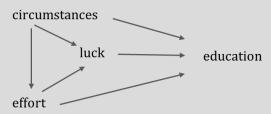
## Genetic Ability and Equality of Opportunity (EoP) in Education

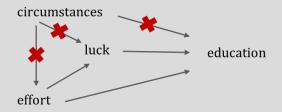
Is access to education fair?

## 1. Background

**Equality of Opportunity** theory postulates that outcomes are a result of Circumstances, Effort and Luck  $^{\rm 1}$ 



**EOP** is attained when circumstances are independent of outcomes and de-correlated from effort and luck



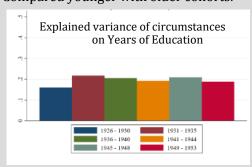
## 3. Contribution

- 1. New conceptualization of Ability in EoP
- 2. Derive novel testable implications
- 3. New proxy for ability in the literature of EoP:

Educational Attainment Polygenic Score

# 5. Empirical results

- 1. Data set: Health and Retirement Study
- 2. Outcome Years of Education
- 3: Compared younger with older cohorts.



Equality of Opportunity decreased (16 to 19%)

## 2. Gaps in the literature

**1. Conceptual Issue:** No consensus on how to classify ability

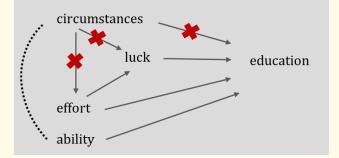
Some classify ability as effort  $^{1,2}$ ; others circumstance  $^{4,5}$ ; a mixture of both  $^6$ ; or luck  $^{1,7}$ 

#### 2. Measurement Issue

IQ and test scores underestimate ability for the under priviled ged  $^{\rm 8,9,10}$ 

#### 4. New EoP definition

**Equality of Opportunity** recognizes different inborn ability that is correlated with parental social economic class; the absolute level of ability is allowed to influence educational outcomes



### 6. Conclusion

- 1. Agreeing on a definition of EoP is fundamental
- 2. ~20% decrease in EoP is found
- 3. The decreased in EoP contrasts with the increase in education

### 7. Contact and References

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