How Do Expectations about Government Benefits Affect Human Capital Investment?

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Social insurance and safety net programs are expanding across the developed world. Substantial research has studied the effect of these programs on contemporaneous labor supply and human capital. However, there is little evidence on the dynamic effects and, in particular, whether the expected future availability of government benefits affects current incentives to invest in human capital. Abramitzky and Lavy (2014) study the effect of redistribution reforms in Israeli kibbutzim and find that educational achievement is responsive to changes in redistribution policy in that context. However, to our knowledge, there is no evidence on this question in the context of a large social safety net program, nor with respect to human capital investment measures beyond education.\footnote{The theoretical literature models the human capital investment response to taxes and transfers. For example, Stantcheva (2017) derives optimal income tax and human capital policies when human capital investment decisions are endogenous.}

The effect of expectations about the availability of government benefits on human capital investment is theoretically ambiguous. If individuals expect to receive government benefits in the future, these programs may reduce current incentives to invest in education and health through an income effect. Programs could also reduce the return to human capital investment through incentive effects, either by mitigating the disutility of the low human capital state (e.g., disability) or by imposing marginal tax rates on earnings. Relatedly, programs may impose an implicit marginal tax rate on human capital if applicants believe they must demonstrate low human capital to qualify for the program. We call these collectively the “moral hazard” effects. On the other hand, by increasing the household’s permanent income, the expectation of future income may increase current household expenditures, including investments in human capital.

This project studies how beliefs about the availability of government benefits in adulthood affect human capital investment in childhood. Our context is the Supplemental Security Income (SSI) program, which is the largest cash welfare program in the United States. SSI provides cash payments and Medicaid eligibility to 1.3 million low-income disabled children. SSI children have very poor life outcomes (Hemmeter et al., 2009; Davies et al., 2009).

Each year, 50,000 SSI children turn 18 and must re-qualify for the program as adults. Since the definition of disability is more stringent for adults than children, nearly 40% of SSI children and 70% of those with mental and behavioral conditions are removed at age 18. SSI children who are removed lose the $9,000/year cash benefit and categorical Medicaid eligibility. However, qualitative evidence indicates that most households vastly underestimate the probability of removal. This project investigates whether inaccurate information about the
likelihood of removal contributes to the poor adult outcomes of SSI children. Families may believe that their children’s benefits will continue in adulthood and, as a result, underinvest in education.\textsuperscript{2}

This project conducts an RCT that provides the families of SSI children with information on the likelihood of removal from SSI at age 18. We estimate the effect of the information on parent and child beliefs, investments, and long-term child outcomes – including education, employment, and crime – through a combination of survey and administrative data. In addition to potentially improving the outcomes of SSI youth, the provision of accurate information about the likelihood of removal provides an opportunity to estimate the effect of beliefs about the availability of future government benefits on current human capital investment.

**Experimental design**

We deliver information on the likelihood of removal at age 18 to SSI children and their families, and evaluate the effect on beliefs, behavior, and outcomes. Using Social Security Administration (SSA) data, we will select a sample of SSI children aged 13-17 years and randomize them into treatment groups. Our main information treatment group will receive information about removal through letters and phone calls from trained counselors. We will assess the effect of this information treatment on two main types of outcomes: First, outcomes coming from administrative data (e.g., educational outcomes like attendance and graduation), and second, take-up of educational and vocational resources offered to families as part of the experiment, including test prep material, tutoring, and assistance enrolling in state-provided support services. This second set of outcomes will serve as a high-powered, short-term measure of intentions to invest; we include them because we expect the take-up of these resources to be more responsive to treatment than downstream outcomes, thus increasing our power to detect effects and conduct heterogeneity analysis. Because these resources may independently affect child outcomes, we include two comparisons groups: a “resource-only group” that receives the resources, but no information about the likelihood of removal, and a pure control group. We will thus divide the sample into one treatment and two comparison groups:

1. **Information treatment group:** Receives through phone calls and letters personalized information about the likelihood of removal from SSI (based on diagnosis, severity, and state) as well as generic SSA information about resources available to SSI families.
2. **Resource-only group (Comparison group 1):** Receives through phone calls and letters generic SSA information about resources available to SSI families.

\textsuperscript{2}As noted above, the theoretical effect is ambiguous, but our qualitative research indicates that most families underinvest. In the RCT, we will measure both the direction and magnitude of the investment change.
Our main analysis will compare the information-treatment group to the contact-only group to uncover the impact of information about removal on investments and outcomes. We can also compare the contact-only and pure-control groups to estimate the effect of receiving contacts and resource information, and compare the information and pure control groups to estimate the full policy impact of removal information delivered in this way. We will conduct a baseline survey to quantify misinformation, which will also allow us to test for heterogeneous impacts of information by baseline beliefs. We will use data on take-up of our resource offers as an intermediate outcome, and administrative data on education, employment, and crime as long-term outcomes. We will also conduct two endline surveys to gather medium-term outcomes regarding beliefs, education, employment, and crime. Our planned sample size of 20,000 will allow us to detect conservative and policy-relevant effects.

**Interpretation and perverse effects:** In addition to the classic moral hazard and permanent income effects outlined above, in our setting there might be one additional channel through which information about the likelihood of future benefits could affect behavior: the “perverse incentives” effect. In particular, if parents think that children with higher human capital are more likely to be removed from the program at the age of 18, providing information could cause parents to decrease their children’s human capital in an attempt to decrease the probability that their children will be removed from benefits. The net effect of information estimated through experimentally comparing the information-treatment and contact-only groups will incorporate perverse incentive effects in addition to the classic moral hazard and permanent effects. To disentangle the role of the perverse-incentive effects, we are going to cross-randomize truthful messages to the parents about whether take-up of the educational resources we offer parents will be observed by the Social Security Administration examiners who determine whether children are removed from benefits. We can also disentangle the role of permanent-income effects from the other effects by examining whether providing information causes parents to cut back on consumption.

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3 We could detect 0.01 std. dev. differences between any two treatments (e.g., 2.4pp for take-up of resources or school enrollment), which are conservative relative to the literature, especially for intermediate outcomes.  
4 Note we expect these effects to be small. For hand-to-mouth households, cutting back on current consumption in human capital investment in response to a decrease in future income would only be rational if the return to human capital is lower than the returns to savings.
References