Supported by
The Robert Wood Johnson Foundation

impacTEEN

A Policy Research Partnership to Reduce Youth Substance Use

How Price Increases Reduce Tobacco Use

Frank J. Chaloupka

Director, ImpacTeen, University of Illinois at Chicago

www.uic.edu/~fjc

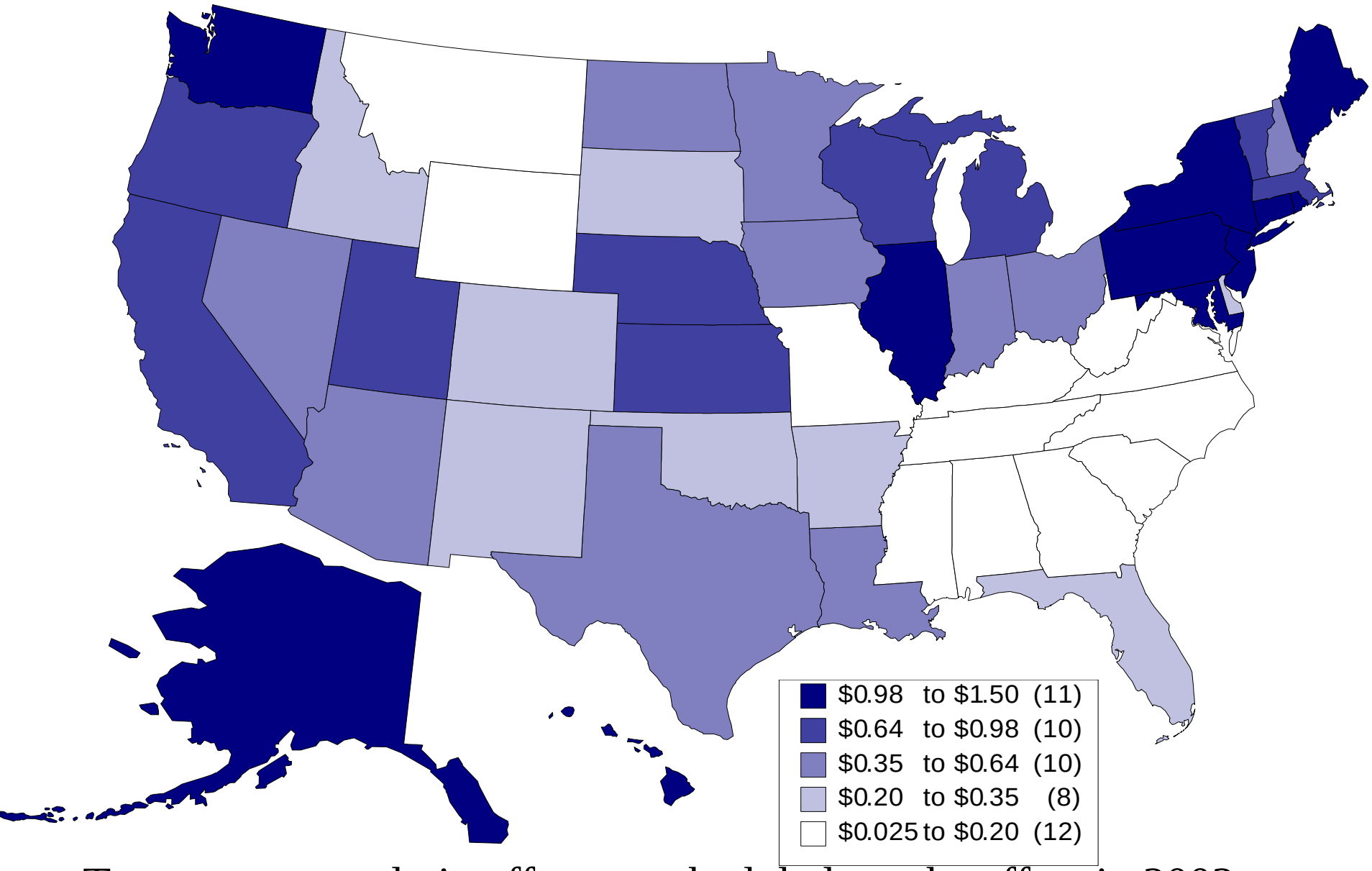
www.impacteen.org

www.tobaccoevidence.net

TUPTI, Kansas City, July 8 2002

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

State Cigarette Excise Taxe



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

Source: Eric Lindblom, National Center for Tobacco Free Kids

Tobacco Taxes and Tobacco Use

- Higher taxes induce quitting, prevent relapse, reduce consumption and prevent starting.

- Estimates indicate that 10% rise in price reduces overall smoking by about 4%

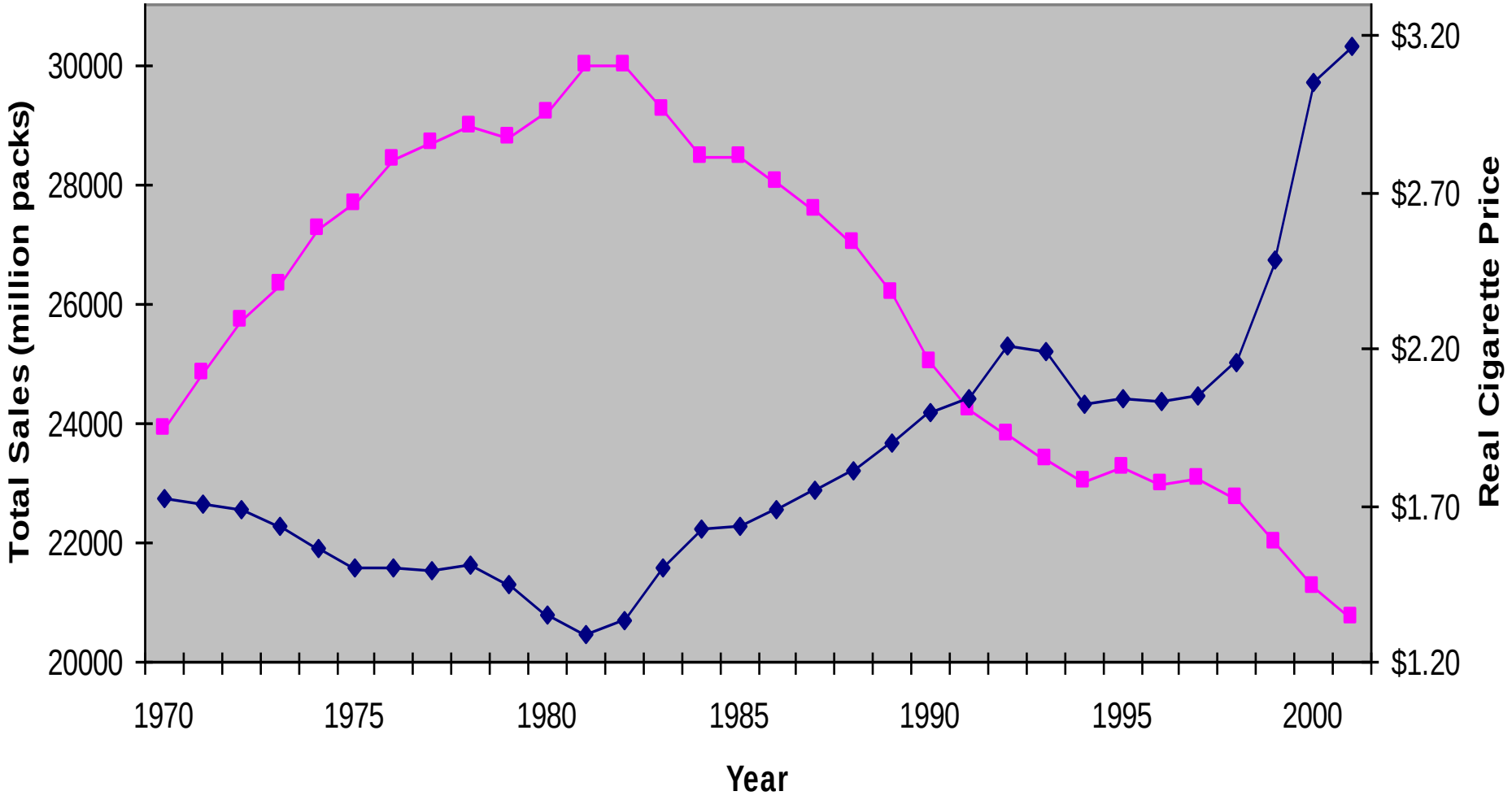
- About half of impact of price increases is on smoking prevalence

- Recent estimates for young adult smokers indicate that 10% price rise would raise probability of quitting smoking by over 3%

- Because of addictive nature of smoking, long term effects of tax and price increases are larger

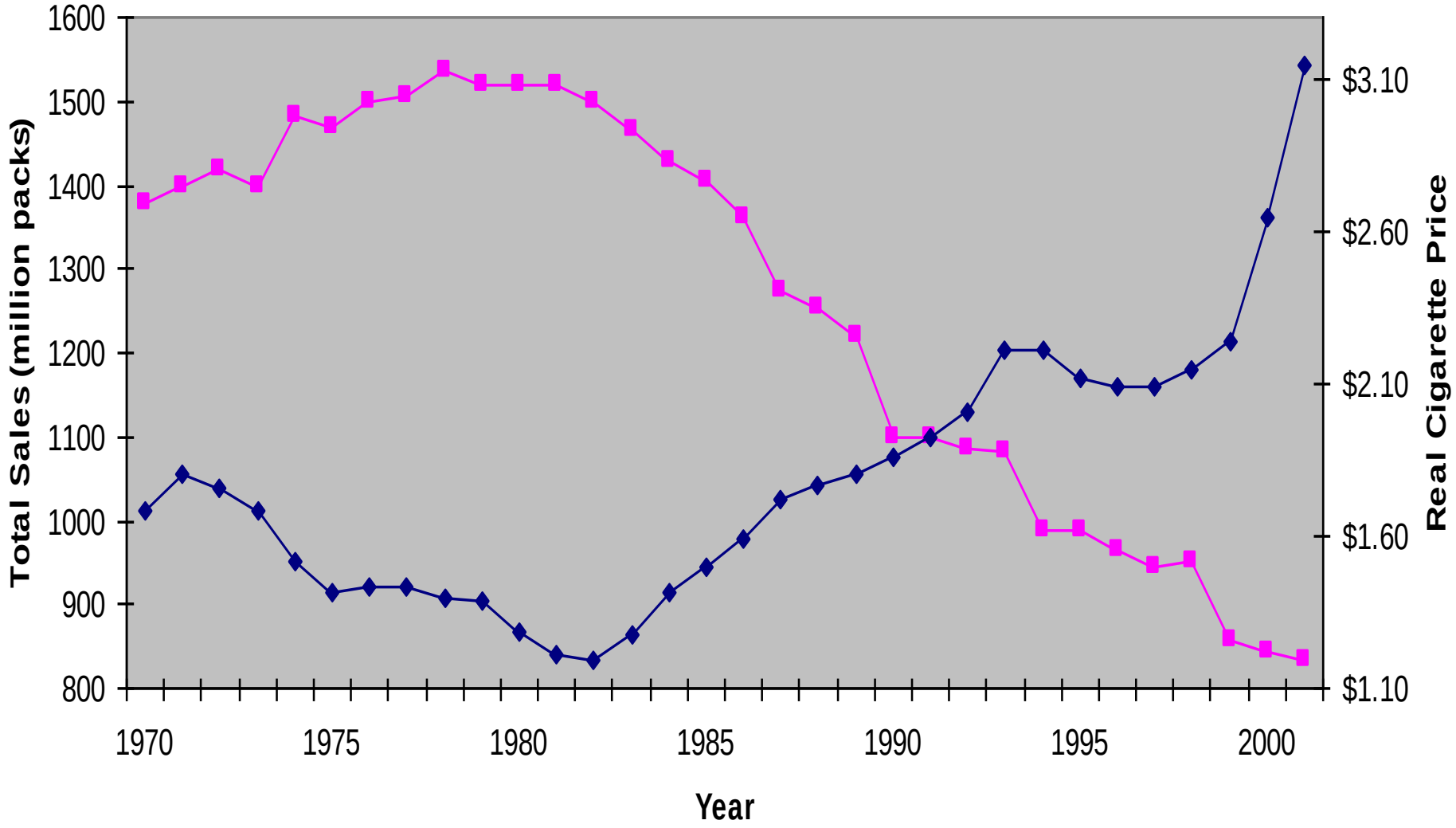
Source: Chaloupka *et al*., 2000

Total Cigarette Sales and Cigarette Prices, 1970-2001



impacTEEN

Total Cigarette Sales and Cigarette Prices, Illinois, 1970-2001



impacTEEN

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 REPSONSIVE 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

Because kids are highly sensitive to price, and given that 90 percent of smokers start when they are 18 or younger, an increase in excise taxes is one of the best ways to achieve long run reductions in overall smoking

CIGARETTE PRICES AND KIDS

- YOUTH

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 are associated with substantially reducing adolescents' probability of becoming daily, addicted smokers, helping prevent moving from lower to higher stages of smoking.

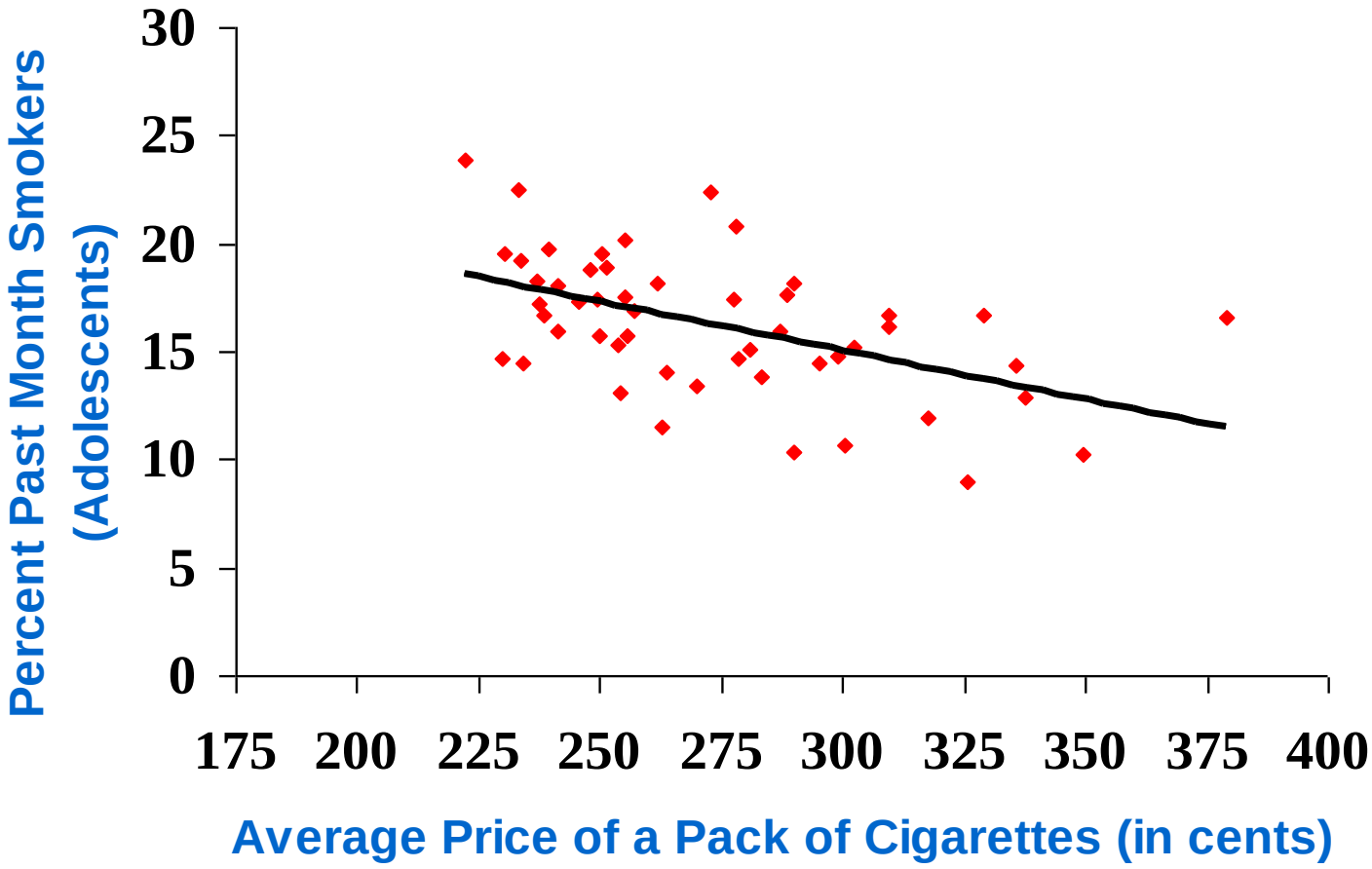
- **10% price increase reduces probability of any initiation by about 3%, but reduces probability of daily smoking by nearly 9% and reduces probability of heavy daily smoking by over 10%**

- YOUNG ADULTS (College Students)

A 10% Increase in Price Reduces Smoking Prevalence Among Young Adults by about 5%

A 10% Increase in Price Reduces Conditional Demand Among Young Adults by another 5%

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

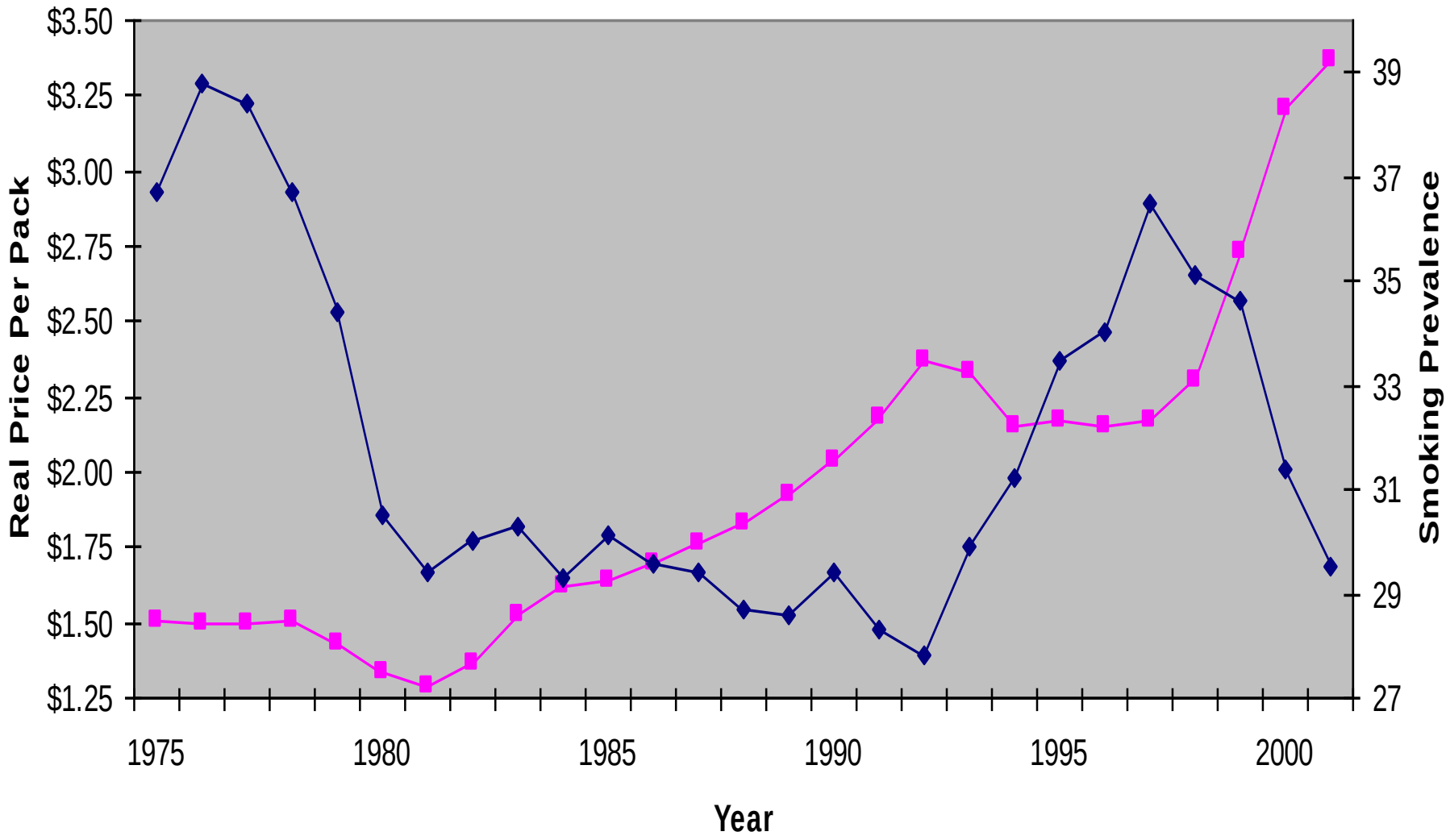


Data: 1999 NHSDA (12-17 year olds); 1999 *Tax Burden On Tobacco*

Source: Giovino, et al., 2001

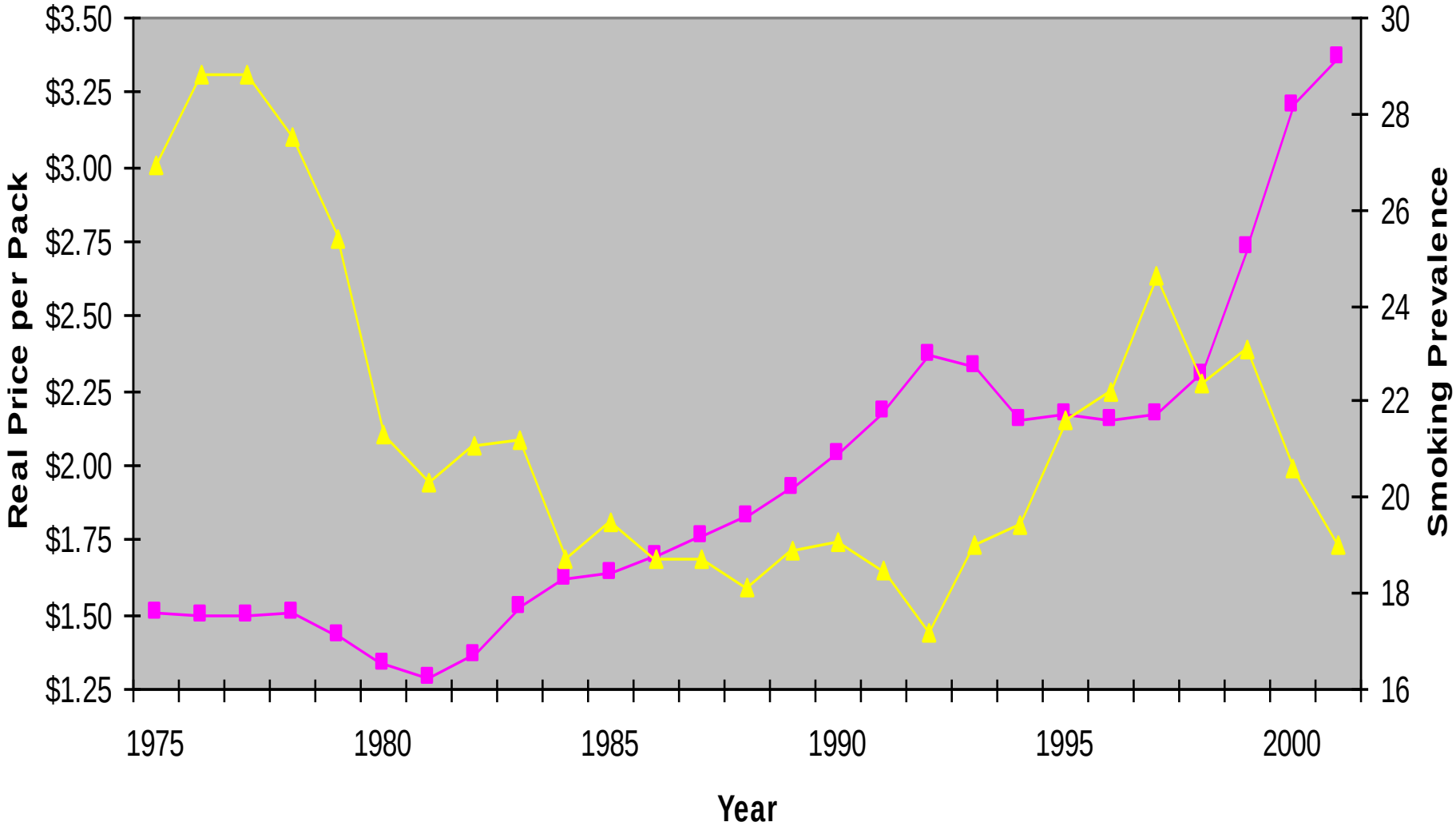
impacTEEN

12th Grade 30 Day Smoking Prevalence and Price



impacTEEN

12th Grade Daily Smoking Prevalence and Price



impacTEEN

Tax Increases and Illinois

Based on these estimate, a 75-cent per pack increase in the Illinois cigarette tax would:

- Reduce cigarette sales by over 76 million packs per year
- Generate almost $525 million in new revenues
- Lead more than 90,000 current smokers to quit
- Prevent nearly 134,000 youth from taking up smoking
- Prevent more than 64,000 premature deaths caused by smoking
- Generate significant reductions in spending on health care to treat smoking attributable diseases

Myths About Impact of Tobacco Taxation

- REVENUE LOSSES?

Revenues actually rise with taxes, particularly in lowest tax states where taxes comprise relatively low share of prices; average revenue increases from 10% tax increase would exceed 7%

- JOB LOSSES?

Temporary, minimal, and gradual; most state/regions would benefit in short and long run from the reduced tobacco sales resulting from higher tobacco taxes as money once spent on cigarettes is spent on other goods and service.

- POSSIBLE SMUGGLING?

Generally overstated; appropriate solution is to crack down on criminal activity, not forego the benefits of higher tobacco taxes.

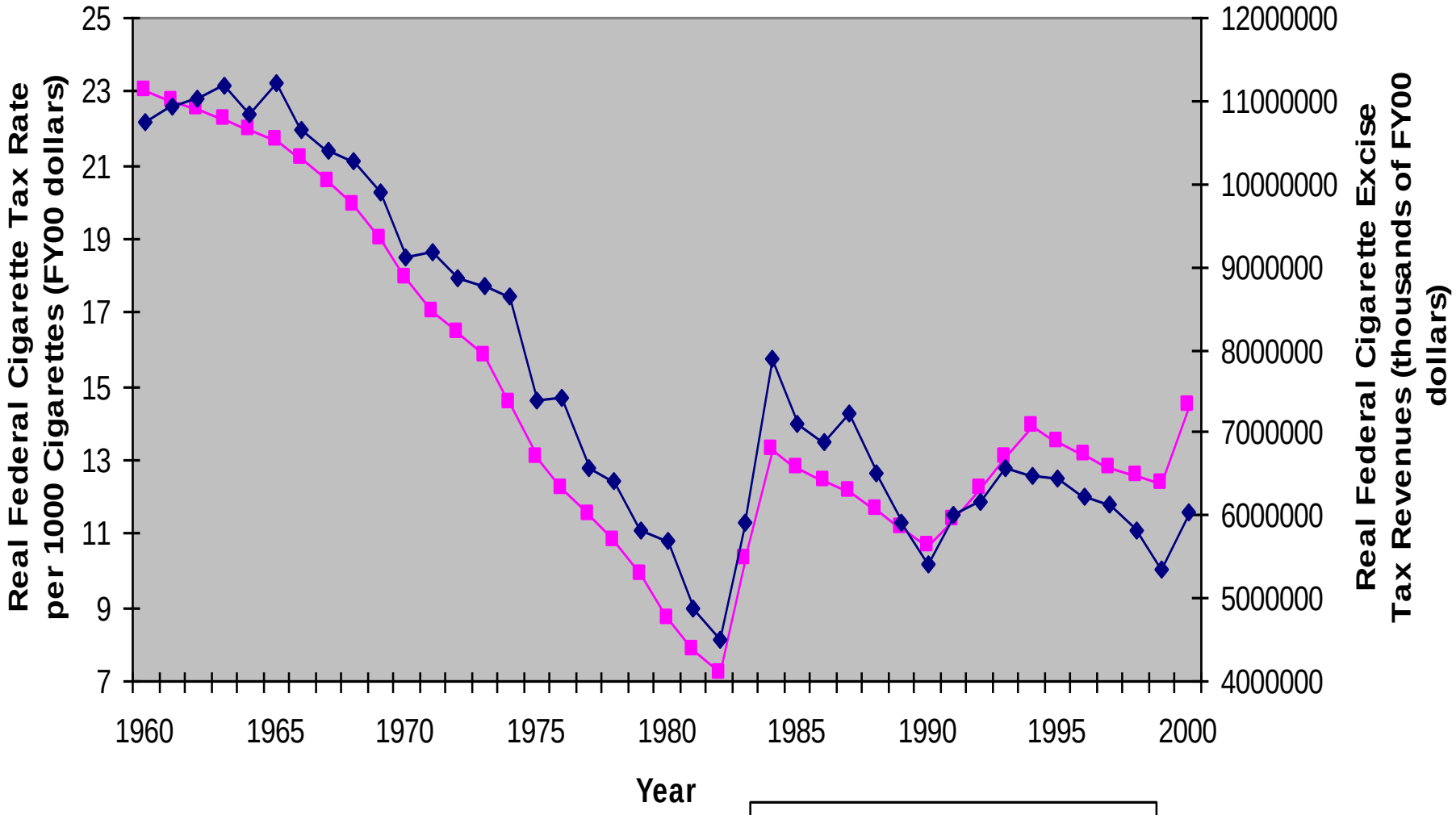
- COST TO INDIVIDUALS, ESPECIALLY THE POOR?

Partially offset by lower consumption; can be offset by using additional tax revenues to finance programs targeting low-income populations

impacTEEN

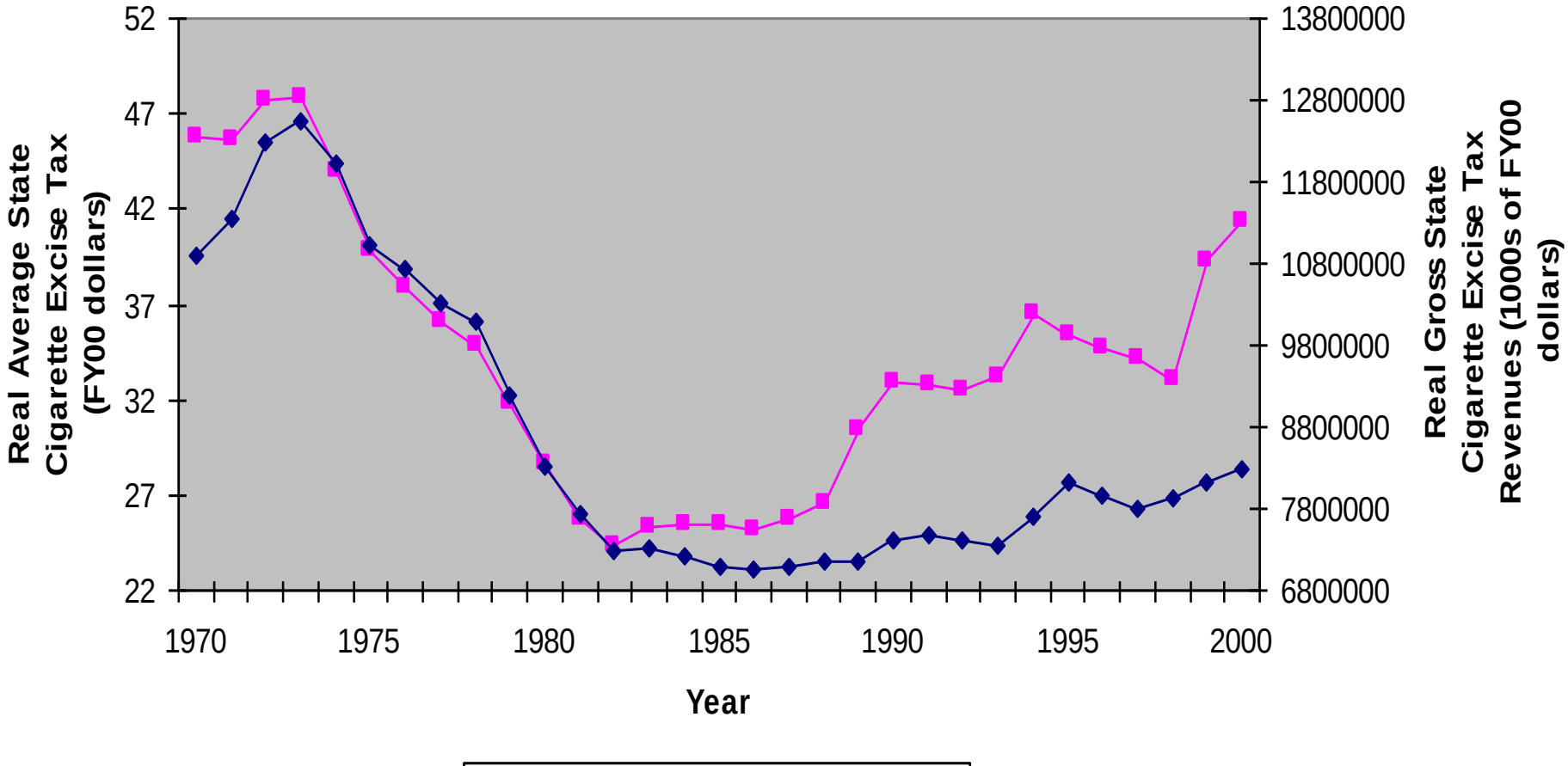
A Policy Research Partnership to Reduce Youth Substance Use

Real Federal Cigarette Tax Rate and Tax Revenues



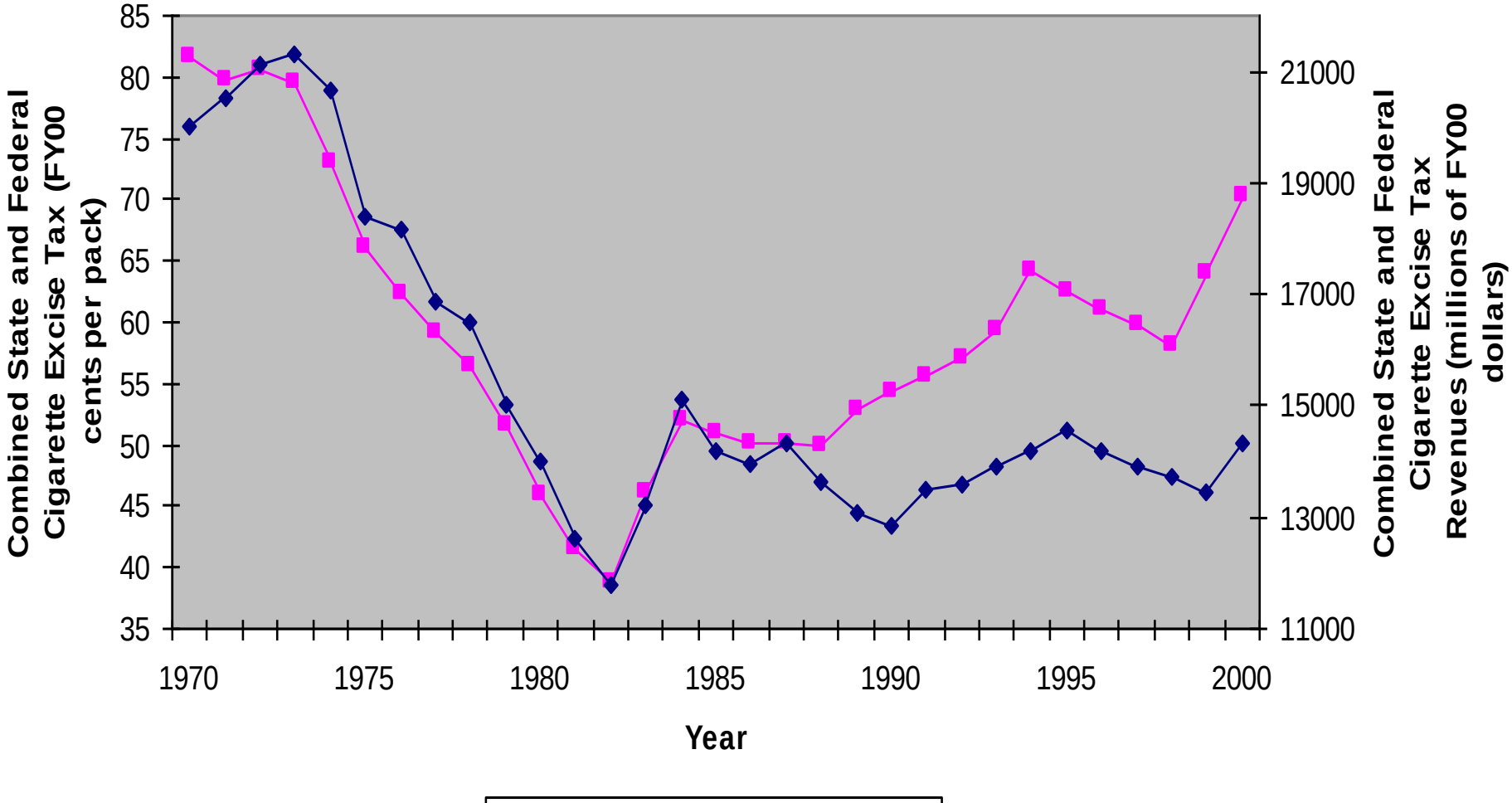
impacTEEN

Real Average State Cigarette Excise Tax Rate and Real State Cigarette Tax Revenues



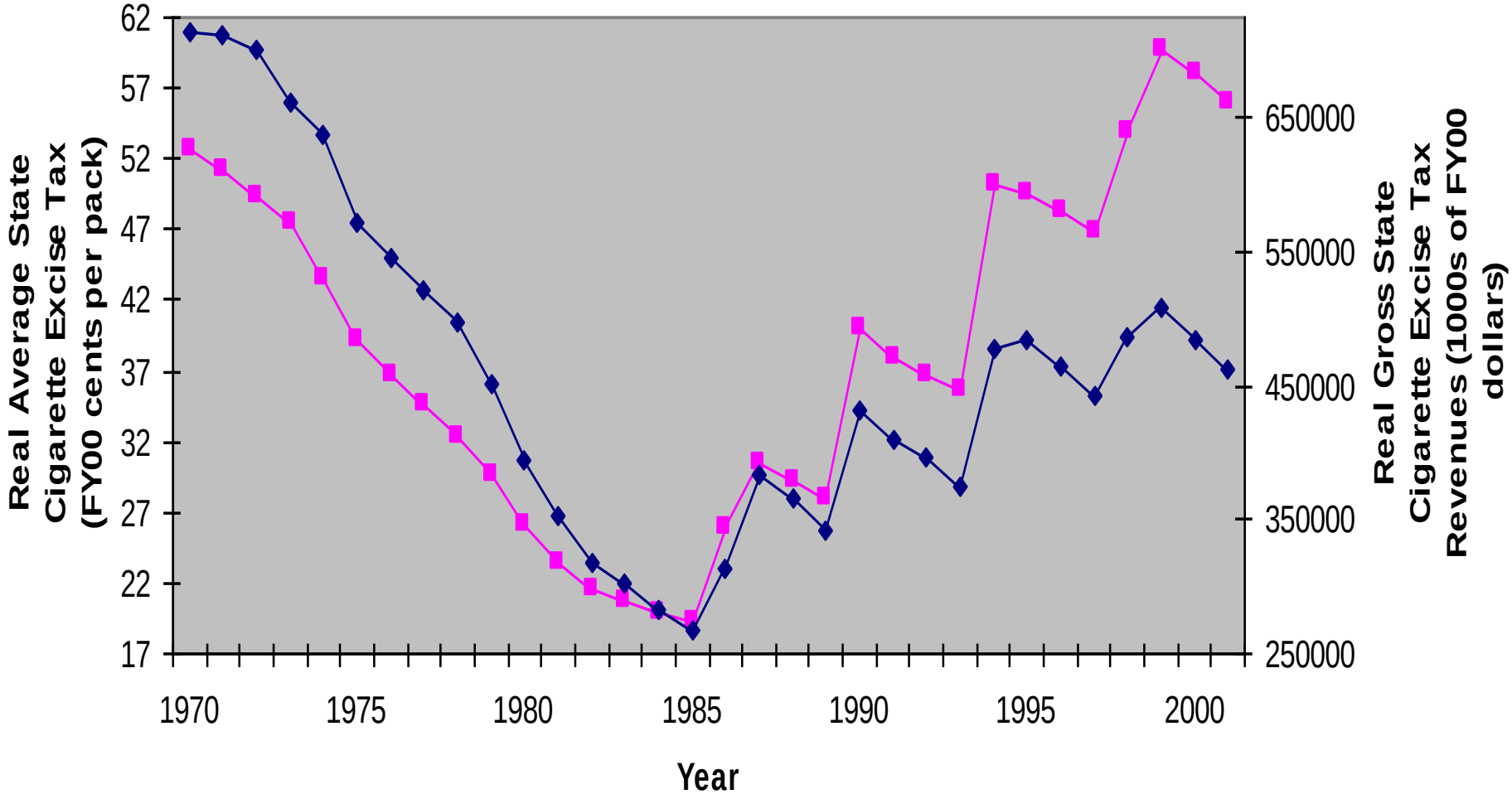
impacTEEN

Real Average Cigarette Excise Tax and Real Cigarette Tax Revenues



impacTEEN

Real Average State Cigarette Excise Tax Rate and Real State Cigarette Tax Revenues, Illinois, 1970-2001



impacTEEN

NEW YORK: $1.11 Per Pack

Preliminary Findings on the Impact of March 2000 55-Cent Increase in Cigarette Excise Tax

- **Cigarette Price Increases**

NY: Marlboro- $1.00 (30.7%); Newport - $1.00 (31.0%)
US: Marlboro - 33 cents (11.5%); Newport 31 cents (10.2%)

- **Cigarette Sales**

Sales have dropped about 20 percent since the increase.

Cigarette tax revenues up sharply

- **Youth Smoking Prevalence**

(NY matched schools, after 4/1; US all schools after 4/1)
8th Grade - NY: -17.8%; US: - 11.2%
10th Grade - NY: -18.9%; US: -1.0%

impacTEEN
A Policy Research Partnership to Reduce Youth Substance Use

CALIFORNIA: 87-Cents Per Pack

California's tobacco control program began in January 1989, when the excise tax was increased from $0.10 to $.35 per pack of cigarettes. On November 3, 1998 California voters approved Proposition 10, a measure that increased the state tax on cigarettes by 50 cents per pack starting January 1, 1999, to a total of 87 cents tax per pack. The increase made California's tax per pack of cigarettes the fourth highest amongst the states - only New York's, Hawaii's, and Alaska's taxes are greater.

Initially, Consumption Decreased Rapidly

Initially, following the 1989 excise tax increase, consumption decreased rapidly.

Further Decline Throughout the 1990's

Overall tobacco use in California declined throughout the 1990s at a rate two or three times faster than that in the rest of the country. Between 1988 and 1999, per capita cigarette use in California declined by almost 50%, while in the rest of the country it declined by only about 20%.

Prevalence Among Youth Declined

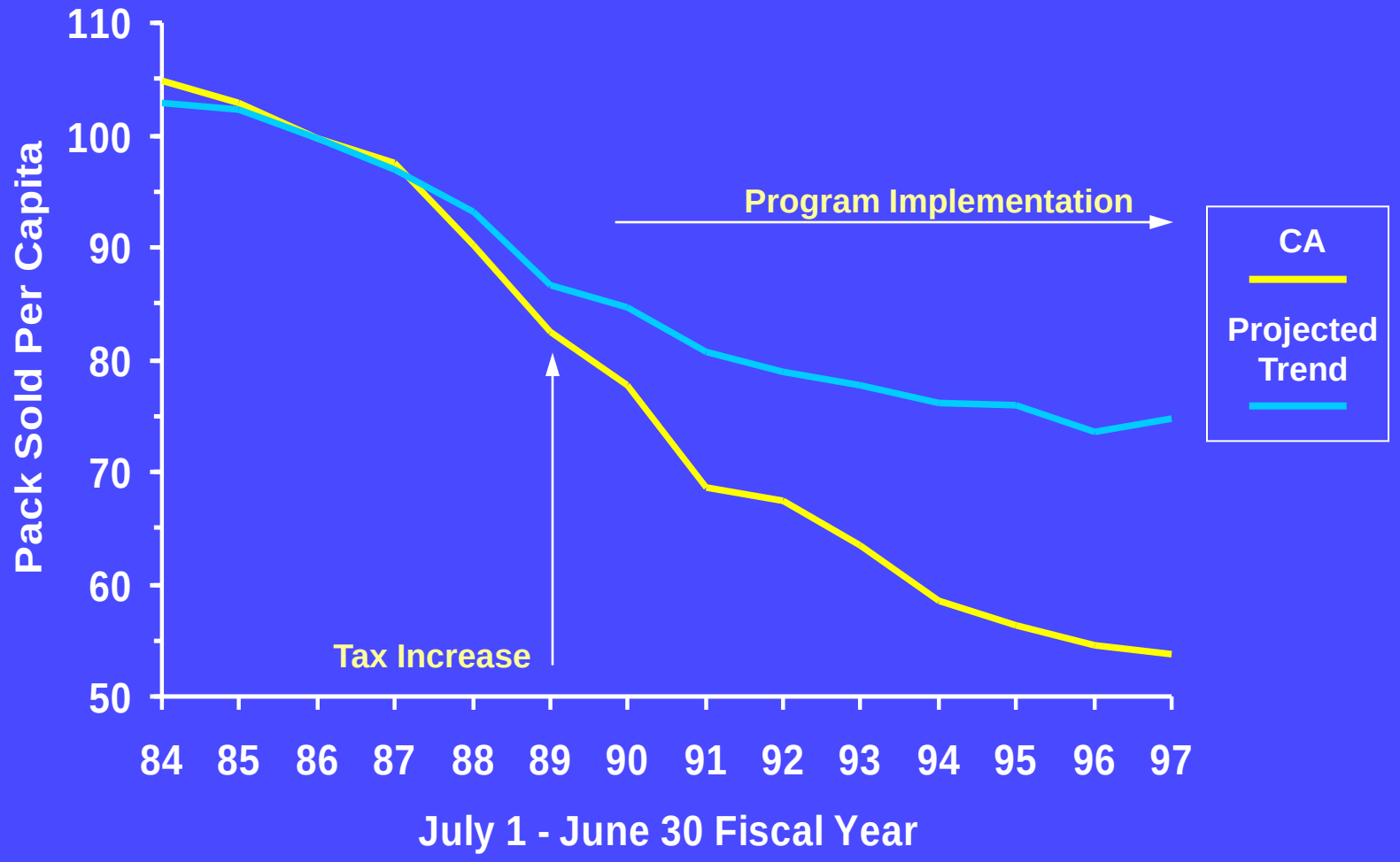
Between 1995 and 1999, the prevalence of cigarette use among youth dropped by 43% in California.

Tobacco-Related Deaths Reduced

By virtue of its duration and intensity, the California program also has the distinction of being the first program to demonstrate a reduction in tobacco-related deaths.

Source: Investment in Tobacco Control: State Highlights 2001; U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease prevention and health Promotion, Office on Smoking and Health.

Per Capita Consumption Trends
California versus Projected Trend, 1984-1997



Source: CDC

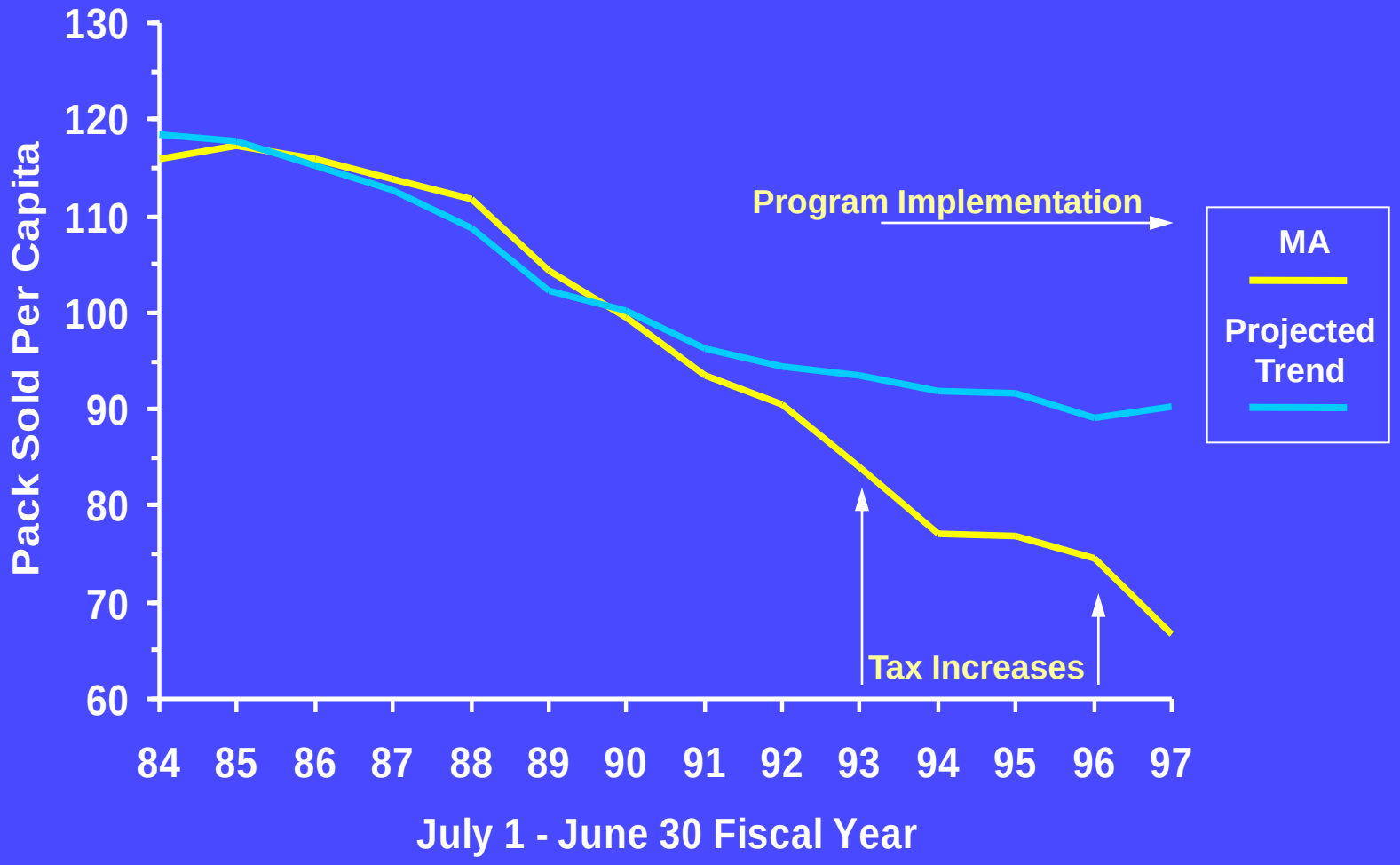
MASSACHUSETTS: 76-Cents Per Pack

The Massachusetts Tobacco Control Program (MTCP) was created through a statewide referendum held in November 1992 and is entirely funded by a tax on cigarettes and smokeless tobacco products. Since its introduction through June 1999, program successes include:

- **Massachusetts has seen more rapid declines than states without tobacco control programs in the overall prevalence of tobacco use among adults.**
- **Rates of smoking among Massachusetts youth have declined sharply, with current smoking dropping 70% among 6th graders from 1996 to 1999.**
- **Cigarette consumption has fallen by 33%, while consumption in the rest of the country declined just 10%**
- **The number of adult smokers has declined**
- **Smoking during pregnancy dropped sharply, from 25% to 13%**
- **Youth smoking rates in Massachusetts from 1996-1999 have declined at a greater rate than the rest of the country**
- **The number of smokers planning to quit has increased, and those who try to quit are more successful.**

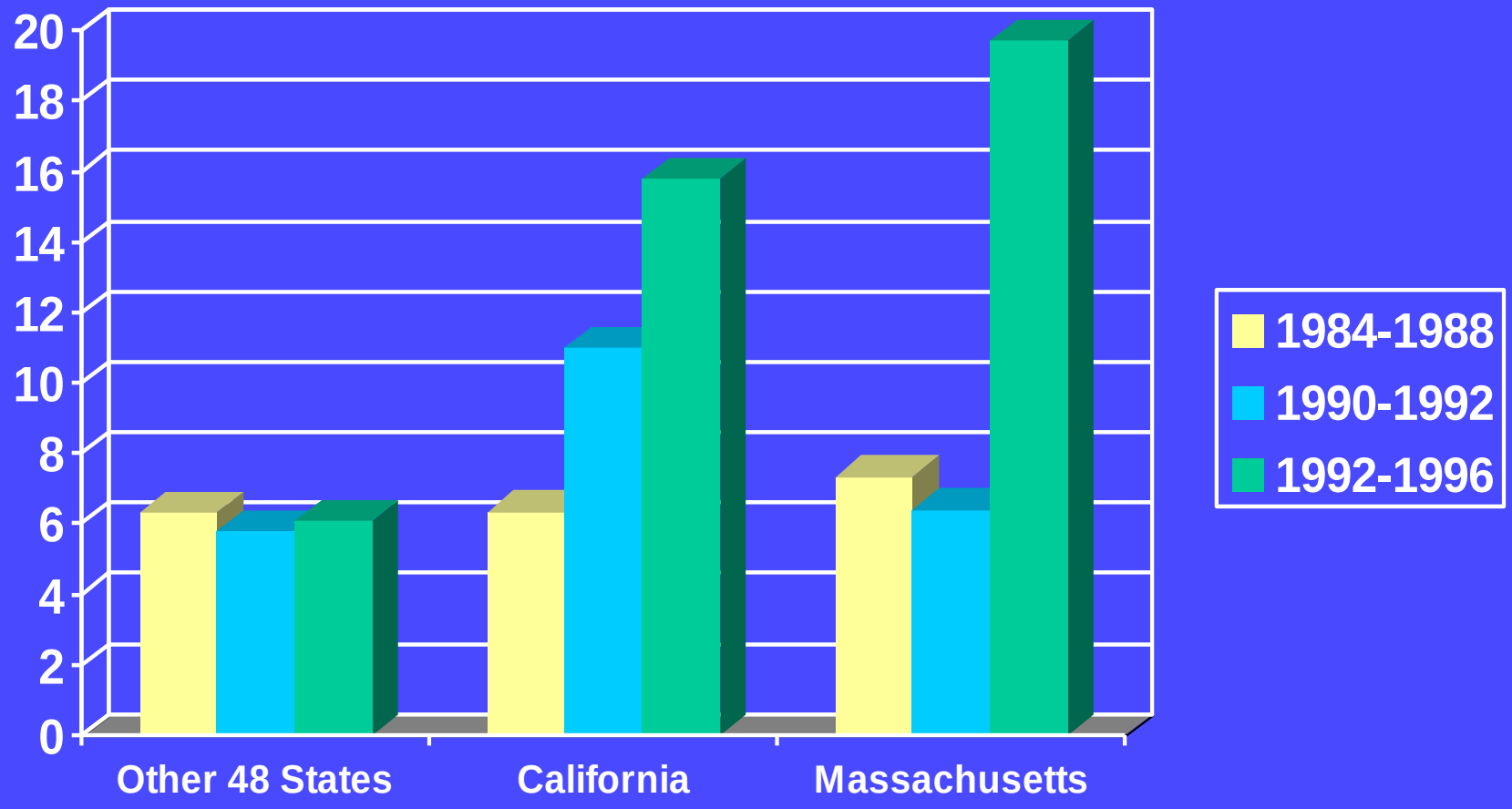
Source: State of Massachusetts, Department of Public Health

Per Capita Consumption Trends
Massachusetts versus Projected Trend, 1984-1997



Source: CDC

Change in Per Capita Cigarette Consumption Before and After an Excise Tax Increase and an Antismoking Campaign California & Massachusetts versus Other 48 States, 1986 to 1996



Source: CDC

Supported by
The Robert Wood Johnson Foundation

impacTEEN

A Policy Research Partnership to Reduce Youth Substance Use

Conclusions

Substantial increases in cigarette and other tobacco product prices, including those resulting from significant increases in tobacco excise taxes, lead to large reductions in tobacco use and, in the long run, reduce the public health toll caused by tobacco use.

Earmarking revenues generated from increased tobacco taxes for comprehensive tobacco control programs leads to significant reductions in overall smoking and in the prevalence of youth smoking.

http://www.impacteen.org
http://www.tobaccoevidence.net
http://www.uic.edu/~fjc
fjc@uic.edu