

Education and Class mobility Trends in Brazil

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1. Introduction: Intergenerational mobility is an important measure of equality of opportunity, and educational attainment is conceived as the main way to improve mobility chances. Indeed, research indicates that class mobility has increased in several industrialized countries due to a process of replacing older, less fluid birth cohorts, by younger, more fluid ones (Breen and Muller 2020). These studies are not limited to measuring trends, as they also seek to define the mechanisms linked to the education achieved by sons and daughters that determine the increase in intergenerational mobility related to the replacement of cohorts over time. Most studies, however, focus on advanced industrialized nations, where historical changes were significant but not dramatic as is the case of Brazil (Blanden 2011; Solís and Boado 2016; Torche 2014). In contrast, this paper presents analysis about the effects of education on intergenerational class mobility trends in Brazil, a country in which educational expansion, and economic development increased extremely fast since the middle of the 20th century. In addition to presenting the longest class mobility trend for any Latin American country, the paper also contributes by evaluating the impacts of educational expansion in relative and absolute terms.

In other words, we consider the positionality of education, which recently has become an important subject within the social stratification literature (Shavit and Park, 2016; Bills, 2016). As recognized, to a greater or lesser degree, by most labor market theories (Bills, 2003), the value of education depends on how much of it you have when compared to others (Hirsch, 1978). Despite that, most class mobility studies keep using only absolute measures of education, which might lead us to a misleading understanding of the role played by educational expansion. And in fact, with some exceptions (Triventi et al., 2016), results tend to be less optimistic about the role played by educational expansion in enhancing social fluidity when considering its positionality through relative measures (Bukodi and Goldthorpe, 2016; Fujihara and Ishida, 2016; Rotman et al., 2016). For this reason, in this paper we compare the results from models using absolute and relative education.

Using the absolute measure of education our analyses allow us to evaluate the relative impacts of four mechanisms related to educational attainment on the observed trends of increasing mobility and fluidity across birth cohorts. The first mechanism is the impact of the expansion of upper-secondary and higher education on the increasing fluidity across birth cohorts (educational composition effect - Expand). The second mechanism is inequality of educational opportunity (OE, Equalize). The third mechanism is the “return to education” (ED, EducReturn) in terms of class destination. The fourth mechanism is not related to educational attainment, it is simply the impact of parental class on adult children class independent from educational attainment (OD|E, OriginReturn). The analyses in the paper are designed to describe the relative impact of each one of these four mechanisms on intergenerational mobility trends.

However, once we consider the positionality of education, we should expect the connection within the OED triangle to become more stable over an educational expansion context. Bukodi and Goldthorpe (2016), for instance, found exactly that for the case of Britain. They compared the OED connections using absolute and relative measures of education, and found that employing the second makes the role played by educational expansion in encouraging social fluidity seem much less relevant. Something similar was found by Salata and Cheung (2022) for the case of Brazil. Nevertheless, their analysis was restricted to just three birth cohorts, covering a shorter period, and was directed to intergenerational status transmission – not class mobility. In this paper, then, we ask if educational expansion contributed to class mobility in Brazil, even if we consider the positional properties of education.

2 – Data and variables: The data is from the National Household Sample Survey (PNADs-IBGE) collected in 1973, 1982, 1988, 1996 and 2014. We selected all men and women with ages between approximately 30 and 60 years old, whose class origin (O), education (E) and class destination

(D) are known. The total size of the analytical sample is 132,789 men and 65,959 women. Six birth cohorts (C) were defined: (C1) 1921-1930, (C2) 1931-1940, (C3) 1941-1950, (C4) 1951-1960, (C5) 1961-1970, and (C6) 1971-1981. These definitions lead to the observational design shown in Table 1, in which three age groups are also displayed: young (30s), middle (40s) and old (50s).

Table 1 - Age (A) according to Cohort (C) and Survey (S) in Brazil

Cohorts	Brazil				
	1973	1982	1988	1996	2014
C1: 1921-1930	43-51	51-60			
C2: 1931-1940	33-42	42-50	48-57		
C3: 1941-1950		32-41	38-47	46-55	
C4: 1951-1960			30-37	36-45	54-60
C5: 1961-1970				30-35	44-53
C6: 1971-1981					33-43

Origin (O) and destination (D) classes are classified according to the EGP scheme (Erikson and Goldthorpe 1992) with six categories: I+II - Professionals and administrators; III – Routine non-manual workers; IVab – Small urban owners; V+VI – Skilled manual workers; VIIa – Unskilled manual workers; and VIIb+IVc – Rural workers and small farmers.

We measure education in absolute and relative terms. The absolute measurement has 5 categories: (1) primary incomplete (0-3 years of schooling), (2) primary (4-7 years), (3) lower secondary (8 years), (4) secondary (9-11 years), and (5) college (12+ years). The relative education variable, by its turn, is made up of 4 categories: bottom, medium-bottom, medium-high, high. And the composition of these 4 categories changes according to the distribution of education in each birth cohort. The logic behind the construction of this variable can be verified in Table 2.

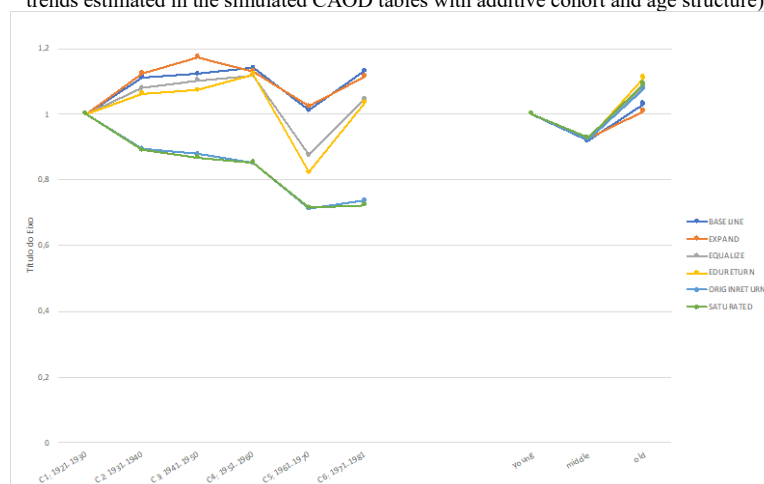
Table 2 - Accumulated percentages for educational levels, by birth cohorts

Schooling level (years)	1921-1930 (C1)	1931-1940 (C2)	1941-1950 (C3)	1951-1960 (C4)	1961-1970 (C5)	1971-1981 (C6)
No formal schooling (0)	35,7	28,3	21,0	12,4	8,8	4,7
Primary incomplete (1-3)	66,1	56,9	43,9	27,2	18,8	10,7
Primary (4)	85,9	80,1	67,9	48,3	30,1	17,6
Lower secondary incomplete (5-7)	88,4	83,8	73,2	57,8	43,4	30,5
Lower secondary (8)	91,9	88,3	79,3	67,3	54,6	40,5
Secondary incomplete (9-11)	92,5	89,1	81,1	70,4	58,8	45,6
Secondary (12)	96,2	94,4	89,9	85,9	82,8	77,7
College incomplete (12-14)	96,8	95,5	92,1	89,3	86,9	83,6
College (15+)	100,0	100,0	100,0	100,0	100,0	100,0

The color code in Table 2 represents the relative education classification, from the “bottom” (lighter) to the “high” (darker) category. Thus, the necessary amount of schooling to reach higher categories change as education expands over cohorts. For instance, among the oldest cohort it was enough to have 4 years of formal schooling to get to the medium-high relative education category, and 5-7 years to get to the highest category. For the youngest cohort, however, it was necessary 12-14 years of schooling to reach the medium-high relative educational level, and to complete college to get to the highest relative category. This way, it treats education as relative, not absolute.

3 - Results: In our empirical analysis, using log-linear models, we evaluate trends of social fluidity in origin by destination association (OD) over birth cohorts (C), age groups (A), and

Figure 2 – Contribution of the four mechanisms to increase social fluidity between birth cohorts and age groups, using the relative measure of education.
(Simulation made from the CAOED table, i.e., allowing age and cohort effects, and social fluidity trends estimated in the simulated CAOD tables with additive cohort and age structure)



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