Statistics Finland

0 9. 06. 2020

TK-53-889-20

Application for licence to use statistical data

Instructions for filling in the application for licence to use statistical data can be found on the applications page.

The application for licence to use statistical data and the appendices are submitted to the Registrar's Office of Statistics Finland:

- scanned by email: kirjaamo@stat.fi
- by post to: Registrar's Office, FI-00022 STATISTICS FINLAND.
- Street address: Työpajankatu 13, Helsinki

☒ New licence

☐ Extension of licence (or extension of data file), ref.

☐ Addition of user, ref.

☐ Continuation of licence, ref.

1. Applicant	Project's responsibility person and organisation Vesa-Matti Heikkuri Brown University Department of Economics	
	Email address vesa-matti_heikkuri@brown.edu	Telephone +35840073290
	Organisation's postal address Box B, Robinson Hall, 64 Waterman Street, Providence, RI 02912	
2. Invoicing details Online invoicing address or similar, possible own reference	Invoicing customer (if other than the applicant's organisation)	
3. Names of persons who will be handling the data All who will handle the data file with direct or indirect identifiers in addition to the responsibility person	Name, organisation, email and telephone number Vesa-Matti Heikkuri, Brown University, vesa-matti_heikkuri@brown.edu +358400743290 Matthias Schief, Brown University, matthias_schief@brown.edu +14014792800 Cosimo Petracchi, Brown University, cosimo_petracchi@brown.edu +14016922493	
4. Intended use of the data A short standard language summary (of a few sentences) for forming a general idea of the project: what are the data used for, for which purpose?	☒ Scientific research ☐ Statistical survey	
	Name of the project: Talent and socioeconomic background in the choice and success of higher education	
	Purpose of use of the data: The applied data would be used in the data laboratory of Statistics Finland via Fiona remote access. The three key questions that we want to answer with the data are: 1) Does parental educational attainment causally affect the educational achievements and subsequent labor market outcomes of children? 2) Does this advantage of having access to parental first-hand experience also manifest itself in the context of subtle differences across academic fields? That is, is it beneficial for a child if her parents hold a college degree in the same field of study? 3) On a more descriptive level, did the relationship between individual talent and educational attainment change over time? We plan to answer these questions within a regression framework using completion of the university degree and income after graduation as outcome variables and parental educational attainment and field of study as explanatory variables. Furthermore, we are also interested in documenting changes over time in the population-level allocation of talent. For more information, see the attached research proposal	

5. Data requested from Statistics Finland Where necessary, data can be recorded in a separate appendix.	A. Microsimulation SISU microsimulation model and related basic data files ☐ Other data files connected to microsimulation:
	B. Ready-made data files / service data files: EDUC-TYHR, EDUC-VIRTA, FOLK family, FOLK Degree/Qualification, FOLK Income, FOLK Census 1970-1985 If the request concerns the total data file of individual-level ready-made data files (e.g. FOLK modules), give reasons for the need of the total data file: We will measure trends in population-wide allocation of talent. Moreover, we will be studying subgroups defined by occupation and field of degree and we need to have large samples in each subgroup.
	C. Register variables (or topic) / other data (e.g. aggregated data file):
	Data are requested for the year/years: all available years for each module (covering a long time span is critical for our research design as we are interested in trends over time)
6. Other authorities' data	Other authorities' register data/data files to be attached to Statistics Finland's data. Finnish Defence Forces (varusmiespalveluksen P1-koeaineisto)
7. Estimated duration of use of the data file The licence can be granted at most for five years.	until 31.12.2022
8. Publicity of the application documents (see instructions)	The application for licence should be compiled so that it does not include confidential information. Where necessary, confidential information should be presented in a separate appendix. ☐ The applicant considers that the research plan appended in the application for licence is confidential. Reasons:
9. Method of using the data file	The licence to use the data file is applied for: ☒ FIONA remote access system ☐ for a data file to be released to your own organisation (see instructions)
	The data file will be used ☒ in Finland ☐ outside Finland Record here the countries and organisations where the data file will be used:
10. Appendices	**Must always be submitted:** Pledges of secrecy (granting of a licence to use data is conditional to obtaining a pledge of secrecy from the applicant as well as from all persons who will be handling the data): ☒ appended ☐ submitted earlier Summary of the research plan/the plan of the statistical survey, max. 3 pages (no plan needed on microsimulation): ☒ appended ☐ submitted earlier

	Must be submitted where necessary (see instructions): Data protection description (register description) ☐ appended ☐ submitted earlier Licences of other authorities: ☒ appended ☐ submitted earlier Free-form organisation-level account of the use of data to be released abroad: ☐ appended ☐ submitted earlier Model for an information/consent form given to survey respondents: ☐ Appended ☐ submitted earlier	
11. Date and signatures	Place Helsinki	Time 6/6/2020
	Applicant's signature Printed name Vesa-Matti Heikkuri	Signature of the representative of the applicant's organisation Printed name Anna Aizer

Research Proposal

Vesa-Matti Heikkuri, Cosimo Petracchi, Matthias Schief

June 9, 2020

Motivation

We intend to study the inter-generational transmission of educational attainment in Finland. Our research question is motivated by recent results published in Aghion et al. (2017), who find that measured ability explains most of the variation in who becomes a doctor or a lawyer in Finland, with parental income and wealth explaining only a minor fraction. Their study uses data of exceptionally high quality on ability from the Finnish Defense Forces linked to a number of data sources from Statistics Finland. We want to widen the focus and ask how educational success is shaped by parental cultural capital in the form of first-hand experience of the educational system. Specifically, we are interested in understanding how the strategies for academic success that are learned by the parental generation are transmitted to their children and lead to inter-generational persistence in educational attainment that is not fully explained by either heritable abilities or income/wealth.

The three key questions that we want to answer are: 1) Does parental educational attainment causally affect the educational achievements and subsequent labor market outcomes of children? 2) Does this advantage of having access to parental first-hand experience also manifest itself in the context of subtle differences across academic fields? That is, is it beneficial for a child if her parents hold a college degree in the same field of study? 3) On a more descriptive level, did the relationship between individual talent and educational attainment change over time?

We plan to answer these questions within a regression framework using completion of the university degree and income after graduation as outcome variables and parental educational attainment and field of study as explanatory variables. We will control for the independent effect of ability and

parental wealth and income and we will use information on school grades to assess whether the choice of field is based on talent or parental influence. Our main variable of interest is the parental field of study and our hypothesis is that a parent having a degree in the same field has a significant positive effect on the probability of completing a degree in that field and also on subsequent income. However, importantly, if children are swayed to study the same field as their parents despite their ability suggesting a different career path, this could mute or even reverse the effect. We will study this interesting possibility by drawing on information on school grades and military service ability test scores to gauge the field-specific ability of the children.

Furthermore, we are also interested in whether changes over time in the underlying inter-generational transmission mechanisms of educational attainment, as estimated in our regression framework, lead to changes in the population-level allocation of talent. In particular, one may expect that the past decades have seen a strengthening of the correlation between individual talent and both educational and professional achievement. We plan to document such trends using Finnish data on school grades and test scores from the Finnish Defence Forces by comparing trends in average measured talent across different groups. For example, we will compare women and men, children with university-educated versus non-university educated parents, inhabitants of rural areas versus urban areas. We would then interpret these changes trough the lens of a theoretical model, in which the correlation between individual-level talent and educational attainment depends on both preferences and societal discrimination.

We strive to contribute to the literature on the inter-generational persistence of educational achievement that spans the academic fields of economics, sociology, and education studies. Previous research has focused on measuring the degree of stability of socioeconomic inequalities in educational attainment over the course of the 20^{th} century, (Shavit and Blossfeld, 1993; Breen et al., 2009), assessing the role of parental socioeconomic background in the educational choices and success of children (Bourdieu et al., 1990; DiMaggio, 1982; De Graaf et al., 2000; Sullivan, 2001), and the role of student's learning ability in explaining the expansion and stagnation in college graduation rates (Castro and Coen-Pirani, 2016). The papers closest in spirit to our proposed research are Van de Werfhorst et al. (2003) who study the impact of parental background and measured ability on the choice of subjects in secondary and tertiary education in Britain, and Wilson (2001) who estimates a model of high school graduation choice in the US and finds that parental background is affecting the educational choices of children, but not the returns from education.

The data we hope to use has recently been fruitfully employed by Aghion et al. (2017) and by Pekkala Kerr et al. (2013) who study the impact of comprehensive school reform on mathematical, verbal, and logical reasoning skills as measured by the Finnish Defense Forces. Neither of these studies focused explicitly on explaining the inter-generational in educational attainment and labor market outcomes. By making use of the high-quality data on personal ability scores collected by the Finish Defense Forces, we are confident that we could make important progress in our understanding of the relative role of ability and parental background in determining educational outcomes.

References

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