

Old Age Pensions and the Well-being of Children and Grandchildren: New evidence from South Africa

Amar Hamoudi (UCLA) and Duncan Thomas (UCLA)

The Old Age Pension (OAP) in South Africa is a means-tested publicly-provided cash transfer paid to women age 60 and older and to men age 65 and older. The transfer is very large and amounts to more than half the monthly income of the median black income earner in South Africa today. Studies have examined the relationship between eligibility for receipt of the OAP and child health and shown that in households that have a woman of pension-eligible age, co-resident grandchildren—and particularly granddaughters—are in better health. (Deaton and Case, 2000; Duflo, 2002.) Other work concludes that if a female household member is eligible for receipt of the OAP, prime age sons in the household are less likely to be working. (Bertrand, Miller and Mullainathan, 2004.) This research has drawn the conclusion that the assumption that the household is “unitary”—that all household members share the same preferences—is rejected by the data. More specifically, it concludes that public transfers to older females in South Africa have not only improved their own well-being but also that of their children and their grandchildren.

In contrast, public transfers to older males have not benefited anyone but the recipient himself. This paper re-examines the evidence drawing on recently released data from the 2000 South African Income and Expenditure Survey (IES) and the 1998 Demographic and Health Survey (1998). All of the studies cited above identify the effect of the OAP by using a regression discontinuity estimation strategy which compares behavior in a household that has a member who has just aged into eligibility with behavior in a household that has a member who will age into eligibility soon. Assuming these households are otherwise similar, the difference in behavior is interpreted as the effect of the OAP. Underlying the approach is the assumption that all eligibles take-up the cash transfer. The assumption seems eminently plausible given the magnitude of the transfer, the fact there is no stigma associated with take-up and the claim in the literature that access to the OAP is universal. The first step in the research carefully examines this assumption. We find that it is not consistent with the data.

The IES is a large scale detailed income and expenditure survey covering over 25,000 households across South Africa. The survey reports income at the individual level—including receipt of the OAP, other public transfers and private pensions. Women are eligible for the OAP when they reach 60 years of age. Some 10 per cent of women age 55 to 59 report receiving the pension; the fraction increases to about 40 per cent among women age 60 and then continues to increase monotonically until age 65. Among women who are age 65 and older, 90 per cent report receiving the pension. The pattern for men is very similar. 20 per cent of those not yet age-eligible report they receive the pension, about 50 per cent report taking it up at the age of eligibility and 90 per cent of those who have been eligible for at least 5 years report receipt of the pension. Clearly, not all eligibles are reporting that they are taking up the cash transfer.

Three possible explanations for the fact that reported take-up is not universal are investigated. First, it is possible that all eligibles actually receive the pension but do not report receipt. In these households income should be understated by a large amount (since pension income is equal to median income). These households should report very high levels of dissaving. Exploiting the fact that the IES contains detailed expenditure information at the household level (not usually collected from a pensioner), we find that savings rates in households that have a member who is eligible for the pension but does not report receipt of it are no different from other households. Second, it may be that the older adult is misreporting the OAP as some other source of income. Recently eligible respondents, for example, may confuse the names of other public transfer programs with the name of the OAP. If this is the case, non-OAP public transfers (and therefore total income) of households with individuals who just aged into eligibility but who do not report receiving the pension should be higher than in households with individuals about to age into eligibility. Neither implication is true. Third, it may be that age is mis-reported. While the reported age distributions do show modest stacking on 0s and 5s, for the reported pension take-up rates to be 100 per cent among eligibles, there would have to be massive age mis-reporting. This is an unlikely explanation for the low take up rates among those who are recently age-eligible.

It seems likely that take up is, in fact, not universal among eligibles. Some people who are not yet eligible are able to get the income and some eligibles receive the income only after a (substantial) waiting period. The evidence suggests that the regression discontinuity estimates will understate the impact of the pension. Using the IES, we present multivariate regression estimates of the probability a person takes up the OAP in order to assess the nature of the likely biases associated with adopting a regression discontinuity estimation approach.

The second step in this research is to examine the relationship between pension income and the allocation of household resources in an effort to provide insights into the extent to which the benefits of the pension accrue to the children and grandchildren of the recipient. We start with the IES and examine the demand for a series of male goods (like tobacco, alcohol and leisure goods like gambling and sports), female goods (like clothing, personal care and household semi-durables) and child goods (like child clothing and education). We next turn to the DHS and examine the health of older adults (as measured by, for example, body mass index, blood pressure, use of preventive health care and levels of morbidity), their children (using the same health indicators) and their grandchildren (examining morbidity, mortality, and use of preventive care). In each model, we replicate the methods used in the previous literature and examine the reduced form effect of having a female in the household who is eligible for the OAP and the effect of having a male in the household who is eligible. We turn next to examining the impact of receipt of the pension by an older man and by an older woman. Since take-up may not be randomly assigned, we proceed to a third estimation strategy which treats receipt of pension income as endogenous (using eligibility for the pension as an instrument).

Preliminary evidence indicates that the essence of the main results in the literature are replicated when we use a reduced form regression discontinuity approach to estimation. If there is a woman of pension-eligible age in the household, there is greater spending on child goods and lower spending on male adult goods, women of all ages are in better health as are young children. Having a male of pensionable age in the household is not associated with a benefit in terms of health of children and is associated with elevated spending on sports and leisure-related expenditures.

However, turning to estimates of the effect of pension income, the results are less clear. Controlling total household resources, slightly over 5 per cent of the estimated effects of pension income have a significant impact (at the 5 per cent level) on spending patterns or health. There are no cases in which the impact of male pension income differs from the impact of female pension income. This evidence suggests that pension income is shared among all household members and is not allocated to specific goods or demographic groups. Moreover, it suggests that households in South Africa behave as if they have “unitary” preferences. This is in sharp contrast to the results in the literature and arises because take up of the pension is correlated with household characteristics, some of which are not observed and are correlated with resource allocation decisions. This includes the decision to take up the pension and we relate the differences in results on spending and health to our regression evidence on the characteristics of take up. We also explore a second mechanism—that household size and composition may respond to the take up of the pension. Preliminary evidence suggests it does. Taken together these results indicate that modeling the impact of the OAP in South Africa is substantially more complex than has been hitherto recognized.