



Transforming the Trendline

Adapting an Analog System for a Digital Age



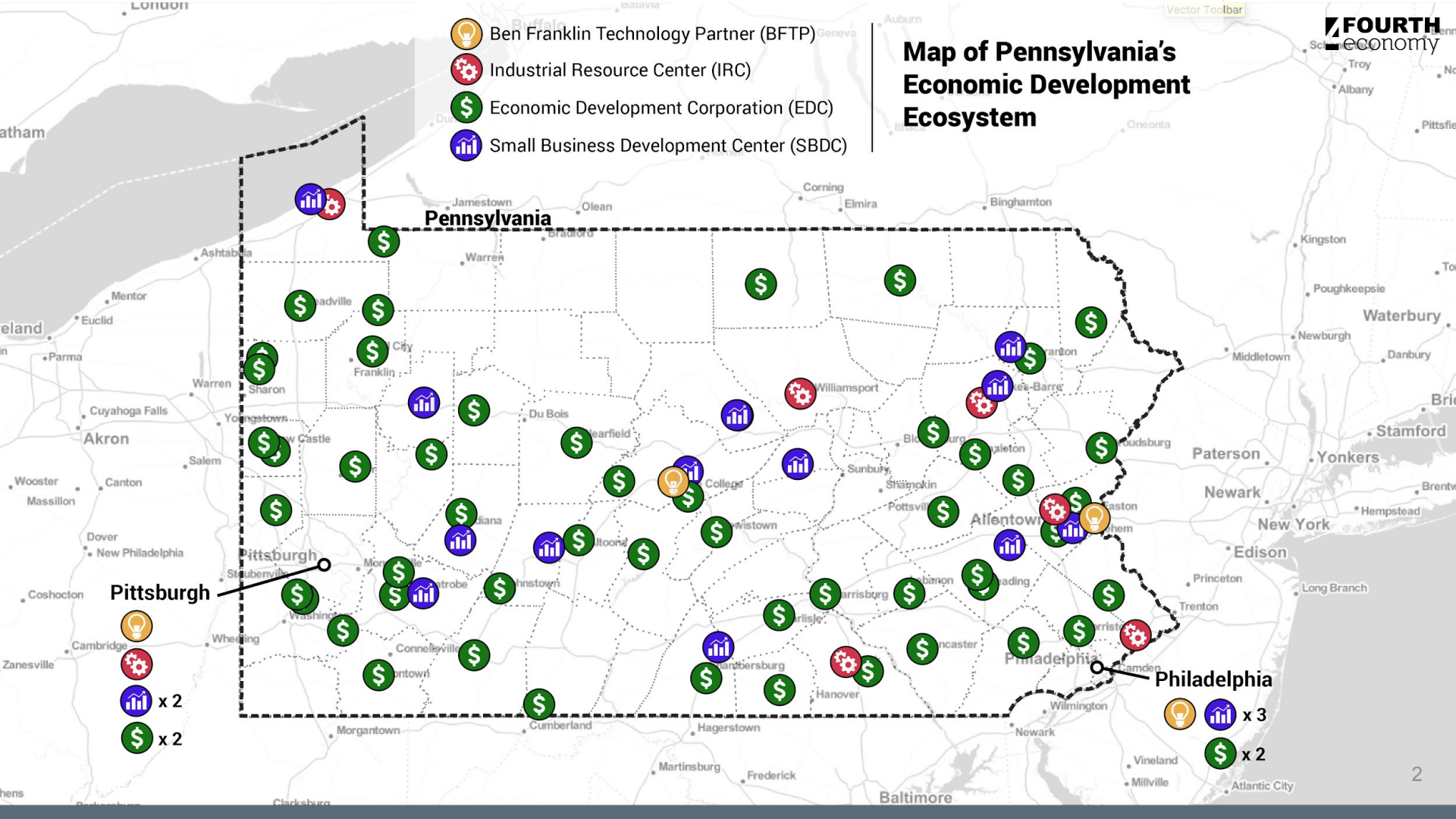
PEDA Spring Conference

April 30, 2019

Harrisburg, PA

-  Ben Franklin Technology Partner (BFTP)
-  Industrial Resource Center (IRC)
-  Economic Development Corporation (EDC)
-  Small Business Development Center (SBDC)

Map of Pennsylvania's Economic Development Ecosystem



PEDA EDC Participant Impacts

Fourth Economy and Econsult surveyed PEDA's EDC members to identify their economic impacts from 2015 to 2017 (45 of 59 members responded). We looked at five broad areas of activity:

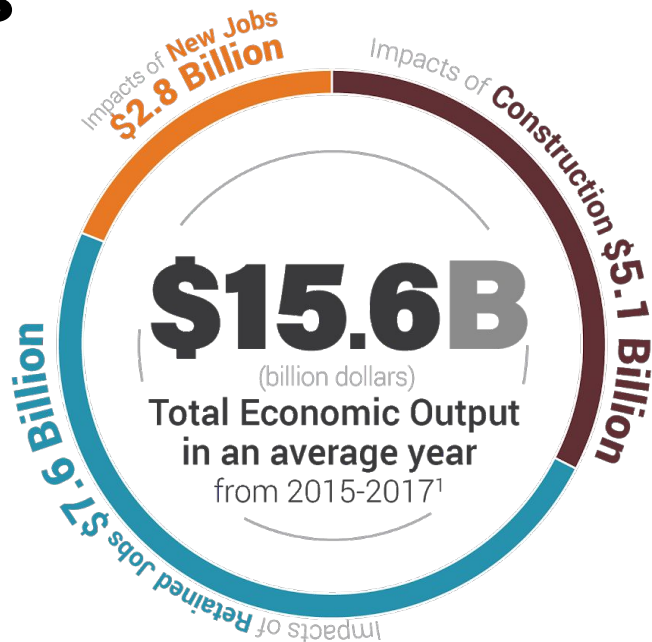
- Construction
- Land & Buildings
- Operations Finance
- Economic Development Services
- Job Retention



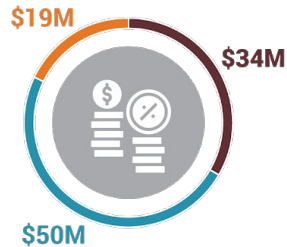
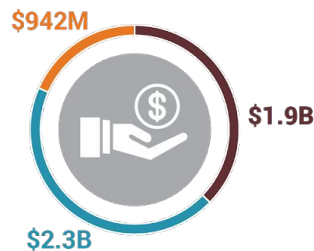
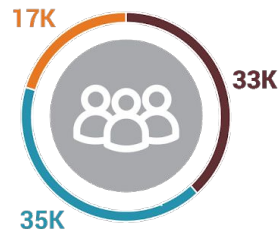
PEDA EDC Impacts



See infographic for notes on methodology and calculations.



▲ Total Impacts



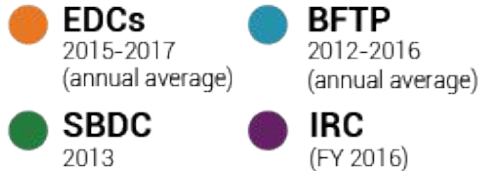
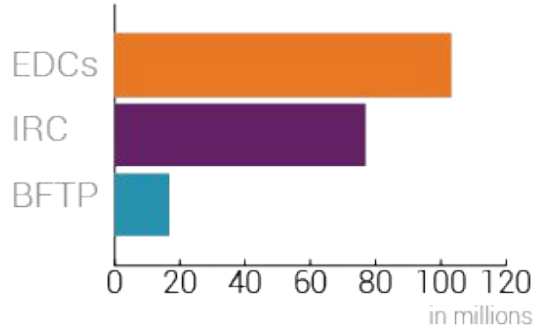
Specific Impacts ▲

Impacts of Statewide Programs

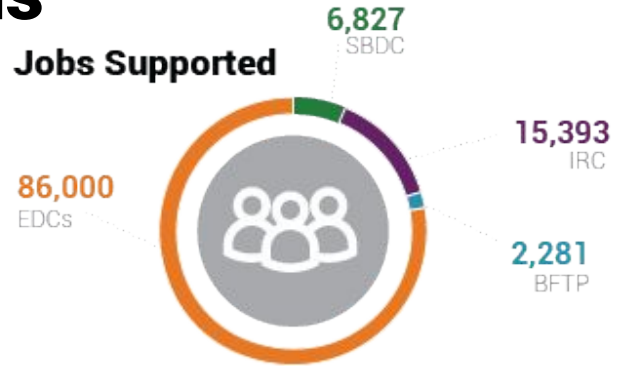
Earnings



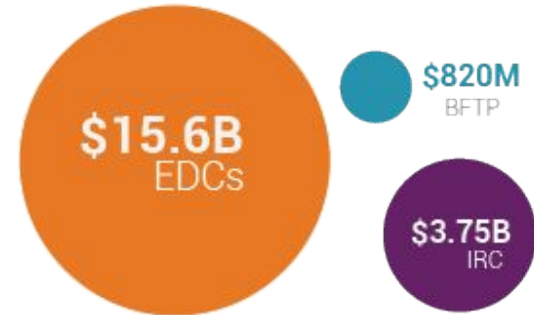
Taxes



Jobs Supported



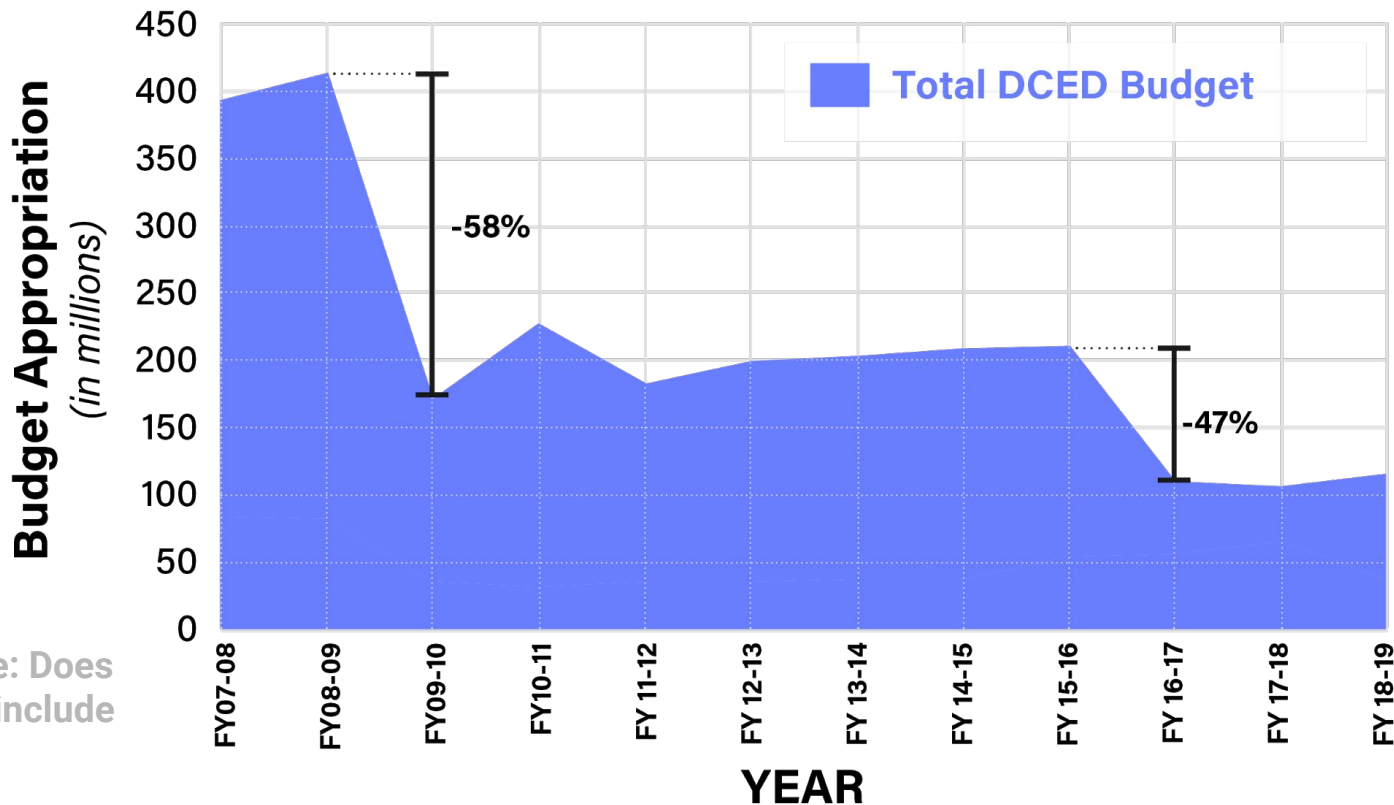
Output



What if...

DCED Appropriation Funding

2007-2018



Note: Does not include CFA

In addition to a **72% reduction** between 2008 - 2019, DCED saw a **58% drop** in it's budget between 2009 - 2010, and a nearly as drastic **47% reduction** between 2016 - 2017.

State Comparison from SSTI

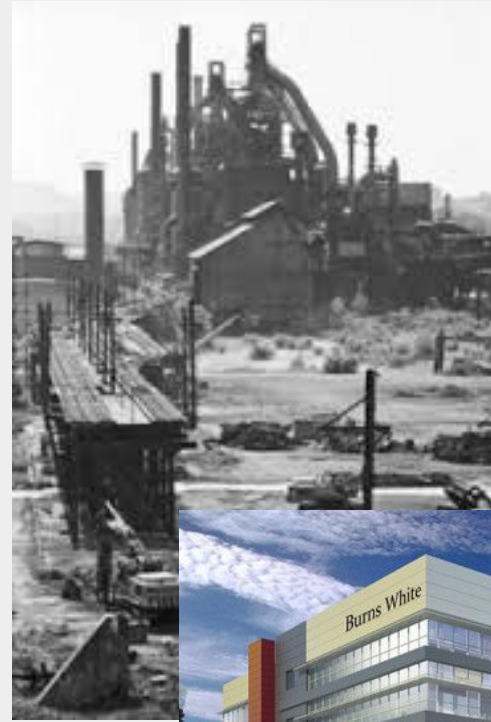
State	FY2018 Appropriation	Per capita appropriation
Arkansas	\$8,689,708	\$2.89
Connecticut	\$58,400,000	\$16.28
Georgia	\$24,607,944	\$2.36
Indiana	\$67,500,000	\$10.12
Maine	\$24,411,426	\$18.27
Maryland	\$52,464,972	\$8.67
Michigan	\$20,400,000	\$2.05
New York	\$41,829,000	\$2.11
North Carolina	\$13,932,843	\$1.36
Ohio (GRF)	\$23,349,956	\$2.00
<i>Ohio (Third Frontier)*</i>	<i>\$113,310,250</i>	
Oklahoma	\$13,422,892	\$3.41
Pennsylvania	\$17,600,000	\$1.37
Utah	\$22,829,500	\$7.36

Source: SSTI calculations from legislative appropriations passed in each of the states.

So PA has an economic development ecosystem making an impact but is enough being invested?

State of PA's Economy

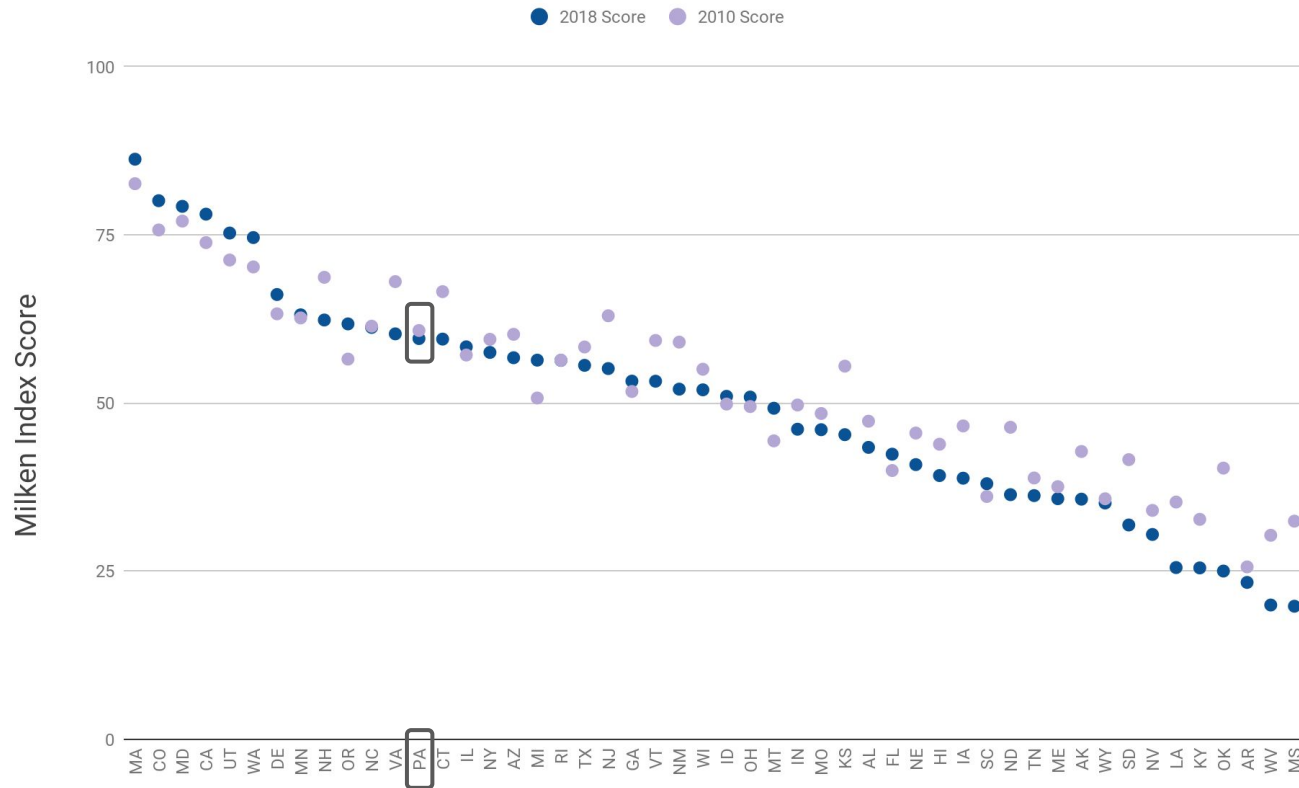
Churning Legacy Economy



Milken Index Score by State

Despite gaining one spot in the **rankings** between 2010 and 2018, between that same time period Pennsylvania's **score actually decreased, indicating that the gaps between states is widening** (high-performing states are better than ever and low-performing states are worse than ever).

We see large losses in the concentration of high-tech firms and employees in the state, which possibly **indicates the need for an attraction strategy.**



Milken Index Indicator Rankings

Research and Development Inputs

(facilities attracting funding and creating commercializable innovations)



Risk Capital and Entrepreneurial Infrastructure

(venture capital activity, patents, business formations, IPOs)



Human Capital Investment

(number of degrees relative to a state's population)



Technology and Science Workforce

(share of employment in CIS, engineering, life and physical science)



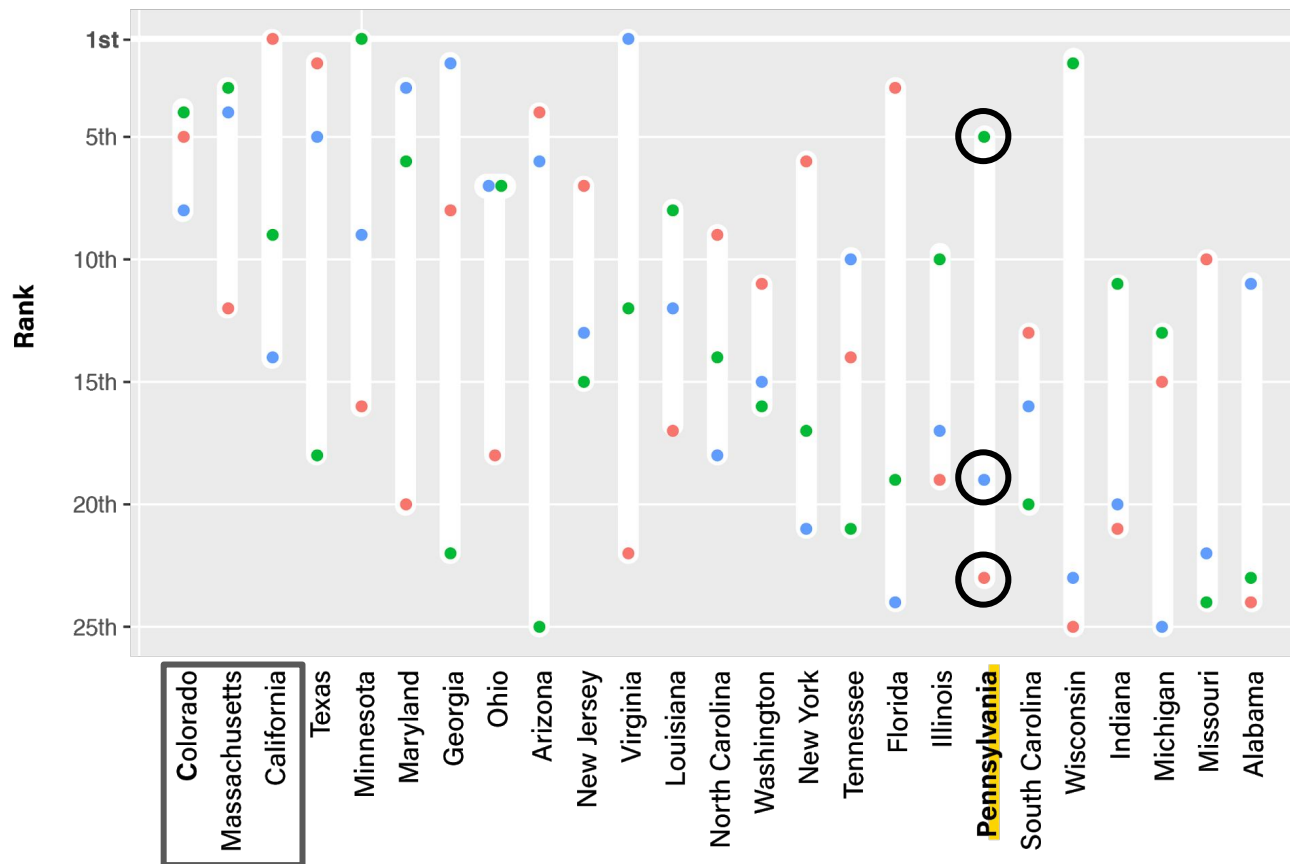
Technology Concentration and Dynamism

(% of establishments, employment, payrolls in high-tech, birth and growth of high-performing tech companies)



2018	2010
8	9
14	21
13	11
15	12
31	25

Kauffman 2016



Kauffman Rankings (Large States)

- Growth Entrepreneurship** 19th
- Start Up Activity** 23rd
- Main Street Entrepreneurship** 5th

Source:
Kauffman Foundation,
Kauffman Index of
Entrepreneurial
Activity, 2017

Economic Engines

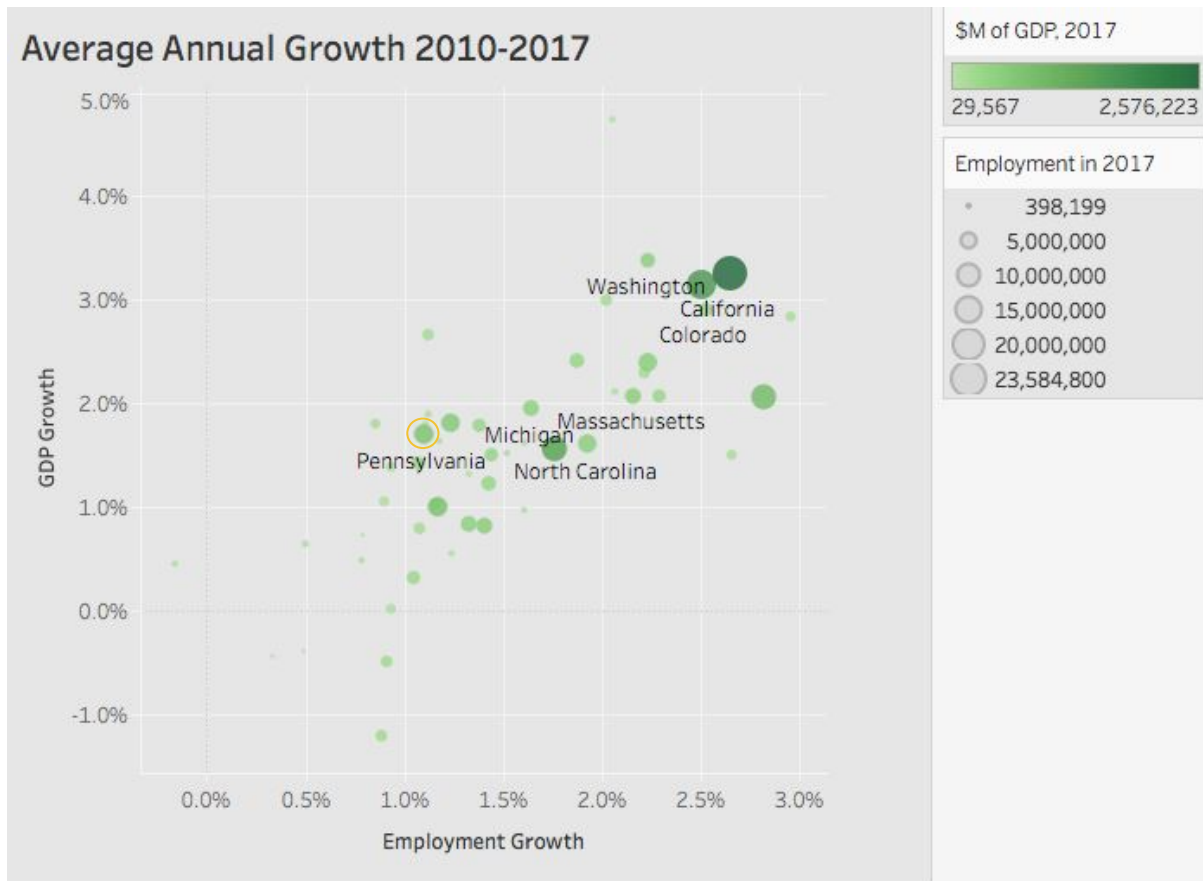
Are they ready to rev?



Lagging Growth

PA has not rebounded well from the recession

Since 2010, Pennsylvania's average annual growth in GDP ranks 22nd among all states, and employment growth ranks 36th



Brookings, Advanced Industries

- 2015 Brookings Report
- Looked at 50 Industries, characterized by STEM workforce and tech-focused R&D

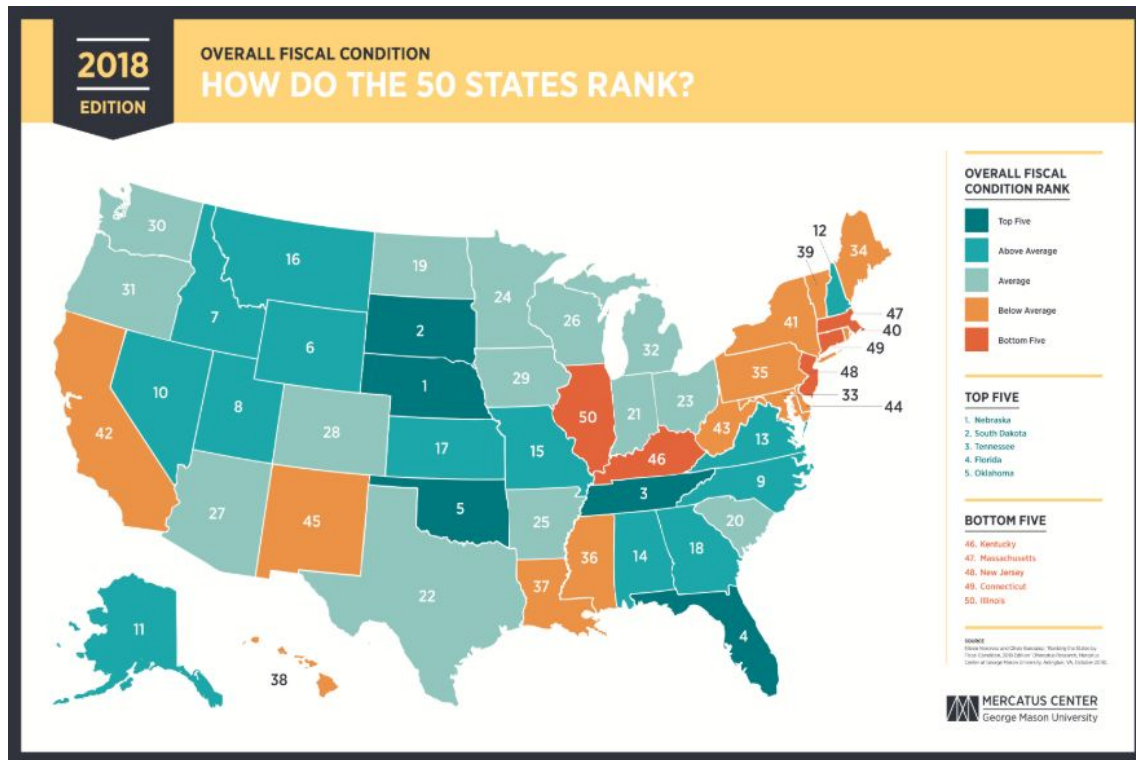
The Rankings:

1. Michigan
2. Washington
3. Massachusetts
4. Indiana
5. Virginia
6. Utah
7. California
8. Connecticut
9. Alabama
10. Colorado
11. Maryland
12. Texas
13. Kansas
14. New Hampshire
- ...
- 24. Pennsylvania**

Have We Cut Our Way to the **Bottom**?

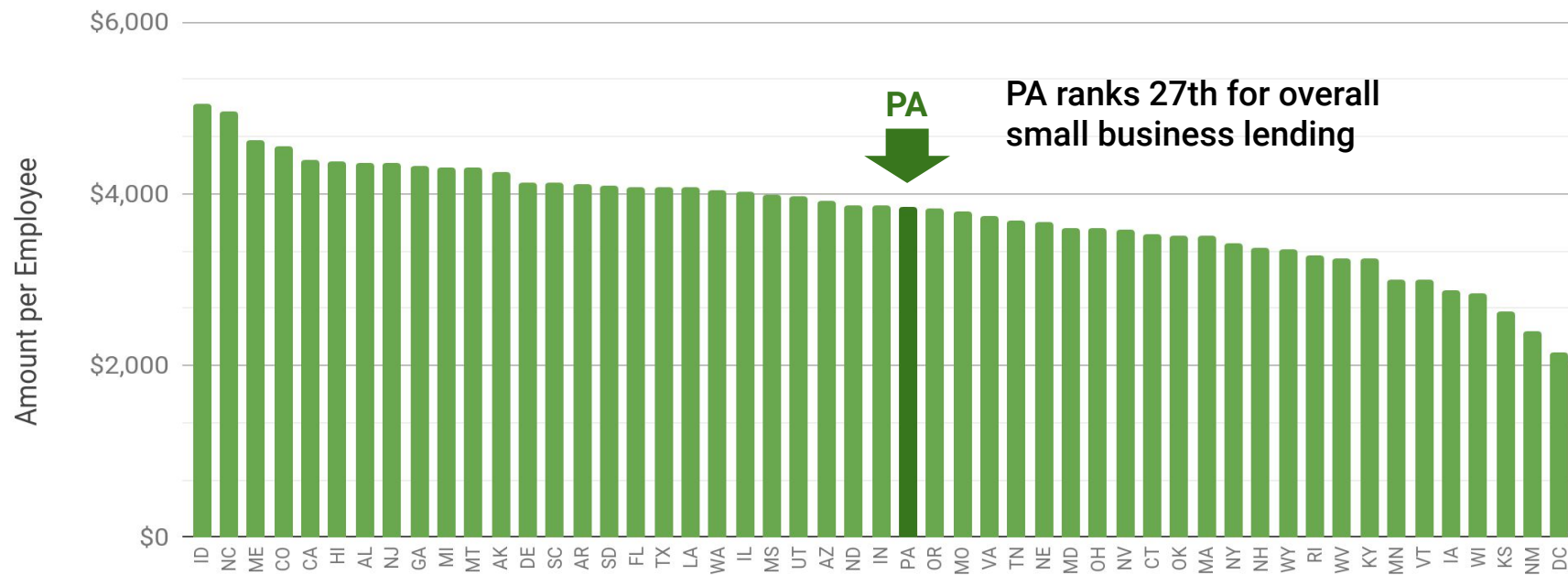
Mercatus Center at George
Mason University

State Fiscal Conditions
Ranking



We Can't Grow Without Capital

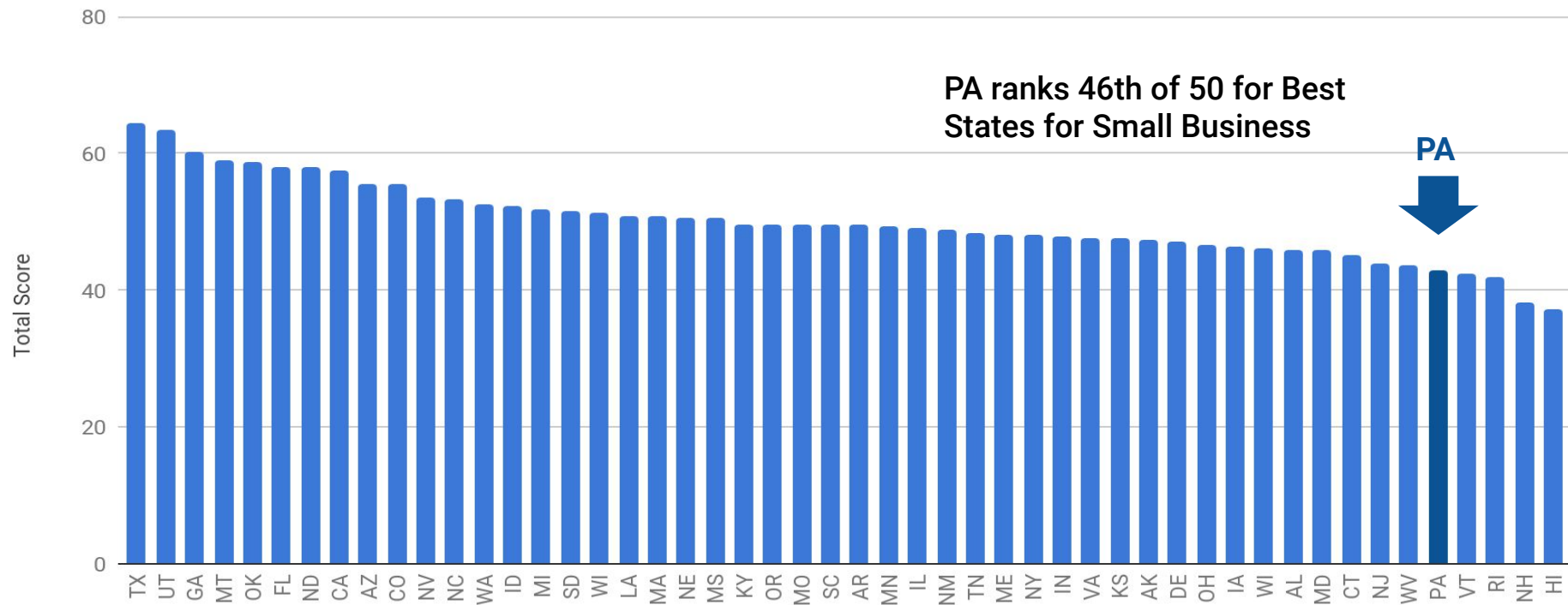
Small Business Lending per Employee | 2015



Source: Small Business Administration

Only Four States are Worse for Small Business

Best States for Small Business | WalletHub

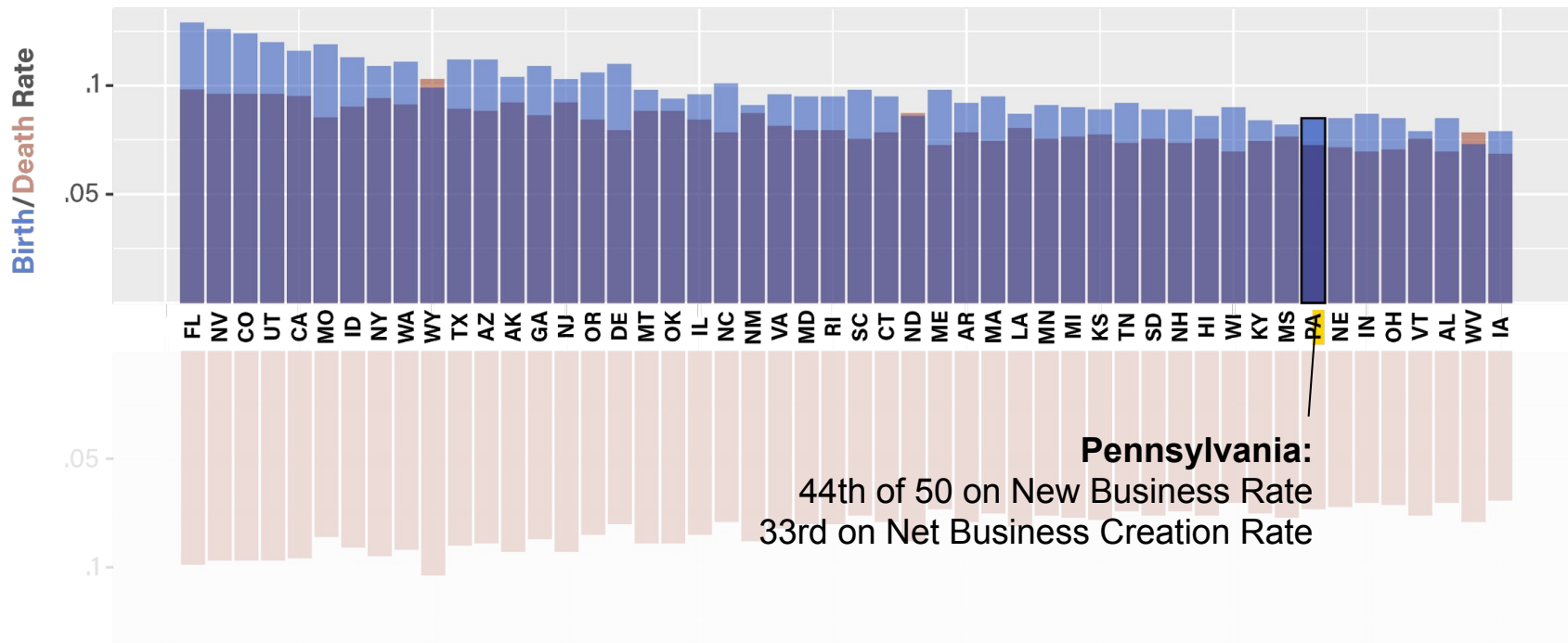


Source: WalletHub Best States to Start a Business

Business Births and Deaths by State

2016 rate

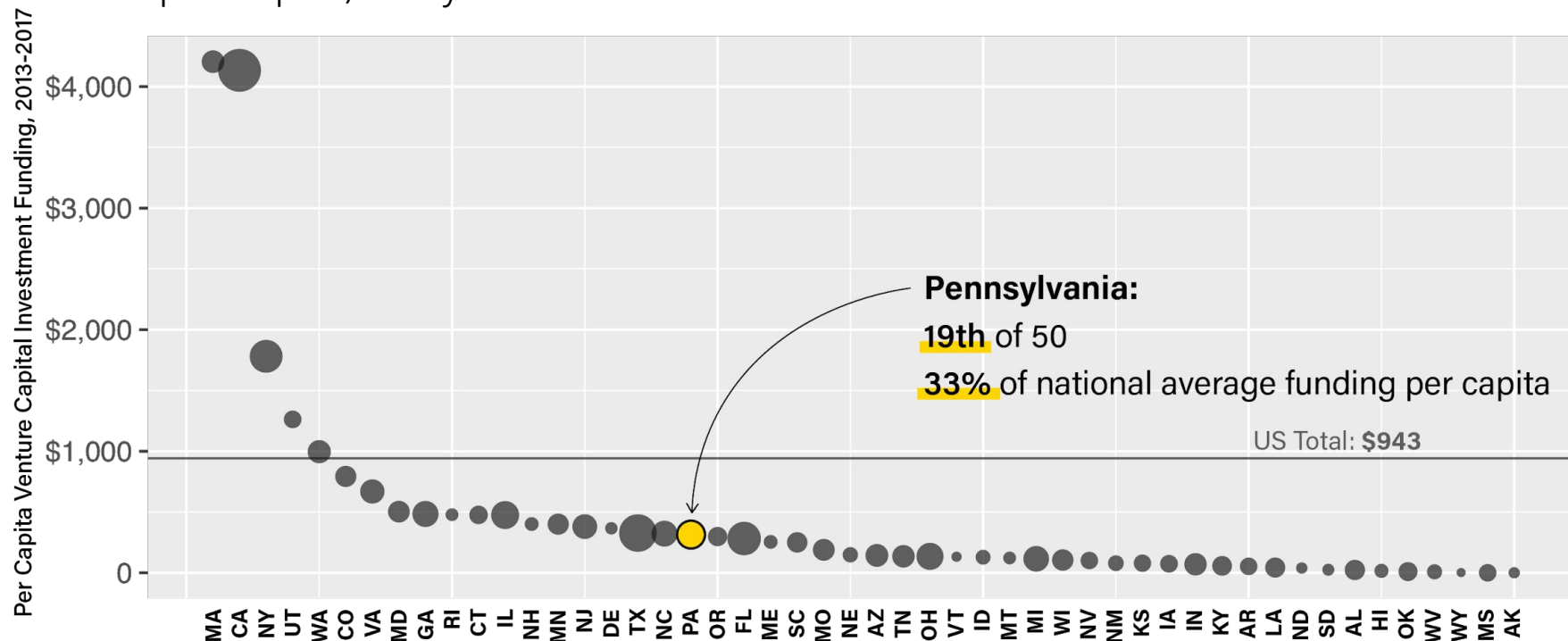
By looking at new business creation rate combined with rate of business death, we see that at 33rd net business creation, Pennsylvania is in the **lower half of all states**.



Data: US Census Bureau

Venture Capital Investment by State

per capita, five-year total



Research without Results

PA ranks 4th with \$4 B in university R&D, but it is **concentrated in a few schools**

PA ranks 9th with \$10 B in private sector R&D, but 21st in private R&D per capita

But PA is failing to bring that R&D to market or generate economic growth

- PA ranks 46th in Best States for Small Business
- PA ranks 31st in Milken Technology Concentration and Dynamism
- PA ranks 27th in Small Business Lending
- PA ranks 23rd in the Kauffman startup index

Talent Gap

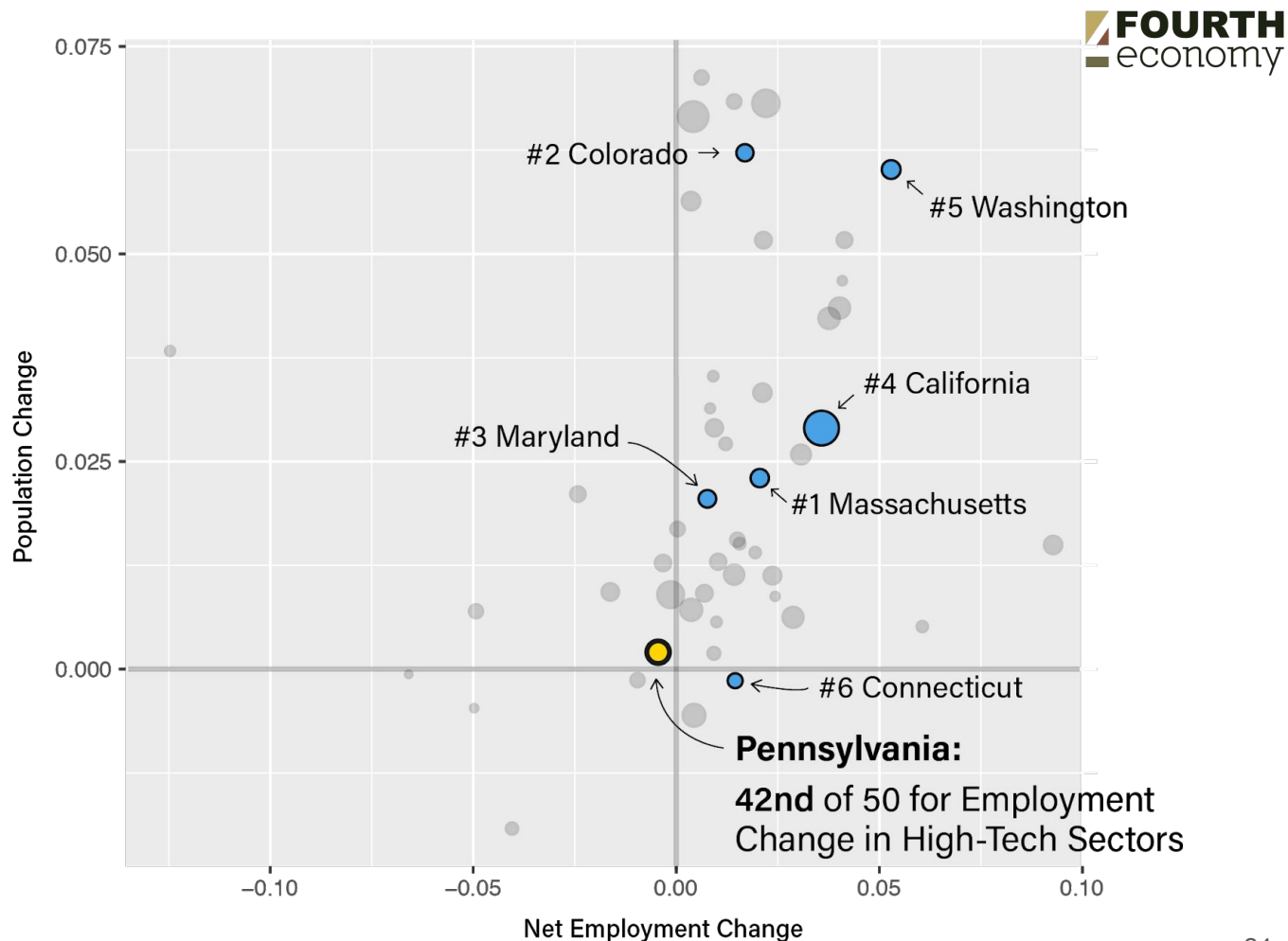
Short-term Stress with
Long-Term Impact



Population Change & Key Industry Employment Change 2015-2016

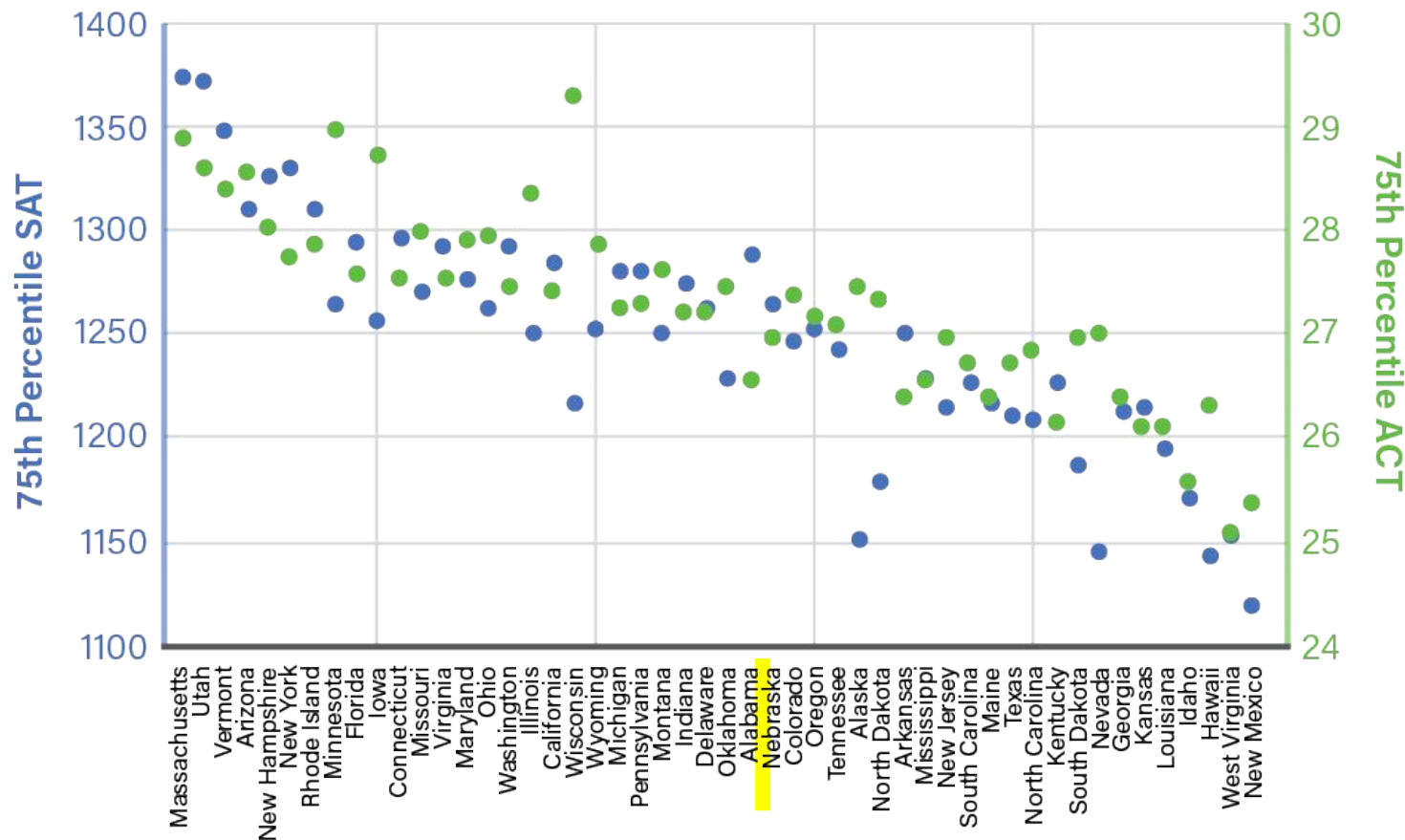
Growth is a critical issue, especially when compared with States with highest Milken Index scores (shown in blue).

Data: US Census Bureau



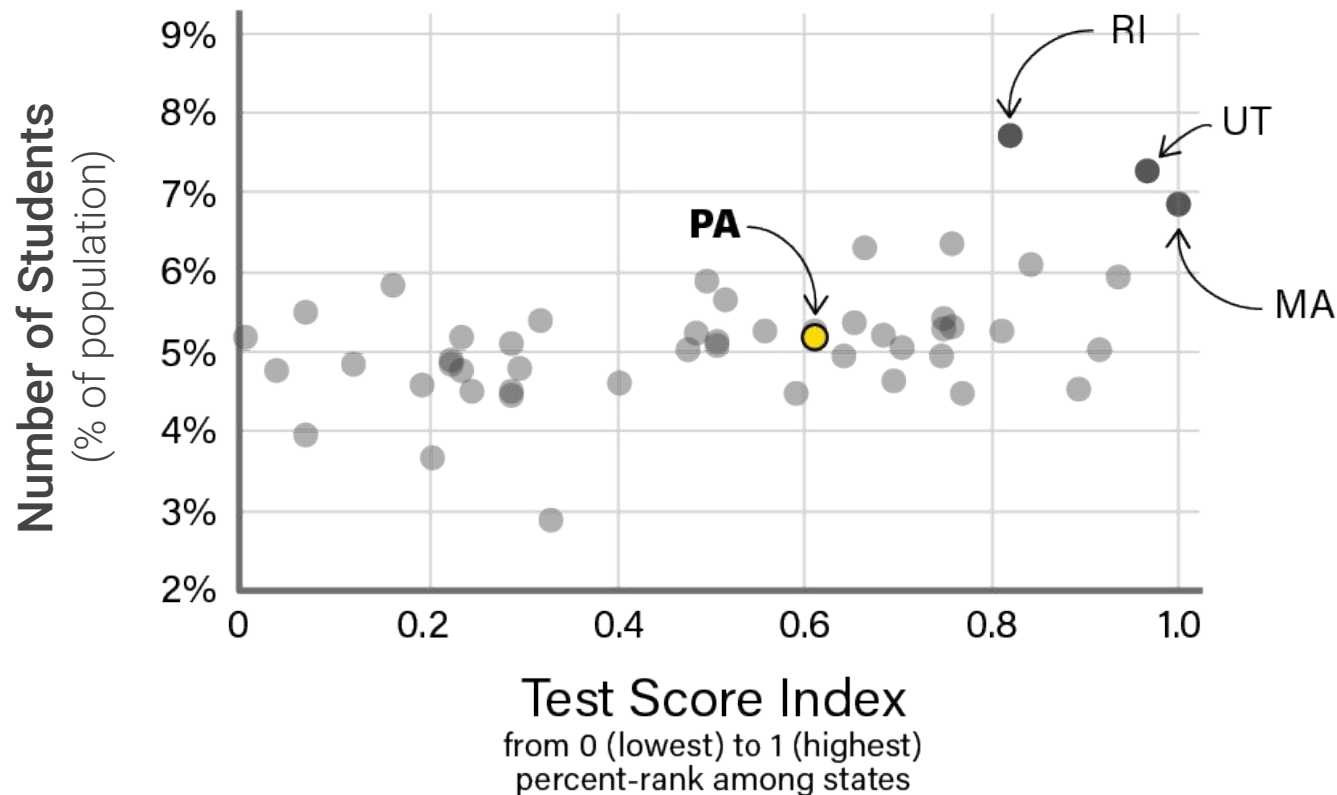
Test Scores, 2016-2017

Refers to the average 75th percentile test score for first-year undergraduates, weighted by non-distance student attendance



Which states are getting the highest-achieving students? Pennsylvania is in the middle of the pack.

Enrollment Per Capita and Undergraduate Test Scores by State

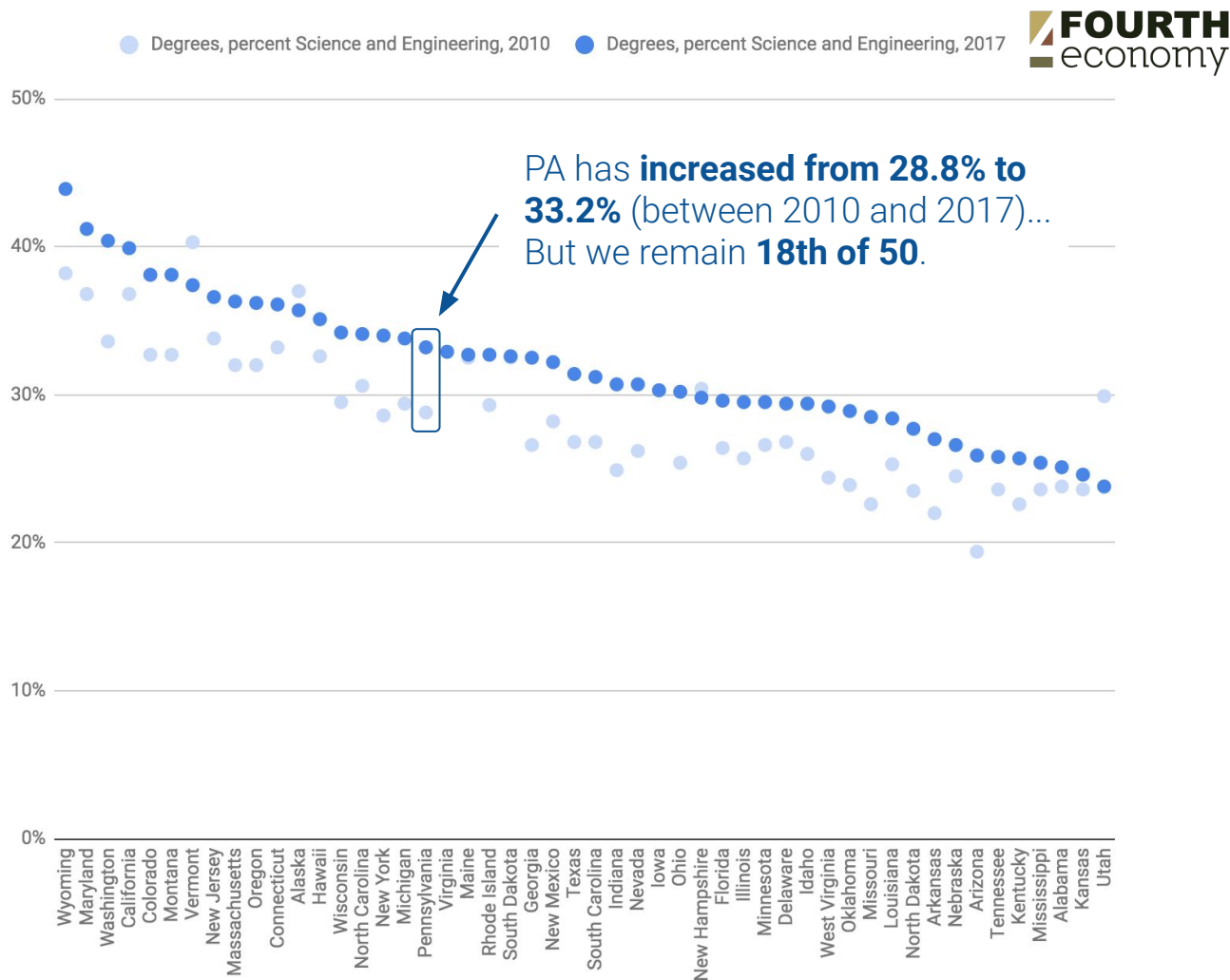


When we combine enrollment and achievement, Pennsylvania appears to be **above average**, but is **overshadowed** by states like Rhode Island, Massachusetts, and Utah.

Science and Engineering Higher-Ed Degrees (as a percent of all degrees) by State

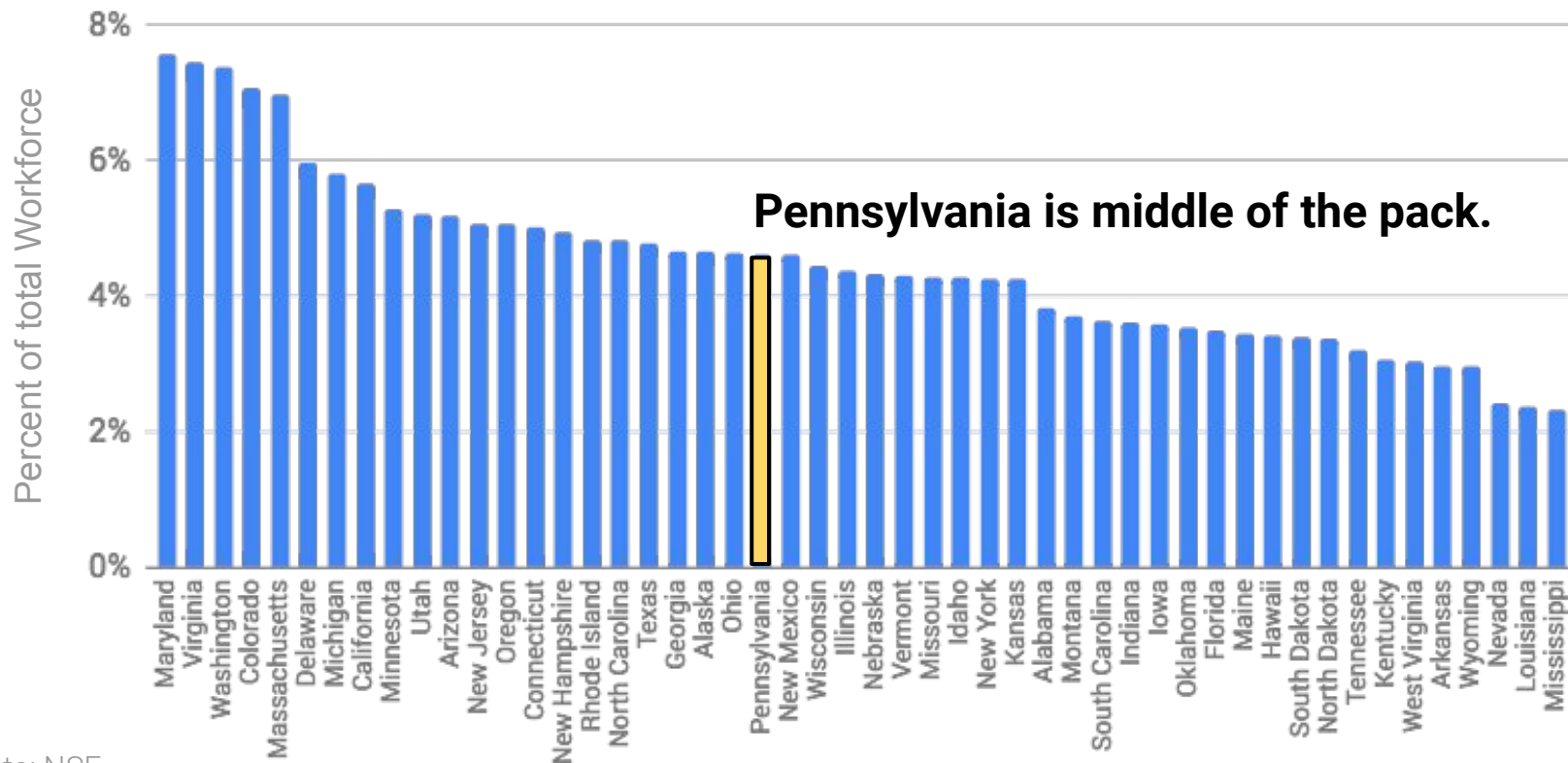
Pennsylvania is about average when it comes to college enrollment and Science and Engineering Higher-ed Degrees as a percent of all degrees in the State.

Percent of degree conferred that were science/engineering



Science and Engineering Workers

Percent of Workforce, 2017



Data: NSF

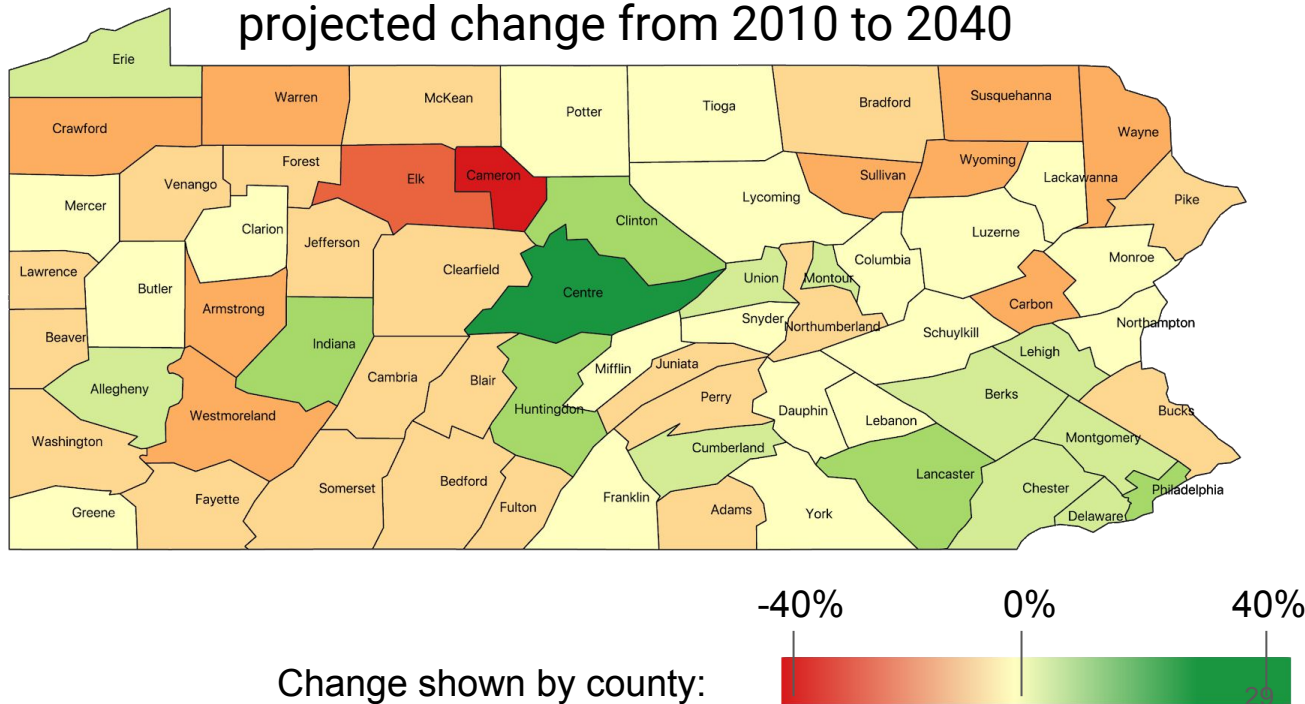
The Future **Workforce Gap** is Dire

Only 20 counties will see growth in their prime working age labor force (age 20-64)

1/4 of all counties will lose more than 15% of their prime working age labor force (age 20-64)

1/3 will lose between 5% and 15%

Prime Working Age Population (25-64): projected change from 2010 to 2040

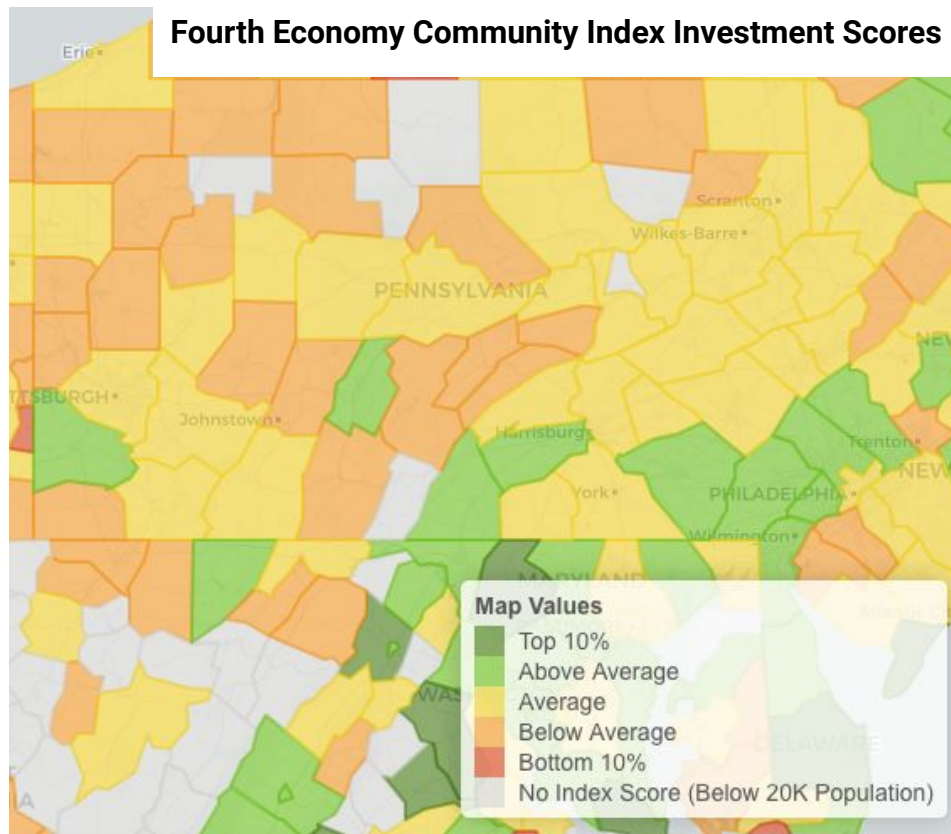


Weak Investment Climate Across PA

Investment: active businesses,
access to capital, and investment
in physical infrastructure

Counties by score

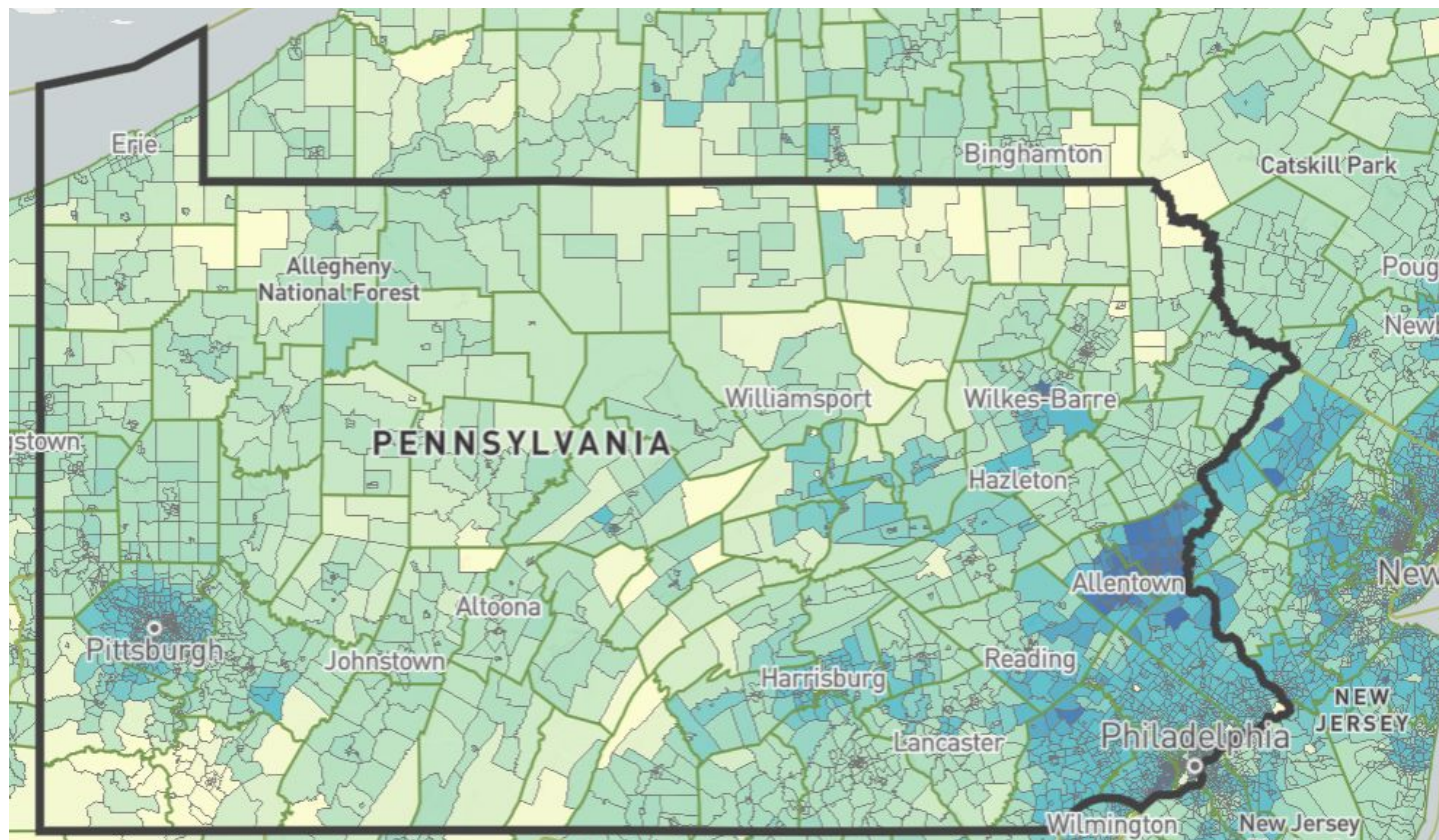
0 are in the Top 10%
 9 are Above Average
 31 are Average
 21 are Below Average
 0 in the Bottom 10%
 6 with No Index Score



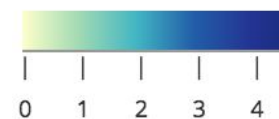
Quality of Places



Innovation Infrastructure: Broadband in PA

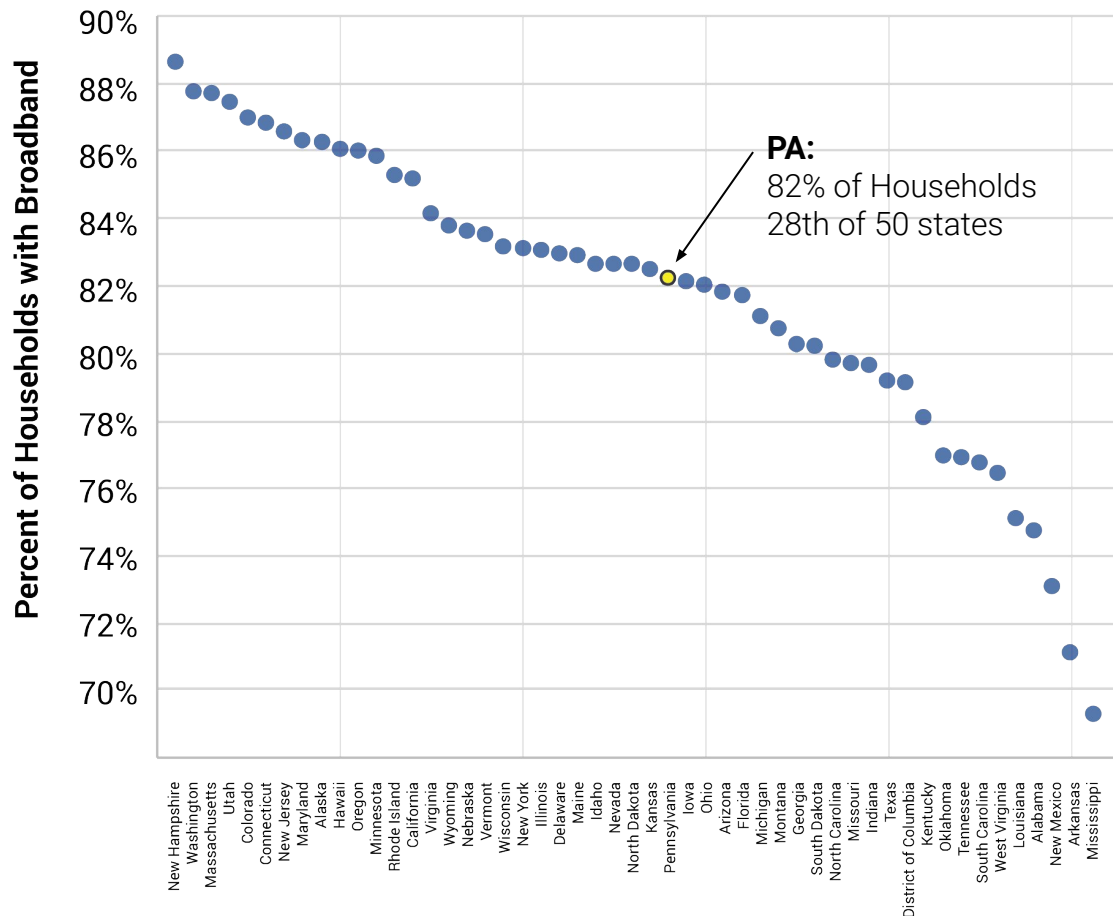


Number of
providers
offering 100
Mbps +



Source: FCC

Innovation Infrastructure: Broadband in PA

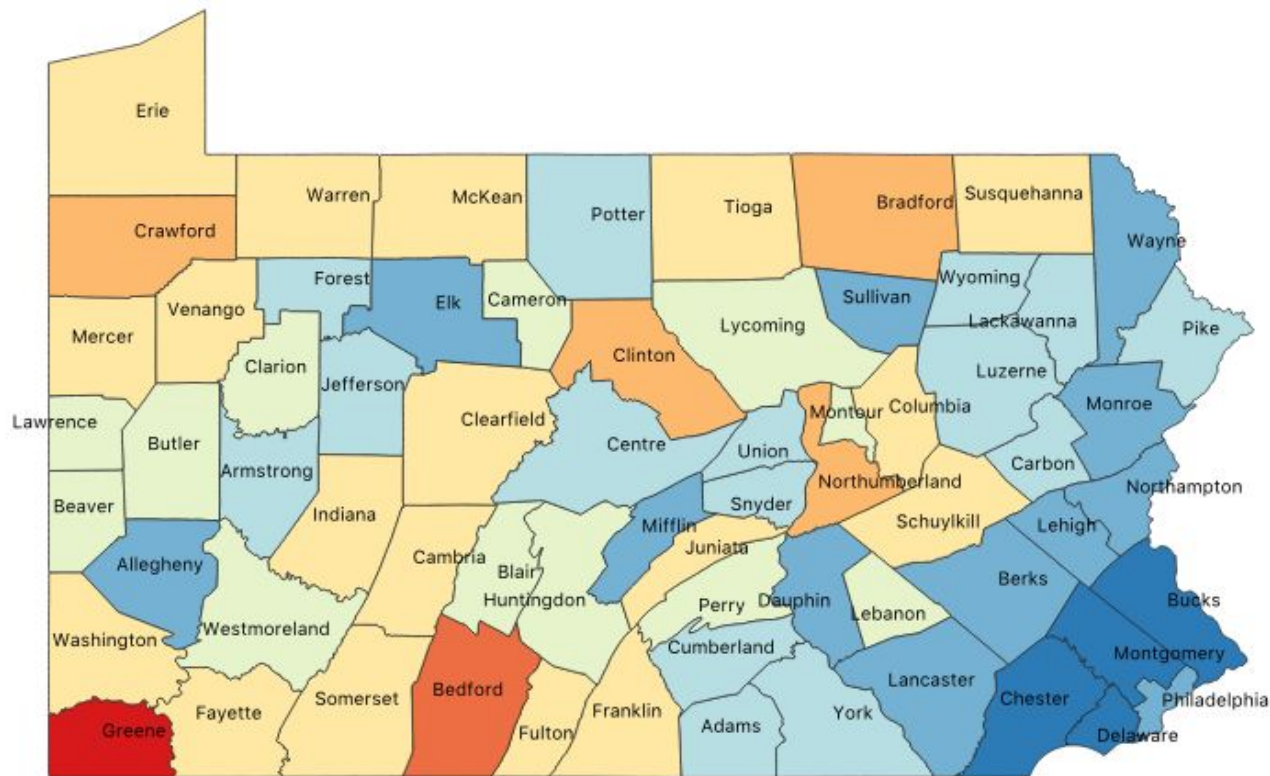


Households with Broadband

PA lags behind many states on the percentage of households who have broadband at home.

Source: US Census Bureau, ACS
2017 five-year estimates

Blight & Disinvestment



**Map of Low-Value
Homes in PA by County**

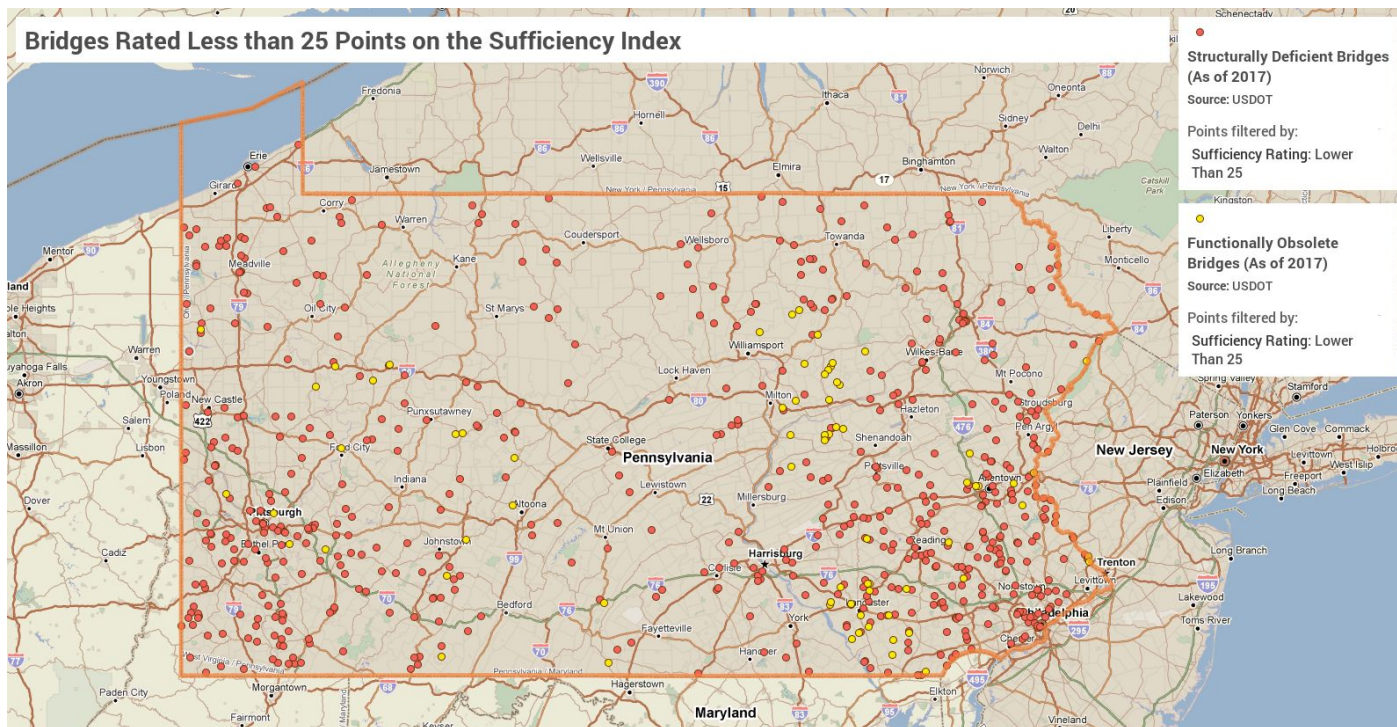
Counties shown by
percentage of homes
below \$20K in value:



The Transportation Network is **Crumbling**

Obsolete and structurally deficient bridges are far too common

We need \$2B to fix our bridges



Slowing Urban Growth

The urban counties that generate \$9 of every \$10 of GDP in the state are slowing and slightly higher growth in small rural counties won't fill the gap

Urban - 37 Counties

- 11.3 M Population
- Account for 93% of GDP statewide
- \$55.4 thousand per capita
- Average Growth of 2%
- \$660 billion annually
 - 73% (\$484 billion) in Services
 - 17% (\$112 billion) in Goods
 - 10% (\$64 billion) in Government

Rural - 30 Counties

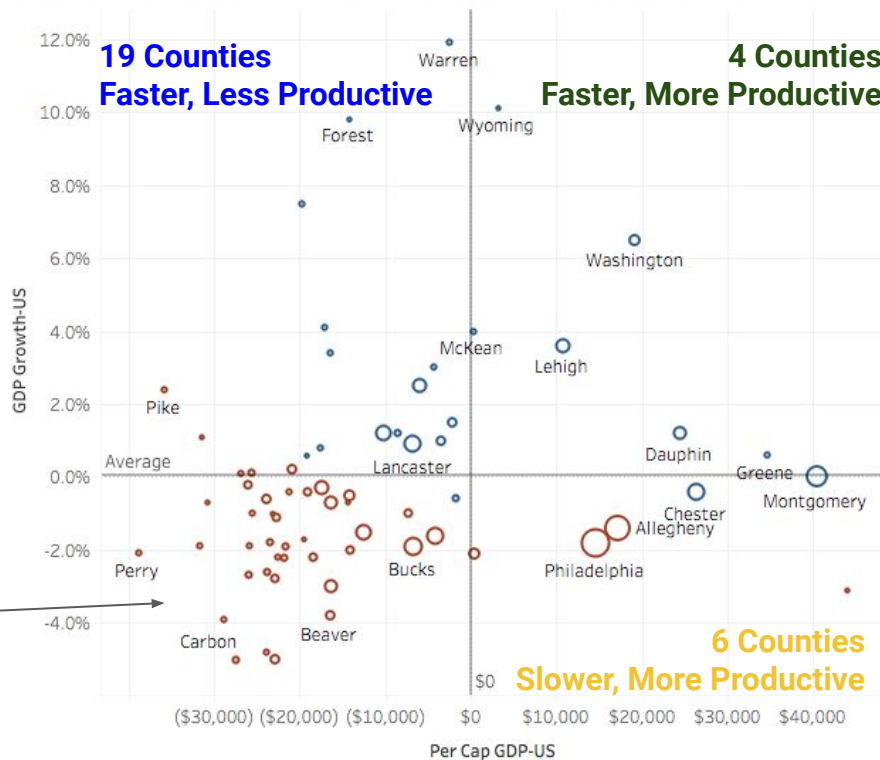
- 1.5 M Population
- Account for 7% of GDP statewide
- \$33.2 thousand per capita
- Average Growth of 3%
- \$50 billion annually
 - 50% (\$25 billion) in Services
 - 36% (\$18 billion) in Goods
 - 14% (\$7 billion) in Government

Few Pockets of Growth

A few small counties grew faster than the US rate of 2.4% between 2012-2015, and had a higher increase in productivity that was more than the US increase of about \$2,600 per capita

38 Counties
Slower, Less Productive

Productivity, Growth Rate and Amount of Growth vs. US

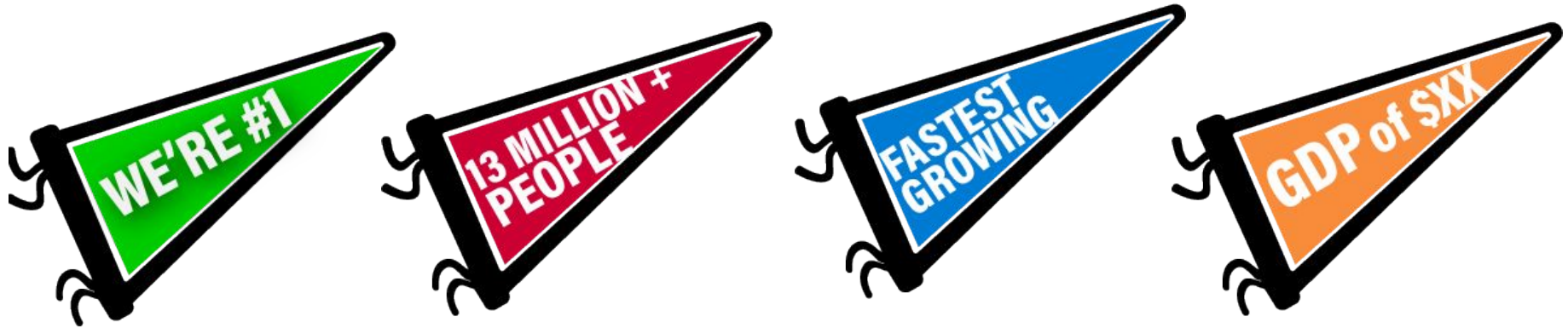


Adapting an Analog System for the Digital Age



Vision and Goals

Our Common Wealth is defined by...



Who defines, who executes...

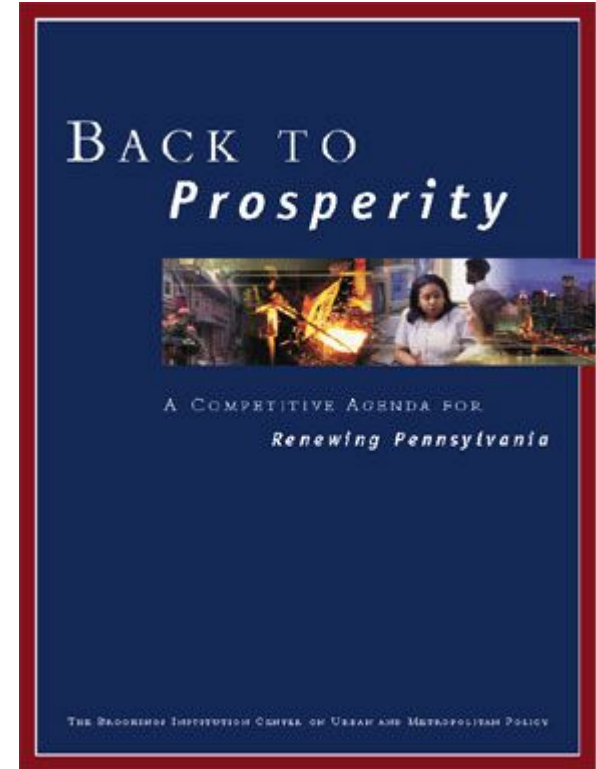
Intuition and Luck Versus a Plan

The analog system of economic development we have today is an assembly of legacy programs.

Last 'plan' was 2003?

Are we clear about what our opportunities are, the assets we can leverage, the issues....

.....and not just handing people a box of chocolates and hoping they work?



Leadership and Success at Scale is a Team Effort

The economic, demographic and quality of place challenges highlighted can not be solved by any single program or organization in this room.

We need a scale of partnership to match the seriousness of the challenges.

It's time to take a different approach to restoring our common wealth and being a place to grow and thrive.

Thank You!

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