

Obtaining and Using Meaningful Tobacco Control Policy Measures



Gary Giovino

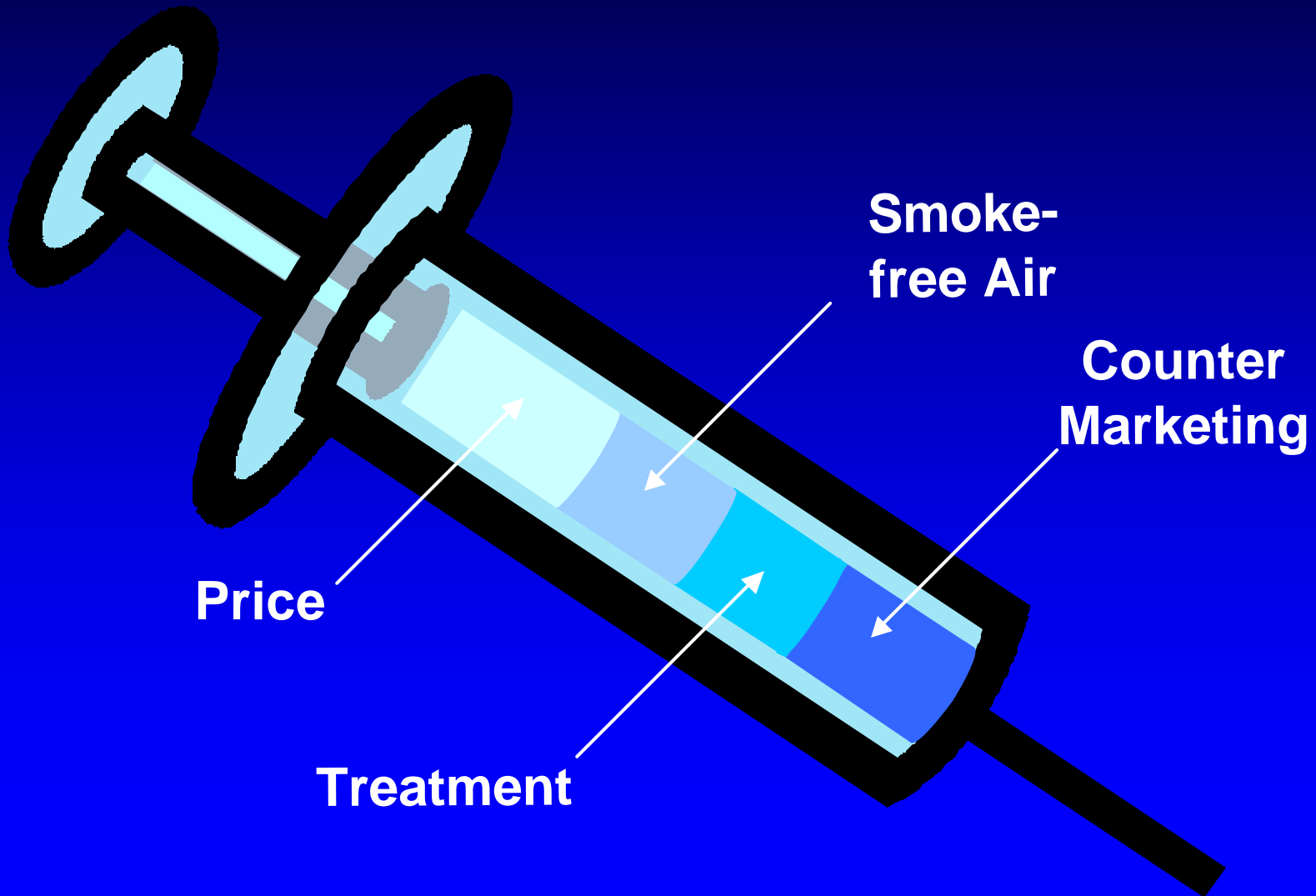
Roswell Park Cancer Institute

**National Conference on Tobacco OR Health
Boston, Massachusetts
December 11, 2003**

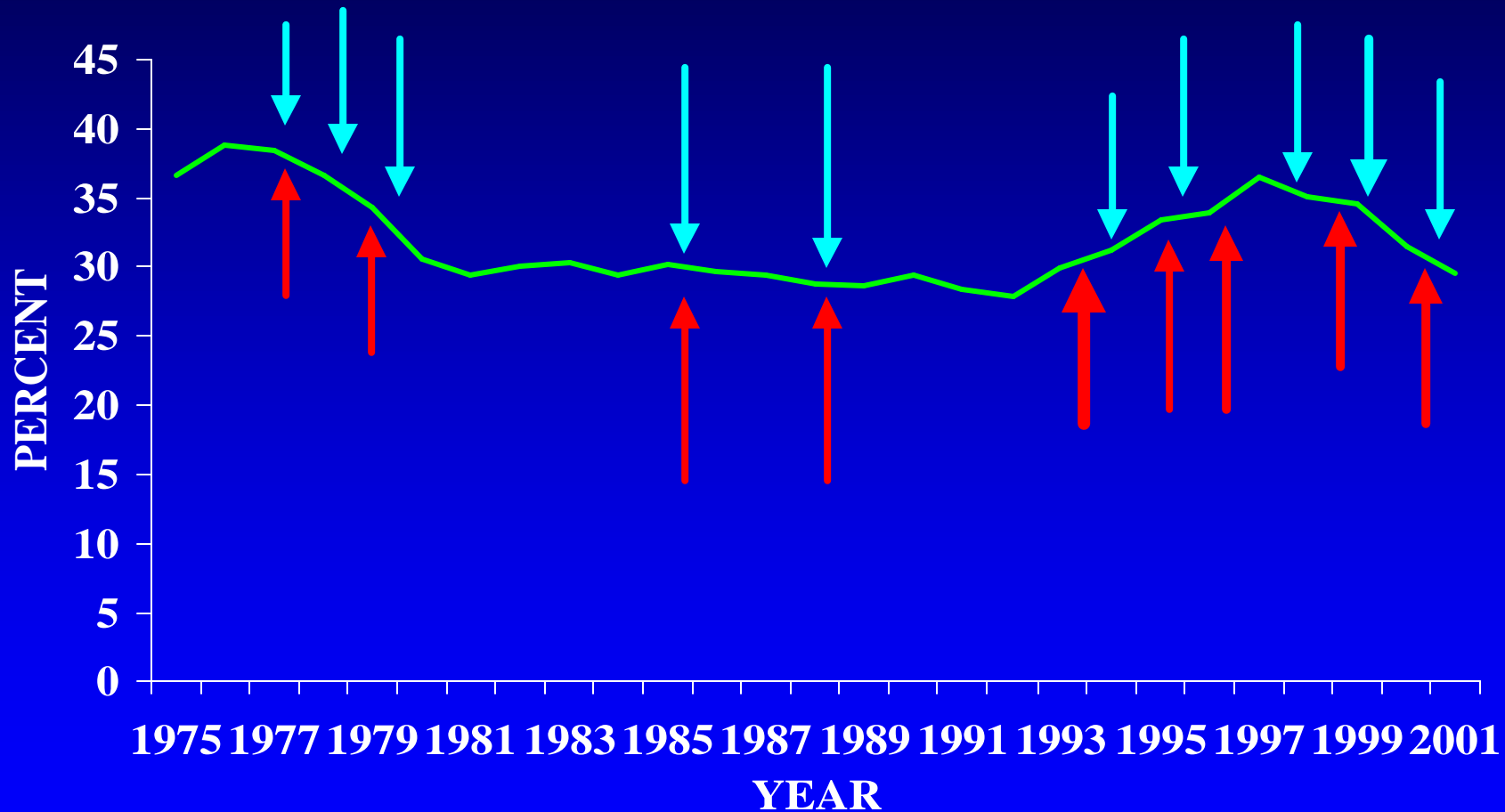
Outline of Presentation

- 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



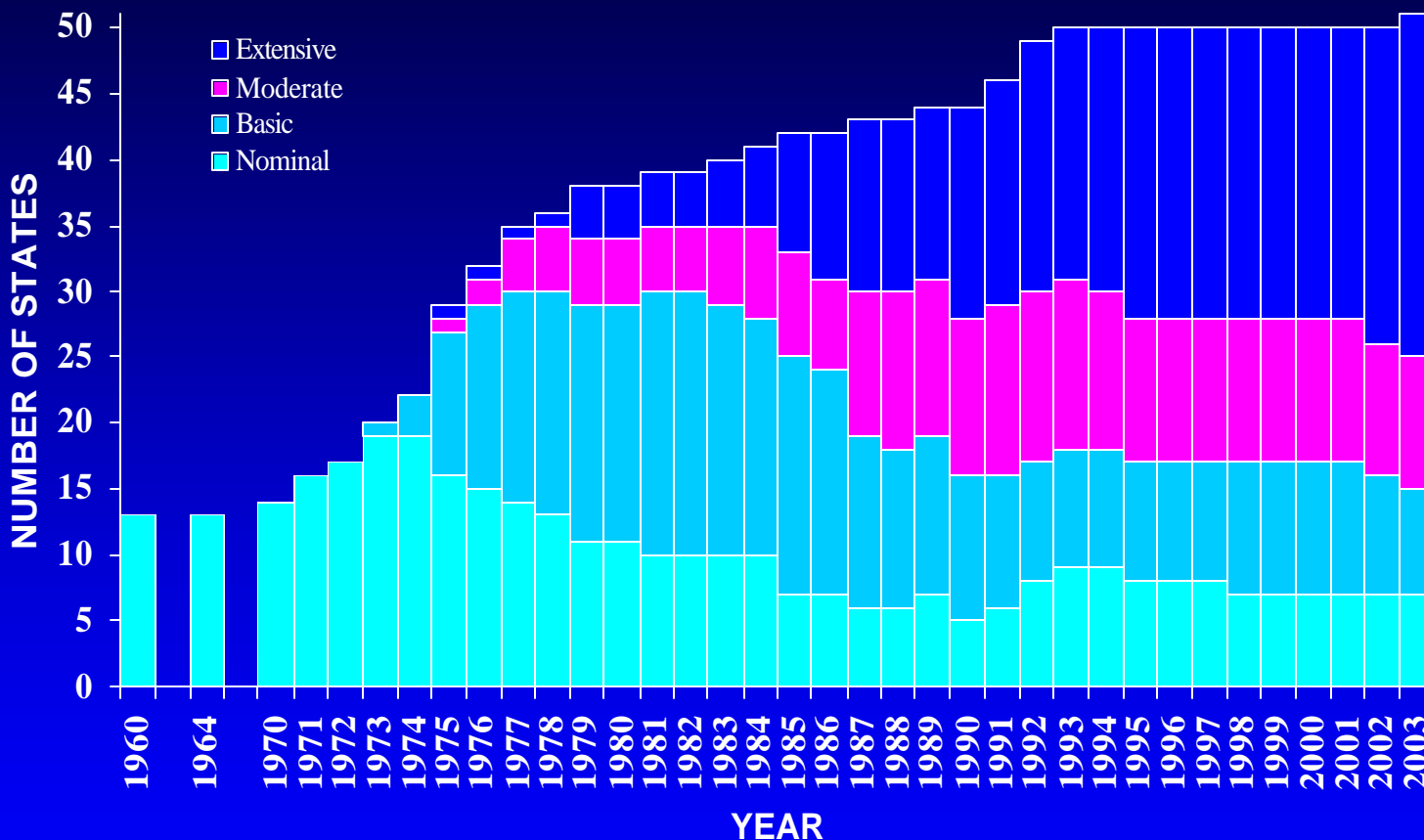
Conceptual Model of Factors Influencing Trends in Adolescent Smoking – United States, 1975-2001



Smoke-free Air

A horizontal bar with a rainbow gradient, transitioning from red on the left to blue on the right, passing through orange, yellow, and green.

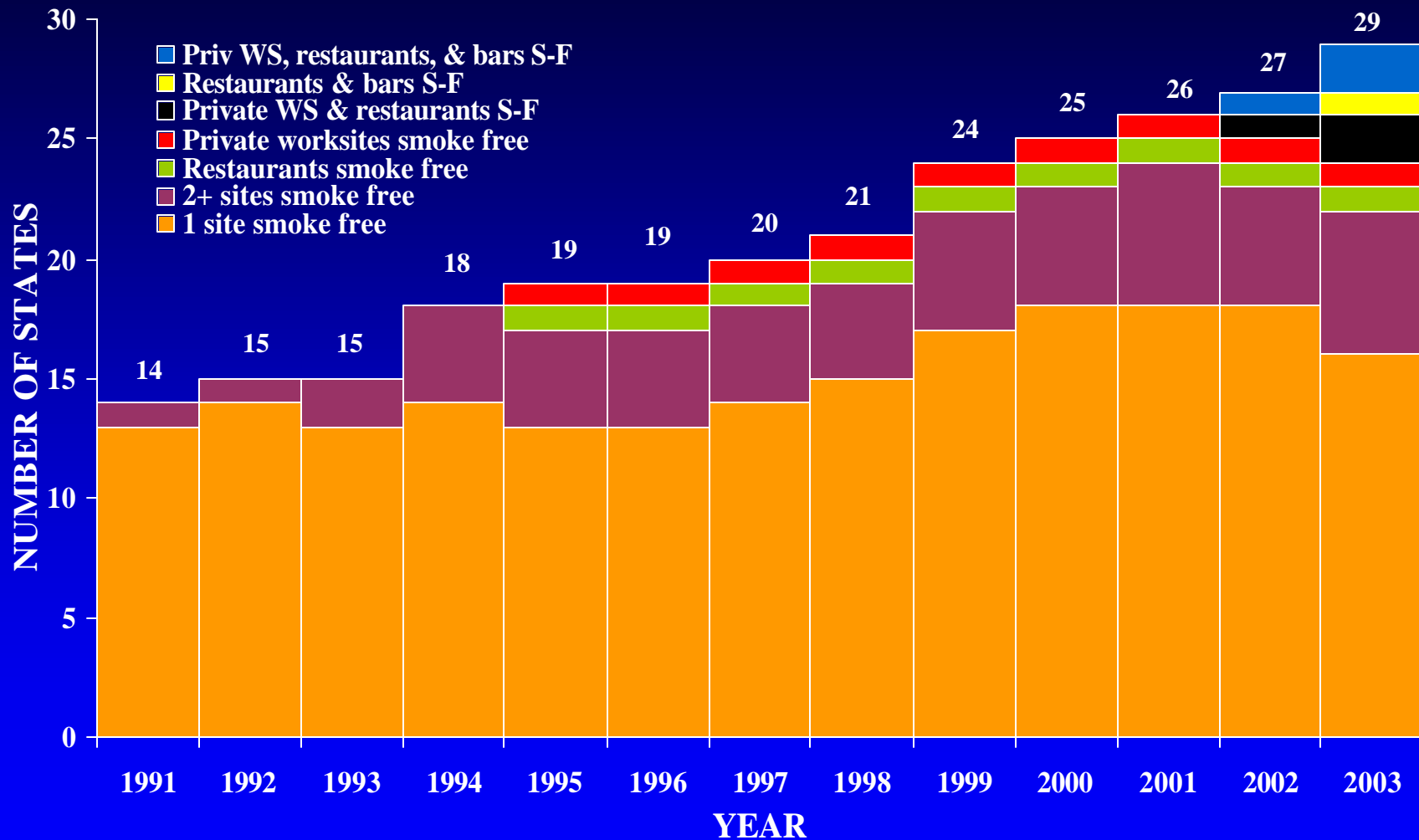
Restrictiveness Of State Laws Regulating Smoking In Public Places – U.S., 1960-2003*



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

| | <u>92/93 (%)</u> | <u>01/02 (%)</u> | <u>% Change</u> |
|--------------------|------------------|------------------|-----------------|
| 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

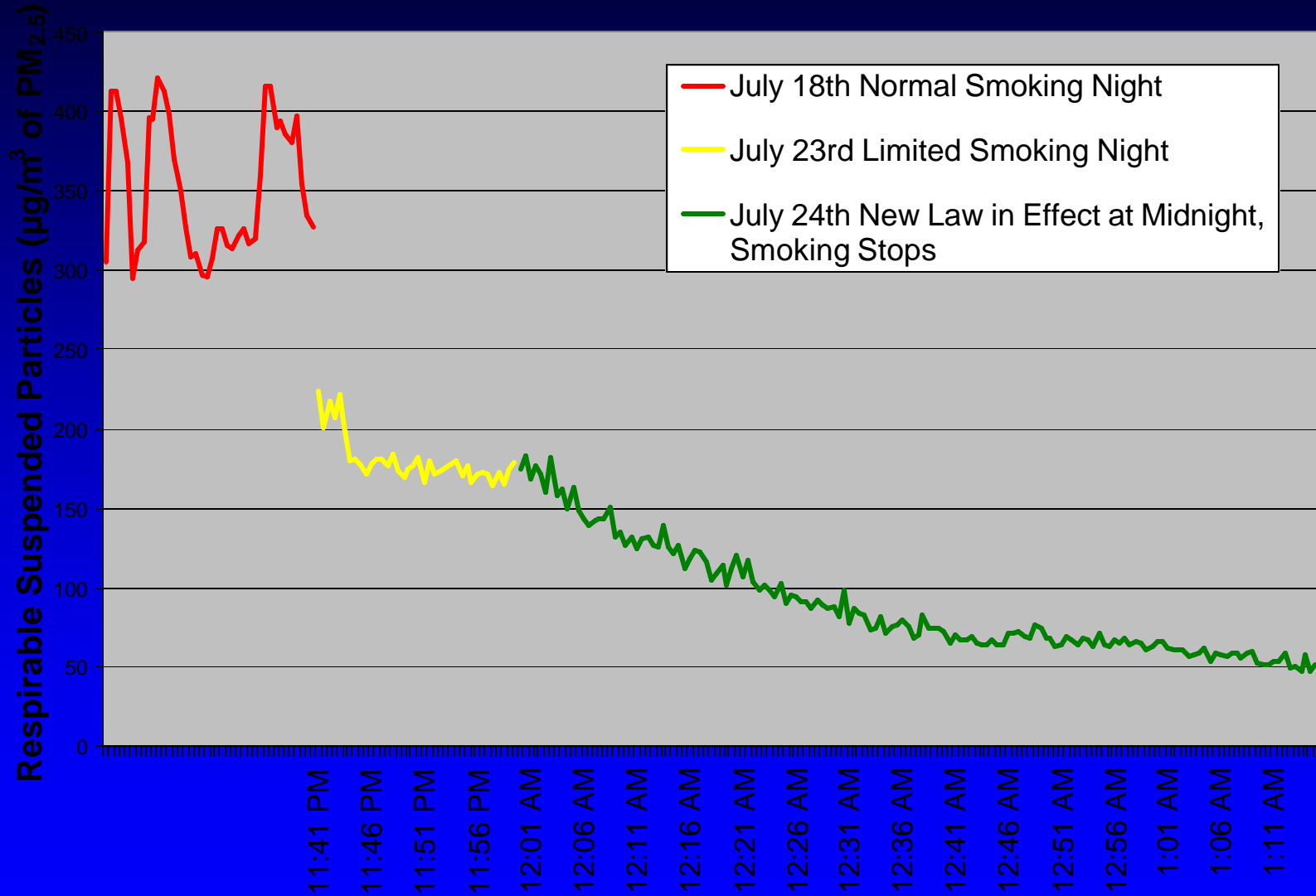
- The air quality in various Western New York venues was measured before and after the implementation of the New York State Clean Indoor Air Law
- The air in 18 venues allowing smoking, including 7 bars, 7 restaurants, 2 bowling alleys, a pool hall and a bingo hall, was sampled in the month before the 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

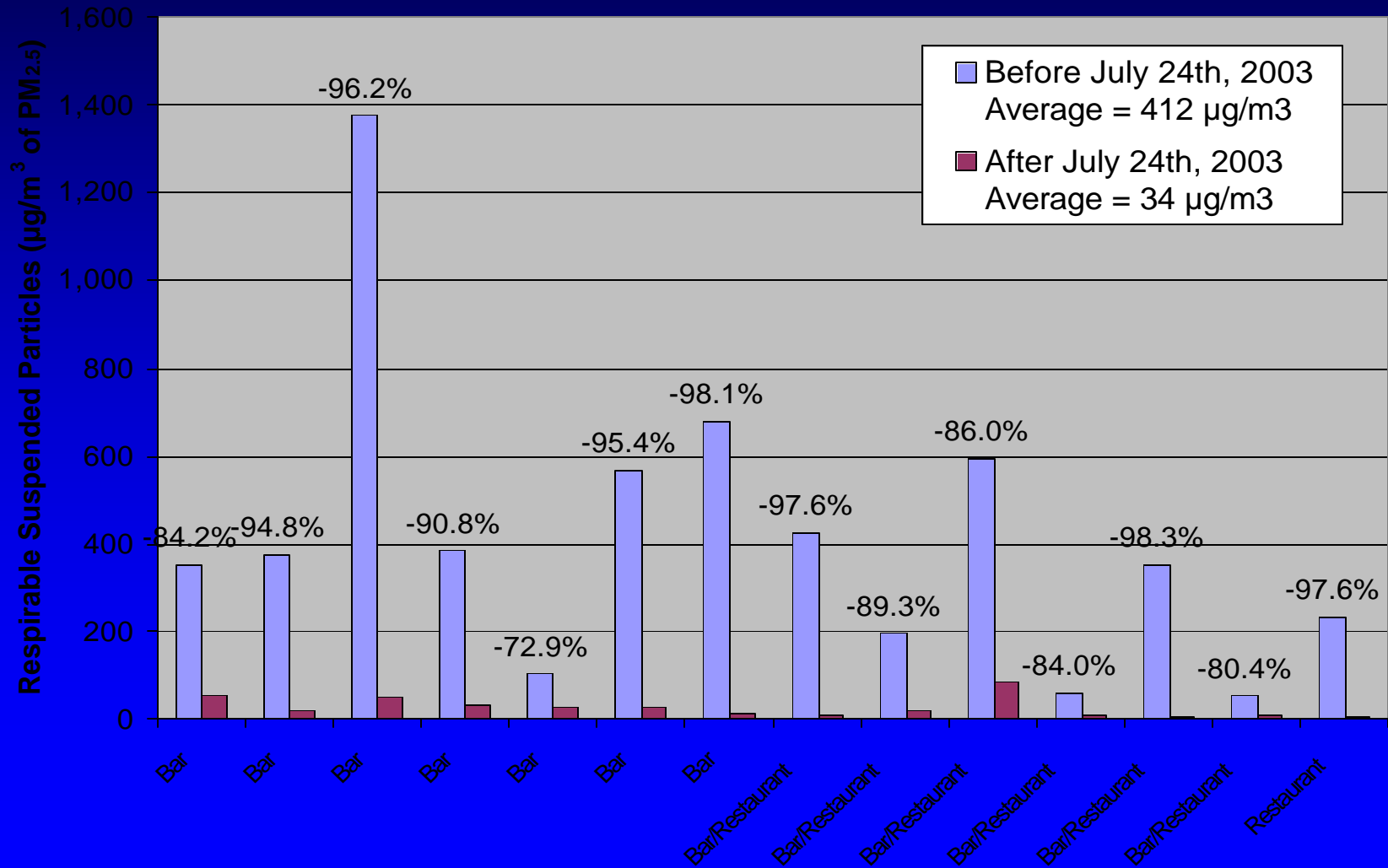
- TSI SidePak AM510 Personal Aerosol Monitor
- The concentration of respirable suspended particles (RSP), or particles small enough to be easily inhaled deep into the lungs, was used as an indicator of air quality
- This instrument measures and records in memory the real-time concentration of RSP's



Air Quality Over Time in a Western New York Bar



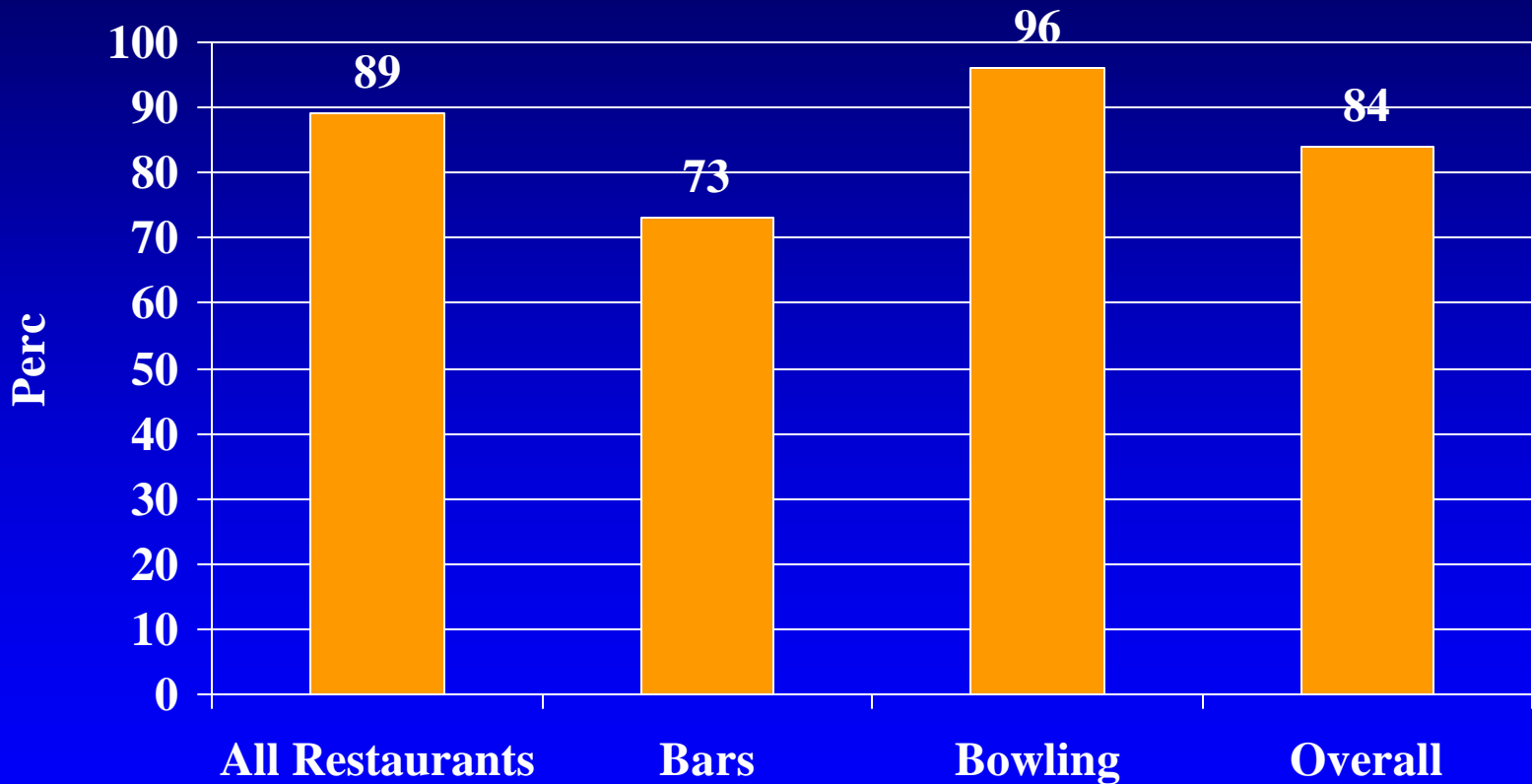
Change in Air Quality in Western New York Bars and Restaurants After Implementation of the New York State Clean Indoor Air Law



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

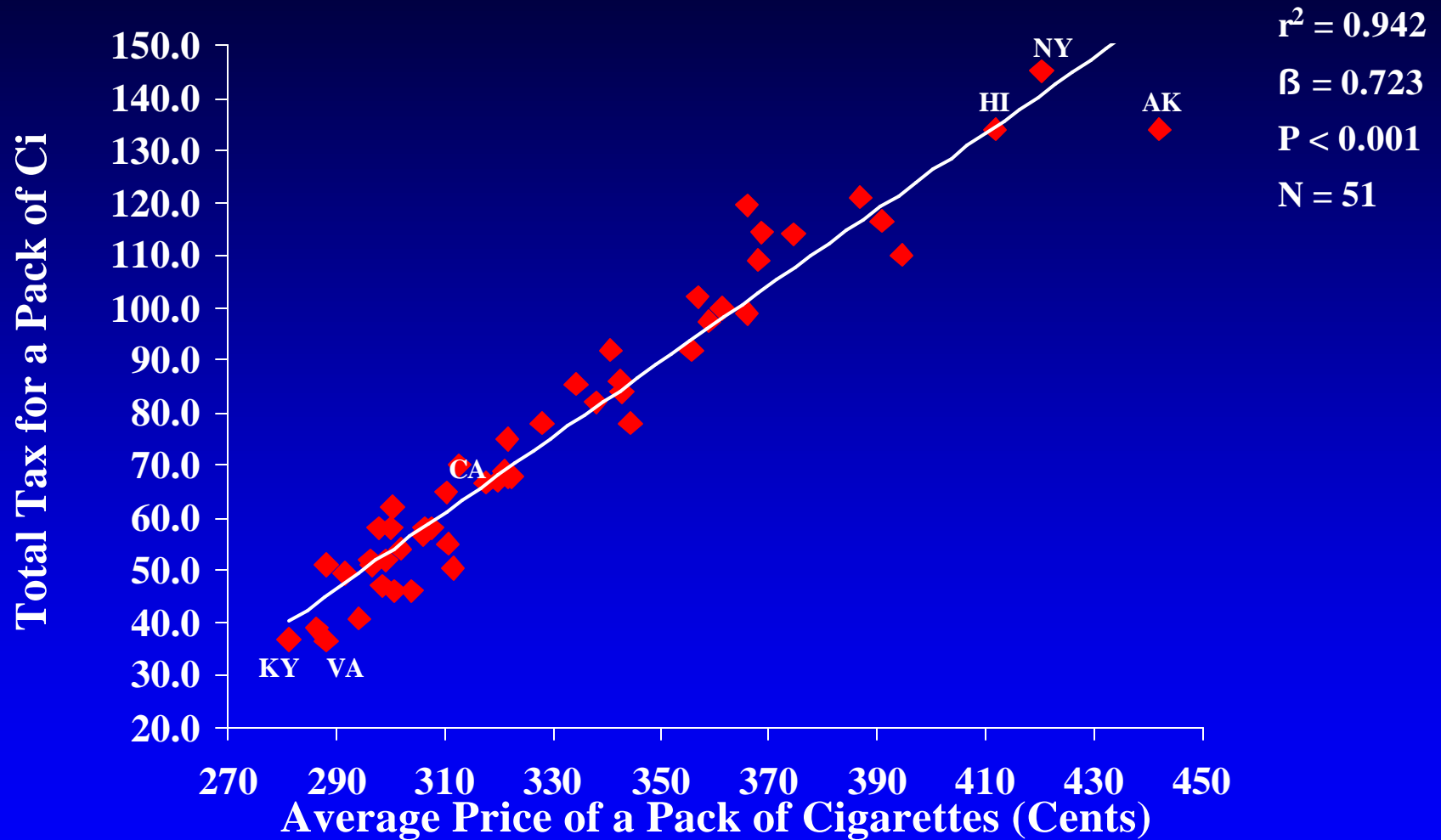
Compliance Rates One Month After NY State CIAA



Price

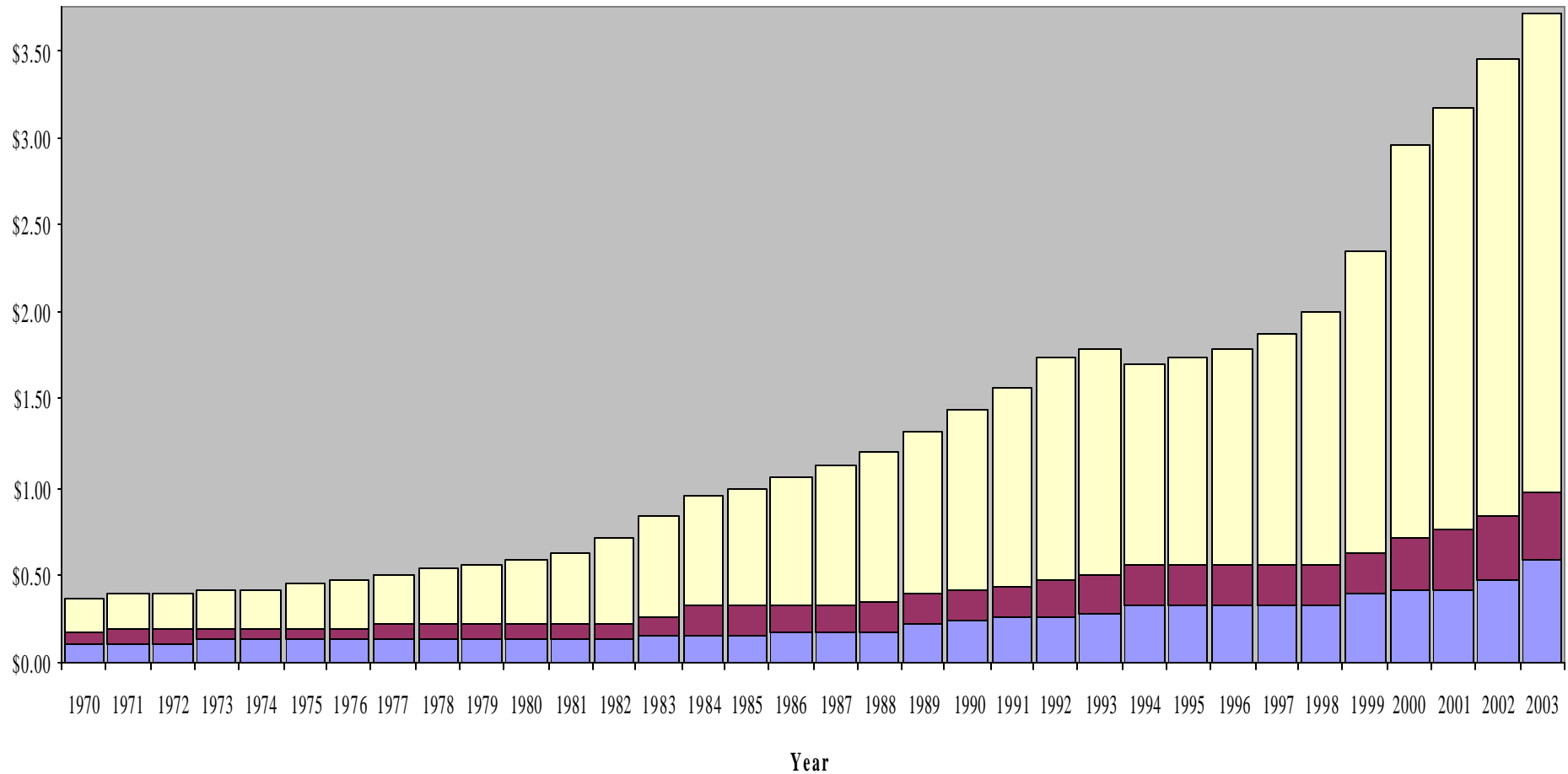


Total Tax for a Pack of Cigarettes ⁽¹⁾ and Average Price of a Pack of Cigarettes ⁽²⁾ in the United States, 2001



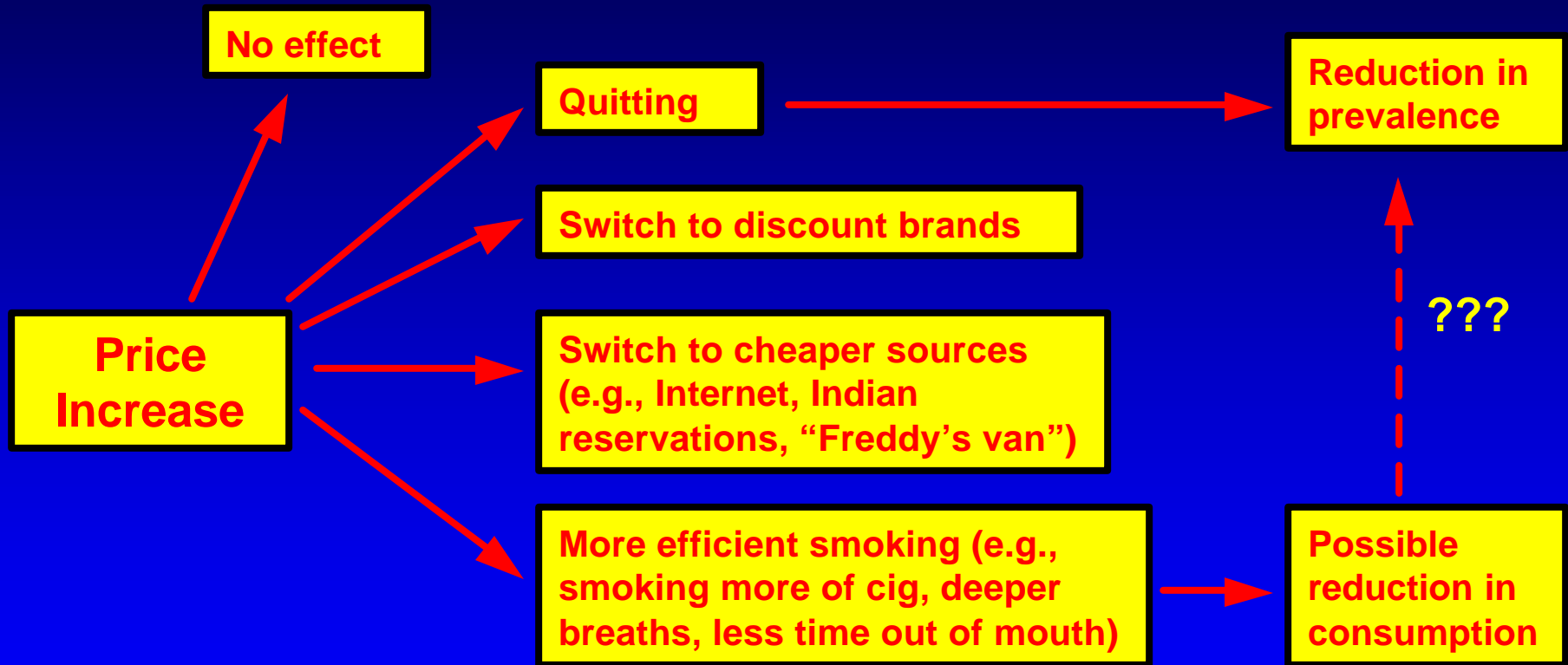
Note: Tax and price of cigarettes were adjusted for inflation;
Price of cigarettes included generic cigarettes.

Cigarette Taxes and Prices, 1970-2003



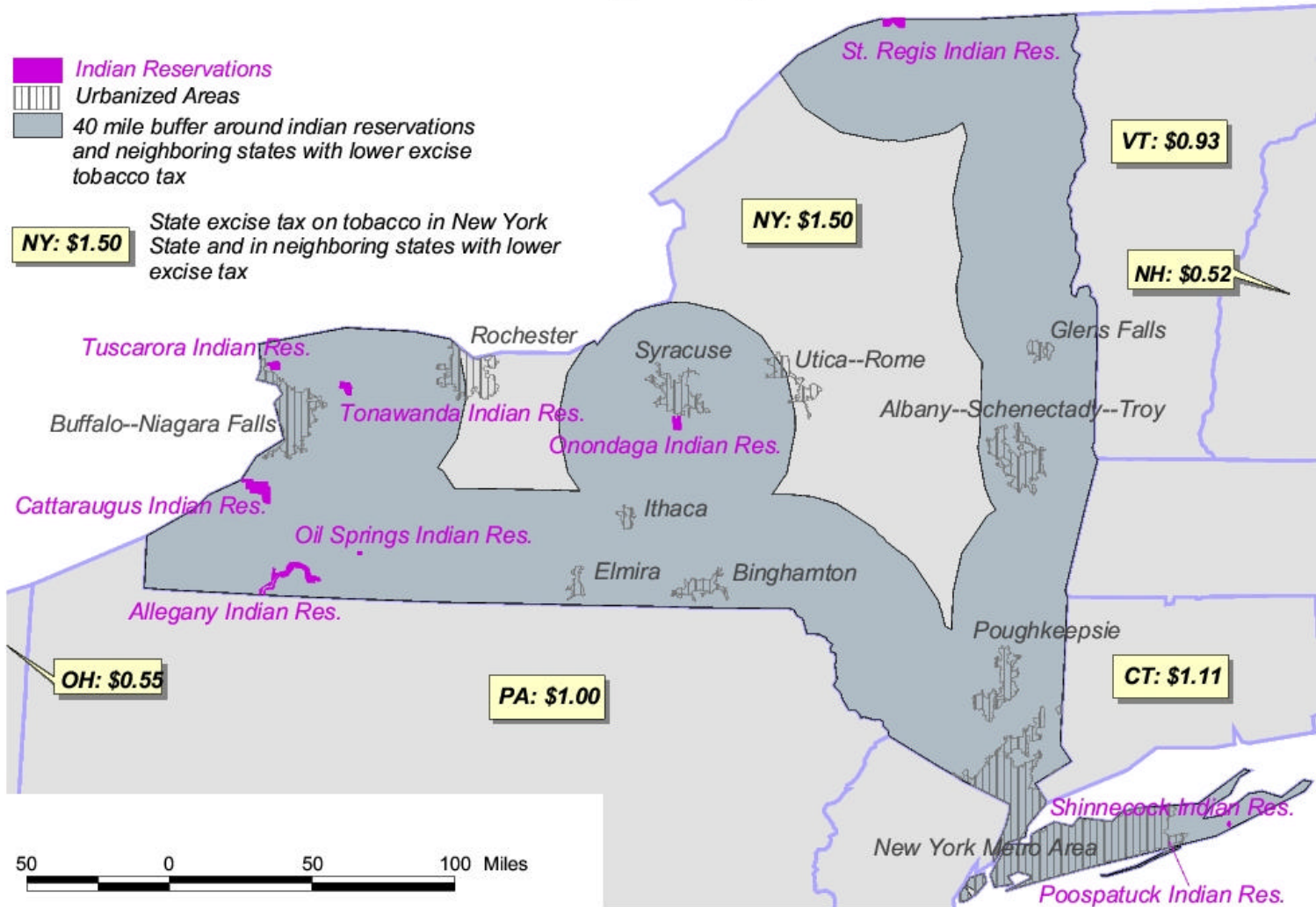
State Tax Federal Tax Net of Tax Price

Compensatory Model of Price Effects

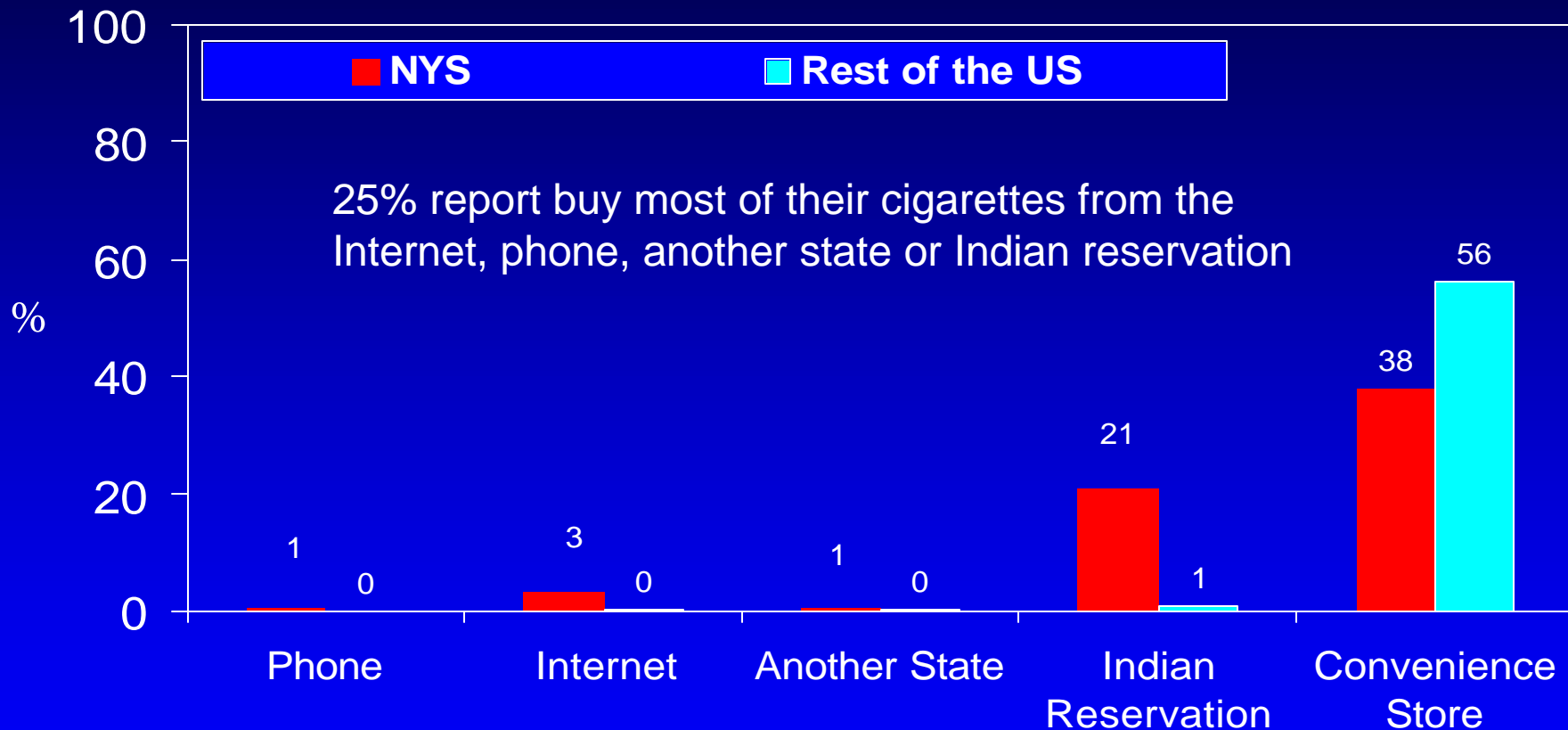


88+% of NYS's Population is Within 40 Miles of a Lower or Untaxed Cigarette

Access to Untaxed/Low Tax Tobacco in New York State: Indian Reservations and Neighboring States

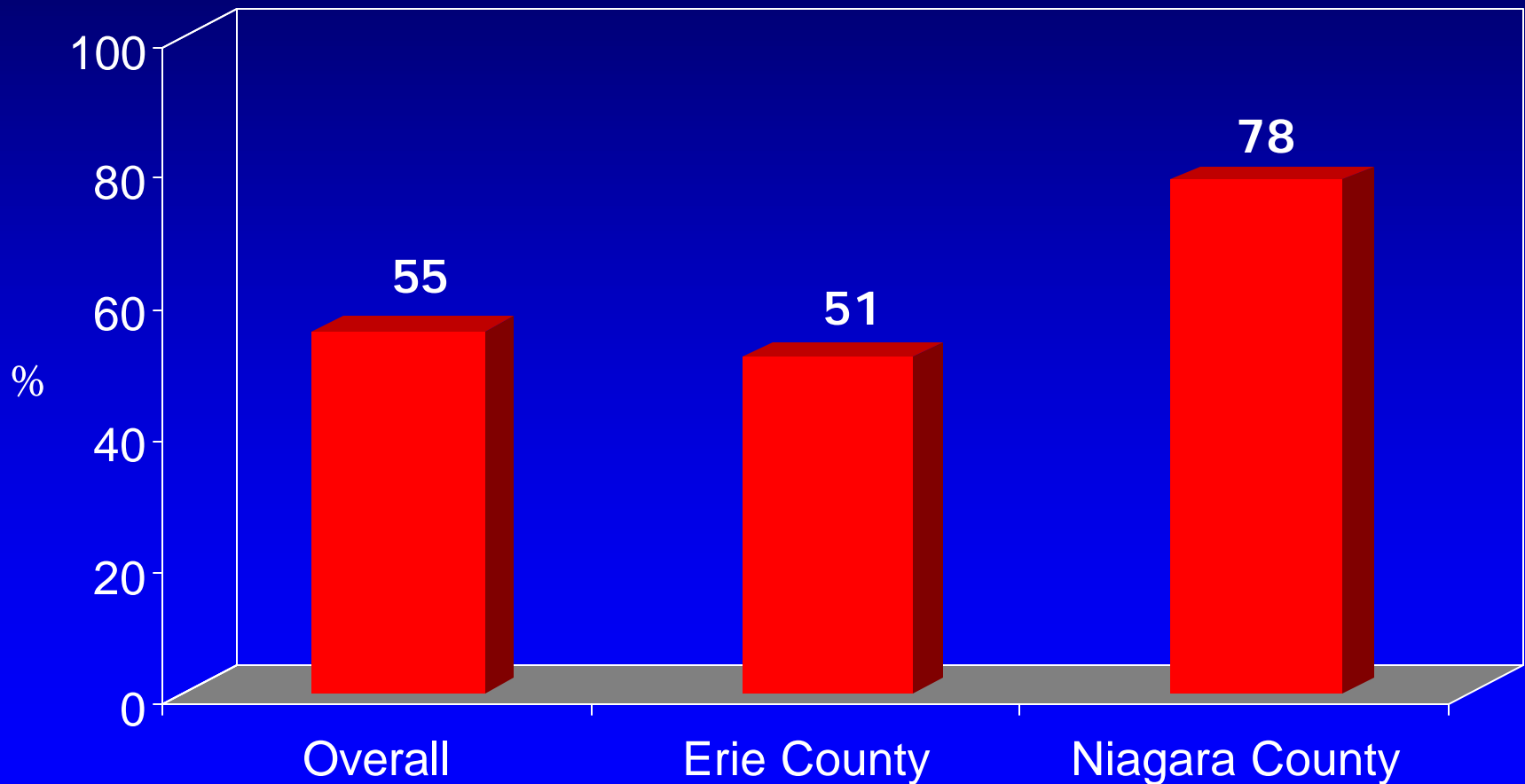


Usual Source of Cigarettes: NYS vs. the Rest of the US -- Fall 2002.

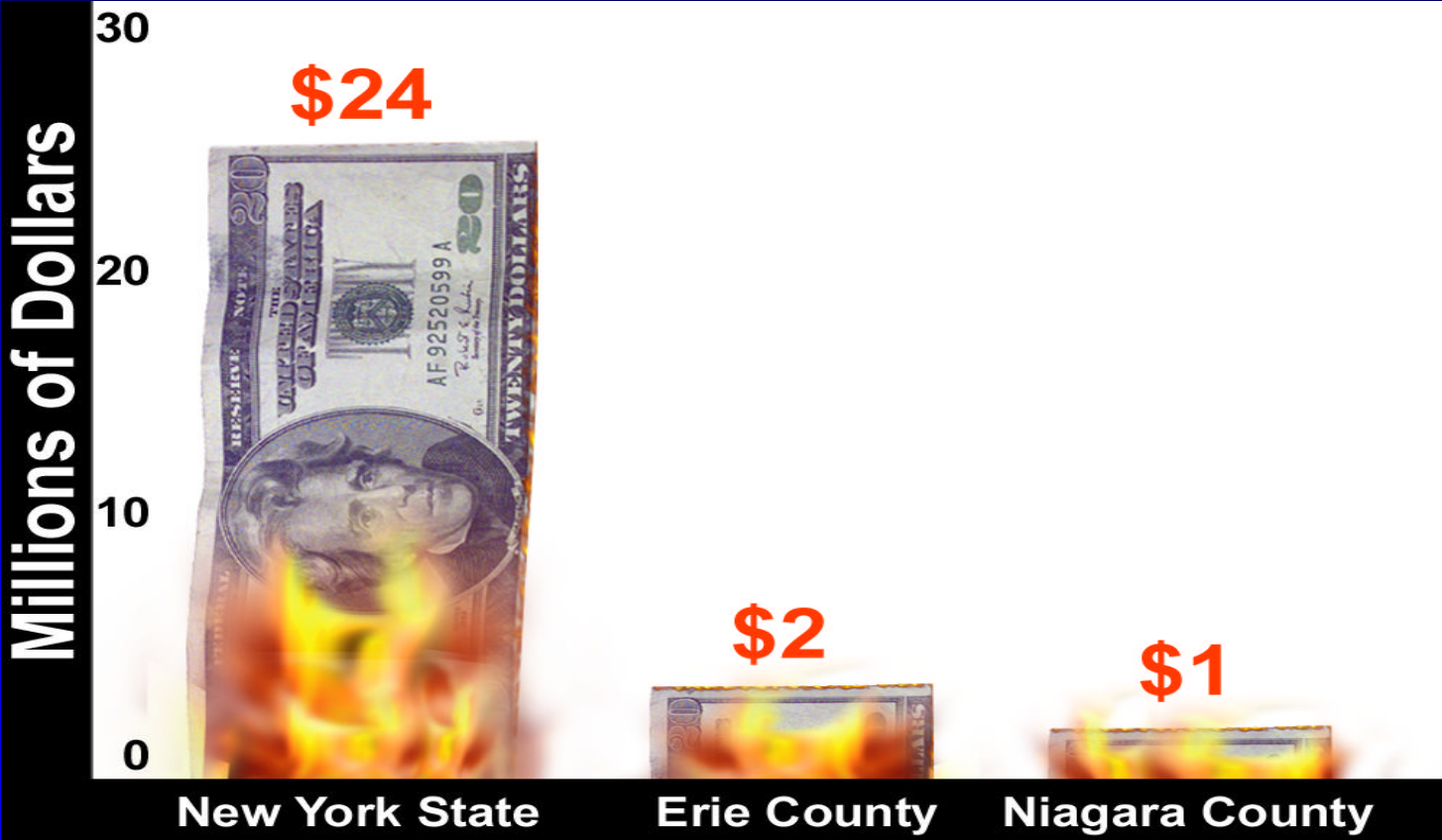


ITC Question: "Where do you buy most of your cigarettes? ..."
Source: International Tobacco Control Policy Evaluation Survey

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*

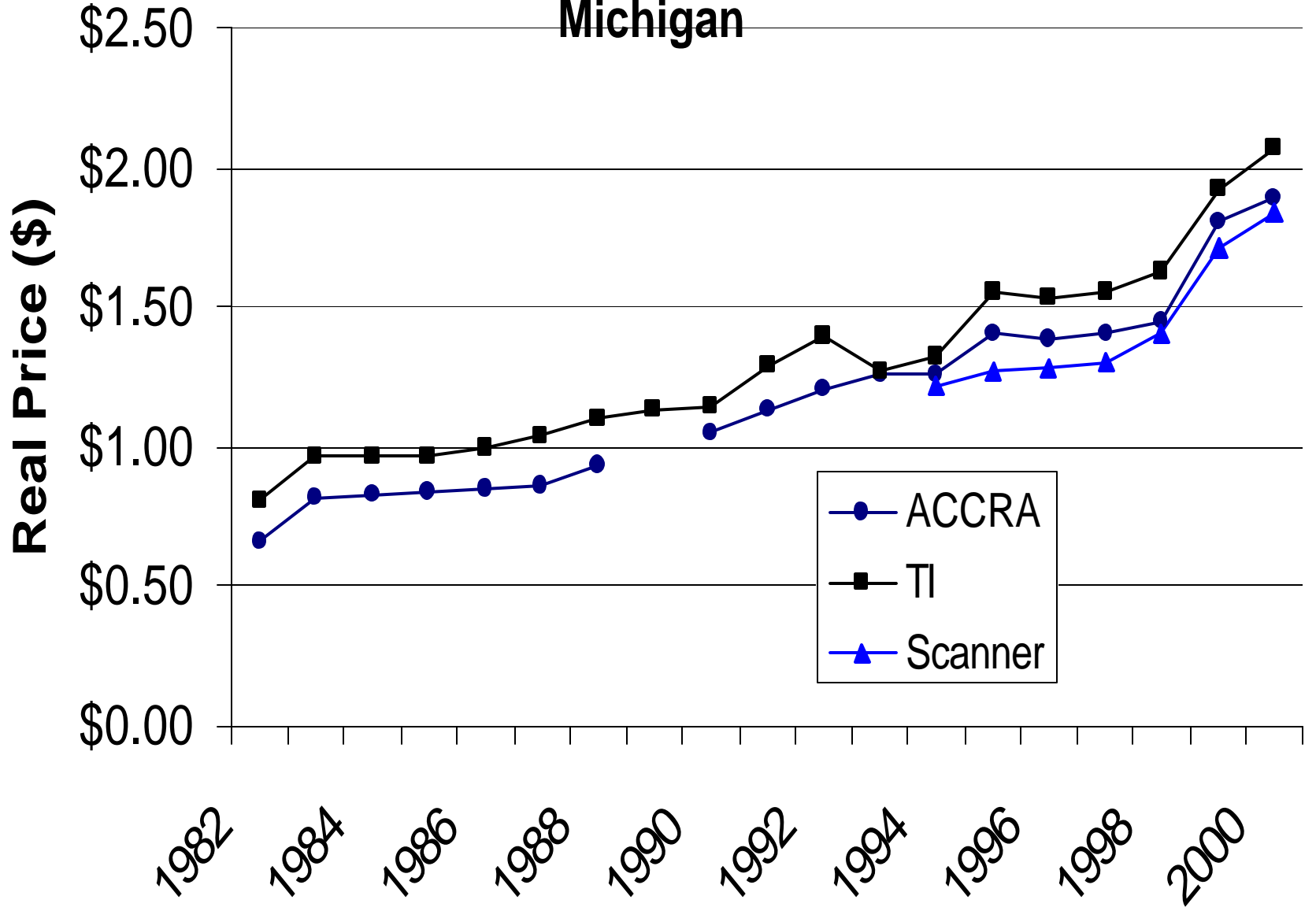


*Assuming these smokers buy 50% of the cigarettes that they smoke from Indian Reservations and that they smoke 15 cigarettes per day; NY State estimate reflects revenue lost from Erie/Niagara residents.

Sources of Cigarette Price Data

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

Michigan



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
- Harlan Juster – NYS DOH

- Price Data

- Frank Chaloupka – UIC
- Sherry Emery – UIC
- ImpacTeen
- Andrew Hyland – RPCI
- Mike Cummings – RPCI
- RTI – Matthew Farrelly

- PUP Enforcement

- Cindy Tworek – RPCI
- ImpacTeen