

GROWTH MINDSET

CULTIVATING THE MATURING LIFE SCIENCES LANDSCAPE

FINAL ANALYSIS

7.28.23

**GREATER
SPOKANE
inc.**

 CUSHMAN &
WAKEFIELD



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PROJECT OVERVIEW





PROJECT OVERVIEW

SCOPE OF WORK AND STUDY PARAMETERS



Intent of Report

Cushman & Wakefield (C&W) evaluated Greater Spokane and the broader Inland Northwest life science ecosystem focusing on competitive advantages, opportunities, and areas of weakness. We focused on evaluating the region through the lens of the full ecosystem – companies, research institutions, developers, capital allocators, economic development, etc. The report will assist Greater Spokane, Inc., Evergreen Bioscience Innovation, and other stakeholders prioritize areas for improvement and create a compelling marketing story for regional opportunities within the life science industry.



Data Analysis

C&W performed in depth data analysis of Spokane and the Inland Northwest across relevant categories – workforce, higher education, infrastructure, real estate, funding environment, etc. We compared the region to other relevant benchmark markets using desktop research, industry interviews, and Cushman & Wakefield’s internal industry knowledge and experience.



Leadership Interviews

The C&W project team performed 36 interviews with a variety of important community stakeholders representing higher education, corporate community, municipalities, and developers. We also interviewed national life science developers as well as economic development representatives from other communities of interest. The intent of these meetings was to synthesize significant and multi-disciplinary insight into the Spokane life science opportunity.



Market and Site Visits

The C&W team performed multiple Spokane market and site visits to evaluate current available real estate in Spokane and identify development and conversion opportunities to increase space suitable for life science companies. Our strategy evaluated the market and infrastructure occupier/prospective life science company’s perspective – we highlighted competitive advantages, opportunities, and areas of weakness through this lens.



PROJECT OVERVIEW

INTERVIEWS AND FOCUS GROUPS

Interviews were held with key regional leaders from the categories shown below. Economic Development Groups from benchmark markets were also interviewed to identify best practices, processes, and unique programs used to promote their regions' life science ecosystem.

INTERVIEWEES

37
Interviews

TOPICS:

- Workforce
- Regional Strengths
- Regional Weaknesses
- Higher Education
- Capital Allocation
- Ease of Doing Business

VC & Community Stakeholders	Academia	Companies	Municipalities	Developers	Peer Communities
David Condon <i>Premera</i>	Catherine Brazil <i>UW</i>	David Vachon <i>Iasis Molecular, HSSA</i>	Steve MacDonald <i>City of Spokane</i>	Bouten Construction	Destination Medical Center
Stacey Cowles <i>The Cowles Company</i>	Jon Anderson <i>EWU</i>	Chris Preti <i>Jubilant Hollister Steir</i>	Susan Nielsen <i>City of Spokane Valley</i>	Panattoni Development	EDCUtah
Jeff Philipps Dr. Frank Velazquez <i>Spokane Regional Health District, HSSA</i>	Dr. Patrick Jones <i>EWU</i>	Susan Stacy <i>Providence</i>	Mike Basinger <i>City of Spokane Valley</i>	312 Group	Greater Phoenix Economic Council
Marcelo Morales <i>A4Ventures</i>	John Sklut <i>Gonzaga</i>	Colleen Fuchs <i>Joya Child and Family Development</i>		Emerald Initiative	Greater Sacramento Economic Council
Rich Giersch <i>LSWI</i>	Kevin Brockbank <i>CCS</i>			Alexandria	Metro Denver EDC
Stacia Rasmussen <i>Greater Spokane Inc.</i>	Mike Ediger <i>Whitworth</i>			BioMed Realty	NC Bio
UDDA Board				Wexford	Boise Valley Economic Partnership
				Blue Rise Ventures	Economic Development Western Nevada

EXECUTIVE SUMMARY









EXECUTIVE SUMMARY

KEY SWOT FINDINGS

***Note:** Detailed SWOT analysis available for every section of this presentation

	TALENT & EDUCATION	LIFE SCIENCE & FUNDING ECOSYSTEM	REAL ESTATE & INFRASTRUCTURE	OTHER MARKET FACTORS
STRENGTHS 	INW possesses talent strengths in pharma and manufacturing, supported by workforce development programs and a pipeline of local universities graduates	Low cost of operations, labor, and real estate make Spokane an alternative to top tier life science markets for start ups	Low environmental risk, abundant energy/water, and favorable accessibility for a market of its size are advantages for greater Spokane – the University District is a real strength for attracting life science investment and ecosystem	Overall low cost of living, outdoor activity, and strong healthcare system makes Spokane an attractive place to live and work
WEAKNESSES 	INW is still developing foundational elements of life science industry including top research institution and availability of deep life science workforce to rapidly scale without hitting saturation point	Limited in-market private life science funding sources and few established life science clusters restrict growth for start ups looking to collaborate	Conversion opportunities are few. Redevelopment sites provide greater advantages. Available lab space is currently a constraint within the INW	Limited local and state incentives lead to less competitiveness for life science projects with surrounding areas
OPPORTUNITIES 	Regional access to trainable talent in manufacturing provides pipeline to upskill for life science roles using custom workforce development programs	Proximity to Seattle gives opportunity to attract life science company second locations or expansions in a lower cost market and develop relationships with national/northwest VCs based in top tier markets	Subsidized lab space or other development incentives to encourage building and potential development of in-fill sites within the UDDA present opportunity to directly connect with downtown core.	Airport growth and availability of flights to top tier markets makes Spokane/INW easily accessible
THREATS 	Brain drain will continue to effect R&D life science sector without more job creation to match university graduates	Clear life science messaging, strategy, and resource allocation needed to establish life science clusters that focus on INW strengths	Difficult to attract large developers to invest in Spokane without community/university long term funding and commitment	Rapid housing costs and fewer events and community amenities than larger regional cities may slow growth of the region



EXECUTIVE SUMMARY

STAKEHOLDER SUMMARY

*Note: Details from stakeholder interviews are summarized on the first two slides of every section of this presentation

KEY THEMES FROM STAKEHOLDER INTERVIEWS



TALENT

- INW suffers from “brain drain” and has difficulty retaining a young, highly skilled workforce.
- Difficulty recruiting for skilled life science positions.
- Rapid scaling difficult with small workforce size.
- Existing workforce prime for upskilling and meeting needs of life science company growth, particularly in advanced manufacturing.



FUNDING

- Regional resources for life science entrepreneurs exist, but not well known in start-up community.
- Strong existing resources for funding and grant writing located in Seattle area.
- Lack of life science expertise of in-market angel and venture money.
- Subsidized lab space for start ups is a need to accelerates entrepreneurship activity.



COMMUNITY

- Community connections in Spokane are strong and residents are welcoming, hard working, “salt of the earth” types.
- Spokane attracts families but general consensus was that it’s difficult to retain college graduates/younger knowledge workforce.
- Homelessness/crime are community challenges detracting from downtown amenities/developments.
- Spokane has historically had many organizations working towards the same goal, life science industry growth, but lacked alignment on strategic plan.



DEVELOPMENT

- Long-term regional investment needed to attract life science developers.
- Existing property owners lack experience and are risk adverse to potential life science development opportunities.
- Current demand for life science infrastructure/lab space is debated among stakeholders.
- Chicken and egg debate about spec buildings and investments in large life science focused developments.



EXECUTIVE SUMMARY

PEER MARKET THEMES

FOCUS ON CORE INDUSTRY STRENGTHS

- Cities that have had recent momentum in life sciences have carved out hyper specific community/sector strengths marketed broadly- i.e., neuro, cell & gene therapy, oncology, etc.
- Strengths are supported by adjacencies within workforce, research institutions, infrastructure, etc.

FUNDING ECOSYSTEM

- Local and state programs to provide startups with non-dilutive funding, favorable loans, and other types of capital have been highly successful in these markets and gaining traction in Spokane as well.
- Peer communities generally have a more mature VC ecosystem than currently exists within Spokane.

“RELIEF VALVE” TO LIFE SCIENCE HUBS

- Sacramento has a successful strategy capturing growth from Bay Area companies that have had challenges scaling in a cost-effective manner - this has been replicated in other major life science hubs around the country (Maine/New Hampshire from Boston). Most interviewees believe that Spokane has a real opportunity to act as a relief valve for companies experiencing growing pains in Seattle.

COMMUNITY ALIGNMENT IS KEY

- Alignment of vision, strategy, and execution from life science community stakeholders is key to success with attracting investment - this includes universities, research institutions, economic developers, elected officials, talent agencies, business community, etc.

RESEARCH ACTIVITY & UNIVERSITY

- Emerging life science markets generally have at least one notable research university/institution which can be transformative in fostering entrepreneurship, securing developer investment, and attracting established growth.

FOCUS ON STARTUP COMMUNITY FIRST

- Interviewees were unanimous that it is better to first focus on fostering an environment where it's easy to start and scale bioscience companies - helping solve space and funding challenges.
- Traction within startup community will facilitate inbound investment from out of market life science companies.





EXECUTIVE SUMMARY

KEY RECOMMENDATIONS

Supporting vibrancy and growth in Spokane's life science sector requires targeted efforts from the entire community. Considering qualitative and quantitative findings analyzed, the following positioning actions can help foster Spokane's life science ecosystem.

- 1 Pursue outside capital and champions**
Targeted relationship building with known life science capital allocators, developers, and industry champions, with a focus on those who have placed bets on emerging life science hubs will have an outsized impact on growth of the industry in the Inland Northwest.
- 2 Focus on both bottom up (homegrown startups) and top down (attracting established life science company expansion) strategies for industry growth in the Inland Northwest**
Many emerging life science hubs first find traction with catalyzing growth within the entrepreneurship ecosystem and then attracting inbound expansion projects from established life science companies.
- 3 Increase funding, resources, and support for startup life science community**
Focusing on reducing operational friction and cost barriers for bioscience startup ecosystem is a key lever for industry growth - emerging life science hubs have done this through funding, workforce development, subsidized lab space, university partnerships, and specialized mentoring support.
- 4 Facilitate speed to market for inbound life science companies**
Attracting projects from national life science companies will require existing infrastructure to facilitate speed to market considerations – most will highly weight site and talent readiness in their evaluations of potential cities.
- 5 Lean into manufacturing capability focusing on med device, biologics, pharma production, etc.**
Data and interviews both support Spokane's cluster of manufacturing talent and infrastructure – telling this story effectively will help catalyze life science growth



EXECUTIVE SUMMARY

KEY RECOMMENDATIONS

Supporting vibrancy and growth in Spokane's life science sector requires targeted efforts from the entire community. Considering qualitative and quantitative findings analyzed, the following positioning actions can help foster Spokane's life science ecosystem.

6 Lean into adjacent industries

The Inland Northwest presents unique advantages to companies operating in industries adjacent to life sciences – agriculture, clean tech, energy transition, aerospace, etc. – investment from these categories can be a lever for life sciences growth within the region

7 Focus on strategic advantages - cost, logistics, and proximity to Seattle

Despite lack of attractive incentive programs, the Inland Northwest presents significant cost and logistics advantages for the right companies; further, the proximity to Seattle can be better capitalized on to attract investment from capital constrained life science companies on the west side of the state.

8 Determine competitive strengths within the life science industry where Spokane has a strategic advantage

The region should craft a hyper specific focus around competitive strengths in industry verticals/niches supported by adjacencies within workforce, research institutions, infrastructure, etc. – it's beneficial if these are categories currently underserved by existing life science markets.

9 Relentlessly promote the regions unique strengths

The unique strengths of the Inland Northwest include, but are not limited to:

- *High quality talent from 5 major universities, community colleges and trade schools*
- *Well connected and deep healthcare network*
- *Abundance of natural resources and lower business continuity risk*
- *Highly engaged community involvement*
- *Advantageous transportation/supply chain considerations*
- *Incredibly positive quality of life and community benefits*

MARKET COMPETITIVE ANALYSIS

TALENT & INDUSTRY





MARKET COMPETITIVE ANALYSIS

TALENT & INDUSTRY

Population Growth - Spokane had 2nd highest growth rate across the benchmark markets.

Wages - Spokane life science compensation averages are at or below the U.S. Average in all industries analyzed.

Industry Strength - Spokane performed best in the Pharma industry due to high concentration of talent and beneficial cost profile.

Manufacturing Capability - Spokane's density of manufacturing companies and employment is a competitive advantage for attracting life science companies.

STRENGTHS 

Scalability - Spokane's smaller market size potentially makes scalability of operations difficult.

Talent Supply - Jobs related to life science production are in demand, but Spokane has low to moderate supply of talent to fill these roles.

Talent Supply - Life sciences industries analyzed have smaller overall talent pool size in Spokane compared to peer and other markets of similar sizes.

 **WEAKNESSES**

SWOT ANALYSIS

OPPORTUNITIES 

 **THREATS**

Job Growth - Positive employment growth related to preparing, blending, compounding, and packaging toiletries and food supplements, along with total educational completions in related fields indicates opportunity for further growth.

Upskilling Potential - Access to sizable talent pool with upskilling potential (manufacturing/blue collar jobs), which could supply needs for life science companies operating in the manufacturing space and makes scaling up easier.

R&D Labor Pool - Other markets studied have stronger existing life science R&D talent pools and overall industry depth.

Competitor Markets - Emerging life science markets (Salt Lake City, Phoenix, etc.) have crisp messaging around subsector expertise and competitive strengths.



MARKET COMPETITIVE ANALYSIS

TALENT & INDUSTRY - INTERVIEW FINDINGS

Spokane workforce and existing life science industry presence were key topics of discussion in every leadership interview.

What We Heard

- » Spokane Workforce Council plays a key role in upskilling and training local talent pool.
- » There is a wealth of talent for basic manufacturing roles, but more difficult to find specialized production and engineering talent.
- » Community Colleges of Spokane have strong track record of partnering with companies to provide training to retool and upskill current and prospective workforce.
- » Concentration of highly regulated manufacturing in Spokane means workers have unique skill set of following procedure - easily transferrable to life sciences.
- » Life science companies that need to fill production roles face competition from other industries - manufacturing, local Amazon distribution centers, etc.
- » Highly skilled aerospace and advanced manufacturing talent has the capacity to translate skillsets to bio and med device production.

What We Found

- » Supply and demand for life science related talent in the Inland Northwest Region is lower than the US average for a region its size.
- » Spokane talent pool has upskilling potential (manufacturing/blue collar jobs), which could supply needs for life science companies operating in the manufacturing space.
- » Highest volume of life science related job postings and hiring activity in the INW are Spokane and Richland.
- » Spokane has core competency in Pharma manufacturing, fill and finish, due to existing company presence (Selkirk, Jubilant HollisterStier).



LIFE SCIENCE INDUSTRY DEFINITION AND JOB GROUPINGS

MARKET COMPETITIVE ANALYSIS

TALENT & INDUSTRY

C&W identified the key positions in the 6 target life sciences industries under consideration for Spokane. In addition, C&W conducted an analysis on general manufacturing talent due to recent growth in Spokane.

PHARMA

- Bioengineers and Biomedical Engineers
- Chemical Engineers
- Biological Scientists, All Other
- Medical Scientists, Except Epidemiologists
- Chemists
- Physical Scientists, All Other
- Biological Technicians
- Chemical Technicians



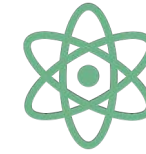
FOOD SCIENCE

- General and Operations Managers
- Natural Sciences Managers
- Project Management Specialists
- Computer Programmers
- Software Developers
- Mechanical Engineers
- Medical Scientists, Except Epidemiologists
- Chemists
- Biological Technicians



BIO TECH

- Computer Programmers
- Software Developers
- Statisticians
- Data Scientists
- Bioengineers and Biomedical Engineers
- Biological Scientists, All Other
- Chemists
- Biological Technicians



COSMECEUTICALS

- General and Operations Managers
- Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products
- Shipping, Receiving, and Inventory Clerks
- First-Line Supervisors of Production and Operating Workers
- Miscellaneous Assemblers and Fabricators
- Chemical Equipment Operators and Tenders
- Mixing and Blending Machine Setters, Operators, and Tenders
- Inspectors, Testers, Sorters, Samplers, and Weighers
- Packaging and Filling Machine Operators and Tenders



MED DEVICE

- Industrial Engineers
- Mechanical Engineers
- Mechanical Engineering Technologists and Technicians
- Engineering Technologists and Technicians, Except Drafters, All Other
- Materials Scientists
- Health Technologists and Technicians, All Other
- Chemical Equipment Operators and Tenders



NUTRACEUTICALS

- General and Operations Managers
- Industrial Engineers Chemists
- Biological Technicians
- First-Line Supervisors of Production and Operating Workers
- Chemical Equipment Operators and Tenders
- Mixing and Blending Machine Setters, Operators, and Tenders
- Inspectors, Testers, Sorters, Samplers, and Weighers



MANUFACTURING

- Production Occupations





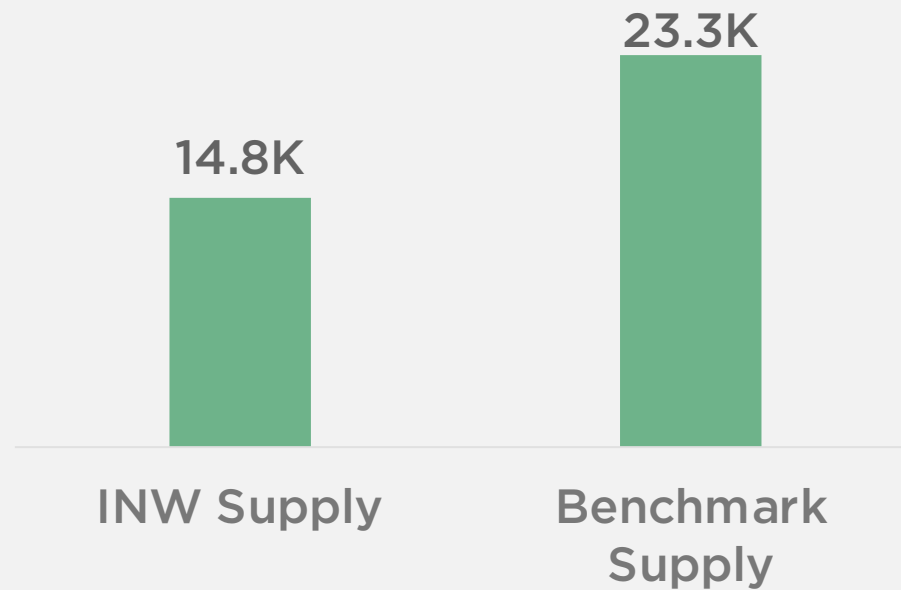
INLAND NORTHWEST REGION LIFE SCIENCE TALENT SUPPLY & DEMAND

To measure supply and demand for life science jobs in the Inland Northwest, we derived a benchmark representing national average for communities of comparable workforce size - the benchmark values represent the national average adjusted for region size.

MARKET COMPETITIVE ANALYSIS

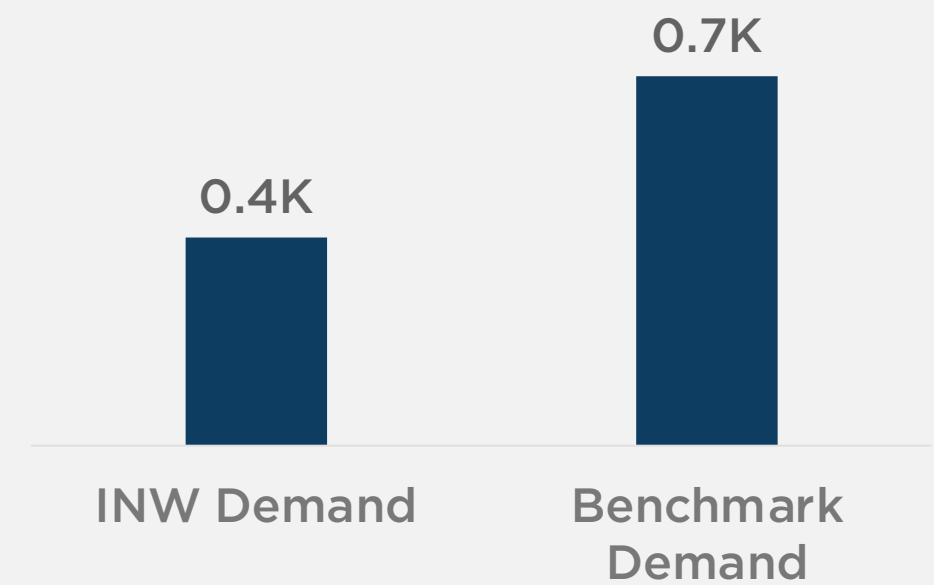
TALENT & INDUSTRY

Supply of Target Talent



The INW supply of target life science talent is approximately 36% lower than comparable sized markets in the US. Lower supply can yield a more challenging hiring environment for life science companies relative to other regions.

Monthly Demand for Target Talent



Analysis of average monthly online postings show that demand for life science jobs is lower in the INW than the benchmark average. Over the past 12 months, the INW has had 4.6K unique job postings in the life science industry with a median posting duration of 35 days. This posting duration for life science jobs is 4 days longer than what's typical in comparable regions.

MARKET COMPETITIVE ANALYSIS

INLAND NORTHWEST

LIFE SCIENCE EMPLOYMENT & HIRING

REGIONAL COMMENTARY

- Life science industry employment in the Inland Northwest has **grown by 5%** over the last 5 years.
- Projected 5-year life science job growth (2023 - 2028) in the INW is **only 1%**.

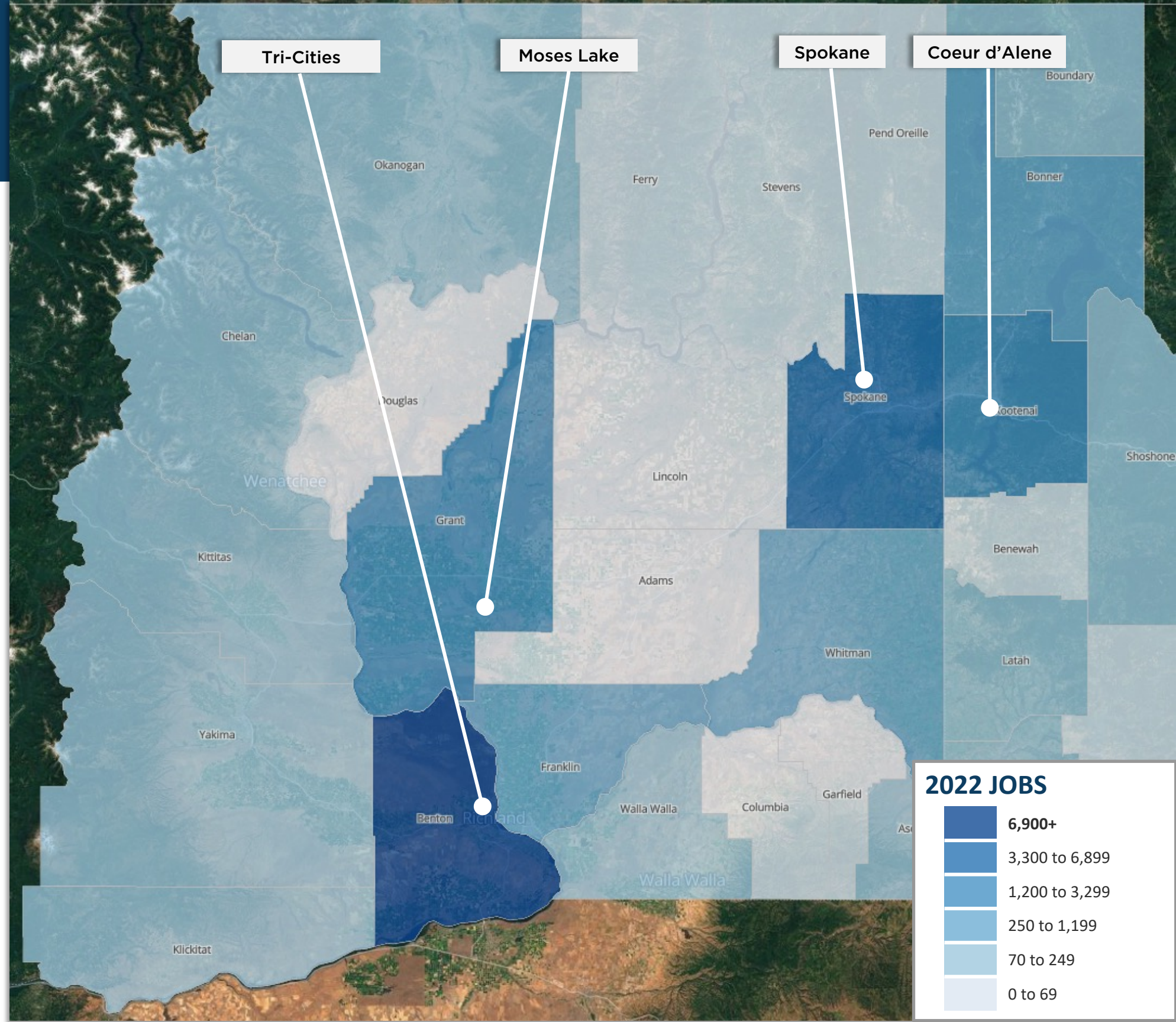
METRO AREA COMMENTARY

- The Tri-Cities metro area has the **highest number of life-science (or life-science adjacent) jobs** primarily driven by Pacific Northwest National Laboratory employment.
- **Spokane metro area** was the next highest producer of life science talent with **about 3,300 jobs** followed by Moses Lake and Coeur d'Alene with about 1,300 jobs each.

HIRING VELOCITY

- From July 2022 - June 2023 the Inland Northwest had **2,500 non-remote jobs posted** in the life sciences industry. Of these more than **80% were either in Spokane or Tri-Cities**.
- The top specialized skills in these job-postings were **biology, data analysis, chemistry, pharmaceuticals, and project management**.
- The top hiring companies were **Pacific Northwest National Laboratory** (1,020 job postings), **Jubilant HollisterStier** (350 job postings), and **Grifols** (65 job postings).

Source: Lightcast



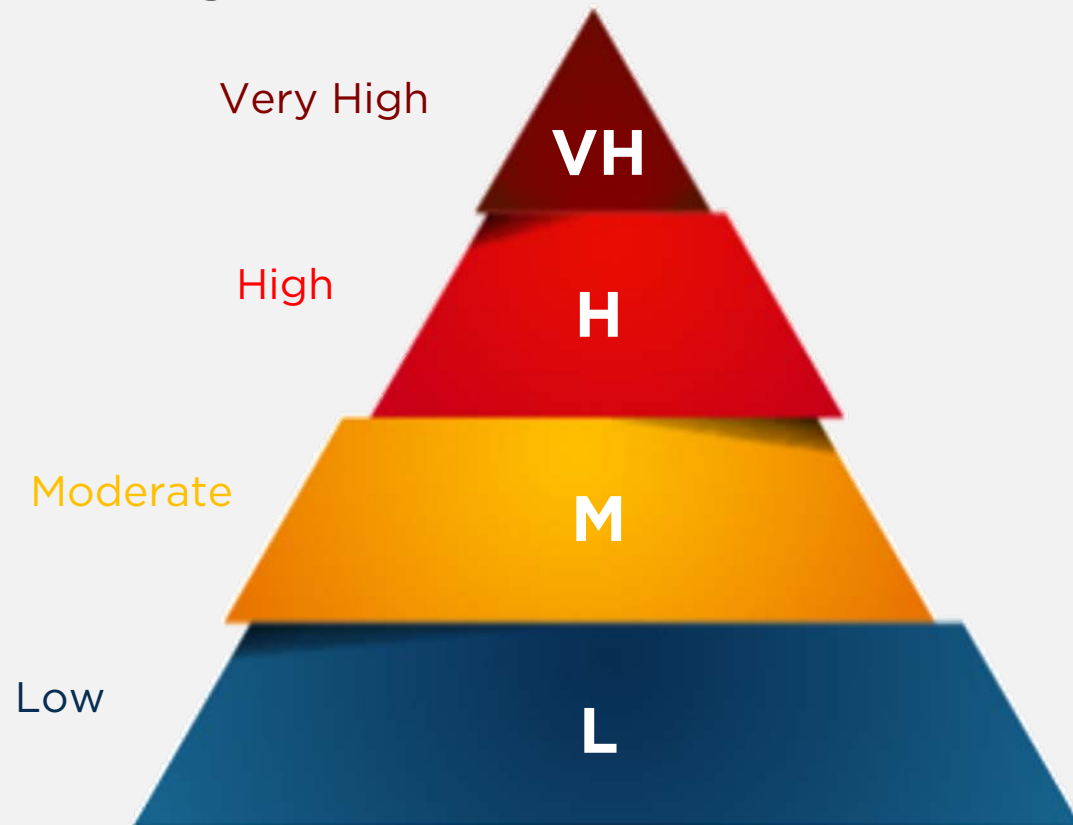


CAPACITY RISK ASSESSMENT METHODOLOGY

In order to evaluate the feasibility of migrating life sciences jobs to Spokane, C&W conducted a labor market capacity risk assessment. This assessment determines the **ability of the local labor market to absorb additional incremental headcount**.

The assessment was based upon historic employment data for Spokane's targeted life science skills to identify the point at which a one-time employment increase causes the labor market to extend beyond a historic "normal" range. Capacity risk reflects the market's ability to statistically support incremental jobs based on current market dynamics and the historical labor market performance. This method informs whether anticipated future growth will encounter a capacity limitation for identified talent, which would warrant intervention from Spokane in additional training, incentives, or recruitment programs. Increments for each occupation profile was based on sample hiring needs for life science users in the market.

Risk Categories:



GROWTH CAP (BEFORE SATURATION)

The growth cap limit reflects the proportion of specific skills in an area relative to a base case (U.S.=1.0). The model tests hypothetical staffing additions against the historic performance of the market.

WHAT IT MEANS FOR SPOKANE

If the proportion of talent exceeds modeled norms, then an organization is more likely to experience stress in the local labor market for talent, resulting in expanded recruitment efforts or potential wage pressure.



CAPACITY RISK MODEL

C&W evaluated Spokane’s ability to absorb jobs in target life science industries across two categories: Manufacturing and Skilled/R&D focused roles.

Manufacturing heavy industries can add up to 200 additional jobs before we expect the local labor market would start to have friction hiring these roles. At 600 incremental jobs we expect more significant hiring challenges.

Skilled industries (Bio Tech, Pharma, Food Science, & Med Device) industries can add up to 300 additional jobs in the market before we expect challenges in hiring and about 700 jobs before more significant issues providing the target talent.

MARKET CAPACITY RISK BY OCCUPATION

Net New Jobs	Manufacturing-Focused Life Science Roles	Skilled/R&D-Focused Life Science Roles
@ 100	L	L
@ 200	M	L
@ 300	M	M
@ 400	M	M
@ 500	M	M
@ 600	H	M
@ 700	H	H
@ 800	H	H
@ 900	H	H
@ 1,000	H	H

Note: Manufacturing focused roles primarily aligned with jobs outlined for Cosmeceuticals & Nutraceuticals. Skilled/R&D roles primarily aligned with Biotech, Pharma, Med Device, and Food Science. [See roles categorized here.](#)

2022 Location Quotients (U.S. = 1.00)

0.86

Manufacturing Heavy Roles

0.69

Skilled/R&D Roles

Note: The capacity risk model incorporates current and historical concentration (location quotient) for the target skillset. The location quotient indicates the level of specialization for a targeted skillset compared to the U.S. average. A concentration range of 1.0 to 1.5 is preferred to ensure the target skillset is prevalent, but not overly saturated.



MARKET COMPETITIVE ANALYSIS

TALENT & INDUSTRY - SCORING METHODOLOGY: BIOTECH, PHARMA, FOOD SCIENCE, & MED DEVICE

Non-Economic considerations are used to measure desirability from a non-economic perspective. Location criteria and decision weightings for higher skilled life science jobs in the biotech, pharma, food science, and med device categories have been developed below.

Major Criteria	Secondary Criteria	Importance to Overall Decision	Overall Weighting
Scalability Measure of the ability to scale operations to the desired headcount with the targeted skills	Access to Skilled Labor: Measure of size of talent aligned with targeted skillsets		Access to Skilled Labor 33% → 13%
	Skilled Labor Concentration: Measure of concentration / saturation of talent aligned with targeted skillsets		Skilled Labor Concentration 33% → 13%
	Resident Skilled Labor: Measure of the resident volume of targeted talent pool		Resident Skilled Labor 33% → 13%
Sustainability Measure of the ability to sustain operations in the market due to competitive pressures of the labor market	Graduate Pipeline: Measure of completions in industry related fields		Graduate Pipeline 15% → 6%
	Graduate Growth: Measure of completions growth within the market		Graduate Growth 15% → 6%
	Population Growth: Measure of projected population growth within the market		Population Growth 10% → 4%
	Skilled Labor Growth: Measure of historic and projected skilled labor growth within the market		Skilled Labor Growth 30% → 12%
	Wage Appreciation: Historical appreciation of wages for target occupations.		Wage Appreciation 30% → 12%
Business Environment Measure of the environment available to achieve business goals	Air Access: FAA Airport Rankings		Air Access 45% → 9%
	VC Funding: 5-year historic VC funding in market		VC Funding 45% → 9%
	Transit Score: Access to transit options within the market		Transit Score 10% → 2%



MARKET COMPETITIVE ANALYSIS

TALENT & INDUSTRY - SCORING METHODOLOGY: COSMECEUTICALS & NUTRACEUTICALS

Non-Economic considerations for more manufacturing heavy categories including cosmeceuticals and nutraceuticals includes one additional factor to the previous scoring criteria – access to trainable labor.

Major Criteria	Secondary Criteria	Importance to Overall Decision	Overall Weighting
Scalability Measure of the ability to scale operations to the desired headcount with the targeted skills	Access to Skilled Labor: Measure of size of talent aligned with targeted skillsets	Scalability 40%	Access to Skilled Labor 17% → 7%
	Access to Trainable Labor: Measure of volume of trainable talent for targeted skillsets		Access to Trainable Labor 33% → 13%
	Skilled Labor Concentration: Measure of concentration / saturation of talent aligned with targeted skillsets		Skilled Labor Concentration 33% → 13%
	Resident Skilled Labor: Measure of the resident volume of targeted talent pool		Resident Skilled Labor 17% → 7%
Sustainability Measure of the ability to sustain operations in the market due to competitive pressures of the labor market	Graduate Pipeline: Measure of completions in industry related fields	Sustainability 40%	Graduate Pipeline 15% → 6%
	Graduate Growth: Measure of completions growth within the market		Graduate Growth 15% → 6%
	Population Growth: Measure of projected population growth within the market		Population Growth 10% → 4%
	Skilled Labor Growth: Measure of historic and projected skilled labor growth within the market		Skilled Labor Growth 30% → 12%
	Wage Appreciation: Historical appreciation of wages for target occupations.		Wage Appreciation 30% → 12%
Business Environment Measure of the environment available to achieve business goals	Air Access: FAA Airport Rankings	Business Continuity 20%	Air Access 45% → 9%
	VC Funding: 5-year historic VC funding in market		VC Funding 45% → 9%
	Transit Score: Access to transit options within the market		Transit Score 10% → 2%



MARKET COMPETITIVE ANALYSIS

TALENT & INDUSTRY - LIFE SCIENCES MARKET SCORING

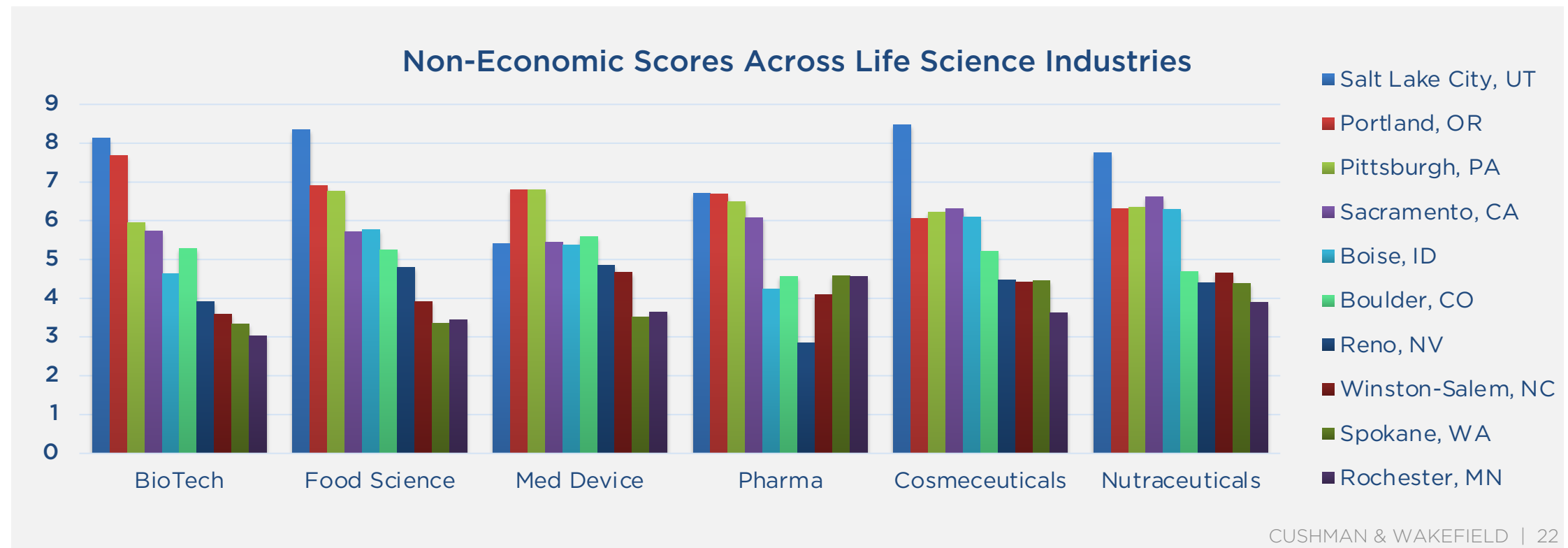
Compared to benchmark markets, Spokane's life science labor market scores less favorably. Spokane's relatively lower scores were primarily due to its small size, lack of life science funding, and air accessibility. The bullets below highlights Spokane's performance across life science subindustries.

INDUSTRY INSIGHTS

- **Pharma:** Spokane's strong projected population growth, negative wage appreciation, good LQ, and higher than U.S. average historical job growth supports the higher score amongst the smaller markets.
- **Nutraceuticals & Cosmeceuticals:** Strong projected population growth, decent job skills growth and strong projected job skills growth boosted Spokane's score in these industries.
- **Food Science & Bio Tech:** These two industries were the lowest scoring industries due to high wage appreciation and lower completions.
- **Med Device:** There has been low job growth historically within this industry in Spokane and future growth expectations continue to reflect this. While total completions is low, completions growth is higher than the U.S. average.

FACTOR INSIGHTS

- **Business Environment:** Spokane scores low mostly due to lack of VC funding in Life Sciences but also had lower accessibility scores (airport ranking & transit score).
- **Scalability:** Low job and resident workers volumes coupled with lower than U.S. average job concentrations (i.e., not as many jobs as expected for the market size).
- **Sustainability:** Spokane scores better due to forecasted population growth and job skills growth.





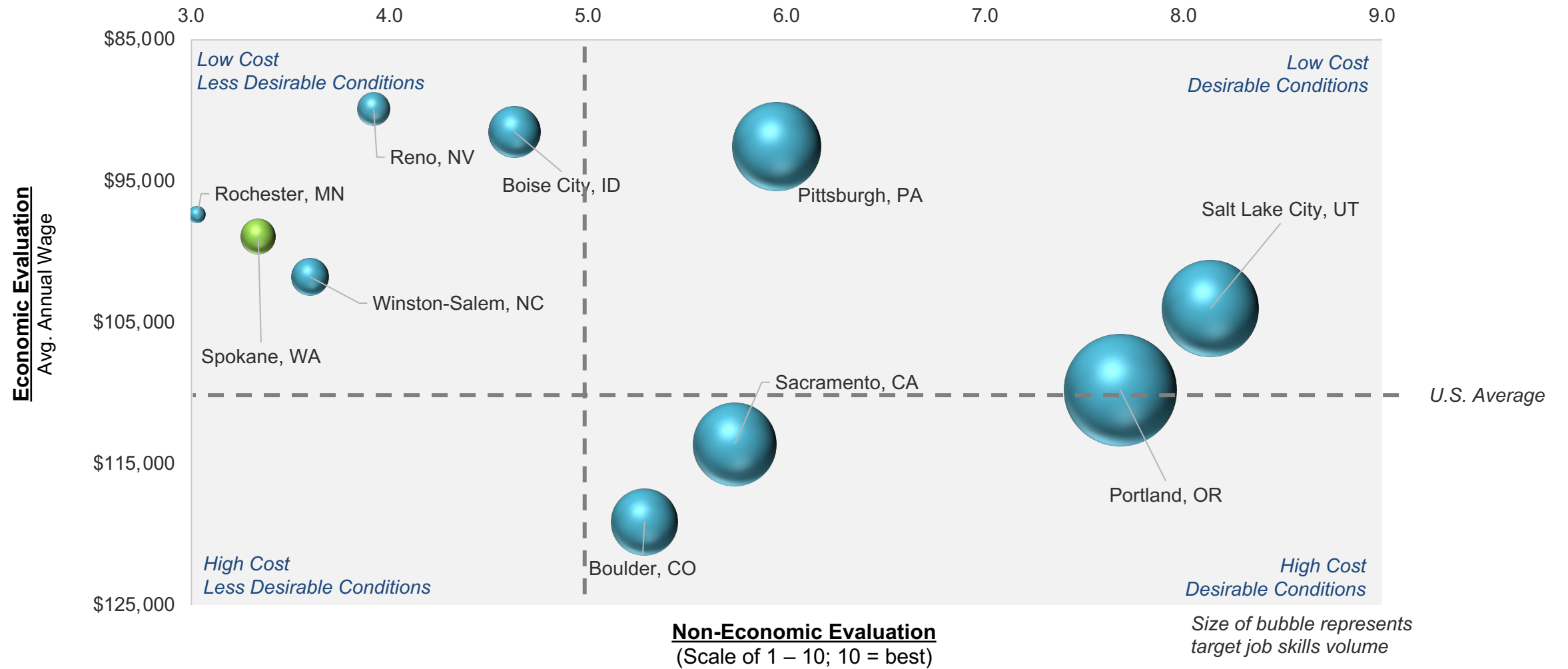
OVERALL RESULTS - BIOTECH

Pittsburgh and **Salt Lake City** are the only markets appearing in the optimal quadrant as a result of deep talent pools and low-cost environments.

Spokane is the second smallest from a job volume standpoint and third lowest in degree completions. While Spokane had decent historical job growth, forecasted 5-year job growth is lower than other markets. Spokane also had very high wage growth over the last 3-years which negatively impacted the score.

MARKET COMPETITIVE ANALYSIS

TALENT & INDUSTRY



METHODOLOGY: Results represent non-economic scoring (scorecard) and economic (wage) comparison are illustrated in the graphic. The markets presenting the optimal mix of qualitative performance/lower cost appear in the upper right-hand quadrant.



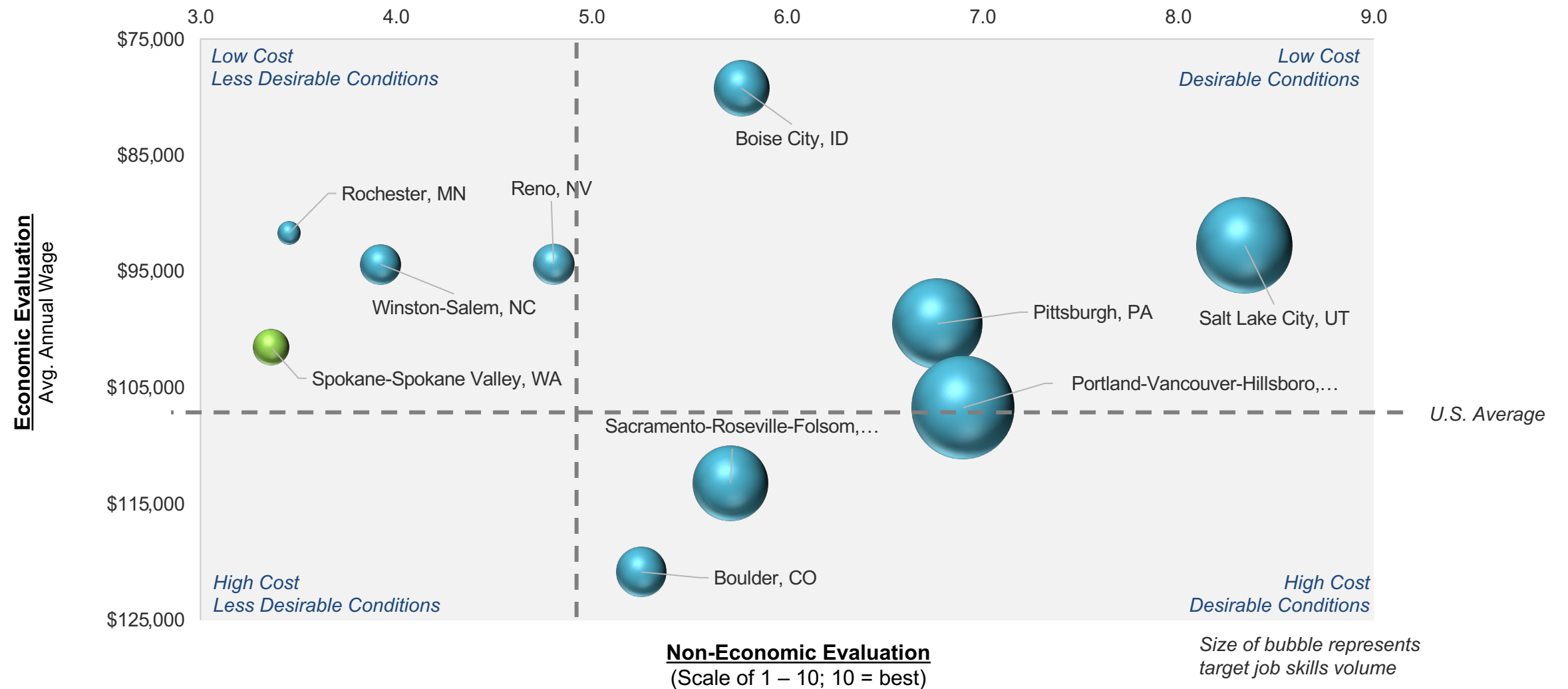
OVERALL RESULTS - FOOD SCIENCE

Salt Lake City, Boise, and **Pittsburgh** all fall into the low cost, desirable conditions quadrant and have a decent size talent market.

Spokane is lower cost but is the least desirable market for Food Science when looking at non-economic factors. The market score was low due to job volume, concentration, completions, and completions growth.

MARKET COMPETITIVE ANALYSIS

TALENT & INDUSTRY



METHODOLOGY: Results represent non-economic scoring (scorecard) and economic (wage) comparison are illustrated in the graphic. The markets presenting the optimal mix of qualitative performance/lower cost appear in the upper right-hand quadrant.



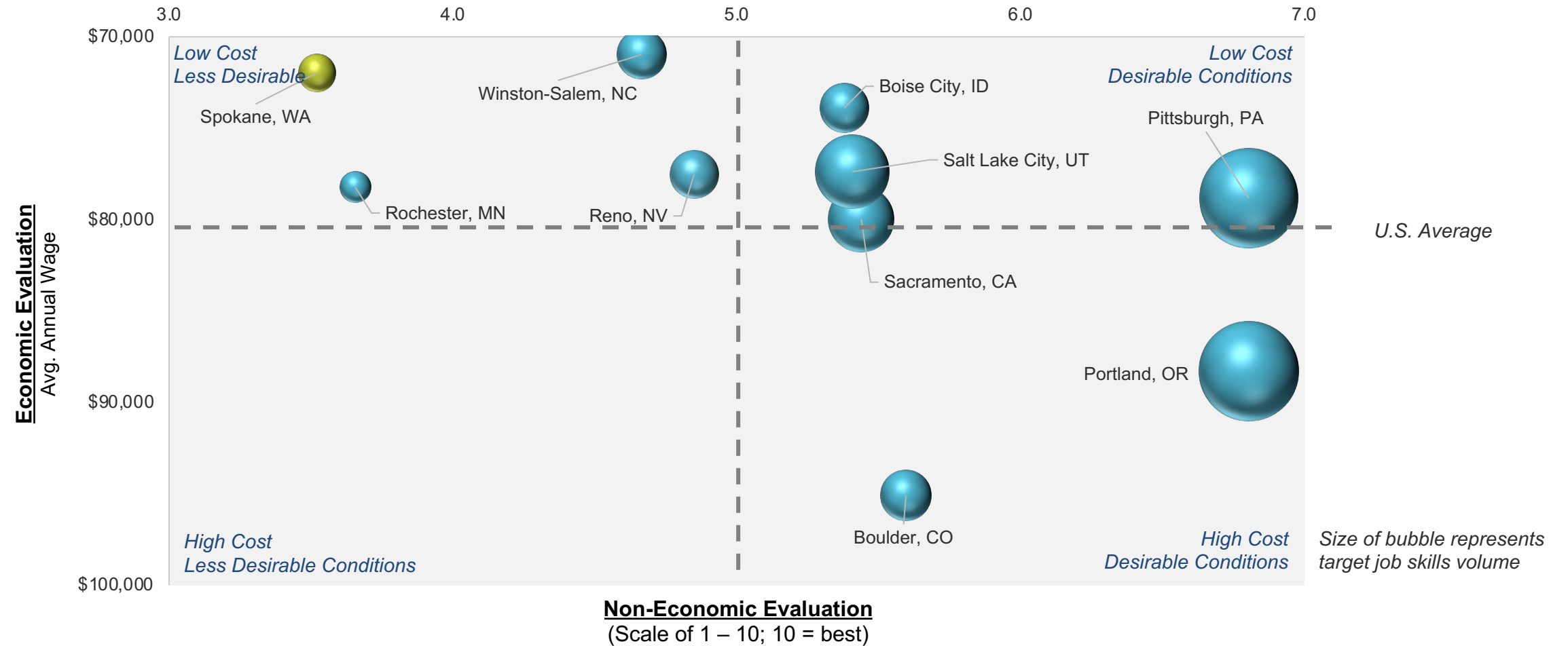
OVERALL RESULTS - MED DEVICE

Pittsburgh performs the best in terms of non-economic market conditions for Med Device talent and has wages slightly below the U.S. average.

Spokane was the lowest scoring market with the second to smallest talent pool and historic/projected job skills growth below the U.S. average.

MARKET COMPETITIVE ANALYSIS

TALENT & INDUSTRY



METHODOLOGY: Results represent non-economic scoring (scorecard) and economic (wage) comparison are illustrated in the graphic. The markets presenting the optimal mix of qualitative performance/lower cost appear in the upper right-hand quadrant.



OVERALL RESULTS - PHARMA

Salt Lake City, Portland and **Pittsburgh** have the ideal mix of lower costs and ideal market conditions for Pharma talent.

Spokane is a low-cost market for Pharma talent and scores highest amongst the smaller markets for non-economic factors. The market performed the best in this industry due to an ideal concentration of talent and negative wage appreciation. However, historical job growth in Spokane has been slower than Boise, Boulder and Rochester and growth projections remain low.

MARKET COMPETITIVE ANALYSIS

TALENT & INDUSTRY



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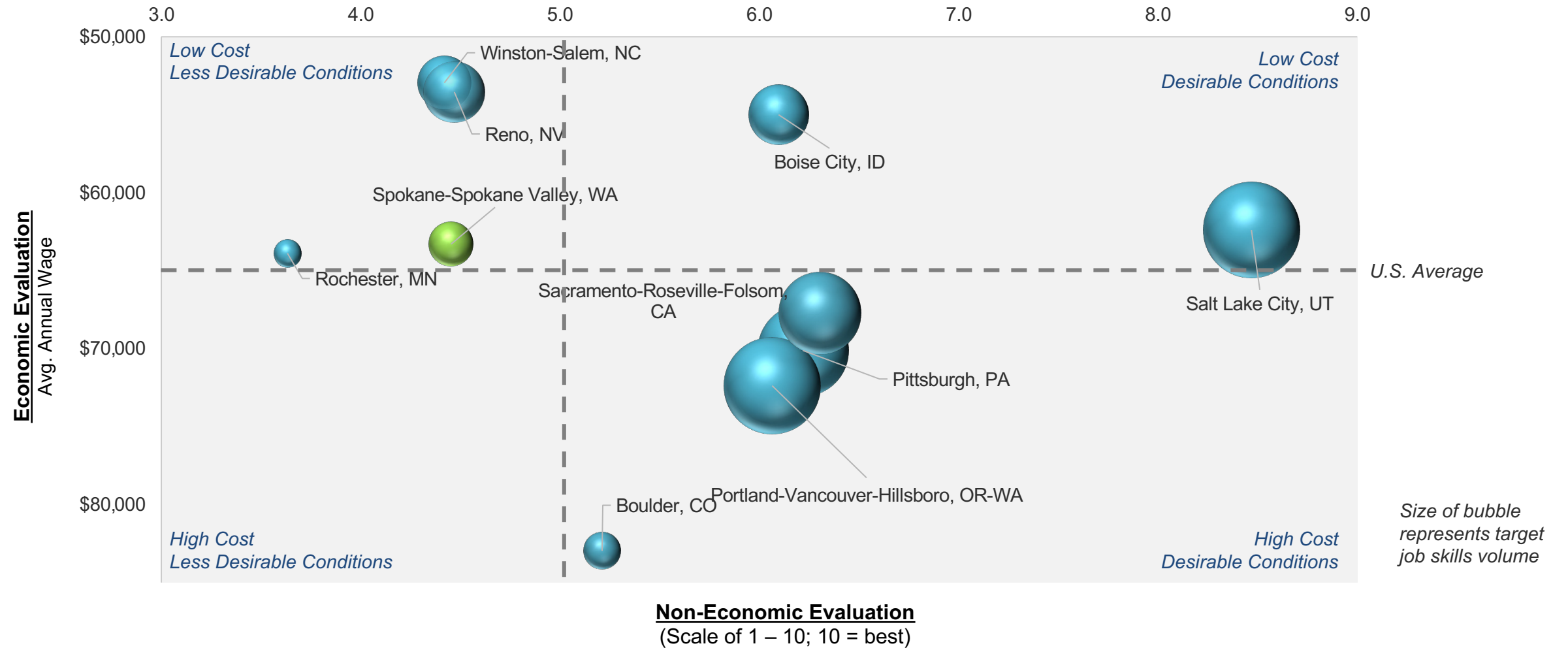
OVERALL RESULTS - COSMECEUTICALS

Boise and **Salt Lake City** are the only markets that are both low cost and have a high non-economic score. Boise's proximity to Spokane makes it a strong competitor for the Cosmeceuticals industry.

Spokane has the 3rd highest sustainability score amongst all the markets, indicating the potential for growth within the industry. Spokane is the second highest market in projected population growth and performs well in projected job skills growth. The current job market size is what hinders a higher score for the market.

MARKET COMPETITIVE ANALYSIS

TALENT & INDUSTRY



METHODOLOGY: Results represent non-economic scoring (scorecard) and economic (wage) comparison are illustrated in the graphic. The markets presenting the optimal mix of qualitative performance/lower cost appear in the upper right-hand quadrant.



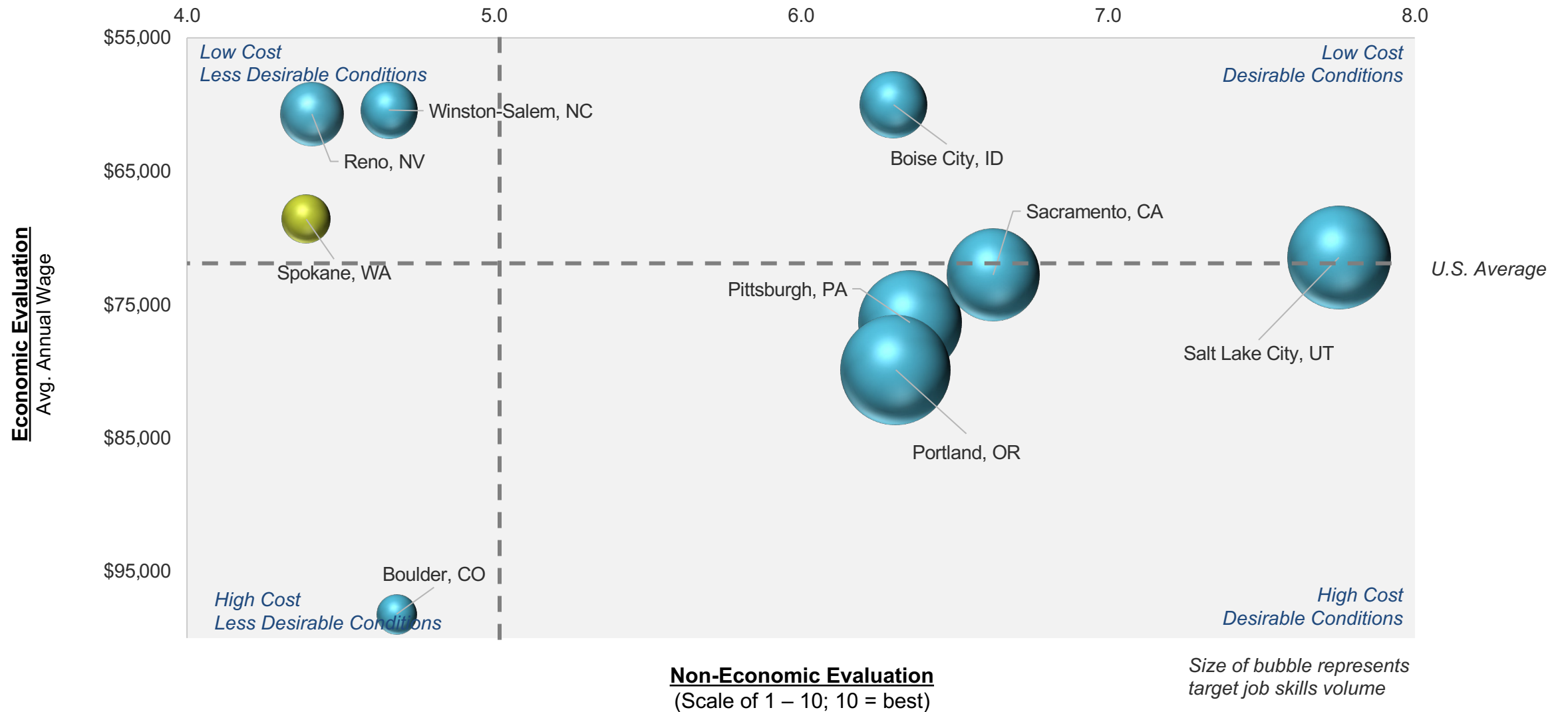
OVERALL RESULTS - NUTRACEUTICALS

Salt Lake City has the best market conditions for Nutraceuticals talent with wages hovering around the U.S. average.

Spokane has a smaller pool of existing Nutraceuticals talent but has strong historical job growth with the expectation of growing another 10% over the next 5 years.

MARKET COMPETITIVE ANALYSIS

TALENT & INDUSTRY



METHODOLOGY: Results represent non-economic scoring (scorecard) and economic (wage) comparison are illustrated in the graphic. The markets presenting the optimal mix of qualitative performance/lower cost appear in the upper right-hand quadrant.



MARKET COMPETITIVE ANALYSIS

TALENT & INDUSTRY - SALARY AND REAL ESTATE COST BENCHMARKING

Below are the average annual wages for the industries analyzed and avg. current rental rates for office and industrial real estate.

Wages in Spokane across the life science industries analyzed are below the U.S. average, making it an attractive market from a cost perspective. The market is positioned well as an affordable secondary city to Seattle. However, Spokane has higher wages in all industries (except for Med Device) in comparison to Boise, a proximate competitor market.

Market	WAGE COSTS									REAL ESTATE COSTS	
	Average LS Wage	Compared to US Avg	Biotech	Food Science	Med Device	Pharma	Cosmeceuticals	Nutraceuticals	Manufacturing	Office (\$/SF)	Industrial (\$/SF)
U.S. Average	\$79,052	-	\$112,549	\$106,517	\$80,517	\$73,466	\$65,021	\$72,218	\$43,077	-	-
Spokane	\$73,069	-8%	\$98,918	\$101,507	\$71,976	\$61,667	\$63,296	\$68,600	\$45,515	\$22.10	\$8.62
Seattle	\$93,638	18%	\$142,910	\$136,960	\$100,864	\$59,161	\$76,900	\$85,426	\$53,247	\$45.68	\$11.43
Boise	\$65,257	-17%	\$91,509	\$79,229	\$73,894	\$56,857	\$55,000	\$60,015	\$40,298	\$22.94	\$10.34
Boulder	\$93,736	19%	\$119,108	\$120,861	\$95,090	\$93,393	\$82,965	\$98,208	\$46,527	\$34.70	\$14.15
Pittsburgh	\$75,608	-4%	\$92,543	\$99,501	\$78,824	\$66,816	\$70,123	\$76,345	\$45,104	\$25.98	\$7.05
Portland (OR)	\$82,276	4%	\$109,771	\$106,723	\$88,291	\$72,223	\$72,376	\$79,892	\$46,655	\$32.07	\$11.45
Reno	\$68,630	-13%	\$89,889	\$94,380	\$77,514	\$62,514	\$53,542	\$60,708	\$41,864	\$23.16	\$11.64
Rochester (MN)	\$73,045	-8%	\$97,380	\$91,685	\$78,223	\$62,875	\$63,884	\$72,047	\$45,220	\$27.88	\$8.59
Sacramento	\$82,280	4%	\$113,627	\$113,222	\$79,967	\$82,018	\$67,741	\$72,777	\$46,607	\$26.40	\$9.12
Salt Lake City	\$73,195	-7%	\$104,015	\$92,739	\$77,382	\$62,389	\$62,391	\$71,462	\$41,988	\$25.92	\$9.31
Winston-Salem	\$68,816	-13%	\$101,770	\$94,384	\$70,971	\$62,464	\$52,951	\$60,416	\$38,756	\$17.01	\$6.07



COST ANALYSIS TOOL

C&W developed a **rough order of magnitude (ROM)** cost model evaluating 10-year operating costs for a life science company based on a variety of inputs (headcount, facility size, facility type, occupation profile, etc.).

We found that Spokane has consistent operating cost savings opportunities compared to the peer set with the exception of Boise which is 3-5% less expensive than Spokane on a 10-year basis.

Please find the model available for [download linked here](#).



Spokane-Spokane Valley, WA ROM Operating Cost Comparison Tool

Project Assumptions

Industry Occupation Profile:

Headcount:

Space Type:

Property Size (SF):

MSA (Up to 10):

- Spokane-Spokane Valley, WA
- Seattle-Tacoma-Bellevue, WA
- Boise City, ID
- Boulder, CO
- Pittsburgh, PA
- Portland, OR
- Reno, NV
- Rochester, MN
- Sacramento-Roseville-Folsom, CA
- Salt Lake City, UT
- Winston-Salem, NC

MARKET COMPETITIVE ANALYSIS EDUCATION





**MARKET
COMPETITIVE
ANALYSIS**
EDUCATION

University Network – For a city of its size Spokane has an incredible network of respected universities in the metro area – a strong competitive advantage.

Local Medical Schools - Two medical schools within Spokane (and two more in broader INW region) establishes local student networks and increases chance to retain graduates.

Workforce Development - Community Colleges of Spokane excel at tailoring curriculum and offering tailored programs to strengthen skills required by business community.

Research Institutions – Spokane lacks a top-notch research institution - medical schools/associated programs are maturing.

Lack of Awareness – In- and out-of-market lack of awareness on recent developments within the higher education ecosystem in Spokane, including community college program opportunities, limiting growth of talent.

Brain Drain – Spokane is losing more life science graduates than jobs created annually.

STRENGTHS 

 **WEAKNESSES**

**SWOT
ANALYSIS**

OPPORTUNITIES 

 **THREATS**

Talent Growth - Launch NW is a unique program helping grow talent pool by providing funding/mentoring for educational attainment within the region focusing on underrepresented communities.

Community Connectivity - Health Sciences Research Roundtable provides unique connectivity between universities and local community partners that can be further developed.

Research Ecosystem – opportunity to establish region and universities as strong research ecosystem.

Workforce Outreach - Reaching underrepresented and underemployed talent must be increased to meet life science industry growth and attract out of market investment.

Graduate Retention – While Spokane is retaining a good amount of life science graduates, the community is still losing significant number of talented young professionals due to lack of opportunity in market.

Healthcare Focus – Doctorate programs with focus on primary care instead of research that could spur life science innovation and entrepreneurship.



MARKET COMPETITIVE ANALYSIS

EDUCATION – SPOKANE INTERVIEW FINDINGS

Interviewees



What We Heard

- » Direct company connections to workforce is important as demonstrated by the [Fuse Career Fair](#).
- » Commitment to providing affordable higher education for first-generation students from diverse backgrounds.
- » Region would benefit from further collaboration between academia and corporate sectors.
- » [LaunchNW](#) will ensure students have access to career training of all types, including apprenticeships, technical and associate degrees, credentials and bachelor’s degrees.
- » CCS often overlooked and high school students and doesn’t capture full student population that would benefit from programs.

- » Challenge of securing financial aid for low-income student and capturing underemployed adults as potential candidates for career life science opportunities.
- » [Health Services Research Roundtable](#) encourages faculty members from different universities to come together.
- » Spokane suffers from “Brain Drain”.
- » Need more focus at the university faculty level on individuals with experience building life science companies, not just healthcare practitioners.



What We Found

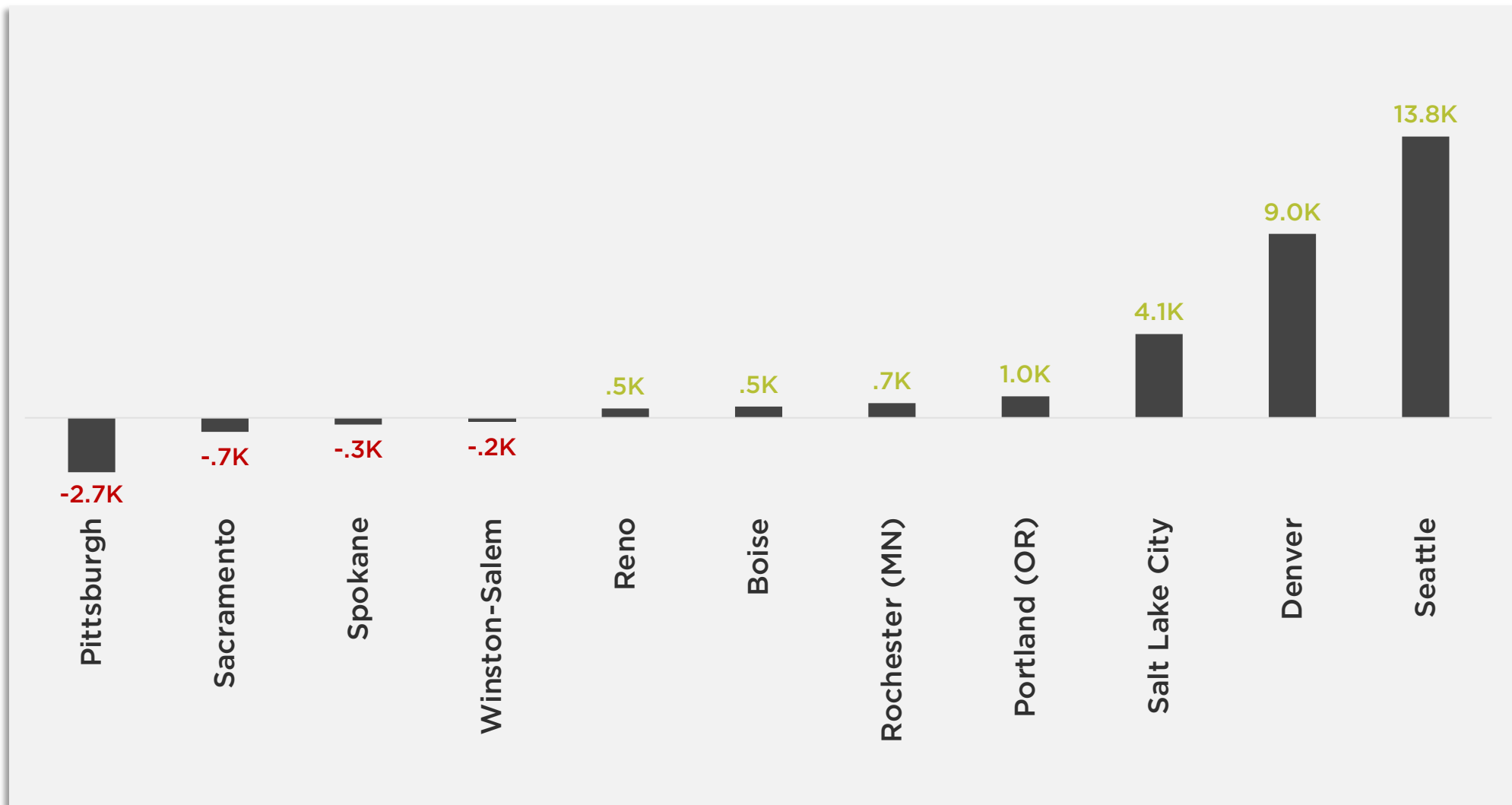
- » Comparing graduate pipeline to jobs created shows slim margin of “Brain Drain”.
- » UW leads Northwest in quality of research program rankings – INW institutions still working to establish presence in research ecosystem.
- » Spokane has seen 12% growth in life science program completions over 5 years and compares favorably against comparable sized markets in number of annual graduates.



MARKET COMPETITIVE ANALYSIS

EDUCATION

Using the top occupation types within the life science industry, we compared job growth from 2020 to 2021 against 2021 Bachelor's and higher graduates in greater Spokane. More graduates than job growth shows that a region is experiencing **Brain Drain** as new graduates leave the region to seek employment. Inversely, more job growth than graduates draw job seekers, resulting in **Brain Gain**.



Spokane has experienced recent **Brain Drain**, when factoring Bachelor's degrees and higher. However, the Spokane metro retains and upskills a significant number of graduates with Associate's degrees not factored into these figures.



STRENGTH OF REGIONAL RESEARCH PROGRAMS

Strong research universities are a strength for regions with established life science clusters or those that want to grow. QS World University Rankings is one of the most influential and widely cited university rankings – it evaluates strength of research programs by Citations per Faculty and International Research Network.

- » **Washington State University** is the highest-ranking research university in the Inland Northwest Region –
- » **University of Idaho** is the only other prominent institution on the list within the INW region.

- » **University of Washington** scores highest in all categories compared to research institutions in the US Northwestern region

			Academic Reputation	Citations per Faculty	International Research Network
	Institution Name	SIZE	AR Rank	CPF Rank	IRN Rank
WA	University of Washington	XL	55	7	29
	Washington State University	L	333	385	337
	Seattle University	M	501+	601+	601+
	Western Washington University	L	501+	601+	601+
ID	University of Idaho	M	501+	367	601+
OR	University of Oregon	L	497	429	601+
	Portland State University	L	501+	601+	601+
UT	University of Utah	L	501+	366	283
	Brigham Young University	XL	501+	601+	541
	Utah State University	L	501+	507	601+
CO	University of Colorado Boulder	XL	229	379	172
	Colorado State University	L	448	549	348
	University of Colorado, Denver	L	501+	601+	384
	Colorado School of Mines	M	501+	163	601+
	University of Denver	M	501+	601+	601+

Source: <https://www.topuniversities.com/qs-world-university-rankings>



MARKET COMPETITIVE ANALYSIS

EDUCATION

STRENGTH OF INLAND NORTHWEST GRADUATE PIPELINE

- » There were 1.8K total graduates (bachelors or higher) in the life science field from the Inland Northwest in 2021 (22K total graduates)
- » INW Regional completion in life science programs are on par with gender diversity but has less racial diversity than the US average.

TOP INW LIFE SCIENCE PROGRAM COMPLETIONS	
Description	Annual Completions
Biology/Biological Sciences, General	703
Exercise Physiology and Kinesiology	237
Chemical Engineering	93
Biomedical Sciences, General	70
Biochemistry	70
Microbiology, General	65
Phlebotomy Technician/Phlebotomist	64
Biological and Physical Sciences	63
Zoology/Animal Biology	51
Neuroscience	51

GRADUATES - GENDER & DIVERSITY		
Population Segment	% of INW Completions	% of US Completions
Gender		
Females	61%	64%
Males	39%	36%
Ethnicity		
Hispanic or Latino	15%	17%
Multiple or unknown race/ethnicity	10%	7%
Nonresident alien	4%	6%
Black or African American	3%	8%
American Indian or Alaska Native	1%	1%
Asian, Pacific Islander	6%	14%
White, non-Hispanic	61%	47%



MARKET COMPETITIVE ANALYSIS

EDUCATION

LIFE SCIENCE DEGREES – BENCHMARK MARKET COMPARISON

	Bachelor's Degree or Higher	Completions Change (2017-2021)
Sacramento, CA	2,713	20%
Phoenix, AZ	2,612	30%
Boulder, CO	1,180	5%
Portland, OR	908	8%
Reno, NV	604	10%
Salt Lake City, UT	525	4%
Spokane, WA	491	12%
Winston-Salem, NC	344	34%
Boise City, ID	224	1%
Rochester, MN	137	41%

INLAND NORTHWEST

- WSU (650 degrees)
- U of Idaho (190 degrees)
- Central WA U (150 degrees)
- EWU (240 degrees)
- Gonzaga (170 degrees)
- Whitworth (90 degrees)



Source: Lightcast, 2021 most recent data available for program completions

MARKET COMPETITIVE ANALYSIS

VC & FUNDING ECOSYSTEM





MARKET COMPETITIVE ANALYSIS

VC & FUNDING ECOSYSTEM

Connections - Regional conferences/meetups, such as [Flywheel](#) and [Ignite](#), match entrepreneurs with investors to secure funding and connectivity.

Public Funding - Programs such as [Washington Competes](#), [SBIR Grants \(HSSA\)](#), [Washington Research Foundation](#), provide valuable opportunities for early-stage startups to secure funding.

Connections - Several local, regional, and state agencies to facilitate opportunities for funding - Life Science Washington Institute, Evergreen Bio, HSSA.

Minimal VC Investment Activity - Less than 10 life science VC funding events over the last 5 years.

Minimal INW VC Firm Presence - Limited presence of INW-based angel or VC firms focused solely on the Life Science sector.

STRENGTHS 

 WEAKNESSES

SWOT ANALYSIS

OPPORTUNITIES 

 THREATS

New VC Pool - Opportunity to facilitate relationships with sophisticated life-science focused capital allocators in Seattle and other prominent Life Science hubs.

Federal Funding Opportunities - Leverage and work with office of District Nine, Kathy McMorris Rogers, to continue to bring in federal funds for growth and expansion of new and existing manufacturing.

Out of Region Funding - Entrepreneurs going outside of the state for funding could leave the region to establish companies.

Momentum - No HQ Life Science funding 2021-2023.

Macro Environment - Global funding slows, banking uncertainty.



MARKET COMPETITIVE ANALYSIS

VC & FUNDING ECOSYSTEM - SPOKANE INTERVIEW FINDINGS

Entrepreneurship and funding ecosystem was a focus in many of the leadership interviews

Interviewees



What We Heard

- » Ignite Talks connect start ups with VCs outside of the region to discuss funding sources, talent, and best practices.
- » For entrepreneurs in Spokane, the runway is longer and burn rate isn't as high.
- » Limited life science ecosystem can make it difficult to accelerate growth and scale companies beyond a certain size.

- » Interviewees commented on founder-friendliness and lack of life science expertise of in-market angel and venture money.
- » The region needs to do a better job promoting existing state and regional resources that assist start ups raising capital or applying for grants.



What We Found

- » INW had limited VC backed projects in region over past 5 years - VC funding in Spokane fell below all benchmark markets.
- » Peer market EDOs supporting their local entrepreneurs by offering help with grant writing and establishing programs that assist with funding such as offering loans for high risk start-ups.
- » Major opportunity to market Spokane to life science focused Venture and Private Equity firms throughout the country.
- » Economic headwinds may create opportunity for Spokane as investors/companies implement austerity measures.



MARKET COMPETITIVE ANALYSIS

VC & FUNDING ECOSYSTEM

Check out our *C&W Life Sciences Report*

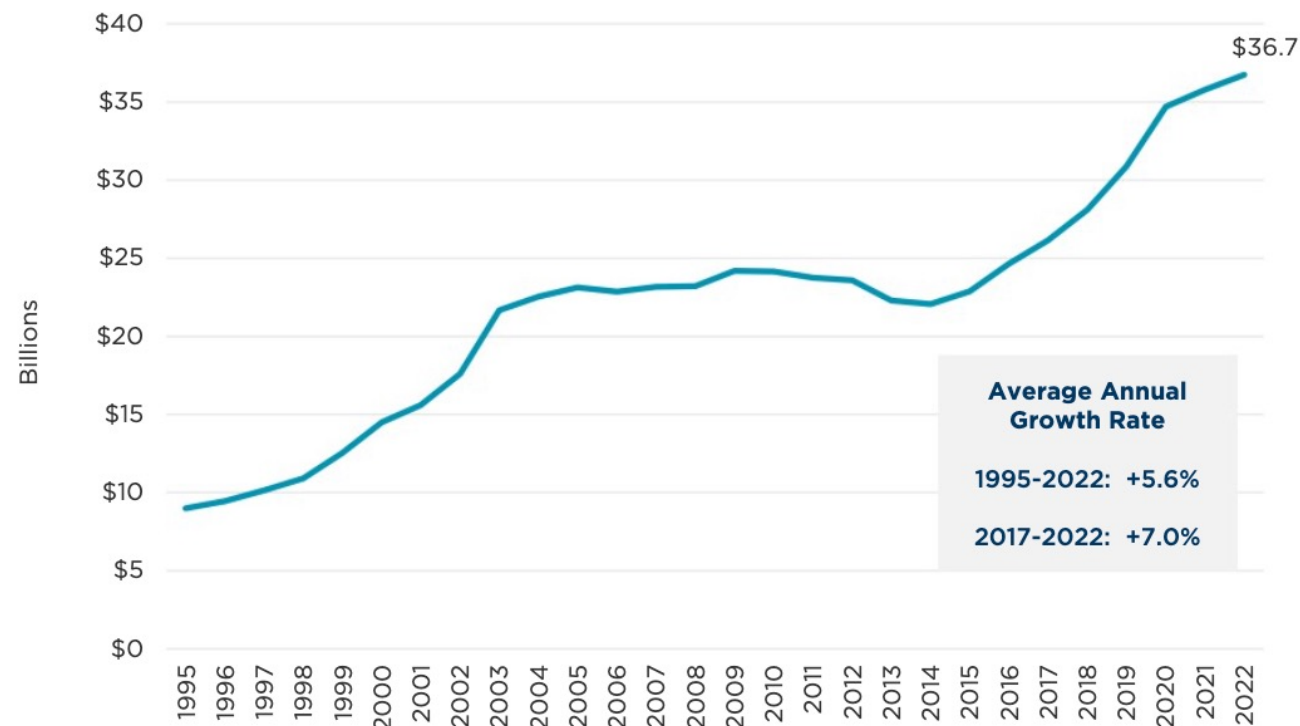


NATIONAL FUNDING LANDSCAPE - NIH FUNDING CONTINUES TO GROW

Total U.S. National Institutes of Health (NIH) funding grew by 2.7% YoY in 2022. At \$36.7 billion, it set a record high for the seventh year in a row, easily outpacing 2019 funding by 18.9%. The NIH budget is expected to grow by \$2.5 billion in 2023, resulting in a total budget of \$47.5 billion, the bulk of which will go to research awards.

The top 10 U.S. life sciences markets also attract the most NIH funding garnering 50% of total funding in 2022. Seattle was #6 on the list of most funding received and has been one of the tope markets over the last 5 years.

Total Annual U.S. NIH Funding Over Time



Top Markets in NIH Funding for the Previous Five Years (Total Funding 2018-2022)

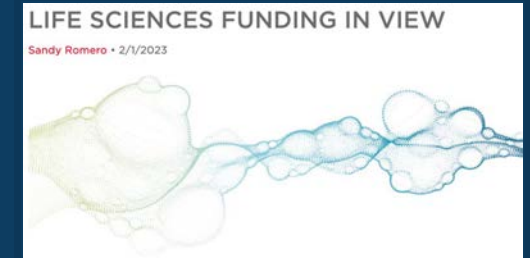
1	Boston	\$14.8B	9	San Diego	\$5.2B
2	New York City	\$12.2B	10	Chicago	\$4.8B
3	Baltimore-Suburban MD (I-270)	\$9.7B	11	Houston	\$4.0B
4	San Francisco Bay Area	\$10.4B	12	Pittsburgh	\$3.4B
5	Raleigh-Durham	\$8.1B	13	Ann Arbor	\$3.1B
6	Seattle	\$6.4B	14	Saint Louis	\$3.0B
7	Los Angeles-Orange County	\$6.2B	15	Atlanta	\$2.9B
8	Philadelphia	\$5.9B			



MARKET COMPETITIVE ANALYSIS

VC & FUNDING ECOSYSTEM

Check out our C&W Life Sciences Funding Report

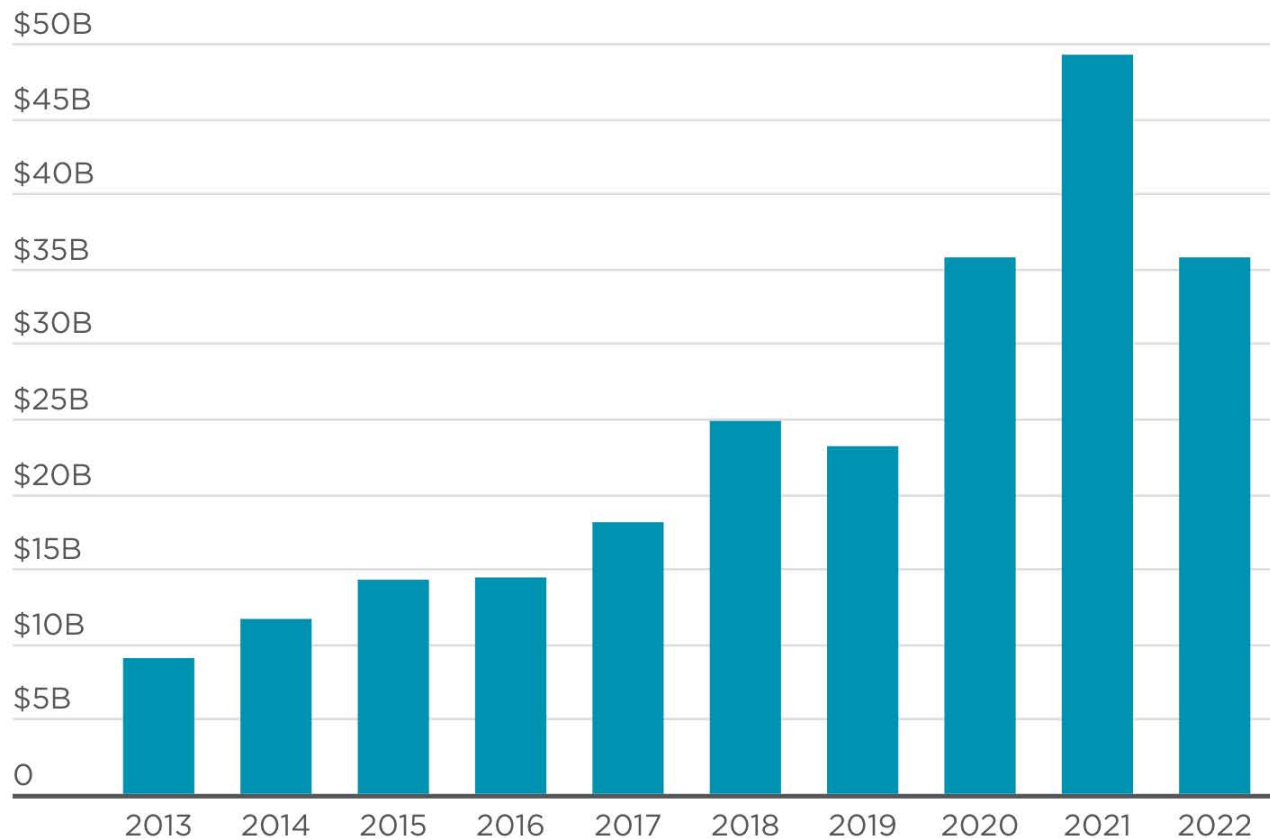


GLOBAL FUNDING FOR LIFE SCIENCES CONTINUES TO SLOW

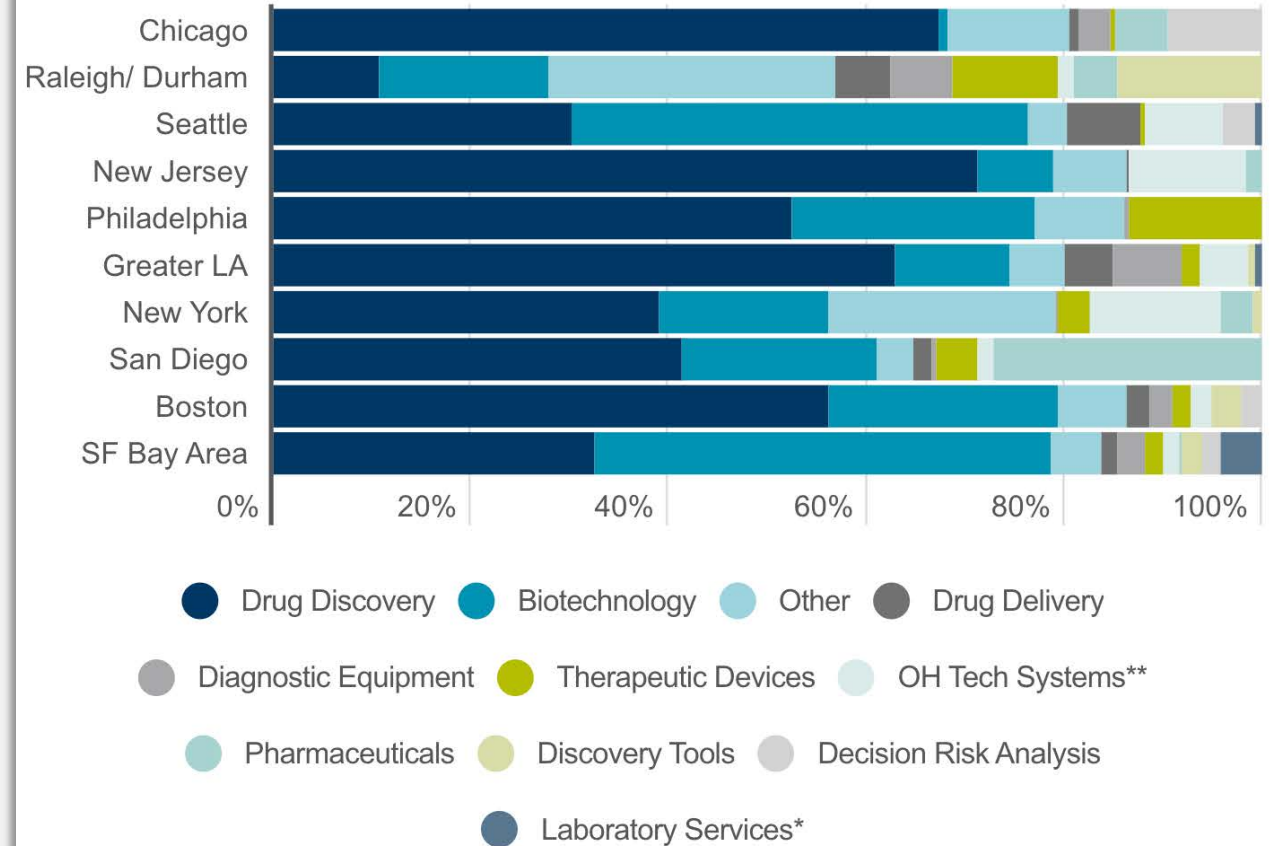
Uncertainty introduced into the banking sector as well as global geopolitical and economic volatility is continuing to impact VC funding and the life science sector in 2023.

The drug discovery industry received the greatest amount of funding in seven of the top 10 markets; however, in Seattle, biotechnology funding of \$384 million outpaced drug discovery at \$250 million.

2022 Total U.S. Life Sciences Venture Capital Funding



Top 10 Markets 2022 by Top Industries (% Funding)



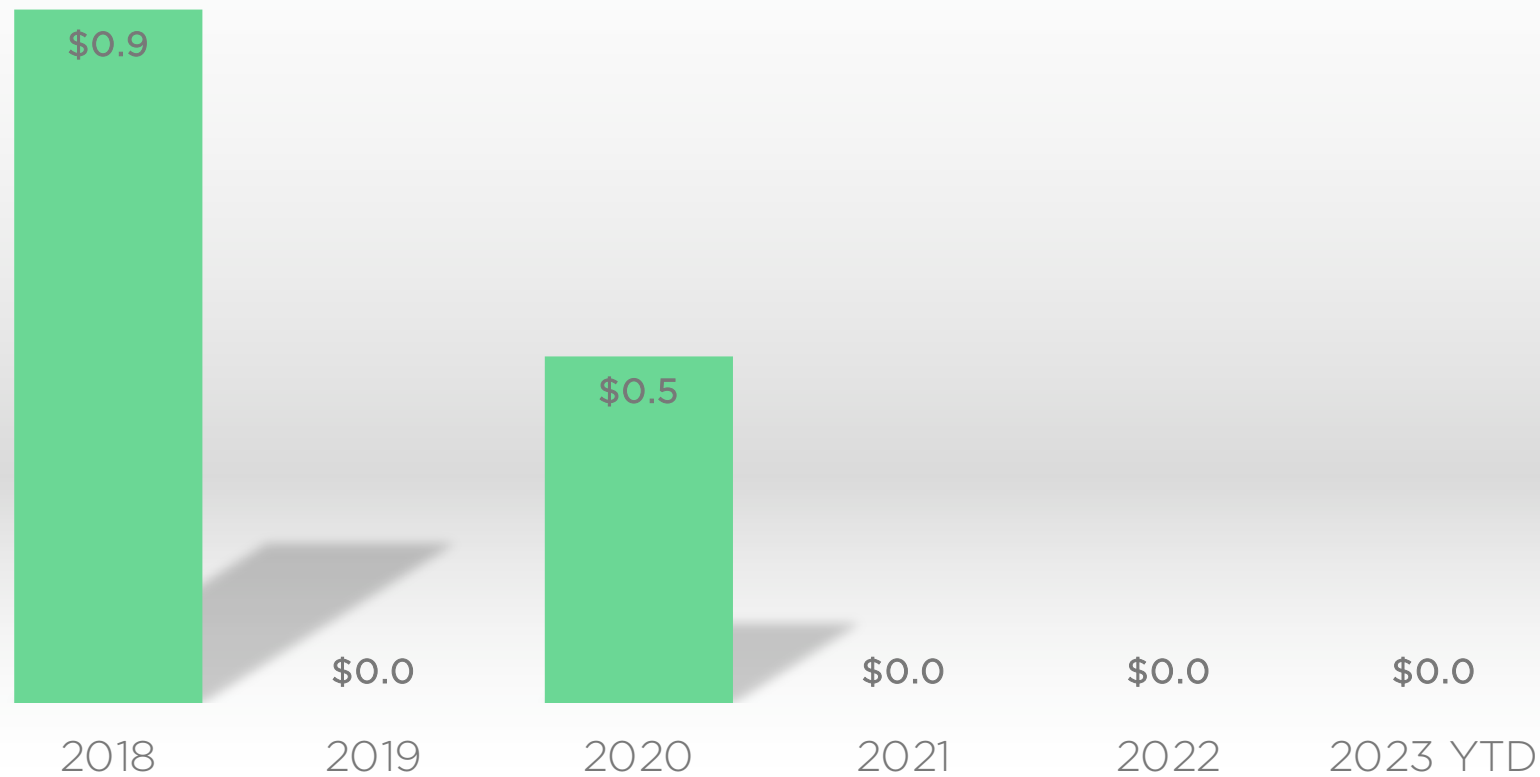


MARKET COMPETITIVE ANALYSIS

VC & FUNDING ECOSYSTEM

Spokane trails other peer markets as it relates to life science VC funding and has had minimal activity over the last 2 years.

GREATER SPOKANE LIFE SCIENCE VC FUNDING
(\$ millions)



VC FUNDING MARKET COMPARISON

Market	Life Science VC Funding (2017-2022)
Salt Lake City, UT	\$1,388.3 M
Boulder, CO	\$947.8 M
Pittsburgh, PA	\$521.7 M
Rochester, MN	\$464.6 M
Portland, OR	\$390.2 M
Sacramento, CA	\$332.7 M
Winston-Salem, NC	\$97.7 M
Reno, NV	\$22.4 M
Boise, ID	\$6.4 M
Spokane, WA	\$1.4 M



Northwest

The Northwest has an abundant supply of top tier life science VC firms, some of which are outlined below. The largest cluster of these firms is in Seattle, There is an opportunity to further foster funding pipeline and portfolio connectivity between these firms and the INW.

BILL & MELINDA
GATES *foundation*

FRAZIER
HEALTHCARE PARTNERS

HEMISPHERE
VENTURES

3x5
PARTNERS

W R F
C A P I T A L

REMIGES
VENTURES

Bioeconomy
CAPITAL

ALTITUDE
Life Science Ventures

ACCELERATOR
Life Science Partners

biomATICS
CAPITAL

TWO BEAR CAPITAL

ARGONAUTIC

National

There are hundreds of top tier life science capital allocators throughout the US - most of these are headquartered in major life science hubs (Boston, San Francisco, San Diego, NYC). Many of these firms have centralized advisory or operational support functions to facilitate portfolio growth - developing champions within this network can be a highly successful strategy for the INW region.

ARCH
VENTURE PARTNERS

VERSANT
ventures

THIRD ROCK
VENTURES

SOFINNOVA
INVESTMENTS

Flagship
Pioneering

THE
COLUMN
GROUP

RACAPITAL

CASDIN
CAPITAL
LIFE SCIENCE INVESTMENTS

PERCEPTIVE
ADVISORS

WINDROSE
HEALTH INVESTORS

VIVO
CAPITAL

5AM
VENTURES

MARKET COMPETITIVE ANALYSIS

VC & FUNDING ECOSYSTEM

MARKET COMPETITIVE ANALYSIS

PEER MARKET ANALYSIS





Low-Cost Market – Spokane has lower cost of living and cost of operations compared to other peer markets – several interviewees mentioned this as a competitive advantage..

State Life Sci Reputation – Washington state is known broadly as a life science powerhouse.

Lower Environmental Risk – Spokane has a lower FEMA environmental risk ranking – many peer markets studied are moderate to high and have issues with scarcity of natural resources not prevalent in Spokane.

State Perception – Broad perception that WA is a difficult state for business and that peer markets typically do not compete with Spokane for life science projects.

Lab Space – Benchmark cities had more robust inventory of lab space, often subsidized for early-stage companies, to facilitate R&D in market.

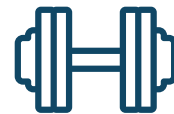
Focus – Emerging life science hubs have carved out specific community/sector strengths marketed broadly – i.e., neuro, cell & gene therapy, med device, oncology, etc. which Spokane has yet to do with as much clarity as other markets.

Incentives Programs – Peer markets have more robust incentives toolkits to recruit/retain inbound projects.

MARKET COMPETITIVE ANALYSIS

PEER MARKET ANALYSIS

STRENGTHS



SWOT ANALYSIS



WEAKNESSES

OPPORTUNITIES



THREATS

Lab Space – Subsidized lab space will always be in demand to support start ups with little capital – continue to find ways to develop more.

Startup Success – Most interviewees reported initial success with startup activity prior to attracting expansion activity from out of market companies.

Connectivity to Major Hubs – Several cities developed momentum through positioning their markets as a relief valve solution for growth from adjacent expensive life sci hub markets – Spokane has an opportunity to attract growth from Seattle companies and reframe the INW/Seattle as one broad trade area.

Funding Support – Establishing local funds for grants or loans and offering specialized support in FDA regulations and federal/state funding opportunities.

Talent Repositioning – Focus on ways to upskill existing manufacturing talent pool to life science applications.

Talent – Seen as the most critical element to life science industry growth, Spokane must build and retain skilled workforce.

Fund Raising - Finding domain-specific VC funds and developer money to fund life science-focused infrastructure.

Regional Competition – Start-ups and companies attracted to already established, but low cost “emerging” markets in the West.

Development Investment – Building assets and significant, long-term investment is best way to build life science industry.

Anchor Research University – INW does not have a top-ranking research university in region.



MARKET COMPETITIVE ANALYSIS

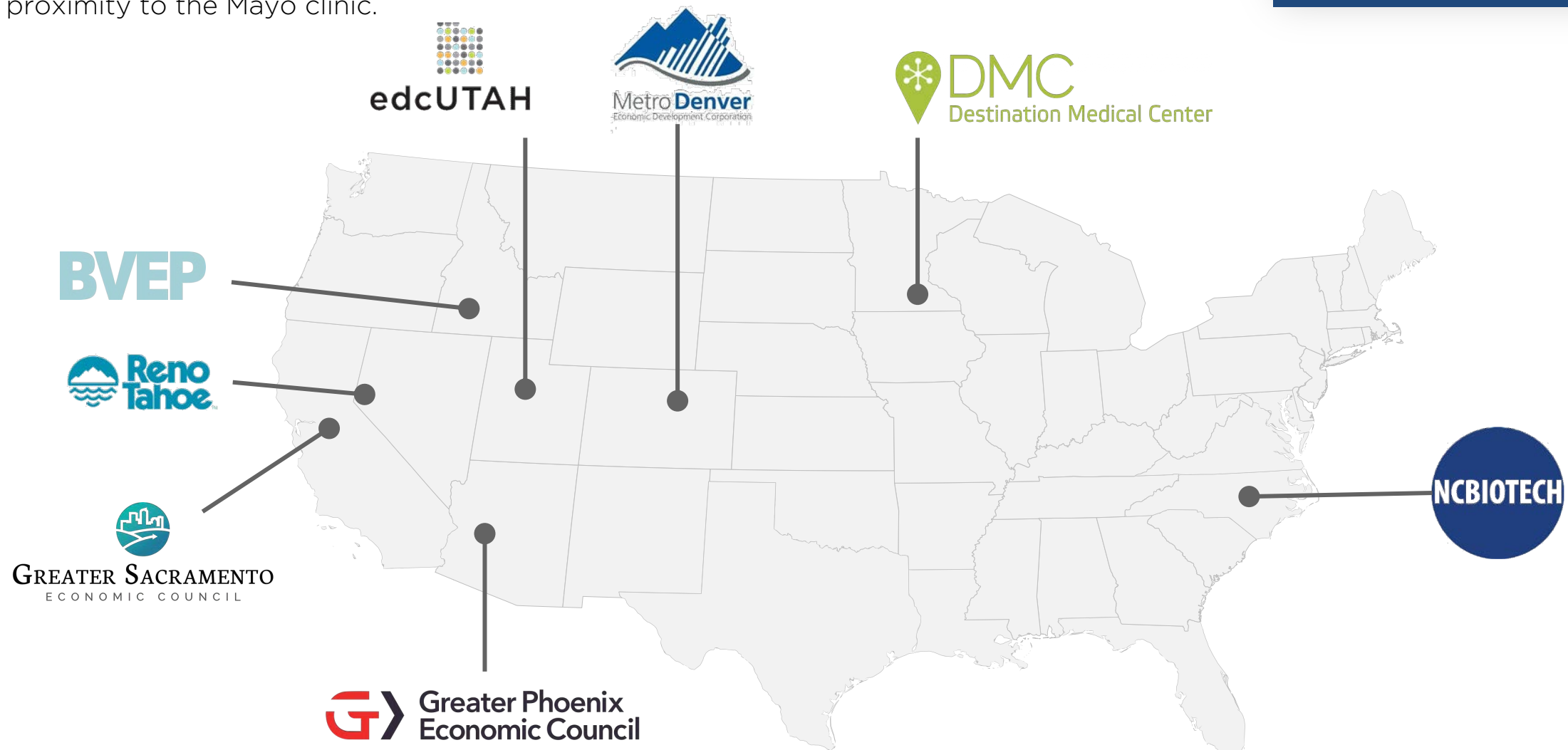
PEER MARKET ANALYSIS

METHODOLOGY

Cushman & Wakefield interviewed economic development agencies from eight benchmark regions to gain insight on their programs and best practices regarding local life science industry growth. These markets were selected to include a spectrum of maturity in the life science industry sector. **Greater Sacramento, Metro Denver, Salt Lake City** and **Phoenix**, are emerging life science hubs. **NCBioTech** represented Winston-Salem, a market previously evaluated by Spokane as well as other communities within the state. **Boise** and **Reno**, were chosen for their similar size and positioning in the Northwest, representing potential competitors. **Destination Medical Center** in Rochester, Minnesota, has a unique position in the life science industry based on proximity to the Mayo clinic.

INTERVIEW FOCUS

- >> Incentives
- >> Life Sci Ecosystem
- >> History of Development
- >> Current Strategies





MARKET COMPETITIVE ANALYSIS

PEER MARKET ANALYSIS - SPOKANE INTERVIEW FINDINGS



What We Heard

- » Success from emerging life science markets resulted from staying hyper focused on unique community strengths and matching these strengths to categories within life sciences to target where they can effectively compete.
- » Inflection point for growth was putting together a transformative life science development - [examples highlighted here](#)
- » Talent is the most important factor and can make up for deficiencies in other areas.
- » The development of favorable loans and non-dilutive funding at local or state level has been a major growth driver in Salt Lake City, Phoenix, and North Carolina.
- » Specialized support in navigating regulatory landscape (FDA) and securing federal funding has been successful in these cities.
- » Many markets in the west struggle with existential challenges - water supply, power availability, risk of natural disaster that are not as prevalent in Spokane.
- » One foundational growth driver in emerging markets has been at least one notable research university which can be transformative in fostering entrepreneurship, securing developer investment, and attracting established growth.
- » Partnerships with community colleges for program design for manufacturing operations highly successful.
- » In every case these emerging life science cities are pitching ease of scaling outside high-cost Tier 1 hubs as a major advantage.
- » New life science companies need help navigating the local ecosystem - these markets have set up programs to help with this effort.
- » All benchmark markets reported that it's been easier to support expansion of existing companies than attract out of market companies to expand or relocate.
- » Successful life science transformation required a shared vision and very long implementation cycles (10+ years).
- » Support and alignment from ecosystem of stakeholders is essential.
- » Utah is a good proxy for a community that started off with a med device focus and after consistent efforts for the last 10-15 years is now experiencing major growth in the therapeutics, pharma, and cell therapy areas.
- » Many emerging life science markets also are seeing increase in amount of capital deployed from local VC firms.
- » First focus should be fostering an environment where it's easy to start and scale bio companies - free/reduced rent, flexible lease terms, initial funding, etc.
- » Find where there are transferrable skills from existing workforce to life science industry - several interviewees mentioned semiconductor roles translating well to med device.



What We Found





- » Spokane life science community has an incredible passionate and vibrant community of stakeholders but has room for improvement around creating a shared strategy for growth.
- » Spokane's current focus on developing lab space to facilitate entrepreneurship has been a strong lever for success in other markets.
- » Spokane would benefit from a more hyper focused and targeted strategy on what types of life science companies are likely to be successful based on the region's unique strengths.
- » Peer markets have more opportunities to provide incentives than Spokane and the Inland Northwest.
- » Continued development of Spokane University Ecosystem and Research capabilities will be fundamental to life sciences growth in market.



NOTABLE PEER MARKET LIFE SCIENCE DEVELOPMENTS

MARKET COMPETITIVE ANALYSIS

PEER MARKET ANALYSIS

Market	Market Successes	Notable Developments	Flagship Life Science Development	Developer Partner	Notes
Sacramento	Orca Bio Gemini Bio Penumbra	<u>Aggie Square</u> <u>California Northstate University</u>	 <p>Aggie Square</p>	Wexford	<p>Aggie Square - 1.2 million square foot campus built in Sacramento's innovation district adjacent to the UC Davis Medical Center.</p> <p>California Northstate University - 1.2 million square foot state-of-the-art medical center and teaching hospital.</p>
Phoenix	West Pharma Dexcom Medtronic	<u>Discovery Oasis</u> <u>Phoenix Bioscience Core</u>	 <p>Phoenix Bioscience Core</p>	Wexford	<p>Discovery Oasis - 3.3M square foot campus adjacent to Mayo Clinic and ASU Health Futures</p> <p>Phoenix Bioscience Core - 30-acre research campus (6M planned square feet) with 3 anchor universities - UofA, ASU, NAU.</p>
Denver	Orca Bio Gemini Bio Penumbra	<u>Fitzsimmons Innovation Community (FIC)</u>	 <p>Fitzsimmons Innovation Center</p>	Mortenson	<p>Fitzsimmons Innovation Community (FIC) - 100-acre campus that is a joint venture between University of Colorado Anschutz Medical Campus and City of Aurora. FIC is home to a number of incubators and accelerators providing support to early-stage communities.</p>
Salt Lake City	Denali Therapeutics Merit Medical BD Recursion	<u>Altitude Lab</u> <u>Gateway Biohive</u>	 <p>Altitude Lab</p>	N/A	<p>Altitude Lab - life sciences incubator and accelerator located in Salt Lake City, Utah. It was founded in 2020 by Recursion Pharmaceuticals and the University of Utah's PIVOT Center. Since inception, the program has helped launch over 20 companies, which have raised over \$100 million in funding and has helped to attract new investment to the state.</p>

MARKET COMPETITIVE ANALYSIS

LIFE SCIENCE ECOSYSTEM





MARKET COMPETITIVE ANALYSIS

LIFE SCIENCE ECOSYSTEM

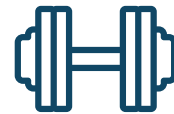
Growing companies - Jubilant HollisterStier and Selkirk Pharma have established CMO manufacturing sites in Spokane and Jubilant is currently expanding at their site using Federal funding.

Related industries - Strong animal science and agriculture industry presence in region, related to (aggie bio), (food bio).

Cost benefits - Lower cost for operations & real estate compared western top tier life science markets.

Two Major Healthcare Networks - it is a unique strength for Spokane to have two sizeable healthcare networks - beneficial for clinical trials and distribution of therapeutics.

STRENGTHS



SWOT ANALYSIS



WEAKNESSES

OPPORTUNITIES



THREATS

Exiting talent - Current manufacturing talent/operations could be leveraged for expansions and new life science companies.

Macro environment - Clinical trial activity is driving up demand across the US making life science companies growth more rapid than other industries.

Adjacent industries - Federal funding going into battery, EV, energy transition, clean technology, and advanced manufacturing industries.

Proximity - Proximity to Seattle, Vancouver and other West Coast life science hubs provides the opportunity for corporate recruitment and adjacencies.

Limited ecosystem - Few established life science clusters to accelerate business growth and attract additional life science companies.

Existing Real Estate - Lack of innovation and urgency among local property owners results in a dilapidated environment and difficulty promoting opportunities to life science companies

Lab Space - Limited physical structures such as incubator and ready (and subsidized) lab space for new startup companies can limit access and scaling of smaller life science companies.

Recruitment - Difficult to recruit Seattle life science entrepreneurs with an established network and close to UW.

Local incentives - The Inland Northwest region and state of Washington have limited incentives programs, which may be a barrier for start up or expanding companies.



MARKET COMPETITIVE ANALYSIS

LIFE SCIENCE ECOSYSTEM - SPOKANE INTERVIEW FINDINGS

Interviewees



What We Heard

- » Spokane is preeminent research area for sleep disorders, addiction studies and neuromuscular disorders.
- » Collaboration between organizations is a necessity, but Spokane is not there.
- » Coeur d'Alene has a great tech community.
- » Resistance to formation of government agency that would be able to raise economic development funds.
- » New market tax credits and other incentive programs are underutilized.
- » Local aerospace companies have leveraged existing core competencies and workforce to expand into life science products.

What We Found

- » Biological Product Manufacturing in Spokane has had negative growth over the past 5 years despite high-growth nationwide.
- » Clean tech is an emerging industry with growth potential for the Inland Northwest.
- » Proximity to Seattle and Vancouver gives access to life science resources.



MARKET COMPETITIVE ANALYSIS

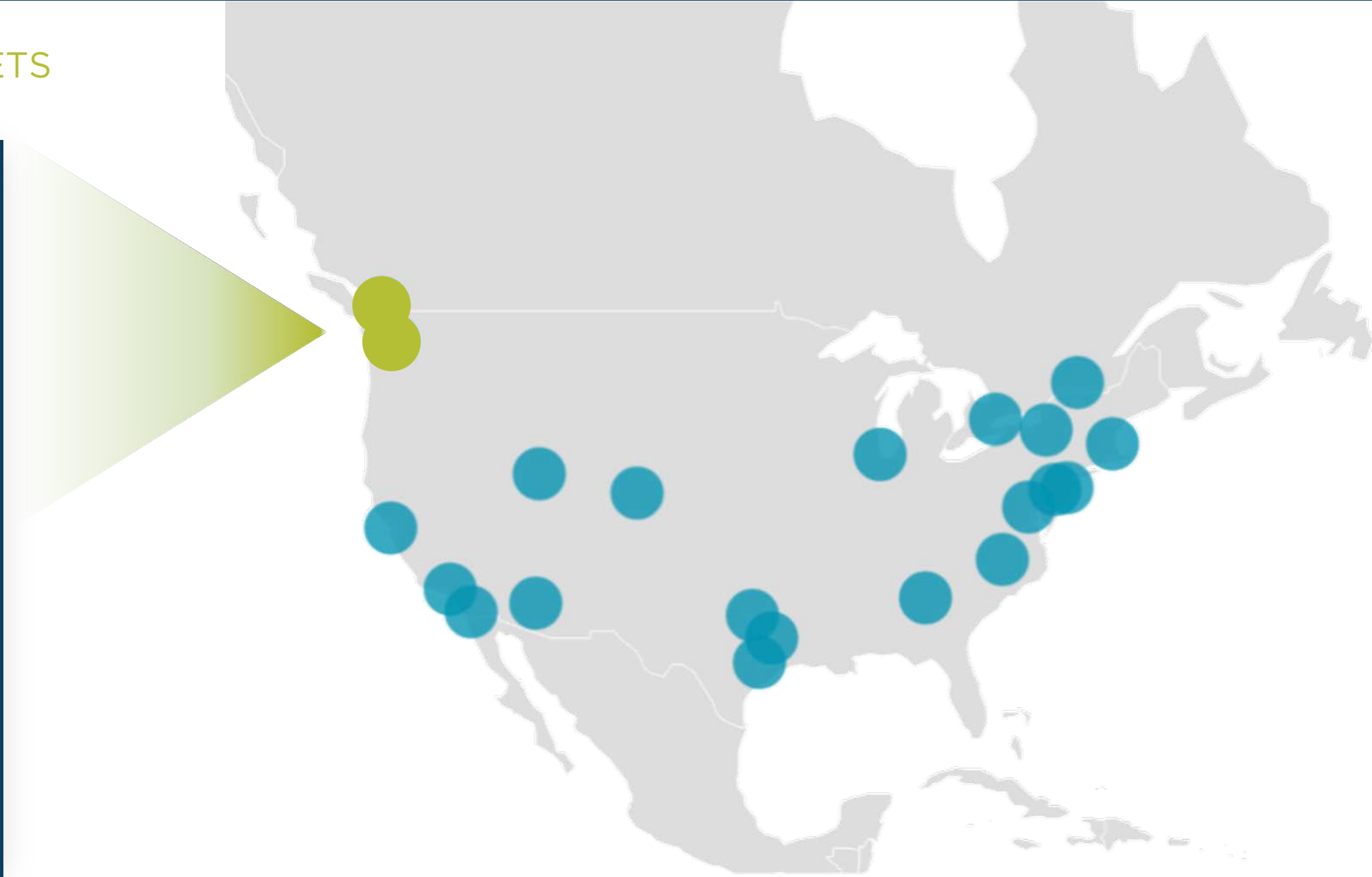
LIFE SCIENCE ECOSYSTEM - NORTHWEST REGION LIFE SCIENCE ADJACENCIES

TOP LIFE SCIENCE MARKETS

Markets with developing life sciences sectors in US and Canada share characteristics including a growing number of life sciences companies, government initiatives and support, historical sector performance, investment, R&D activities and employment.

Spokane's proximity to two of these markets, **Seattle** and **Vancouver**, presents opportunities to leverage already established life science resources in these markets.

The following slides provide detail about the current life science industry in Seattle and Vancouver.





Seattle

MARKET COMPETITIVE ANALYSIS

LIFE SCIENCE ECOSYSTEM

Market Summary

- Over 150 companies in the life sciences industry are headquartered in the Puget Sound region, primarily in the biotechnology and drug discovery fields.
- Though venture funding to biotech startups slowed following a peak in 2021, a good number of deals—totaling nearly \$1 billion or 2% of total U.S. funding—occurred in 2022. Regionally, biotechnology funding (\$384 million) outpaced drug discovery (\$250 million). Local biotech firm Kineta completed its reverse merger with Boston-based Yumanity Therapeutics in December. Meanwhile, talks of Merck acquiring local biotech giant Seagen for \$37 billion stalled during the summer.
- The majority of the region's life sciences inventory is situated in two submarkets: Lake Union in downtown Seattle and Bothell in the eastside suburbs. Lake Union features 3.1 msf of inventory, with vacancy at 12.2% and triple net rents in the \$70-\$90 range. Bothell comprises 2.1 msf of inventory, with vacancy at 10.3% and triple net rents in the low to mid-\$20s, with some high-end lab space asking triple net rents in the \$40-\$50 range.
- Due to low supply and high demand for life sciences product, some newly delivered office projects have been converted to life sciences. In downtown Seattle, Boren Labs (formerly Boren Lofts) and 330 Yale are two such recent office-to-lab projects; Unison Elliott Bay is a current 300,000-sf conversion that will become available in the spring of 2023. There is another 4.8 msf of life sciences in the planning stages in or near the submarket.
- Significant leasing activity and office-to-lab conversion have also occurred in Bothell. Of note, Sana Biotechnology has made a serious commitment to the area, leasing 80,000 sf that will replace its Fremont, Calif. manufacturing facility.
- The Bellevue and Renton submarkets are also poised for growth, with Alexandria purchasing a large development site in a prime location in Bellevue and SECO's 1.4-msf Southport West project in Renton in the planning stages.

Fast Lab Stats

5.4 MSF

Market Square Footage

\$64.23

\$ Per SF

10.6%

Vacancy

20K

Total Life Sciences Employment

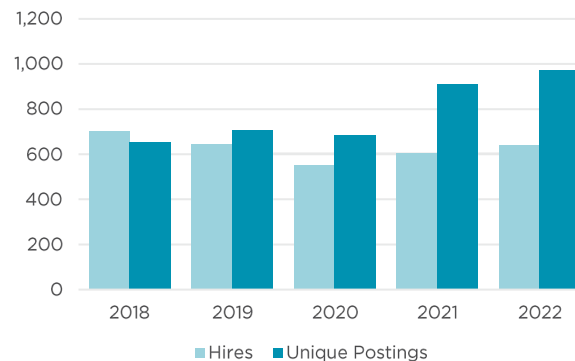
62.8%

Life Sciences Employment 10-Year Growth Rate

Representative Life Sciences Companies

Company	Type
Fred Hutchinson Cancer Research Center	HQ
Bristol Myers Squibb	Research Facility
Seagen	HQ
Allen Institute	Research Facility
Benaroya Research Institute	Research Facility
AGC Biologics	Research Facility
Adaptive Biotechnologies	HQ
NanoString Technologies	HQ
Gilead Sciences	Regional Office
Sana Biotechnology	HQ

Life Sciences Labor: Average Monthly Job Postings and Hires



Top NIH-Funded Institutions (2018-2022)

\$2.6B

University Of Washington

\$430M

Seattle Children's Hospital

\$1.9B

Fred Hutchinson Cancer Research Center

Bio Degree-Awarding Institutions, Metro Area

- University of Washington
- Seattle Pacific University
- Seattle University

Annual Life Sciences Degree Completions

2011
2,108

2021
2,559
Up 21%

Public & Private Funding (2022)

Company	Deal Type	Completed	Type	\$ Raised (MM)
Aurion Biotech	Later-stage VC	Apr 2022	VC	\$120.3
Cajal Neuroscience	Early-stage VC	Nov 2022	VC	\$95.7
Aurion Biotech	Early-stage VC	Apr 2022	VC	\$72.5
ProfoundBio	Early-stage VC	Jun 2022	VC	\$70.0
Curevo Vaccine	Later-stage VC	Feb 2022	VC	\$60.0
InduPro (Biotechnology)	Early-stage VC	Feb 2022	VC	\$60.0
Faraday Pharmaceuticals	Later-stage VC	Nov 2022	VC	\$52.8
Kurve Therapeutics	Equity Crowdfunding	Sep 2022	VC	\$50.0
AltPep	Early-stage VC	Jul 2022	VC	\$44.4
Lumen Bioscience	Later-stage VC	Jun 2022	VC	\$43.0

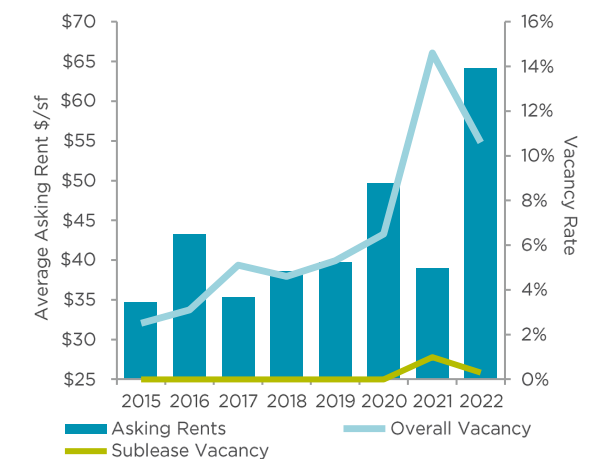
Representative Investment Sale Transactions (2022)

Address	Type	\$ MM	RBA SF	Date	Buyer
1101 Westlake	Office	\$151.5M	153,708	Apr 2022	BioMed Realty
Canyon Pointe	Office	\$72.5M	156,626	Jan 2022	Alexandria Real Estate Equities

Representative Lease Transactions (2022)

Company	Address	Size (SF)	New/Renewal	Type	Quarter	Landlord
Univ of Washington	1601 Lind	119,499	Expansion	Office/Lab	Q1	BH Properties
Sonoma Bio	Unison Elliott Bay - Bldg 3, Seattle	83,773	New	Office/Lab	Q3	Office Properties Income Trust
Sana Biotechnology	3555 Monte Villa Pky, Bothell	79,565	New	High Tech/Lab	Q2	Alexandria Real Estate Equities
Cajal Neuroscience	eleven50, Seattle	52,100	New	Office/Lab	Q2	Alexandria Real Estate Equities
Parse Biosciences	Dexter Yard North, Seattle	33,952	New	Office/Lab	Q2	BioMed Realty
Bristol Myers Squibb	1616 Eastlake Ave E, Seattle	32,744	Renewal	Office/Lab	Q2	Alexandria Real Estate Equities
Notch Therapeutics	eleven50, Seattle	31,270	New	Office/Lab	Q1	Alexandria Real Estate Equities
AltPep	eleven50, Seattle	31,270	New	Office/Lab	Q3	Alexandria Real Estate Equities
Variant Bio	eleven50, Seattle	31,270	New	Office/Lab	Q1	Alexandria Real Estate Equities
Allen Institute	Dexter Yard - South Tower	21,124	New	Office/Lab	Q3	BioMed Realty

Rent vs. Vacancy Comparison





Vancouver

Market Summary

- British Columbia is home to more than 300 life sciences companies, including biopharmaceutical and medical device companies. Vancouver's life sciences industry is underpinned by a highly-skilled workforce, prime location and high quality of life.
- The new St. Paul's Hospital development in the core market of Mt. Pleasant has spurred significant interest in the surrounding neighborhood from some of the most notable life sciences companies in the country, including AbCellera, Zymeworks, Aurina Pharmaceutical and STEMCELL technologies.
- California medical device company Masimo Corp signed a \$123 million deal for new office space at 220 Prior St., located in the False Creeks submarket, a property adjacent to the St. Paul's Hospital development.
- Vancouver General Hospital (VGH) is the country's third largest hospital and western Canada's most specialized hospital, with over 40% of patients coming from outside of Vancouver. Additionally, VGH is one of Canada's most renowned teaching hospitals through its affiliation with University of British Columbia (UBC).
- The Vancouver life sciences industry is further strengthened by government incentives and infrastructure inclusive of grants and tax incentives, along with the BC Cancer Agency, BC Centre for Excellence in HIV/AIDS, AdMare, TRIUMF Vancouver Coastal Research Institute, Michael Smith Laboratories, Genome BC and the BC Knowledge Development Fund.

Fast Lab Stats

12.7K

Total Life Sciences Employment

89.5%

Life Sciences Employment 10-Year Growth Rate

Public & Private Funding (2022)

Company	Deal Type	Completed	Type	\$ Raised (MM)
Alpha 9 Theranostics	Early-stage VC	Jun 2022	VC	\$75.0
SaNOtize	Later-stage VC	Aug 2022	VC	\$24.0
Qu Biologics	Later-stage VC	Mar 2022	VC	\$12.0
Qu Biologics	Grant	Oct 2022	VC	\$6.7
Vesalius Cardiovascular	Later-stage VC	Jan 2022	VC	\$5.0
Avivo (Canada)	Seed Round	Mar 2022	VC	\$2.1
Clairvoyant Therapeutics	Seed Round	Jul 2022	VC	\$1.7
Andira	Later-stage VC	Mar 2022	VC	\$1.6
HTuO Biosciences	Seed Round	Apr 2022	VC	\$1.5
GenXys	Later-stage VC	Apr 2022	VC	\$0.7

Representative Investment Sale Transactions (2022)

Address	Type	\$ MM	RBA SF	Date	Buyer
220 Prior Street (u/c)	Lab/Office	123	102,000	May 2022	Masimo Canada ULC

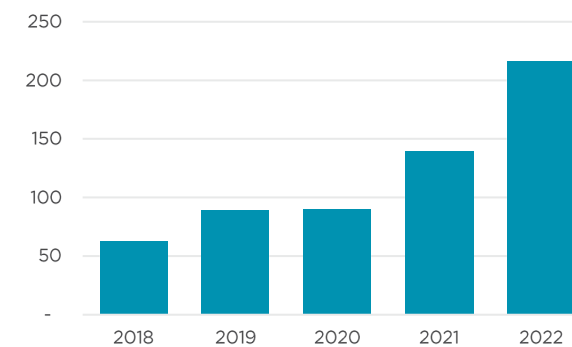
Representative Lease Transactions (2022)

Company	Address	Size (SF)	New/Renewal	Type	Quarter	Landlord
Nanovation Therapeutics	1308 Adanac St	18,000	New	Headlease	Q4	Porte Realty Ltd
AbCellera Biologics Inc	7 W 6th Ave	6,266	New	Sublease	Q3	Left Coast Real Estate

Representative Life Sciences Companies

Company	Type
Stemcell Technologies	HQ, Lab
AbCellera	HQ, Lab
Zymeworks	HQ
Xenon Pharmaceuticals Inc	HQ
Medipure Pharmaceuticals Inc	HQ, Lab
Symvivo Inc	HQ
Chinook Therapeutics	HQ
Anandia Laboratories Inc	HQ
Amgen	Research Facility
Masimo Corp (2024 Occupancy)	Research Facility, Lab

Life Sciences Labor: Average Monthly Job Postings



Bio Degree-Awarding Institutions, Metro Area

- British Columbia Institute of Technology
- Camosun College
- Langara College (Health Science Program)
- Simon Fraser University
- University of British Columbia (School of Biomedical Engineering, Biological Sciences Centre)
- University of Victoria

Annual Life Sciences Degree Completions

2011
1,283

2021
1,588
Up 24%

Top NIH-Funded Institutions (2018-2022)

\$22M
University of British Columbia

\$4M
Provincial Health Services Authority

\$1M
British Columbia Cancer Agency

MARKET COMPETITIVE ANALYSIS

LIFE SCIENCE ECOSYSTEM

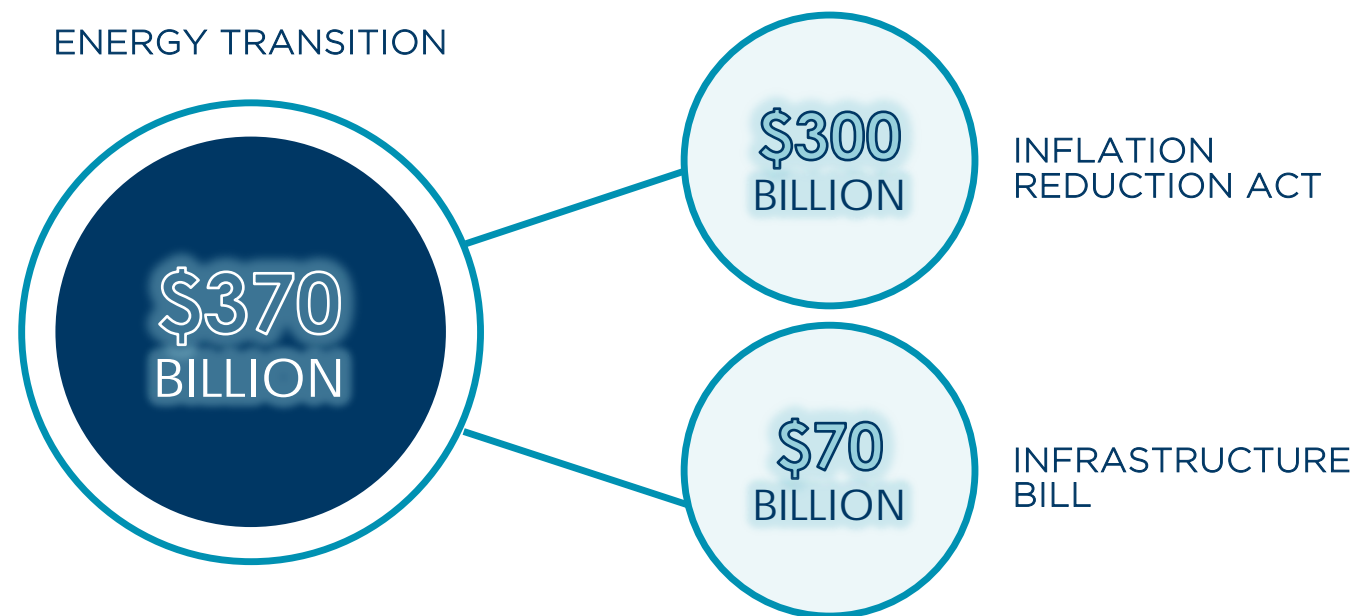


SYNERGIES WITH EMERGING TECHNOLOGIES

Spokane and the Inland Northwest possess several competitive advantages to attract clean tech, energy transition and Industry 4.0 companies – we believe that these should be pursued in parallel with life science ecosystem development and that momentum in this space will produce tailwinds for the life science industry in the market.

INFLATION REDUCTION ACT & INFRASTRUCTURE BILL

\$370B federal funding for clean energy transition



ENERGY TRANSITION - INW

The INW Region is well suited to capture significant growth catalyzed by the Inflation Reduction Act, Infrastructure Bill, and the Chips act as it relates to clean tech, energy transition, battery/EV production, and Industry 4.0.

Central Washington has already seen success with recent project announcements by Sila, and Group 14.

In addition to proximity to one of the most prominent investors in this space, Breakthrough Energy Ventures, other advantages of the INW include:

- Skilled manufacturing talent pool
- Availability of low cost, clean energy
- Low-Cost Electricity
- Low Natural Disaster Risk
- Accessibility to Seattle and San Francisco

MARKET COMPETITIVE ANALYSIS

QUALITY OF LIFE.





MARKET COMPETITIVE ANALYSIS

QUALITY OF LIFE

Outdoor Activity - Easy access to nature is a draw to the region.

Events - Spokane Hoopfest and other local signature events provide entertainment and increases community connection.

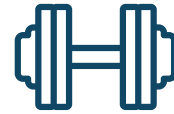
Cost of Living - Overall low cost of living relative to larger cities in region.

Healthcare System - Almost two times the number of healthcare practitioners per person compared to US average with two major healthcare systems.

Crime - Spokane has a property crime rate nearly 50% more than the national average and may deter companies from expanding or locating in the region.

Homelessness - Spokane's homeless population continues to grow.

STRENGTHS



SWOT ANALYSIS

WEAKNESSES



OPPORTUNITIES



THREATS



Proximity - Close to Seattle (4-hour drive, 1-hour flight) provides access to large metro area resources.

Cost of living - Draw for young, highly skilled people from expensive metro locations.

In Migration - Remote/hybrid talent drawn to Spokane increased local workforce.

Development - Additional mixed used developments, like Kendall Yards, enhances community connection and provides additional housing options.

Housing - Rapid increase in housing prices, fewer residents can afford housing and may leave the region.

Amenities - Perceived lack of amenities and events is a deterrent for young talent.



MARKET COMPETITIVE ANALYSIS

QUALITY OF LIFE - SPOKANE INTERVIEW FINDINGS

Quality of life was a key topic of discussion in every leadership interview.



What We Heard

- » Lack of amenities for younger generation, little night life, restaurants.
- » Many return to raise families after leaving the region as a young adult.
- » Homelessness is a problem.
- » Crime rate high for city its size, big city problem in small city.
- » People in Spokane are salt of the earth with a strong value system.
- » “Hacking Washington” strategy appeals to 25 - 44-year old’s looking to benefit from lifestyle and cost advantages in Spokane while working remotely.



What We Found

- » Spokane is featured on many national rankings for best cities that measure amenities, health, and other factors.
- » Violent Crime is slightly below national average, but property crime is much higher.
- » Positive net migration.
- » Housing prices have increased rapidly.
- » Homelessness has increased the last 5 consecutive years.



INW TOP IN/OUT MIGRATION LOCATIONS

MSA	Inbound Migrations	Outbound Migrations	Net Migrations
Seattle, WA	11,837	5,812	6,025
Los Angeles, CA	2,248	656	1,592
Riverside, CA	1,400	522	879
Portland, OR	3,096	2,328	768
San Diego, CA	1,156	445	710
San Francisco, CA	840	269	571
Sacramento, CA	775	274	501
Denver, CO	635	372	263
San Jose, CA	348	105	243
Oxnard-Thousand Oaks, CA	304	83	221

- » The Inland Northwest region saw a positive net migration of 13,889 in 2020.
- » The top 10 net migration MSAs show highest net migration from the Seattle metro area.



Spokane is included on many of the “best” lists from popular organizations that rank regions, cities, and states.



Sharecare's
Community Well-Being Index

Sources: Sharecare Community Well-Being Index, 2020 Metro Area and County report
Sharecare Community Well-Being Index, 2021 state rankings report
<https://livability.com/best-places/2022-top-100-best-places-to-live-in-the-us/>
<https://realestate.usnews.com/places/rankings/best-places-to-live>
<https://wallethub.com/edu/healthiest-cities/31072>

MARKET
COMPETITIVE
ANALYSIS

QUALITY OF
LIFE



MARKET COMPETITIVE ANALYSIS

QUALITY OF LIFE - SPOKANE INTERVIEW FINDINGS

Recent developments, like Kendall Yards and Boxcar South focused on community development and enhanced quality of life.

Kendall Yards is a mixed-density project designed to help alleviate the housing shortage and cut down on sprawl.



“

Boxcar South is a project that aims to help people and organizations maximize their potential while making Spokane a cooler place to live.

”

<https://www.nytimes.com/2022/02/20/business/economy/spokane-housing-expensive-cities.html>



QUALITY OF LIFE CHALLENGES

MARKET COMPETITIVE ANALYSIS

QUALITY OF LIFE

HOMELESSNESS

The 2022 Point-in-Time count found a total of 1,757 people in Spokane County are experiencing homelessness.

- » 934 people were sheltered
- » 823 were unsheltered
- » Unsheltered count increased 52% from 2020
- » 2022 marks the fifth consecutive year with an overall increase in the homeless population



HOUSING

- » Home prices in Spokane have increased 60% since 2020.
- » In 2022 less than 15% of the area's employed population can afford to buy a home in Spokane, compared to 70% 5 years ago.

CRIME

- » Spokane has a violent crime rate of 3.37/1,000, which is slightly lower than the national average.
- » Property crime in Spokane is 33.51/1,000 people, nearly 50% more than the national average.
- » Among benchmark markets, Spokane has a mid-range average for violent crime, but is second highest for property crimes.

INFRASTRUCTURE ANALYSIS REAL ESTATE & DEVELOPMENT





INFRASTRUCTURE ANALYSIS

REAL ESTATE & DEVELOPMENT

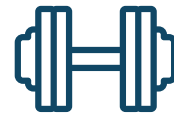
Utilities - The INW region features favorable utilities including low-cost clean energy from hydroelectric power.

Construction Resources - Spokane and surrounding area have talented and capable general contractors and sub-contractors to support buildout and maintenance of technical industrial facilities.

Speed to Market - Permitting and entitlement process has been streamlined within local municipalities.

Infrastructure - Good to excellent site infrastructure within the UDDA and West Plains.

STRENGTHS



SWOT ANALYSIS



WEAKNESSES

Speed to Market - Established life science companies require speed to market and site readiness as a precondition for market selection - Spokane has few available facilities to meet a medium to large user's requirement.

Marketing - Perceived lack of innovation and urgency among property owners due to dilapidated properties throughout Spokane.

Space Variety - Lack of physical structures such as incubator and ready lab space for new startup companies can limit access and scaling of smaller life science companies.

Real Estate Services - Lack of exposure to national real estate firms and associated service lines.

OPPORTUNITIES



THREATS

Development Areas - West Plains around the airport has opportunities for development of manufacturing and R&D sites.

Flexibility - Varied land parcel sizes provide flexibility for developers and users.

Regional Cost Advantage - Low construction costs and low office/industrial lease rates compared to benchmark cities.

Expand Developer Reach - Pursue opportunities with Wexford, a developer that works with university districts.

Connect UDDA to Downtown Core - potential development of in-fill sites within the UDDA present opportunity to directly connect with downtown core.

Owner Engagement - Tendency for some property owners and developers in INW region to focus on short term development initiatives instead of long-term plans supporting investment in life science assets.

Brownfield Sites - Can be problematic and challenging to update infrastructure for life science use.



INFRASTRUCTURE ANALYSIS

REAL ESTATE AND DEVELOPMENT- SPOKANE INTERVIEW FINDINGS

Interviewees



ALEXANDRIA
Building the Future of Life-Changing Innovation

312 Group



PANATTONI



BLUE RISE
VENTURES



What We Heard

- » Must have buy in from the community before investing in developments.
- » Limited development opportunity within the UDDA.
- » Pharmaceuticals and web lab space are too expensive to develop in Spokane.
- » No interest in development of large spec space (+100k sqft).
- » Spec buildings are needed for speed to market.
- » Spokane has a lot of commercial capacity, but property owners are risk averse and lack sophistication about development.
- » The University District is seen as a potential hub for life sciences and healthcare innovation due to its proximity to research institutions and healthcare facilities.



What We Found

- » Several sites within the region that may be development opportunities.
- » Strong commitment from local municipalities for development of infrastructure.
- » Average construction costs for all Life Science space types in Spokane are lower than large west regional cities with a strong life science industry presence.
- » Innovation Districts akin to the Spokane University District have been a major growth lever for bioscience industry in other emerging life science markets.



INFRASTRUCTURE ANALYSIS

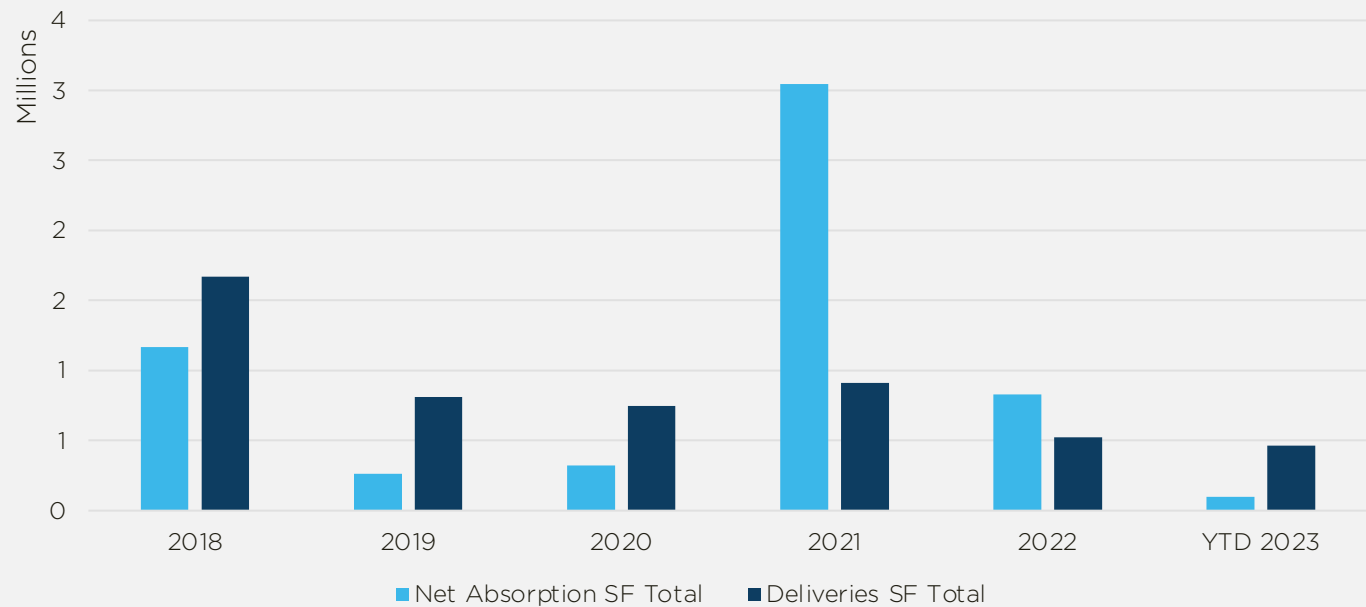
REAL ESTATE AND DEVELOPMENT

INW MARKET INDUSTRIAL OVERVIEW

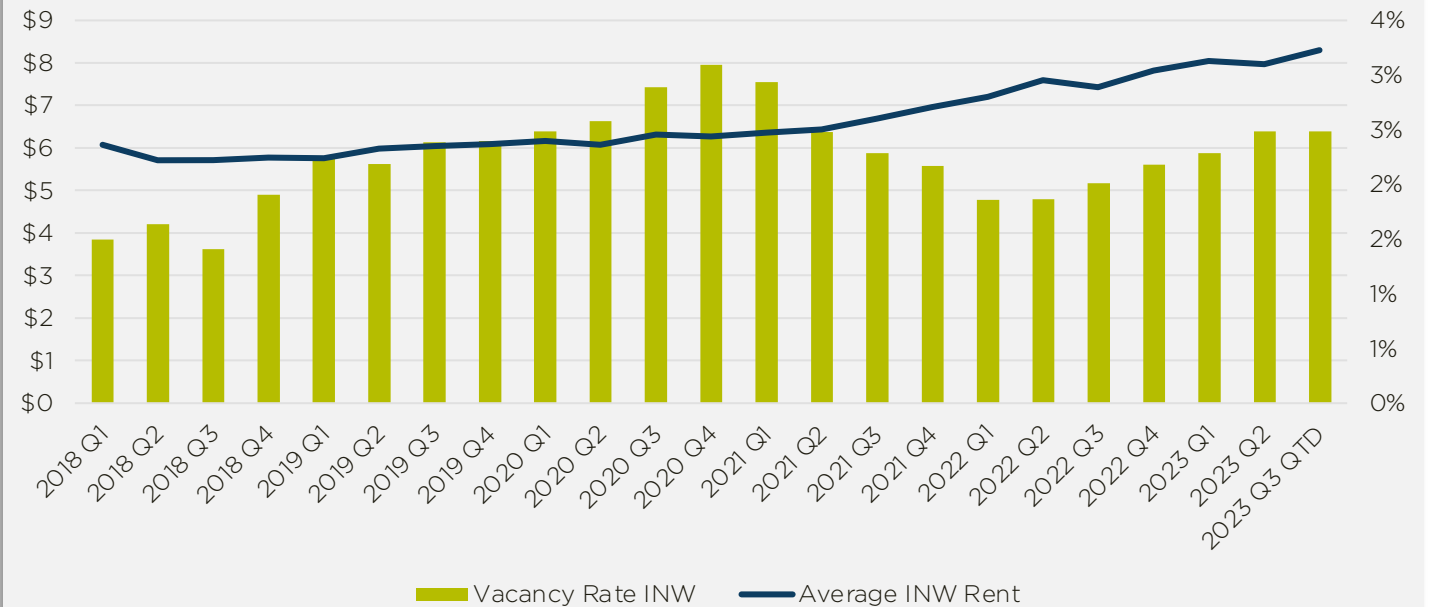
- » Tri-Cities industrial inventory growth has been slower than the inland hub of Spokane
- » Vacancy rate in Walla Walla industrial market has increased 3.3% over the past 12 months, whereas the Wenatchee industrial market is nearly at capacity with just 0.4% of vacancy.
- » The Coeur d'Alene industrial market is majority logistics space with 4.8 million SF.



INW Space Demand/Deliveries



INW Overall Vacancy and Asking Rent



Source: Costar, retrieved June 2023



INFRASTRUCTURE ANALYSIS

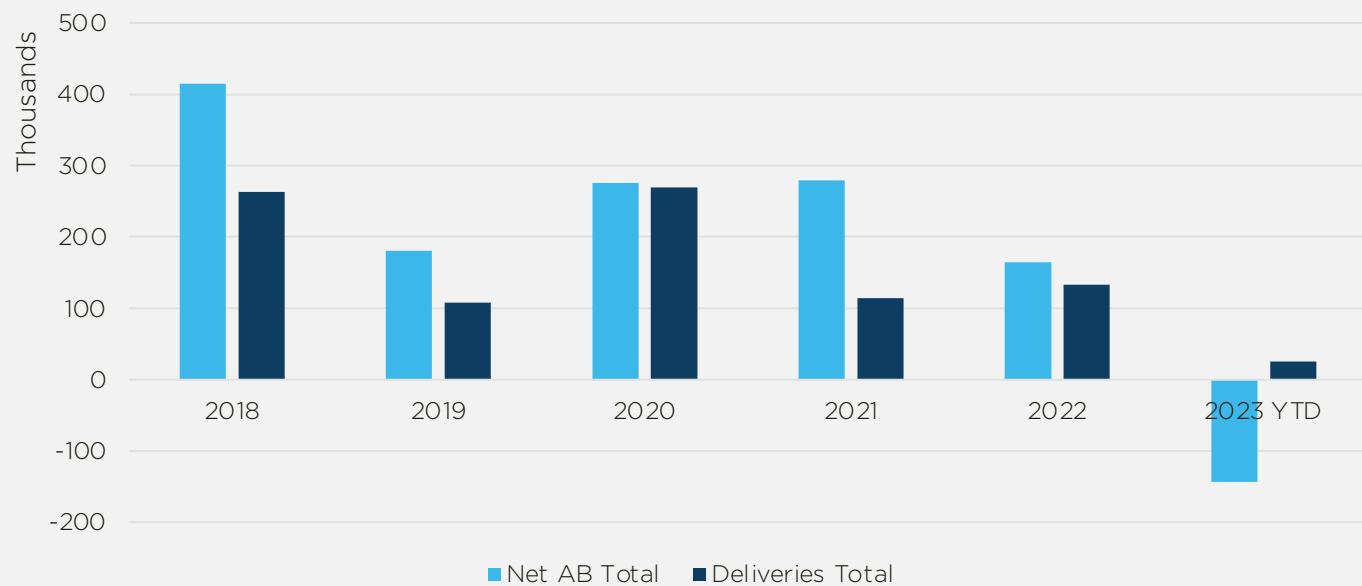
REAL ESTATE AND DEVELOPMENT

INW MARKET OFFICE OVERVIEW

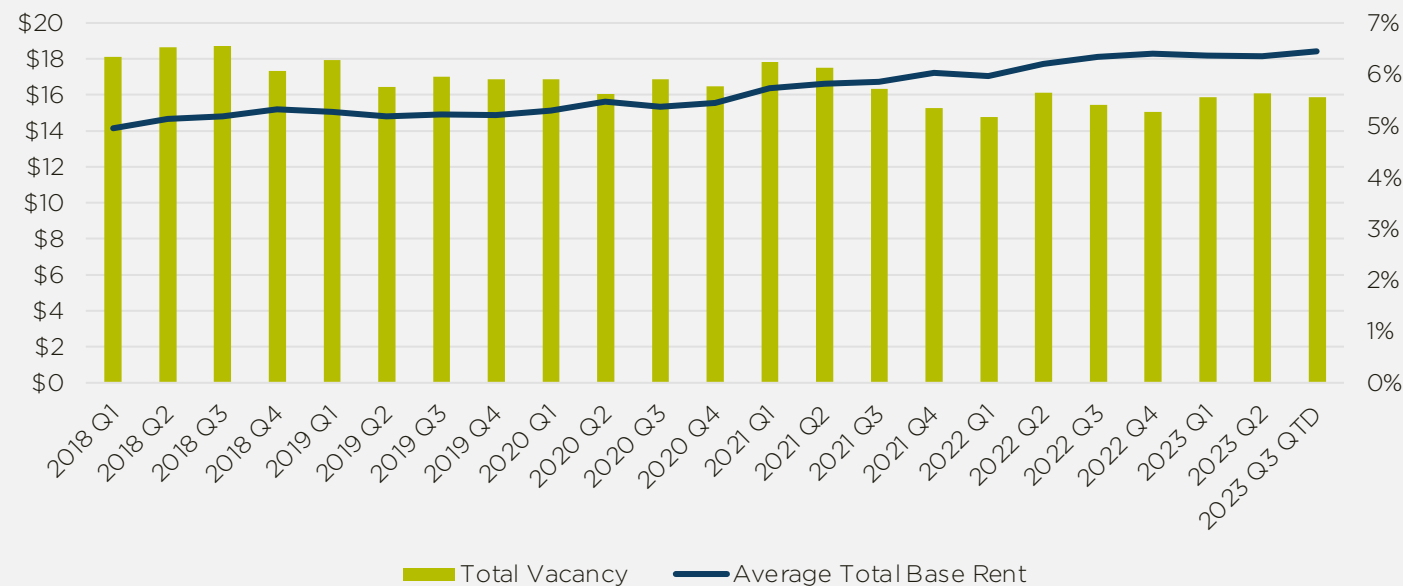
- » Office space in Tri-Cities typically sees little turnover in tenants with the largest spaces being occupied by government and medical users, including Pacific Northwest National Laboratory and Trios Health Medical.
- » The Walla Walla and Yakima office markets are small and have not had new construction delivered since 2020.
- » Wenatchee's office market is nearing capacity with just 0.9% of space being vacant.
- » The Coeur d'Alene office market has experienced negative absorption of 52K SF in the last 12 months.



Space Demand/Deliveries



Overall Vacancy and Asking Rent



Source: Costar, retrieved June 2023

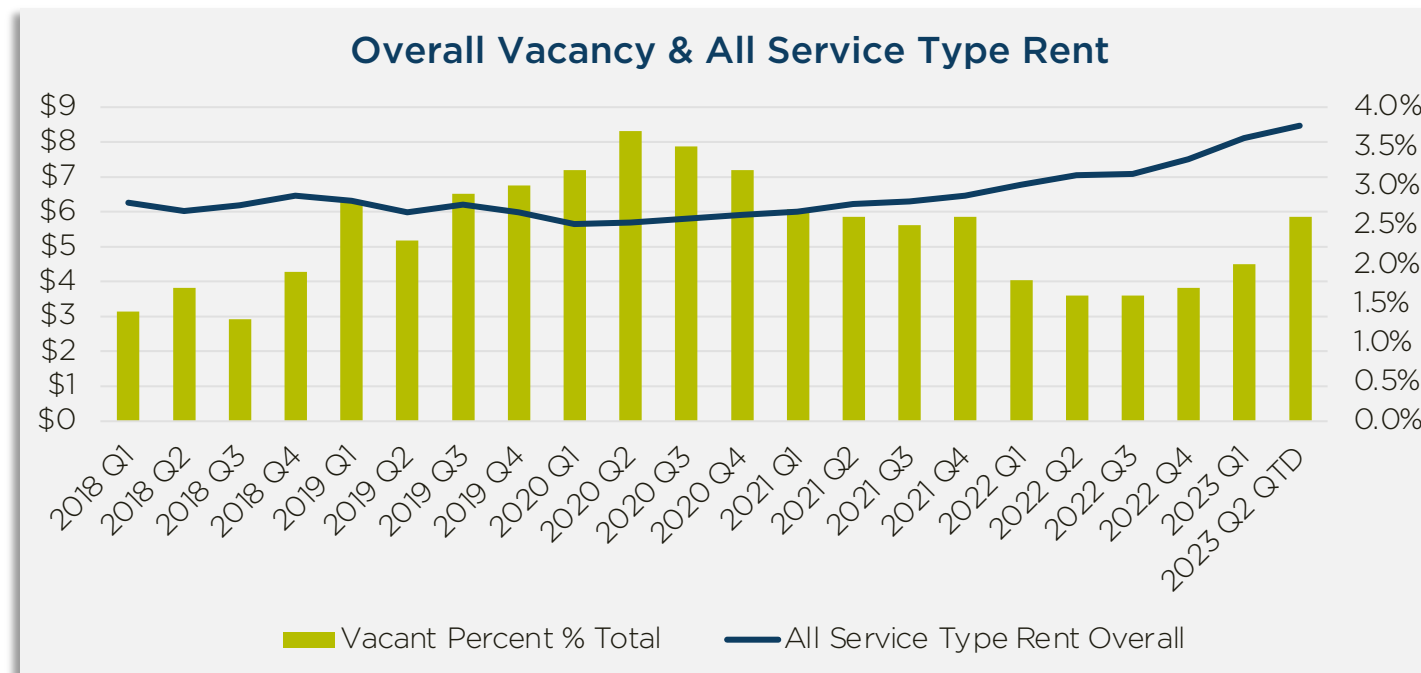
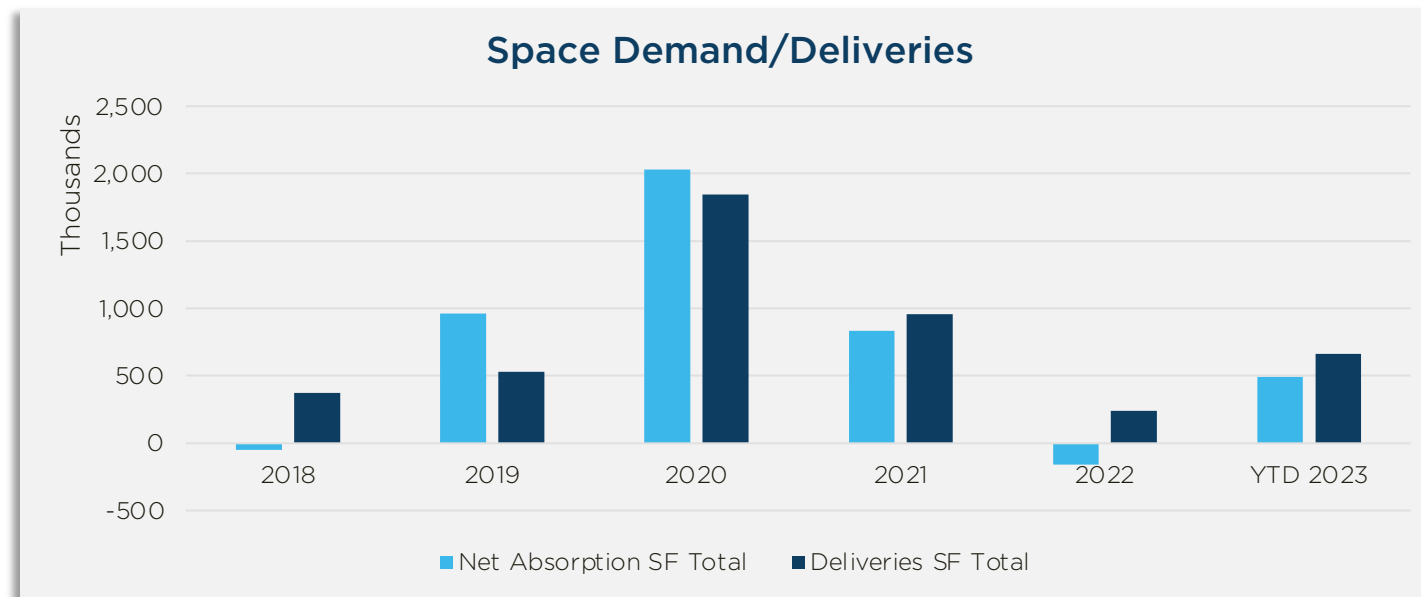


INFRASTRUCTURE ANALYSIS

REAL ESTATE AND DEVELOPMENT – SPOKANE INDUSTRIAL MARKET

- » Average rent for industrial properties in the Spokane market has risen by 4.4% over the past 12 months.
- » Vacancy rate has increased to 3.2%, while still low, it is above the 10-year average of 2.8%.
- » Recent sales activity for the industrial market has been among local players and smaller properties trading for less than \$5 million.

SUBMARKET	INVENTORY (SF)	VACANCY RATE	12 MONTH ABSORPTION (SF)	UNDER CONSTRUCTION (SF)	MARKET RENT (SF)
NE North Metro	4,100,000	2.5%	(19,215)	-	\$8.16
NW North Metro	-	-	-	-	-
Outside Metro North	815,000	2.7%	(22,218)	-	\$8.87
Outside Metro South	475,000	3.6%	(17,200)	-	\$8.56
SE North Metro	12,264,000	2.3%	(136,230)	-	\$8.74
South Hill	126,000	-	-	2,000	\$8.97
Spokane CBD	675,000	2.4%	11,366	-	\$8.22
SW North Metro	615,000	2.5%	(3,365)	-	\$10.76
Valley	26,198,000	1.9%	327,678	224,000	\$8.63
West Plains	7,027,000	10.2%	305,016	-	\$8.62



Source: Costar, retrieved June 2023

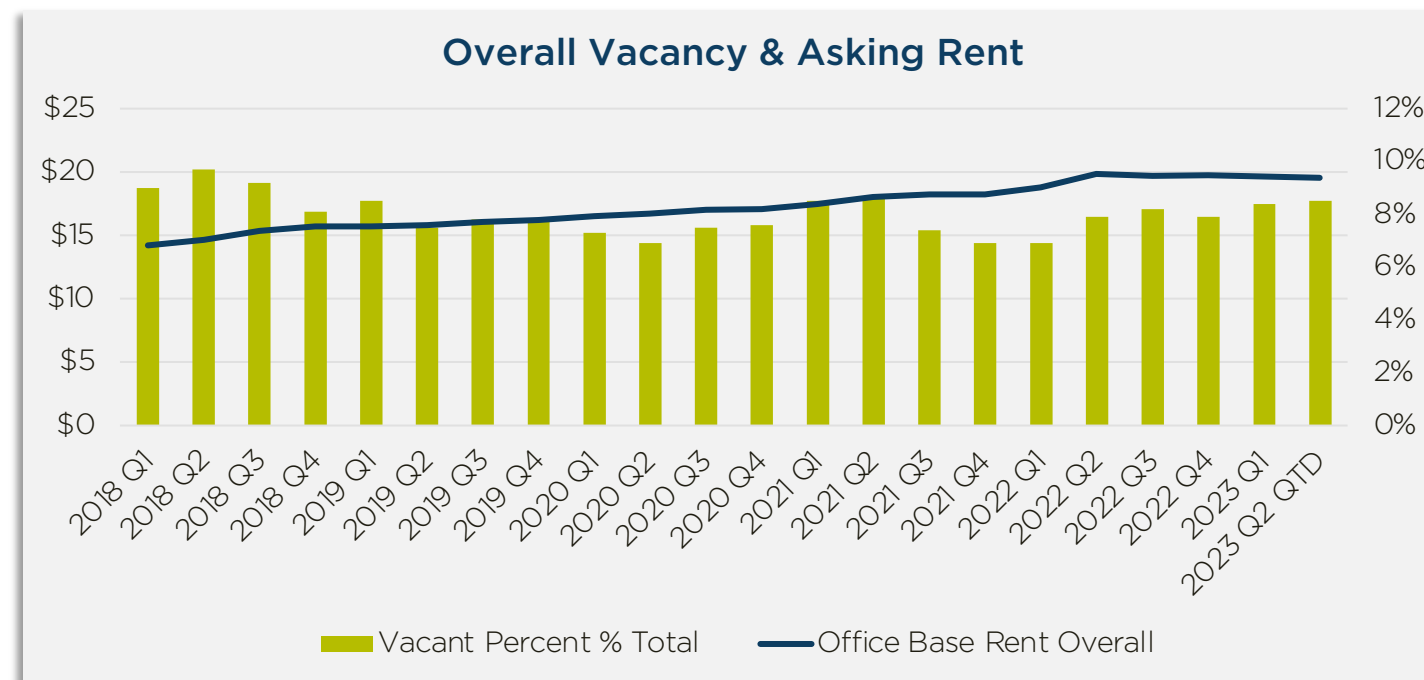
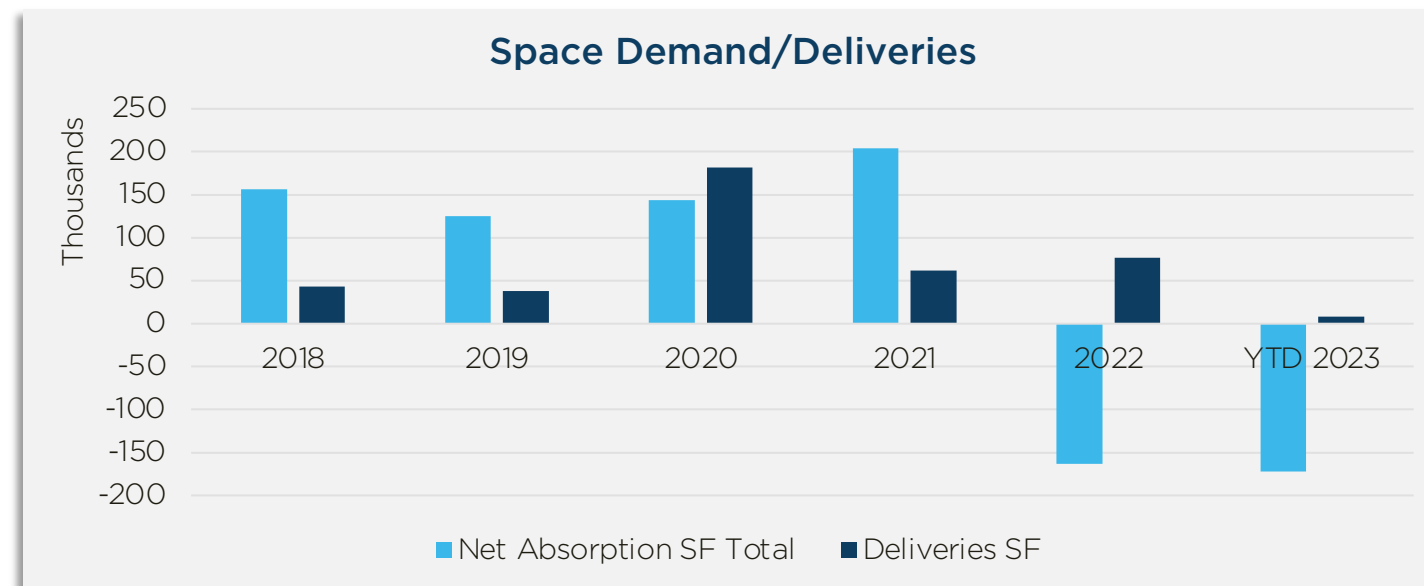


INFRASTRUCTURE ANALYSIS

REAL ESTATE AND DEVELOPMENT – SPOKANE OFFICE MARKET

- » Vacancy rate is going up in the Spokane office market as leasing activity has slowed and absorption is at a negative in the past year.
- » Rent growth has declined in Spokane, particularly in newer, higher-rated properties, but remains above the national benchmark.
- » The amount of occupied space has changed by (150,000) SF over the past 12 months, compared to a 5-year average of 62,000 SF/year.

SUBMARKET	INVENTORY (SF)	VACANCY RATE	12 MONTH ABSORPTION (SF)	UNDER CONSTRUCTION (SF)	MARKET RENT (SF)
NE North Metro	937,000	5.5%	(30,165)	-	\$22.08
NW North Metro	592,000	8.9%	11,670	-	\$23.13
Outside Metro North	117,000	-	1,636	-	\$22.56
Outside Metro South	17,000	-	-	-	\$21.62
SE North Metro	3,694,00	4.2%	(60,874)	-	\$21.75
South Hill	2,198,000	6.5%	(3,896)	-	\$27.85
Spokane CBD	6,033,000	13.7%	(36,811)	-	\$21.28
SW North Metro	2,688,000	12.1%	(146,829)	-	\$21.31
Valley	6,033,000	6.7%	107,144	26,000	\$21.59
West Plains	720,000	6.1%	6,716	8,000	\$22.42



Source: Costar, retrieved June 2023



LIFE SCIENCE UTILITY REQUIREMENTS

Utilities are an important component in supporting life science occupiers. Depending on the type of life science company, access to power, water, and HazMat & Bio waste services are critical to business operations.

Utility Needs are Specific to the Operation

Utility needs required to support the growth of the life science operations in an area, generally are not significantly higher than most other industries and normally can be supported by existing utility capacities servicing a developed area. The following are general utility uses for life science based facilities:

Power

15W to 20W per Square Foot for lab buildings
20W to 30W per Square Foot for light manufacturing buildings

Water

Each lab section can use around 13,000 gallons per year.
It takes 3 gallons of water to produce 1 gallon of RO/DI lab water.

Hazmat/Bio Waste

Existing services currently supporting hospitals and other industries throughout Spokane will have the means to support life science operations.

The Grand Coulee Dam is a competitive advantage for the INW, providing clean, low-cost energy to the region.





LAB GROWTH MACRO OVERVIEW

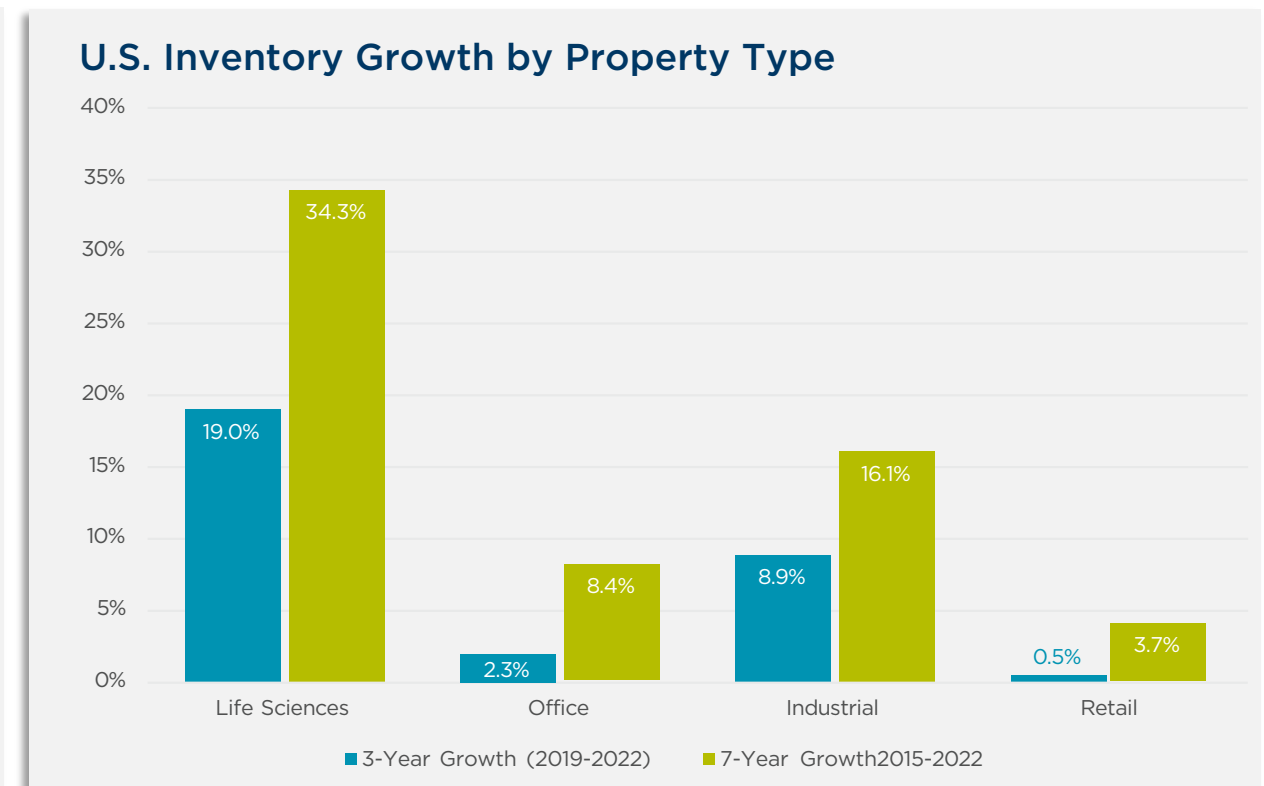
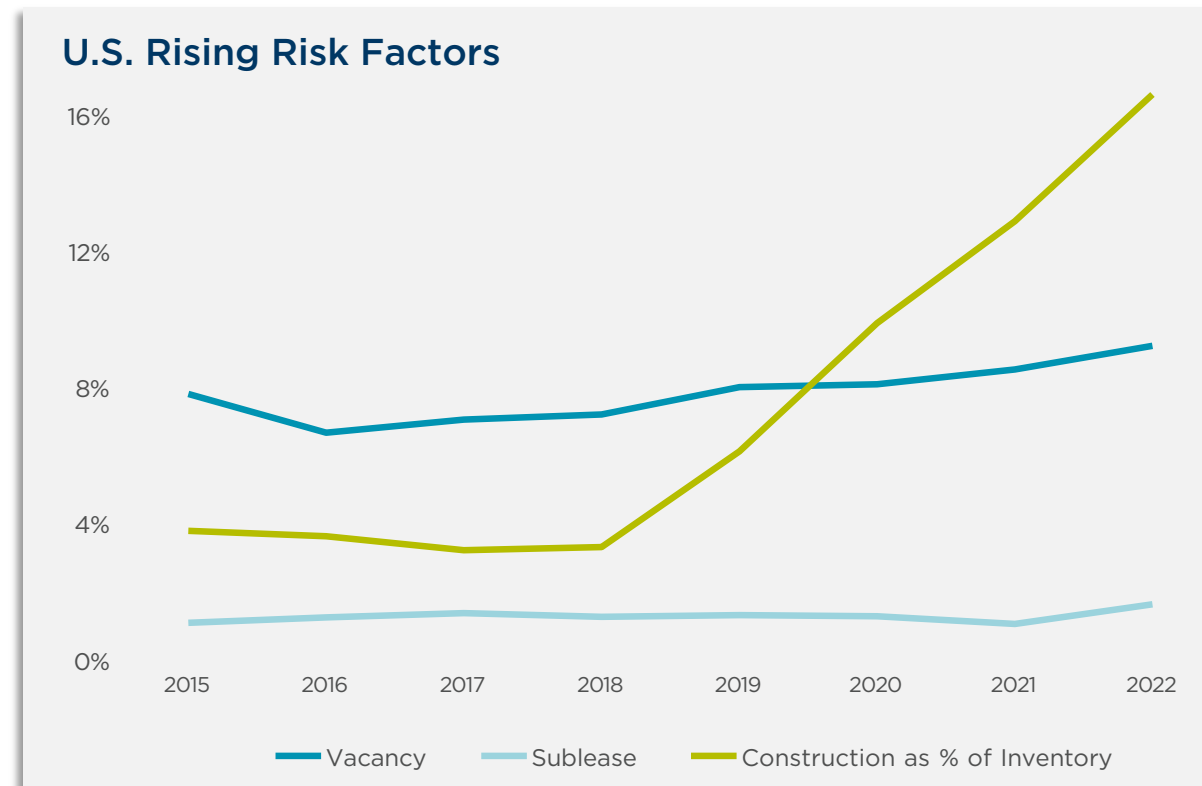
The life sciences research, development, engineering and manufacturing of the next decade will largely take place in the facilities under construction today. How science is done and how scientists utilize workspaces has evolved significantly in the last decade and will continue to evolve as technology and artificial intelligence (AI) are increasingly integrated into processes. Preparing for the next generation of science and scientists means that existing facilities will continue to evolve, and that those under construction will need to anticipate future needs, including emerging technologies, sustainability requirements and workspace preferences of employees.

To meet increasing demand, new inventory has been added to the sector at an accelerated pace. Striking the balance between explosive demand and new space is critical for a niche sector that will continue to grow, albeit likely at a more moderate pace over the next few years.

Growing pains are expected as the sector tries to find this equilibrium. The U.S. life sciences development pipeline has more than doubled in the last three years and currently stands at nearly 32 million square feet (msf) as of year-end 2022. It has also grown from 6% of total inventory in 2019 to its current level at 17% of total U.S. inventory. Of the 25 msf due to be completed in the next two years, only 28% is pre-leased. **Most of the space currently under construction is speculative**, meaning a significant amount of space could enter the market vacant. Tenants that delayed their plans due to the uncertainty in 2022 may find a more tenant-favorable environment in 2023 and 2024.

INFRASTRUCTURE
ANALYSIS

REAL ESTATE &
DEVELOPMENT



Source: Cushman & Wakefield Research, Costar



LIFE SCIENCE SPACE REQUIREMENTS

Current Life Science Activity

Currently there are Life Sciences CMO manufacturing and Diagnostics companies/facilities located in Greater Spokane, such as Jubilant HollisterStier and Selkirk Pharma as CMO and Allele Diagnostics and Paw Print Genetics as Diagnostics. While there is little R&D activity and lab space in the market currently, we believe that with continued CMO manufacturing and diagnostic activity in Spokane this can follow.

Required Building Sizes

For R&D activities, smaller companies tend to be in larger multi-tenant buildings where the smaller space requirements can be economically sustainable for the company, and they can also be located within an intellectual hub for innovation. Life Science buildings can vary in sizes depending on the activities conducted at the site, where pharmaceutical manufacturing will require upwards to 300,000 to 500,000 SF and Cell/Gene Therapy manufacturing can be done in facilities as small as 20,000 SF for a single product.

Required Features

Life Science buildings require larger electrical and water services than office buildings due to the higher air change requirements in the spaces and the need for processing water in manufacturing and lab support services. Companies performing manufacturing of product require major distribution infrastructure. Most life science activities require local process and bulk gasses to be readily available. Most sites will also require its own stand-by power generation to support storage and some activities when the normal power is interrupted.

Spokane Positioning

Spokane has established some life science manufacturing and the area is well suited to grow this activity in the area based on the product type available. There is also significant small injection molding and other manufacturing which could also enable the growth of medical device manufacturing to be further evaluated

INFRASTRUCTURE ANALYSIS

REAL ESTATE & DEVELOPMENT



LIFE SCIENCE SPACE REQUIREMENTS

MANUFACTURING

R&D

DIAGNOSTICS

	MANUFACTURING	R&D	DIAGNOSTICS
Typical Size	20,000 – 500,000 (cell/gene on the lower side and pharmaceuticals on the higher side)	10,000 – 100,000 (startups on the lower side and established companies on the higher side)	20,000 – 150,000 (dependent on process and type of testing)
Onsite Features	<ul style="list-style-type: none"> High ceiling single story building with mezzanines Temperature controlled warehouse space Large utility yards 	<ul style="list-style-type: none"> 100+ PSF live load on floors Structural Support for heavy HVAC equipment on roof Standby Power Utility yard 	<ul style="list-style-type: none"> 100+ PSF live load on floors Structural Support for heavy HVAC equipment on roof Standby Power Large UPS system Utility yard
Area Infrastructure	<ul style="list-style-type: none"> Access to interstates and highways Medium power capacity and redundancy Medium water capacity Readily available process and bulk gas supply 	<ul style="list-style-type: none"> Readily available process and bulk gas supply HazMat Waste services and management 	<ul style="list-style-type: none"> Immediate access to transportation (time sensitive samples) Readily available process and bulk gas supply HazMat & Bio Waste services and management
Location Considerations	<ul style="list-style-type: none"> Less Sensitivity to geography within the metro region Access to skilled blue collar labor pool Site where the economics of building cos and size are aligned 	<ul style="list-style-type: none"> Access to highly educated labor pool Proximity to higher education universities Proximity to other like Life Science companies Area with various amenities and hotels 	<ul style="list-style-type: none"> Proximity to Hospitals and Clinics Access to highly skilled labor pools
Spokane Area Recommendations	<ul style="list-style-type: none"> West Plains – Airport Spokane Valley 	UDDA – adjacent to Universities, Hospitals, and amenities	<ul style="list-style-type: none"> UDDA – adjacent to Universities, Hospitals, and amenities West Plains – Airport

INFRASTRUCTURE ANALYSIS

REAL ESTATE & DEVELOPMENT



LIFE SCIENCES TENANT IMPROVEMENT COST BENCHMARKS

Average buildout costs for all Life Science space types in Spokane is **significantly lower** than large regional cities with a strong life science industry presence. Tenant improvement average cost is lower in Spokane than Raleigh-Durham, which is commonly viewed as a lower-cost life science market.

Type of Space	Spokane		Seattle		San Francisco		Raleigh-Durham		Denver	
	Lower Range (\$\$/SF)	Upper Range (\$\$/SF)	Lower Range (\$\$/SF)	Upper Range (\$\$/SF)	Lower Range (\$\$/SF)	Upper Range (\$\$/SF)	Lower Range (\$\$/SF)	Upper Range (\$\$/SF)	Lower Range (\$\$/SF)	Upper Range (\$\$/SF)
CLIA / Diagnostics Lab	\$440	\$640	\$520	\$750	\$650	\$950	\$470	\$675	\$480	\$700
BSL1/BSL2 Lab	\$300	\$380	\$355	\$450	\$450	\$560	\$320	\$400	\$330	\$420
BSL3 Lab	\$400	\$530	\$475	\$625	\$600	\$775	\$425	\$560	\$440	\$580
Chemistry Lab	\$360	\$470	\$425	\$550	\$530	\$700	\$380	\$500	\$400	\$520
Gene/Cell Therapy MFG	\$740	\$930	\$875	\$1,100	\$1,100	\$1,400	\$780	\$990	\$810	\$1,020
cGMP Bulk MFG	\$800	\$1,100	\$990	\$1,300	\$1,200	\$1,650	\$850	\$1,170	\$880	\$1,210
Vivarium	\$450	\$590	\$525	\$700	\$670	\$880	\$470	\$630	\$490	\$650
cGMP Warehouse	\$150	\$200	\$175	\$225	\$220	\$280	\$160	\$200	\$170	\$220
Office Space	\$160	\$220	\$190	\$250	\$240	\$310	\$170	\$225	\$180	\$250

Cost per square foot for each type of space is based on unionized labor force. Costs do not include shell and core build.
Source: Cushman & Wakefield research

INFRASTRUCTURE ANALYSIS

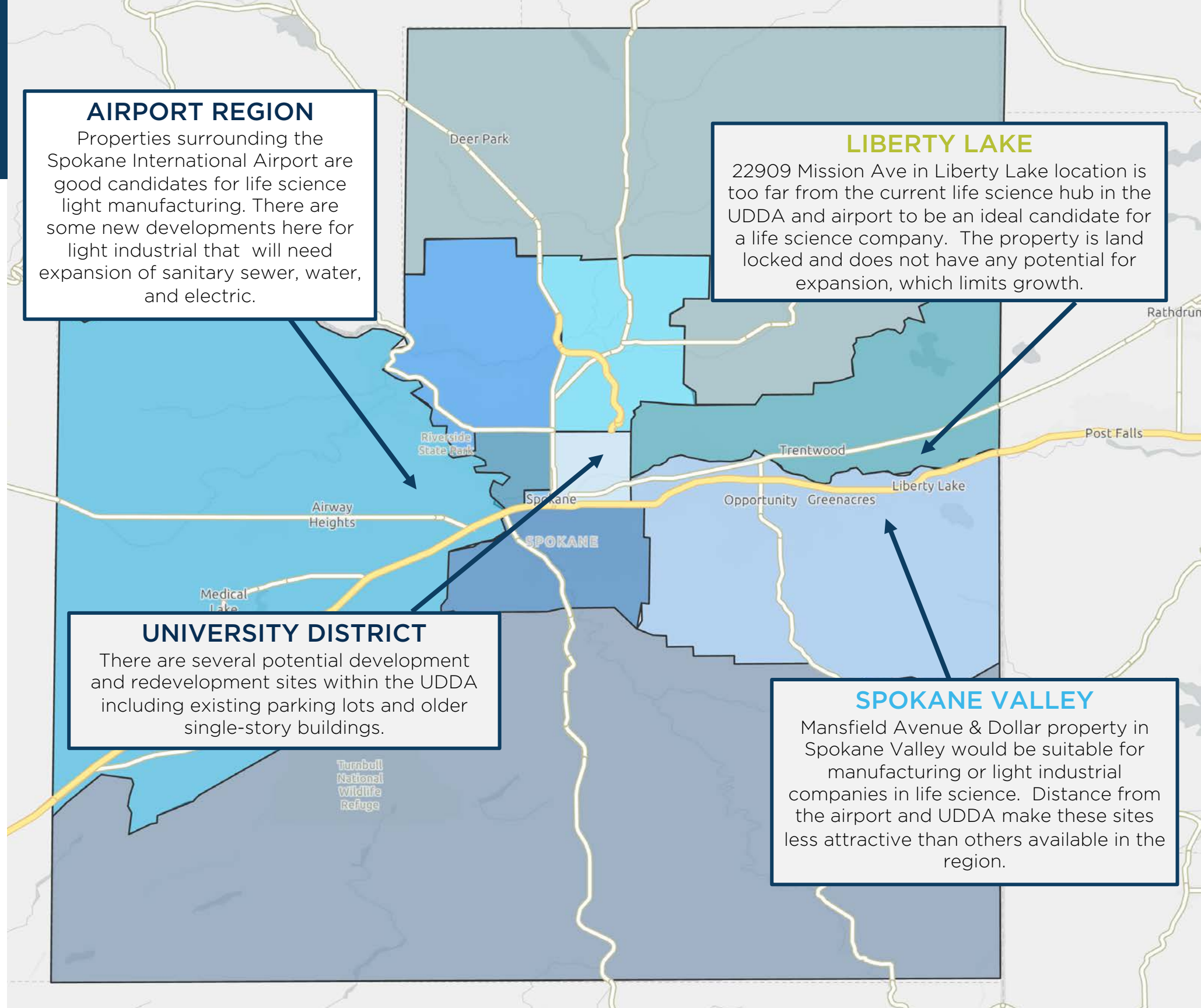
REAL ESTATE & DEVELOPMENT

DEVELOPMENT OPPORTUNITIES - GREATER SPOKANE

Based on the property listings for sale in April 2023, it is apparent that most of the land available for development lies out in the Spokane International Airport area, with one property in Spokane Valley and another in Liberty Lake.

Available properties range from 1.33 AC to 108 AC, which provides opportunities for smaller companies to larger sites for manufacturing.

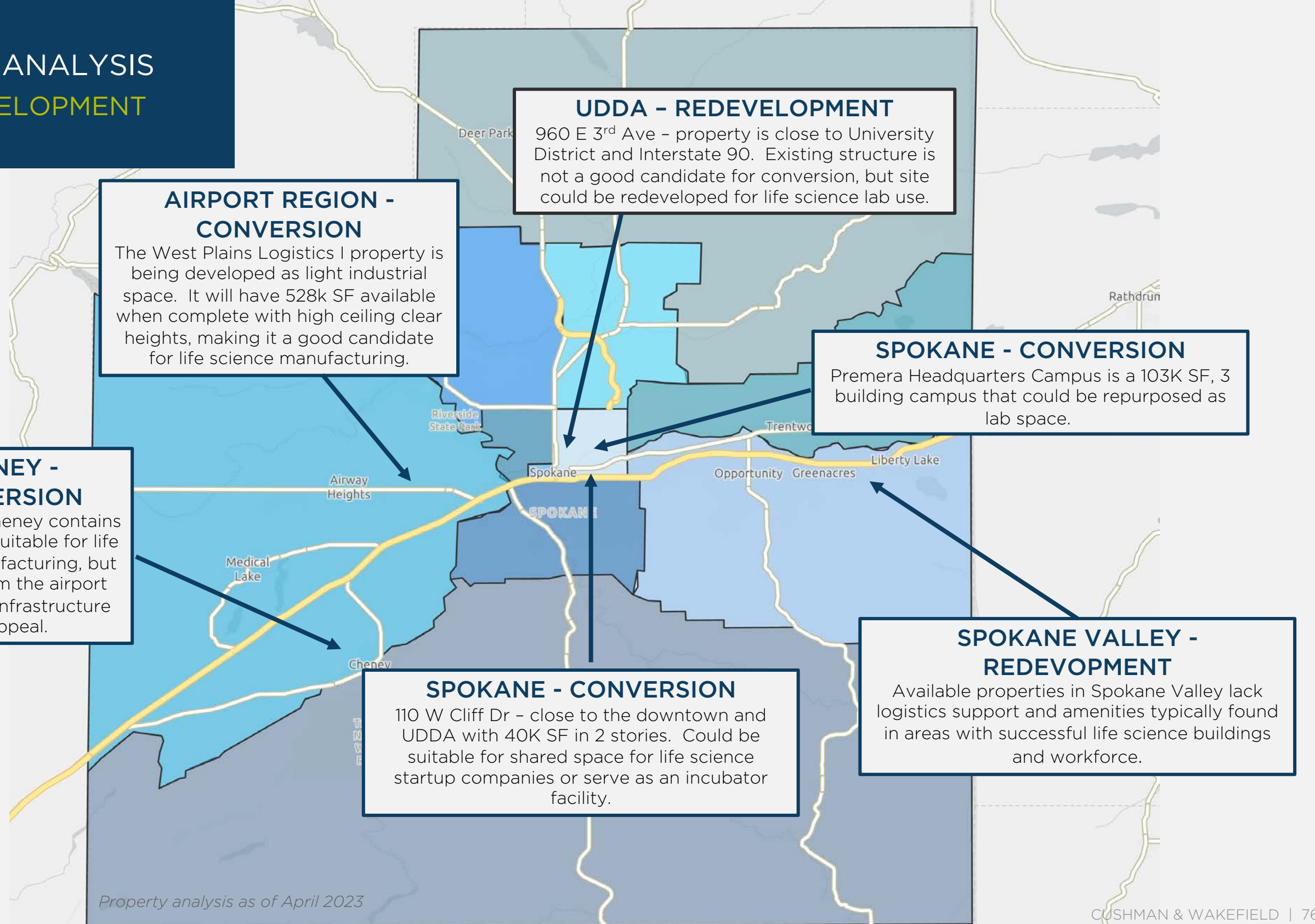
Property analysis as of April 2023



INFRASTRUCTURE ANALYSIS

REAL ESTATE & DEVELOPMENT

CONVERSION & REDEVELOPMENT OPPORTUNITIES - GREATER SPOKANE



Property analysis as of April 2023



WEST PLAINS - AIRPORT SPOTLIGHT

West Plains/Airport area contains over 500 acres of developable land with existing facilities primarily in manufacturing and distribution. Close proximity to logistics resources, Spokane International Airport and I-90, presents opportunities for other similar life science companies with manufacturing focus to cluster in the area.

INFRASTRUCTURE
ANALYSIS

REAL ESTATE &
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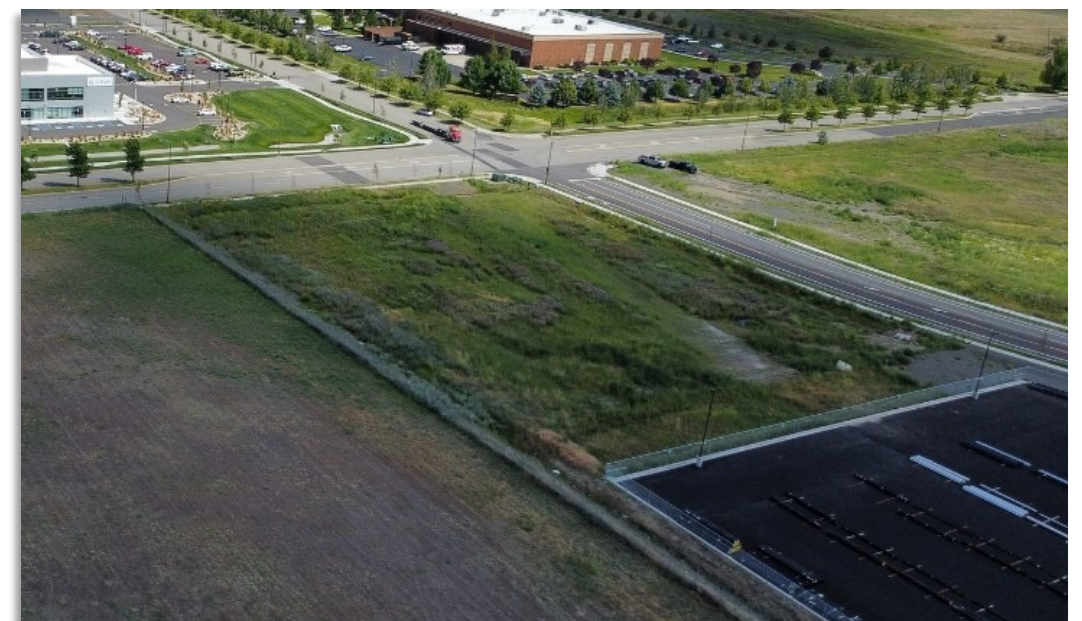
SELKIRK PHARMA



DOUGLAS LEGACY PARK



TECH PARK WEST



INFRASTRUCTURE ANALYSIS

REAL ESTATE & DEVELOPMENT

UNIVERSITY DISTRICT SPOTLIGHT

A core component of any successful life science hub is an innovation zone.

Establishing and continuing investment in the University District has positioned Spokane as a market for life science industry growth.

The following slides highlight current assets in the University District, as well as potential development opportunities to grow.





INFRASTRUCTURE ANALYSIS

REAL ESTATE AND DEVELOPMENT

LIFE SCIENCE BUILDING GENERAL IMPROVEMENTS HEALTH PENINSULA CAMPUS, THE 840 BUILDING

Developed by the Emerald Initiative the 840 Building space is home to the Regional Health Partnership between the University of Washington and Gonzaga medical programs. Both universities lease the first three floors, and the fourth floor is designed to house complementary research users.

The 840 Building is attractive to start ups looking for opportunities to collaborate with research institutions and gain access to shared resources.



LOBBY



GENERAL INTERIOR



UNIMPROVED SPACE FOR LEASE



LIFE SCIENCE BUILDING GENERAL IMPROVEMENTS

HEALTH PENINSULA CAMPUS, SIERRA BUILDING

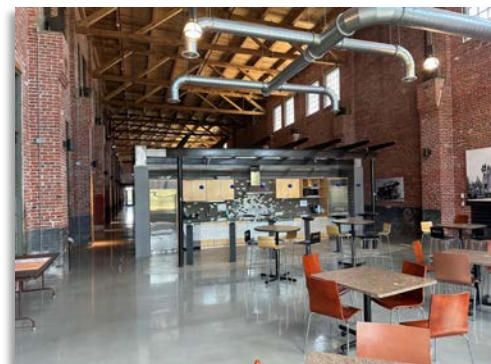
Another example of development supporting life science growth is the Spokane Inland Empire Railroad (SIERR Building) is a repurposed 100-year-old rail repair facility containing 55K sqft of office, lab, and academic space.



SPOKANE INLAND EMPIRE



EASTERN WASHINGTON UNIVERSITY LOBBY



MAIN LOBBY



COMMON CORRIDOR



CLASSROOM IMPROVEMENTS



NURSING TRAINING AREA



LAB SPACE

INFRASTRUCTURE ANALYSIS

REAL ESTATE & DEVELOPMENT



DEVELOPMENT OPPORTUNITIES UNIVERSITY DISTRICT

During market and site visits, several areas of the University District stood out as potential development opportunities.

INFRASTRUCTURE ANALYSIS

REAL ESTATE & DEVELOPMENT



690 E FRONT STREET



Tentative location for Evergreen Bioscience HQ

Emerald Initiative controls 6-acres adjacent to the SIERR Building and THE 840 Building



HEALTH PENINSULA CAMPUS PARKING



SOUTH LANDING ECO-DISTRICT

Current parking lot of the Catalyst Building and the Scott Morris Center for Energy Innovation aka 400-Block



DEVELOPMENT OPPORTUNITIES UNIVERSITY DISTRICT

INFRASTRUCTURE ANALYSIS

REAL ESTATE & DEVELOPMENT

Current parking lot bounded by Ignite NW to the west, WSU Health Science Building to the north, E. MLK, Jr Way to the south and the University District Gateway Bridge and Yellow 2 - Visitor Parking Lot to the east.



WSU GREEN 6 PARKING

Redevelopment site located at the northeast corner of N Pine St E Main Ave. Site is located in the western portion of the UDDA. Beneficially located to connect the UDDA to the Downtown core. Site is across from STA bus station.



100 E MAIN AVE

This site was previously improved with a former Midas Muffler shop having a site area of 41,187 sq. ft. It is located at the southeast corner of N. Division St and NE Spokane Falls Blvd. Site is directly across the street from the Spokane Convention Center.



230 N DIVISION

Current parking lot bounded by E Spokane Falls Blvd, North Sherman Street, E. MLK, Jr., Way and WSU Health Services Building. Site is at the gateway of the University District Gateway Bridge connecting the UDDA to the South Land Eco-District.



YELLOW 2 PARKING



LIFE SCIENCE DEVELOPERMENT HIGHLIGHTS/TRENDS

Pacific Northwest Developers

Local developers have focused on buildings that focus on positive community impact, collaboration, innovation, and sustainability.

Common building features:

- On-site renewable energy generation and recovery
- Uber efficient building envelope and energy efficiency measures
- Biophilic design, natural lighting, and enhanced indoor air quality
- Off-site & pre-fabricated construction to reduce costs and increase speed to market

Other National/Regional Developers

- Major national developers ([Alexandria](#), [Biomed](#), [IQHQ](#)) in current economic climate unlikely to be investing outside of core tier 1/2 life science markets an in some cases are shedding non-core assets.
- Regional life-science focused developers, like [Blue Rise Ventures](#) in Northern California, are focused on life science developments adjacent to, but outside of traditional hubs (Sacramento)
- [Wexford Science + Technology Partners](#) is an interesting example of niche developer that partners with communities and universities to create transformative mixed-use communities with a focus on “research, discovery, entrepreneurial activity, corporate engagement, and community outreach”

5 Life Sci Developer Trends

1. Adaptive Manufacturing

Transforming a traditional, dedicated manufacturing plant into a Life Science facility designed to manufacture multiple products and modalities

2. Supply Chain Issues

Constrained global supply chain has defined a new way capital projects are scoped, scheduled and budgeted

3. Standardized Spec Suites

Constructing “move-in” ready spaces as opposed to BTS space

4. Converting Existing Spaces

Repurposing existing buildings as opposed to ground-up

5. Handling the Biotech Explosion

Site location, process design, equipment selection, cleaning and decontamination protocols require constant oversight

INFRASTRUCTURE ANALYSIS ACCESSIBILITY & SUPPLY CHAIN





INFRASTRUCTURE ANALYSIS

ACCESSIBILITY & SUPPLY CHAIN

Highways access - Spokane's proximity to Interstate 90, the longest Interstate Highway in the US.

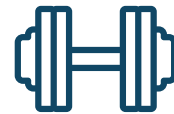
Airport - Spokane has direct flights to 50%+ Tier 1 Life Sciences markets, and 5 emerging life science markets.

Rail - Spokane is the largest center for freight on the NAFTA corridor providing Class I Rail service.

Airport - No direct flights to top tier east coast hubs Boston and New York City.

Supply Chain - While Spokane is the center of the Inland Northwest region, it is not as central within the west coast of the United States which may be a drawback for logistics-focused life science companies.

STRENGTHS



SWOT ANALYSIS



WEAKNESSES

OPPORTUNITIES



THREATS

Incentives - Spokane Airport is located within a Foreign Trade Zone.

Transit - Municipalities should work in partnership to expand and improve access to mass transit.

Logistics - Strengthen position as logistics hub for the Northwest.

Market Size - Perceived lack of connectivity in a smaller market may detract interest from larger life science companies.



INFRASTRUCTURE ANALYSIS

ACCESSIBILITY – SPOKEANE INTERVIEW FINDINGS



What We Heard

- » There has been collaboration between area cities and Spokane County to obtain grant funding for infrastructure projects.
- » Spokane is a great city for commuting. “Everything is only 20 minutes away.”
- » The University District development plan includes infrastructure improvements affecting bridges, transit, pedestrian pathways, and roads.
- » Spokane is a convenient distribution center for the Northwest region and Canada.



What We Found

- » Spokane airport offers direct flights to 50%+ top tier life science markets.
- » Average commute time in Spokane is 22 minutes.
- » Spokane has a strong infrastructure for logistics and possesses better resources for a market of its size.



INFRASTRUCTURE ANALYSIS

ACCESSIBILITY

- » Spokane airport traffic continues to grow, reaching pre-pandemic levels in summer, 2022.
- » Spokane International airport is expanding, adding about 144,000 SF and three gates.
- » Spokane also boasts direct flights to over half of Tier 1 Life Sciences markets, as well as the emerging life science markets of Atlanta, Denver, Dallas, Phoenix, and Salt Lake City
- » Spokane's 19 destinations are served by 7 airlines
- » 500-acres of land available for purchase or lease.

DESTINATION	DAILY FLIGHTS	FLIGHT TIME
Seattle	17-20	1hr 14m
Denver	6-7	2hr 15m
Salt Lake City	4-5	1hr 44m
Portland, OR	3-4	1h 13m
San Francisco	3-4	2h 13m
Boise	1-4	1h 7m
Minneapolis	2-4	2h 50m
Dallas (DFW)	3	3h 36m
San Jose	1-3	1h 55m
Phoenix	2-3	2h 39m
Los Angeles	2	2h 49m
Oakland	1-2	2h 10m
Las Vegas	1-2	2h 16m
Atlanta	1-2	4h 19m
Chicago	1	3h 35m
San Diego	1	2h 45m

■ Tier One Life Science Market

■ Emerging Market





INFRASTRUCTURE ANALYSIS

ACCESSIBILITY

The Inland Northwest region has numerous transportation assets that provide excellent connectivity to businesses and the Northwest, providing the critical site selection infrastructure for life science users. The favorability of the region from a logistics standpoint is well established with the presence of distribution centers of Amazon, Caterpillar, US Foods, etc. These features can be critical for life science companies that have a heavy supply chain/logistics focus, like diagnostics or med device companies.

AIR



Cargo activity for Spokane International Airport is more than most airports for communities if it's size with more than 70K US Cargo tons served out of the airport.

RAIL



Having two major rail companies (Union Pacific and BNSF) serve the market as well as the Spokane Valley switching yard is a key strength for the INW.

HIGHWAYS/ TRUCKING



Having major both east-west (I-90) and north-south (195, 395) running through Spokane provide key access to both coasts and all of North America.



APPENDIX





APPENDIX

INW REGION DEFINITION

Throughout our study, we used the following MSAs and their associated counties as our definition of the Inland Northwest region.

WASHINGTON

Ellensburg
Kennewick
Richland
Moses Lake
Pullman
Spokane
Walla Walla
Wenatchee
Yakima

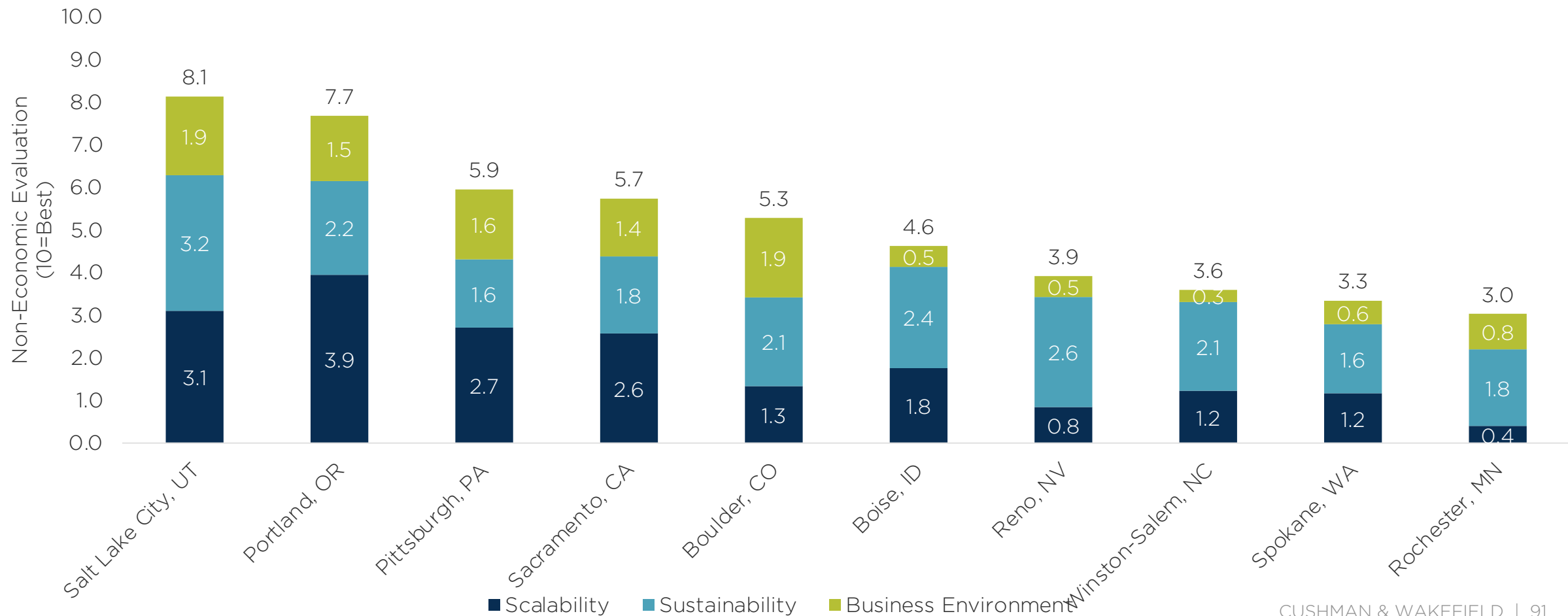
IDAHO

Coeur d'Alene
Lewiston
Moscow
Sandpoint



NON-ECONOMIC COMPARISON - BIOTECH

- » Salt Lake City and Portland score extremely well in scalability due to job volume (16,272 and 21,991) and strong concentration. Salt Lake City has also seen strong 5-year graduation growth in related degree fields and job growth at 98% and 41%, respectively.
- » Spokane lags in all three major criteria. The market is the second smallest from a Job Volume standpoint and third lowest in completions.
- » Boise is a close competitor market for Spokane and has double the volume even with a lower number of completions in the field.
- » Spokane has decent historical job growth, but lower projected growth over the next 5 years in comparison to the other markets. Extremely high wage growth (highest at 31%, 2nd highest is Sacramento at 24%) has also negatively affected their score.
- » In terms of Business Environment, Life Sciences VC Funding is lowest in Spokane at \$1.35 Million. Boise, Reno, and Winston-Salem also have low funding at \$6.35 M, \$22.4 M, and \$97.7 M. In comparison, Salt Lake City has the highest VC Funding with \$1,388.3 M.



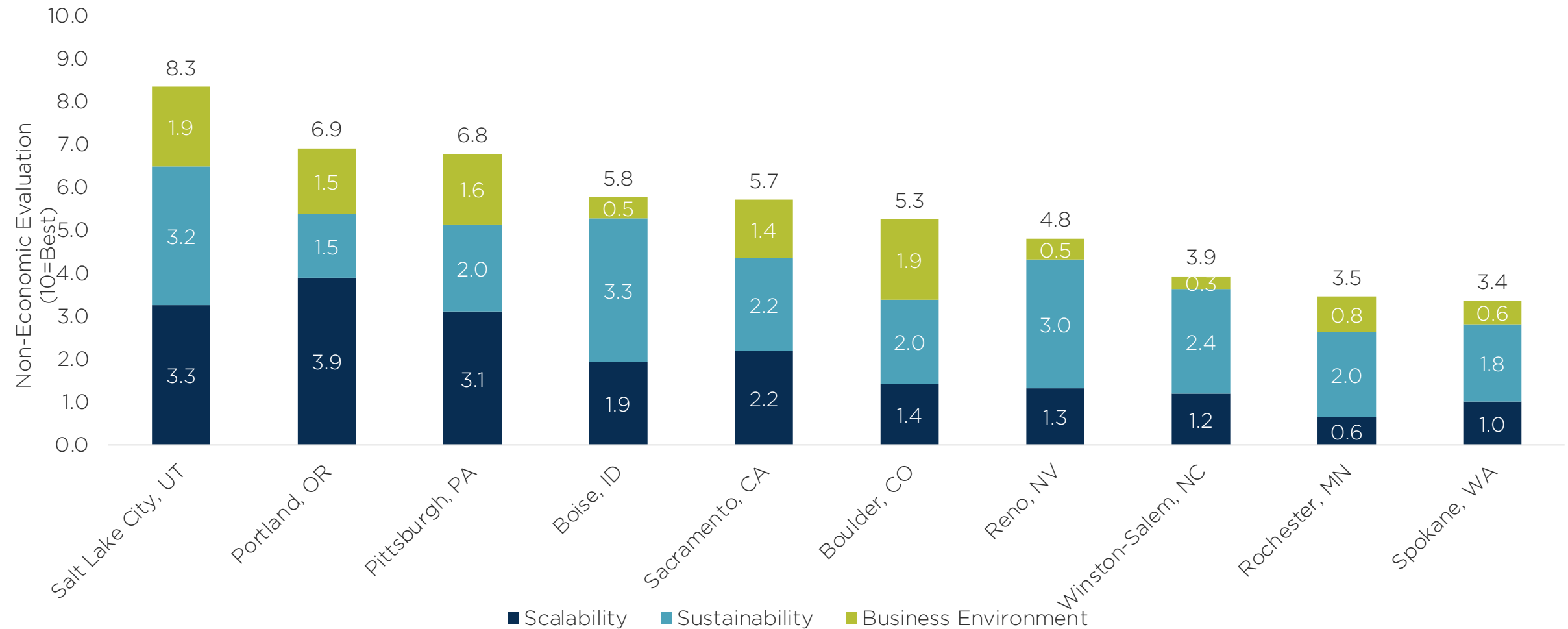
APPENDIX

LABOR MARKET ASSESSMENT



NON-ECONOMIC COMPARISON - FOOD SCIENCE

- » Food science is one of the lowest scoring industry for Spokane. It is the lowest scoring market and performs poorly in both scalability and sustainability.
- » Boise has an established market for the Food Science industry with the ability to compete with larger markets even with a smaller existing talent pool.
- » In comparison to Spokane, Boise has more than double the job volume (7,955 vs. 19,605), higher completions and job growth (though total completions in related fields is slightly lower than Spokane) and low wage growth. However, Boise's future job growth is expected to drop significantly from 73% to 11%, closely matching Spokane's future growth of 10% (drop from 33%).



APPENDIX

LABOR MARKET ASSESSMENT

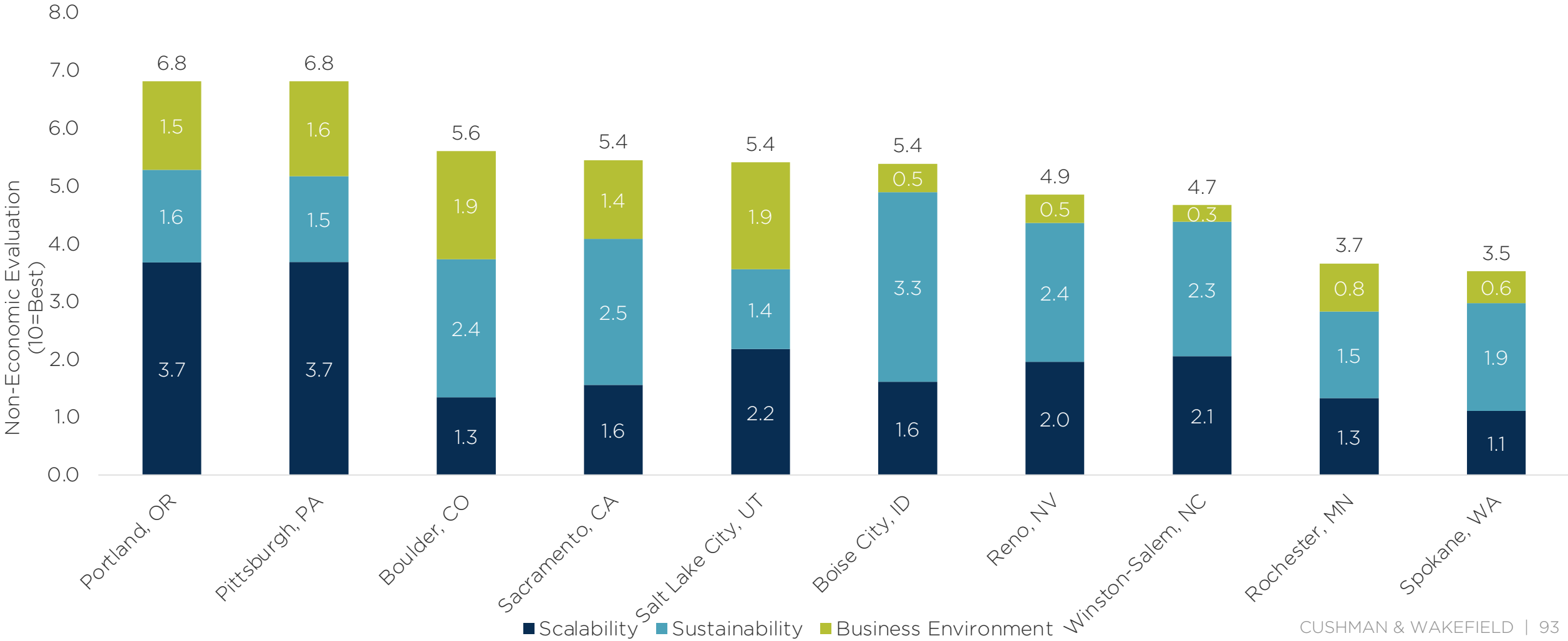


APPENDIX

LABOR MARKET ASSESSMENT

NON-ECONOMIC COMPARISON - MEDICAL DEVICE

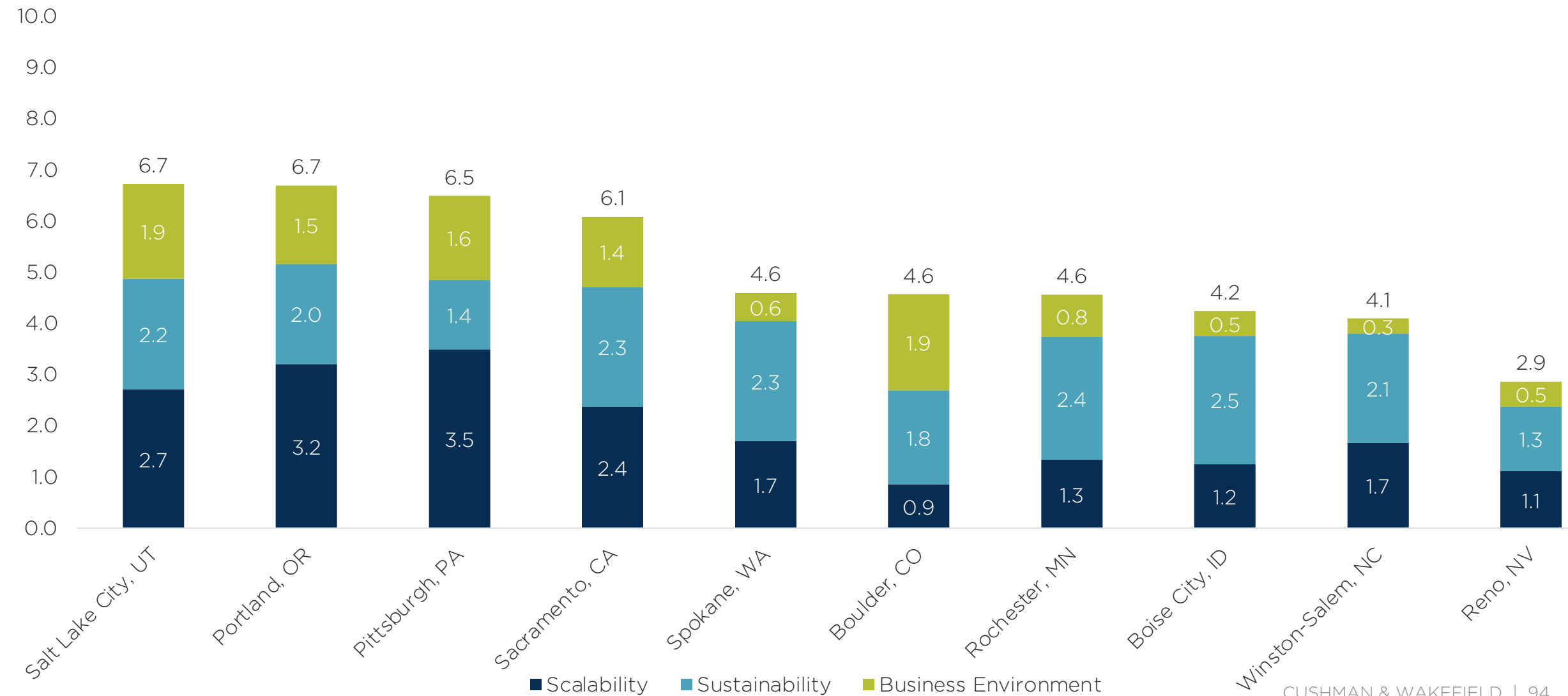
- Portland and Pittsburgh are strong markets for Med Device talent with talent pools 45%-90% larger than all the other markets. Pittsburgh has a strong pipeline of talent with a high number of degree completions, but job skills growth is projected to be flat.
- Salt Lake City, Sacramento and Reno are expected to see 13-17% job growth of the next 5 years while Spokane is projected to see just 3% growth.
- Boise City has a larger talent pool and stronger job growth (51% historical, 10% projected) compared to Spokane (7%).
- Spokane was the lowest scoring market with the second to smallest talent pool and historic/projected job skills growth well below the U.S. average.





NON-ECONOMIC COMPARISON - PHARMA

- » The larger markets, Salt Lake City, Portland, Pittsburgh and Sacramento, are the most ideal for Pharma talent due to large labor pools and access to university graduates.
- » Among the smaller markets, Spokane performed the best due to an ideal concentration of talent (1.17) and negative wage appreciation. However, historical job growth in Spokane has been slower than Boise, Boulder and Rochester (4%) and is projected to grow at a rate of just 1%. Spokane has a similar size pool of talent compared to Boise but that could change as Boise is projected to grow 13%.



APPENDIX

LABOR MARKET ASSESSMENT

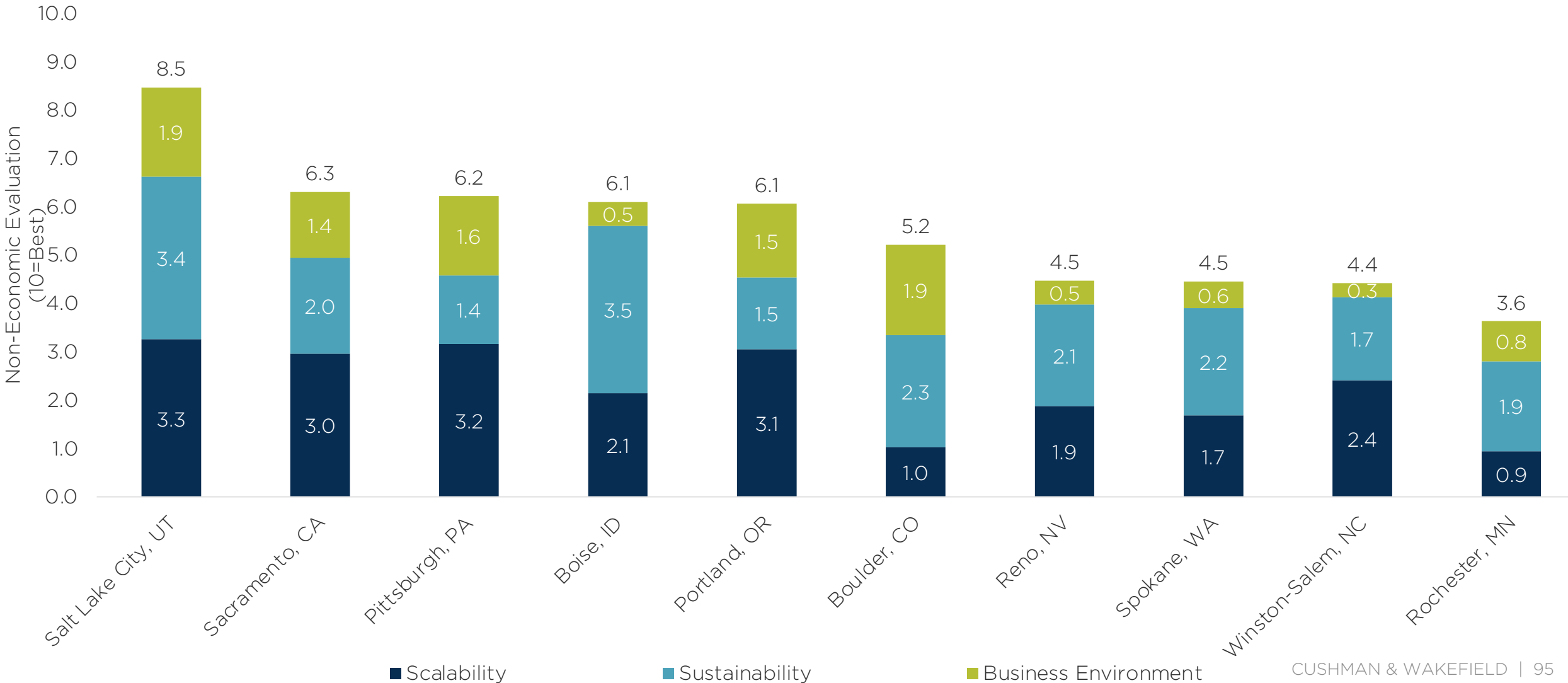


APPENDIX

LABOR MARKET ASSESSMENT

NON-ECONOMIC COMPARISON - COSMECEUTICALS

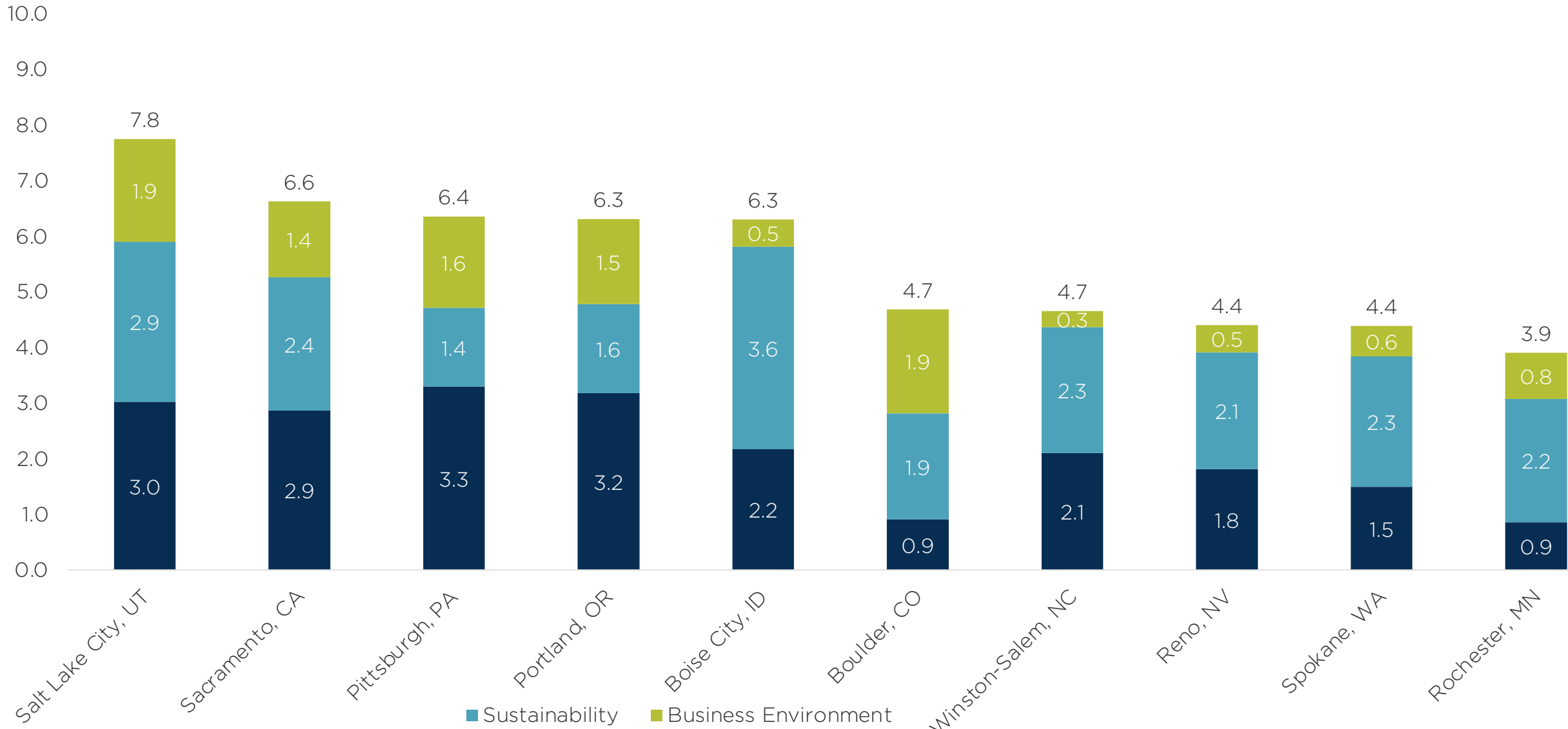
- » Reno, Spokane, & Winston-Salem perform similarly in Cosmeceuticals. Boise, which has a similar target demographic volume (78K) to Spokane, performs exceptionally well with almost double the job volume of Spokane (31,293) and strong concentration of talent (1.1).
- » Historically, Boise has had high completions growth and job growth at 62% and 50% vs. Spokane's 5% & 20%. However, expected growth over the next five years shows Boise and Spokane having closer growth rates at 11% & 8% respectively.
- » It's important to note that in terms of sustainability, Spokane has the 3rd highest score amongst all the markets, indicating the potential for growth within the industry. Spokane is the second highest market in projected population growth and performs well in projected job skills growth. The current job market size is what hinders a higher score for the market.





NON-ECONOMIC COMPARISON - NUTRACEUTICALS

- » Salt Lake City outperforms the other markets due to its ideal concentration of target talent (1.22), high number of degree completions and strong job growth (26%).
- » Boise City has a talent pool roughly double the size of Spokane and stronger job growth (67%) with wages remaining flat.
- » Spokane has a smaller pool of existing Nutraceuticals talent but has strong job growth (21%) with the expectation of growing another 10% over the next 5 years.



APPENDIX

LABOR MARKET ASSESSMENT

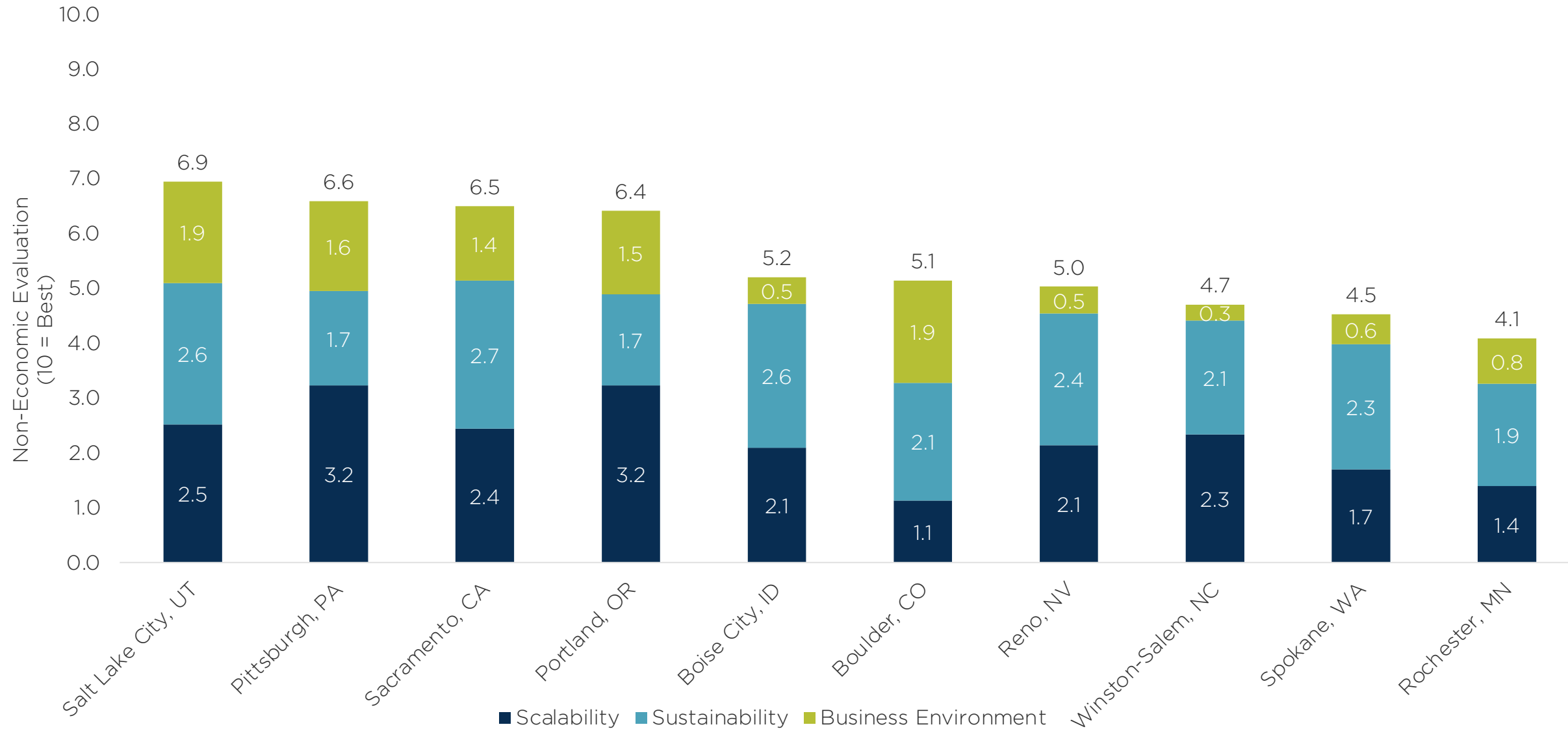


NON-ECONOMIC COMPARISON - MANUFACTURING

- » Salt Lake City, Pittsburgh, Sacramento and Portland all score high due to large pools of existing manufacturing talent as well as trainable talent. Job growth in Sacramento and Salt Lake City is expected to be strong at 8-9%.
- » Spokane has a smaller manufacturing talent pool compared to Boise City but has a similar sized pool of trainable talent. Education completions are strong at 22%, above the U.S. average (9%) but job growth is expected to be just 2%, below the U.S. average (3%).

APPENDIX

LABOR MARKET ASSESSMENT





LIFE SCIENCE CONVERSION

Spokane has limited buildings that are suited for life science conversion. In order to qualify for a life science conversion, there are certain elements that must be present. The basic criteria for life science conversion are listed below.

CRITERIA



ZONING/PLANNING/OCCUPANCY

There is a clear path to providing Group B Occupancy.



VERTICAL CIRCULATION (MULTI-FLOOR BUILDINGS)

There is a segregated elevator for lab supplies/activity or there is a way to install one.



FLOOR-TO-FLOOR CLEARANCE (MULTI-FLOOR BUILDINGS)

13'0"+ clearance desired - anything less is limiting.



STRUCTURAL

There should be live load capacity at 100 psf+.

The roof will likely need additional load capacity for mechanical equipment typical for Life Science.

As-built/current vibration design criteria should be known.



HVAC/PLUMBING

A design path to dedicated lab AHUs/100% OA units.

A design path to dedicated exhaust (1 cfm/sf - min).

Design path to supporting utility shafts for HVAC and utilities, likely upgrade/addition to base building capacity.



ELECTRICAL

Service up to 8.0 watts/sf for intended lab area sf.

Emergency Generator capacity or service yard to install - for lab hoods & critical lab equipment plug load.

Capacity/consideration for data/low voltage for lab controls, data collection, enhanced BMS.

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