

# Measuring Skills Acquisition: Developing New Definitions and Data Sources

Sharon A. Boivin, Ph.D.

Chair, Interagency Working **G**roup on **E**xpanded  
**M**easures of **E**nrollment and **A**ttainment  
(**GEMEnA**)

FESAC Meeting

December 11, 2015

# Workforce Data Needs

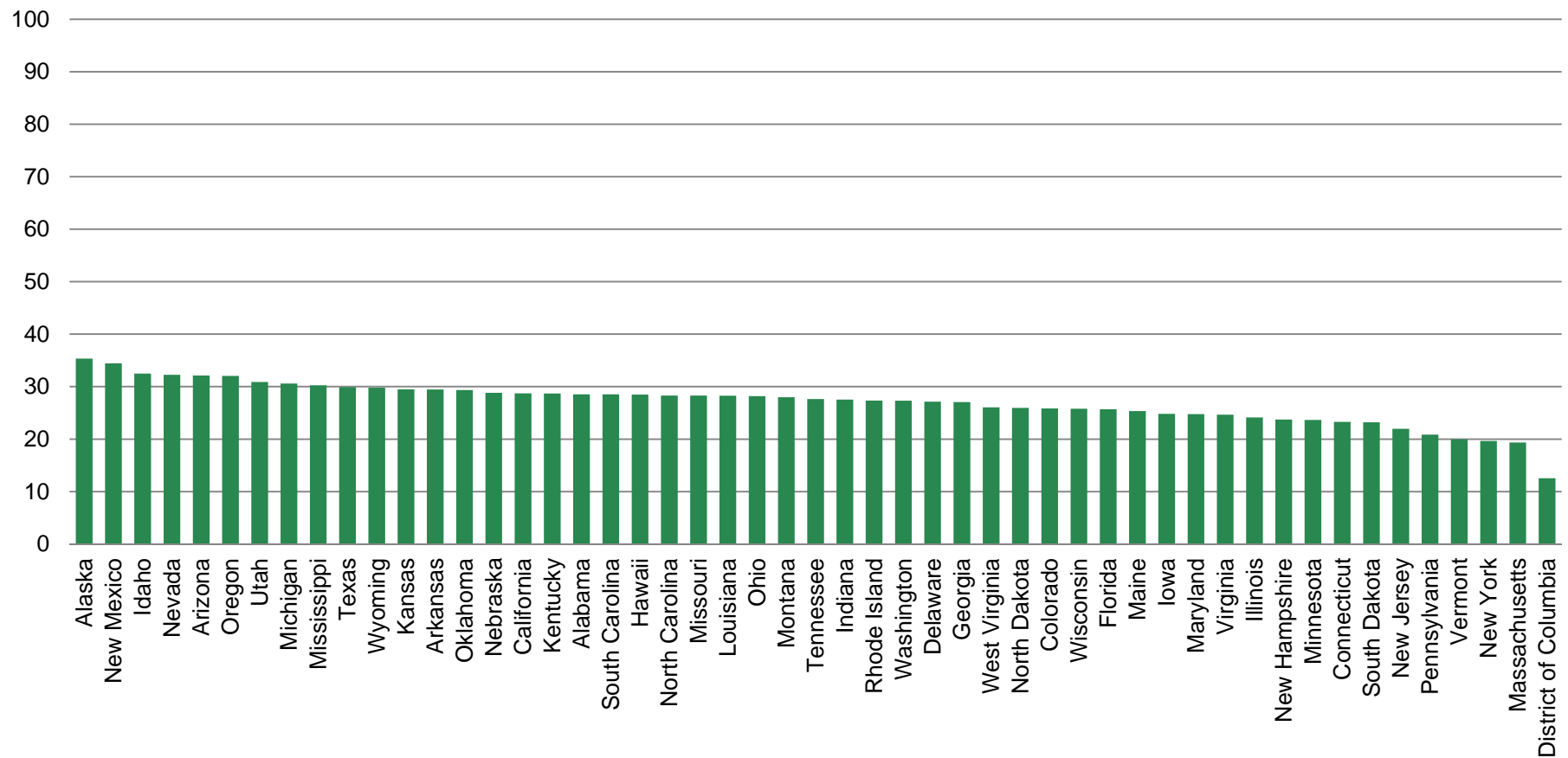
1. What is the stock of credentials with labor market value in the U.S. adult population?
2. What is the process by which adults acquire the knowledge and skills to attain those credentials?

# Partial Data Gaps

- Stock of credentials:
  - Number and characteristics of non-degree credentials
    - Industry-recognized certifications
    - Occupational licenses
    - Educational certificates
- Pipeline for credentials:
  - Work experience programs
  - Preparation for new certifications and licenses

# Percent of 25 to 34 year olds with at least a high school diploma who report "some college", by state

(Source: 2011 ACS)



# Background

- An interagency group had considered measurement of certifications in the early 2000s, but the time wasn't ripe
- Policy makers began asking these workforce questions during the recession.
- 2009 SOTU called for every American to have at least one year of education or training beyond high school
- GEMEnA commissioned in fall 2009

# GEMEnA Member Organizations

- National Center for Education Statistics (NCES), Chair
- Bureau of Labor Statistics
- Census Bureau
- Council of Economic Advisors
- Department of Education Office of the Under Secretary
- National Center for Science and Engineering Statistics (NSF)
- OMB Office of Statistical and Science Policy

# Objectives

- Develop a parsimonious set of survey items to measure prevalence and key characteristics of non-degree credentials
  - Incorporate items into federal surveys of households and individuals
- Develop sets of items to measure:
  - Completion of work experience programs
  - Training pipeline for non-degree credentials

## Development Process

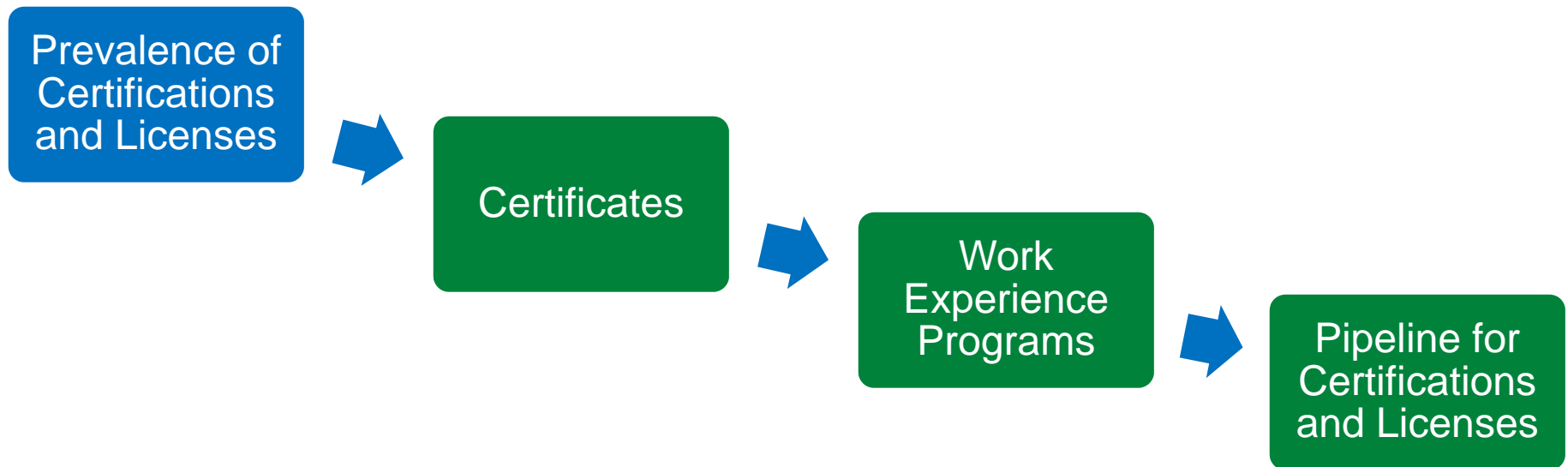
- Experts help define the constructs
- Focus groups of potential respondents provide insight into relevant words/terms
- Cognitive interviews refine question wording and instructions
- Pilot studies test survey items on large numbers of respondents



## Pilot Studies

- The Adult Training and Education Study (ATES) of 2010 (~3,700)
  - Seeded sample
- The National Adult Training and Education Study (NATES) response rate pilot in 2013 (~10,000)
  - Nonresponse Bias Study
- The National Household Education Study Feasibility Study (NHES-FS) in 2014 (~44,000)
  - Seeded sample

# Overview of New Survey Items



# Defining the Constructs

- **Certification:** A credential awarded by a certification body based on an individual demonstrating through an examination process that he or she has acquired the designated knowledge, skills, and abilities to perform a specific job. The examination can be either written, oral, or performance-based. Certification is a **time-limited credential** that is **renewed** through a recertification process.
- **License:** A credential awarded by a government agency that constitutes legal authority to do a specific job. Licenses are based on some combination of degree or certificate attainment, certifications, assessments, or work experience; are **time-limited**; and must be **renewed** periodically.

## ATES\* Item—Certification/License

6. Do you have a currently active professional certification or a state or industry license? Do not include business licenses, such as a liquor license or vending license.

*A professional certification or license shows you are qualified to perform a specific job and includes things like Licensed Realtor, Certified Medical Assistant, Certified Teacher, or an IT certification.*

No → **GO TO question 30**

Yes



# ATES “Bucket” Questions

**10. Is your most important certification or license required by a federal, state, or local government agency in order to do that kind of work?**

- No
- Yes
- Don't know

**11. Can your most important certification or license be revoked or suspended for any reason?**

- No
- Yes
- Don't know

## CPS Items on Certifications/Licenses

- Do you/Does [name] have a currently active professional certification or a state or industry license? Do not include business licenses, such as a liquor license or vending license.  
Help text: A professional certification or license shows you are qualified to perform a specific job. Examples include a realtor license, a teacher's license, or an IT certification. Only include certifications or licenses obtained by an individual.
- Were any of your/his/her certifications or licenses issued by the federal, state, or local government?
- Earlier you told me you/[name] had a currently active professional certification or a state or industry license. Is your/his/her certification or license required for your/his/her job?

## More Data on Certifications--Now Available

- 2008 Survey of Income and Program Participation (SIPP), Wave 13 topical module fielded in fall 2012
- 2002/2012 Education Longitudinal Survey 10 year follow up of 10<sup>th</sup> grade class of 2002 (12<sup>th</sup> grade class of 2004)
- 2008/12 Baccalaureate and Beyond 4 year follow up of 2008 Bachelor degree recipients

## More Data on Certifications— Available in the Near Future (availability)

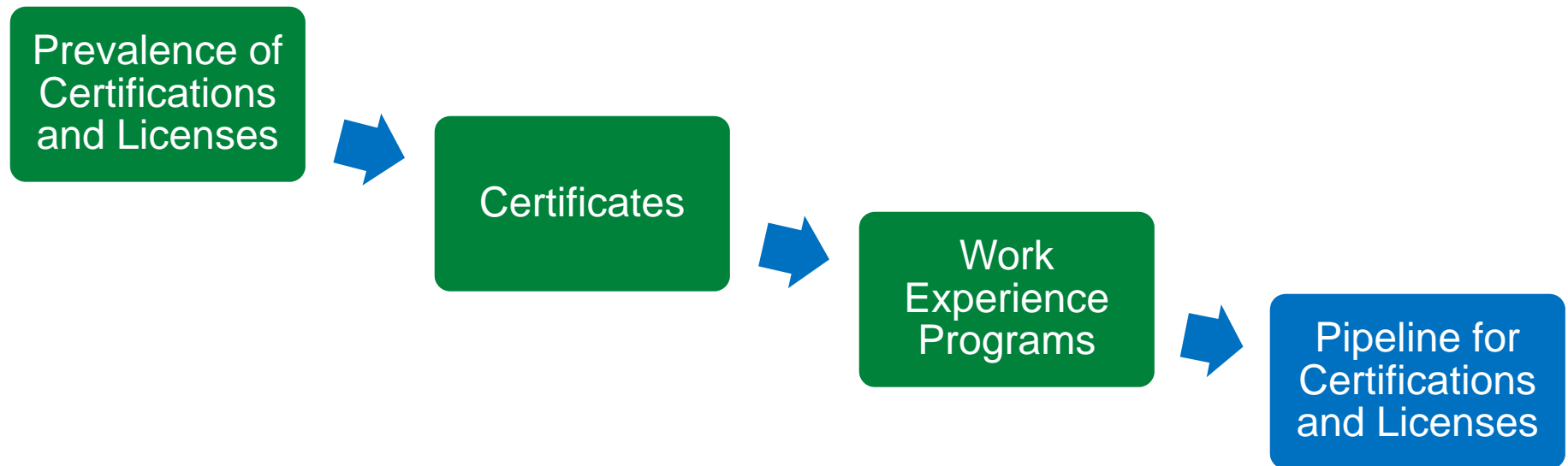
- Re-engineered SIPP (full file in Spring/Summer 2016)
- National Survey of College Graduates (Summer 2016)
- Beginning Postsecondary Students (Spring 2016)
- Adult Training and Education Survey (Summer 2017)



Website: [nces.ed.gov/surveys/gemena](https://nces.ed.gov/surveys/gemena)

- List of surveys with links to questionnaires and data (as they become available)
- Links to documentation on development process and published reports
- GEMEnA-developed working definitions of certifications, licenses, and certificates
- Link to LinkedIn group: GEMEnA Community
- Sign up for NCES Newsflash

# Overview of New Survey Items



# Defining the Construct

- Initial approach focused on participation in formal education and training leading to a credential.
- Current approach focuses on the portfolio of activities that adults engage in to acquire the skills and knowledge they need to qualify for a credential.
- Focus on new certifications and licenses, not renewals.
- Name and type of certification/license; activities required and completed; employer support.

## Development Plans

- Concept interviews (completed Sept 2015)
- Expert Panel meeting (held in October 2015)
- Cognitive interviews (Jan/Feb 2016)
- Pilot test (Jan 2017)
- Full scale ATEs:2019

## Questions

1. Items 1 and 6 seem critical—do you agree?
2. What are the highest priorities among the other items?
3. What's the best way to measure barriers to credential attainment?

## For More Information

Sharon A. Boivin, Ph.D.

Chair, Interagency Working Group on Expanded  
Measures of Enrollment and Attainment

National Center for Education Statistics

[sharon.boivin@ed.gov](mailto:sharon.boivin@ed.gov)