



WELCOME TO THE UPSKILL 901  
JOINT PILLARS MEETING  
April 23, 2020  
10:00 AM – 11:30 AM

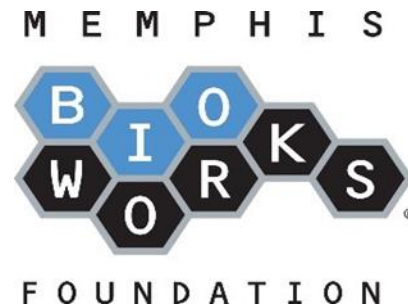


# Greater Memphis, Tennessee

## *Planning for a Modern Workforce*

April 2020

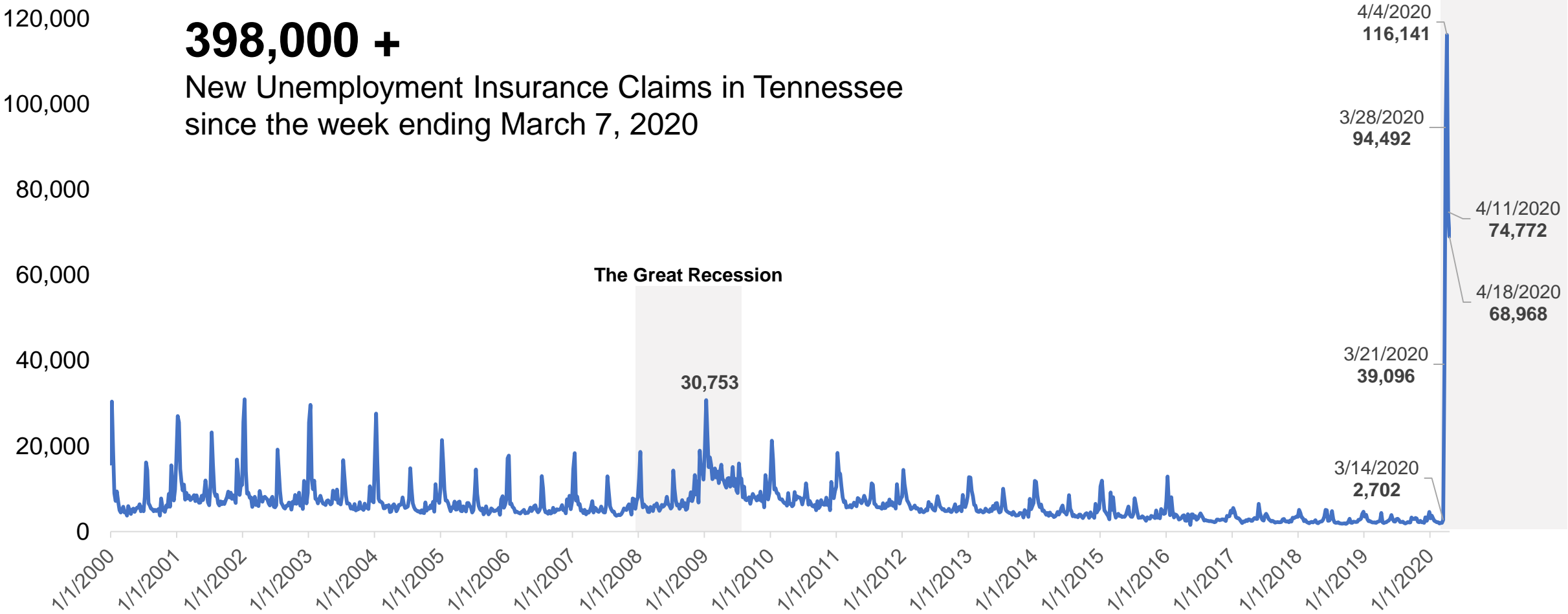
THANK YOU TO OUR SPONSORS!



# Unemployment Insurance:

## Initial Claims in Tennessee

Weeks Ending Jan 1, 2000 to April 18, 2020

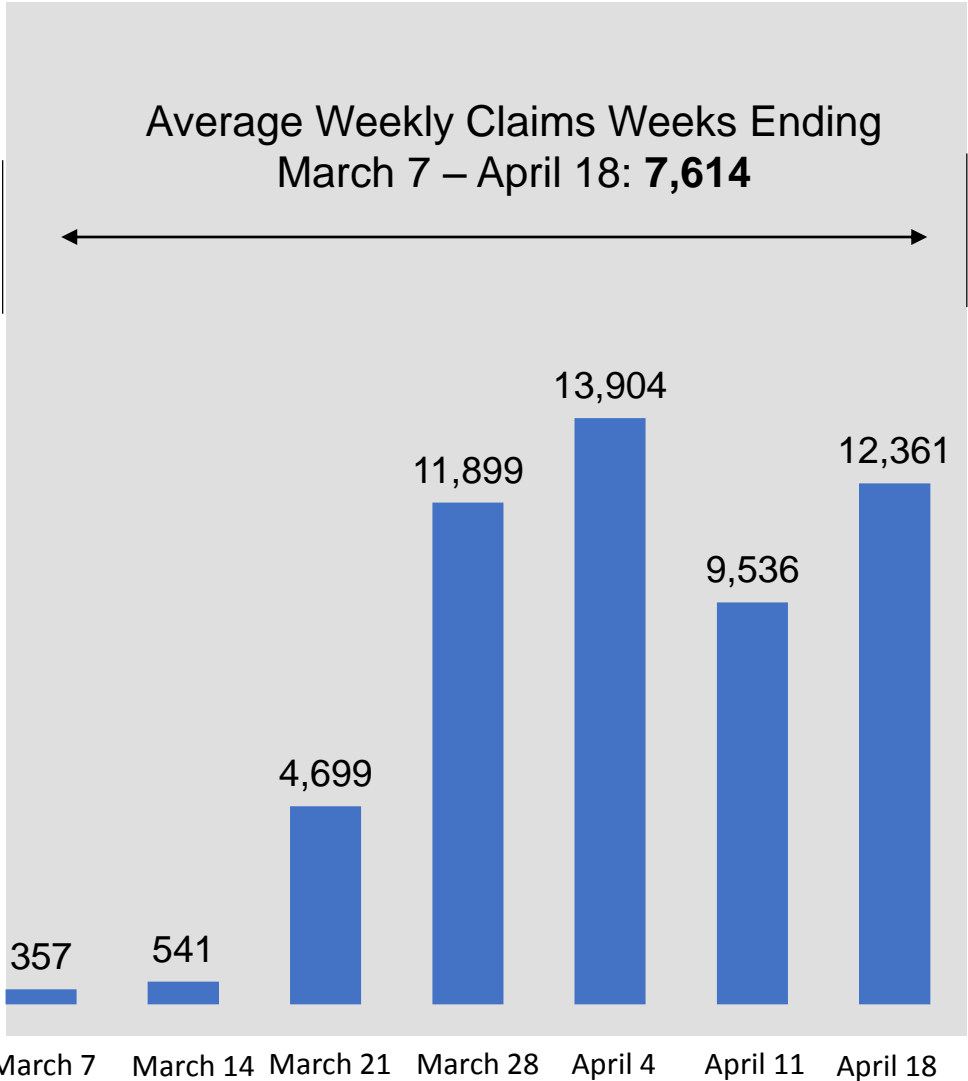
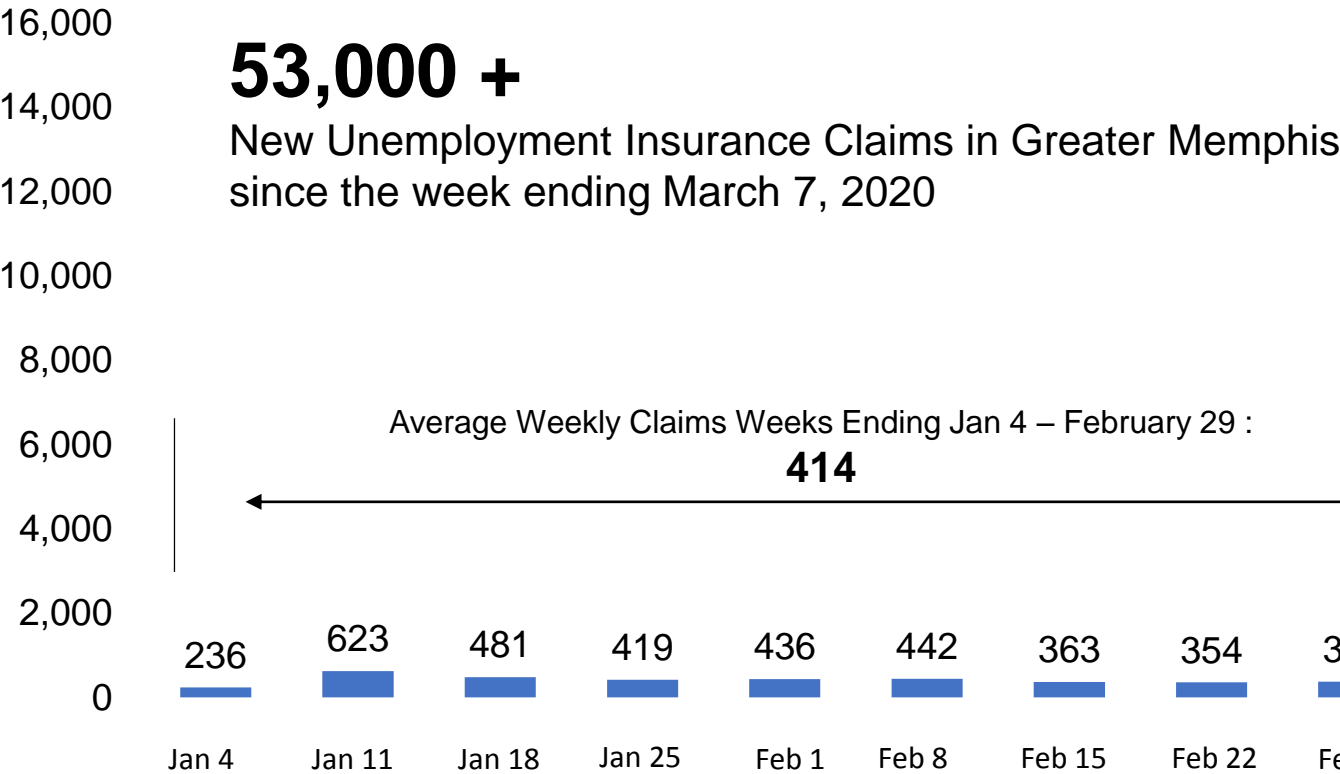


# Unemployment Insurance:

## Initial Claims in Greater Memphis

Weeks Ending Jan 4, 2020 to April 11, 2020

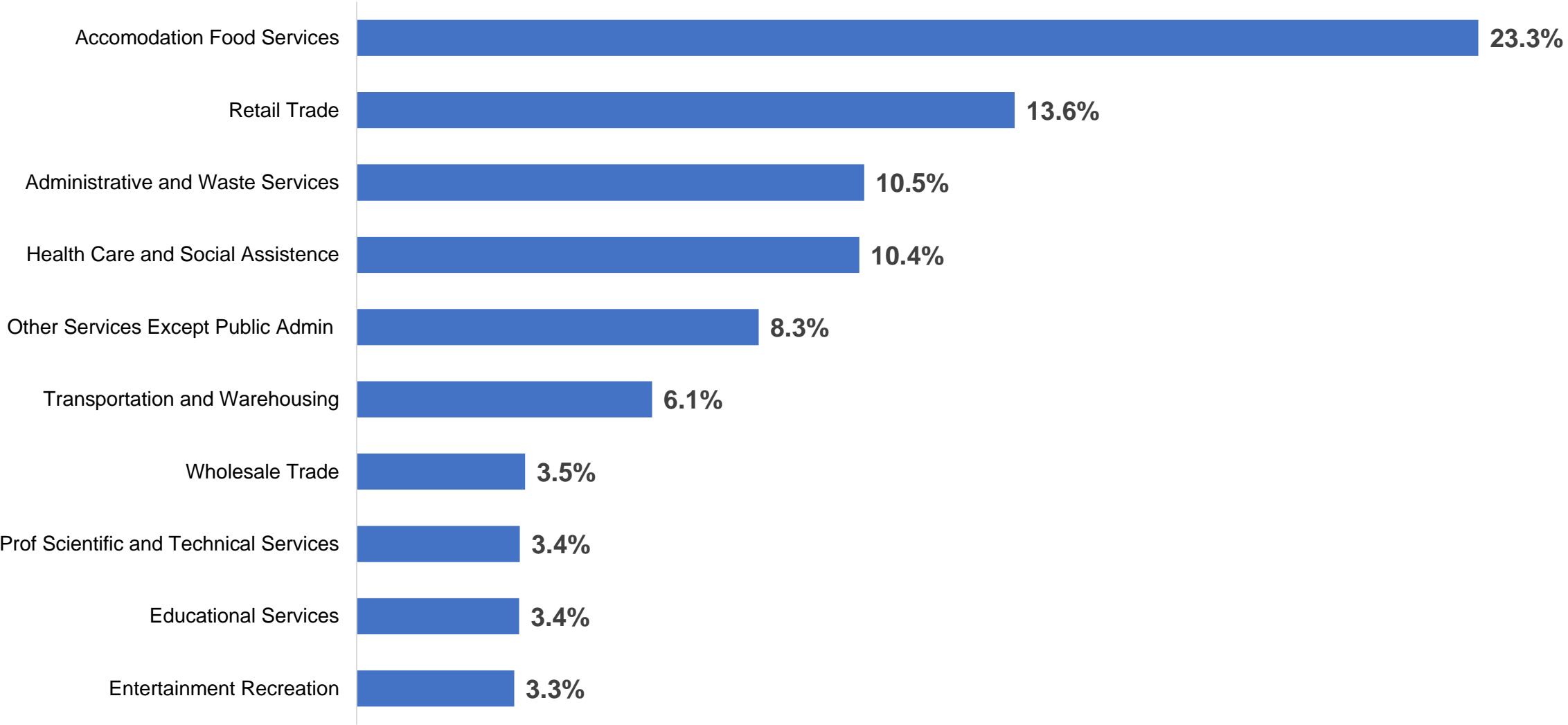
### Initial Claims



Source Tennessee Department of Labor and Workforce Development, Greater Memphis portion of TN includes the counties of Shelby, Fayette, Tipton, and Lauderdale

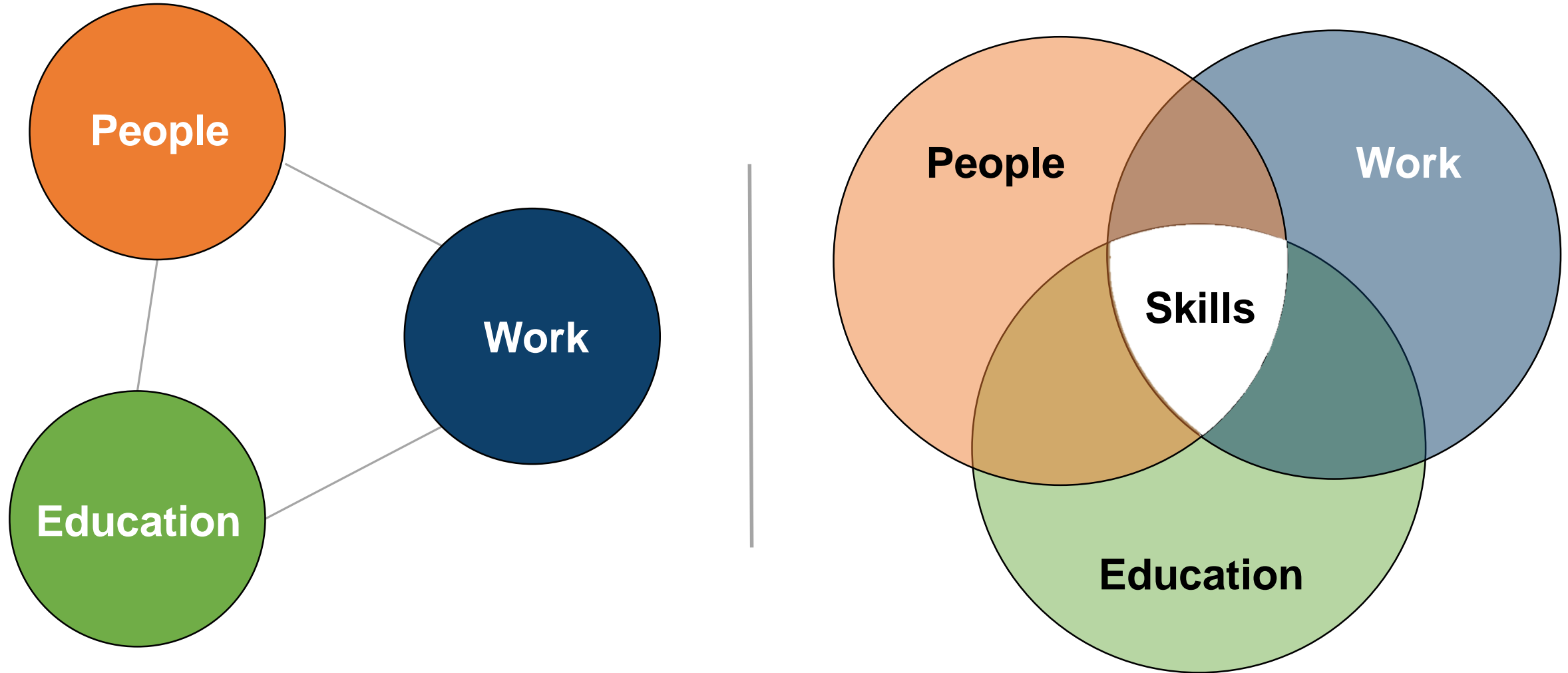
# Unemployment Claims by Industry for the Greater Memphis Counties

Share of Claims: Weeks ending March 7 to April 11, 2020



Greater Memphis portion of TN includes the counties of Shelby, Fayette, Tipton, and Lauderdale

# A Connected Market Provides **Convergence of Supply and Demand**



# Table of Contents



- 1. Benchmarking + Regional Landscape**
- 2. New Foundational & Digital Skills**
- 3. Targeted Industry Clusters**
- 4. Recommendations**



# Part 1.

A background image of a wide river, likely the Mississippi River, with a large bridge in the distance and a ferry boat in the foreground. The image is overlaid with a dark blue diagonal shape on the right side.

## Benchmarking + Regional Landscape

# Regional Benchmark Analysis



Key Variables: **Industry Composition – Educational Attainment – Unemployment – Unemployment by Age**

> Takeaways from **benchmarking analysis**:

1. **Higher unemployment among younger workers** and a larger percent of the workforce without college education compared to peer regions highlights the importance of inclusive training and workforce development programs.

2. Memphis **enjoys a comparative advantage in workforce size** across three large industry sectors (admin and support services, transportation and warehousing, and wholesale trade), but the region **may face difficulty attracting or retaining workers** due to lower rates of pay relative to peer regions

3. The transportation industry employs a greater percent of the workforce (10%, relative to ~5% in peer regions) and pays an annual wage of \$50,000 on average, which is 103% of the living wage in Memphis. **Memphis can look to expand the transportation industry in a way that provides work to less educated workers and the unemployed.**

## Peers included:

- > Nashville, TN MSA
- > Austin-Round Rock, TX
- > St. Louis, MO-IL
- > New Orleans-Metairie, LA
- > Indianapolis-Carmel-Anderson, IN
- > Louisville/Jefferson County, KY-IN
- > Plus: Tennessee and the Nation

# Regional Landscape



## Industry Analysis: Traded and Local Industries

- > Burning Glass examined the capacity of industries in the region to employ workers, confer a competitive advantage to the region, and pay a living wage.
- > Industries are first divided into **local or traded** sectors. Traded sectors bring to market goods or services that are sold outside of the region, such as automotive manufacturing or insurance. Local sectors cater to the local market, such as with retail and most health care services.

### Local Industries

Serve almost exclusively the local market

Not directly exposed to cross-regional competition

**Generally capture 70% of market employment**

### Traded Industries

Compete to serve National and International Markets

Can locate anywhere

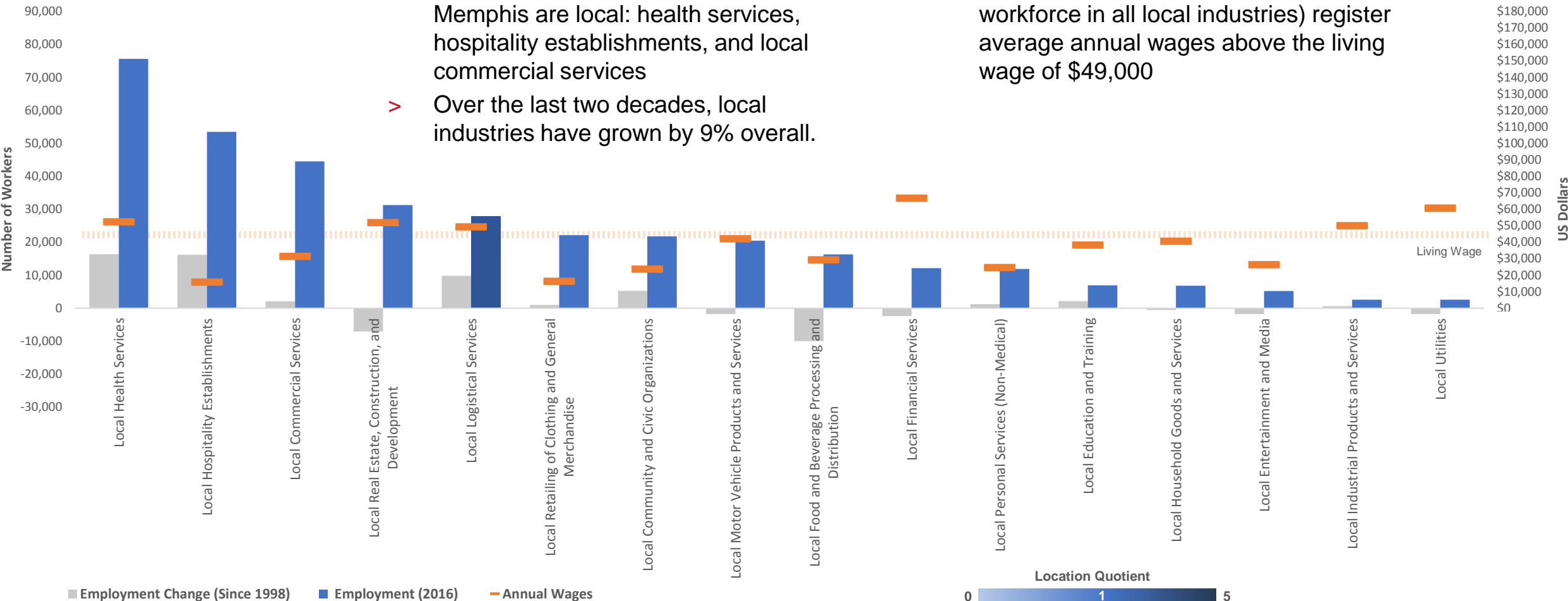
**Generally capture 30% of market employment**

# Top Local Industries



- 1. > Local industries employ three times the number of workers in traded industries
- > The three largest industry clusters in Memphis are local: health services, hospitality establishments, and local commercial services
- > Over the last two decades, local industries have grown by 9% overall.

- 2. Wages are generally lower in the local industries in Memphis (and nationally)
- > Six local industries (5% of the workforce in all local industries) register average annual wages above the living wage of \$49,000

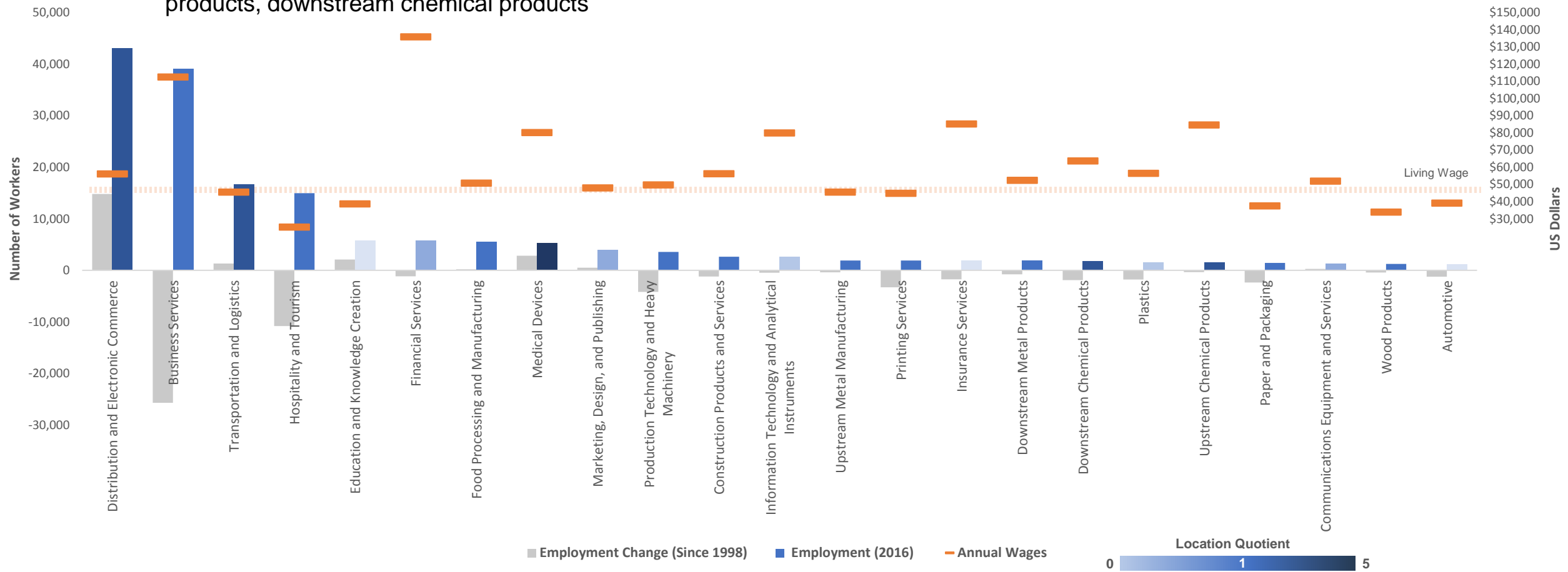


# Top Traded Industries



1. Memphis has a strong comparative advantage in three large industry clusters and two smaller industry clusters:
- > Employing 5,000 – 45,000 workers: distribution, transportation and logistics, and medical devices
  - > Employing 1,500 workers each: upstream chemical products, downstream chemical products

2. On average, traded industries in Memphis employ workers above the living wage
- > Industry clusters where this is the exception: hospitality and tourism, education knowledge creation, paper and packaging, wood products, and automotive



# Part 2.

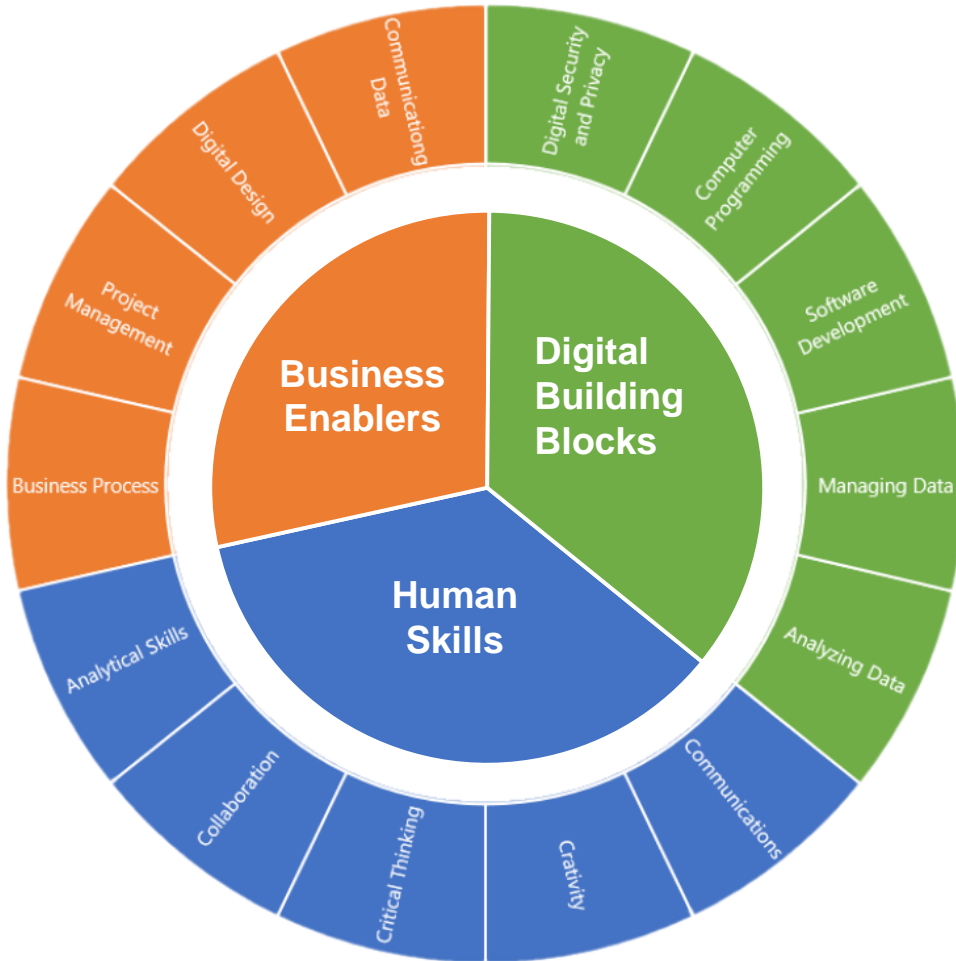
A background image of a city skyline, likely New York City, featuring several tall buildings and a body of water in the foreground. The image is partially obscured by a dark blue diagonal overlay on the right side.

## New Foundational & Digital Skills

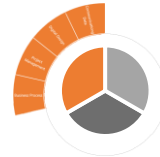


# Recognizing How Occupations are Supported by Skills

Burning Glass has developed a framework for the skills of the modern workforce:



**Human Skills** apply social, creative and critical intelligence to problems. These skills – critical thinking, creativity, communication, analytical skills, collaboration, and relationship building – appear on many lists of sought-after “soft skills.”



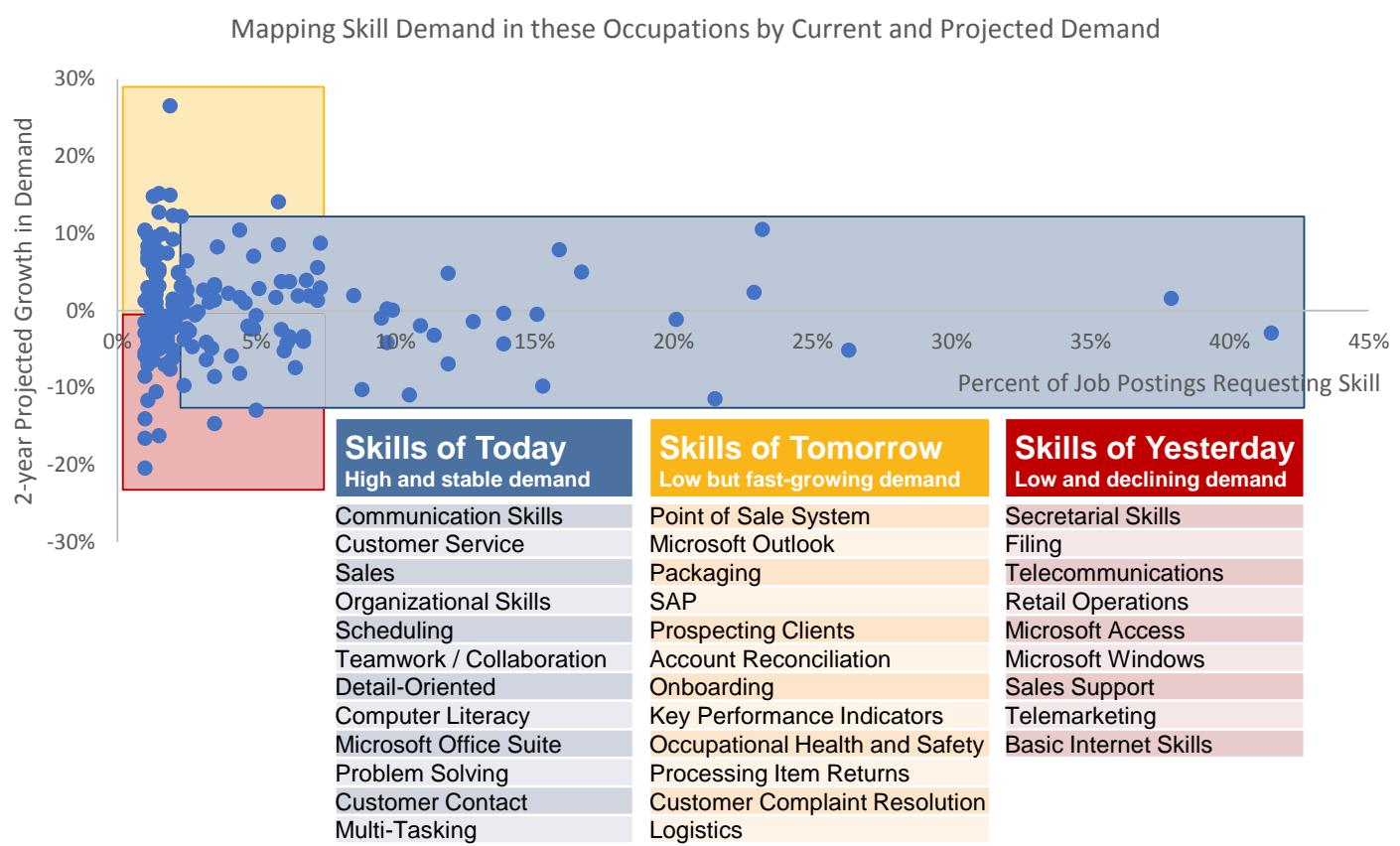
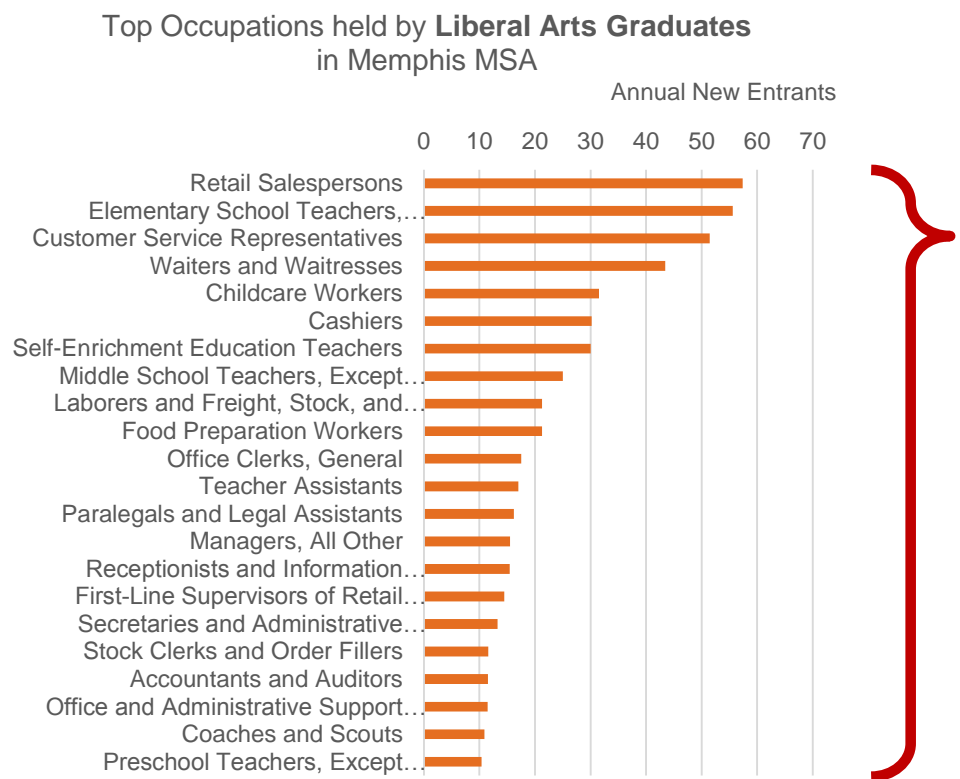
**Business Enabler Skills** allow the other skills to be put to work in practical situations, and include project management, business process, communicating data, and digital design.



**Digital Building Block Skills** are increasingly useful outside traditional digitally intense job families. These skills are especially useful to analysts and data-driven decision makers. These skills include analyzing data, managing data, software development, computer programming, and digital security and privacy.



# New Foundational Skills Analysis: Tracking the Evolution of “Soft Skills”

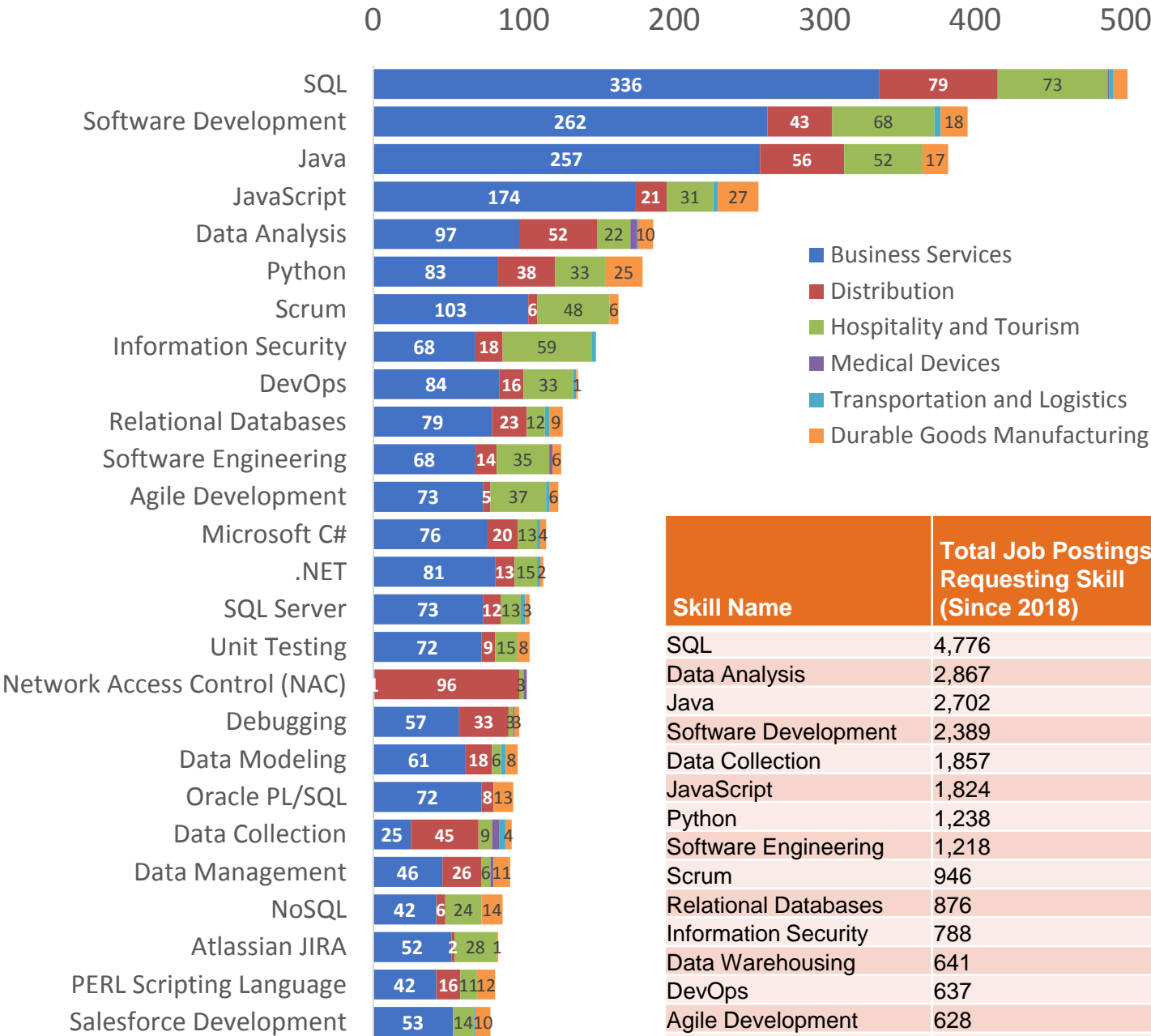


## Key takeaways:

- > The skills of today include a mix of human, business, and digital skills, such as communication and customer service, sales and scheduling, and computer literacy and familiarity with the Microsoft Office suite
- > Demand for old technology (basic internet skills, Microsoft access) is necessary but no longer sufficient alongside demand for new digital and business skills (SAP, POS systems, and familiarity with KPIs, onboarding, and logistics)



Job Postings Calling for skill since 2018

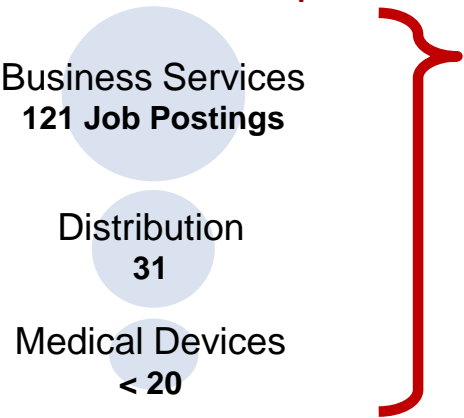


Demand For Emerging Digital Skills in Key Industries

Skill Name	Total Job Postings Requesting Skill (Since 2018)	Location Quotient	Key Industry Clusters Calling for Skill*				
			Distribution	Business Services	Medical Devices	Durable Goods Manufacturing	Hospitality and Tourism
SQL	4,776	0.8 ▼	X	X		X	X
Data Analysis	2,867	0.9 ►	X	X	X		
Java	2,702	0.7 ▼	X	X		X	X
Software Development	2,389	0.6 ▼	X	X		X	X
Data Collection	1,857	1.0 ►	X		X		
JavaScript	1,824	0.6 ▼	X	X		X	X
Python	1,238	0.4 ▼	X	X		X	X
Software Engineering	1,218	0.4 ▼		X			X
Scrum	946	0.5 ▼		X			X
Relational Databases	876	0.8 ▼	X	X		X	
Information Security	788	0.6 ▼	X	X			X
Data Warehousing	641	0.7 ▼	X	X			
DevOps	637	0.4 ▼	X	X			X
Agile Development	628	0.7 ▼		X			X
Debugging	559	0.5 ▼	X	X			

# Identifying Key Skills for Investment

## Software Developer



Digital Skills in Greatest Demand	
Skill Name	% of Job Postings Requesting Skill
SQL	42.9%
Java	39.2%
Software Development	34.8%
Oracle	25.4%
JavaScript	25.2%
Software Engineering	22.8%
.NET	17.7%
Microsoft C#	17.6%
Linux	13.6%
XML	12.5%
Information Systems	12.4%
Git	11.8%
SQL Server	11.8%
Unit Testing	10.7%
Oracle PL/SQL	10.6%
Python	10.3%



Fastest Growing Digital Skills	
Skill Name	2-year Projected Growth In Demand
DevOps	42.5%
Python	27.7%
Git	23.3%
Scrum	20.3%
Agile Development	10.7%
JSON	10.0%
Software Engineering	9.2%
AngularJS	7.4%
Unit Testing	5.1%
Software Development	4.2%
JavaScript	3.7%
Network Maintenance	3.0%
Customer Service	1.6%
Apache Webserver	1.4%



Key Skills for Investment
Python
Git
Software Engineering
Software Development
JavaScript

### Key takeaways:

- > For software developers in Memphis, most of the digital skills in highest demand today will still be in high demand in two years
- > Software developers in Memphis may increasingly be asked to have familiarity in the coding language Python and the software project management platform Git

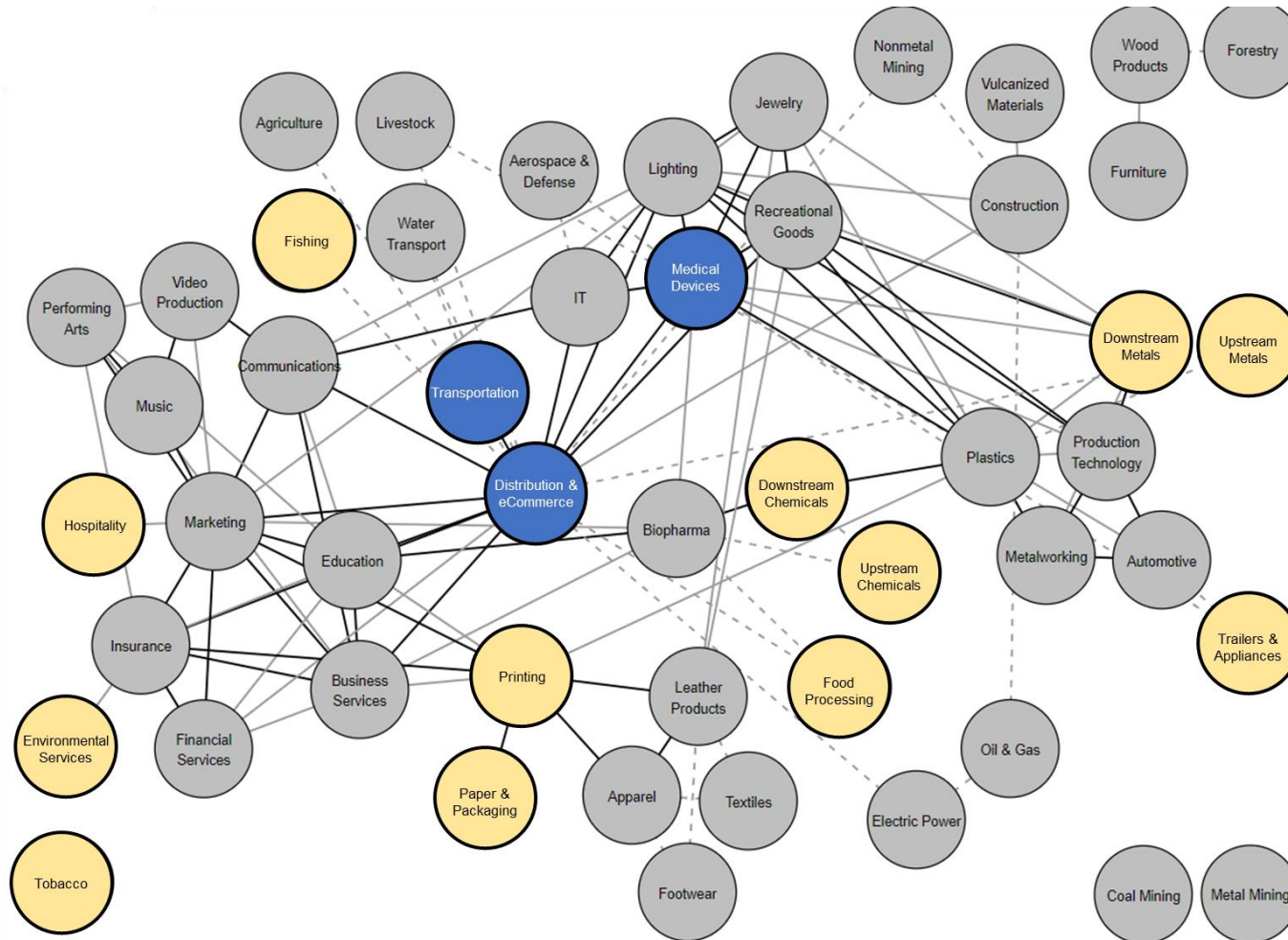
# Part 3.



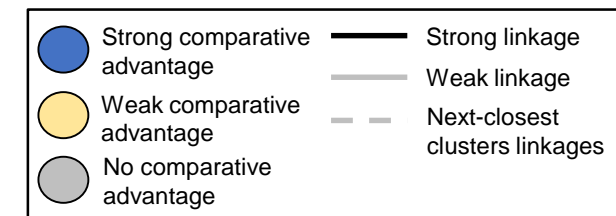
## Targeted Industry Clusters

# Targeted Industry Analysis

## Cluster Linkages and Economic Diversification



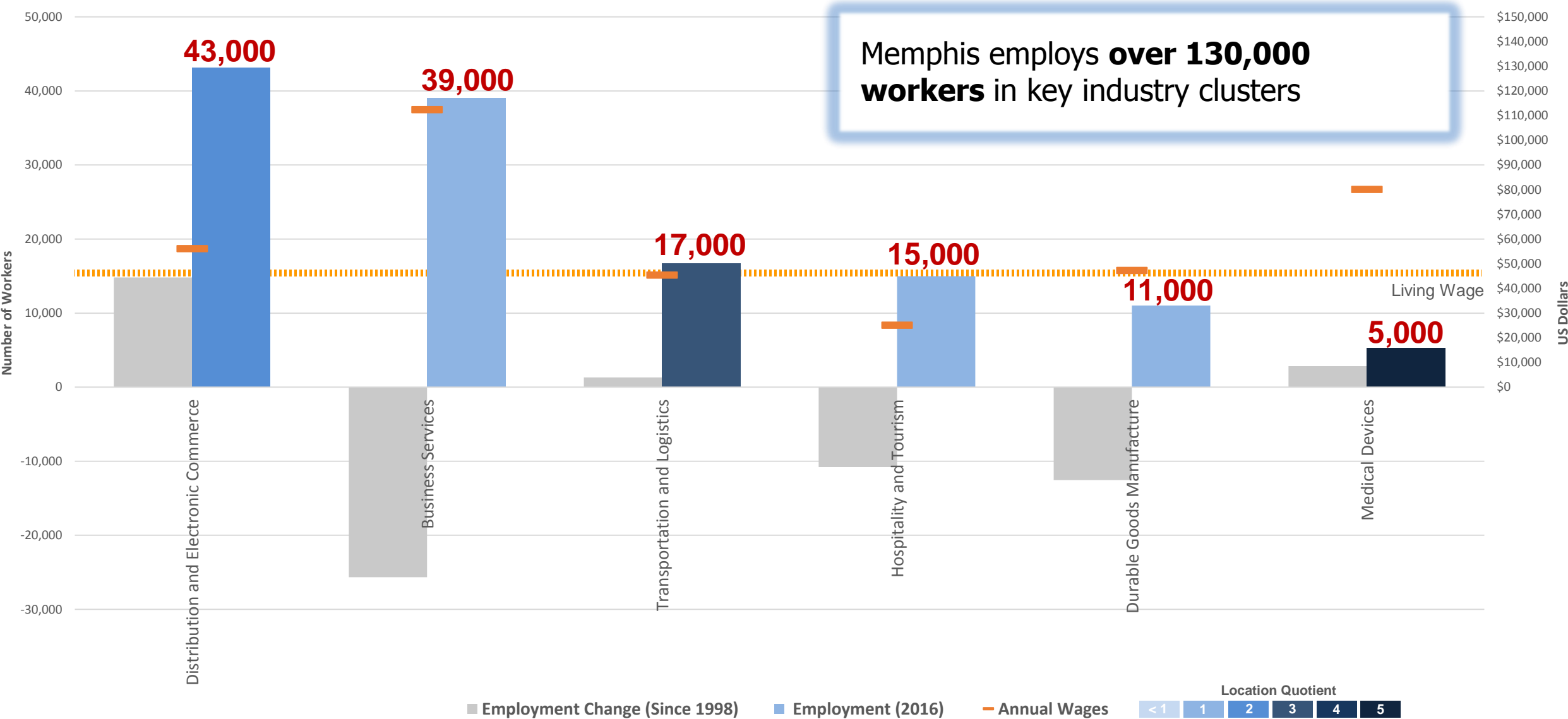
- > Researchers at the Economic Development Administration and Harvard Business School measure the *linkages* between industries
- > Transportation and Medical Devices, the industries in Memphis with the greatest comparative advantage, leverage the distribution sector.
- > Medical Devices is also closely linked to plastics, which employs another 1,500 workers, and IT, which employs another 2,000 workers.



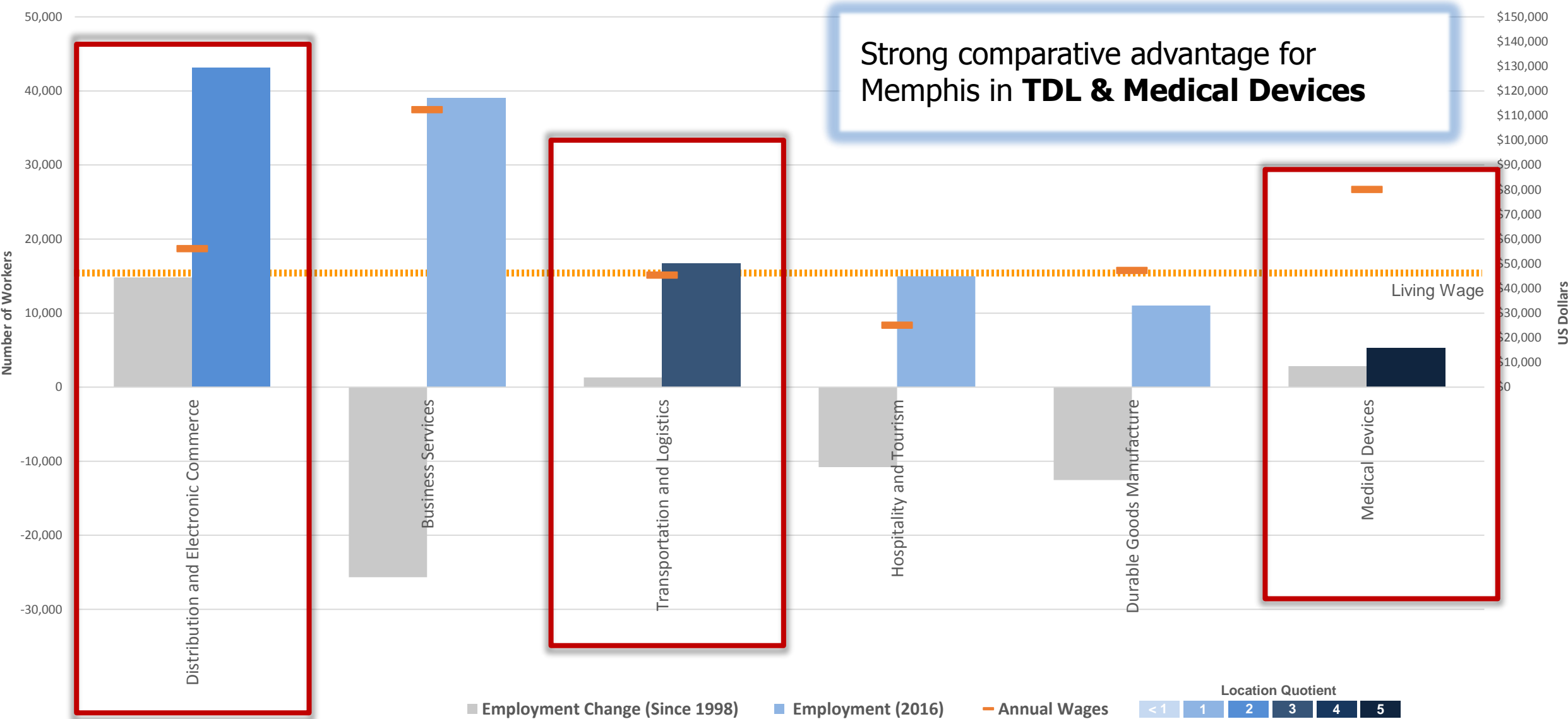
**Key industries with are tethered to the distribution sector.**



# Targeted Industry Analysis



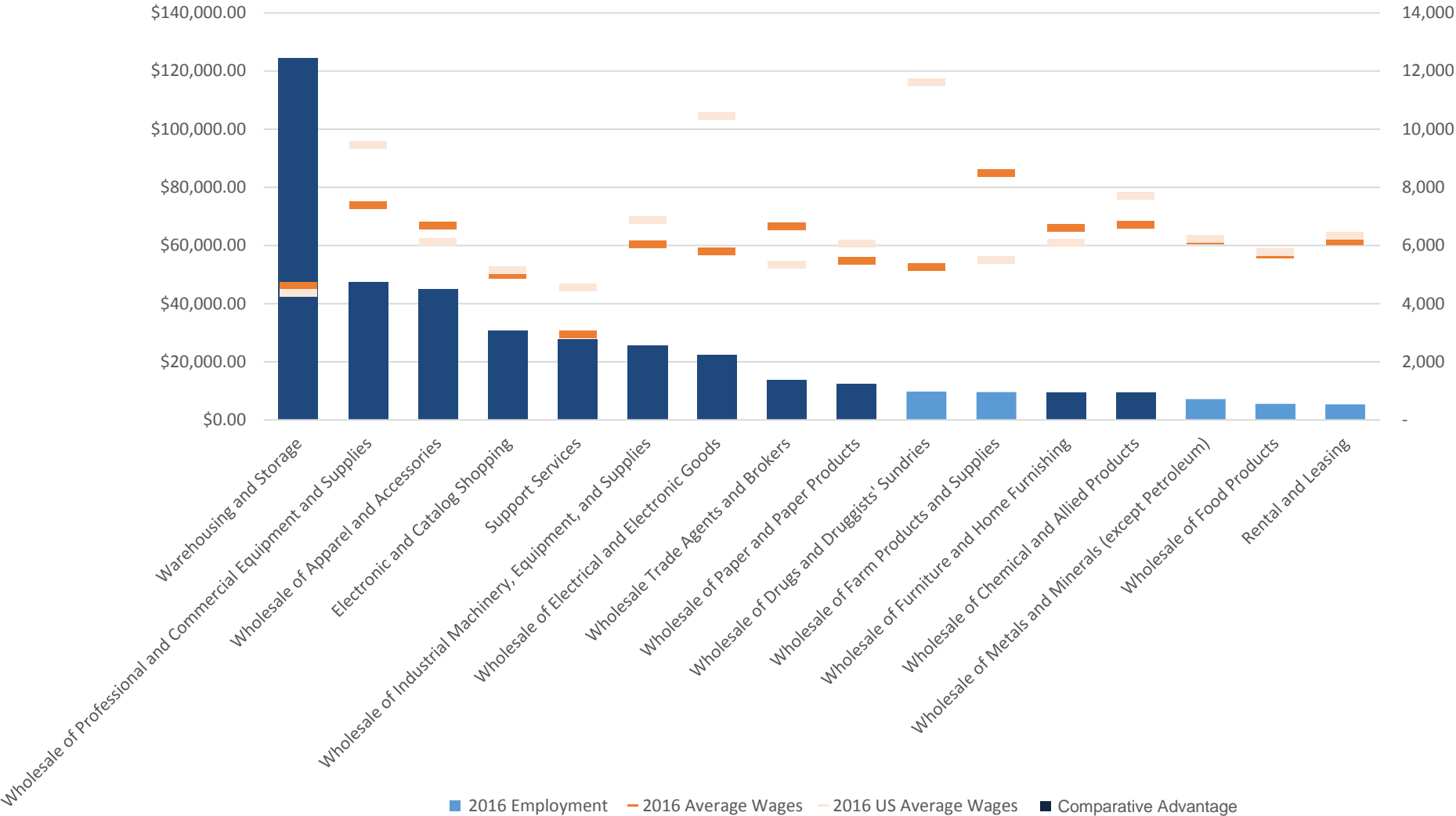
# Targeted Industry Analysis



## Analysis of Subsegments Within Targeted Industries

- > Subsegments provide a more granular view of industry clusters
- > Burning Glass examined the employment and competitive advantage of industry subsegments in Memphis, as well as the demand profile within those subsegments
- > The demand profile highlights the digital skills and specialized skills most important to the industry cluster, as well as the top occupations in demand within the industry

# Distribution: Subsegment Employment and Wages



## Key takeaways:

- > Memphis enjoys a comparative advantage in nearly all subsegments within distribution.
- > The subsegment that employs the most workers, warehousing and storage, is also among the least well-paid for the average worker.
- > Average wages in Memphis are at or below the national average in most subsegments in distribution.

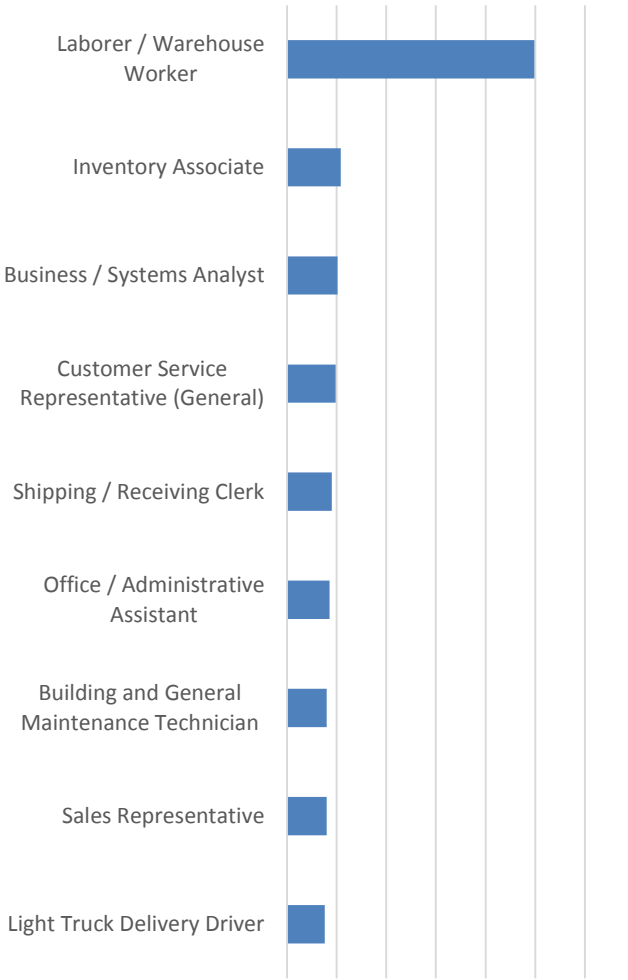


# Distribution: Demand Profile

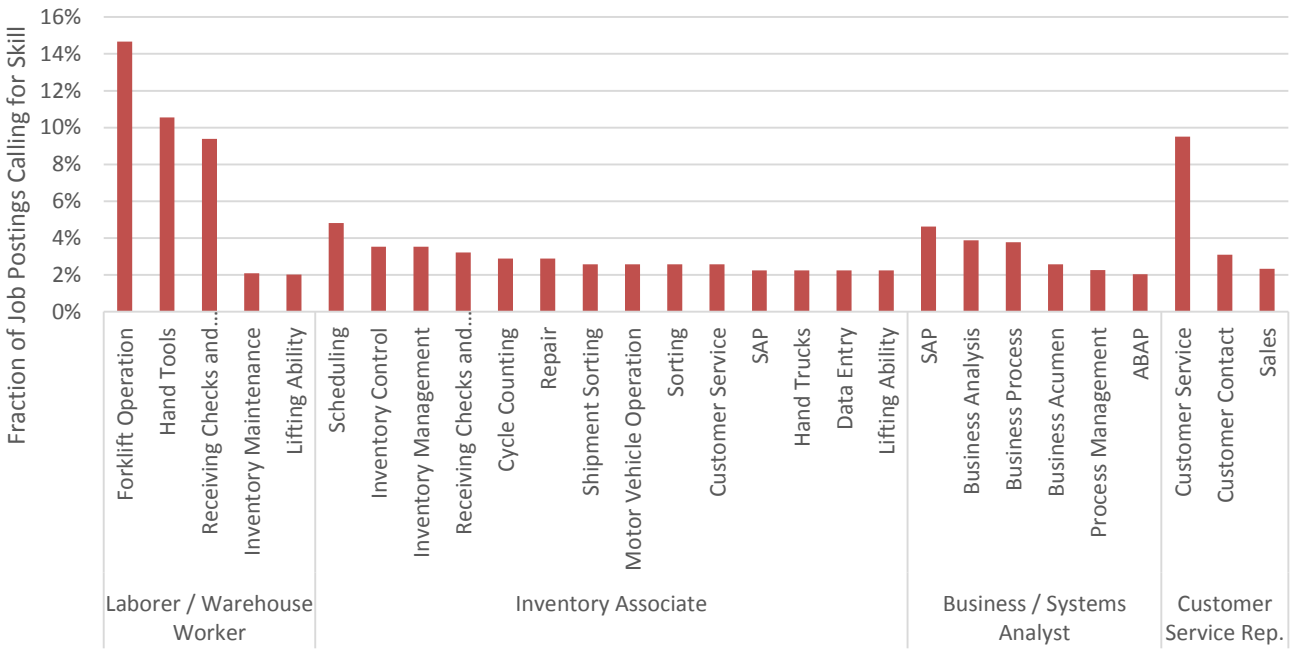


Top Occupations In Demand

Online Job Postings Since 2018  
0 50 100 150 200 250 300



Skill Demand by Occupation



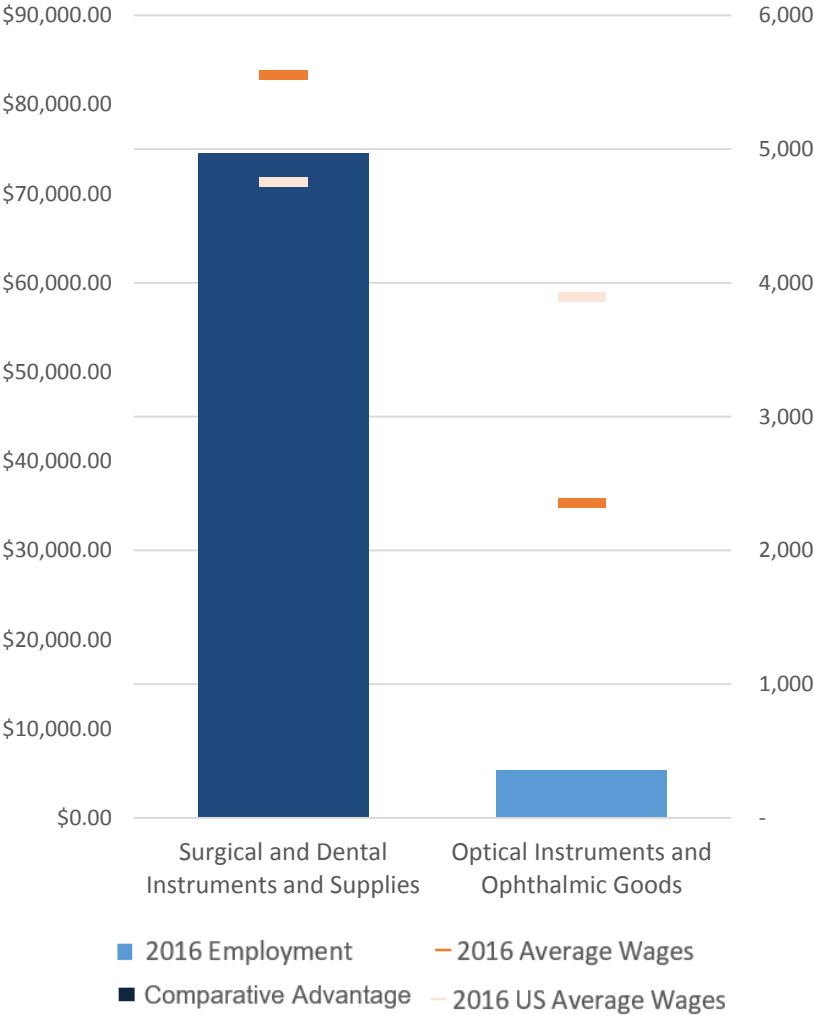
Demand for Digital Skills in Key Subsegment Occupations

Skill Name	Business / Systems Analyst	Inventory Associate	Customer Service Rep.	Laborer / Warehouse Worker
SAP	x	x		
Advanced Business Application Programming (ABAP)	x			
Systems Analysis	x			
Information Systems	x			
SAP BW (Business Warehouse)	x			
SAP HR	x			
Microsoft Visio	x			
Sabrix	x			
Computer Literacy	x	x	x	x
Microsoft Office Suite	x	x	x	
Network Access Control (NAC)			x	
Data Entry		x		

Key takeaways:

- > Digitalization of the distribution segment is led by business and systems analysts
- > Inventory management skills are critical for warehouse workers and inventory associates. As inventories are maintained digitally, workers in these low- and middle-skill jobs will require increased computer literacy.

# Medical Devices: Subsegment Employment and Wages



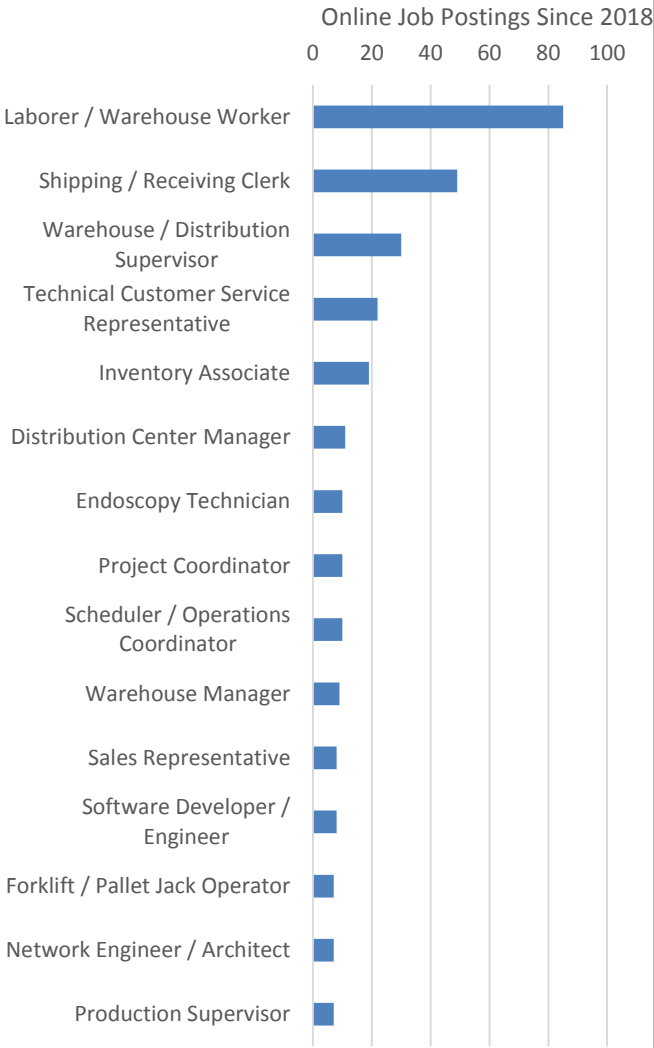
### Key takeaways:

- > Memphis has a comparative advantage in medical device manufacture, particularly for surgical and dental instruments.
- > Wages in this subsegment are also high compared to wages in other target industries.

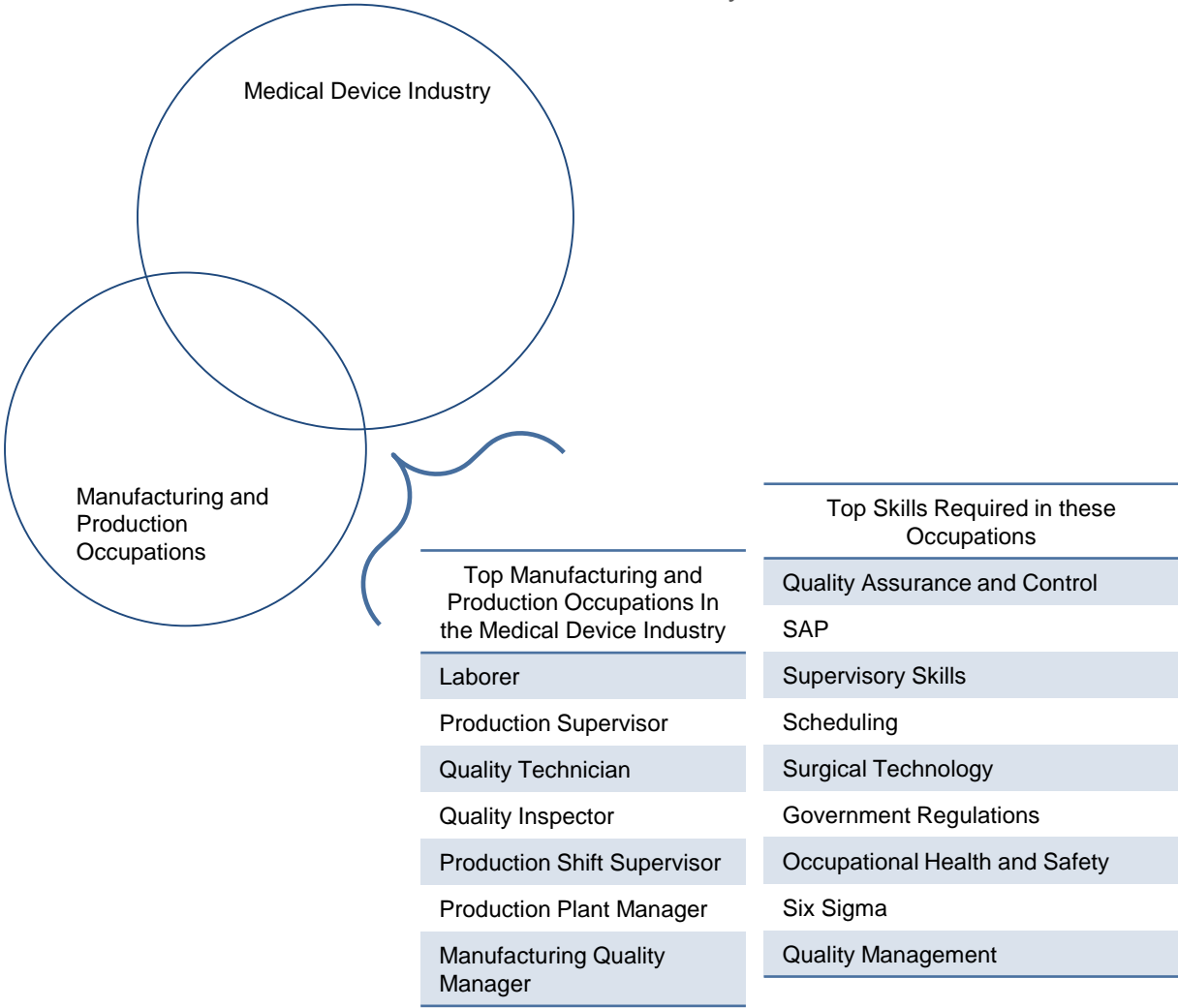
# Medical Devices: Demand Profile



Top Occupations in Demand



Jobs and Skills with Highest Demand Among Manufacturing Roles in the Medical Device Industry



## Key takeaways:

- > In the medical device cluster, Memphis is able to leverage linkages with the transportation and distribution clusters. Memphis is a hub for both the production and distribution of medical devices.
- > Medical device manufacturers in Memphis are looking for production managers and supervisors with a blend of digital skills (SAP) and industry knowledge (surgical tech, government regulations and occupational health and safety).

# New Foundational Skills Analysis



> Key takeaways for **new foundational skills**:

1. **Foundational skills** in Memphis now include business skills such as customer service and sales and digital skills such as computer literacy and proficiency with common software like the Microsoft Office suite. These are among the **skills most commonly requested in non-technical roles**, so the region would benefit from incorporating business and computer education into its core curricula.
2. Digital skills are concentrated in the two largest of Memphis's six key industry clusters, distribution and business services. Collectively these sectors employ over 80,000 workers. **Both sectors register high demand for data management and computer programming.**
3. Demand for digital skills in Memphis lags that of other regions. Memphis has a location quotient equal to or less than the national average for its most in-demand digital skills. Digital skills demand in cities with greater location quotients for digital skills can indicate the skills demands that Memphis can anticipate in the future.

Relative to other regions, Memphis exhibits a **greater concentration** of demand for skills related to **data collection and storage** rather than **software and web development**, though regional employers are hiring for all types of digital skills.

# Part 4.



## Recommendations

## Sharing Data and Promoting Opportunity

- > Create shared platforms for information sharing including target occupations and careers, crosscutting skills, learning opportunities, pathways engagement of potential employees (e.g., out of school youth, dislocated workers, working adults, justice involved individuals)
- > Create dashboard to track enrollments and completions in key program areas

## Supply Side engagement

- > Inventory education and training programs that speak to target industry and occupational needs; examine content for key digital and foundational skills and suggest program modifications
- > Aggregate employer advisory functions and regularize through data review, surveys, focus groups and direct engagement

## Demand Side Engagement

- > Coordinate outreach and recruitment, school visits, and work-based learning for target sector employers
- > Conduct qualitative research to capture, share and support application of demand data and demystify hiring practices
- > Create feedback mechanism to support continuous improvement of education programs

## Community Engagement

- > Continue to host and recruit for job fairs
- > Facilitate creation and sharing of participant recruitment collateral for use by community and faith-based organizations, educators
- > Drive creation of first-level digital and foundational skills training as on-ramp to more formal training programs

# SBA Paycheck Protection Program (PPP)

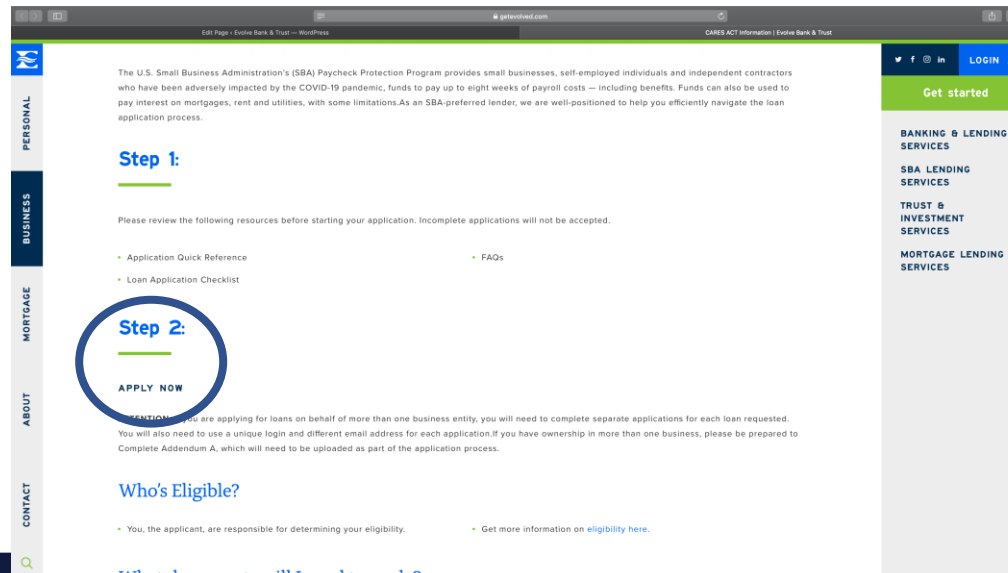
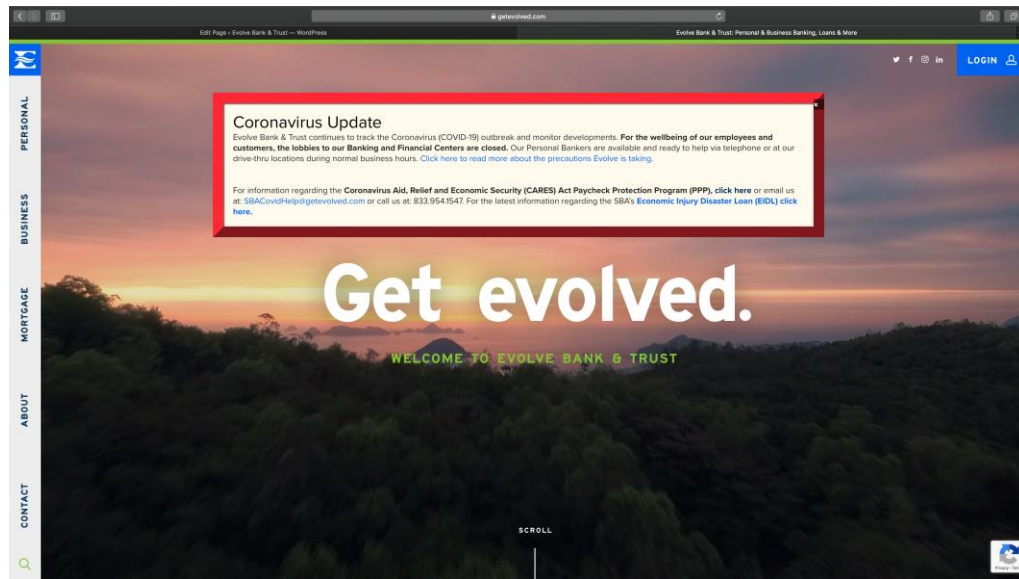
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- The U.S. Small Business Administration's (SBA) Paycheck Protection Program provides small businesses, self-employed individuals and independent contractors who have been adversely impacted by the COVID-19 pandemic, funds to pay up to eight weeks of payroll costs — including benefits. Funds can also be used to pay interest on mortgages, rent and utilities, with some limitations. As an SBA-preferred lender, we are well-positioned to help you efficiently navigate the loan application process.







- This is a direct loan thru the SBA and NOT lenders. This loan is an existing disaster relief loan, and not part of the CARES Act. Borrowers can apply now. [APPLY HERE](#).
- Note: Borrowers may apply for both the PPP and EIDL loans provided the use of proceeds is not the same. This loan should be used for expenses that are not covered by PPP.

- The SBA will make the next 6 months payments on loans in place prior to the enactment of the CARES ACT (March 27th) that are in regular servicing status.
  - This is automatic and does not need to be requested. SBA will make the first payment within 30 days of the payment due date.
- After the subsidy period mentioned above, a borrower may be eligible for up to six months of additional relief in the form of payment reductions and/or deferments if your loan is in regular servicing status. (generally meaning current)
  - This is not automatic and requires lender review and approval. Borrower will need to make a written request and provide additional documentation.

Becky Bowers

SVP, Private & Commercial Banking

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# Questions

For more information:  
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# THANK YOU!

Please visit the Greater Memphis Chamber's website for the full Burning Glass Report and additional resources.

[www.memphischamber.com](http://www.memphischamber.com)