PBAF 573: Educational Policy & Social Inequality

Goldhaber

Spring 2004
Week 2:
How Much Influence Do Schools Really Have Over Student Outcomes?
Is There As Much Inequality As We Think?

• Maybe not:
  – *Potential* bias in creation of a test: 1) labeling, 2) content, 3) methodological
  – *Potential* bias in using tests for predictions of performance: 1) prediction, 2) selection system

• But evidence does suggest much bias:
  – Content bias
    • McGurk example, PPVT test, Tests of American culture
  – Methodological bias
    • “Black English”, who is the tester, Title of the test and performance (Steele and Aronson), identification of race
  – Prediction bias
    • Prediction bias and cultural bias
    • Evaluate 60s argument about college enrollment
Inequality Isn’t About Schools (1)

• Herrnstein and Murry
  – “[H]uman populations differ in many ways … [i]t is not surprising that they might differ at least slightly in their cognitive characteristics.” (p. 269)
  • On average, 1 st. dev. test score difference between whites and blacks - average white scores higher than about 84% of blacks, and the average black scores higher than 16% of whites
  • Biggest B-W differences are on tests that are the best measure of g, general “intelligence”
  – What about cultural or uniform background biases, and motivation?
Family Background and Parenting Practices (Phillips et al.)

- Evaluate Herrnstein and Murray genetic argument (mother’s AFQT as proxy for genes)
- 3 ways genes may influence environment
  - Passive correlation
  - Active correlation
  - Reactive correlation
- Type of correlation determines the effects of changing parenting practices (e.g. reading to children)
Does the BWTSG Widen after Children Enter School?

• Two explanations for the BWTSG
  – Black children start school w/ fewer academic skills
  – Neither home environment nor initial skill differences account for the BWTSG
    • B&W students start alike, but B children fall behind because of teacher expectations/competency
• Meta-analysis suggests math gap widens by about .18 std. dev., reading gap doesn’t widen, vocabulary gap widens by .23 std. dev.
Phillips et al. Research Shows

– Blacks typically learn about .03 std. dev. less math and .07 std. dev. less reading each year than whites - implies that black children who start elementary school with “true” test scores at the population mean finish high school with:

  – Math scores that lie about .34 standard deviations below the population mean
  – Reading scores that lie about .39 standard deviations below the population mean

– Controls for “SES” and school fixed effects do little to explain BWTSG
Inequality Isn’t About Schools - It’s About the Parents

• What Money Can’t Buy (Mayer)
  – Theories explaining differences in outcomes between rich and poor children
    • Investment model - parents invest both time and money in their children’s human capital
    • Parental stress model - position in social hierarchy affects the values, norms and behaviors parents develop (strong and weak versions of model)
  – Conventional “reduced-form” models show parental income is key determinant of children’s outcomes, but ...
Is it Really Parental Income?

• Unobservables may mask true effect of income
  – Strategies used to distinguish effects of income from unobservables - examine impact of:
    • Income from different sources
    • Permanent versus transitory income
    • Resources purchased by income, rather than income itself
    • Relationship between income and psychological well-being (test of “good-parent/role model” theory)/trend assessment
    • Exogenous sources of variation in income
Is It Societal Pressures?
The Burden of “Acting White”
(Cook and Ludwig)

• One explanation for why blacks do poorly in school is that they experience “inordinate ambivalence and affective dissonance in regard to academic effort and success”

• African-American students value educational achievement less than other groups (Fordham and Ogbu, 1986)

• If blacks were as committed as whites to achievement, the educational gap would narrow
Cook and Ludwig Study

• Use NELS to “answer” three questions
  – Do black students report greater alienation from school than whites?
    • Examine educational expectations and effort, dropout rates
  – Does academic success lead to social ostracism among black students?
    • Examine popularity of high achieving black students
  – They find little or no evidence that there is a burden associated with acting white, but …
    – No direct measures of peer norms/pressures, possibility of endogeneity (self-selection into peer groups with different norms)
Why Did the BWTSG Narrow?

• From 1971 to 1996, based on NAEP test, the BWTSG has been reduced by .5 std. dev. for 17 year olds and .25-.35 std. dev. for 9 year olds
  – Change in family background (e.g. family structure and parental education): explain about 15% of gain
  – Changes in schooling resources (e.g. class size, teacher characteristics) and course taking patterns explains a great deal
  – What does not explain the changes?
It Looks Like Schools Have Some Influence, But Not A Lot - *No Panaceas*!

Variation in Student Achievement Explained by Subgroups of Variables: majority (about 60%) of the variance is explained by individual & family background variables (includes prior test score)

<table>
<thead>
<tr>
<th></th>
<th>Observable</th>
<th>Unobservable</th>
</tr>
</thead>
<tbody>
<tr>
<td>School-Level Variables</td>
<td>.0025</td>
<td>.0837</td>
</tr>
<tr>
<td>Teacher-Level Variables</td>
<td>.0020</td>
<td>.0832</td>
</tr>
<tr>
<td>Class-Level Variables</td>
<td>.0040</td>
<td>.0372</td>
</tr>
<tr>
<td>Total</td>
<td>.0085</td>
<td>.2041</td>
</tr>
</tbody>
</table>

*Goldhaber et al. (1999)*