Exploring Technology Skills Needed for Successful Transition to Different Industries

Presenter:

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Agenda

- Explore the technology skills needed by adult basic education participants to successfully transition to occupations in the healthcare, transportation, and manufacturing industries.

- Have an open discussion about how to help adult learners assess current technology skills, identify and address skill gaps, and develop a plan for improving technology skills to transition to the workforce in their industry of choice.

- Review tools and resources that support effective career planning and transition.

Technology Skills and the Foundation Skills Framework (FSF)

Uses Technology

| Other FSF Skills |

Uses common workplace technologies

Demonstrates basic computer operating skills

Uses basic software applications and programs

Uses email software

Use of Internet and World Wide Web

(The Pennsylvania State University, 2016)

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Digital Literacy

"The ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills."

(American Library Association, 2022)

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Other Terms

Healthcare Industry Statistics

- "Only 27 percent of U.S. health and social workers have the advanced skills necessary to be most adaptable to changing technology." (NSC, 2021)
- "Pennsylvania will be second only to Texas in experiencing the nation's most significant shortages in LPNs by 2030." (Healthsystem, 2020)
- O*NET Online lists 13 different technology skills used by Licensed Practical Nurses (LPNs).

Digital Skills and the Healthcare Industry

Technology Skills

All 13 displayed   **Show 79 tools used**

- ⊕ **Calendar and scheduling software** — Scheduling software
- ⊕ **Categorization or classification software** — Diagnostic and procedural coding software
- ⊕ **Cloud-based data access and sharing software** — Google Drive 🔥
- ⊕ **Electronic mail software** — Microsoft Exchange 🔥 ; Microsoft Outlook 🔥
- ⊕ **Internet browser software** — Web browser software
- ⊕ **Inventory management software** — Inventory tracking software
- ⊕ **Medical software** — Epic Systems 🔥 ; Healthcare common procedure coding system HCPCS 🔥 ; Medical condition coding software 🔥 ; MEDITECH software 🔥 (see all 11 examples)
- ⊕ **Office suite software** — Microsoft Office 🔥
- ⊕ **Operating system software** — Microsoft Windows 🔥
- ⊕ **Spreadsheet software** — Microsoft Excel 🔥
- ⊕ **Video conferencing software** — FaceTime
- ⊕ **Video creation and editing software** — YouTube 🔥
- ⊕ **Word processing software** — Microsoft Word 🔥

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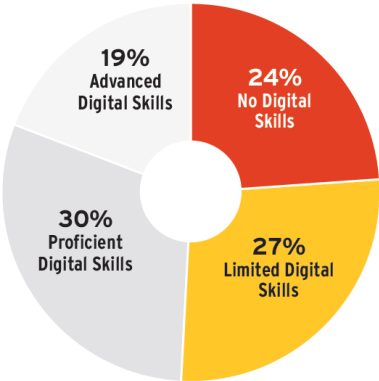
Transportation Industry Statistics

- More than one in 10 U.S. workers are employed in the construction, transportation, and storage sectors.
- Among U.S. workers at the proficient digital level, 61 percent are between the ages of 16 and 44. There are slightly more women   (52 percent) in this category than men. (NSC, 2020)

Half of Construction, Transportation & Storage Workers Need Investment in their Digital Skills

- 19% Advanced Digital Skills
- 24% No Digital Skills
- 30% Proficient Digital Skills
- 27% Limited Digital Skills

Source: OECD Survey of Adult Skills (PIAAC), 2017.   (NSC, 2021)

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Digital Skills and the Transportation Industry

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"Across the construction and transportation sectors, tech demands go beyond the use of a desktop computer. Workers are also using mobile apps to communicate work-order changes to general contractors; taking advantage of wearable tech such as smart helmets to take measurements and videos; deploying drones to survey building sites; and using virtual reality tools to complete safety training." (NSC, 2021)

Linda Benner- Example of Digital Resilience

- She went to an employment office, where she was introduced to different job opportunities, finally selecting a school bus driver at age 21.
- She has been a school bus driver for over 40 years.
- She said, "Overall, technology has improved the school bus ride."
- She noted, "that while BASD doesn't currently have tablets on its buses, she would be interested in the technology to help her match names to the faces of her students."

(Hannon, 2020)

Manufacturing Industry Statistics

- Over 7% of Pennsylvania's total jobs are in the Manufacturing Industry. (Center, 2019)
- Average annual wages for manufacturing industry are around $57,000. (Center, 2019)
- Approximately 61 percent of advanced manufacturing jobs require less than one year of on-the-job training to enter employment. (Center, 2019)
- Workers are using augmented reality to assemble aircraft parts; interacting with increasingly sophisticated robotic devices; and using wearable technology to receive in-the-moment training through virtual reality. (NSC, 2021)

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Digital Skills and the Manufacturing Industry

- Automotive Service Technicians
- Inspectors, Testers, Sorters, Samplers, & Weighers
- Maintenance and Repair Workers
- Sales Representatives
- Machinists
- Computer-controlled Machine Tool Operators
- Welders, Cutters, Solderers, & Brazers

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Discussion Questions

- How many of the Top 50 Detailed Work Activities in Pennsylvania require digital skills?
- What plan do you have in place to help adults identify and address skill gaps?
- Who is involved in the process to help adults improve digital skills (teachers, student support coordinators, digital navigators, partner staff)?
- What other questions do you have about technology skills needed for different industries?

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Assessing Digital Skills

Northstar Digital Literacy

SkillUp™ PA

Supplemental Distance Learning

Checklists

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Tools and Resources for Successful Transitions

- Student Support Coordinator Hub
- Pennsylvania Career Guide
- Technology Skills Checklist
- LINCS communities
- PA CareerLink® Workshops

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