

Aligning Data and Resources to Connect Workers with Jobs

An Analysis of our Region's Manufacturing and Healthcare Industries

Convening Committee Kickoff Meeting
Institute of Portland Metropolitan Studies



July 16, 2014

Meeting Background and Objectives

- IMS Mission:

The Institute of Portland Metropolitan Studies (IMS) convenes regional partners, curates credible information and conducts objective policy research to stimulate dialogue and action that address critical regional issues.

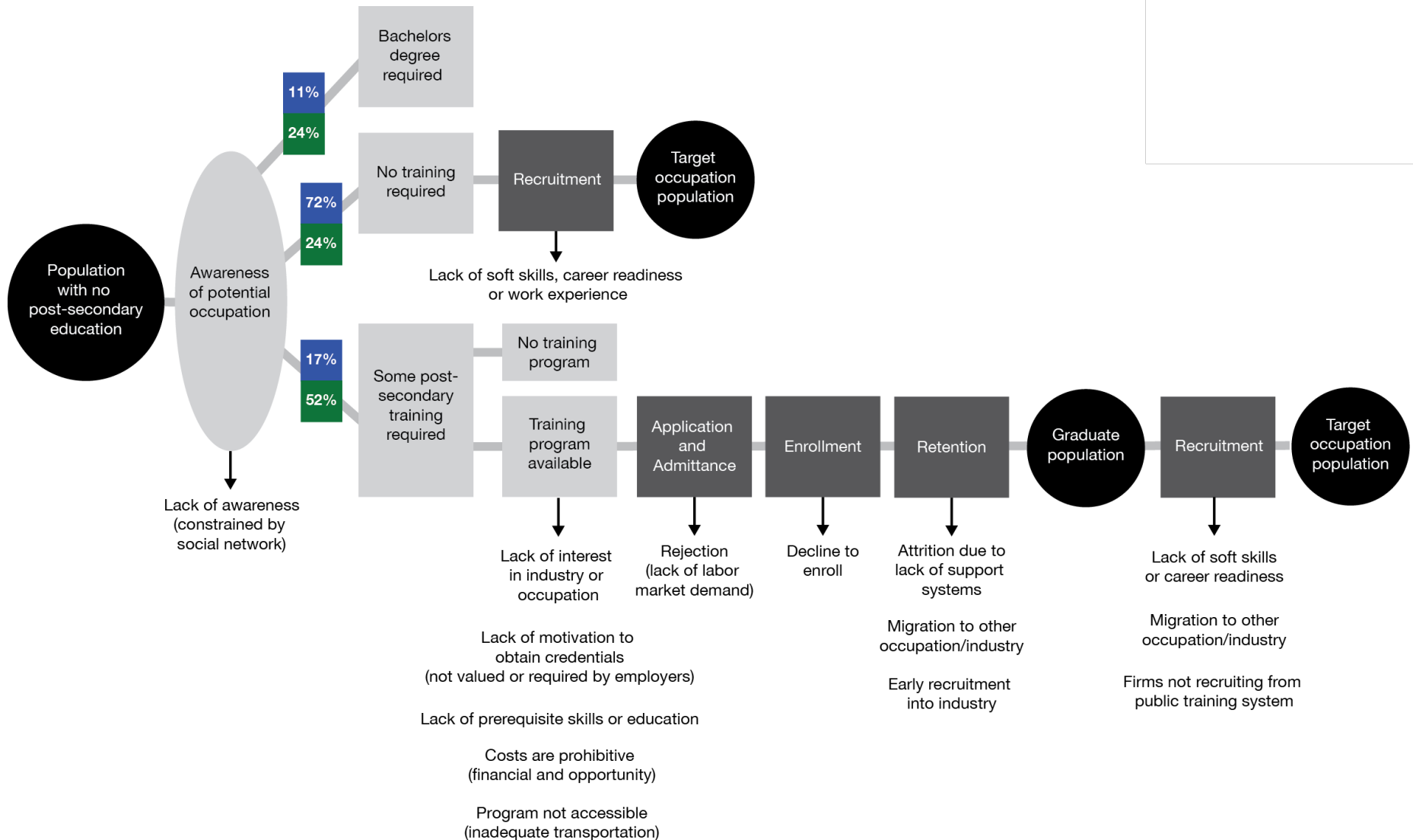
- Workforce is a regional issue affecting public, private, and nonprofit sectors on both sides of the Columbia River

- How might we better align resources and information among the many workforce players to improve information and outcomes?

The Workforce Pipeline

A conceptual model

Workforce Pipeline



Manufacturing

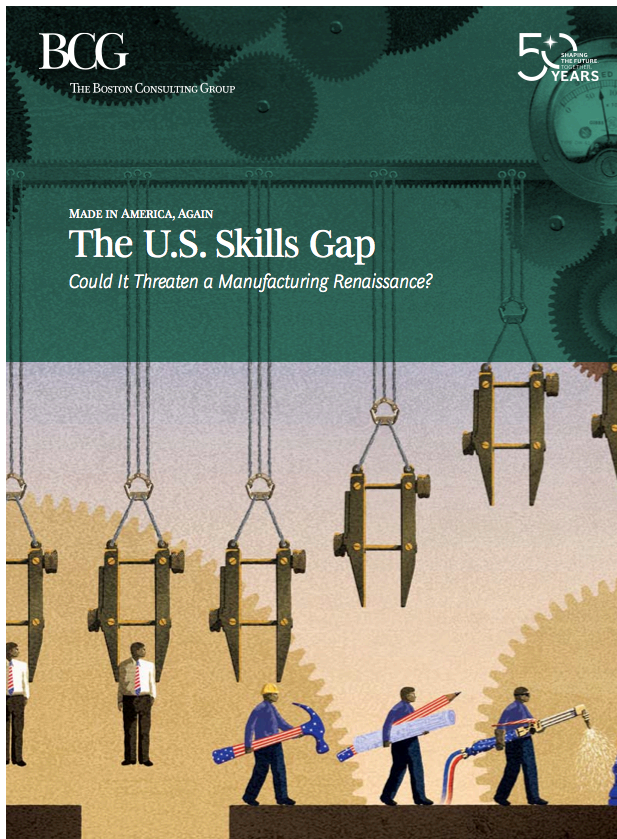
National, state and regional studies

U.S. Manufacturing Institute Manufacturing Firm Survey (2014)



- **Shortages are real:** about 80 percent of manufacturers believe there is a moderate to serious shortage of skilled production workers
- **Shortages impact productivity:** between 67 percent and 89 percent of manufacturers use overtime due to shortages
- **Shortages are costly:** A typical manufacturer with an 8 to 10 percent shortage of skilled workers will experience an 11 percent decrease in gross earnings as a result

Boston Consulting Group: Manufacturing Skills Gap Study (2014)



- **Shortages are overstated:** only actually about 1 percent of workforce or 8 percent of skilled production workers
- **Shortages are localized:** only five of fifty metros are actually experiencing a shortage (greater Portland is not one of them)
- **Manufacturers must do more:** no longer can they scale back training and avoid engagement with high schools and community colleges
- **Retirements and technology change** may increase the risk of shortages in the future, however.

Oregon Employment Dept: Difficult-to-Fill Jobs (2012)

- ❑ The Production occupational group was one of the most difficult-to-fill job categories in 2012
- ❑ The most difficult-to-fill occupations were:
 - ❑ Welders: 87% difficult-to-fill
 - ❑ CNC Machinists: 86% difficult-to-fill
 - ❑ Production Workers, all other: 70% difficult-to-fill
- ❑ Lack of work experience, qualified candidates, and technical skills were the top reasons
- ❑ Lack of applicants was not a top reason, so the shortage is driven by either a skills shortage or employer screening practices

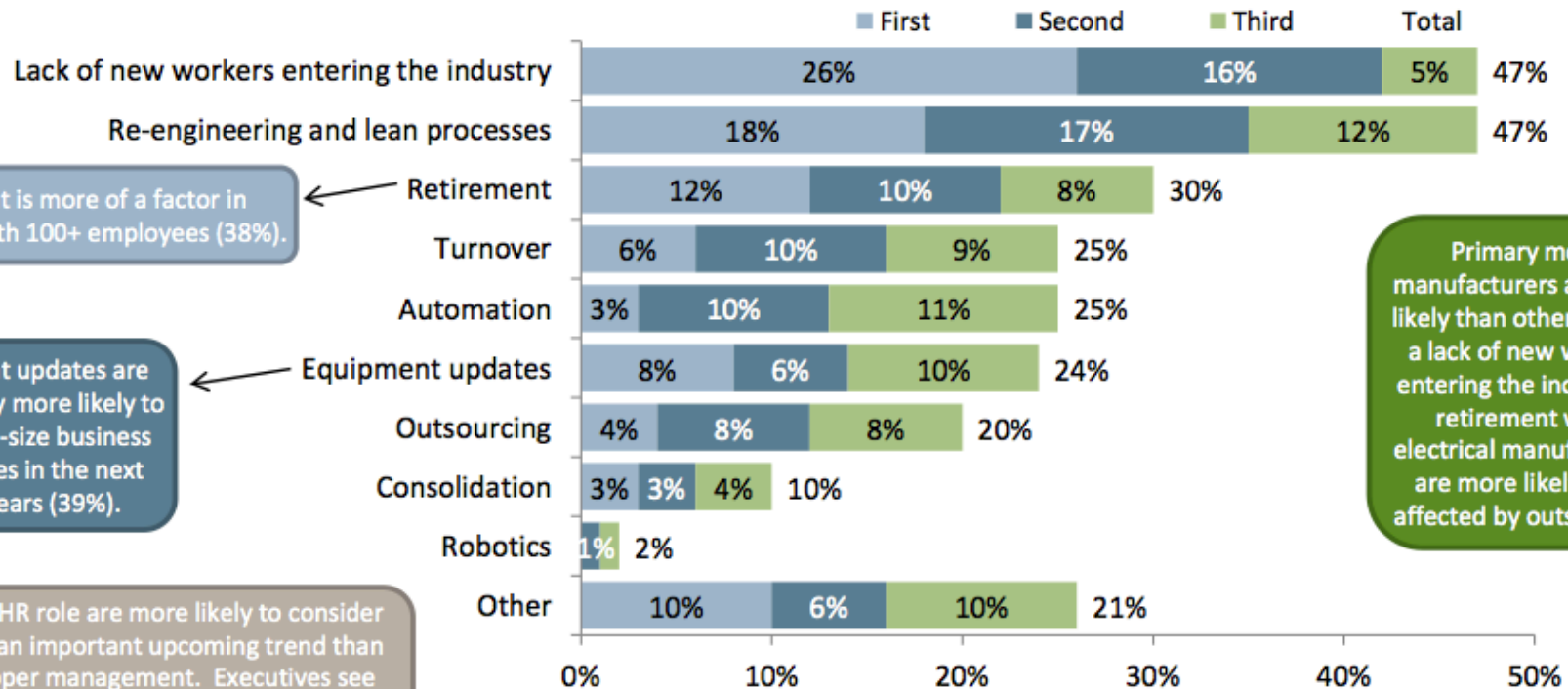
Two-Fifths of Oregon's Job Vacancies Are Difficult to Fill

Top Manufacturing Difficult-to-Fill Occupations

- Graders and Sorters, Agricultural Products
- Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products
- Software Developers, Applications
- Meat, Poultry, and Fish Cutters and Trimmers
- Mechanical Engineers
- Cutters and Trimmers, Hand Electricians
- Maintenance Workers, Machinery
- First-Line Supervisors of Production and Operating Workers
- Production Workers, All Other

Columbia-Willamette Workforce Collaborative Manufacturing Firm Survey (2012)

Important Trends or Changes to Workforce in Next 3 Years



Retirement is more of a factor in companies with 100+ employees (38%).

Equipment updates are significantly more likely to affect mid-size business workforces in the next three years (39%).

Staff in the HR role are more likely to consider retirement an important upcoming trend than those in upper management. Executives see outsourcing as a bigger trend than those in other positions at manufacturing firms.

Primary metal manufacturers are more likely than others to face a lack of new workers entering the industry or retirement while electrical manufacturers are more likely to be affected by outsourcing.

Columbia-Willamette Workforce Collaborative Manufacturing Firm Survey (2012)

■ Challenges:

- Skilled production workers are most difficult to fill
- Lack of new workers entering the industry constrains supply
- Soft skills and problem solving skills are lacking among skilled production workers

■ Responses:

- Only half of firms use apprenticeships, only 14 percent use those provided by L&I
- 60 percent use internships but mostly through universities
- Work experience valued over a skill credential

Worksystems, Inc: Advanced Manufacturing Sector Profile (2014)

- Advanced manufacturing accounted for **85 percent of the region's total exports in 2012**
- A **growth rate of 11 percent in 2012** was the second fastest in the nation
- **Engineers and Engineering Technicians** represent the highest growth and highest paying occupations in the sector
- **Two-thirds of the sector's jobs** require less than an associate degree
- **Skilled production occupations** will see significant 10 year growth and annual jobs openings
- **Demand for some skilled production occupations is outpacing supply**

WIRED: Manufacturing Workforce Audit (2010)

- **The largest share (46 percent) of new jobs only require work experience** but 17 percent will require post-secondary training
- **Training program capacity is sufficient** to meet the forecasted demand by 2016
- **But only 30 percent of program participants** are hired into the manufacturing industry
- **The training pipeline “leaks”**: program completers do not translate into large, qualified labor pool
 - Hired before they complete program
 - Migrate to another industry outside manufacturing

WIRED: Manufacturing Workforce Audit (2010)

- **Attrition is high for manufacturing programs:** the number of program enrollees are far greater than graduates
- **Manufacturers employ above-average share of migrants:** this could indicate that firms view the local workforce as inadequate or that importing talent is easier than training
- **Participants are disproportionately male, white and slightly older than participants in other CTE programs**
- **Increasing recruitment into the training programs and into the manufacturing industry are much more important issues than increasing program capacity**

Health Care

National, state and regional studies

College for America: The Rise of Frontline and Nonclinical Workers (2013)

- **Increasing national demand for frontline and nonclinical workers** driven by healthcare reform, aging population and technology change

- **Six occupations that will grow by 20 to 40 percent from 2010 to 2020:**
 - Medical Office Specialist
 - Medical Assistant
 - Office Supervisor
 - Community Health Worker
 - Medical Records Tech
 - Patient Representative/Navigator

- **These roles are becoming more complex and important and each require post-secondary training**

Oregon Employment Dept: Difficult-to-Fill Jobs (2012)

- Health care occupations were the most difficult-to-fill job vacancies of any industry in 2012
- Health care had twice as many difficult-to-fill vacancies than any other industry
- A lack of applicants and unfavorable working conditions were cited as the top reasons for difficult-to-fill vacancies
- Nursing Assistants, Registered Nurses and Physical Therapists were among the top 25 most difficult-to-fill occupations

Two-Fifths of Oregon's Job Vacancies Are Difficult to Fill

Top Health Care and Social Assistance Difficult-to-Fill Occupations

- Nursing Assistants
- Preschool Teachers, Except Special Education
- Registered Nurses
- Personal Care Aides
- Teacher Assistants
- Physical Therapists
- Occupational Therapists
- Medical Secretaries
- Massage Therapists
- Child, Family, and School Social Workers

Columbia-Willamette Workforce Collaborative: Regional Healthcare Workforce Report (2011)

- **Training programs have capacity to meet demand, except for a few key occupations**
 - EMT/Paramedic
 - Medical Office/Coding/Administration
 - EKG Technicians
 - Medical Sonographers

- **Medical Assistants and LPNs are over-trained:** 6.3 Medical Assistants and 3.7 LPNs per job opening

- **Need to expand skills and maybe add new workers** due to electronic health record technology, new medical coding language, aging population and implementation of health care reform

- **Desire for more culturally diverse workers** to match populations served

Worksystems, Inc: Health Care Sector Profile (2014)

- Health care sector **grew four times faster** than the overall economy and accounted for **35% of net employment growth** from 2002 to 2012
- **Eight of the top ten occupations are unique** to the sector
- **Five of the top ten occupations require only on-the-job training**, though post-secondary credentials make candidates more competitive
- **Home health aides** will be the fastest-growing large occupation, **outpacing the sector 2-to-1**
- **Registered Nurses** will add the largest number of jobs, accounting for **one-quarter of the sector's new jobs**

Regional Workforce Funding

WIRED Resource Mapping (2010)

WIRED:

Regional Workforce System Resource Mapping (2010)

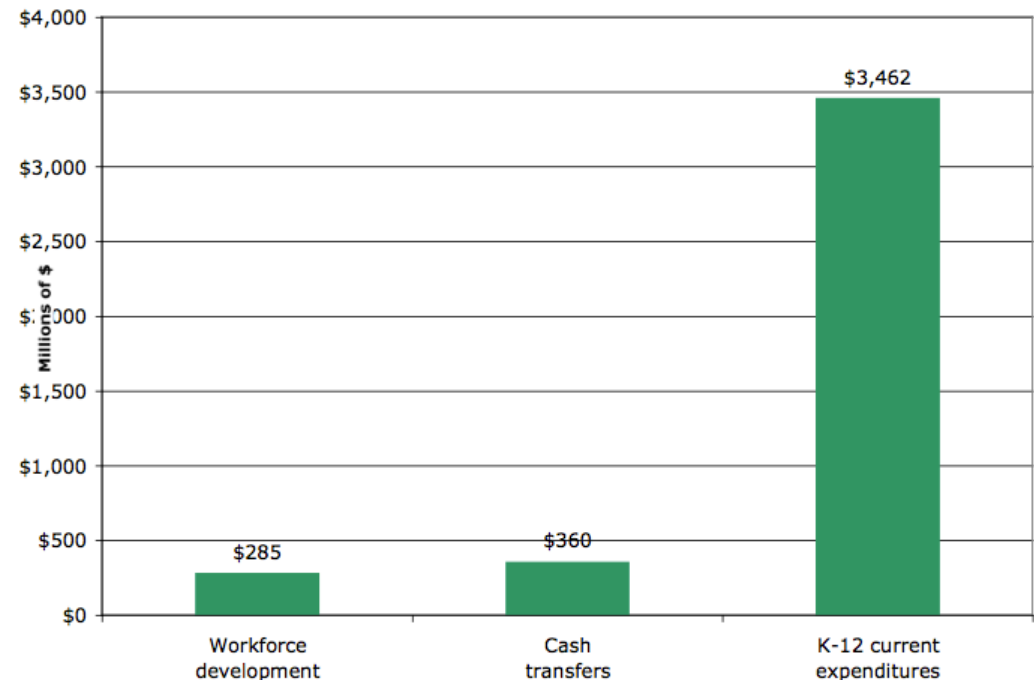
- ▣ **Workforce Investment Boards control just 11 percent of resources, and only 7 percent of occupational training funds**
- ▣ **Occupational training accounts for 36 percent of total resources**
- ▣ **Community colleges control 80 percent of those training resources, much coming from tuition and fees**



WIRED:

Regional Workforce System Resource Mapping (2010)

- The region's workforce system operates on about **\$285 million** annually as measured in 2007
- That is about **8 percent of K-12 funding** and slightly lower than total cash transfer programs

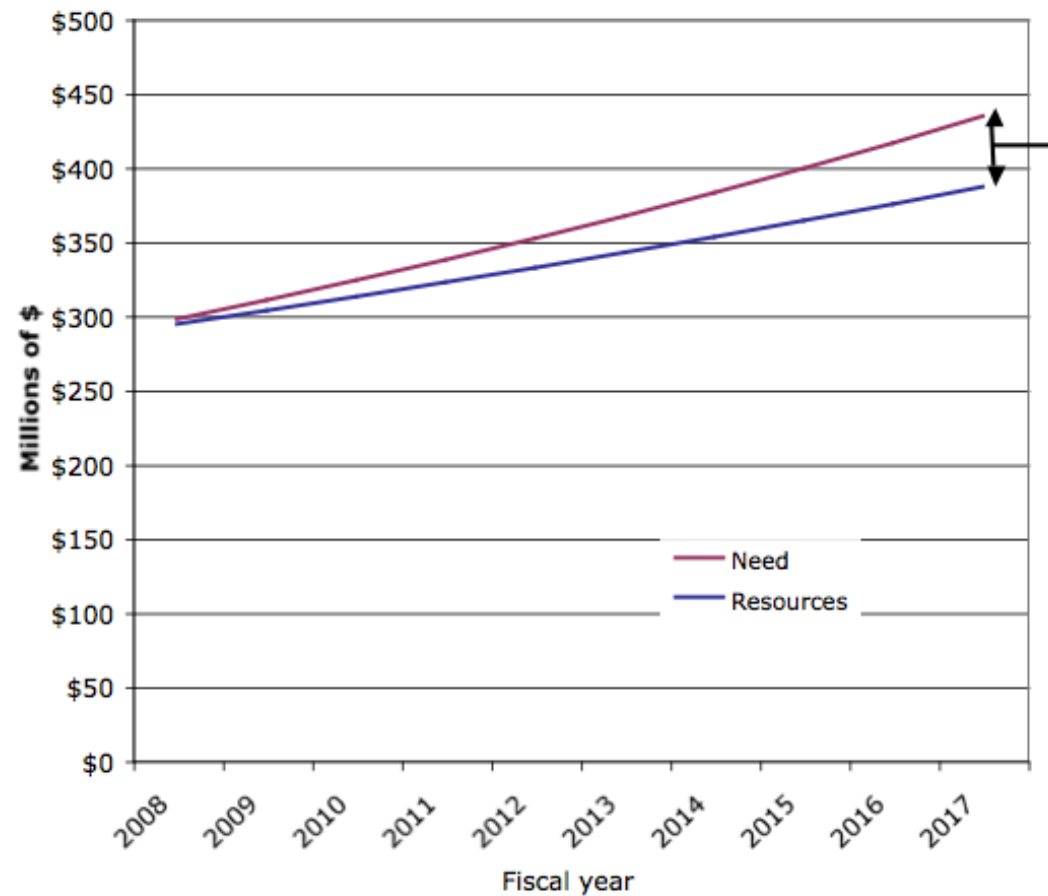


WIRED:

Regional Workforce System Resource Mapping (2010)

- The system is projected to experience a **\$72 million shortfall**, or about 15 percent of resources between 2008 and 2017

- Current (2007) resources allocated to training can only serve about **17 percent** of the targeted population



Workforce Pipeline

