MEASURING EDUCATION, SKILL, AND PERSONALITY

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ENROLLMENT RATES OF 18- TO 24-YEAR-OLDS IN DEGREE-GRANTING INSTITUTIONS, BY RACE AND ETHNICITY (IN %’S)

Source: Condition of Education, NCES
RECENT HIGH SCHOOL COMPLETERS
ENROLLED IN 2-YEAR AND 4-YEAR COLLEGES,
BY INCOME LEVEL: 1975 THROUGH 2011
(IN %’S)
TOTAL POSTSECONDARY ENROLLMENT & BACHELOR’S DEGREES CONFERRED, 1970-2011

Source: Condition of Education, NCES
SOURCES OF INFORMATION ABOUT EDUCATION, SCHOOLS AND SKILLS

• Transcripts: High school, postsecondary
• National Center Education Statistics (NCES) & Office of Civil Rights (OCR) data collections for school contexts
• Administrative data
• Questionnaires and other survey methods (from students, parents, teachers, guidance counselors)
• Private companies and vendors
DATA SOURCES AND THE LIFE COURSE

Preschool  Elementary School  Middle School  High School  Postsecondary School

WAVE 1  WAVE 2  WAVE 3
DATA SOURCES AND THE LIFE COURSE

Preschool  Elementary School  Middle School  High School  Postsecondary School

Early Childhood  Childhood & Adolescence  Early Adulthood & Beyond
DATA SOURCES AND THE LIFE COURSE

TRANSCRIPTS

- Preschool
- Elementary School
- Middle School
- High School
- Postsecondary School

Early Childhood  Childhood & Adolescence  Early Adulthood & Beyond
DATA SOURCES AND THE LIFE COURSE

SCHOOL CONTEXTS

Preschool

Elementary School

Middle School

High School

Postsecondary School

TRANSCRIPTS

Early Childhood

Childhood & Adolescence

Early Adulthood & Beyond
DATA SOURCES AND THE LIFE COURSE

STATE DATA SYSTEMS

TRANSCRIPTS

SCHOOL CONTEXTS

Preschool
Elementary School
Middle School
High School
Postsecondary School

Early Childhood
Childhood & Adolescence
Early Adulthood & Beyond
MEASURING EDUCATION, ACHIEVEMENT & SKILLS

Degree Attainment & Years of Schooling

School Qualities

• K-12 Institutions
• Postsecondary

Curriculum

• Enrollment in school
• Enrollment in courses
• Curricular content of courses
• Academic performance
  • Courses
  • Tests

Cognitive and Noncognitive Skills
DEGREE ATTAINMENT & YEARS OF SCHOOLING

**Self-reports**

**Transcripts**

**Administrative data**

- American Council on Education (ACE) for GED
- National Student Clearinghouse (NSC) for postsecondary degrees
- State data systems for K-16 and beyond

**Cautions:**

- Degrees vs. Licenses and Certificates
- Adult education
- Some proliferation of alternative degree programs
SCHOOL QUALITIES

• Variation in quality, cost, resources, populations served, student achievement, school organization, staff & faculty

• Characterizes opportunities to learn

Sources of information

Kindergarten-Grade 12

• NCES: Common Core, Private School Study, School District Demographic System & OCR
• Private: QED, ACT, College Board
• States: School accountability, aggregate from individual student data

Postsecondary

• NCES: Integrated Postsecondary Education Data System
• Private: National Student Clearinghouse, Barron’s, Princeton Review, U.S. News, etc., ACT and College Board
• States: with complete data systems can estimate flow patterns

Transcript coding requires information about course offerings, grading practices
Source of Information
- Self report
- State data system
- Transcripts (high school, postsecondary)
- National Student Clearinghouse (postsecondary)

Patterns of Interest
- K-12: normative, non-normative transitions between schools
- Postsecondary: pathways vary (disrupted enrollment spells, concurrent enrollment, transfer and reverse transfers)

Cautions
- Data on alternative settings, alternative degree programs is difficult to collect except through self-report
Coursework

- Organized in chunks
- Courses as the basic building blocks
- Distinguish between credits attempted & credits earned

Transcripts are the best source of information

- High School
  - Subject specific trajectories across years, college preparatory courses, vocational courses
- Postsecondary
  - Depth (specialization in subject) & breadth (range of subjects) of coursework
Subject areas vary in course demands

- Rigor
- Analytic
- Rote memorization

Requires prerequisites

Aligned with Common Core (for K-12)

Requires specialized coding
CURRICULUM: ACADEMIC PERFORMANCE

Course grades (from transcripts)

- In a single course
- In a set of courses or across years (of high school)
- Failures

Class rank

Assessments

- State assessments (usually annual)
- End-of-Course exams (state data, College Board for AP)
- College entrance exams (ACT/SAT/College Board)
- Administered by study
SKILLS & PERSONALITY

Direct measures

- Aptitude tests
- Personality assessments
- Other noncognitive skills
  - respondent report
  - reports from others about respondent

Using data from education

- Learning rates
  - Across school years
  - As a function of course demands
- Persistence
  - Enrollment stability, academic performance stability
CONCLUSION

Increasing variability in educational experiences, particularly at the postsecondary level, requires nuanced measurement of education and skills.

Education is typically linked to formal institutions, thus there are many ways to use of administrative data along with surveys.

Transcript data is especially promising because it is accurate and held indefinitely.