PIAAC on the Horizon

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National Center for Education Statistics

PIAAC Research Conference
December 7, 2018
Overview

- PIAAC National Data Collection
- PIAAC Products Since Cycle I (2011-12)
- Upcoming PIAAC 2017 Products
- PIAAC Small Area Estimates (SAE)
- PIAAC Cycle II (2021-22)
U.S. PIAAC 2011-2021

Cycle 1

- 2011-12 PIAAC Cycle 1
  - National sample of 5,010
- 2014 U.S. PIAAC National Supplement
  - Oversample of subgroups
    - 3,660 Household
    - 1,200 Incarcerated adults
- 2015 Education and Skills Online
  - Available in the U.S. in English and Spanish
- 2017 U.S. PIAAC 2017
  - National household sample of 3,660; 5-year update

Cycle 2

- 2021-22 PIAAC Cycle 2
  - National and State samples

U.S. PIAAC 2017 sample is combined with the 2011-12 and 2014 samples to support state and county-level small area estimates.
PIAAC Products Since 2011

**PIAAC First Look Reports**
- Skills of U.S. Unemployed, Young and Older Adults in Sharper Focus: Results from the Program for the International Assessment of Adult Competencies (PIAAC) 2012/14 (2016)
- Highlights from the U.S. PIAAC Survey of Incarcerated Adults: Their Skills, Work Experience, Education and Training (2016)

**Technical/Methodological Reports**
- Analyzing U.S. Young Adults' Skills by Student and Employment Status: Methodology for a New PIAAC Variable with Initial Results (2018)
PIAAC Products Since 2011-12 (cont.)

- **Shorter Publications**
  - A Description of U.S. Adults Who Are Not Digitally Literate (2018)
  - Literacy and Numeracy Skills of U.S. Men and Women (2018)
  - Adult Literacy in the United States *(to be released in Spring 2019)*

- **Data Sets**
  - 2012 Public and Restricted-use Data Files--Household (2014)
  - 2012/14 Public and Restricted-use Data Files--Household (2016)

- **International Data Explorer (IDE)**
  - Data update (2018)

- **Distance Learning Dataset Training (DLDT)**
  - Content update (2017)
Upcoming PIAAC 2017 Products

- **Web Report**
    - Focus on trends of the U.S. adult skills

- **Mapping website**
  - PAAC Small Area Estimation (SAE) Mapping Website (Feb. 2020)
    - Provides modeled estimates of adult skills (literacy and numeracy) at the state and county levels.
Upcoming PIAAC 2017 Products (cont.)

- Data sets
  - 2017 Public and Restricted-use data files (Feb. 2020)
  - PIAAC 2012/14/17 Restricted-use data files (Feb. 2020)

- Technical Reports

- International Data Explorer (IDE)
  - Data update (Nov. 2019)
PIAAC Small Area Estimation (SAE)

- PIAAC is designed to produce internationally comparable and nationally representative direct estimates of skills with adequate levels of precision for the nation as a whole and for major population subgroups.

- NCES is interested in creating proficiency estimates for smaller geographical areas (states and counties) for which the PIAAC sample size is insufficient to produce direct estimates.

- To do this, NCES is using SAE which “borrows strength” across related small areas through auxiliary information (mostly ACS data) to produce reliable “indirect” estimates for those small areas.
PIAAC SAE Timeline

- Development phase through March 2019
- Production phase through June 2019
- SAE Website release February 2020
Planned Location of the Mapping Tool

Small Area Estimates

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State and County Indirect Estimates for Literacy and Numeracy Map

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Go to Map →

View Report →
County Summary Information

- Location of area
  - Colorado

- Estimates for 8 outcomes
  - Proportions
    1. At or below Level 1
    2. At Level 2
    3. At or above Level 3
  - Averages
    - For literacy and numeracy

- Shows state estimates
- Precision indicators provided
County Summary Information

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Colorado

**Literacy**

- Level 1: 31%
- Level 2: 20%
- Level 3: 49%

**Average**

- 0
- 230
- 500

**Numeracy**

- Above State Average
  - Precision: Precise
- Below State Average
  - Precision: Moderately Precise
County Summary Information

- Location of area
- Estimates for 8 outcomes
  - Proportions
    1. At or below Level 1
    2. In Level 2
    3. At or above Level 3
  - Averages
    - For literacy and numeracy
- Shows state estimates
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Colorado

Park County
County Summary Information

- Location of area
- Estimates for 8 outcomes
  - Proportions
    1. At or below Level 1
    2. In Level 2
    3. At or above Level 3
  - Averages
    - For literacy and numeracy
- Shows state estimates
- Precision indicators provided

Park County

Colorado

Literacy

- Level 1: 31%
- Level 2: 20%
- Level 3: 49%

State Data:
- Level 1: 27%
- Level 2: 35%
- Level 3: 38%

Average
- Literacy: 236
- Numeracy: 230

Precision: Precise

Above State Average

Below State Average

Moderately Precise
County Summary Information

- Location of area
- Estimates for 8 outcomes
  - Proportions
    1. At or below Level 1
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**Colorado**

**Literacy**

- At or below Level 1: 31%
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State Data: 27% 35% 38%
County Summary Information

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Colorado

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<table>
<thead>
<tr>
<th>Level</th>
<th>Proportion</th>
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<tbody>
<tr>
<td>≤ Level 1</td>
<td>31%</td>
</tr>
<tr>
<td>Level 2</td>
<td>20%</td>
</tr>
<tr>
<td>≥ Level 3</td>
<td>49%</td>
</tr>
</tbody>
</table>
```

```
<table>
<thead>
<tr>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>230</td>
</tr>
<tr>
<td>500</td>
</tr>
</tbody>
</table>
```

- Literacy: Above state average, Precision: Precise
- Numeracy: Below state average, Precision: Moderately Precise
County Summary Information (cont.)

- Show all county estimates in a state
- Text will automatically be generated and appear for results compared to state
- Display estimates from the American Community Survey to help understand the SAE results
Comparing Areas

- Side-by-side display
  - Locations
  - Estimates from 8 outcomes
  - Icon displays
  - Summary of results automatically generated from statistical testing

*Summary*

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Upcoming PIAAC International Cycle II

- 33 countries including the U.S. participating in PIAAC 2021-22.
- Domains: Literacy, Numeracy, Adaptive Problem Solving
- Data Collection
  - Field Trial (Apr. to Jun. 2020)
  - Main Study (Aug. 2021 to Mar. 2022)
- PIAAC 2021-2022 international report release (Fall 2023)
- NCES is promoting state participation in PIAAC Cycle II
For more information on PIAAC

- NCES PIAAC Home Page
- PIAAC Gateway

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