The Role of Workforce Development in Rural Economies

Mark Goodman, President, Goodman and Associates
Jay Moon, President & CEO, Mississippi Manufacturers Association
Workforce Challenges & Opportunities

- Company Perspective
- Training Delivery and Support Perspective
- Community Leadership Perspectives
### Workforce Matters ...

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

<table>
<thead>
<tr>
<th>Site Selection Factors</th>
<th>2018</th>
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<tbody>
<tr>
<td>1</td>
<td>Availability of Skilled Labor</td>
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<tr>
<td>2</td>
<td>Labor Costs</td>
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<td>3</td>
<td>Highway Accessibility</td>
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<td>4</td>
<td>Corporate Tax Rates</td>
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<td>Tax Exemptions</td>
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<td>6</td>
<td>Quality of Life</td>
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<td>State and Local Incentives</td>
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<td>Energy Availability and Cost</td>
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<td>Occupancy/Construction Costs</td>
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<td>11</td>
<td>Available Land</td>
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<td>12</td>
<td>Low Union Profile</td>
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<td>13</td>
<td>Proximity to Suppliers</td>
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<td>14</td>
<td>Proximity to Major Markets</td>
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<td>15</td>
<td>Right-to-Work State</td>
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<td>16</td>
<td>Training Programs/Tech Colleges</td>
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<td>Environmental Regulations</td>
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<td>18</td>
<td>Inbound/Outbound Shipping Costs</td>
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<td>19</td>
<td>Expedited Permitting</td>
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<td>20</td>
<td>Accessibility to Major Airport</td>
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Growing our Human Resource

- Training
- Retaining
- Engaging
Growing our Human Resource

- Training
- Retaining
- Engaging

BUSINESS DEVELOPMENT
COMMUNITY DEVELOPMENT
WORKFORCE DEVELOPMENT
Growing our Human Resource

- Training
- Retaining
- Engaging
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
Growing our Human Resource

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REGIONAL BUSINESS DEVELOPMENT
COMMUNITY DEVELOPMENT
WORKFORCE DEVELOPMENT
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
Competing Today

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- Be Active vs. Passive
Competing Today

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

Think about ...

- Online Shopping
- Sales Taxes
- City Budgets
- Economic Impact
Competing Today

- Have a Good Census Count
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- Engage the Next Generation
- Be Active vs. Passive
Competing Today

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

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
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 choose** 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

1. Artificial Intelligence
   AI / Machine Learning / Deep Learning

2. Internet of Things
   IOT, IIOT, Sensors & Wearables

3. Mobile/Social Internet
   Advancements - Search/Social/Messaging/Livestreams

4. Blockchain
   Distributed Ledger Systems, Apps, Infrastructure, Technologies & DApps

5. Big Data
   Predictive Analytics

6. Automation
   Information, Task, Process, Machine, Decision & Action

7. Robots
   Cons./Comm./Indus., Robots, Drones & Autonomous Vehicles

8. Immersive Media
   #VR, #AR, #MR, 360°/VR Gaming

9. Mobile Technologies
   Infrastructure, networks, standards, services & devices

10. Cloud Computing
    SaaS, IaaS, PaaS & MESH Apps

11. 3D Printing
    Additive Manufacturing & Rapid Prototyping

12. CX
    Customer Journey, Experience Commerce & Personalization

13. EnergyTech
    Efficiency, Energy Storage & Decentralized Grid

14. Cybersecurity
    Security, Intelligence Detection, Remediation & Adaptation

15. Voice Assistants
    Interfaces, Chatbots & Natural Language Processing

16. Nanotechnology
    Computing, Medicine, Machines + Smart Dust

17. Collaborative Tech.
    Crowd, Sharing, Workplace & Open Source Platforms & Tools

    Advanced Genomics, Bionics & Health Care Tech.

19. Human-Computer Interaction
    Facial/Gesture Recognition, Biometrics, Gaze Tracking


21. Advanced Materials
    Composites, Alloys, Polymers, Biomimicry, Nanomanufacturing

22. New Touch Interfaces
    Touch Screens, Haptics, 3D Touch, Paper, Feedback & Exoskeletons

23. Wireless Power
    Bio/Enviro-Materials + Solutions, Sustainability, Treatment & Efficiency

    Bio/Enviro-Materials + Solutions, Sustainability, Treatment & Efficiency

25. Quantum Computing
    + Exascale Computing

26. Smart Cities
    + Infrastructure & Transport

27. Edge/Computing
    Broadband incl. Fiber, 5G, Li-Fi, LPN and LoRa

28. Faster, Better Internet
    Beacons, RFID, Wi-Fi, Near-Field Communications & Geofencing

29. Proximity Tech
    TVs, Digital Signage, OOH, MicroLEDs & Projections

30. New Screens
    Created by: Sean Moffitt @seanmoffitt, Managing Director, @Wikibrands
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.

Source: GE Global Research
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

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

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

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

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

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

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

Source: Stephens Planning & Design, July 19, 2014
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 Global Business Reality

Why is this Important?

- The ability to innovate at an accelerated pace will be the most important capability differentiating the success of countries and companies.

- The strategic use of public policy as an enabler of economic development will intensify; placing a premium on collaboration between policy-makers and business leaders.
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

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

Source: Business Insider 2013 Walter Hickey and Joe Weisenthal
Students Require 16 Skills to Compete in the 21st Century

Foundational literacies
- Literacy
- Numeracy
- Scientific literacy
- ICT literacy
- Financial literacy
- Cultural and civic literacy

Competencies
- Critical thinking/problem solving
- Creativity
- Communication
- Collaboration

Character qualities
- Curiosity
- Initiative
- Persistence/engrit
- Adaptability
- Leadership
- Social and cultural awareness

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:

- Bachelor's Degree: 13,000,000 (21%)
- Associate's Degree: 7,000,000 (12%)
- Some College, No Degree: 10,000,000 (16%)
- Post-secondary Vocational Certificate: 5,000,000 (8%)
- High School Diploma: 13,000,000 (21%)
- Less than a High School Diploma: 7,000,000 (12%)
- Master's Degree or Higher: 6,000,000 (10%)

Source: Georgetown University
Skills Gap: Help Wanted

Skills Gap

3 million jobs available in the U.S.

A "Skills Gap" means opportunity for those with the right training.

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

<table>
<thead>
<tr>
<th>Job</th>
<th>Probability</th>
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</thead>
<tbody>
<tr>
<td>Telemarketers</td>
<td>0.99</td>
</tr>
<tr>
<td>Accountant and auditors</td>
<td>0.94</td>
</tr>
<tr>
<td>Retail salespersons</td>
<td>0.92</td>
</tr>
<tr>
<td>Technical writers</td>
<td>0.89</td>
</tr>
<tr>
<td>Real estate sales agents</td>
<td>0.86</td>
</tr>
<tr>
<td>Word processors and typists</td>
<td>0.81</td>
</tr>
<tr>
<td>Machinists</td>
<td>0.65</td>
</tr>
<tr>
<td>Commercial pilots</td>
<td>0.55</td>
</tr>
<tr>
<td>Economists</td>
<td>0.43</td>
</tr>
<tr>
<td>Health technologists</td>
<td>0.4</td>
</tr>
<tr>
<td>Actors</td>
<td>0.37</td>
</tr>
<tr>
<td>Firefighters</td>
<td>0.17</td>
</tr>
<tr>
<td>Editors</td>
<td>0.06</td>
</tr>
<tr>
<td>Chemical engineers</td>
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</tr>
<tr>
<td>Clergy</td>
<td>0.008</td>
</tr>
<tr>
<td>Athletic trainers</td>
<td>0.007</td>
</tr>
<tr>
<td>Dentists</td>
<td>0.004</td>
</tr>
<tr>
<td>Recreational therapists</td>
<td>0.003</td>
</tr>
</tbody>
</table>

Source: The Economist
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; 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:
Ascendence of Metro Areas as Drivers of U.S. Economy

Source: Market Street Services
Strategy
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

Exports
- External Investment
- Business Incentives

Productivity
- Capital
- Labor
- Land and Infrastructure
- Technology, Management and Information

Sustainability
- Environment
- Human Development
- Quality of Life

Public Investment and Planning Process
Effective Strategy Development

What does 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
What Employers Say About Modern Apprenticeships

**Improved Workplace**
- 75% say Modern Apprenticeships improved productivity
- 72% say Modern Apprenticeships improved staff morale
- 71% say Modern Apprenticeships improved service or product quality

**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

**Importance to Business**
- 88% say Modern Apprentices are important to their business and workforce development
- 89% plan to continue employing Modern Apprentices
- 89% would recommend Modern Apprentices within their Industry

**Reasons for Employing Apprentices**
- 90% took on Modern Apprentices to improve the quality of training provided
- 91% took on Modern Apprentices to provide young people with employment opportunities
- 89% took on Modern Apprentices to train them in their way of doing things
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