Obtaining and Using Meaningful Tobacco Control Policy Measures

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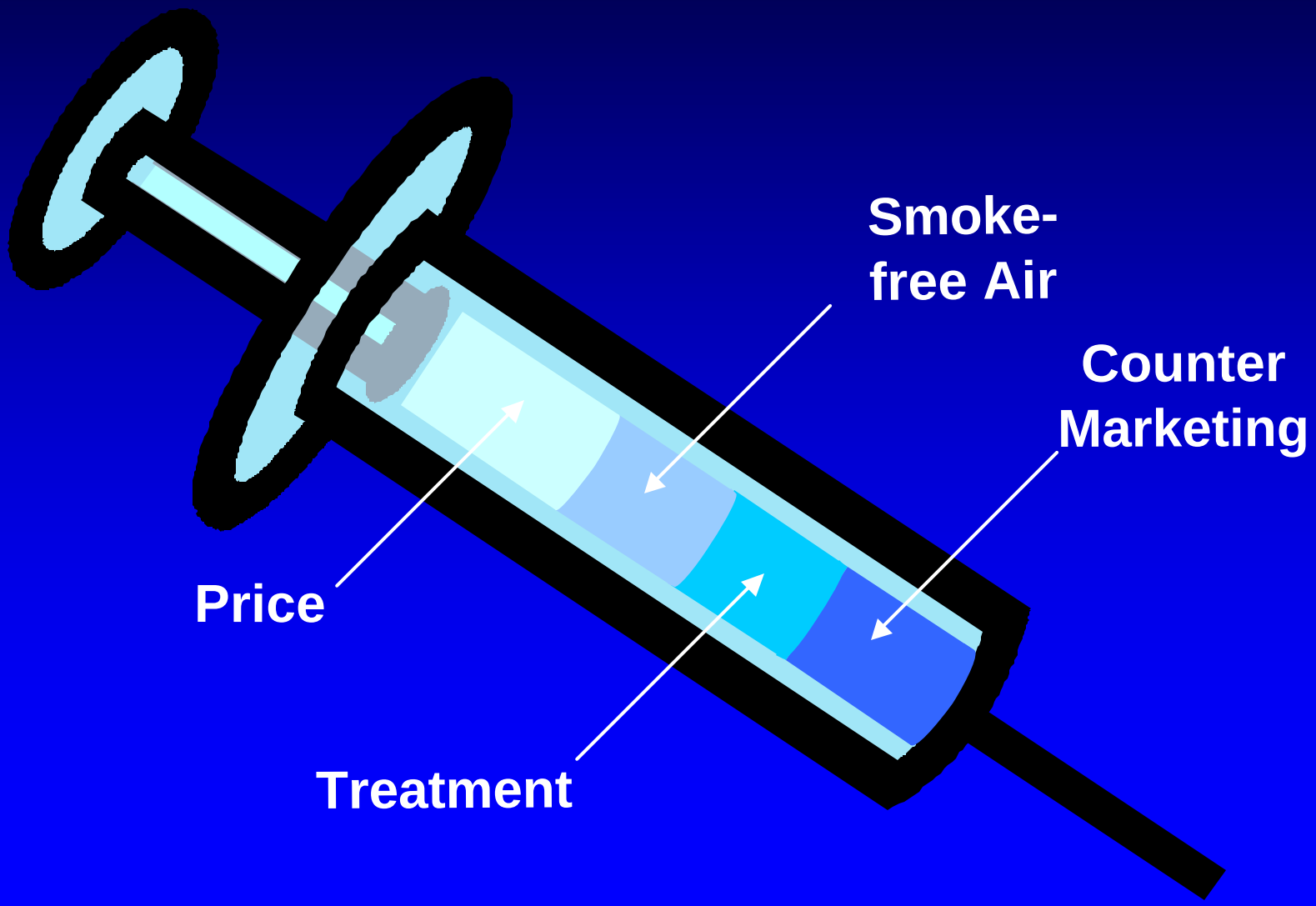
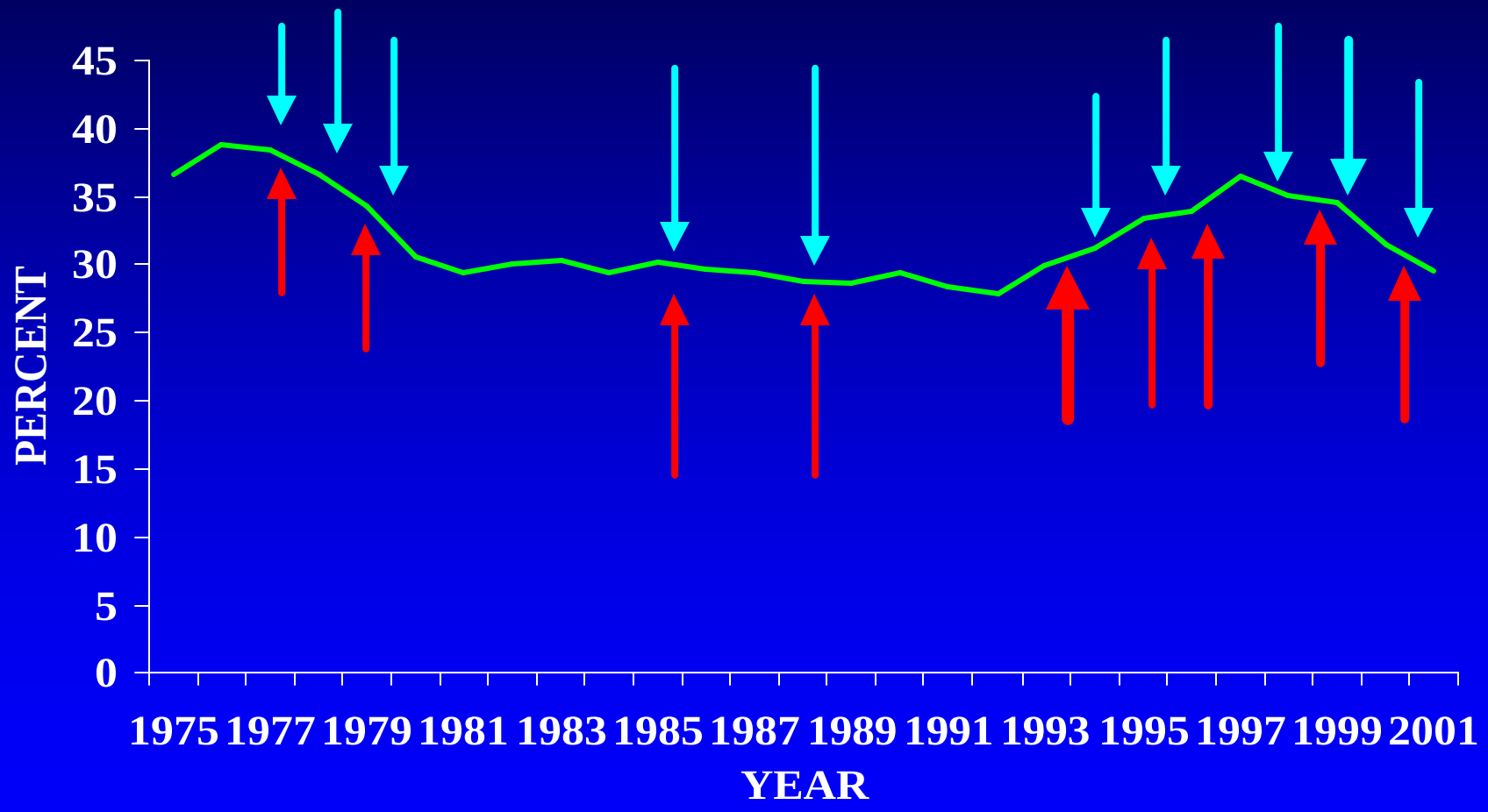
Outline of Presentation

- Conceptual models
- Smoke-free air
  - Legislative coding
  - Environmental measures of RSPs
  - Observational study
- Price
  - Data sources
  - Tax avoidance behaviors
- Possession, use, purchase laws & enforcement
- Summary and lessons learned

Components of Smoking Vaccine



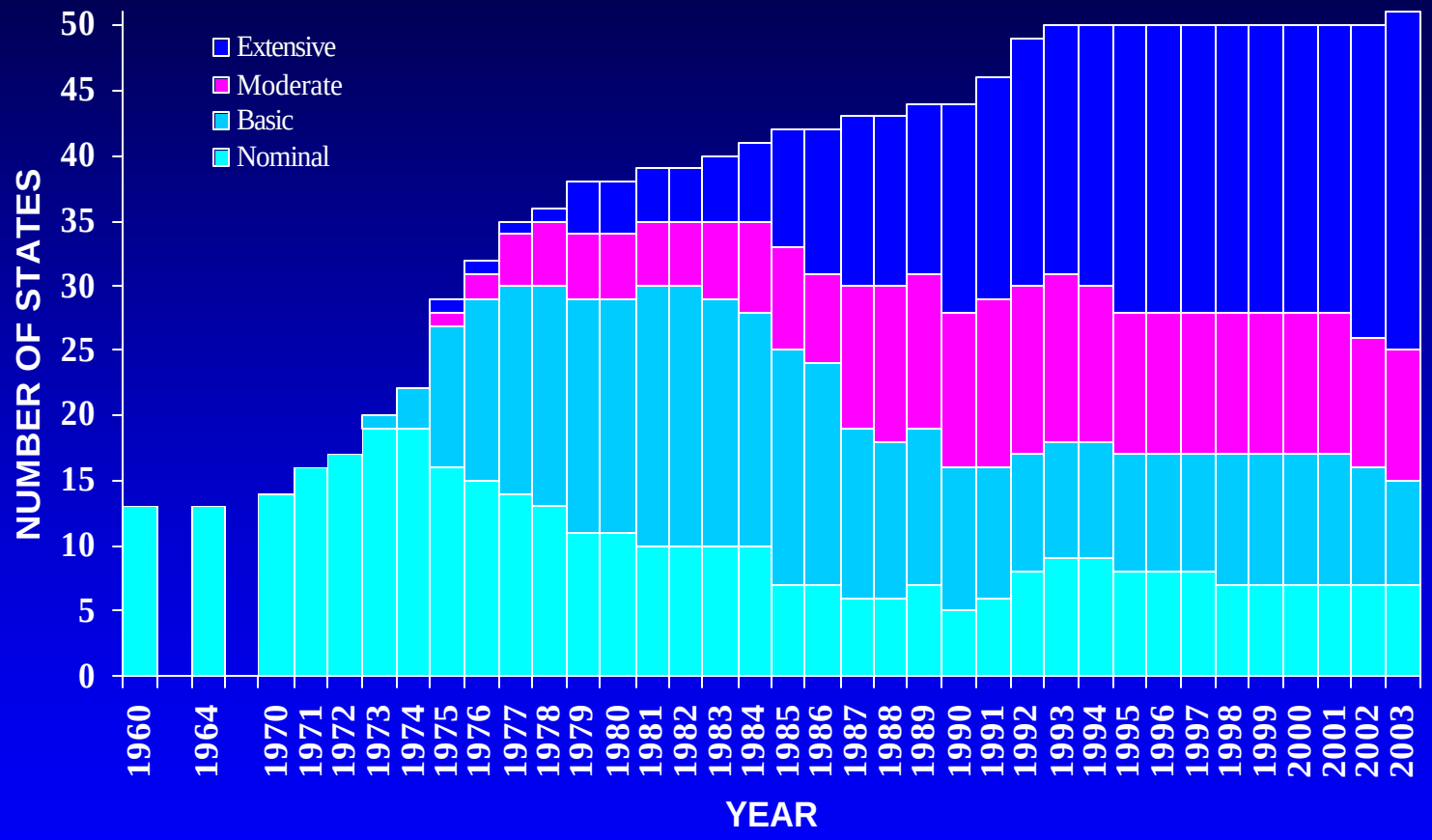
Conceptual Model of Factors Influencing Trends in Adolescent Smoking – United States, 1975-2001



Data Source: Institute for Social Research, University of Michigan, Monitoring the Future Surveys

Smoke-free Air

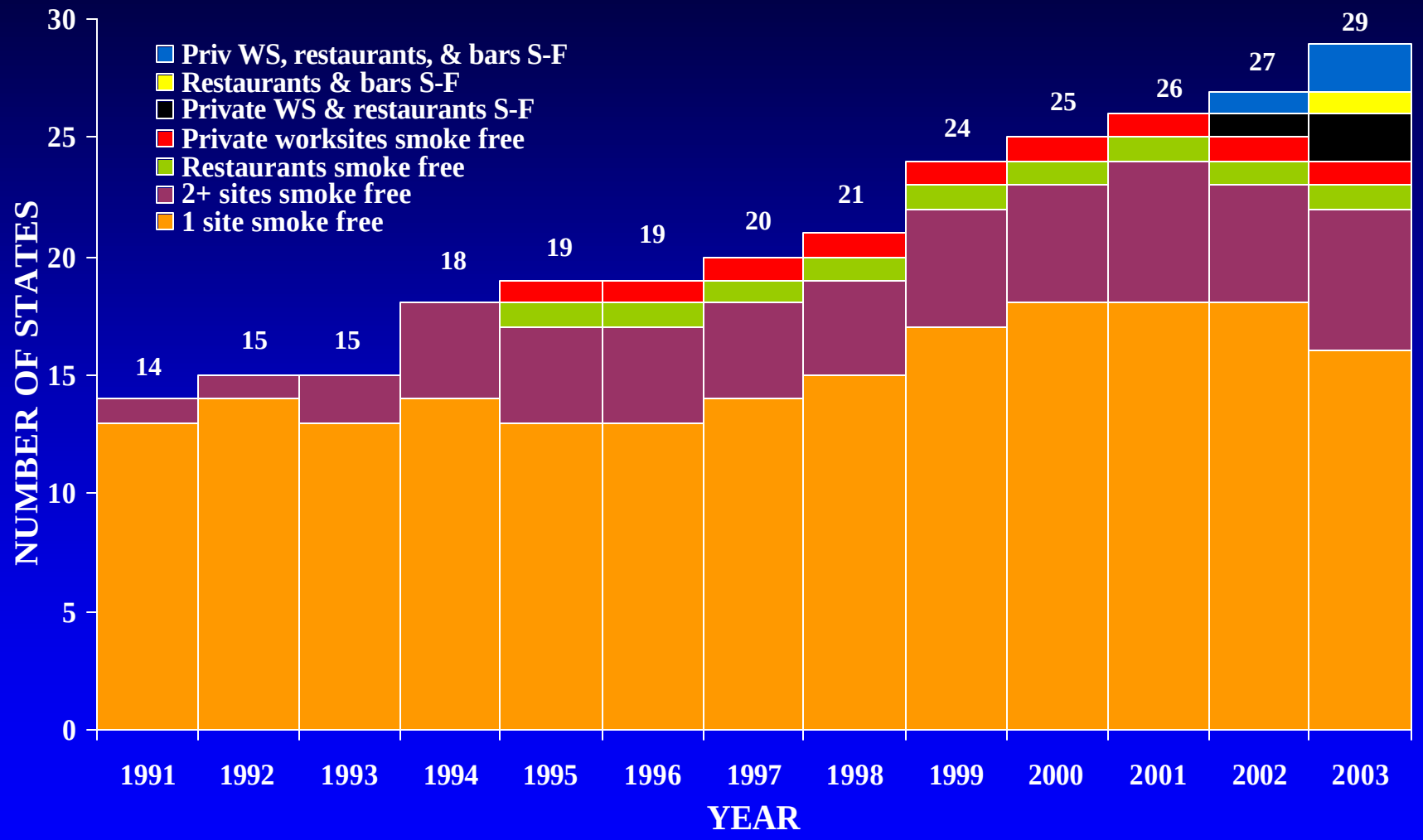
Restrictiveness Of State Laws Regulating Smoking In Public Places – U.S., 1960-2003*



Sources: 1989 Surgeon General's Report, ALA's SLATI, CDC's STATE system, MayaTech Corporation, Roswell Park Cancer Institute. Note: Includes the District of Columbia;

* 2003 data are represented for the first three quarters of the year.

Smoke-Free Air Legislation in the 50 States and the District of Columbia -- United States, 1991-2003



Sources: ALA's SLATI, CDC's STATE system, the MayaTech Corp., and the Roswell Park Cancer Institute.

Percent of Employed Persons who Work in Smoke-free Work Places: United States and Selected States, 1992-1993 and 2001/2002

	92/93 (%)	01/02 (%)	% Change
National	47.4	72.1	+ 52.2
High States			
Utah	67.0	86.9	+ 29.7
Mass.	48.2	82.0	+ 70.0
Maine	56.4	81.5	+ 44.5
Low States			
Nevada	34.3	51.0	+ 48.7
Kentucky	30.4	61.8	+103.4
Hawaii	47.2	62.4	+ 32.1

Source: : NCI Tobacco Use Supplement to the Current Population Survey Series. In 2001-02 CDC joined NCI in co-sponsoring the Supplement.

Information Sources

- Legislative Coding:
  - ImpacTeen: http://www.ImpacTeen.org/tobaccodata.htm
  - CDC STATE: http://www2.cdc.gov/nccdphp/osh/state/index.htm
  - ALA SLATI: http://slati.lungusa.org/
  - ANR: http://www.no-smoke.org/advo.html
- Model Laws:
  - ANR: http://www.no-smoke.org/advo.html
  - TALC: http://talc.phlaw.org/cgi-bin/pubcgi/publications.cgi
    - (Technical Assistance Legal Center)

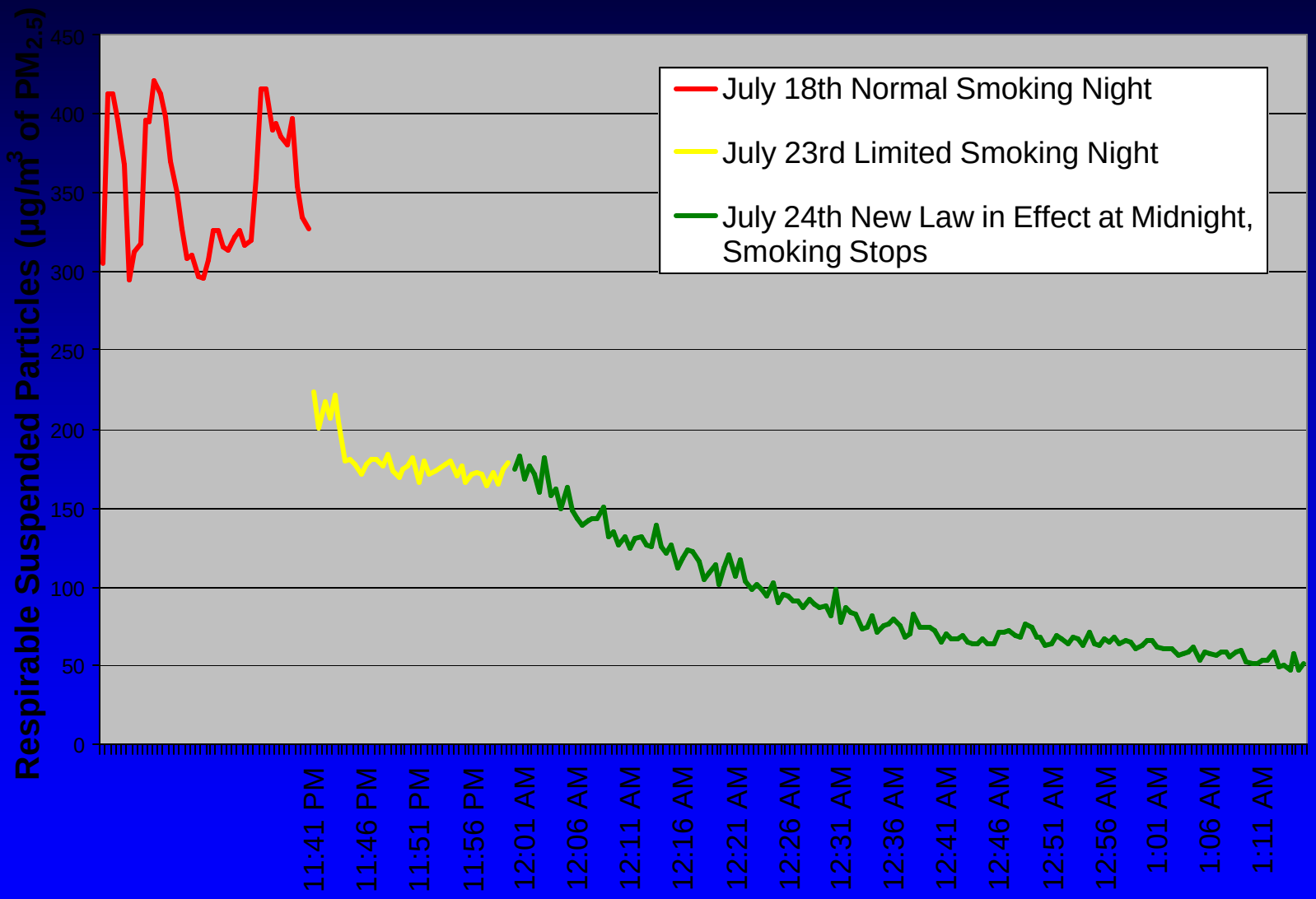
Indoor Air Quality Monitoring

- The air quality in various Western New York venues was measured before and after the implementation of the New York State Clean Indoor Air Law
- The air in 18 venues allowing smoking, including 7 bars, 7 restaurants, 2 bowling alleys, a pool hall and a bingo hall, was sampled in the month before the law and again within three months after the law went into effect on July 24th, 2003
- Air sampling before and after the law was done on the same day of the week and at approximately the same time of day

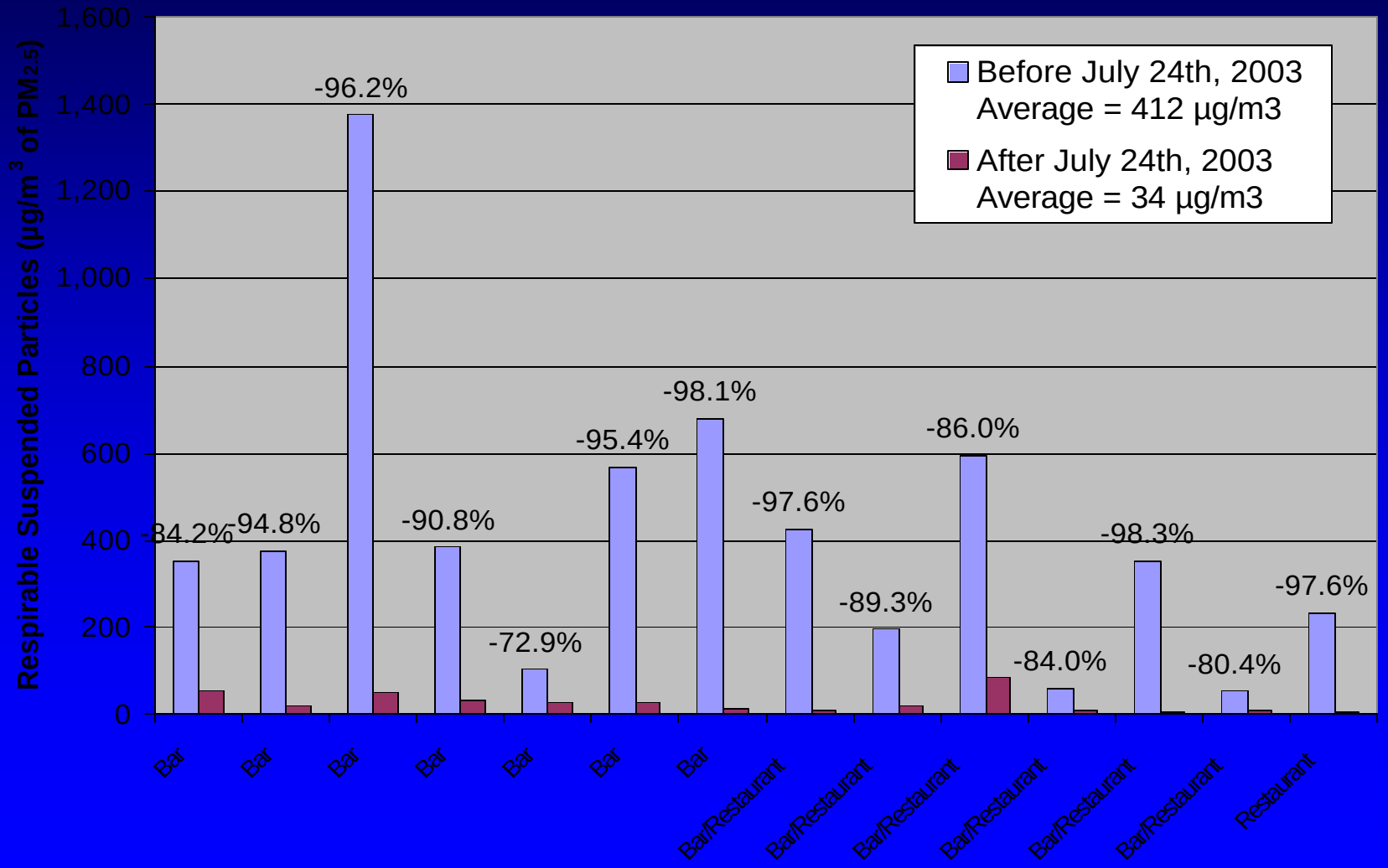
Measuring Fine Particles in the Air

- TSI SidePak AM510 Personal Aerosol Monitor
- The concentration of respirable suspended particles (RSP), or particles small enough to be easily inhaled deep into the lungs, was used as an indicator of air quality
- This instrument measures and records in memory the real-time concentration of RSP's

Air Quality Over Time in a Western New York Bar



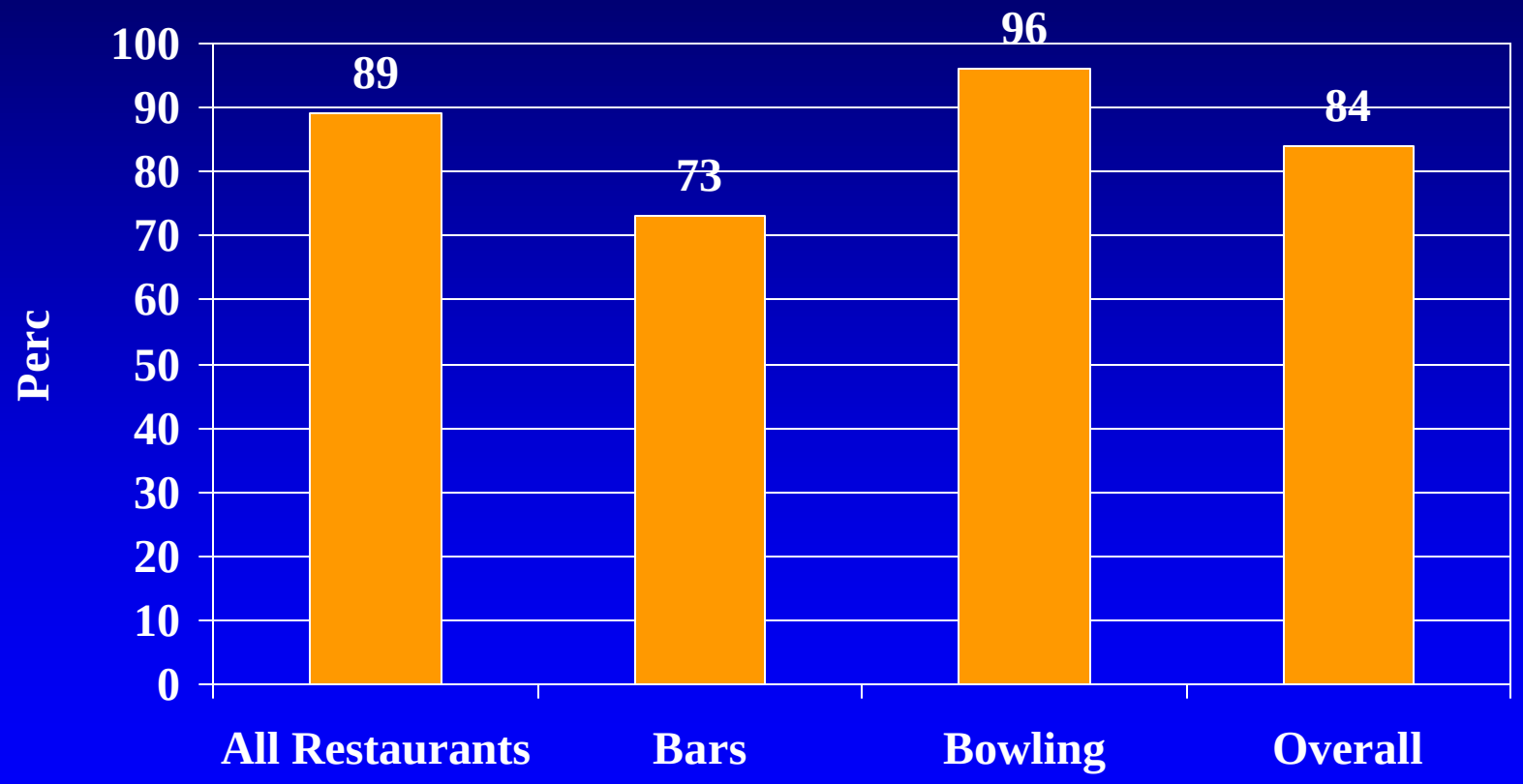
Change in Air Quality in Western New York Bars and Restaurants After Implementation of the New York State Clean Indoor Air Law



Smoke-free Air Observational Study

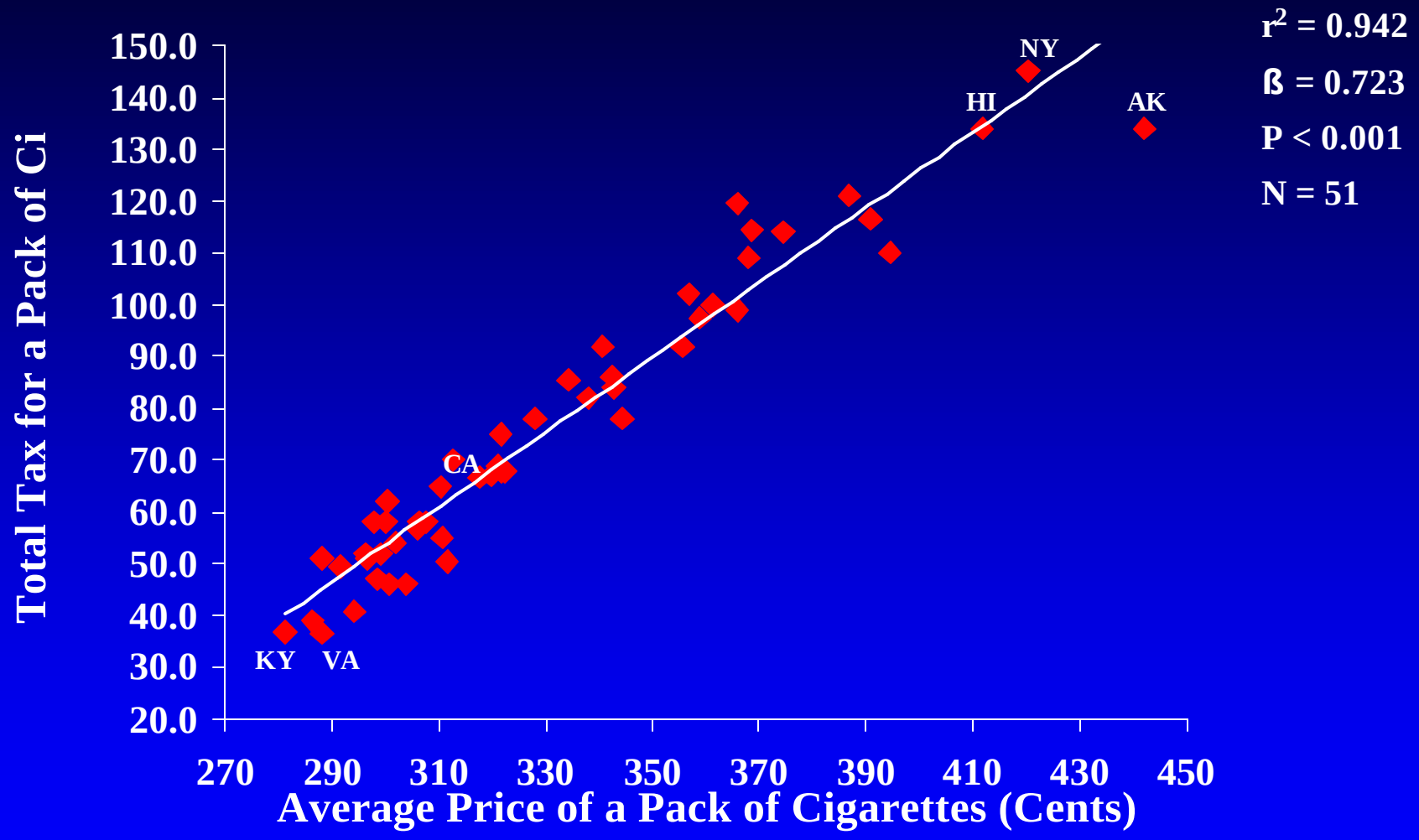
- Observations in a random sample of 259 hospitality venues throughout New York State before and after the implementation of the statewide SFA law in July 2003
- Restaurants, Bars, and Bowling Facilities
- Measured compliance and other tobacco use indicators

Compliance Rates One Month After NY State CIAA



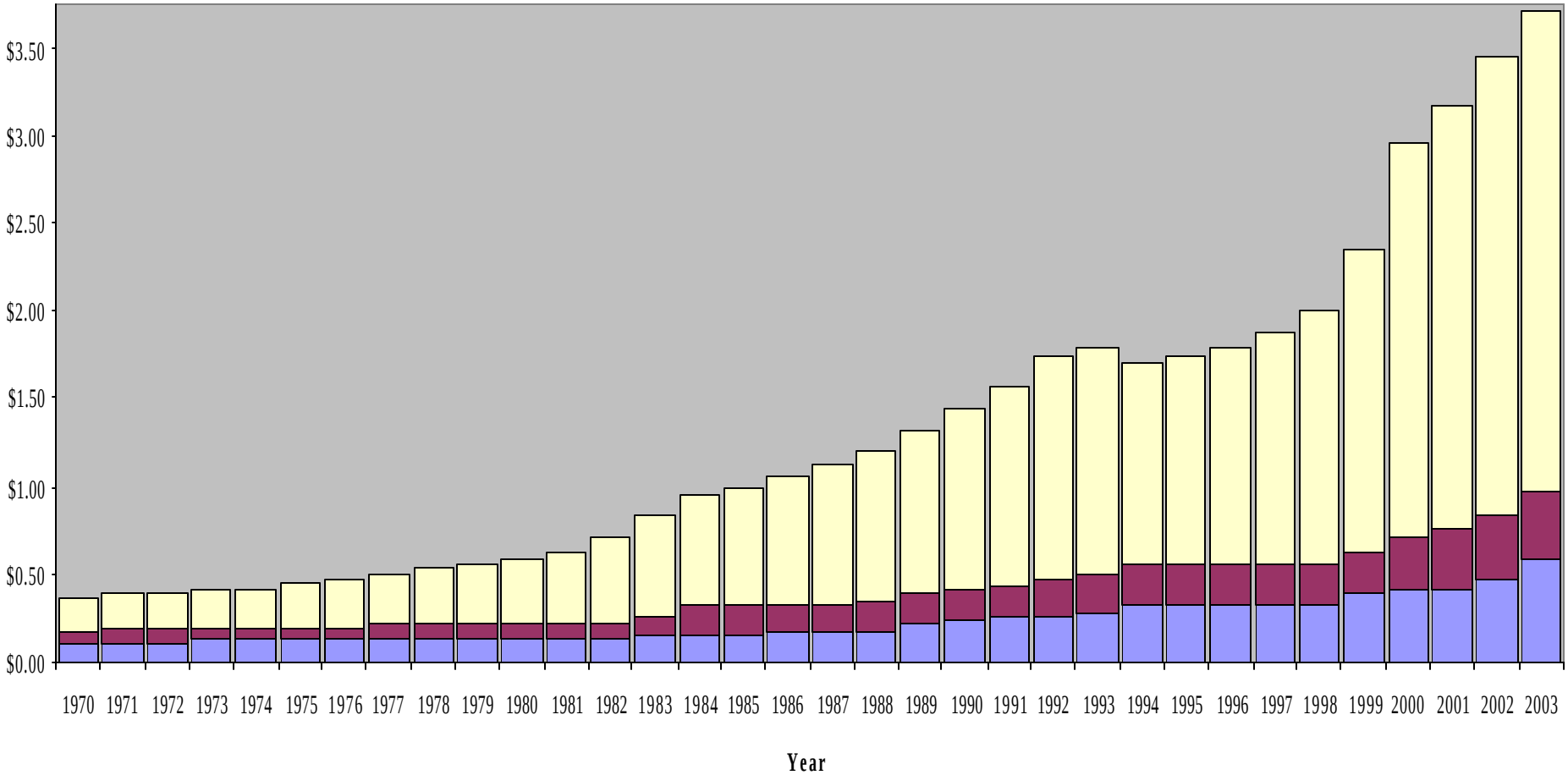
Price

Total Tax for a Pack of Cigarettes (1) and Average Price of a Pack of Cigarettes (2) in the United States, 2001



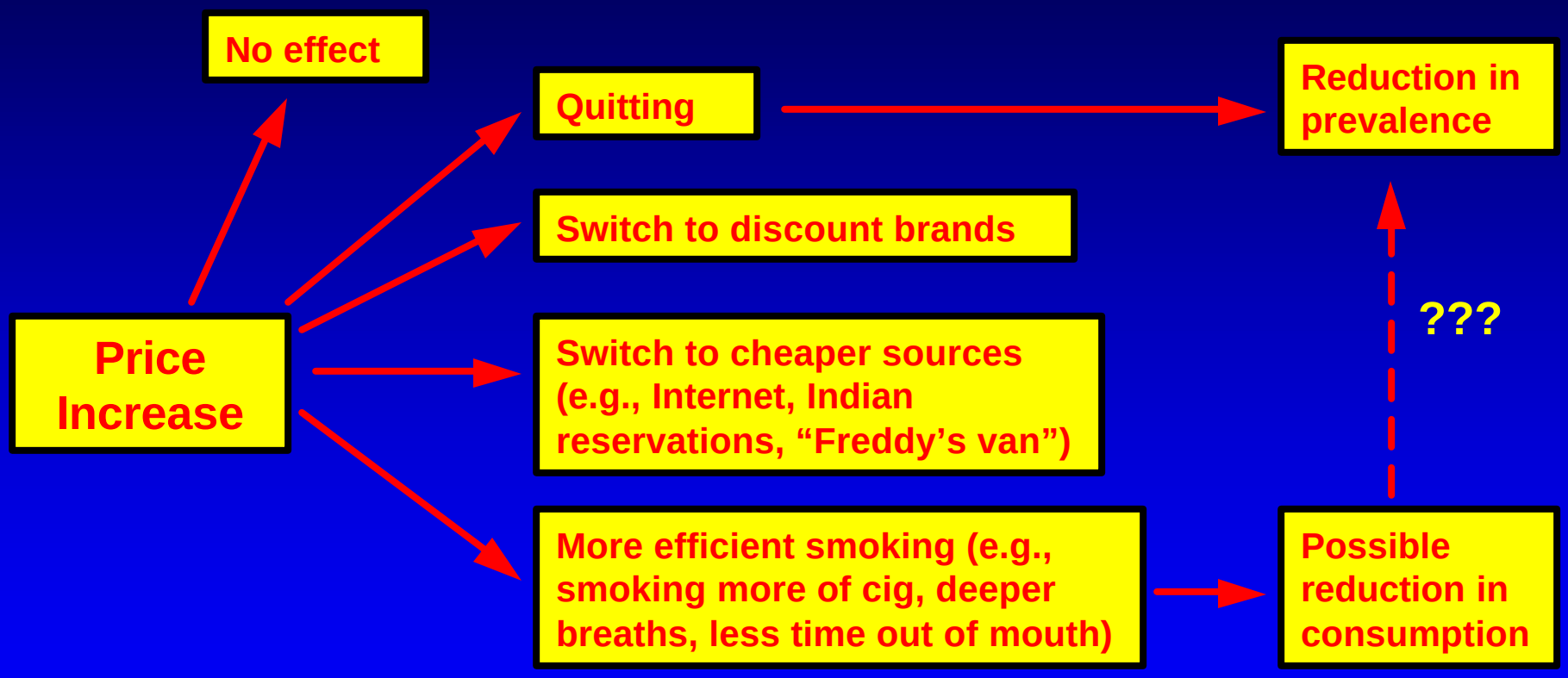
Note: Tax and price of cigarettes were adjusted for inflation;
Price of cigarettes included generic cigarettes.

Cigarette Taxes and Prices, 1970-2003



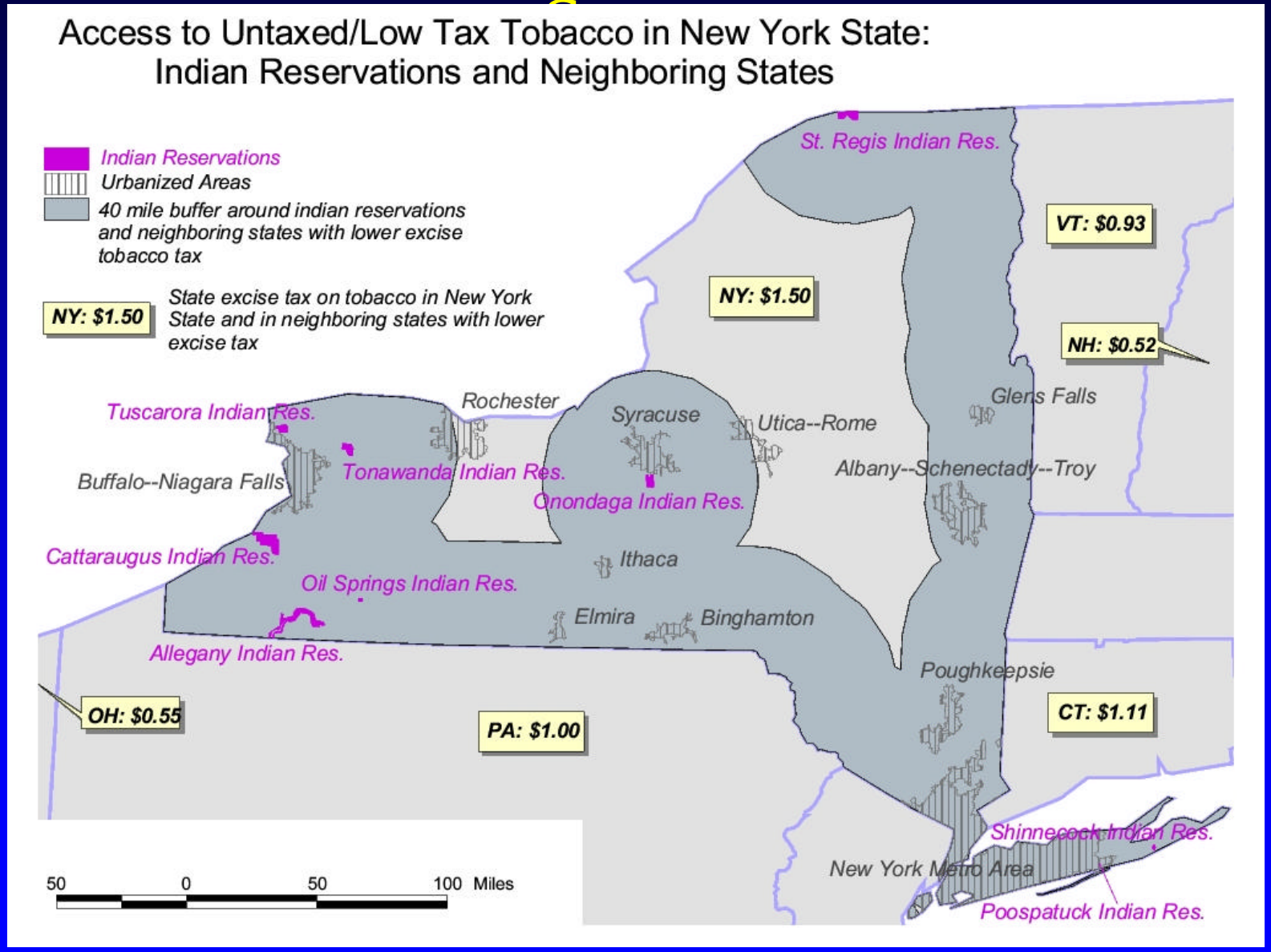
impacTEEN

Compensatory Model of Price Effects

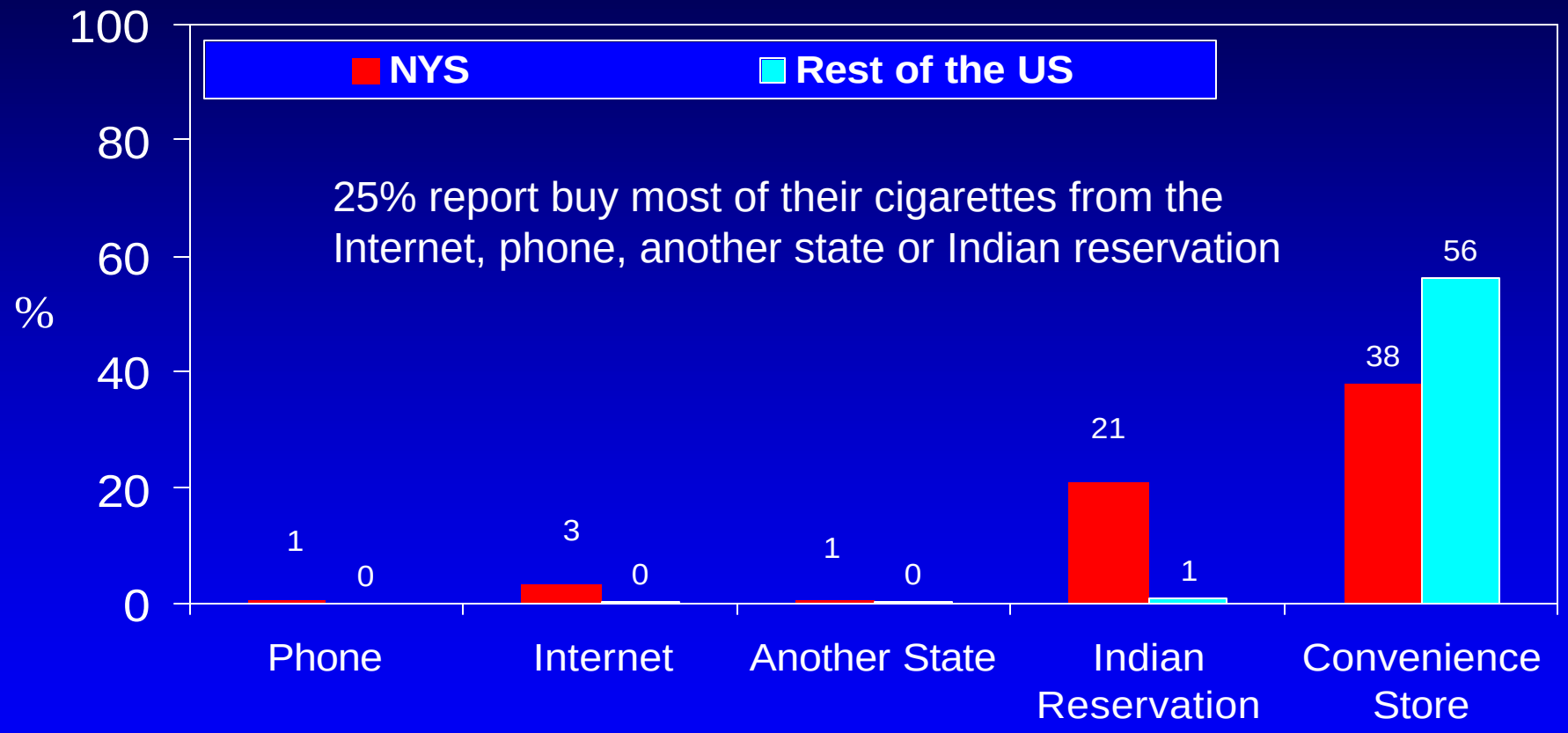


Adapted from: International Tobacco Control Policy Survey Overview, Geoff Fong, PhD, 2002

88+% of NYS's Population is Within 40 Miles of a Lower or Untaxed Cigarette

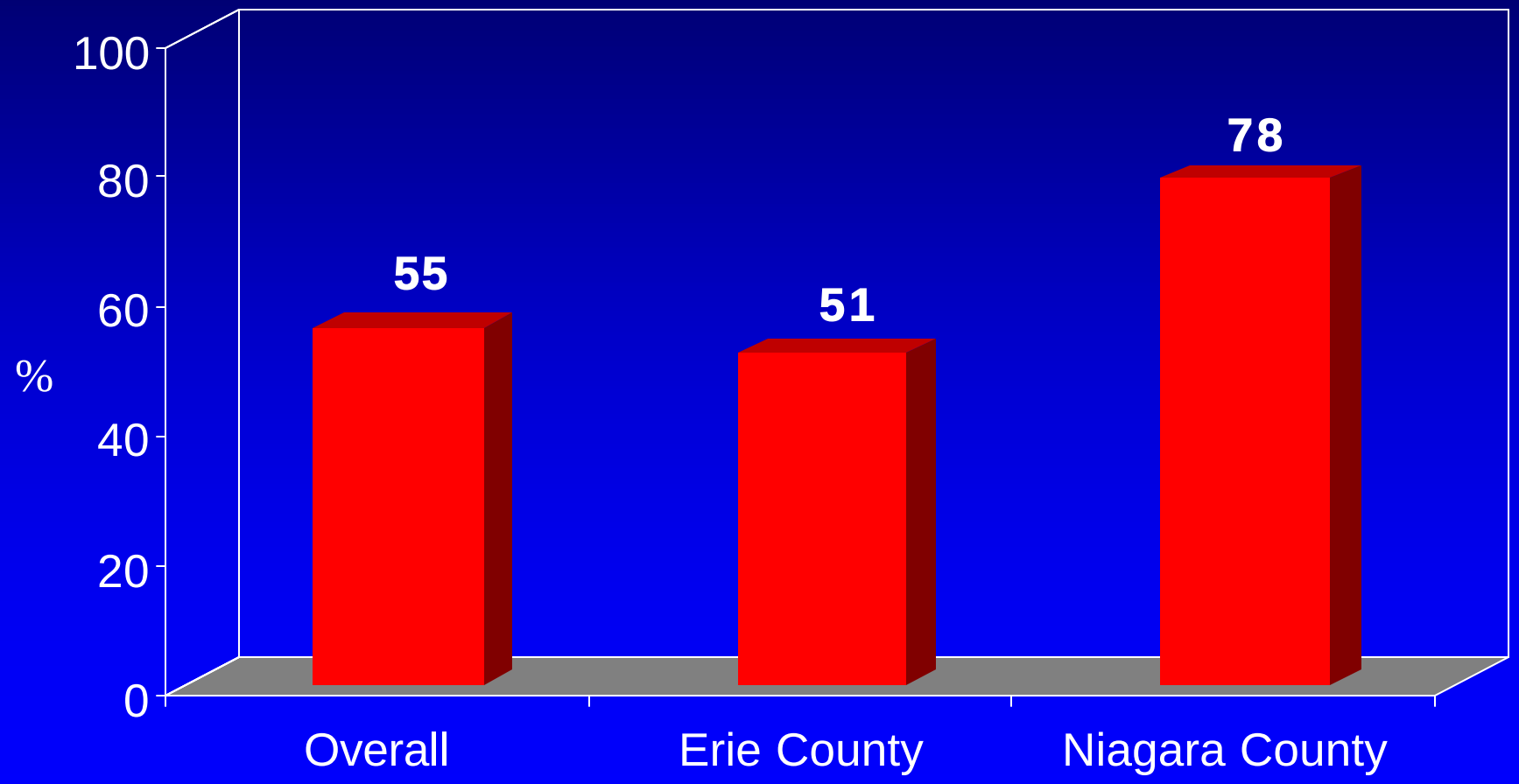


Usual Source of Cigarettes: NYS vs. the Rest of the US -- Fall 2002.

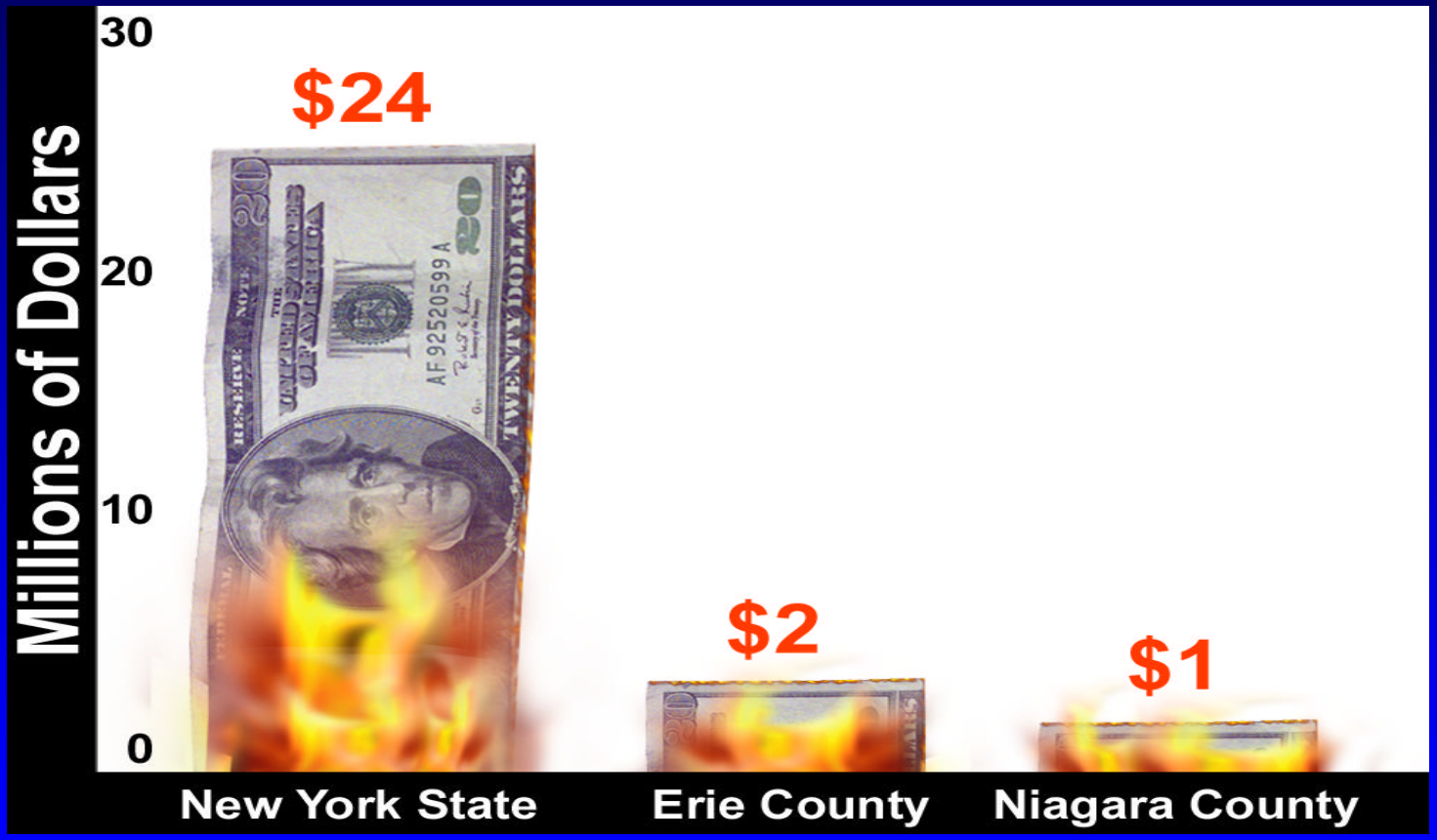


ITC Question: “Where do you buy most of your cigarettes? … ”
Source: International Tobacco Control Policy Evaluation Survey

Percent of Smokers who Report Regularly Buying their Cigarettes at Indian Reservations, Erie/Niagara Counties, 2002/3.



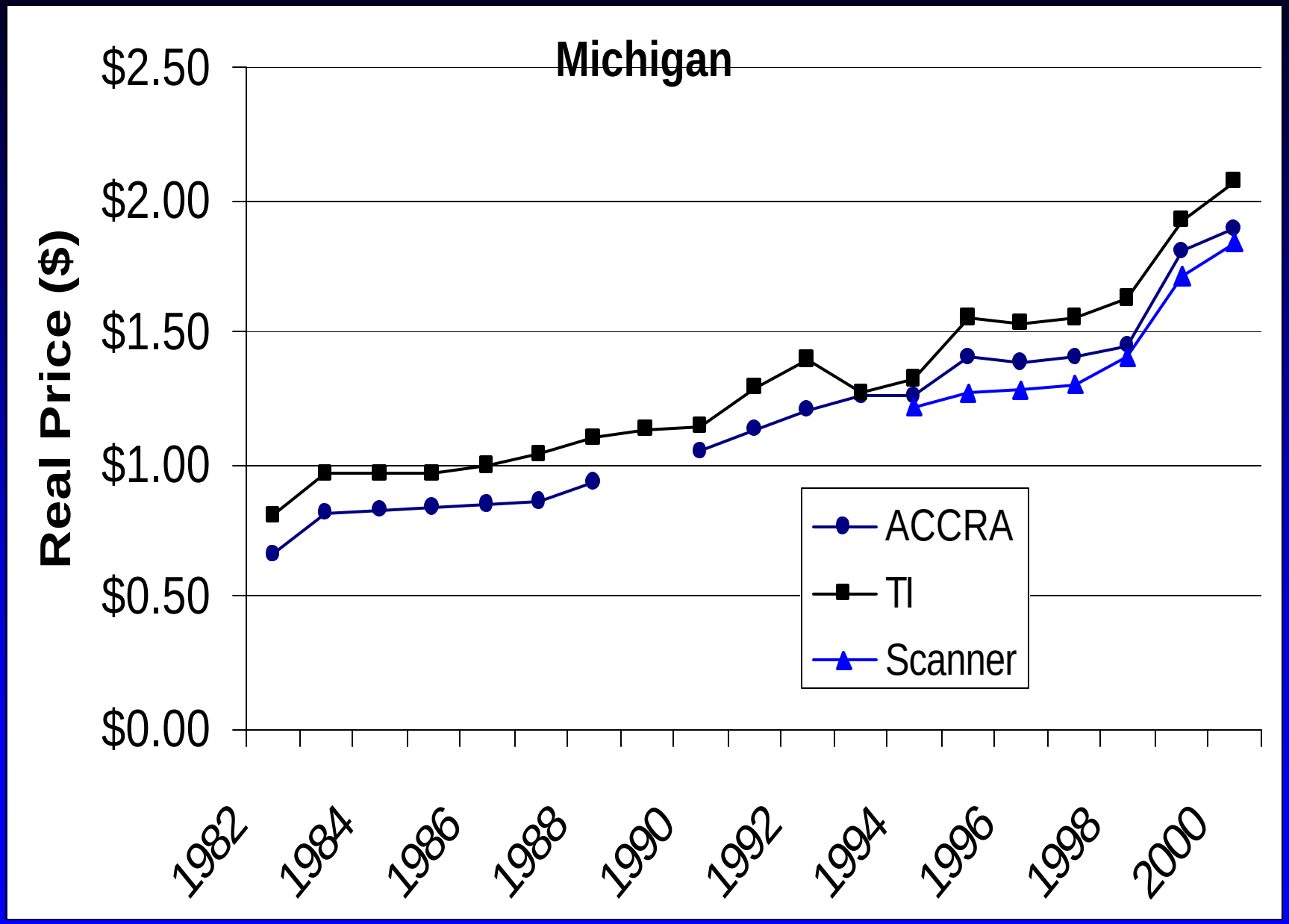
Sales Taxes and Excise Taxes Not Collected Each Year from Current Smokers who Regularly Purchase Cigarettes on Indian Reservations*



*Assuming these smokers buy 50% of the cigarettes that they smoke from Indian Reservations and that they smoke 15 cigarettes per day; NY State estimate reflects revenue lost from Erie/Niagara residents.

Sources of Cigarette Price Data

- Secondary Data
  - Tobacco Institute/Orechowski & Walker
  - ACCRA
  - Scanner
- Primary Data
  - Store observation
  - Telephone Surveys
  - Mail Surveys


Michigan
Real Price ($)
$2.50
$2.00
$1.50
$1.00
$0.50
$0.00
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
ACCRA
TI
Scanner

Possession, Use, & Purchase Laws

PUP Laws:

- Possession, use, and purchase (PUP) laws are youth access tobacco control policies that penalize minors, themselves, for possessing, using, and/or purchasing tobacco products

- Recent trends indicate a sharp increase in the number of state PUP laws:
  - ✓ **1988: 17 states had enacted at least one PUP law**
  - ✓ **2003: 45 states had enacted at least one PUP law**

There is little empirical data on the effectiveness of such laws

STATE ENFORCEMENT MEASURE

PUP State Enforcement Index: Max total score – 35 pts.

- **Level of Enforcement: Max: 2 points** *(0-2 points)*
- **State resources provided for local enforcement: Max: 3 points** *(0-3 points)*
- **Predominant pattern of enforcement: Max: 3 points** *(0-3 points)*
- **Typical enforcement action(s) taken when violation observed: Max: 5 points** *(0-5 points)*
- **Number of citations issued in state past 12 months: Max: 6 points** *(0-5 points)*
- **Typical enforcement penalty/penalties when first-time violation observed: Max: 5 points** *(0-5 points)*
- **Typical enforcement penalty/penalties for second/subsequent violations: Max: 5 points** *(0-5 points)*
- **Publicity related to enforcement during past 12 months: Max: 6 points** *(0-6 points)*

LOCAL ENFORCEMENT MEASURE

PUP Local Enforcement Index: Max total score – 15 pts.

- **Ordinance enforced in community: Max: 1 points** *(0-1 points)*
- **Priority of enforcement in community: Max: 4 points** *(0-4 points)*
- **Resources for effective enforcement in community: Max: 2 points** *(0-2 points)*
- **Predominant pattern of enforcement in community: Max: 2 points** *(0-2 points)*
- **Typical enforcement action(s) in community when youth or minor is caught for tobacco possession: Max: 4 points** *(0-4 points)*
- **Parents routinely notified if youth is cited for tobacco possession: Max: 2 points** *(0-2 points)*

Summary & Lessons Learned

- Policy effects depend on implementation and are influence by adaptive behaviors
- Legislative coding is done best with legal help – can be resource intensive; use existing data sources whenever possible
- Triangulate data
- Seek out information at the sub-state level (e.g., Current Population Survey, Americans for Nonsmokers' Rights Foundation, Group Against Smoking Pollution

Acknowledgments

- SFA Data
  - MayaTech
  - ImpacTeen
  - NCI & CDC
  - Andrew Hyland - RPCI
  - Mark Travers - RPCI
  - Michael Cummings - RPCI
  - Russ Sciandra -CTFNY
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- Price Data
  - Frank Chaloupka – UIC
  - Sherry Emery – UIC
  - ImpacTeen
  - Andrew Hyland – RPCI
  - Mike Cummings – RPCI
  - RTI – Matthew Farrelly
- PUP Enforcement
  - Cindy Tworek – RPCI
  - ImpacTeen