



Cornell University  
ILR School

# Technology and Work: Improving Employment Outcomes for People with Disabilities

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*K. Lisa Yang and Hock E. Tan* Institute on Employment and Disability  
Professor of Disability Studies  
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# Today we will also hear from ...

**Annie-Rose Fondaw**, LaunchCode, Communications Manager

**Jenny Lay-Flurrie**, Microsoft, Senior Director, Trusted Experiences Team (TExT) & Accessibility, Online Safety and Privacy

**Stephen King**, U.S. Department of Defense, Director, Computer/Electronic Accommodations Program (CAP)

**Lane Hartman**, Cisco, HR Manager, MILR '15

**Arnon Zamir**, Tikkun Olam Makers (TOM), Founding Director

**Reut Baer**, Cornell University student, ILR '17

**Zach Shulman**, Entrepreneurship at Cornell (E@C), Director

# Americans with Disabilities

- Almost 11% of the U.S. working age population
- Significant employment gap (35% vs. 77%)
- Household income disparity (\$39,400 compared to \$62,000 annually)
- Higher poverty rate (28% vs. 13%)



## Technology and Employment Sustainability Initiative



### Convenings

2013 Cornell ILR School Employment and Technology Roundtable, April 12, 2013

2014 Cross Atlantic Roundtable on Information Technologies and Labour Market Disruptions, March 20-21, 2014

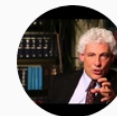
[www.ilr.cornell.edu/institute-for-compensation-studies/insights-research/employment-sustainability-initiative](http://www.ilr.cornell.edu/institute-for-compensation-studies/insights-research/employment-sustainability-initiative)

### Featured Videos and News Stories



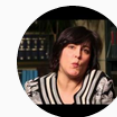
VIDEO / EMPLOYMENT SUSTAINABILITY

Roundtable Thoughts and Insights



VIDEO / EMPLOYMENT SUSTAINABILITY

Technology's Impact on the World of Work



VIDEO / EMPLOYMENT SUSTAINABILITY

Importance of Cross-Sector Dialogue



NEWS / FACULTY

New American Dream

## **Tech Sector Areas of Focus Today**

1. Tech sector offers opportunities for new skills training
2. Expands employment opportunities
3. Technology also provides tools to facilitate accommodation and integration of previously marginalized workers
4. ILR/Cornell related current activities

## Polling Question #1

Approximately how many job openings are available in the U.S. technology sector?

- A. 100,000
- B. 250,000
- C. 500,000
- D. 1,000,000

## Why Focus on the Tech Sector?

- Total employment in “high-tech” industries is 28 million workers
- Approximately one fifth (19%) of all U.S. workers are employed by these “high-tech” industries
- 4.9% of all employees in these high-tech industries are persons with disabilities, a significantly lower proportion than found in the non-high-tech industries (5.8%)

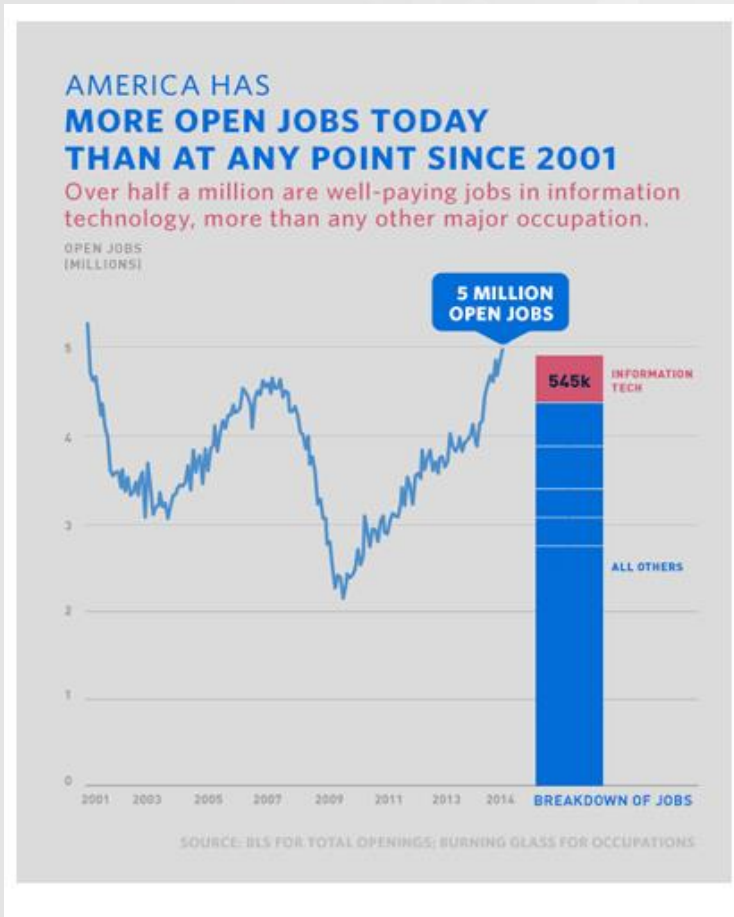
Calculations by: W. Erickson, October 2015, using ACS PUMS Data. See [www.disabilitystatistics.org](http://www.disabilitystatistics.org) for further information.

Source: Workforce Information Council. (2014). *Exploring the high tech industry*. Report of the Workforce Information Council High-Technology Taxonomy Study Group. Retrieved from the Idaho Department of Labor website at:

[https://labor.idaho.gov/publications/Exploring\\_High-Tech\\_Industry.pdf](https://labor.idaho.gov/publications/Exploring_High-Tech_Industry.pdf)



## President Obama's TechHire Initiative



Currently **545,000** open jobs in the Information Technology Sector (approximately 12% of all unfilled jobs)

## President Obama's TechHire Initiative



***Annie-Rose Fondaw***

**LaunchCode**

Communications Manager

St. Louis, MO

# Effects of Select Workplace Practices on Effective Hiring of IWDs

Organizations with:

Increased likelihood of hiring:

- |  |                  |
|--|------------------|
| • <b>Internships for IWDs</b>                        | <b>5.7 times</b> |
| • Strong senior management commitment                | 4.8 times        |
| • Explicit organizational goals to recruit/hire IWDs | 4.1 times        |
| • Actively recruiting individuals with disabilities  | 3.2 times        |
| • Including PWD in diversity and inclusion plan      | 3.2 times        |
| • Relationships with community organizations         | 2.7 times        |

## Tech Sector - Areas of Focus Today

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- 2. Expands employment opportunities**
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***Jenny Lay-Flurrie***

**Microsoft**

Senior Director, Trusted Experiences Team  
(TExT) and Accessibility,  
Online Safety and Privacy  
Redmond, WA

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## Polling Question #2

Among workers who report requesting an accommodation, what proportion are people with disabilities?

- A. 75%
- B. 50%
- C. 25%
- D. 5%

# *Stephen King*

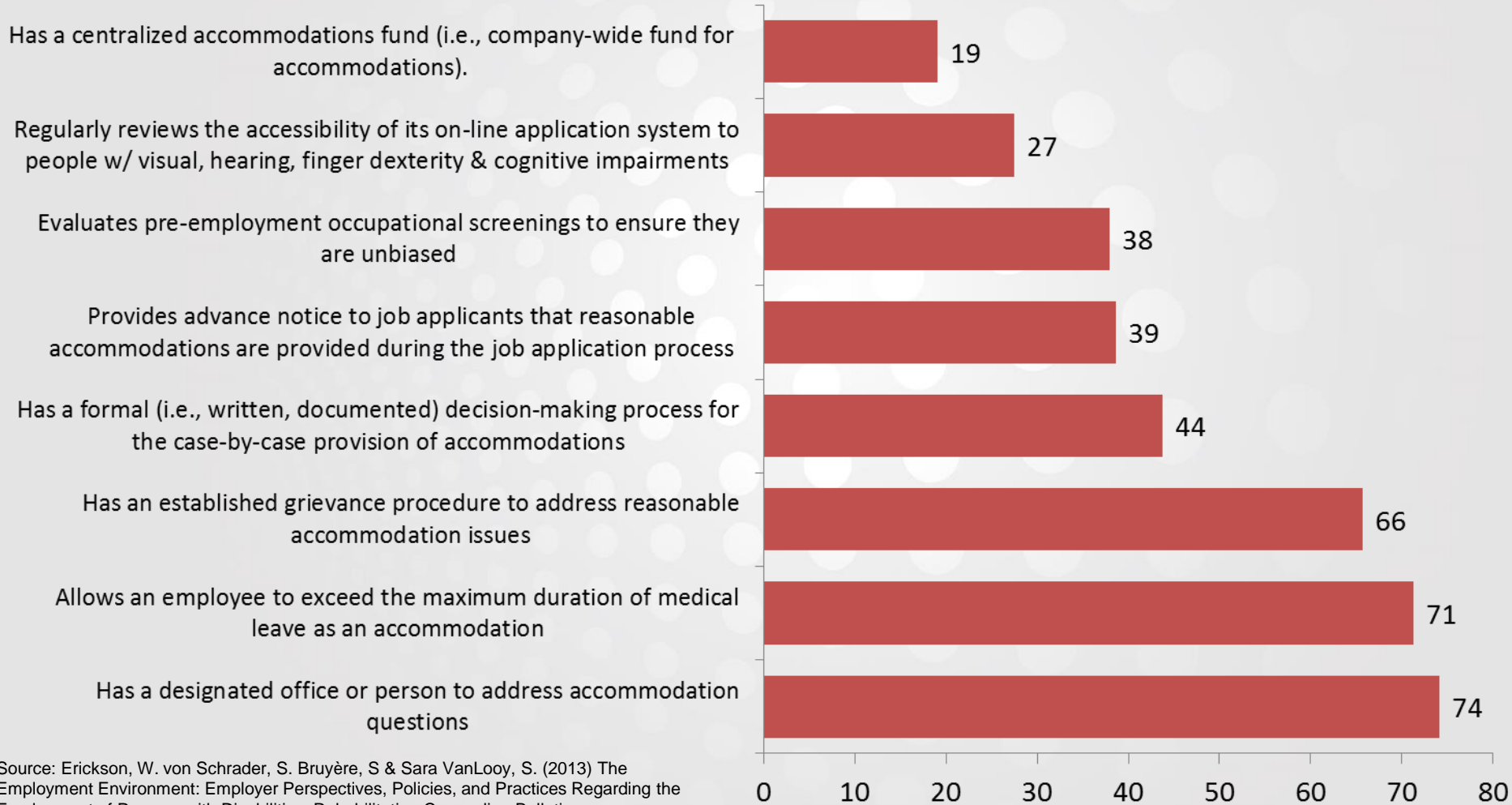
**U.S. Department of Defense**

Director, Computer/Electronic  
Accommodations Program (CAP)

Washington, D.C.

# Accessibility and Accommodation

Percentage of organizations which implemented each practice or policy





## HOW THE DEVICE WORKS

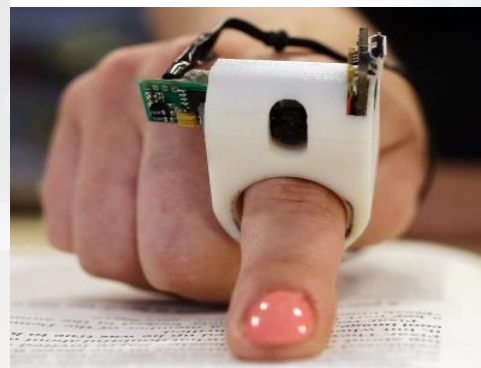
- 1** Inch-long camera hidden in sunglasses sends image to a handheld control unit
- 2** The control unit converts the image into a low resolution black, white and grey picture
- 3** Image recreated on a grid of 400 electrodes. Each one pulses according to how much light is in that area of the picture
- 4** User 'feels' the shape and detects movement on their tongue
- 5** Brain eventually learns to 'see' the shape detected on tongue



### 'BrainPort V100' Helps Blind People See Through Their Tongue

the potential for speech-to-text, face recognition – all of which can help people with a variety of disabilities."

CBCnews | Technology & Science



### FingerReader reads to blind in real time

U.S. News & WORLD REPORT



"Google Glass has a ton of potential to transform lives for people with disabilities... voice-activated technology,

# SCALEV



### Stair-Climbing Wheelchair

TIME Health



Prosthetic arm "translates signals from ...muscles to perform complex tasks"

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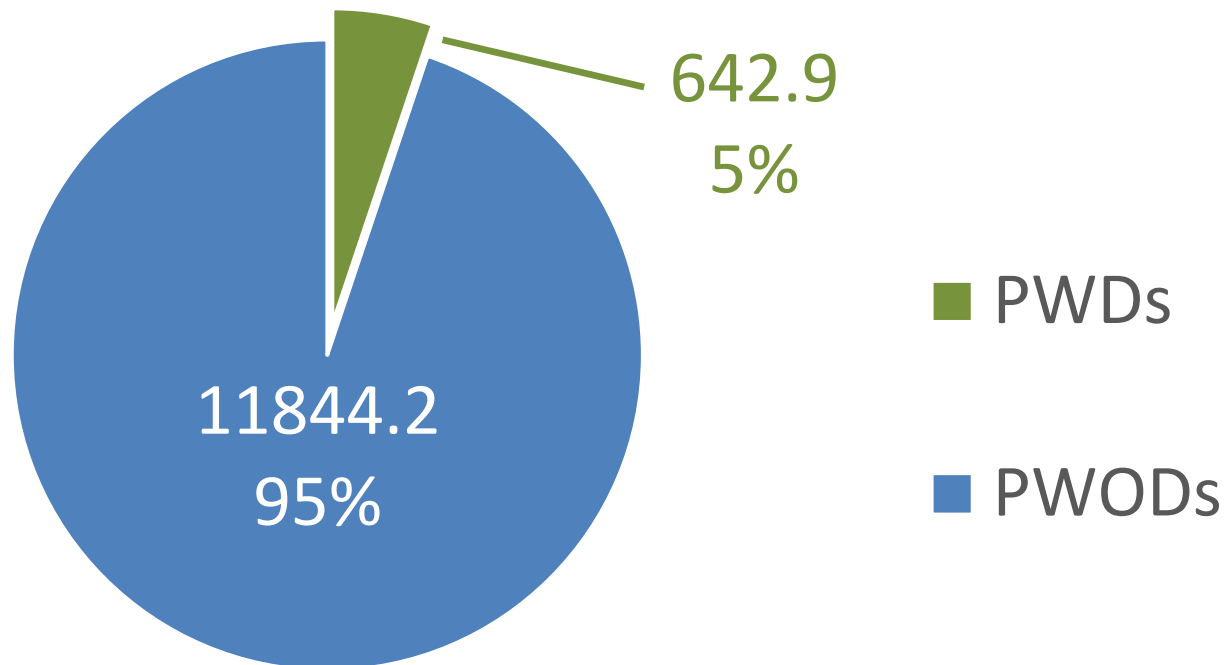
- A. 75%
- B. 50%
- C. 25%
- D. 5%**

## Who is requesting accommodations?

- 12.7% of employed PWD have requested accommodations
- 8.6% of employed people WITHOUT disabilities have requested accommodation
- Requests from PWD account for **only 5 percent of all accommodation requests**
- 11.8 million individuals without disabilities requested accommodations compared to 0.6 million with disabilities.

# Who is Requesting Accommodations?

Number (in thousands) and Percentage of Workers With and Without Disabilities among Workers Who Requested Accommodation



# Q & A



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**Lane Hartman**

**Cisco**

HR Manager

Cornell University Alumnus, MILR '15

# Cornell Tech Campus



## **Arnon Zamir**

Founding Director, Tikkun Olam Makers (TOM)

## **Reut Baer**

Cornell University Student, ILR '17

## **Zach Schulman**

Director, Entrepreneurship at Cornell (E@C)

# Q & A

# THANK YOU FOR JOINING US

The next ILR Online Program will be on 11/10/15, where Dean Kevin Hallock and Professor Ron Ehrenberg will discuss fiscal issues in higher education

- HRCI and CRC Credits are available.
  - For your CRC credit, you will need to complete the evaluation after the event to receive credit and email Katie Steigerwalt – [kms342@cornell.edu](mailto:kms342@cornell.edu) to receive your certificate.