

Growing Pennsylvania's  
High-Tech Economy:  
*Choosing Effective Investments*

Good Jobs First

January 13, 2010

Heinz Endowments ~ Pittsburgh

# Where Do Pa.'s High-Tech Jobs Come From (and Go)?

- Landing “big buffalo,” “trophy” deals?
- Lured in/lured away across state lines?
- In via foreign direct investment?
- Out via flight offshore?
- Expansions of existing workplaces?
- Start-ups?

# How Do Pennsylvania's High-Tech Incentives and Tax Rates Stack Up?

- Per high-tech balance sheets?
- Pennsylvania's incentives "menu" versus six competing states'?
- Re: interstate relocations?
- Re: offshore job flight?

# What Do Big Deals Tell Us?

- Is any deal worth \$1 million per job?
- Are high-tech deals sturdy or fragile?
- Should governors allow intrastate competitions?
- Should states be allowed to verify claims of competing-state bids?

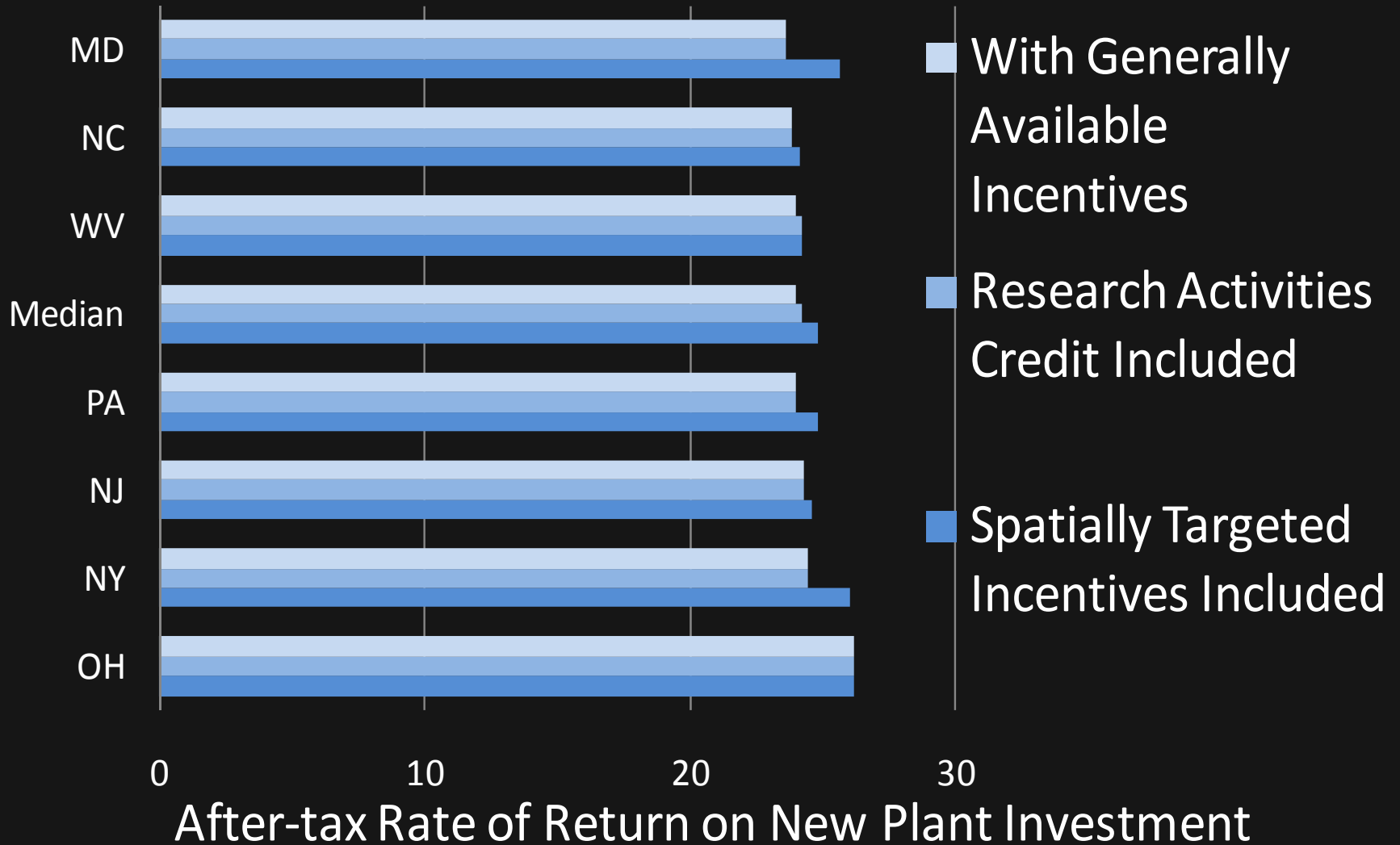
# How Can We Choose the Most Effective Investments?

- What should be done with taxes?
- With incentive programs generally?
- What does Pennsylvania's skills base offer for an alternative strategy?
- What kinds of companies deserve the most help?

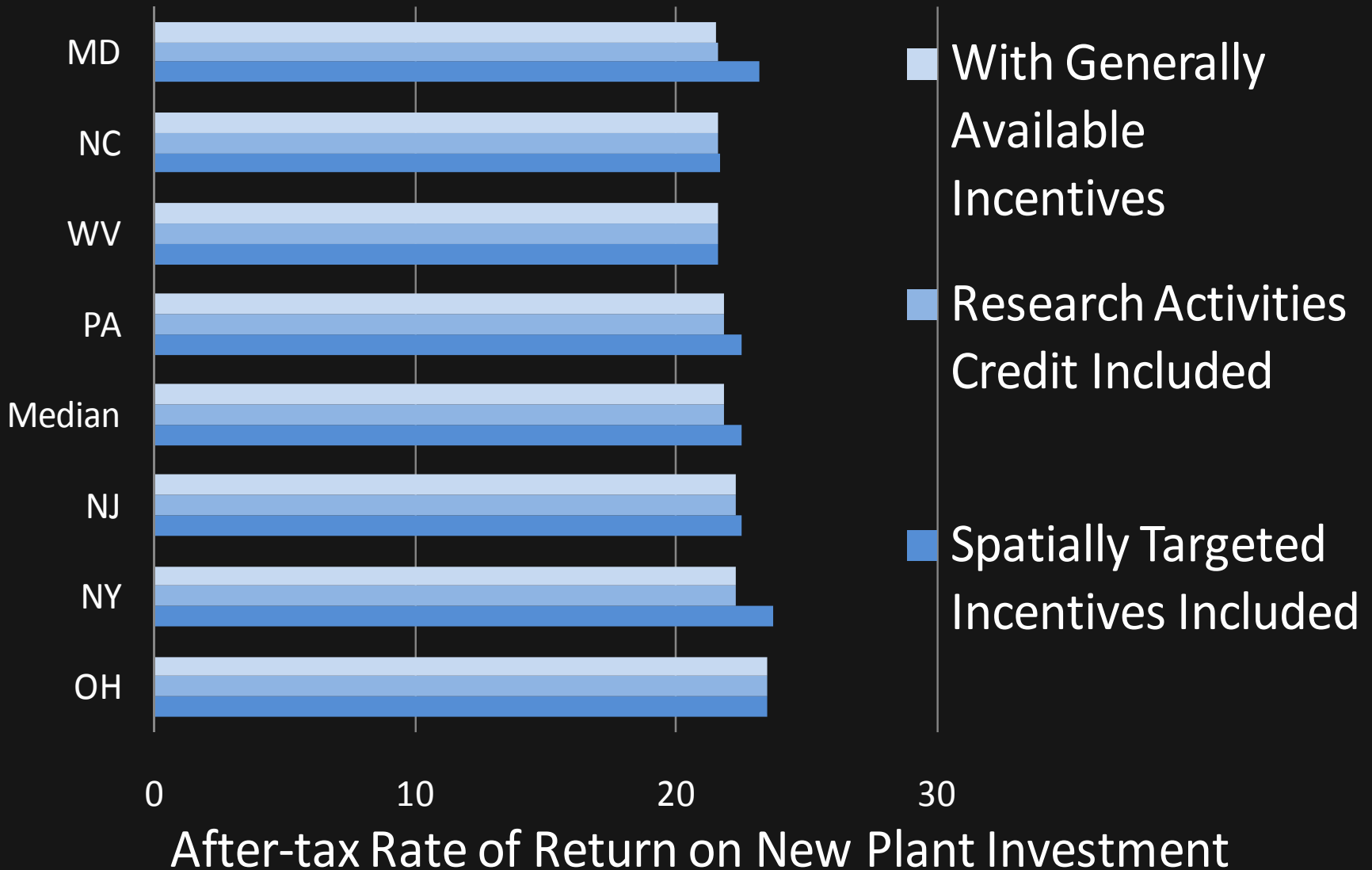
# The TAIM<sup>ez</sup> Model

- Created by Profs. Peter Fisher and Alan Peters
- Representative-firm spreadsheet models of 250-person high-tech facilities
- Typical cost structures, held constant
- Only variables: state taxes and incentives

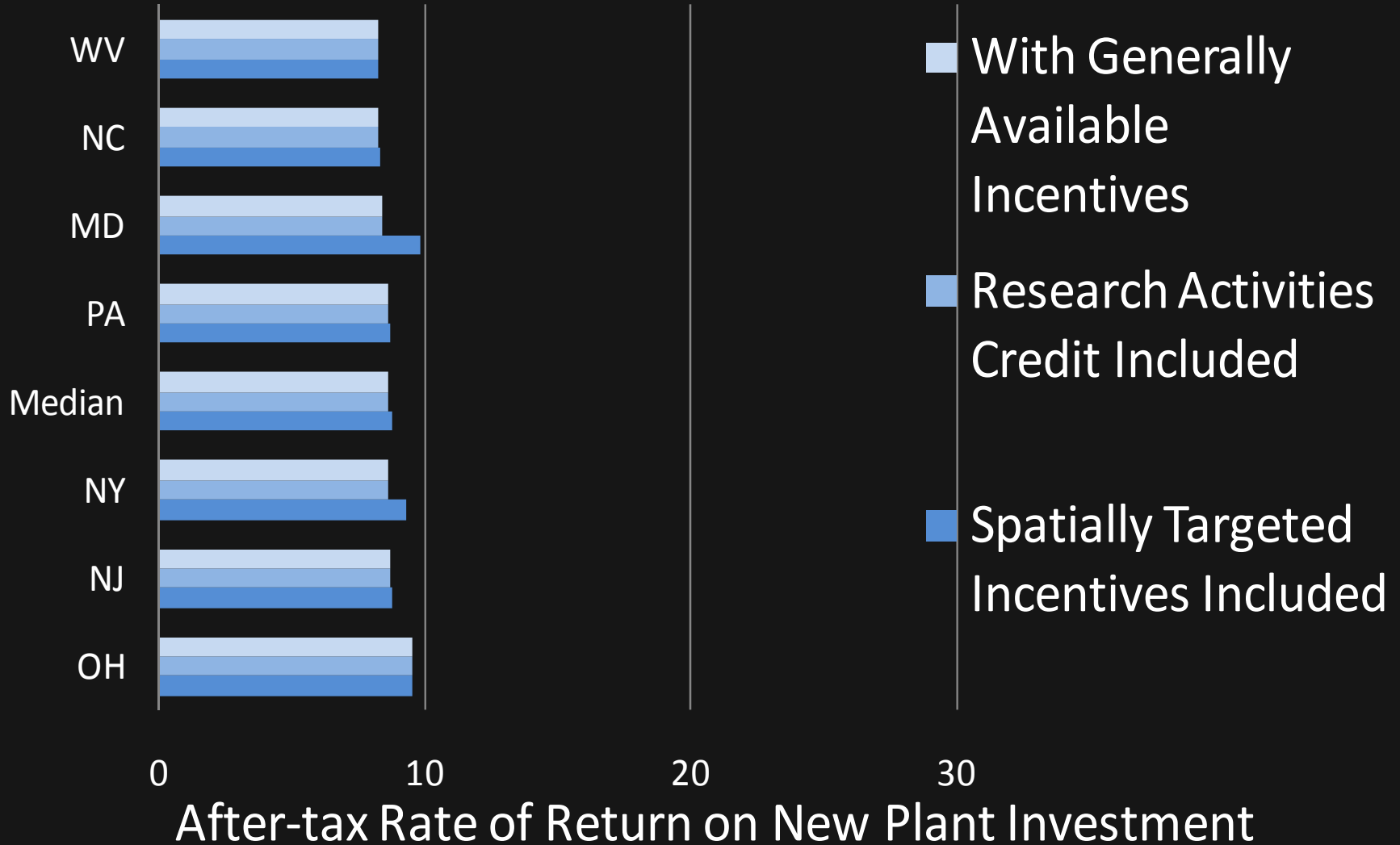
# ROI: Pharmaceuticals & Medicines



# ROI: Machinery Manufacturing



# ROI: Semiconductors & Other Electronic Components



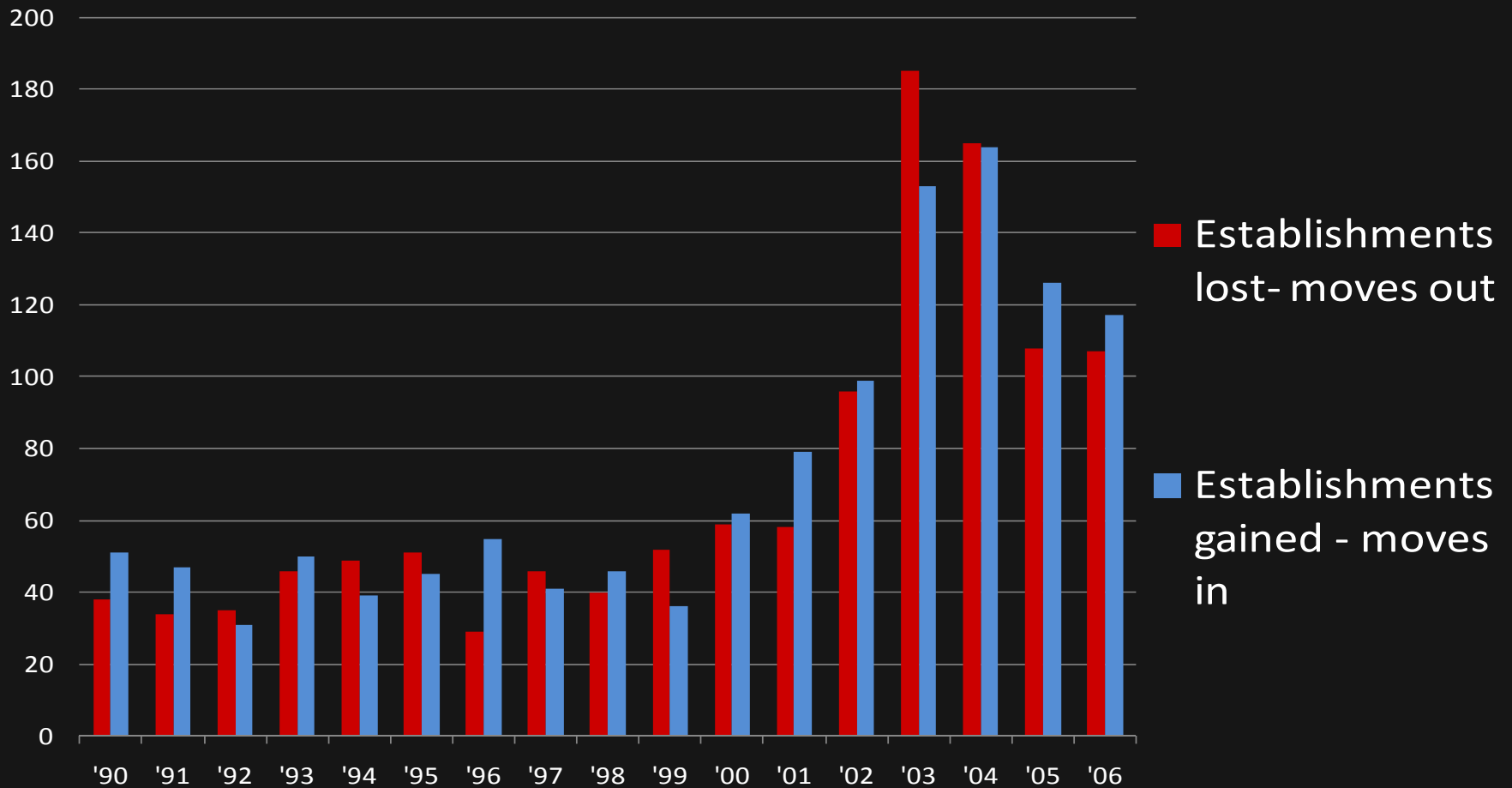
# Additional ROI Calculations, Same Results

- Resin, Synthetic Rubber, Artificial Fibers
- Plastics & Rubber Products
- Computers & Peripherals
- Electrical Equipment & Appliances
- Transportation Equipment

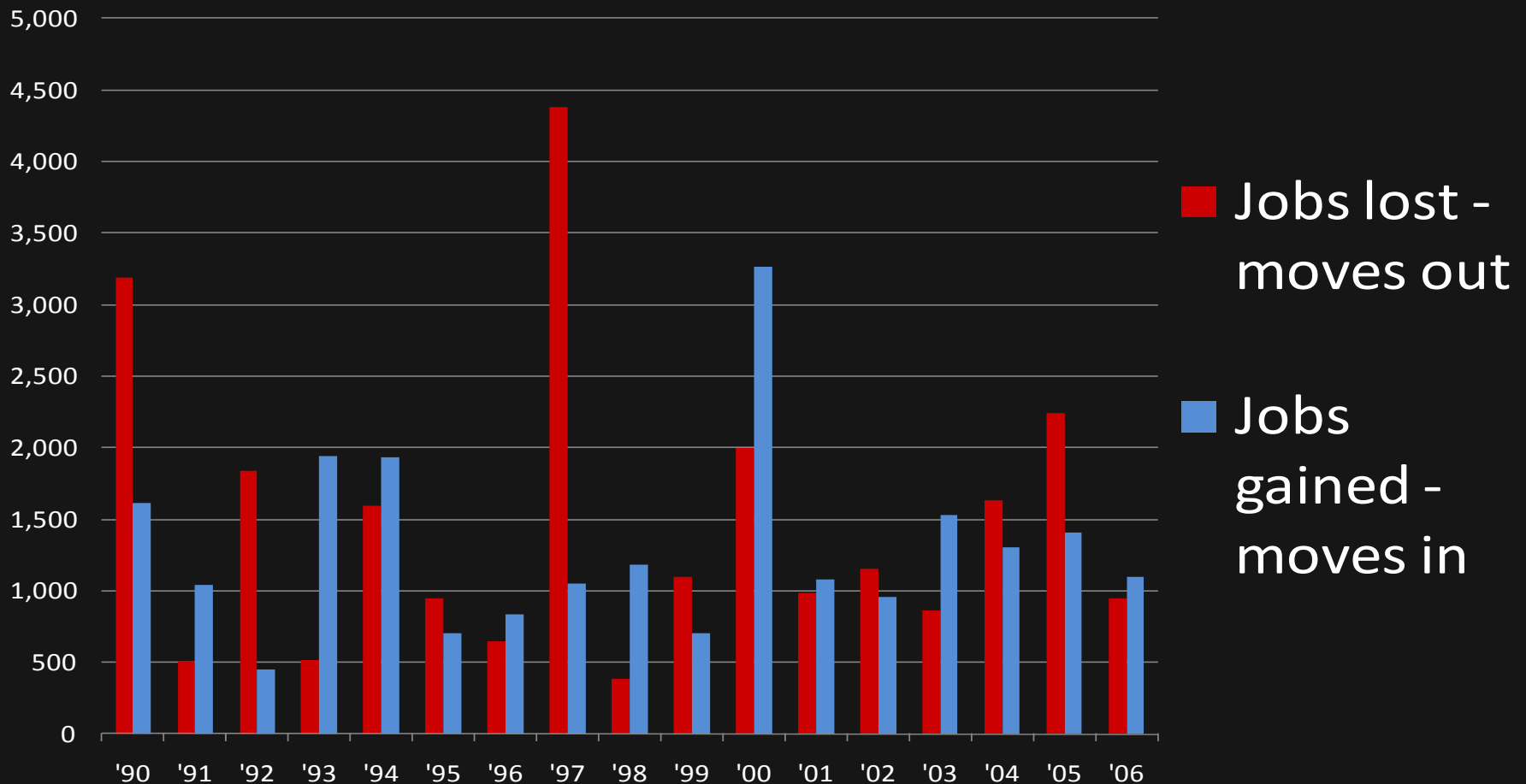
# National Establishment Time Series (NETS) Analysis

- Proprietary database of Walls & Associates with Dun & Bradstreet's data
- Tracks virtually every workplace over time
- Births, death, expansions, contractions, in-migrations, out-migrations
- Broad swath of high tech examined (82 four-digit Industrial Codes)

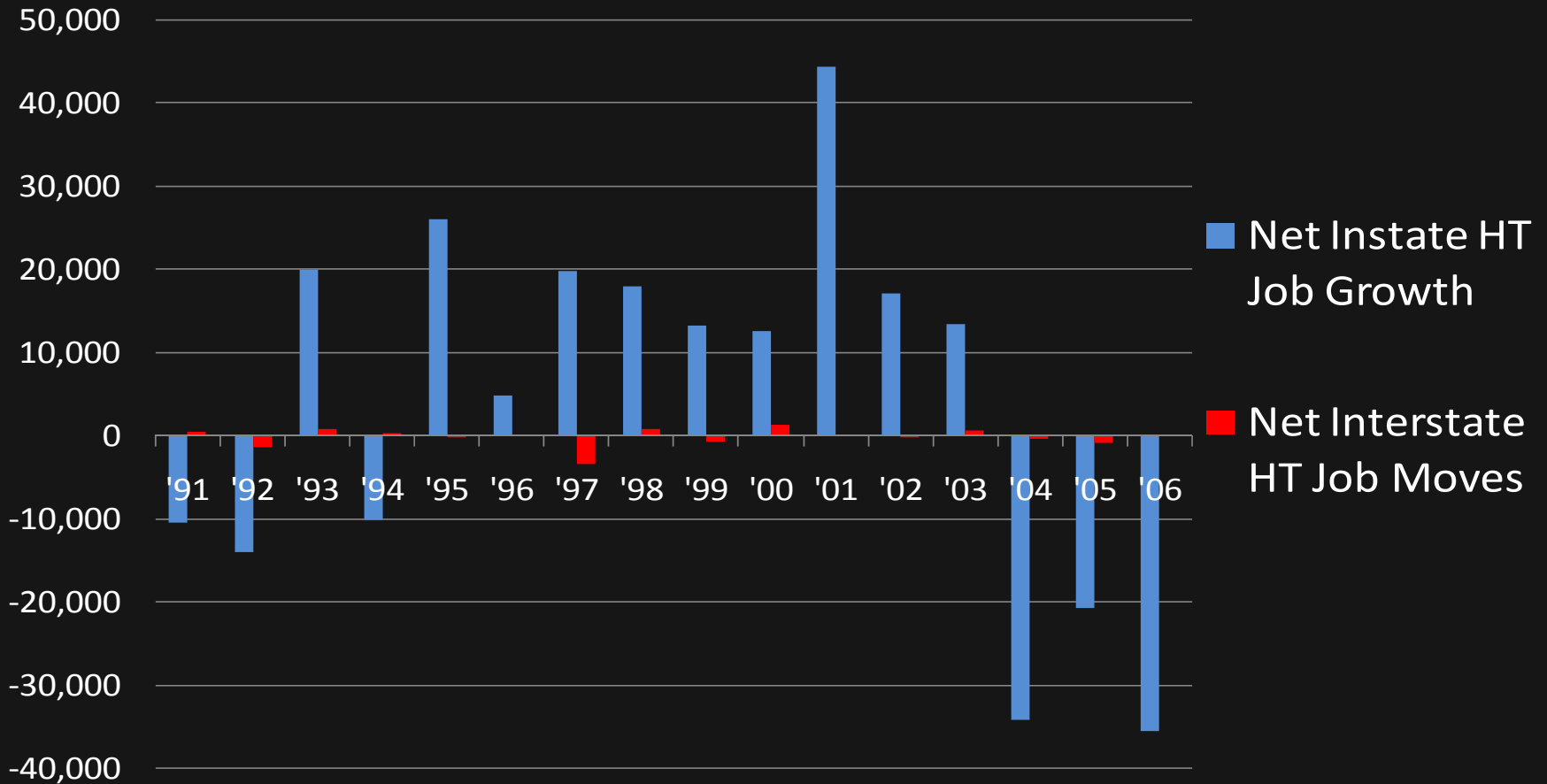
# Interstate High-Tech Business Moves, into/out of PA ('90-'06)



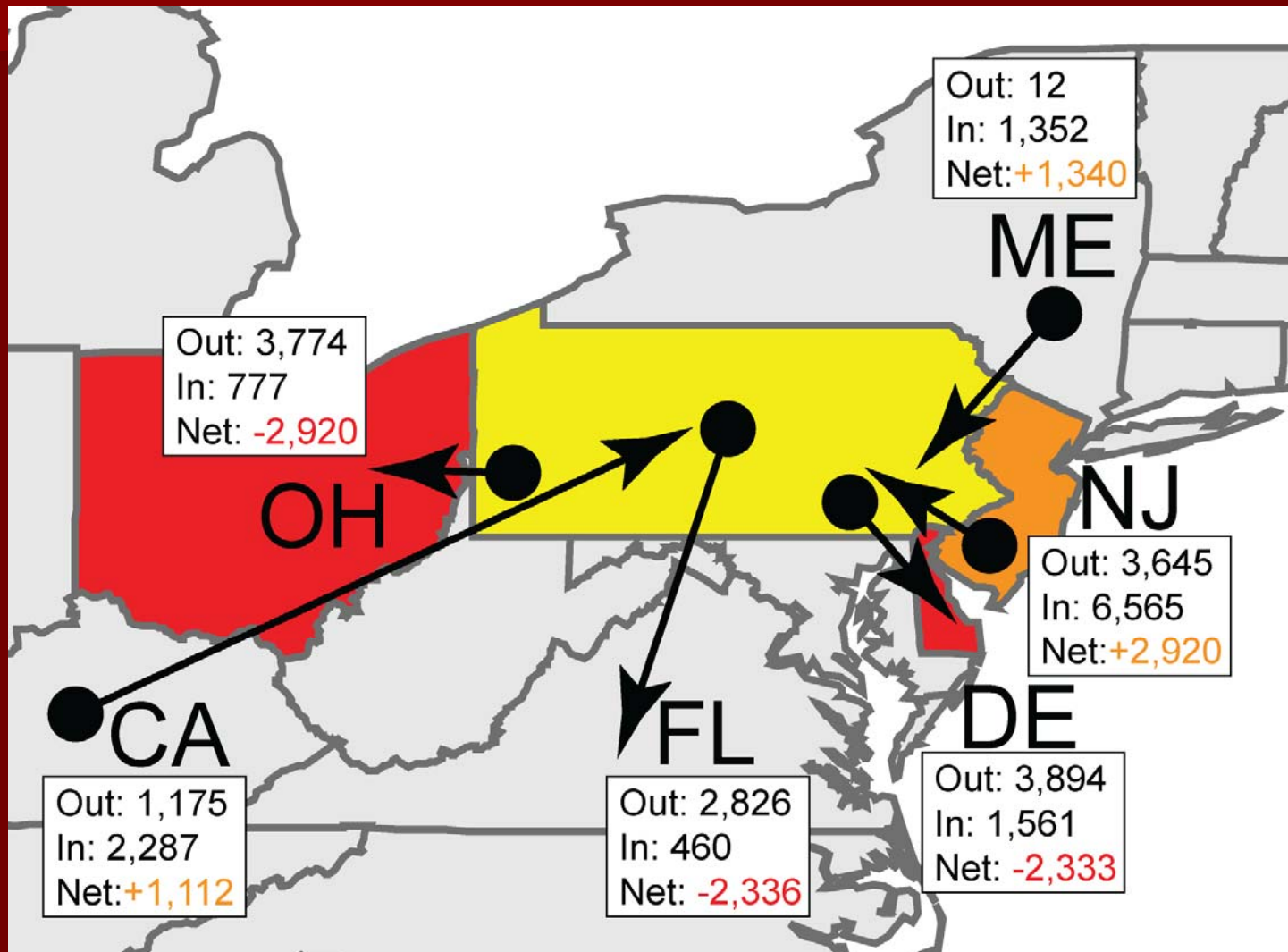
# High-Tech Jobs Gained and Lost from Interstate Moves, ('90-'06)



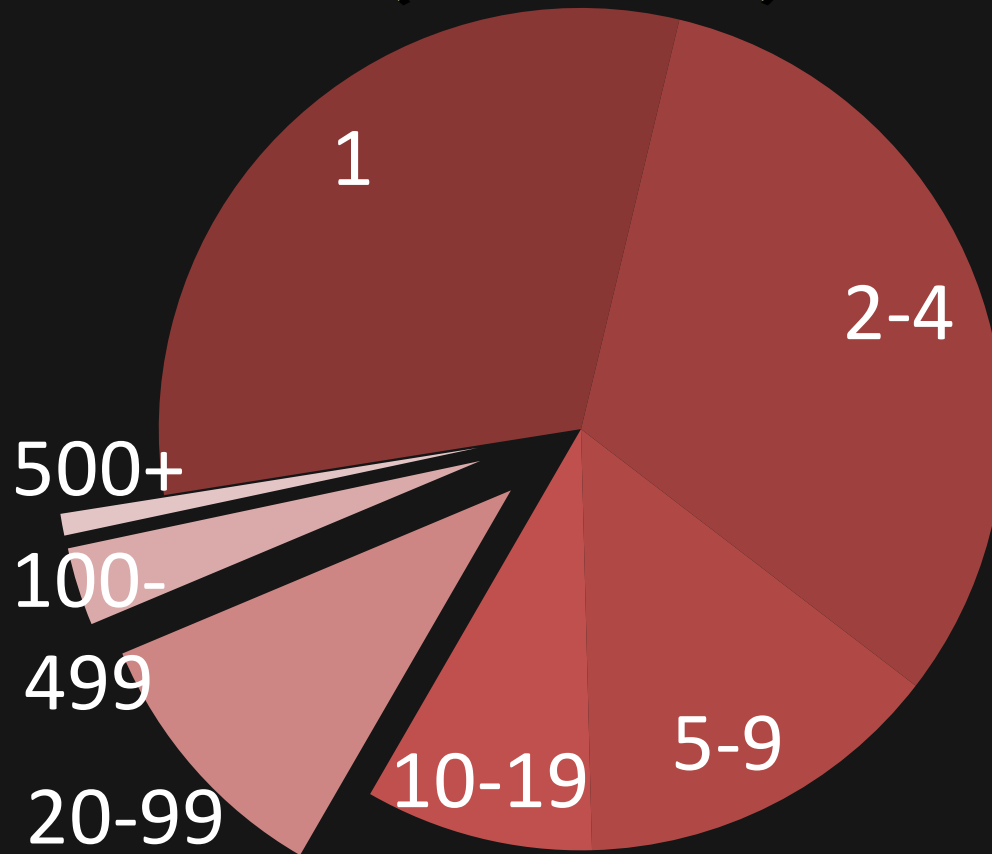
# Annual Change in Net PA High-Tech Jobs, ('91-'06)



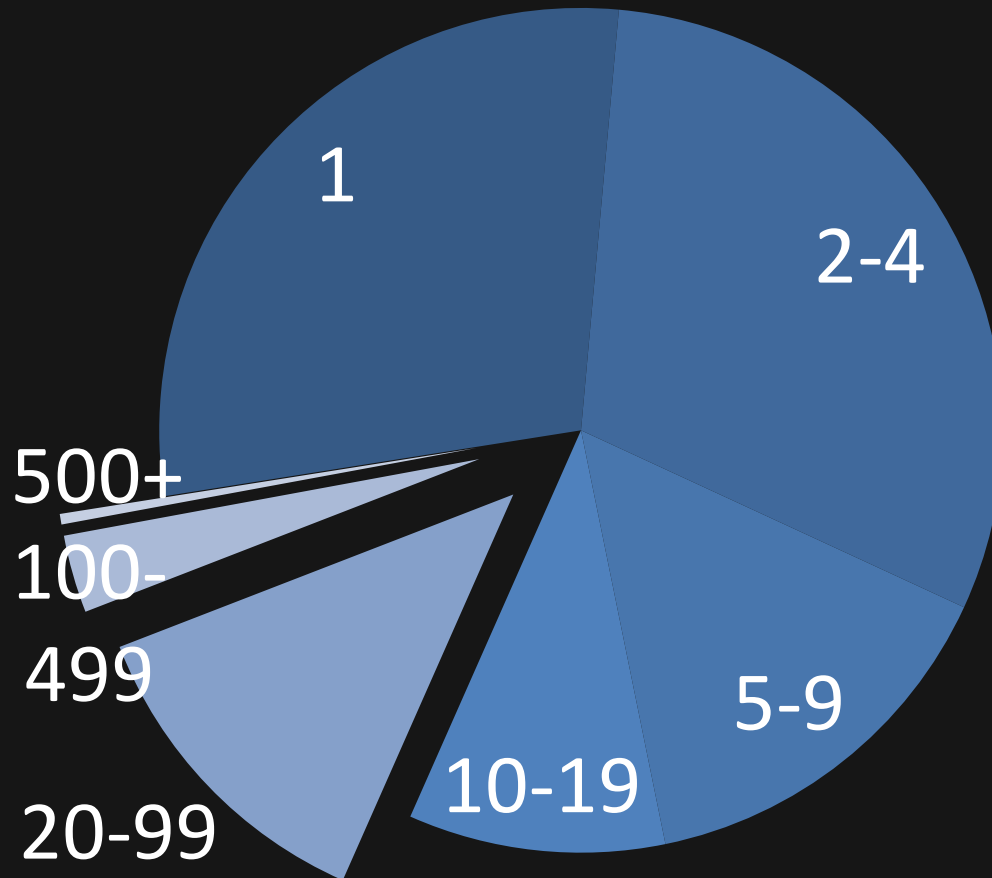
# High-Tech Job Relocations by State to and from PA, ('90-'06)



# High-Tech Firms Moving Out of PA by Number of Employees, ('96-'06)



# High-Tech Firms Moving Into PA by Number of Employees, ( '96-'06)



# Cumulative PA High-Tech Job Loss Due to Business Moves ('90-'08)

Jobs Lost

25,000

20,000

15,000

10,000

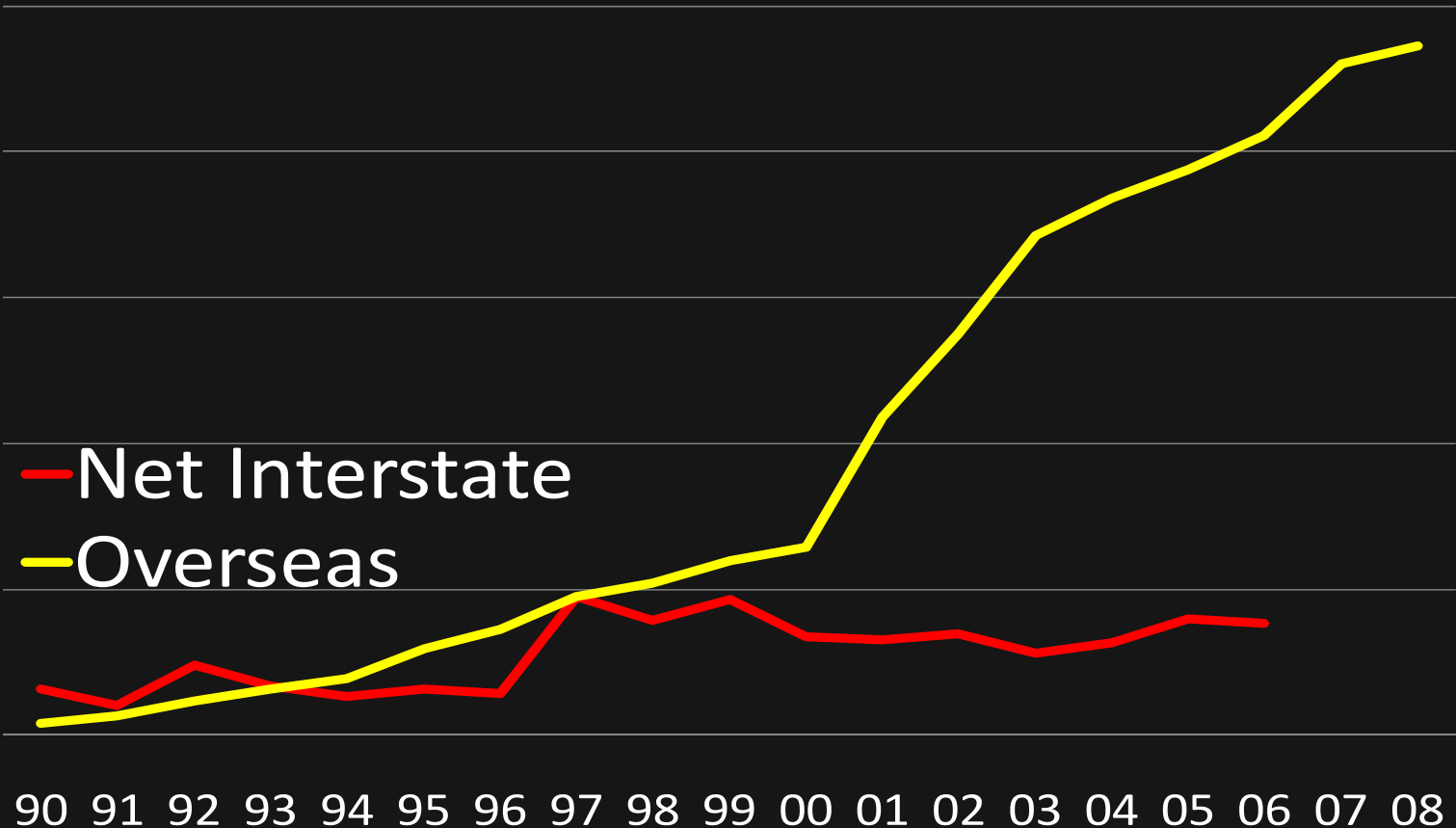
5,000

0

— Net Interstate

— Overseas

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# Seven States' Technology-Based Economic Development Incentives

- Summarized, but not evaluated – due to insufficient disclosure, poor costing data
- Pennsylvania's codes appear somewhat more balanced than others' re: aid to small, young companies

# Eight Big-Ticket Deals

- One in each state, two in North Carolina
- High-tech deals involving top state-government officials
- Range of industries, ownership structures
- Analyzed first via news media reports, then through FOIAed recruitment records

# Westinghouse–Cranberry Twp., Pa.

- Nuclear power research expansion won new “Strategic Development Area” law
- State discouraged competition by Pittsburgh-area localities
- Plays to regional strength, but alternative uses of \$ not debated



# Dell - Winston-Salem, N.C.

- Record state package of \$242M
- Plus \$37M local, after state-sanctioned intraregional competition
- Jobs last less than four years
- Clawback funds now the issue



# Google – Lenoir, N.C.

- Very aggressive site-location behavior
- State enacted new sales-tax exemption on electricity for server farms, value undisclosed
- Conclusion: Google is coming – ideal target for multi-state “Just say no” campaign
- “Don’t be evil”?



# Amylin – West Chester, Ohio

- State and local subsidies \$117M, not \$46M from state, as originally announced
- Taft and Strickland administrations were eager, yet partner plant was nearby
- Diabetes-drug biotech company with FDA ruling pending



# AMD/Global Foundries – Malta/Stillwater, N.Y.

- \$1.2B in subsidies for ~1,200 jobs = \$1M per job – yet no wage distribution given
- AMD \$ troubles, long delay, necessitate equity infusion from Abu Dhabi company



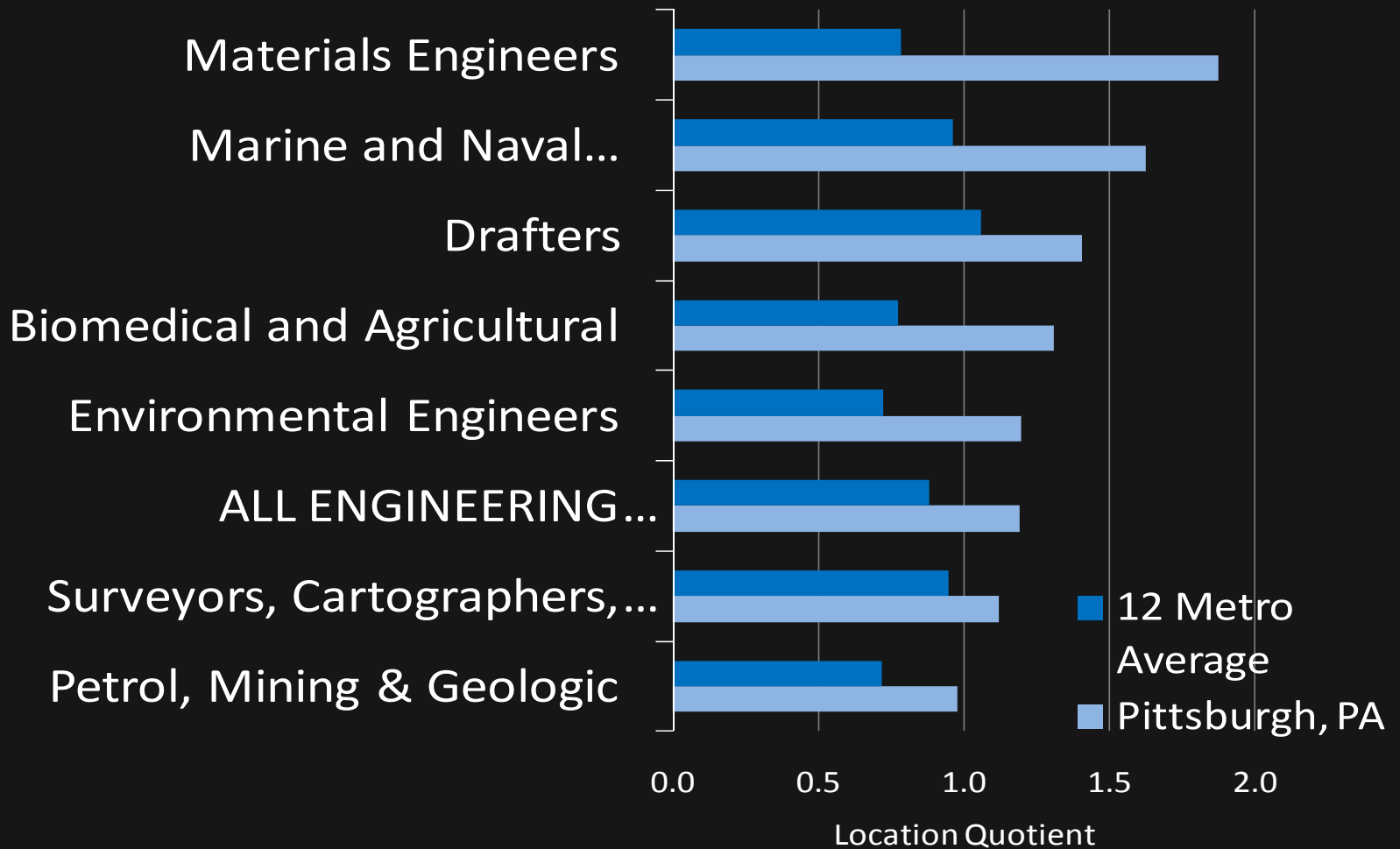
# Case Study Takeaways

- Big-dollar subsidies are decidedly low-tech
- Claims of competing state bids go unverified
- Some deals are fragile
- Pennsylvania and North Carolina show different policies on intrastate competition

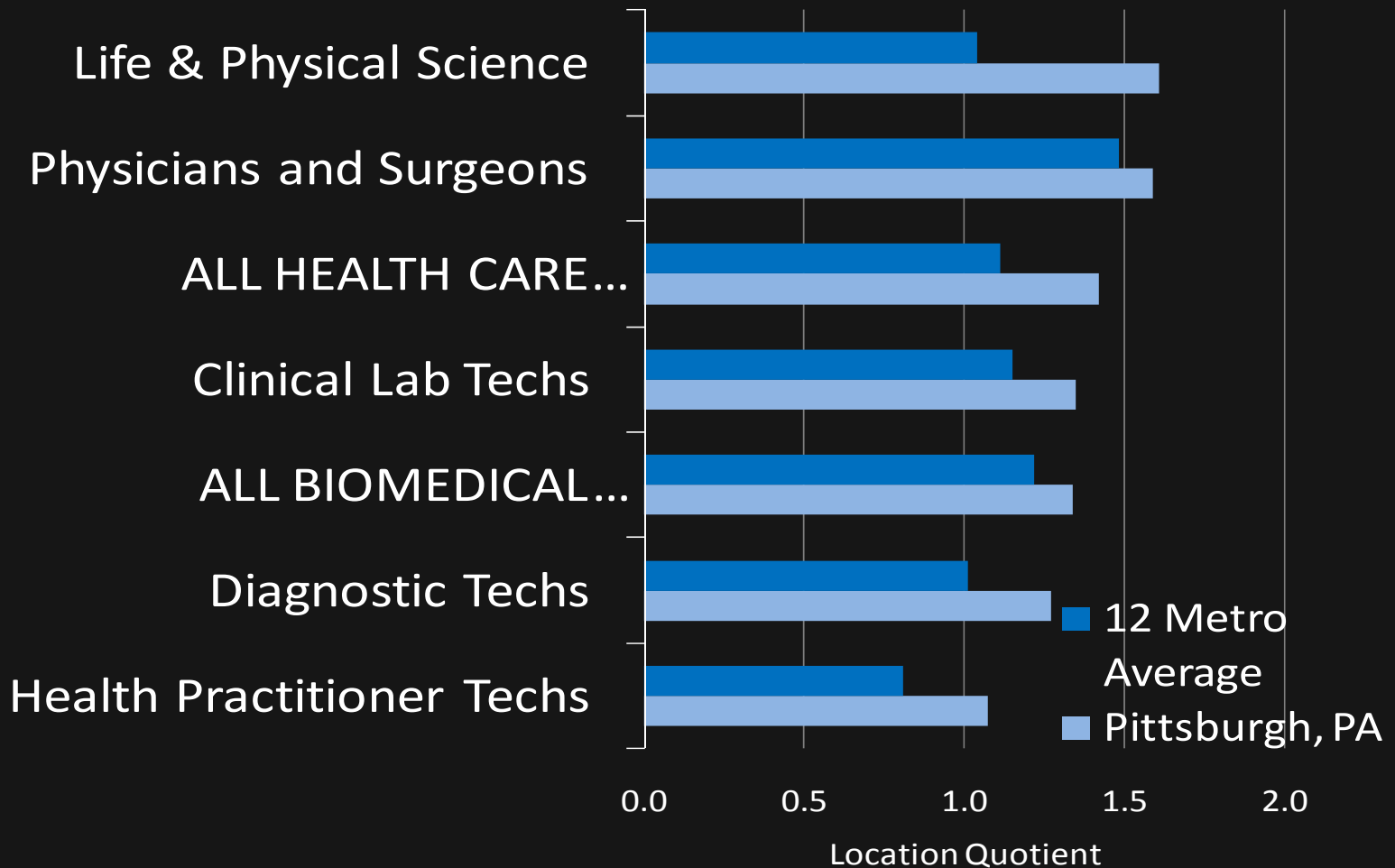
# Pittsburgh's Occupational Advantage

- Alternative high-tech strategy: people with key skills
- Opposite of many eggs in a few corporate baskets
- Lower risk of losing taxpayer investments
- Occupational Location Quotient (LQ), or degree of geographic concentration

# LQs for Architecture & Engineering Occupations



# LQs for Healthcare Practitioners & Biomedical Occupations



# Policy Recommendations

- Do No More Harm to the Tax Code
- Keep Integrating Workforce and Economic Development
- Build on "Occupational Cluster" Advantages That Fuel Innovation

# Policy Recommendations

- Grow Your Own (Existing) Employers; Don't Recruit from Other States
- Make the "Investment Tracker" a Functional Tool for Analysis
- Create a Unified Development Budget

# Policy Recommendations

- Consider More Support for Small, Young, and Locally Owned Businesses
- On Job Flight, Focus on Federal Trade Policy

# Thank You!

- Heinz Endowments
- Keystone Research Center
- Policy Matters Ohio
- Fiscal Policy Institute (N.Y.)
- North Carolina Budget and Tax Center
- West Virginia Center on Budget and Policy
- New Jersey Policy Perspective
- Maryland Tax and Budget Policy Institute

# Contact Us!

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