MEASURING EDUCATION, SKILL, AND PERSONALITY

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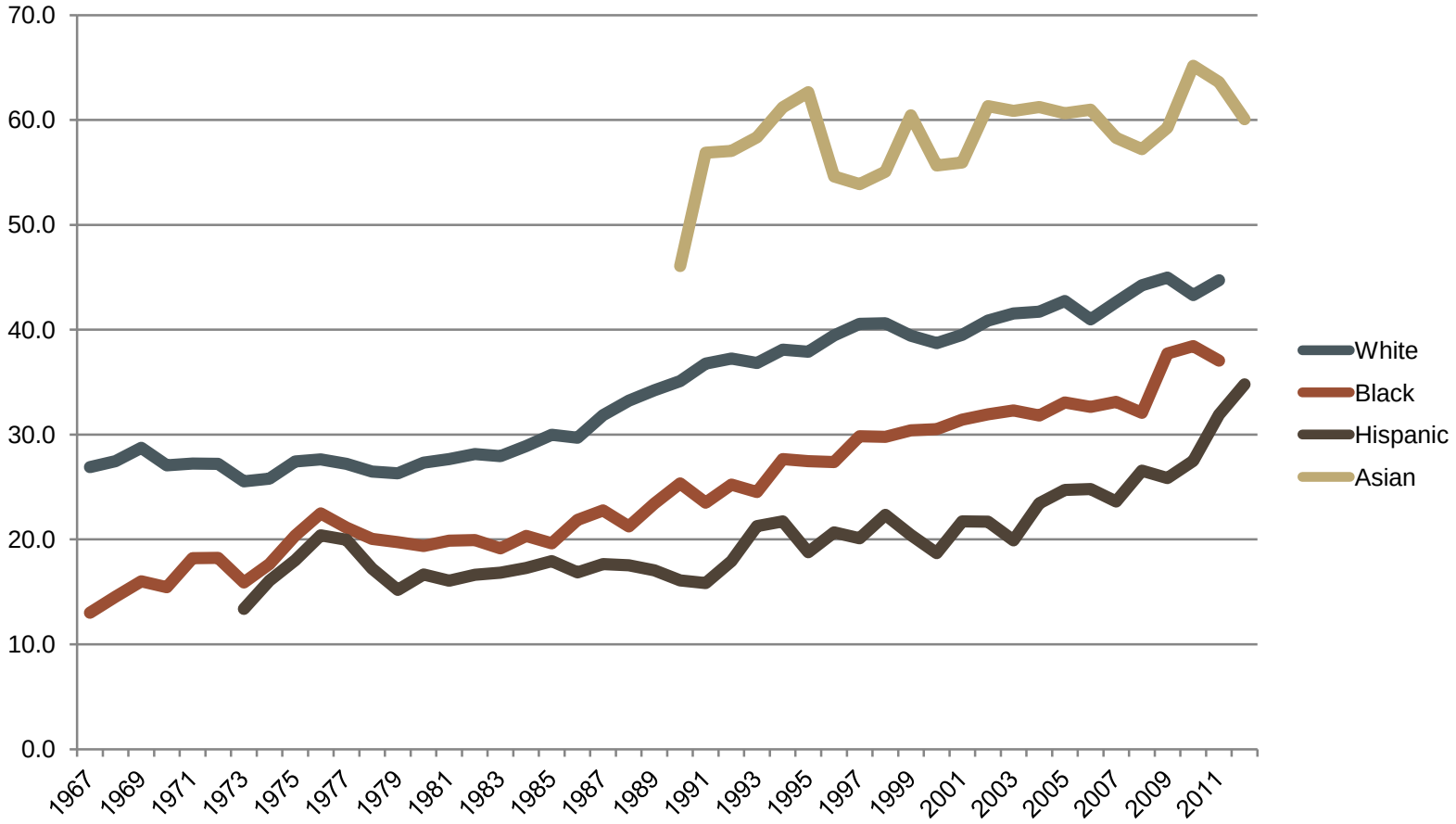
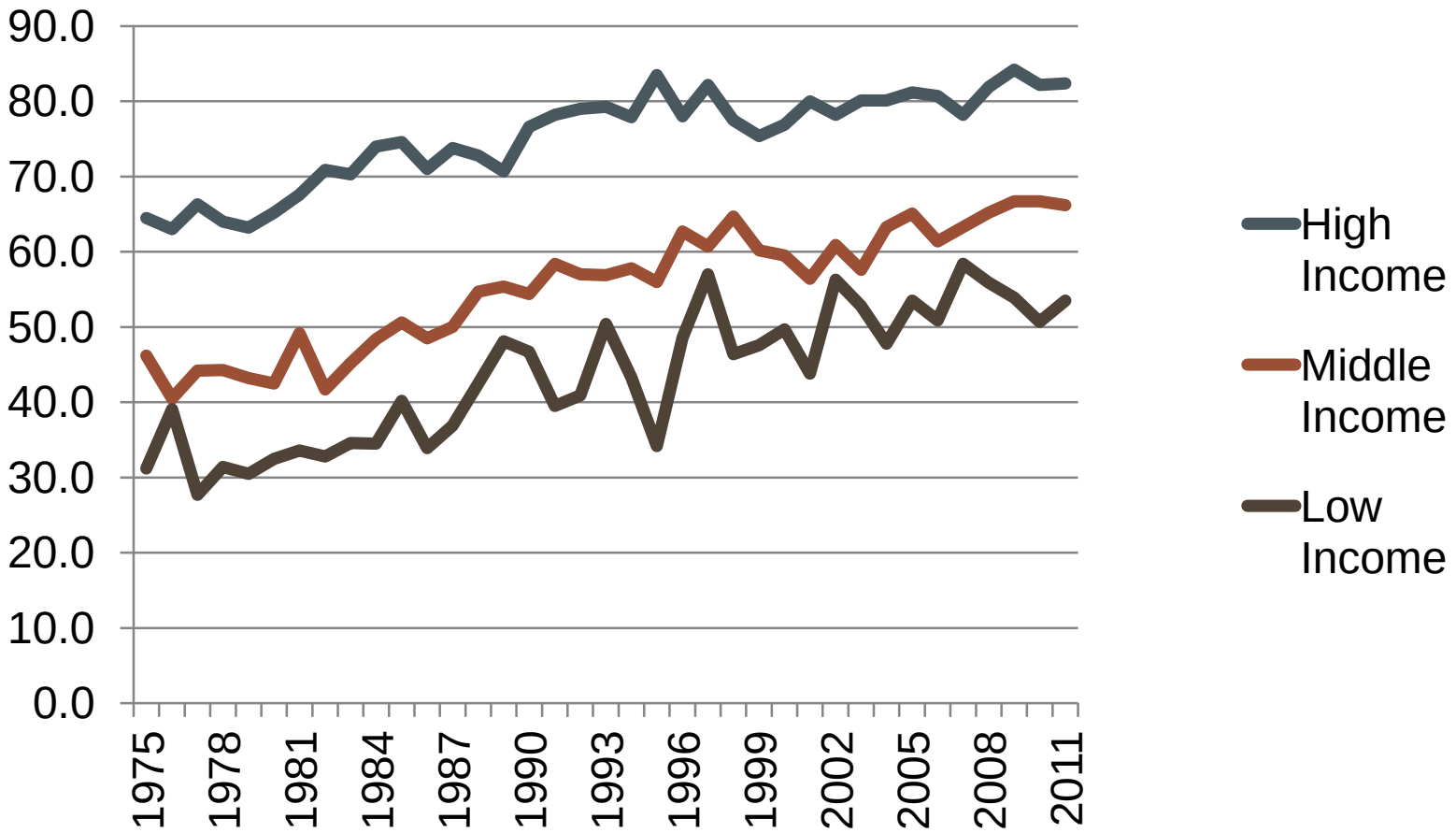
ENROLLMENT RATES OF 18- TO 24-YEAR-OLDS IN DEGREE-GRANTING INSTITUTIONS, BY RACE AND ETHNICITY (IN %'S)

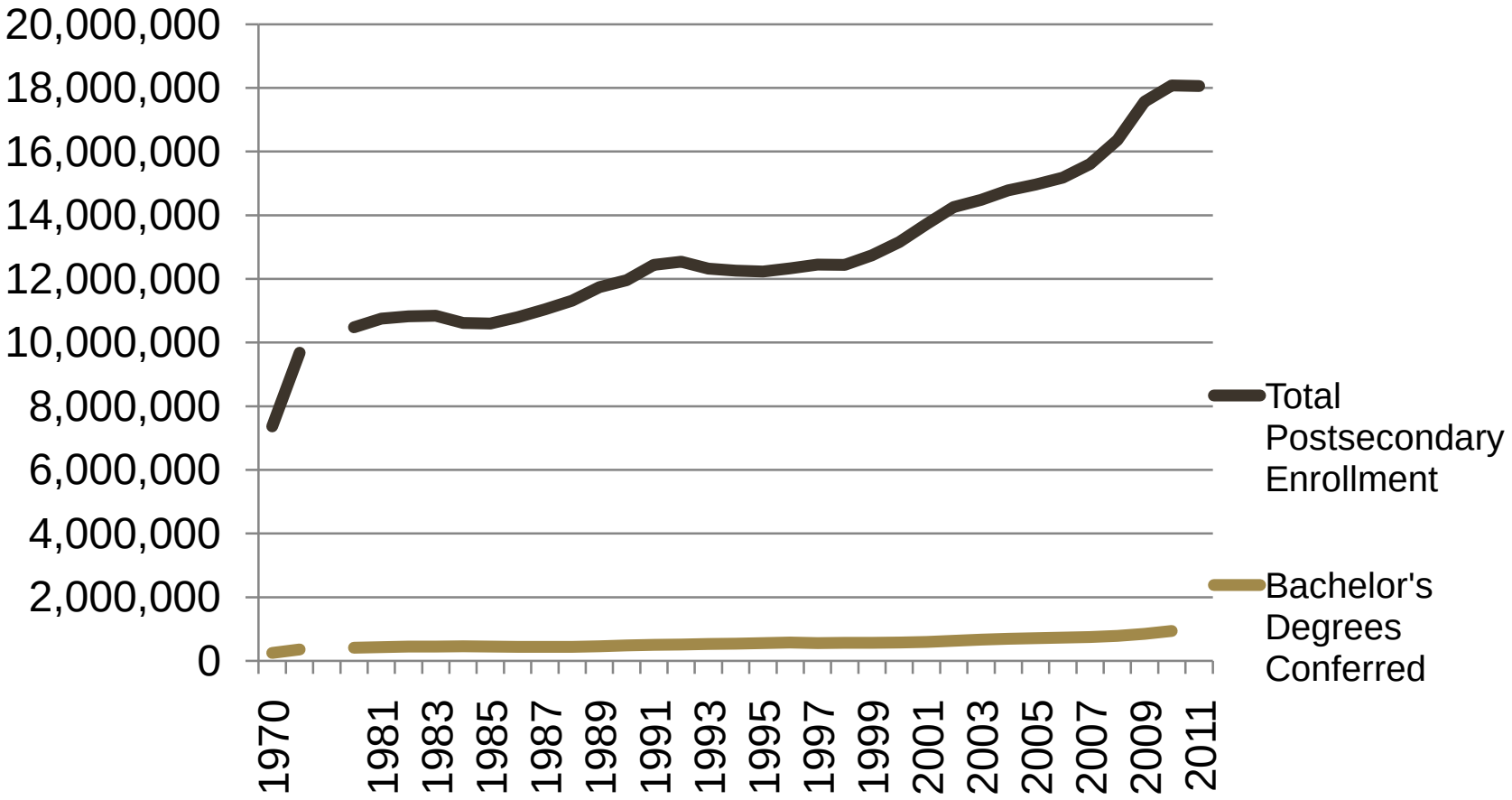


Source: Condition of Education, NCES

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

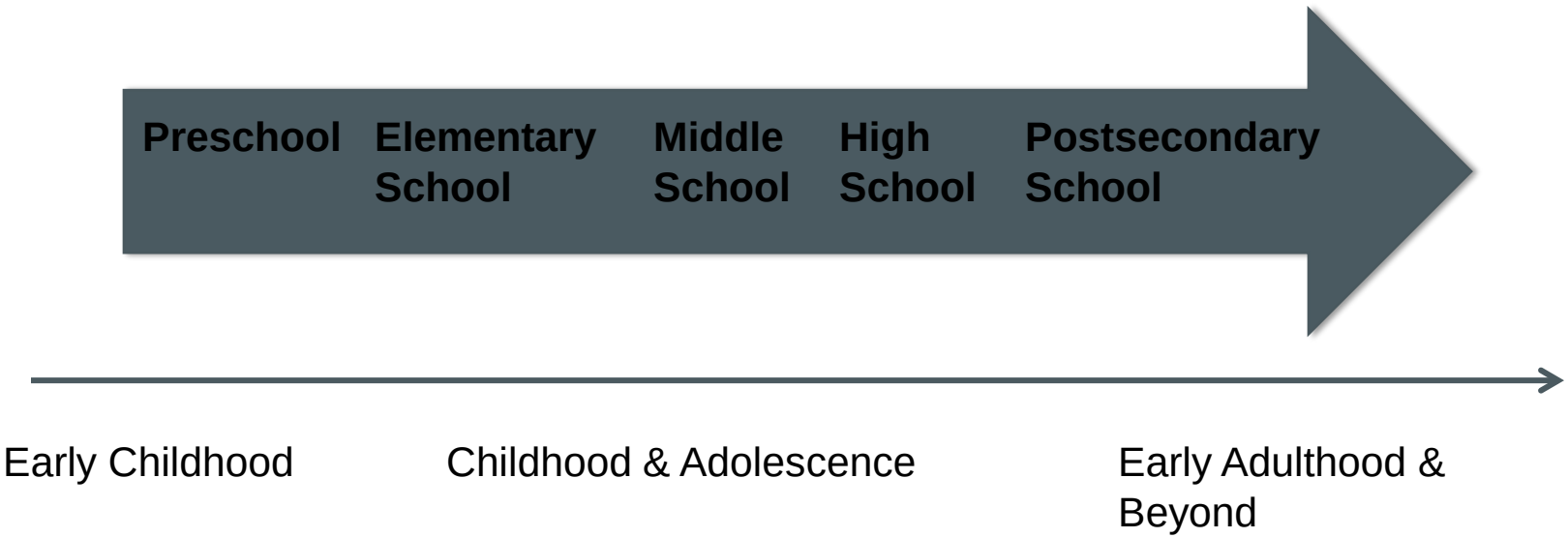


Source: Condition of Education, NCES

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



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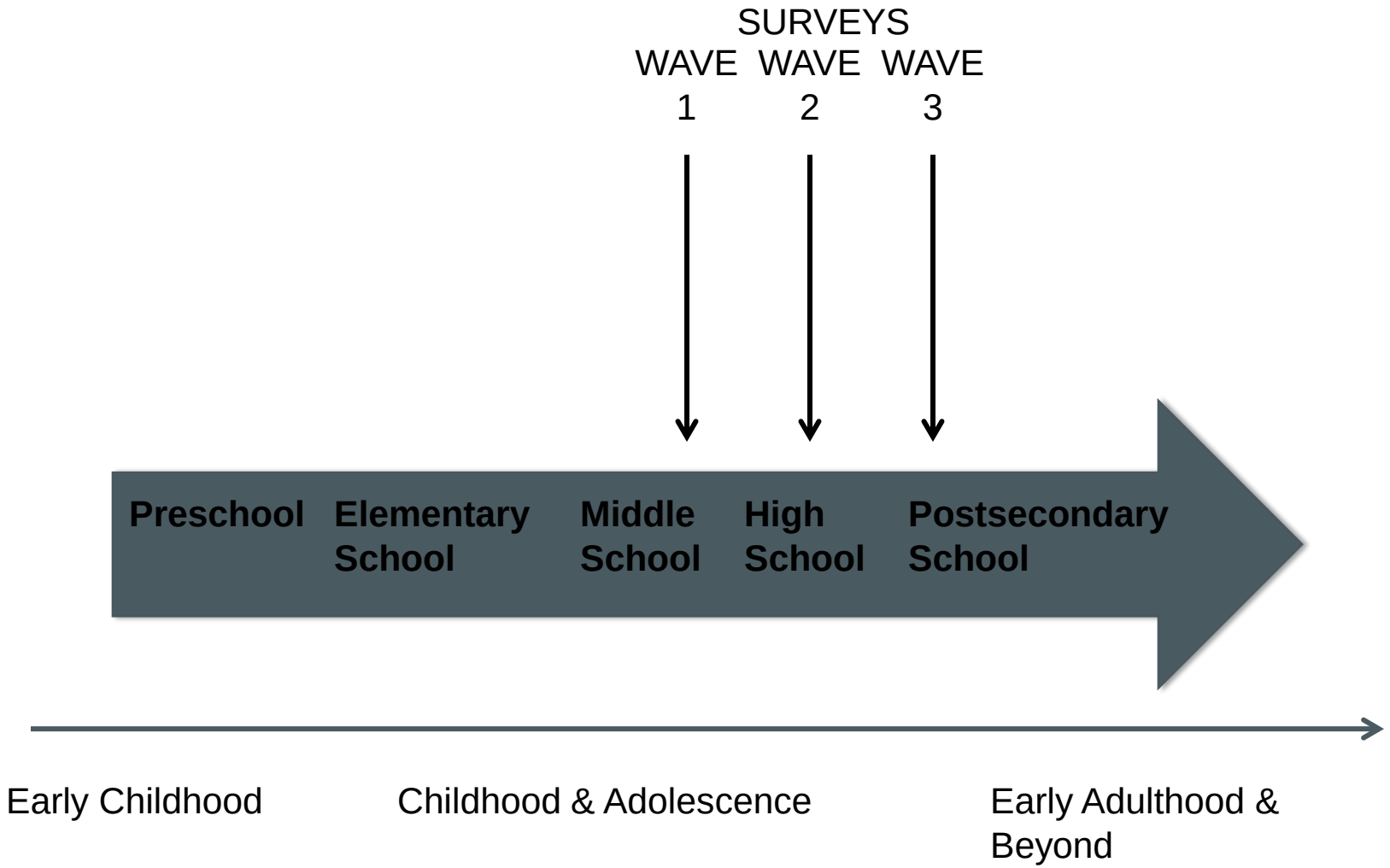

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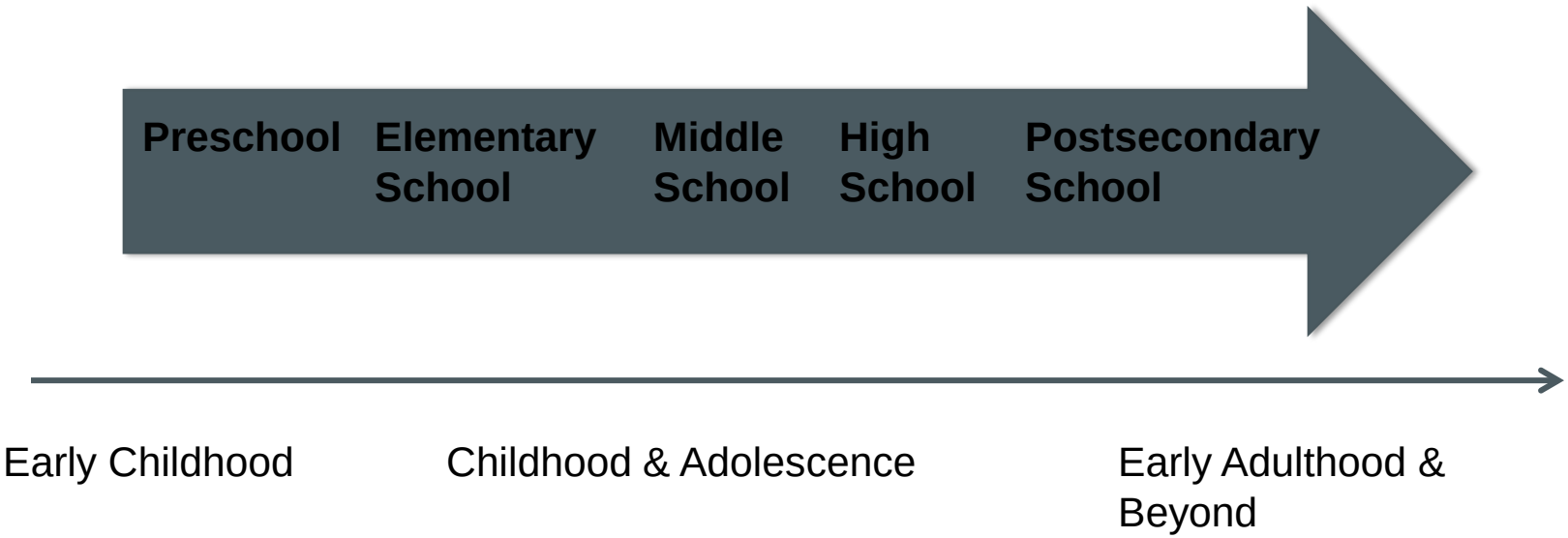

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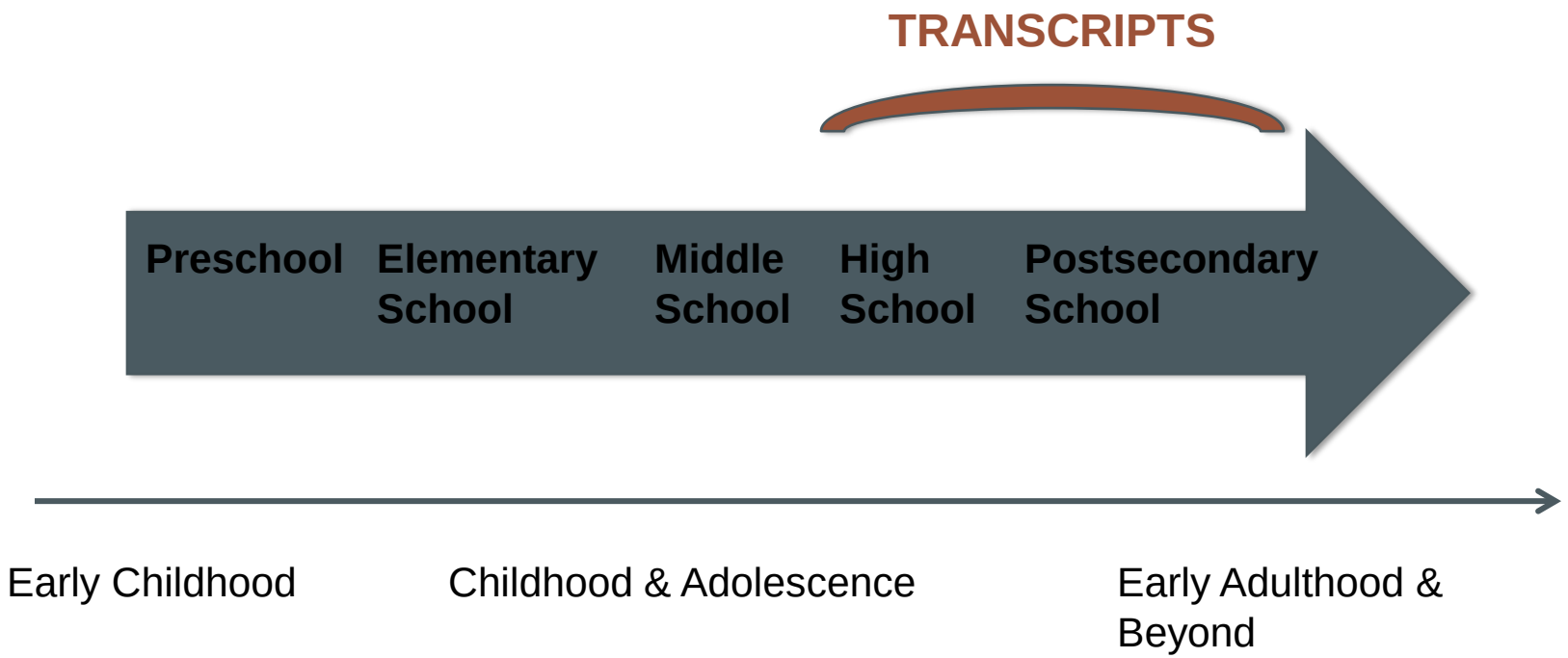

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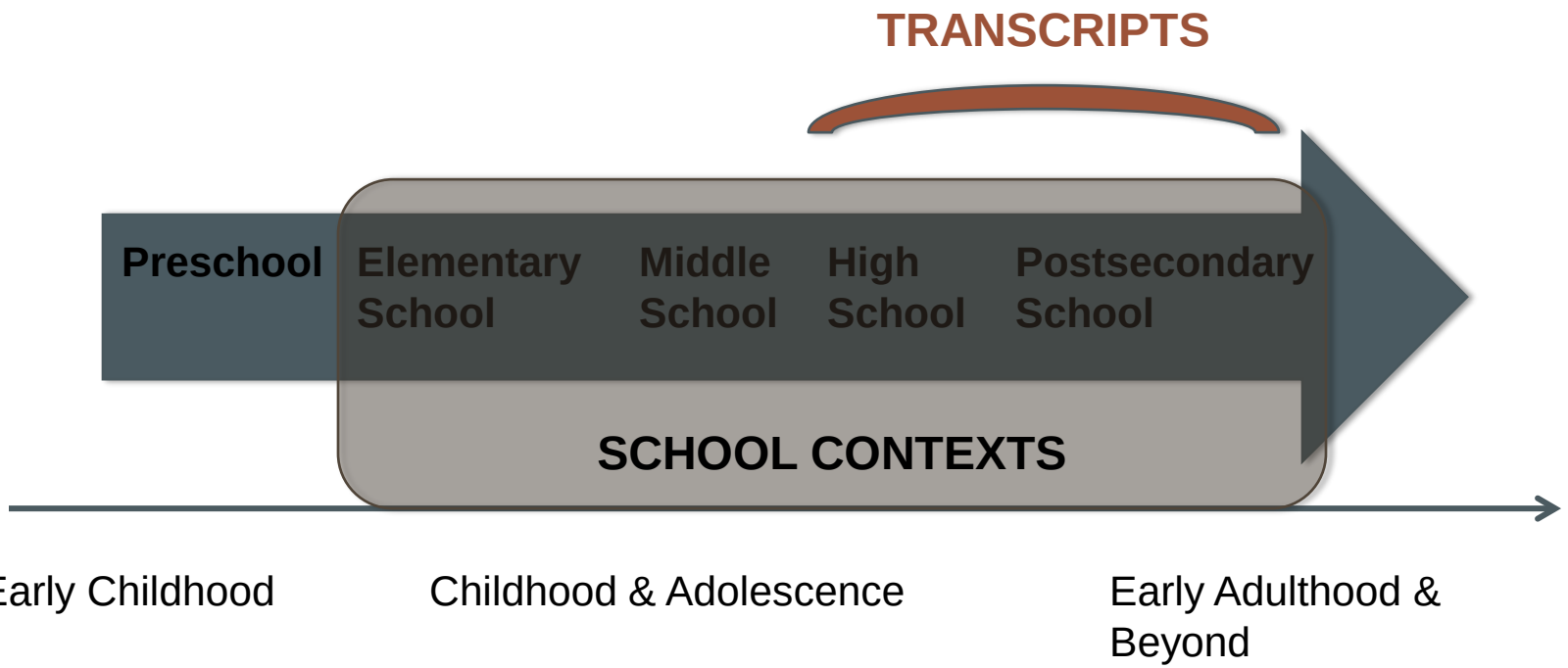

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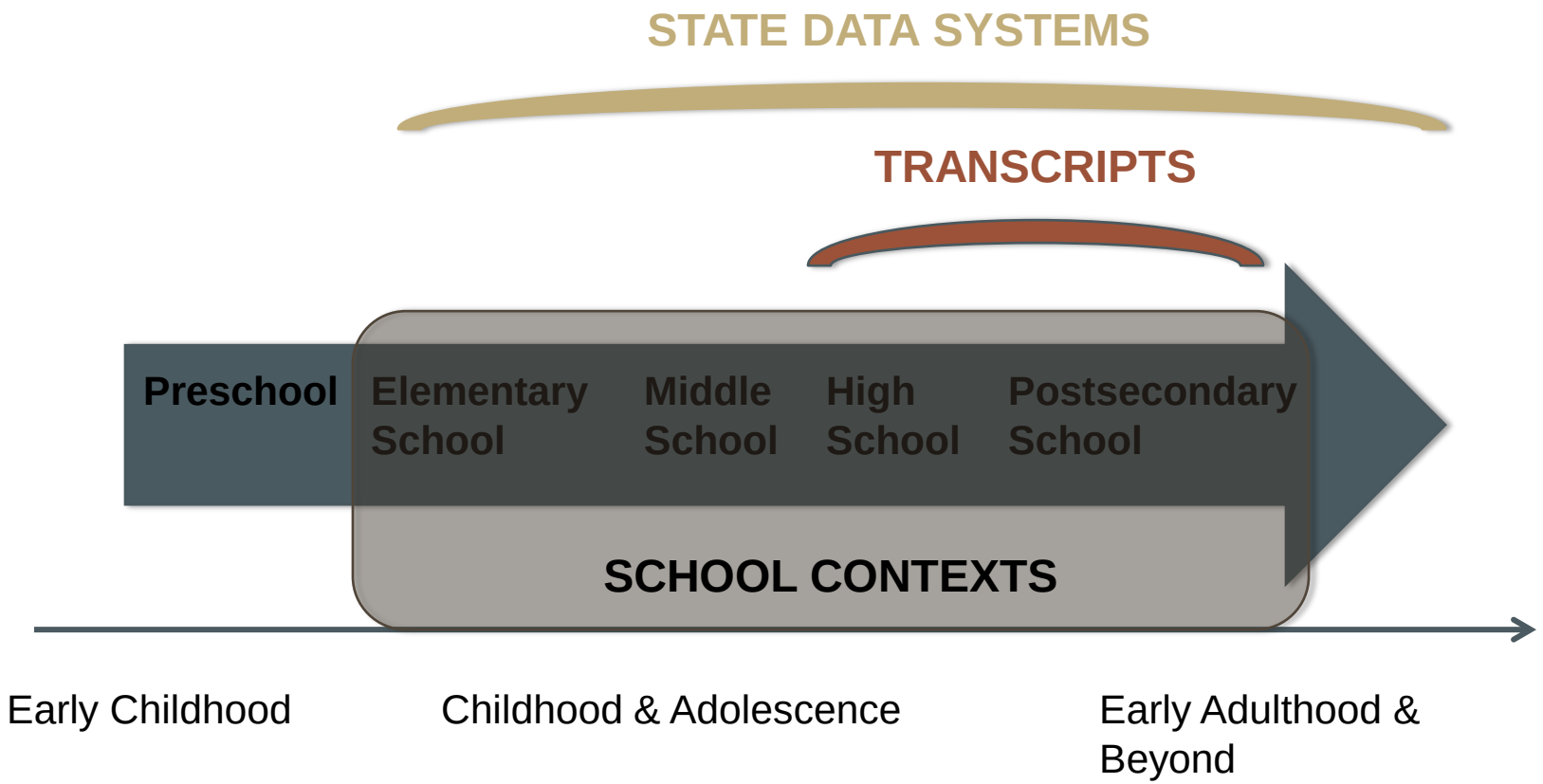


MEASURING EDUCATION, ACHIEVEMENT & SKILLS

Degree Attainment & Years of Schooling

School Qualities

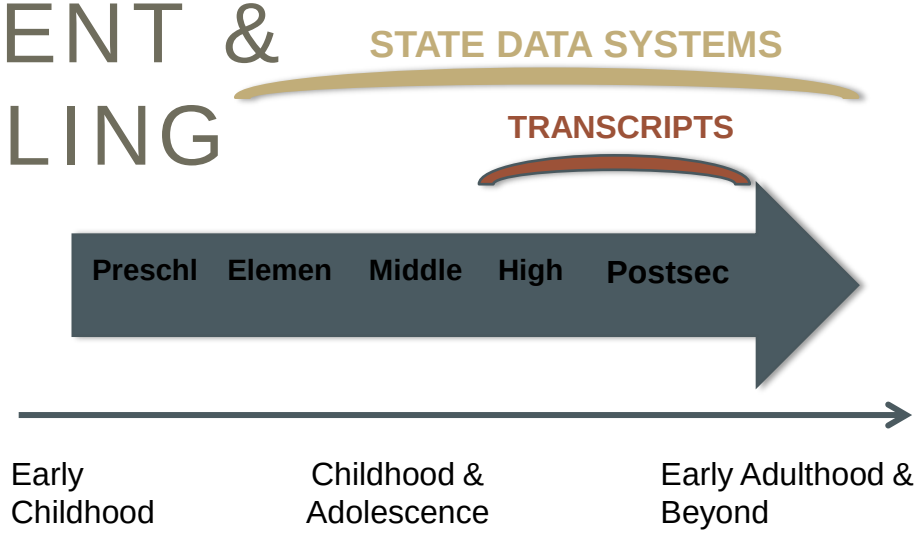
- K-12 Institutions
- Postsecondary

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

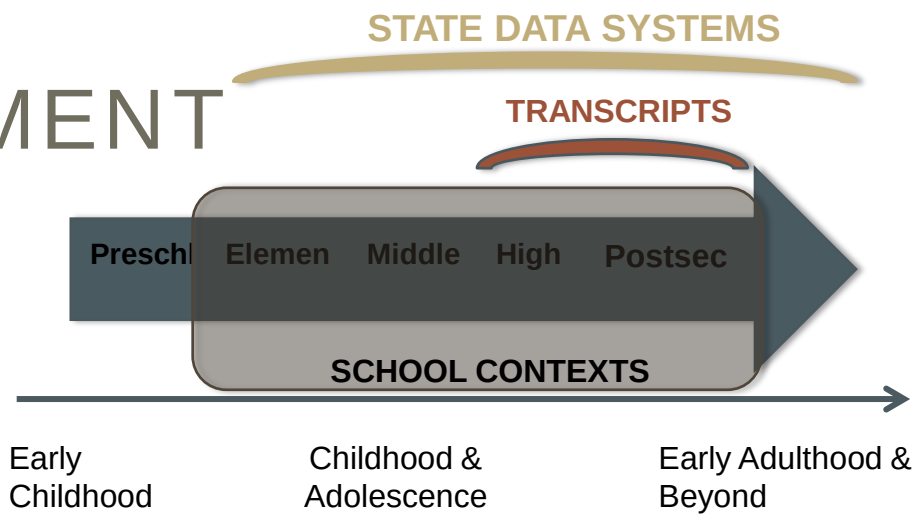
- NCES: Common Core, Private School Study, School District Demographic System & OCR
- Private: QED, ACT, College Board
- States: School accountability, aggregate from individual student data

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

CURRICULUM: SCHOOL ENROLLMENT



Source of Information

- Self report
- State data system
- Transcripts (high school, postsecondary)
- National Student Clearinghouse (postsecondary)

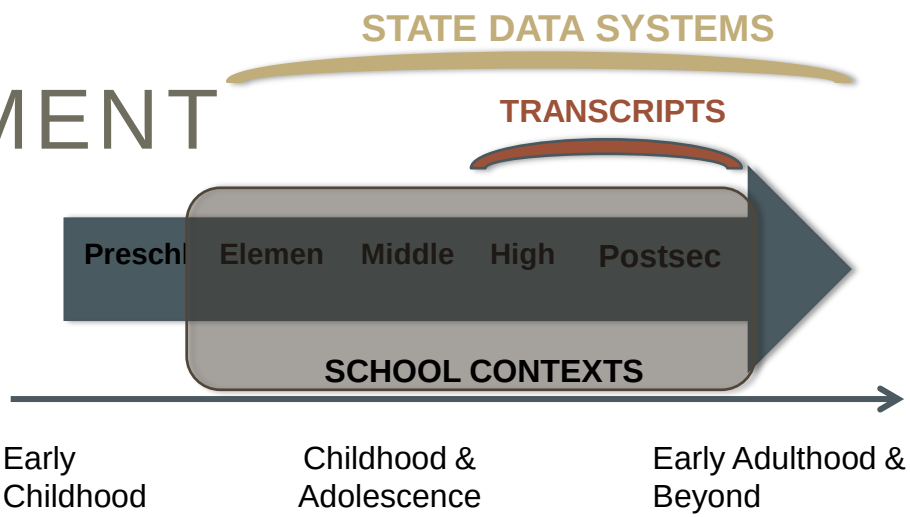
Patterns of Interest

- 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

CURRICULUM: COURSE ENROLLMENT



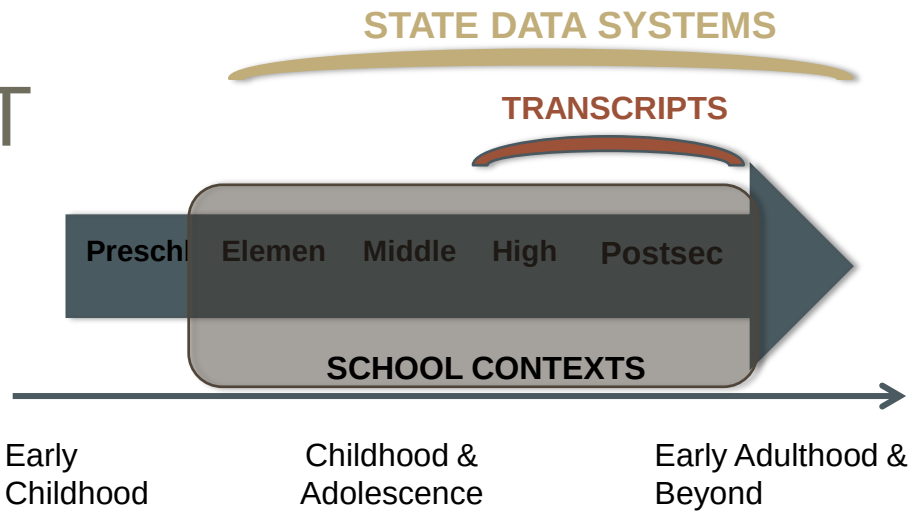
Coursework

- 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

CURRICULUM: COURSE CONTENT



Subject areas vary in course demands

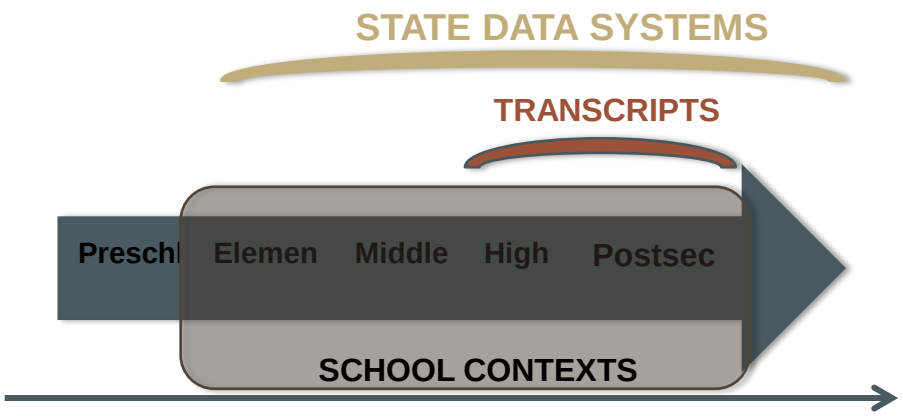
- Rigor
- Analytic
- Rote memorization

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