## We live in a world where social class is strongly inherited

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Findings from a recent study by **Neil Cummins** and a colleague suggest that social mobility in modern day England is little greater than in pre-industrial times. Using surnames, they show that intergenerational correlation in status is close to .85, meaning that the progeny of the rich and poor will take over 20 generations, or 600 years, to converge to the average of society. This indicates that there is very little effective policy that could affect an improvement in social mobility in human societies.

When I ask students or friends about social mobility, the impression they usually convey is one of a class system that is strongly inherited over generations. There is a loose notion that we live in a world stratified by timeless elites at the top, a persistent middle class and a lower class, the kind usually ridiculed on reality TV. Academic economists know better and for decades the data has shown that the economy constantly 'churns' family fortunes over time. My students and friends had it wildly wrong: Status does not persist in families beyond a few generations. So are academic economists correct in this characterization?

The short answer is no. Together with my co-author Greg Clark (UC Davis) we have shown that status persists far more deeply over generations than could ever have been predicted from previous studies. We live in a world where social class is strongly inherited. Our analysis uses surnames to track the elites of English society at different moments in time and measure how quickly their progeny have educational attainment or wealth indistinguishable from that of the general population. In other words, how quickly elite lineages 'regress towards the mean'. Economists can measure the rate of regression using a simple number. The 'inter-generational correlation', is bounded by zero (complete equality of economic opportunity) and one (status is perfectly inherited and the progeny of the rich stay rich until the end of time).

Small differences in this number matter a great deal. Economists believed that the real world inter-generational correlation ranged between .2 and .5. This number is usually estimated from data on father's and son's earnings. An intergenerational correlation in this range implies that the children and grandchildren of both the elites and poor of society quickly return to the average of their society, with inter-generational status persisting within families for perhaps 3-7 generations. Using surnames, we show that intergenerational correlation in status is in fact closer to .85, meaning that the progeny of the rich and poor will take over 20 generations, or 600 years, to converge to the average of society. Socio-economic status is strongly inherited. In fact it is as strongly inherited as height.

Take the Norman conquerors of England in 1066 as an example. The Domesday book of 1086 records surnames for many major landholders. Among the conquerors many of these surnames derive from their home estates in Normandy; names such as *Baskerville, Darcy,* and *Talbot*. If we examine lists of the students of Oxford and Cambridge Universities we find that Norman names are about 1500% 'over represented' in 1215, based on what we would expect of their population share of England. In 1500, Norman names are still over 400% over-represented at Oxbridge. In fact, if we look at Oxford students email directory, we see that Norman names are still 28% over represented in 2011, nearly 950 years after the battle of Hastings.

Whilst these Norman names do seem to have a peculiarly high persistence in the Oxbridge data, we find approximately the same pattern when we look at names from other sources. The rare surnames of landholders detailed in the *Inquisitions Post Mortem* of 1236-1299 and 'locative' names, such as *Berkeley* and *Pakenham*indicate the same underlying pattern. All of these name groups suggest an intergenerational correlation in the range of .8-.9. This is a far higher persistence than would be predicted from existing studies.

Closer to our own time, we have examined groups of rare surnames from the 1881 census of England and Wales. Taking these families and their descendants, we have collected the probate information for over 20,000 deaths from



11/8/2013

1858 to 2013. These names include well known surnames such as *Rothschild* and *Brunel*, but are primarily composed of names that do not indicate any status, e.g. *Clagett* and *Lofton*. In this analysis, we are able to include the poor. The probate information details the taxable wealth at death and we use this information to calculate the average wealth of each of the 634 families across five generations from 1858. Again, we find a much higher degree of status rigidity than economists would typically expect. The intergenerational correlation is in the range of .7-.75. The progeny of the 19<sup>th</sup> century elites are still richer than average today.

Our analyses of surname distributions over time suggest that institutions play a surprisingly small role in equalizing opportunity. Social mobility in modern day England is little greater than in pre-industrial times. There appears to be a surprising degree of socio-economic rigidity that is relatively immune to government intervention, such as the massive expansion of state support for education since the late 19<sup>th</sup> century. While individuals can benefit from extraordinary luck, our results suggest that groups of individuals, as revealed by their last names, exhibit strong persistence in status. The degree of 'churning' appears to be remarkably limited.

Nine centuries of data suggest that there is very little effective policy that could affect an improvement in social mobility in human societies. Families are composed of individuals who act to ensure that the family thrives. Strong forces of culture, social connections, and genetics connect the generations. One possible way to achieve this would be to implement a strict law enforcing whatever the reverse of perfect assortative mating is. Another possible policy is to take children from their parents and have them raised without any contact from their biological family. I cannot imagine many voters enthusiastically backing anybody who seriously suggests this.

It appears that the popular conception of social mobility is in fact broadly correct. Economists have painted far too rosy a picture of the world. However, these results are based on correlations over time – They are not destiny at the individual level. Individuals have, do and will continue to achieve much more than could be ever predicted at their birth. Our analysis does reveal, we believe, a powerful and constant social physics operating at the family level in England for most of the past millennium. As long as humans exist, there will be a high level of intergenerational persistence.

Note: This article gives the views of the author, and not the position of the British Politics and Policy blog, nor of the London School of Economics. Please read our comments policy before posting.

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