



SALT LAKE COUNTY

Target Industry Benchmarking

June 2023



GLS GLOBAL
LOCATION
STRATEGIES®





Table of Contents

PAGE **03**

[Executive
Summary](#)

PAGE **15**

[Industry Benchmarking
Analysis Methodology
Overview](#)

PAGE **18**

[Advanced Materials and
Aerospace Parts
Benchmarking Analysis](#)

PAGE **28**

[Medical Device
Manufacturing
Benchmarking Analysis](#)

PAGE **38**

[Financial Services
Benchmarking Analysis](#)

PAGE **47**

[Software Services
Benchmarking Analysis](#)

PAGE **56**

[Therapeutics and
Diagnostics R&D
Benchmarking Analysis](#)



SALT LAKE COUNTY

Executive Summary



EXECUTIVE SUMMARY

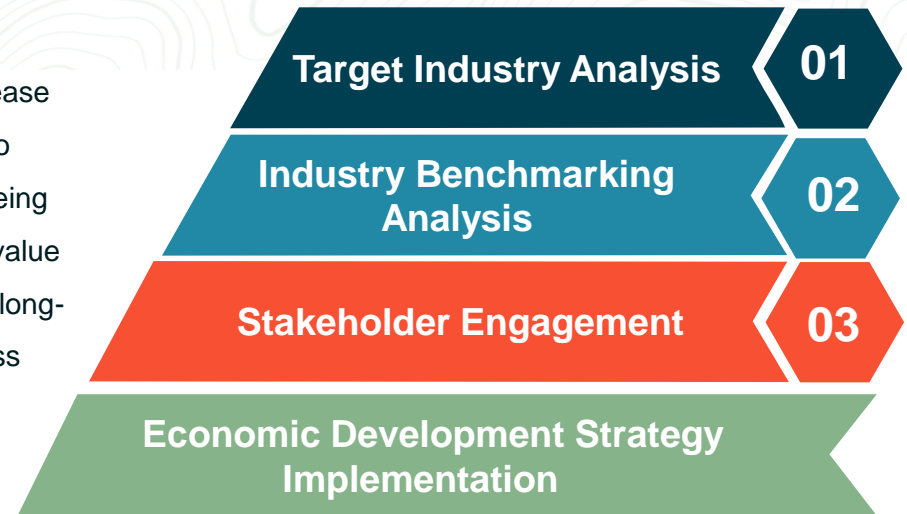
Project Overview

Executive Summary

OVERVIEW

Project Overview

Salt Lake County is seeking to recruit industries that will increase the economic opportunity and quality of life of its residents. To accomplish this goal, its economic development strategy is being informed by the following three analyses: (1) identify current value proposition and potential target industries that could improve long-term prosperity; (2) identify strategies to boost competitiveness within target industries; and (3) build consensus among stakeholders.



In Phase 01, Global Location Strategies (GLS) conducted a target industry analysis to identify the industries where the Salt Lake region could be most competitive based on existing industry clusters, related occupations and skillsets within the region, and industries that may compliment and/or support existing industries. The results of the Phase 01 analysis identified industries that should be prioritized for investment attraction and/or business retention and expansion efforts.

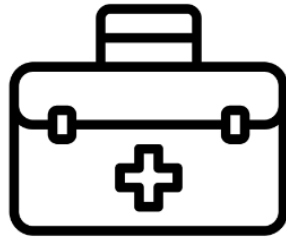
The industries identified within the Phase 01 analysis were further narrowed by the Salt Lake County team to five prioritized industries for continued evaluation to determine whether the Salt Lake region could be competitive when attracting investment projects within the prioritized target industries. The results of the industry benchmarking analysis equips communities with data-driven results to better understand the region's competitiveness when evaluated for investment projects within each industry sector. The information will assist Salt Lake County in prioritizing its recruitment efforts, helping it to control its destiny for the type of investment projects that will ultimately announce within the region and impact its residents.

Executive Summary

GLS evaluated five prioritized industries based on the Salt Lake region's ability to offer a value proposition for investment projects based on its regional assets. The prioritized industries serve as future targets for attraction efforts and are anticipated to align with what the Salt Lake region's residents desire according to the Envision Utah Values Research and offer high-quality and high-wage jobs. Additionally, the industries compliment the existing industries within the region and will offer an opportunity to continue to grow the existing skillsets and training of the workforce. While the industries could provide a mutual benefit for the Salt Lake region, the benchmarking evaluation aided in the determination of how competitive the Salt Lake region may be relative to competing markets within the industries prioritized for target investments. Each region was scored relative to one another and resulted in a ranking based on quality (non-financial) factors and estimated operating costs for each of the below prioritized industries.



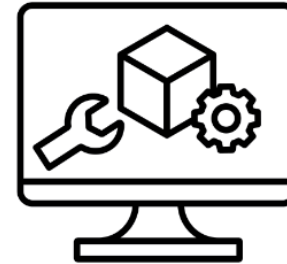
Advanced Materials
and Aerospace Parts
Manufacturing



Medical Device
Manufacturing



Financial Services



Software Services



Therapeutics and
Diagnostics R&D

The following page provides the combined ranking based on the quality score and estimated operating costs. The combination of the two factors indicate which regions offer the most optimal cost-benefit outcome. To determine the overall ranking, the location quality score contributes two-thirds of each location's final ranking, and the location-dependent operating costs contribute one-third. Overall rankings and score may vary by project.

Executive Summary

Salt Lake Region Rankings per Target Industry					
Industry	Quality Score ¹		Estimated Operating Costs ²		Combined Ranking
	Score	% From Highest	Estimated Costs	% Over Lowest	
Advanced Materials and Aerospace Parts Manufacturing	6.26	11%	\$21.9 MM	4%	2
Medical Device Manufacturing	6.45	Highest	\$13.7 MM	Lowest	1
Financial Services	6.30	5%	\$14.6 MM	Lowest	2
Software Services	6.22	8%	\$51.5 MM	Lowest	1
Therapeutics and Diagnostics R&D	6.58	8%	\$13.1 MM	Lowest	1

1. Quality scores are subject to change based on project specific factors that may be included during the site selection process.
2. Estimated costs include labor cost, electricity, natural gas, water, and wastewater and utilize assumptions based on average project requirements. Cost will vary across projects and when considering site-specific factors.

Executive Summary

General Regional Insights

Relative to the competing locations identified by the Salt Lake County team within each industry sector, the region offers a high quality and low-cost location across all targeted industries. While the region offers many advantages, continued development of the targeted workforce for each industry is recommended to help further differentiate the region from its competitors. Key statistics on relevant program graduates retained within the region and employer testimonials on hiring within the region may be helpful in further illustrating the workforce advantages.



The Salt Lake region is younger compared to many of its competitor regions. The region's ability to maintain this healthy population pyramid is an advantage to all industry subsectors evaluated.



The Salt Lake region has a relatively low percentage of residents who work outside the region, suggesting that the community already offers quality jobs for its residents. However, Salt Lake County will need to demonstrate that it can support additional jobs created by a new investment with the existing residents or with in-commuters, as there is less of an opportunity to capture out-commuters compared to other regions.



Though the region's educational scores are average compared to its peer regions, strengthening the number of bachelor's degrees and awards within each target industry will help the Salt Lake region further differentiate itself. The ability to demonstrate a strong workforce pipeline will be critical when competing for investment projects within the target industries.

Executive Summary

Key Benchmarking Takeaways

While the Salt Lake Region is rapidly growing, geographic constraints may soon limit the industrial growth that is possible. The region's goal is to focus its economic development recruitment efforts on high-value industry subsectors that will compliment its strong quality of life value proposition while continuing to elevate economic opportunities for all demographics within the community.

GLS's site-independent analysis determined that the Salt Lake region is competitive for prioritized high-value industry subsectors based on community, workforce, logistics, and other criteria. If the region is not currently pacing with the investments seen by its competitors, it is likely that increasing site and building availability and readiness, and a doubling-down on targeted marketing efforts, should be a focus.

However, these efforts require alignment with all community stakeholders, including utility partners, elected officials, and developers. While these stakeholders often focus on quick wins attainable via projects such as warehouse and distribution operations, these projects consume land resources while returning relatively low wages and fluctuating job counts.

The long-term benefits of prioritizing site development that target the preferred industries will result in higher quality and higher wage offerings for the community. The chart to the right shows the average wages throughout the Salt Lake Region and U.S. for the targeted industries compared to all industries and warehousing operations. On average, the target industries offer higher paying wages that will have a greater impact on the residents of the Salt Lake region and may offer an increased quality of life.



Source: JobsEQ



EXECUTIVE SUMMARY

Siting Criteria

Executive Summary

Considerations for Development

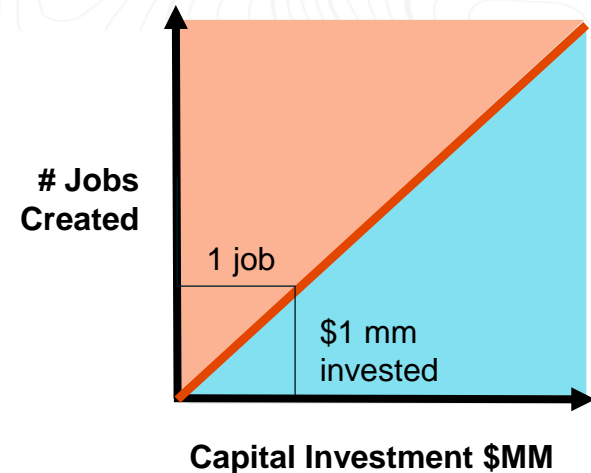
The development of industrial sites and/or buildings will be critical in maintaining and improving the region's competitiveness within each target industry. Understanding project types and key drivers is helpful in identifying potential project drivers.

Capital-intensive projects can be defined as investing more than \$1 MM per job created. Key drivers are likely to include infrastructure, permitting, and energy costs.

Labor-intensive projects, which invest less than \$1 MM per job, are driven by siting criteria like labor cost and speed to market.

Logistics and labor quality and availability can be critical drivers for projects locating anywhere along this spectrum.

While every project will have its own unique siting requirements, generalities can be made to assist developers in understanding which investments to prioritize for targeted industries. The following page includes an overview of key drivers identified by companies within the targeted industries evaluated in this study.



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

Executive Summary

Industry	Type of Project	Company Examples	Typical Site Drivers
Advanced Materials and Aerospace Parts Manufacturing	Labor-intensive	<ul style="list-style-type: none"> Honeywell Aerospace Collins Aerospace Hexcel Corporation Toray Industries, Inc. 	<ul style="list-style-type: none"> Greenfield sites (25-50 acres) Speed-to-market Proximity to regional and/or major air hub Access to high skilled labor Proximity to suppliers and industry clusters preferred Utilities at site; if not, a clear plan to achieve capacity including estimated cost and timeline strongly preferred
Medical Device Manufacturing	Capital-intensive	<ul style="list-style-type: none"> Medtronic Abbott Laboratories Becton, Dickinson and Company Thermo Fisher Scientific 	<ul style="list-style-type: none"> Greenfield sites (50-100 acres) or speculative buildings with room to expand (50,000 – 500,000 SF) Existing buildings recommended to have loading docks and drive-ins Existing buildings recommended to have 28' clear minimum Access to medium to high-skilled labor Proximity to research universities and access to key training programs Proximity to industry clusters Requires FDA certification and clean room space Utilities at site; if not, a clear plan to achieve capacity including estimated cost and timeline strongly preferred
Financial Services	Labor-intensive	<ul style="list-style-type: none"> Edward Jones Merrill Lynch Wells Fargo & Company Morgan Stanley 	<ul style="list-style-type: none"> Class A building space Proximity to an urban area Access to amenities and favorable quality of life Access to high-skilled labor Minimal utilities required Proximity to a regional and/or major airport hub
Software Services	Labor-intensive	<ul style="list-style-type: none"> Oracle Adobe Vivint Smart Home Meta 	<ul style="list-style-type: none"> Class A building space Proximity to an urban area Access to amenities and favorable quality of life Access to high-skilled labor Minimal utilities required Proximity to a regional and/or major airport hub
Therapeutics and Diagnostics R&D	Capital-intensive	<ul style="list-style-type: none"> Johnson & Johnson AstraZeneca Merck & Co. Roche Holding 	<ul style="list-style-type: none"> Greenfield sites or existing buildings Existing buildings can be multi-tenant or multi-floor Proximity to industry clusters Proximity to institutions supporting life science research Access to clean room space Utilities at site; if not, a clear plan to achieve capacity including estimated cost and timeline strongly preferred

Executive Summary

Rising Importance of Sustainability and Social Considerations in Investment Projects

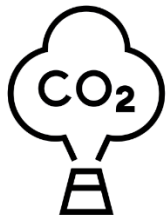
Climate-conscious and corporate social responsibility initiatives are increasingly impacting the location investment decisions of both office and manufacturing projects. In some cases, regions are evaluated on their ability to not only support, but further grow, a company's positive impact on the environment and consumers. The following areas of consideration may be evaluated within each community:



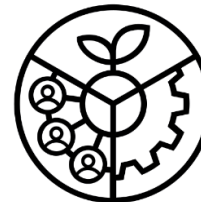
Many manufacturers, including aerospace parts and medical device manufacturers, aim to optimize their water usage and implement **water management** systems within their processes to reduce their impact on the region where they are located. Some approaches include closed loop systems, water reuse, and rainwater harvesting. As a community, understanding the feasibility of graywater opportunities, infrastructure for reclaimed water pipes (purple pipes), and incentives encouraging water sustainability can be beneficial in determining compatibility with a project and/or addressing alternatives for high water users. Additionally, providing support or resources to identify areas within the company's process to reduce their water use may be beneficial when working with existing industries.



Access to **renewable and/or low carbon energy** is a key driver for many companies across all industry sectors. Investment projects want to understand the generation mix of local providers, as well as the initiatives to move towards carbon free power. Many projects now require fully renewable and/or low-carbon generation. To support industries, communities should understand the availability of renewable power and be able to address scenarios where they are asked to meet 100% renewable and/or low-carbon power.



While implementation of **pollution control** equipment can be anticipated when considering the impacts on air quality for investment projects, many companies are also implementing practices within their operations to decrease their overall emissions. Many regions offer incentives related to pollution control equipment.



Companies, particularly labor-intensive and/or service-related projects, may also prioritize regions based on their ability to align with **diversity and inclusion initiatives**. Communities should be able to address how their regions may help to enhance the company's initiatives and brand, and how it could recruit historically disadvantaged parts of the community.



SALT LAKE COUNTY

Target Industry Benchmarking Analysis



SALT LAKE COUNTY

Industry Benchmarking Analysis Methodology

Methodology

This analysis evaluates the location quality and estimated annual location-dependent operating cost for the Salt Lake County region compared to metros across the country for five target industries. Metros, also referred to as Metropolitan Statistical Areas (MSAs), are defined by the US Census Bureau as regions with at least one urbanized area consisting of a city and its surrounding communities that are linked by social and economic factors with a minimum population of 50,000 residents. The regions were evaluated based on non-site-specific factors and assumes the region would be considered should they have a site and accessible utilities.

The analysis, which mirrors site selection methodology, consists of two components: **location quality score** and **location-dependent operating costs**. When combined, these factors identify metros with the optimal cost-benefit outcome.

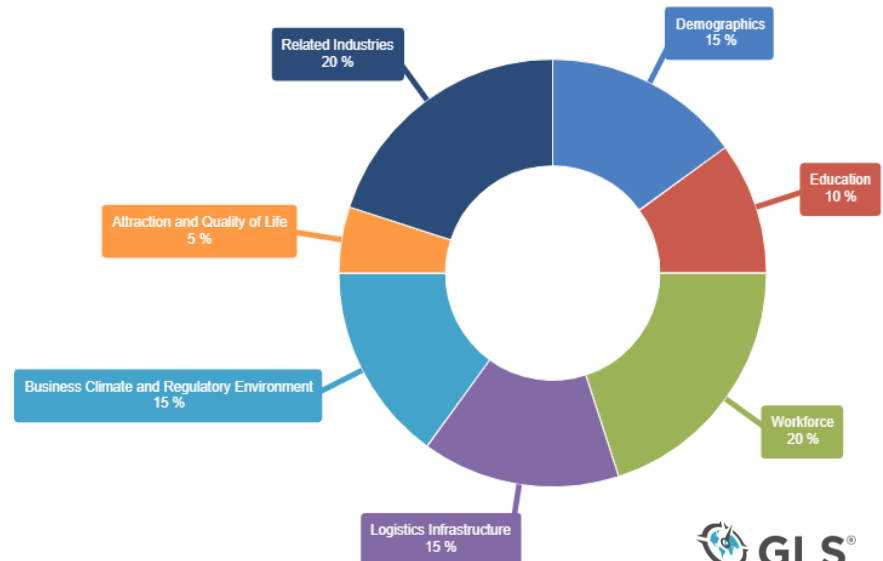
The **location quality score**, assesses approximately 100 datapoints to measure the competitiveness of each metro for each target industry, based on the specific project profile.

The quality criteria included in the evaluation are grouped into the following primary categories, which are weighted according to each industry's specific drivers:

- Demographics
- Educational Attainment
- Workforce Characteristics
- Logistics Infrastructure
- Business Climate and Regulatory Environment
- Attraction and Quality of Life
- Related Industries

Each of the primary categories are comprised of a set of weighted secondary categories, which consist of a set of tertiary categories that are weighted and scored. The cumulative result is a detailed, data-driven evaluation of non-financial factors that will impact a project's viability and success.

Sample Primary Category Weighting



Methodology

In addition to the quality analysis, the analysis examines estimated, **location-dependent operating costs**. Costs that are immaterial and/or not location-dependent are not included in this analysis.

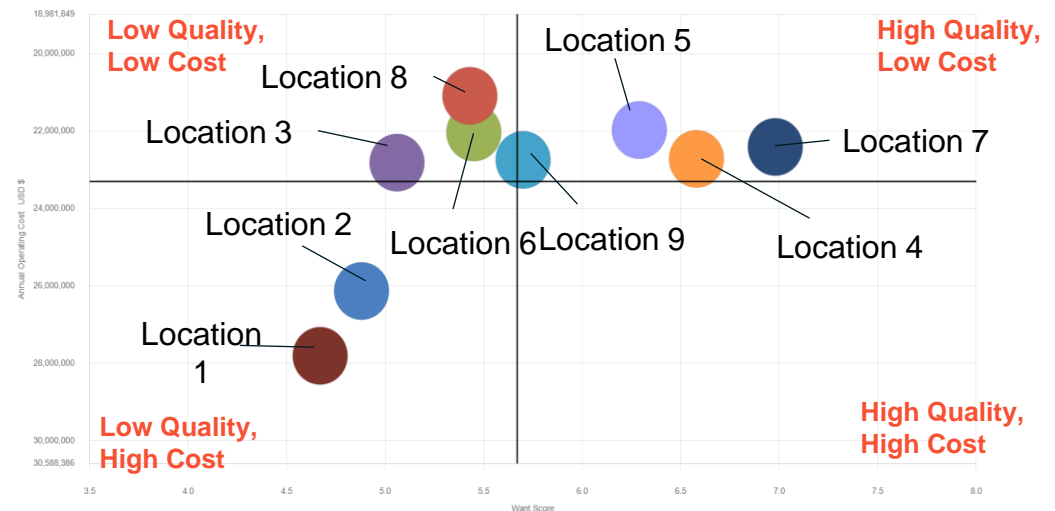
While often critical to a location's investment decision, logistics costs are highly variable and unique to each operation's supply chain, which includes the location and geographic spread of suppliers and customers as well as the commodities being transported. Therefore, logistics costs are also excluded from consideration in this analysis.

Optimal locations are those that offer an above-average quality score at a lower-than average operating cost.

The comparison of cost and quality metrics illuminates the strengths, weaknesses, opportunities, and threats for each metro, and allows corporations to make informed decisions about potential tradeoffs when choosing their location. Focusing on the highest potential metros based on these rankings allows site selection efforts to be focused only on the regions that will be the most optimal for their unique project.

The following pages detail the analysis for each target industry.

Sample Composite Analysis Results





SALT LAKE COUNTY

Advanced Materials and Aerospace Parts

Industry Insights

ADVANCED MATERIALS AND AEROSPACE PARTS

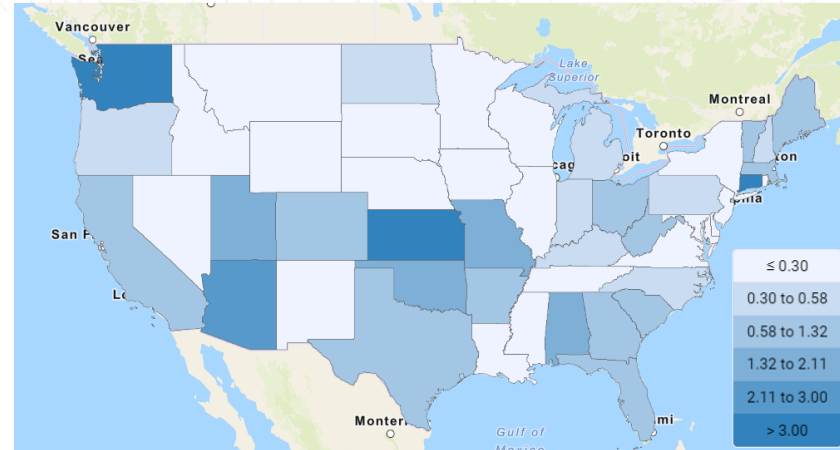
Industry Overview

Advanced materials manufacturers develop high-performance structural materials that include metals, plastics, and composites to improve the performance of different applications. Due to the industry's role in aerospace parts, the two sectors have been combined as many of the workforce and supply chain components overlap. Within the Aerospace Product and Parts Manufacturing (NAICS 3364) subsector of Transportation Equipment Manufacturing, there are six 6-digit NAICS subsectors that include Aircraft Manufacturing, Aircraft Engine and Engine Parts Manufacturing, Other Aircraft Parts and Auxiliary Equipment Manufacturing, Guided Missile and Space Vehicle Manufacturing, Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing, and Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing.

Recent Announcements

The average capital investment for aerospace products and parts manufacturing projects ranges from \$2MM to \$650MM with the new jobs per project ranging from 12 to 1761 between January 2018 to March 2023. In this time period, the average capital investment was \$64MM and the average jobs created was 81. Leading investors in this industry include Boeing, Collins Aerospace, General Electric, and United Technologies. The chart to the right highlights announcements made within the last three years in the U.S. within the aerospace product and parts manufacturing sector.

Industry Location Quotient in Aerospace Product and Parts Manufacturing



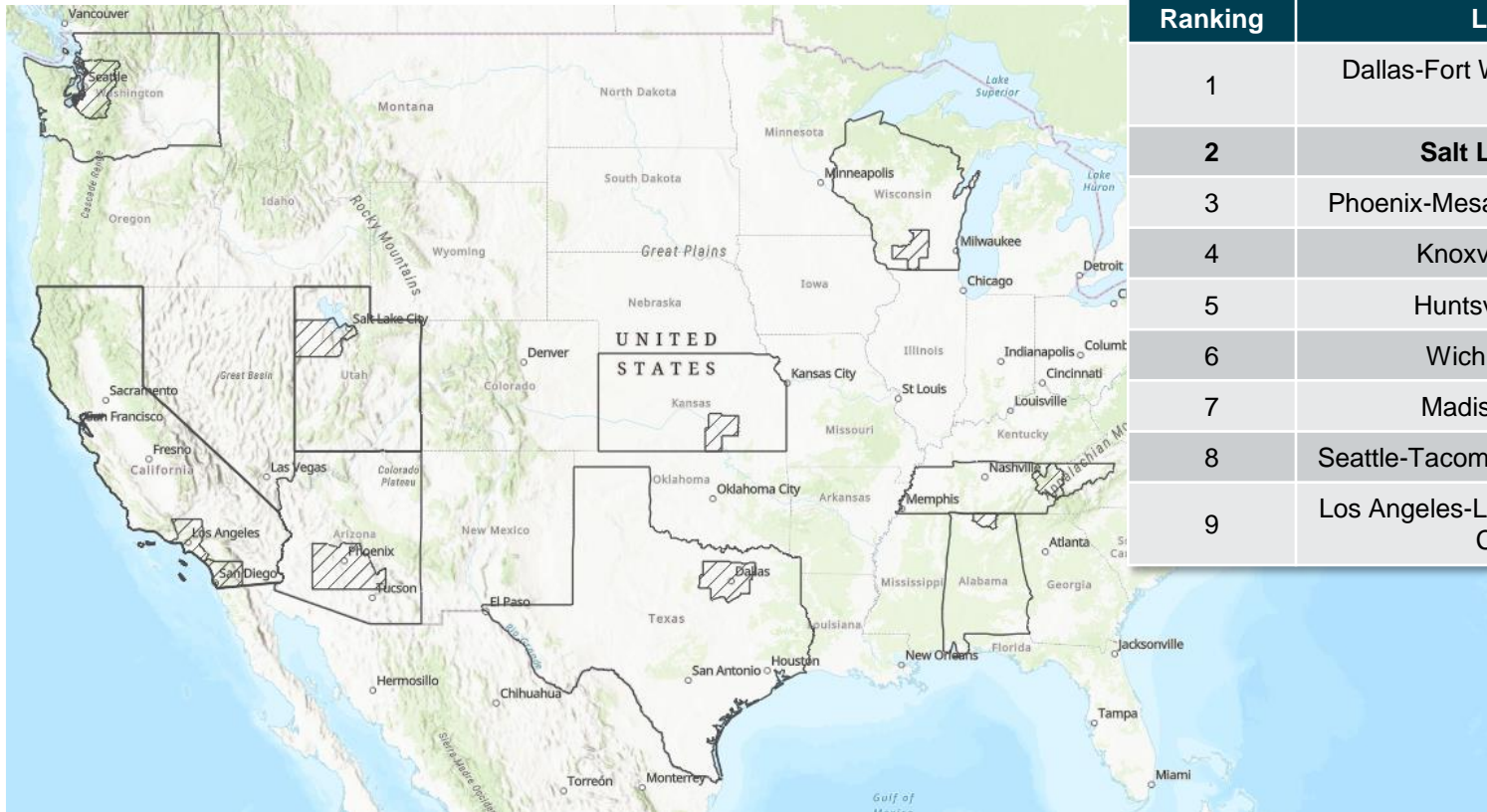
Source: JobsEQ

Date	Company	Location Announced	Capex	Jobs
Oct 2021	Teal Drones	Salt Lake City, UT	\$44.5 MM	137
Sep 2020	Williams International	Ogden, UT	\$60 MM	300
Aug 2021	Brek Manufacturing	Wichita, KS	\$4.5 MM	75
Aug 2018	Howmet Aerospace	Morristown, TN	\$27.9 MM	105
Jul 2018	BAE Systems	Huntsville, AL	\$43 MM	162
Aug 2018	Continental Motors	Mobile, AL	\$75 MM	282
Sep 2019	Meggitt	Danville, KY	\$82.7 MM	83

Source: FDI Markets

Overview of Findings

Relative to the competing locations, the Salt Lake region ranks second overall for its combined quality score and estimated operating costs within the advanced materials and aerospace parts sector. The region ranks second to the Dallas, TX MSA for its quality and second to the Knoxville, TN MSA for its estimated operating costs due to a higher estimated labor and electricity costs. The primary differences between the highest-ranking overall location and the Salt Lake region include its workforce characteristics and logistics infrastructure; however, the Salt Lake region is anticipated to offer a more favorable quality of life and business climate as well as lower operating costs.



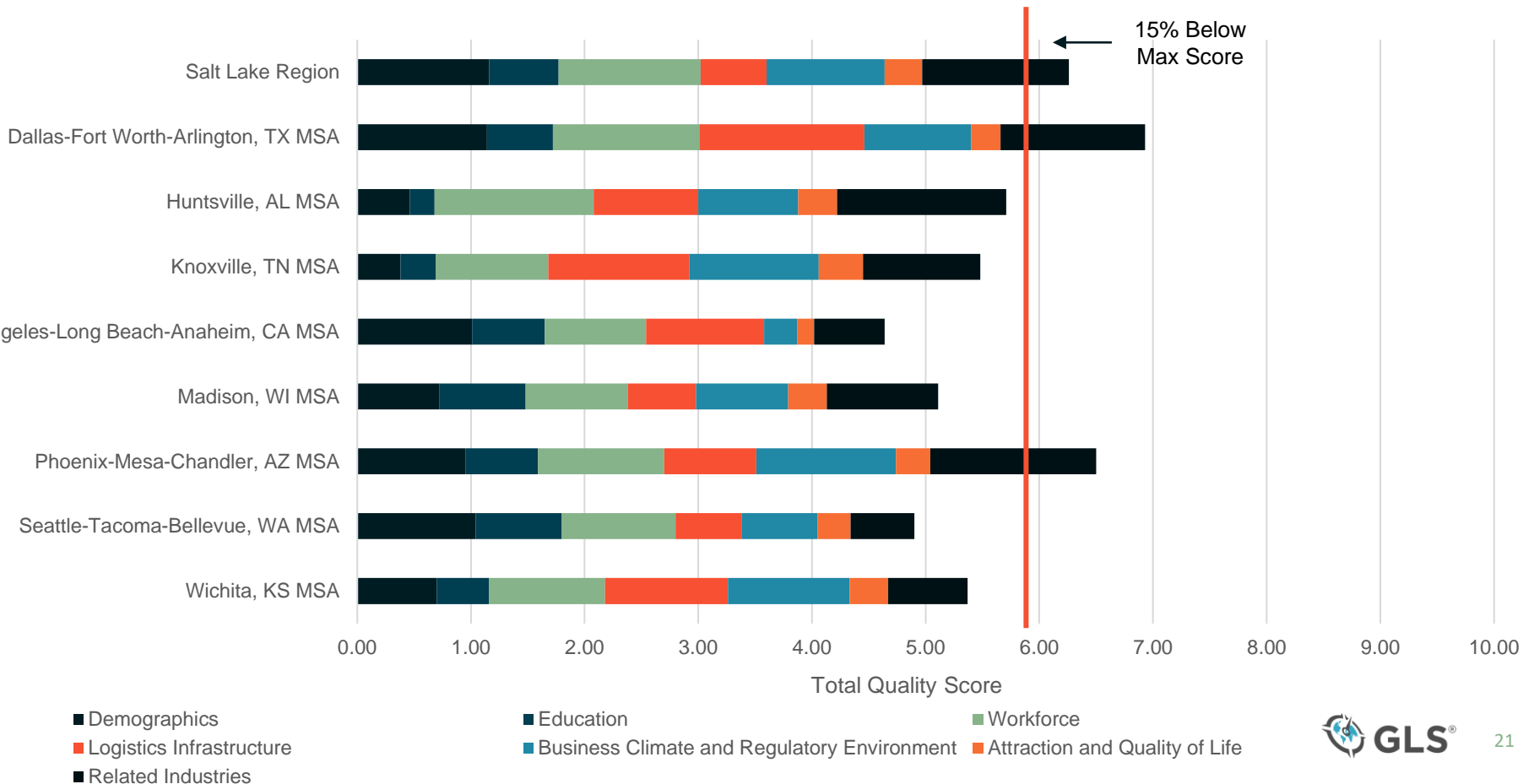
Advanced Materials and Aerospace Parts	
Ranking	Location
1	Dallas-Fort Worth-Arlington, TX MSA
2	Salt Lake Region
3	Phoenix-Mesa-Chandler, AZ MSA
4	Knoxville, TN MSA
5	Huntsville, AL MSA
6	Wichita, KS MSA
7	Madison, WI MSA
8	Seattle-Tacoma-Bellevue, WA MSA
9	Los Angeles-Long Beach-Anaheim, CA MSA

*The ranking of the Salt Lake region is subject to change based on the competing locations.

Overview of Findings

The chart below shows the cumulative quality score for each region. Based on the findings of the quality analysis, the Salt Lake region offers the third highest quality location relative to the competing locations primarily due to its population characteristics, future workforce pipeline, existing industry characteristics, business climate, and concentration of industries that may support the advanced materials and aerospace industries. The Dallas-Fort Worth-Arlington, TX MSA is the highest scoring region overall primarily due to its demographics, workforce characteristics, and logistics infrastructure. Though not the highest scoring quality location, the Salt Lake region scores within the margin of error indicating the region offers a favorable location.

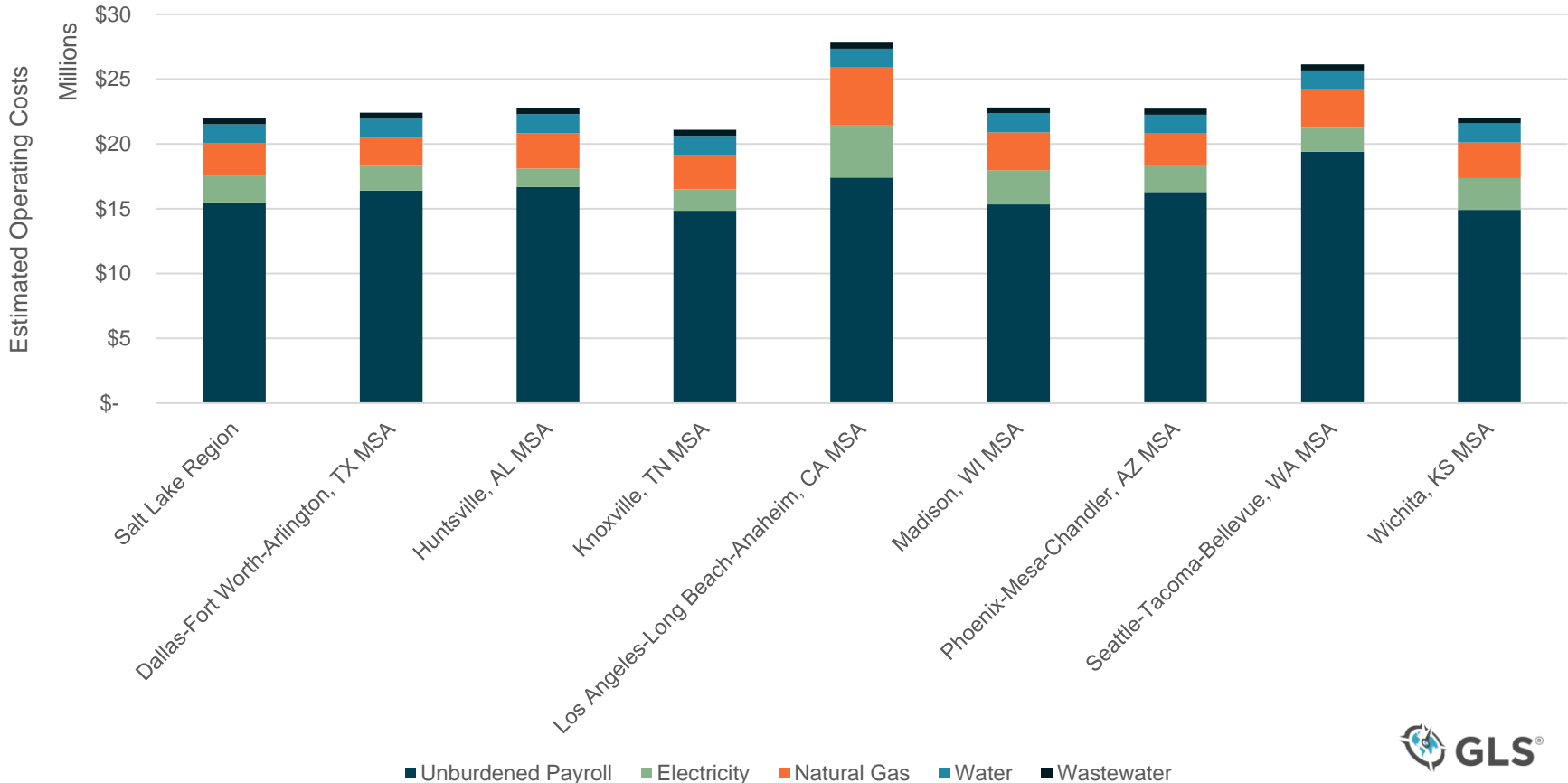
Quality Analysis Results



Overview of Findings

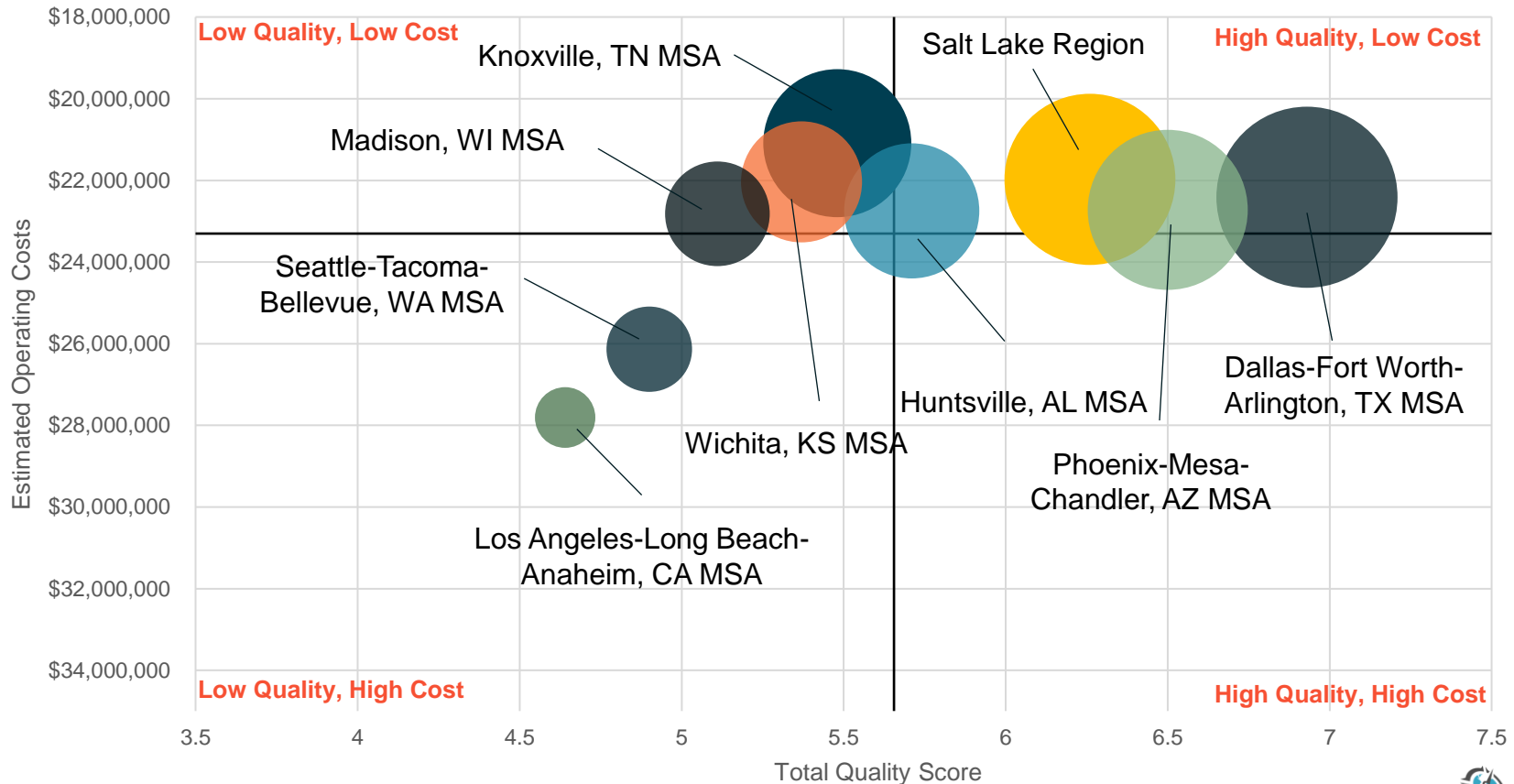
Labor is anticipated to be one of the biggest cost driver for projects of varying size within the advanced materials and aerospace parts manufacturing sector. Based on the findings from the operating cost analysis, the Salt Lake region is anticipated to offer the second lowest operating cost. The region is estimated to have lower labor cost on average across positions typically identified within the advanced materials and aerospace industries relative to the other locations. Additionally, the Salt Lake region offers a competitive electricity rate based on average industrial rates in the state relative to competing locations. The primary cost difference between regions is anticipated to be due to differences in electricity cost. The highest cost location (Los Angeles-Long Beach-Anaheim, CA MSA) is estimated to be approximately 24% higher cost than the lowest cost location (Knoxville, TN MSA).

Estimated Location-Dependent Operating Costs



Overview of Findings

The below composite chart compares each location's quality score against its estimated operating cost (labor, electricity, natural gas, water, and wastewater). Operating costs are located on the vertical axis, with the top of the chart being the least expensive and the bottom being the most expensive. Conditional score is on the horizontal axis, with site scores improving left to right. Sites in the top right quadrant have good conditional scores and favorable operating costs, while sites in the lower left quadrant have relatively poor site scores and unfavorable costs. Scoring of each location is relative to a project's specific drivers and the other locations compared in the analysis.



○ Bubble size indicates overall rank with combined quality score and estimated operating costs

Overview of Findings

Advanced Materials and Aerospace Parts Manufacturing					
Location	Quality Score ¹		Estimated Operating Costs ²		Combined Ranking
	Score	% From Highest	Estimated Costs	% Over Lowest	
Dallas-Fort Worth-Arlington, TX MSA	6.93	Highest	\$ 22.4 MM	6%	1
Salt Lake Region	6.26	11%	\$21.9 MM	4%	2
Phoenix-Mesa-Chandler, AZ MSA	6.50	7%	\$22.7 MM	7%	3
Knoxville, TN MSA	5.48	26%	\$21.0 MM	Lowest	4
Huntsville, AL MSA	5.71	21%	\$22.7 MM	7%	5
Wichita, KS MSA	5.37	29%	\$22.0 MM	4%	6
Madison, WI MSA	5.11	36%	\$22.8 MM	8%	7
Seattle-Tacoma-Bellevue, WA MSA	4.90	41%	\$26.1 MM	19%	8
Los Angeles-Long Beach-Anaheim, CA MSA	4.64	49%	\$27.8 MM	24%	9

1. Quality scores are subject to change based on project specific factors that may be included during the site selection process.
2. Estimated costs include labor cost, electricity, natural gas, water, and wastewater and utilize assumptions based on average project requirements. Cost will vary across projects and when considering site-specific factors.

Gap Analysis

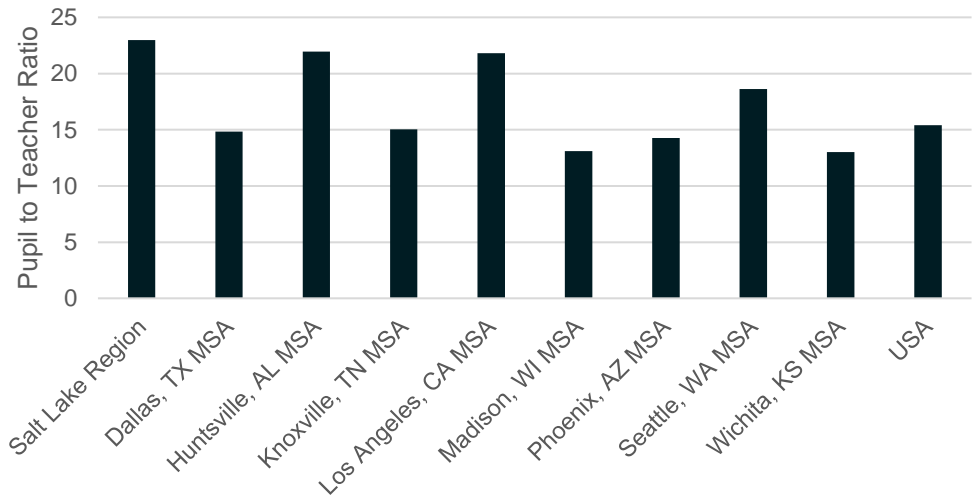
Overview

While the Salt Lake region is anticipated to offer a high quality and low-cost opportunity for companies within the advanced materials and aerospace parts industries, opportunities to continue to increase the region's advantage include improvements to the education system and development of the pipeline at an early stage.

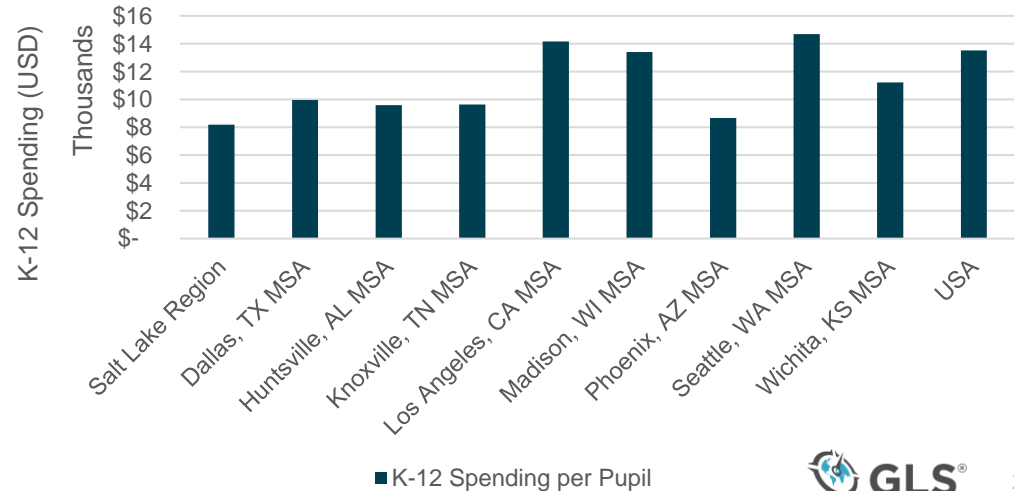
Areas of Improvement – K-12 Education System

While technical college programs are often evaluated by prospective companies for opportunities for collaboration and/or workforce development, the K-12 education system is also evaluated as an indication of the future workforce that will become available within the region. The Salt Lake region exceeds the national average when considering the teacher to pupil ratio. Additionally, there is significantly less spending per pupil for K-12. A focus on developing and/or recruiting education administrators for kindergarten through post secondary may be beneficial in supporting the K-12 system due to the current deficit in awards within the region. While individual school budgets may not be within an economic development organization's control, the ability to address any concerns regarding the K-12 programs and/or collaboration in developing dual enrollment programs most beneficial to the local industry may be advantageous when recruiting investment projects.

K-12 Pupil to Teacher Ratio



K-12 Spending per Pupil



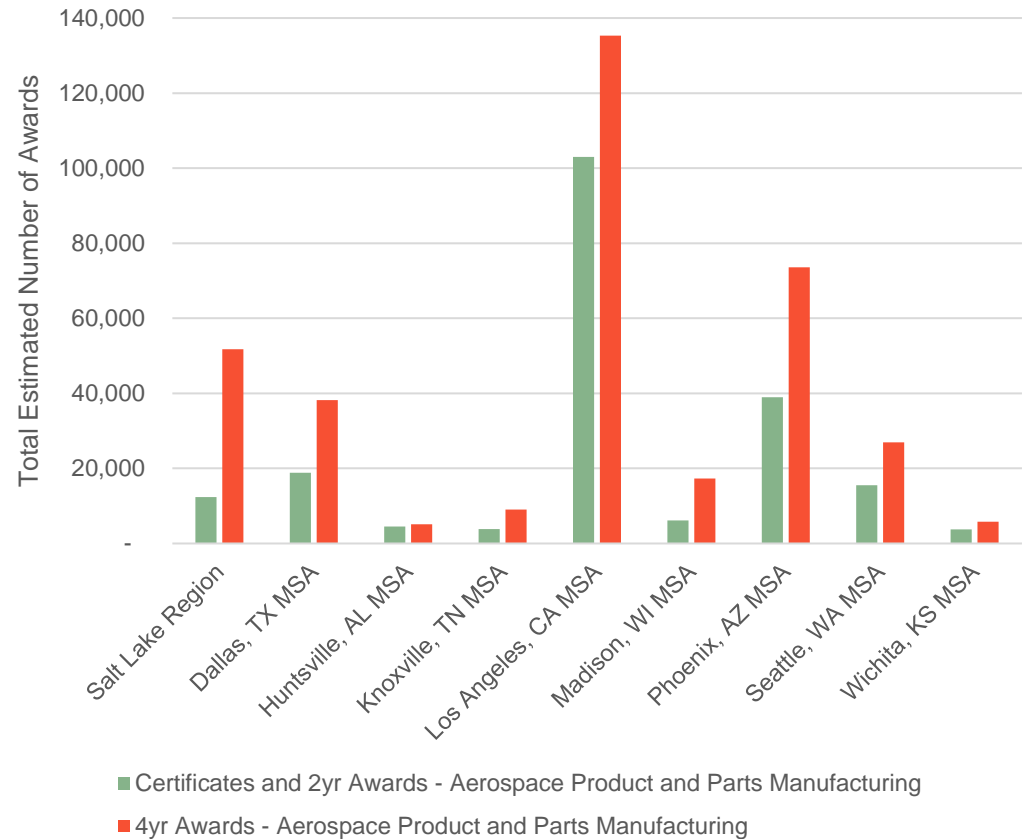
■ K-12 Spending per Pupil

Gap Analysis

Areas of Improvement – Future Workforce Pipeline

When considering the number of certificates, 2-year, and 4-year degrees relevant to the aerospace product and parts manufacturing sector, the Salt Lake region scores within the upper percentile compared to the regions included within the analysis. Continued development of relevant programs within the region will be beneficial to continued differentiation of the Salt Lake region from its competitors recruiting similar investment projects. Collaboration with existing industries to maintain relevancy of the skillsets taught within the related programs will be critical to ensure a pipeline of potential employees that can be quickly trained for their operations. Case studies detailing the recruiting success of other companies from the surrounding program graduates are recommended when discussing the future workforce pipeline with prospects.

Number of Awards for Aerospace Product and Parts Manufacturing



Source: JobsEQ

SWOT Overview

STRENGTHS

- The population within Salt Lake County has an annual population growth rate (1.2%) that exceeds the national average (0.6%). Though the population size is smaller relative to major U.S. markets, companies may find this beneficial as other U.S. regions begin to experience decreasing populations.
- The region offers a young population with a median age (31.2) significantly lower than many competing locations and the U.S. (38.2). A younger population is advantageous for a company's workforce sustainability and may be seen as an advantage in both retention and recruitment efforts.

OPPORTUNITIES

- Though the Salt Lake region has a smaller percentage of manufacturing workforce, the region has experienced growth in this employment. The growth within the manufacturing employment suggest the region is proactively engaging with manufacturing and offers entering companies access to an existing and growing number of relevant skillsets within the region.
- Programs related to the composites field are available at the universities and/or colleges within the region. Opportunities for collaboration and/or workforce pipelines may be available to prospective companies.

WEAKNESSES

- The region has a higher turnover rate of 7.3% for manufacturing relative to the competing location; however, the rate is below the national average for all industries (9.2%). While turnover may be a result of the hiring and retention practices of companies within the region, consultation and/or support by the local economic development organization. Industry-backed insights will be beneficial for companies that may see the turnover rate as a threat to hiring practices.

THREATS

- The average wage within the manufacturing industry and aerospace product and parts manufacturing sector have significantly increased over a five-year period and exceed the nation's average percent change in wages within the two industries. This suggest the region's growth within the industry has not matched the talent development; therefore, requiring local industry to offer higher wages due to the competition for the specific skillsets required.



SALT LAKE COUNTY

Medical Device Manufacturing

Industry Insights

Industry Overview

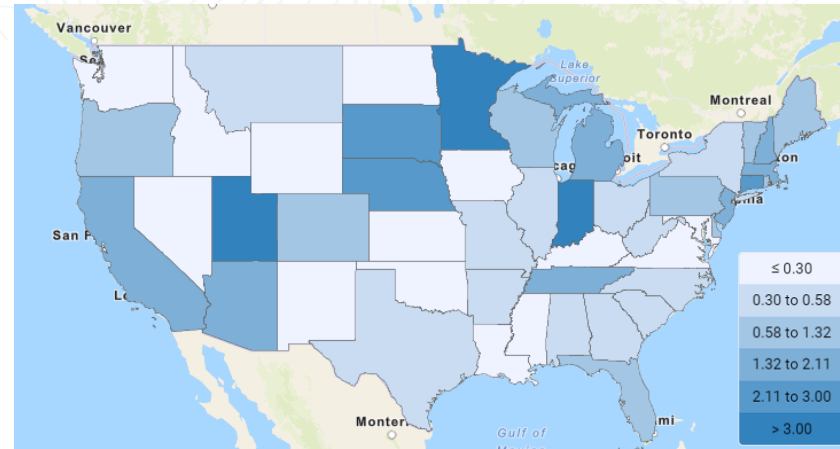
The medical device manufacturing sector encompasses many companies that develop instruments, apparatuses, devices, and technologies to help advance the overall health industry. Products within the industry can range from surgical gloves to laboratory equipment. Subsectors of the industry include surgical and medical instruments, surgical appliances and supplies, dental equipment and supplies, electro-medical equipment, and irradiation apparatuses.

Top targeted occupations within the industry include team assemblers, dental laboratory technicians, industrial engineers, medical appliance technicians, and machinists. Communities targeting investment projects within the industry should prioritize development of a workforce pipeline that contributes to the skillsets required by the targeted occupations.

Recent Announcements

The average capital investment for medical device manufacturing projects ranges from \$1MM to \$500MM with the new jobs per project ranging from 3 to 2000 between January 2018 to March 2023. In this time period, the average capital investment was \$52MM and the average jobs created was 179. Leading investors in this industry include Thermo-Fisher Scientific, Medtronic, B. Braun Medical, Beckton Dickinson and Company, and West Pharmaceutical Services. The chart to the right highlights announcements made within the last three years in the U.S. within the medical device manufacturing sector.

Industry Location Quotient in Medical Devices Manufacturing



Source: JobsEQ

Date	Company	Location Announced	Capex	Jobs
Nov 2019	Spectrum Plastics Group	Sandy, UT	\$30.7 MM	100
May 2019	Dentsply International	Charlotte, NC	\$33.1 MM	117
Dec 2018	Straumann	Andover, MA	\$33.1 MM	117
Feb 2018	Boston Scientific	Maple Grove, MN	\$12.3 MM	40
Mar 2018	Freudenberg Medical	Carpinteria, CA	\$33.1 MM	117
Mar 2020	Honeywell	Phoenix, AZ	\$153.6 MM	500

Source: FDI Markets

Overview of Findings

Relative to the competing locations, the Salt Lake region is anticipated to offer the most favorable location within the medical device manufacturing sector when considering only non-site-specific aspects of the competing regions. The Salt Lake region ranks the highest overall primarily due to its workforce characteristics, business climate, and supporting ecosystem of related industries. Additionally, the region is estimated to offer the lowest operating cost. However, the Salt Lake region shows less favorably for its demographics, educational attainment related to talent pipeline, and logistics infrastructure.



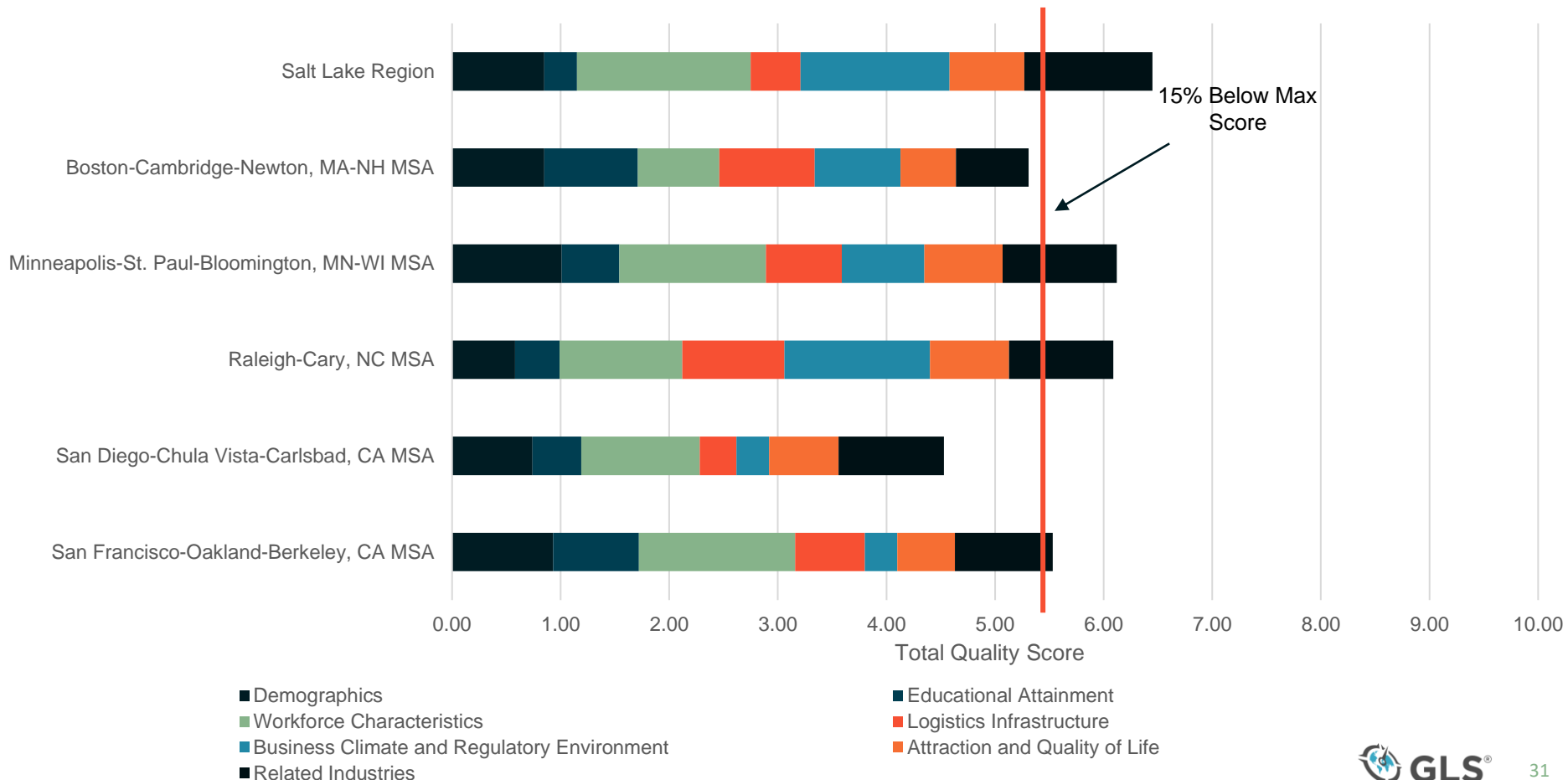
Medical Device Manufacturing	
Ranking	Location
1	Salt Lake Region
2	Minneapolis-St. Paul-Bloomington, MN-WI MSA
3	Raleigh-Cary, NC MSA
4	San Francisco-Oakland-Berkeley, CA MSA
5	San Diego-Chula Vista-Carlsbad, CA MSA
6	Boston-Cambridge-Newton, MA-NH MSA

*The ranking of the Salt Lake region is subject to change based on the competing locations.

Overview of Findings

The total quality score for each region is displayed in the below chart. Based on the findings of the quality analysis, the Salt Lake region offers the highest quality location relative to the competing locations primarily due to its workforce characteristics, business climate, and ecosystem of related industries that may help advance companies within the Medical Device Manufacturing industry. The region scores approximately 42% higher in quality than the lowest scoring region (San Diego-Chula Vista-Carlsbad, CA MSA).

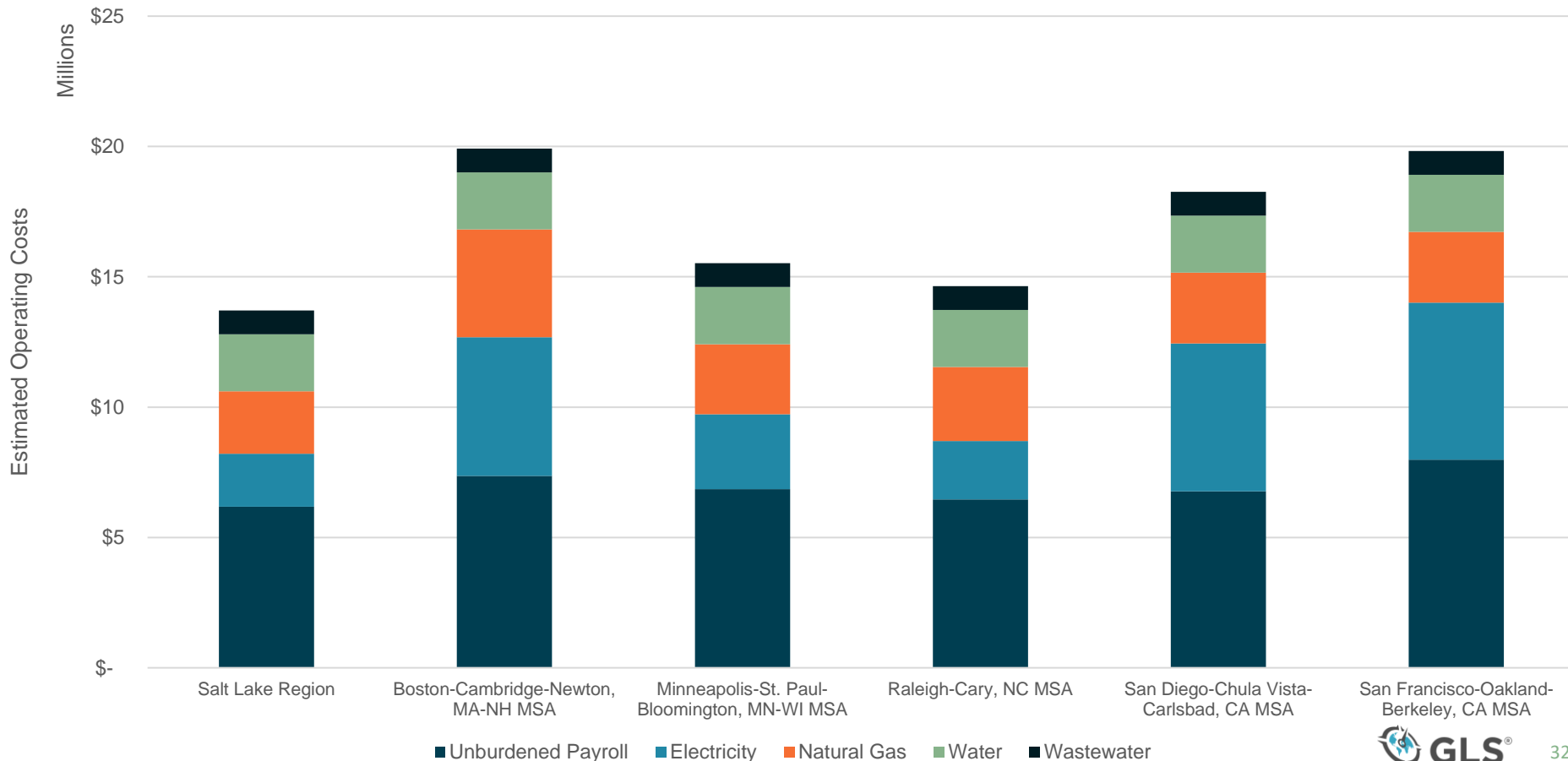
Quality Analysis



Overview of Findings

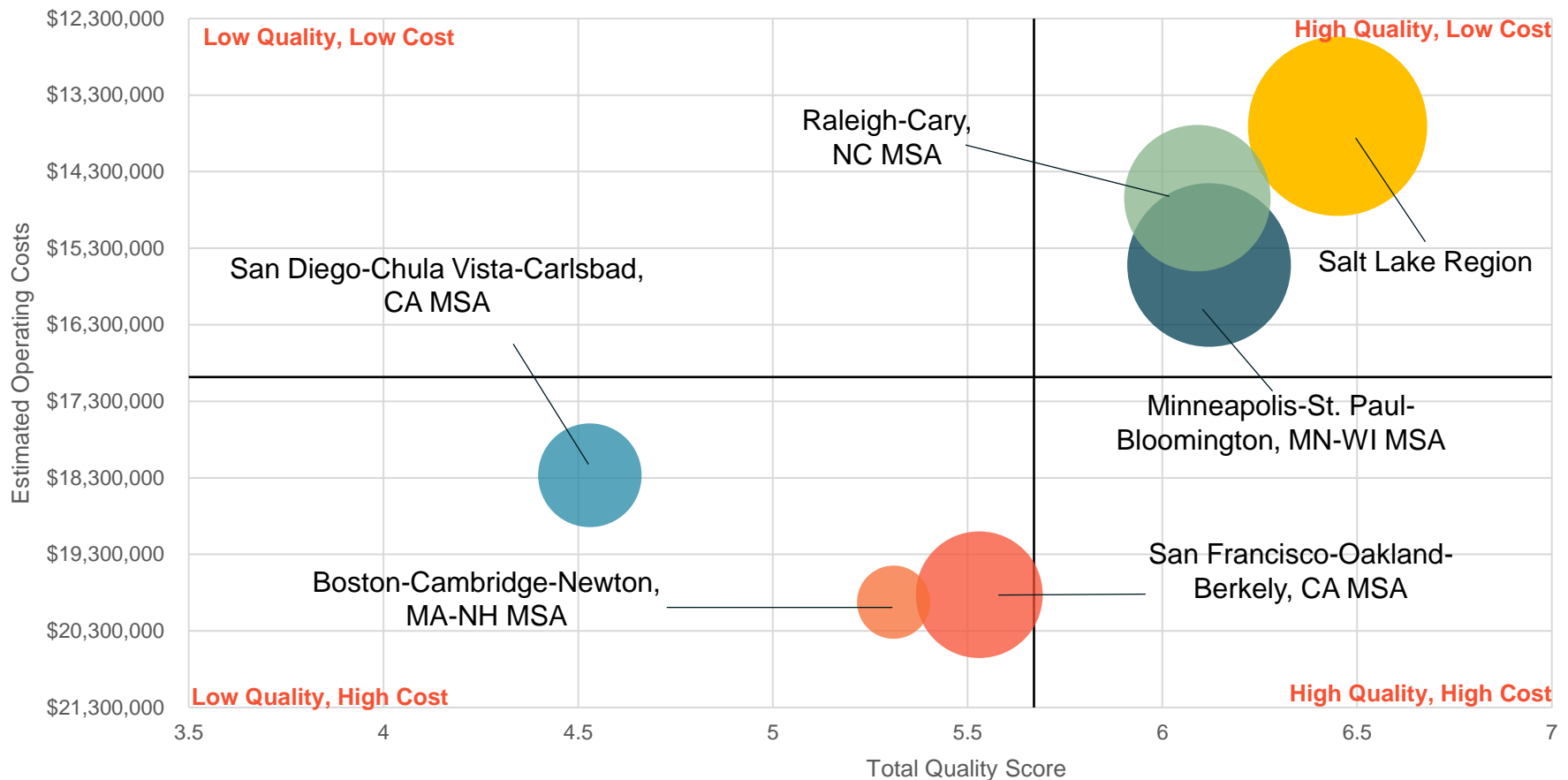
Labor and electricity are anticipated to be the largest cost drivers for companies within the medical device manufacturing sector. Based on the findings of the operating cost analysis, the Salt Lake region is estimated to offer the lowest operating cost. In addition to estimated lower labor cost, the Salt Lake region offers a competitive electricity rate based on average industrial rates in the state relative to competing locations. The Salt Lake region is anticipated to be approximately 30% lower cost than the highest cost location (Boston-Cambridge-Newton, MA-NH MSA) primarily due to the differences in electricity costs.

Estimated Location-Dependent Operating Costs



Overview of Findings

The below composite chart compares each location's quality score against its estimated operating cost (labor, electricity, natural gas, water, and wastewater). Operating costs are located on the vertical axis, with the top of the chart being the least expensive and the bottom being the most expensive. Conditional score is on the horizontal axis, with site scores improving left to right. Sites in the top right quadrant have good conditional scores and favorable operating costs, while sites in the lower left quadrant have relatively poor site scores and unfavorable costs. Scoring of each location is relative to a project's specific drivers and the other locations compared in the analysis.



○ Bubble size indicates overall rank with combined quality score and estimated operating costs

Overview of Findings

Medical Device Manufacturing					
Location	Quality Score ¹		Estimated Operating Costs ²		Combined Ranking
	Score	% From Highest	Estimated Costs	% Over Lowest	
Salt Lake Region	6.45	Highest	\$13.7 MM	Lowest	1
Minneapolis-St. Paul-Bloomington, MN-WI MSA	6.12	5%	\$15.5 MM	12%	2
Raleigh-Cary, NC MSA	6.09	6%	\$14.6 MM	6%	3
San Francisco-Oakland-Berkeley, CA MSA	5.53	17%	\$19.8 MM	31%	4
San Diego-Chula Vista-Carlsbad, CA MSA	4.53	42%	\$18.3 MM	25%	5
Boston-Cambridge-Newton, MA-NH MSA	5.31	21%	\$19.9 MM	31%	6

1. Quality scores are subject to change based on project specific factors that may be included during the site selection process.
2. Estimated costs include labor cost, electricity, natural gas, water, and wastewater and utilize assumptions based on average project requirements. Cost will vary across projects and when considering site-specific factors.

Gap Analysis

Overview

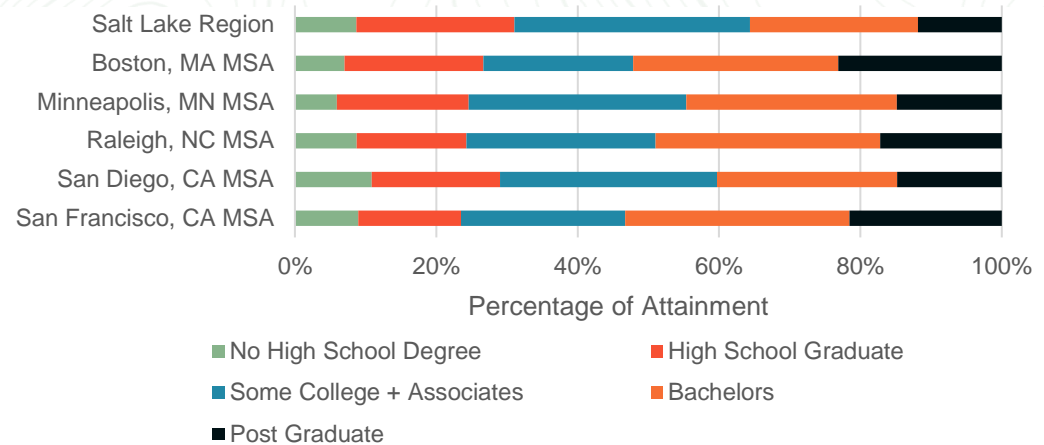
While the Salt Lake region offers many advantages, there are opportunities where the region can continue to improve to further differentiate itself from its competitors. The primary areas recommended for continued improvement is within workforce development and pipeline.

Areas of Improvement – Industry Related Awards

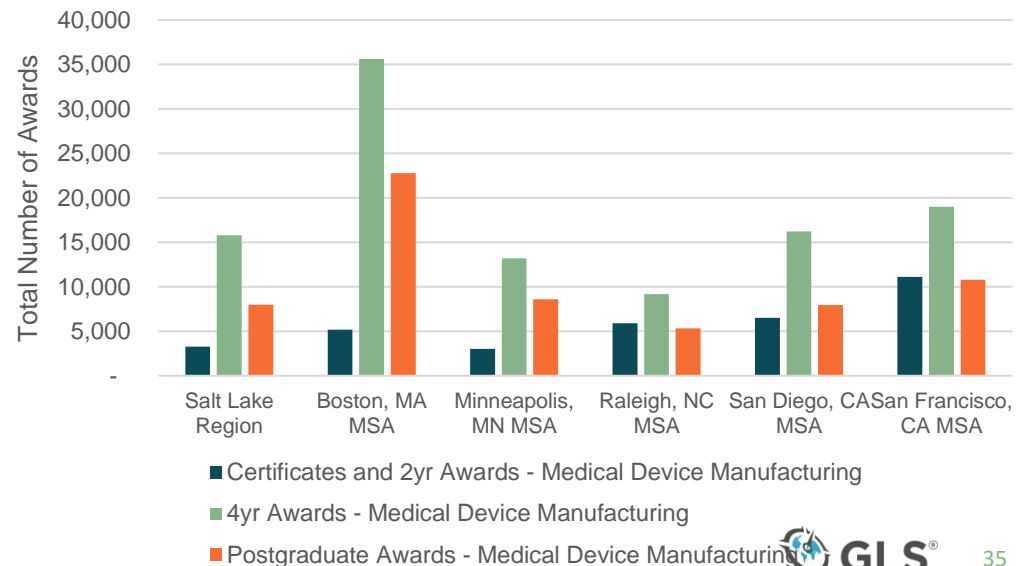
Relative to the competing locations, the Salt Lake region has a lower percentage of population that has attained bachelor's and post graduate Degrees and a lower number of awards related to the medical device manufacturing sector. Though production may require larger quantities of lower skillsets, bachelor's degrees within the field may be required for upper-level positions. Relevant program listings and graduation statistics from the University of Utah, and other universities and colleges with life sciences programs, can be used to alleviate any concerns related to the potential workforce pipeline that will be required for projects. Understanding the percentage of graduates that remain in the region post graduation will be beneficial in determining if the workforce remains within the region or leaves for new opportunities.

Educational Attainment

Age 25-64



Number of Awards in Medical Device Manufacturing

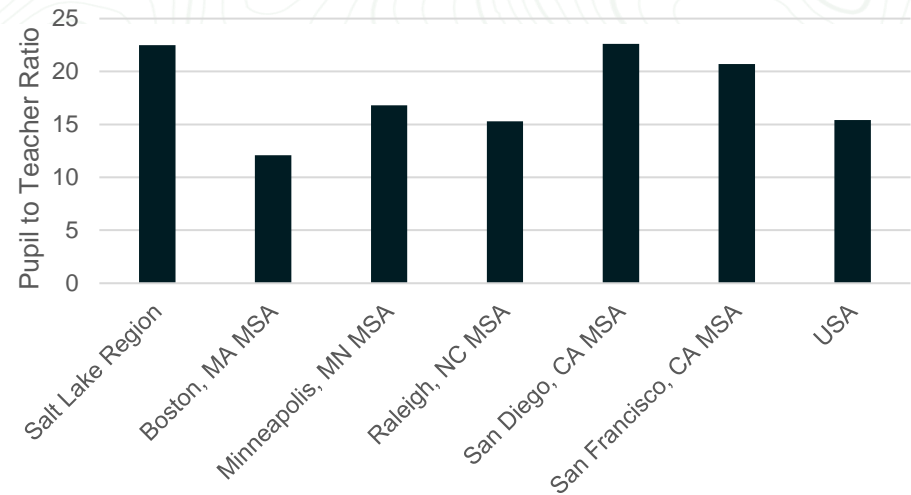


Gap Analysis

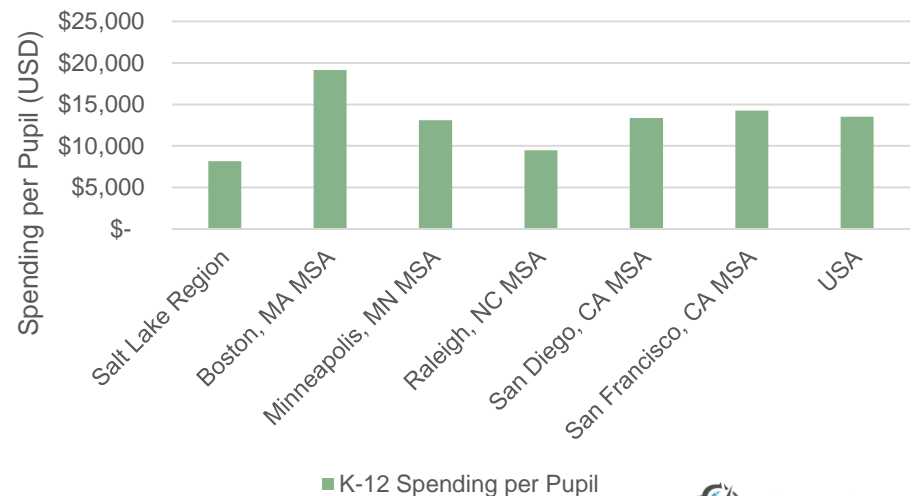
Areas of Improvement – K-12 Education System

The Salt Lake region has the lowest K-12 spending per pupil and a high pupil to teacher ratio relative to the competing locations and the U.S. average. While the focus on immediate recruitment for investment projects will be at the college and/or university level, considerations of the quality of the K-12 education system are also considered when evaluating locations. Though the region has a smaller spending budget per pupil, programs such as the State's Medical Innovations Pathway are an opportunity to showcase the intentional workforce development driven by public-private partnerships within the region.

K-12 Pupil to Teacher Ratio



K-12 Spending per Pupil



■ K-12 Spending per Pupil

SWOT Overview

STRENGTHS

- Though average wages within the Salt Lake region continue to increase for the industry, they trend below the national average offering a quality region with competitive wages relative to national expectations.
- The Salt Lake region has a high concentration of medical device manufacturing that exceeds the nation's concentration. Additionally, the region offers a supporting supply chain which may be advantageous for companies seeking to be within proximity of suppliers.
- The Salt Lake region offers a competitive industrial electricity rate for investment projects with an estimated high electricity demand.

OPPORTUNITIES

- Several educational programs are available with awards relevant to the medical device industry such as Bioengineer and Biomedical Engineering at the University of Utah.
- The existing trade and industry associations within the State that help foster growth within the industry offer an advantage for many companies within the medical device industry that desire to locate within an existing cluster and supporting infrastructure.

WEAKNESSES

- Desired education levels within the industry range from those with related certificates to bachelor's level. While the region has a population with an education attainment level of some college and higher greater than the U.S., the percent of population having attained some college and higher is lower relative to competing locations.

THREATS

- This industry has a high demand for assemblers. However, the region is currently experiencing a skills gap within the occupation.
- The cost of living in the Salt Lake region (108.3) exceeds the national benchmark (100). The higher cost of living may be deterrent for companies considering regions with a lower cost of living and lower wage expectations.



SALT LAKE COUNTY

Financial Services

Industry Insights

Industry Overview

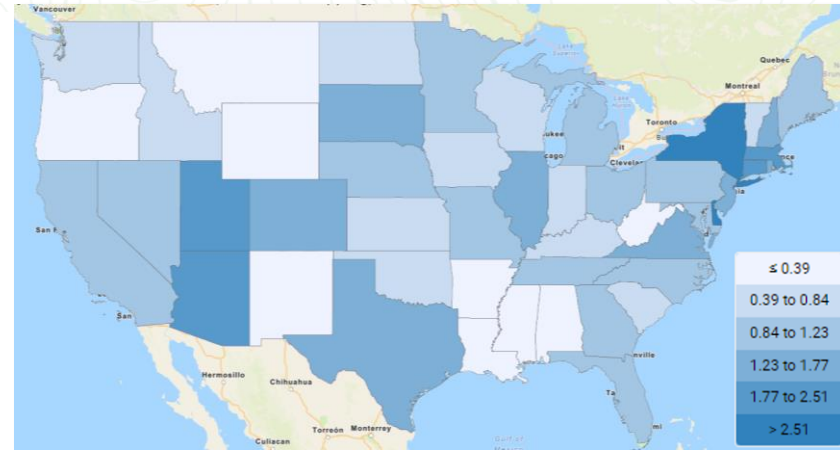
The financial services profile includes nondepository credit intermediation (NAICS 5222) and activities related to credit intermediation (NAICS 5223) subsectors which fall under the Finance and Insurance industry. Companies within the two subsectors provide services such as underwriting securities issues, managing portfolios of assets, and the facilitation of lending funds or issuance of credit.

While some growth opportunities are anticipated within the financial services industry, the sector is susceptible to economic downturns and growth may also vary due to economic conditions, regulatory changes, and/or technological advancements such as an increasing shift to digital banking. Additional impacts to the industry as it relates to site selection include the transition to hybrid and/or remote work causing a reduction in the size requirement of buildings needed by companies within the industry as well as the increase in hiring outside of the region of location.

Recent Announcements

The average capital investment for financial services projects ranges from <\$1MM to \$193MM with the new jobs per project ranging from 1 to 3000 between January 2018 to March 2023. In this time period, the average capital investment was \$10.5MM and the average jobs created was 63. Leading investors in this industry include JPMorgan Chase & Co., Fifth Third Bancorp, Gateway First Bank, Bank of America, and Regions Bank. The chart to the right highlights announcements made within the last three years in the U.S. within the financial services sector.

Industry Location Quotient in Financial Services



Source: JobsEQ

Date	Company	Location Announced	Capex	Jobs
Sep 2022	Discover Financial Services	West Valley City, UT	\$9.5 MM	400
Aug 2022	The Bank of London	Charlotte, NC	\$35.5 MM	350
Oct 2022	Reliance Partners	Phoenix, AZ	\$8.6 MM	76
Feb 2023	PNC Bank	Nashville, TN	\$10.6 MM	43
Jan 2023	BNP Paribas Securities Corporation	Miami, FL	\$5.7 MM	50
Jan 2023	LCG Advisors	Denver, CO	\$25.1 MM	147

Source: FDI Markets

Overview of Findings

Relative to the competing locations, the Salt Lake region ranks second within the financial services industry based on the combined quality and estimated operating costs. The primary advantage of the Salt Lake region relative to the highest-ranking location includes the region's workforce characteristics related to companies that fall under financial services. The region scores third to the Phoenix-Mesa-Chandler, AZ MSA and Charlotte-Concord-Gastonia, NC-SC MSA for its quality and scores approximately 5% from the highest scoring location. However, it is estimated to have the lowest operating cost due to its lower labor and electricity costs and approximately 16% lower cost than the highest cost region.



Financial Services	
Ranking	Location
1	Phoenix-Mesa-Chandler, AZ MSA
2	Salt Lake Region
3	Charlotte-Concord-Gastonia, NC-SC MSA
4*	Miami-Fort Lauderdale-Pompano Beach, FL MSA Denver-Aurora-Lakewood, CO MSA
5	Nashville-Davidson-Murfreesboro-Franklin, TN MSA

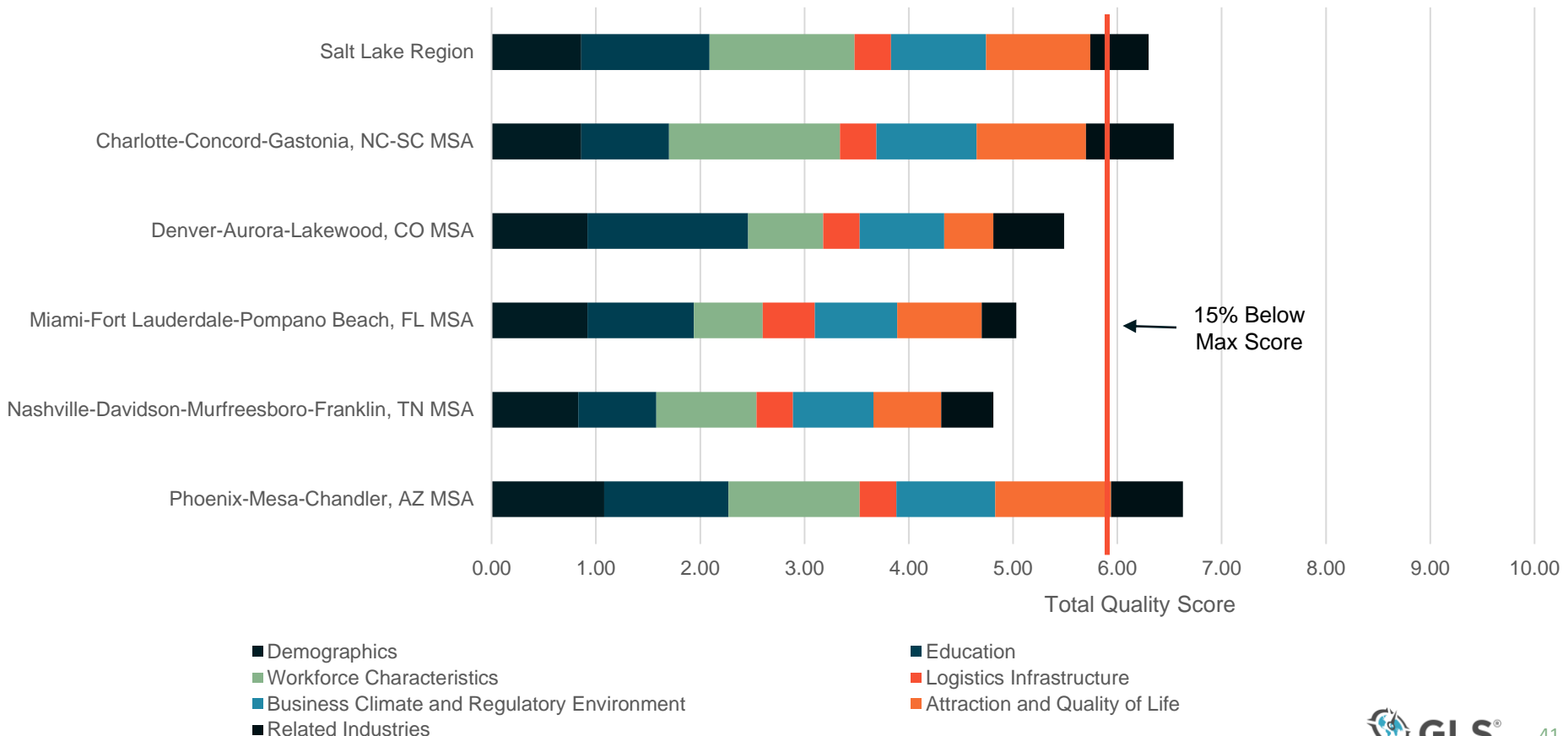
*The Miami and Denver MSA tie for the fourth ranking based on their quality and operating cost analysis.

*The ranking of the Salt Lake region is subject to change based on the competing locations.

Overview of Findings

Based on the findings of the quality analysis, the Salt Lake region offers the third highest quality location relative to the competing locations primarily due to its workforce characteristics, business climate, and ecosystem of related industries that may help advance companies within the financial services industry. The Phoenix-Mesa-Chandler, AZ MSA scores the highest overall for its anticipated quality primarily due to its demographics, favorable business climate and regulatory environment, attraction and quality of life. The Salt Lake region's quality, relative to the competing locations, is approximately 5% lower than the highest scoring location.

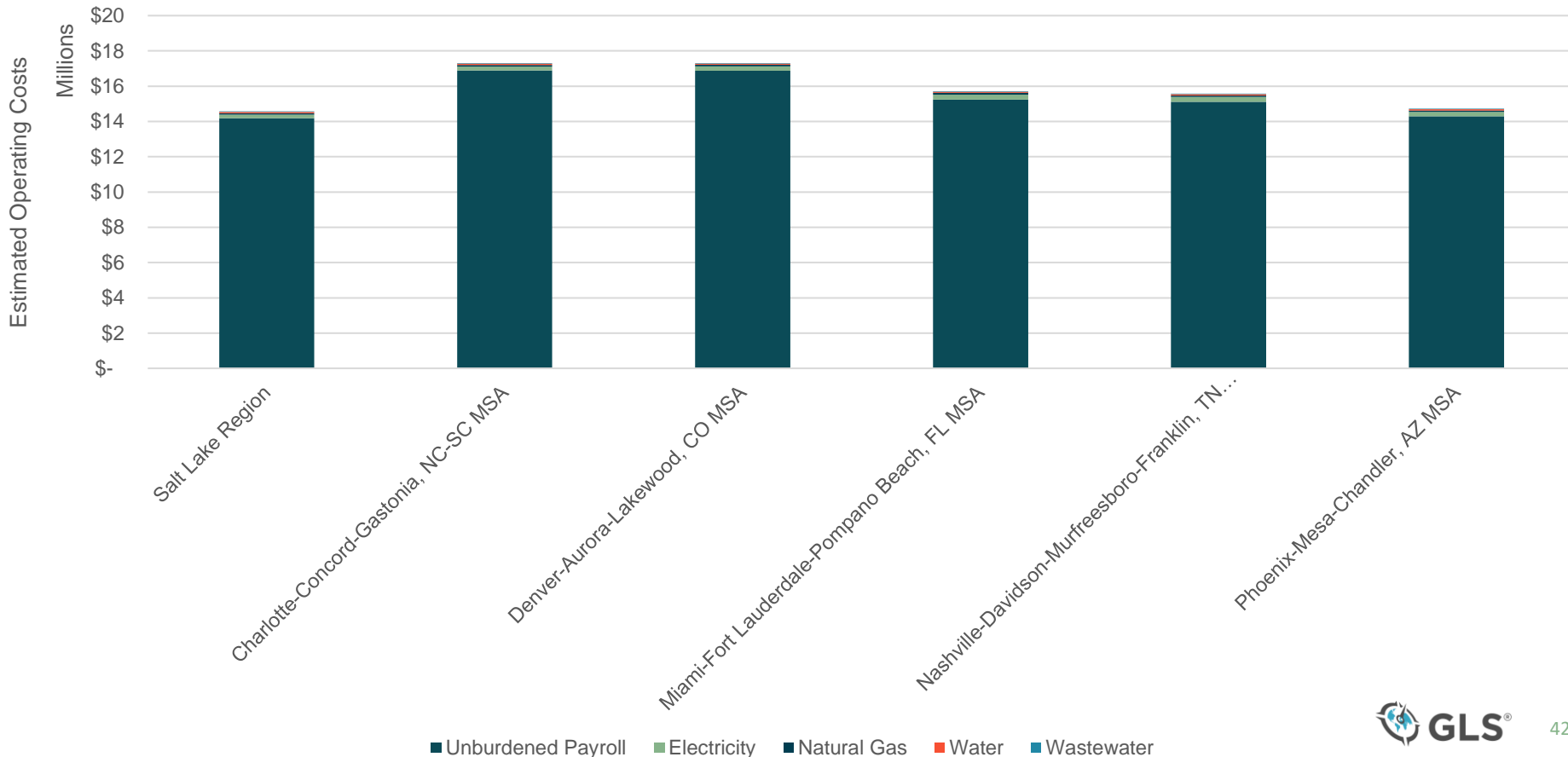
Quality Analysis



Overview of Findings

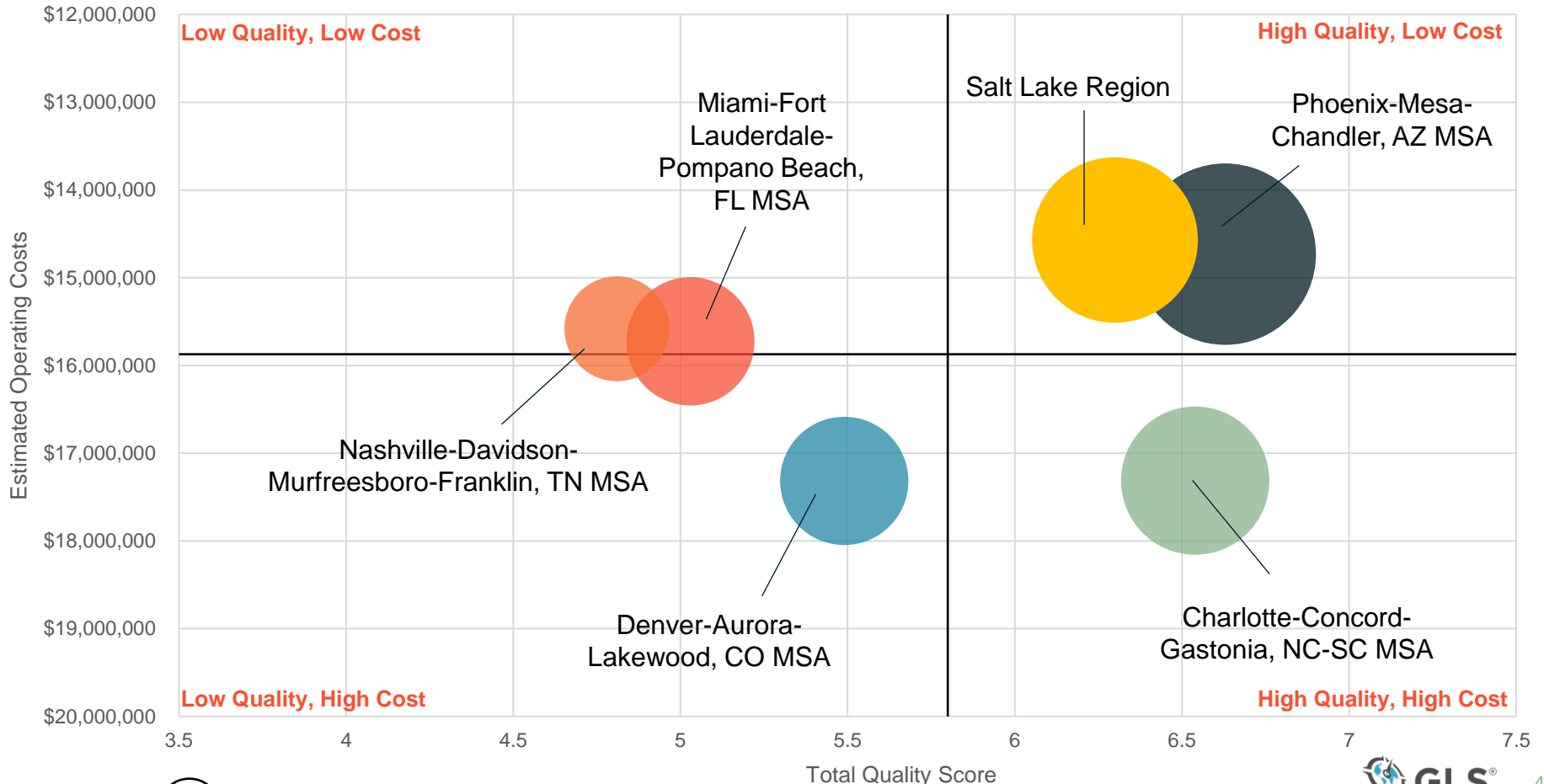
Labor is anticipated to be the largest cost driver for companies within the financial services sector. Based on the findings of the operating cost analysis, the Salt Lake region is estimated to offer the lowest operating cost due to its lower average electricity rate for commercial properties. While the region offers a lower wage for occupations targeted within the financial services sector, the average wage within the industry is relatively similar across all locations. The annual cost difference between the highest cost location (Charlotte-Concord-Gastonia, NC-SC MSA) and lowest cost (the Salt Lake Region) location is estimated to be approximately 16% higher cost.

Estimated Location-Dependent Operating Costs



Overview of Findings

The below composite chart compares each location's quality score against its estimated operating cost (labor, electricity, natural gas, water, and wastewater). Operating costs are located on the vertical axis, with the top of the chart being the least expensive and the bottom being the most expensive. Conditional score is on the horizontal axis, with site scores improving left to right. Sites in the top right quadrant have good conditional scores and favorable operating costs, while sites in the lower left quadrant have relatively poor site scores and unfavorable costs. Scoring of each location is relative to a project's specific drivers and the other locations compared in the analysis.



○ Bubble size indicates overall rank with combined quality score and estimated operating costs

Overview of Findings

Financial Services					
Location	Quality Score ¹		Estimated Operating Costs ²		Combined Ranking
	Score	% From Highest	Estimated Costs	% Over Lowest	
Phoenix-Mesa-Chandler, AZ MSA	6.63	Highest	\$14.7 MM	1%	1
Salt Lake Region	6.30	5%	\$14.6 MM	Lowest	2
Charlotte-Concord-Gastonia, NC-SC MSA	6.54	1%	\$17.3 MM	16%	3
Miami-Fort Lauderdale-Pompano Beach, FL MSA	5.03	32%	\$15.7 MM	7%	4
Denver-Aurora-Lakewood, CO MSA	5.49	21%	\$17.3 MM	16%	
Nashville-Davidson-Murfreesboro-Franklin, TN MSA	4.81	38%	\$15.6 MM	6%	5

1. Quality scores are subject to change based on project specific factors that may be included during the site selection process.
2. Estimated costs include labor cost, electricity, natural gas, water, and wastewater and utilize assumptions based on average project requirements. Cost will vary across projects and when considering site-specific factors.

Gap Analysis

Overview

The Salt Lake region offers a competitive landscape for companies within the financial services industry; however, the workforce environment and market availability can continue to be improved to help differentiate the region from its competitors and to support its existing industry.

Areas of Improvement – Market Availability

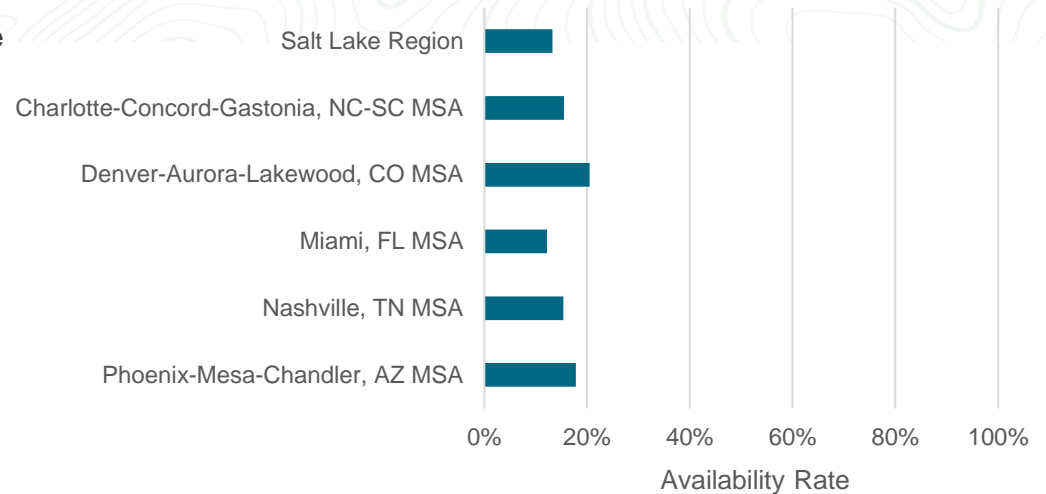
In many cases, investment projects within the financial services industry may prioritize existing buildings over greenfield sites. While it is not expected for economic development organizations to own and maintain commercial buildings, collaboration and/or consultations with developers or real estate agencies may be beneficial in upfitting older buildings to be more investment ready.

Areas of Improvement – Workforce Pipeline

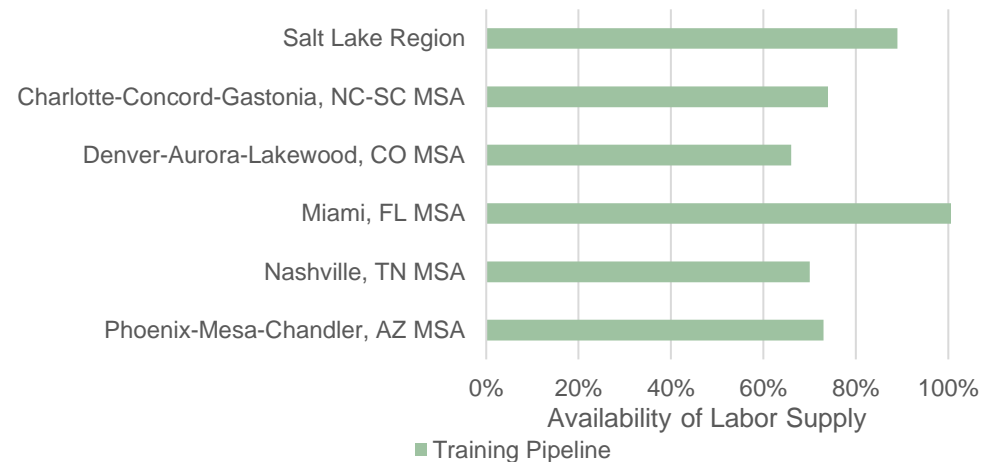
Though the Salt Lake region scores well relative to the competing locations, continued development of the workforce pipeline will be beneficial in further differentiating the region from its competitors. Key occupations currently of focus within the industry include cyber security and risk analyst. Continued focus on an increase in the postsecondary graduates required by the industry is encourage to exceed the average availability. The chart to the right displays the estimated availability based on an investment project's need for 250 people.

FINANCIAL SERVICES

Commercial Market Availability Rate



Training Pipeline



Source: JobsEQ

SWOT Overview

STRENGTHS

- The Salt Lake region's young population is advantageous for investment projects considering locations with younger demographics.
- The financial services sector is anticipated to continue to grow within the region (4.9%) and exceeds the national forecasted growth rate (4.0%).
- The region has a high number of 4-year awards within the industry relative to the competing locations. This is a competitive factor as the top occupations within the industry include business and financial operations.

OPPORTUNITIES

- Several educational programs in or near the region offer programs related to financial services, such as accounting and finance. Opportunities for development of a workforce pipeline are feasible for the Salt Lake region due to the availability of existing programs.

WEAKNESSES

- The current availability rate of existing buildings is amongst the lowest relative to the competing locations. The lower availability may limit consideration of the region due to the lack of available site options.
- The Salt Lake region has a high turnover rate (approximately 8%) within the financial services sector.
- The region has the lowest diversity relative to the competing locations. Social considerations have become increasingly important for investment projects, particularly office and/or HQ projects. A focus on locations that can support company initiatives may be prioritized in the site selection process.

THREATS

- Wages related to the financial services industry within the Salt Lake region are forecasted to change at a significantly higher rate than the U.S. over a five-year period. While the average wage within the industry is lower than the U.S., it is anticipated to exceed it due to growth. Wages exceeding the national average can be a disadvantage for companies seeking locations that offer competitive wage environments.



SALT LAKE COUNTY

Software Services

Industry Insights

Industry Overview

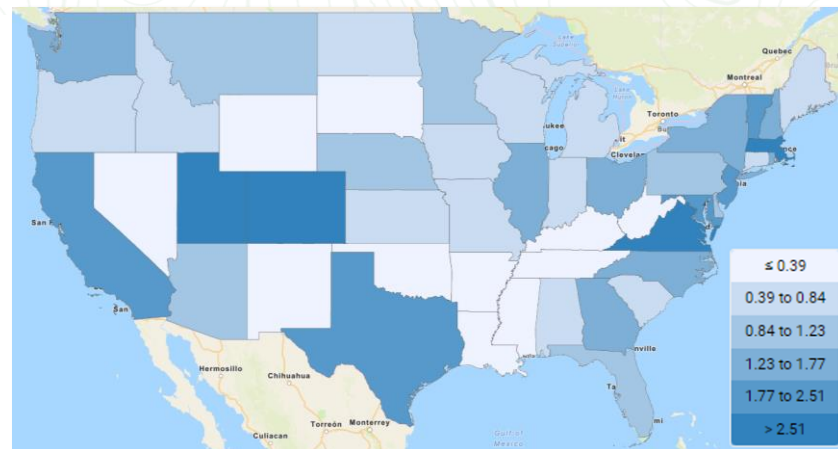
The software services industry includes the software publishers and the computer systems design and related services subsectors and falls under the information technology (IT) services. Software publishing is included within the publishing industries sector due to the operations being similar to the creation process of other types of intellectual products; however, skillsets required for the subsector differ.

The State of Utah has a strong concentration of companies within the software services industry indicated by the darker blue shading in the image to the right. Within the Salt Lake region, the concentration of software publisher entities is significantly higher than that of the nation's average concentration.

Recent Announcements

The average capital investment for software services projects ranges from <\$1MM to \$1B with the new jobs per project ranging from 1 to 7,000 between January 2018 and March 2023. In this time period, the average capital investment was \$17MM and the average jobs created were 91. Leading investors in this industry include Meta (Facebook), Google, Alphabet Inc, Accenture, Tata Group, and Microsoft. The chart to the right highlights announcements made within the last three years in the U.S. within the software services sector.

Industry Location Quotient in Software Services



Source: JobsEQ

Date	Company	Location Announced	Capex	Jobs
Nov 2022	Kennected	Orem, UT	\$10.4 MM	58
Feb 2023	Meta (Facebook)	Durham, NC	\$21.8 MM	138
Aug 2022	Equipment Share	Grand Junction, CO	\$4.9 MM	30
May 2022	Amazon.com	Irvine, CA	\$140.3 MM	800
Dec 2022	TransferWise	Austin, TX	\$17.5 MM	100
Sep 2022	AccelOne	Gilbert, AZ	\$6.4 MM	98

Source: FDI Markets

Executive Summary

Relative to the competing locations, the Salt Lake region ties for the highest overall score for its quality and estimated operating costs. The primary advantage of the Salt Lake region relative to the competing locations includes the region’s educational attainment and talent pipeline, its business climate, and quality of life. However, the region does not score as favorably as the highest-ranking location when considering demographics, workforce characteristics relevant to companies within the software services industry, and existence of an ecosystem of related industries. The region scores approximately 8% lower than the highest quality location (Austin-Round Rock-Georgetown, TX MSA); however, it is anticipated to have lower operating cost. The region is estimated to be the lowest cost location and is approximately 14% lower cost than the highest cost region (Denver-Aurora-Lakewood, CO MSA).



Software Services	
Ranking	Location
1	Salt Lake Region
	Austin-Round Rock-Georgetown, TX MSA
2	Denver-Aurora-Lakewood, CO MSA
3	Raleigh-Cary, NC MSA
4	Dallas-Fort Worth-Arlington, TX MSA
	Phoenix-Mesa-Chandler, AZ MSA

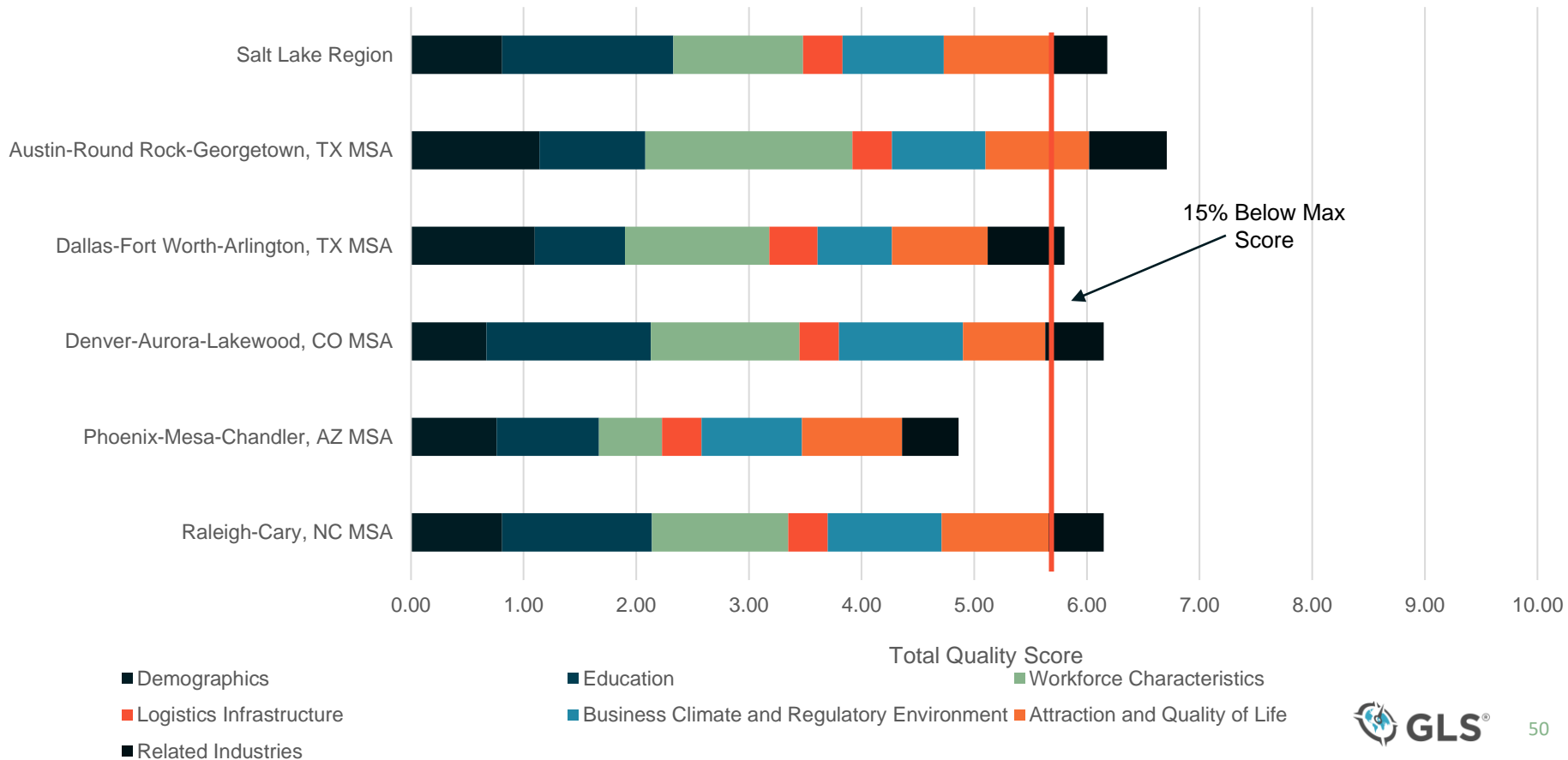
*The Dallas and Phoenix MSA tie for the fourth ranking based on their quality and operating cost analysis.

*The ranking of the Salt Lake region is subject to change based on the competing locations.

Overview of Findings

Based on the findings of the quality analysis, the Salt Lake region offers the third highest quality location relative to the competing locations primarily due to its demographics, education, business climate, and quality of life. The highest scoring location is the Austin-Round Rock-Georgetown, TX MSA. The region scores the highest due to its workforce characteristics and the related industries located within the region that may provide support to companies within the software services sector. The Salt Lake region scores approximately 8% lower than the highest scoring location.

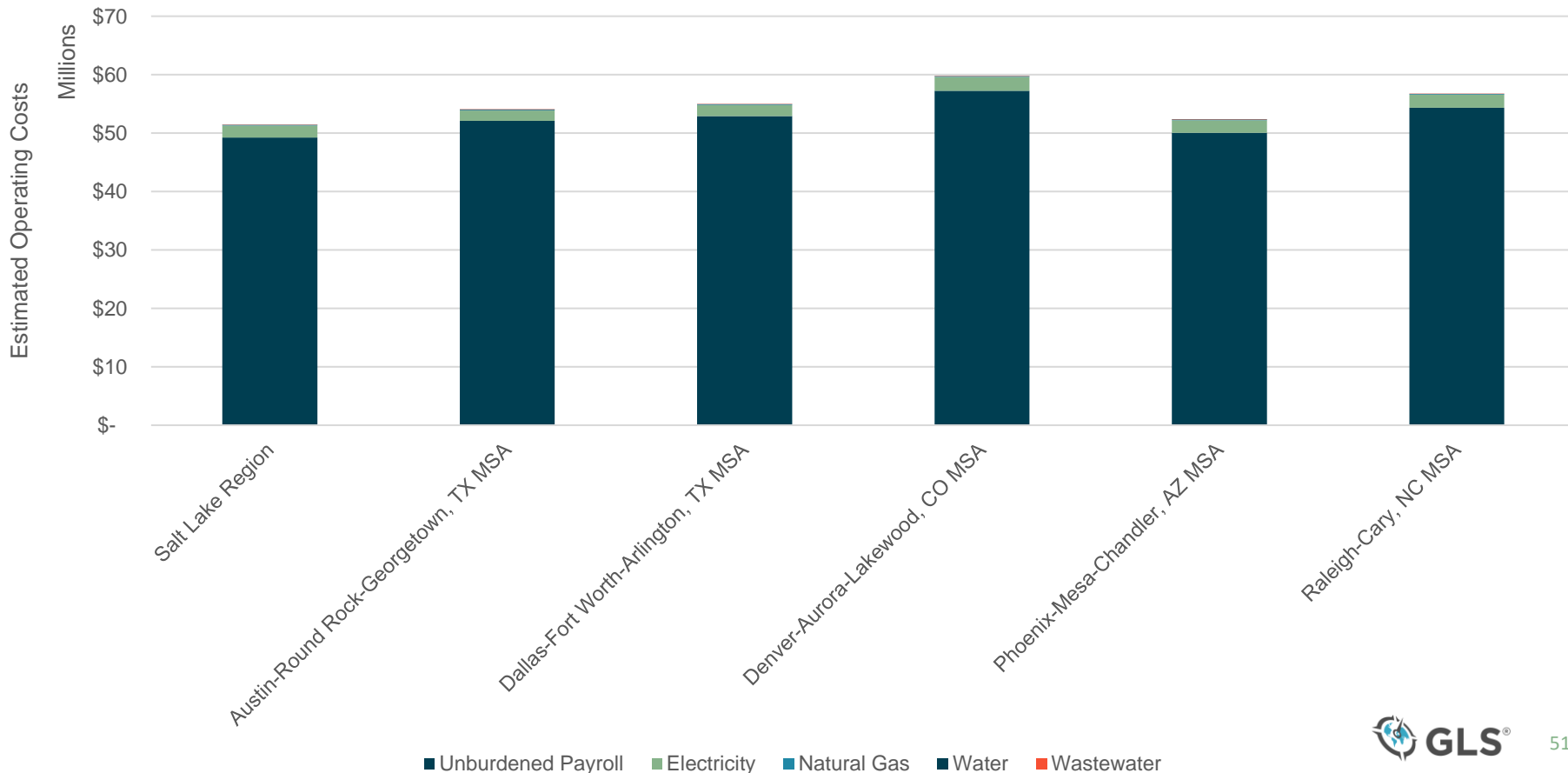
Quality Analysis



Overview of Findings

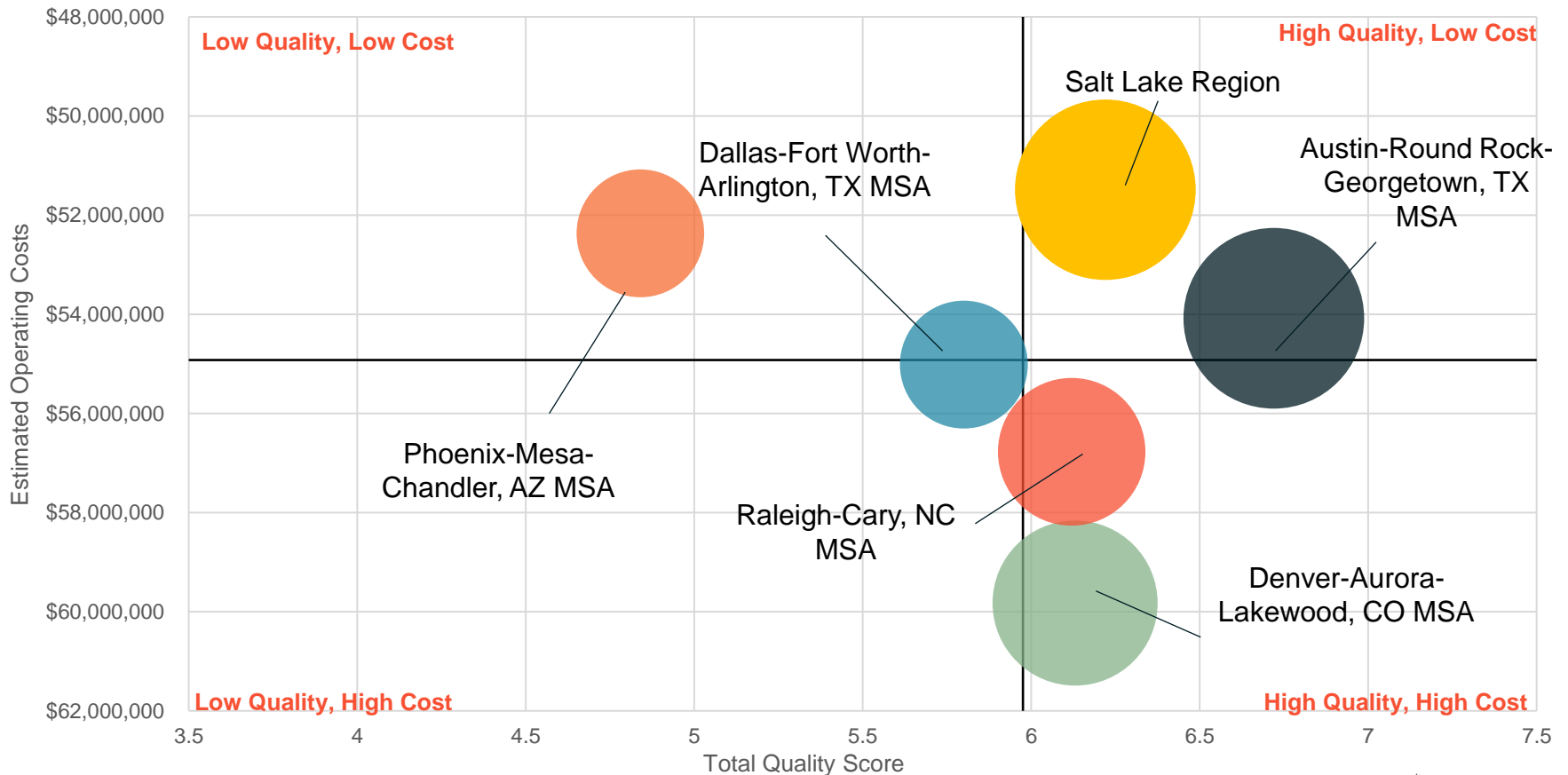
Labor is anticipated to be the primary location-dependent cost driver for the companies within the software services industry. Based on the findings of the operating cost analysis, the Salt Lake region is anticipated to offer the lowest operating cost. Though the region's labor cost are anticipated to be the lowest, the average industrial electricity rate is higher than the lowest estimated cost location for electricity (Austin-Round Rock-Georgetown, TX MSA). The highest cost location is anticipated to be the Denver-Aurora-Lakewood, CO MSA due to both the estimated labor costs and average industrial electricity rates. Based on the evaluated locations, the Salt Lake region is estimated to be 14% lower than the highest cost location (Denver-Aurora-Lakewood, CO MSA).

Estimated Location-Dependent Operating Costs



Overview of Findings

The below composite chart compares each location's quality score against its estimated operating cost (labor, electricity, natural gas, water, and wastewater). Operating costs are located on the vertical axis, with the top of the chart being the least expensive and the bottom being the most expensive. Conditional score is on the horizontal axis, with site scores improving left to right. Sites in the top right quadrant have good conditional scores and favorable operating costs, while sites in the lower left quadrant have relatively poor site scores and unfavorable costs. Scoring of each location is relative to a project's specific drivers and the other locations compared in the analysis.



○ Bubble size indicates overall rank with combined quality score and estimated operating costs

Overview of Findings

Software Services					
Location	Quality Score ¹		Estimated Operating Costs ²		Combined Ranking
	Score	% From Highest	Estimated Costs	% Over Lowest	
Austin-Round Rock-Georgetown, TX MSA	6.72	Highest	\$54.0 MM	5%	1
Salt Lake Region	6.22	8%	\$51.5 MM	Lowest	
Denver-Aurora-Lakewood, CO MSA	6.13	10%	\$59.8 MM	14%	2
Raleigh-Cary, NC MSA	6.12	10%	\$56.8 MM	9%	3
Dallas-Fort Worth-Arlington, TX MSA	5.80	16%	\$55.0 MM	6%	4
Phoenix-Mesa-Chandler, AZ MSA	4.84	39%	\$52.4 MM	2%	

1. Quality scores are subject to change based on project specific factors that may be included during the site selection process.
2. Estimated costs include labor cost, electricity, natural gas, water, and wastewater and utilize assumptions based on average project requirements. Cost will vary across projects and when considering site-specific factors.

Gap Analysis

Overview

The Salt Lake region offers a competitive landscape for companies within the financial services industry; however, the workforce environment can continue to be improved to help differentiate the region from its competitors and to support its existing industry.

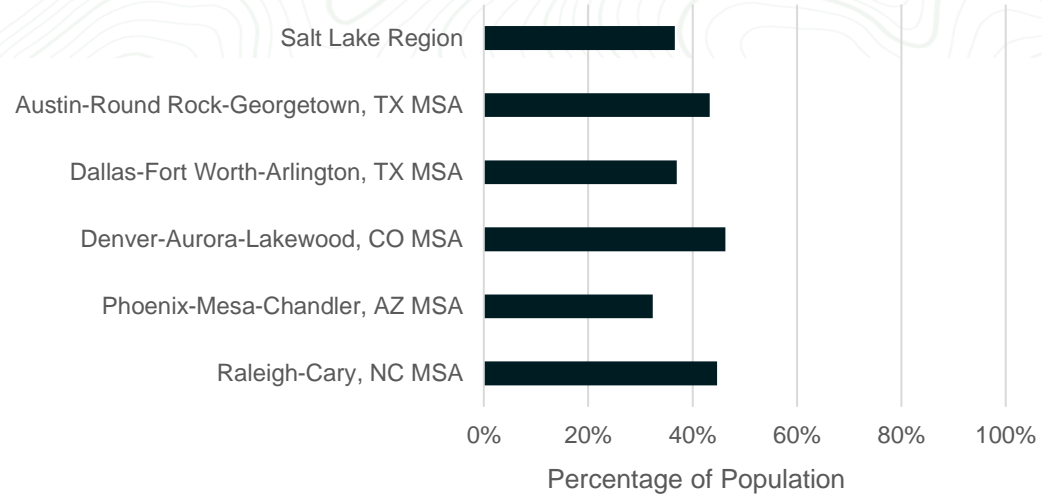
Areas of Improvement – Workforce Pipeline

The Salt Lake region has a lower percentage of its population that has attained a bachelor’s degree or higher relative to competing markets. A focus on development of the pipeline for higher level skills may be beneficial in attracting investment projects where a large portion of the workforce requires higher-level skillsets.

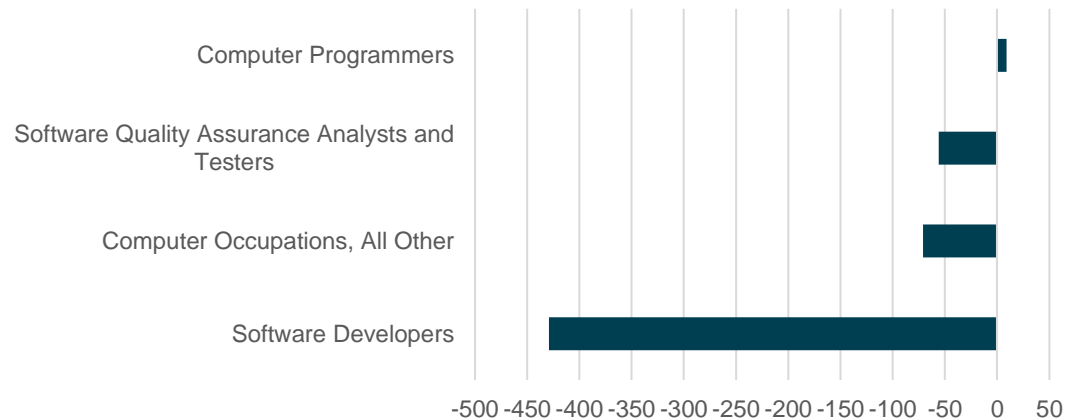
While the region has a good concentration of overall occupations within the industry, occupations such as software quality assurance analysts and computer system analysts have a lower concentration.

Positions such as software developers, computer occupations, and software quality assurance are anticipated to be in deficit over three years within the region. Communities should focus on bridging the gap to be able to accommodate the workforce required for new investment projects and existing industries.

SOFTWARE SERVICES Bachelor's Degree and Higher



Potential Average Annual Occupation Gap Over 3 Years



SWOT Overview

STRENGTHS

- The Salt Lake region has a higher number of 4-year and postgraduate awards related to the software service industries.
- The region has a larger percentage of its workforce employed within the software services industry relative to the competing locations. This may be an advantage when considering locations with larger workforce pools with existing and/or transferrable skillsets for investment projects.
- The Salt Lake region has a high concentration of companies within the software services industry such as custom computer programming services and software publishers.

OPPORTUNITIES

- The Salt Lake region ties for the highest score sustainability based on the State's sustainable development goals. This may offer advantages in marketing to companies that seek to partner with communities that align with their company goals.

WEAKNESSES

- The current availability rate of existing buildings is amongst the lowest relative to the competing locations. The lower availability may limit consideration of the region due to the lack of available site options.
- The Salt Lake region has a lower number of certificates and 2-year awards within the software services industry relative to the competing locations. While the top occupations within the sector may require a 4-year degree, various positions may allow a minimum of a 2-year award.
- Industries within the information technology cluster have the smallest forecasted five-year growth than the competing locations. This may be a weakness for the region as it may be viewed that the sector has a more positive growth projection in other major markets; however, the rate of growth scores favorably relative to the competing locations.

THREATS

- Wages related to the software services industry within the Salt Lake region are forecasted to increase at a significantly higher rate than the U.S. over a five-year period. While the average wage within the industry is lower than the U.S., it is anticipated to exceed it due to growth. Wages exceeding the national average can be a disadvantage for companies seeking locations that offer competitive wage environments.



SALT LAKE COUNTY

Therapeutics and Diagnostics R&D

Industry Insights

Industry Overview

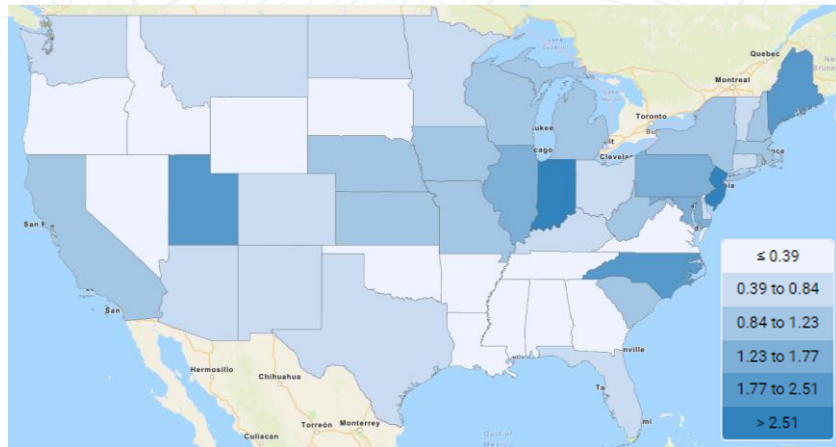
The therapeutics and diagnostics R&D overview consist of the medical and diagnostics laboratories sector which focuses on providing analytics and diagnostic services. Subsectors of the industry include medical laboratories such as dental or medical x-ray laboratories, medical forensic laboratories, medical testing laboratories, and blood analysis laboratories. The sector also includes diagnostic imaging centers.

The State of Utah has a strong concentration of companies within the medical and diagnostic laboratories which is indicate by the darker blue shading in the image to the right. Within the Salt Lake region, a strong concentration and employment base is within the medical laboratories subsector specifically.

Recent Announcements

The average capital investment for therapeutics and diagnostics R&D projects ranges from \$1MM to \$700MM with the new jobs per project ranging from 1 to 500 between January 2018 to March 2023. In this time period, the average capital investment was \$53.7MM and the average jobs created was 83. Leading investors in this industry include Fujifilm, Danaher, Beckman Coulter, WuXi Pharmatech, and Novo Nordisk. The chart to the right highlights announcements made within the last three years in the U.S. within the therapeutics and diagnostics R&D sector.

Industry Location Quotient in Medical and Diagnostic Laboratories



Source: JobsEQ

Date	Company	Location Announced	Capex	Jobs
Apr 2021	Denali Therapeutics	Salt Lake City, UT	\$40.0 MM	100
Aug 2020	Confluent Medical Technologies	Austin, TX	\$6.9 MM	40
Nov 2020	Eluminex Biosciences	San Marcos, CA	\$62.3 MM	73
Aug 2021	Tempus	Durham, NC	\$121.7 MM	200
Nov 2021	Pathology Watch	Mesa, AZ	\$10.1 MM	107
Jan 2020	Protaryx	Minneapolis	\$14.9 MM	46

Source: FDI Markets

Executive Summary

Relative to the competing locations, the Salt Lake region ties first with the Raleigh-Cary, NC MSA for its quality and labor force characteristics. The regions score similarly for the population's education characteristics, business climate, and existing ecosystem of supporting and/or related industries. The primary difference between the two location's quality is the Raleigh-Cary, NC MSA's workforce characteristics relevant to the industry and more favorable quality of life. The region scores second overall in quality (approximately 8% lower) to the Raleigh-Cary, NC MSA; however, the Salt Lake region offers a lower cost location. When combined, the regions tie for highest rank.



Therapeutics and Diagnostics R&D	
Ranking	Location
1*	Salt Lake Region
	Raleigh-Cary, NC MSA
2	Dallas-Fort Worth-Arlington, TX MSA
3*	Phoenix-Mesa-Chandler, AZ MSA
	Minneapolis-St. Paul-Bloomington, MN-WI MSA
4	San Diego-Chula Vista-Carlsbad, CA MSA

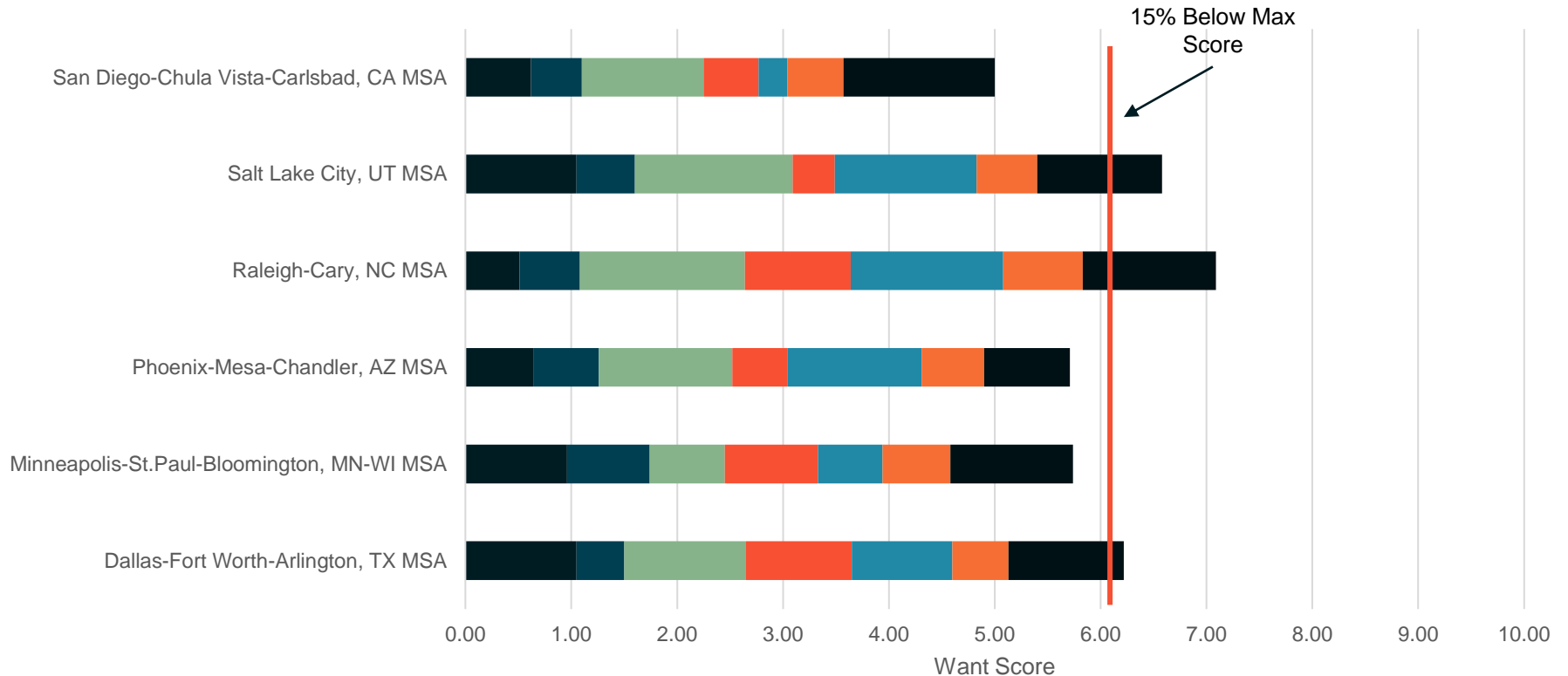
*The identified MSAs tie in ranking based on their quality and operating cost analysis.

*The ranking of the Salt Lake region is subject to change based on the competing locations.

Overview of Findings

Based on the findings of the quality analysis, the Salt Lake region offers the second highest quality location relative to the competing locations primarily due to its demographics, workforce characteristics, business climate, and ecosystem of related industries that may help advance companies within the medical and diagnostic laboratories industry. The highest-ranking location is the Raleigh-Cary, NC MSA primarily due to its workforce, logistics infrastructure, business climate, and quality of life. The Salt Lake region scores approximately 8% lower than the highest scoring location.

Quality Analysis

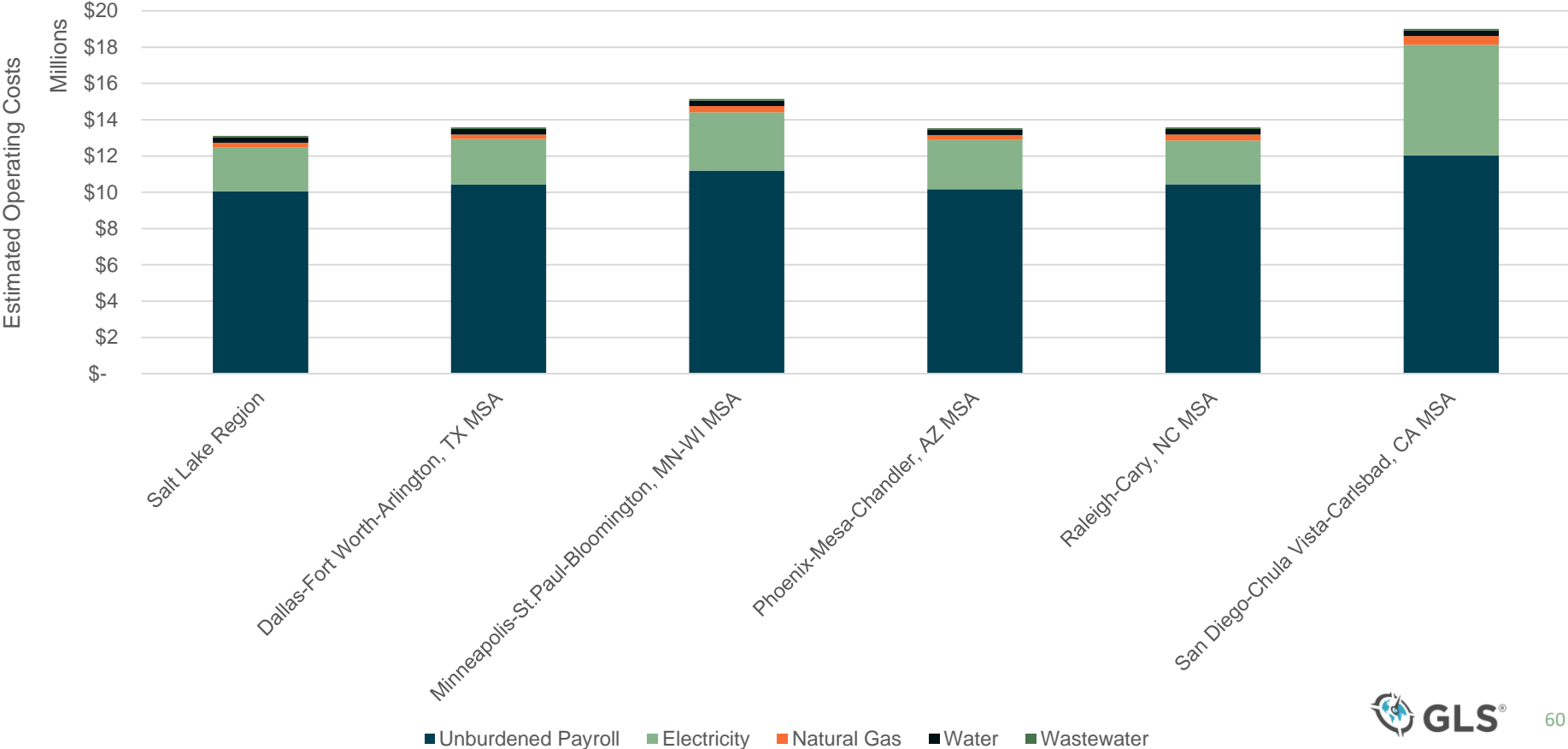


- Demographics
- Education
- Workforce
- Logistics Infrastructure
- Business Climate and Regulatory Environment
- Attraction and Quality of Life
- Related Industries

Overview of Findings

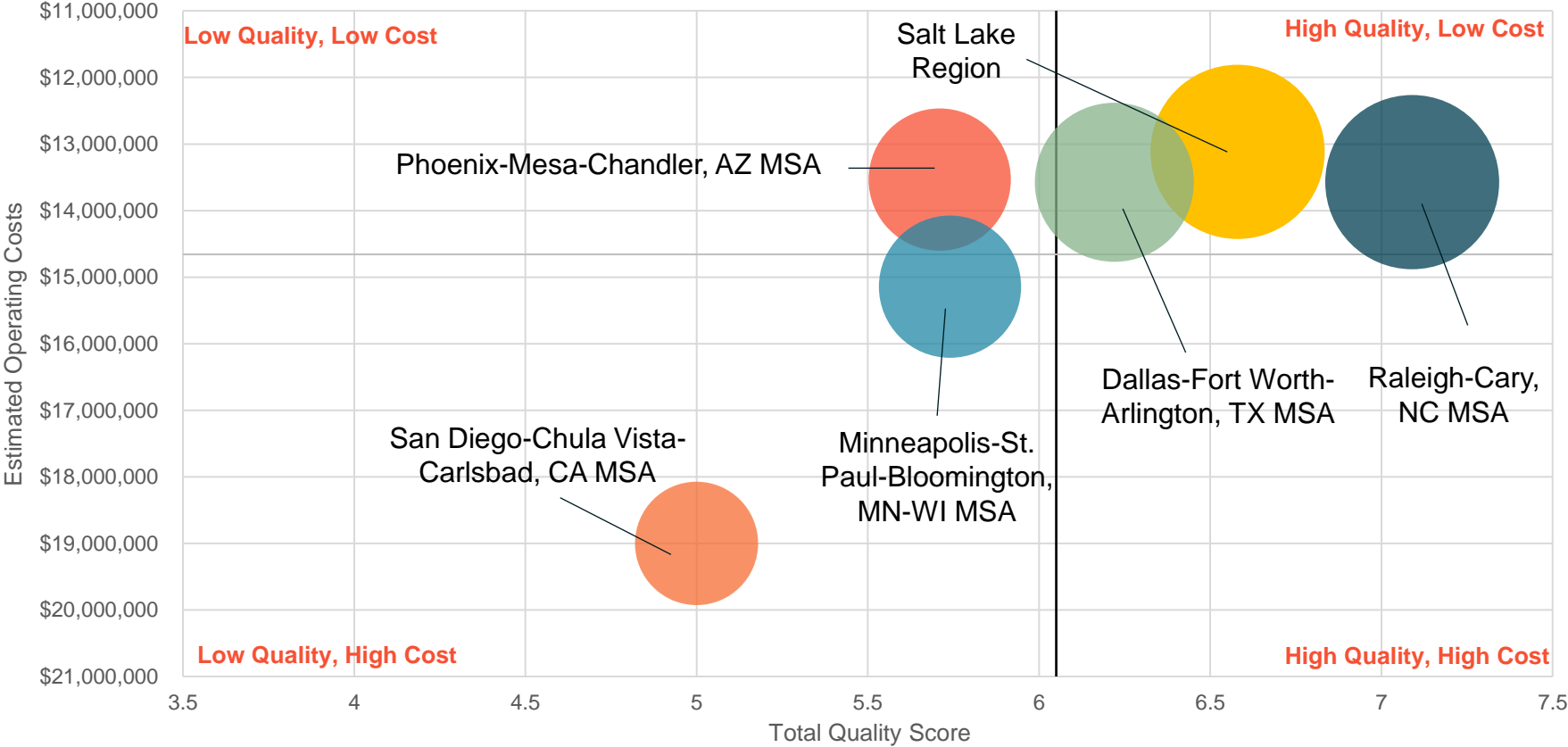
Labor and electricity are estimated to be the biggest cost drivers for companies within the therapeutics and diagnostics R&D sectors. Based on the findings of the operating cost analysis, the Salt Lake region is anticipated to offer the lowest operating cost. In addition to estimated lower labor cost, the Salt Lake region offers a competitive electricity rate based on average industrial rates in the state relative to competing locations. The primary difference between the Salt Lake region and the lowest cost regions is the estimated cost for natural gas. The estimated annual cost difference between the lowest and highest cost location (San Diego-Chula Vista-Carlsbad, CA MSA) is approximately 30% higher cost due to its higher labor, electricity and natural gas cost.

Estimated Location-Dependent Operating Costs



Overview of Findings

The below composite chart compares each location’s quality score against its estimated operating cost (labor, electricity, natural gas, water, and wastewater). Operating costs are located on the vertical axis, with the top of the chart being the least expensive and the bottom being the most expensive. Conditional score is on the horizontal axis, with site scores improving left to right. Sites in the top right quadrant have good conditional scores and favorable operating costs, while sites in the lower left quadrant have relatively poor site scores and unfavorable costs. Scoring of each location is relative to a project’s specific drivers and the other locations compared in the analysis.



○ Bubble size indicates overall rank with combined quality score and estimated operating costs

Overview of Findings

Therapeutic and Diagnostics R&D					
Location	Quality Score ¹		Estimated Operating Costs ²		Combined Ranking
	Score	% From Highest	Estimated Costs	% Over Lowest	
Salt Lake Region	6.58	8%	\$13.1 MM	Lowest	1
Raleigh-Cary, NC MSA	7.09	Highest	\$13.6 MM	3%	
Dallas-Fort Worth-Arlington, TX MSA	6.22	14%	\$13.6 MM	3%	2
Phoenix-Mesa-Chandler, AZ MSA	5.71	24%	\$13.5 MM	3%	3
Minneapolis-St. Paul-Bloomington, MN-WI MSA	5.74	24%	\$15.1 MM	13%	
San Diego-Chula Vista-Carlsbad, CA MSA	5.00	42%	\$18.6 MM	30%	4

1. Quality scores are subject to change based on project specific factors that may be included during the site selection process.
2. Estimated costs include labor cost, electricity, natural gas, water, and wastewater and utilize assumptions based on average project requirements. Cost will vary across projects and when considering site-specific factors.

Gap Analysis

Overview

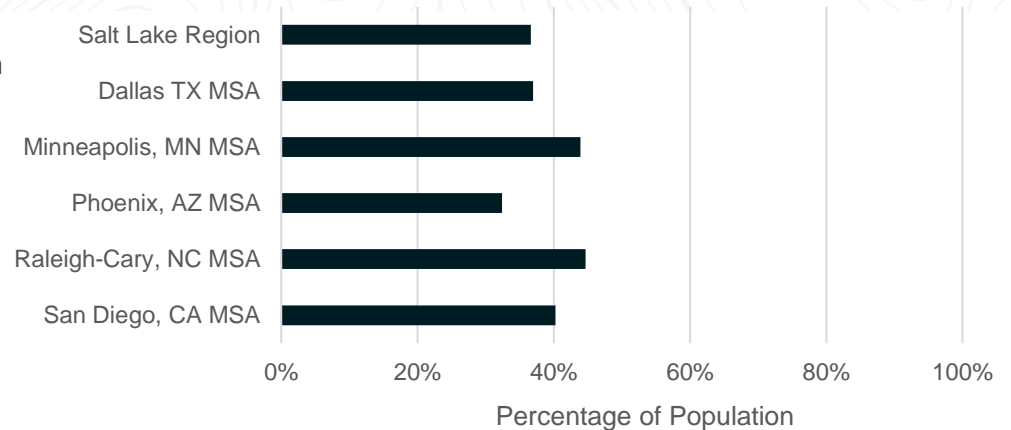
The Salt Lake region scores second to the Raleigh-Cary, NC MSA within the therapeutics and diagnostics R&D sector. To continue to differentiate the region from its competitors, it is recommended that communities focus on continued workforce development and infrastructure to support new and existing companies within the industry.

Areas of Improvement – Workforce Pipeline

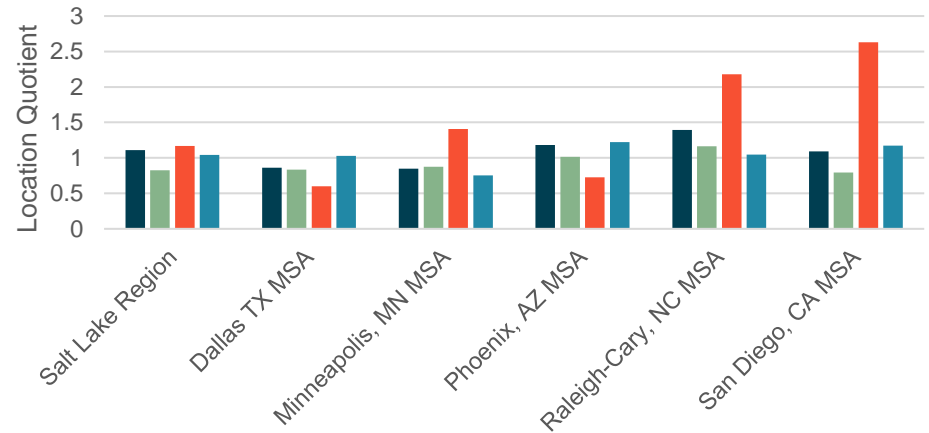
The Salt Lake region has a lower percentage of population with a bachelor's degree or higher. Healthcare practitioners and technical is a primary occupation within the industry and typically requires a higher-level skillset. Communities should be able to demonstrate the ability to accommodate the quality of workforce required for majority of the positions required for operations.

While the region generally has a good concentration of occupations within the industry, the concentration is less than the competing locations and can be further developed to help differentiate the region further.

Bachelor's Degree and Higher



Concentration of Target Occupations



- Clinical Laboratory Technologists and Technicians SOC 29-2010
- Diagnostic Related Technologists and Technicians SOC 29-2030
- Medical Scientist SOC 19-1040
- Miscellaneous Healthcare Support Occupations SOC 31-9090

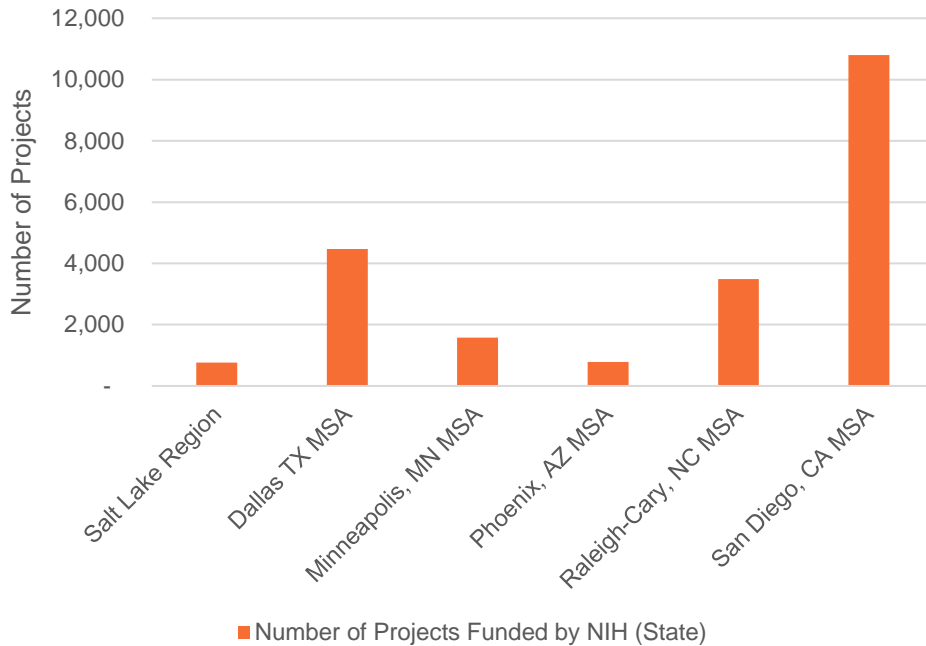
Source: JobsEQ

Gap Analysis

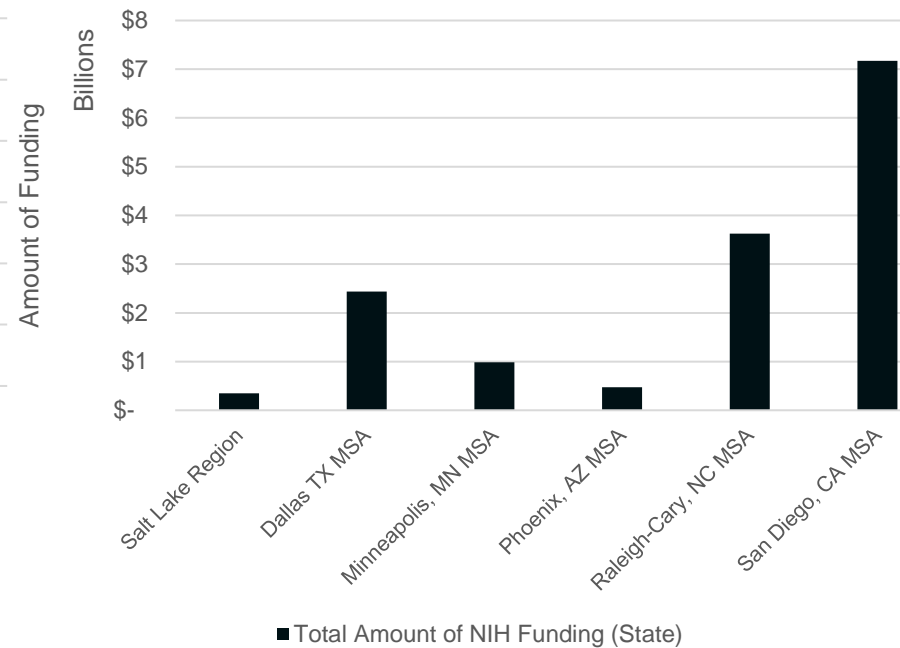
Areas of Improvement – Funding of Research and Development

Regions that are known to receive funding for research and development are typically prioritized by investment projects with a R&D focus. While it is not within the control of the economic development organization, it is encouraged to assist in the facilitation of discussions to help recruit and/or promote opportunities for funding within the region.

Number of Projects Funded by NIH (State)



Total Amount of NIH Funding (State)



Source: National Institutes of Health (NIH)

SWOT Overview

STRENGTHS

- The Salt Lake region grew in employment over a five-year period within the medical and diagnostic laboratories and exceed the national expectations, making the region more competitive due to regional assets.
- The region has a high concentration of companies within the research and development in nanotechnology sector.
- The region is anticipated to experience growth within related industries that may support the therapeutics and diagnostics R&D sector such as in navigational, measuring, electromedical, and control instruments manufacturing.
- The region has one of the highest number of 4-year awards specific to the industry which will be advantageous when detailing the available workforce pipeline for investment projects.

OPPORTUNITIES

- The region is within proximity of several institutions and opportunities for public-private collaborations may be feasible. This can be advantageous for companies within the sector as access to research and development institutions is a driving factor for many companies within the life sciences industry.
- Programs such as Phlebotomy Technician and Clinical Laboratory Science offered within the region will aid in the workforce development for the industry.

WEAKNESSES

- The state currently receives less funding than competing major markets. The importance of the availability and access to funding for research and development can vary by project; however, it typically seen as advantageous for companies.
- The Salt Lake region has a lower percentage of its population that has attained a bachelor's degree or higher. Additionally, the region has a lower percentage of postgraduate degrees. When evaluated against the competing locations, investment projects within the industry may identify this as a weakness for the region due to some entry-level positions requiring a minimum of a bachelor's degree.

THREATS

- The region has a higher turnover rate within manufacturing than the competing site locations. This may be a disadvantage for companies that may have concerns regarding the ability to retain workforce within the area.

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MATCHING
COMPANIES AND
COMMUNITIES FOR
LONG-TERM,
SUSTAINABLE
SUCCESS

DIDI CALDWELL
Founding Principal + President
Global Location Strategies
Tel. +1.864.918.3816
didicaldwell@gliconsults.com

TESS FAY
Principal
Global Location Strategies
Tel. +1.859.338.1831
tessfay@gliconsults.com

NICHOLETTE ROSS
Senior Consultant
Global Location Strategies
Tel. +1.864.434.2784
nicholletteross@gliconsults.com

KORNELIA KOSTKA
Location Intelligence Specialist
Global Location Strategies
Tel. +1.803.238.8606
korneliakostka@gliconsults.com



www.globallocationstrategies.com