### Is It Worth It? Postsecondary Education and Labor Market Outcomes for the Disadvantaged

Benjamin Backes, AIR/CALDER Harry J. Holzer, Georgetown and AIR/CALDER Erin Dunlop Velez, RTI September 2014 Good and Bad News on Higher Education and Job Market for the Disadvantaged

Good News:

- Strong average returns to higher education
- Large impacts on mobility for degree attainers
- High enrollment rates

Bad News:

- Growing socioeconomic gaps over time in attainment
- Large completion gaps among enrollees
- Below-average earnings for some
- Weak job market from great recession/debt burdens

### Research Evidence to Date

- Mostly from survey data CPS, SIPP, NELS, NLSY; also IPEDS institutional data
- Determinants of low attainment and completion: K-12 preparation, financial costs, imperfect information, family obligations, institutional quality

### New Source of Data: Administrative Records of States

- Postsecondary and UI earnings data (and K-12 in some states)
- Great detail on courses taken, grades, credits attainment, fields of study chosen, completion, earnings (before, during, and after higher education)

### This Paper: FL Data from CALDER

- Cohorts: 10<sup>th</sup> and 8<sup>th</sup> graders in 1997-98
- K-12 grades and FCAT (achievement) scores control for usually unobserved ability
- Follow for 5 years after school in labor market
- Variables: Demographics (race/gender, FRL), FCAT/HS Grades, field of study, courses taken, grades, credits, postsecondary awards and earnings at public colleges (2-year and 4-year; certificate, AA and BA)

### Analysis Plan

Between v. Within Achievement Group Gaps:

- Educational Attainment, Enrollment, Completion
- Fields of Study (enrollment and completion)
- Earnings

Summary Statistics and Multiple Regressions

### Earnings and Education: Final Outcomes

- Earnings, (Low) Higher Education Completion and Attainment
- Gaps by Race/Ethnicity, Gender, FRL:

|     | <b>College Degree Attainment</b> |       |     |     |  |
|-----|----------------------------------|-------|-----|-----|--|
|     | nor                              | n-FRL | I   | FRL |  |
|     | Μ                                | F     | Μ   | F   |  |
| AA  | .15                              | .22   | .09 | .15 |  |
| BA+ | .19                              | .30   | .07 | .13 |  |
| TOT | .34                              | .52   | .16 | .28 |  |

Earnings and Education: Intermediate Outcomes

- HS Outcomes (Grades, FCAT)
- Postsecondary gpa, credits, math/science courses completed
- Labor Market: Quarters of experience and tenure
- Gaps by Race/Ethnicity, Gender, FRL

### FCAT Quartiles: Between and Within

- Large gaps in all outcomes *between* quartiles selection effects (Self- and Other-)
- Gaps within quartiles by race/gender, FRL especially in completion, earnings

#### College Degree Attainment, Top Quartile non-FRL FRL

| AA  | .23 | .21 |
|-----|-----|-----|
| BA+ | .48 | .30 |
| ТОТ | .71 | .51 |

# Fields of Study: Enrollment and Completion Rates

- Certificate: Construction and Manufacturing, Health (Tech and other), Security, Engineering
- AA: Health, Legal, Business, Engineering, Social Science, Humanities (Liberal Studies)
- BA: Business, Education, Engineering, Health, Math/Statistics/Sciences, Social Sciences, Humanities
- Differential enrollment and completion rates across achievement groups – sensible selection
- Patterns within achievement groups
- Punch Lines: Hi concentration but low completion and low earnings in AA/Liberal Studies!

### Earnings Regressions

Independent Variables:

- Educational Attainment
- Experience, Tenure in quadratic form
- Non-Completers: Enrollment Level, Credits
- Demographics: Race/Gender and FRL
- Post-Secondary Achievement Measures
  Later:
- Field of Study Completers and Non-Completers
- Separate Equations by Race/Gender, FRL, HS Achievement Level

### Earnings Regressions: Results

- Educational attainment: Certificate, AA, BA Effects - .31, .34, .61 respectively
- Completion v. Enrollment; credits attained v. "Sheepskin" Effects
- Experience and esp. Tenure Effects
- Postsecondary achievement measures matter!
- Demographic gaps: Some Narrow, Others Widen (relative to means)
- AAS returns much stronger than AA!

## Earnings and Field of Study

- Strong Returns to Technical fields at all levels
- Strong Returns to Health, Business (BA), Legal
- Weak Returns to Humanities (AA!) and others
- Enrollment and Completion Similar Patterns across Fields

### Earnings Returns by Demographic Group

- Similar patterns
- For men: Stronger returns to certificates, BA+, Job tenure
- For FRL and Lower Achievers: Stronger returns to all credentials but also Job Tenure

## Summary of Findings

- Large differences between and within achievement groups
- Program, Field of Study, Postsecondary achievement matter for completion and earnings
- Sensible self-selection into STEM fields
- Puzzle: High concentration in AA/Humanities Despite Low Completion and Low Earnings!

## **Policy Implications**

- Pre-K thru 12 academic preparation
- Supports: Financial Aid, Remediation, etc.
- Information Potential Benefits from Reallocation across Programs (or Colleges) even given preferences and skills
- Incentives Performance-Based Subsidies for Completion, Earnings - Increase Institutional Responses to Job Market! (Pitfalls...)

### A Few Other Pathways

- High-Quality CTE
- Work-Based Learning
- Sectoral Models and Pathways CCs and Employers