The assigned paper „Education Policy and Intergenerational Transfers in Equilibrium“ develops a heterogenous agents OLG model to assess how financial aid policies act on education, labor and savings decisions of households. It also analyses the welfare effects of policies, concluding that it would be beneficial for society (in this case everything is calibrated to the United States) if more direct financial aid in form of ability-based grants would be handed out to students.

The agents differ in their “states” and “possible choices” over the life cycle. Young people have to choose their level of education (no high school degree, high school or college) depending on how much education costs in terms of financing and psychic costs. Both are different for agents of different background and with different abilities. In particular, the available loans and grants differ in parents wealth and own abilities; financing options overall are public and private loans, financial aid, their own working activity, in addition to an intra-vivo transfer that students receive from their parents at the beginning of their model life.

Parents are matched given the man’s and woman’s education and always have two children of the same sex. They care about their children’s direct well-being (altruistic motive) but also directly about their level of education (something like a prestige motive, paternalistic preferences). Their own wealth as well as the financing opportunities of the child determines the inter vivo-transfers they give to their kids. Cognitive and non-cognitive skills are transmitted across generations dependent on parents’ education and skills, and important for the psychic costs of studying (mentioned above) and the labour productivity.

It is to mention that there are really many levels of heterogeneity amongst agents. Some of them are: Age, gender, initial wealth, cognitive and non-cognitive abilities, education, returns to education and the psychic costs of schooling, … (?)

We want to mention some model features which we found particularly interesting:

* There is financial markets and risk that is only partially insurable (uninsureable risk: idiosyncratic income risk, risk of being born into a disadvantaged family, risk of marrying someone who is bad for your income, and shocks affecting the psychic costs of eduction)
* Agents work and earn, they have gender specific income trends and can co-insure themselves by accounting for the spousal labor supply too
* model earnings as a gender-specific stochastic Roy model with a separate process for each education group and dependent on ability
* firm side: the aggregate production function depends on inputs from three types of education and allows for imperfect substitutability between males and females of the same skill
* economies of scale in household consumption
* debt limits vary over the life cycle

The model is calibrated with a wide variety of data sources. Amongst them are “the Current Population Survey (CPS), the Panel Study of Income Dynamics, NLSY79 and NLSY97, the National Center for Education Statistics (NCES), the Survey of Consumer Finances (SCF), and the National Accounts“ (see p. 4 of the paper).

They estimate the model in various stages, and are very careful to explain most steps specifically (sometimes in the Appendix). After exogenously determining some parameters, the first estimations occur in separate calibrations, and the remaining model parameters are estimated in a General Equilibrium context.

Finally, there are some policy experiments carried out.

The agents

* Parents care about their children direct well-being (altruistic motive) but also directly about their level of education (something like a prestige motive, paternalistic preferences)
* When children are old enough they receive financial transfers, the amount of which has to be determined by parents and depends upon the other sources of income that they foresee their child to have (public and private loans, financial aid, their own working activity)
* Cognitive and non-cognitivce skills are transmitted across generations

The levels on which there are heterogeneities are:

* Cognitive and non-cognitive abilities, determine ease for studying and productivity when working – they are dependent on parents education and skills
* Gender
* Education
* returns to education and the psychic costs of schooling, which depend on both cognitive and noncognitive ability

We conduct a number of different policy experiments, in which we

change the size and nature (general, need based, merit based) of the federal

grant program and government-sponsored loan limits. We find that

the crowding out of the private (parental) source of funds is a very important

feature that attenuates the effects of policy

While some of this gain derives from

increased college attainment, a substantial part also arises from stronger

sorting into college on the basis of ability, which is efficient in the model

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Examining the model’s implications the authors find realistic values for intergenerational persistence of income rank and education outcomes (and hours worked). Also the life cyle profiles of income, consumption and other variables seems plausible. Most of these aspects are analyzed by gender, wealth and education level.

Finally they simulate an experiment, where a treatment group of high school graduates receives a subsidy for their college tuition and the rest does not. In particular, a 1000$ reduction in college tuition increases a cohort’s graduation rate by 3.95 percentage oppoints.

Examining the model’s implications, the authors find realistic values for intergenerational persistence of income rank and education outcomes. In addition, the life cycle profiles of income and consumption seems plausible. Other variables like wealth and ability are assessed in terms of their intergenerational transmission properties – these are simultaneously interesting ingredients to the educational choices of children and a consistent result w.r.t. to empirical observations. Most of these aspects are analysed by gender, wealth and education level.

Finally, the authors simulate experiments, where e.g. a treatment group of high school graduates receives a subsidy for their college tuition and the rest does not, or where federal loan programs are reduced, etc. They measure how various policy changes would influence welfare (always measured in consumption equivalent variations) and output, and find that in general it is welfare enhancing to increase financial assistance through grants. They identify ability-based grants as the most efficient measure amongst those considered, as it will lead to more high-ability individuals becoming educated parents and again getting more high-ability children.

It was found before that, a 1000$ reduction in college tuition increases a cohort’s graduation rate by 3.95 percentage points (this tells us something about the elasticity of education w.r.t. tuition).