Abstract for "Equality of Opportunity in Education In-kind Transfers – Evidence from Italy"

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Short Abstract

One of the scopes of public provision of educational services is to rise a society above differences in economic performances that are correlated with heterogeneity in family background, to grant equality of opportunity for everybody. However, if ceteris paribus unjustly advantaged families are the ones who benefit more from education, then illegitimate inequalities might not be compensated for, but rather perpetuated across generations by educational policies. We use SHIW Italian data, wave 2004, to uncover the distribution across families of economic advantage associated to grandparents' background characteristics and its relation with a monetary equivalent measure (based on provision costs) of the in-kind educational transfer that a family receives through publicly provided educational services. Our estimates suggest that a 10% increment (attenuation) of unjust economic advantage (disadvantage) of the household is associated with a median increase of the in kind educational transfer she receives that at the median ranges from 0.9% to 3.8%, depending on her background and ability.

Long Abstract

Equality of opportunity in income acquisition has gained popularity, among policymakers as well as in the research community, for defining the relevant egalitarian objective that a society should attain. The notion of equality of opportunity introduced by Roemer (1998) breaks down the overall income inequality into two components: the inequality stemming from differences in background *circumstances* and a residual component gathering together all *effort* variables that fall under individual command. In practice, equality of opportunity objectives are achieved whenever there is no between groups inequality, where groups are defined upon unjust circumstances such as family background, gender, ethnicity or other factors for which individuals cannot be deemed responsible for. However, equality of opportunity does not explicitly require for the elimination of within groups inequalities arising from effort reward mechanisms.

When equality of opportunity objectives are not attained, there is large space for intervention through public policies. Taxation is the most direct tool to produce redistributive effects towards opportunity equalization. Whether observed taxation schemes are coherent or not with equality of opportunity objectives is an issue. As spotted in Roemer *et al.* (2003) in some cases the taxation scheme overcompensate between group inequalities, while in the majority of the situations the taxation scheme introduces welfare losses without compensating unjust inequalities. Very little has been said, however, on the opportunity equalizing potential of in kind transfers perceived by a family Gasparini and Pinto (2006).

We investigate the relation between unjust economic advantage perceived by a family and the educational transfers in kind she receives. Our empirical analysis contributes to a better understanding of the equity potential of the public education system, with a particular focus on Italy. Our universe of

analysis is made by families, composed by parents, children and possibly other relatives. We partition the population of families into groups, defined according to the *grandparents' background* socioeconomic circumstances, thus defining at least three social classes of origin for the families. For each family, we observe incomes, taxes and transfers in kind monetary equivalent. Here, transfers in kind correspond to a measure of the per-student cost of public provision of educational services. It allows to quantify the value of the services that every family receives, conditional on the region of residence, the age and the number of children in the family enrolled at school. This variable estimates the lower bound of the educational costs a family is assumed to support if she had to buy the equivalent educational services on the market.

We use a large Italian cross section collected by Bank of Italy, the SHIW database (wave 2004). These data enable an observation of a cross section of households, our fundamental unit of analysis. The SHIW provides information on the socioeconomic classes of the parents of the spouses. This classification makes it possible to assign families to types, according to the quality of their background. The parents in each household earn income, make fertility choices and decides how much education their children should acquire. They receive a transfer from the state when accessing public education, since a large share of the administrative cost of the education system enters the public budget. The education in kind transfer monetary value is our calculation, based on administrative data.

Our preferred specification entails regressing the educational in kind monetary equivalent transfer on family characteristics, family income and a measure of unfair advantage of the family, measuring how fair the family income is from a reference value common to all families exerting similar effort choices but where the effects of grandparents background have been eliminated. Households' net income and educational transfers in kind possibly co-move because of the potential correlation between their unobservable ability components. We overcome this endogeneity problem with a control variate strategy, using expected maximum tax deductions as maintained exclusion restriction. We estimate structural quantile treatment effect models. As a control variate strategy, the effect of the household's ability to pay for educational services is partialled out. In this way we can isolate the pure effect of grandparents' background circumstances on the family *ability to benefit from educational services* measured by the quantile distribution of the second stage residuals.

The rich set of estimates unveils a clear patter: for every increment of 1000 euro in the relative unjust economic advantage, families benefit of an additional average increase equal to 140 euro in the educational transfer they receive. This effect grows in either the ability to pay for or to benefit from educational services, and its sign remains positive. Shifting to elasticities, a 10% increment (attenuation) of unjust economic advantage (disadvantage) of the household is associated with a median increase of the monetary value of the educational transfers she receives ranging from 0.9% to 3.8%, depending on her background of origin and abilities.