Middle-Skills Pathways in Chicago: Information Technology Sector Analysis
IT Middle-Skills Pathways in Chicago Overview

- Many roles in this industry, but not all, are middle-skills.
  - Require a bachelor’s degree for entry-level positions, or an overwhelming percent of employees have a bachelor’s or higher.
- Middle-skills roles easily have high-priority occupation potential and those that don’t have a robust career ladder through additional training. While many employees have at least a bachelor’s degree, a significant number have an associate degree or less, or are in roles that shouldn’t require a bachelor’s degree.
- Department of Labor data lag on-the-ground changes and adjustments but are still illuminating.
# IT Priority Occupation and Promising Credential Areas

<table>
<thead>
<tr>
<th>Middle Skill Credential Area</th>
<th>Occupations</th>
<th>Typical Entry Education</th>
<th>Chicagoland Wage $/hr</th>
<th>Chicagoland Projected Growth (10 yr.)</th>
<th>Annual Chicagoland Job Openings</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web Development</td>
<td>Web Developer</td>
<td>Associate/Some College</td>
<td>$35.16</td>
<td>17%</td>
<td>300+</td>
<td>High Priority Occupation</td>
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<tr>
<td></td>
<td>Web Administrators</td>
<td>Bachelor’s/Some College</td>
<td>$47.69</td>
<td>10%</td>
<td>500+</td>
<td>High Priority Occupation</td>
</tr>
<tr>
<td>Networking, Cloud Computing, and Cybersecurity</td>
<td>Graphic Designers</td>
<td>Bachelor’s/Some College</td>
<td>$28.64</td>
<td>7%</td>
<td>500+</td>
<td>High Priority Occupation</td>
</tr>
<tr>
<td></td>
<td>Computer User Support Specialists</td>
<td>Some College</td>
<td>$24.98</td>
<td>12%</td>
<td>1,100+</td>
<td>Gateway Occupation</td>
</tr>
<tr>
<td></td>
<td>Computer Network Support Specialists</td>
<td>Associate/Some College</td>
<td>$30.47</td>
<td>9%</td>
<td>400+</td>
<td>High Priority Occupation</td>
</tr>
<tr>
<td></td>
<td>Network and Computer Systems Administrators</td>
<td>Bachelor’s/Some College</td>
<td>$41.83</td>
<td>6%</td>
<td>400+</td>
<td>High Priority Occupation</td>
</tr>
<tr>
<td></td>
<td>Information Security Analysts</td>
<td>Bachelor’s/Some College</td>
<td>$45.56</td>
<td>2%</td>
<td>200+</td>
<td>High Priority Occupation</td>
</tr>
</tbody>
</table>
Overview of Private Training Landscape

Based on Chicagoland CareerPathways, the private training landscape features:

• Ample for-profit and non-profit training providers, with some programs eligible for WIOA funds

• Many “bootcamp” or self-paced programs, requiring participants to have a separate source of income while gaining technical skills

• Very few programs with earn-and-learn and wrap-around supports, which will impede the desire to diversify this growing sector

• Many programs have industry-wide or company specific credentials, unclear as to placement success
CCC Programs

Pre-College Landscape

Model Pathways

Guided Transfer

Non-Credit Articulation

Private/Non-profit Providers

PLA: Year Up

Bridge Programs

Software and Programming

Web Development

Networking, Cloud Computing, and Cybersecurity

Computer Engineering AES

Cybersecurity AES

Computer Science AES & AS

Web Development AS

Software Development AAS

Game Design and Development AAS

Web Development AAS

Networking Systems & Technology AAS

Cybersecurity AAS

Bachelor of Science or Engineering

Bachelor of Science
Recommended Improvement Strategies for IT

A. Focus on non-credit articulation and competency-based models for programs preparing for (a) Web Developer; and (b) Computer User & Network Support Specialists

- Expand the Year-Up model for Prior Learning Assessment to CCC to other high quality nonprofit programs or bootcamps and link to apprenticeship programs. *Encourage programs to align to ACE credit framework.*

- Establish PLA based on major company (e.g. AWS, CompTIA, Salesforce) credentials and certifications (e.g. Data Analytics, UX Design) for Programming Networking, Cloud, and Cyber CCC programs.

B. Establish continued career pathway support system for individuals to progress into High Priority Occupations from Gateway Occupations:

- E.g., Web Developer to Web Administrator, Computer User Support Specialists to Network Specialists or Cyber roles

- Integrate Essential Employability Skills into AAS program or IT Coursework

C. Build out Strategic Dual Credit Pathways into the Networking/Cyber and Programming roles (necessitating Guided Transfer)

- Increase math placement flexibility for key strategic dual credit courses