cigarette taxes has resulted in significant increase in revenues

## Real Federal Cigarette Tax Rate and Tax Revenues



## Real Average Cigarette Excise Tax and Real Cigarette Tax Revenues





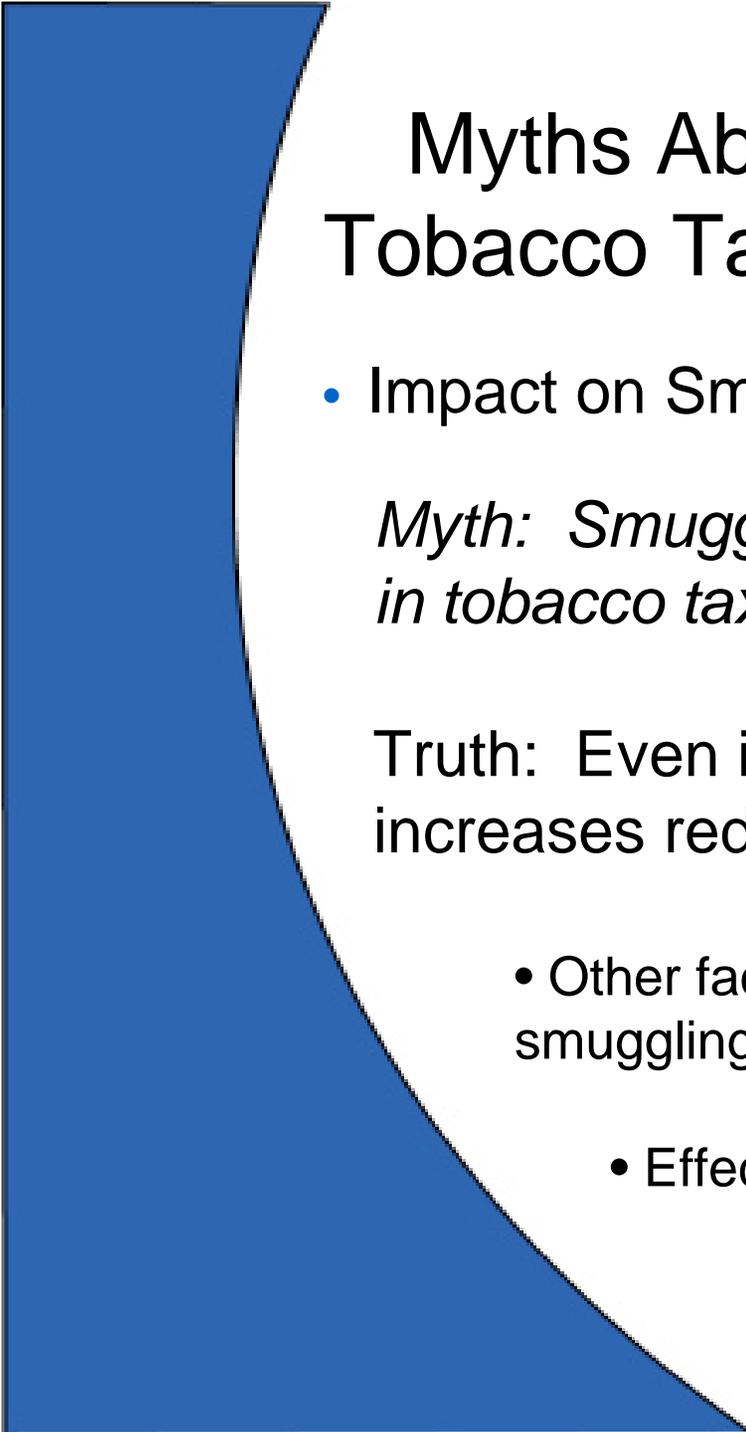
# Myths About Economic Impact of Tobacco Taxation and Tobacco Control

- Impact on Jobs?

*Myth: Higher tobacco taxes and tobacco control generally will result in substantial job losses*

Truth: Money not spent on tobacco will be spent on other goods and services, creating alternative employment

- Many countries/states will see net gains in employment as tobacco consumption falls



# Myths About Economic Impact of Tobacco Taxation and Tobacco Control

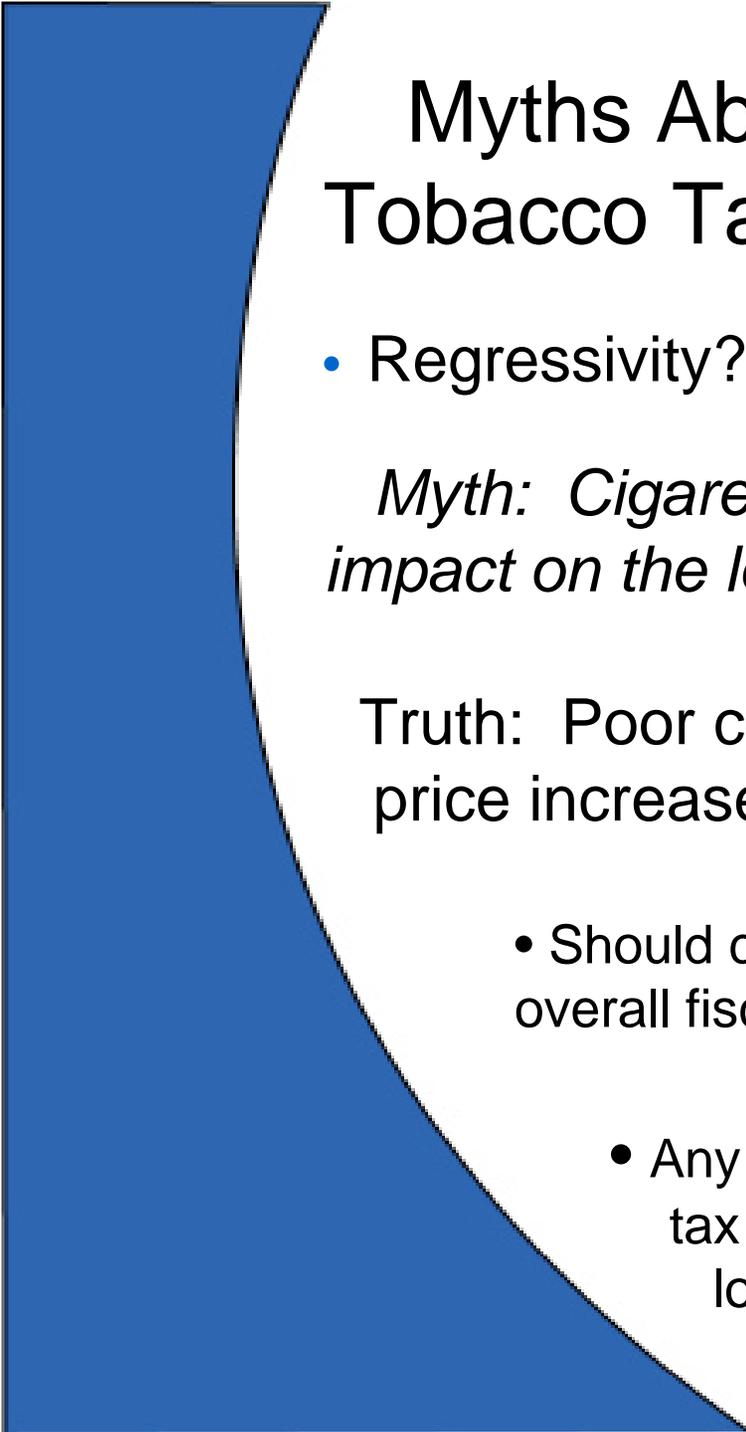
- Impact on Smuggling?

*Myth: Smuggling negates the effects of increases in tobacco taxes*

Truth: Even in the presence of smuggling, tax increases reduce consumption and raise revenues

- Other factors important in explaining level of smuggling
  - Effective policies exist to deter smuggling

Sources: Joossens, *et al.*, 2000; Merriman, *et al.*, 2000



# Myths About Economic Impact of Tobacco Taxation and Tobacco Control

- Regressivity?

*Myth: Cigarette tax increases will negatively impact on the lowest income populations*

Truth: Poor consumers are more responsive to price increases

- Should consider progressivity or regressivity of overall fiscal system
- Any negative impact can be offset by use of new tax revenues to support programs targeting lowest income population



Supported by  
The Robert Wood Johnson Foundation



*A Policy Research Partnership  
to Reduce Youth Substance Use*

## Conclusions

Substantial increases in cigarette and other tobacco excise taxes:

- promote cessation among adults
- prevent initiation among youth
- significantly reduce the health consequences caused by tobacco use
- Generate significant revenues

<http://www.impactteen.org>

<http://www.tobaccoevidence.net>

<http://www.uic.edu/~fjc>