# Labor Market and Occupational Information
## *Implications for Business Partnership and Vocational Rehabilitation Education*

VRTC DEMAND-SIDE STRATEGIES

Explore VR

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INSTITUTE FOR COMMUNITY INCLUSION
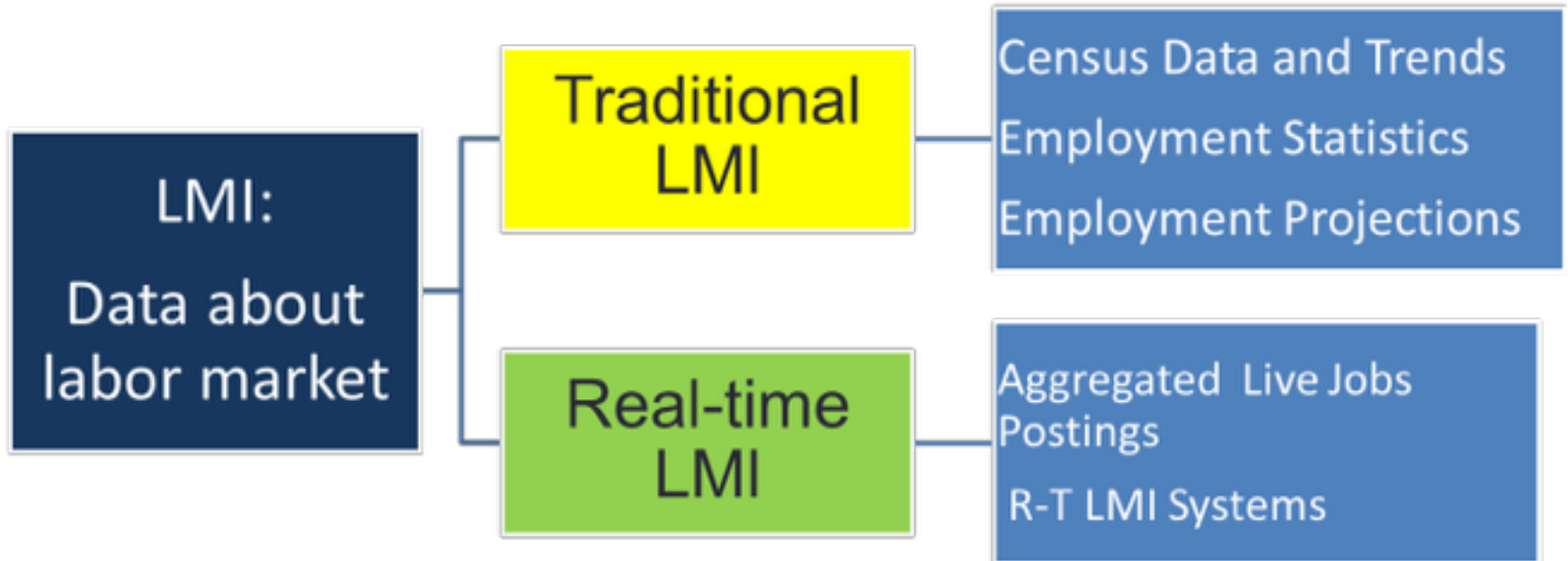*promoting the inclusion of people with disabilities*

ICI

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# Acknowledgement

# Agenda

- Context
  - Elements of Labor Market information that may benefit the field of VR
- Example analysis
  - LMI with different levels
  - Alabama example
- Implications of LMI for VR
  - Business partnerships
  - Education

# What is Labor Market Information (LMI)?

**LMI:**
Data about labor market

**Traditional LMI**
- Census Data and Trends
- Employment Statistics
- Employment Projections

**Real-time LMI**
- Aggregated Live Jobs Postings
- R-T LMI Systems

# Value of LMI

Personalize VR counseling

Build job-relevant skills

Facilitate job matching

"Big picture" and descriptions of jobs

Occupational data

Local and regional job market
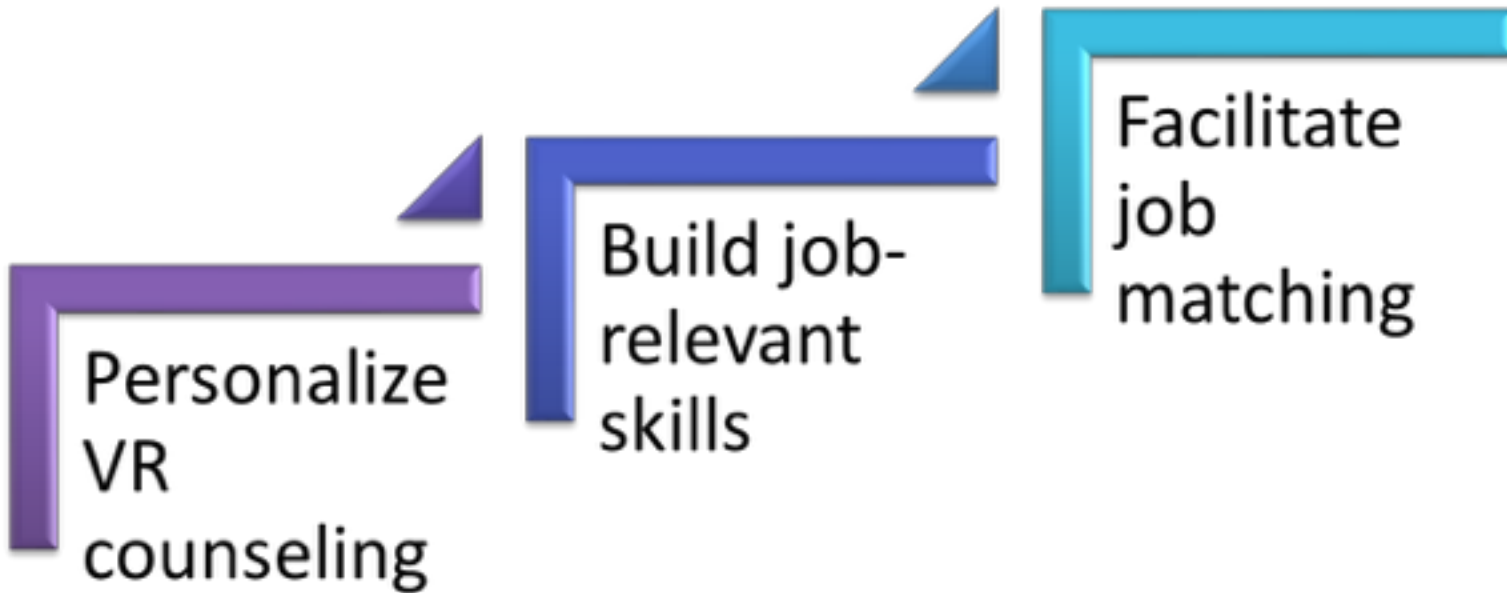
# Key Elements of Occupational Analysis
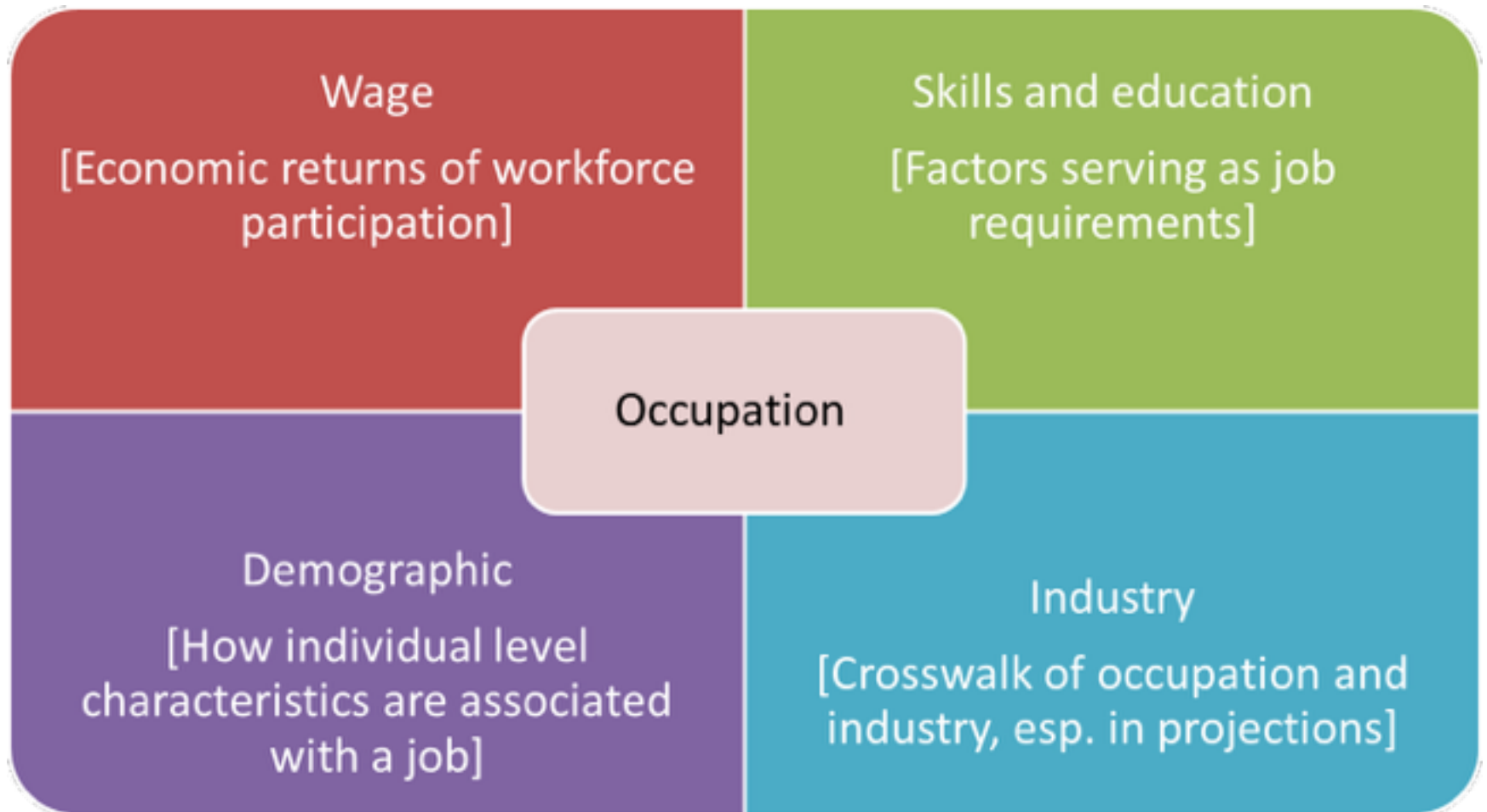
# Core Traditional LMI

- Federal/State Level LMI
  - Quarterly Census of Employment and Wages
  - Local Area Unemployment Statistics
  - Occupation Employment Statistics
- Large Supporting Data Set
  - Current population Survey
- State-level Specific Data
  - State department of labor

# Key Arguments

- LMI and occupational information (OI) is useful for

  - Strategic planning in dynamic economy
  - Building and maintaining business partnership

- If the value of LMI/IO are appreciated by VR professionals, such information will effect VR education and pre-service training

# Different VR roles and varied fouses on LMI

ROLES

FOCUSES

## VR Agency leadership

Field Services Directors/Supervisors

Business Partnership Program Administrator

Counselors

Other VR Professionals

Business relations consultants
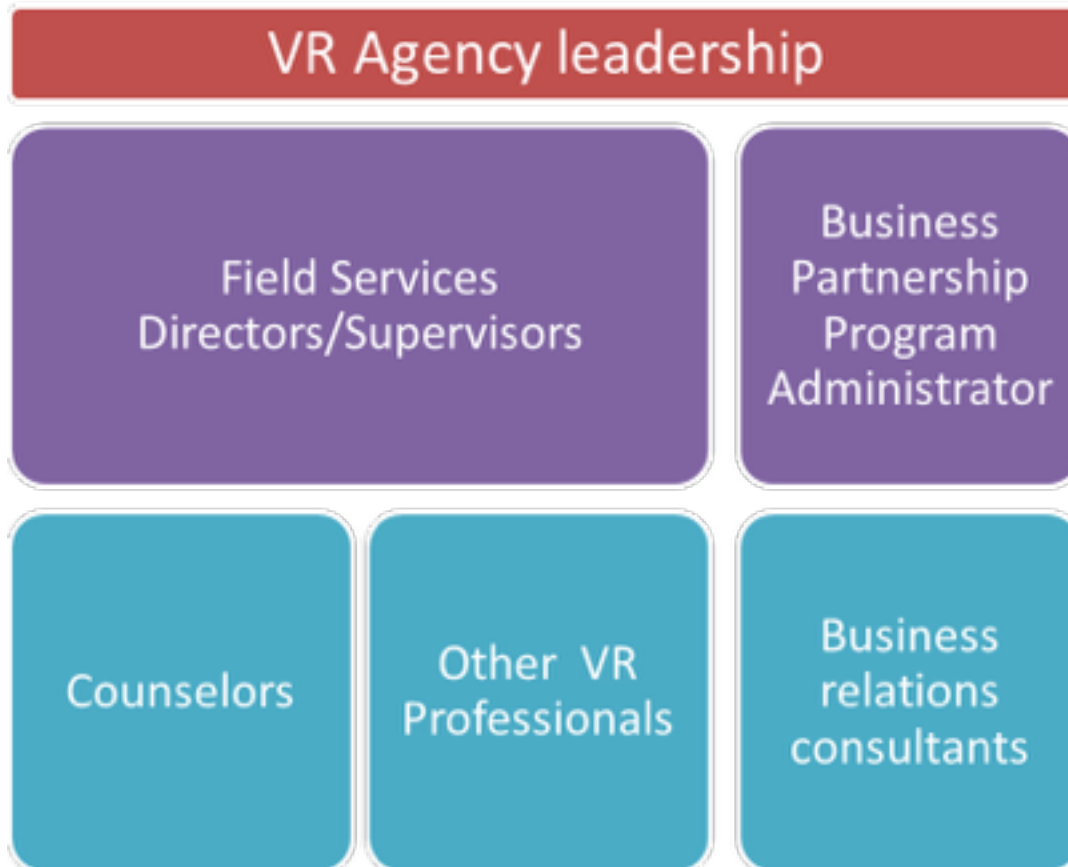
# VR Agency Leadership

- Are we achieving the mission to get people with disabilities the best jobs and wages?
- How does access to information such as LMI achieve outcomes and missions?
- Where should we invest resources to improve business partnerships?

# Field Services Directors/Supervisors

- Do counselors have the most timely relevant and accurate information at their desk?
- What skills do counselors need to use LMI effectively with jobseekers/customers?

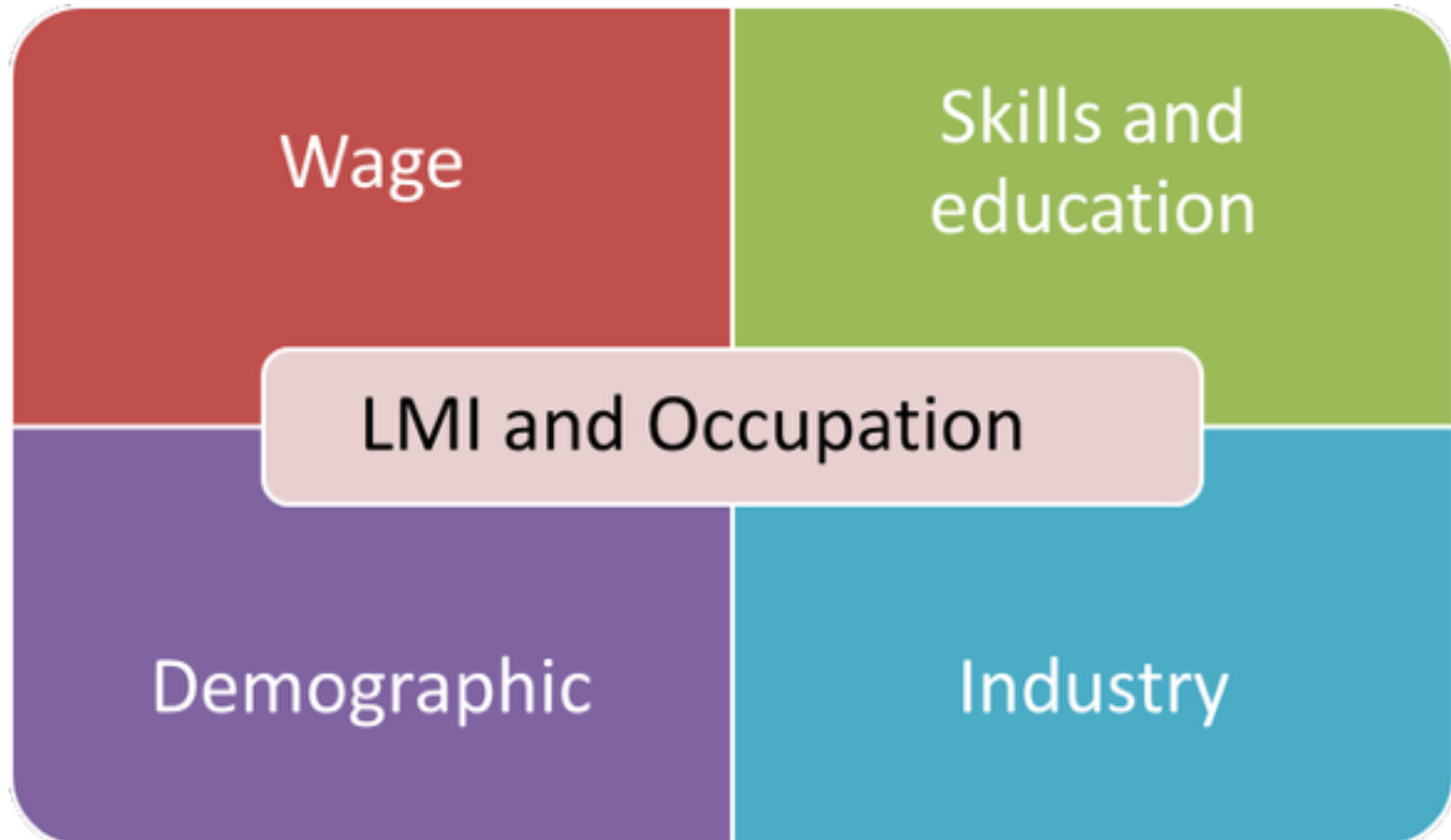# Businesses Partnership Program Administrators

- Who are the businesses that seek workers?
- How do we engage businesses that seek workers?
- How do we assist businesses to see people with disabilities as viable qualified candidates?

# Counselors

- Where are jobs?
- How do we provide accurate timely information to job seekers?
- How do we improve job matching for our clients ?

# EXAMPLES OF ANALYSIS

# ICI's VR-RRTC Demand-side Study
## on
## VR Outcomes and State Level Labor Needs

## What are the types of occupational closure?

- Patterns and trends, national and state level
- Individuals characteristics
- RSA 911 data

**Phase 1**

## Do occupational closure patterns reflect labor needs in states?

- Jobs and trends at state level
- *BLS, ACS and CPS data*

**Phase 2**

## What factors influence VR closure by occupation?

- State by state comparison
- *ICI National Survey of Dual-Customer Strategies and Business Relations*

**Phase 3**

# 1. Bureau of Labor Statistics Data

- Example state – Alabama
- County level analysis
- Looking at wage and work hours

# State Dept. of Labor: an Example

- Alabama Department of Labor provides employment and occupational statistics
- ([http://www2.dir.state.al.us/](http://www2.dir.state.al.us/))
- Employment projections for Alabama are available at the county level
- Data available by type of industry and population.
- Alabama's Comprehensive Labor Market Information System (ACLMIS)  [https://www.alabamavlmi.com/vosnet/Default.aspx](https://www.alabamavlmi.com/vosnet/Default.aspx)  for job seekers and for career assistance.

# Mean Weakly Wages in Alabama by County

(Source: BLS, 2012)



Mean Weekly Wages (BLS)

[555 to 603)
[603 to 631)
[631 to 671)
[671 to 781)
[781 to 1,045]
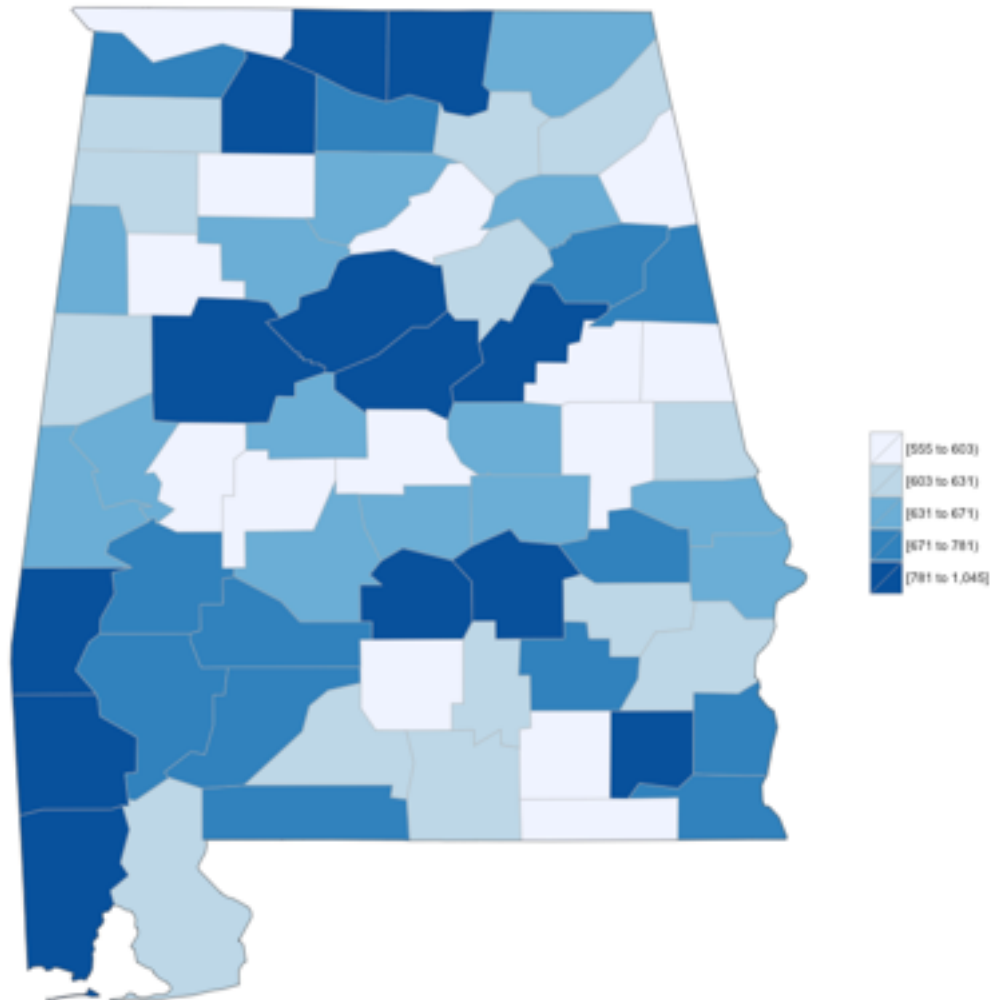
# Mean Weakly Wages by County in Alabama

Source: Alabama CMS, 2012 Wages at Closures
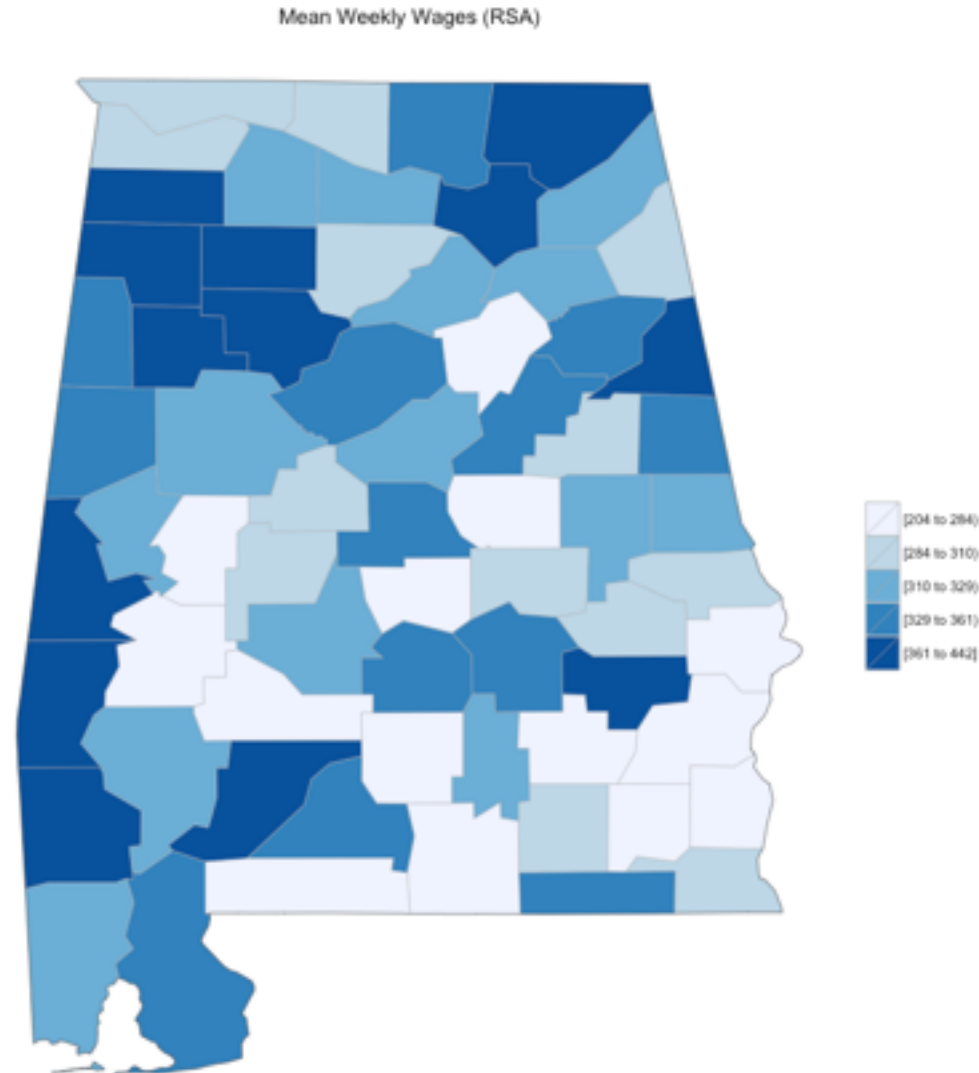
# 2. Real-Time LMI

- Information available through private sources
- State-level analysis for Alabama (2011-2013)
- Following metrics are studied:
  - Industrial Trends: Industries with large number of job openings
  - Skill Clusters: Skills in Demand
  - Top Employers: Job openings by major employers
  - Wages: Wage information for job openings

# Industry Specific Trends
## (Alabama; 2011 – 2013)
Source: Labor/Insight by Burning Glass

Percentage of online jobs with industry specific information

- 2011 – 27.20%
- 2012 – 23.90%
- 2013 – 30.10%

| Percentage of available jobs | | | |
|---|---|---|---|
| **Industry Sector** | **2011** | **2012** | **2013** |
| Health Care and Social Assistance | 22.30% | 22.40% | 19.80% |
| Retail Trade | 11.20% | 10.50% | 11.60% |
| Accommodation and Food Services | 6.20% | 5.60% | 11.30% |
| Manufacturing | 11.00% | 12.20% | 9.50% |
| Finance and Insurance | 7.30% | 8.40% | 9.20% |

# Skills Clusters in Demand

(Alabama; 2011 – 2013)
Source: Labor/Insight by Burning Glass

| Skill clusters | Percentage of Job Openings | | |
|---|---|---|---|
| | **2011** | **2012** | **2013** |
| Communication and Coordination | 62.89% | 67.96% | 71.04% |
| Business Environment Skills | 51.41% | 53.66% | 56.60% |
| Sciences: Social | 0.02% | 0.03% | 40.47% |
| Problem Solving | 35.76% | 41.92% | 39.35% |
| Customer Service: Basic Assistance | 19.67% | 19.98% | 24.62% |

# Job Openings

(Alabama; 2011 – 2013)   Source: Labor/Insight by Burning Glass

| | 2011 (43%) | | | 2012 (39%) | | | 2013 (45%) | |
|---|---|---|---|---|---|---|---|---|
| Rank | Employer | Openings | Employer | Openings | Employer | Openings | | |
| 1 | UAB Health System | 2,496 | UAB Health System | 2,654 | Pizza Hut | 4,523 | | |
| 2 | Lowe's Companies, Inc | 1,954 | Pizza Hut | 1,876 | Regions Financial Corporation | 2,537 | | |
| 3 | Pizza Hut | 1,947 | University Of Alabama At Birmingham | 1,827 | Advance Auto Parts Incorporated | 1,488 | | |
| 4 | Auburn University | 1,813 | Lowe's Companies, Inc | 1,822 | Sears | 1,376 | | |
| 5 | Community Health Systems Professional Services Corporation | 1,572 | Regions Financial Corporation | 1,402 | University Of Alabama | 1,294 | | |

# Wage Information

(Alabama; 2011 – 2013)
Source: Labor/Insight by Burning Glass

| Major Occupation Categories | Average Annual Salary (Average of 2011-2013) |
|---|---|
| Office and Administrative Support Occupations | $40,654 |
| Food Preparation and Serving Related Occupations | $35,017 |
| Building and Grounds Cleaning and Maintenance Occupations | $34,393 |
| Sales and Related Occupations | $59,340 |
| Transportation and Material Moving Occupations | $73,241 |
| Production Occupations | $42,582 |

# Percentage of jobs per occupational category by yearly salary

(Alabama; 2011 – 2013)
Source: Labor/Insight by Burning Glass

| Major Occupation Categories | Less than $35,000 | $35,000 to $49,999 | $50,000 to $74,999 | More than $75,000 | Total |
|---|---|---|---|---|---|
| Office and Administrative Support Occupations | 58.6% | 15.6% | 17.5% | 8.3% | 100.0% |
| Food Preparation and Serving Related Occupations | 79.5% | 3.9% | 4.6% | 12.0% | 100.0% |
| Building and Grounds Cleaning and Maintenance Occupations | 72.4% | 8.6% | 8.6% | 10.3% | 100.0% |
| Sales and Related Occupations | 31.9% | 19.6% | 17.9% | 30.7% | 100.0% |
| Transportation and Material Moving Occupations | 24.0% | 12.2% | 21.8% | 42.0% | 100.0% |
| Production Occupations | 52.5% | 16.7% | 18.8% | 12.0% | 100.0% |

Percentages are calculated using online job postings which have wage related information in job description. These are average percentage for the three year period between 2011-2013

# 3. Occupation Types and Patterns

- Using RSA-911 data, 2008-2012
- National level analysis
- Following metrics are studied:
  - Occupation Patterns (defined by major SOC)
  - Demographic Variations
  - Wages variations, and cross walk between wage, education, and demographics

# 3.1 Most Frequent Major Occupational Closure Trends: Successful Employment Closures
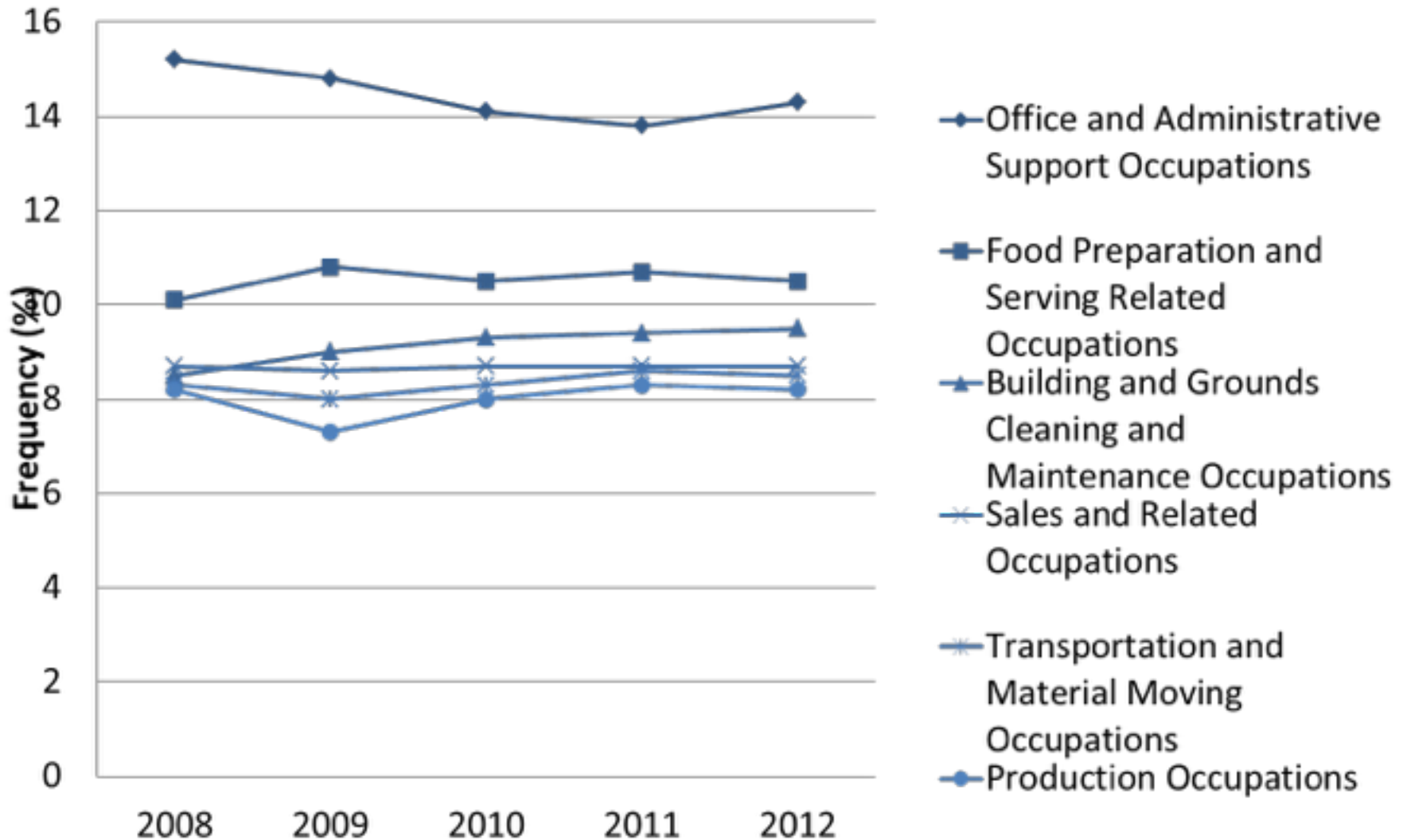
# Top 6 Major Occupations at VR Closure
## 2008-2012, Source: RSA-911

| Rank | Occupation | Five-year average % |
|:---:|:---|:---:|
| 1 | Office and Administrative Support Occupations | 14.4% |
| 2 | Food Preparation and Serving Related Occupations | 10.5% |
| 3 | Building and Grounds Cleaning and Maintenance Occupations | 9.1% |
| 4 | Sales and Related Occupations | 8.7% |
| 5 | Transportation and Material Moving Occupations | 8.3% |
| 6 | Production Occupations | 8.0% |
| | All Other Occupations | 41.0% |

# 3.1 Demographics

- Top 6 occupations on average employ more males than females

- Nearly 64% of Transition Age Youth are employed in top 6 occupations

- Nearly 57% of Adult Age population is employed in top 6 occupations

# Top 6 Occupations at Closure by Gender
(2008-2012, Source: RSA 911)



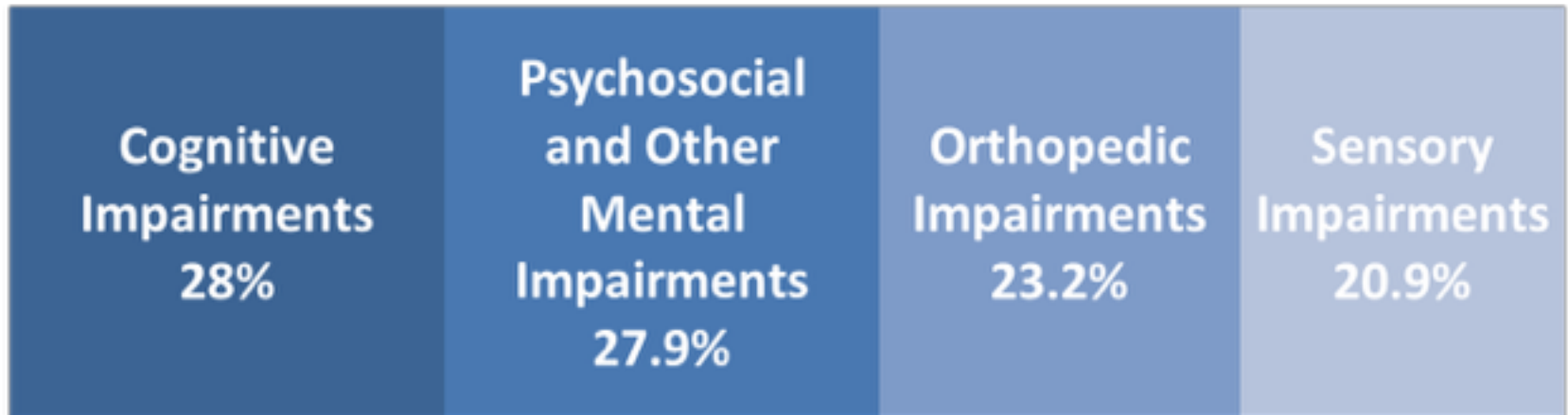| Occupation | Males | Females |
|---|---|---|
| Production Occupations | 64962 | 21824 |
| Transportation and Material Moving Occupations | 74665 | 14395 |
| Sales and Related Occupations | 42335 | 50563 |
| Building and Grounds Cleaning and Maintenance Occupations | 65237 | 31331 |
| Food Preparation and Serving Related Occupations | 61670 | 50408 |
| Office and Administrative Support Occupations | 65819 | 91438 |

■ Males  ■ Females

# Occupation at Closure for Three Age Categories: Top 6 Occupations
### (FY 2008-2012, Source: RSA 911)

| Major Occupation Type | Transition Age [14-24] | Middle Age [25-64] | Elderly [65+] | Total | Count |
|---|---|---|---|---|---|
| Office and Administrative Support Occupations | 13.6% | 15.0% | 12.3% | 14.5% | 125,676 |
| Food Preparation and Serving Related Occupations | 15.3% | 8.4% | 3.1% | 10.5% | 91,338 |
| Building and Grounds Cleaning and Maintenance Occupations | 8.4% | 9.7% | 4.5% | 9.1% | 79,260 |
| Sales and Related Occupations | 10.7% | 7.6% | 10.4% | 8.7% | 75,379 |
| Transportation and Material Moving Occupations | 7.8% | 8.7% | 7.5% | 8.4% | 72,534 |
| Production Occupations | 8.1% | 8.2% | 3.5% | 8.0% | 69,537 |
| All Other Occupations | 36.1% | 42.4% | 58.8% | 40.9% | 354,833 |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 868,557 |

# Disability Categories

(2008-2012, RSA 911)

| Cognitive Impairments 28% | Psychosocial and Other Mental Impairments 27.9% | Orthopedic Impairments 23.2% | Sensory Impairments 20.9% |
| --- | --- | --- | --- |

Percentage distribution of disability categories for all closures with employment outcomes.

# Occupation at Closure by Disability: Top 6 Occupations

(2008-2012, Source: RSA 911)

| Major Occupation Categories | Sensory Impairments | Othopedic Impairments | Cognitive Impairments | Psychosocial and Other Impairments | Total |
|---|---|---|---|---|---|
| Office and Administrative Support Occupations | 21.80% | 27.40% | 24.20% | 26.60% | 100.00% |
| Food Preparation and Serving Related Occupations | 11.00% | 12.60% | 43.30% | 33.10% | 100.00% |
| Building and Grounds Cleaning and Maintenance Occupations | 13.40% | 14.30% | 40.40% | 32.00% | 100.00% |
| Sales and Related Occupations | 18.40% | 23.60% | 30.20% | 27.90% | 100.00% |
| Transportation and Material Moving Occupations | 16.70% | 22.50% | 30.50% | 30.30% | 100.00% |
| Production Occupations | 18.00% | 18.60% | 32.10% | 31.30% | 100.00% |
| All Other Occupations | 26.70% | 27.30% | 20.90% | 25.10% | 100.00% |

# Occupation Categories and Disability Types

- 69.5% of persons with cognitive disabilities are employed in the top 6 occupations.
- 63.3% of persons with psychosocial and other psychological disabilities are employed in the top 6 occupations.
- Food Preparation and Service Related Occupations:
  - 16.2% persons with cognitive disabilities
  - 12.5% persons with psychosocial and other mental impairments.
- Office and Administrative Support Occupations:
  - 15.1% Persons with sensory impairments
  - 17.1% persons with orthopedic impairments

# 3.3 Wage

- Wage trends by occupation
- Wage Crosswalk
  - Median Hourly Wage by Gender
  - Median Hourly Wage by Age Groups
  - Median Hourly Wage by Race/Ethnicity
  - Median Hourly Wage by Disability Categories
  - Median Hourly Wage by Education
- National Variation in Median Hourly Wages

# Adjusted Wage by Occupational Categories, 2008-12
## (In descending order based on 2012 employment outcomes by occupations)

| Major Occupation Categories | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|
| **Office and Administrative Support Occupations** | 9.63 | 9.63 | 9.54 | 9.18 | 9.00 |
| **Food Preparation and Serving Related Occupations** | 8.03 | 8.06 | 8.48 | 8.16 | 8.00 |
| **Building and Grounds Cleaning and Maintenance Occupations** | 8.56 | 8.56 | 8.48 | 8.42 | 8.26 |
| **Sales and Related Occupations** | 8.56 | 8.67 | 8.75 | 8.43 | 8.27 |
| **Transportation and Material Moving Occupations** | 9.63 | 9.63 | 9.69 | 9.67 | 9.50 |
| **Production Occupations** | 9.63 | 9.63 | 9.54 | 9.18 | 9.00 |
| Installation, Maintenance, and Repair Occupations | 10.43 | 10.43 | 10.60 | 10.20 | 10.00 |
| Healthcare Support Occupations | 10.17 | 10.27 | 10.34 | 10.20 | 10.00 |
| Education, Training, and Library Occupations | 13.38 | 13.38 | 13.44 | 12.75 | 12.00 |
| Construction and Extraction Occupations | 12.04 | 11.77 | 11.66 | 11.93 | 12.00 |

# Hourly Wage Trends by Top 6 Occupational Categories
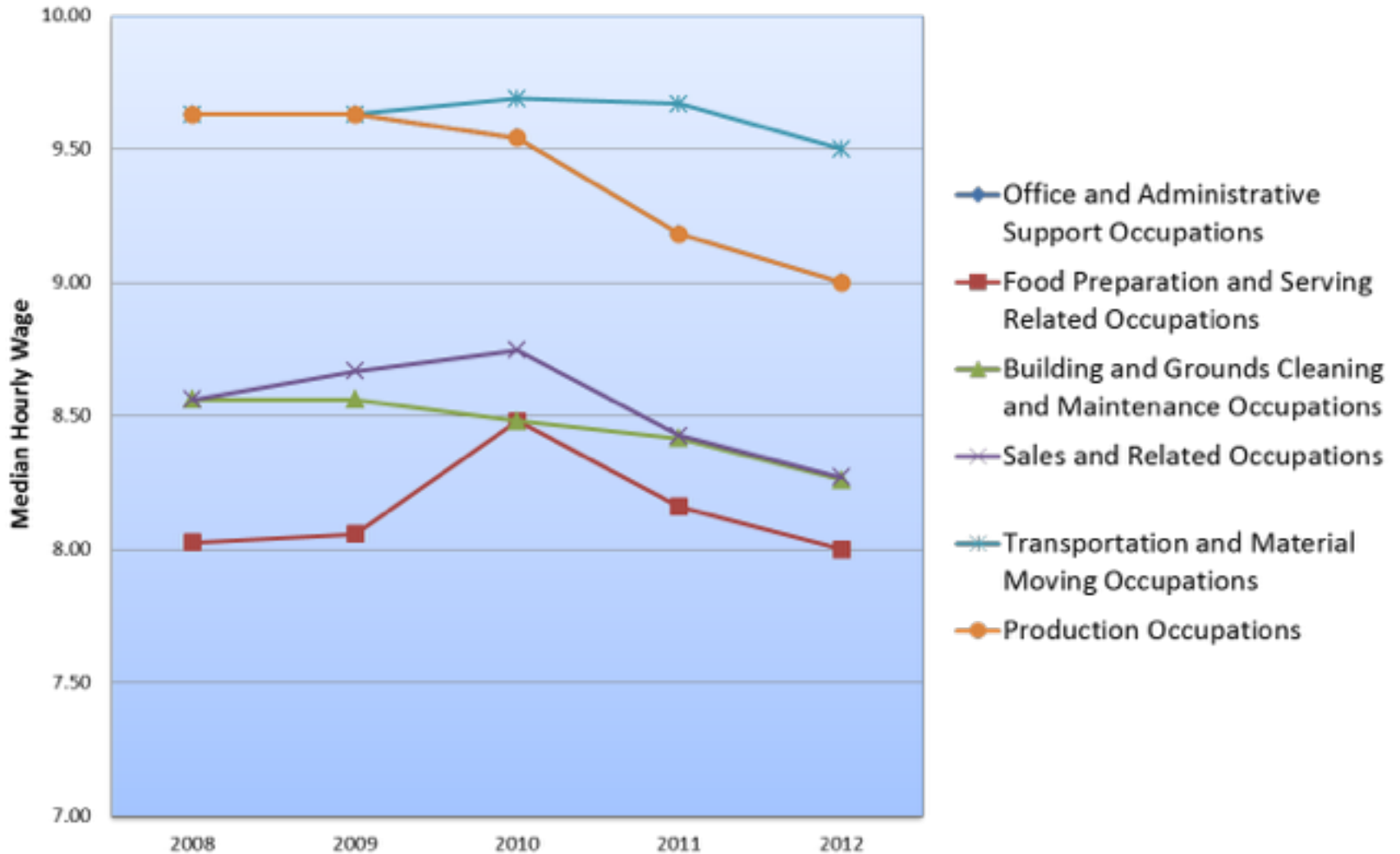
# Hourly Wage by Gender Groups: Top 6 Occupation Categories (2008-2012)

| | Men | Women |
|---|---|---|
| Office and Administrative Support Occupations | 8.53 | 9.52 |
| Food Preparation and Serving Related Occupations | 7.78 | 7.73 |
| Building and Grounds Cleaning and Maintenance Occupations | 8.04 | 8.00 |
| Sales and Related Occupations | 8.50 | 8.00 |
| Transportation and Material Moving Occupations | 9.35 | 8.52 |
| Production Occupations | 9.25 | 8.20 |
| **Average Wage** | **8.58** | **8.33** |

# Hourly Wage by Age Groups: Top 6 Occupation Categories (2008-2012)

| Major Occupation Categories | Transition Age Youth (14-24) | Adults Aged (25-64) | Older Adults Aged 65 and above |
|---|---|---|---|
| Office and Administrative Support Occupations | 8.10 | 10.00 | 9.92 |
| Food Preparation and Serving Related Occupations | 7.51 | 8.00 | 8.35 |
| Building and Grounds Cleaning and Maintenance Occupations | 8.00 | 8.13 | 8.75 |
| Sales and Related Occupations | 8.00 | 8.50 | 9.75 |
| Transportation and Material Moving Occupations | 8.00 | 10.00 | 10.00 |
| Production Occupations | 8.50 | 9.06 | 10.00 |
| *Average Wage* | *8.02* | *8.95* | *9.46* |

# Hourly Wage by Race/Ethnicity Groups: Top 6 Occupation Categories (2008-2012)

| Major Occupation Categories | Non-Hispanic White | Non-Hispanic Black | Non-Hispanic Other | Hispanic |
|---|---|---|---|---|
| Office and Administrative Support Occupations | 9.16 | 9.00 | 9.25 | 8.75 |
| Food Preparation and Serving Related Occupations | 7.80 | 7.50 | 8.00 | 8.00 |
| Building and Grounds Cleaning and Maintenance Occupations | 8.00 | 8.00 | 8.33 | 8.20 |
| Sales and Related Occupations | 8.33 | 8.00 | 8.46 | 8.00 |
| Transportation and Material Moving Occupations | 9.50 | 8.85 | 9.04 | 9.09 |
| Production Occupations | 9.35 | 8.44 | 9.00 | 8.51 |
| *Average Wage* | *8.69* | *8.30* | *8.68* | *8.43* |

# Hourly Wage by Disability: Top 6 Occupation Categories (2008-2012)

| Major Occupation Categories | Sensory/ Communicative | Orthopedic | Cognitive | Psychosocial or Other Mental |
|---|---|---|---|---|
| Office and Administrative Support Occupations | 10.51 | 10.00 | 8.00 | 9.00 |
| Food Preparation and Serving Related Occupations | 8.20 | 8.00 | 7.50 | 7.76 |
| Building and Grounds Cleaning and Maintenance Occupations | 9.00 | 8.50 | 8.00 | 8.00 |
| Sales and Related Occupations | 9.38 | 8.50 | 8.00 | 8.00 |
| Transportation and Material Moving Occupations | 10.80 | 10.50 | 8.00 | 9.00 |
| Production Occupations | 10.00 | 10.00 | 8.40 | 8.90 |
| Average Wage | 9.65 | 9.25 | 7.98 | 8.44 |

# Hourly Wage By Education Groups: Top 6 Occupation Categories (2008-2012)

| Major Occupation Categories | No Education- Elementary School | Secondary School- Special Ed Certificate | High School Grad | Post Secondary -Associate Degree | B. A. And above |
|---|---|---|---|---|---|
| Office and Administrative Support Occupations | 8.00 | 8.00 | 8.67 | 10.00 | 11.00 |
| Food Preparation and Serving Related Occupations | 7.52 | 7.50 | 7.75 | 8.00 | 8.60 |
| Building and Grounds Cleaning and Maintenance Occupations | 8.00 | 8.00 | 8.00 | 8.57 | 9.00 |
| Sales and Related Occupations | 7.53 | 7.90 | 8.00 | 8.50 | 10.00 |
| Transportation and Material Moving Occupations | 9.00 | 8.00 | 9.00 | 10.15 | 10.18 |
| Production Occupations | 8.48 | 8.00 | 9.00 | 10.00 | 10.00 |
| *Average Wage* | *8.09* | *7.90* | *8.40* | *9.20* | *9.80* |

# Hourly Wage Trends by Education (2008-2012)
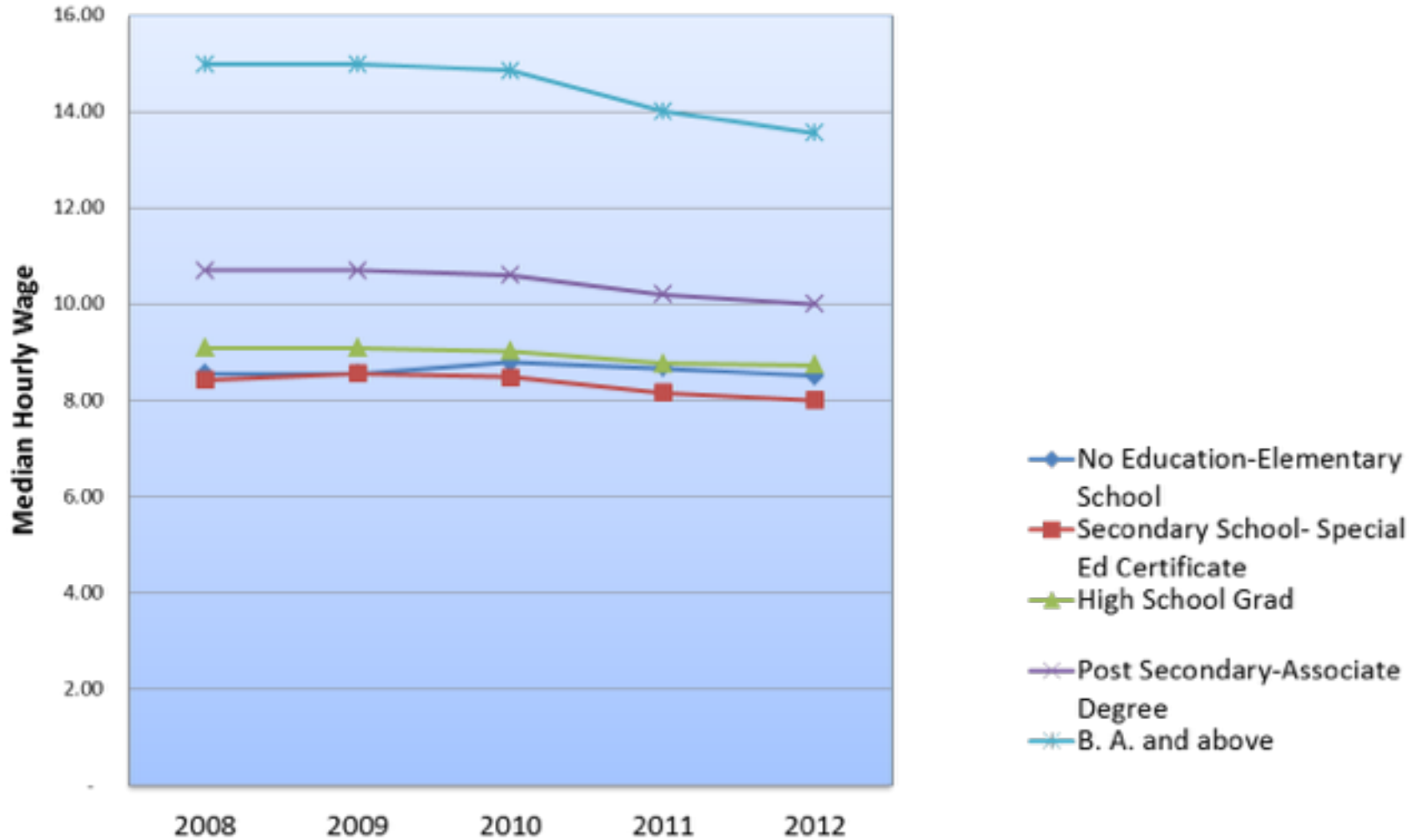
# Median Wage Across States
## (All Occupations)



State: **SD**
Median Wage: **$10.26**

State: **CT**
Median Wage: **$17.77**
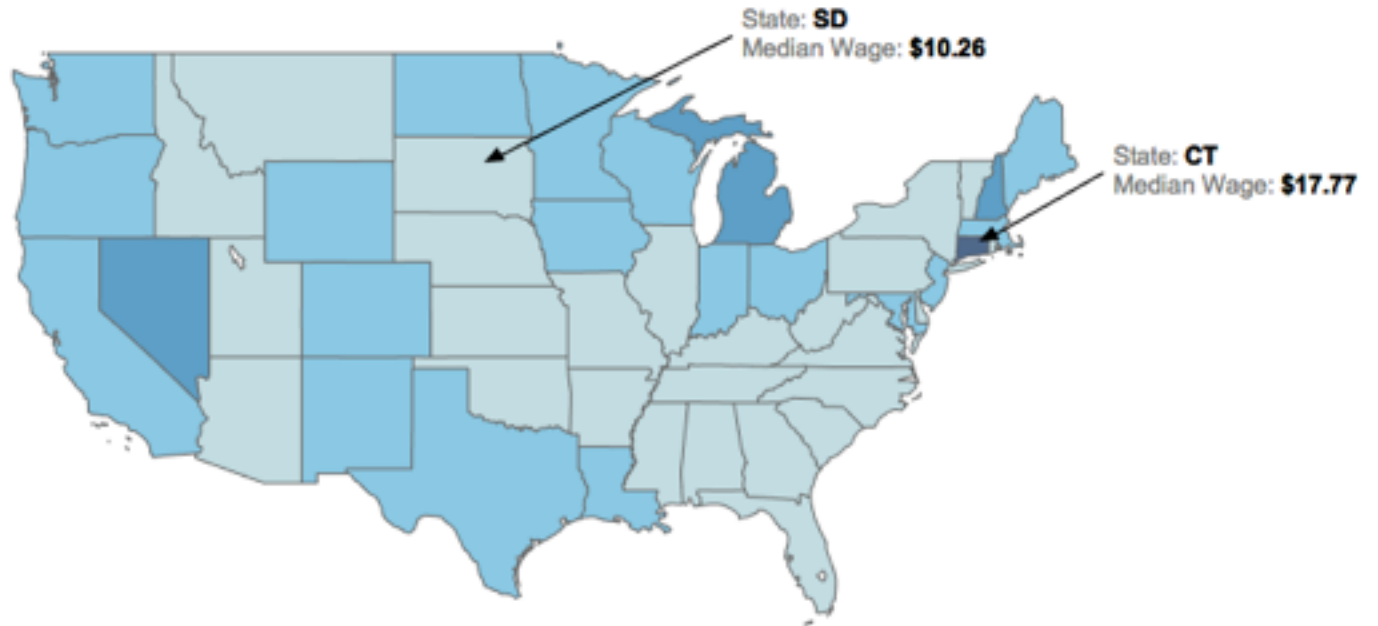
© OpenStreetMap contributors

**Avg. Median Wage**

10.26 ———————————————————— 17.77

# Challenges and Implication

# Challenges in Successful VR-Business Partnerships

- Time lag between needs and available candidates.
  - Businesses need immediate, qualified candidates with specific skill sets
- VR jobseekers may not be seeking work in high demand occupations
- Use LMI as one source to identify VR-Business partnerships.

# Implications for VR Practitioners

- LMI data can help identify who is hiring, who has the best hourly wages, what skills are needed.

- LMI data can help identify which subgroups of jobseekers you have been the most successful with finding high paying jobs

- LMI data can help locate businesses.

# Implications for Researchers

- Think critically:
  - How reliable are occupational codes from RSA 911?
  - Identify populations that have lower wages at closure and why
  - Different ways to link LMI for VR's utility

# Faculty/Students

1. Build use of LMI/OI into relevant course work so that graduates have the needed skills to use the data.
2. Develop educational programs to help VR professionals find, analyze, synthesize LMI.

# Recent Archived Webinars

| LMI webinar series | Dates |
|---|---|
| Vocational Rehabilitation Employment Patterns: Occupation Types and Trends (Archived at ExploreVR.org) | 9/12 |
| Demographic and Primary Disability Variation in VR Occupational Closures (Archived at ExploreVR.org) | 9/18 |
| Education and Wage Variation in VR Occupational Closures (Archived at ExploreVR.org) | 9/25 |

# Contact

- Questions or feedback for us?

If you have questions or comments, please contact us:

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Thank you for attending!