Socioeconomic mobility as change in dependence across welfare attributes: an application to assortative mating in Peru

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Outline

The several meanings of socioeconomic mobility have been thoroughly discussed in the Economics literature (e.g. mobility as progressivity in Benabou and Ok, 2001; or mobility as equalizer of long-term incomes in Fields, 2002). In this paper I introduce the concept of socioeconomic mobility as the change in the degree of dependence between two different welfare attributes whose correlation may be meaningful, such as the education of partners or their ethnicity. By contrast to the aforementioned meanings of economic mobility, this conception is multivariate, i.e. it entails a departure from the traditional analysis of mobility in the context of following just one variable (at a time) across time. In order to measure how the joint mobility regime of two variables affects the degree to which they correlate to each other, I propose an index suited for discrete variables which, in the spirit of one proposed by Bartholomew (1973), draws information from the whole joint transition matrix. As an application I investigate the dynamics of assortative mating in Peru, focusing on the correlation of education levels between spouses and looking at mobility differences between matrices of native male heads and non-native ones. The evolution of assortative mating has been a topic of interest for long time both in Economics and Sociology (e.g. see Schwartz and Mare, 2005). In terms of its relevance beyond the interest that it may bear for its own sake, at least since Plato some thinkers and scientists have been concerned with the implications of assortative mating on the distribution of welfare and living conditions in society (e.g. see Becker, 1993; for a recent application on the impact of assortative mating on income mobility for instance, see Francesconi and Ermisch, 2005).

More specifically I construct bi-dimensional transition matrices which link up the final joint distribution of education of male household heads and that of their respective spouses with the initial joint distribution of education of the heads' fathers and respective mothers. And then I seek to answer three questions: which mobility regime (natives or non-natives) exhibits more persistence (i.e. is likely to reproduce better the initial joint distribution?); which mobility regime leads to a higher correlation between the educational levels of the spouses (a higher degree of so-called homogamy in terms of education); and is it the case that the more homogamous the parents the more homogamous the sons?

In order to answer the first question I apply an extension of the eigenvalue index of Sommers and Conlisk (1979) and perform Monte Carlo simulations in order to get the respective standard errors. I find that the transition matrix of natives exhibits less persistence and attribute that result to the rapid expansion of education among female natives experienced in Peru during the second half of the 20th century. For the second question, I apply an index of concentration-inducing mobility which I propose based on one of Bartholomew´s original persistence indices and find with statistical significance that the mobility regime of natives has led to higher correlation of educational outcomes between spouses. Finally, for the third question I perform standard correlation tests on

the conditional joint distribution matrices (e.g. the joint distribution of education of sons with their spouses, whose fathers had complete primary education, etc.). In this case, I find that the correlations of education are higher for sons whose fathers themselves were engaged in more homogamous relationships.

In the paper I focus on young couples up to 35 years old primarily because of cross-cohort breaks in the individual transmissions of education (which I have documented elsewhere, see Yalonetzky, 2007). The data come from the 2001 Peruvian National Household Survey (ENAHO) and include 1,657 couples in which the male partner is native and 2,618 in which the male partner is non-native all belonging to the aforementioned age bracket (each with information on the education of the parents of both heads and spouses).

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