Conference Paper

The Nexus between Social Grants and Participation Rates: Dynamics across Generations in the South African Labour Market

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Abstract.

This paper will have a closer look at the role of South African welfare programs on the labour supply decision across generations. From a theoretical point of view, a change in non-labour household income will affect the decision to participate in the labour market. Previous studies have focused on prime age adults and elderly and could confirm a significant decrease in labour supply of individuals living in a pensioner's household. However, past research did not look at the intergenerational pattern and broader socio-economic conditions when evaluating the impacts of social grants. Our preliminary results suggest that the behavioural response to welfare programs differs by age group. In particular, labour supply of the young living in a pensioner's household has increased. Also, intergenerational differences in participation rates can be explained by educational policies, designed specifically to address over-age students in the public schooling system.

JEL classification: J22, H53

1 Motivation

Large scale social transfer systems are still rare in developing countries. Since the end of Apartheid, South Africa has implemented a comprehensive social security system including various grants addressing the needs of children, a disability grant, and old age pensions covering all population groups. In total, the social safety net reached 13 million beneficiaries in 2008. Of particular importance are the child support grant, whose eligibility criteria have been changed repeatedly since its introduction in 1998 to increase the number of children benefitting from it (currently ca. 8.7 million), as well as the old age grant supporting 2.3 elderly people in 2008 (Department of Social Development, 2009). [1]

The explicit aim of unconditional cash transfers is to provide income support to the poor and vulnerable. Assigned to poor families and poor elderly once they arrive at the official retirement age, cash transfers as the child support grant and state pensions are likely to substantially increase non-labour household income. Previous studies assessing the impact of public transfer programs in South Africa identified significant effects on expenditure on food, clothing, and savings, the nutritional status and school attendance rates of children as well as on labour force participation rates. Also, most studies find significant gender differences, therefore rejecting the unitary household model and perfect pooling of incomes. In terms of effective targeting results suggest that the welfare effects of the child support grant almost entirely accrue to the child who is receiving the grant, whereas household members living in a pensioner household often benefit from the additional income, too.

Regarding the effect on labour force participation, past studies have focused on prime age adults (Bertrand, 2003) and persons aged 50 years and older (Ranchhod, 2006). For both age groups significant decreases in labour supply have been found. The authors conclude that the government needs to carefully reconsider the incentives provided by the various welfare programs. Posel et al. (2006) and Ardington et al. (2007) also analyse the behavioural changes induced by pensions and arrive at a more positive conclusion. They find that in particular labour migration seem to increase among prime age adult household members suggesting that pension money plays a crucial role in overcoming credit constraints.

This paper will have a closer look at the role of old age pension and child support grant on the labour supply decision across generations. Past studies have approached this question in a rather static and isolated way, i.e. not considering the changing economic environment and labour market conditions. In

[1] There are few more large-scale social transfer programs in developing countries. During the 1990s, China introduced the urban minimum living standards program to protect poor and vulnerable households. In 2005, India introduced the national rural employment guarantee scheme to address rural poverty. When fully implemented, each program will cover 24 million households. The productive safety net program in Ethiopia is the largest social protection program in Sub-Saharan Africa outside South Africa, currently reaching 7 million households (Scott, 2009).

order to address these issues, we construct a birth cohort panel dataset covering the years 1995-2007. Preliminary results suggest that the effects of social grants are profoundly different for younger and older generations.

2 Methodology and Data

The targeting of social grants is in many instances age related. Social pensions are granted to women above the age of 60 and men above the age of 65, who pass the means test. Child Support Grants are granted to mothers that take care of children below the age of 18. It therefore seems obvious that labour supply decisions in response to social assistance should vary across age groups. However, the picture is not that simple. Households are formed around social grants, so that labour supply of those living with pensioners declines (Bertrand *et. al.*, 2003). However, even this decision may be non-linear in age. Klasen and Woolard (2008) show that attachment to grant receiving households reduces with age, so that by implication the young are less likely to join the labour force. They also show that a growing proportion of the unemployed attach themselves to households without any employed individuals (but where grant income is available). By implication, these individuals are likely to be isolated from the labour market, and the young may be at greatest risk. However, it is indeed possible that the grant income from a pensioner could reduce search costs for younger individuals looking for their first jobs. Furthermore, Seleoane (2008: 136), contends that social grants actually stimulate entrepreneurial activity, in that the grants are reinvested into other income generating activities. This suggests that in many cases the young could in fact be connected with the labour market through grant income despite initial isolation.

A clear understanding of the age and generational dimensions of labour force participation is therefore required to infer any responses to social grants. Burger and von Fintel (2009) illustrate that age, period and cohort decompositions (as per Deaton, 1985, 1997) disentangle much of the underlying features of unemployment, absorption and labour force participation into lifecycle and generational responses. They find that the rise in labour force participation in South Africa was driven by large cohorts of younger generations that entered the labour market earlier than their older counterparts. These groups looked for their first jobs at the time when the coverage of social grants extended to large sections of the impoverished South African population in the post-Apartheid period. By implication, this simple correlation implies that social grants could have perhaps (on aggregate) caused this group to increase their labour supply. However, this observation requires more rigorous verification. The application of these decompositions does not consider any causes other than the life cycle, generational and business cycle responses of groups of people. By controlling for the average characteristics of cohorts born in the same year at different ages, it is possible to isolate what drove these demographic responses (in this case an intergenerational increase in labour supply). Decompositions that condition on education, for instance, partially eliminate the differences in participation between generations: because younger generations in South Africa have more years of educational attainment, they are more likely to enter the labour market in an attempt to reap the rewards of their investment (Burger & von Fintel, 2009). However, not all the intergenerational differences are accounted for by this demographic shift. The

most recent surge in participation amongst the latest school leavers can be accounted for by quicker transitions out of education into the labour market, as a result of over-age policies that have attempted to normalize age profiles within schools (RSA, 1995). The idea was that these individuals would pursue education in adult education colleges (to obtain skills relevant to the labour market), and thereby relieve the pressure on an overburdened school system. Many of these individuals chose to enter the labour market rather than to pursue this alternative, which by implication added to the job queue (Burger & von Fintel, 2009). However, all the differences between older and younger generations remain unexplained to some degree. Here we generate counterfactual intergenerational participation profiles that show the behaviour of South Africans of different cohorts had they not been in households that received grants. This paper extends previous work to show why different generations entered the labour market at such different rates. The role of social grants is emphasized here.

We construct a birth cohort panel dataset from the series of October Household Surveys from 1995 to 1999 and the September rounds of the Labour Force Surveys from 2000 to 2007. The unit of observation is each birth cohort (ranging from 1930 to 1990), followed across each of the years. All the variables of interest are averaged for each of the members born in the relevant year, and tracked in each survey. Using aggregated data as a micro panel has been used in multiple situations. The benefits are that measurement error may be minimized and that attrition is not present. Nevertheless, the data is not aggregated to such a degree so that the different experiences of various groups can be controlled for. However, the use of conventional individual level panel estimators with grouped data has been disputed in the literature. Verbeek and Nijman (1992), however, show that this simple approach (without the need for corrections for variable sample sizes in various groups) upholds all the consistency properties of standard fixed effects estimators if cohort averages are constructed from more than 100 individuals. In each of the estimates presented below this is indeed the case.

A simple Least Square Dummy Variable regression is run on the cohort labour force participation rates to decompose this variable into each of its demographic components (Deaton, 1997). The time invariant "fixed effects" are represented by dummy variables for each birth year and generate the generational profiles of participation. Dummies for each age group (which is represented by a different birth cohort in each survey) are included to capture the life cycle variation in participation. Time dummies are included for each period. However, even with the omission of a base category for each of these sets of dummies, this model remains unidentified due to the perfect multicollinearity between age, birth and the current year. The literature prescribes a number of alternatives to enforce identification, each of which produces different slopes for the relevant profiles (but the same first differences in profiles). Here we adopt the approach of Deaton (1997), which places a zero restriction on the time dummies, so that the business cycle variation in participation is modelled by implication. As a result, all other intertemporal variation in participation is diverted to intergenerational effects. However, given that semi-parametric techniques confirm that younger generations have entered the labour market faster than older generations (Branson and Wittenberg, 2007), the large "inequalities" in participation between generations shown below are not unfeasible, so that this assumption is deemed valid.

In analyzing labour force participation, the broad definition of the labour force is opted for. This is prompted by research that shows that the large group of discouraged workers in South Africa is

subjectively unhappier than the searching unemployed (Kingdon & Knight, 2006). The participation dummy averaged by each cohort therefore represents the participation rate of each cohort. The impact of social grants is controlled for in the decompositions. At the individual level, a dummy variables indicating attachment to a household with a recipient of the respective grants is created. By default, recipients themselves are also considered "attached". These dummies (for social pensions and child support grants) are averaged by cohort, so that the relevant measure is the proportion of each cohort living in a grant receiving household.

The analysis is limited to the African population, as this group accounts for both the largest increases in labour force participation and are also the largest recipients of social grants. Separate analyses for males and females are conducted, as the labour market has become increasingly feminized for a variety of reasons (Casale & Posel, 2002). One of these is the relatively higher educational attainment of younger males and females compared to older generations. This impact has disproportionately affected females. For this reason, we also control for educational attainment in some of the scenarios presented below. Dummies for primary, incomplete and complete secondary, as well as tertiary education are averaged over cohorts (as in Burger and von Fintel, 2009). This approach captures the non-linear returns usually evident in education, and in particular the high degrees of convexity prominent in South Africa. Furthermore, as exposed at length by Burger & von Fintel (2009), the proportion of inactive individuals still in education controls for the impacts of overage education policies on the most recent surge in participation.

We note here that the social grants variables are likely to be endogenous to participation. Not only will labour supply be influenced by the receipt of this non-labour income, but non-participants could be motivated to attach themselves to grant recipient households. This bi-causality is not accounted for by instrumental variable estimation at this stage.

3 Results

3.1 Simple Counterfactuals

Figure 1 illustrates the basic age, period and cohort decomposition, alongside the counterfactual that intergenerational educational attainment differences do not exist. Firstly, the convex lifecycle participation effect that always exists becomes apparent (Figure 1.2). Secondly, participation is procyclical, given that 1999 was the beginning of one of South Africa's longest business cycle expansions (Figure 1.4). The most prominent picture, however, is the sustained long-term increase in participation of Africans across generations (Figure 1.3). This impact is more prominent for females than for males, suggesting that norms have changed regarding female participation, and that their participation decisions have become more similar to those of males. Casale & Posel (2002) suggest that this feminization has occurred partially due to the fact that fewer females live in households headed by males and are married. They also contend that higher educational attainment amongst younger generations of Africans has caused this increase in participation. While a similar picture is true for white females, white males have had consistently high participation rates (Burger & von Fintel, 2009). The counterfactual accounts for the increases in education amongst younger generations, to explain some of

this shift into the labour market. Figure 1.3 reveals that this impact matters most for the youngest generations of females, who would have participated less had they not received the education they had. However, the high gradient of each of these profiles (even after removing this impact), suggests that this was not the only reason for differences in participation. Most importantly, educational attainment hardly explains the surge in participation by the youngest generations.

Figure 2 controls for the role that social pensions has on labour supply decisions. The turning point of the life cycle would have appeared much earlier had the social grants not been in place (Figure 2.2). The youngest groups remain largely unaffected. The cyclical shape is hardly affected (as social grants are unlikely to vary with the cycle when poverty is chronic) (Figure 2.4.). However, it is evident that participation would have been very different across generations, had social grants not been introduced. The gradient of the generational profiles has flattened considerably (Figure 2.3). Older generations would have participated more in the labour market without the social pensions, while younger generations would have participated less. This is intuitively correct, given that older generations' reservation wages would increase substantially when non-labour income increases. However, for younger generations, it is evident that the social grants have in fact stimulated economic activity. As Seleoane (2008) notes, the receipt of grants has in many cases been used to generate secondary income. Therefore, younger generations have likely attached themselves to pension households – part of the grant has been used to either generate own income through entrepeneurial activity. It is also possible that the costs associated with job search can now be covered by the pension. The older person would be willing to give part of this amount to the younger person in order to benefit from the spin-off of possible additional income for the household once they obtain labour market income.

For child support grants (CSG), one might expect these generational dimensions to differ somewhat, given that the recipients are likely to be younger mothers. However, as Figure 2.4., reveals, it is again older generations that would have participated more in the absence of the CSG's. This can partially be accounted for by household structures in South Africa, where grandparents often take care of children, and therefore older individuals would qualify for the grant rather than younger generations. For younger generations of males, the CSGs have hardly had any impact on labour supply – this makes sense, given that young males are less likely to be the primary guardians of children than young females. For the latter group there is indeed an impact, suggesting that they would in fact have participated less without the CSG. Again, the argument holds that younger individuals are able to convert the grant income more readily into secondary income. One reason why younger males would not necessarily change their labour supply decisions, is that the CSG is substantially smaller in value than the pension. Therefore, they would not be likely to attach themselves to households that receive this grant (as opposed to the pension). Given that young males are unlikely to be the primary recipients of the CSG and have less of an incentive to join households receiving this grant, their labour supply remains largely unaffected by the CSG.

3.2 Alternative Counterfactuals

When controlling for the respective grants and education simultaneously, the pictures do not change substantially (not shown). This underlines that educational attainment has had a small effect on intergenerational participation in comparison to the social grant system.

What remains unaccounted for, however, is the remaining bulge in participation amongst the most recent labour market entrants. Following Burger & von Fintel (2009) we additionally control for over-age schooling policies. Figures 4 and 5 present the results. It appears that accounting for educational attainment, the respective social grants and also the transition from school to the labour market delivers virtually horizontal intergenerational participation profiles. Therefore, the intergenerational "inequalities" in participation are almost completely explained by policies introduced by the government. Firstly, social grants has altered the responses of all generations, with the youngest entering the labour market after attaching themselves to households with grant incomes and the oldest leaving the labour market as a result of the additional non-labour income. Secondly, policies that have pushed over-aged youths out of the schooling system have fuelled participation amongst the youngest generations. Both of these impacts on the youngest generations have different outcomes. The grants could possibly generate secondary economic activity, and likely facilitates connection with the labour market in some cases (Seleoane, 2008). The overage policy, however, adds to the job queue. This is particularly concerning, given that these individuals have transitioned into the labour market without the relevant qualifications in an economy plagued by a skills shortage. The impact has been a large rise in unemployment in the post-Apartheid decade for this particular group of individuals.

4 Preliminary Conclusions

Based on initial results, the following conclusions may be drawn: although all generations are affected and labour market participation would have been very different had social grants not been introduced, the response of younger generations to social grants differs profoundly from that of older age groups. Grants seem to be important for initiating entrepreneurial activities generating secondary incomes as well as lowering search costs. In addition, the separation of life cycle and generational effects reveals that intergenerational differences in participation rates are explained by policies introduced by the government to improve the quality of schooling by lowering the number of over-age students.

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Figure 1 Controlling for Educational Attainment

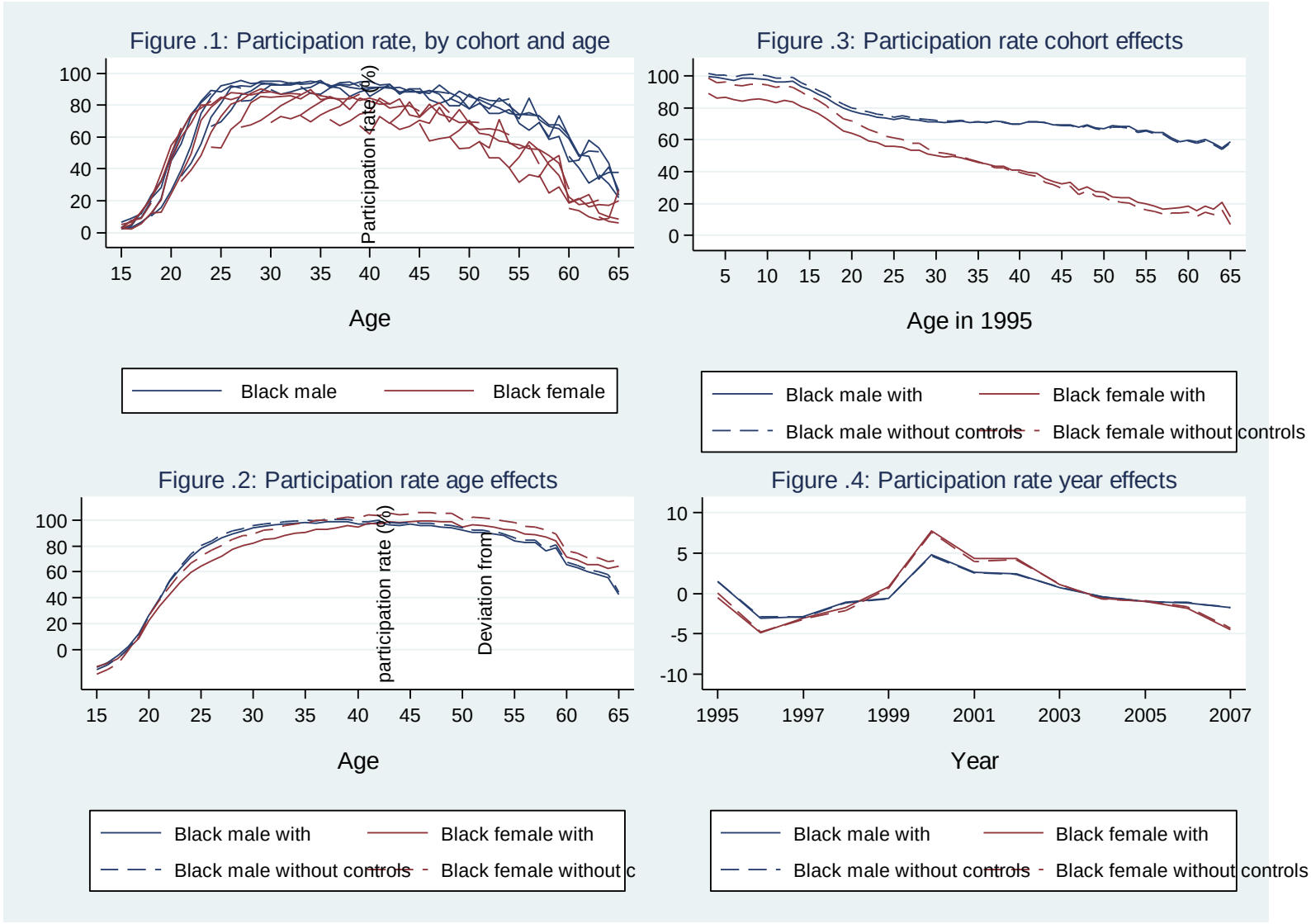

Figure 2 Controlling for Social Pensions

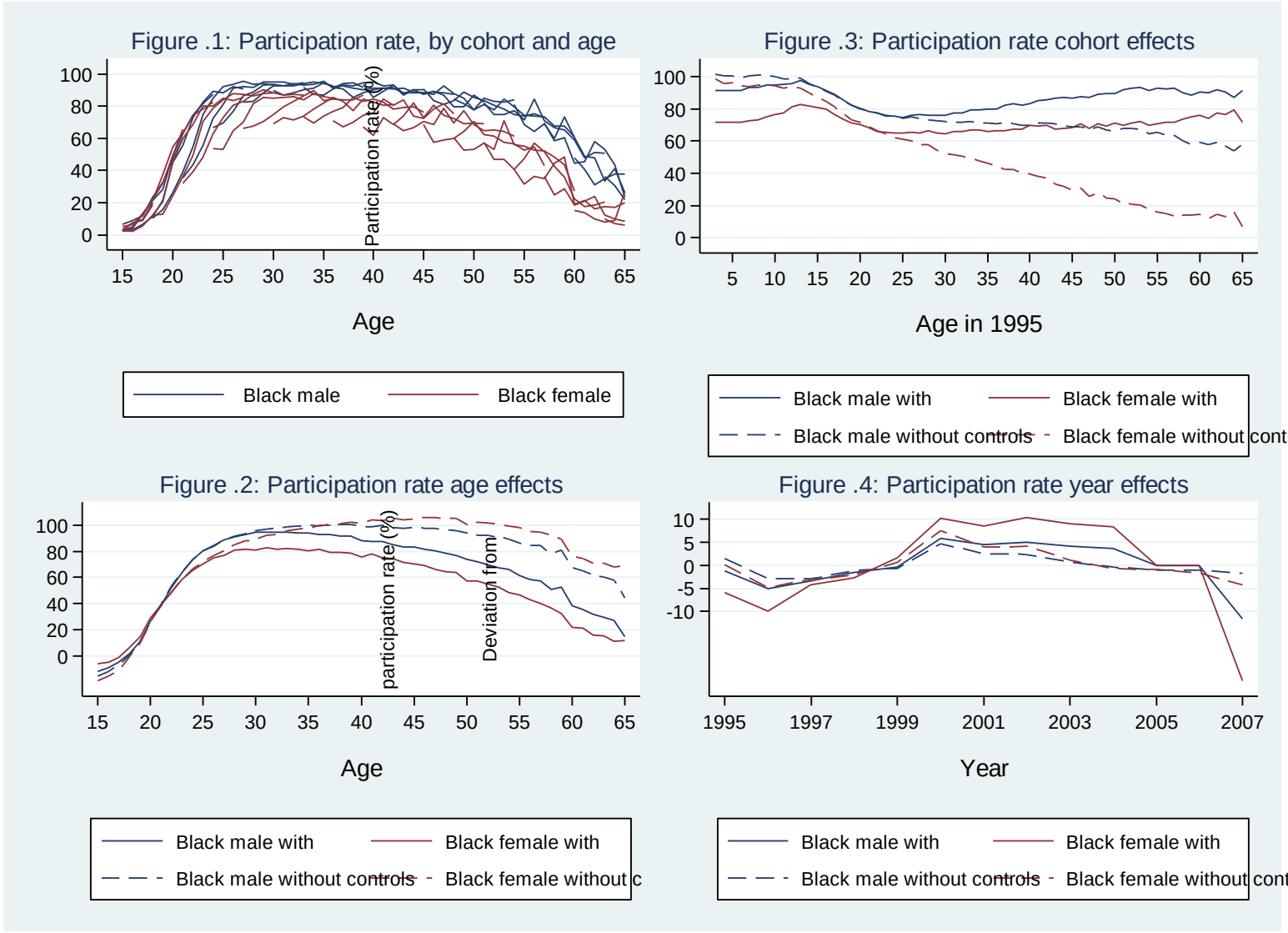

Figure 3 Controlling for Child Support Grants

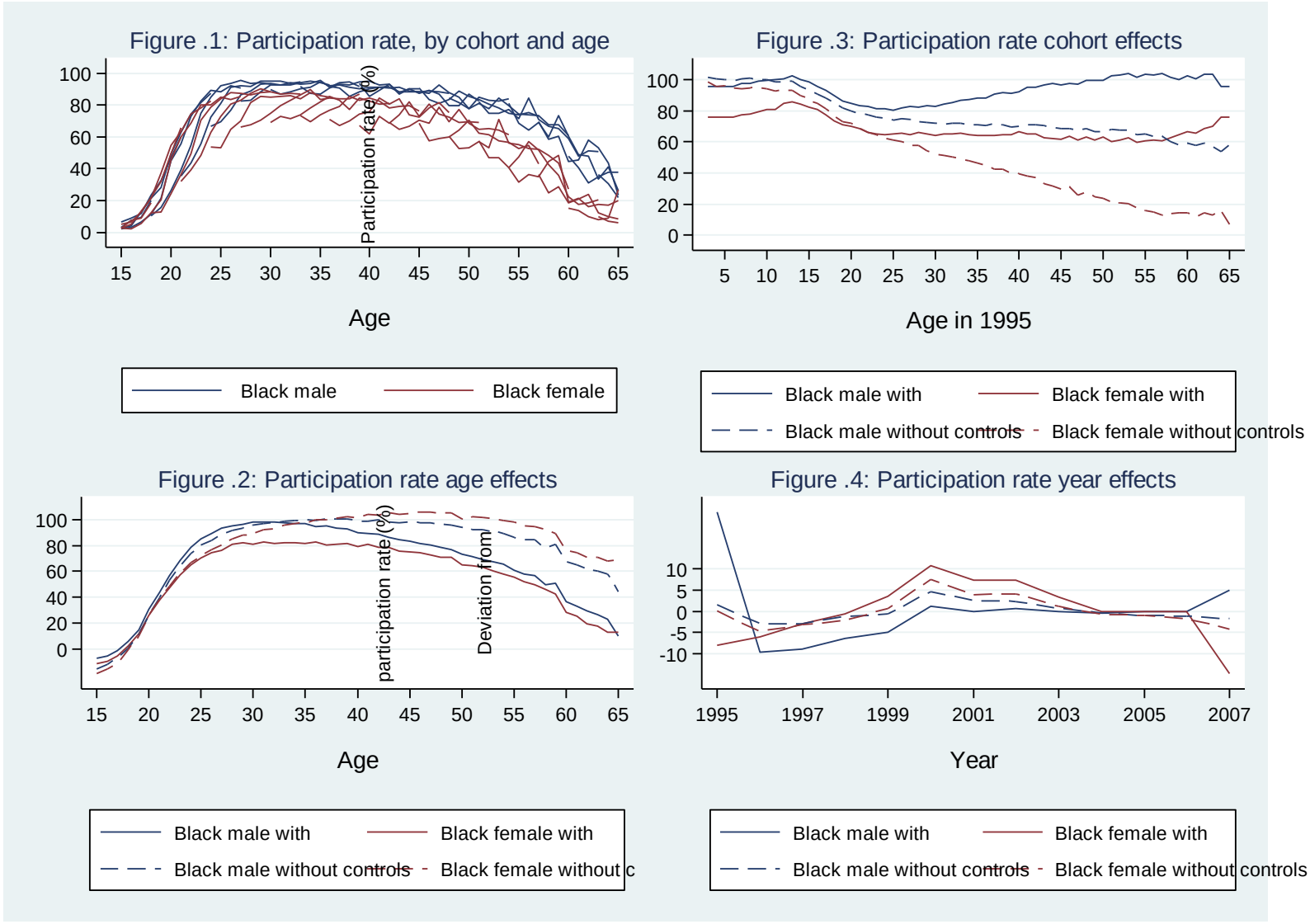

Figure 4 Controlling for Educational Attainment, Old Age Pensions and Currently in Education

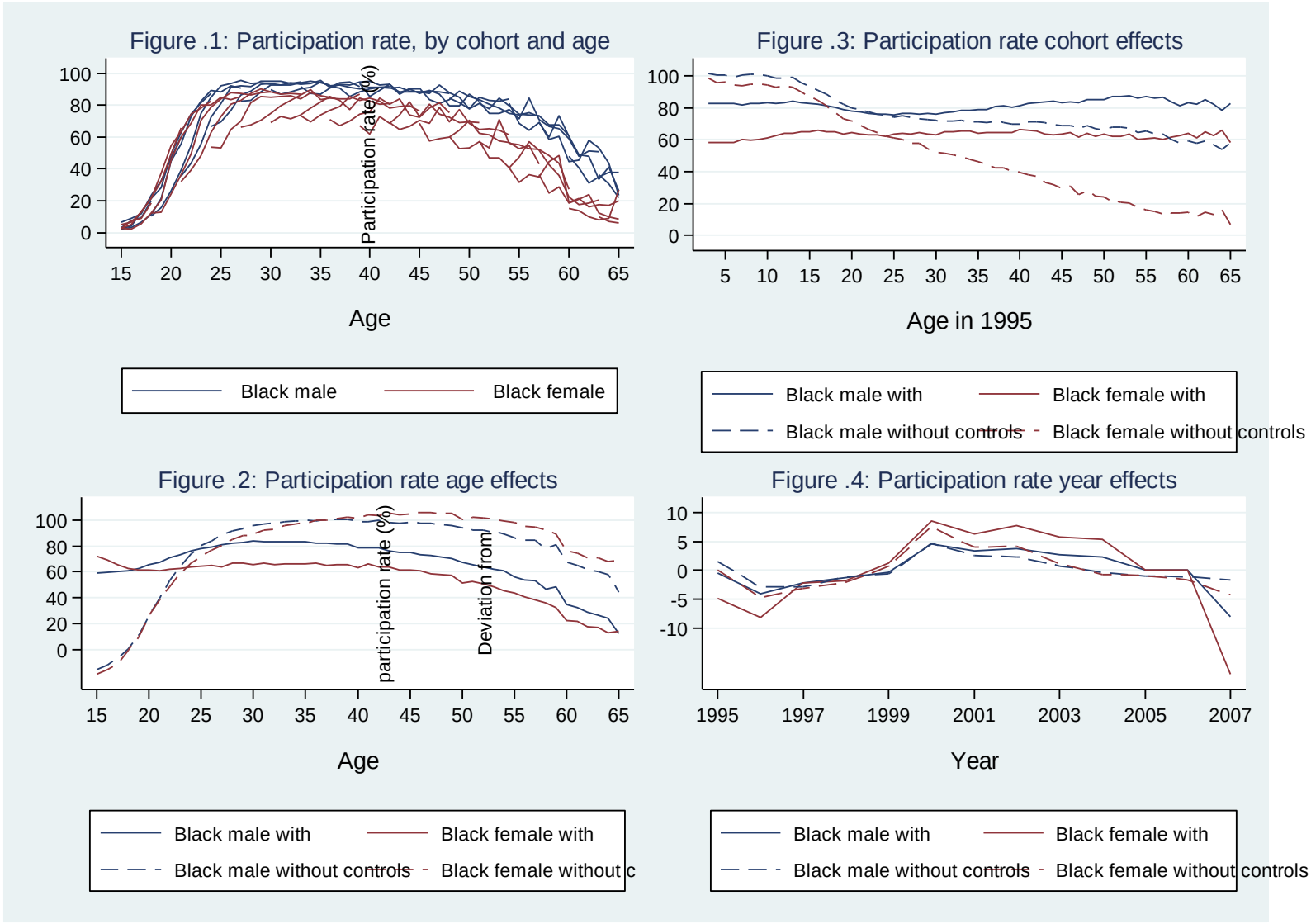

Figure 5 Controlling for Educational Attainment, Child Support Grants and Currently in Education