

ARIZONA'S  
BIOSCIENCE  
ROADMAP

# BIOSCIENCES IN ARIZONA

## 2025 Performance Review

TEconomy Partners

April 2025

# Vision for Arizona in 2025

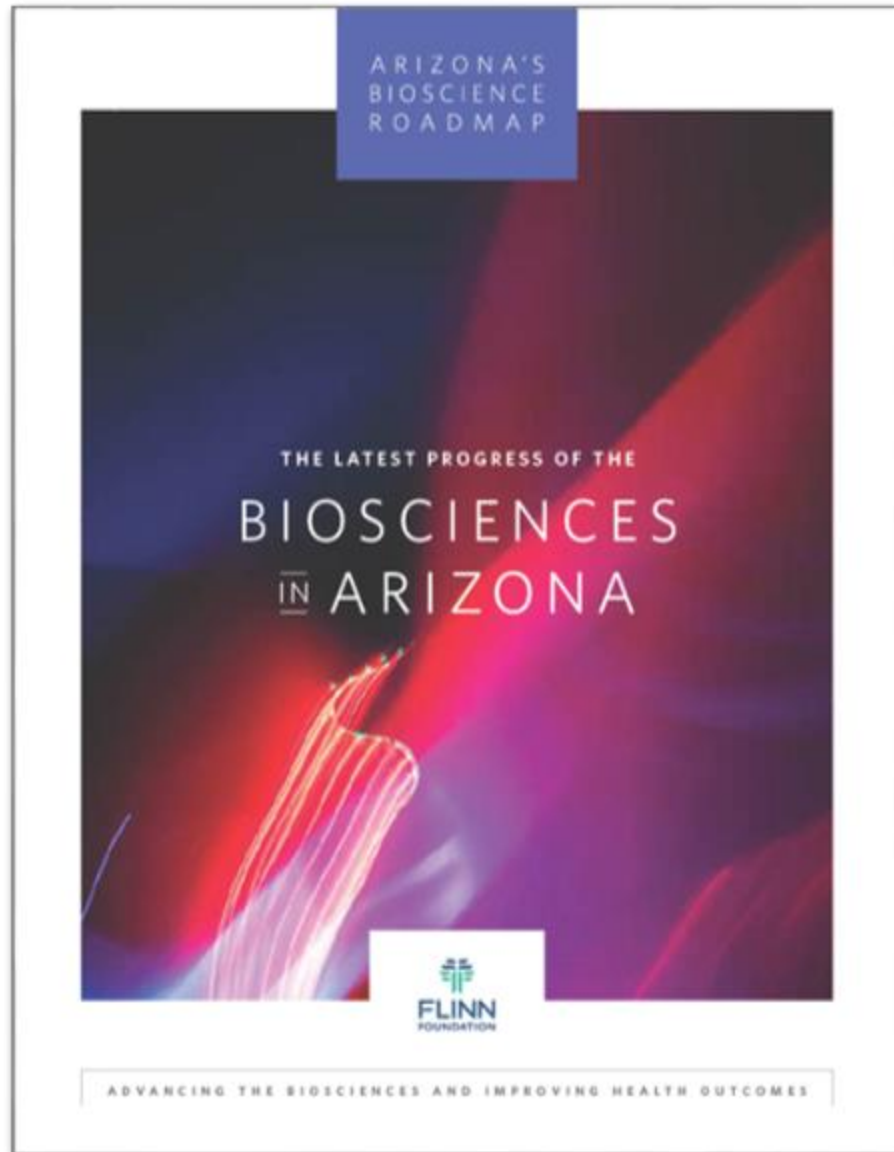
“Arizona is **globally competitive** and a **national leader** in the biosciences in such fields as precision medicine, cancer, neurosciences, bioengineering, diagnostics, and agricultural biotechnology.”

“It excels in offering a **deep talent base**, a critical mass of **entrepreneurs and enterprises**, and **clinical excellence** to turn discovery into firms, products, and talent.”

Source: Second Decade Roadmap, available at [www.flinn.org](http://www.flinn.org)

# Summary of 2025 Performance Review

- Overall, Arizona receives **another strong report card in 2025, continuing to show significant gains in most of the top-line bioscience-related employment and ecosystem metrics** over the latest 3- to 4-year period since 2020.
- Growth highlights for Arizona include:
  - **Employment**, where Arizona's job growth in the non-hospital biosciences has significantly outpaced national growth in the same industries as well as the state's private sector. Employment growth in Arizona's hospital sector has matched that for the nation. Arizona continues to be among the nation's fastest-growing bioscience states.
  - **Average wages** in Arizona's bioscience industry continue to rise at a pace similar to that for both the national industry as well as the state's overall private sector.
  - **Academic R&D expenditures** have grown by nearly \$200 million (30%) since 2020, outpacing national growth of 25%.
  - **NIH funding to Arizona institutions** has increased—both overall and in the state's share of national funding—despite slower growth in national funding.
- Two areas showing “mixed” performance results include:
  - **University technology transfer**, though the biosciences remain a significant driver of overall commercialization activity and outcomes.
  - **VC funding** to state bioscience companies has rebounded, increasing in 2024 to a level just shy of the state's peak investment total in 2021; while **VC deal activity** and the number of VC-backed companies has continued its downward trend.



[flinn.org/progress](https://flinn.org/progress)

# Defining the Biosciences in Arizona

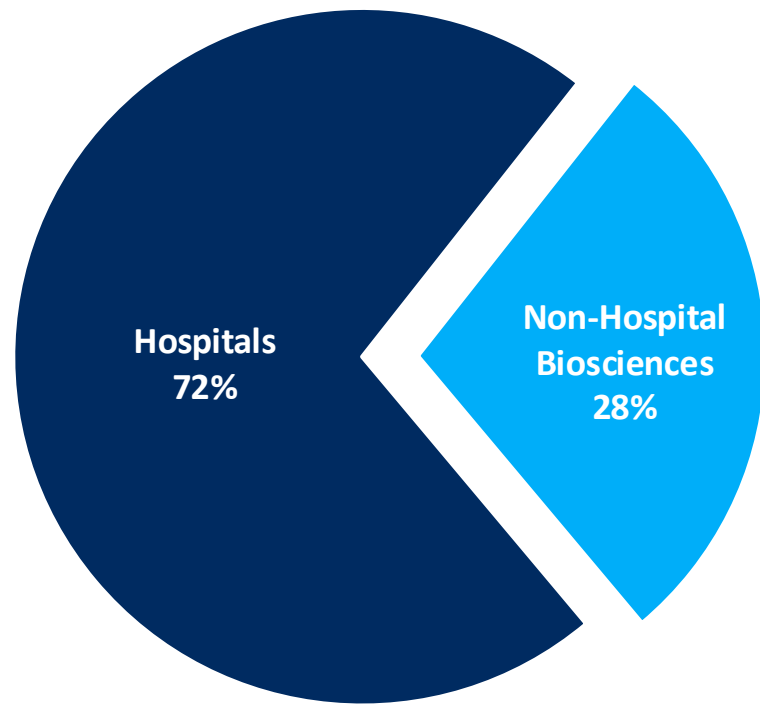
- Agricultural Feedstock & Industrial Biosciences
- Bioscience-Related Distribution
- Pharmaceuticals & Diagnostics
- Medical Devices & Equipment
- Research, Testing & Medical Labs
- Hospitals



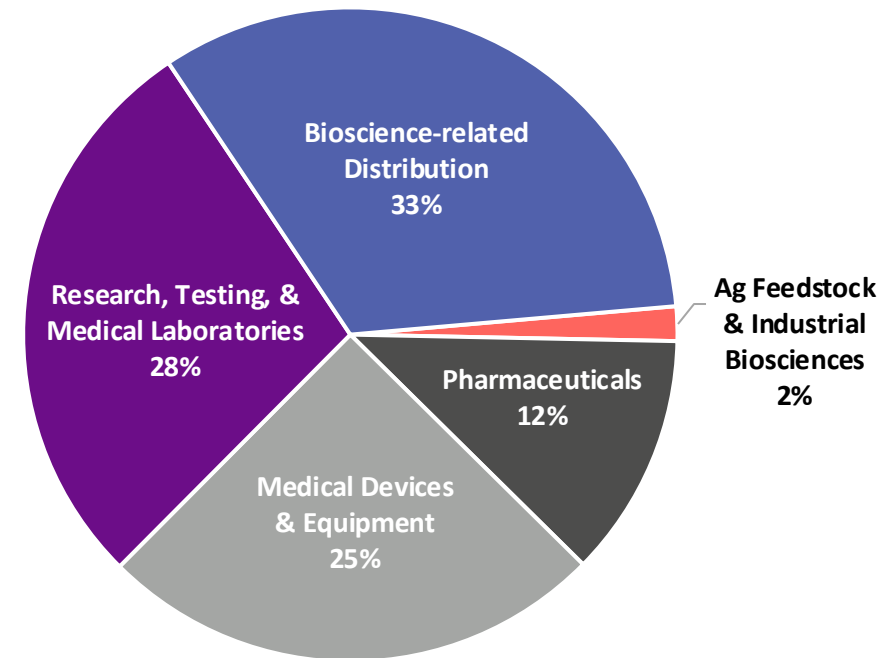
# Metric: Jobs

## Composition of Arizona's Bioscience Industry, 2023

144,000 Total AZ Biosciences Jobs

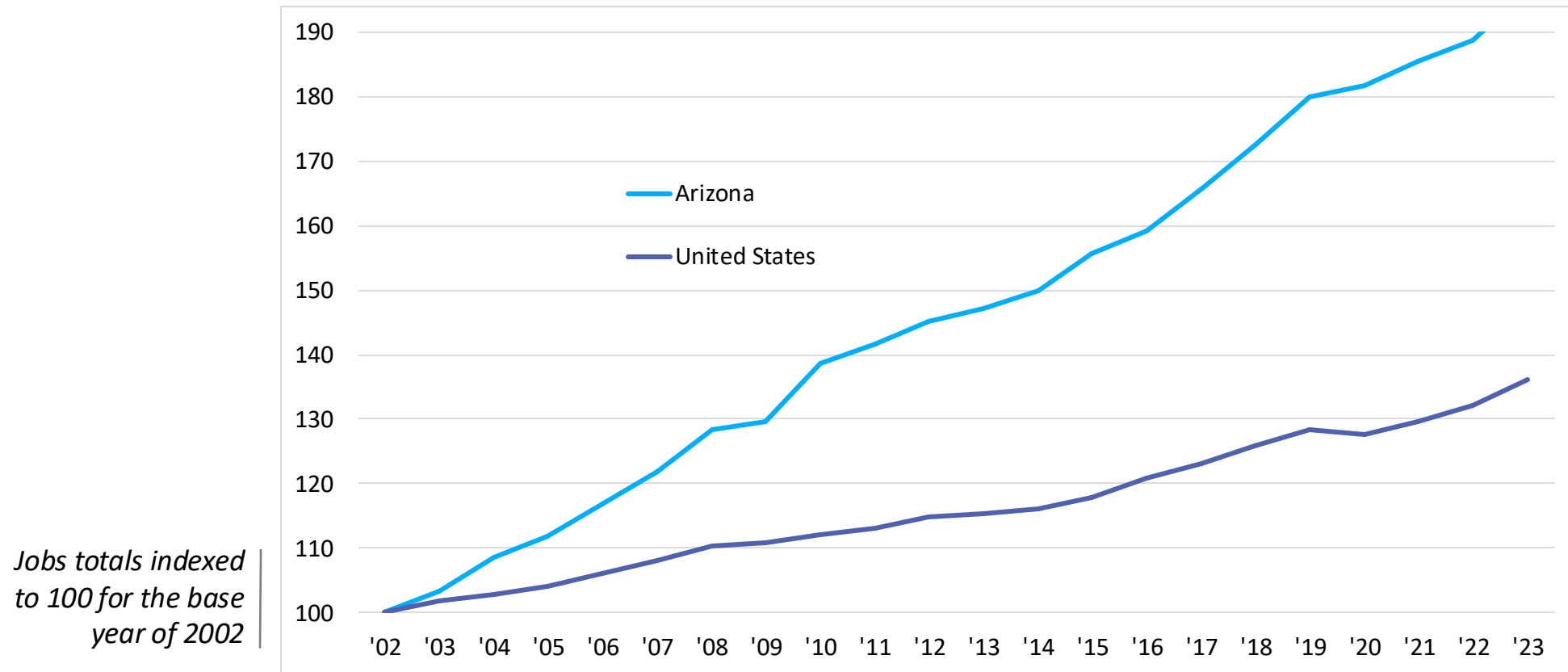


40,000 AZ Non-Hospital Biosciences Jobs



# Metric: Jobs

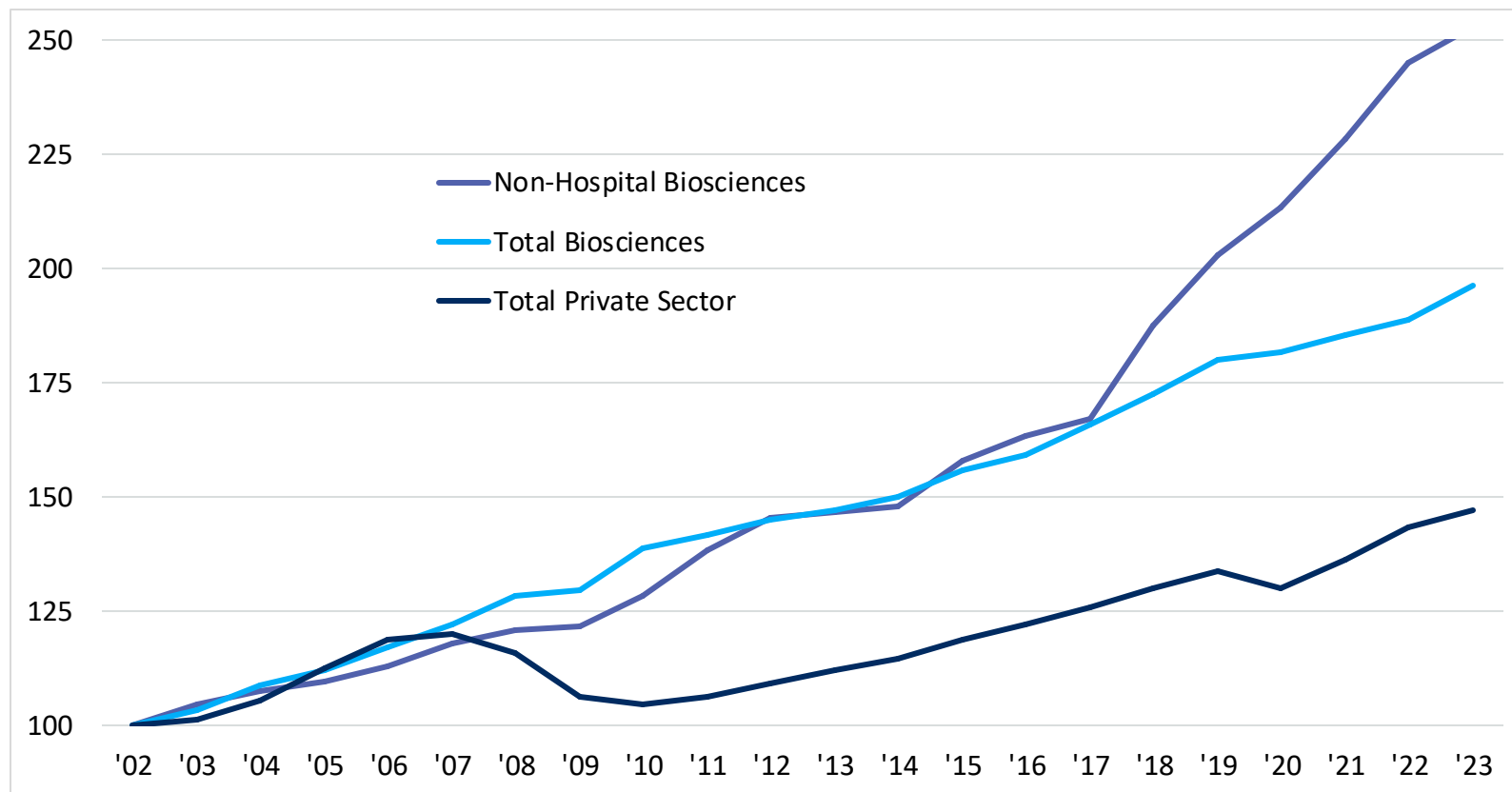
## AZ & U.S. Bioscience Industry Employment Trends: 2002-2023





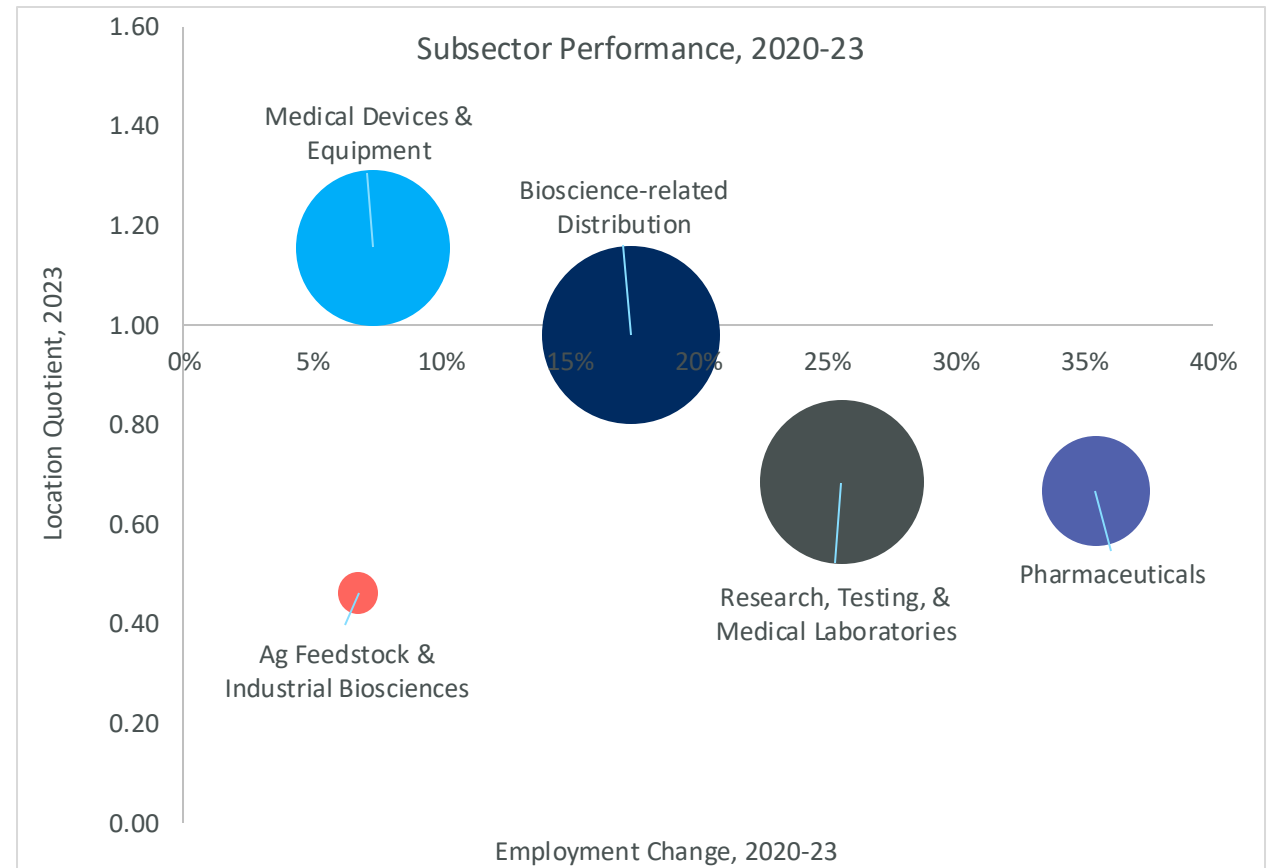
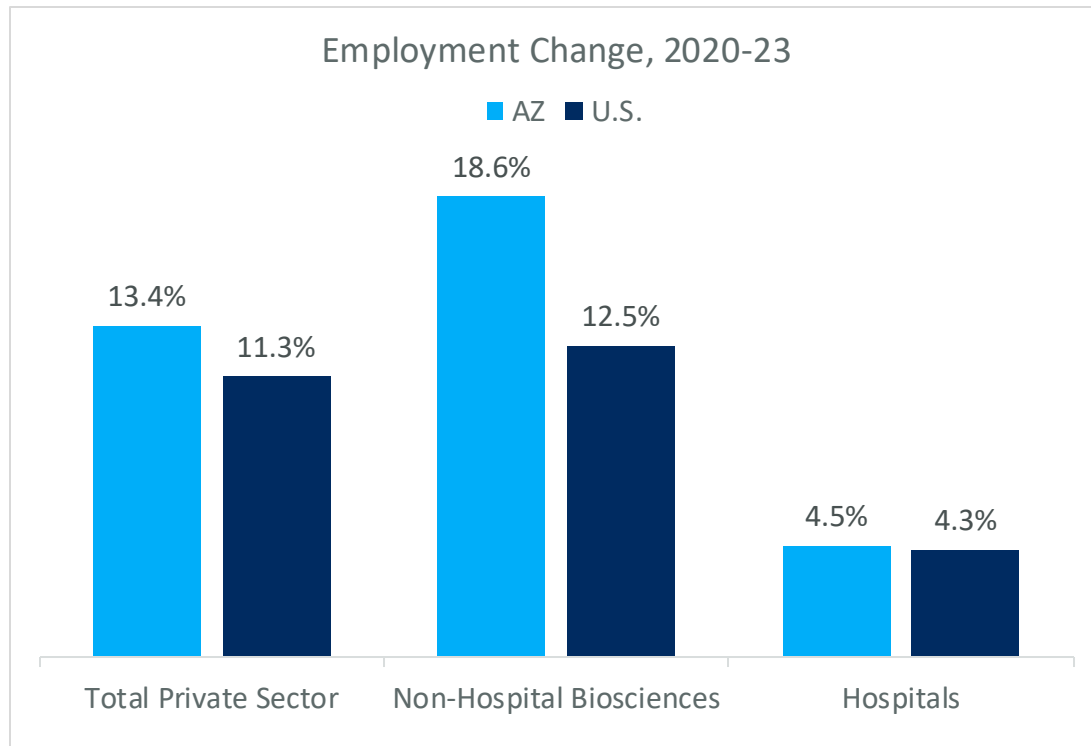
# Metric: Jobs

## Arizona Employment Trends: 2002-2023





# Industry Employment Growth Comparison: Recent Trends



# Bioscience Industry: Regional Strengths Based on Location Quotients

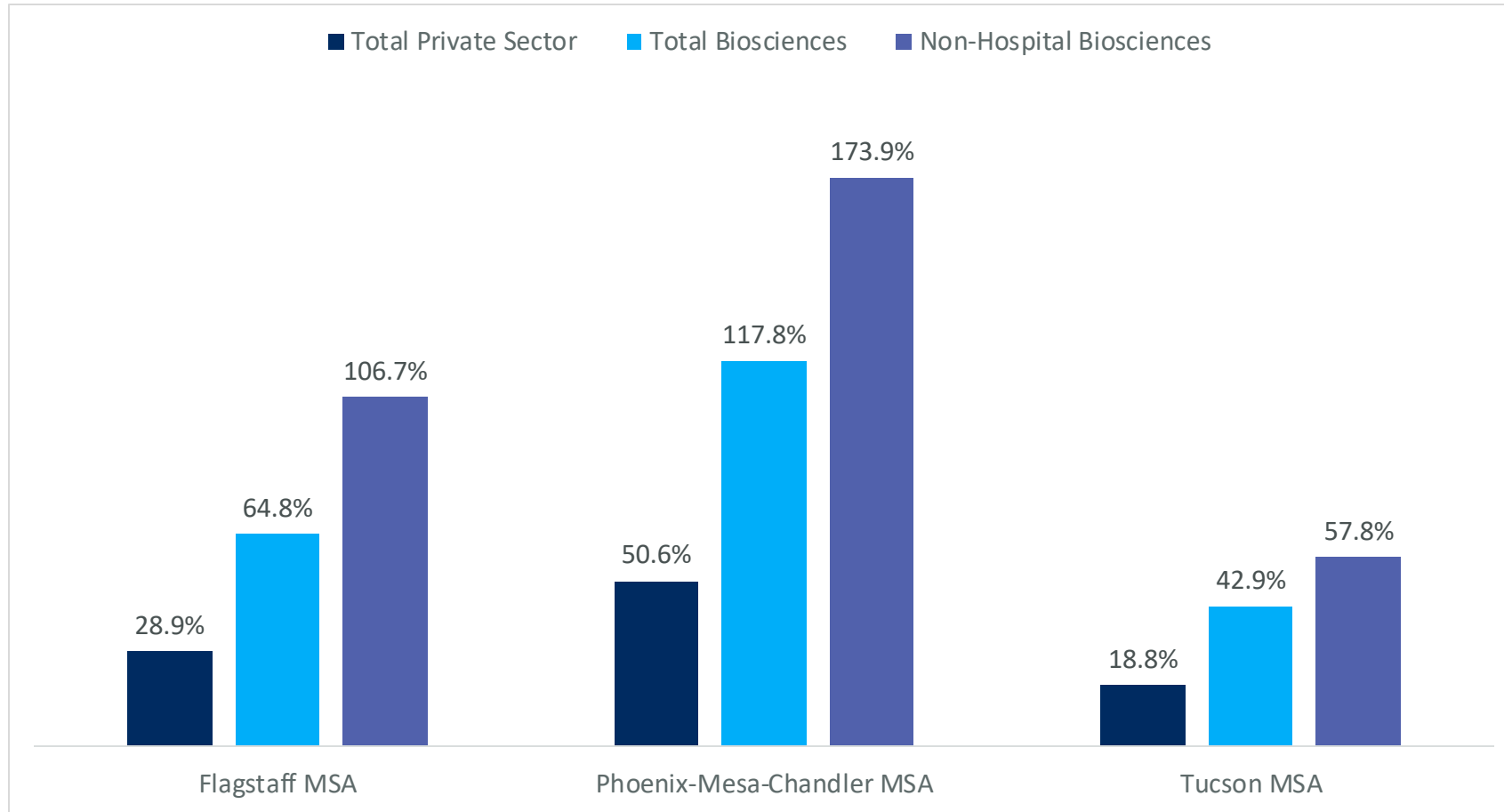
Industry Subsector	Arizona	Flagstaff MSA	Phoenix-Mesa-Chandler MSA	Tucson MSA
Agricultural Feedstock & Industrial Biosciences				
Bioscience-related Distribution			○	
Medical Devices & Equipment	○	●		●
Pharmaceuticals				
Research, Testing, & Medical Laboratories				
Hospitals		●		●
<b>Total Biosciences</b>		●		○

- LQ = 1.2+
- LQ = 1.0-1.2

**Location Quotient (LQ)** measures the concentration of industry employment in a region relative to the national average.

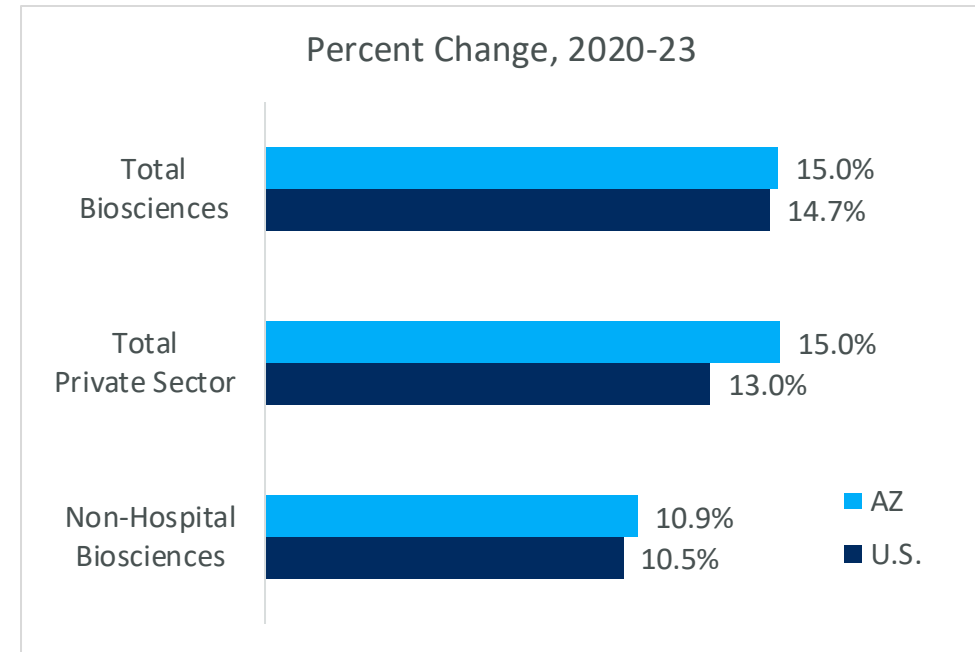
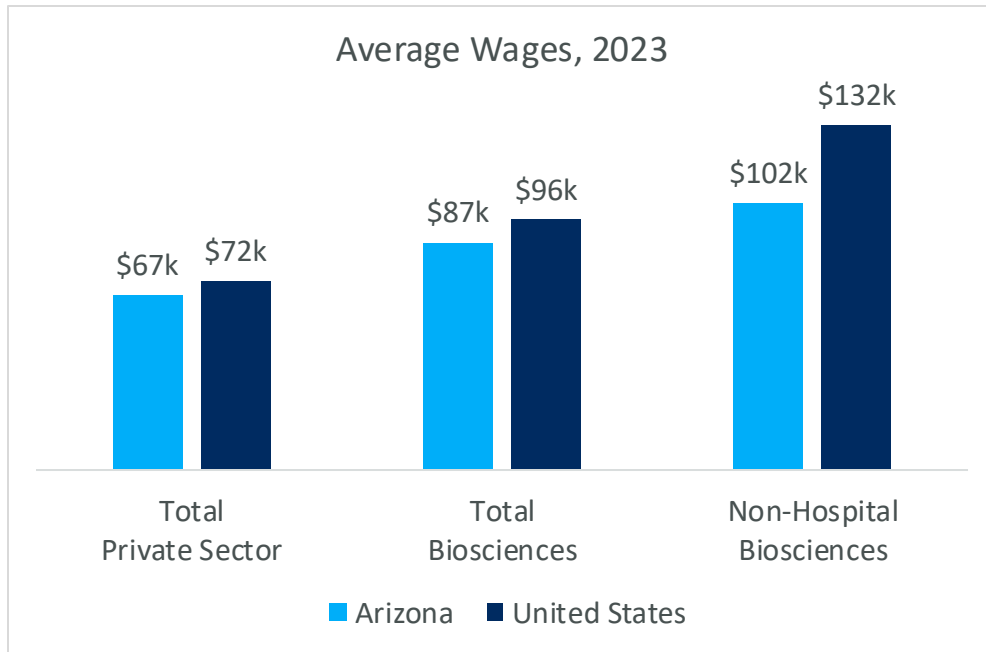
An LQ of 1.2 or greater is considered a “specialized” concentration.

# Regional Industry: Employment Growth, 2002-2023



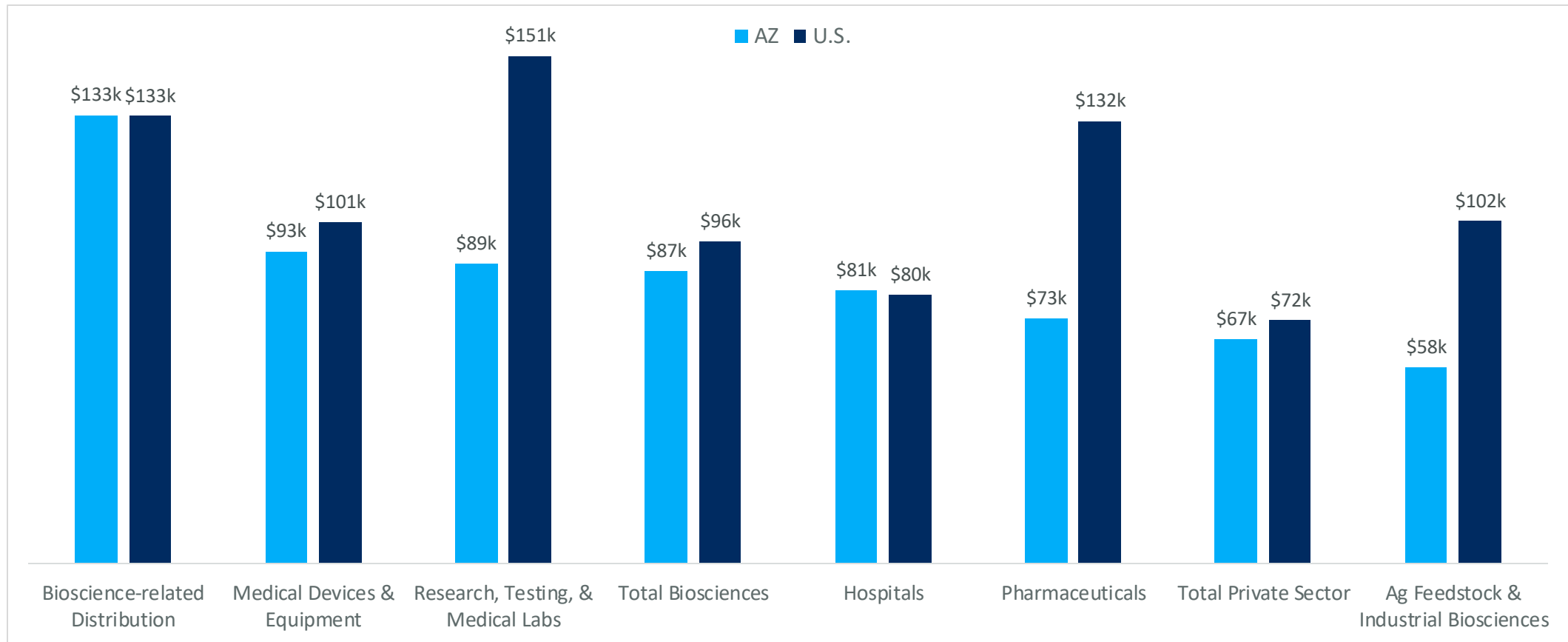
# Metric: Wages

## Bioscience Wages and Growth: 2020-2023

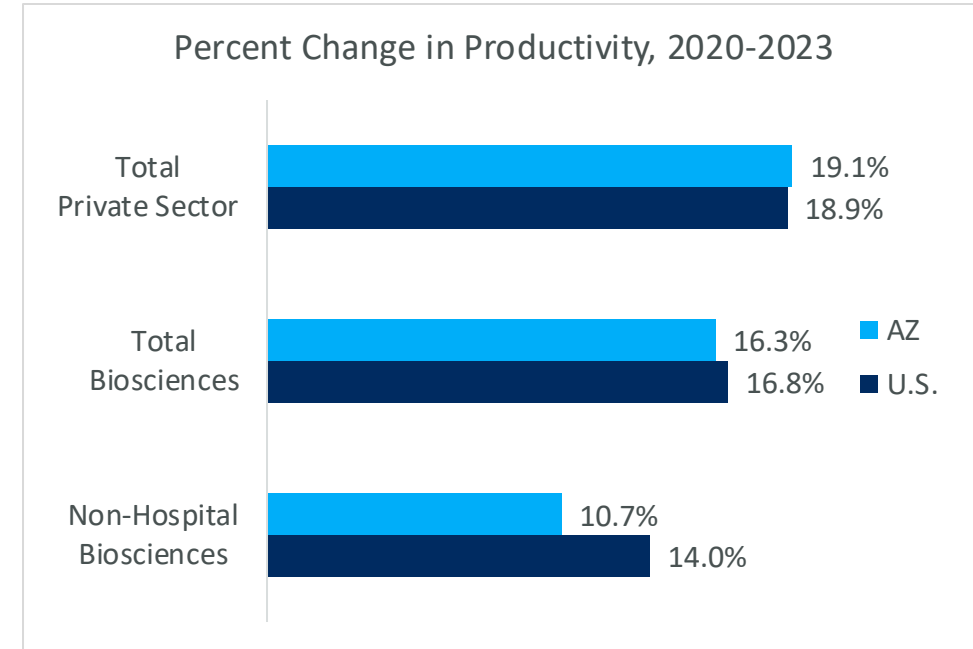
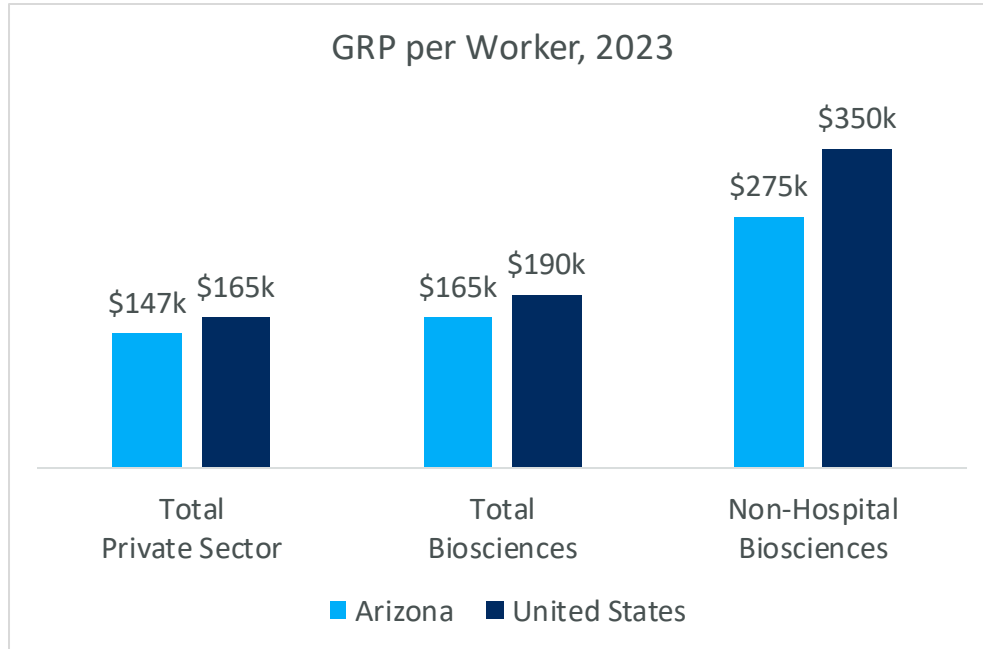


# Metric: Wages

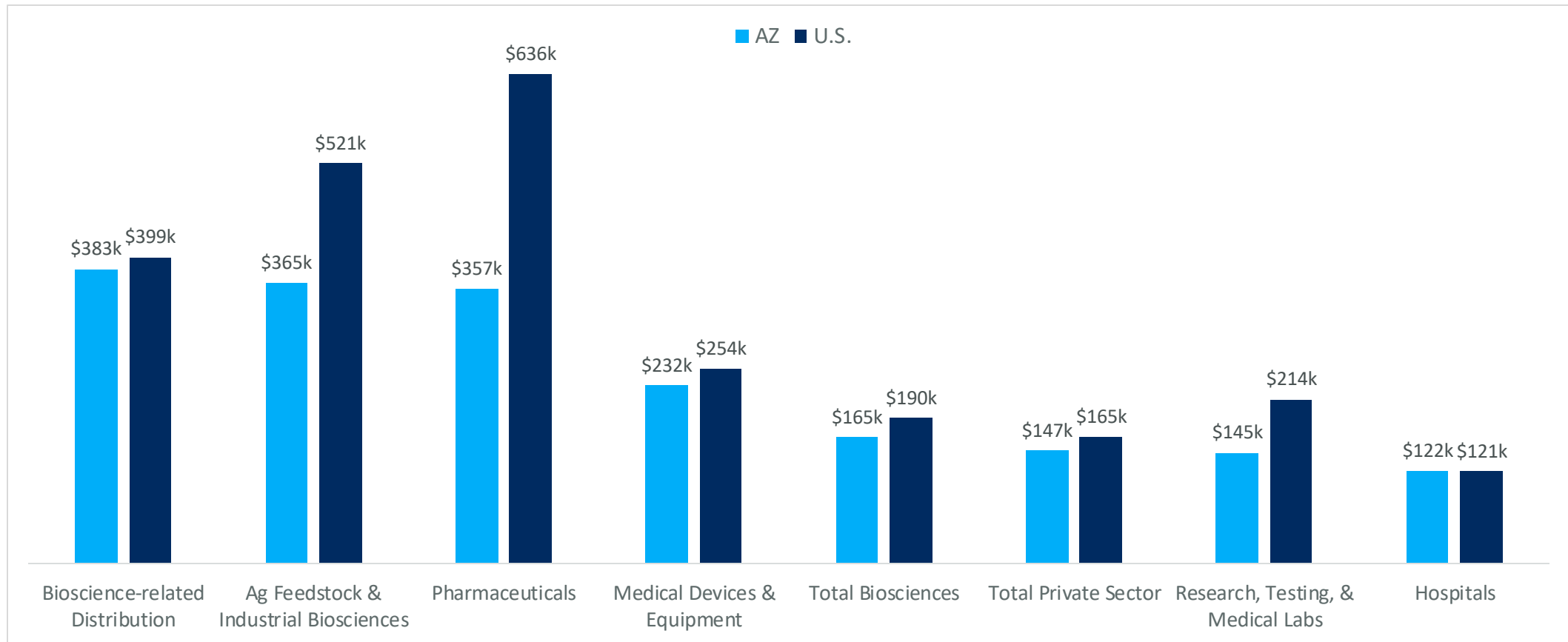
## Bioscience Wages by Industry Subsector, 2023



# Metric: Gross Regional Product per Worker Industry Productivity Totals and Trends, 2020-23



# Metric: Gross Regional Product per Worker Industry Productivity by Subsector, 2023

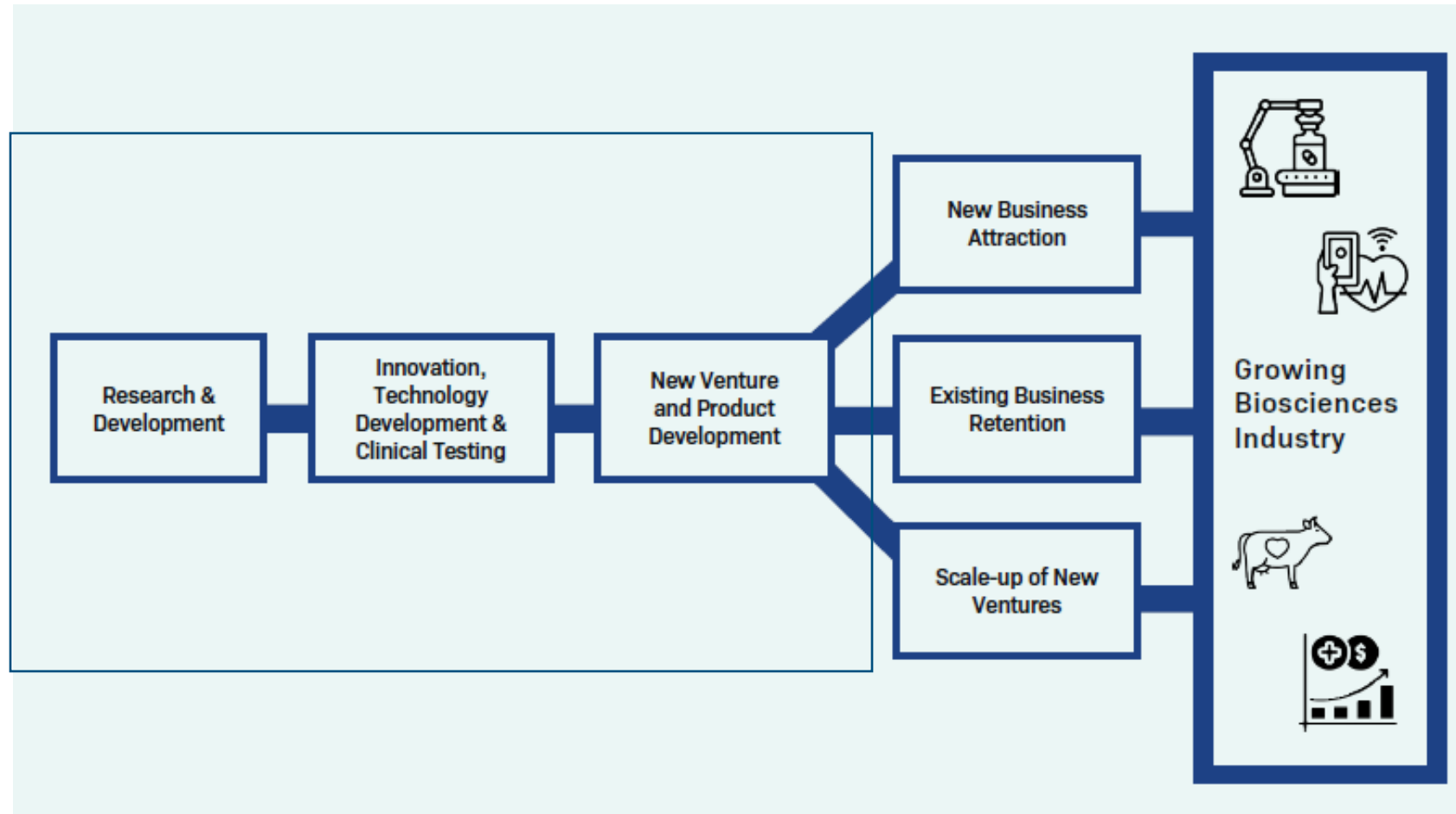




# Biosciences Industry Overview, 2020-2023

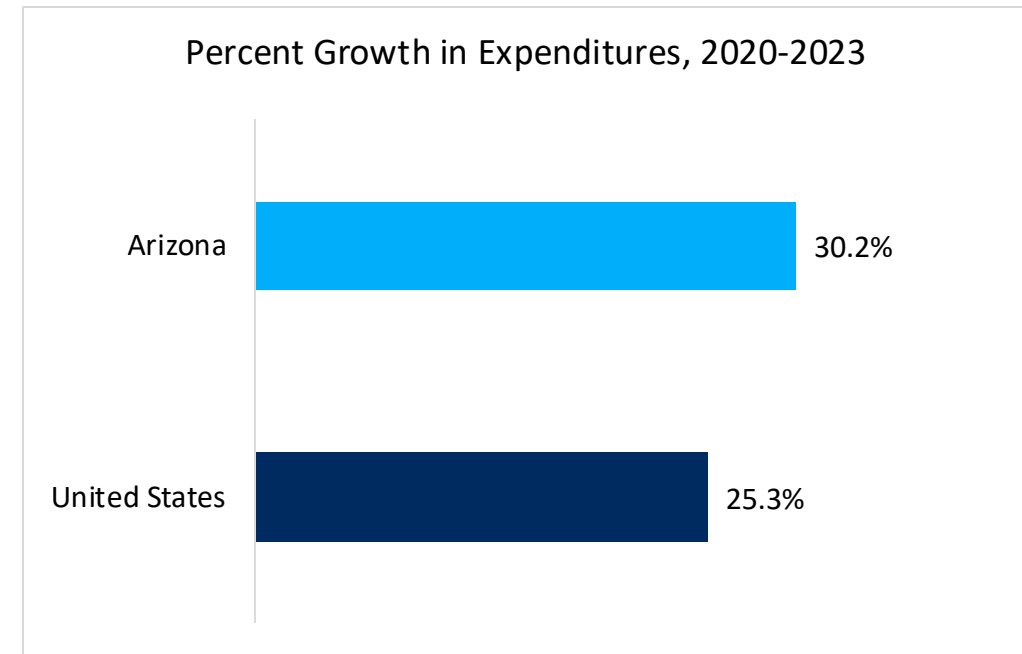
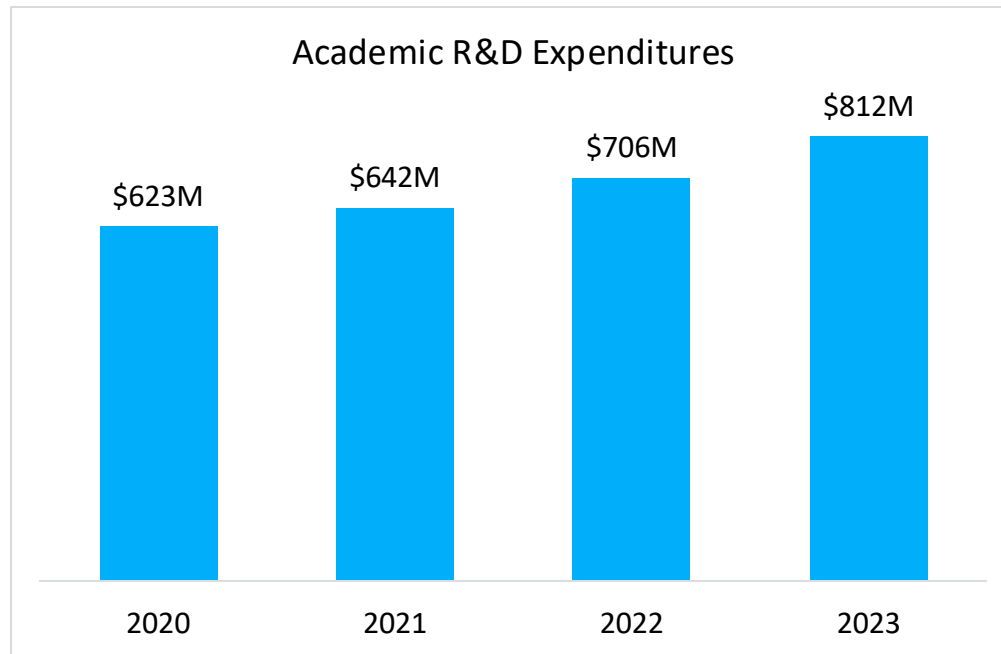
	<u>Establishments</u>		<u>Employment</u>				<u>Gross Regional Product</u>		<u>Productivity</u>	
Industry Subsector	AZ, 2023	AZ Growth, 2020-23	AZ, 2023	AZ LQ, 2023	AZ Growth, 2020-23	U.S. Growth, 2020-23	AZ, 2023 (\$ in Billions)	AZ Growth, 2020-23	AZ, 2023	AZ Growth, 2020-23
<b>Total Biosciences</b>	<b>3,975</b>	<b>35.8%</b>	<b>144,116</b>	<b>0.91</b>	<b>8.1%</b>	<b>6.7%</b>	<b>\$23.737</b>	<b>25.7%</b>	<b>\$164,705</b>	<b>16.3%</b>
Non-Hospital Biosciences	3,652	36.3%	40,399	0.84	18.6%	12.5%	\$11.124	31.3%	\$275,339	10.7%
Bioscience-related Distribution	2,129	22.3%	13,307	0.98	17.4%	11.8%	\$5.103	24.2%	\$383,473	5.8%
Research, Testing, & Medical Labs	1,186	79.1%	11,318	0.68	25.6%	19.3%	\$1.641	41.7%	\$144,985	12.8%
Medical Devices & Equipment	208	26.2%	10,061	1.16	7.4%	5.9%	\$2.332	14.6%	\$231,805	6.7%
Pharmaceuticals	110	16.7%	5,023	0.67	35.5%	10.0%	\$1.795	82.9%	\$357,407	35.0%
Ag Feedstock & Industrial Biosciences	18	2.9%	690	0.46	6.8%	3.5%	\$0.252	33.8%	\$365,424	25.3%
Hospitals	324	30.8%	103,717	0.94	4.5%	4.3%	\$12.613	21.2%	\$121,611	16.0%
<b>Total Private Sector</b>	<b>218,484</b>	<b>30.7%</b>	<b>2,762,185</b>	<b>1.00</b>	<b>13.4%</b>	<b>11.3%</b>	<b>\$407.172</b>	<b>35.1%</b>	<b>\$147,409</b>	<b>19.1%</b>

# The Innovation Ecosystem Enabling, Driving Bioscience Industry

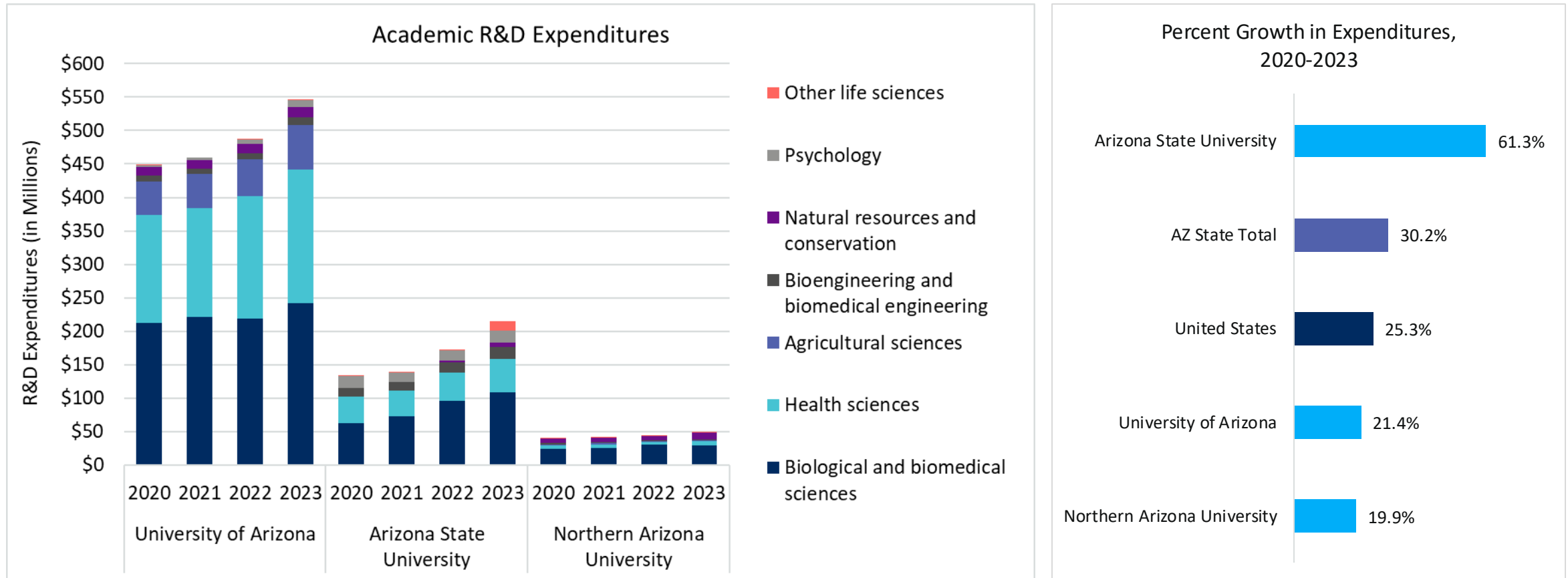


# Metric: Bioscience R&D

## AZ & U.S. Bioscience Academic R&D: 2020-2023



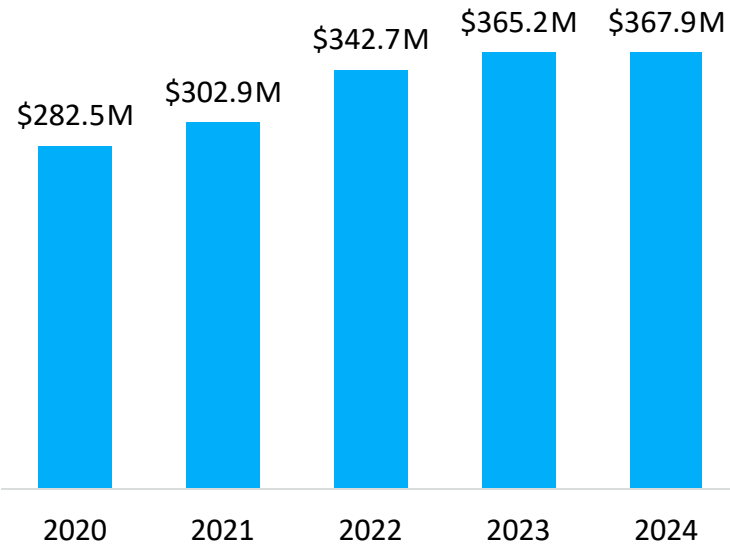
# Metric: Bioscience R&D Expenditures by Leading AZ Academic Institutions: 2020-2023



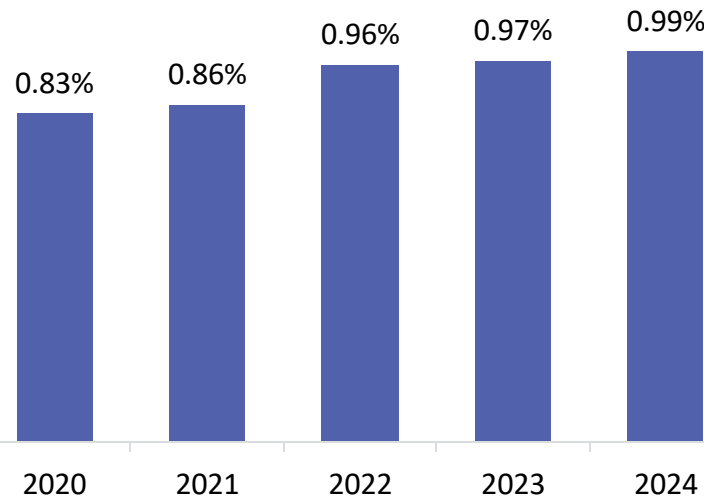
# Metric: NIH Funding

## AZ & U.S. NIH Funding Trends

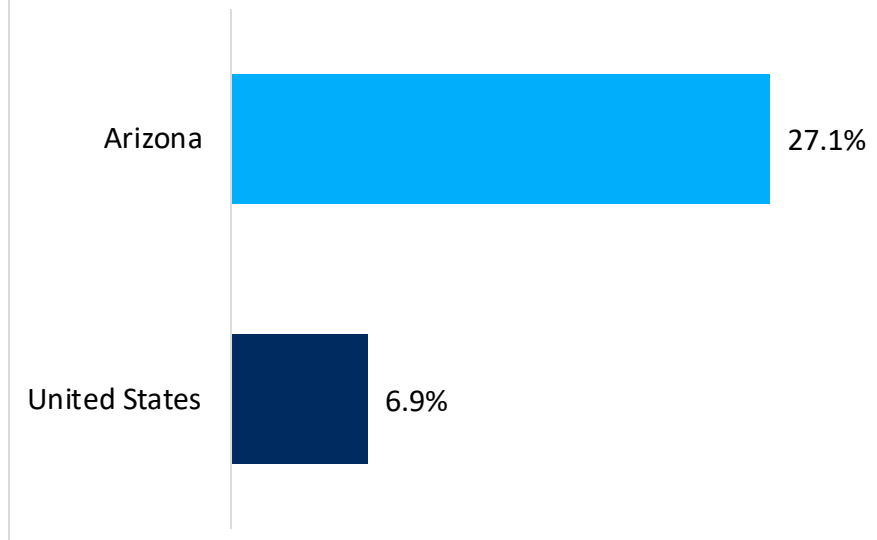
NIH Funding



AZ Share of National Funding

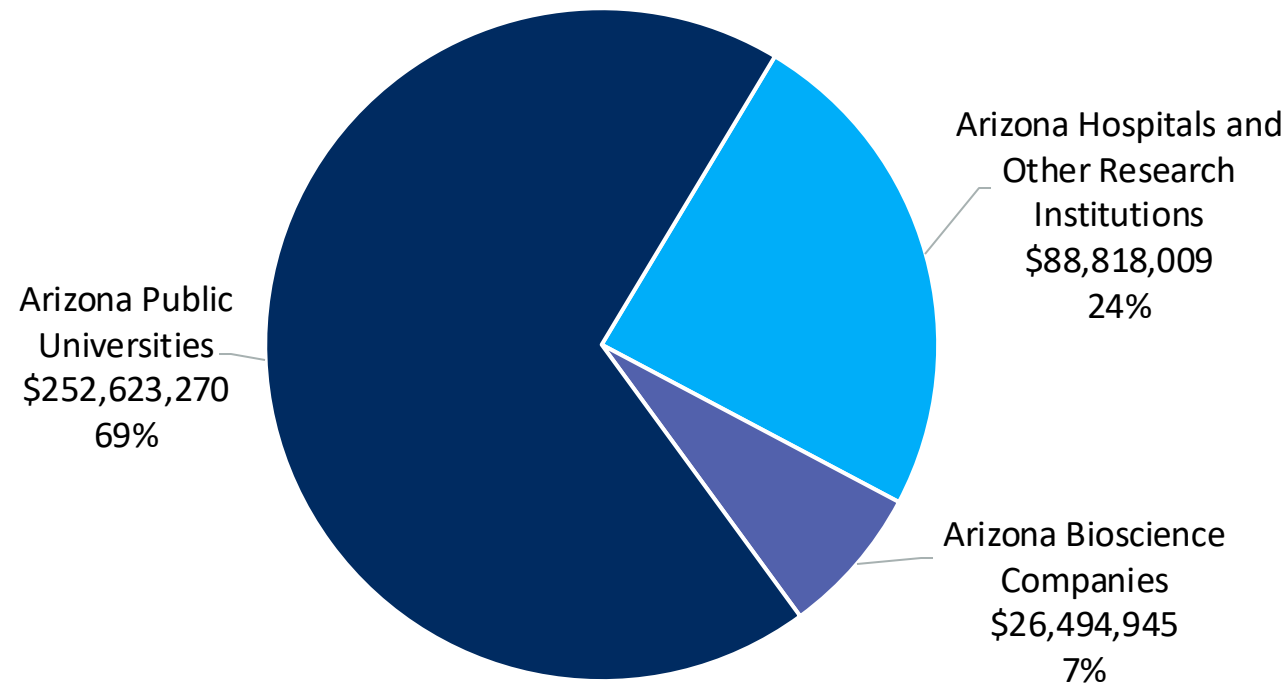


Percent Change in Funding, 2020-24



# Metric: NIH Funding

## AZ NIH Funding Distribution: FY 2024



\*Definitions of organization type as provided by NIH align closely, although not perfectly, with the customized designations for AZ organizations used in these analyses  
Source: NIH *RePORT* database, and TEconomy Partners calculations

# Metric: University Technology Transfer

Key Tech Transfer Metrics	Total 2024	Change 2023 to 2024	Bio Share of Tech Transfer 2024
Invention Disclosures Received	263	-7%	39%
Total U.S. Patent Applications Filed	434	29%	45%
U.S. Patents Issued	118	8%	45%
Licenses & Options Executed	54	-31%	34%
Adjusted Gross License Income Received	\$7.8M	-2%	70%
Startups from University IP	14	17%	45%

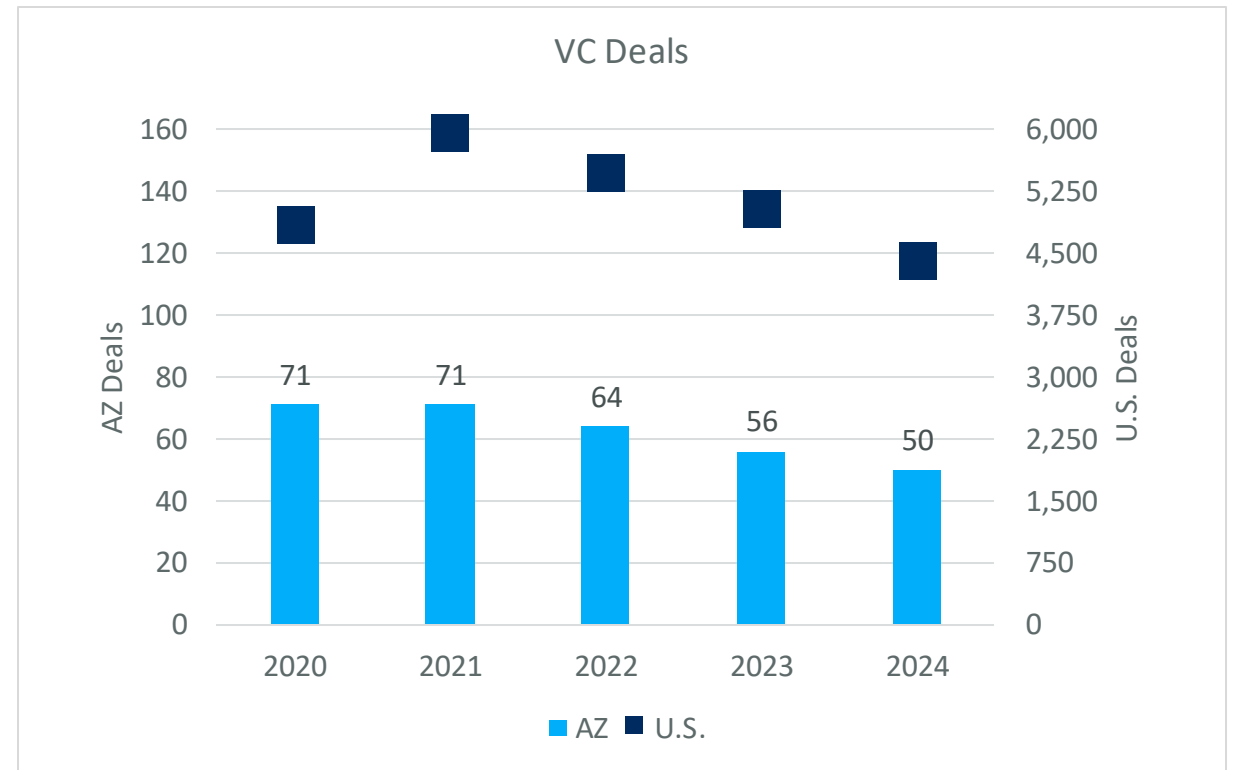
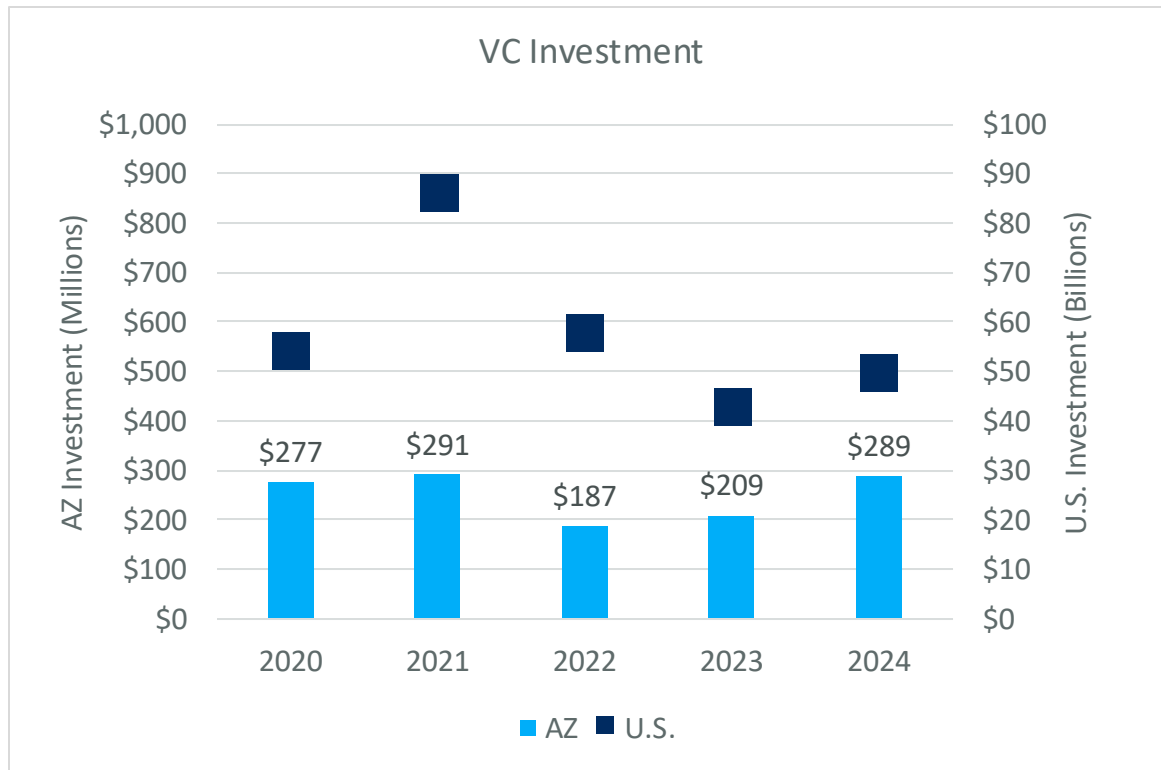
## Snapshot: Univ. Bio Startup Totals

Years	Totals
2024	14
2023	12
2022	17
2021	27



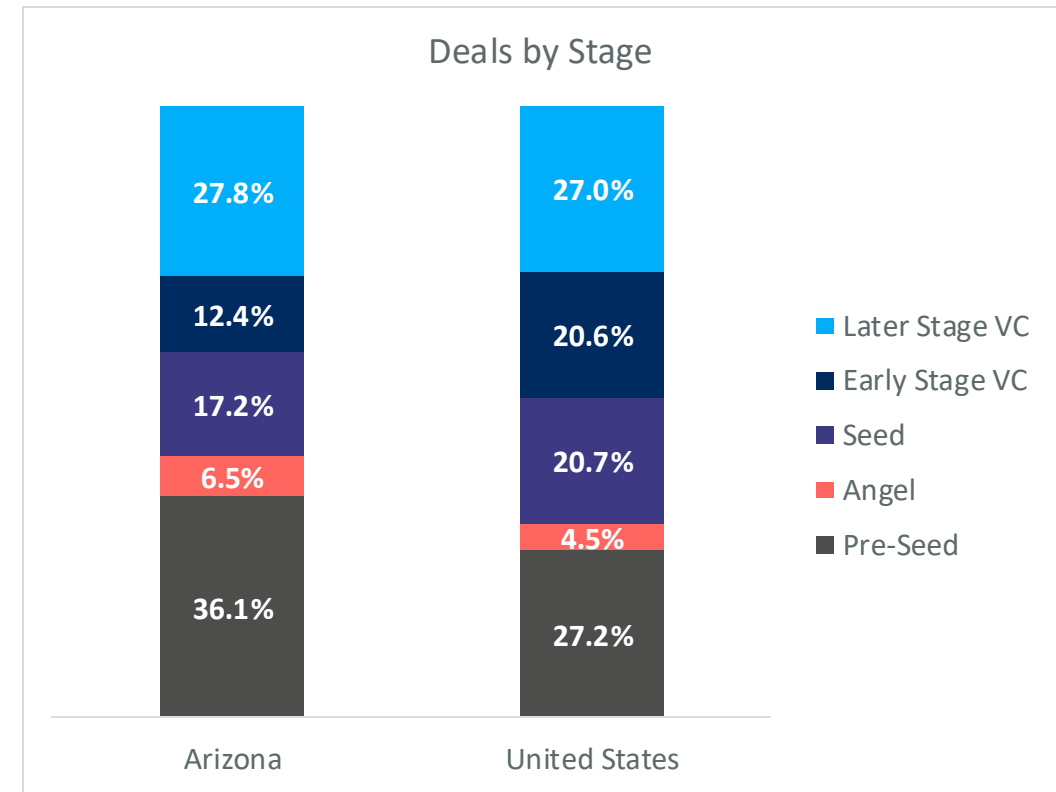
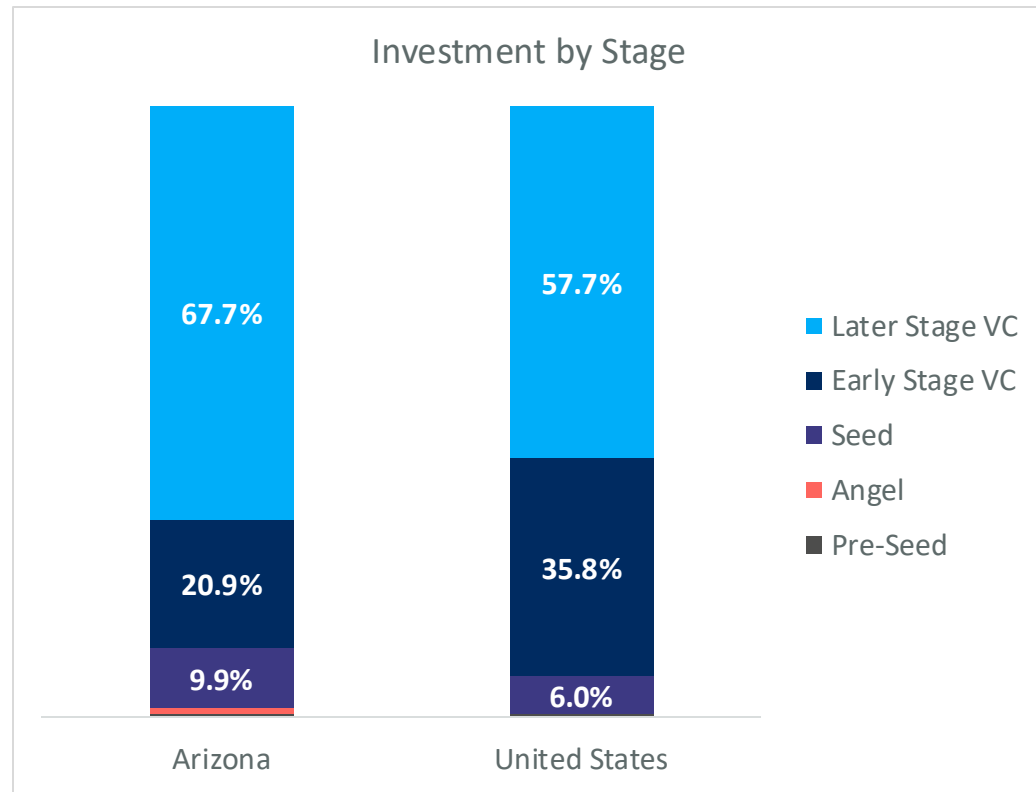
# Metric: Venture Capital

## AZ & U.S. Bio Venture Capital: 2020-2024

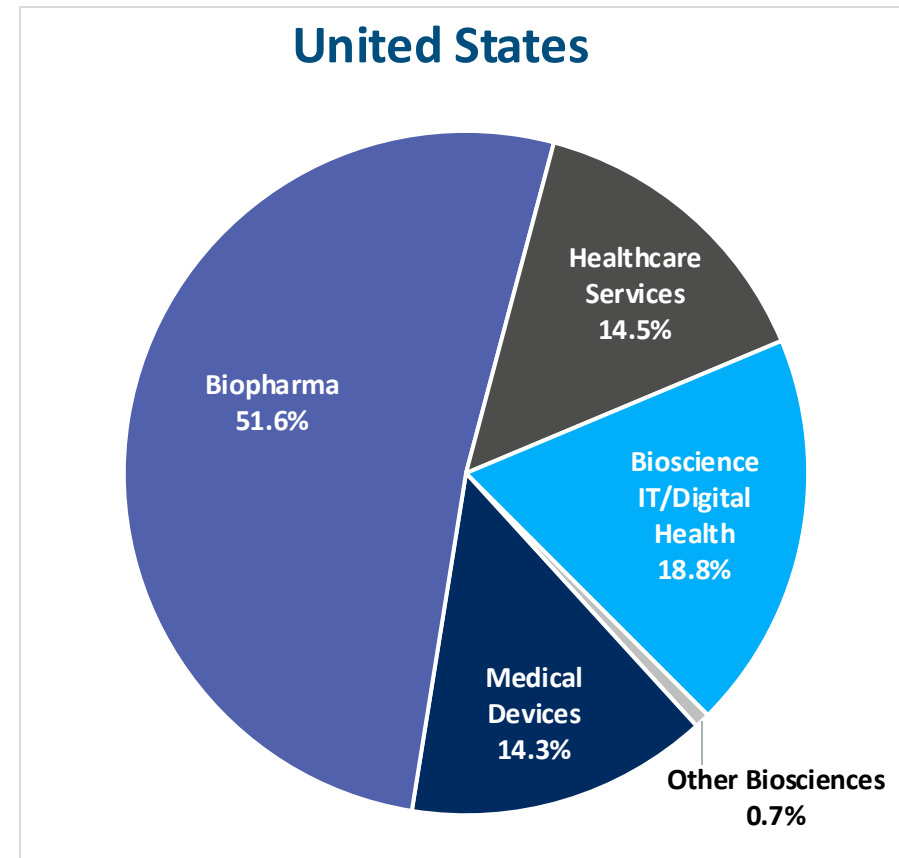
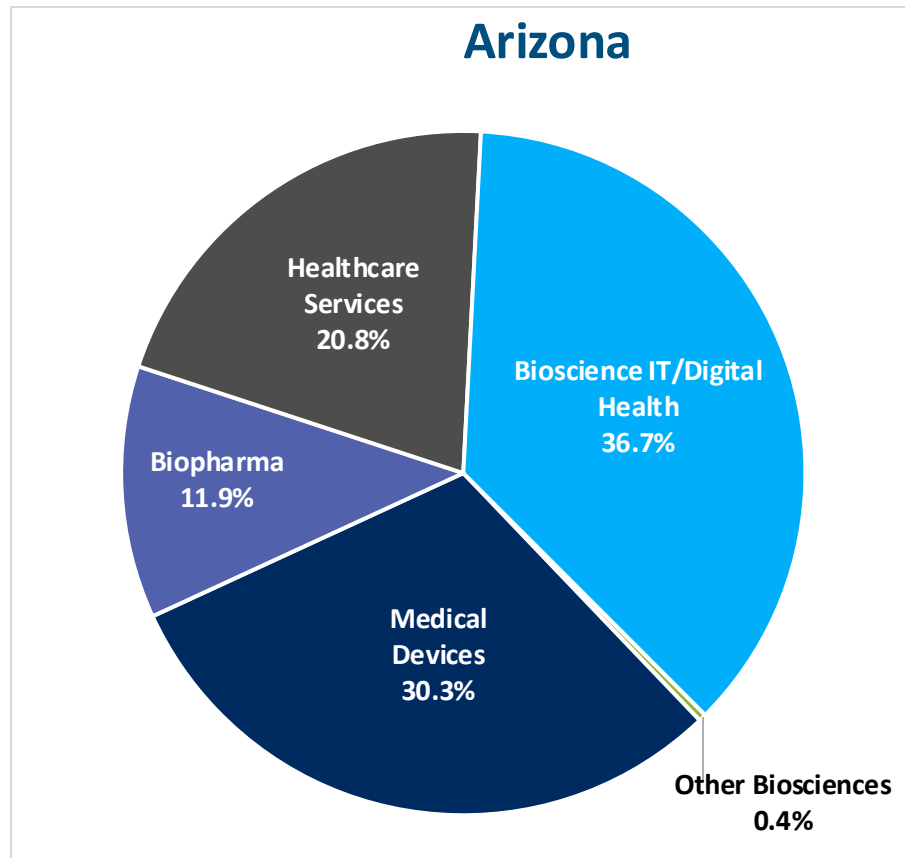


# Metric: Venture Capital

## Venture Capital Deals and Investment by Stage, 2020-2024



# Metric: Venture Capital Share of VC Investment by Bio-Related Segment, 2020-2024



Source: PitchBook Data with TEconomy Partners Calculations

# Metric: Venture Capital Leading Companies: 2020-2024

Company Name	Location	Description	Total Deals, 2020-24	Total Investment, 2020-24 (in Millions)
Nectero Medical	Tempe	developing treatment for aneurysmal disease	3	\$122.5
MedAvail	Phoenix	telehealth-enabled pharmacy tech	1	\$84.0
GT Medical Technologies	Tempe	developing a therapeutic device for treatment of brain tumors	2	\$61.0
eVisit	Mesa	virtual care platform	3	\$59.0
OncoMyx Therapeutics	Phoenix	developing oncolytic immunotherapies	1	\$50.0
Solera	Phoenix	digital healthcare delivery platform	1	\$48.0
Dot Compliance	Phoenix	AI-powered quality management system	2	\$47.5
Datavant	Phoenix	patient privacy platform	1	\$40.0
Tesis Biosciences	Phoenix	developing an integrated platform for genetic sequencing	2	\$39.0
Connections Health Solutions	Phoenix	behavioral healthcare services provider	1	\$32.5
Salucro	Tempe	healthcare payment processing platform	4	\$32.4
LifeGuides	Tempe	peer-to-peer telehealth mentorship platform	3	\$30.0

Not all companies that received funding during this period are currently operational.

Source: PitchBook Data with TEconomy Partners Calculations

# Summary of Bioscience Industry Metrics of Success

Metrics	Growth in AZ Since 2020	AZ Growth Relative to U.S.
Bio Industry Job Growth	↑	↑
Bio Average Wages	↑	↔
University Bio R&D Expenditures	↑	↑
NIH Funding	↑	↑
Bio University Tech Transfer	↔	N/A
Bio Risk Capital	↔	↑

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