

Educational expansion with no perceived mobility: unfulfilled expectations and changing reference groups in South Africa

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Abstract

As in many other parts of the developing world, mass education expanded rapidly in South Africa during the latter half of the 20th century. High economic mobility is expected from this change, based on large individual and macroeconomic returns to investment in schooling. However, high unemployment, poverty and inequality persist. This paper, surprisingly, documents zero changes in perceptions of economic mobility among younger generations of South Africans. Despite significant educational advantages and entry into the labour market during democracy, *experienced* mobility is the same for all generations of black Africans. This pattern is, furthermore, reflected in rapid growth in unfulfilled expectations. Two reasons for these patterns emerge. Firstly, the weak link between objective (educational) and perceived mobility arises from changing reference groups. Younger generations assess their status based on their relative rather than their absolute educational progress. Growth in education relative to parents has declined for younger generations, despite high absolute gains. Secondly, the link between education and employment remains weaker for black Africans compared to white South Africans, despite racial convergence in attainment. These findings suggest that other constraints may still be an obstacle to social mobility: early investment in childhood is essential to make later investments count; quality schooling to match its expansion remains paramount; labour market discrimination persists. Apart from these potential mechanisms, we illustrate that expectations are, however, not exclusively linked to deprivation or income-generating capacity: unmeasured socio-political aspects therefore likely play a major role. In this light, the experience of other countries - in particular the Arab Spring - is informative, where unfulfilled expectations contributed to rising social unrest.

JEL Codes: I25, J6, D84

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1 Introduction

Education is often considered to be a key policy objective to enable social mobility. Investments in schooling have high returns in low and middle

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income countries, with Africa at the top of these rankings (Psacharopoulos and Patrinos, 2004; Peet et al., 2015). Consequently, primary education enrollment has expanded dramatically, in line with the Millennium Development Goals (Lewin, 2009) and in response to high returns (to especially primary education) on the continent (Psacharopoulos and Patrinos, 2004). By all expectations, many African countries should have experienced *accelerated* social mobility in the wake of political and educational democratisation. Cross-country evidence suggests that more (Barro, 2013) and better quality (Hanushek and Woessmann, 2012) education allows countries to progress macroeconomically. However, these anticipated benefits are not always observed in household data. This paper considers such a paradox, by which massive educational expansion fails to translate into experienced social mobility at the micro level.

Various reasons exist for why the link may break down. Firstly, where the emphasis falls on quantity as opposed to quality, returns tend to decline, so that the potential benefits of educational expansion may be muted (Lustig et al., 2013; Moll, 1996). Secondly, interventions at the level of the school might be implemented too late, regardless of the quality of educational interventions. Children born into disadvantaged backgrounds face severe constraints, and can therefore not capitalise on educational investments to achieve social mobility. Very early investments in childrens' development are known to be important predictors of achievement during adulthood (Cunha et al., 2006); importantly, however, investments during school-going age are most effective if they follow prior investments in *early* childhood (Cunha and Heckman, 2007). Thirdly, where labour market discrimination and other structural deficiencies are binding constraints to job success, investments in education do not necessarily translate to lifetime mobility (Burger et al., 2016a).

Despite the potential inefficacy of education in achieving social mobility over lifetimes, many (poor) individuals in developing countries believe that it provides a solution to bridge socio-economic gaps (Telzak, 2012). As a result, mass educational expansion creates the expectation for improved economic opportunities among younger generations. Often, however, these expectations remain unfulfilled, ultimately leading to political turmoil (Binzel, 2011; Binzel and Carvalho, 2017).

We study the linkages between education, perceived mobility and unfulfilled expectations in South Africa, a context where younger generations achieved

substantial educational mobility relative to their parents, and where discriminatory legislation was removed when this group entered the labour market. In the second half of the 20th century, education was rolled out on a large scale, but anticipated benefits have not obviously realised. Expenditure on education (as a proportion of GDP) is comparatively high by international standards (Inchauste et al., 2015). Educational expansion during the 1970s and 1980s ensured that enrollment is now close to universal at age 15 (van der Berg, 2007). However, children's performance on standardised tests is low in relation to the country's level of development (van der Berg et al., 2011). Additionally, unemployment and inequality remain persistently high. Despite large investments and the extension of education to a large part of the population, the forward links to the labour market and ultimate social mobility appear to be weak.

By all expectations, younger individuals should have achieved substantially more social mobility than older generations. Older black South Africans were constrained by inferior education quality, low levels of schooling and were disadvantaged by job reservation that favoured white South Africans. We therefore compare individuals' perceived mobility across race and generation to assess whether education (one measure of "actual mobility") has in fact played an important role in reducing perceived inequalities in post-democratic South Africa. The empirical analysis shows that while education has expanded for the black African population, it has not translated into higher propensities to be employed; as a consequence, expectations of higher social mobility in the post-democratic era remain unfulfilled despite large-scale public human capital investment.

We study whether younger generations - with *more* education and *less* constrained by discriminatory legislation - experience *greater* (perceived) lifetime mobility than older generations. We emphasise individuals' experiences of mobility relative to the time of their childhood. Perceived mobility is measured as the self-assessed difference in income rankings between age 15 and the current time. We follow this approach - rather than focussing exclusively on objective measures of mobility - because perceptions matter from a political economy perspective. Unfulfilled expectations potentially reduce votes for incumbent politicians despite absolute improvements in public good provision (De Kadt and Lieberman, 2015). Furthermore, unfulfilled expectations and low perceived mobility lead to political unrest in many cases (Bedasso and Obikili, 2016).

Unfulfilled expectations can be viewed as a mismatch between objective mobility and peoples' experiences thereof. Therefore, we also make use of two definitions of objective mobility in our analysis. Firstly, absolute objective mobility is defined as individuals' current education level. Secondly, relative objective mobility is defined as the difference in years of education between individuals and their parents. We find that *absolute* objective mobility matters less than *relative* objective mobility in determining perceptions of progress. We are also able to measure unfulfilled expectations directly to verify these claims by taking the difference between individuals' current perceived ranking in the income distribution and previous forecasts of the same measure. We find that younger generations' increase in unfulfilled expectations is linked to higher absolute mobility, but lower relative mobility; consequently, this cohort's low perceived social mobility is the result of changing benchmarks.

The next section of this paper proceeds to outline the linkages between unfulfilled expectations and political instability; this discussion provides the background for why the link between educational expansion and expected mobility breaks down. Thereafter we discuss the benefits of using subjective rather than objective data to gauge mobility over the life time. The final sections of this paper outline data, methods, results and conclusions.

2 Perceived mobility and unfulfilled expectations

Few studies link unfulfilled expectations and social mobility explicitly. One strand of the literature considers the role of unfulfilled expectations on political action; another studies perceived mobility in the context of self-reported well-being and reference groups. We briefly review these in turn.

2.1 Unfulfilled expectations and political action

The most recent work on unfulfilled expectations draws on experiences from the Arab Spring. This youth-driven grassroots movement in Middle-Eastern and North African countries sought to change the political status quo through mass protest. These uprisings have served as an example of how conventional political power can devolve to large groups of individuals. Binzel (2011) and Binzel and Carvalho (2017) show that unfulfilled expectations (of better economic conditions) were a major contributing factor to this movement in Egypt. As in many other settings, access to education elevated school leavers' perceptions of their potential future success in the labour market. However, this expansion occurred without a concurrent rise

in quality, so that absorption into the labour market did not improve, and anticipated social mobility did not realise. At the same time, a job guarantee scheme for public sector employment fell away. Youth unemployment rose among a more educated generation, creating conditions for increased social instability.

A similar pattern can be observed in South Africa, though the linkages between these social processes have not been conclusively shown empirically. School enrolment has dramatically expanded across generations, but again without a corresponding increase in quality. Youth unemployment rose among more educated younger generations in the post-apartheid period (Burger and von Fintel, 2014), contributing to existing poverty traps and social exclusion (Adato et al., 2006; Barrett and Carter, 2013). While the political franchise has expanded and formalised work-place discrimination was removed in the period of democratisation, it appears that the black African population group could not capitalise on growing levels of education as a solution to a lack of social mobility.

Similar grass roots movements have emerged in South Africa (such as public goods delivery and student protests). The limited evidence documents that improved access to basic public services is less important in influencing voting behaviour and political action than unfulfilled labour market expectations (De Kadt and Lieberman, 2015; Bedasso and Obikili, 2016); democratisation apparently did not deliver the full dividends that were expected, despite documented progress in educational access.

2.2 Perceived mobility and reference groups

Few South African studies consider perceived mobility directly. De la Sablonnière et al. (2013), for one, find that South Africans that identify strongly with their own race group ("in group" individuals) adjusted their perceptions of well-being in line with the political fortunes predicted by democratisation and deracialisation (in other words, black South Africans perceived growth in their well-being, while white South Africans experienced a decline). However, "out-group" South Africans do not perceive post-democratic mobility according group-specific social change. This research seems to contrast with the observations of *rising* unemployment among younger generations of black Africans (who should have benefitted from democratisation *de jure*). Hence, fresh evidence - that specifically

delineates perceptions of mobility across younger and older generations - is necessary.

A larger body of related research focusses on subjective well-being and relative standing, which sheds light on how expectations are formed. Individuals' subjective well-being (SWB) is strongly influenced by their objective socio-economic standing relative to some reference group (particularly others living in same geographic area and those who belong to the same race group) (Kingdon and Knight, 2006, 2007; Bookwalter and Dalenberg, 2010). This suggests that absolute progress also does not translate into perceptions of socio-economic mobility if the entire reference group is also on the same positive economic trajectory. Posel and Casale (2011) show that *perceptions* of position in the income distribution (present, past and future) are more important than actual socio-economic status in determining how highly South Africans rate their SWB. Perceptions of *past* economic status have a higher correlation with SWB than perceptions of the *future*, so that happiness is backward- rather than forward-looking. By implication, retrospective reports on socio-economic standing provide insights into how people view their current position in life. Overall, individuals' self-rated well-being is determined relative to their own group and relative to their own past, but is less connected to actual current circumstances. Hence, *perceived* lifetime mobility that is closely linked to individuals' expectations, is more appropriate for analysis than actual lifetime mobility.

3 The gap between perceived and objective mobility

3.1 Measurement challenges

As noted in the introduction, we make use of concepts of both perceived and objective mobility in our analysis. The difference between the two provides an indication of the presence of unfulfilled expectations.

Objective measures track actual changes in socio-economic circumstances over time. Indicators can include educational or income differences between early and later life stages. However, such analysis typically requires longitudinal data that follows one cohort throughout their lifetimes. These data are costly and rare in the developing country context. However, some objective measures are easier to come by: if parental education is a reliable indicator of the potential socio-economic conditions in which a child grew up, then retrospective reports of this quantity can be compared to respondents' current self-reported education. While this approach is based

on objectively obtained data, it is not certain that the value of education is static. Returns to education change across generations (Branson et al., 2013) and schooling quality is also dynamic. As a result, educational attainment may not be comparable across generations to measure social mobility. Furthermore, such comparisons may more accurately capture *intergenerational* mobility as opposed to the progress made over an *individuals'* lifetime (von Fintel and Posel, 2016; Piraino, 2015).

Secondly, perceptions about past socio-economic standing can easily be assessed in household surveys. Respondents may be asked to offer a subjective ranking of their position in the income distribution. In this case, only retrospective data is required, at a relatively low cost.

Both indicators are prone to be measured with error. Using "objective" reports of welfare (such as income) tends to overstate economic mobility (Glewwe, 2012; Lechtenfeld and Zoch, 2014; Burger et al., 2016b). It is notoriously difficult to enumerate uncontaminated reports of income in a survey setting due to privacy concerns and recall errors. On the other hand, perceived rankings suffer their own biases. The first is the frame-of-reference bias (Beegle et al., 2012), whereby rankings are determined by a permanent person-specific tendency to be over-optimistic or pessimistic about life circumstances. Secondly, anchoring bias entails that respondents' view of the past is contaminated by their current experience (von Fintel and Posel, 2016).

Despite unique difficulties, the two measures cannot necessarily replace each other. Posel and Casale (2011) illustrate a weak correlation between perceptions of *current* relative standing and individuals' current "actual" position in income distribution. Different types of measurement error entail that diverging concepts are captured by the survey instrument.

Nevertheless, we rely on retrospective data for specific reasons. Perceptions regarding past relative standing is interesting in and of itself. Despite measurement issues, perceptions on mobility often inform other social processes, as argued above. In some settings perceived poverty is correlated with objective measures of well-being. Ethiopian households with higher levels of consumption and education are more likely to perceive upward mobility over time (Asiedu and Hall, 2016). Furthermore, preferences for inequality are often explained by individuals' perceptions regarding their possibility of achieving upward social mobility (Senik, 2005; Cruces et al.,

2013). In summary, societies' tolerance for inequality, as well as informal and formal political action is all determined by perceptions of mobility. In a country such as South Africa - where the anticipated dividends of democracy were high among the younger (black African) generation - a lack of mobility has translated into growing unfulfilled expectations and impatience with persistent levels of inequality.

4 Data and Methods

In this study we consider the relationship between perceived and actual mobility over birth cohorts within the South African context. Weak relationships between the two measures serve as a sign of unfulfilled expectations. It is, however, possible to measure unfulfilled expectations directly with short-run longitudinal data (as discussed below); we therefore verify whether inconsistencies arise because actual educational increases do not translate to desired progress. We distinguish our analysis by race group: previous studies predict that the black African group experiences *greater* perceived mobility than the white population, due to the abolition of discriminatory legislation in 1994 (De la Sablonnière et al., 2013). However, those results assume that improvements arose among the youngest generations, who presumably benefited from the abolition of apartheid. This study refutes those assumptions by adding a generational distinction; particularly, we show that unfulfilled expectations of younger generations are a more important component of perceived mobility than was previously understood in empirical research.

We exploit 4 waves of longitudinal data from South Africa's National Income Dynamics Study (SALDRU, 2014), covering the years from 2008 to 2015. In each round of the survey, the same individual was asked to rate their current socio-economic status on a scale: 1 indicates the bottom rung of a conceptual ladder that represents the national socio-economic distribution, and 6 corresponds to the top rung of that ladder. After this, respondents are asked to provide the same rating on a ladder that represents the national distribution when they were 15 years old, and also for two years into the future. The first measure corresponds to the self-rated measure of childhood socio-economic status, while the second represents future expectations. In follow-up rounds of the survey (period t), current rankings can be compared to the predicted rankings (for period t), that was anticipated in the previous wave (period $t-2$): this allows us to measure whether short-run expectations were fulfilled. While recall of the age

15 ranking is known to be inconsistently reported by the same individuals in different rounds of the survey (von Fintel and Posel, 2016), we use the data as it is. This is because the objective is to measure current perceived lifetime mobility at each point in time, and not actual mobility. We define upward mobility as an indicator variable that denotes whether individuals' current perceived rankings are higher than their view of the same indicator at age 15:

$$Upward_{it} = I(rank_{it} > rank_{i,age15})$$

Objective *absolute* mobility is measured by educational attainment. Objective *relative* mobility (abstracting from potential generational changes in education quality) is measured as the difference between the respondents' education and the highest education level recorded for either parent:

$$Educational\ difference_{it} = educ_{ownit} - educ_{parent}$$

This measure should be static over time for a large section of the population that has completed schooling. However, some reporting error does occur.

We also model the correlation between an indicator, $Employed_{it}$, and both perceived and objective mobility. Finally, we define unfulfilled expectations as the difference between previously predicted rankings and currently reported rankings:

$$Unfulfilled\ Expectations_{it} = rank_{i,future_{t-2}} - rank_{it}$$

Using these outcomes, we estimate various linear models of the form.

$$y_{it} = \beta_0 + \mathbf{x}'_{it}\boldsymbol{\gamma} + \boldsymbol{\delta}'\mathbf{age}_{it} + \boldsymbol{\alpha}'\mathbf{birthyear}_i + \lambda_t + \varepsilon_{it}$$

where y_{it} measures, respectively, perceived life-time mobility, objective (absolute and relative) educational mobility, current employment status and current unfulfilled expectations. Controls for age are included because individuals at different points in the life cycle have had varying lengths of time since childhood to gain in economic status. Time dummies (λ_t) account for macroeconomic shocks, to which we do not want to attribute our mobility estimates. This approach is especially important because the sample was enumerated at the start of the global financial crisis. Our parameters of primary interest are estimates of $\boldsymbol{\alpha}$, uncovering differences in birth cohort patterns of each variable after controlling for the most important hypothesised channels: objective educational mobility and unfulfilled expectations. The \mathbf{x} vector controls for a number of additional factors, including reported incomes from the labour market and cash transfers, sex and geographic location.

We apply the so-called "intrinsic estimator" of Yang et al. (2008) instead of Ordinary Least Squares (OLS). Because the contribution of this study is to distinguish between perceived mobility across generations (while simultaneously controlling for individuals' age and the time period), the model suffers from the well-known age-period-cohort identification problem (Bell and Jones, 2014; Luo, 2013). While the literature has not reached consensus on a solution for this age-old statistical conundrum, the intrinsic estimator is one of the few solutions that makes no behavioural assumptions, but only imposes statistical constraints on the model. The OLS estimator

$$\hat{\beta} = (X'X)^{-1}X'y$$

can be equivalently re-written as

$$\hat{\beta} = VD^{-1}U'y$$

where $X = UDV'$ is the standard singular value decomposition of the matrix of explanatory variables (Johnson and Wichern, 2002). U and V consist of eigenvectors of $X'X$ and XX' respectively; D is a diagonal matrix that consists of the corresponding eigenvalues (which are common to both sets of eigenvectors). Because of the inherent multicollinearity in the X matrix, one of the eigenvalues is exactly 0. It is, therefore, possible to remove the rows and columns of U and V corresponding to the zero eigenvalue, to obtain \tilde{U} and \tilde{V} . Now $X = \tilde{U}\tilde{D}\tilde{V}'$, without loss of information. By this reasoning, it is possible to estimate the coefficient vector with the reduced versions of V , D and U as $\hat{\beta} = \tilde{V}\tilde{D}^{-1}\tilde{U}'y$ with corresponding variance-covariance matrix:

$$\hat{\Sigma} = \hat{\sigma}^2\tilde{V}\tilde{D}^{-1}\tilde{U}'\tilde{U}\tilde{D}\tilde{V}'$$

where $\hat{\sigma}^2$ is estimated as the sum of squared residuals, scaled by the relevant degrees of freedom.

5 Results

Using the model outlined in the previous section, we present a cohort analysis of the variables of interest (*education, educational differences, perceived mobility, employment and unfulfilled expectations*). We do so to understand the generational trajectories in our various definitions of mobility. In this analysis, various controls are introduced (\mathbf{x}) to disentangle the channels by which the generational patterns emerge. The details of the control variables are presented in separate tables, but are conducted jointly with the cohort analysis.

5.1 Links between objective and perceived mobility across generations

Figure 1 illustrates the large absolute objective mobility achieved by black South Africans. It decomposes educational attainment of various birth cohorts into generational and age effects, as in equation (4) without covariates. The right panel indicates that individuals born after 1990 have approximately 8 additional years of education compared to those born in the 1940s. This generational trajectory implies very high levels of absolute social mobility for the youngest generations. Figures for the white population (not shown here) indicate no statistically significant movements in education patterns across generations. The progressive convergence of educational attainment between race groups represents large, long-run social mobility for black Africans that should, presumably, translate to other measures of welfare.

However, perceptions of mobility do not necessarily match these long-run increases in educational attainment for all groups. Figure 2 performs the same decomposition as before, but considers the perceived mobility of Africans. Without introducing any controls (the "base" specification), the bottom left panel¹ shows that perceived mobility has declined steadily across generations: perceptions of upward mobility (since childhood) are 20% lower for Africans born in the late 1990s compared to those born in 1945. While this decline is not statistically significant, it is nevertheless clear that the large expansion of education across generations has done nothing to *improve* perceptions of social mobility among Africans. For the white population (not shown) we also do not detect any significant changes in perceived mobility. However, this was not expected, given slow movements in educational expansion among this already well-off group.

We also study the effects of conditioning on educational mobility and unfulfilled expectations on generational changes in perceived mobility (the coefficients are displayed in tables 1 and 2 and discussed below) in Figure 2. Introducing controls for education differences (relative to individuals' parents) yields a strong upward mobility trajectory across generations. After removing the effects of relative educational differences, the youngest generation in the sample has an approximately 50% higher probability of rating themselves as upwardly mobile since childhood compared to the oldest generations in the sample. This effect is large and statistically significant. A

¹We do not discuss the age and period effects, as they are only included as controls, as discussed above.

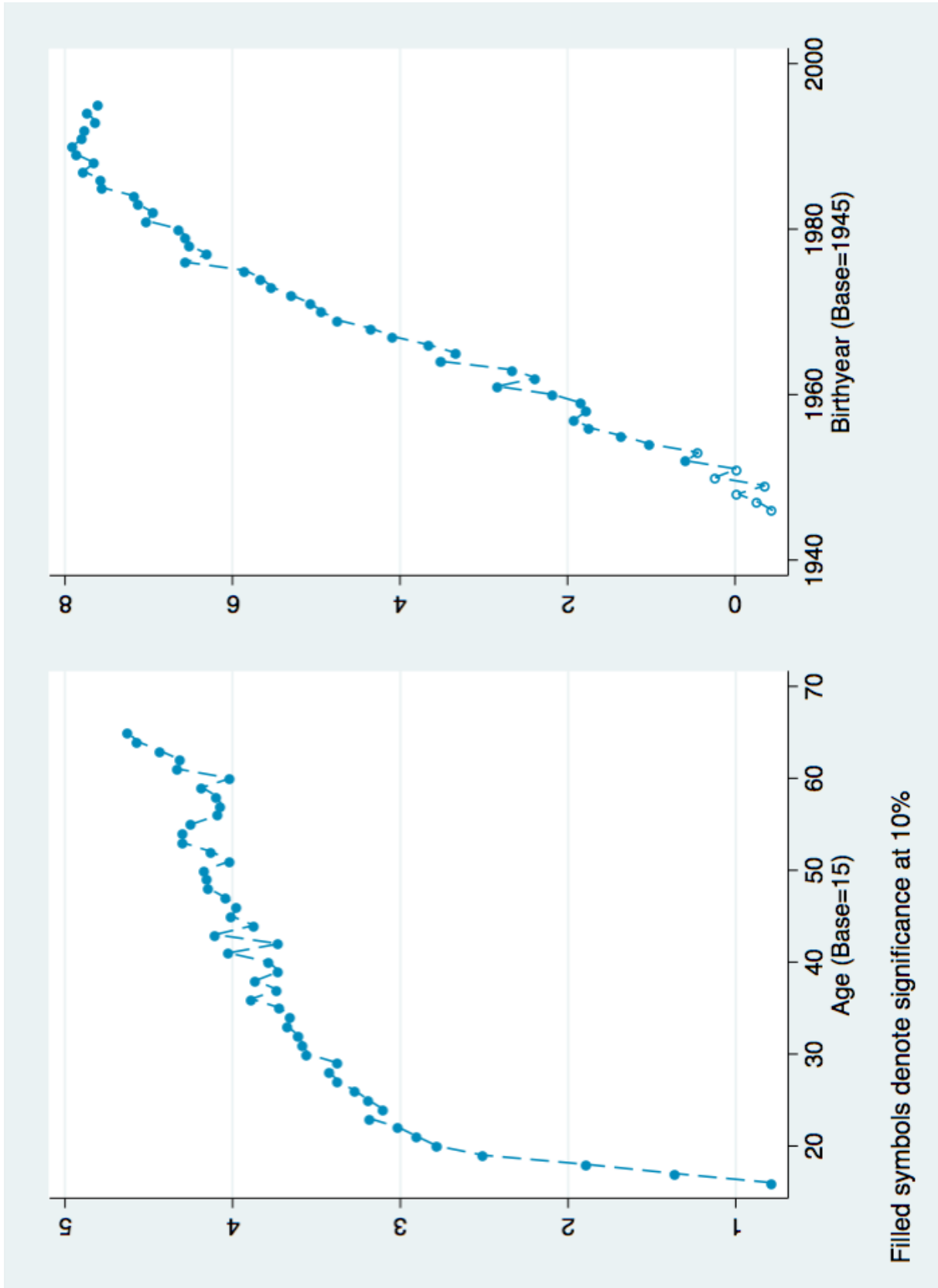
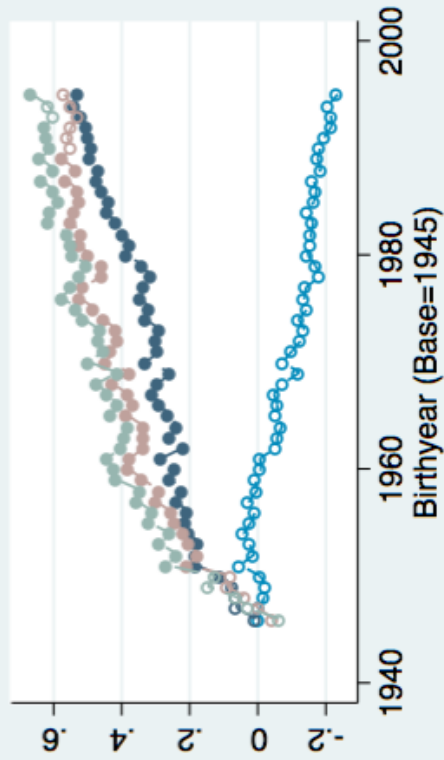
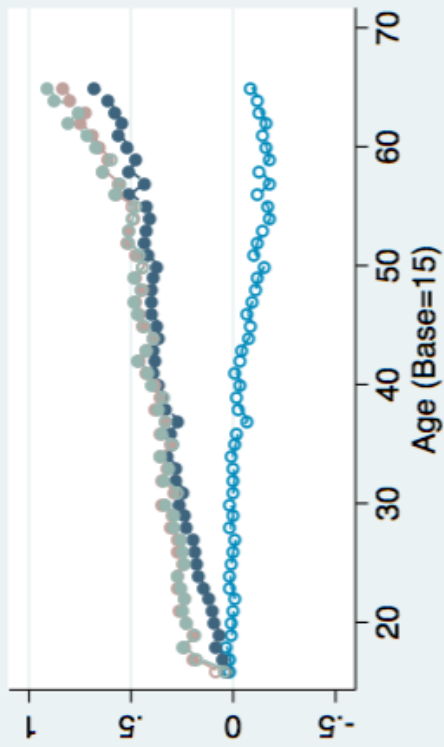
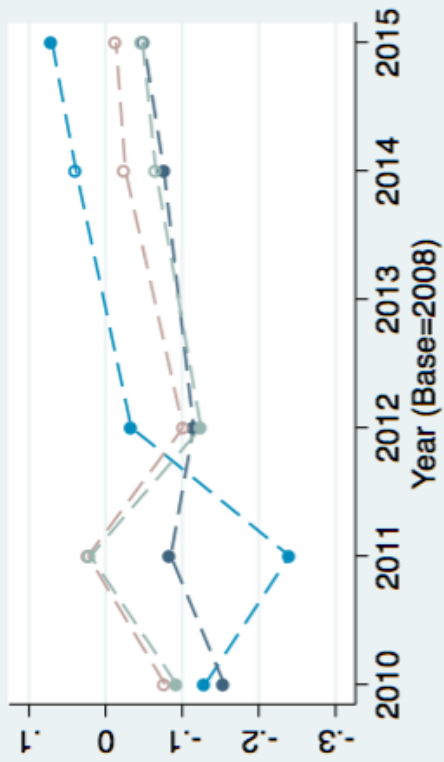


Figure 1: Educational expansion among black South Africans

Filled symbols denote significance at 10%



Filled symbols denote significance at 10%

Figure 2: Perceived upward mobility: black African

similar pattern emerges if we control only for individuals' unfulfilled expectations. While the second set of results is unsurprising, the first set is. How can we reconcile the inconsistencies?

In the case of unfulfilled expectations, we interpret the profile as a depiction of how mobility would have evolved had individuals' expectations been fully met: in the absence of large unfulfilled expectations, younger generations of black Africans would have considered themselves more economically mobile than older generations. This is presumably reflective of their educational advantage and the progressive removal of discriminatory legislation. Importantly, if we do not account for unfulfilled expectations this group does not report greater levels of lifetime mobility; as we discuss below in Figure 5, younger generations show particularly strong tendencies for unfulfilled expectations, so that this is a vital component of the analysis.

How, then, should we view the fact that a similar result is achieved by removing the effects of education? We argue that education has not had the anticipated labour market benefits for African as for white individuals. In column 2 of Table 1 we note that having one more year of education than an individual's best-educated parent only raises the probability of perceived upward mobility by 0.5% for black individuals². A comparative figure for whites (in column 2 of Table 2) is approximately three times larger, conditional on parents being relatively uneducated. The link between objective and perceived mobility is much weaker for the African compared to the white population, emphasising the fact that this group has experienced greater levels of unfulfilled expectations.

It is also necessary to note the conditional proportions of individuals in each group that rate themselves as upward mobile over their lifetimes. The estimated constant in column (1) of Table 1 surprisingly indicates that 62.5% of black individuals consider themselves to have moved up the socio-economic ladder since childhood (conditional on demographic characteristics), while this figure is not statistically different from zero among the white population (column (1) of Table 2). While our results show no changes across generations, Africans' perceptions of upward mobility start from a higher base compared to whites. This may be because of top-censoring, whereby well-off whites are unable to move beyond the top ranking in the distribu-

²This is conditional on their parents not having achieved a matric, South Africa's school leaving certificate. The additional effect for individuals with better educated parents is, however, only very small

	1	2	3	4	5
Women	.013 ***	.004 **	.007 **	.01 **	.016 **
Metro	-.034 ***	-.029 ***	-.027 ***	-.039 ***	-.037 ***
Homeland	.015 **	-.002	-.004	.024 **	.032 **
Educational difference		.005 ***		.005 ***	.005 ***
Parent has matric		.062 ***		.041 ***	.042 ***
Educ diff x Parent matric		.003 **		.002	.001
Employed				.016 ***	.015 **
$\ln(Y_L)$.011 ***	.01 ***
$\ln(Y_G)$				-.001 **	-.001 **
Unfulfilled expectations			-.088 ***		-.087 ***
Constant	.625 ***	-.087	-.196	-.166	-.312 **
Controls: Age, Period, Cohort	Y	Y	Y	Y	Y
N	54779	44936	22804	44129	19702
"R ² "	.469	.49	.521	.501	.525

Table 1: Linear Probability Model of Perceived Upward Mobility Since Age 15: Black Africans

tion. However, additional controls for objective mobility in the respective second columns reduce this difference to zero. High levels of objective mobility explain the high levels of "base" mobility, but not changing generational patterns. This explains why authors such as De la Sablonnière et al. (2013) find that black individuals experienced higher well-being compared to white individuals after democracy.

Controlling for employment status, and household incomes from the labour market ($\ln Y_L$) and from government transfers ($\ln Y_G$) in columns 4 and 5 of both tables, does not change these core results. However, it is relevant to note that current connections to the labour market are strongly correlated with perceptions of upward mobility since childhood. Receiving incomes from the government (chiefly through cash transfers) is associated strongly with downward mobility among whites. This is a small group in the sample, and likely represents individuals who have previously been financially secure and dropped into poverty. On the other hand, cash transfers do not appear to have such a large negative effect on the perceptions of the African population. In this case, cash transfers have often offered an escape from *past* poverty (van der Berg et al., 2008).

5.2 Channels

We now consider the potential channels through which the link between perceived and objective mobility is weak for younger Africans. In turn we consider how *relative* objective mobility has changed across generations, as well as how educational expansion has translated to labour market attachment and unfulfilled expectations.

	1	2	3	4	5
Women	-.015 **	-.062 **	-.064 **	-.072 ***	-.089 **
Metro	.08 ***	.094 ***	.139 ***	.101 ***	.147 ***
Homeland	.214 ***	.148 **	-.047	.095 **	-.166 **
Educational Difference		.014 **		.012 **	-.007
Parent has matric		-.007		-.009 **	-.001
Educ diff x Parent matric		-.025 **		-.043 **	-.126 **
Employed				-.019 **	-.016
$\ln(Y_L)$.009 **	.007 **
$\ln(Y_G)$				-.012 **	-.016 **
Unfulfilled expectations			-.084***		-.076 ***
Constant	-.235	-1.106 **	.639	-.578	.022
Controls: Age, Period, Cohort	Y	Y	Y	Y	Y
N	2453	1685	662	1621	580
R^2	.443	.513	.596	.53	.614

Table 2: Linear Probability Model of Perceived Upward Mobility Since Age 15: Whites

5.2.1 Relative vs absolute objective mobility

Figure 3 shows the decomposition of educational differences. It is different from Figure 1, in that it departs from absolute measures of educational attainment, and considers by how many years of schooling children outperform their best-educated parent - in other words, the attention shifts to relative mobility. Africans born between 1956 (who were aged 15 in 1971) and 1977 (age 15 in 1992) experience a 1 to 3 year greater educational advantage over their parents than the 1945 cohort had over their parents. Individuals born after 1978 (aged approximately 15 in 1993) see a reversal in the advantage over their parents. School leavers (aged approximately 15) in the democratic era are therefore born to parents who already experienced substantial educational mobility during the apartheid era. Despite this group having achieved the highest *absolute* levels of education of all generations, the big gains were realised by their parents. Hence, the weak link between absolute and perceived mobility can at least partially be explained by the notion that *relative* and not *absolute* mobility is important for perceptions of progress.

This observation concurs with the literature which emphasises the importance of reference groups for self-rated experiences (Kingdon and Knight, 2006, 2007; Bookwalter and Dalenberg, 2010). It suggests that, while school leavers in the democratic dispensation have the greatest access to education, their perceptions of welfare are pegged to their parents' (relatively favourable) experiences; they are not placed in the long-run perspective of much older generations' relative deprivation. This also explains why controlling for this indicator in the perceived mobility regressions produces a counterfactual by which younger generations would have experienced *more*

social mobility if they had the same (low) levels of education as their parents. In essence, this group values their high levels of education in a relative sense: in this case, it amounts to relative deprivation compared to the gains that their parents achieved. This perceived disadvantage is factored into younger generations' assessments of mobility since childhood.

5.2.2 Employment

Figure 4 presents the results of a decomposition analysis on the probability of being employed for black Africans. Strikingly, despite large absolute educational mobility across generations, the employment probability of black Africans has shown no statistically relevant movements across generations (regardless of the controls we include). This mirrors prior work of Burger and von Fintel (2014), who use alternative data to show that there were no improvements in labour market absorption for younger generations. One important explanation for the weak link between objective and perceived mobility among younger Africans is therefore the static labour market prospects of this group.

While labour supply has increased strongly across generations, absorption has not matched this pattern (Branson and Wittenberg, 2007; Burger and von Fintel, 2014; Burger et al., 2015). Generational educational differences only partially explain this pattern in our models: therefore the expansion of education did not appear to contribute to better labour market opportunities. We therefore turn to alternative reasons, which we do not control for in our models. These include slow reductions in labour market discrimination (Burger et al., 2016a) and poor educational quality (van der Berg et al., 2011) that limit the ability of black Africans to capitalise on objective educational mobility.

These observations are partially confirmed by regression results in Table 3. The effects of one year of relative educational mobility on the probability of being employed is roughly double for whites (1.7%) compared to Africans (1%). Additionally, the employment returns on relative mobility are larger for both races if parents achieved at least a matric. However, attainment of this level of education favours the white population group, so that most of the employment benefits of education accrue to the white population group.

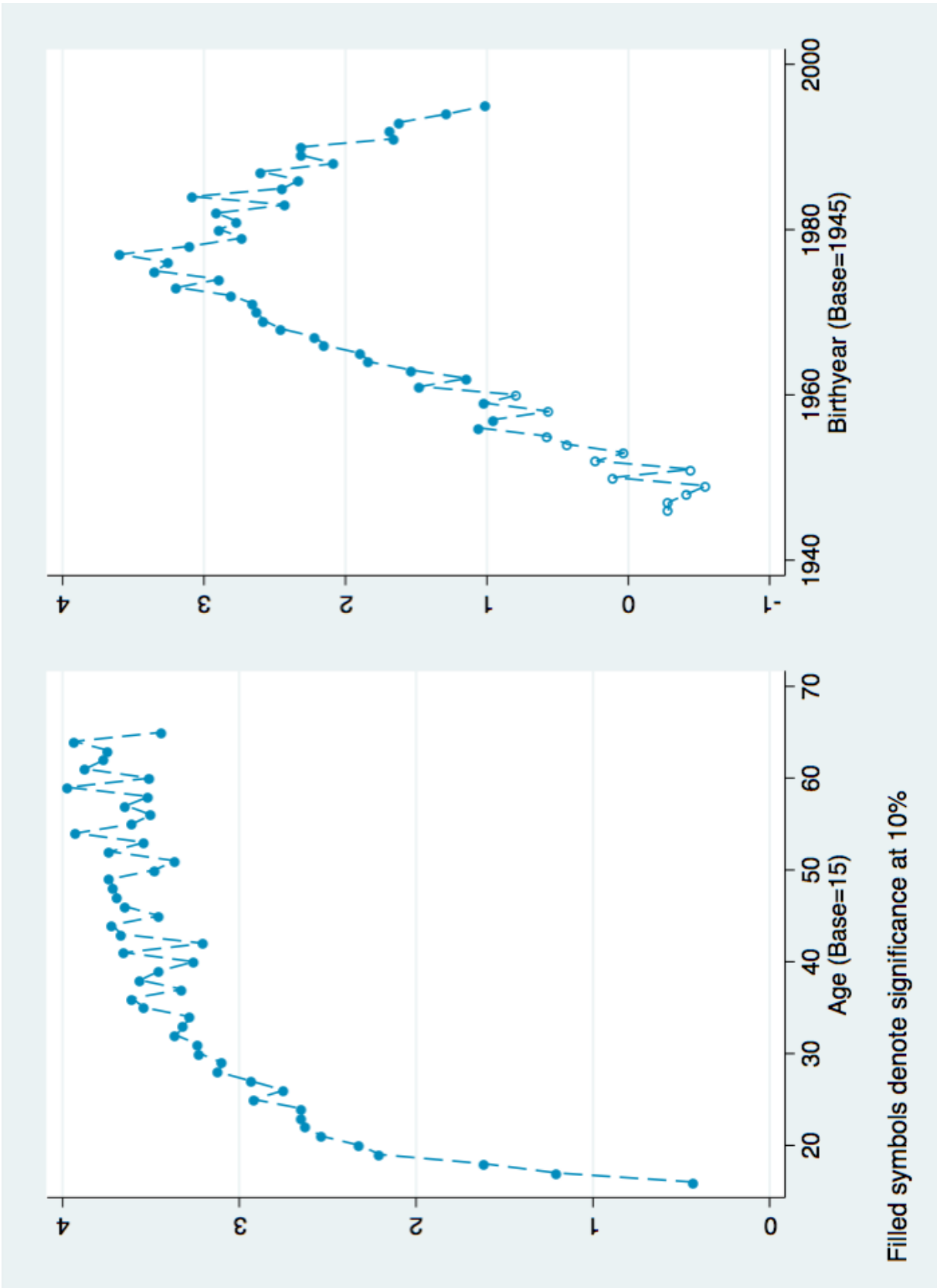


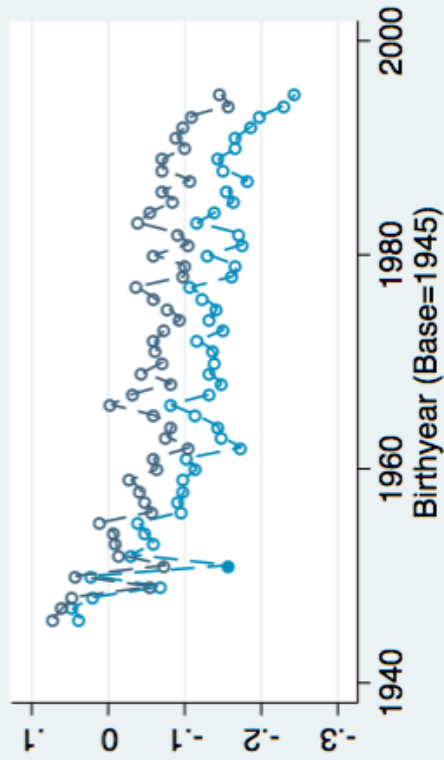
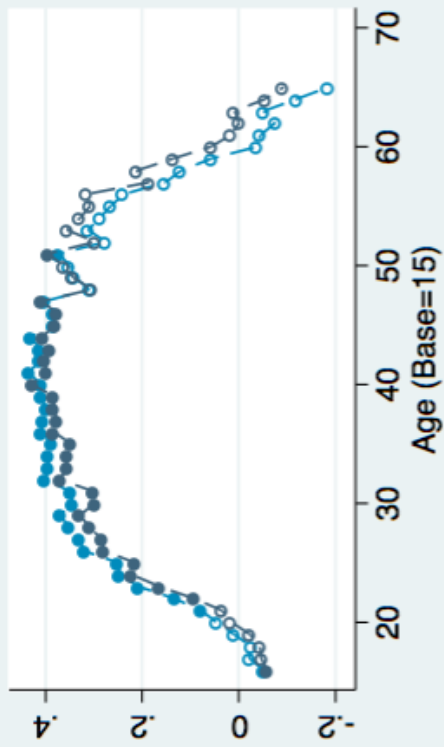
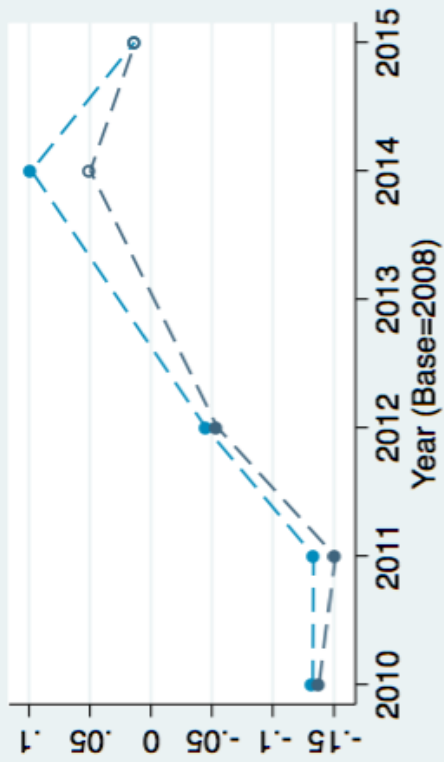
Figure 3: Educational mobility of black Africans

<i>Sample</i>	African	African	White	White
Women	-.152 ***	-.147 ***	-.229 ***	-.218 ***
Metro	.098 ***	.101 ***	.055 **	.081 **
Homeland	-.116 ***	-.125 ***	-.046	-.127 **
Educational difference		.01 ***		.017 **
Parent has matric		.12 ***		.133 ***
Educ diff x Parent matric		.023 ***		.02 **
Constant	.223 **	.293 **	-1.817 **	-.401
Controls: Age, Period, Cohort	Y	Y	Y	Y
N	51585	44129	1897	1621
R^2	.298	.319	.496	.551

Table 3: Probability of current employment

5.2.3 Unfulfilled expectations

As noted briefly above, Figure 5 shows that unfulfilled expectations have risen dramatically for younger Africans relative to older generations. The effect is robust to the inclusion of a full set of control variables. Among the post-1978 cohort (individuals of school-leaving age in the democratic era), unfulfilled expectations represent two ladder gaps (or approximate *perceived* deciles) more than those born in 1945. No similar pattern can be discerned for the white population (this is not shown). Unfulfilled expectations of the youth explain much of their lack of perceived upward mobility. This stark increase in unfulfilled expectations cannot be explained by the full set of controls that we introduce. Hence, while we show that the levelling off of educational expansion is associated with lower perceived mobility, it cannot explain the unfulfilled expectations of younger generations. Additionally, continued weak attachment to employment also does not explain unfulfilled expectations. Hence, factors over and above deprivation on standard welfare indicators must explain the generational pattern. In fact, Bedasso and Obikili (2016) show that - especially for the black African population group - gaps between actual income and income predicted by human capital levels has declined. Unfulfilled economic potential has therefore started to diminish over time. Therefore, unfulfilled expectations are unlikely to be solely determined by labour market and other economic drivers of upward mobility. We can only speculate that younger generations anticipate - either correctly or incorrectly - that non-labour market benefits would arise for their generation. Though we do not prove this here, these aspects may include expected service provision from governing authorities (De Kadt



+Educ diff
+Expect
All contr

Filled symbols denote significance at 10%

Figure 4: Employment: black Africans

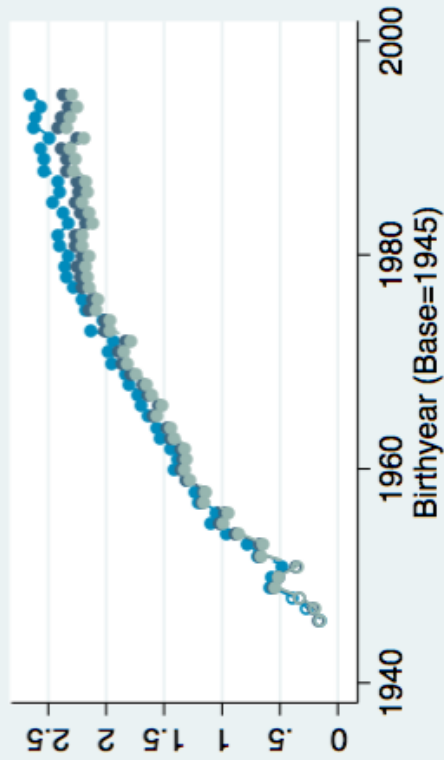
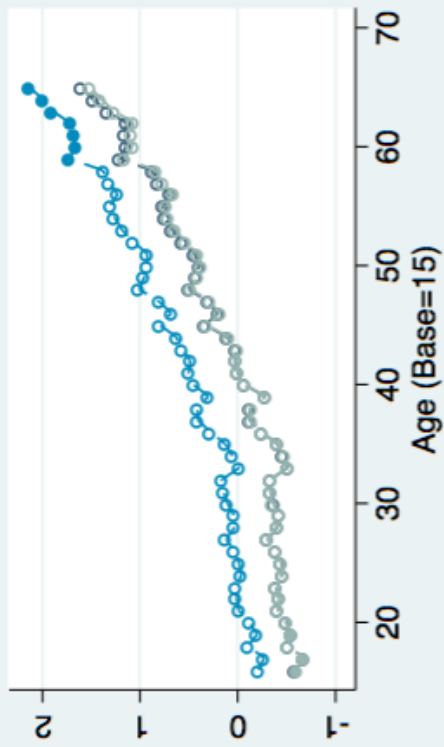
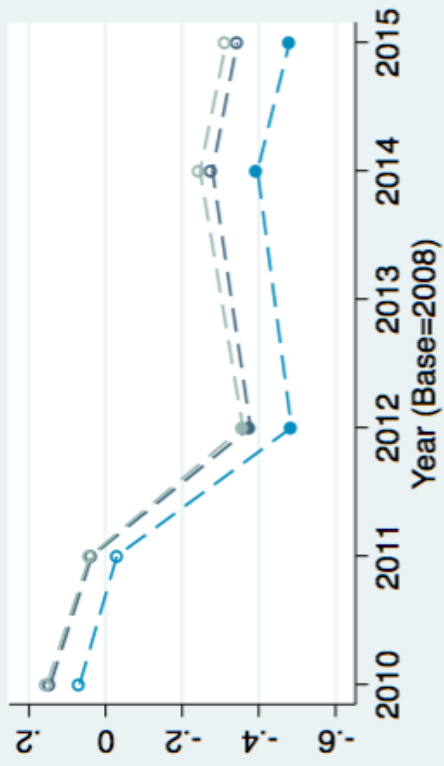
and Lieberman, 2015) and the social capital that presumably arose from democratisation.

Table 4 offers insights into the correlates of unfulfilled expectations. Despite the fact that no generational patterns are shifted by the inclusion of these control variables, the results do provide insights into the patterns of expectation formation. Relative educational mobility plays a minor role in tempering unfulfilled expectations, except if parents completed secondary school. By implication, only tertiary graduates - especially those whose parents are not graduates - experience lower unfulfilled expectations than the rest of the population. The expansion of education across generations therefore raised expectations that were not realised, except in the case of first generation graduates. The latter correlation is stronger for whites than for Africans.

Even though labour market income does not fully explain the generational rise in unfulfilled expectations, it does shield against it. In contrast, income from government transfers is correlated with higher unfulfilled expectations. This pattern is especially strong for whites, whose reliance on cash transfers is an indicator of having fallen into poverty. The weaker correlation for the African population suggests that for at least some of this group, prior extreme poverty was alleviated by receiving social assistance.

6 Conclusions

As in many other developing countries, massive educational expansion in the latter half of the 20th century brought about the expectations of large scale social mobility in South Africa. Typically, anticipated benefits do not realise if improvements in school quality do not accompany increases in attainment, if very early investments in childhood are not pursued or if structural labour market constraints apply. This paper has explored some mechanisms to explain the weak link between educational expansion and perceived lifetime mobility in South Africa. As is the case in other countries (such as Egypt) where employment prospects did not match the rise in human capital, expectations remain unrealised, with social mobility remaining stagnant among younger generations. Multiple constraints therefore present themselves as reasons for slow perceived social mobility in the face of educational expansion: while better school quality does tend to improve labour market prospects for South Africans (Case and Yogo, 1999), black Africans still largely attend schools where quality is far below international standards (van der Berg et al., 2011); alternatively, slow progress in anti-discrimination programmes limits the returns to educational mobility of black Africans (Burger et al., 2016a). Moll (1996) argues



Filled symbols denote significance at 10%

Figure 5: Unfulfilled expectations of Black Africans

<i>Sample</i>	African		White	
Women	-.008	-.008	.059	.016
Metro	-.001	-.001	.09 **	.066
Homeland	-.053 **	-.02	.351 **	.447 **
Educational differences	.001	.002		-.013
Parent has matric	-.005	.018		.028
Educ diff x parent matric	-.033 **	-.032 **	-.045 **	-.043 **
Employed		-.005		-.066 **
$\ln(Y_L)$		-.012 ***		-.014 **
$\ln(Y_G)$.004 **		.03 **
Constant	-1.393 **	-.823 **	-1.954 **	-2.267 **
Controls: Age, Period, Cohort	Y	Y	Y	Y
N	22804	19711	662	580
R^2	.273	.274	.273	.295
		.275		.301

Table 4: Unfulfilled expectations

that increases in the supply of primary education led to the collapse of its labour market returns.

Even though black South Africans who left school in the democratic era achieved, on average, 8 years more education than two generations their prior, these *absolute* gains are not reflected in *relative* progress. For this very same group, the progress relative to their parents' educational attainment slowed down dramatically. The reversal in relative educational mobility reflects strongly in stagnant perceptions of upward lifetime mobility among younger generations. Accounting for the stagnation in educational *growth*, we show that perceived mobility would have trended strongly upward among younger generations in a counterfactual situation. Higher educational attainment did not benefit Africans in their *perceived* life path. Apart from a continued gap in the returns to education, however, this result may be the product of assessed life quality relative to a reference group: while absolute education levels have continued to improve, they have slowed down relative to the parental reference group. Consequently, a part of the explanation may be that perceived lifetime mobility is a relative rather than an absolute concept.

The distinction between absolute and relative educational mobility matters. If education expands, expectations of lifetime mobility inflate; if education expands slower than that of previous generations, the additional returns in the labour market that individuals observe (for their parents) may not pass on to the younger generation. As a result, growing expectations are not met and contribute to poor perceptions of mobility. This dissatisfaction eventually matters for broader social processes, as was the case during the Arab Spring. This paper has shown that part of the process has already taken place in South Africa: younger generations have more education (in absolute terms), but are no more likely to be employed than older generations; we also show that this corresponds closely to a generational increase in unfulfilled expectations and zero increases in perceived lifetime mobility.

The experience of South Africa and other countries suggests that the expansion of education can have unintended consequences. While its objective is to stimulate social mobility, it may be of little effect if the education provided is not complemented by quality schooling and early childhood interventions; furthermore, if the supply of educated workers increases without the removal of other constraints (such as labour market discrimination),

the returns to education potentially decline (Moll, 1996). The result is a labour force with more human capital, but not necessarily better employment prospects. High expectations of benefits from more education go unrealised, and perceived social mobility remains stagnant despite progress in educational attainment. In some countries this has resulted in political instability. Policy makers can therefore not focus on one objective at a time: improving access to education must be coupled with ensuring that quality is maintained to a level and type that is demanded by the labour market; additionally, the expansion of education is unlikely to solve all labour market constraints, so that demand-side rigidities should be simultaneously addressed to absorb the growing educated labour force.

Further, this study has shown that unfulfilled expectations - directly measured - cannot be fully explained by individuals' income generation potential. The mismatch between education and the job market therefore only represents one component of the stagnation of perceptions of socioeconomic status among younger generations. While we cannot show conclusively what all the sources of this growing discontent are, we know that they transcend education and labour market imperfections. Future research should therefore consider other explanations, including socio-political discontent that may result in large protest action (Binzel and Carvalho, 2017).

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