Intergenerational mobility of the white working class boys in the U.K.

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This study will attempt to estimate the intergenerational mobility coefficients of the white working class boys (WWCB) in Britain and compare those estimates with that of other ethnic minorities as well as of the non-working class white boys. The aim of this calculations is to provide empirical evidence to disentangle the discussion regarding the claim that the white working class boys face an unfavorable environment compared to that faced by other minorities. Most of the discussion about this subject have been subject of political misuse and many claim that there are no real basis for the victimization of this minority. We aim to provide estimates of intergenerational elasticity to contrast this hypothesis using the most recent data provided by the Understanding Society Survey (Usoc) for the periods included between 2009 and 2014.(rounds one to five)

"The more a ruling class is able to assimilate the foremost minds of a ruled class, the more stable and dangerous becomes its rule"

"High rates of interexchange between the classes will act as a safety valve (from a capitalist point of view), serving to keep the pressure of discontent low"[5]

The importance of economic mobility can be summarized with the previous two paragraphs, perhaps, the first refers to the interplay between class and social roles and the second between models and structures. Britain is no stranger to these discussions, in fact it is quite relevant at the moment. Which group will the lawmakers benefit, those in the lower end of the income distribution or those in the upper end? Do the rule makers truly represent the needs of the population in general or the social selection structure favors one group against the others? Maybe it is not possible to shift the structure, the model is to rigid and resources are to scarce? Maybe the model is outdated and we need a new paradigm?. From a philosophical perspective these ideas encompass why we believe this topic is relevant and why the study of Intergenerational mobility is essential to set up the shape of our future society.[4]

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I. INTERGENERATIONAL MOBILITY

Economic mobility is of great importance in any given society. Since ancient times, class structures have existed and a ruling class have usually prevailed. The argument that mobility is required for any efficient society to succeed can be supported by several perspectives. Perhaps, the most relevant for our discussion is that, to some extent, there is a random aspect to the distribution of ability amongst classes and in order for the ruling class to maintain its strengths and capabilities the access from any given social strata to the ruling one, should be possible,

hence, mechanisms must exist that allow anyone in the social structure to access the ruling class, otherwise the mere existence of the ruling class (at any given time) will be jeopardized. These mechanisms must possess identification power and signal the bright individual to the market. Strong and highly developed public education works as such. In previous centuries, perhaps the access to religious positions would represent our modern signaling mechanism.

It is important to remember that many theories propose that our formative institutions are merely classificatory and that most of the individual capacities are determined very early in life, hence the idea that a given ruling class could maintain power in the long-run without allowing for significant renovation and oscillation of its structure, is unlikely. This should be sufficient evidence for those in power to understand that mobility is desired and required, nevertheless given the human nature of agents and the specific attributes of power, it is understandable that they will naturally try to keep power within their own group. Then, we could imagine that there won't be a natural equilibrium where high mobility is freely achieved and might require artificial policy intervention.[3]

A. The white working class boys (WWCB)

We care about the white working class boys only for convenience purposes. In other words, we don't care about one particular group, we care about the interactions between the social groups in general. Despite our

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ultimate goal, the discussion regarding the WWCB is recent and by all means relevant.Theresa May at her inaugural speech as Prime Minister:

> **"If you're a white, working-class boy, you're less likely than anybody else in Britain to go to university."**[6]

This is a problematic claim specially when the Prime Minister refers to the white nature of the group and allows for the ethnic argument to become part of the argument. Unfortunately, ethnicity is not a choice, hence we believe it shouldn't be taken into account.

This claim is possible, given that there is evidence of the educational underachievement in the WWCB group. Several studies find that the highest share among low achievers correspond to white British males[1],[8]. In fact, our descriptive statistics with the Understanding society survey (UsoC) data, confirm this claim quite clearly.

B. The WWCB paradox

The WWCB paradox, refers to the counter-intuitive fact that the WWCB have lower degree attainment than every other group, but maintain similar or higher labour market outcomes than other working class groups. This is one of the key questions we are trying to address in our overall study, again, from our descriptive statistics we find that this idea can't be rejected with the UsoC data.

II. METHODOLOGY

The basic model of mobility tries to link the lifetime income of the parents with the lifetime income of the children.

$$lnY_t^{child} = \alpha + \hat{\beta}lnY_{t-1}^{father} + \epsilon \qquad (1)$$

$\hat{\beta}$ represents the elasticity of the children's lifetime income with respect to their parents. $1 - \hat{\beta}$ represents the coefficient of intergenerational mobility, the higher this coefficient, the larger the level of intergenerational mobility. As usual, the problem is data access. We replace the vectors of lnY_{t-1}^{father} with their father's HG[7] score. We do the same for lnY_{t-1}^{child}.

A. Hypothesis

- Main Hypothesis:

$$H_0 = \beta_{wwcb} = \overline{\beta} \qquad (2)$$

$$H_A = \beta_{wwcb} > \overline{\beta} \qquad (3)$$

- Secondary Hypothesis:

$$H_0 = \beta_{wwcb} = \beta_{ewcb} \qquad (4)$$

$$H_A = \beta_{wwcb} > \beta_{ewcb} \qquad (5)$$

B. Data

We have used the 5 waves of data from the UsoC survey, from $2008 - 2014$. The sample is of approximately $20,000$ males present in any round with parental SES information.

We created 4 groups of analysis:

- **WWCB** = White working class boys (n=5,634)
- **EWCB** = Ethnic working class boys (n=1,802)
- **WNWCB** = White non-working class boys (n=9,987)
- **ENWCB** = Ethnic non-working class boys (n=2,266)

The groups were formed using the HG schema, ethnicity and income information. The distinction between WC and NWC was made considering the median income rule, but this definition is essential for our results, hence will be explored further in the final paper.

C. Estimation strategy & Error-in-variables bias

$$\overline{lnRses_i} = \beta_0 + \beta_1 lnFses_i + \varepsilon_i \qquad (6)$$

Our initial approach was to run equation(6) but there are limitations to that approach:
3 Limitations:

1. Only one HG score per parent.

2. Recall error.

3. Shifting structure of occupations over generations.

We exploit the fact that the UsoC contains repeated observations on the HG of respondents (children).We can recover β_1 by estimating equation (7):

$$lnFses_i = \alpha_0 + \gamma_1 \overline{lnRses_i} + \mu_i \qquad (7)$$

And computing,

$$\gamma_1 \frac{\widetilde{\sigma_y^2}}{\widetilde{\sigma_x^2}} = \beta_1 \qquad (8)$$

Hence, we end up estimating:

$$lnFses_i = \alpha + \gamma \overline{lnRses_{it}} + \varphi R_{it} + \mu_i \qquad (9)$$

Where R is a vector of child characteristics.[2]

We also need to reduce the error-in-variables bias embedded in the measurement of child status, for this, we will use two different measures of Y_{it}:

1. Average child status over 5 rounds.

2. Permanent status.

The average child status over the five years is likely to produce downward inconsistent estimates of γ, but the magnitude of the inconsistency should be reduced, because the measurement error and the transitory fluctuations in Y_{it} are averaged away.

The permanent status is estimated by fixed-effects prediction equations of child occupational prestige:

$$Y_{it} = \delta Z_{it} + \alpha_i + \nu_{it} \qquad (10)$$

$$\hat{\alpha} = \overline{Y} - \hat{\delta}\overline{Z} \qquad (11)$$

Where, Z_{it} is a vector of time-varying child characteristics that are assumed to influence child status, α_i is the child-specific fixed effect and ν_{it} is a transitory white noise.

III. PRELIMINARY RESULTS

We present the preliminary results (Table I) with the first estimation method proposed for the average child status over five rounds.

Although the coefficients are preliminary and it is possible to argue that a downward bias is expected, there seems to be a clear difference between the elasticities associated with the white groups and ethnic groups. Also the elasticity of the non-working class groups seem to be higher than that of the working class groups.

When exploring the educational attainment of the groups, it seems to be the case that the ENWCB profit more from educational attainment at almost every level of degree attainment.

Finally, when analysing the secondary hypothesis it seems that the WWCB have a higher elasticity than the EWCB, at least in these first set of estimates. We believe that the permanent estimates should provide a less downward-biased set of results and hence these preliminary results should be taken just as such.

9.3.1 Main Regression Output: Intergenerational elasticity estimates by Socioeconomic group of interest.

	ALL	WWCB	EWCB	WNWCB	ENWCB
β	0.110***	0.102***	-0.0307	0.144***	0.0131
	(0.000)	(0.000)	(0.421)	(0.000)	(0.671)
degree	0.383***	0.399***	0.301***	0.302***	0.552***
	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)
alevel	0.223***	0.255***	0.208*	0.170***	0.282**
	(0.000)	(0.000)	(0.033)	(0.000)	(0.002)
gcse	0.145***	0.0825	0.0441	0.111**	0.312***
	(0.000)	(0.106)	(0.676)	(0.006)	(0.001)
other	0.0416	-0.0188	-0.0792	0.000310	0.246*
	(0.053)	(0.739)	(0.468)	(0.994)	(0.013)
_cons	1.001***	0.598***	0.852***	0.850***	1.409***
	(0.000)	(0.001) 58	(0.000)	(0.000)	(0.000)
N	23522	2005	712	6193	1267

p-values in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

TABLE I. OLS coefficients, HC robust standard errors. **Other covariates included**: *Age, Age^2, Scotland, Wales, N.ireland, Married, Native, Religion.*

IV. NEXT STEPS

We'd like to identify alternative industry/profession covariates. So far, if we include dummies to control for the industry of the respondent we experience substantial auto-correlation with the main explanatory variable, child SES.

Before the submission of the final paper, we'd like to run results for respondents with data on SES for every round. (5 observations) This should help us get more robust estimates, since we will only use those children who report their SES in every round, hence we would be able to effectively average away the measurement error and the transitory fluctuations in Y_{it}.

Finally, we will run the IGE estimates with permanent measure of Child status, using the fixed effects strategy mentioned in section II-C.

[1] CASSEN, R. AND G. KINGDON (2007): *Tackling low educational achievement*, Joseph Rowntree Foundation.

[2] ERMISCH, J. AND M. FRANCESCONI (2002): "Intergenerational mobility in Britain: new evidence from the BHPS," *Generational income mobility in North America and Europe (Cambridge University Press: Cambridge).*

[3] HEATH, A. AND J. RIDGE (1983): "Social mobility of ethnic minorities," *Journal of Biosocial Science*, 15, 169–184.

[4] HEATH, A. F. (1981): *Social mobility*, vol. 5601, Fontana paperbacks.

[5] MARX, K. (1886): "A Critique of Political Economy Voume I," .

[6] MAY, T. (2016): "Statement from the new Prime Minister Theresa May," *Unpublished manuscript, PM Office.*

[7] NOTE (2017): "HG refers to the Hope-Goldthorpe score. The scale is ranked in in terms of the "Social desirability" of male occupations.It is a device commonly used in the economic mobility literature." .

[8] SAMMONS, P., K. TOTH, AND K. SYLVA (2015): "BACKGROUND T0 SUCCESS," .