

AI Data Trends in Michigan



About Lightcast

EMPLOYERS



SKILLS

EDUCATORS



COMMUNITIES

Lightcast is the world's leading authority on labor market trends, talent intelligence, and skills in demand.

Lightcast solutions, powered by our best-in-class data on jobs and skills, unlock new possibilities across the labor market. Our insights are used by global enterprises to create future-ready workforce strategies, by education institutions to prepare learners for successful careers, and by public sector leaders to develop thriving communities.



Our Data

Over 18 billion data points from over 215,000 sources, including:



Job Postings

Real-Time Demand

- Real-time view of who's hiring for what roles
- Details on skills, titles, and employers
- Tracks emerging occupations and shifting trends

1.1 Billion Global Postings

6.3 Million Companies



Professional Profiles

The Supply of Talent

- Shows real-world skills and experience
- Maps workforce movement and availability
- Reveals gaps between talent and demand

495 Million Global Profiles

242 Million Salary Observations



Taxonomies

Giving Structure to Unstructured Data

- Connects jobs, skills, and education
- Creates a common labor market language
- Adapts as new roles and skills emerge

34,000+ Skills

1,800+ Occupations





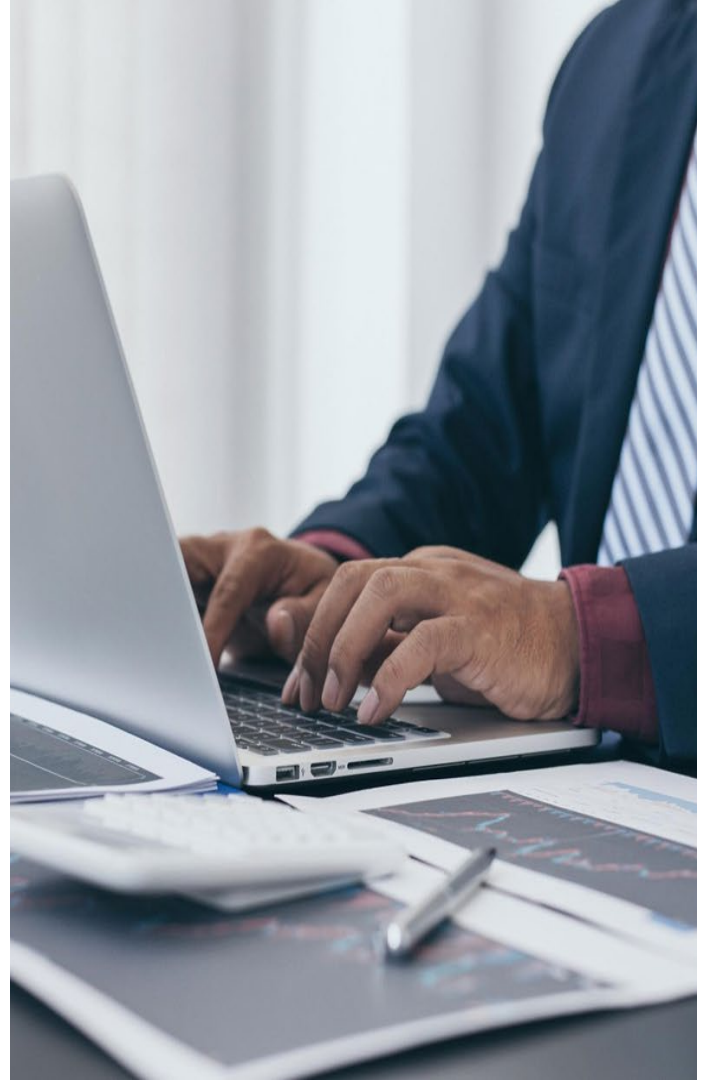
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- **Demographic Exposure**
- **Pipeline Analysis**
- **AI Skill Demand Growth**
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- **AI Skill Demand and Business Size**
- **Industry Deep Dive**
- **Companion Skills**
- **Vulnerable Programs**



Methodology

- Using AI job postings and professional profiles to learn about the AI landscape
 - Any unique job posting or unique profile with at least one AI skill listed between 2023-2025
 - AI skills are a group of skills Lightcast has tagged as AI relevant (i.e. machine learning, generative AI, etc.)
- Extra quality controls to remove false AI flags
 - Example: a job posting could mention, “*AI may not be used during the application process*”, yet because AI is mentioned, the posting is tagged as AI
- Sectors and occupation groups with small sample size (<50) are removed from analysis



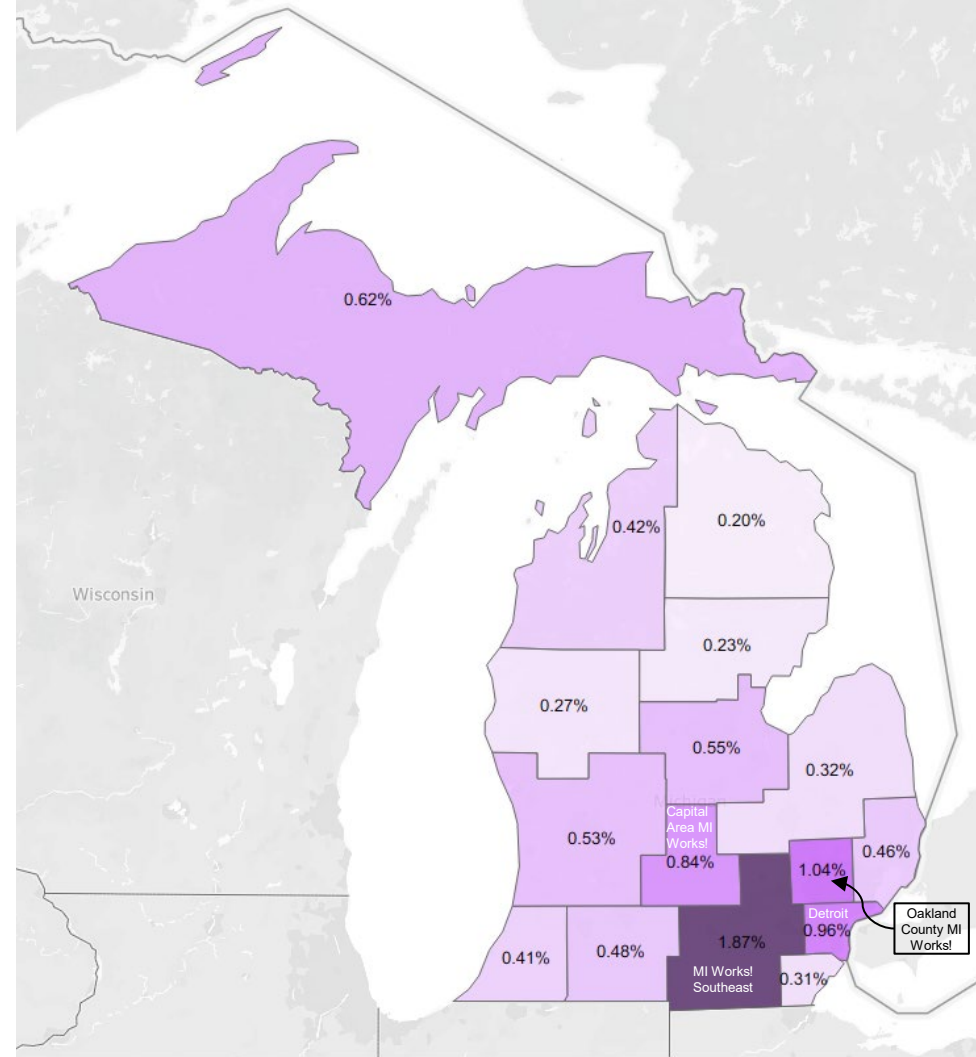
AI Adoption in Michigan

AI Job Demand & Supply of AI Talent



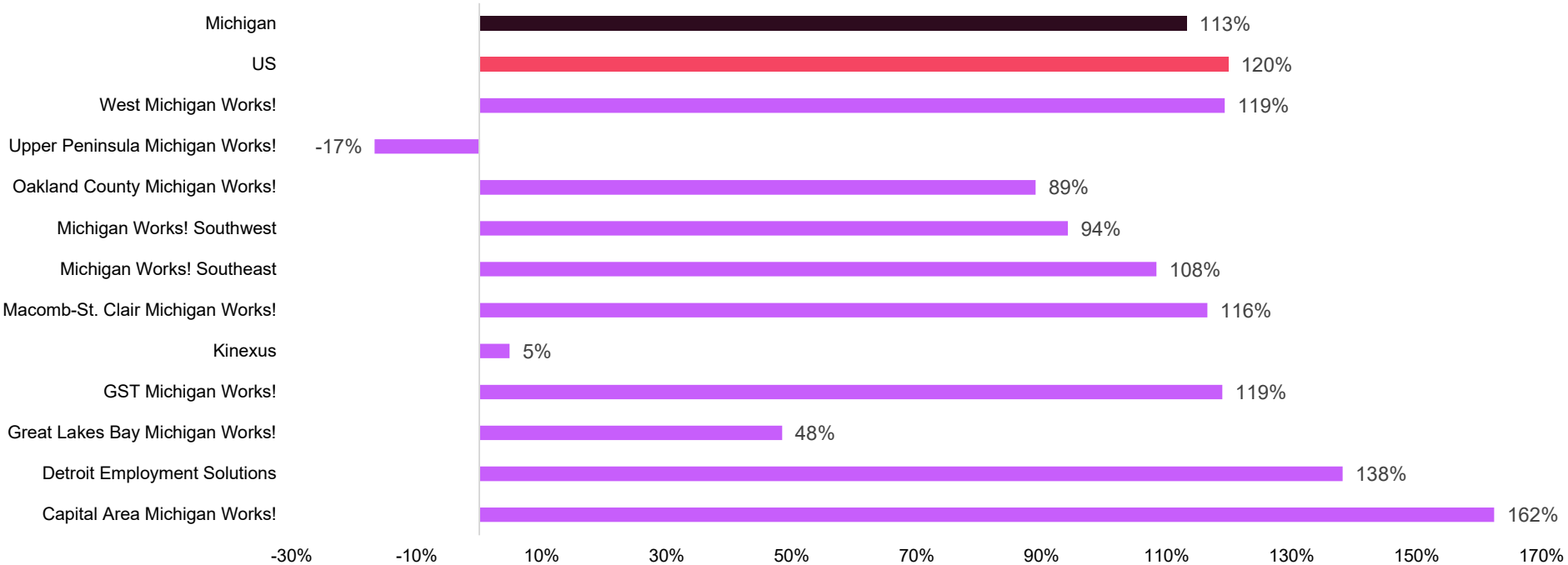
AI Adoption in Michigan

- Professional profiles with AI skills are concentrated in the southeastern part of Michigan:
 - Michigan Works! Southeast (1.87%)
 - Oakland County Michigan Works (1.04%)
 - Detroit Employment Solutions (.96%)
 - Capital Area Michigan Works! (.84%)
- .82% of Michigan profiles have an AI skill listed
- 1.25% of profiles in the US has an AI skill listed



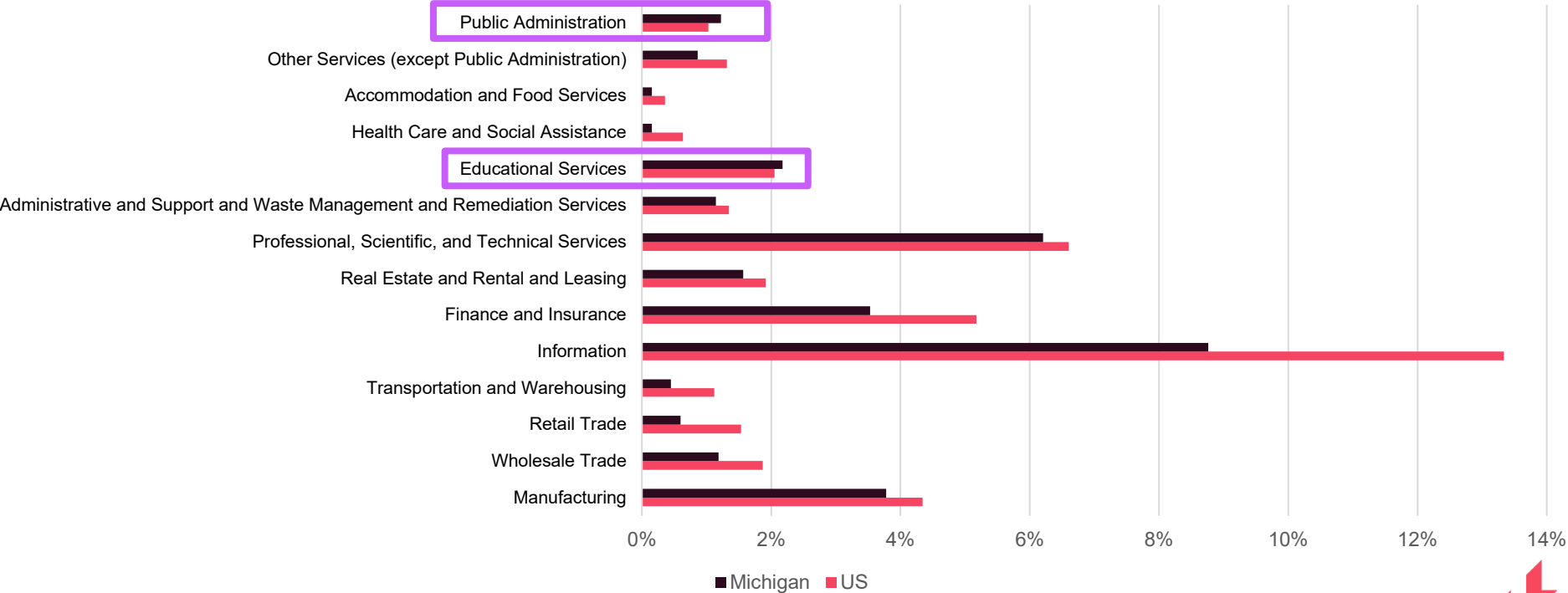
AI Job Demand has grown in Michigan since 2023

Percent Change in AI Demand Share 2023 to 2025



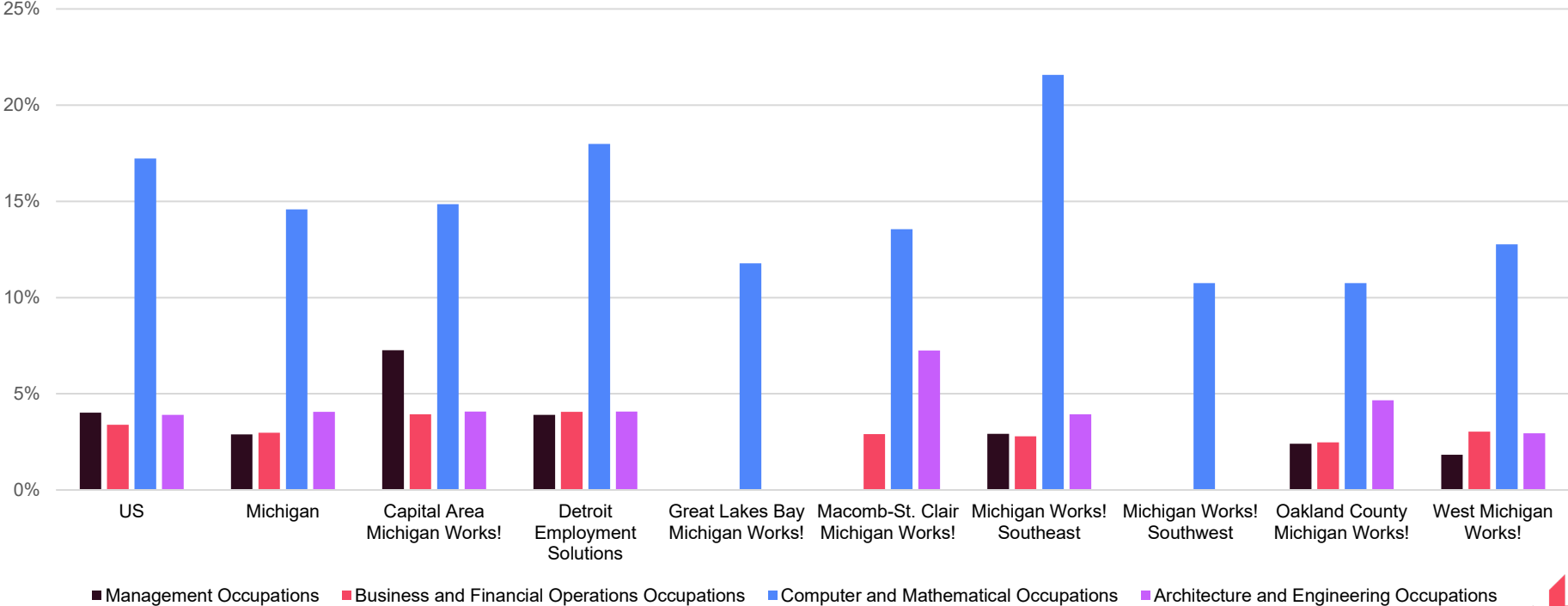
Michigan has higher AI demand in Public Administration and Educational Services, but largely lags the nation in AI demand

Percent of Job Posts with AI by Industry (2025)



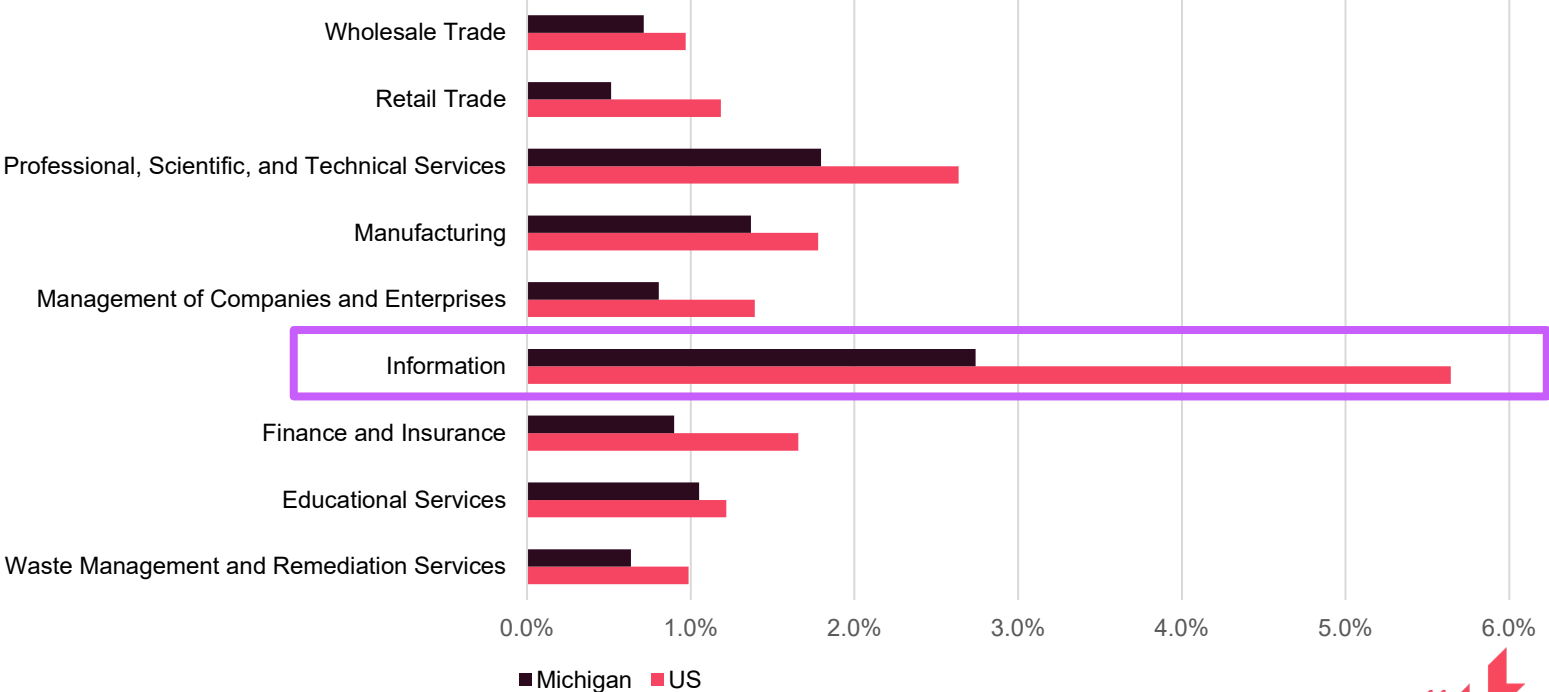
Computer and Mathematical occupations have the highest AI demand in Michigan and nationally

Percent of Job Posts with AI by Occupation groups (2025)



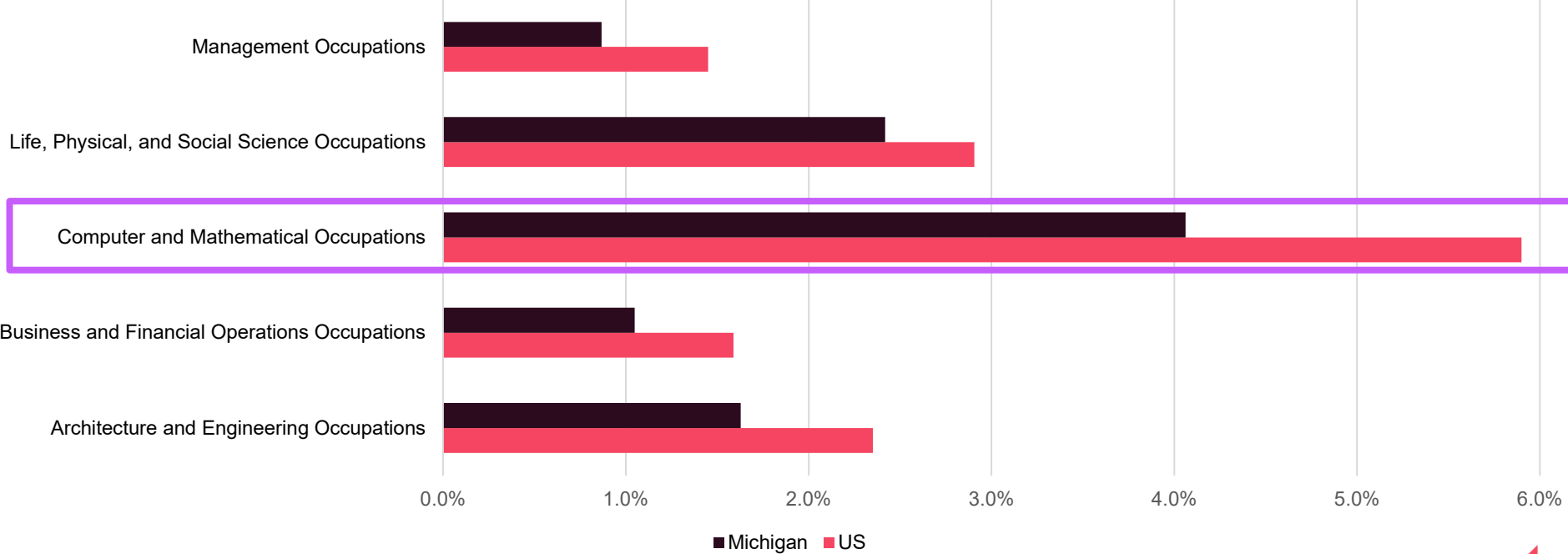
Michigan profiles lag the US average in profile signaling of AI skills across sectors, particularly in the Information industry

Share of Profiles with AI Skills by Industry



Similarly, Michigan profiles lag in signaling across all occupation groups, with a large gap in Computer and Mathematical occupations

Share of Profiles with AI Skills by Occupation



Profiles are slower to indicate AI skills adoption compared to job postings, both in Michigan and nationally...

AI Skill Name	MI Demand (job posts)	MI Profiles	Location Quotient
Artificial Intelligence	1.21%	0.30%	0.78
Machine Learning	0.62%	0.31%	0.79
Generative Artificial Intelligence	0.24%	0.07%	0.96
PyTorch (Machine Learning Library)	0.11%	0.02%	0.73
TensorFlow	0.10%	0.04%	0.79
Deep Learning	0.08%	0.07%	0.85
Large Language Modeling	0.07%	0.01%	0.66
Automation Systems	0.12%	0.03%	1.13
MLOps (Machine Learning Operations)	0.07%	0.01%	0.58
Chatbot	0.06%	0.02%	0.61
Scikit-Learn (Python Package)	0.06%	0.02%	0.50
Prompt Engineering	0.04%	0.01%	0.96

- A Location Quotient (LQ) reveals if Michigan has more or less of its share of a specific AI skill compared to the national average.

$$LQ = \frac{\text{MI's Share of Profiles with AI skill} / \text{MI's Share of Job Posts with AI skill}}{\text{US Share of Profiles with AI skill} / \text{US Share of Job Posts with AI skill}}$$

- LQ > 1.0 means Michigan's AI labor market is *relatively looser* than the national average.
- LQ < 1.0 means Michigan's AI labor market is *relatively tighter* than the national average.
- **Automation systems** is the only AI skill (in the top 12) where Michigan has a higher LQ than the US

Tech, Finance, and certain Manufacturing sectors lead adoption, while Health Care lags

Lagging demand, Leading worker signaling

Fabricated Metal Product Manufacturing
Sporting Goods, Hobby, Musical Instrument, Book, & Misc Retailers

Computing Infrastructure Providers, Data Processing, Web Hosting
Computer & Electronic Product Manufacturing
Web Search Portals, Libraries, Archives, & Other Info Services
Securities, Commodity Contracts, & Other Financial Investments
Credit Intermediation & Related
Insurance Carriers & Related
Professional, Scientific, & Technical Services
Transportation Equipment Manufacturing
Electrical Equipment, Appliance, & Component Manufacturing
Machinery Manufacturing
Chemical Manufacturing
Educational Services
Publishing Industries

Leading demand, Leading worker signaling

Lagging demand, Lagging worker signaling

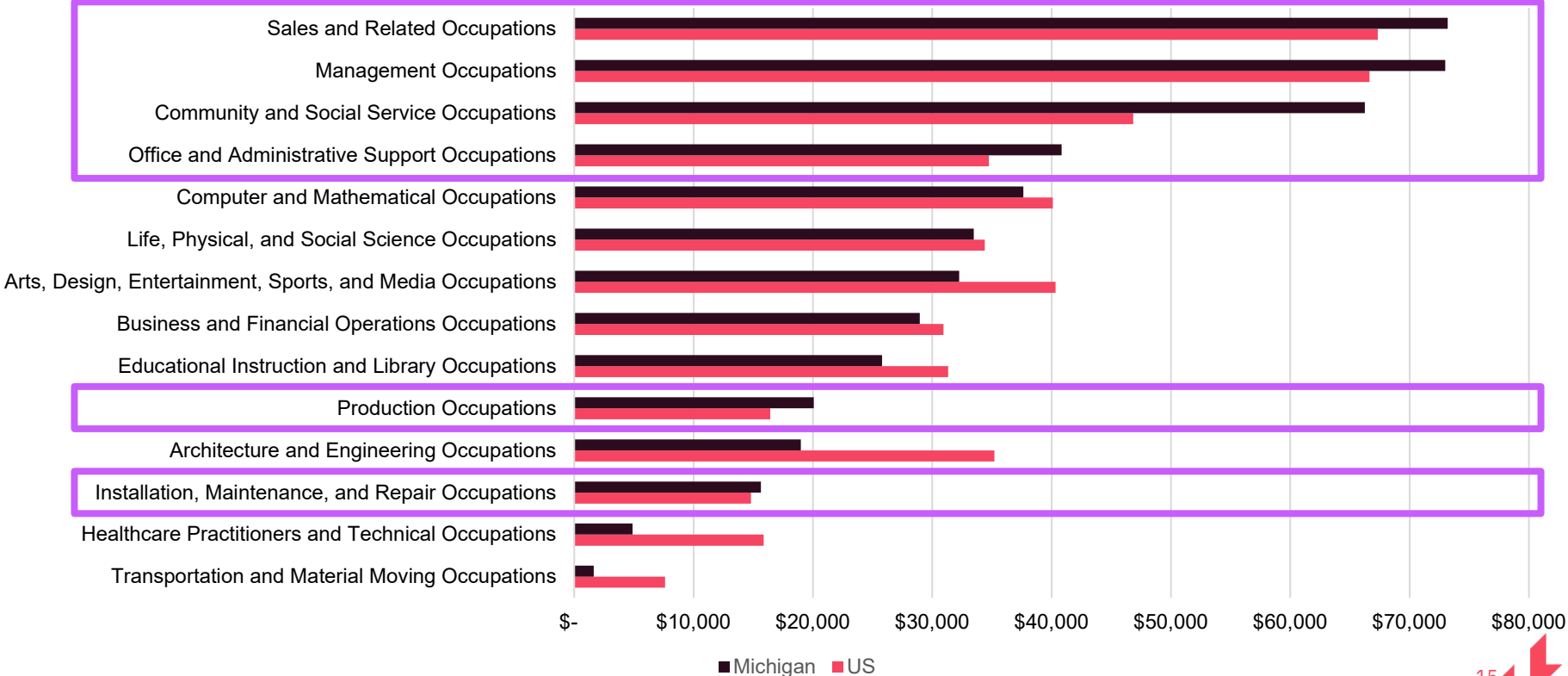
Health & Personal Care Retailers
Hospitals
Ambulatory Health Care Services
Social Assistance
Utilities
Misc. Manufacturing
Food Manufacturing
Construction of Buildings
Furniture, Home Furnishings, Electronics, & Appliance Retailers
Merchant Wholesalers – Durable Goods
Merchant Wholesalers – Nondurable Goods
Administrative & Support Services
Food & Beverage Retailers
Religious, Grantmaking, Civic, Professional, & Similar Orgs
Personal & Laundry Services
Specialty Trade Contractors
Truck Transportation
Food Services & Drinking Places

Furniture & Related Product Manufacturing
Telecommunications
Management of Companies & Enterprises
Justice, Public Order, & Safety Activities
Real Estate

Leading demand, Lagging worker signaling



Michigan has a higher salary premium on AI skills than the US average in a few occupation groups

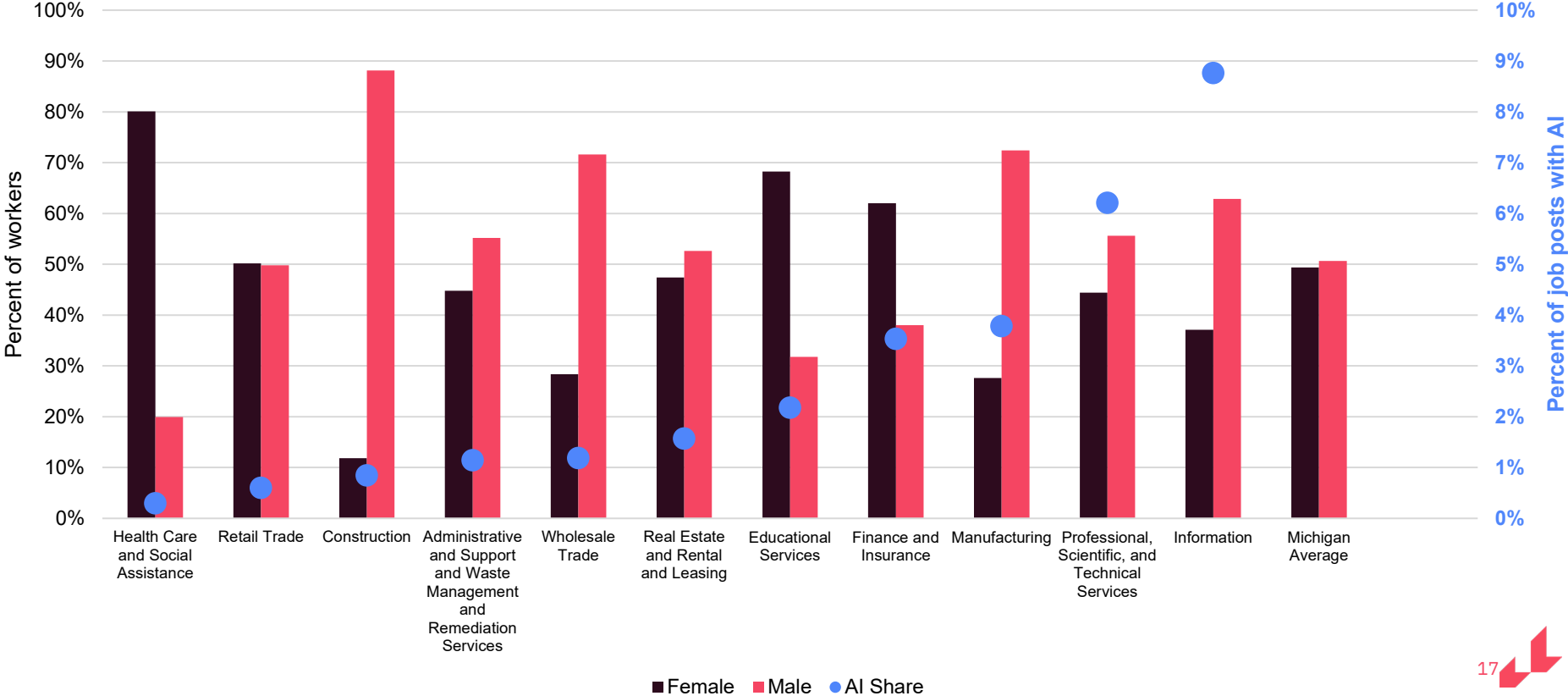


Demographics & AI

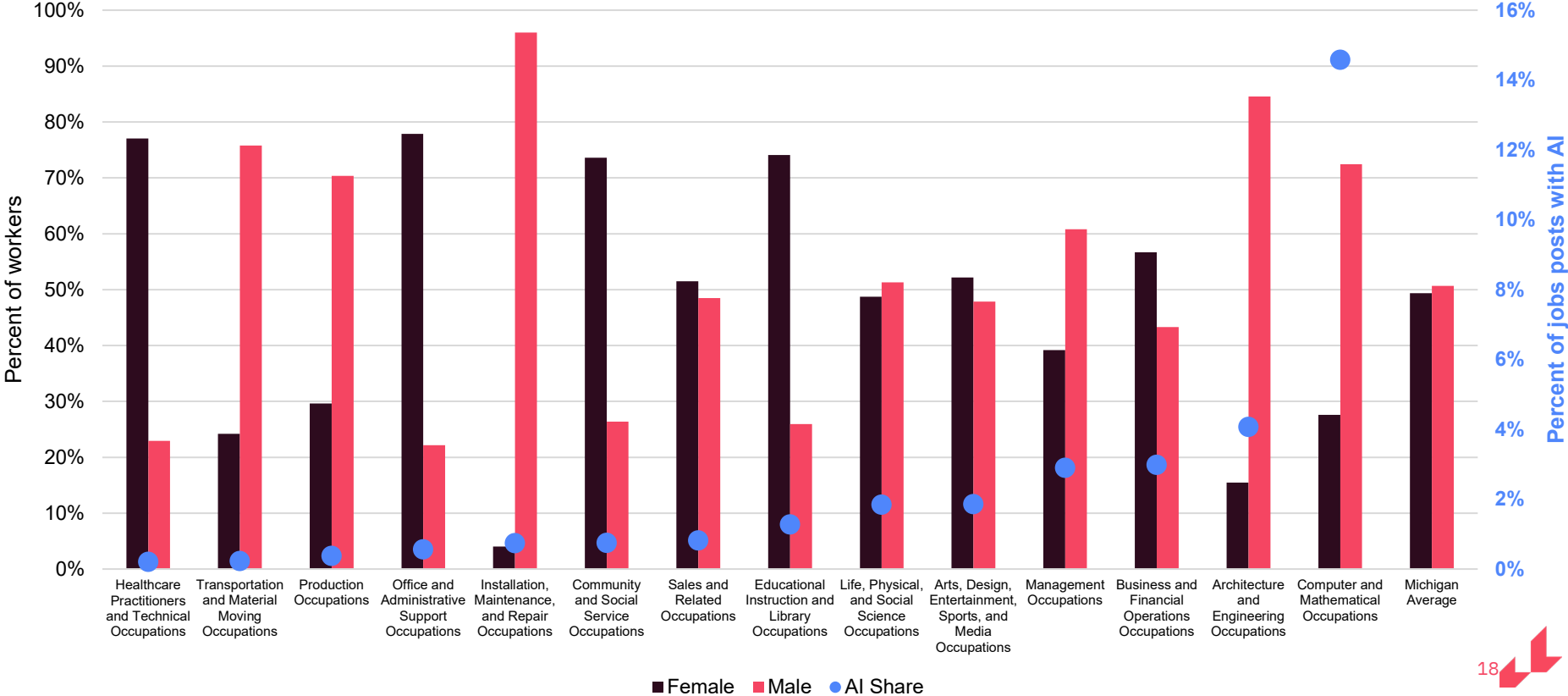
Demographics in Industries & Occupations with AI Skill Demand



Males are overrepresented in industries with higher AI demand, except Finance and Insurance



Likewise, males are overrepresented in occupations with higher AI demand, except Business and Financial Operations



Asians and Whites are overrepresented in industries with higher AI demand

Industry	Asian	Black or African American	Hispanic or Latino	White	AI Share of Jobs
Michigan Average	3.6%	12.3%	5.2%	76.3%	
Health Care and Social Assistance	3.9%	16.3%	4.2%	73.4%	0.3%
Retail Trade	2.6%	9.7%	4.9%	80.0%	0.6%
Construction	0.7%	3.8%	6.0%	87.0%	0.8%
Other Services (except Public Administration)	2.7%	9.4%	5.2%	79.9%	0.9%
Administrative and Support and Waste Management and Remediation Services	2.3%	20.5%	8.0%	66.5%	1.1%
Wholesale Trade	3.4%	6.5%	4.9%	83.6%	1.2%
Real Estate and Rental and Leasing	1.6%	10.9%	3.4%	82.3%	1.6%
Educational Services	3.7%	11.8%	4.0%	78.1%	2.2%
Finance and Insurance	3.0%	10.7%	3.6%	80.9%	3.5%
Manufacturing	4.0%	11.5%	6.4%	76.3%	3.8%
Professional, Scientific, and Technical Services	7.9%	8.3%	3.9%	77.9%	6.2%
Information	5.0%	10.1%	3.7%	78.8%	8.8%

Note: Purple shading means the demographic group is overrepresented by >1% in the industry relative to the state's average across all industries.

Asians and Whites are overrepresented in occupation groups with higher AI demand

Occupations	Asian	Black or African American	Hispanic or Latino	White	AI Share of Jobs
Michigan Average	3.6%	12.3%	5.2%	76.3%	
Healthcare Practitioners and Technical Occupations	5.9%	10.1%	3.3%	78.6%	0.2%
Transportation and Material Moving Occupations	2.0%	18.1%	6.5%	70.6%	0.2%
Production Occupations	3.8%	14.5%	7.3%	72.4%	0.4%
Office and Administrative Support Occupations	2.7%	12.6%	5.0%	77.1%	0.6%
Installation, Maintenance, and Repair Occupations	1.2%	7.6%	4.8%	84.2%	0.7%
Community and Social Service Occupations	2.0%	20.1%	4.7%	69.4%	0.7%
Sales and Related Occupations	2.6%	8.6%	4.4%	82.0%	0.8%
Educational Instruction and Library Occupations	4.9%	8.0%	3.4%	79.6%	1.3%
Life, Physical, and Social Science Occupations	8.1%	6.5%	3.3%	78.7%	1.8%
Arts, Design, Entertainment, Sports, and Media Occupations	3.0%	6.8%	4.1%	83.1%	1.9%
Management Occupations	3.3%	6.9%	3.4%	84.1%	2.9%
Business and Financial Operations Occupations	4.4%	10.1%	3.5%	79.4%	3.0%
Architecture and Engineering Occupations	8.7%	6.4%	3.3%	79.5%	4.1%
Computer and Mathematical Occupations	14.9%	8.8%	3.0%	70.6%	14.6%

Note: Purple shading means the demographic group is overrepresented by >1% in the occupation group relative to the state's average across all groups.

The 25 – 54 age group is overrepresented in industries with higher AI demand

Industry	14-18	19-21	22-24	25-34	35-44	45-54	55-64	65+	AI Share of Jobs
Michigan Average	3.3%	5.2%	5.9%	21.7%	20.4%	20.1%	17.6%	5.8%	
Retail Trade	6.4%	9.8%	7.6%	19.9%	17.1%	15.8%	15.9%	7.4%	0.6%
Construction	1.1%	3.9%	5.6%	20.5%	22.8%	21.3%	18.9%	5.9%	0.8%
Other Services (except Public Administration)	2.9%	4.9%	5.7%	17.8%	20.3%	18.5%	19.2%	10.6%	0.9%
Administrative and Support and Waste Management and Remediation Services	1.6%	5.9%	7.0%	23.1%	20.7%	18.9%	15.8%	6.9%	1.1%
Wholesale Trade	0.8%	2.4%	3.8%	20.1%	21.4%	23.2%	22.2%	6.1%	1.2%
Real Estate and Rental and Leasing	1.4%	2.9%	4.4%	19.1%	20.7%	20.8%	21.8%	8.8%	1.6%
Educational Services	2.6%	3.9%	4.7%	19.1%	22.2%	21.4%	17.2%	8.9%	2.2%
Finance and Insurance	0.3%	1.7%	4.7%	25.1%	22.9%	21.6%	18.6%	5.1%	3.5%
Manufacturing	0.6%	2.5%	4.0%	20.8%	21.0%	24.3%	22.4%	4.5%	3.8%
Professional, Scientific, and Technical Services	0.4%	1.8%	4.7%	23.5%	22.2%	22.0%	18.2%	7.2%	6.2%
Information	1.4%	3.0%	4.4%	24.8%	24.3%	22.5%	15.2%	4.4%	8.8%

Note: Purple shading means the demographic group is overrepresented by >1% in the industry relative to the state's average across all industries.

The 25 – 54 age group is overrepresented in occupations with higher AI demand

Occupations	14-18	19-21	22-24	25-34	35-44	45-54	55-64	AI Share of Jobs
Michigan Average	3.3%	5.2%	5.9%	21.7%	20.4%	20.1%	17.6%	
Healthcare Practitioners and Technical Occupations	0.2%	1.6%	4.4%	25.2%	25.2%	20.7%	17.5%	0.2%
Transportation and Material Moving Occupations	2.7%	6.6%	6.5%	20.8%	19.0%	19.4%	18.1%	0.2%
Production Occupations	0.7%	3.4%	4.6%	20.9%	20.6%	23.7%	21.4%	0.4%
Office and Administrative Support Occupations	1.3%	4.7%	5.9%	19.9%	18.6%	21.3%	21.0%	0.6%
Installation, Maintenance, and Repair Occupations	1.0%	3.5%	4.9%	20.0%	21.5%	22.8%	20.8%	0.7%
Community and Social Service Occupations	0.4%	2.0%	4.6%	23.8%	21.7%	19.6%	18.1%	0.7%
Sales and Related Occupations	6.0%	8.6%	6.8%	19.0%	17.2%	17.1%	17.3%	0.8%
Educational Instruction and Library Occupations	1.2%	4.3%	6.1%	21.2%	21.5%	21.4%	16.6%	1.3%
Life, Physical, and Social Science Occupations	0.3%	2.8%	6.1%	26.5%	22.1%	19.1%	16.5%	1.8%
Arts, Design, Entertainment, Sports, and Media Occupations	2.6%	4.4%	5.5%	23.5%	22.3%	17.8%	14.4%	1.9%
Management Occupations	0.2%	0.7%	1.9%	17.2%	25.2%	26.0%	21.7%	2.9%
Business and Financial Operations Occupations	0.2%	1.2%	4.4%	24.4%	22.9%	21.8%	18.6%	3.0%
Architecture and Engineering Occupations	0.1%	1.2%	4.5%	24.5%	20.8%	22.7%	20.9%	4.1%
Computer and Mathematical Occupations	0.3%	1.6%	4.5%	28.7%	26.6%	21.4%	14.2%	14.6%

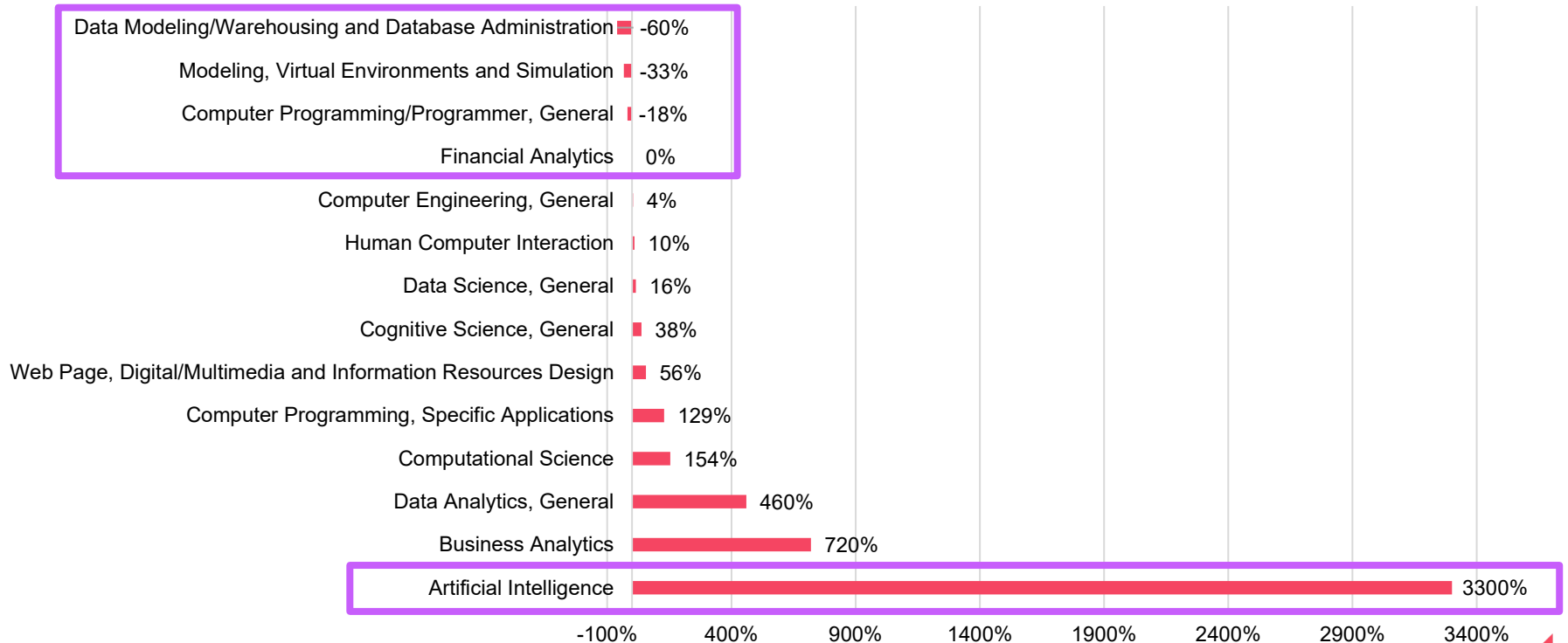
Note: Purple shading means the demographic group is overrepresented by >1% in the occupation group relative to the state's average across all groups.

Examining Michigan's Pipeline

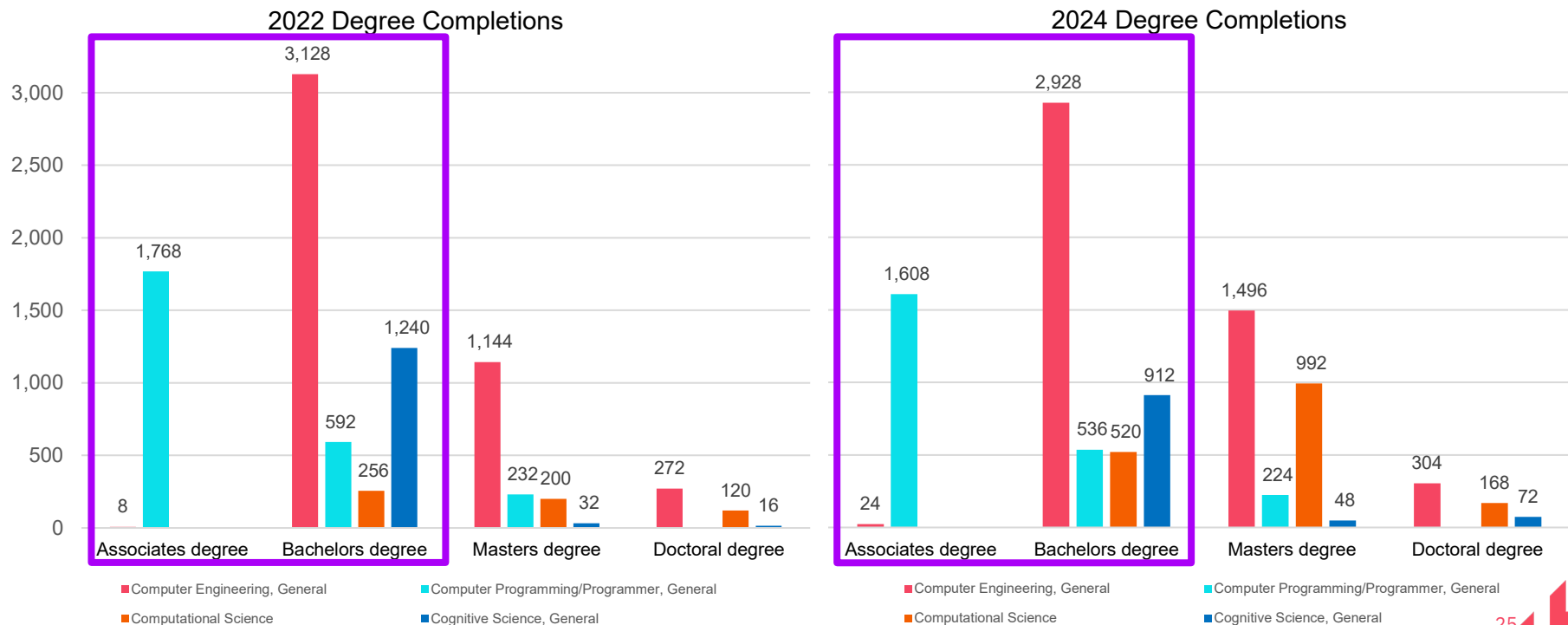
Higher Education & Workforce Development in the AI era



From 2022 to 2024, AI-related degree & certification completions grew in Michigan, except in a few areas...



AI-related completions decreased at the Associates/Bachelors level, but increased in the Masters/PhD level; computational science grew across all degrees



Recent graduates are Michigan's AI trailblazers, signaling these skills at a higher rate than the established workforce

Analyzed skill profiles of recent graduates from Michigan institutions and compared it to AI skill demand in Michigan

Occupations	AI Skill Demand	AI Skill Supply (new grads)	AI Skill Supply (MI workforce)
Computer and Mathematical Occupations	14.4%	16.0%	4.1%
Life, Physical, and Social Science Occupations	3.0%	11.6%	2.4%
Educational Instruction and Library Occupations	1.3%	7.9%	0.8%
Architecture and Engineering Occupations	4.5%	6.0%	1.6%
Business and Financial Operations Occupations	3.0%	5.6%	1.0%
Management Occupations	2.9%	5.4%	0.9%
Arts, Design, Entertainment, Sports, and Media Occupations	1.8%	2.8%	0.7%
Community and Social Service Occupations	0.7%	2.1%	0.3%
Installation, Maintenance, and Repair Occupations	0.7%	1.9%	0.3%
Production Occupations	0.4%	1.7%	0.2%
Office and Administrative Support Occupations	0.6%	1.7%	0.3%
Legal Occupations	2.2%	1.5%	0.3%
Sales and Related Occupations	0.8%	1.5%	0.4%
Transportation and Material Moving Occupations	0.2%	1.3%	0.1%
Healthcare Practitioners and Technical Occupations	0.2%	1.2%	0.1%
Construction and Extraction Occupations	0.5%	1.0%	0.1%
Food Preparation and Serving Related Occupations	0.2%	0.6%	0.1%
Healthcare Support Occupations	0.1%	0.5%	0.1%

- There's a disproportionate concentration/signaling of AI skills among recent graduates
- There is a larger share of recent graduates with AI skills than share of AI job postings in Michigan....
- ...except in legal occupations
- Recent graduates may not be working in their field/occupation of study immediately after graduating



Workforce Development: >12% of credentials are linked to highly AI-exposed occupations

- Analyzed > 2,000 Michigan Eligible Training Provider List (ETPL) programs → calculated an AI exposure score for each credential based on the related occupations and to what extent AI can augment or perform the skills required by the occupation

AI Exposure Score	Program Count	Percent
Below 4.0	406	19.2%
4.0 - 5.0	642	30.4%
5.0 - 6.0	405	19.2%
6.0 - 6.45	385	18.2%
6.45 - 7.0 (High)	232	11.0%
7.0+ (High)	41	1.9%

- 49.6% of programs score below 5.0
- Office and Administrative Support** is the most AI-exposed occupation family across the ETPL
- Healthcare** dominates the ETPL by volume (1/3 programs) but sits well below the exposure threshold (6.45)

AI is absent from the majority of workforce development programs that are tied to highly AI-exposed occupations

- ~270 programs on MI's ETPL have AI exposure scores of 6.45+ → reviewed curriculum-level AI readiness via analysis of provider program pages and curricula, where available

AI Integration	Percent
No AI Mentioned in Program	81.6%
AI Mentioned in Program	11.7%
AI Taught in Program	3.9%
AI Central to Program	2.7%

- Among the credentials that should reflect AI skills, **82%** have no AI content mentioned
- **17 credentials** have AI actively embedded within the curriculum (mostly all Computer and Mathematical occupations)
- Computer and Mathematical occupations represent **~43% of high exposure programs** (*many have incorporated AI*)
- Office and Administrative Support occupations represent **~30% of high exposure programs** (*none mention teaching AI in program*)
- Business and Financial Operations occupations represent **~16% of high exposure programs**

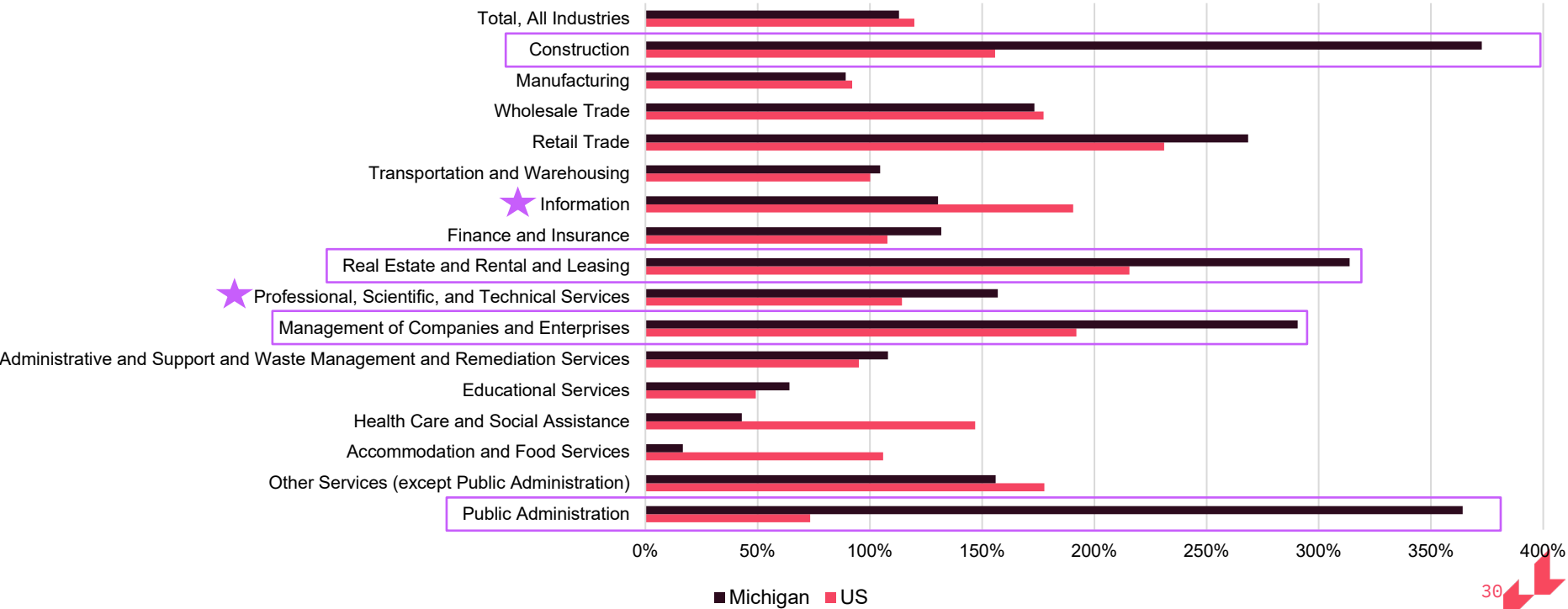
AI Growth in Michigan

AI Skill Demand Growth from 2023 to 2025



In two years, Michigan has experienced relative growth in AI skill demand, especially in Construction and Public Administration

Relative Growth: Percent Change in AI Demand Share by Industry (2023-2025)

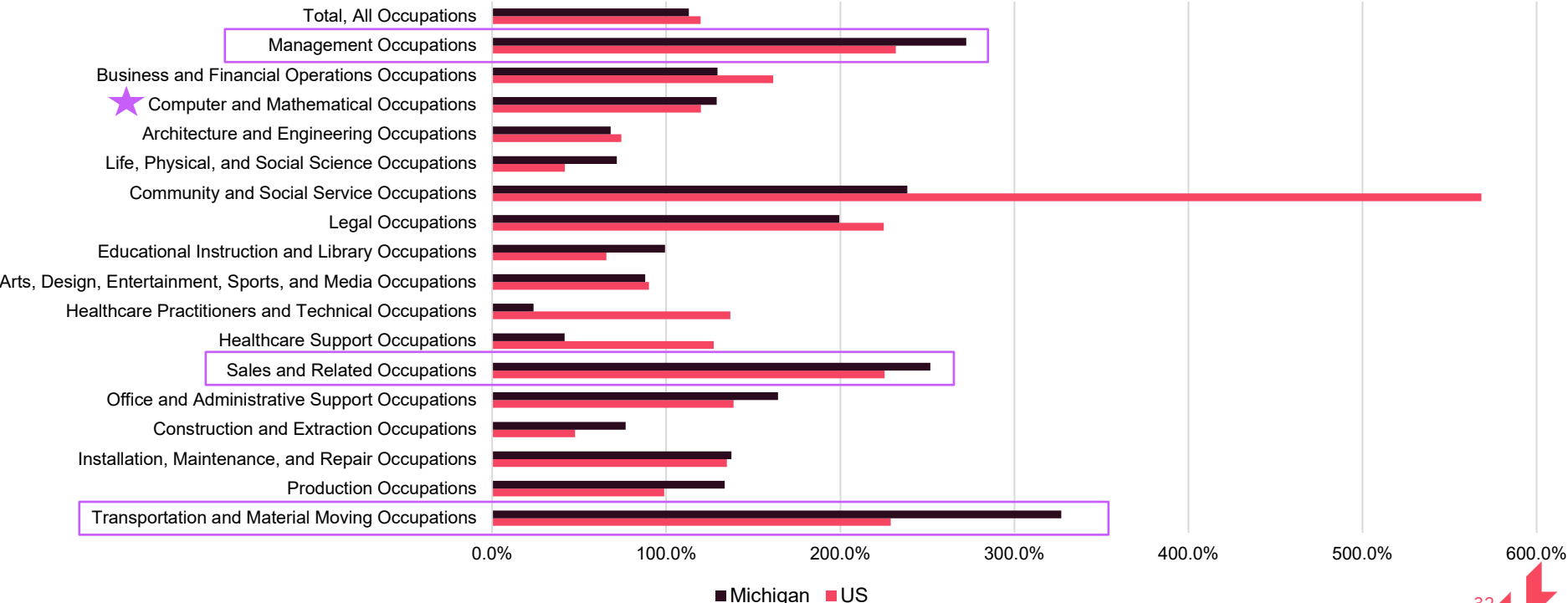


Mapping Sector Momentum against the State Benchmark



Similarly, Michigan has experienced relative growth in AI skill demand in certain occupation groups....

Relative Growth: Percent Change in AI Demand Share by Occupation (2023-2025)



Mapping Occupational Momentum against the State Benchmark



Bubble size represents # of total job postings in 2025

High-Exposure Occupations

Occupations Susceptible to AI Disruption



What is AI Exposure?

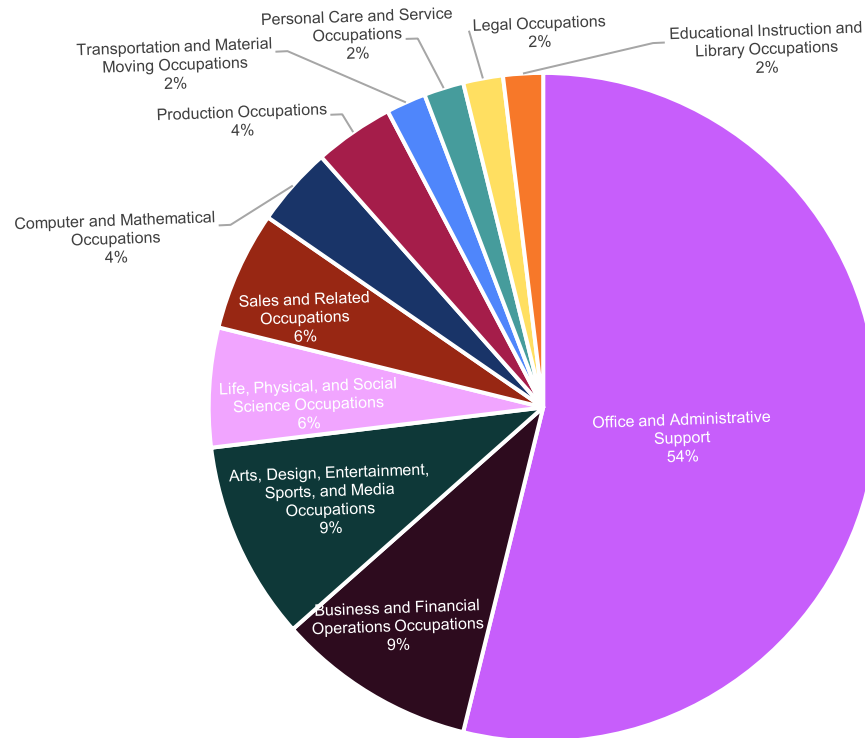
- Lightcast defines AI exposure as a measure of how significantly artificial intelligence—particularly large language models (LLMs) and generative AI—can impact or automate specific tasks within an occupation.
 - Lightcast has an AI exposure rating (low, medium, high) for every skill in the Lightcast Skills Taxonomy
 - Carpentry: low
 - Grant Writing: high
 - Lightcast assesses the mix of skills for each occupation to give the occupation an overall AI exposure score, which corresponds to an exposure rating of high, medium, or low
- Rather than predicting job displacement, Lightcast uses this to assess the potential for **augmentation** (enhancing work) **or automation** (replacing work).

~441K Michigan workers face high AI exposure

Roughly **10%** of the state's total workforce is concentrated in **high-exposure** occupations



AI is set to impact skills in the **Office and Administrative Support** occupation group more than any other; **54%** of the high-exposure occupations are in this group...



...and it has a large share of workers: **89%** of workers employed in a high-exposure occupation are employed in Office and Administrative Support occupations

High Risk Occupation Groups	Share of Michigan High-Exposure Workforce
Office and Administrative Support Occupations	88.90%
Sales and Related Occupations	3.51%
Business and Financial Operations Occupations	3.21%
Legal Occupations	1.66%
Arts, Design, Entertainment, Sports, and Media Occupations	1.08%
Transportation and Material Moving Occupations	0.61%
Personal Care and Service Occupations	0.26%
Life, Physical, and Social Science Occupations	0.26%
Production Occupations	0.24%
Computer and Mathematical Occupations	0.24%
Educational Instruction and Library Occupations	0.04%

Within the top 10 high-exposure list, Office and Administrative Support occupations dominate....

Top 10 High-Exposure Occupations	Occupation Group
Data Entry Keyers	Office and Administrative Support Occupations
Office Clerks, General	Office and Administrative Support Occupations
Switchboard Operators, Including Answering Service	Office and Administrative Support Occupations
Jewelers and Precious Stone and Metal Workers	Production Occupations
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	Office and Administrative Support Occupations
File Clerks	Office and Administrative Support Occupations
Survey Researchers	Life, Physical, and Social Science Occupations
Editors	Arts, Design, Entertainment, Sports, and Media Occupations
Dispatchers, Except Police, Fire, and Ambulance	Office and Administrative Support Occupations
Travel Agents	Sales and Related Occupations

Of all high-exposure occupations with at least 10,000 employed, 78% are concentrated within **Office and Administrative Support...**

High- Exposure Occupations with >10,000 employed	Occupation Group	Employed in occupation (2025)
Office Clerks, General	Office and Administrative Support Occupations	88,132
Customer Service Representatives	Office and Administrative Support Occupations	68,581
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	Office and Administrative Support Occupations	42,436
First-Line Supervisors of Office and Administrative Support Workers	Office and Administrative Support Occupations	30,947
Medical Secretaries and Administrative Assistants	Office and Administrative Support Occupations	27,524
Human Resources Specialists	Business and Financial Operations Occupations	26,403
Receptionists and Information Clerks	Office and Administrative Support Occupations	24,498
Billing and Posting Clerks	Office and Administrative Support Occupations	13,970
Counter and Rental Clerks	Sales and Related Occupations	11,649

Small & Medium Enterprises

AI Skill Demand by Business Size*

**Business size (small/medium vs. large) is categorized based on historical job posting volume, where companies with fewer than 1,500 total postings over a 10-year period are classified as small/medium.*



Small/medium business dominate AI skill demand growth in **Management, Construction and Healthcare, but large firms still hold the advantage in scaling AI within technical sectors like Information and Real Estate.**

NAICS Industry	2025 AI Demand	2025 AI Demand	2025 Total AI Job Postings	2025 Total AI Job Postings	Relative Growth 2023-2025	Relative Growth 2023-2025
	Small/Medium	Large	Small/Medium	Large	Small/Medium	Large
Accommodation and Food Services	0.2%	0.1%	41	50	43.1%	0.8%
Administrative and Support and Waste Management and Remediation Services	1.4%	0.9%	774	934	150.4%	70.8%
Construction	1.0%	0.7%	166	9	323.1%	117.7%
Educational Services	1.3%	2.8%	241	780	81.7%	66.3%
Finance and Insurance	1.6%	4.5%	202	1,197	112.6%	134.9%
Health Care and Social Assistance	0.3%	0.3%	223	289	261.2%	8.0%
Information	6.4%	10.1%	399	1,107	78.1%	154.1%
Management of Companies and Enterprises	2.3%	2.1%	42	57	1853.9%	163.3%
Manufacturing	2.0%	10.6%	494	3004	100.1%	70.6%
Other Services (except Public Administration)	0.8%	0.9%	130	89	179.7%	128.3%
Professional, Scientific, and Technical Services	4.0%	10.1%	1,699	3,599	125.0%	188.6%
Real Estate and Rental and Leasing	0.7%	2.7%	68	205	91.6%	571.7%
Retail Trade	1.0%	0.5%	273	417	216.0%	319.2%
Transportation and Warehousing	0.4%	0.6%	59	59	75.6%	179.6%
Wholesale Trade	1.0%	1.7%	139	280	157.5%	189.0%

While large business focus AI recruitment in engineering roles, small/medium appear to be scaling practical application across the organization – outpacing large business in AI skill demand growth in Sales, Healthcare, Management, and Tech roles....

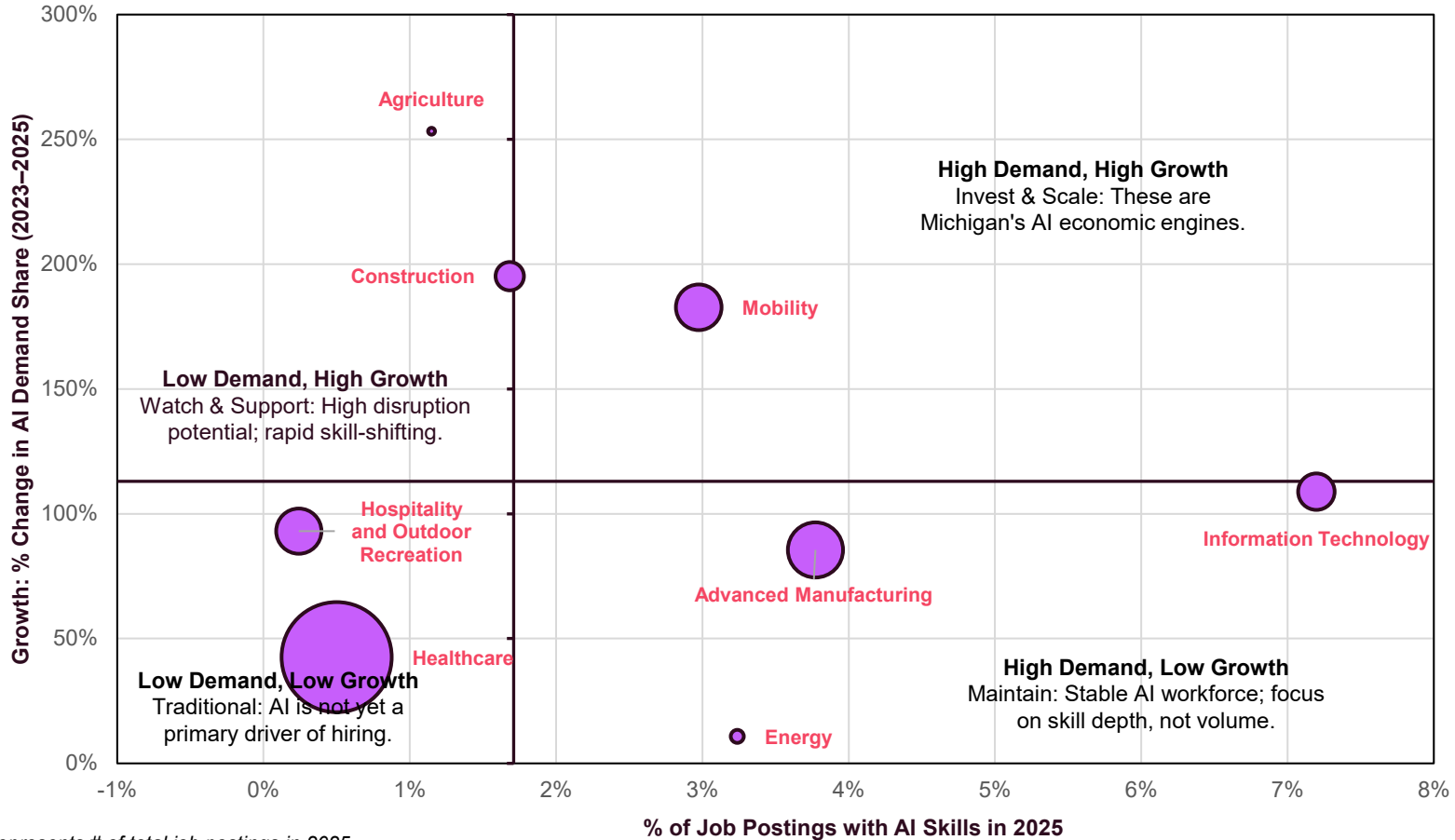
Occupation Groups	2025 AI Demand	2025 AI Demand	2025 Total AI Job Postings	2025 Total AI Job Postings	Relative Growth 2023-2025	Relative Growth 2023-2025
	Small/Medium	Large	Small/Medium	Large	Small/Medium	Large
Architecture and Engineering	4.1%	7.0%	387	830	52.8%	80.1%
Arts, Design, Entertainment, Sports, and Media	1.9%	2.1%	207	226	60.1%	91.0%
Business and Financial Operations	2.5%	4.0%	568	1,273	114.3%	111.3%
Computer and Mathematical	11.6%	22.1%	1,918	5,633	153.2%	104.5%
Construction and Extraction	0.3%	1.6%	26	58	74.3%	138.0%
Educational Instruction and Library	1.0%	1.9%	141	267	126.0%	106.3%
Healthcare Practitioners and Technical	0.3%	0.17%	187	171	390.4%	-26.3%
Installation, Maintenance, and Repair	0.9%	0.9%	185	154	62.2%	287.6%
Legal	1.4%	5.2%	38	79	216.9%	231.0%
Life, Physical, and Social Science	1.5%	2.1%	69	151	252.4%	17.8%
Management	2.5%	4.5%	824	2,036	271.8%	250.4%
Office and Administrative Support	0.5%	0.8%	153	222	145.2%	156.9%
Production	0.5%	0.5%	88	76	143.6%	100.0%
Sales and Related	1.0%	1.0%	374	538	514.5%	126.0%
Transportation and Material Moving	0.2%	0.3%	64	82	320.9%	396.2%

Industry Deep Dive

AI Skill Exposure in Michigan's 8 Priority Industries



Mapping Momentum in Michigan's 8 Priority Sectors



Healthcare has the greatest share of workers (13.7%) in a high exposure occupation

Analyzed the top 25 occupations in each industry and the corresponding 2025 employment levels:

Michigan Industry	High Exposure	Medium Exposure	Low Exposure
Advanced Manufacturing	1.5%	90.6%	2.7%
Agriculture	1.7%	87.1%	0.0%
Construction	7.6%	77.8%	14.5%
Energy	6.1%	81.6%	9.9%
Healthcare	13.7%	44.8%	41.5%
Hospitality and Outdoor Recreation	0.6%	98.3%	1.1%
Information Technology	9.1%	90.9%	0.0%
Mobility	3.9%	93.2%	1.4%

Note: Some industries do not add to 100% since certain occupations were not classified due to low sample size.

While Michigan’s large businesses anchor long-term AI scale, small/medium are driving the growth in demand for AI skills, particularly in **Construction, Energy, and Hospitality hiring**

Priority Sectors	2025 AI Demand	2025 AI Demand	2025 Total AI Job Postings	2025 Total AI Job Postings	Relative Growth 2023-2025	Relative Growth 2023-2025
	Small/Medium	Large	Small/Medium	Large	Small/Medium	Large
Advanced Manufacturing	1.4%	5.4%	523	3,101	78.7%	81.6%
Agriculture	0.7%	1.6%	52	75	187.9%	272.2%
Construction	1.4%	2.4%	503	307	236.8%	171.1%
Energy	1.0%	5.8%	115	583	124.5%	3.7%
Healthcare	0.4%	0.6%	258	688	152.7%	34.5%
Hospitality and Outdoor Recreation	0.4%	0.1%	125	62	175.5%	17.5%
Information Technology	4.8%	9.3%	1,419	3,069	91.4%	113.3%
Mobility	1.0%	4.2%	302	2,028	145.6%	173.6%

AI Disruptive Skills Matrix

Provides a high-level view of the projected change in demand (y-axis) and cost of skills/value (x-axis) over the next two years. Skills are color-coded for AI exposure (high, medium, low)

Escalators

Rapidly rising trend to prepare for

- Low cost to hire
- Moderate need for new training programs
- Moderate risk to future productivity

Disruptors

Explosive new differentiator

- High cost to hire
- Strong need for new training programs
- High risk to future productivity

Stabilizers

Mandatory baseline for employment

- Low cost to hire
- Weak need for new training programs
- Low risk to future productivity

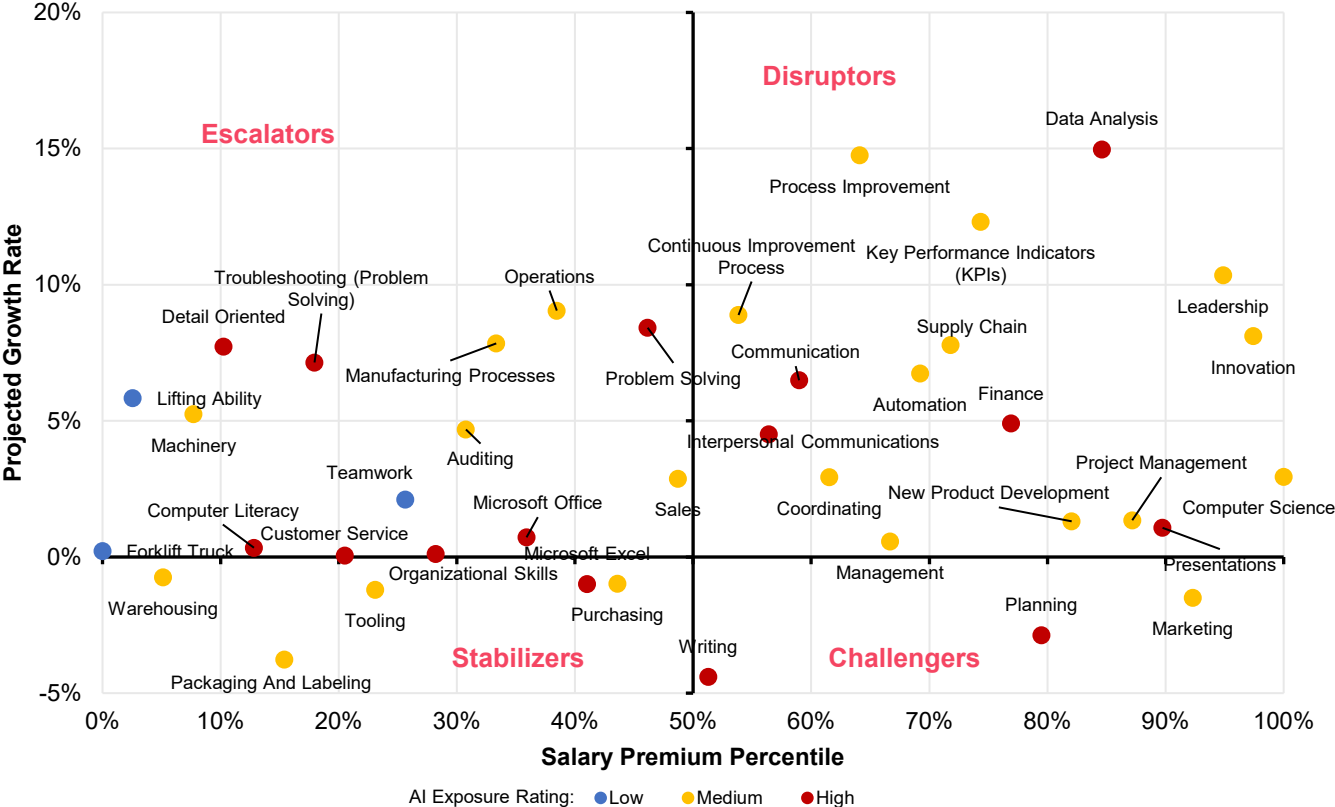
Challengers

Highly paid but maturing niche asset

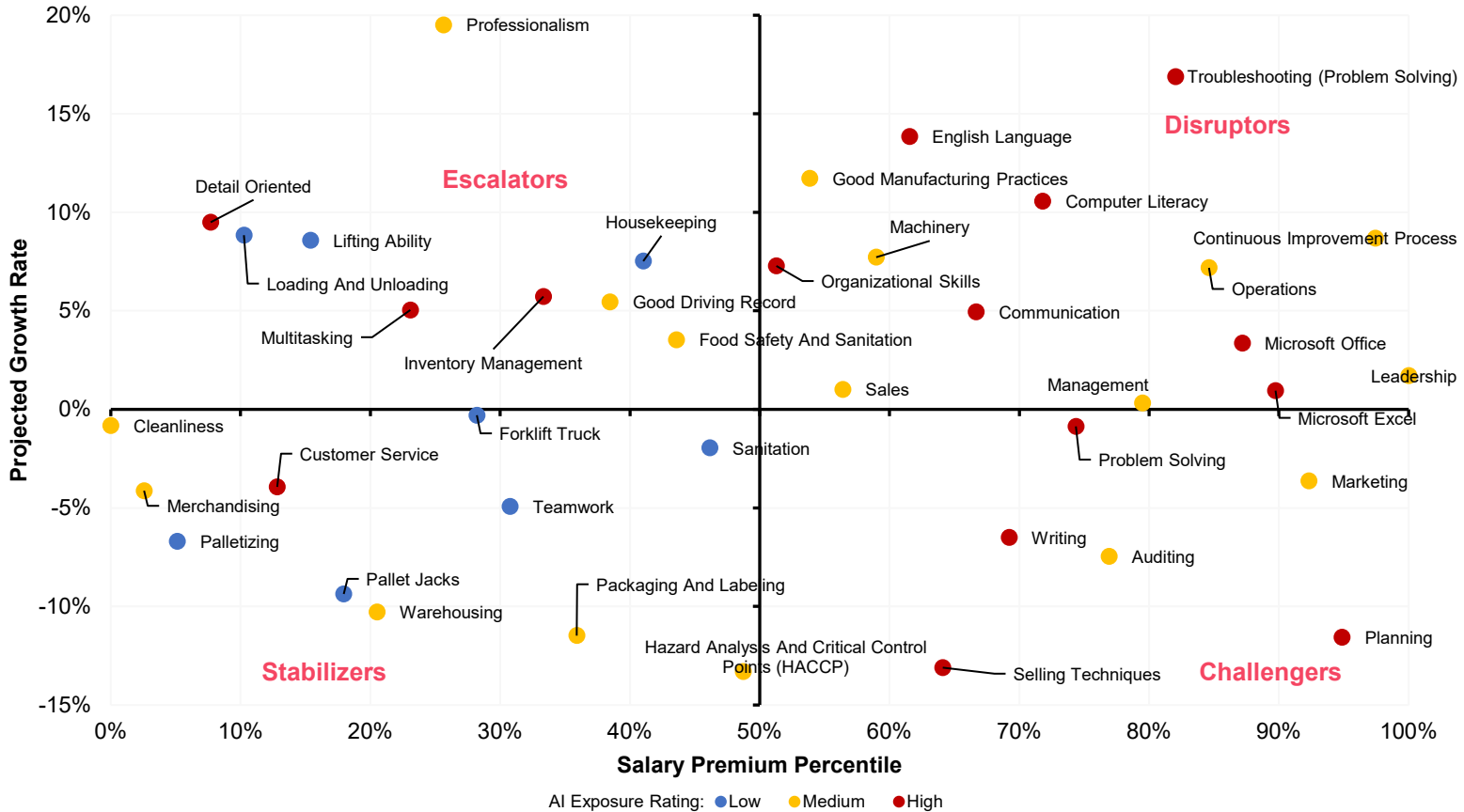
- High cost to hire
- Moderate need for new training programs
- Moderate risk to future productivity



Advanced Manufacturing: High premium on data literacy and soft skills; traditional manual skills and baseline technical skills are declining in demand



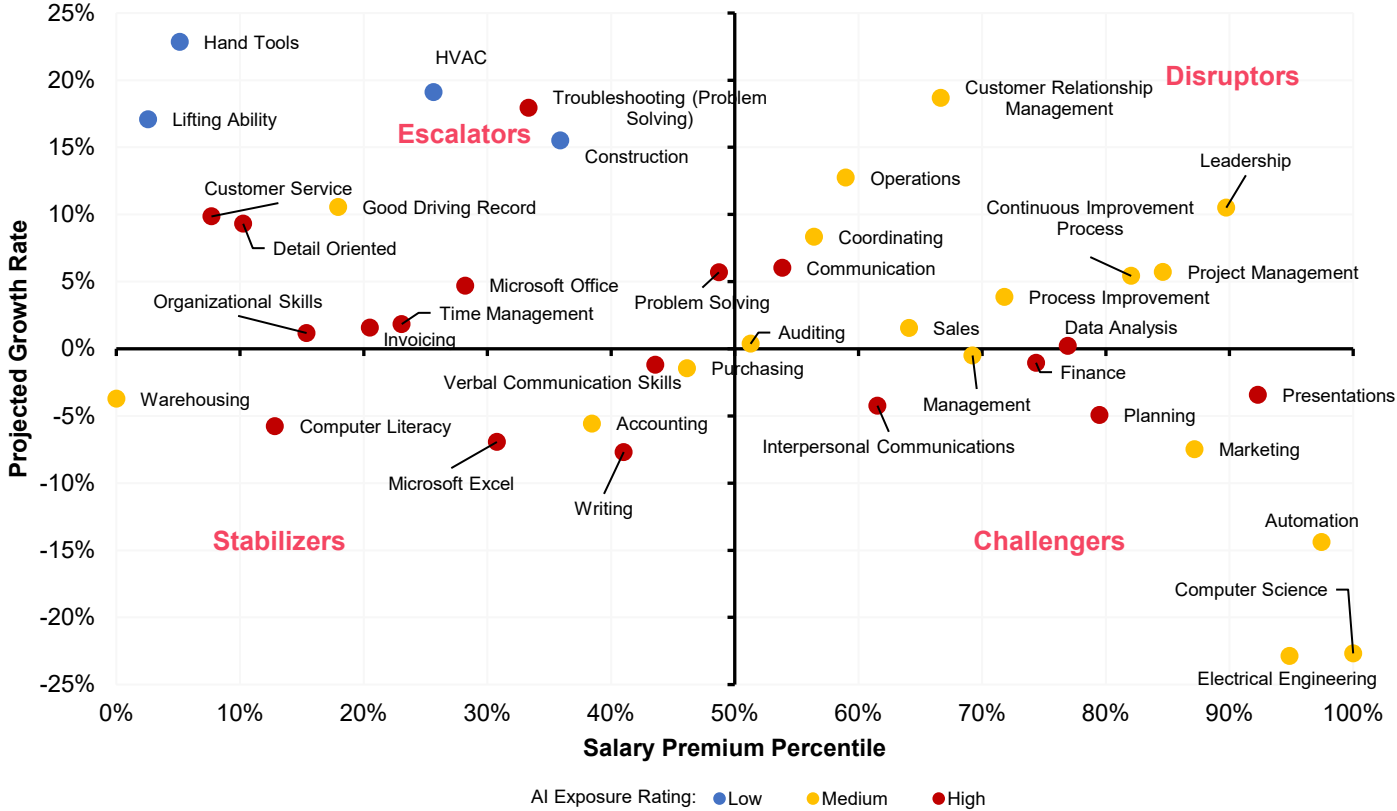
Agriculture: Premium on troubleshooting and operations, while traditional manual handling and packaging skills are declining



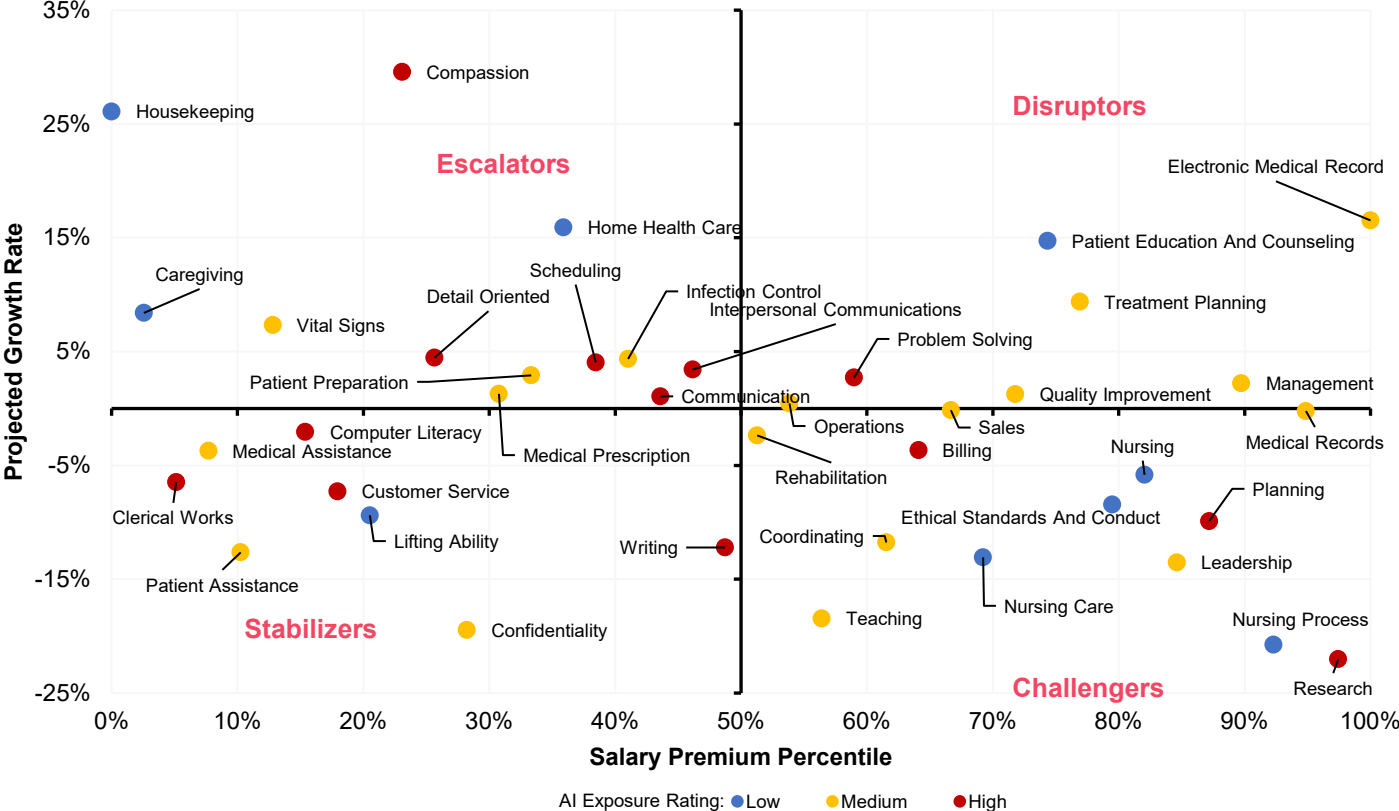
Construction: Premium on business acumen and relationship management; still a need for core technical and trades skills



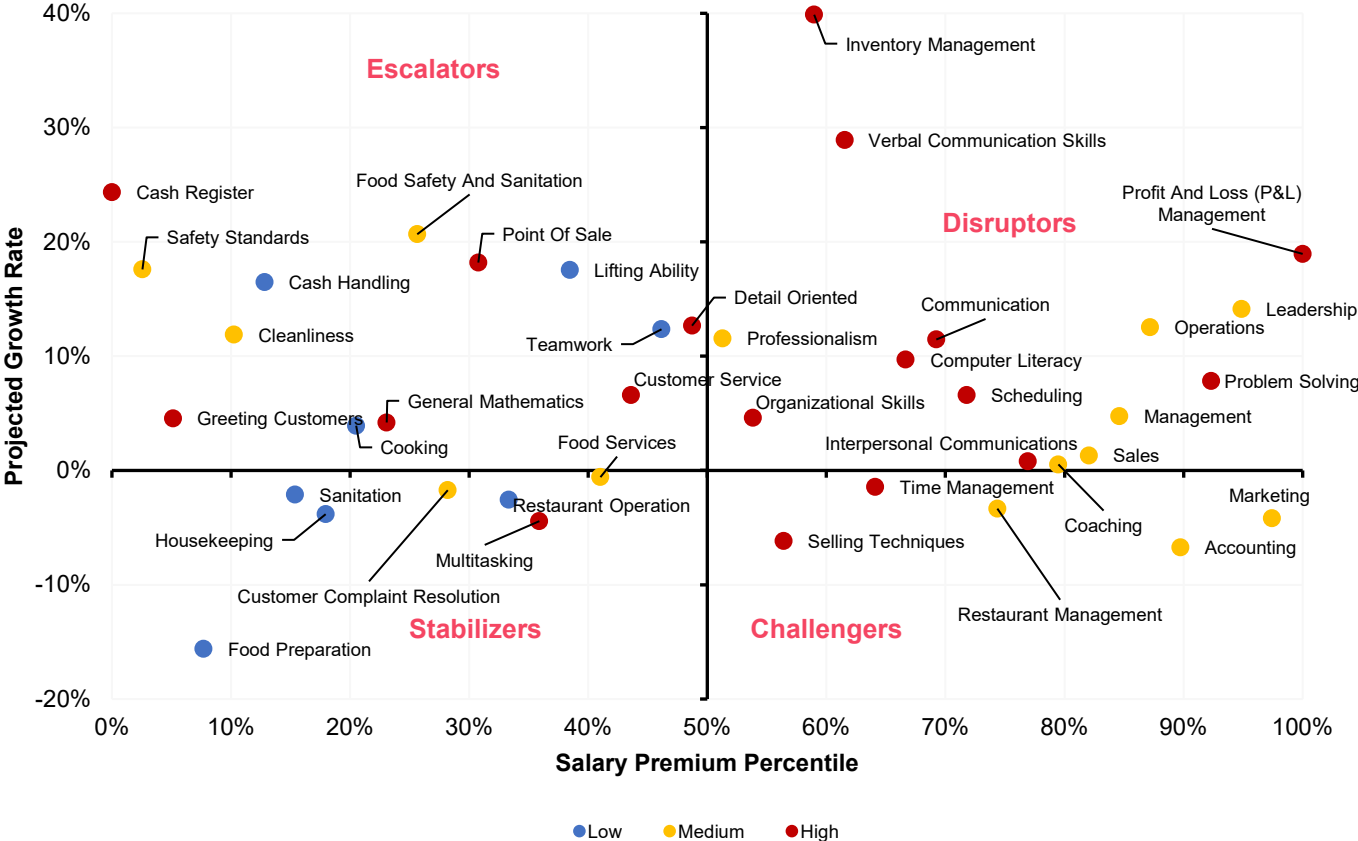
Energy: Premium on business and customer-facing skills; key high-value technical skills are shrinking; demand for core technical and trades skills



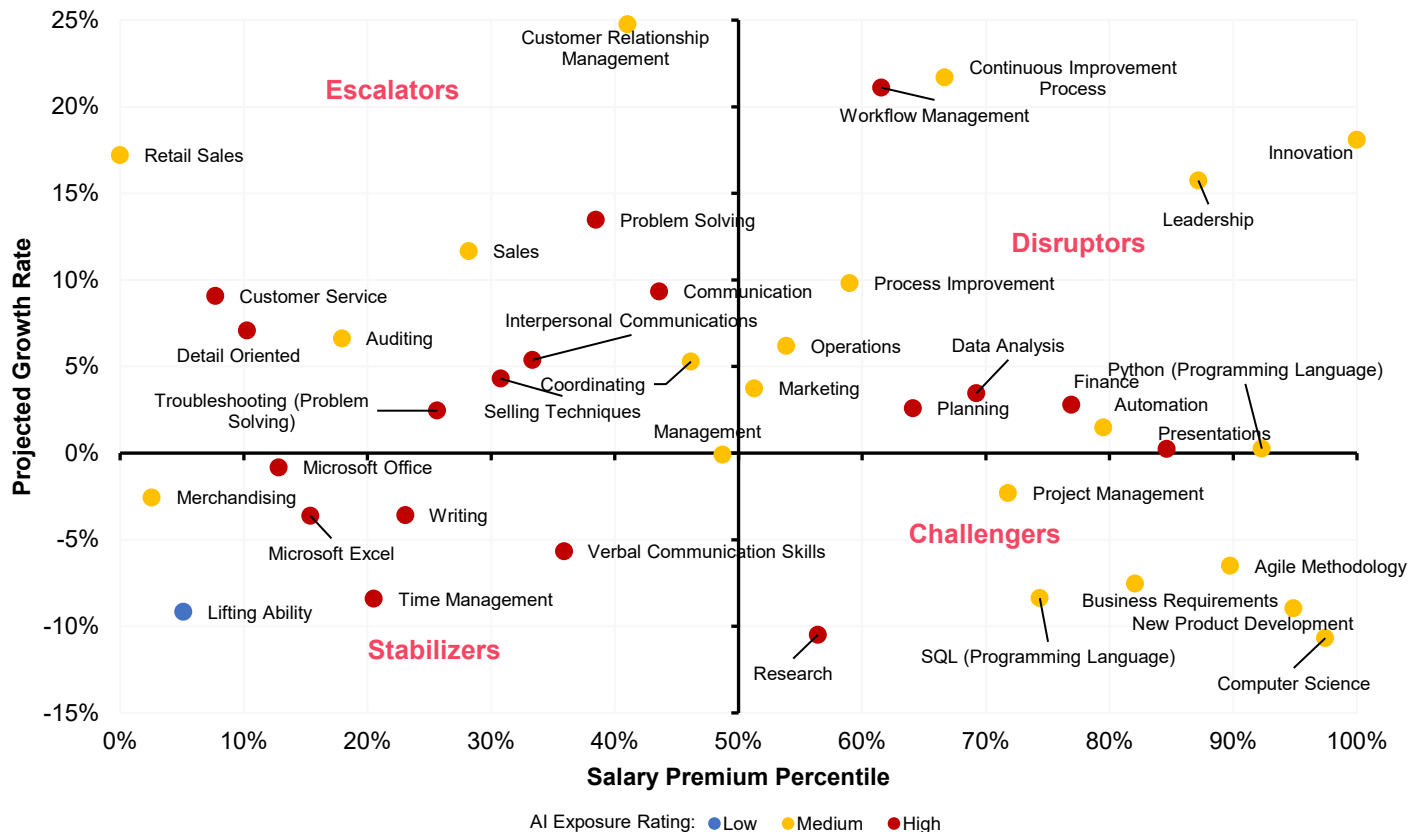
Healthcare: Premium for key medical technology and patient management skills; growing demand for direct, human-centric skills



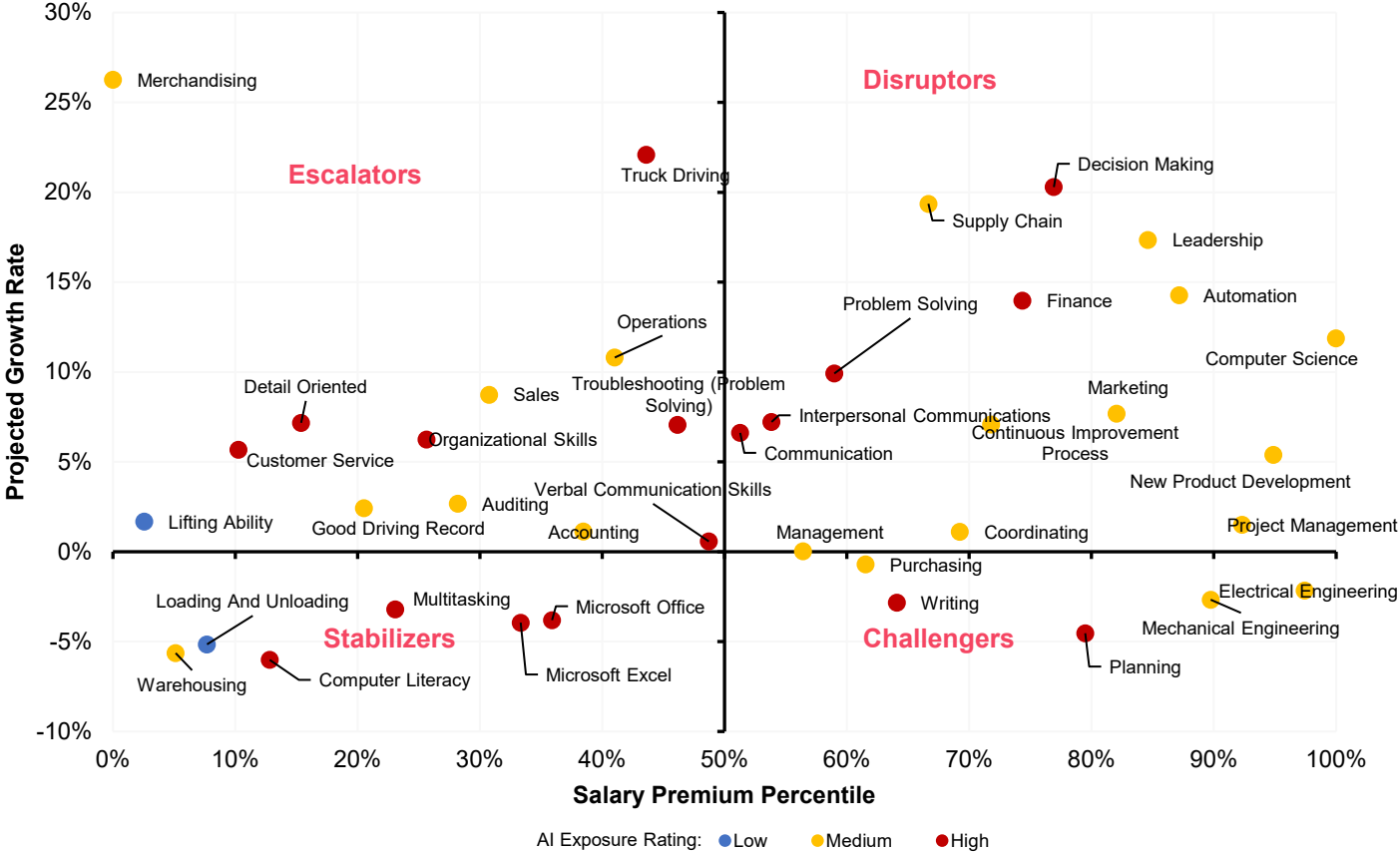
Hospitality and Outdoor Recreation: Premium for business and communication skills; demand for customer-facing execution skills



Information Technology: Premium on optimization and innovation, while foundational computer science skills are projected to shrink



Mobility: Premium on computer science and automation skills; human-touch skills are less valued but are projected to grow



Companion Skills

Commonly co-requested alongside AI skills



Shift from building AI to applying AI: Leadership and innovation skills have moved up in rankings

- The rise of innovation signals a shift from “What is AI?” to “What do we do with AI?”
- Soft skills continue to remain essential as communication ranks the highest across three years
- Technical skills have moved down – their relative importance has decreased compared to human-centric skills
- Workflow management is the new emerging need

Top 10 commonly co-requested alongside AI skills in 2023, 2024, and 2025

	2023	2024	2025
1	Communication	Communication	Communication
2	Computer Science	Computer Science	Leadership
3	Python (Programming Language)	Management	Innovation
4	Management	Python (Programming Language)	Computer Science
5	Research	Leadership	Management
6	Problem Solving	Problem Solving	Problem Solving
7	Leadership	Research	Python (Programming Language)
8	Automation	Innovation	Operations
9	Operations	Operations	Automation
10	SQL (Programming Language)	Automation	Workflow Management



Postsecondary Programs

Programs Vulnerable to AI Disruption



255 postsecondary programs across 95 institutions are vulnerable to AI disruption...

Institution Name (<i>subset only</i>)	Associates/ Certificate Level Programs	BA/BS Level Programs	Graduate Level Programs
Michigan State University	1	88	81
University of Michigan-Ann Arbor	0	66	96
Western Michigan University	1	80	58
Eastern Michigan University	0	78	57
Wayne State University	0	63	71
Central Michigan University	15	76	38
Grand Valley State University	15	74	27
Michigan Technological University	1	64	38
University of Michigan-Dearborn	11	54	35
Ferris State University	34	45	13
Oakland University	0	59	33
Northern Michigan University	13	54	15
University of Michigan-Flint	10	38	13
Calvin University	2	48	8
Andrews University	2	36	19
University of Detroit Mercy	4	32	21
Lansing Community College	56	0	0
Adrian College	10	34	10
Lawrence Technological University	6	29	18
Saginaw Valley State University	1	43	9

Looking at all institutions and degrees, **Business Administration** programs are the most vulnerable...

Program Name <i>(subset only)</i>	Total Program Completions in Michigan (2025)	Certificate/ Associates Programs	Bachelors Programs	Graduate Programs
Business Administration, Management and Operations.	45,602	42	39	30
Computer and Information Sciences, General.	14,879	11	20	12
Liberal Arts and Sciences, General Studies and Humanities.	14,471	47	21	2
Registered Nursing, Nursing Administration, Nursing Research and Clinical Nursing.	6,119	30	30	16
Finance and Financial Management Services.	5,717	3	30	9
Marketing.	5,459	16	29	7
Accounting and Related Services.	5,453	31	36	15
Communication and Media Studies.	4,608	11	28	9
Management Sciences and Quantitative Methods.	4,529	1	13	13
Economics.	4,208	0	21	8

Takeaways



AI demand is increasing



SMEs lag, but seeing rapid growth



Administrative roles face highest exposure



Healthcare sees highly polarized exposure



Shift from building to applying AI



Business programs face disruption



THANK YOU



Appendix

Location Quotient calculation

AI Skill Name	US Demand	US Profiles	US Profile/US Demand	MI Demand	MI Profiles	MI Profile/MI Demand	Location Quotient
Artificial Intelligence	1.64%	0.53%	0.32	1.21%	0.30%	0.25	0.78
Machine Learning	0.87%	0.56%	0.65	0.62%	0.31%	0.51	0.79
Generative Artificial Intelligence	0.36%	0.11%	0.30	0.24%	0.07%	0.29	0.96
PyTorch (Machine Learning Library)	0.13%	0.03%	0.24	0.11%	0.02%	0.18	0.73
TensorFlow	0.12%	0.06%	0.52	0.10%	0.04%	0.41	0.79
Deep Learning	0.11%	0.12%	1.12	0.08%	0.07%	0.95	0.85
Large Language Modeling	0.10%	0.02%	0.23	0.07%	0.01%	0.15	0.66
Automation Systems	0.08%	0.02%	0.25	0.12%	0.03%	0.29	1.13
MLOps (Machine Learning Operations)	0.08%	0.01%	0.12	0.07%	0.01%	0.07	0.58
Chatbot	0.06%	0.03%	0.55	0.06%	0.02%	0.34	0.61
Scikit-Learn (Python Package)	0.06%	0.04%	0.65	0.06%	0.02%	0.33	0.50
Prompt Engineering	0.06%	0.02%	0.29	0.04%	0.01%	0.28	0.96