# **Expanded Measures of Education and Their Labor Market Outcomes** by Stephanie Ewert | Social, Economic, and Housing Statistics Division, U.S. Census Bureau, U.S. Department of Commerce

# Introduction

- Well-established link between educational attainment and socioeconomic outcomes
- Most research uses traditional degrees as measure
- Alternatives to traditional degrees with labor market value:
- Educational certificates
- Professional certifications and licenses

#### **Definitions of Alternative Credentials**

Educational certificate: awarded by training provider or educational institution based on completion of program of study

Professional certification: awarded by certification body based on demonstration through an exam of acquired knowledge and skills to perform specific job

License: awarded by licensing agency based on pre-determined criteria

# Data

- 2008 Survey of Income and Program Participation (SIPP), Wave 2
- Nationally representative longitudinal survey of the U.S.
- Began in 2008 with follow-up interviews every four months
- Measures
- Conventional educational attainment
- Alternative credentials: Have you earned a diploma from a vocational or technical school?
- 2012 SIPP-EHC field test
- Re-Engineered SIPP (SIPP-EHC) shifts from everyfour month to annual data collection
- Oversamples high poverty strata, geographically matched to SIPP 2008, not nationally representative
- Measures
- Conventional educational attainment
- Alternative credentials:
- Have you earned an educational certificate?
- Do you have a professional certification or license?

#### **Interagency Working Group on Expanded Measures of Enrollment** and Attainment (GEMEnA)

SIPP-EHC measures of alternative credentials were developed by GEMEnA. This interagency working group is tasked with improving federal data collection on alternative credentials.

For more information on GEMEnA, please visit http://nces.ed.gov/surveys/gemena/

## Who Holds Alternative Credentials? (Vocational and Educational Certificates, Professional Certifications, and Licenses)

People at All Levels of Educational Attainment Earn Vocational Certificates

Conventional education level Less than high school High school completion Some college, no degree Associate's degree Bachelor's degree Advanced degree

Source: U.S. Census Bureau, Survey of Income and Program Participation, 2008

#### Percent of SIPP-EHC Respondents age 18+ with Professional Certification or License

Unweighted

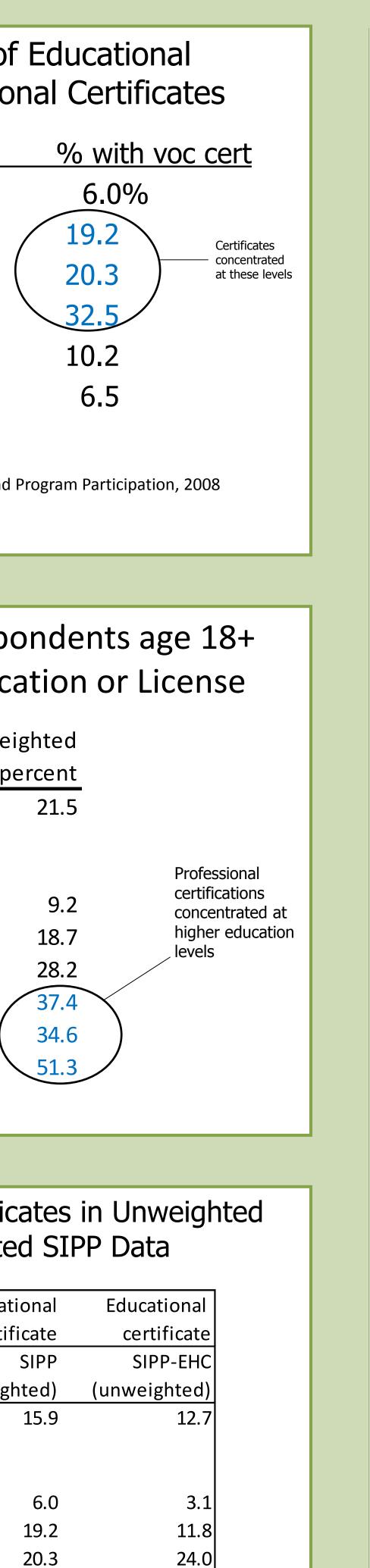
Total

**Educational Attainment** Less than high school High school Some college, no degree Associate's degree **Bachelor's degree** Advanced degree

Source: U.S. Census Bureau, SIPP-EHC, 2012

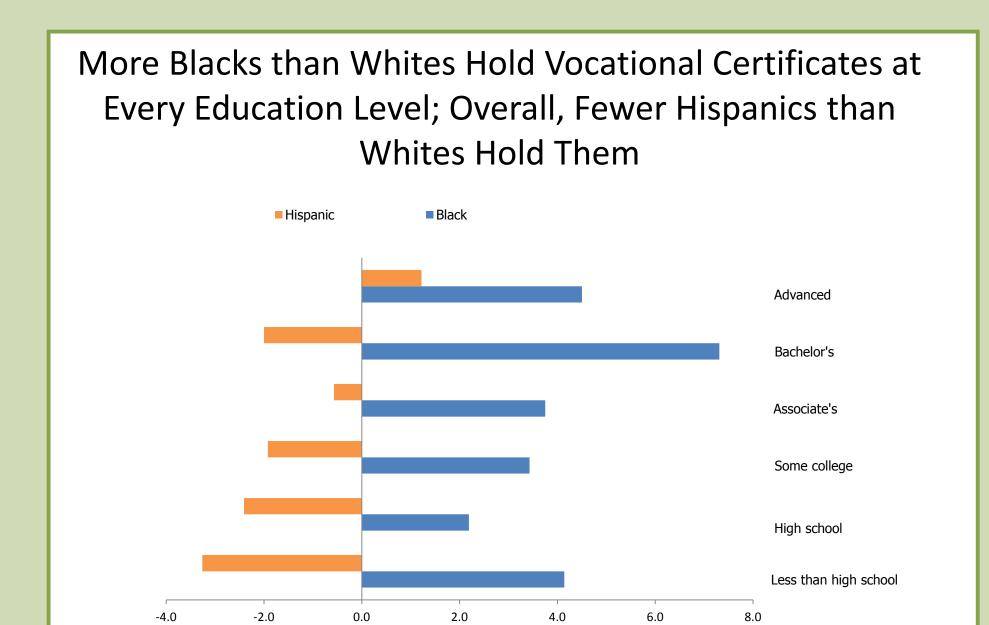
#### Similar Distributions of Certificates in Unweighted SIPP-EHC and Weighted SIPP Data

|  |                        | Vocational  | Educat  |  |
|--|------------------------|-------------|---------|--|
|  |                        | certificate | certi   |  |
|  |                        | SIPP        | SIP     |  |
|  |                        | (weighted)  | (unweig |  |
|  | Total                  | 15.9        |         |  |
|  | Educational Attainment |             |         |  |
|  | Less than high school  | 6.0         |         |  |
|  | High school            | 19.2        |         |  |
|  | Some college, no degre | 20.3        |         |  |
|  | Associate's degree     | 32.5        |         |  |
|  | Bachelor's degree      | 10.2        |         |  |
|  | Advanced degree        | 6.5         |         |  |
| Source: U.S. Census Bureau, Survey of Income and Program Participation, 2008; SIPP-EHC, 2012 |                        |             |         |  |
|  |                        |             |         |  |



More Men than Women age 18 and Over Hold Vocational Certificates Overall sex difference driven by significant differences at the associate's and bachelor's degree levels Less than high

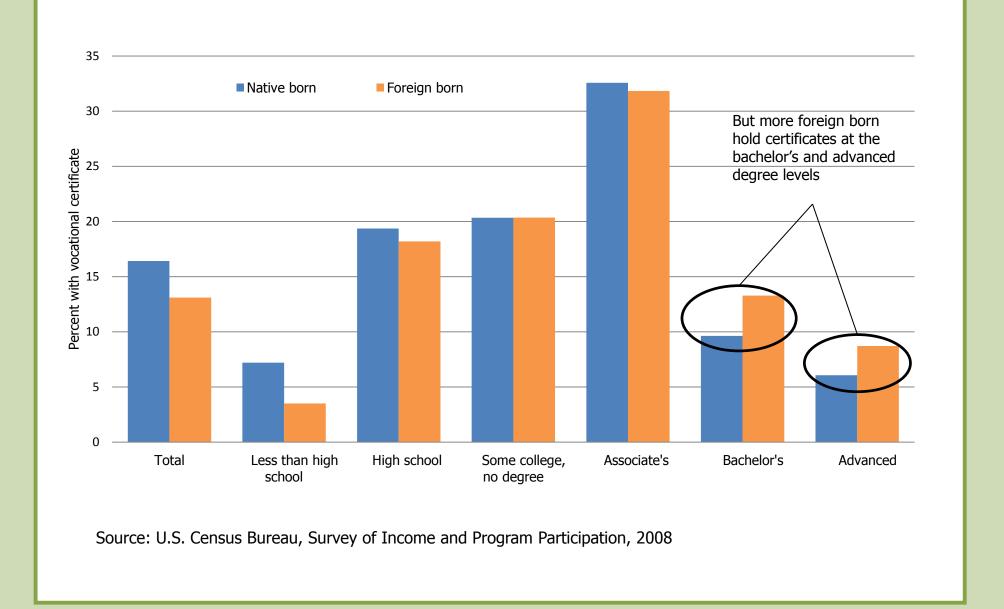
Source: U.S. Census Bureau, Survey of Income and Program Participation. 2008



Overall, More Native Born than Foreign Born Hold Vocational Certificates

ercentage point difference from Whites in vocational certificates

Source: U.S. Census Bureau, Survey of Income and Program Participation, 2008



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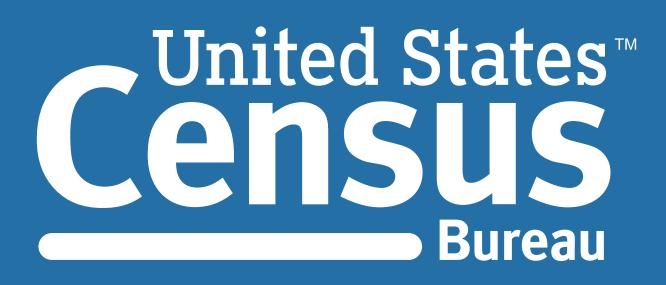
- Regression analyses show effect is especially for less than high school, high school, associate's degrees
- Increases employment for women relative to men

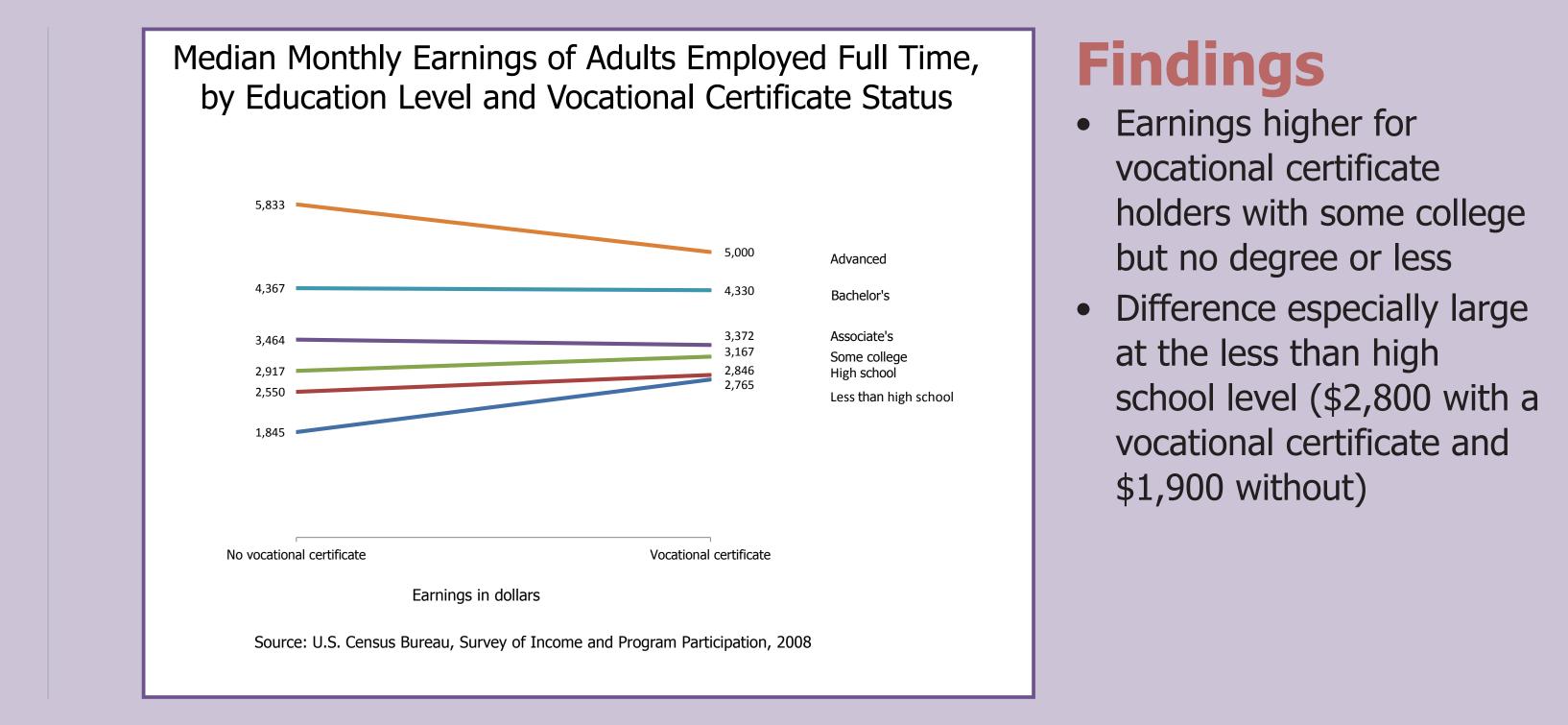
| are<br>hative<br>iated<br>bor<br>et<br>omes? | Percent of Adults with Any Employment, by<br>Education Level and Vocational Certificate Status  | <section-header><list-item><list-item></list-item></list-item></section-header>  |
|--|---|--|
| do<br>ns to<br>ative<br>by<br>by<br>pup?     |   | Regression of Log Mont<br>18 and Older with Full-         Intercept         Male         Age         Age         Age         Age         Aganic         White         Black         Xain         Otter race         Black degree         Age         Age         Black degree         Age         Destinant for the full degree         Black degree         Age         Black degree         Black degree         Age         Black degree         Black degree |
|  | <ul> <li>Findings</li> <li>People with vocational certificates more likely to be employed than those without</li> <li>Positive effect of vocational certificates on likelihood of employment especially at less than high school, high school, and associate's degree levels</li> <li>Vocational certificate improves women's likelihood of employment relative to men's</li> </ul> | <ul> <li>Findings</li> <li>Effect of vocational cert</li> <li>Positive effect for ed<br/>but no degree or low</li> <li>Negative effect for ed<br/>degree or higher</li> <li>Positive effect for His<br/>non-Hispanics and weight</li> </ul>  |

# Conclusions

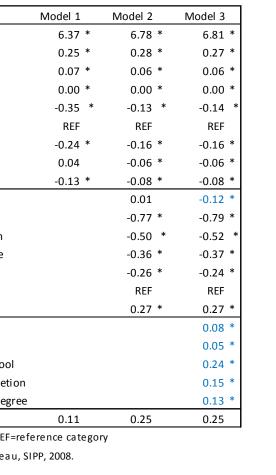
- Vocational certificates affect labor market outcomes (employment and earnings); effects vary by subgroup
- Adults with vocational certificates more likely to be employed than those without
- Effect of vocational certificates on earnings varies by subgroup
- Regression analyses show less than high school and high school completers with certificate earn more than without
- Men and Hispanics get larger earnings boost from certificate than women and non-Hispanics



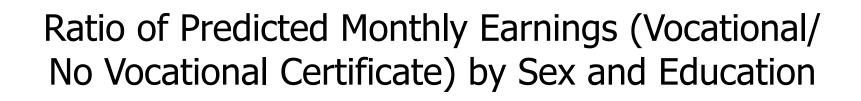








- rtificate on earnings varies: ducation level of some college
- education level of associate's
- spanics and men compared to omen





### Findings

- Less than high school: men and women earn more with than without vocational
- Bachelor's degree: men and women earn less with than without vocational
- Associate's and advanced: women earn less with than without vocational
- Difference in earnings by vocational status varies for men and women except at less than high school level