Educational Policy and Intergenerational Mobility

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This paper:

- The role the level and variation of public school spending has on variation in intergenerational mobility across states
- How various types of funding systems affect public school spending choices and hence intergenerational mobility
- What happens when all states adopt a centralized funding model
Begin by stripping down the model:

- All kids have the same ability
- There is no taste for equality
- Heterogeneity in income level of parent
State funding:

- Given public spending, households choose private spending to equate its return to the return to passing transfers to their children.
- This implies that private spending is independent of parental income.
- All kids have same early private investment, $x_1$. 
State funding:

- When people vote over the public funding level, they choose $\bar{x}_1 (\tau_s)$ so that:

$$\frac{MB_{\bar{x}_1}}{MB_{x_1}} = \frac{y}{\mu_s}$$

- This incorporates a desire for (against) redistribution for those below (above) the mean income of the state
  - if $y^{median} = \mu_s$, $MB_{\bar{x}_1} = MB_{x_1}$
  - if $y^{median} > \mu_s$, $MB_{\bar{x}_1} > MB_{x_1}$, too little public input
  - if $y^{median} < \mu_s$, $MB_{\bar{x}_1} < MB_{x_1}$, too much public input
State funding:

- Under statewide funding, all kids reach adulthood with the same $h_2$.
- If median income is below the mean in the state, there will be over investment in the public input relative to the private input.
- Rank-rank slope measure of intergenerational mobility is zero.
Foundation funding:

- Given public spending, households choose private spending to equate its return to the return to passing transfers to their children.
- Given a statewide spending level $\tau_s$, homogenous districts will supplement with $\tau_l^* > 0$ if doing so will equate:
  \[
  \frac{MB_{\bar{x}_1}}{MB_{x_1}} = \frac{y}{\mu_d} = 1, \quad \text{else} \quad \tau_l = 0
  \]
- Given $\tau_s$, all districts will choose same $\tau_l \in \{0, \tau_l^*\}$
Foundation funding:

- Voters choose $\tau_s$ such that $\frac{MB_{\bar{x}_1}}{MB_{x_1}} = \frac{y}{\mu_s}$

- If $y^{\text{median}} < \mu_s$:
  - The median voter (wants redistribution) chooses $\tau_s$ so that $MB_{\bar{x}_1} < MB_{x_1}$
  - No district will supplement, $\tau_i^* = 0$, and all kids have too much public investment

- if $y^{\text{median}} \geq \mu_s$:
  - The median voter (doesn’t want redistribution) chooses $\tau_s = 0$
  - Every district will supplement by, $\tau_i^*$, and all kids have the efficient level of public investment
Foundation funding:

- Under the foundation system, all kids reach adulthood with the same $h_2$.
- If median income is below the mean in the state, no district will supplement and all kids will have an inefficiently high level of public investment.
- If median income is below the mean in the state, foundation and statewide funding have the same outcome.
- Rank-rank slope measure of intergenerational mobility is zero.
Mechanism

- No credit market frictions implies that parental income will not affect private investment input.
- Political economy implies income of the median voter in state-level elections impacts public investment, but not differentially by income (even under foundation system).
- Therefore, there should be no differences in intergenerational mobility across states by income.
Mechanism

- So where do differences by parental income come from in this model?
- If we bring back ability, efficient investments will be higher for higher ability students.
- There is an added wrinkle in statewide voting because median voter has kid with high or low ability.
- Differences in intergenerational mobility that result are not coming directly from parental income differences, but indirectly in how kid ability and parent income are correlated.
- In this paper, ability of kid is an exogenous function of parental schooling level (which also directly affects parental income).
Mechanism

- What about taste for equality?
  - Assuming no ability differences, this addition has no effect because everyone has the same outcome (standard deviation of human capital is zero)
  - Assuming ability differences, parents with low ability kids optimally choose lower human capital levels for their kids
  - A preference for equality will encourage redistribution towards districts with lower ability kids in an attempt to bring their human capital levels up
  - If poor parents are more likely to have low ability kids, this redistribution will increase intergenerational mobility
Do we really think all differences in human capital are due to child ability? (Differences by income are only operating via this channel)

When we think about preferences for equality driving higher statewide spending, do we really think voters are hoping to increase investments in low return kids?

How are we supposed to think about ability differences being a function of parental schooling? Is this innate ability transmission? Or is there some sort of constrained early investment going on?
Would like more discussion about how the calibrated parameters are pinned down and why to these targets.

In particular, the importance of public investment plays a key role and it is unclear how it is identified using data from a state that has no variation in public investments (Washington).

Would be more convincing if the technology parameters were calibrated using all or many states (especially given that doing the same exercise for California yields a negative parameter value).
Private vs. Public inputs

- Here they are modeled as complementary separate investments
- You can’t privately supply the public schooling component and you can’t just rely on public schools to do the whole job
- How important is the functional form for the results? Might be interesting to try CES to allow for different elasticities of substitution between public and private investments.
This paper assumes location is fixed when considering a switch to state level funding for all states.

At an individual state level, parents have the option to exit the public school system and privately buy the inputs that go into public spending in this model (last point).

Parents also have an option to move states. If currently it is possible to segregate into a homogenous, high spending enclave, and this option disappears, considering interstate mobility could be important.
Other issues

- Should individuals consider how their private choice for their one kid impacts the mean and sd statewide?
- If people have preferences over equality, might that impact the funding model of the state? Or, maybe effect their location choice?
- There is a second and third period when the child is an adult - why?
- There is a random component to ability that is state specific - why random and why state specific?