

# Empower Your Community with Labor Data

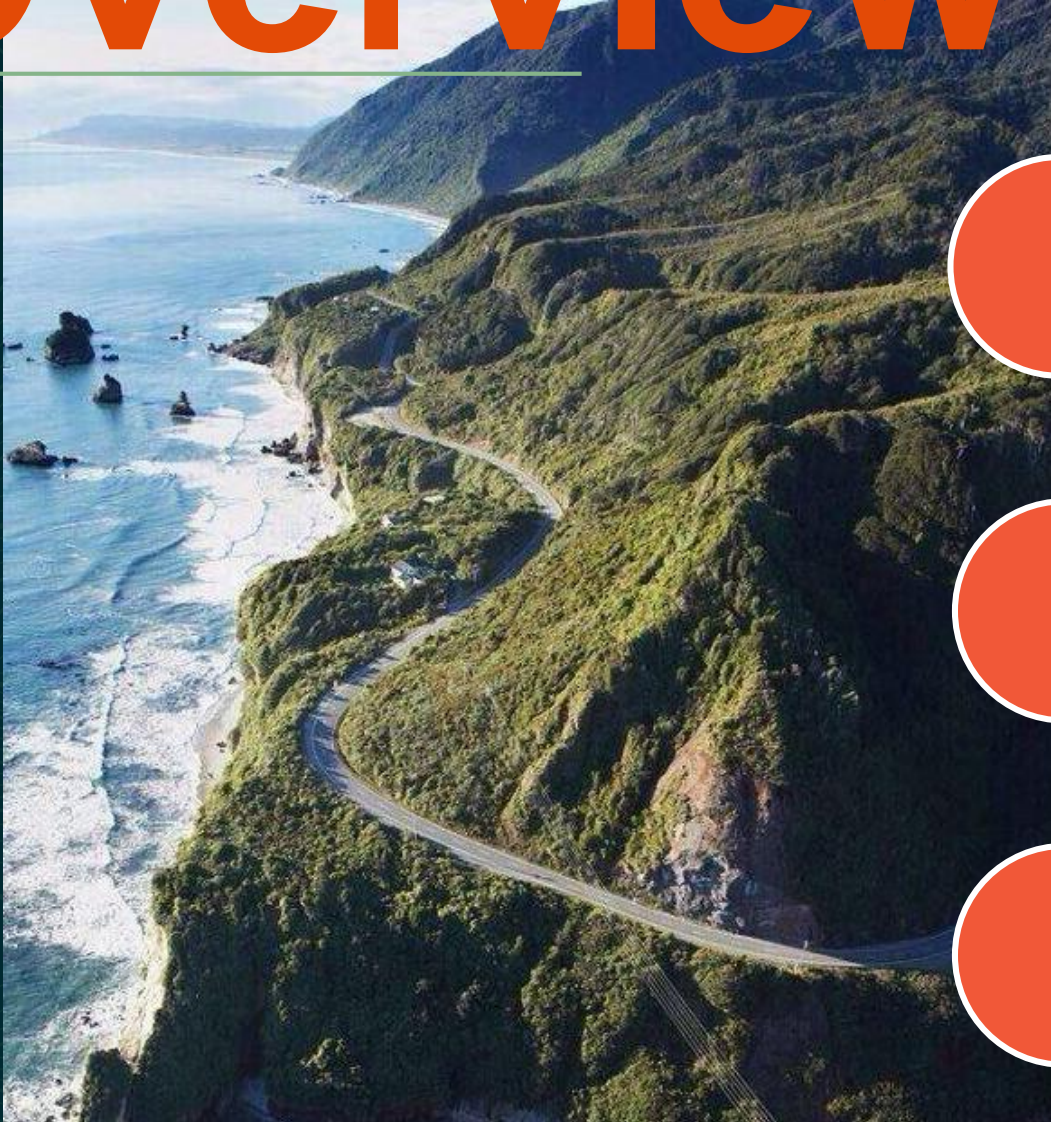
International Economic  
Development Council

October 13, 2019





# Overview



- The Workforce Problem
- Corporate Location Decisions
- Case Study: Leveraging Data for Corporate Decision Making
- Labor Strategies + the Competition to be Selected

# — About GLS

# GLS Turnkey Services

SINCE 2012

**\$6.6**  
Billion

**6200**  
jobs

Economic  
Development



Incentive Admin &  
Compliance



Incentive Negotiations



Site Due Diligence



Site Selection



## GLS CORE COMPETENCIES



automotive



aerospace



paper



metals



life sciences



plastic



food &  
beverage



chemicals

## RECENT CLIENTS GLS HAS SERVED

VAN HOOL

NOVARTIS



carbon conversions

HEXCEL



## RECENT ANNOUNCEMENTS

### Project Menlo

Hexcel

Location: Rousillon, France

Investment: \$250 MM

Jobs: 120

### Project King's Hay

Van Hool

Location: Morristown, TN

Investment: \$47 MM

Jobs: 650



# The Team

TO TRANSFORM OPPORTUNITIES  
INTO GENERATIONAL SUCCESS



**DIDI  
CALDWELL  
PRESIDENT**



**JOHN  
LONGSHORE  
PRINCIPAL &  
VP OF  
INNOVATION**



**SUSAN  
DONKERS  
DIRECTOR OF  
STRATEGIC  
DEVELOPMENT**



**TESS FAY  
SENIOR  
CONSULTANT**



**PARKER  
WYATT  
BUSINESS  
ANALYST**



**KELLY CRAIG  
DIRECTOR OF  
ADMINISTRATIO  
N**

# — Drivers of this Interest

IN US INVESTING



**Shifting Energy  
Landscape**



# Drivers of this Interest

IN US INVESTING



**International  
Geopolitical Risk**





# Drivers of this Interest

IN US INVESTING



**Impact of  
Demographics**



# What We're Seeing

H I G H I N V E S T M E N T A C T I V I T Y I N T O T H E  
U S



**Growing and  
Stable Market**



**Shifting Supply Chains**

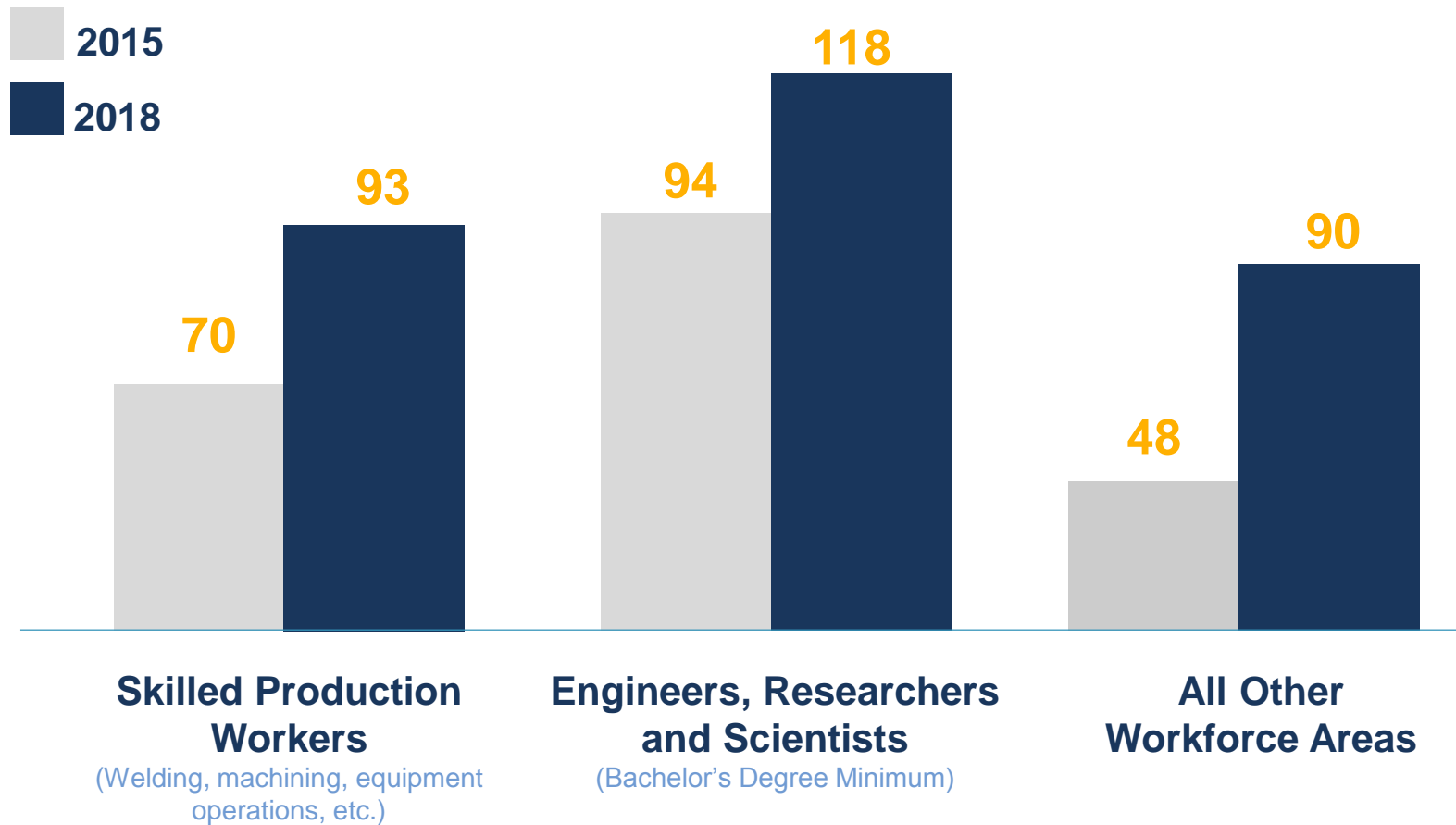
# — The Workforce Problem





# The Workforce Problem

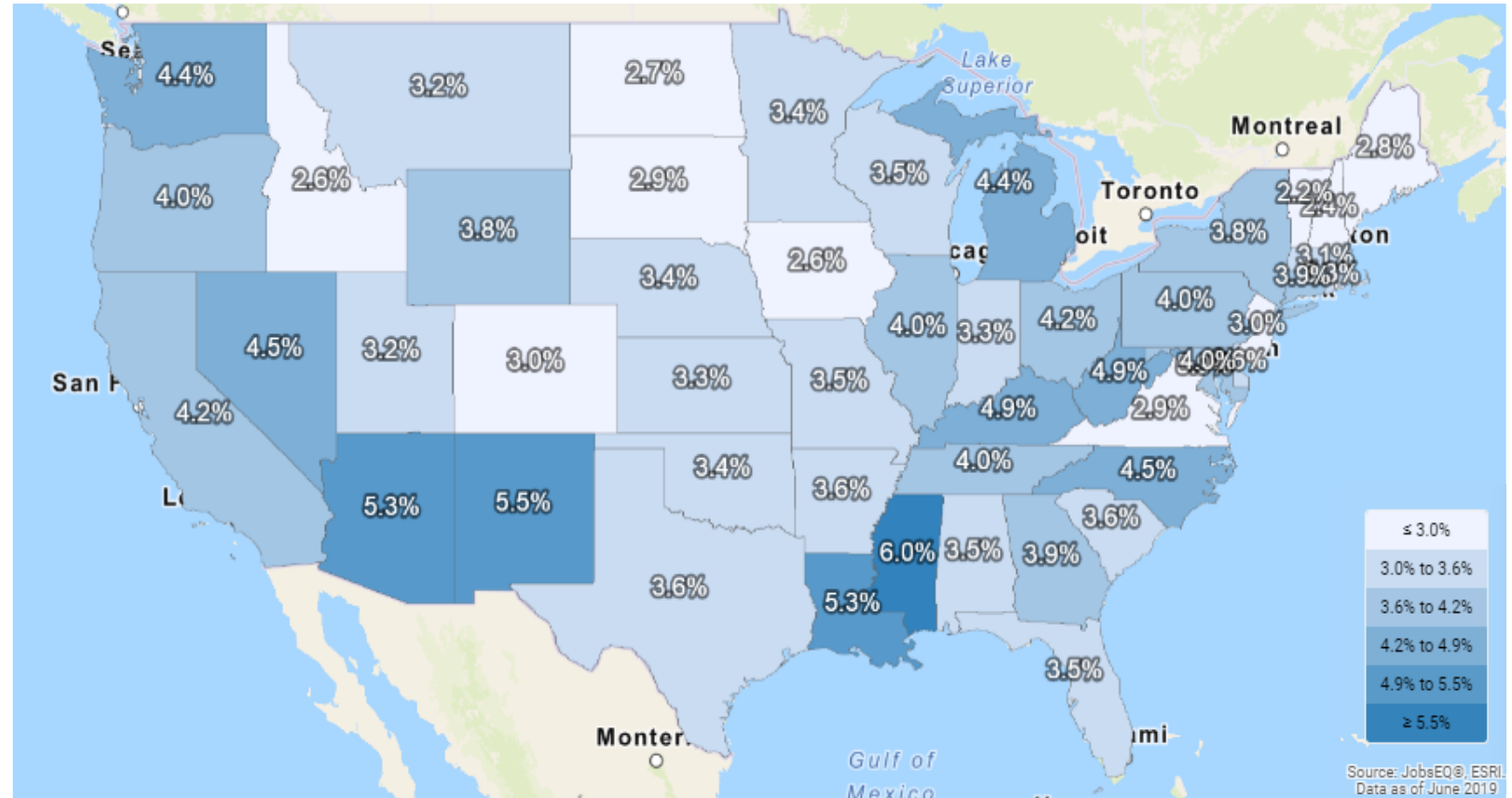
The average time to fill an open job position is on the rise  
Number of days to fill a position



# Root Causes

## 1. Low Unemployment

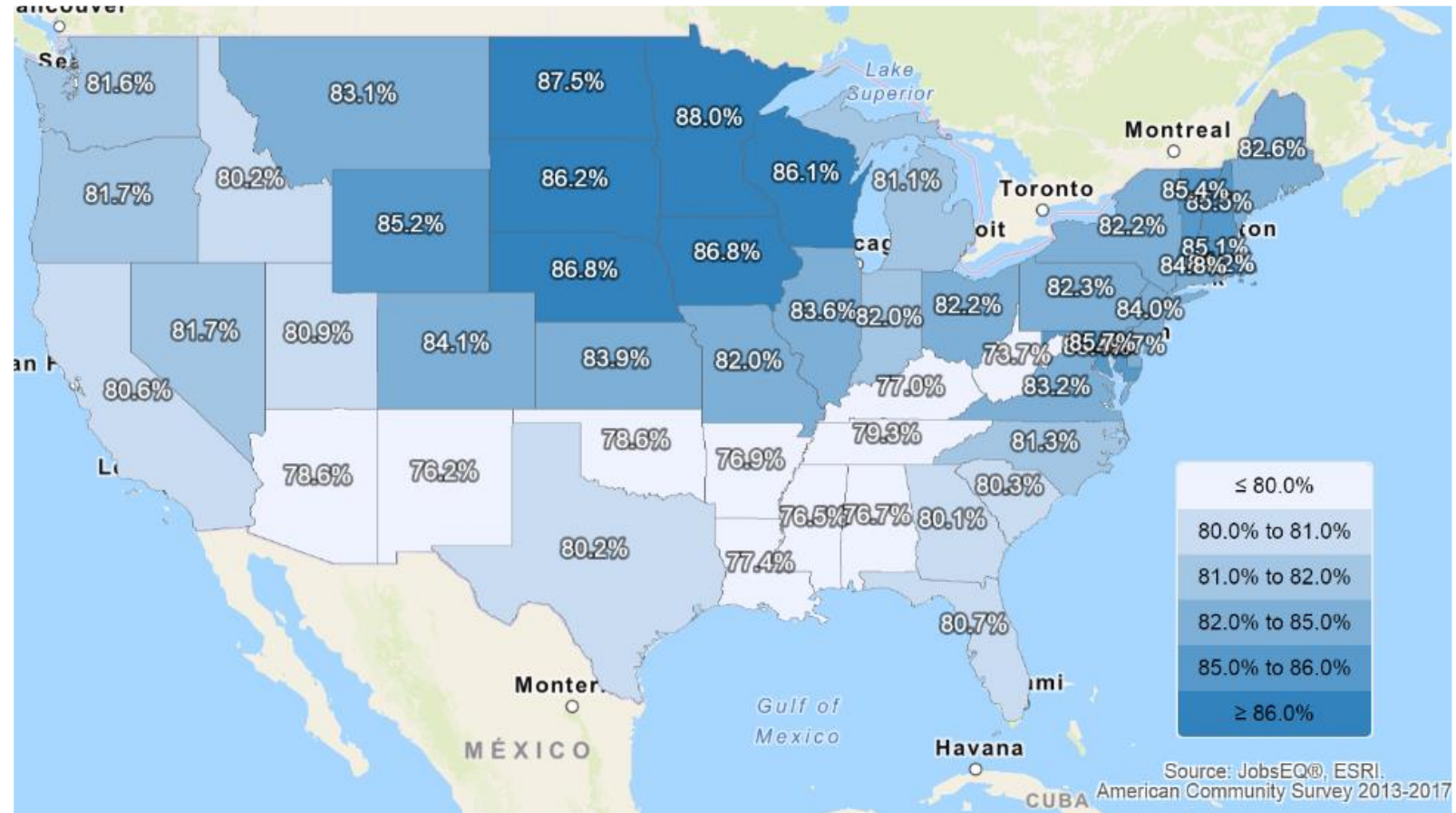
Unemployment Rate as of June 2019



# Root Causes

1. Low Unemployment
2. Low Labor Force Participation

## Prime-Aged Labor Force Participation Rate (25-54)

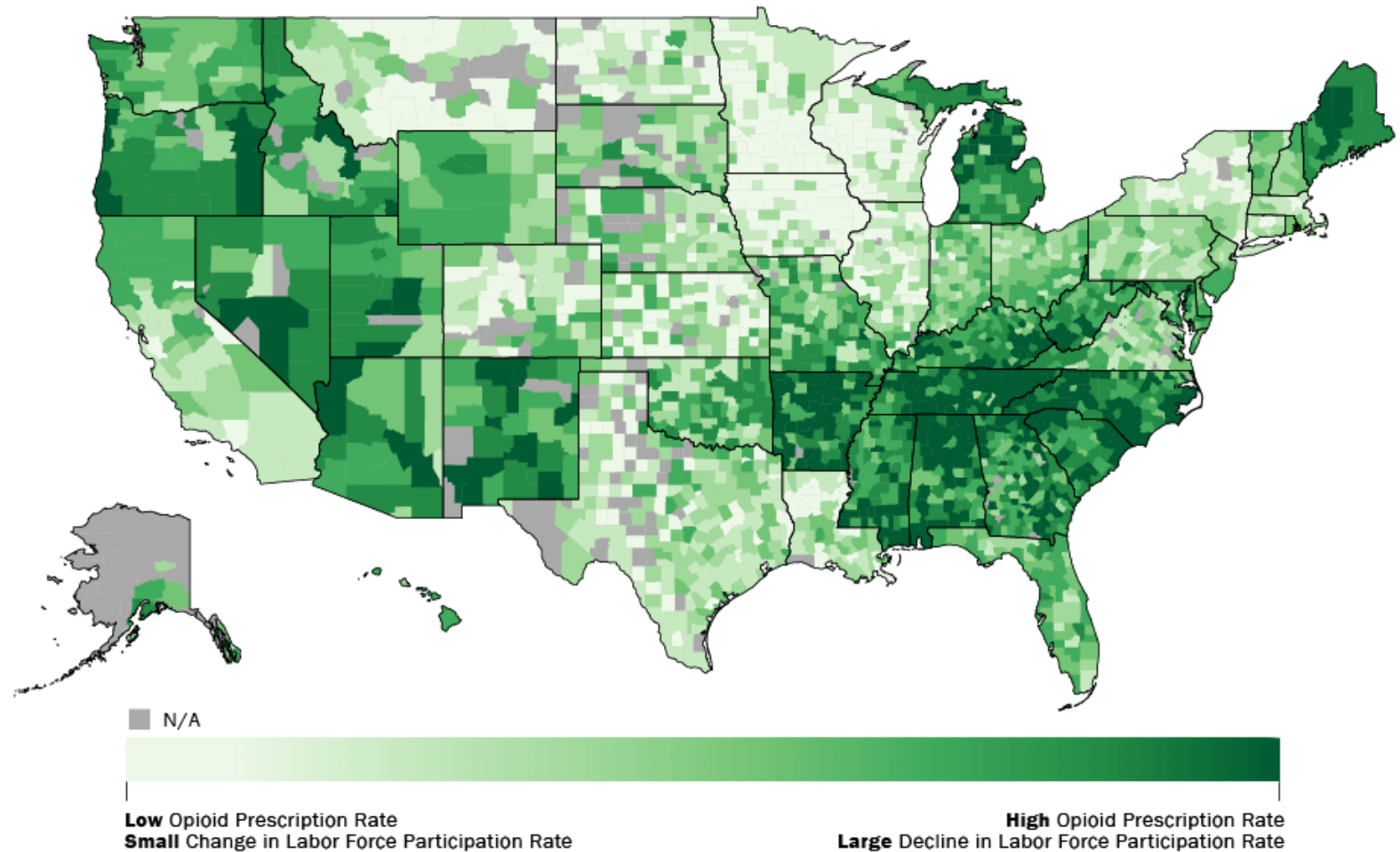




# Root Causes

1. Low Unemployment
2. Low Labor Force Participation

Combined Effect of Opioid Prescription Rates and Change in Labor Force Participation Rate  
Prime Age Adults, Ages 25-54

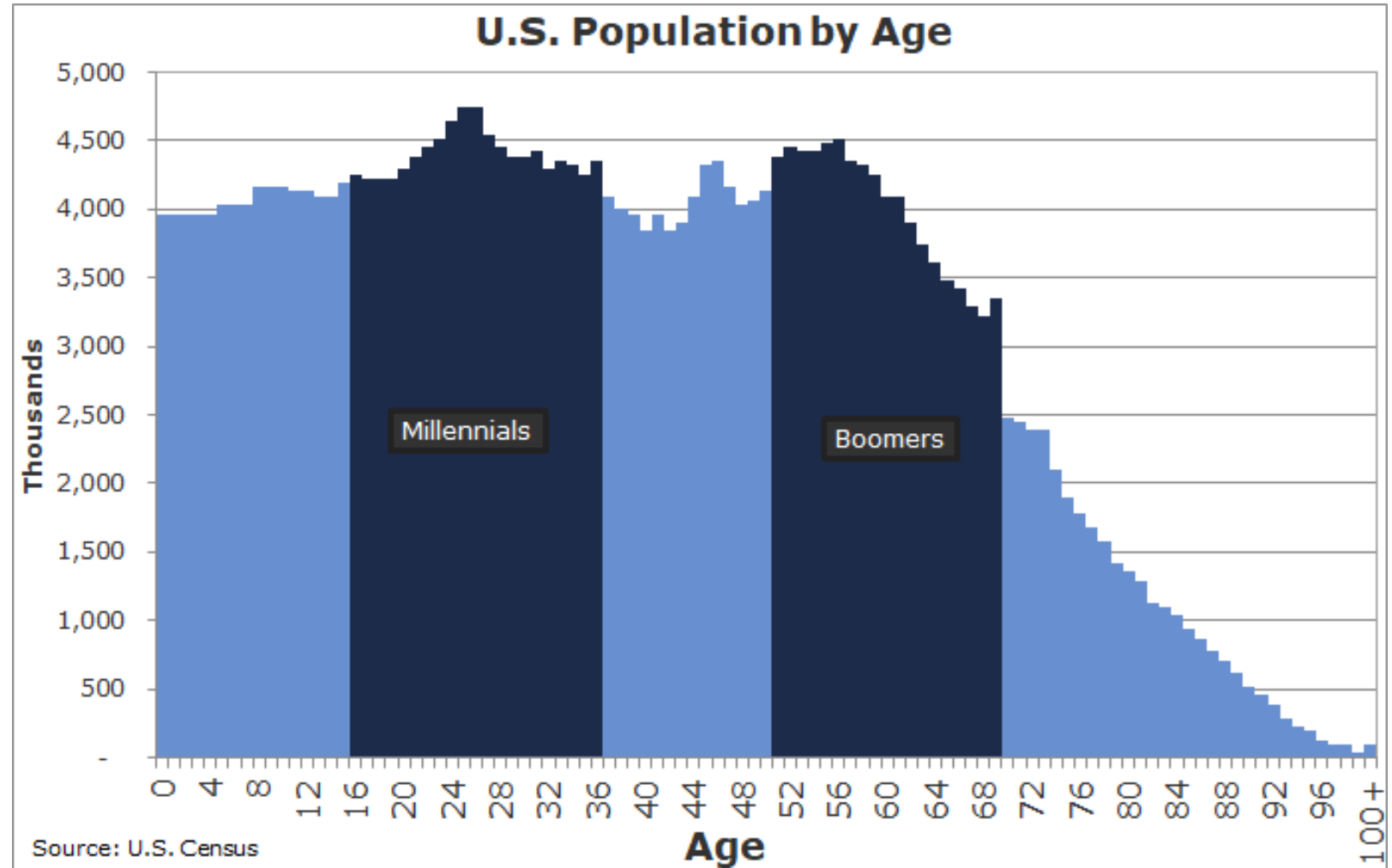


Note: Data on change in state-level labor force participation is from CPS years 1999-2001 and 2014-2016 for prime age adults and county-level data on opioid levels is from CDC Vital Signs (QuintilesIMS). For each county, the combined effect is the average of the percentile rank of labor force participation change and the percentile rank of opioid prescription rate.

Based on data used in "Where Have All the Workers Gone? An Inquiry into the Decline of the U.S. Labor Force Participation Rate" by Alan Krueger. Brookings Papers on Economic Activity, Fall 2017

# Root Causes

1. Low Unemployment
2. Low Labor Force Participation
3. Aging Workforce



# Root Causes

1. Low Unemployment
2. Low Labor Force Participation
3. Aging Workforce

## Median Age: US Labor Force

2000

39.3



2018

42.2



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## Median Age: US Manufacturing Worker

2000

40.5



2018

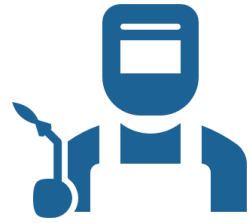
44.1





# Root Causes

1. Low Unemployment
2. Low Labor Force Participation
3. Aging Workforce
4. Growing Demand



In the next **1 Year**, the demand for welders in the US will be **50,639**

12,615  
Exits



36,443  
Transfers



1,581  
Employee  
Growth

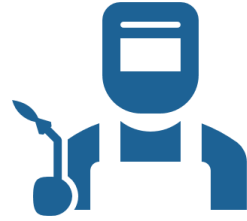


**11%**

of total workforce of welders will turnover in the next year

# Root Causes

1. Low Unemployment
2. Low Labor Force Participation
3. Aging Workforce
4. Growing Demand



In the next **5 Years**, the demand for welders in the US will be **254,077**

63,287  
Exits



182,831  
Transfers



7,959  
Employee  
Growth



**>50%**

of total welding  
workforce will turnover  
in the next 5 years

# Root Causes

1. Low Unemployment
2. Low Labor Force Participation
3. Aging Workforce
4. Growing Demand
5. Geographic Misalignment

115

JOBS EQ

## Industry/Occupation Mix

Industry/Occupation Mix for Manufacturing in Greenville-Anderson, SC MSA, Baseline

EXPORT

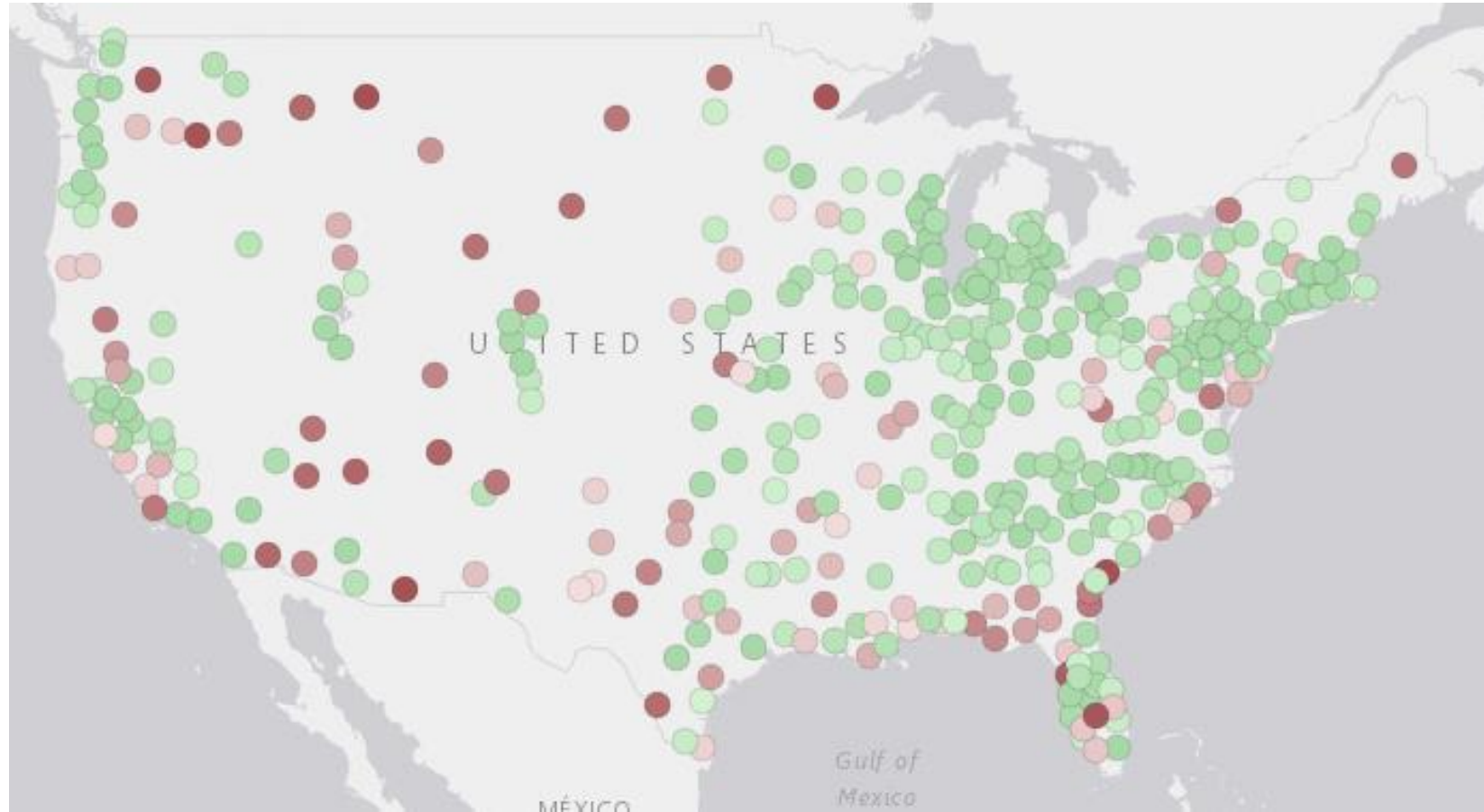
SOC	Occupation	CURRENT		1-YEAR DEMAND			
		Empl	Regional Average Wage <sup>1</sup>	Labor Exits	Occ Transfers	Growth	Total
51-2092	Team Assemblers	5,031	\$33,300	208	348	-63	492
51-4041	Machinists	2,763	\$36,800	99	183	16	298
51-1011	First-Line Supervisors of Production and Operating Workers	2,391	\$65,100	77	154	5	236
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	2,143	\$39,300	86	157	-31	212
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	1,632	\$30,100	82	142	5	229
17-2112	Industrial Engineers	1,385	\$89,100	34	60	22	117
49-9071	Maintenance and Repair Workers, General	1,241	\$39,900	51	70	2	122
51-4121	Welders, Cutters, Solderers, and Brazers	1,217	\$43,000	34	97	8	138
49-9041	Industrial Machinery Mechanics	1,183	\$50,800	42	64	12	118
51-9197	Tire Builders	1,110	\$49,600	35	87	-9	113
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	1,100	\$31,500	40	81	-11	110
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	1,053	\$61,500	35	71	1	107

\*Source: JobsEQ, ESRI



# Root Causes

1. Low Unemployment
2. Low Labor Force Participation
3. Aging Workforce
4. Growing Demand
5. Geographic Misalignment



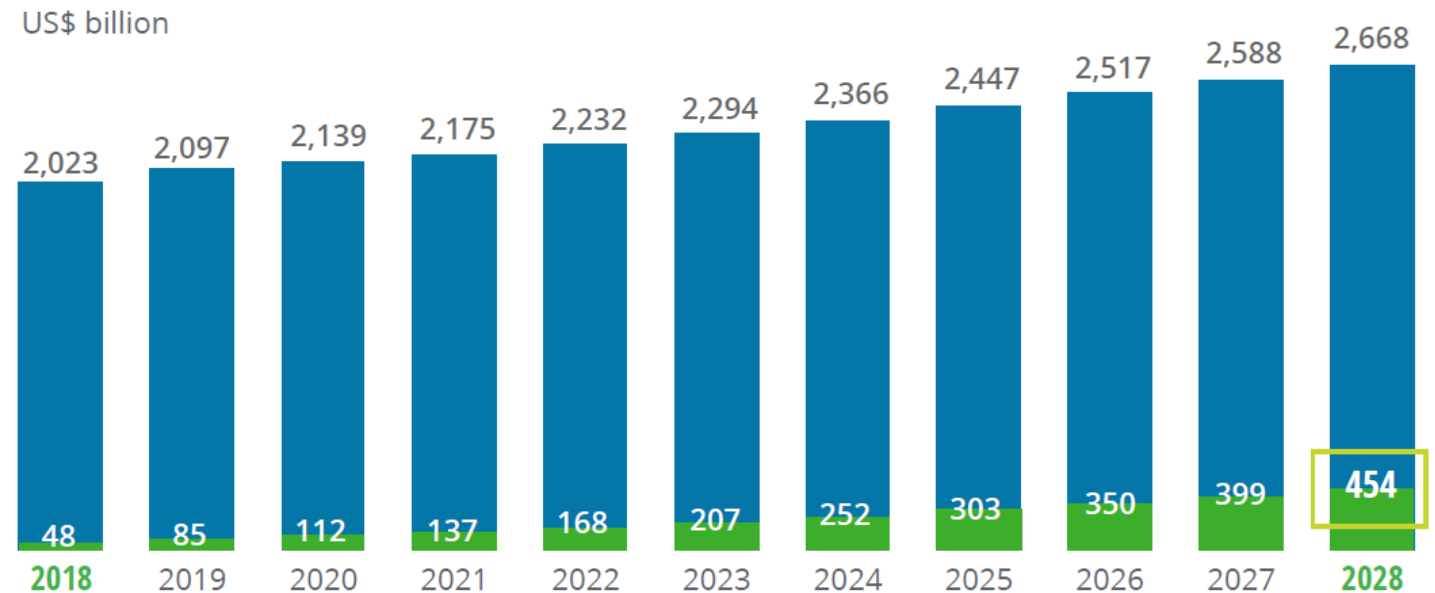
\*The percent of labor needed for which an ample supply is available. One hundred percent (dark green) means each opening has at least 50 potential candidates (employed or unemployed workers in the same occupation).

# Root Causes

1. Low Unemployment
2. Low Labor Force Participation
3. Aging Workforce
4. Growing Demand
5. Geographic Misalignment
6. Skills Gap

Skills shortage could put **\$2.5 trillion** of manufacturing GDP at risk over the next decade

■ US manufacturing output/GDP ■ Manufacturing output/GDP at risk due to skills shortage



# The Perfect Storm?



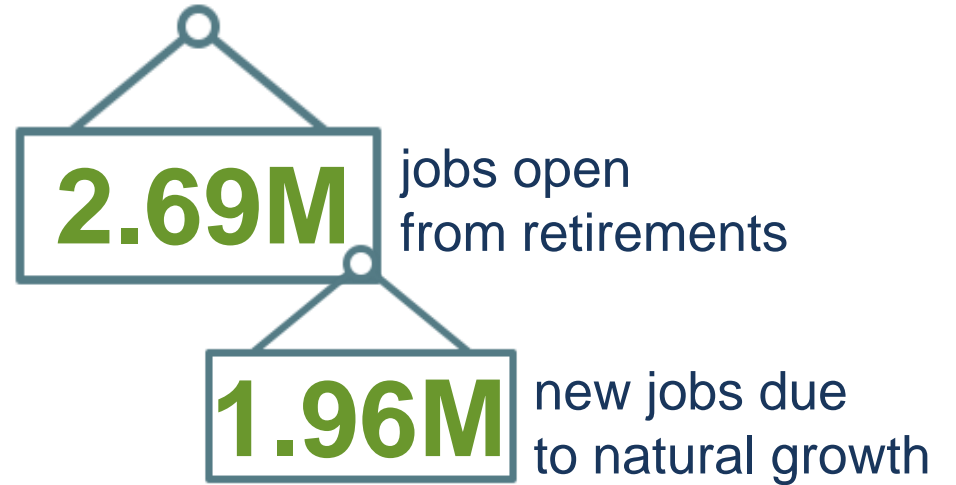
Search for  
skilled talent



**#1**  
Driver of  
Manufacturing  
Competitiveness

Percentage of executives who agree  
there is a talent shortage in the US  
manufacturing sector

**89%**



**4.6M** manufacturing jobs to fill from 2012 - 2028



only **2.2M** jobs are likely to be filled



**Location,  
Location,  
Location**



# 850 Data Points



Investment & Recurring Costs



Site / Building Characteristics



Utilities and Transportation



Environmental



Labor Climate



Business Climate



Risks to Cost, Schedule &

Flexibility

## PHASE I

- ▶ Project Alignment



## PHASE II

- ▶ Site Identification



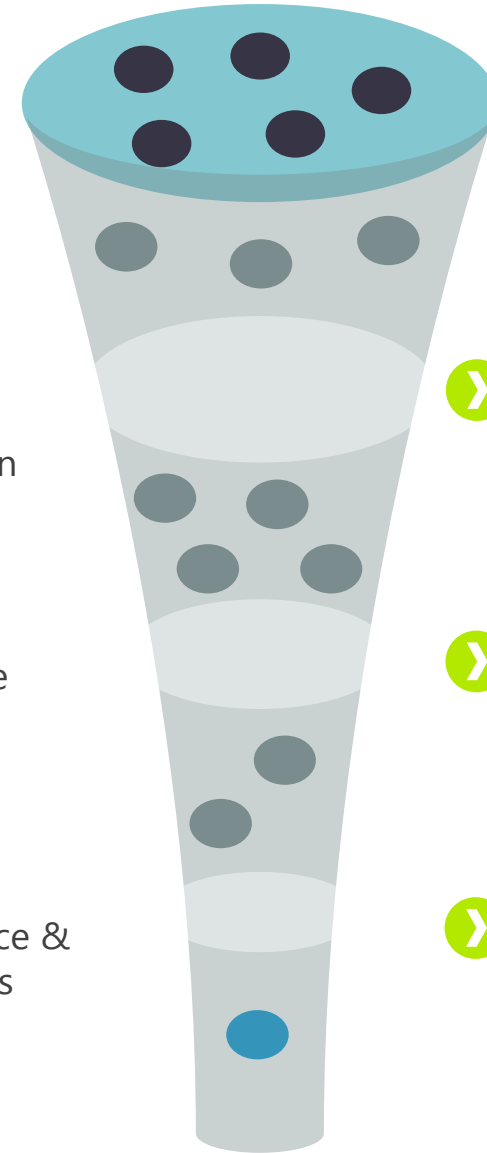
## PHASE III

- ▶ Detailed Site Evaluation



## PHASE IV

- ▶ Due Diligence & Negotiations



*Site Elimination*

▶ **Fatal Flaw Analysis**

▶ **Qualitative Score**  
▶ **Prelim Financial**

▶ **20-Year Financial Pro Forma**  
▶ **Risk Model**  
▶ **Due Diligence Checklist**

# Technology to Empower Labor Analysis



ArcGIS



J O B S e Q



## PROPRIETARY TOOLS

- Industrial site database
- Project management methodology
- Manufacturing and Industrial project profiles
- Site evaluation & scoring models
- Financial proforma models
- Virtual site visit process
- Field site visit framework
- Employer Surveys + Interviews

## TECHNOLOGY STACK

- ArcGIS
- JOBSeQ
- Hoovers a D&B Company
- Pipedrive
- Qualtrics
- Google Earth
- SharePoint
- Microsoft Teams



# Methodology

HOW LOCATION DECISIONS  
ARE MADE

LABOR

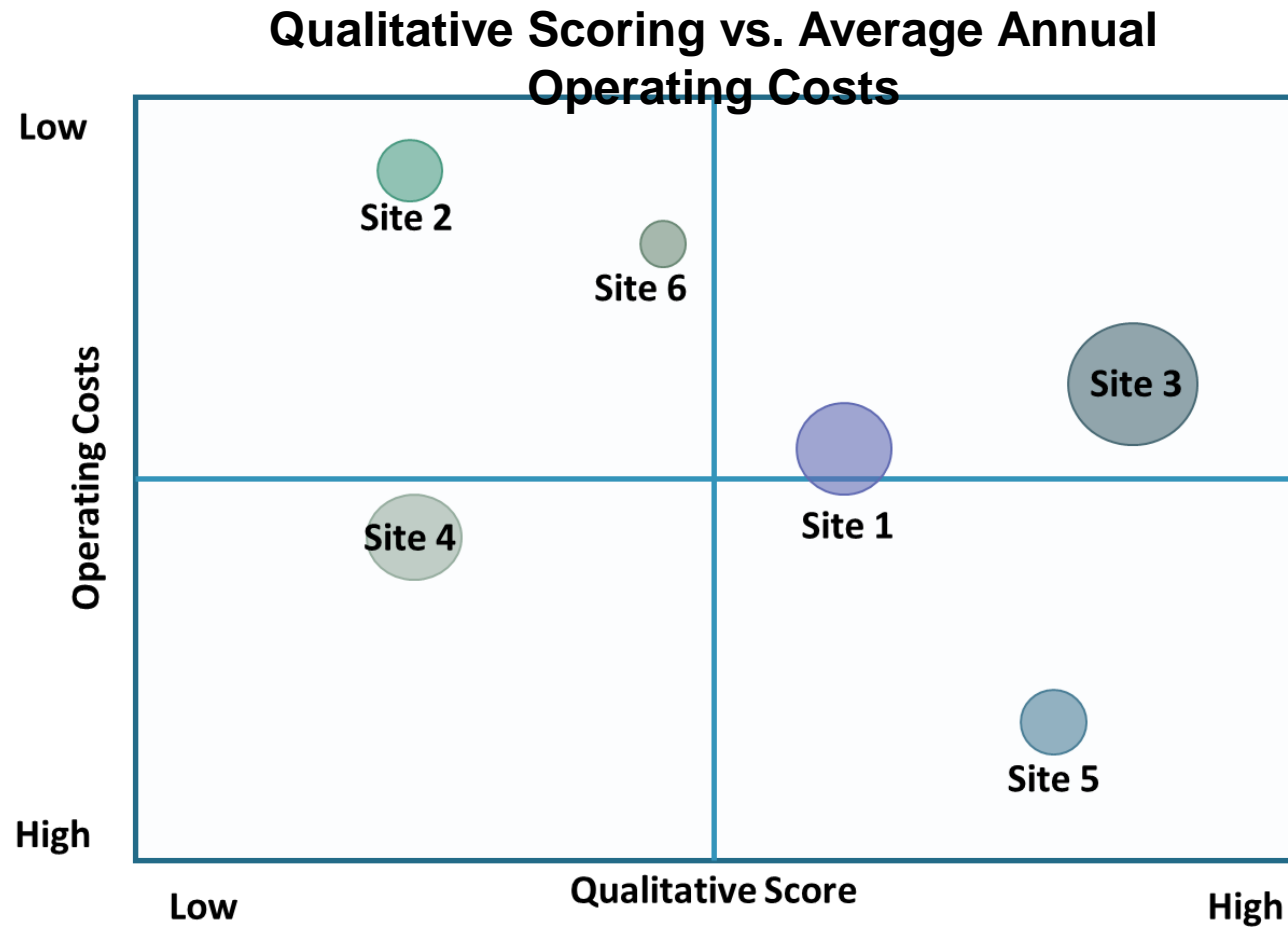
- Wages
- Benefits
- Unemployment insurance
- Workers compensation



- Unemployment rate
- Location quotient for industry and occupations
- Educational attainment
- Training programs and capabilities
- Potential university & research partners

- Payroll cost escalation
- Union posture
- Trainability of workforce
- Ability to expand

# Methodology



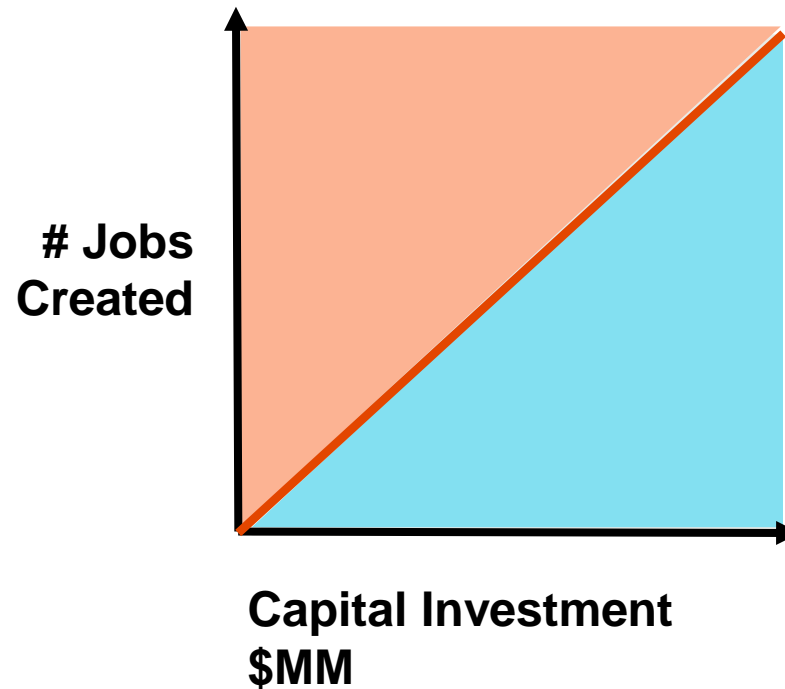
# Methodology

**< \$1 million invested per job created = Labor Intensive**

*Ex: \$100 million invested for 200 jobs*

*Typical drivers:*

- Labor costs
- Speed to market



**> \$1 million invested per job created = Capital Intensive**

*Ex: \$300 million invested for 75 jobs*

*Typical drivers:*

- Energy Costs
- Infrastructure
- Permitting

Projects anywhere on the spectrum can be driven by **logistics costs/timing** and **labor quality and availability**.



# Case Study: Leveraging Data for Corporate Decision Making

# Project King's Hay



**Investment: \$47 million**

**Jobs created: 600**

**Search region: NC, TN, SC, GA, AL**

**Decision drivers: Availability of workforce (welders, painters)**

**Large, easy to develop site (500K sq. ft.)**

**Competitive labor costs**

**Technical training resources**

**Relationship**

# Labor Breakdown: Projected Employment Top Positions

An estimated **600** employee manufacturing operation, in which skilled welders make up **15%** of the overall labor breakdown.

Occupation	SOC	Estimated Employment
Welders, Cutters, Solderers, and Brazers	51-4121	90
Cutters and Trimmers, Hand	51-9031	74
Stock Clerks and Order Fillers	43-5081	38
Bus and Truck Mechanics and Diesel Engine Specialists	49-3031	36
Grinding and Polishing Workers, Hand	51-9022	36
First-Line Supervisors of Mechanics, Installers, and Repairers	49-1011	34
Electrical and Electronic Equipment Assemblers	51-2022	31
Electromechanical Equipment Assemblers	51-2023	28
Automotive Glass Installers and Repairers	49-3022	26
Cabinetmakers and Bench Carpenters	51-7011	26



# Labor Analysis



**Labor Cost**



**Labor Quality**

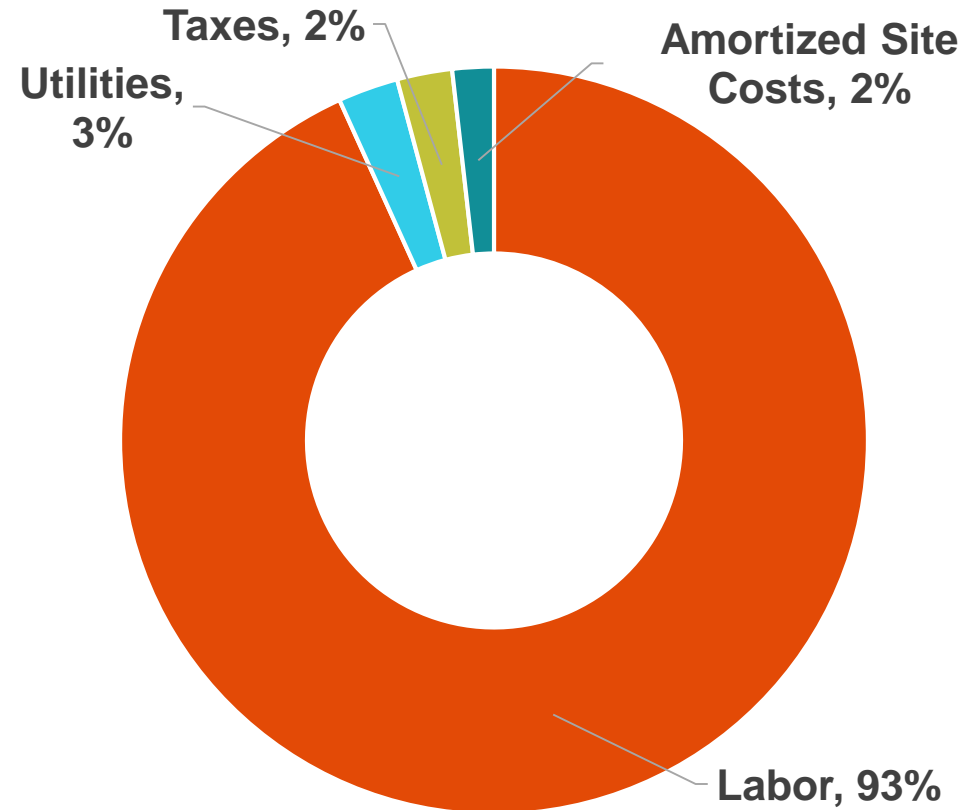


**Employer  
Feedback**

# King's Hay

## Cost of Labor

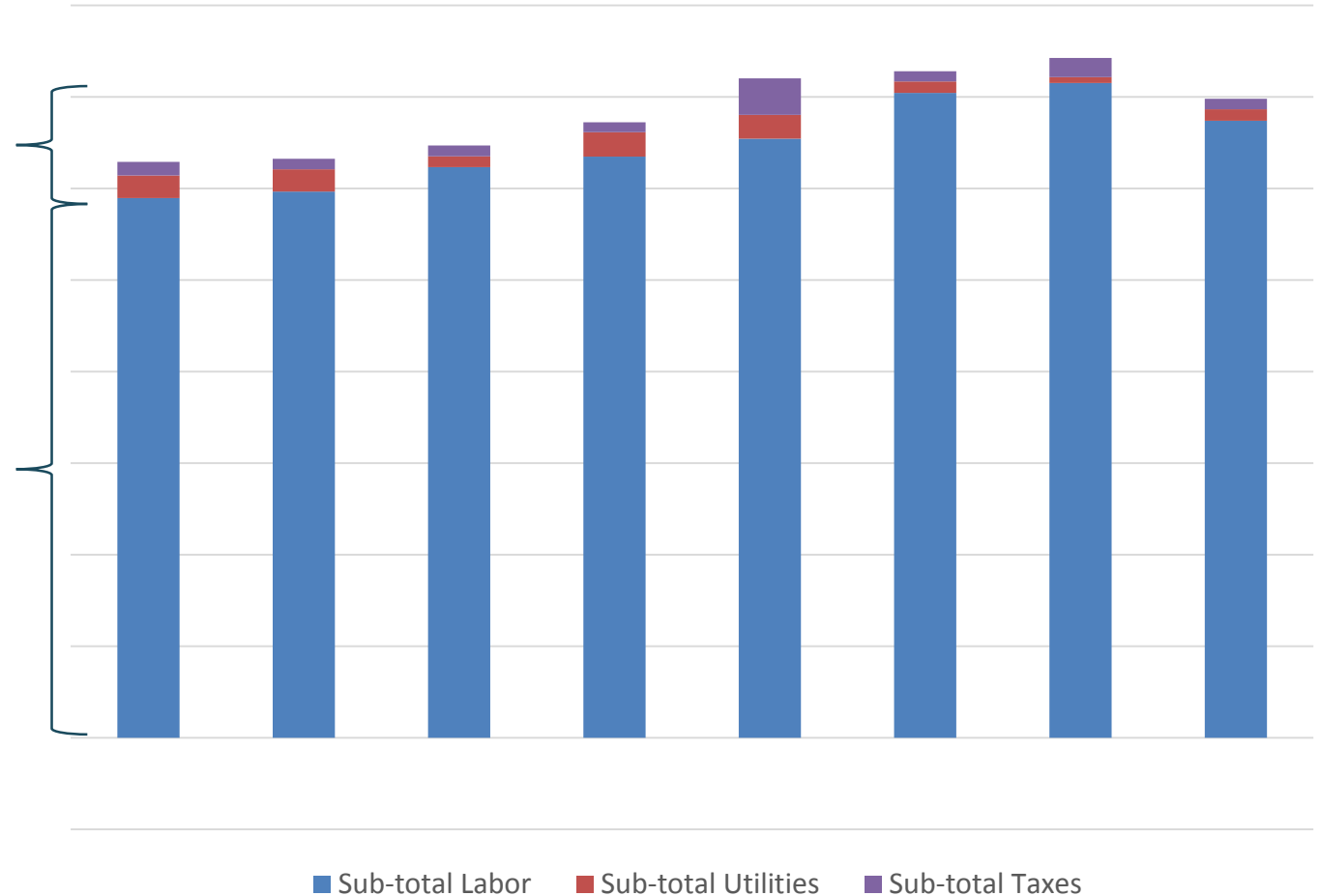
Labor costs represent **93% of location-specific operating costs** (excluding logistics)



# Preliminary Cost Analysis: Long List

Project wages are often based on local market prices, with the company then deciding if it will follow the average or pay above average

**\$6 MM**  
difference  
in  
annual  
labor  
costs  
Labor is  
**85-90%** of  
operating  
cost  
budget





# Cost Analysis: Short List

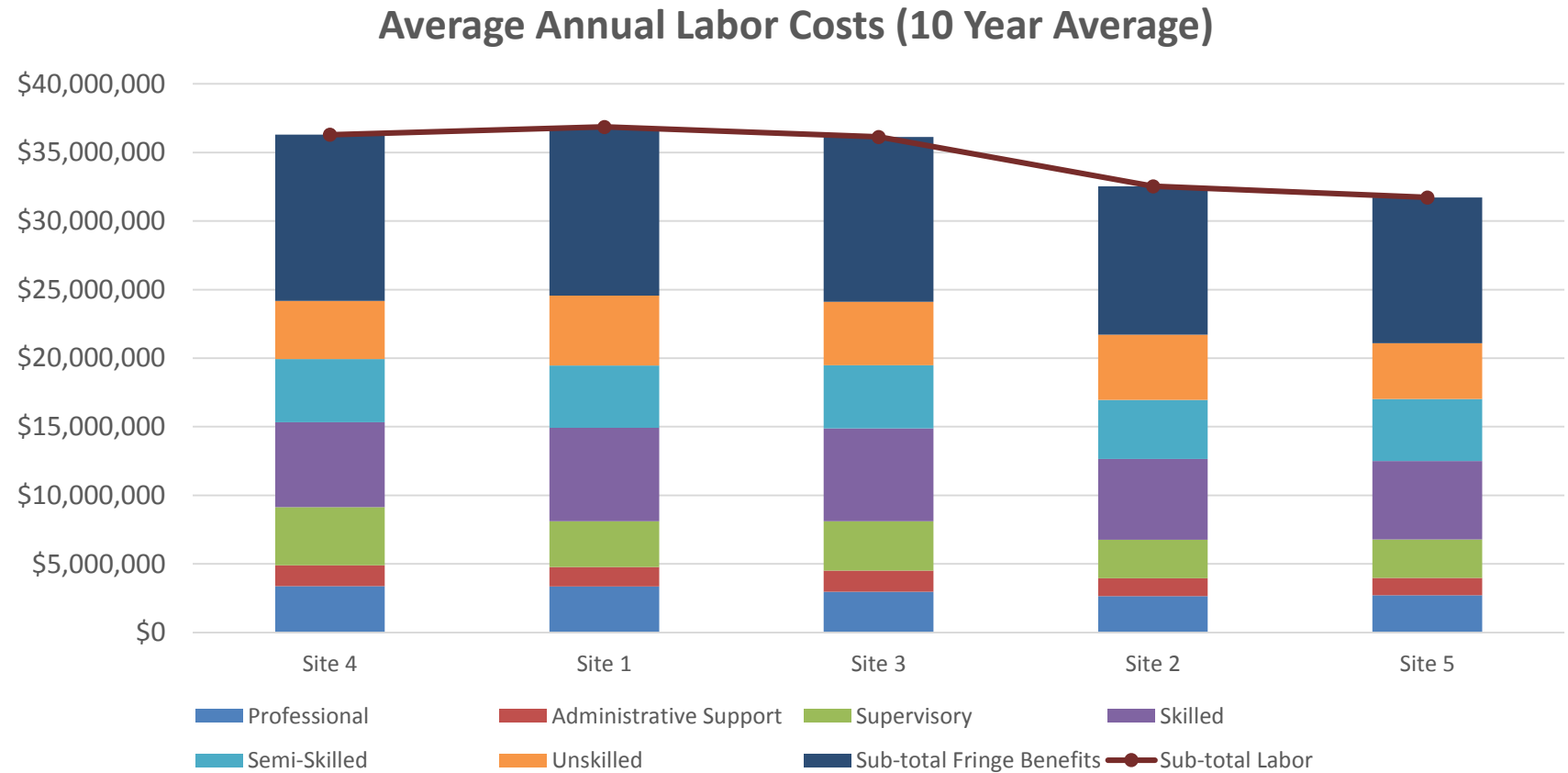
\$1.00 per hour equals **\$1.25 MM** per year



# Labor Analysis: Cost of Labor

Project wages are often based on local market prices, with the company then deciding if it will follow the average or pay above average

**Labor costs are relatively equivalent across finalist locations; other cost and non-cost factors will drive the location decision.**



# Labor Analysis



**Labor Cost**

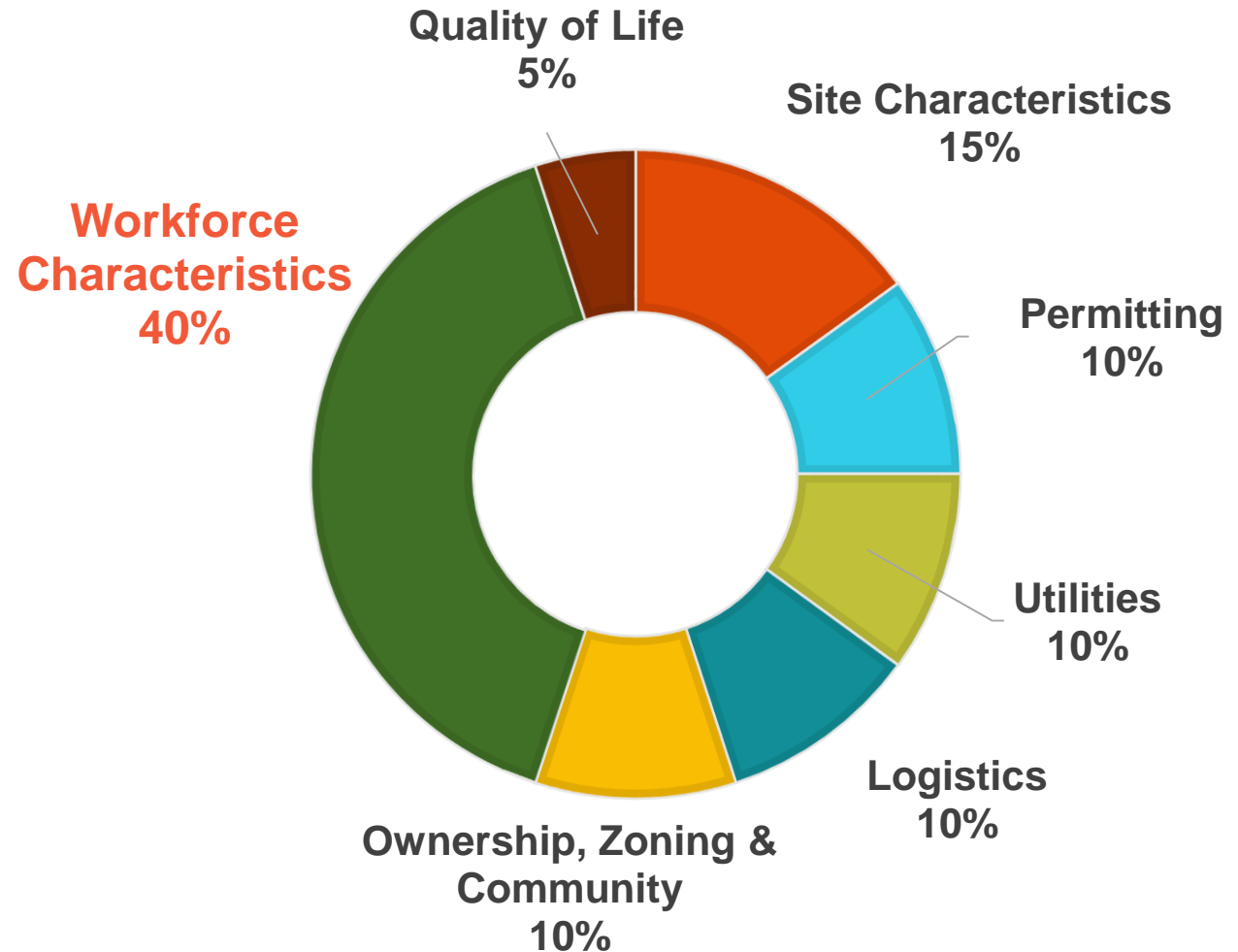


**Labor Quality**



# Labor Analysis: Quality of Labor

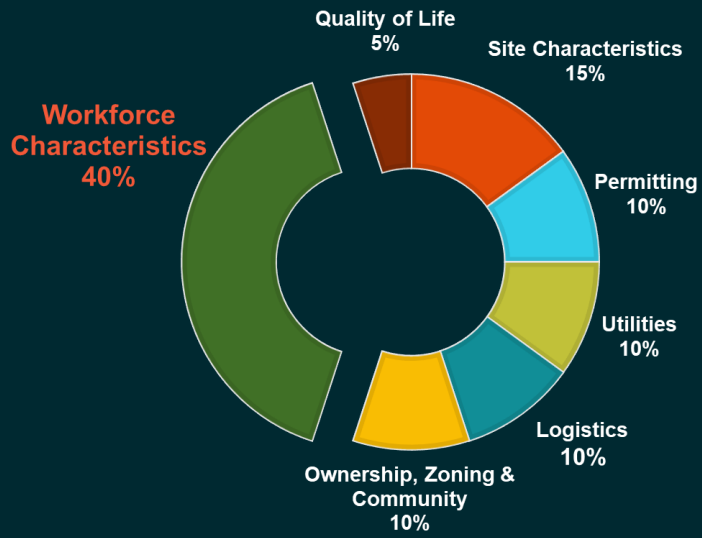
Workforce characteristics represent **40%** of  
location-specific qualitative score



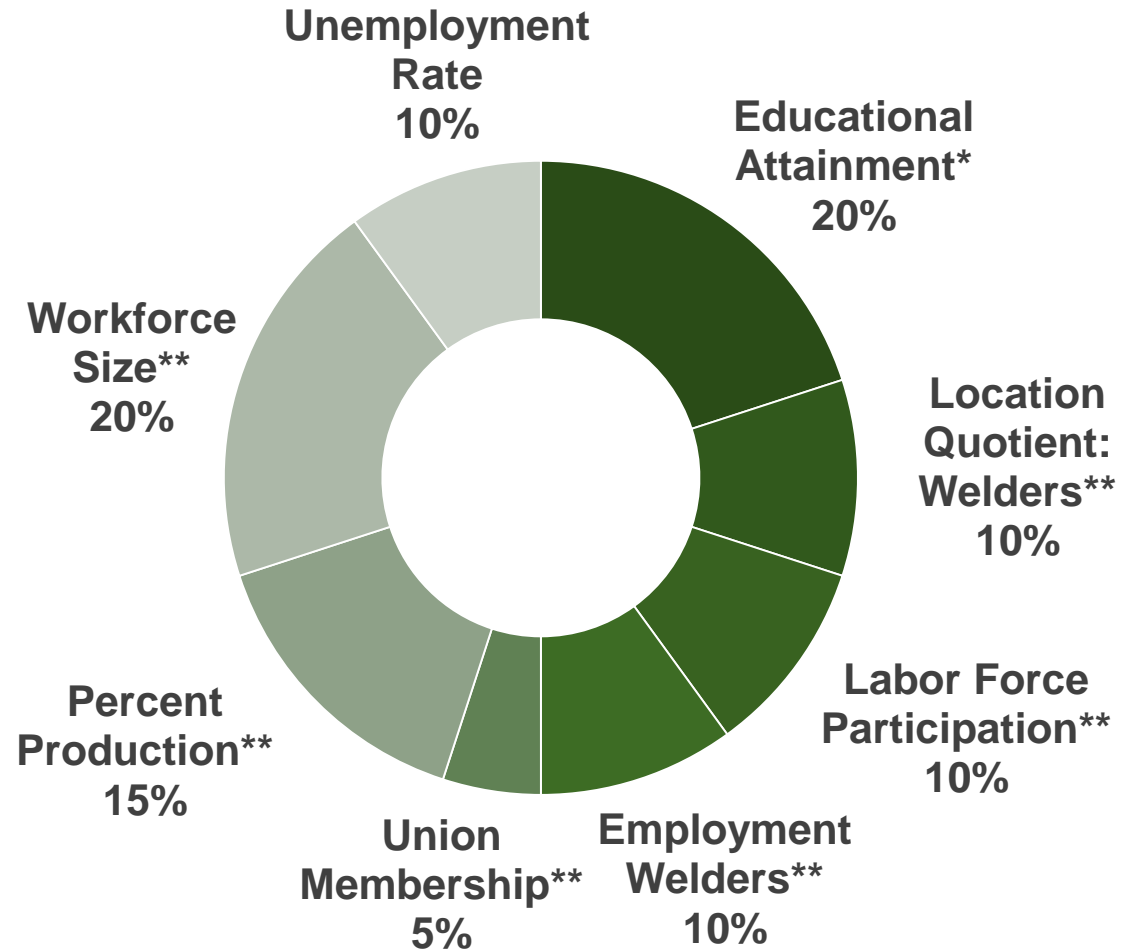
# Labor

## Analysis:

### Quality of Labor



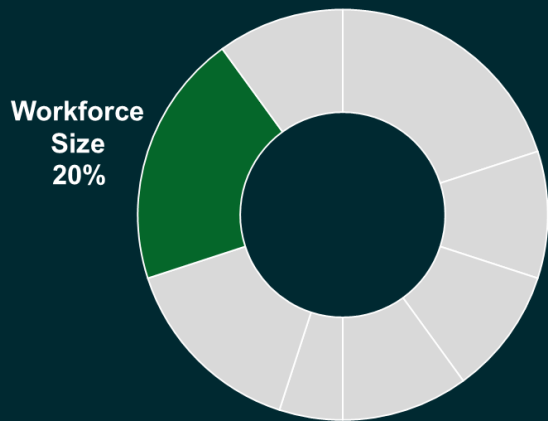
## Eight sub-criteria factors comprise the workforce characteristics qualitative score



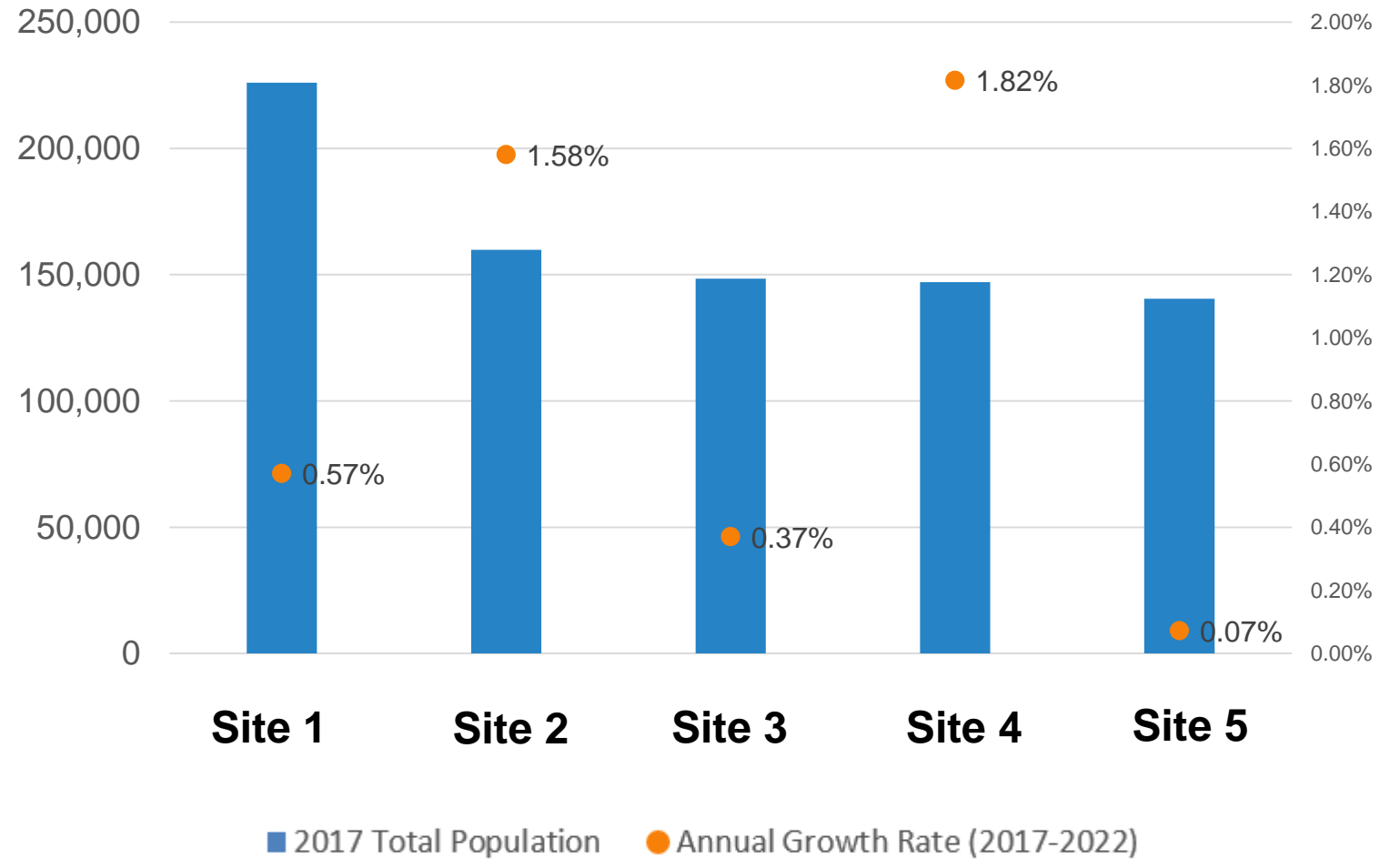
\*Educational attainment includes: Some college, Associate's, Bachelor's

\*\*Workforce data at 30-minute drive time from site

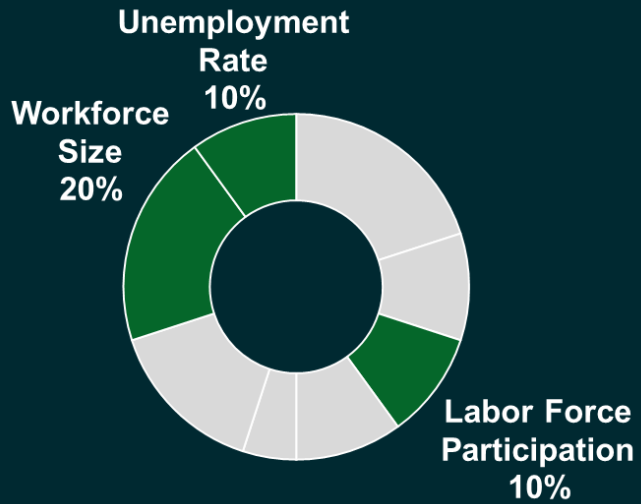
# Labor Analysis: Population vs. Growth



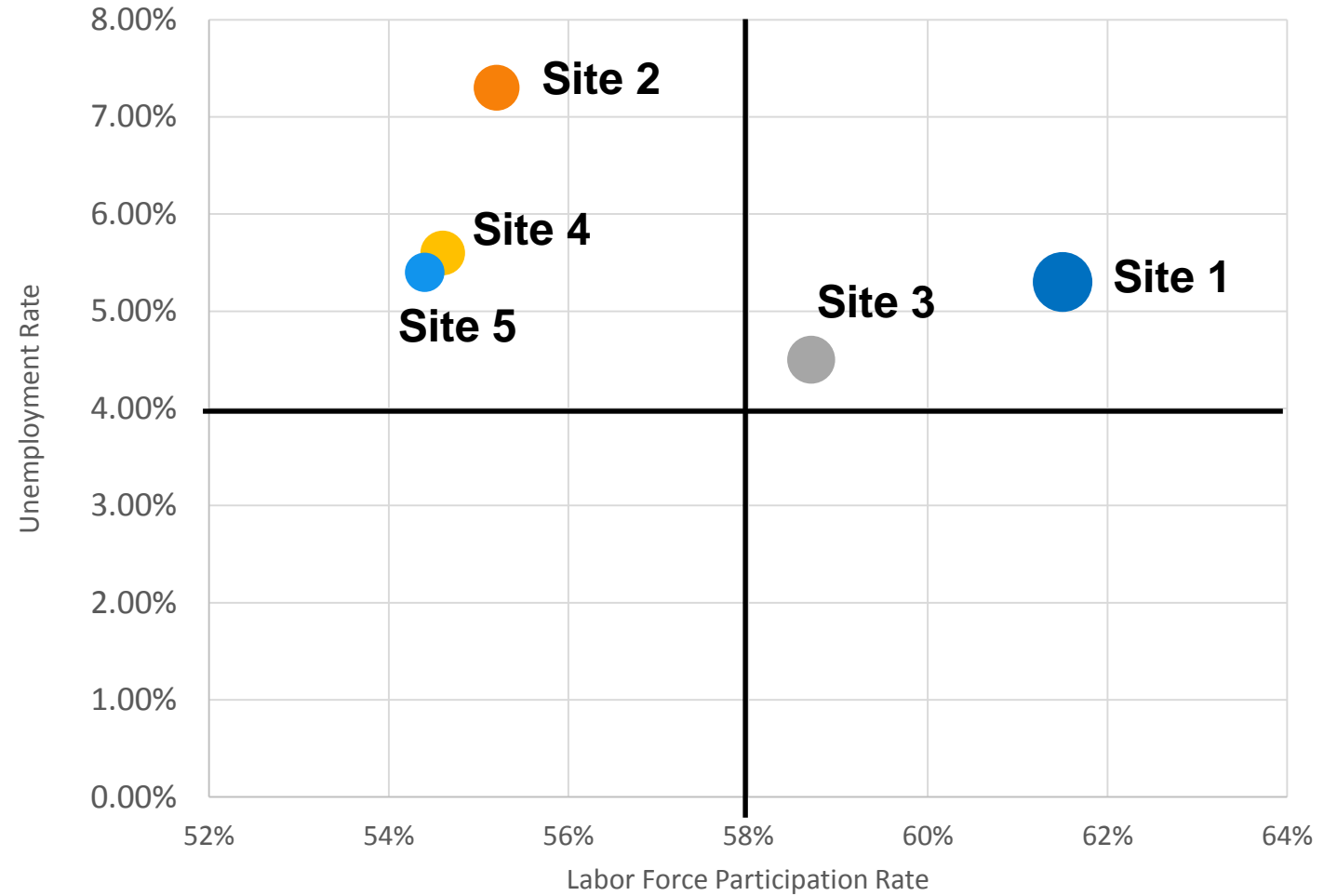
## Population vs. Population Growth



# Labor Analysis: Labor Force + Participation



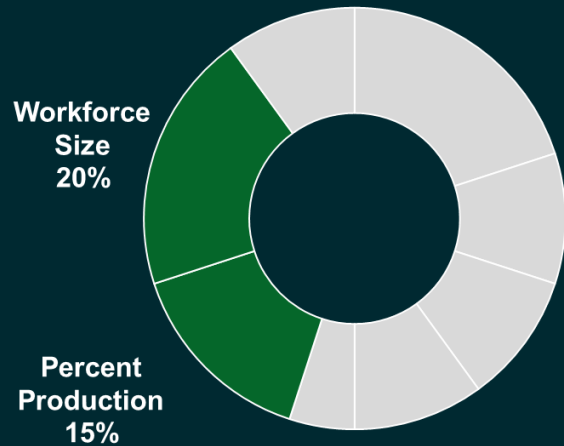
## Labor Force vs. Participation Rate



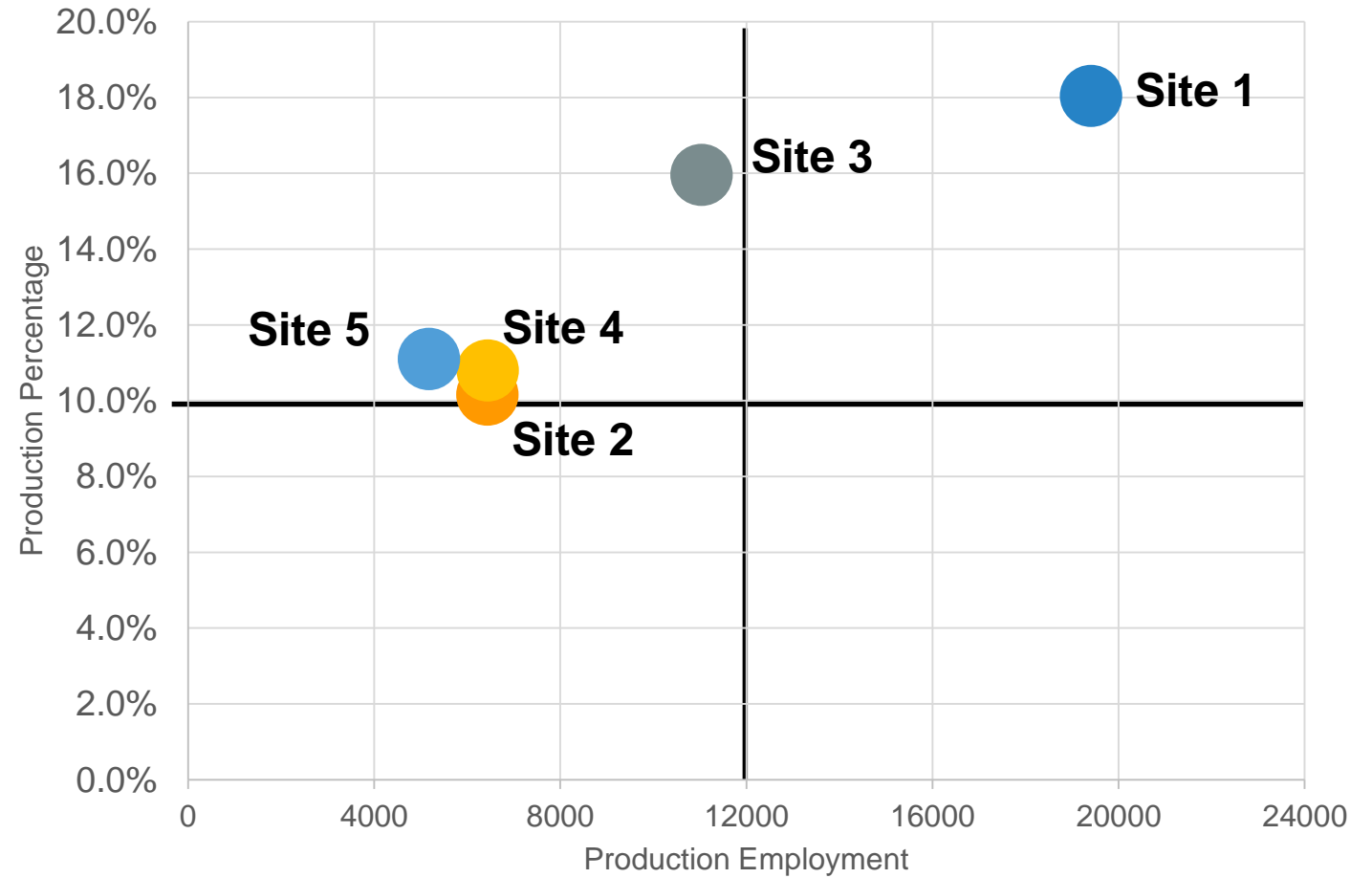
○ Bubble size represents size of labor force within 30 minutes



# Labor Analysis: Production Employment



## Production Percentage vs. Production Employment



Data is based on 30-minute drive times.

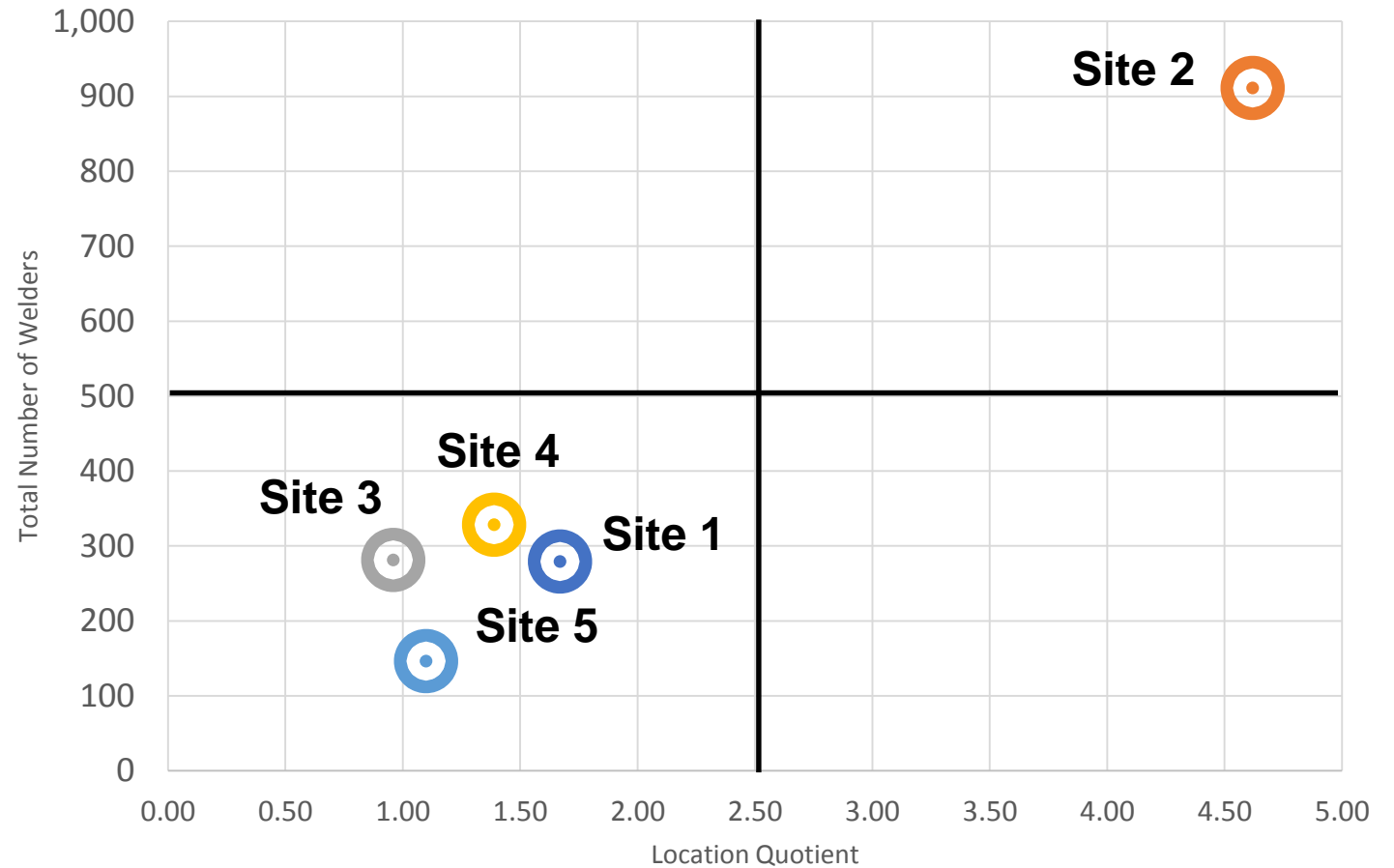
# Labor Analysis: Welding Employment



Location  
Quotient:  
Welders  
10%

Employment  
Welders  
10%

## Total Number of Welders vs. Location Quotient

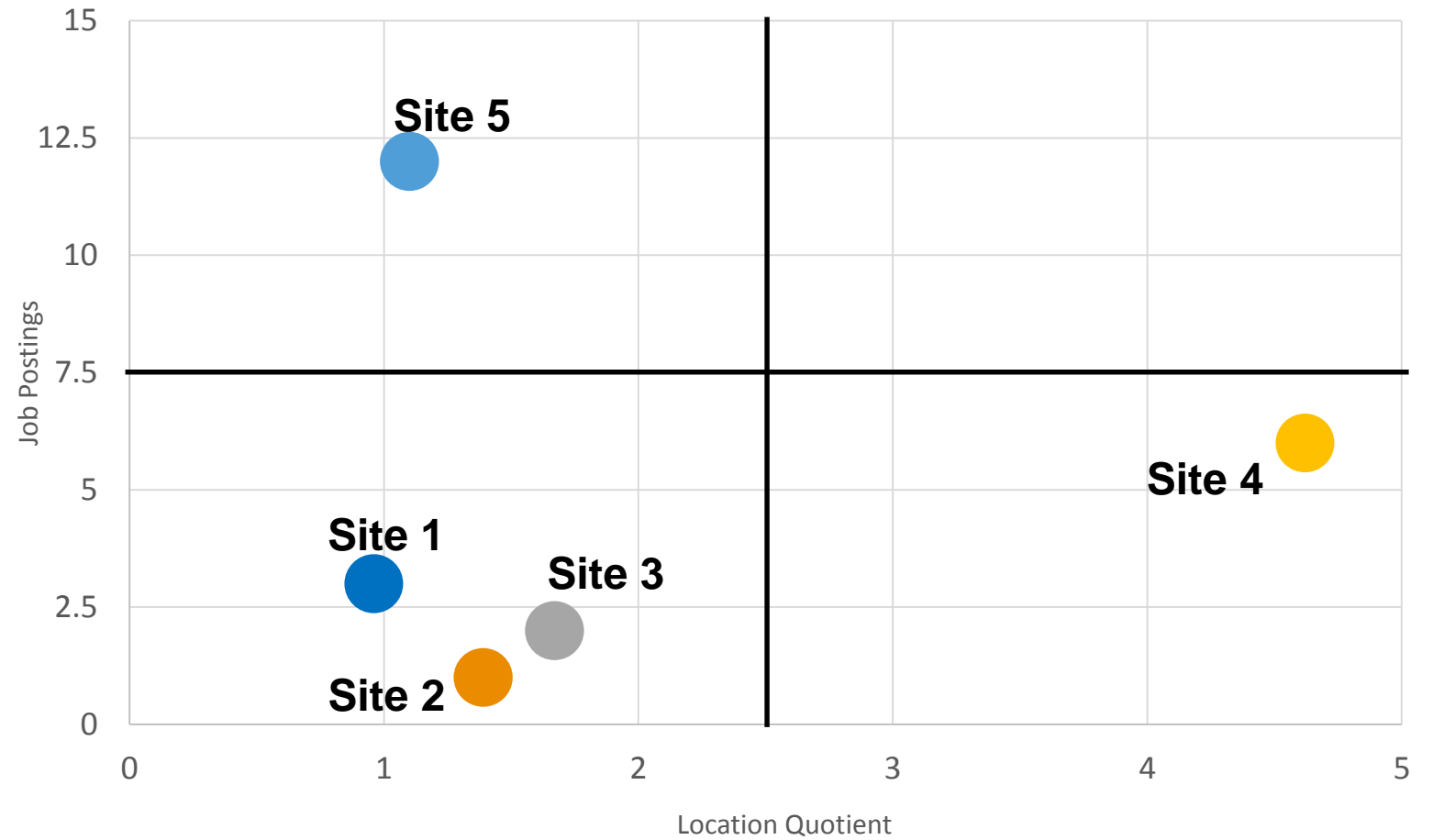


Data is based on 30-minute drive times.

# Labor Analysis: Welding Employment



## Job Postings (Welders) vs. Location Quotient



Data is based on 30-minute drive times.

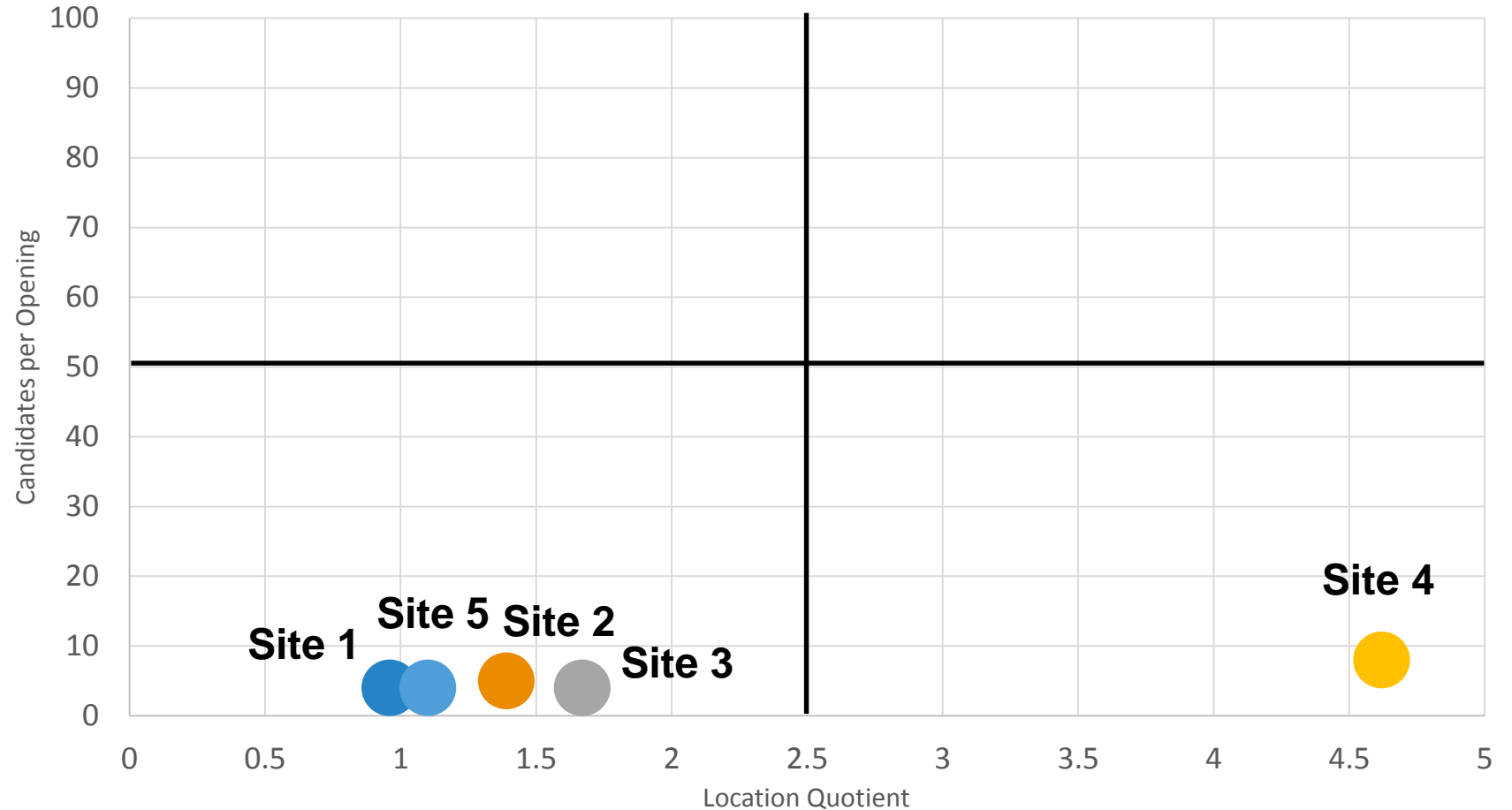
# Labor Analysis: Welding Employment



Location  
Quotient:  
Welders  
10%

Employment  
Welders  
10%

## Candidates per Opening vs. Location Quotient



Site data is based on 30-minute drive times.



# Labor Analysis: Welding Employment



Top 4 MSA's for Welders				
Location	Regional Avg Wages	National Avg Wages	LQ	Potential Candidates per opening
Elkhart-Goshen, IN MSA	\$40,100	\$44,400	11.73	35
South Bend-Mishawaka, IN-MI MSA	\$39,800	\$44,400	1.14	8
Dallas-Fort Worth Arlington, TX MSA	\$41,200	\$44,400	1.13	136
Cleveland-Elyria, OH	\$40,000	\$44,400	1.11	27
5 Finalists Sites for Project Kings Hay				
Location	Regional Avg Wages	National Avg Wages	LQ	Potential Candidates per opening
Dalton, GA	\$36,900	\$44,400	0.96	4
Hopkinsville, KY	\$41,000	\$44,400	1.39	5
Morristown, TN	\$35,000	\$44,400	1.67	4
Muscle Shoals, AL	\$38,800	\$44,400	4.62	8
Sumter, SC	\$39,300	\$44,400	1.10	4

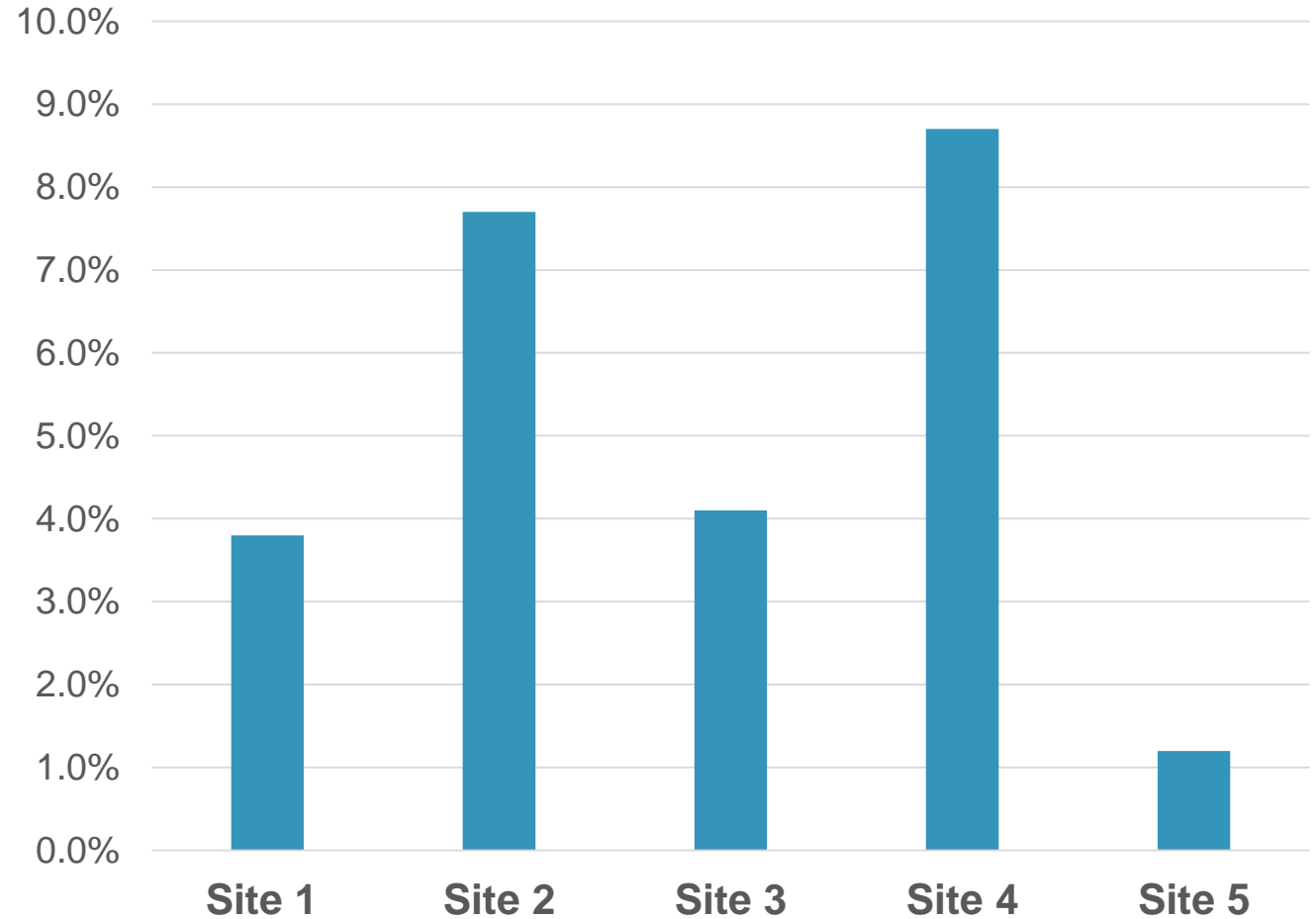
Site data is based on 30-minute drive times.

# Labor Analysis: Unionization Rate



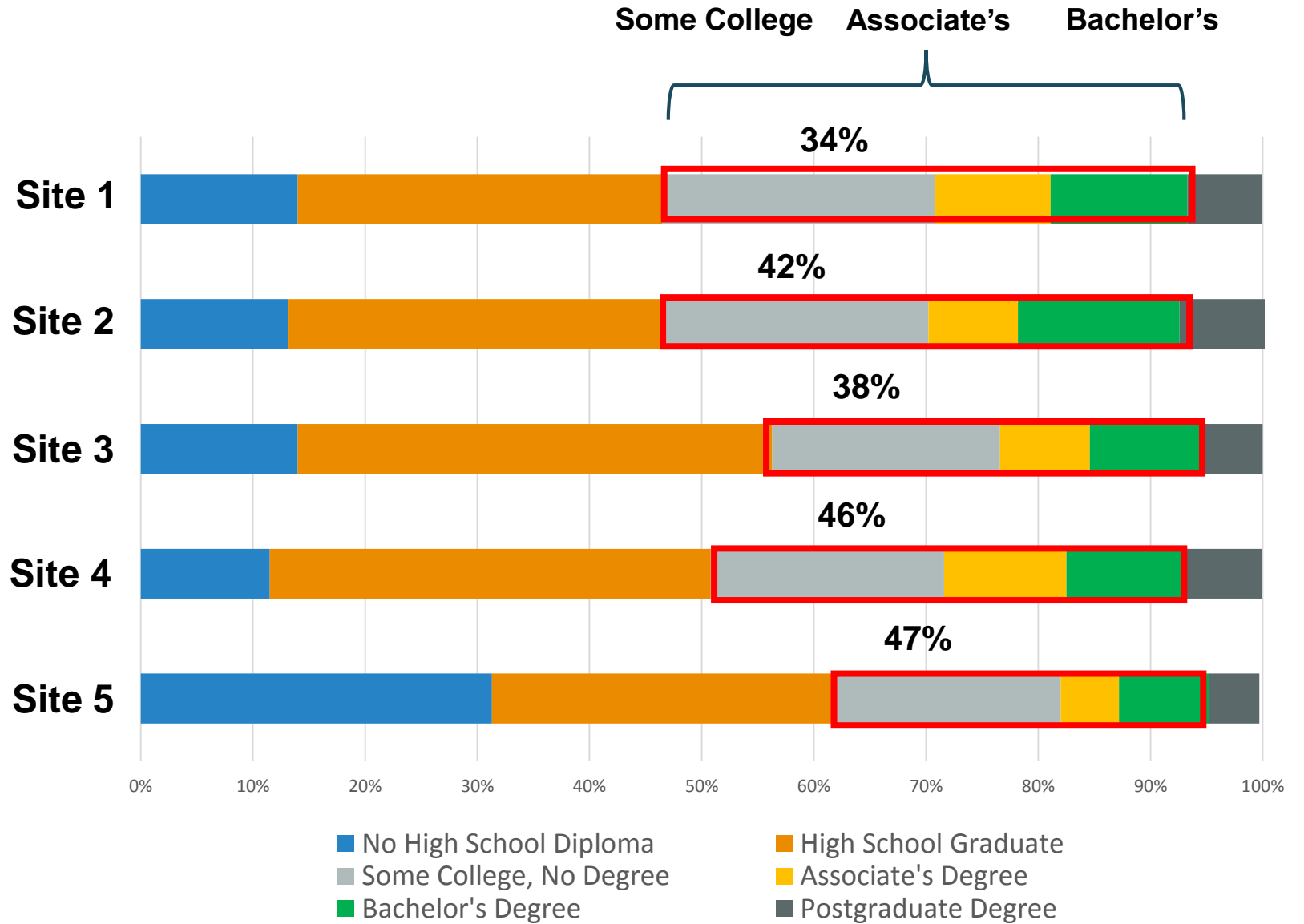
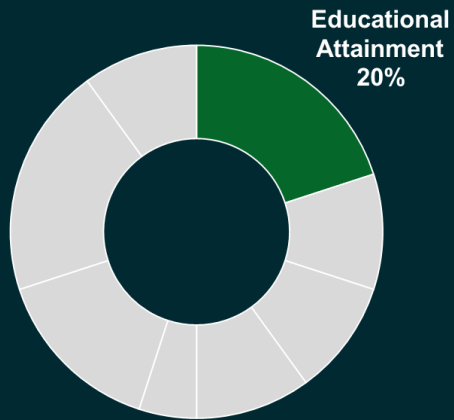
Union  
Membership  
5%

## Union Membership

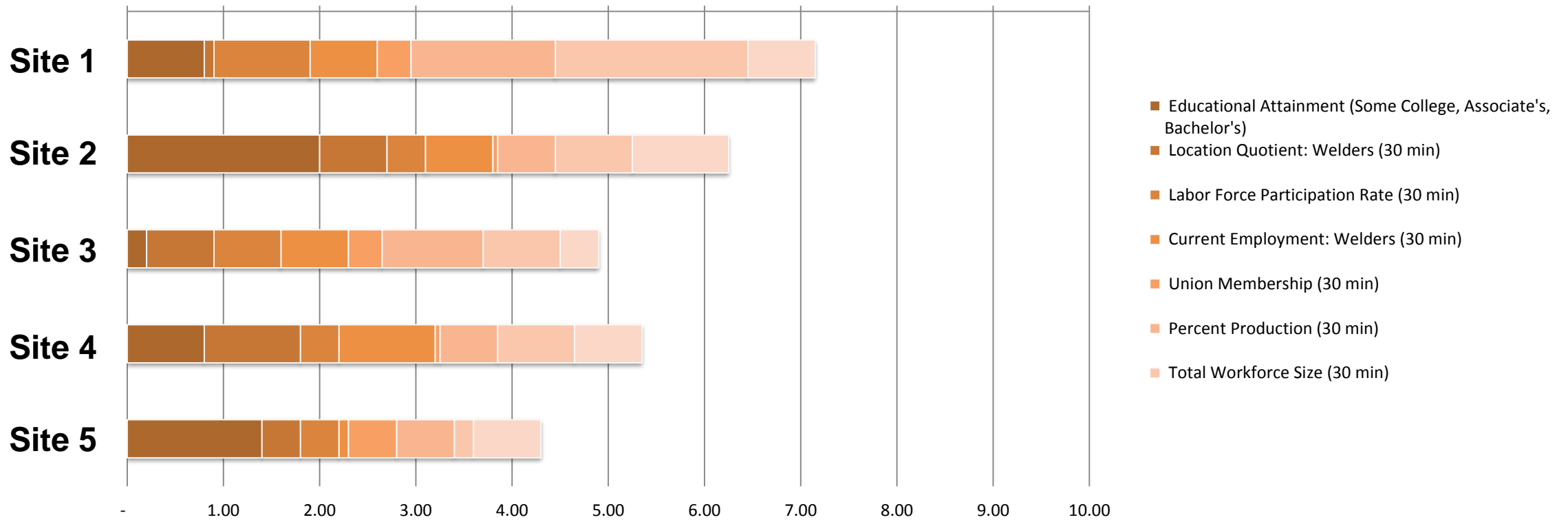


Site data is based on 30-minute drive times.

# Labor Analysis: Educational Attainment

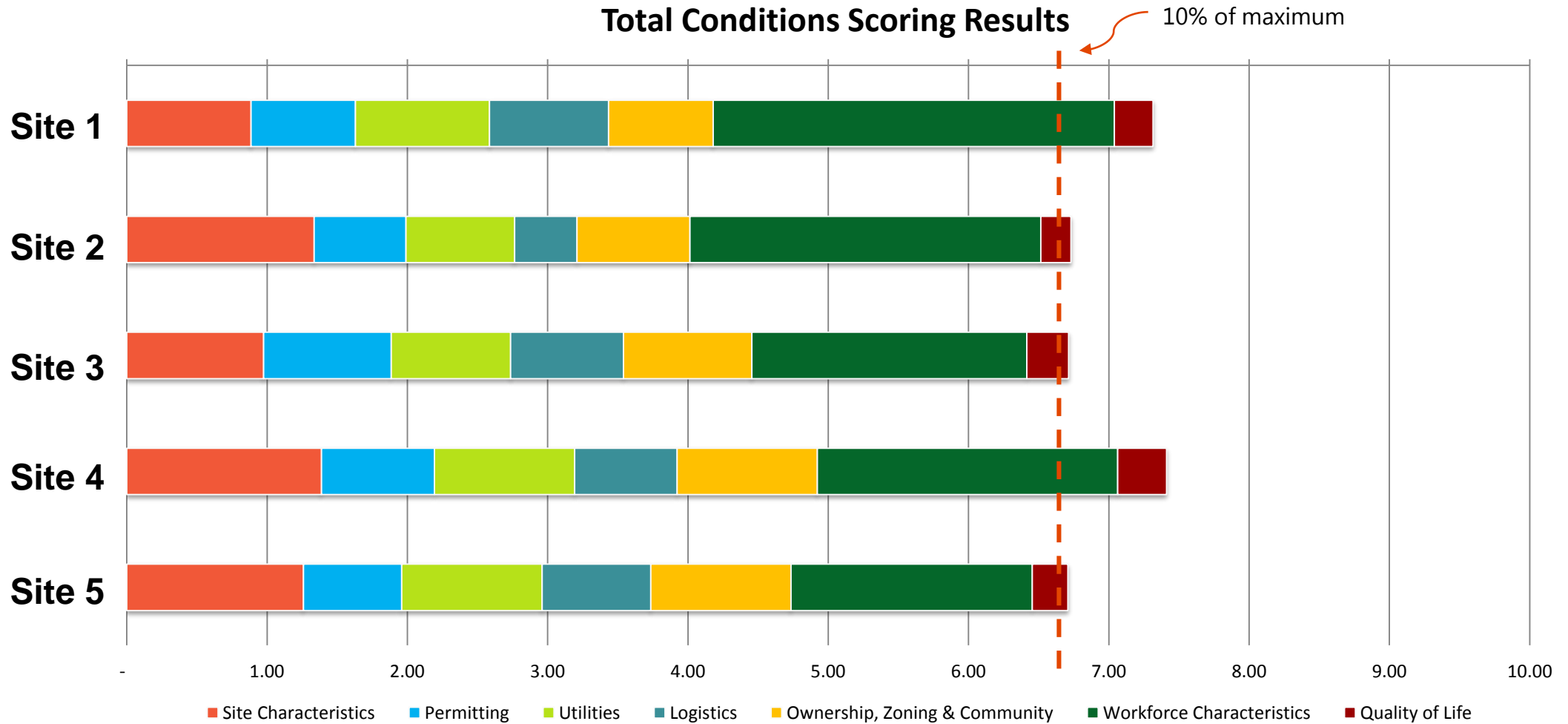


# Labor Qualitative Score



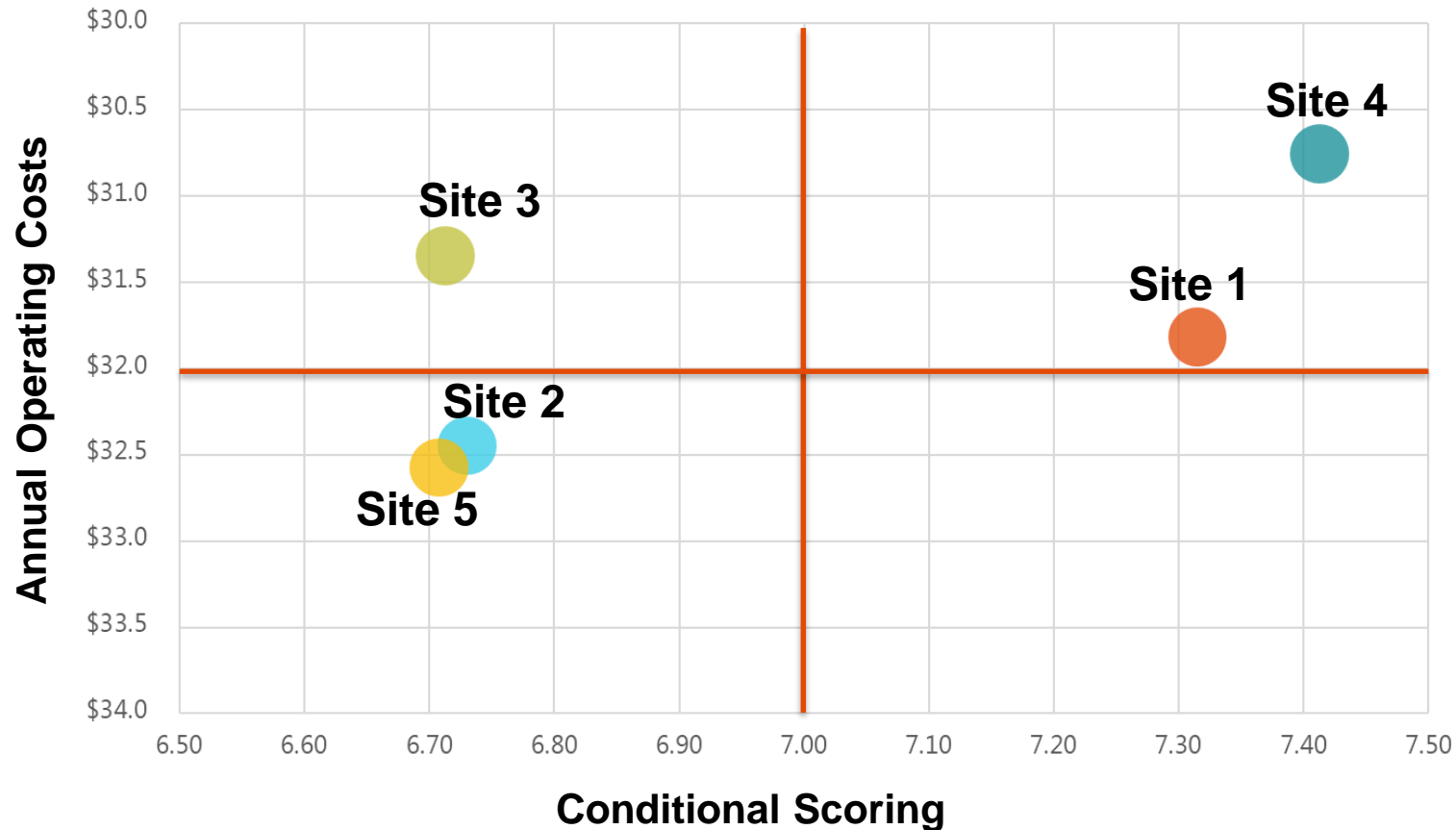


# Total Qualitative Score



# Composite Analysis

## Qualitative Scoring vs. Average Annual Operating Costs



# Labor Analysis



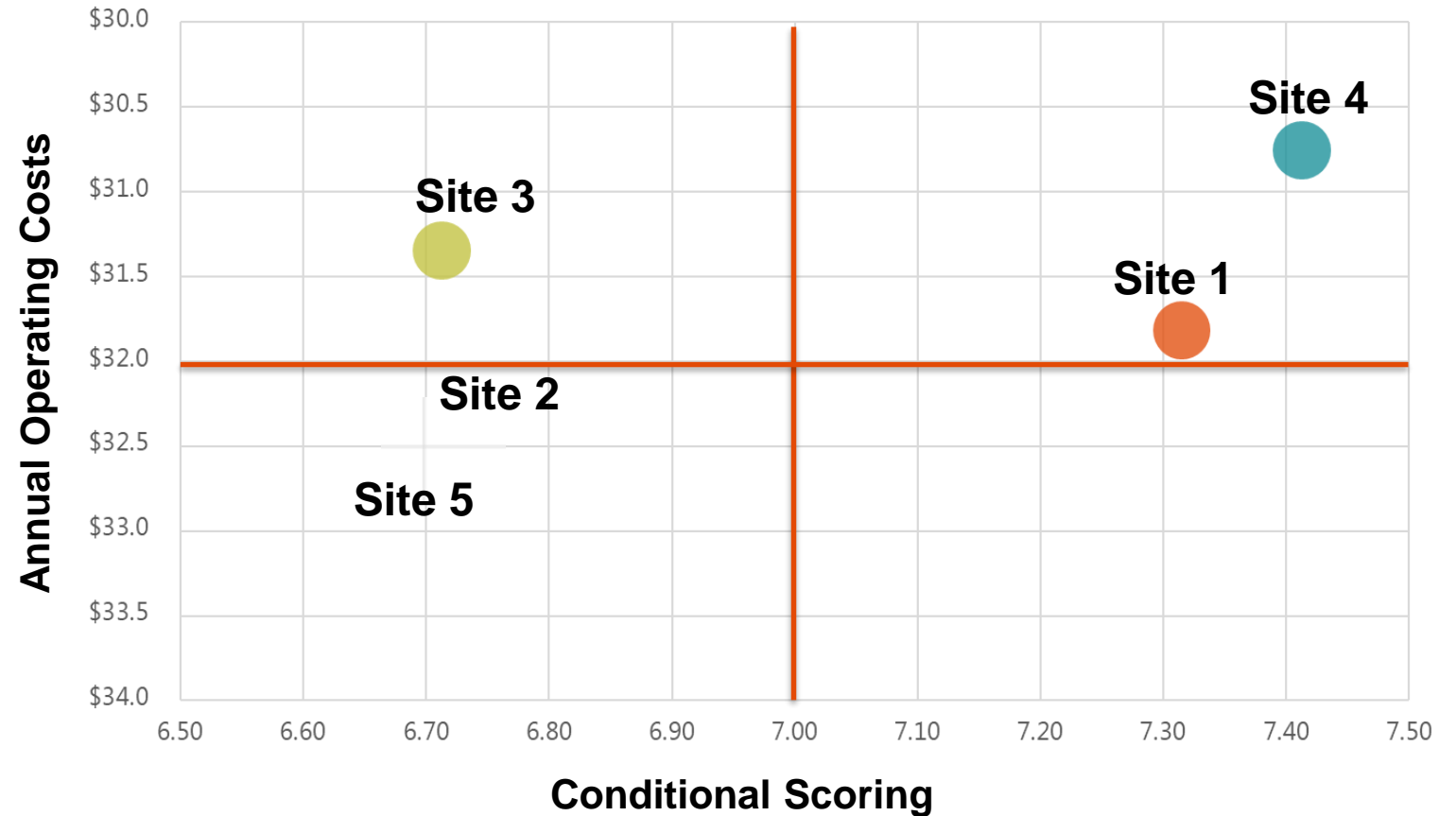
**Labor Quality**



**Employer  
Feedback**

# Labor Analysis: Employer Feedback

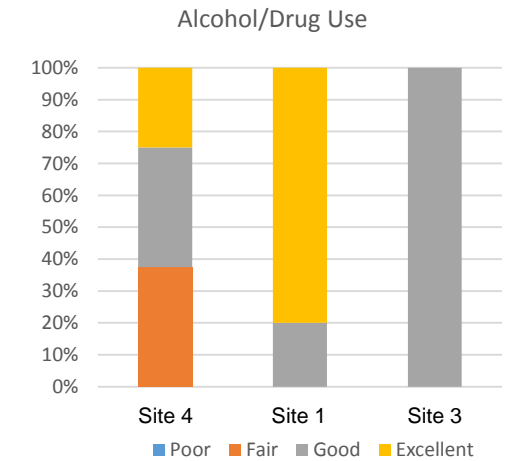
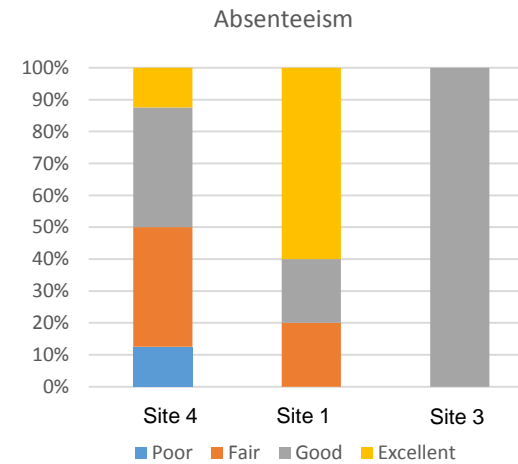
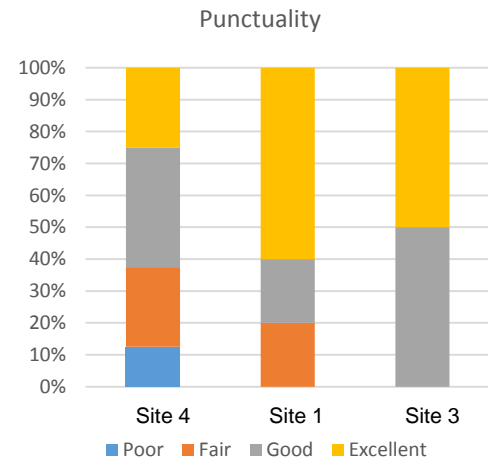
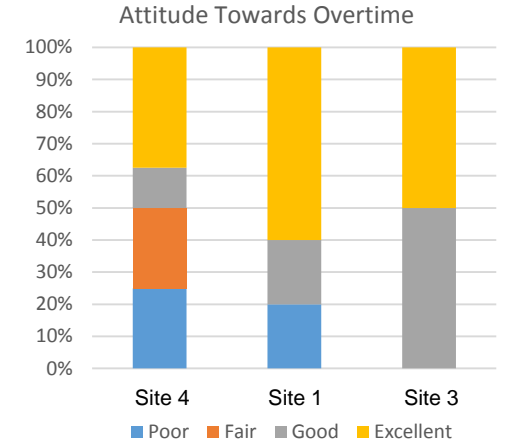
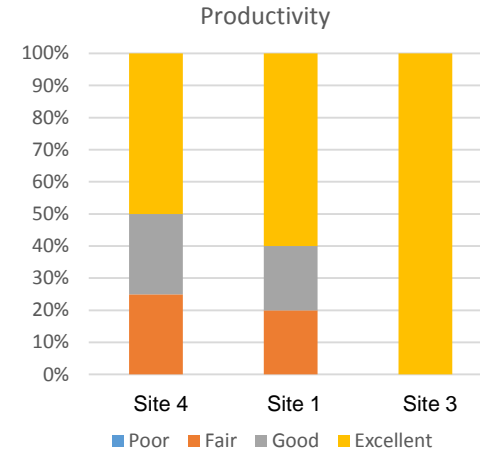
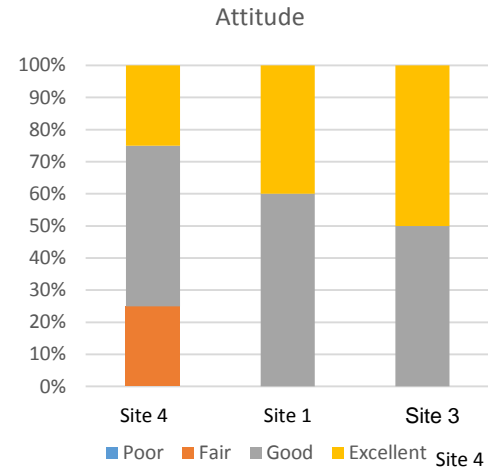
## Qualitative Scoring vs. Average Annual Operating Costs





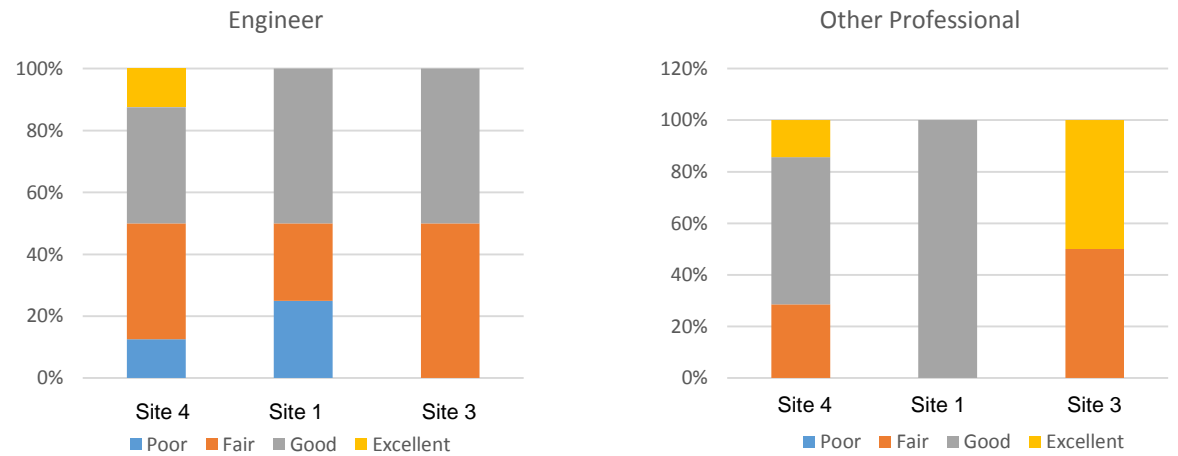
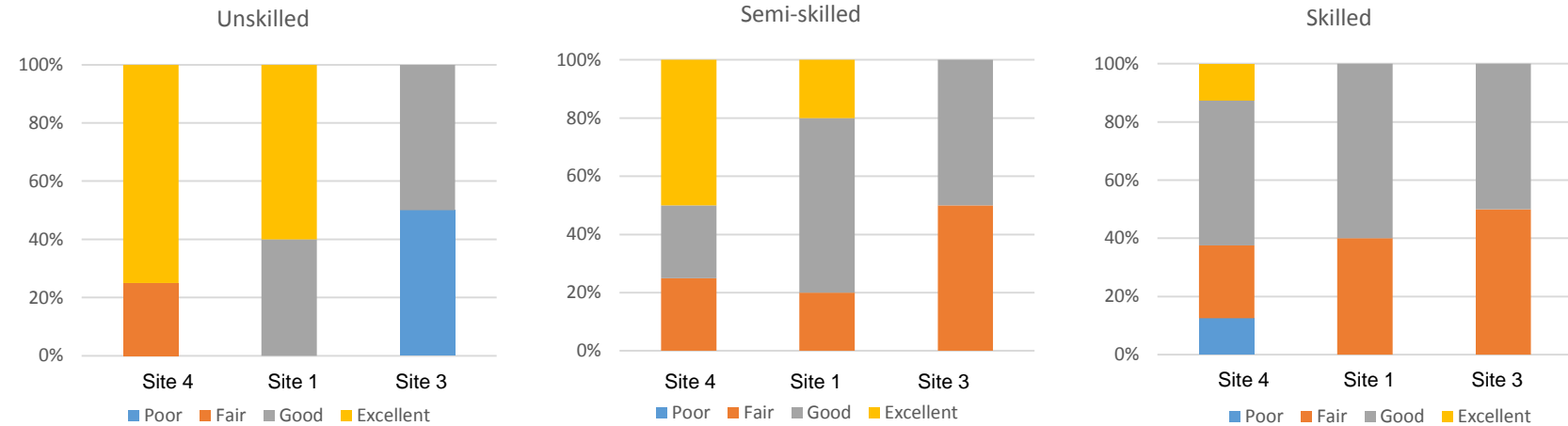
# Labor Analysis: Employer Feedback

## Quality of Labor



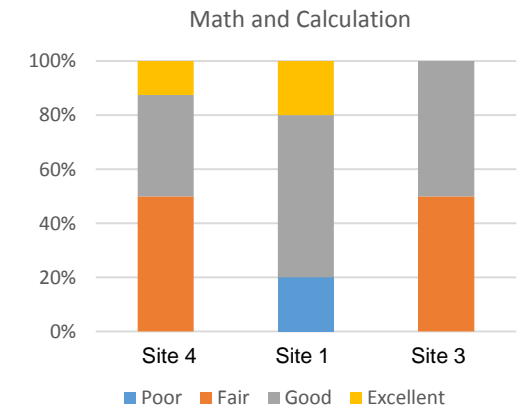
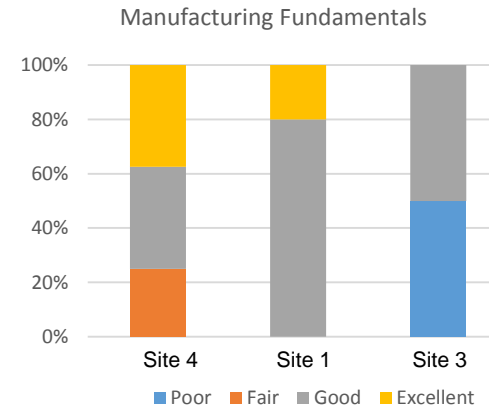
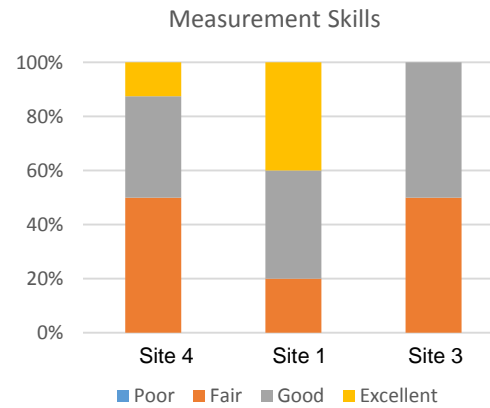
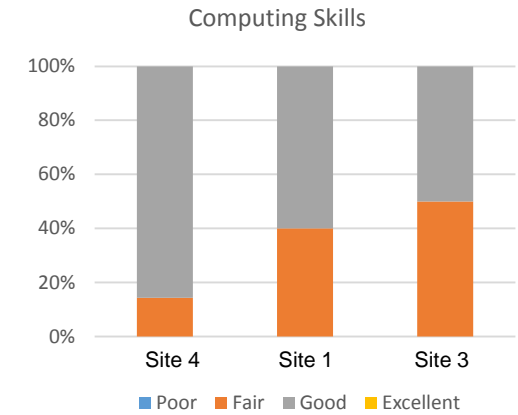
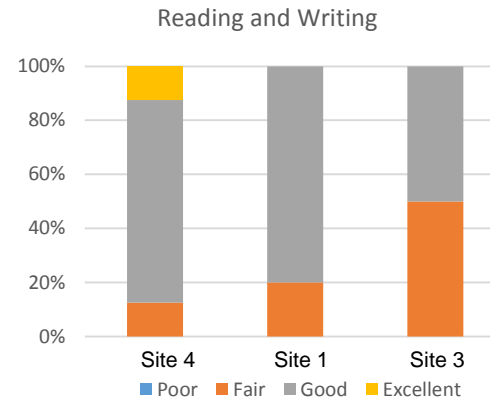
# Labor Analysis: Employer Feedback

## Labor Availability



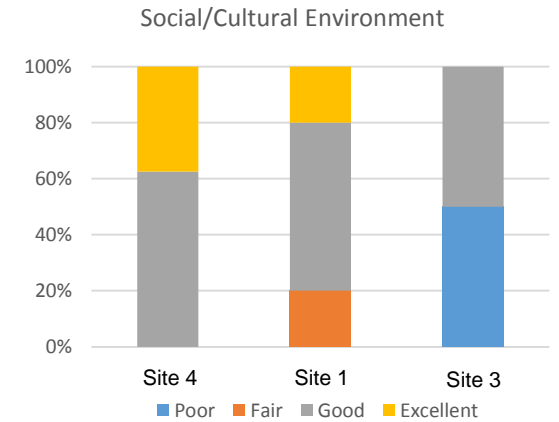
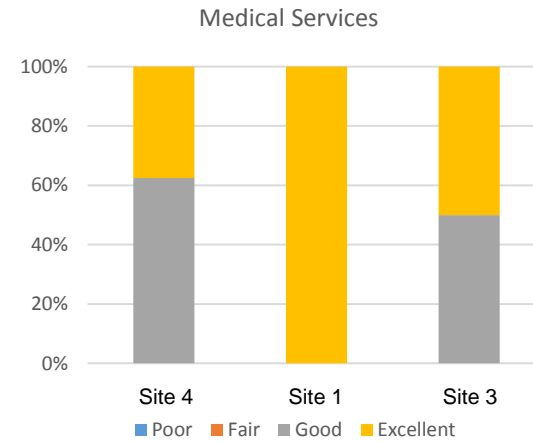
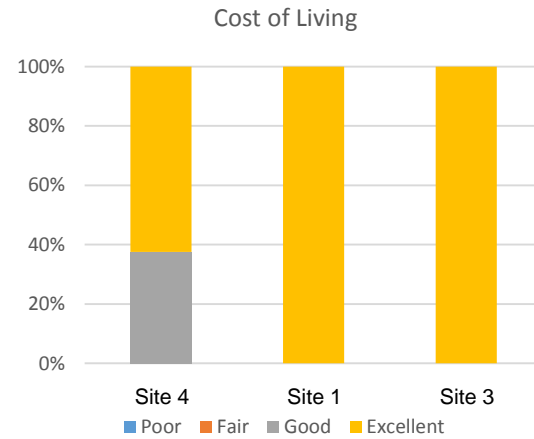
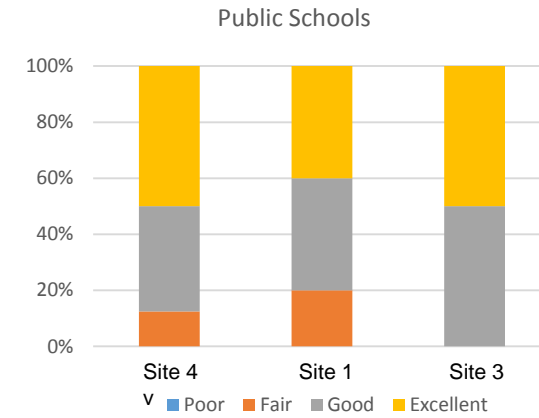
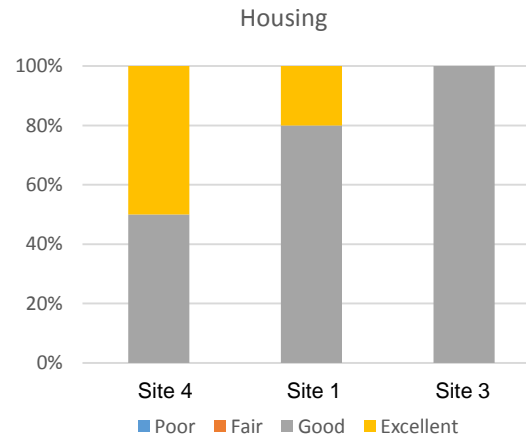
# Labor Analysis: Employer Feedback

## Educational Competence



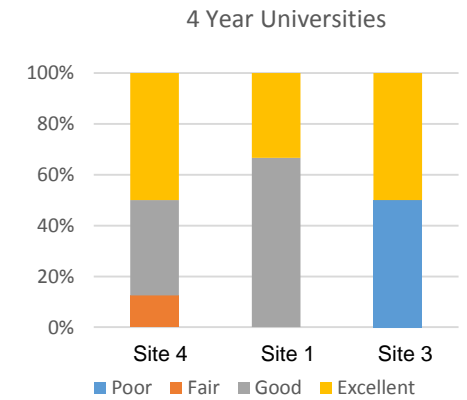
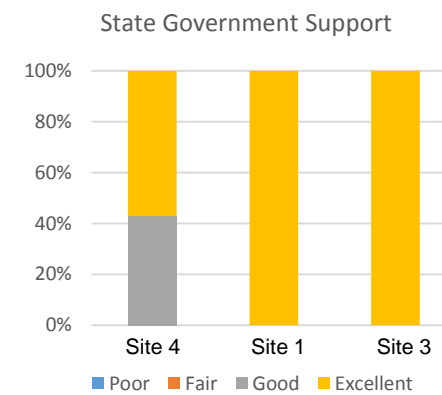
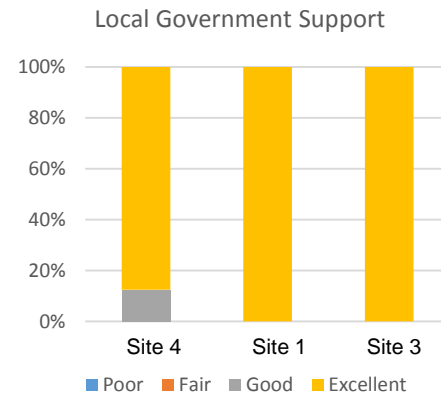
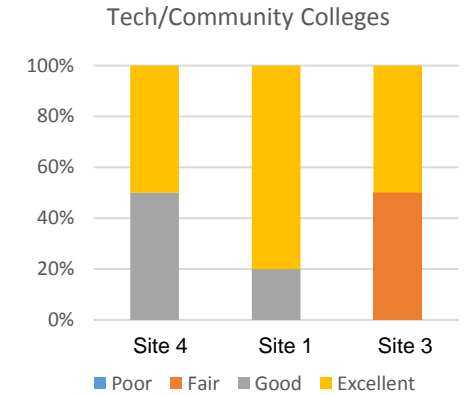
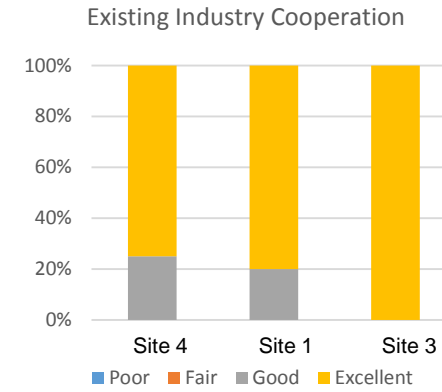
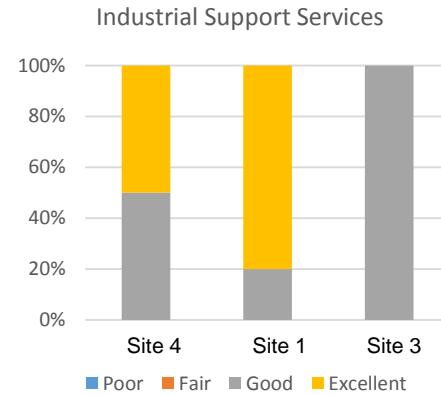
# Labor Analysis: Employer Feedback

## Quality of Life



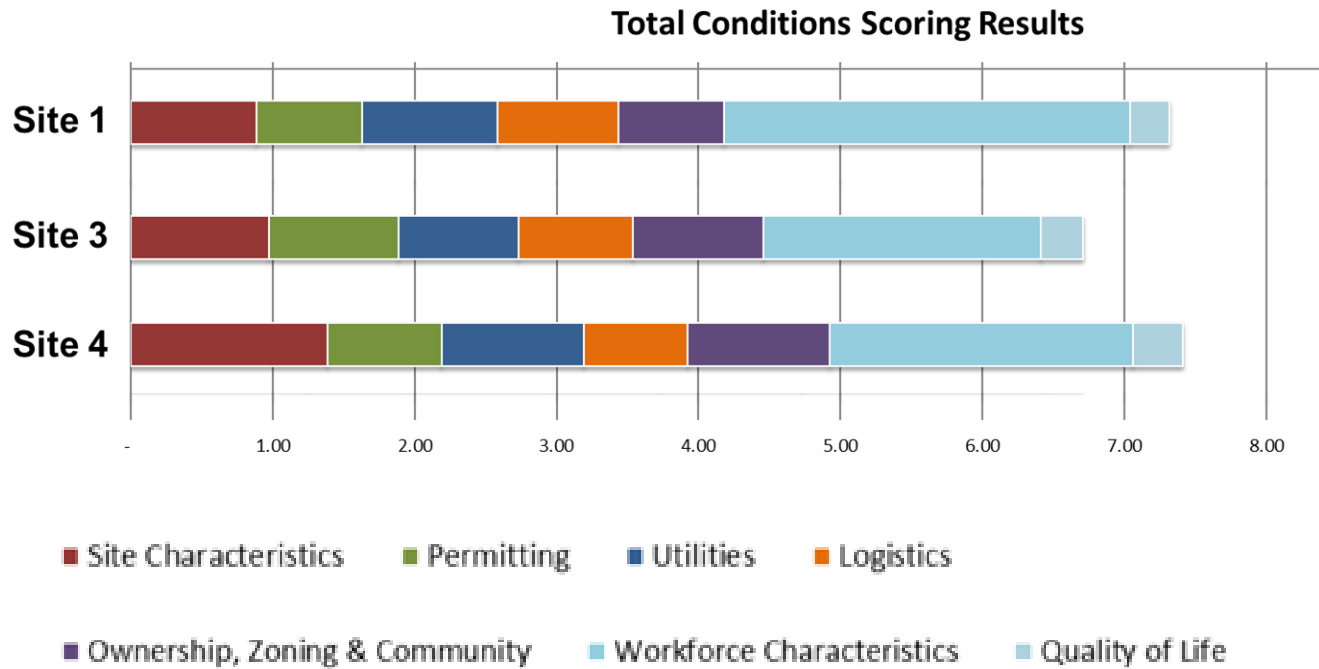
# Labor Analysis: Employer Feedback

## Community Services + Support

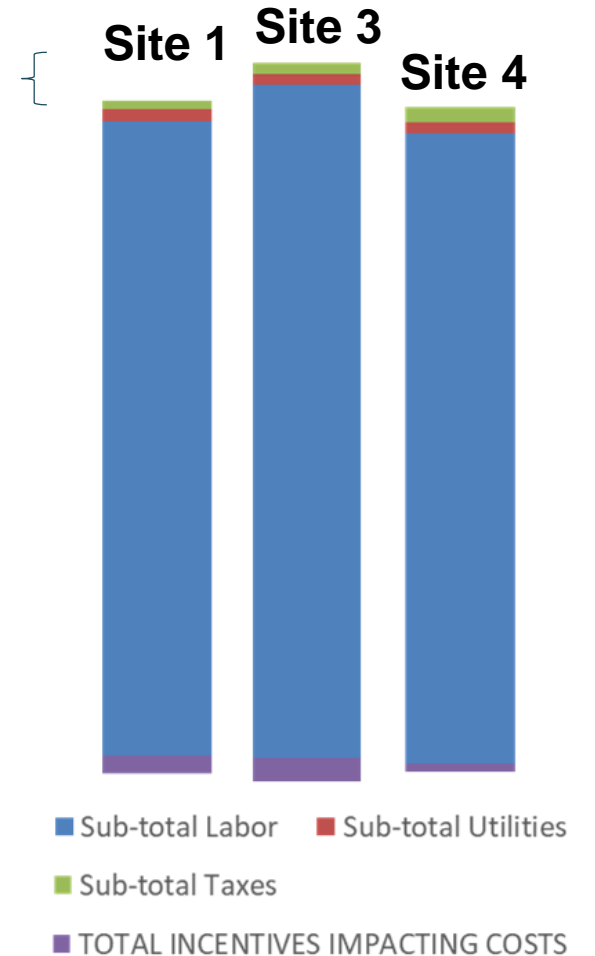




# How is the finalist selected?



**> \$1 MM  
per year  
between  
the final 3  
locations**



# Who was selected?

## Qualitative Scoring vs. Average Annual Operating Costs



# Takeaways

The data is vital to get in  
(and stay in) the site  
selection process.

But **finalists are evaluated  
on feel** just as much as  
scoring models.



# Takeaways

How can you **get in the game,**

**stay in the game,**

and be the **last community standing?**



LABOR STRATEGIES + THE COMPETITION TO BE

SELECTED

# #1: Know Your Data



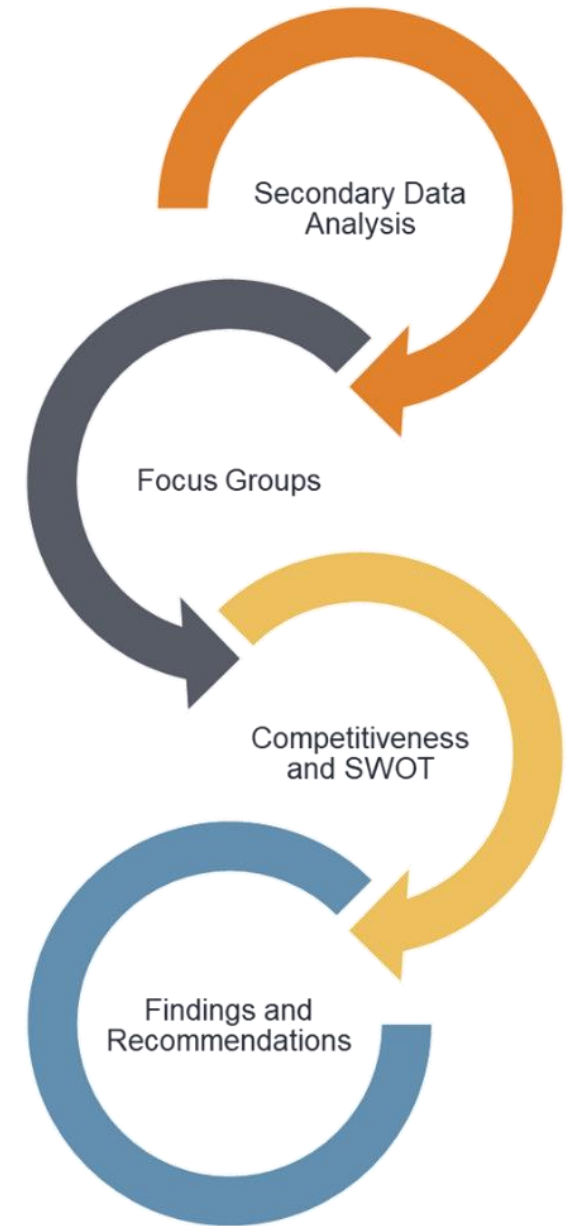
# Tipping the workforce scale

**Aging Population**  
**Brain Drain**  
**Outbound Commuters**  
**Outdated Skills**  
**Drug Epidemic**



**Grow Population**  
**Retain Youth**  
**Inbound Commuters**  
**Retraining Workers**  
**Labor Force Participation**

# Labor Analysis: Employer Feedback

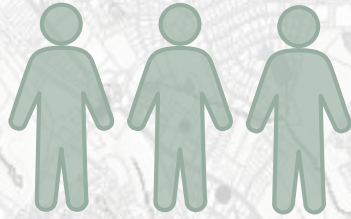


LABOR STRATEGIES + THE COMPETITION TO BE

SELECTED

# #2: Address the Gaps

Short-Term



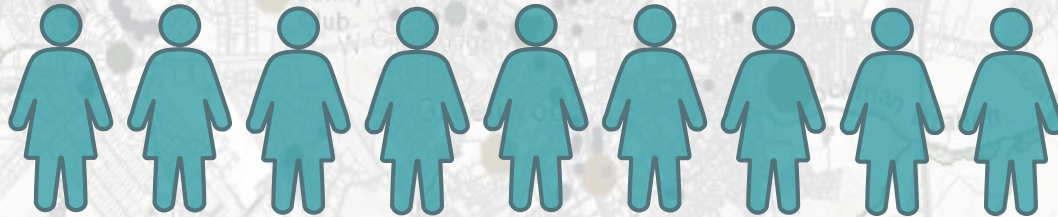
**Retain and Retrain Current Workers**

Medium-Term



**Attract Workers from Elsewhere**

Long-Term



**Grow Employment-Ready  
Future Workforce in K-12**

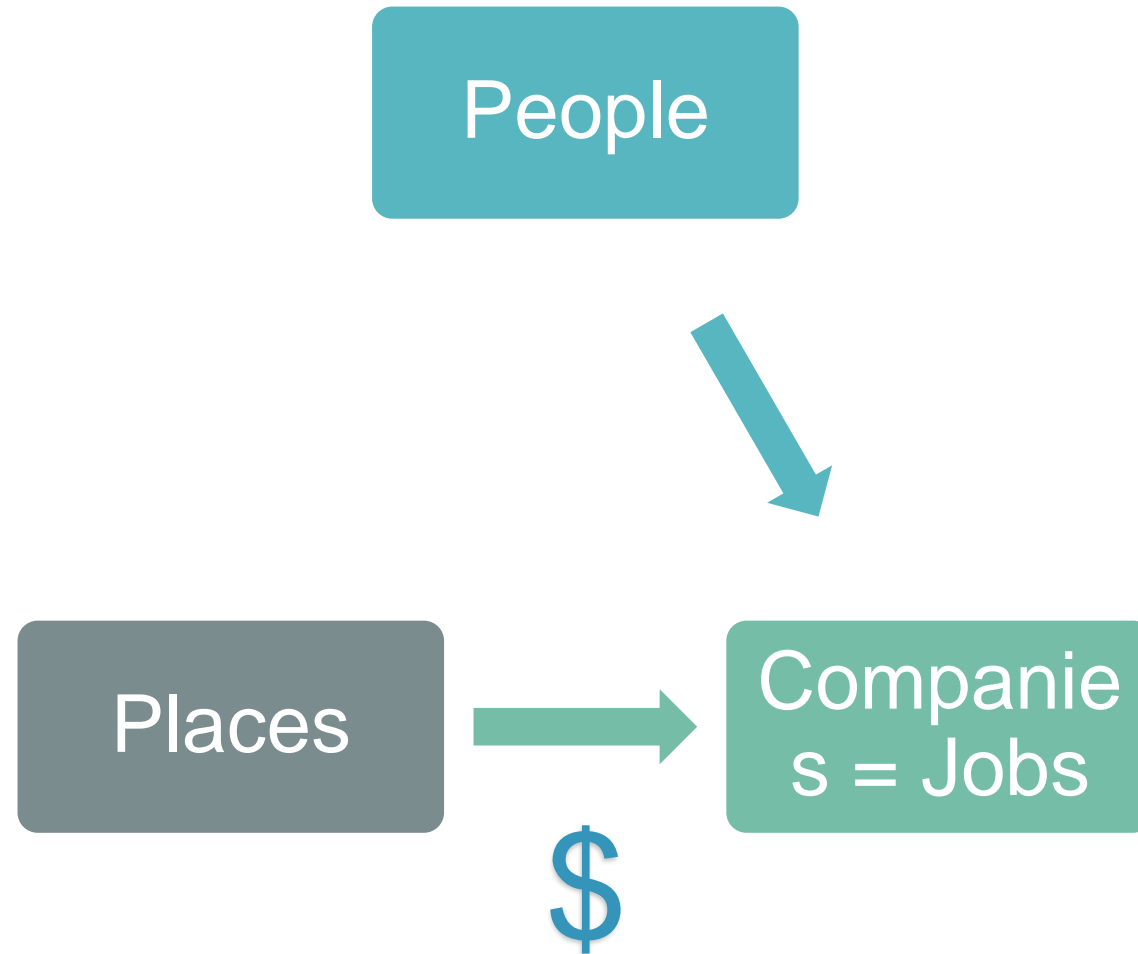


LABOR STRATEGIES + THE COMPETITION TO BE SELECTED

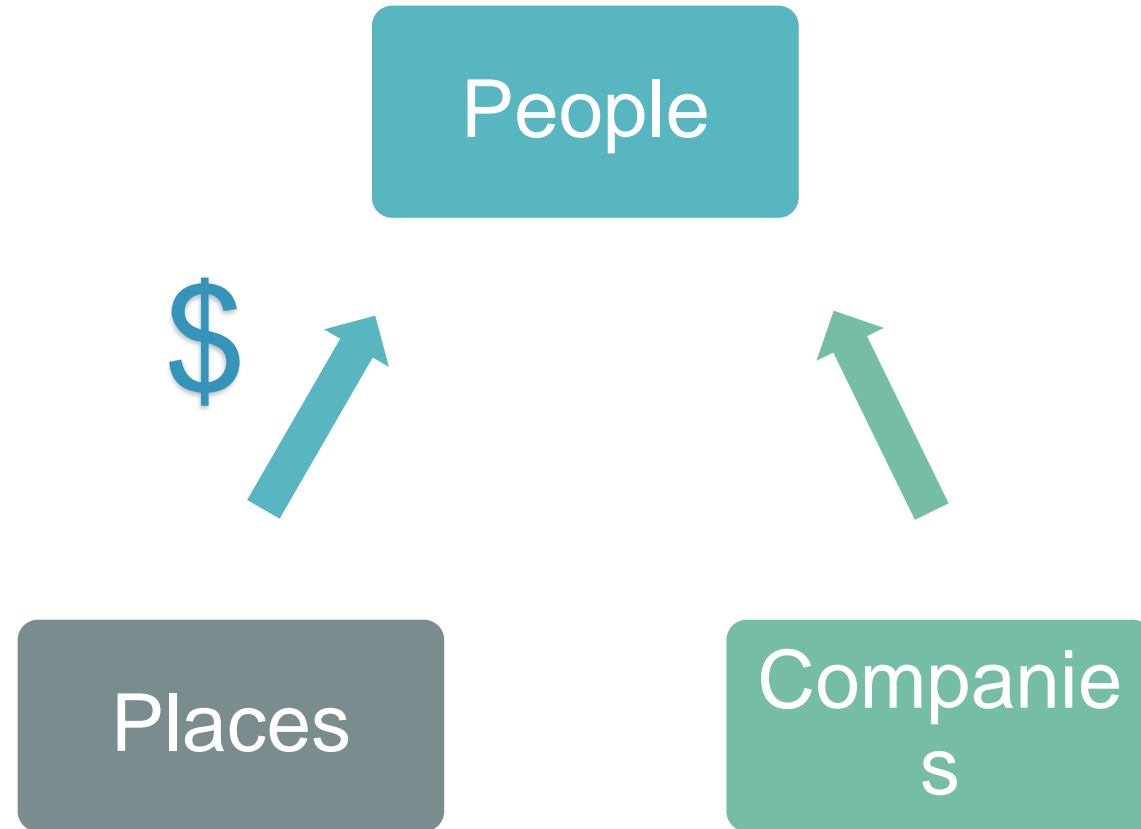
# — #3: Become a Partner



# Talent as an Incentive



# Talent as an Incentive



# What's Your Talent Attraction Strategy?

## Harmony, Minnesota

Nice Place to Visit, Even Better Place to Live



## WELCOME HOME TO JOPLIN

**You're looking for something new.  
We're looking for great people to join the Tulsa community.**

WE'VE GOT A LOT TO SHARE:



**\$10,000  
Cash**



**Free Desk  
Space**



**Low Cost  
of Living**



**Welcoming  
Community**



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