



# USHE and Talent Ready Utah

Workforce Alignment Research Study

October 2024

# *Executive Summary*

*Overview of key findings*

# WORKFORCE ALIGNMENT STUDY | Overview and Objectives

## Project Overview

Talent Ready Utah and The Utah System of Higher Education (USHE) are seeking to understand the **effectiveness of higher education graduates** in the workforce, with a specific focus on gathering insights from employers in key industries.

This study will help **identify areas of improvement** and **provide recommendations** for enhancing and sustaining higher education's responsiveness and alignment to the needs of employers in Utah.

The 4 main objectives that Cicero will accomplish by the end of this study will be to:

- 1) Define Employer Expectations:** Collect and define the expectations that Utah's private sector has of graduates from Utah's higher education institutions.
- 2) Evaluate Graduate Quality:** Evaluate the quality, preparedness, and effectiveness of graduates from Utah's postsecondary institutions.
- 3) Explore Industry Needs:** Understand the unique needs of employers by industry, such as: healthcare, life sciences, aerospace, financial services, computer sciences, advanced manufacturing, energy, retail, hospitality, transportation, and construction.
- 4) Deliver Actionable Solutions:** Provide actionable recommendations to improve the alignment of higher education with the needs of employers in Utah.

# WORKFORCE ALIGNMENT STUDY | Methodology

Cicero's methodology for data collection on this project consists of three phases: initial interviews, survey collection, and follow-up interviews.



## Initial Interviews

- Cicero conducted a series of interviews with employers in Utah to get a sense of general graduate readiness.
- Key findings from these interviews were incorporated into the survey design.
- Initial interviewees came from a cross-section of Utah's key industries, geographies and firmographics.

## Survey Collection

- Cicero fielded the workforce readiness survey to Utah employers, distributed through USHE and TRU's industry partners.
- Cicero received over 600 responses, across all of Utah's industries and geographies.
- Survey findings were used to quantitatively support and contextualize insights from the initial interviews.

## Follow-up Interviews

- Cicero sourced several follow-up interviews from the survey pool to validate hypotheses and explore new findings.
- Select survey respondents were interviewed to flesh out specific themes, findings, and/or unique responses by industry.
- In total, Cicero spoke to just under two dozen employers in Utah and infused their insights in this research.

# WORKFORCE ALIGNMENT STUDY | Survey Methodology

Cicero's methodology for survey creation involved both primary and secondary research to select skills and industries while designing the questionnaire to minimize subjectivity.

## Selected Relevant Skills

Skills selected for use in this survey were generated **through both primary and secondary research**:

- For broadly applicable technical and durable\* skills:
  - Cicero conducted a series of in-depth interviews to identify **top areas of concern for employers**
  - This was supported by secondary research and reports detailing necessary skills for graduates
- For industry-specific skills:
  - Cicero and TRU utilized the **O-Net database for relevant skills by occupation**, and organized them by industry

## Surveyed Experts Across Industry

Only professionals who could provide **relevant feedback** on this topic were surveyed, including individuals who hire, manage, or work alongside recent graduates.

Further, the industries in the survey **cover 85% of the major NAICS codes in Utah**.

- Healthcare – NAICS 62
- Life Sciences – NAICS 54
- Computer Sciences – NAICS 51
- Financial Services – NAICS 52
- Advanced Manufacturing – NAICS 31-33
- Aerospace – NAICS 33 & 54
- Energy – NAICS 22
- Construction – NAICS 23
- Transportation – NAICS 48-49
- Hospitality – NAICS 71-72
- Retail – NAICS 44-45
- "Other" Industries
  - Education, Government, Automotive and Business Services (NAICS 61, 92, 81, & 56)

## Minimized Subjectivity

Cicero utilized its **extensive experience in survey design** to create a robust questionnaire designed to mitigate subjectivity and increase cohesion.

- The order and language of questions was **designed to minimize bias**, while also providing necessary context to standardize definitions of key topics to mitigate concerns of subjectivity.
- Survey logic was employed to **prioritize topics that respondents had expertise in or experience with**.
  - For example, those who had no knowledge of micro-credentials were not shown questions asking about the value of micro-credentials in hiring decisions.

# WORKFORCE ALIGNMENT STUDY | Executive Summary

While industry is generally pleased with the preparedness of recent graduates in Utah, several areas of opportunity exist.



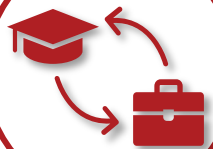
## Graduates Lack Durable Skills

- Durable skills such as communication and work ethic, are in high demand by **employers who find these skills generally lacking in recent graduates.**
- Industry sees a clear opportunity for postsecondary institutions to do more to develop durable skills in students, but also **recognizes that this is a shared responsibility between employers and institutions.**



## Technical Skill Quality Varies by Industry

- Several industries report high satisfaction with the technical skills of recent graduates while others, **such as Aerospace and Computer Science report that graduates' technical skills are outdated or lacking in depth.**
- Increased collaboration with industry, coupled with the expansion of non-traditional **educational tools like micro-credentials and certificates can help to close technical skill gaps.**



## Industry Desires Greater Collaboration

- **Industry increasingly desires to have a voice on campus** – examples include representation on boards, curriculum development, and classes being taught by industry professionals.
- **Strengthening collaboration through industry partnerships can expand access to work-based learning (WBL) opportunities** which make the largest impact on preparing graduates for the workforce.



## Work-Based Learning is Key to Graduates' Success

- Increasing work-based learning (WBL) opportunities is of great interest to industry, **which values experience over educational attainment in hiring decisions.**
- Industry often has limited ability to sponsor/expand WBL due to resource constraints and lack of access, yielding a need for **institutions to play an active role in developing and promoting WBL programs.**

# WORKFORCE ALIGNMENT STUDY | Graduates Lack Durable Skills

Industry finds it challenging to train, and work alongside today's graduates due to a general scarcity of durable skills.

1

40% of industry says higher ed has room to improve, with the largest area to improve being durable skills.

*"The biggest gap we have seen is cellphones in hand and communication failures, like social communication, face-to-face communication, talking, working in teams."*



- Employer in Advanced Manufacturing

2

The largest durable skill gaps are stress management (21%), conflict management (18%), and time management (18%). Gaps in technical skills are slightly less pronounced, and less problematic for employers.

*"They can't handle the stress... because they avoid the stressful situations. How do we pressure them into more stressful situations during school, so they are ready for the workforce?"*



- Employer in Healthcare

3

Industry largely agrees that higher ed has the capability (79%) responsibility (80%), and environment (80%) to teach durable skills before graduates enter the workforce.

*"When I went to a tech school, you spent half the school day practicing emails, interviews, resumes, communication, and professional dress. We aren't getting them set and prepped."*



- Employer in Advanced Manufacturing

4

Industry acknowledges it has an equal responsibility for developing durable skills in graduates, skills like interpersonal skills (65% vs. 67%) and emotional skills (41% vs. 41%).

*"Critical thinking and problem solving comes from experience... It comes with training, and we train the ability to problem solve."*



- Employer in Healthcare

# WORKFORCE ALIGNMENT STUDY | Technical Skill Quality Varies by Industry

Technical skill gaps exist in some industries, like advanced manufacturing and aerospace; micro-credentials and certificates can help to close technical skill gaps.

1

While 11% of industry encounters graduates with outdated skills, the rate doubles in Life Sciences and Advanced Manufacturing, with 1 in 5 employers reporting that recent graduates come with outdated skills.

*“There is a big disconnect on what they are teaching at schools, and what we need. The technology is moving so fast, that we have to start all over again teaching them. The technology is 2-3 years behind.”*



- Employer in Advanced Manufacturing

2

Aerospace also reports that recent graduates have outdated skills (16%) and the industry has the greatest unmet expectations in automation and robotics (29%) and systems engineering (22%).

*“To be effective, work-based learning programs in our industry need to enroll graduates in technological industries like robotics.”*



- Employer in Aerospace

3

Two-thirds of industry is aware of micro-credentials, and half actively hire candidates with micro-credentials, though adoption varies widely by sector.

*“[It would help to] provide certification programs in areas like food safety, event management and hospitality management, which can provide students with additional credentials that are valued in the hospitality industry.”*



- Employer in Hospitality

4

Micro-credentials positively influence most hiring decisions (65%), with employers viewing them as strong indicators of proficiency in both technical (75%) and durable skills (68%).

*“We’ve hired programmers without degrees because they can prove themselves. If there were credentials or nano degrees or PD courses that are certificates of proficiency, that would help.”*



- Employer in Computer Sciences



# WORKFORCE ALIGNMENT STUDY | Industry Desires Greater Collaboration

Industry wants strong partnerships including WBL opportunities, board representation, co-developed curricula, and classroom instruction to drive greater workforce readiness for graduates.

1

Partnerships with industry get a moderate review, with an average strength score of 5.2 out of 7.0; additionally, most employers feel partnerships are highly important.

*"We're small businesses. So, we probably haven't gone and developed those relationships as we should have, but I also think on the educational side it would help to have some outreach."*



- Employer in Energy

2

Industry increasingly desires to have a voice on campus, with industry advisory boards being very valuable to over half of employers.

*"The boards are too narrow and small to make decisions on curriculum, so schools get feedback, but it isn't comprehensive enough."*



- Employer in Computer Sciences

3

Having industry professionals present or teach in class is very valuable to employers (51%) however, it occurs infrequently, only 35% and 22% of the time, respectively.

*"The ways I'd like to see partnership improved is with involvement in the curriculum and classroom, so [graduates] can better meet the needs and expectations of employers."*



- Employer in Healthcare

4

The greatest barrier to partnerships with higher ed is a lack of resources (39%). However, higher ed partnerships can seem complicated and thus limit cooperation. (31%)

*"Once it goes into the education system, the private sector doesn't view it as accessible."*



- Employer in Computer Sciences

# WORKFORCE ALIGNMENT STUDY | Work-Based Learning is Key to Graduates' Success

Industry values experience, with work-based learning particularly preparing students for success; however, industry's limited resources for WBL gives higher ed an opportunity to expand access through facilitation and design.

1

**More than half of employers agree that a college education is valuable to success in Utah. However, two-thirds of industry find experience to be a key differentiator in hiring, signifying the value of work-based learning.**

*"It is obvious to see the difference between graduates with experience versus without."*



- Employer in Computer Sciences

2

**Work-based learning (WBL) opportunities are viewed as an effective way to prepare graduates for the workforce, especially internships (64% very successful) and apprenticeships (61% very successful).**

*"Work-based learning opportunities help overcome some of the [durable skills] problems we have discussed, they may even be necessary."*



- Employer in Healthcare

3

**Industry often has limited ability to sponsor or expand WBL opportunities, the largest reason being resource constraints (50% agree).**

*"We only have so many mentors to train, and we want to get it right. It takes time and people to do right. We can't spread ourselves to thin."*



- Employer in Healthcare

4

**Institutions can play an active role in developing and promoting WBL programs, especially current success like "Custom Fit" or "ASPIRE".**

*"We need to amplify the ideas that are working, reinforce them with industry, and fund them to grow. Because industry is ready for these types of programs."*



- Employer in Computer Sciences

# Utah's Higher Ed Earns a 'B+' in Workforce Preparedness from Industry

**CONTINUE TO  
LEVERAGE**

Curricula Successfully  
Imparting Technical and  
Other Hard Skills

Mutual Desire Among  
Higher Ed And Industry To  
Partner for Success

Internships And Other  
Successful WBL  
Opportunities

## OPPORTUNITIES FOR IMPROVEMENT:

**HEIGHTENED FOCUS ON DURABLE SKILLS DEVELOPMENT**

**1**

**INCREASED AVAILABILITY OF WBL OPPORTUNITIES**

**2**

**STRENGTHENING INDUSTRY CONNECTION TO HIGHER ED**

**3**

**QUICKER FEEDBACK ON INDUSTRY TECHNICAL SKILL NEEDS**

**4**

## Recommendations:

- *Increase presentations, group work, and technical writing opportunities*
- *Introduce regular face-to-face feedback with professors and advisors*
- *Design 'starter kits' recommending structures and best practices for industry to expand WBL opportunities beyond what currently exist*
- *Create/enhance specialized function that's dedicated to facilitating relationships between higher ed and industry*
- *Create an independent credential board staffed by industry professionals that guides credentialing decisions*