

Activating the University System of Ohio to Improve Underrepresented Ohioans' Performance in the Innovation Economy

**Inclusive Competitiveness Subcommittee Meeting
Ohio Board of Regents**

February 18, 2014 - 1:00 to 4:00 PM

**Ohio Board of Regents
25 S. Front Street, 7th Floor
Main Conference Room
Columbus, OH 43215**

**Johnathan M. Holifield, Esq.
Vice President Inclusive Competitiveness, NorTech
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The **Innovation Economy** is the period in the late 20th and early 21st centuries marked by radical socioeconomic changes brought about by the simultaneous convergence of:



FURTHER GLOBALIZED
COMMERCE

DEMOCRATIZED
INFORMATION

EXPONENTIAL
ENTREPRENEURSHIP GROWTH

ACCELERATED CREATION OF
NEW KNOWLEDGE

Inclusive Competitiveness



Policies, strategies, practices and metrics to improve the *characteristic* performance of underrepresented populations within innovation ecosystems and clusters, emerging industry sectors and other areas critical to overall economic competitiveness.

Innovation Economy Squeeze: New and Unrelenting Pressures

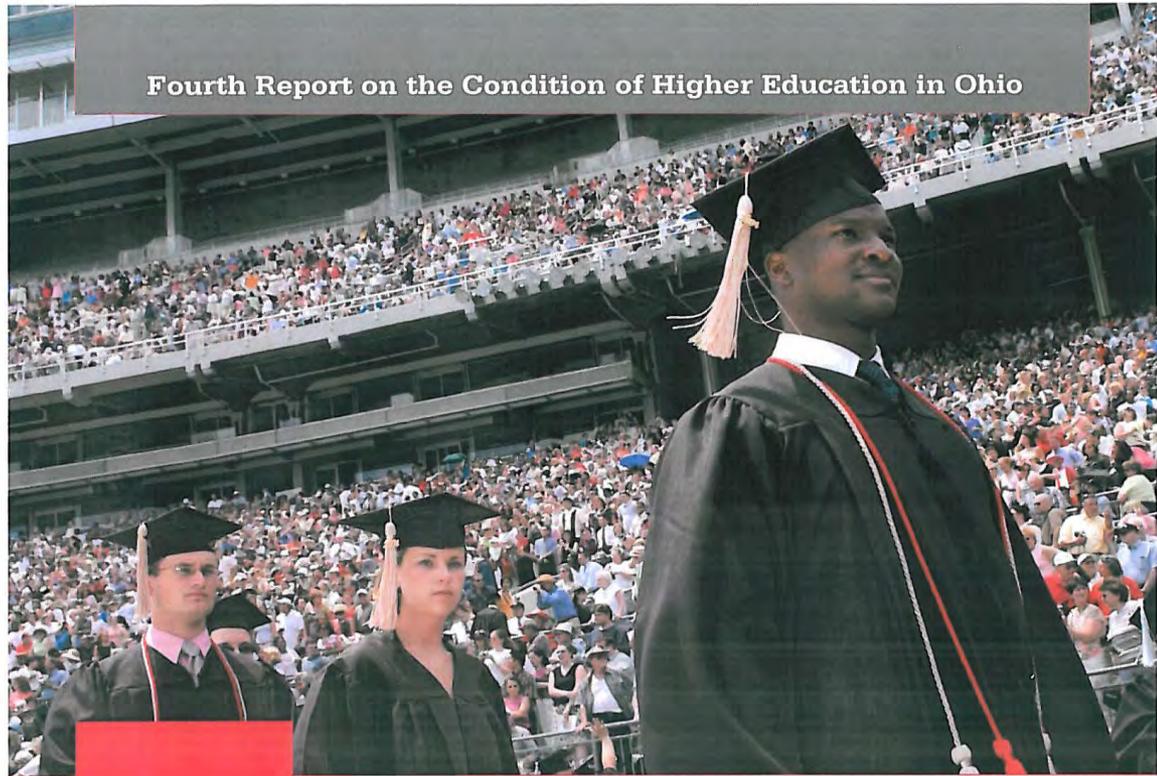
INCREASINGLY FLAT WORLD



INCREASING TECH ADOPTION

OBOR Great First Step

Fourth Report on the Condition of Higher Education in Ohio



Underrepresented Ohioans Need More Education To Meet the State's Workforce Needs

Ohio needs to deliver high quality education to more underrepresented students to meet workforce needs

April 2011

Ohio

John R. Kasich, Governor
Jim Petro, Chancellor

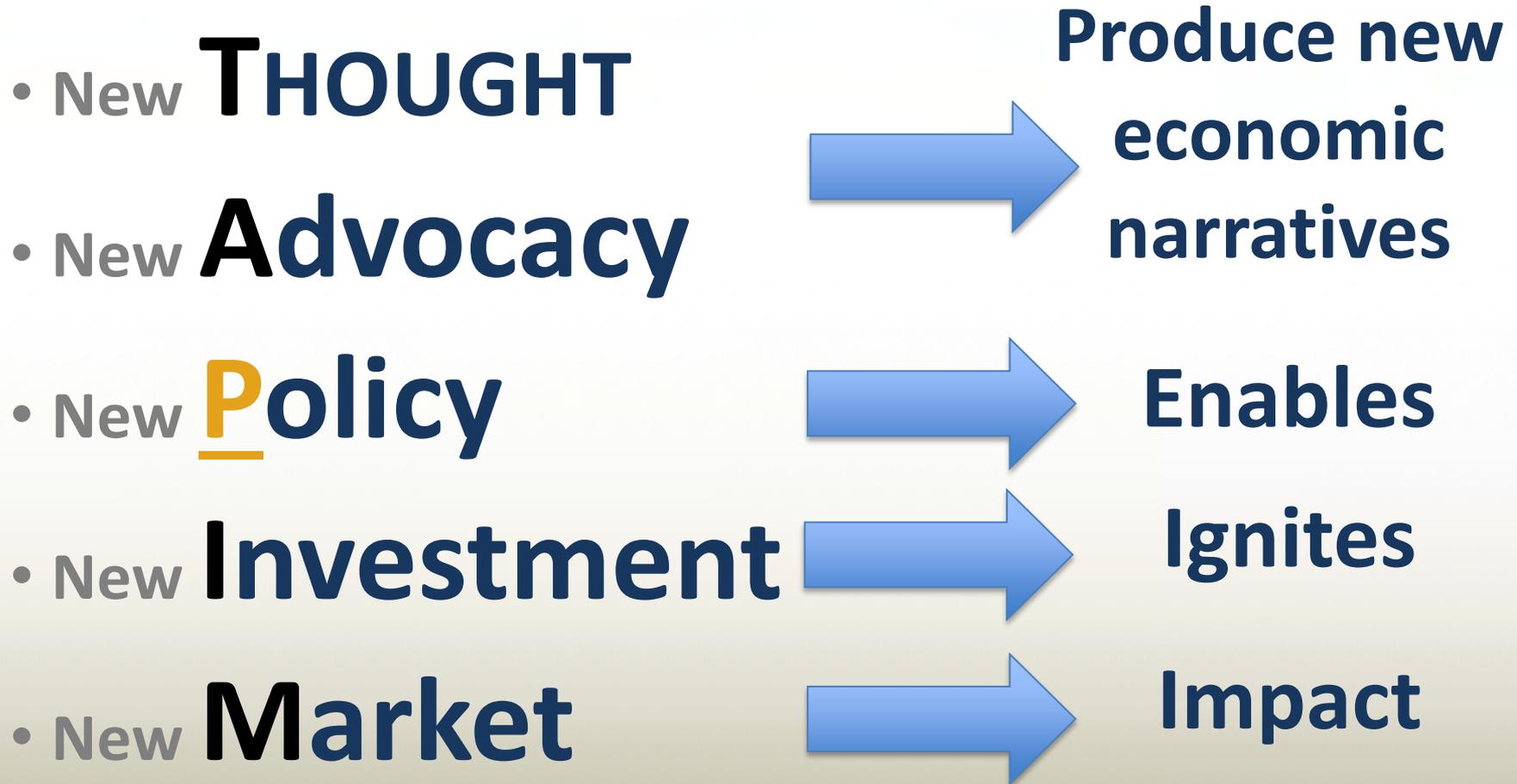
University System of Ohio
Board of Regents

However, threshold question . . .

**From where will new jobs
come, if more Ohioans are not
creating them?**



“TAPIM” Algorithm



New Market Responses = **IMPACT**

Policy role in the “TAPIM” Algorithm

- Policy and the “policymaking class” refer to a much larger set of organizations and interests than purely governmental actors:
 - ✓ Intermediary organizations and the academic/education, research, corporate and philanthropic communities and, importantly, families who inform the perspectives held by communities themselves.
- The narrower definition of Policy – which is limited to public sector activity – remains important, as federal, state and local policy can create leadership and investment mechanisms that influence practices.
- Yet there are enough instances in which the practices of influential actors elude traditional public policy channels that it is important to consider a broader view.
- The force of Policy – influential actors’ expression of important public objectives – is required to enable the repurposing of existing and formation of new Investment.
- **Upshot:** Demonstrable Investment and sustained Market action and impact *never* precede the expression of Policy.

OBOR leadership can catalyze new Policy and action to connect underrepresented Ohioans to the Innovation Economy

“TAPIM” Algorithm Creates & Sustains Regional & State Innovation Ecosystems

Northeast Ohio Example

Policy Breakthrough!



Ohio

Third Frontier
Innovation Creating Opportunity

Produced Innovation Ecosystem



Ohio Third Frontier Program



Third Frontier

Innovation Creating Opportunity

- Ohio Third Frontier, an internationally recognized technology-based economic development initiative that is successfully changing the trajectory of Ohio's economy.
- The \$2.3 billion initiative supports existing industries that are transforming themselves with new, globally competitive products and fostering the formation and attraction of new companies in emerging industry sectors.
- Ohio Third Frontier provides funding to Ohio technology-based companies, universities, nonprofit research institutions, and other organizations to create new technology-based products, companies, industries, and jobs.

Ohio Third Frontier Program Minority & Rural Outreach Policy



Third Frontier

Innovation Creating Opportunity

184.171 Minorities to be included in outreach activities and projects.

The third frontier commission shall conduct outreach activities described in section 184.172 of the Revised Code that seek to include minorities in the various projects and initiatives sponsored, funded, encouraged, or otherwise promoted by the commission.

-

184.18 Outreach activities to rural areas.

(B) The third frontier commission shall conduct outreach activities that seek to include rural areas in the various projects and initiatives sponsored, funded, encouraged, or otherwise promoted by the commission.

We will learn . . .

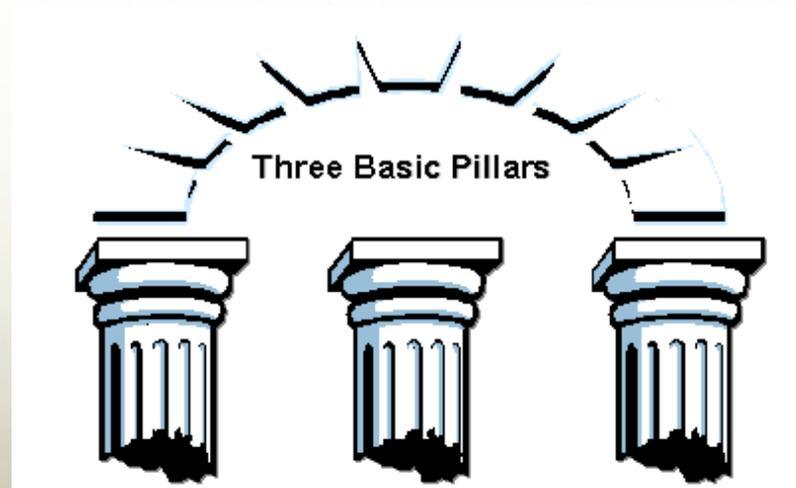
Following the “TAPIM” Algorithm, we will learn how Ohio Third Frontier rural and minority outreach Policy has led to:

- New Investment
- New Market responses

Upshot: How women, minorities and rural Ohioans are connecting to our Innovation Economy

Three Pillars of Ohio's Innovation Economy

1. STEM (and STEAM/including arts) education
2. Higher-growth entrepreneurship
3. Capital formation and investment



U.S Innovation Economy

Metro Areas Rural Areas



75% of GDP	↑	25%
78% of patents	↑	22%
81% of R&D employment	↑	19%
85% of new firm starts	↑	15%
96% of venture capital	↑	4%
69% of high growth firms	↑	31%
68% of jobs	↑	32%
65% of population	↑	35%



Women LESS than 10% GDP



Women-owned
businesses produced
\$1.3T

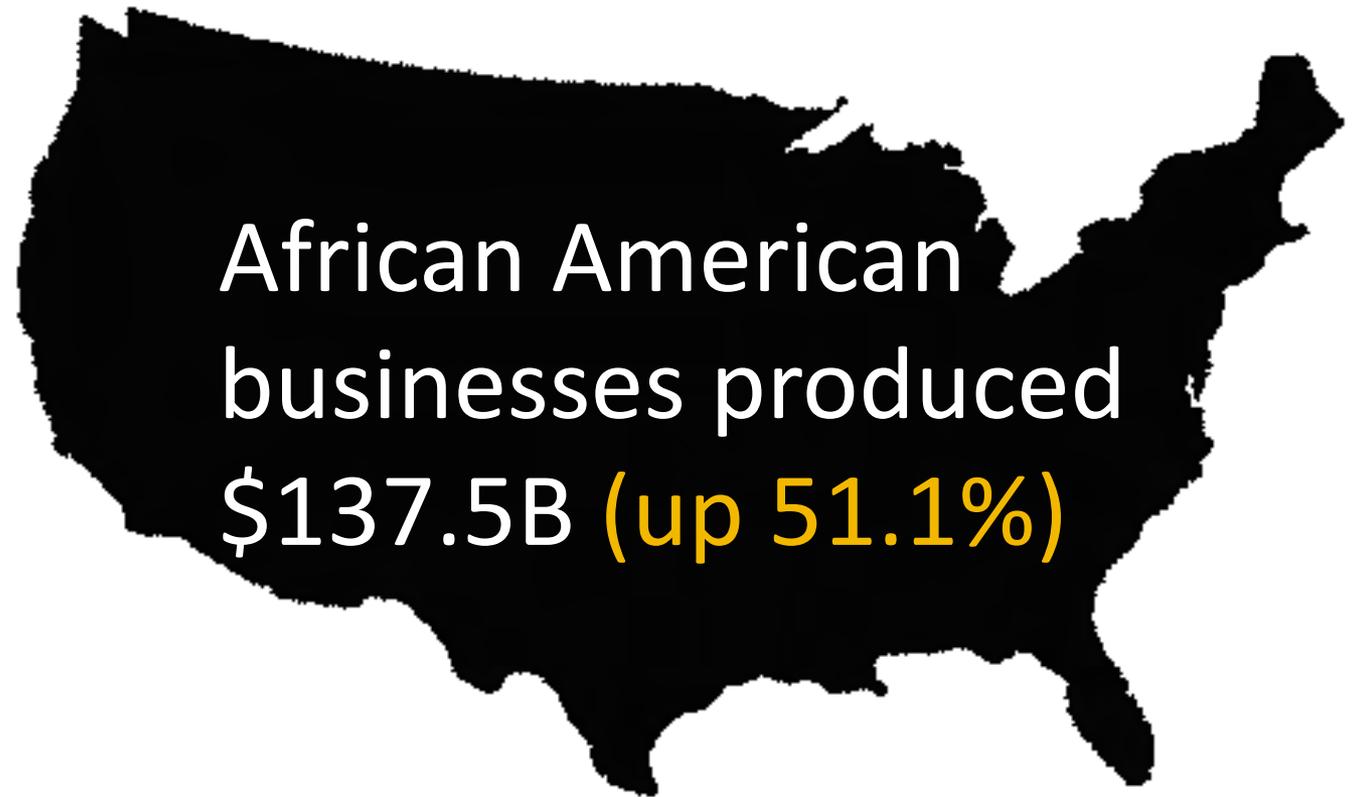
Women: 51% of population
Produce LESS than 10% of U.S. GDP
Employ LESS than 6% of workforce

[Source: American Express OPEN 2013 State of Women-Owned Businesses Report](#)





African Americans LESS than 1% GDP



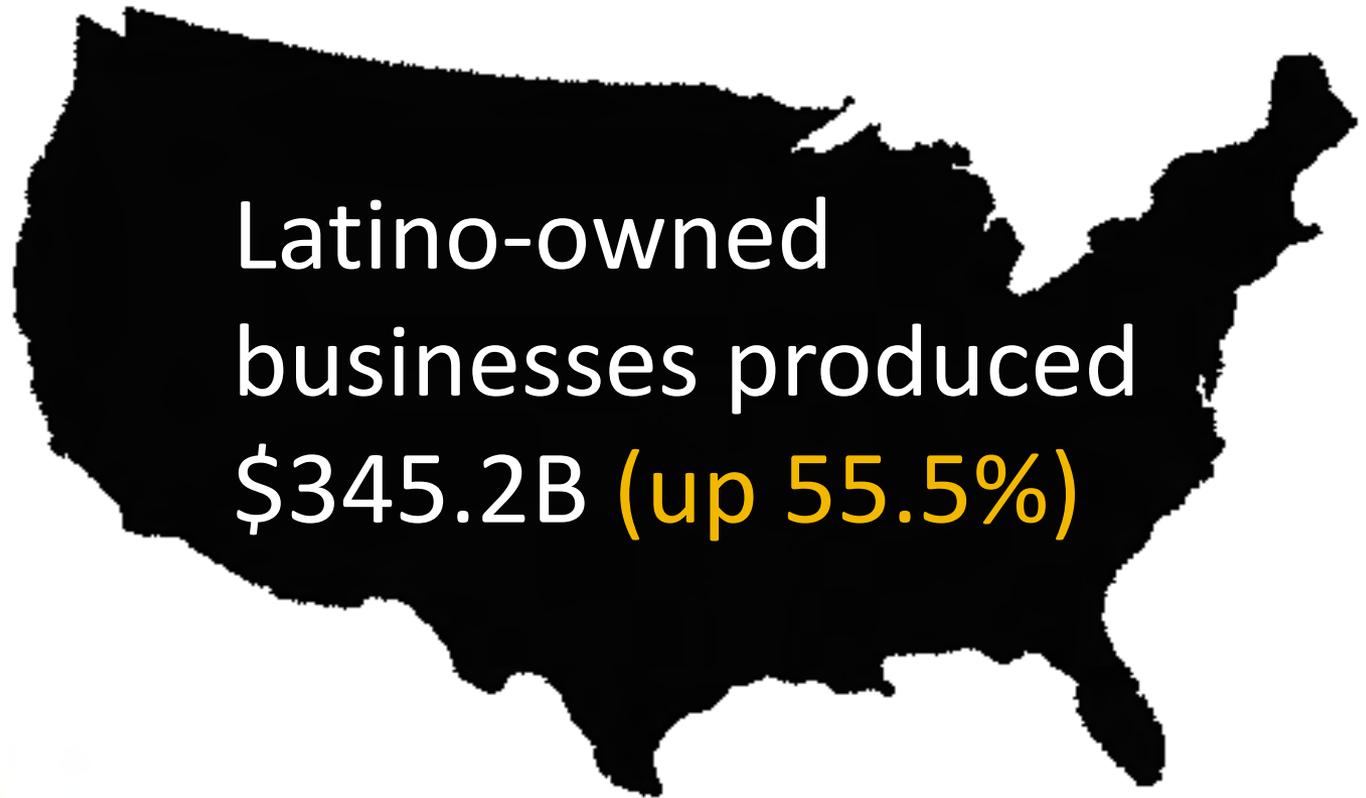
**African Americans: 13% of population
Produce LESS than 1% of U.S. GDP
Employ LESS than 0.5% of adults**

[Source: Census Bureau](#) (data: 2002-07)





Latinos LESS than 2.5% GDP



Latino-owned
businesses produced
\$345.2B (up 55.5%)



Latino Americans: 16% of population
Produce LESS than 2.5% of U.S. GDP
Employ LESS than 2% of adults

[Source: Census Bureau](#) (data: 2002-07)

Law of Inclusive Competitiveness

No state can sustainably increase economic competitiveness without educating enough people to create and take advantage of that increased economic competitiveness.

If our state's economic competitiveness goals do not focus on broad inclusion, we simply will not – *indeed cannot* – educate enough people to build a sustainable, resilient, state economy.



Five Irrefutable Facts

1. The problem **IS NOT** lack of entrepreneurial spirit.
2. The problem **IS** the absence of job and wealth-creating businesses.
3. Job and wealth creating high-growth businesses **ARE GENETICALLY DIFFERENT** from good, lifestyle businesses.
4. High-growth businesses are generally girded by **STEM (and STEAM) DISCIPLINES**.
5. High-growth businesses are substantially funded with **PRIVATE CAPITAL**.

One **BIG** Reality



A **NEW** economic narrative is needed for underrepresented Ohioan – women, rural populations, African Americans and Latinos

What is “narrative?”



“Narrative” refers to the dominant leadership and advocacy focused on underrepresented Ohio communities, which inform the kinds of business, economic and education support services and opportunities that are available.

Leadership, advocacy and services focused on and connected to the Innovation Economy – regional *tech-based economic development* – are at best, nascent.

At worst, they are *nonexistent*.

Innovation Economy Narrative

We define the *Innovation Economy* as the period in the late 20th and early 21st centuries marked by radical socioeconomic changes brought about by the extraordinary convergence of:

- further globalized commerce,
- democratized information,
- exponential entrepreneurship growth, and
- accelerated new knowledge creation.

Again, we *need a new economic narrative* focused on the Innovation Economy – STEM education, private capital formation and investment, and high-growth entrepreneurship.

Ohio's Innovation Economy Assets



Assets are *invisible* to those disconnected from them

Examples of Invisible Innovation Economy Opportunities

For Example: African Americans and Latinos comprise about 20% of the Northeast Ohio population, yet account for:

- Only about **2% of businesses** in tech-based, growth industries*
- Little more than **1% of sales and receipts** for all high-tech firms*
- Less than **10% of employees** in tech-based, growth industries*
- Less than **2% of gross regional product (GRP)***
- Less than **0.5% of venture capital raised in 2012****
(**\$620K vs. \$201M**)



[*Source: Fusion of Inclusion Report 2012](#)

[**Source: The Plain Dealer, January 25, 2013](#)

More than a matter of equity, it's a
Ohio economic competitiveness imperative.

Closing Take-Aways



“Three S”

Sober assessment

Serious **policy framework**

**Sustained investment, action
and impact**

There is no magic!

We are behind!

Time to activate our state , now!





Attachment #2

Choose Ohio First

*Inclusive Competitiveness: First
Generation and Minority Students*



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 Choose Ohio First

 UNIVERSITY OF
Cincinnati

Choose Ohio First





Choose hio First

What is Choose Ohio First?

- A premier model of recruiting and retaining students in STEMM and STEM education;
- A program to support increased participation in STEM disciplines;
- Choose Ohio First offers strong opportunities for students to benefit from early connections to business and industry – including awareness and readiness activities, co-ops, internships, and collaborations with businesses solving real-world problems.

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Inclusive Competitiveness: Why is it important?

- Workforce Development
- Economic Development
 - Projected economic impact
- Career Exploration and Awareness for Students
- Effective use of resources (public and private)
 - Matching funds generated
- Engaged and motivated students in the community

Ohio

Board of Regents

University System of Ohio





Choose hio First

Assessing Impact

- **Enrollment (Recruitment)**
- **Persistence**
- **Graduation/Completion**
- **Degree program participation**

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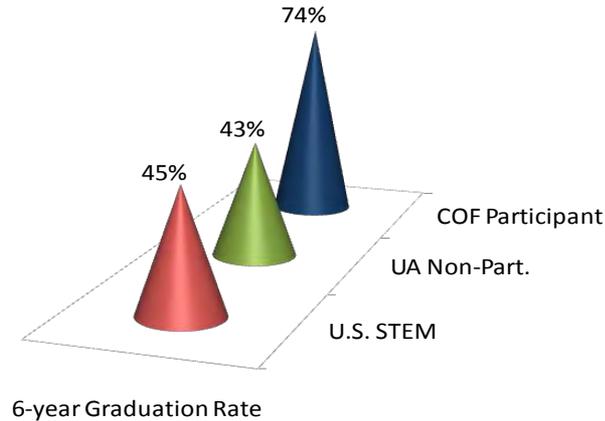




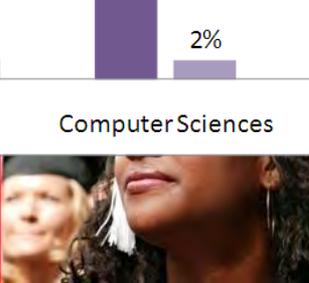
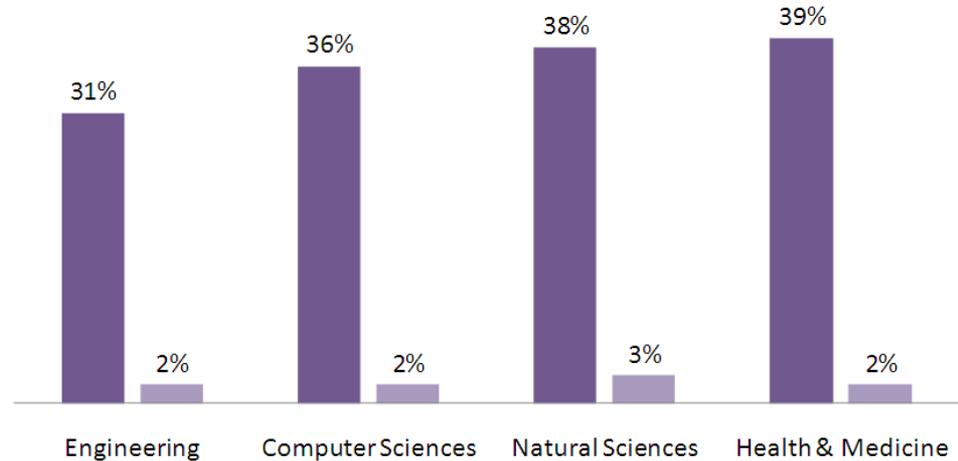
Exemplary Programs: University of Akron

- Graduation rate is more than 30 points higher than UA non-participants
- Attrition is 2-3% for COF students; more than 30% for UA non-participants in key STEM majors.
- Student retention is above 95% overall (this includes those who may change to an ineligible major)

■ U.S. STEM ■ UA Non-Part. ■ COF Participant



■ UA Non-Part. ■ COF Participant





Exemplary Programs: University of Toledo

- Actively recruits minority students to revitalize Toledo area
- Many COF programs, but also offer the Primary Care scholarships for medicine and nursing, the Woodrow Wilson Teaching Fellowships, and a Entrepreneurship program

2nd annual University of Toledo *Innovation Enterprises Challenge* Business Plan Competition

Resonance Group, Ltd (Jason Owens, President) – Produce and market an energy control system that integrates a new RG controller with state-of-the-art pulse motors and power management technologies for improved performance of electric motor-driven products. IP owned by Jason Owens. Honorable Mention Award (\$500 prize).



Jason Owens, COFFEE Scholar, BSEE and BSCSE grad, December 2012





Exemplary Programs: Edison Community College

- 50% of Scholars are first-generation
- 63% are at poverty level
- 60% are female
- Serves a more rural population
- Most recent COF grad rate was 60% versus 26% for non-COF.

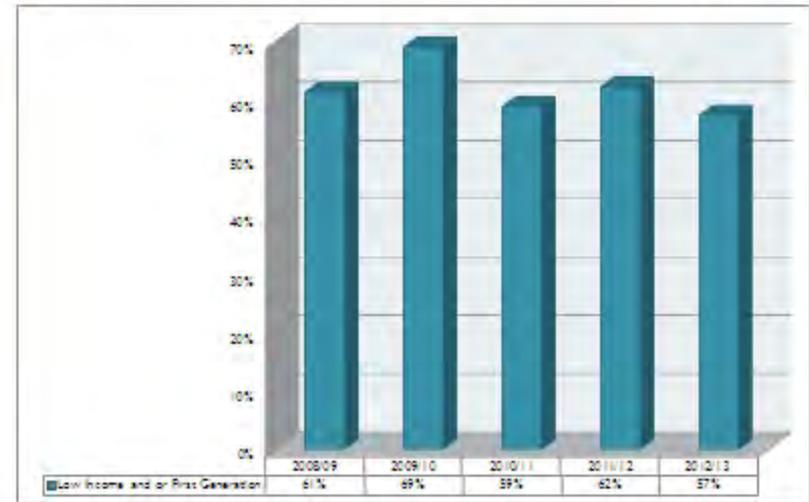




Exemplary Programs: Central State University

- Very high numbers of first-generation students
- Students must maintain at least a 2.8 GPA and participate in meetings and intervention activities.

Accessibility and Affordability





CONTACT INFORMATION

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THANK YOU!



Board of Regents

University System of Ohio

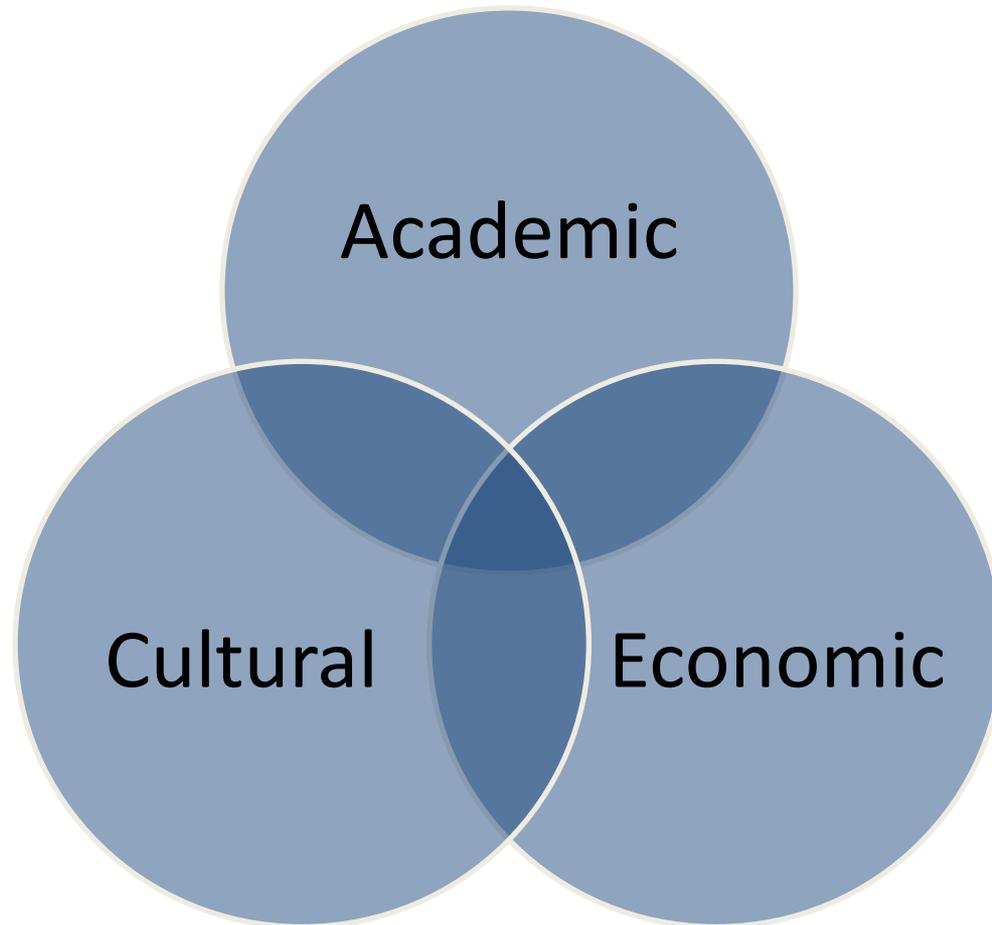


Ohio Board of Regents Brief

Chris Shaffer

Shawnee State University

“Open Access”

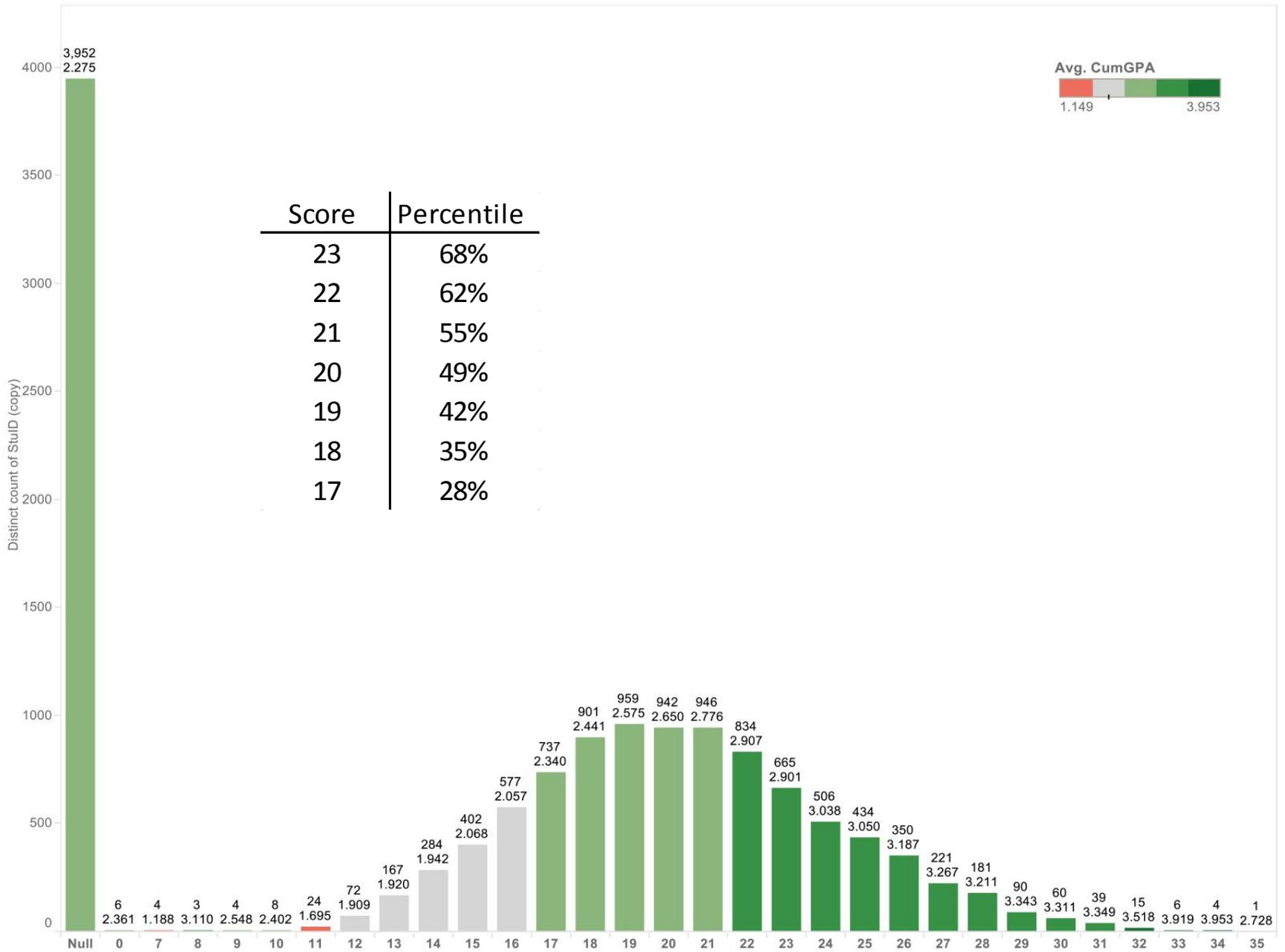


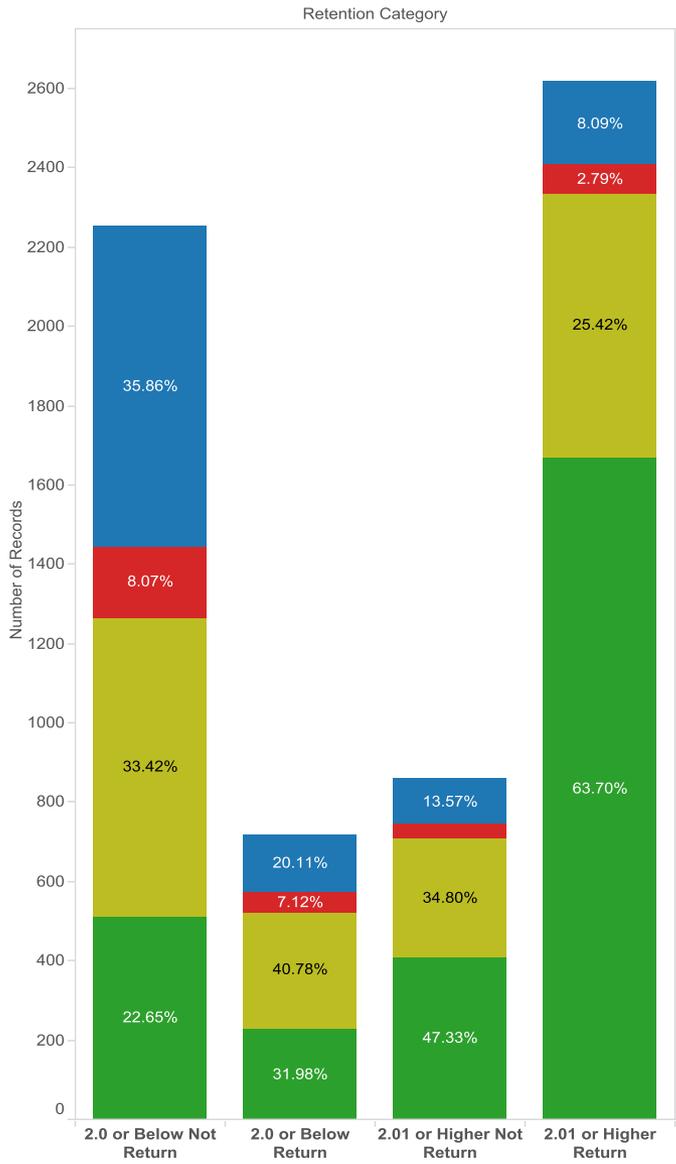
Chancellor's Plan

Increase Course Completion

Number of Degrees

Service to the Appalachian Region



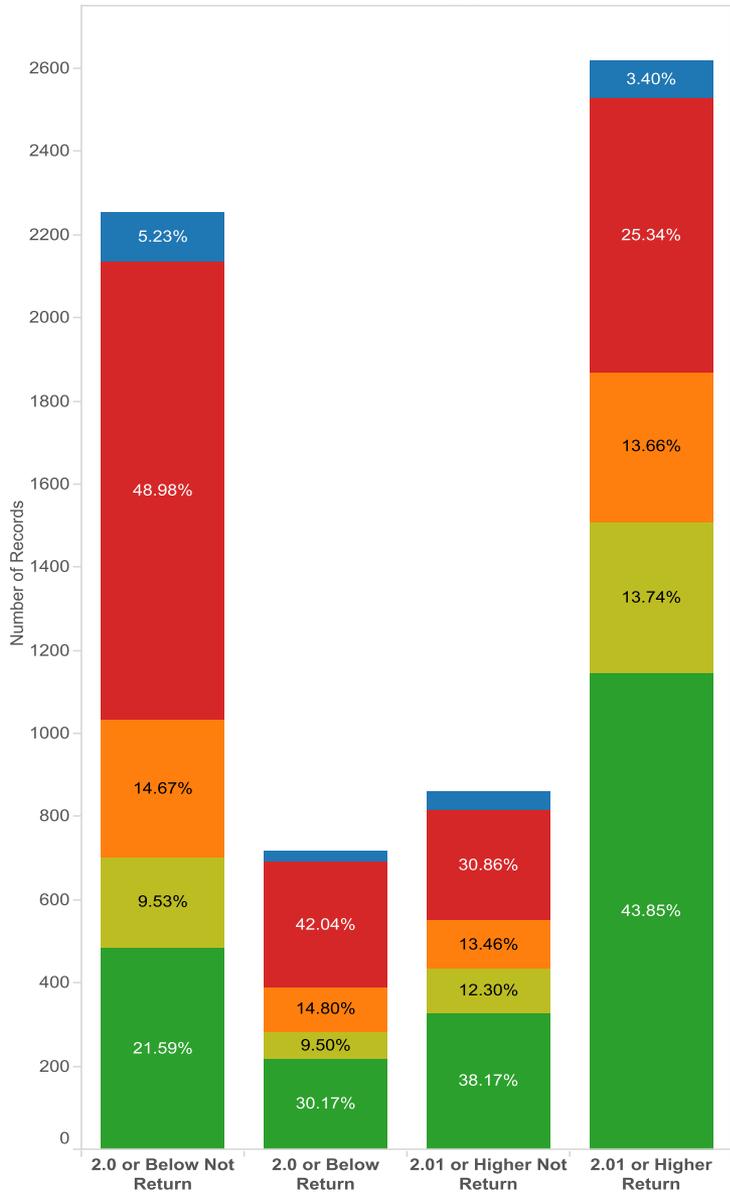


ACT and Retention Success

COMP CK ACT

- Null
- 1-14
- 15-19
- 20+

Retention Category

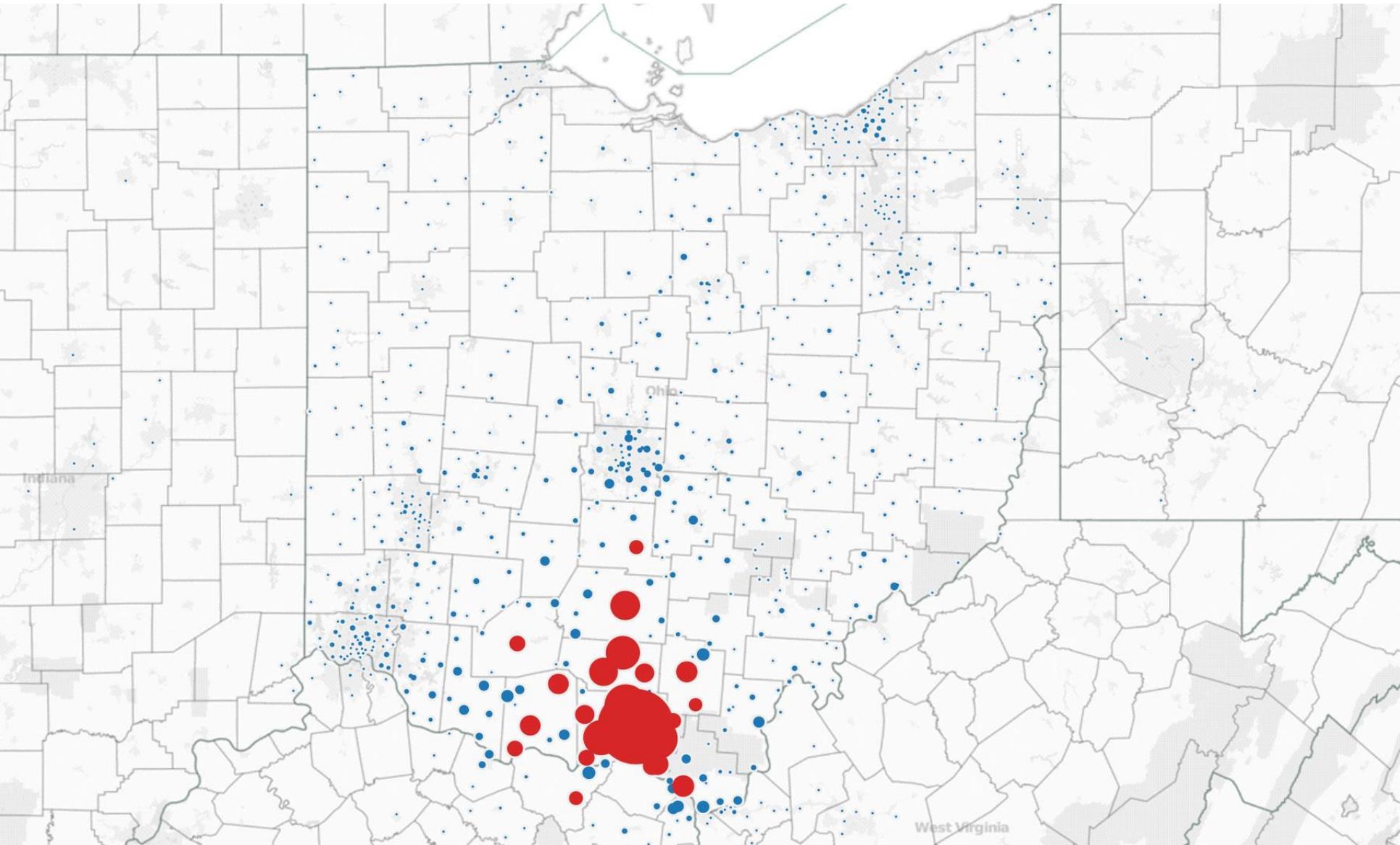


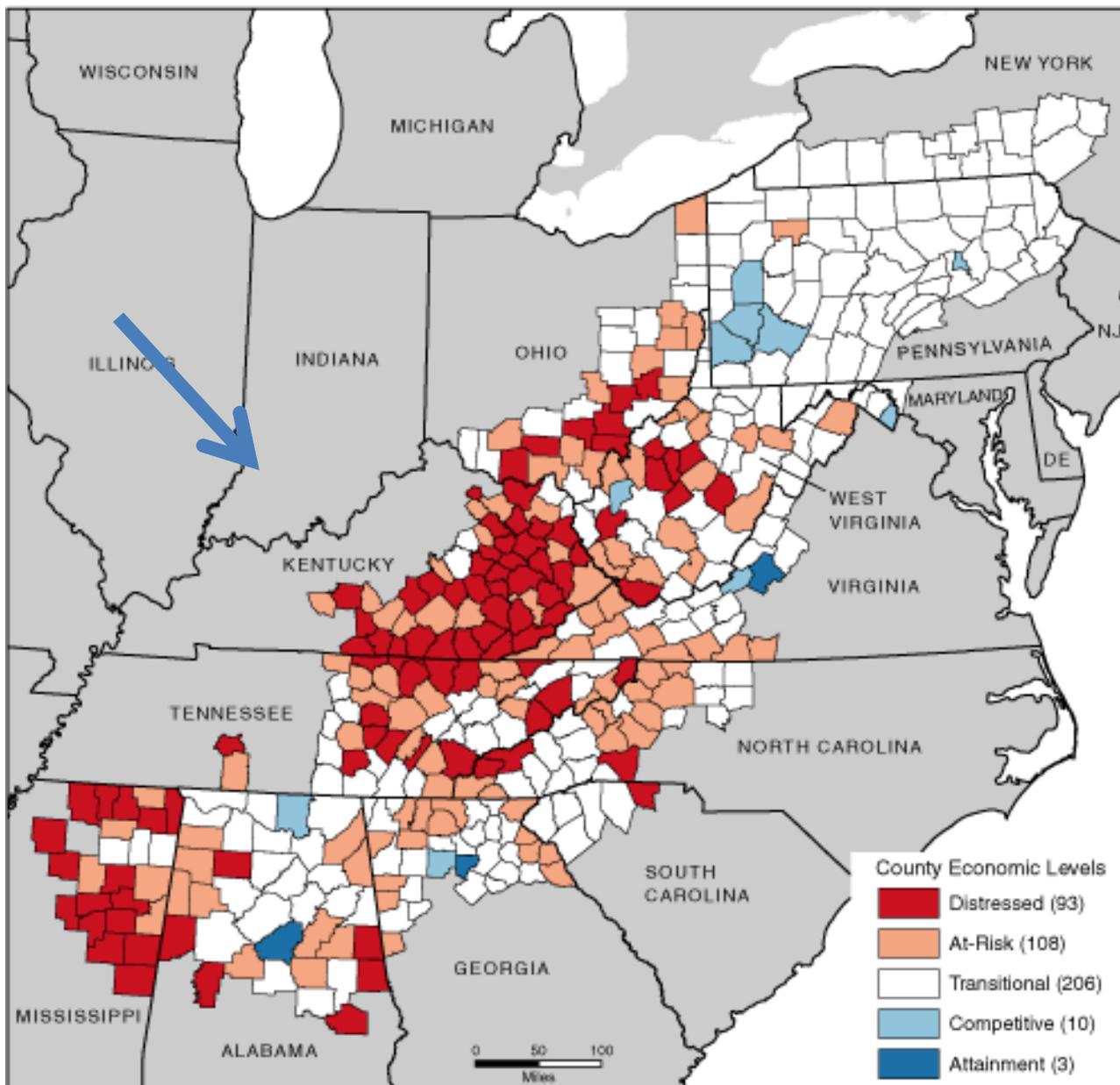
Expected Family Contribution

EFC Groups

- No EFC Listed
- \$0
- \$1-\$2190
- \$2191-\$5000
- \$5001 +

Top 25 Shawnee State University Zips





Created by the Appalachian Regional Commission, March 2013

Data Sources:

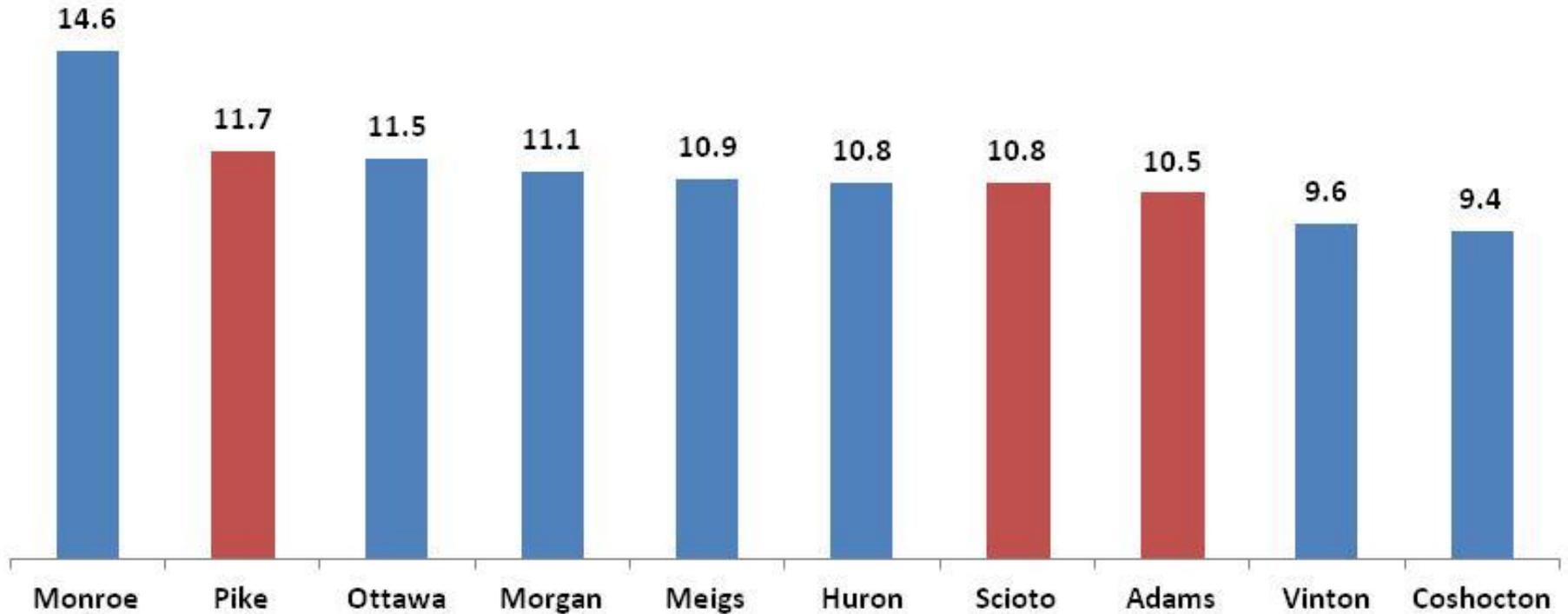
Unemployment data: U.S. Bureau of Labor Statistics, LAUS, 2009–2011

Income data: U.S. Bureau of Economic Analysis, REIS, 2010

Poverty data: U.S. Census Bureau, American Community Survey, 2007–2011

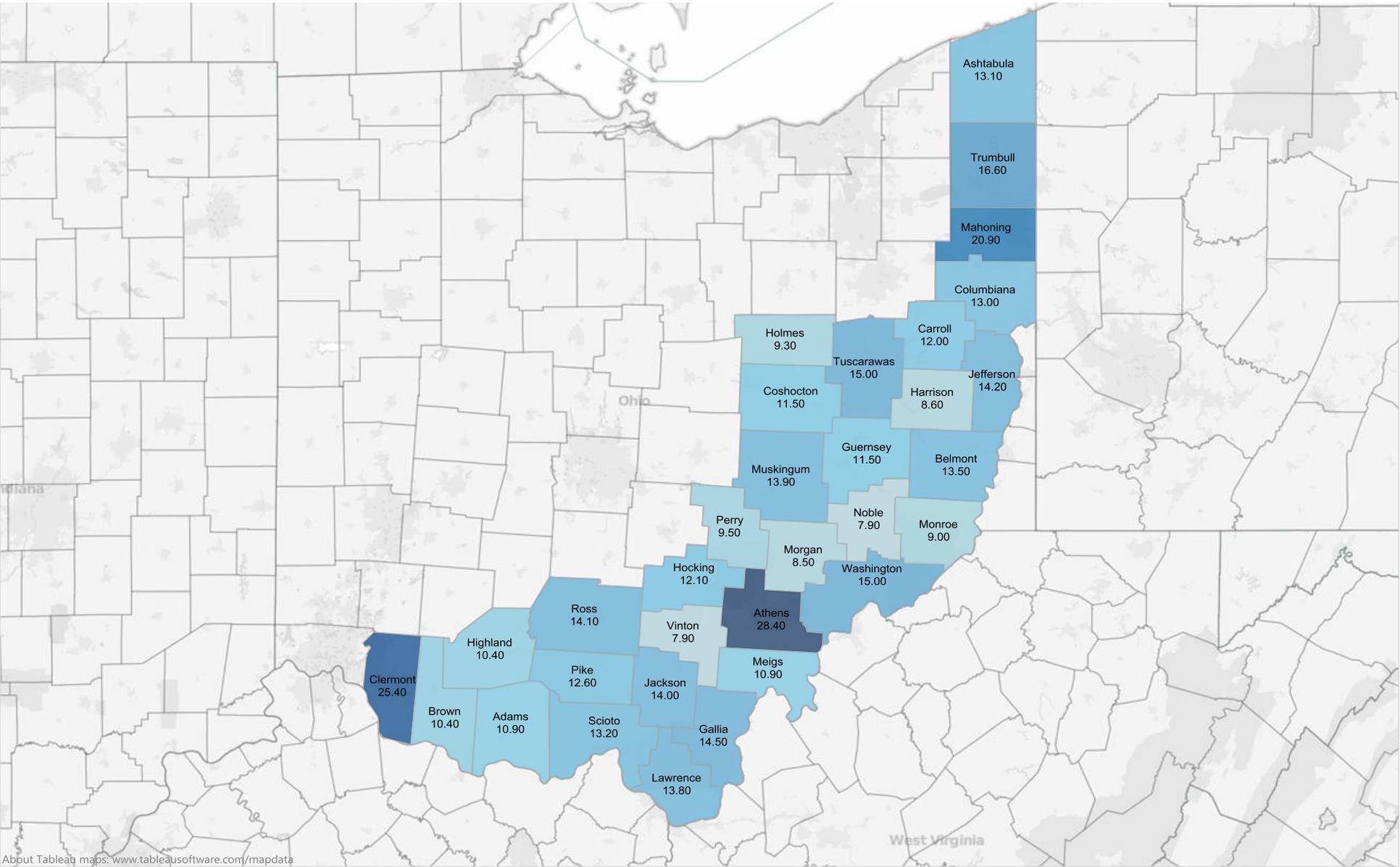
Effective October 1, 2013
through September 30, 2014

Unemployment Rate Ohio December 2013



College Attendance Rates

United States Census American Community Survey

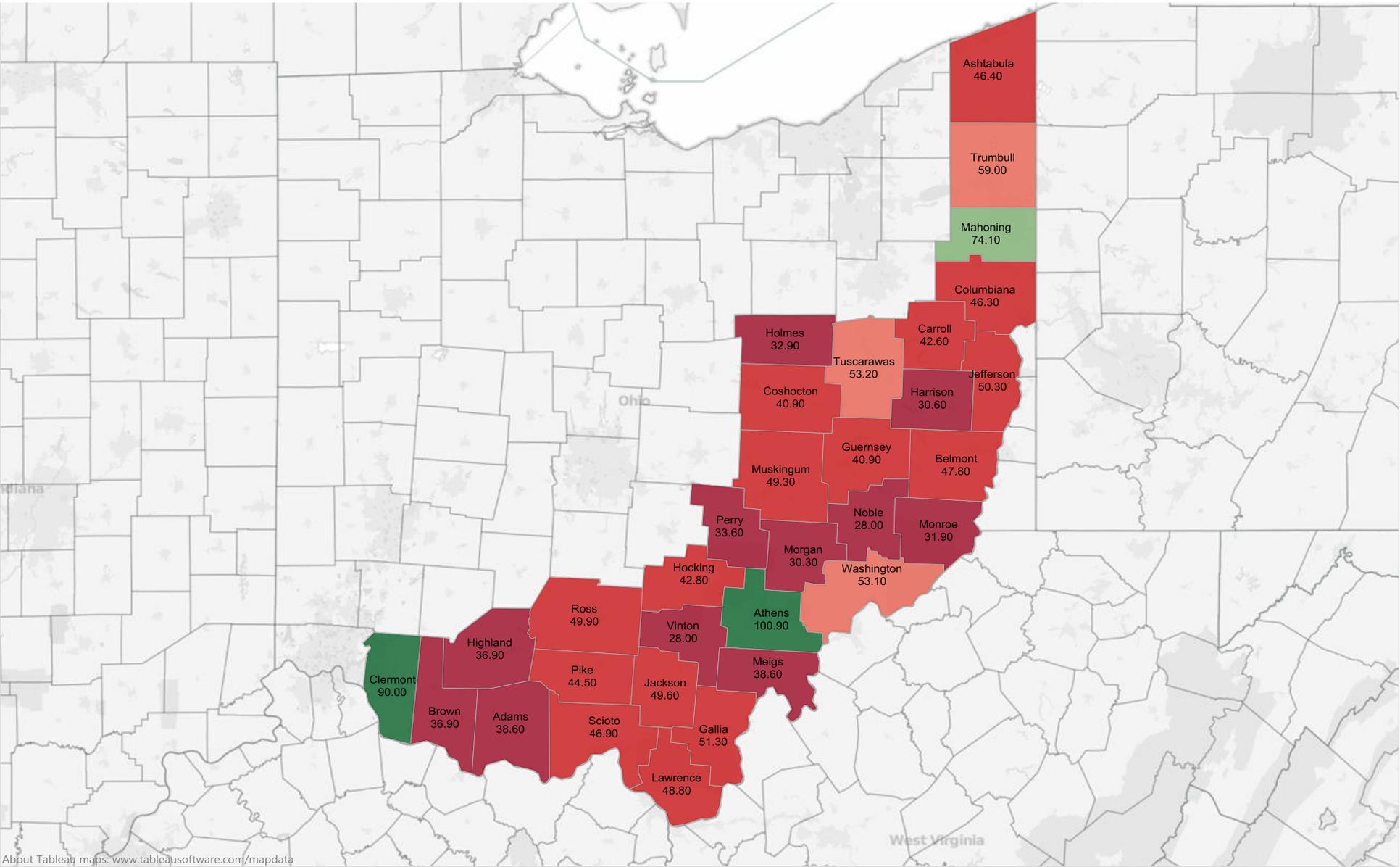


Percent Completed Ba..

7.90 28.40

College Attendance Percentiles to the United States

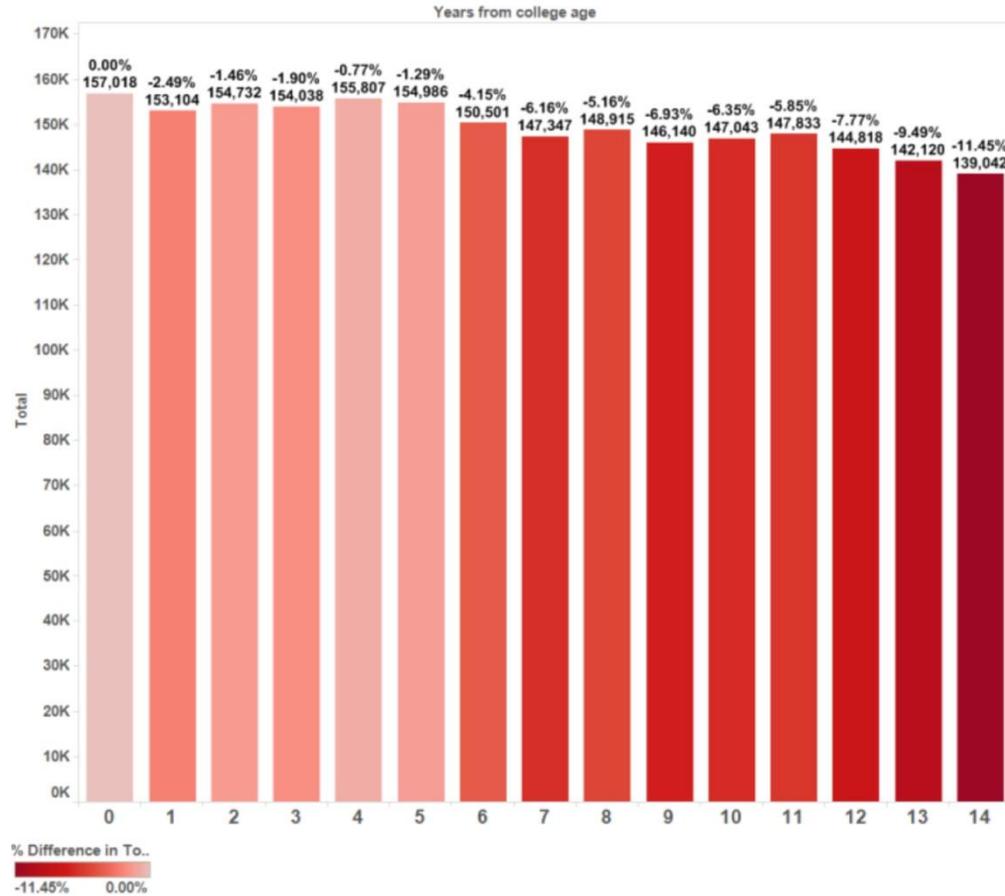
United States Census American Community Survey



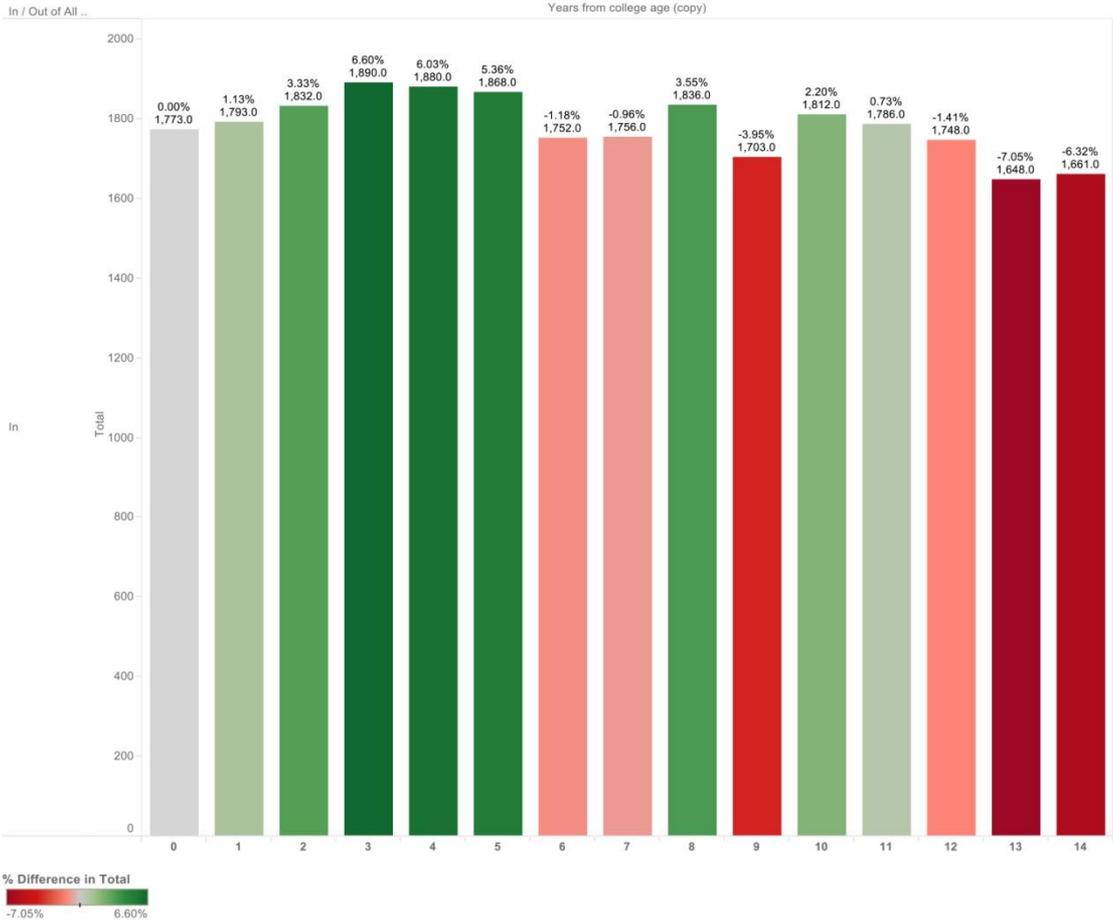
About Tableau maps: www.tableausoftware.com/mapdata



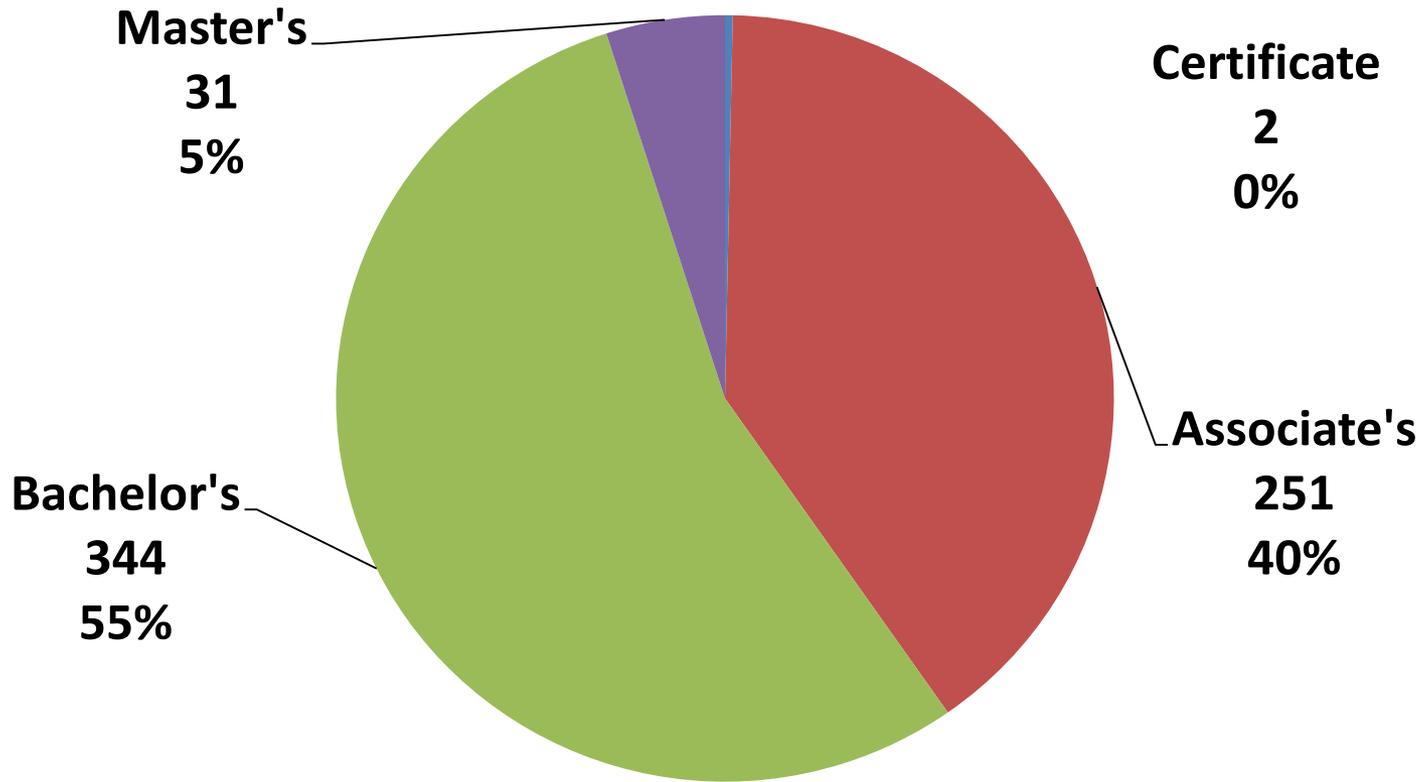
Ohio Demographics



Top Three County Demographics



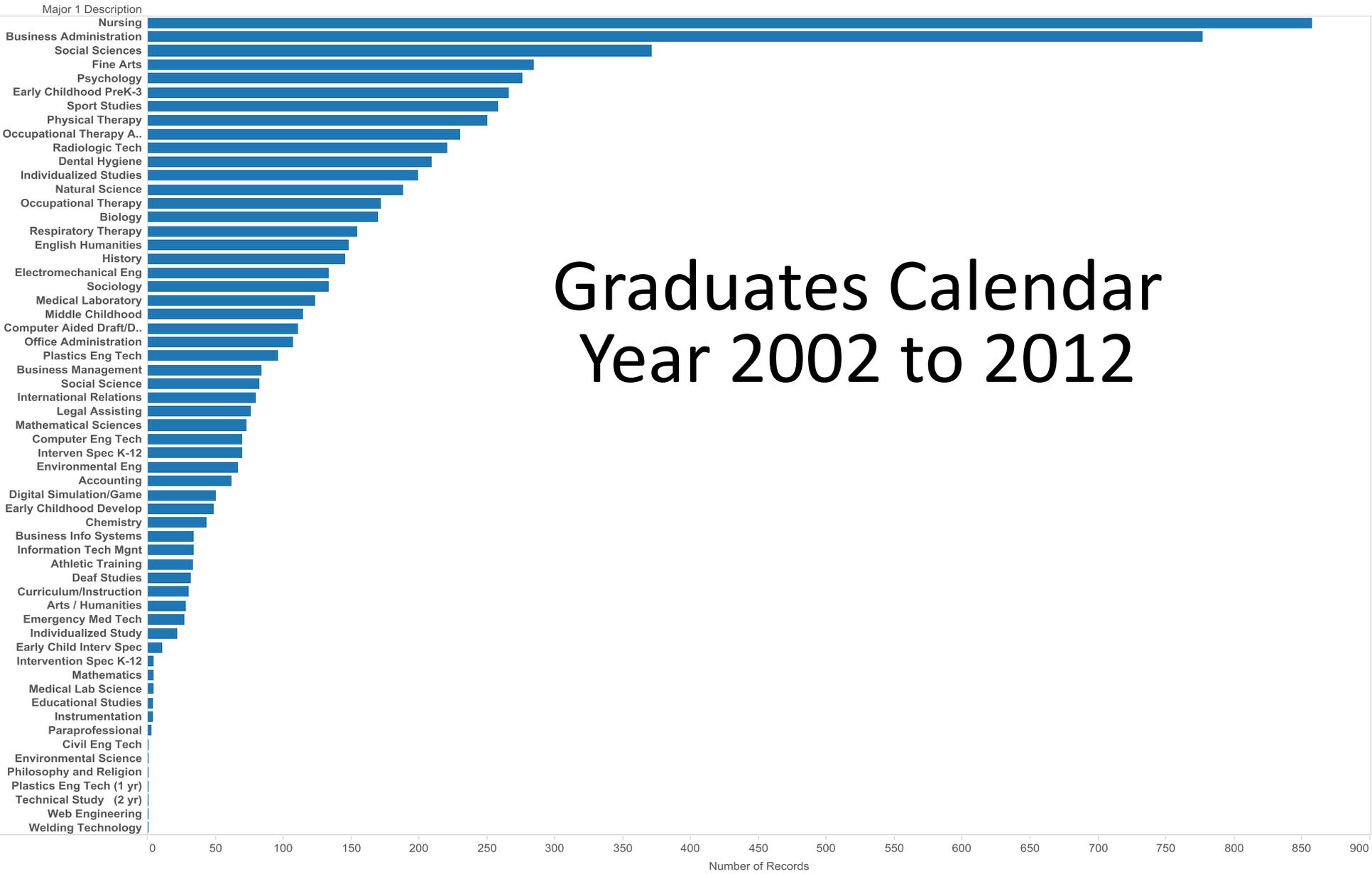
Degrees 2012

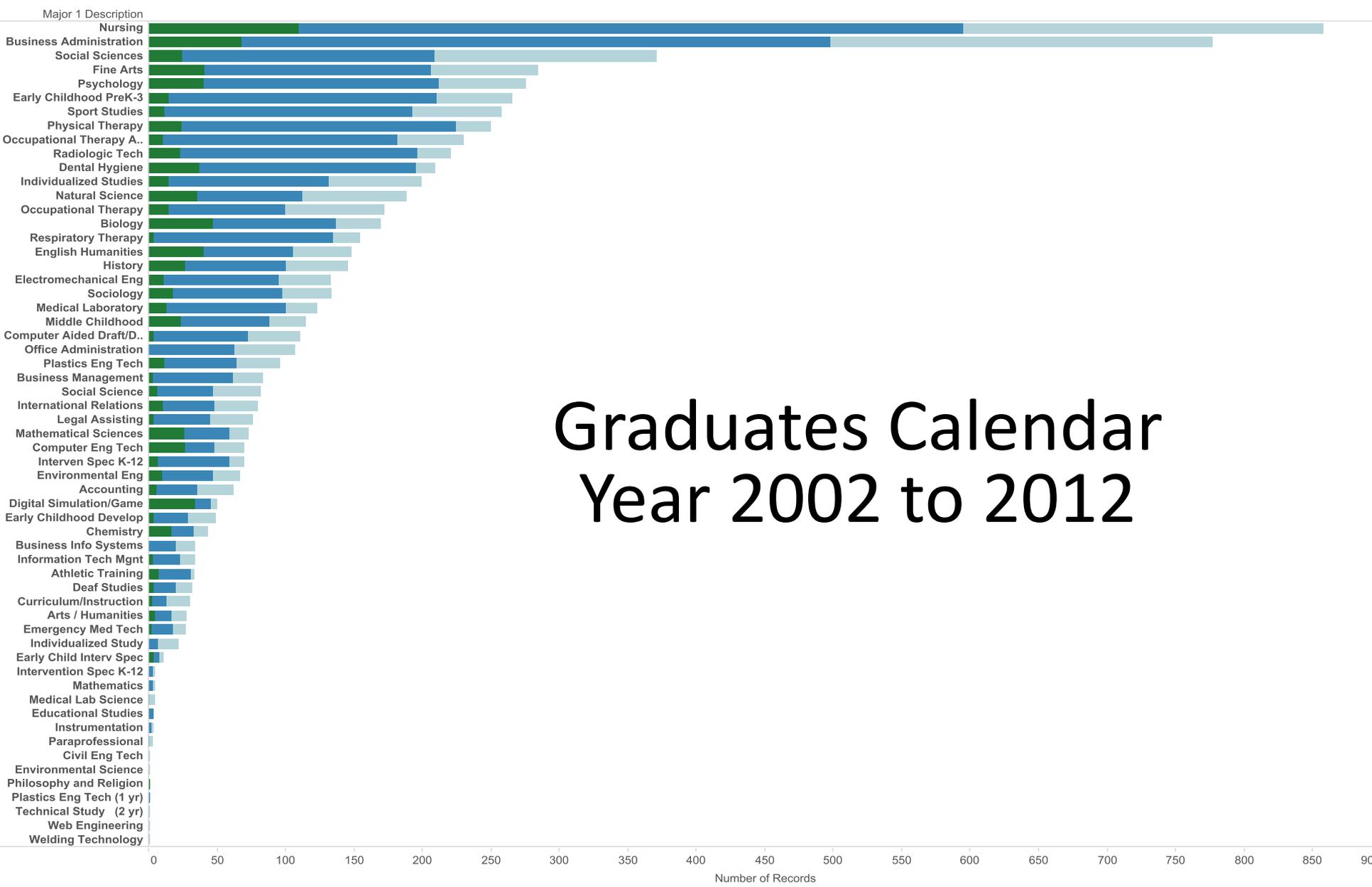


Degrees 2012

By Cip Code	Certificates Below Bachelor's	Certificates Above Bachelor's	Associate's	Bachelor's	Master's	Doctor's research/ scholarship	Doctor's professional practice	Doctor's other
Education			3	42	9			
Engineering Technologies and Engineering-related Fields	0		6	31				
Foreign Languages, Literatures, and Linguistics	2							
Legal Professions and Studies			3					
English Language and Literature/Letters				11				
Liberal Arts and Sciences, General Studies and Humanities			3	14				
Biological and Biomedical Sciences	0		0	22				
Mathematics and Statistics			2	2				
Parks, Recreation, Leisure and Fitness Studies				31				
Physical Sciences				4				
Psychology				22				
Social Sciences			10	35				
Visual and Performing Arts				33				
Health Professions and Related Programs			190	26	22			
Business, Management, Marketing, and Related Support Services			34	55				
History				16				
Grand total	2		251	344	31			

Graduates Calendar Year 2002 to 2012





Graduates Calendar Year 2002 to 2012

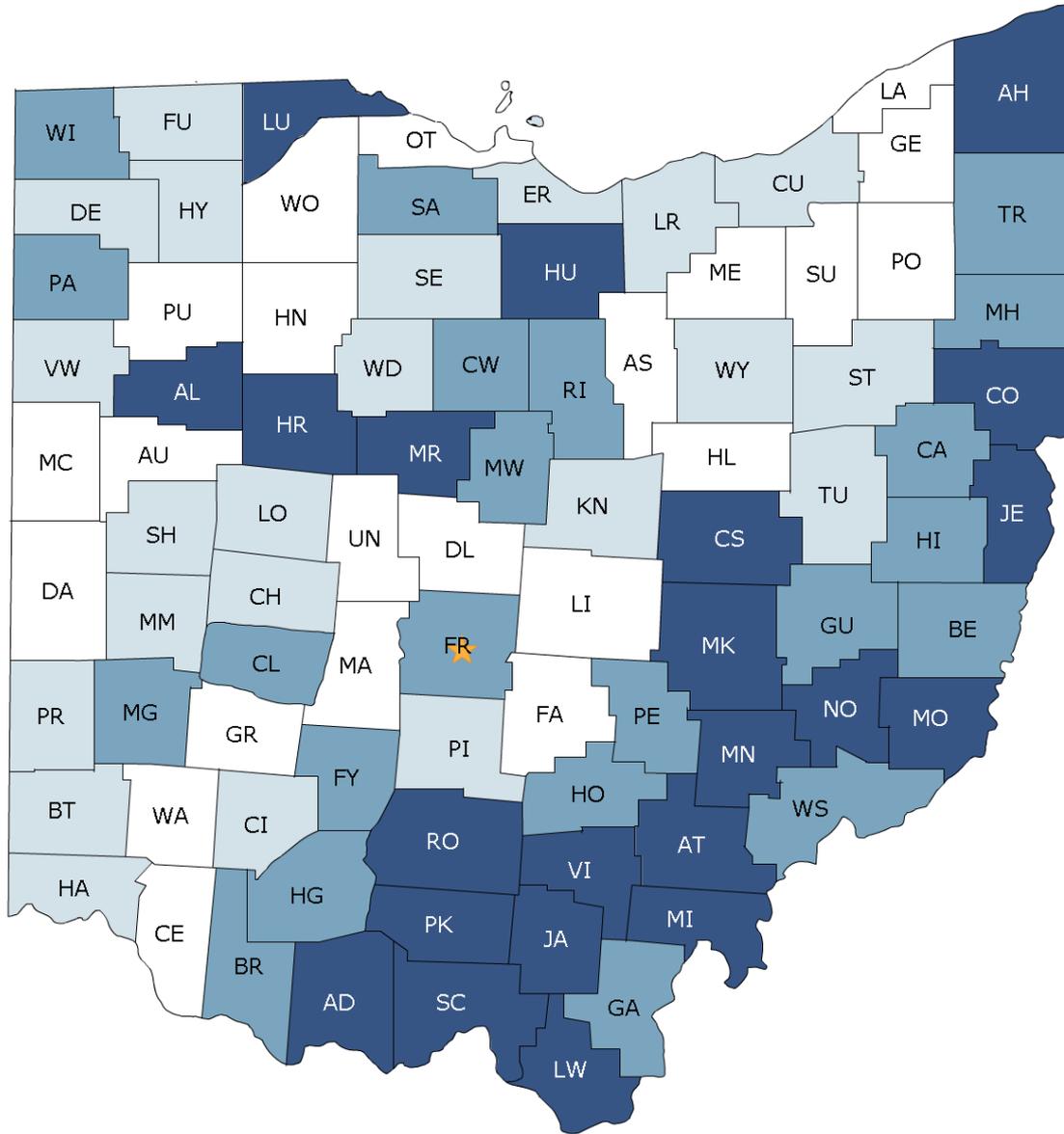
ACT_COMP (bin) 2
 Null
 0
 25

Number of Records

Graduates Calendar Year 2002 to 2012 Characteristics

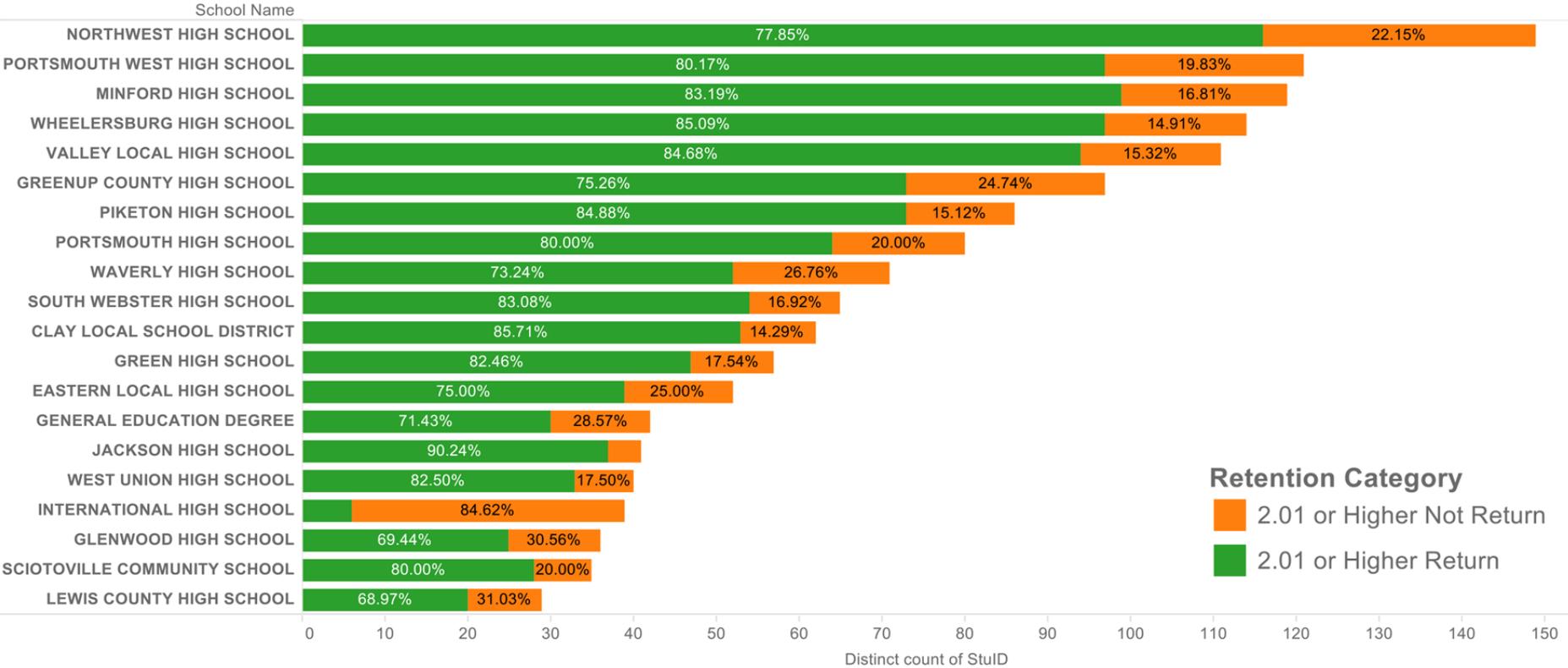
Degree Earned Description	Avg. ACT_COMP	Cumulative GPA	Number of Records	Avg. Cumulative Earned Hours
Associate of Science	23	3.077	13	138
Masters of Education	22	3.890	35	36
Bachelor of Science	21	3.202	2,143	151
Bachelor of Fine Arts	21	3.229	282	151
Masters Occupational Th	21	3.746	85	81
Bachelor of Arts	21	3.196	1,162	143
Bach of Sci Education	21	3.486	406	160
Associate of Applied Sci	21	3.247	2,163	117
Bachelor of Ind Studies	20	3.233	199	148
Associate of Arts	20	2.958	99	109
Certificate	20	3.106	69	114
Associate of Applied Bus	19	3.051	396	110
Associate of Ind Studies	16	3.076	22	94

2011 Health Factors - Ohio



Rank 1-22 Rank 23-44 Rank 45-66 Rank 67-88

Schools



Closing

- Students with Average ACT Scores can graduate
- Culturally areas of lower college attendance rates may fit in better in better at SSU
- Degrees serve the region and the state
- Students want to stay in the region
- Concentrated High School Mix
 - Opportunity for collaboration

Attachment #4

Zane State College

Strategic mission as it relates to diversity



Our Mission

- **Mission Statement:** Empowering people, enriching lives, and advancing the region through education, collaboration, and opportunities.
- **Five guiding principles**– Climate, Access, Quality, Image, Stewardship.
- **Diversity** – Committed to Access.



Under represented students

- **Economically disadvantaged** – 81 percent with need-based aid in fall 2013 (Increased every year since 2001)
- **First generation** – Estimated that 72 percent of our students are first generation
- **Minority** – Only 6 percent of our surrounding area are minorities, while Zane State College is at 11 percent (13 percent in STEM fields, an increase each of the last three years)



Strategies to connect

- **Multicultural Outreach Specialist**
 - Minority Health Fair, Ethnic Food Fair, Multicultural Club Advising,
- **Choose Ohio First**
 - Occupational Therapy Assistant, Medical Laboratory, Environmental Science
 - 65 percent of COF students are underrepresented in two or more areas



The barriers

- Establishing a college-going tradition
- Providing financial support
- Providing an atmosphere of engagement
- Providing support services for STEM fields



Thank you

Greg Dart

Vice President for Student Services

gdart@zanestate.edu, @Greg_Dart





Southeast Ohio ESP: TechGROWTH Ohio Ohio University

Ohio Board of Regents
Subcommittee on Inclusive Competitiveness
PUBLIC FORUM PRESENTATION
February 18, 2014



Overview

- Innovation Ecosystem
- Regional Demographics
- Innovation Economy in SE Ohio
- Diversity & Inclusiveness
- Success Measures
- Highlights

Opening Remarks

- TechGROWTH Ohio is a rural, university sponsored, venture development organization that provides services and capital to technology-based startups and entrepreneurs;
- TechGROWTH has served >400 clients in southeast Ohio and >130 of them have produced significant economic activity in the form of new sales, debt and equity capital raised and federal research grants obtained. Approximately \$11.50 to every \$1.00 Third Frontier spend.

Opening Remarks

- Can you imagine Ohio Third Frontier without TechGROWTH Ohio?
- Third Frontier leadership reached out and strongly encouraged the development of an Entrepreneurial Signature Program for southeast Ohio and have provided significant advice and guidance to help us stand up TechGROWTH.
- This, in and of itself, is inclusive competitiveness addressing rural, Appalachian and underrepresented Ohioans.

Opening Remarks

- TechGROWTH has now directly led to the development new innovation and entrepreneurship assets in the region.
- Center for Entrepreneurship – national finalist for 2014 Outstanding Emerging Entrepreneurship program.
- Center for Public and Social Innovation – a companion center for social and public sectors.

Regional Partners



- 4 Incubators
- 3 PreSeed Funds
- 2 Angel Funds
- Higher Education
- Government
- Philanthropy (need more)
- Industry (need more)
- Eco Devo Organizations
- Communities

Southeast Ohio Innovation Economy Underrepresented Populations

Demographics

- Rural Poverty (16%+)
 - “Distressed” and “At Risk” County Economic Designations
 - Low Population Density, Aging
 - Low employment, low per capita income
- Diversity: 8.2% minorities
 - Ohio University Student Enrollment: 10.1% minorities
- Entrepreneurial Ecosystem
 - Prior to TechGROWTH
 - Emphasis on Traditional Industry & Lifestyle Companies
 - No StartUp Capital Access
 - Ohio University’s Voinovich School Business Support Services
 - ANEP: Appalachian New Economy Partnership – catalytic state line-item so crucial to the development of an entrepreneurship, innovation and business development infrastructure in southeast Ohio. Restoration to original funding levels and beyond would be of enormous help.

SE Ohio's Innovation Economy

- Centers of Innovation
 - Ohio University
 - Regional Incubators
 - Increasingly: Regional Higher Education Institutions
- Entrepreneurial Support
 - ANEP – OU's Voinovich School's Rural Acceleration Program
 - OU / EDA Partnership: University Centers Program
 - OU Center for Entrepreneurship
 - SBDCs & PTAC
 - TechGROWTH Ohio
- Capital Access
 - TechGROWTH Pre-Seed Funds
 - Angel Funds
 - Access to Statewide Network
- Technology Commercialization and STEM-Based Entrepreneurs

Diversity & Inclusiveness

- Access and Outreach
 - County-Level Economic Development Organizations
 - Community Improvement Corporations
 - Economic Development Organizations
 - Regional Higher Education Institutions
 - Partnerships with Shawnee State and Rio Grande
 - Regional Incubators
 - Regional Events, Panels, Workshops
- Events & Activities
 - OU Black Alumni Reunion
 - Celebration of Entrepreneurship
 - Pairing Student Entrepreneurs with Alumni Mentors
 - Youth Entrepreneurship
 - Appalachian Cohort for Engineering Scholars program – NSF funded
 - Innovation Challenge
 - Regional Innovation Awards
 - Regional and Student Pitch Competitions
- Policy Framework
 - Ohio University “is committed to equal opportunity for all people and is pledged to take direct and affirmative action to achieve that goal.”

Dr. Stephanie Sanders, Assistant Director
Diversity and Inclusion
Ohio University

*Addressed many of these activities in her
opening remarks as well...*

Success Measures*

- Access & Opportunity
 - Culture of Inclusiveness & Outreach
- Low Income
 - 80% of client companies have \$0 startup funds
- Minority Populations
 - 10% Active Clients are Minority-Led
 - 13% Metric-Producing Companies with Minority Founders
- Women in Entrepreneurship
 - 11% Active Clients are Female-Led.
 - 10% Portfolio Companies with Female Founder
 - 14% Metric-Producing Companies with Female Founder
 - 67% Regional Entrepreneurship Awards to Women
 - Including 2013 Entrepreneur of the Year Award
- Employment Opportunity
 - 43% Professional Staff are Women
 - 11% Jobs Created filled by Minorities

Highlights

- Student Club Diversity
- Black Alumni Reunion – *entrepreneurship reception*
- Women Entrepreneurs
 - E3 Clean Technologies (Portfolio Company)
 - Yost Engineering (2013 Entrepreneur of the Year)
- Minority Entrepreneurs
 - Youth Entrepreneurs
 - My Campus
 - InitioCreative
 - OU Faculty Researchers
 - Community College Athletics Data Company