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LOCATION OF PRESENTING AUTHOR: Asia

TIME ZONE OF PRESENTING AUTHOR: Korea (GMT+9)

TYPE OF SUBMISSION: Oral paper

MEMBER STATUS: Non-member

ELIGIBLE FOR THOMPSON AWARD: No

ELIGIBLE FOR ROWEWARD: No

TITLE: Genetic Fortune: Winning or Losing Education, Income, and Health

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KEYWORDS: income, education, health, inequality, polygenic score

ABSTRACT:

We examine the extent and the mechanisms through which genetic fortune contributes towards inequality in health and socioeconomic status. To this end, we conducted the first genome-wide association study (GWAS) of individual income, using data from individuals of European ancestries in the UK Biobank ($N = 282,963$). We augmented these GWAS results with GWAS estimates of educational attainment and constructed an aggregated genetic score. We exploit this score and random genetic differences between ~35,000 biological siblings to show that (i) roughly half of the covariance between our genetic score and socio-economic outcomes is causal, (ii) genetic luck for higher income is linked with better health outcomes in late adulthood, and (iii) having a college degree partly mediates this relationship. Thus, genetic factors contribute towards inequality, but these effects are malleable, for example via policies targeting education.

GRANT SUPPORT: This study was supported by funding from a European Research Council Consolidator Grant (647648 EdGe) to Koellinger and by a Jacobs Foundation grant to Harden.

