

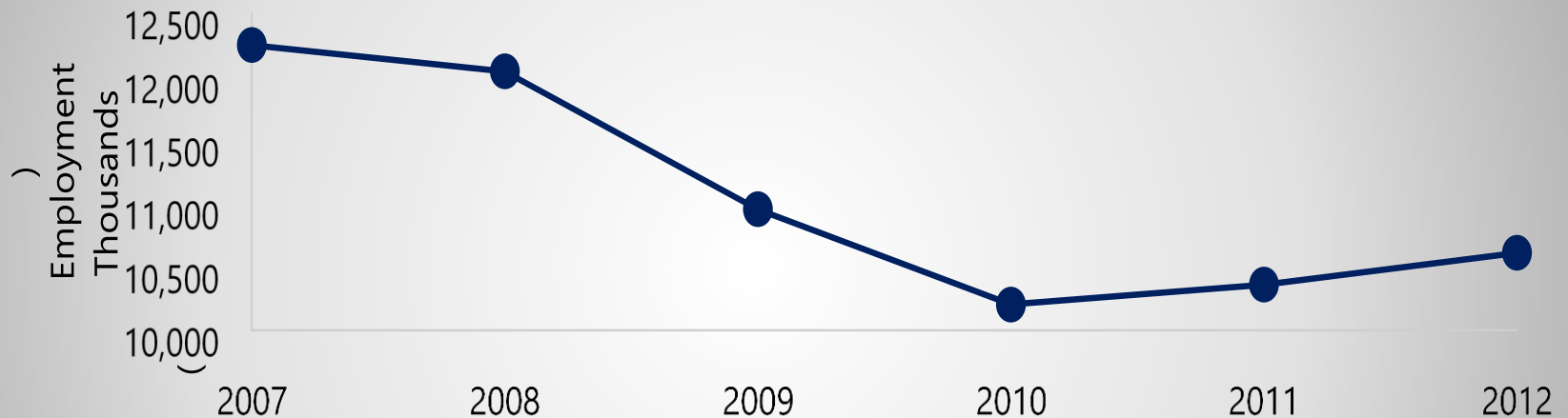
Using the NCRC to Align Talent with Opportunity

Presented to WISE Consortium
December 1, 2015



Is There a Skills Gap in Skilled Production Roles?

Total employment in production jobs has declined 13% in the past five years



Despite that, employers often highlight a skills gap and report difficulty filling key production roles.

To examine the skills gap, we identified skilled production jobs that employers often report as hard-to-fill and compared their employment and online job posting trends to all production jobs.



"Shortages in skilled production jobs – machinists, operators, craft workers, distributors, technicians, and more – are taking their toll on manufacturers' ability to expand operations, drive innovation, and improve productivity."

-Boiling Point? The skills gap in U.S. manufacturing. *The Manufacturing Institute.*

Skilled production occupations were defined as those for which employers are most likely to request postsecondary training.

Examples of skilled production roles include the following:

- CNC Programmers
- Avionics Technicians
- Civil Designers
- Production Supervisors



For Which Occupations is the Skills Gap Most Severe?

The skilled production occupations highlighted below are among those with the most significant skill gaps.

Occupation	Employed Workers Per Job Posting	Average Posting Duration (Days)	% Requiring Advanced Qualification*	Average Salary**
General Production Jobs	19	30	 12%	\$33,459
Skilled Production Jobs	7	33	 55%	\$52,178
Numerical Tool and Process Control Programmers	5	33	 31%	\$48,640
Avionics Technicians	3	38	 32%	\$55,440
Electrical Engineering Technicians	6	39	 52%	\$58,070
Mechanical Drafters	3	38	 74%	\$53,270

Lower Supply-to-Demand Ratio*

Longer Posting Duration

*The supply-to-demand ratio is the ratio of employed workers over total postings in 2013. Employment data are from the Bureau of Labor Statistics' Occupational Employment Statistics (OES) dataset. Job postings are from Burning Glass's proprietary job postings database

How Does the Magnitude of the Skills Gap Vary by State?

Burning Glass assessed the evidence of a skills gap for skilled production roles in the **17 largest states with above average concentrations of production jobs**, and ranked the states based upon a combination of their employed **supply-to-demand ratios and average posting durations for skilled production roles**.

State	Skills Gap Rank
Indiana	1
Tennessee	2
Ohio	3
Wisconsin	4
South Carolina	5
Alabama	6
Pennsylvania	7
Minnesota	8
Kentucky	9
Missouri	10
Washington	11
North Carolina	12
Kansas	13
Iowa	14
Louisiana	15
Texas	16
Michigan	17



Addressing the Skills Gap Using WorkKeys

The **NCRC** is a transferable credential that proves an individual is work ready. It is a tool that demonstrates to employers that an individual possesses the basic skills required for success in today's workforce. The program is based on hard-skills testing integrated into a system called WorkKeys®, which was created by ACT, a nationally-recognized assessment organization.

Why WorkKeys?

- ✓ **Find Better Applicants:** It helps you find better-quality job applicants. You can interview only applicants who have the skills desired for the position.
- ✓ **Reduce Hiring Costs:** It reduces hiring expenses by streamlining hiring. Employers can use the NCRC as another filtering tool for screening the best applicants.
- ✓ **Reduce Turnover:** It reduces turnover because it provides you with workers who have documented skill proficiencies.
- ✓ **Improve Effectiveness of Training Dollars:** It improves the effectiveness of your valuable training dollars. When a new employee enters a job with an identified skill level, training dollars can be targeted to address any skills gaps.
- ✓ **Assess the Work Readiness of Your Applicants**

WorkKeys Overview

What is it?

A job skill assessment system created by ACT in 1980s to measure workplace skills

What can it do?

Measures problem-solving, interpersonal, communication, and soft skills

Is it expensive?

Low of about \$25.00/NCRC to a high of \$80.00/person for **profiled positions**



WorkKeys Assessments

Problem-Solving Skills

- Applied Mathematics
- Applied Technology
- Locating Information
- Workplace Observation

Interpersonal Skills

- Teamwork

Communication Skills

- Business Writing
- Listening
- Reading for Information
- Writing

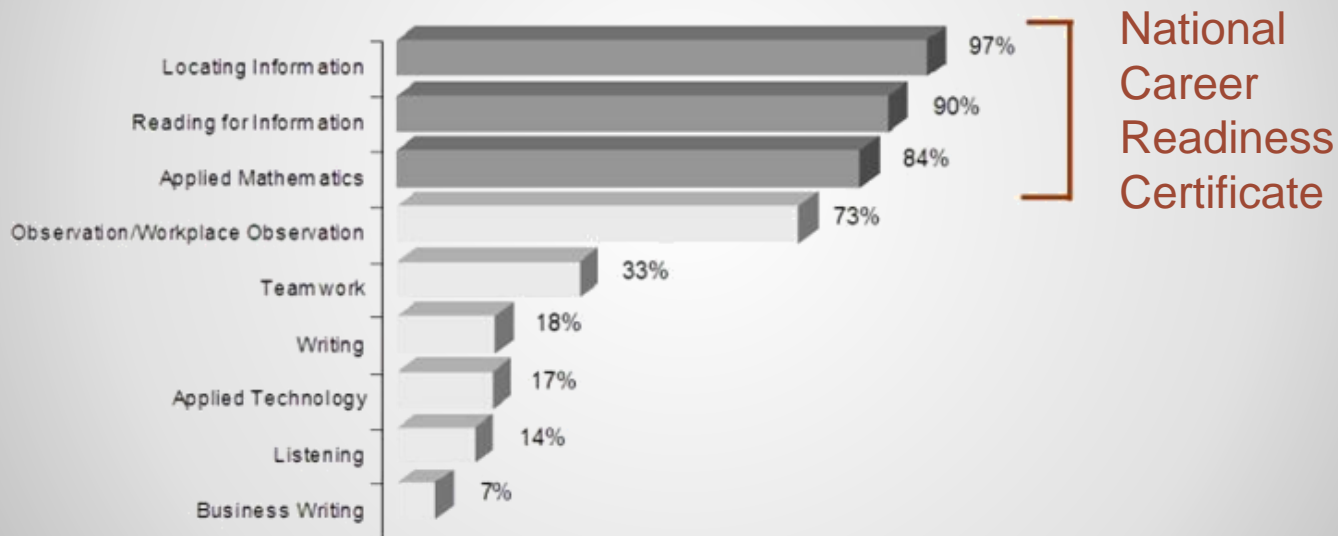
Soft Skills

- Performance
- Talent
- Fit



Why these specific skills?

Locating Information – Reading for Information – Applied Mathematics



Numbers based on analysis of 5,618 jobs profiled from 2006 to 2010, ACT JobPro database

National Career Readiness Certificate (NCRC)

Applied Mathematics

Applying mathematical reasoning to related work problems

Reading for Information

Comprehending work-related reading e.g., memos, policy manuals, and governmental regulations

Locating Information

Using information to make decisions (critical thinking)

<http://www.act.org/certificate/faq.html>



Earning an NCRC

Locating Information – Reading for Information – Applied Mathematics

Applied Mathematics

Score range for NCRC: 3-7

Reading for Information

Score range for NCRC: 3-7

Locating Information

Score range for NCRC: 3-6

Sample questions

<http://www.act.org/workkeys/assess/sample.html>

NCRC and Job Qualifications

Job Qualifications by Certificate Holder Level



99%



93%



67%



16%

Source: ACT JobPro Data 2006-2010; Work Ready Communities Site

Certificate Earning Patterns

Locating Information – Reading for Information – Applied Mathematics

Percentage of U.S. Examinees Earning the Certificate



1%



18%



47%




21%

Source: ACT JobPro Data 2006-2010; Work Ready Communities Site

Using NCRC Scores: Business

Computer Software Engineers, Systems Software

Computer Software Engineers, Systems Software

 **green Bright Outlook**

O*Net Code: *(Click to open wages and additional information in a new window)*

- 15-1032.00

Clusters: *(Click one to search all jobs in cluster)*

- Architecture & Construction
- Information Technology

Description:
Research, design, develop, and test operating systems-level software, compilers, and network distribution software for medical, industrial, military, communications, aerospace, business, scientific, and general computing applications. Set operational specifications and formulate and analyze software requirements. Apply principles and techniques of computer science, engineering, and mathematical analysis.

Skill Area	Median Skill Level	Minimum Skill Level	Maximum Skill Level	Number of Profiles
Applied Mathematics	4	4	6	3
Reading for Information	5	5	5	1
Locating Information	4	4	5	3
Applied Technology	5	5	6	2
Writing				0
Listening				0

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<http://www.act.org/workkeys/analysis/occup.html>

Using NCRC Scores: Job Seekers/Students

Average WorkKeys Scores Needed by Job Title

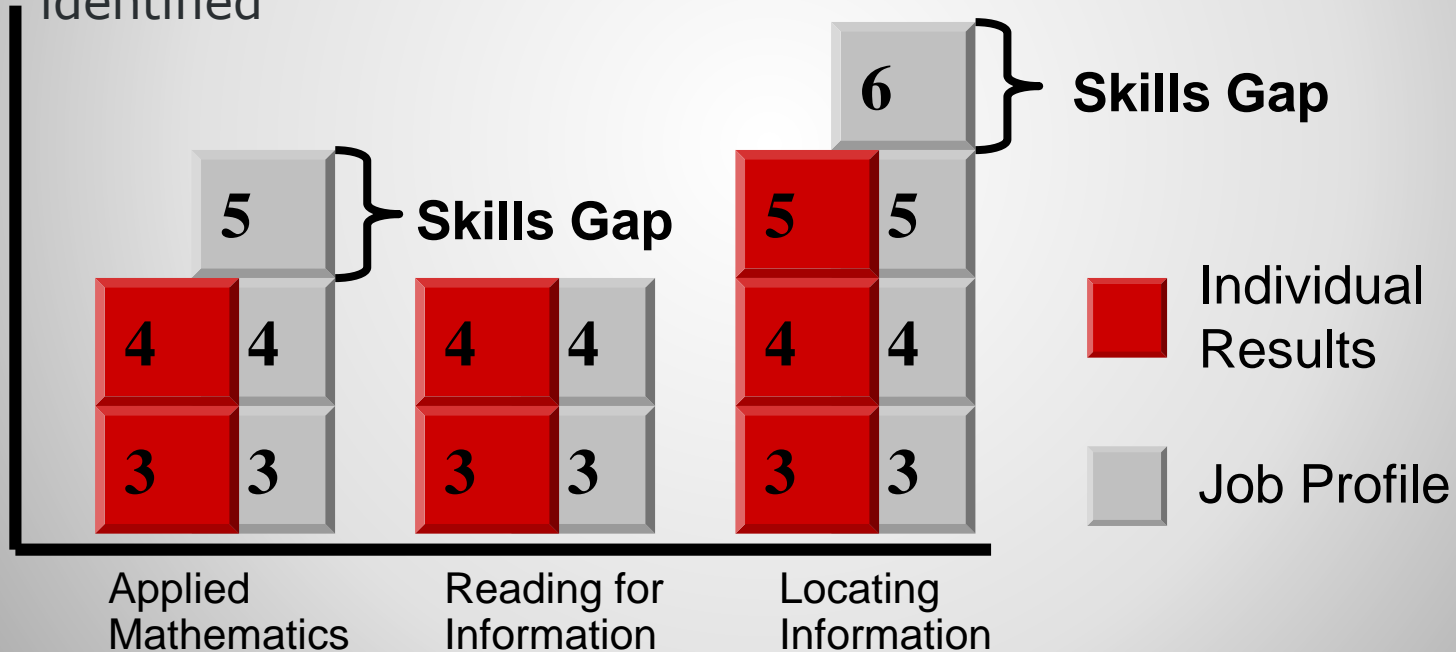
Browse the [Applied Mathematics](#), [Locating Information](#), and [Reading for Information](#) scores required for different job titles.

Browse Job Titles: [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [L](#) [M](#) [N](#) [O](#) [P](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#)

Job Title	Applied Mathematics	Locating Information	Reading for Information
Bakers, Manufacturing	4	5	3
Barbers	3	3	3
Bench Workers, Jewelry	3	4	3
Bicycle Repairers	4	4	4
Bill and Account Collectors	4	4	3
Billing, Cost, and Rate Clerks	4	4	4

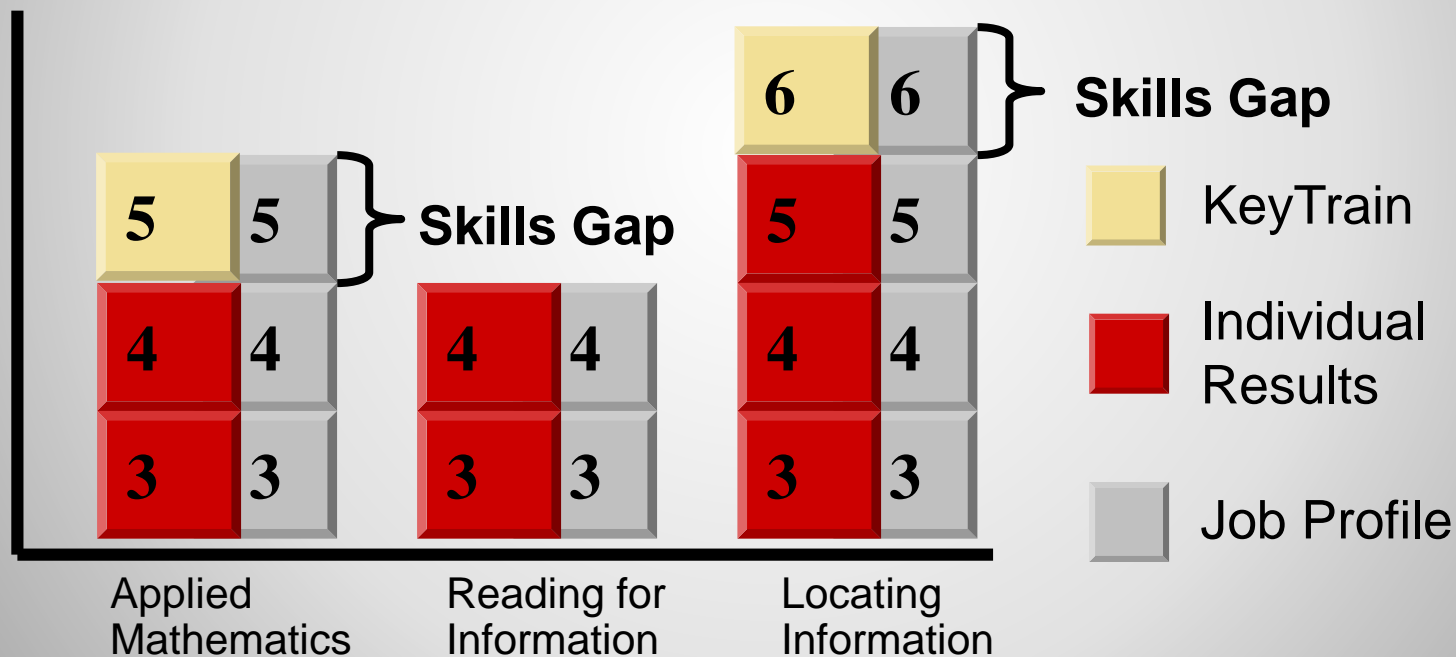
NCRC and Individual Skill Gap Analysis

By comparing the job profile and individual assessment results, skills gaps can be identified



Remediation: KeyTrain

KeyTrain provides a self-paced curriculum to help individuals fill their skills gap



Authorized Testing Sites: WA and MT

1. Big Bend CC, WA
2. Bitterroot College, MT
3. COE Aerospace, WA
4. Centralia College, WA
5. Clover Park, WA
6. Dawson CC, MT
7. Edmonds CC, WA
8. Everett CC, WA
9. Everett School Dist., WA
10. Flathead CC, MT
11. Fort Peck CC, MT
12. Gallatin College, MT
13. Great Fall College, MT
14. Green River CC, WA
15. Helena College, MT
16. Highland College, MT
17. Little Big Horn College, MT
18. Lower Columbia CC, WA
19. Medical Lake School Dist., WA
20. Miles College, MT
21. Missoula College, MT
22. Montana State University No., MT
23. Next Generation Zone, Spok., WA
24. North Seattle CC, WA
25. NW Comm. Action Center, Yak., WA
26. Olympic College, WA
27. On Track Academy, WA
28. Peninsula College, WA
29. Renton Tech, WA
30. Shoreline School District 412, WA
31. Skagit Valley, WA
32. Spokane CC, WA
33. South Seattle CC, WA
34. Wenatchee Valley, WA
35. WorkSource Clallum County, WA
36. WorkSource Spokane, WA

Users: Nationally

- 21 states have formally recognized their use of WorkKeys and NCRC:
<http://workreadycommunities.org/>
- Over 2.6M NCRCs have been awarded nationally
- Over 6,700 employers nationally have formally supported WorkKeys and/or NCRC

Coordinating Efforts: Work Ready WA

National Coordination
Work Ready Communities:
<http://workreadycommunities.org/>



Washington State Coordination
Work Ready Washington:
<http://www.workreadywa.org/>



Questions?