



# The Role of Workforce Development in Rural Economies

**Mark Goodman**, President, Goodman and Associates

**Jay Moon**, President & CEO, Mississippi Manufacturers Association

# Existing Workforce Challenges

- ✓ Company Perspective
- ✓ Training Delivery and Support Perspective
- ✓ Community Leadership Perspectives



# Workforce Matters ...

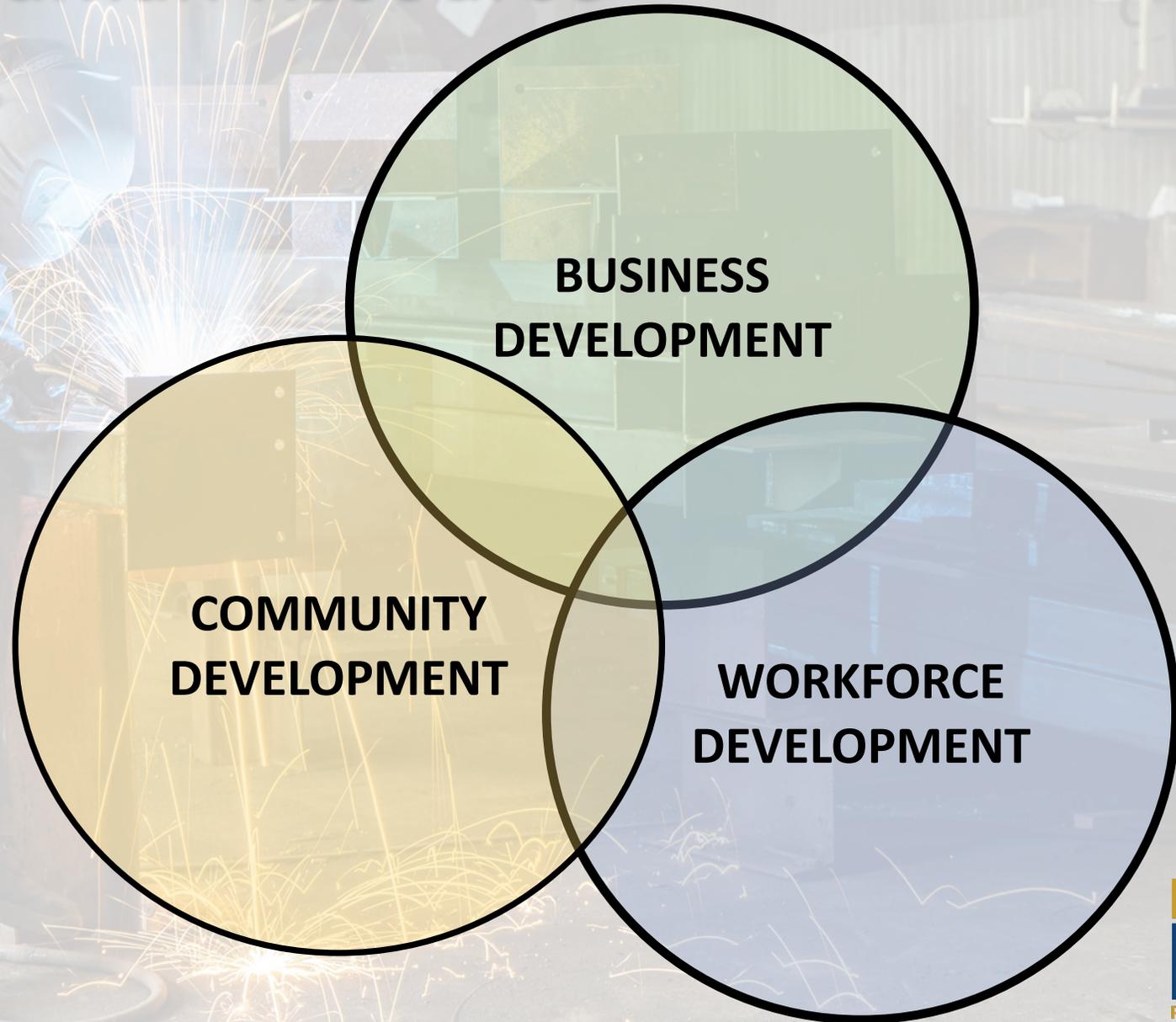
Area Development Corporation's  
survey of corporate executives  
(Top 20)

Site Selection Factors	2018
1 	Availability of Skilled Labor
2 	Labor Costs
3	Highway Accessibility
4	Corporate Tax Rates
5	Tax Exemptions
6 	Quality of Life
7	State and Local Incentives
8	Energy Availability and Cost
9	Available Buildings
10	Occupancy/Construction Costs
11	Available Land
12	Low Union Profile
13	Proximity to Suppliers
14	Proximity to Major Markets
15	Right-to-Work State
16	Training Programs/Tech Colleges
16t	Environmental Regulations
18	Inbound/Outbound Shipping Costs
19	Expedited Permitting
20	Accessibility to Major Airport

Source: <http://www.areadevelopment.com/corpSurveyResults/>

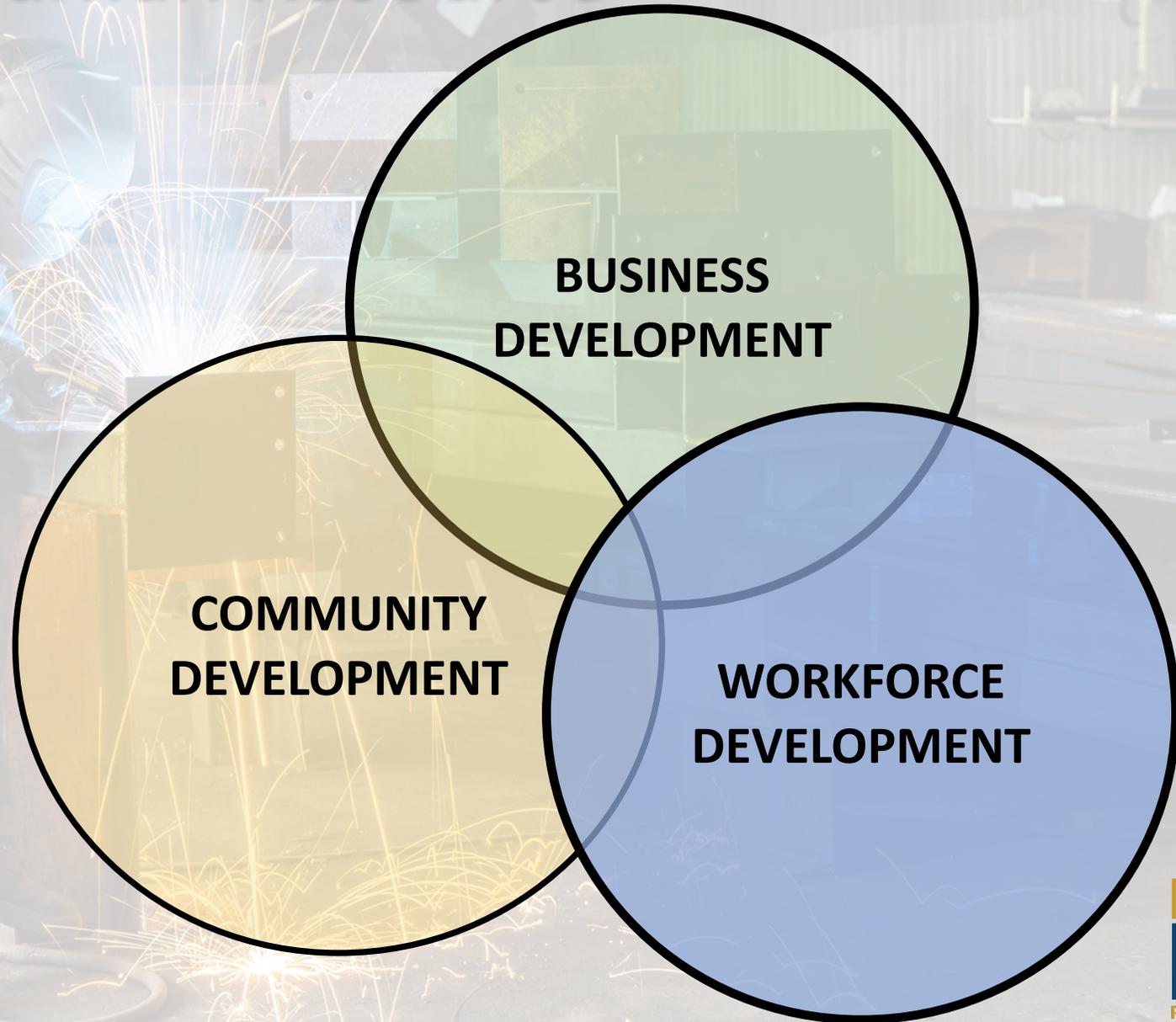
# Growing our Human Resource

- ✓ Training
- ✓ Retaining
- ✓ Engaging



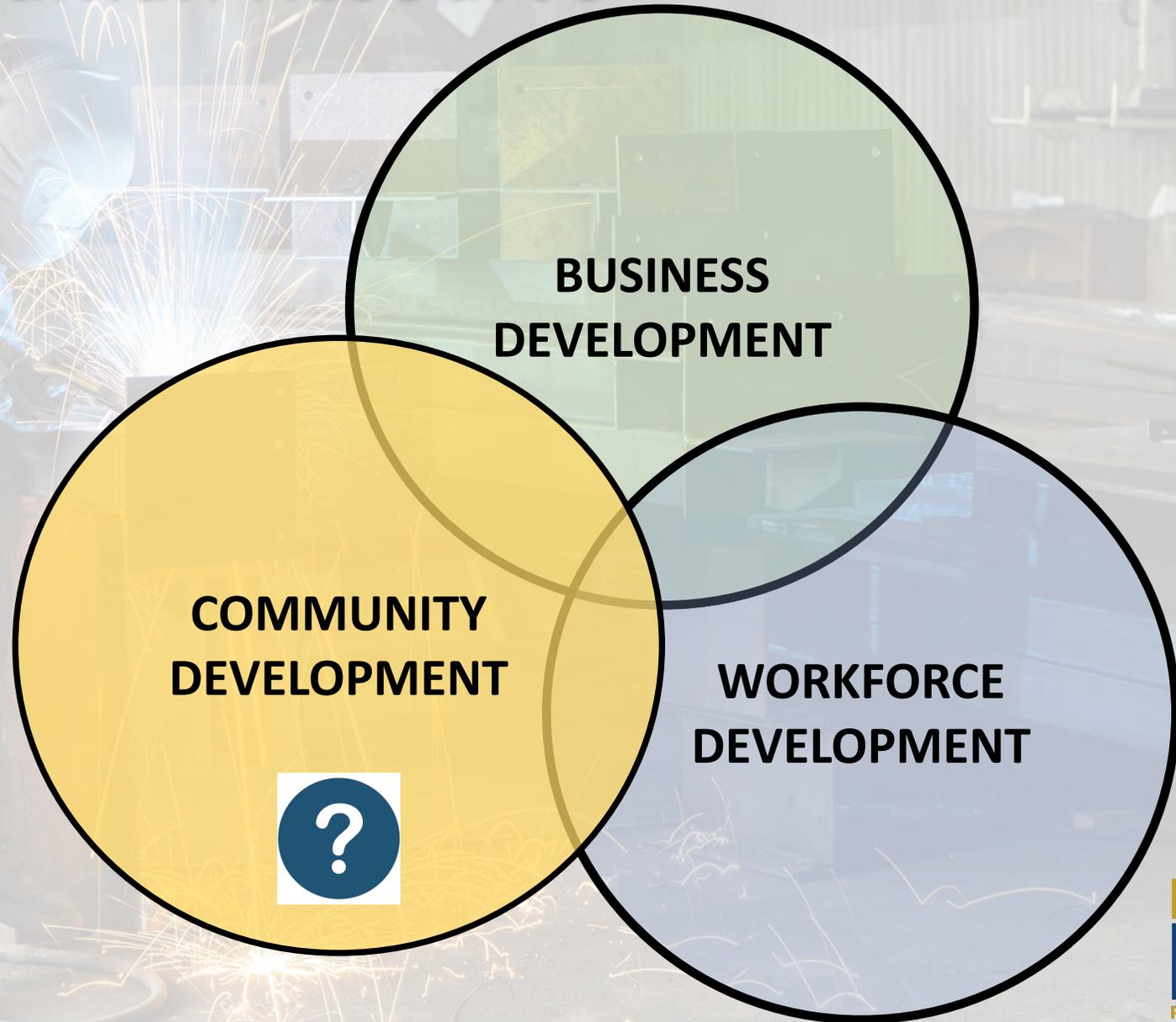
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# Growing our Human Resource

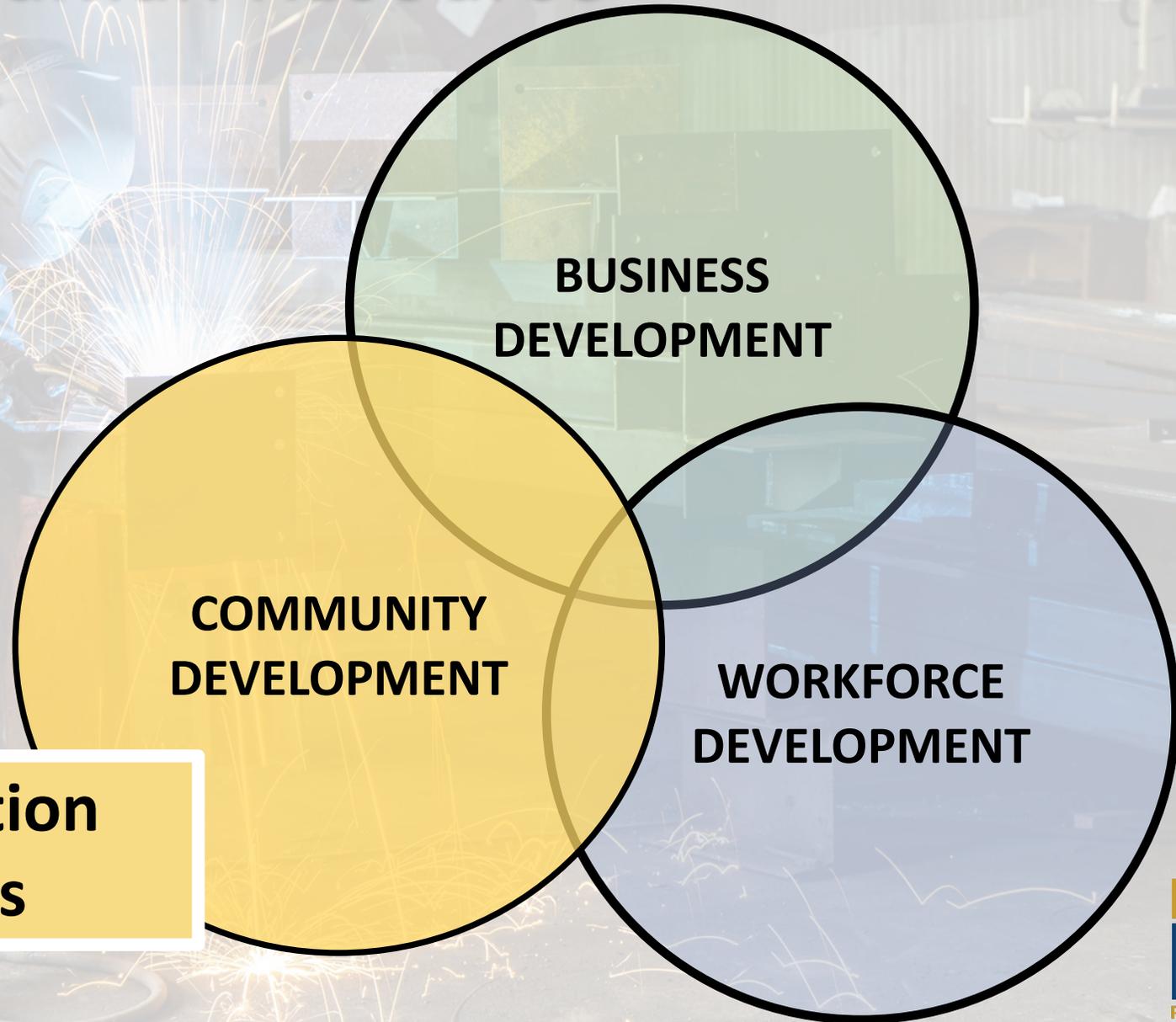
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# Growing our Human Resource

- ✓ Training
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**-Next Generation  
-Local Partners**

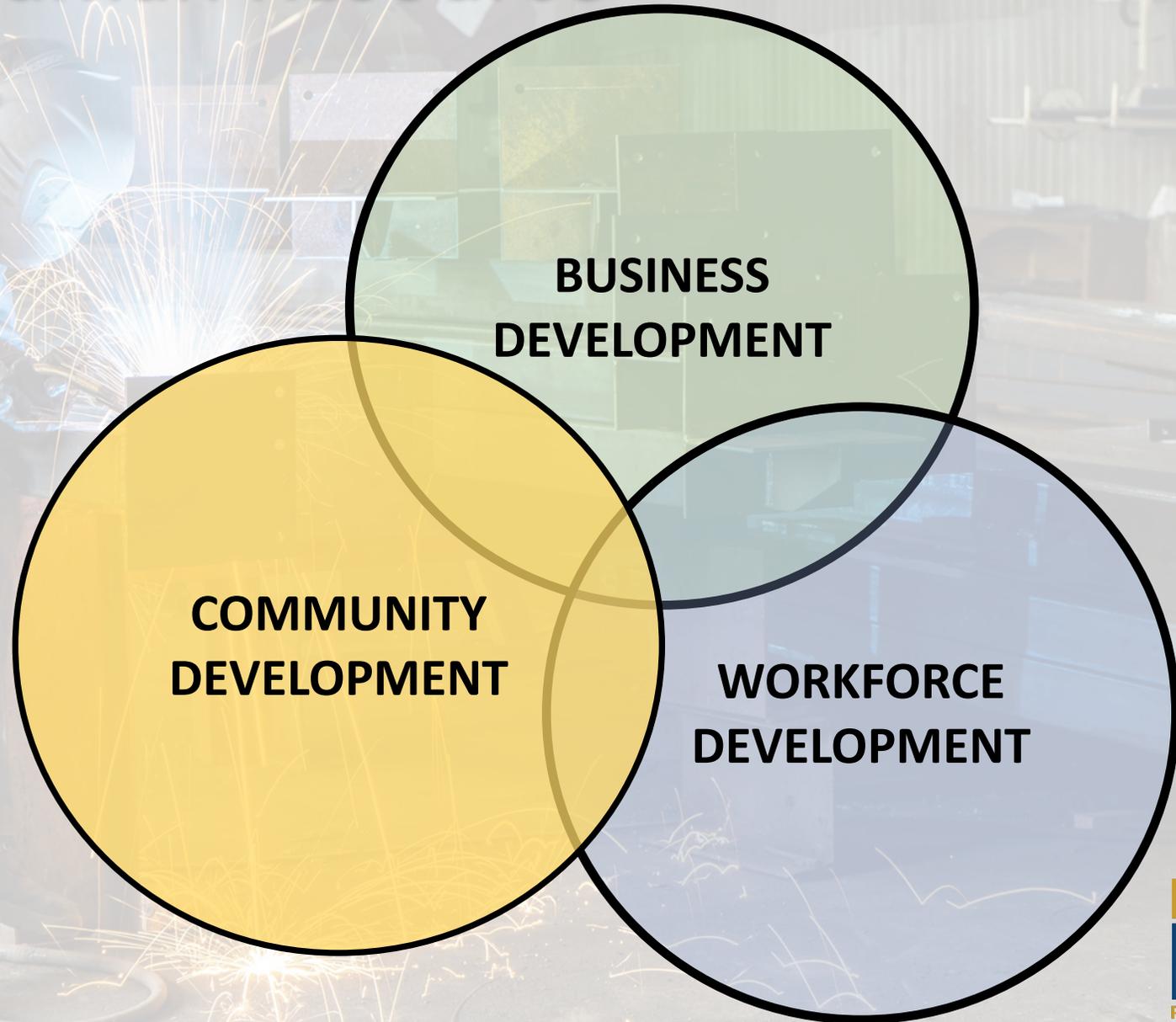


# Engaging High Need Individuals

- ✓ Displaced persons with non-transferrable skill sets
- ✓ Workforce age persons who have not participated in the workforce for a significant length of time
- ✓ People dealing with significant socioeconomic disparities
- ✓ Foreign-born workers facing language and cultural barriers
- ✓ People with disabilities who wish to participate in the workforce
- ✓ Veterans
- ✓ Persons with backgrounds

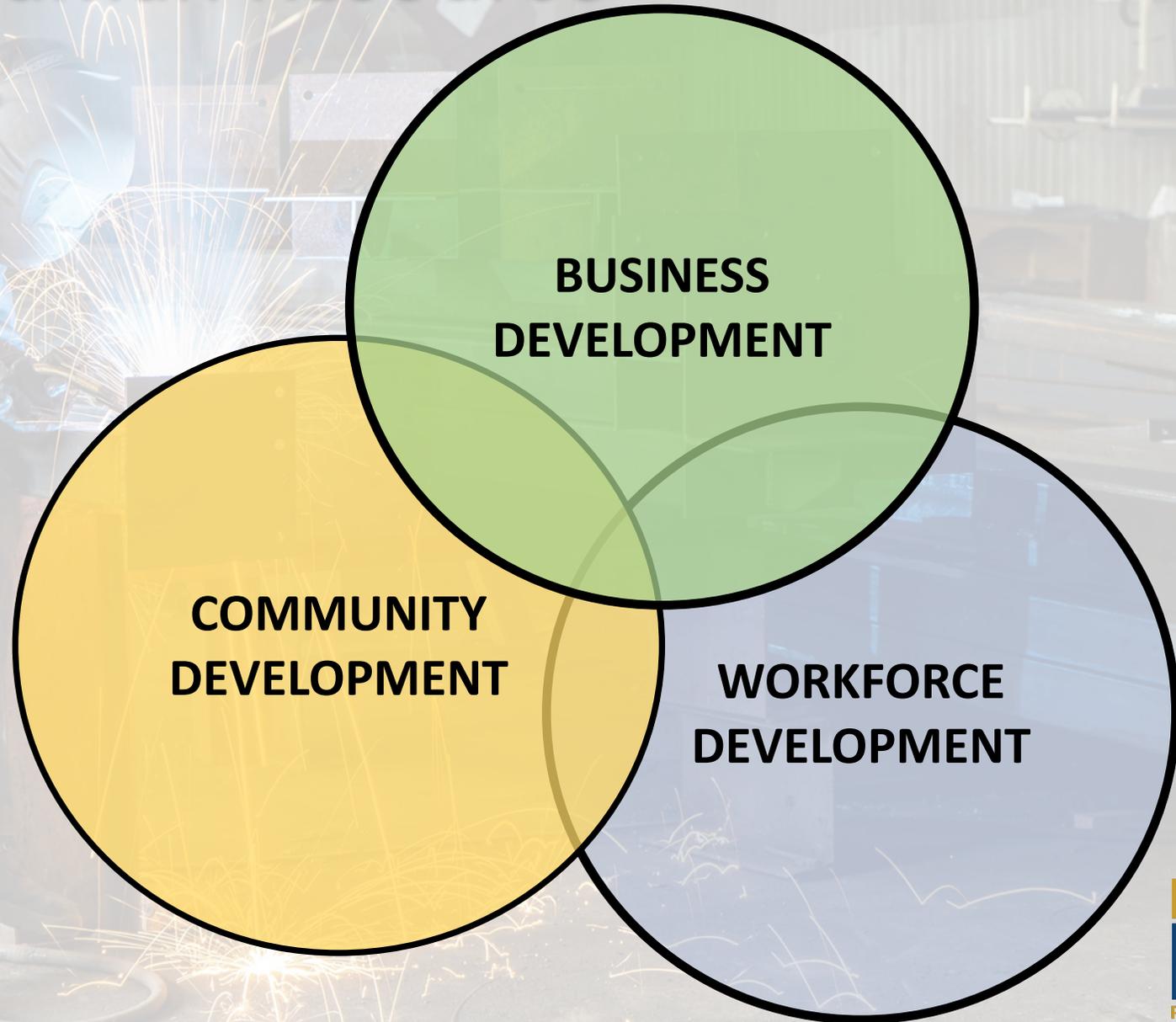
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# Growing our Human Resource

- ✓ Training
- ✓ Retaining
- ✓ Engaging



# Competing Today

- ✓ Have a Good Census Count
- ✓ Think (and Act) Regionally
- ✓ Engage the Next Generation
- ✓ Be Active vs. Passive



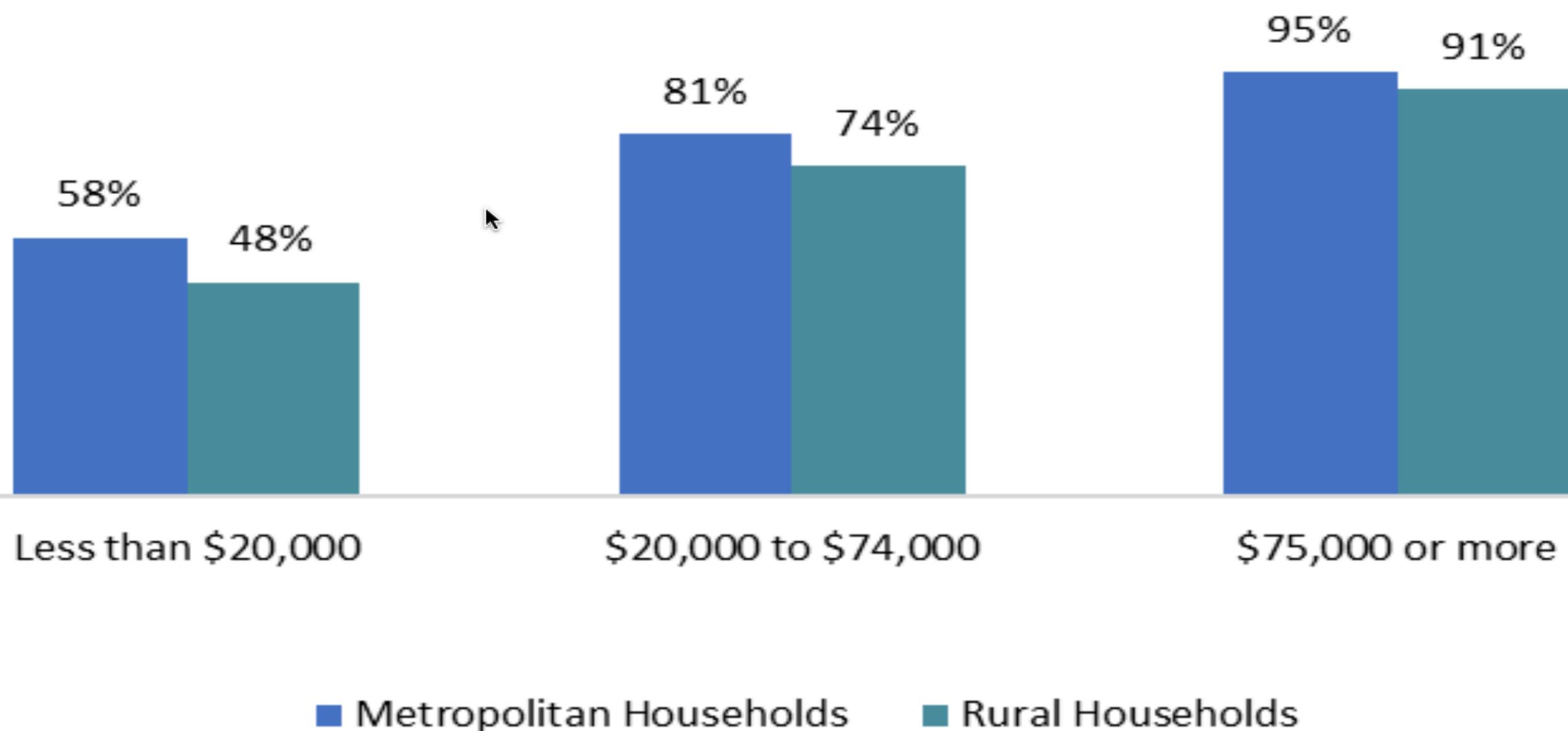
# Competing Today

## ✓ Have a Good Census Count

- Now through April 2020
- Challenge: Rural Internet Connectivity
- Hard-to-Count Populations and Regions

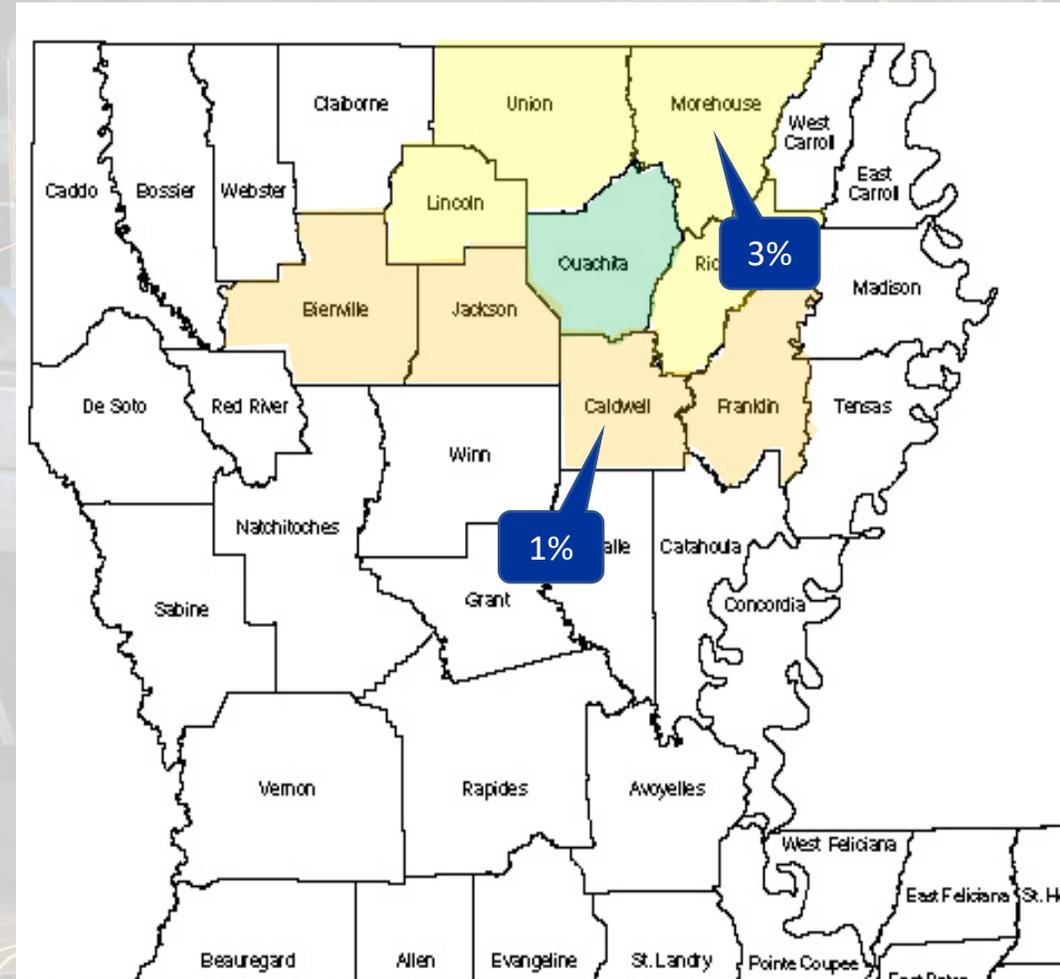


## Percent of Households with Broadband Subscriptions by Income



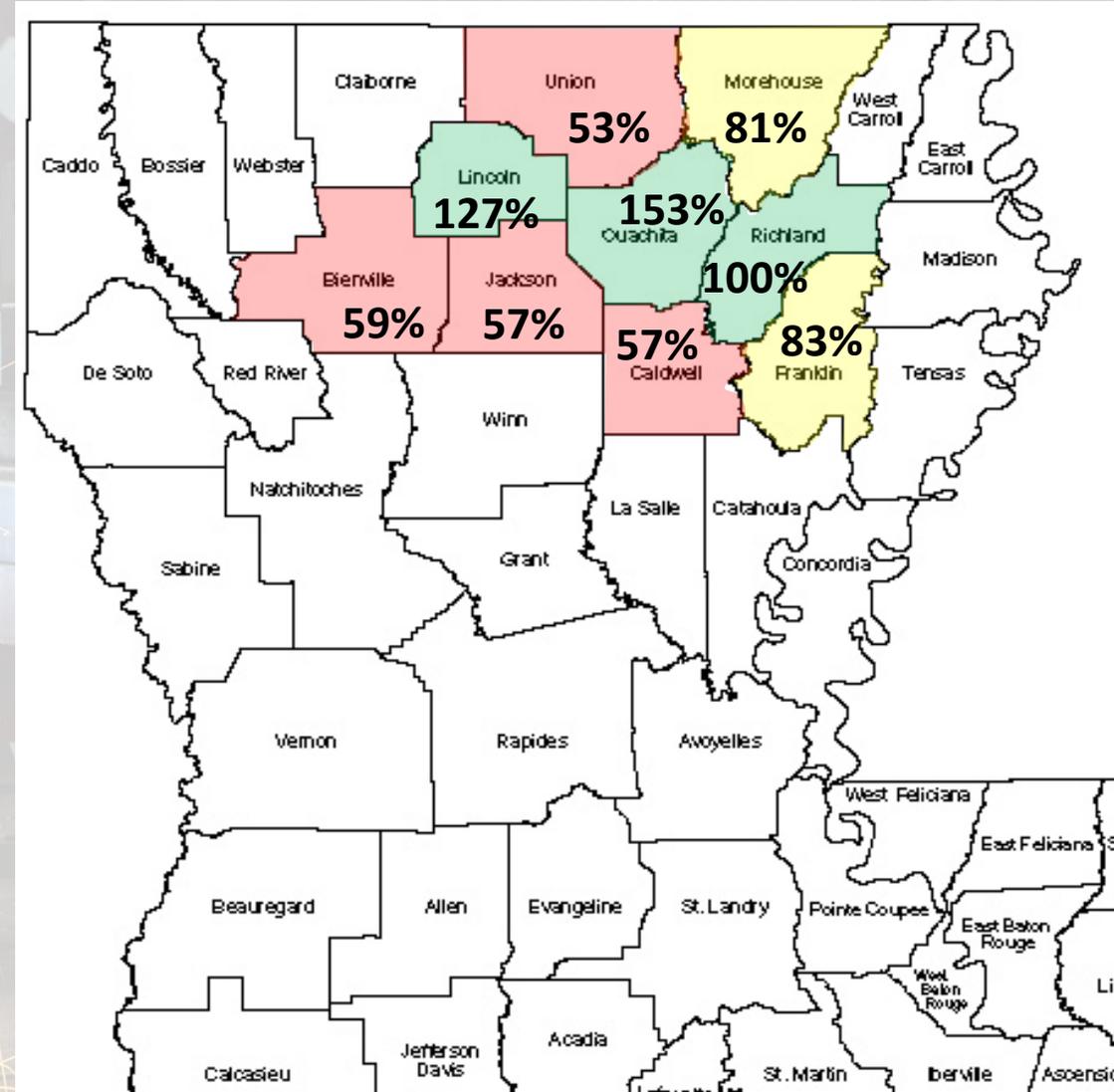
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# Competing Today

- ✓ Have a Good Census Count
- ✓ Think (and Act) Regionally
- ✓ Engage the Next Generation
- ✓ **Be Active vs. Passive**

## Complete Count Committees



*Source:* U.S. Census Bureau, 2018



Thank you

# Transition to a Knowledge/Innovation Economy

- ✓ Globalization
- ✓ Technology Application
- ✓ Education and Workforce Development
- ✓ Human Capital
- ✓ Financial Capital
- ✓ Start-up or Fast Growth Companies
- ✓ Digital Infrastructure



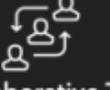
**THE  
INNOVATION  
ECONOMY**

# Globalization

- ✓ **Advanced technologies** have led to greater national and international **business mobility**
- ✓ **Competition** among countries, regions and cities of the world to attract and retain new and existing business and investment **is intense.**
- ✓ **Businesses can chose** from locations in an increasing number of communities with location **advantages** that meet their needs
- ✓ **Competition, suppliers, customers are global**



# The 30 Technologies of the Next Decade

 <b>#1 Artificial Intelligence</b> AI /Machine Learning / Deep Learning	 <b>#2 Internet of Things</b> IOT, IIOT, Sensors & Wearables	 <b>#3 Mobile/Social Internet</b> Advancements - Search/Social/ Messaging/Livestreams	 <b>#4 Blockchain</b> Distributed Ledger Systems, Apps, Infrastructure, Technologies Cryptocurrencies & DApps	 <b>#5 Big Data</b> 0101 1011 0110 + Predictive Analytics
 <b>#6 Automation</b> Information, Task, Process, Machine, Decision & Action	 <b>#7 Robots</b> Cons./Comm./Indus., Robots, Drones & Autonomous Vehicles	 <b>#8 Immersive Media</b> - #VR/ #AR/ #MR/ 360°/ Video?Gaming	 <b>#9 Mobile Technologies</b> Infrastructure, networks, standards, services & devices	 <b>#10 Cloud Computing,</b> SaaS, IaaS, PaaS & MESH Apps
 <b>#11 3D Printing</b> Additive Manufacturing & Rapid Prototyping	 <b>#12 CX</b> Customer Journey, Experience Commerce & Personalization	 <b>#13 EnergyTech</b> Efficiency, Energy Storage & Decentralized Grid	 <b>#14 Cybersecurity</b> Security, Intelligence Detection, Remediation & Adaptation	 <b>#15 Voice Assistants</b> Interfaces, Chatbots & Natural Language Processing
 <b>#16 Nanotechnology</b> Computing, Medicine, Machines + Smart Dust	 <b>#17 Collaborative Tech.</b> Crowd, Sharing, Workplace & Open Source Platforms & Tools	 <b>#18 Health Tech.</b> Advanced Genomics, Bionics & Health Care Tech.	 <b>#19 Human-Computer Interaction</b> Facial/Gesture Recognition, Biometrics, Gaze Tracking	 <b>#20 Geo-spatial Tech.</b> GIS, GPS, Mapping & Remote Sensing, Scanning, Navigation
 <b>#21 Advanced Materials</b> Composites, Alloys, Polymers, Biomimicry, Nanomanufacturing	 <b>#22 New Touch Interfaces</b> Touch Screens, Haptics, 3D Touch, Paper, Feedback & Exoskeletons	 <b>#23 Wireless Power</b>	 <b>#24 Clean Tech.</b> Bio-/Enviro-Materials + Solutions, Sustainability, Treatment & Efficiency	 <b>#25 Quantum Computing</b> + Exascale Computing
 <b>#26 Smart Cities</b> + Infrastructure & Transport	 <b>#27 Edge/Computing</b> + Fog Computing	 <b>#28 Faster, Better Internet</b> Broadband incl. Fiber, 5G, Li-Fi, LPN and LoRa	 <b>#29 Proximity Tech</b> Beacons, .RFID, Wi-Fi, Near-Field Communications & Geofencing	 <b>#30 New Screens</b> TVs, Digital Signage, OOH, MicroLEDs & Projections

# Collaborative Robots (Cobots)

## *Robotic Trends*

- Increasing ease of use, deployment and maintenance
- Human-Robot Collaboration
- New ways of working with robots
- Improved robot “senses”
- Improved ROI
- Training the robot employees of the future



# Collaborative Robots (Cobots)

## *Robotic Trends*

- Collaborative robot safely works side by side with its human coworkers on the production line assembling street light fixtures.



# 40 Uses for Drones

## *Practical Applications for Unmanned Aerial Vehicles*

### Emergency Services & Disaster Recovery



1. Disaster & hazmat monitoring
2. Emergency delivery (medicine, equipment, supplies...)
3. Emergency response coordination (situational awareness)
4. Disaster relief & post-disaster assessment
5. Search & rescue

### Urban Planning, Real Estate, Architecture & Engineering



21. Construction management
22. Environmental design (architecture, engineering, landscape architecture, urban design)
23. Mapping (archaeology, resource, topography...)
24. Marketing
25. Site analysis, planning & design

### Agriculture, Aquaculture, Silviculture, Viticulture



11. Chemical & biological monitoring (irrigation, pesticides, treatments...)
12. Flood & fire detection & monitoring
13. Inventory & records
14. Pest & disease detection & treatment
15. Precision operations & management

### Business & Commerce



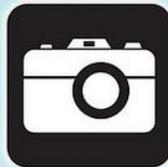
31. Aero-technology / robotics research & development
32. Documentation (accident reporting, building verification, site status...)
33. Exploration (water, oil, gas, mineral...)
34. Inspection (infrastructure, structural, industrial...)
35. Pick-up & delivery services

### Security Services



6. Crime scene investigation
7. Criminal surveillance & tracking
8. Police response coordination
9. Security surveillance
10. Training & evaluation

### Media & Communications



26. Advertising & marketing
27. Art (commercial design, fine art, social practice...)
28. Entertainment (film, television, Internet...)
29. Investigative journalism
30. News photography & videography

### Environmental Management



16. Environmental hazard assessment
17. Environmental impact assessment & compliance
18. Invasive species & pest control
19. Scientific research
20. Wildlife & habitat monitoring & protection

### Recreation & Entertainment



36. Exploration
37. Group activities & events
38. Hobby (do-it-yourself & kit building)
39. Personal photography & videography
40. Remote control flying



# The Impact of 3D Printing

- Changes the nature of inventory
- Order less often
- Purchase CAD Design, not supplies
- You print the products/parts as you need them
- Facilitates product change and large scale production
- Saves times, labor and logistics costs



# The Global Business Reality

- Talented **human capital** will be the most critical resource differentiating the prosperity of countries and companies.
- Companies and countries will **compete** for the best and brightest.
- Talent **mobility** is inevitable.
- Global mobility of talent is becoming as **critical** as the global mobility of goods and capital.





# The Business Imperative

*The business case and return on investment are simply this:*

A highly skilled and educated workforce with skills measured and validated by industry standards -

1. Reduces risk
2. Drives innovation
3. Supports competitive advantage



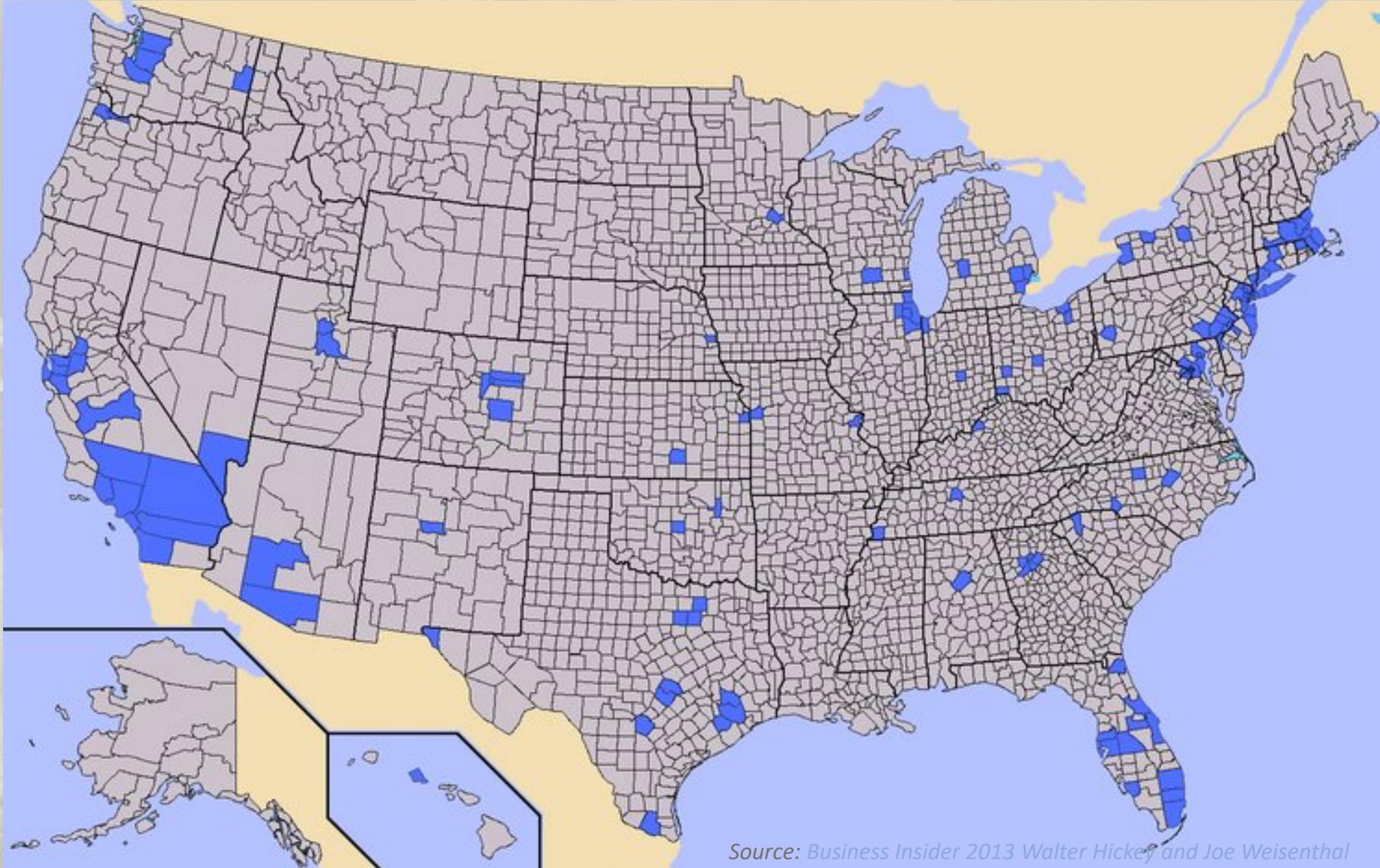
# Critical Need for Educated Workforce

- Excellence in education is becoming a **key site selection factor** in our “tech economy”.
- Focus must be on STEM **and** “soft” skills, **and** hands-on experience.
- Greater client demands for high-skilled, flexible workforce.
- Insufficient funding of local education programs leaves many communities unprepared for advanced technology.
- Future successful communities will stress an “Education Mindset” over “Low Taxes”.

A strong economy begins with a strong, well-educated workforce.

- Bill Owens

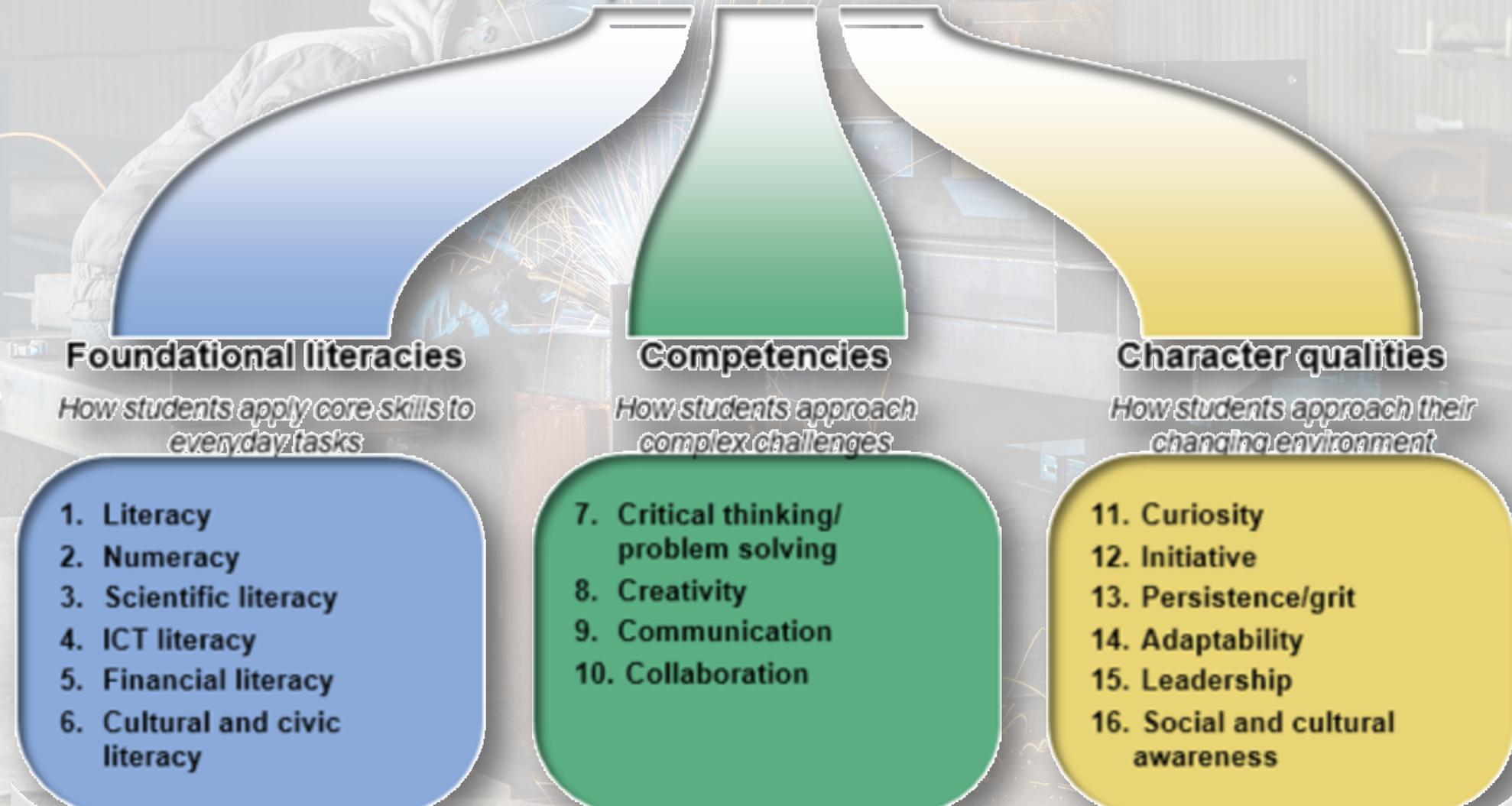
# Half of the US Population Lives in These 146 Counties



Source: Business Insider 2013 Walter Hickey and Joe Weisenthal

By 2050,  
70% of the  
world's  
population  
will live in  
urban  
centers.

# Students Require 16 Skills to Compete in the 21<sup>st</sup> Century

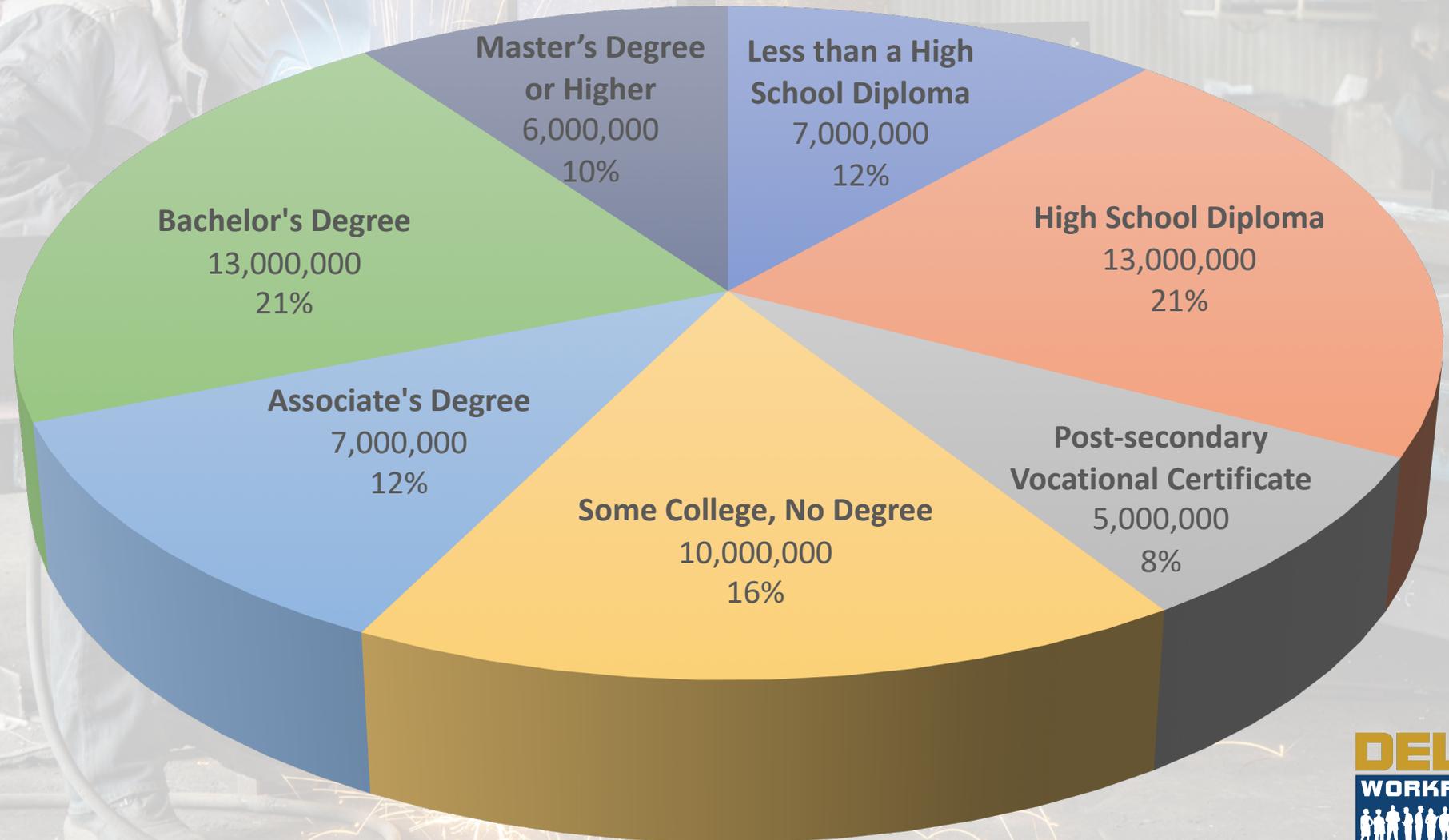


Source: World Economic Forum in collaboration with BCG

Note: ICT = information and communications technology

# There Will Be Fewer Jobs Available for Individuals that Only Possess a High School Diploma

Of the 55 million job openings between 2010 and 2020:



# Skills Gap: Help Wanted

# SKILLS

# GAP

**3** MILLION JOBS  
AVAILABLE IN THE U.S.

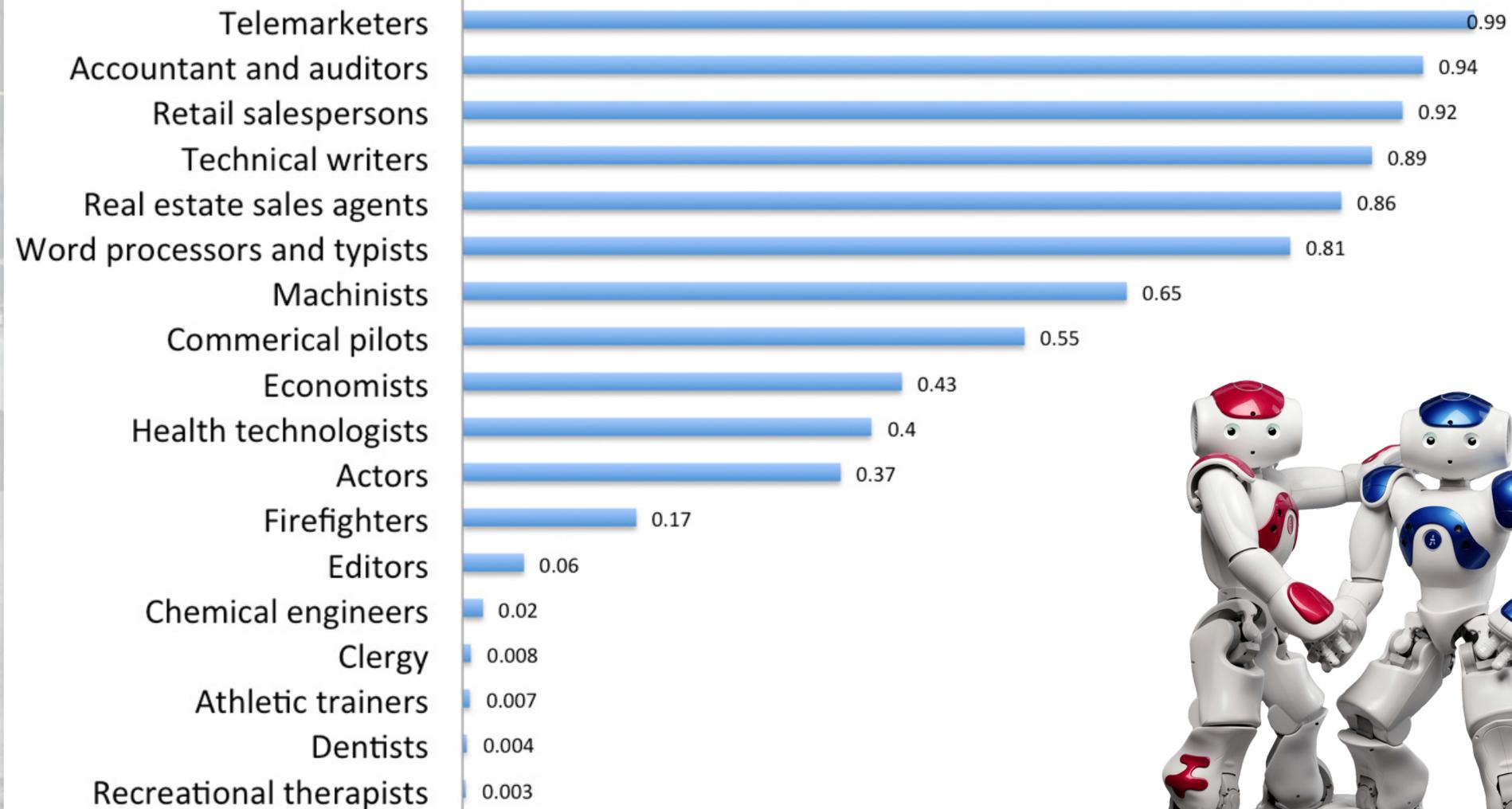
**HELP  
WANTED**



**600,000**

ADVANCED MANUFACTURING  
JOBS ARE CURRENTLY GOING  
UNFILLED DUE TO SKILLS GAPS  
REPORTED BY EMPLOYERS.

# Probability Robots Will Take your Job in Next 20 Years, 1 = Certain



# 2018 Retail Closings

- Bon-Ton – 42 stores
- Toys R Us – 182 stores
- Sam's Club – 63 stores
- Macy's – 11 stores
- J. Crew – 50 stores
- Gap & Banana Republic – 200 stores
- Teavana – 379 stores
- Ascena Retail Group – 268 stores
- Michael Kors – 125 stores
- Wal-Mart – 154 stores



**Note:**  
5,000 Stores  
Closed in 2017

# Education and Workforce Sustainability: Largest Employer, 2017



**Walmart Nation:  
Largest Employers  
in 22 States**

Source: [www.visualcapitalist.com](http://www.visualcapitalist.com); November 2017



# Service Industry

“Our device isn’t meant to make employees more efficient, it’s meant to completely obviate them.”

- Momentum Machines



# Place:

## *Inseparable from Workforce Attraction & Retention*

### ***What is Character?***

- Livability
- Attractiveness
- Uniqueness
- History
- Aesthetics
- Style
- Desirability
- Community
- Connections

“The unique characteristics of place may be the only truly defensible source of competitive advantage for regions.”

- City Vitals CEOs for cities

# The New “Three Legs of the Stool” of Economic Development

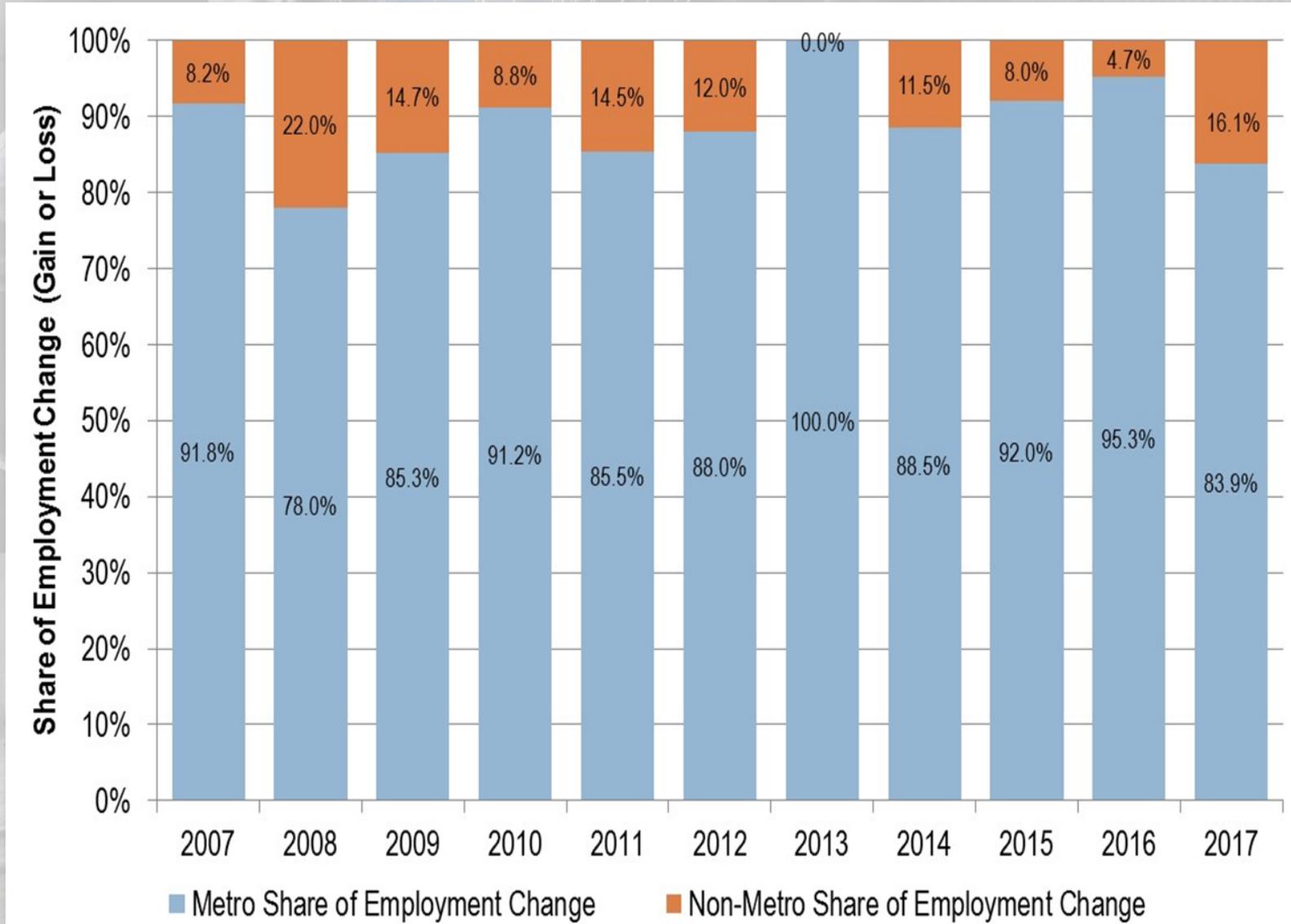


**THEN**  
Traditional 'Three Legs of the Stool' Focus



**NOW**  
Expanded Focus Integrates Talent and Placemaking

# Regionalism: *Ascendance of Metro Areas as Drivers of U.S. Economy*





# Changing Workforce Development

## Old Way

Responsive to rules and systems

Programmatic silos with special populations

Education and workforce are different systems

Geography matters

Technology to track people and results

## New Way

Responsive to employer needs

Flexible, simplified and customized

All efforts are seamless and matriculation is simple

Industry needs matter

Technology to customize, analyze needs, and empower customers

## A New Training Model For Today's Workforce



# Economic Sustainability

**Definition:** *The ability of an economy to support a defined level of economic production indefinitely.*

## **Sustainable communities must:**

- Build their assets (workforce, infrastructure, services)
- Build the reputation of the community with stakeholders
- Assess risks and manage them
- Act in an ethical and fair manner

***Economic sustainability is crucial to long term success***

# Economic Sustainability

## ECONOMIC DEVELOPMENT

External Investment

Business Incentives

**EXPORTS**

Capital

Labor

Land and Infrastructure

Technology, Management and Information

**PRODUCTIVITY**

Environment

Human Development

Quality of Life

**SUSTAINABILITY**

Public Investment and Planning Process

# Effective Strategy Development

## What do successful Communities have in common?

- A commitment to ***unite for a better community*** and to put aside differences for the common good
- A willingness to ***accept responsibility*** for the way things are and the way things will be
- The sharing of a ***common vision*** for the future
- A proactive ***action-oriented mindset*** and a clear strategy
- A diverse ***participatory community leadership*** committed to the future
- A ***civic capacity*** and institutional structure necessary to successfully implement a changing strategy

# Effective Strategy Development

## What Can you Do? Locally

- Community colleges and workforce boards will be key as technology disrupts and transforms work
  - ❑ Programs must focus on **retraining, upskilling and continuous learning**
  - ❑ Higher education must adjust to better serve **working adults**
  - ❑ Communication among **business and higher education stakeholders** is more important than ever
- K-12 Careers Education
  - ❑ Students of tomorrow won't be changing jobs, they'll be changing **careers**
  - ❑ **Flexibility** will be key to succeed in tomorrow's labor market

**LOCAL ACTION**

# What Employers Say About Modern Apprenticeships

## Improving the workforce

**96%**

say those who have completed a Modern Apprenticeship are more able to do their job

**92%**

say those who have completed a Modern Apprenticeship were more able to work with others

**76%**

say the majority of Modern Apprentices are new employees

## Meeting training needs

**84%**

satisfied with the relevance of training

**82%**

satisfied with the communication from the training provider

**84%**

satisfied with the quality of training

## Improving the workplace



**75%**

say Modern Apprenticeships improved productivity



**72%**

say Modern Apprentices improved staff morale



**71%**

say Modern Apprenticeships improved their service or product quality

## Importance to business



say Modern Apprentices are important to their business and workforce development



plan to continue employing Modern Apprentices



would recommend Modern Apprentices within their industry

## Reasons for employing apprentices



took on Modern Apprentices to improve the quality of training provided



took on Modern Apprentices to provide young people with employment opportunities



took on Modern Apprentices to train them in their way of doing things



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