

Personal details

Name: Helske, Satu Marjaana

E-mail: satu.helske@utu.fi

ORCID: [0000-0003-0532-0153](https://orcid.org/0000-0003-0532-0153)

GitHub: github.com/satuhelske

Education and degrees completed

21/12/2023 **Title of Docent in Sociology**, University of Turku, Finland

26/10/2016 **PhD in Statistics**, University of Jyväskylä, Finland

9/12/2009 **MSc in Statistics**, University of Jyväskylä

16/7/2008 **BSc in Statistics**, University of Jyväskylä

Other education and training

2021 University pedagogy, 10 ECTS, University of Turku

2012 Visiting PhD student, Centre for Multilevel Modelling, University of Bristol, United Kingdom (1 month)

2010 Summer school on Advanced methods for the analysis of complex event history data, Bristol, UK

Language skills

Finnish Native

English Excellent

Swedish Satisfactory

German Basics

Current employment

2025–present **Collegium researcher in sociology**
INVEST Research Flagship Centre & Turku Institute of Advanced Studies, University of Turku, Finland

Previous work experience

2021–2025 **Senior research fellow in sociology**
INVEST Research Flagship Centre & Department of Social Research, University of Turku, Finland

2019–2021 **Senior researcher in sociology**
Department of Social Research, University of Turku, Finland

2017–2019 **Postdoctoral researcher in analytical sociology**
Institute for Analytical Sociology, Linköping University, Sweden

2016–2017 **Postdoctoral researcher in multigenerational demography**
Department of Sociology, University of Oxford, UK

2013–2016 **Doctoral student**
Department of Mathematics and Statistics, University of Jyväskylä, Finland

2010–2012 **Doctoral student**
Methodology Centre for Human Sciences, University of Jyväskylä, Finland

2007–2009 **Research assistant** (part-time)
Project Spectrum of Language and Literacy, University of Jyväskylä, University of Jyväskylä, Finland

Career breaks

- Part-time parental leave 3–12/2023 (10 months)
- Parental leave 7/2022–2/2023 (8 months)
- Part-time parental leave 10/2014–12/2015 (13 months)
- Parental leave 9/2012–9/2013 (13 months)

Most important research funding and grants

- 2025 **Research Council of Finland:** Academy Project Funding for a research group, project “Parental leave in context: social drivers of sharing care (SHARELEAVE)” (1/9/2025–31/8/2029), PI: Satu Helske. €600,000
- 2025 **Turku Institute for Advanced Studies:** Collegium Researcher funding for project “Parental leave in context: social drivers of sharing care” (9/2025–8/2028). Personal research grant for 3 years (~€280,000).
- 2025 **Swedish Cultural Foundation in Finland:** “Variation in parents’ division of parental leave across regions and language groups in Finland” (REGPARENT), Co-PIs: Satu Helske and Anna Erika Hägglund. €100,000.
- 2020 **Research Council of Finland:** Academy Project Funding for a consortium, project “Towards well-informed decisions: Predicting long-term effects of policy reforms on life trajectories” (PREDLIFE) (9/2020–8/2024), PI Satu Helske; Co-PI Jouni Helske (University of Jyväskylä). €560,000.
- 2011 **Finnish Cultural Foundation.** Personal scholarship for full-time doctoral studies. €21,000.
- 2009 **Rector’s scholarship, University of Jyväskylä.** Personal scholarship for full-time doctoral studies. €16,800.

Research output

In total: 18 peer-reviewed scientific publications (class A according to the classification of Finnish Ministry of Education, Science and Culture), 9 non-refereed scientific publications (class B), 32 publications for professional communities (class D), 5 publications for general public (class E), 3 ICT software outputs (class I). **The most important publications are listed below;** the complete list is available on the [UTU website](#). *Publications marked with an asterisk (*)* originate from research projects funded through my proposals and were authored by the research team under my supervision. *Publications marked with a hashtag (#)* are PhD researchers’ publications under my supervision.

A. Peer-reviewed scientific articles

- * Chapman, S. N., Kotimäki, S., Helske, S., & Hägglund, A. E. (2026). Support or suppress: Father’s parental leave uptake in the workplace context in Finland. *Journal of Social Policy*. Advance online publication. doi:[10.1017/S0047279426101287](https://doi.org/10.1017/S0047279426101287)
- Bedük, S., Fasang, A. E., Harkness, S., Andrade, S. B., Büyükkeçeci, Z., Karhula, A., & Helske, S. (2025). Insurance against risk? Economic cost and compensation of job loss in different welfare states. *Socio-Economic Review*. Advance online publication. doi:[10.1093/ser/mwaf066](https://doi.org/10.1093/ser/mwaf066)
- * Pasanen, T., Helske, S., Giuliani, G. A., Chapman, S. N., & Helske, J. (2025). Adaptation to paternal leave policies in Finnish municipalities: changing gender norms and cross-border policy legacies. *European Societies*. Advance online publication. doi:[10.1162/euso.a.43](https://doi.org/10.1162/euso.a.43)
- Helske, S. & Kawalerowicz, J. (2024). Citizens’ candidates? Labour market experiences and radical right-wing candidates in the 2014 Swedish municipal elections. *Acta Politica* 59, 694–717. doi:[10.1057/s41269-023-00304-8](https://doi.org/10.1057/s41269-023-00304-8)
- Helske, S., Helske, J., & Chihaya, G. K. (2024). From sequences to variables – Rethinking the relationship between sequences and outcomes. *Sociological Methodology*, 54(1), 27–51. doi:[10.1177/00811750231177026](https://doi.org/10.1177/00811750231177026)
- Helske, J., Helske, S., Saqr, M., López-Pernas, S., & Murphy, K. (2024) A modern approach to transition analysis and process mining with Markov models: A tutorial with R. In Saqr, M. & López-Pernas, S. (Eds.) *Learning analytics methods and tutorials*. Springer. doi:[10.1007/978-3-031-54464-4_10](https://doi.org/10.1007/978-3-031-54464-4_10)
- Saqr, M., López-Pernas, S., Helske, S., & Hrastinski, S. (2023). The longitudinal association between engagement and achievement varies by time, students’ subgroups, and achievement state: A full program study. *Computers & Education*, 199. doi:[10.1016/j.compedu.2023.104787](https://doi.org/10.1016/j.compedu.2023.104787)
- Helske, S., Keski-Säntti, M., Kivelä, J., Juutinen, A., Kääriälä, A., Gissler, M., Merikukka, M., & Lallukka, T. (2023). Predicting the stability of early employment with its timing and childhood social and health-related predictors: a mixture Markov model approach. *Longitudinal and Life Course Studies*, 14(1). doi:[10.1332/175795921X16609201864155](https://doi.org/10.1332/175795921X16609201864155)
- Liao, T. F., Bolano, D., Brzinsky-Fay, C., Cornwell, B., Fasang, A. E., Helske, S., ... & Studer, M. (2022). Sequence analysis: Its past, present, and future. *Social Science Research*, 107, 102772. doi:[10.1016/j.ssresearch.2022.102772](https://doi.org/10.1016/j.ssresearch.2022.102772)
- Breen, R., Ermisch, J., and Helske, S. (2019) Educational reproduction in Europe: A descriptive account. *Demographic Research*, 41(49), 1373–1400. doi:[10.4054/DemRes.2019.41.49](https://doi.org/10.4054/DemRes.2019.41.49)
- Helske, S. and Helske, J. (2019) Mixture hidden Markov models for sequence data: the seqHMM package in R. *Journal of Statistical Software*, 88(3), 1–32. doi:[10.18637/jss.v088.i03](https://doi.org/10.18637/jss.v088.i03)
- Helske, S., Steele, F., Kokko, K., Räikkönen E., and Eerola, M. (2015) Partnership formation and dissolution over the life course: an illustration of the application of sequence analysis and event history analysis in the study of recurrent events. *Longitudinal and Life Course Studies*. 6(1), 1–25. doi:[10.14301/llcs.v6i1.290](https://doi.org/10.14301/llcs.v6i1.290)

B. Non-refereed scientific articles

#Akter, S., Chapman, S. N., Helske, S., Salin, M., & Schwanitz, K. (2026). Heterogeneous effects of parental leave reform on partnership stability: Examining the role of parental education. *INVEST Working Papers* 148/2026.

doi:[10.31235/osf.io/xkcy8_v2](https://doi.org/10.31235/osf.io/xkcy8_v2)

Helske, S., Erola, J., & Helske, J. (2024). Education, family complexity and heterogeneous causal effects of parental separation. *INVEST Working Papers* 104/2024. doi: [10.31235/osf.io/4dk3w](https://doi.org/10.31235/osf.io/4dk3w)

Helske, S., Helske, J., Chapman, S. N., Kotimäki, S., Salin, M., & Tikka, S. (2024). Heterogeneous workplace peer effects in fathers' parental leave uptake in Finland. *INVEST Working Papers* 96/2024. doi:[10.31235/osf.io/p3chf](https://doi.org/10.31235/osf.io/p3chf)

Andrade, S. B., Fasang, A. E., Helske, S., & Karhula, A. (2023). Typologies in Sequence Analysis: Practical Guidelines for Identifying Robust Cluster Solutions. *SocArXiv preprint*. doi:[/10.31235/osf.io/kj8d5](https://doi.org/10.31235/osf.io/kj8d5)

Helske, S., Ylöstalo, H., & Koskinen, H. (2021). Samassa myrskyssä mutta eri veneissä: COVID-19 ja eriarvoisuus. [Same storm but different boats: COVID-19 and inequality.] *Yhteiskuntapolitiikka*, 5–6/2021. (In Finnish). url:urn.fi/URN:NBN:fi-fe2021112456870

D. Publications intended for professional communities

Helske, S., Jalovaara, M., Lammi-Taskula, J., Miettinen, A., Nisén, J., & Österbacka, E. (2025). A well-functioning parental leave system supports well-being as well as the social and economic sustainability of the society. *FLUX Policy Brief* 3/2025. Available at <https://fluxconsortium.fi/a-well-functioning-parental-leave-system-supports-well-being-as-well-as-the-social-and-economic-sustainability-of-the-society/>

Helske, S., Koskinen, H. & Ylöstalo, H. (2022). Eriarvoistuminen voi jatkua pitkään koronapandemian jälkeen [Inequality may worsen long after the COVID-19 pandemic]. Published in COVID-19 -kriisin yhteiskunnalliset vaikutukset Suomessa: Keskipitkän aikavälin arvioita [Societal impacts of COVID-19 in Finland: medium-term estimates]. Valtioneuvoston julkaisuja 2022:14. Available at <http://urn.fi/URN:ISBN:978-952-383-708-9>

Jalovaara M., Lilja E., Nisén J., et al (2022). Muuttuva perheenmuodostus – Syyt, seuraukset ja mahdolliset tulevaisuudet (FLUX). Suomen akatemia, Strategisen tutkimuksen neuvosto. Available at <https://research.utu.fi/converis/portal/detail/Publication/68703669>

E. Publications intended for the general public

Helske S. & Hägglund A. E. (2024) Isät vapaalla – Miten työympäristö näkyy isien perhevapaiden käytössä ja myöhemmässä palkkakehityksessä? <https://blogit.utu.fi/invest/2024/11/10/isat-vapaalla-miten-tyoymparisto-nakyy-isien-perhevapaiden-kaytossa-ja-myohemmassa-palkkakehityksessa/>

Salonen, L., Prix, I. & **Helske, S.** (2022). Kommentti: Tilastollisen merkitsevyyden korostaminen johtaa helposti väärin johtopäätöksiin. *Ilmiö – sosiologinen media kaikille*. <https://ilmiomedia.fi/artikkelit/kommentti-tilastollisen-merkitsevyyden-korostaminen-johtaa-helposti-vaariin-johtopaatoksiin/>

Kotimäki S., Chapman S., & **Helske S.** (2022) Fathers on family leaves: Who, when, and why? *INVEST blog*. Available at <https://blogit.utu.fi/invest/2021/11/11/fathers-on-family-leaves-who-when-and-why/>

Helske, S. & Ylöstalo H. (2021) Samassa myrskyssä mutta eri veneissä – koronapandemia ja eriarvoisuus. *INVEST blog*. Available at blogit.utu.fi/invest/2021/04/21/samassa-myrskyssa-mutta-eri-veneissa-koronapandemia-ja-eriarvoisuus/

I. Software

Helske, S., Tikka, S., Chapman, S., Pasonen, T.-M. (2024) Parental leaves in Finland. App for visualizing parental leave statistics in Finnish municipalities across time. Available at <https://satuhelske.shinyapps.io/finleave>

Helske, S. (2020). COVIDparty App: calculating the risk of COVID-19 exposure among a group of test-negative people (intended for teaching basic probability theory). Available at https://satuhelske.shinyapps.io/COVID19_app/

Helske, J. & **Helske, S.** (2018) Mixture hidden Markov models for sequence data: the seqHMM package in R. R package version 1.0.10. cran.r-project.org/web/packages/seqHMM

Research supervision and leadership experience

PhD supervision (2 students, started in 2024 and 2026), DPINVEST, University of Turku, Finland

Master's thesis supervision (2 students), MPINVEST, University of Turku, Finland

Leader of the SHARELEAVE project, 2025– (Planning, budgeting, hiring, leading a research group of 2–3 postdocs)

Co-leader of the REGPARENT project, 2026– (Planning, budgeting, hiring, co-leading 1 postdoc)

Leader of the PREDLIFE consortium, 2020–2024 (PI of the consortium, leading a research group of a subproject, instructing postdoctoral and doctoral researchers and Master's students)

Teaching merits**Training**

University pedagogy (10 ECTS), 2020–2021, University of Turku

Experience

Course	Organization	ECTS	Role	Level	Language	Years
Sequence analysis and Markovian modelling*	MPINVEST, DPINVEST	3	Lecturer (1 lecture)	Master, PhD	English	2025
Introduction to longitudinal and multilevel modelling*	MPINVEST, DPINVEST	1	Lecturer, Course director	Master, PhD	English	2025, 2026
INVEST research themes	MPINVEST, DPINVEST	5	Lecturer (1 lecture)	Master, PhD	English	2021, 2022
Longitudinal and multilevel modelling*	MPINVEST, DPINVEST	5–8	Lecturer, Course director	Master, PhD	English	2021, 2022
Statistics and data science I*	CSS LiU	7.5	Lecturer, Course director	Master	English	2018
Methods in political science 2	PSE LiU	7.5	Lecturer (part-time)	Bachelor	English	2018
Basic course in statistics	Stat JYU	6	Lab supervisor	Bachelor	Finnish	2016, 2015 (x2), 2014, 2011
Final exams of basic course in statistics	Stat JYU	3	Supervisor	Bachelor	Finnish	2015
Sequence analysis*	MCHS JYU	3	Course director, lecturer	Master, PhD	Finnish	2014
Multiple regression analysis and general linear model using SPSS	MCHS JYU	5	Lecturer (part-time)	PhD	English	2013
R basic course for practitioners of applied sciences	MCHS JYU	3	Lecturer (part-time), Lab supervisor	PhD	Finnish	2012
Analysis of longitudinal studies	MCHS JYU	6	Lab supervisor	PhD	Finnish	2011, 2009
Basic course on regression modelling	MCHS JYU	5	Lecturer (part-time), Lab supervisor	PhD	Finnish, English	2011, 2010
Analysing event history data	MCHS JYU	3	Lab supervisor	PhD	Finnish	2011
Modelling hierarchical data	MCHS JYU	3–5	Lab supervisor	PhD	Finnish	2010, 2009
Causal inference in observational studies	MCHS JYU	4	Lab supervisor	PhD	English	2010
Survey analysis (1 lecture)	MCHS JYU	5	Guest lecturer	PhD	Finnish	2009

*Designed a new course.

Abbreviations: M/DPINVEST: Master & PhD programme in Inequalities, Interventions and New Welfare State at University of Turku, Finland; CSS LiU: Computational Social Sciences at Linköping University, Sweden; PSE LiU: Political Science and Economics at Linköping University, Sweden; Stat JYU: Statistics at the University of Jyväskylä, Finland; MCHS JYU: Methodology Centre for Human Sciences at the University of Jyväskylä, Finland.

Awards

2016 **Longitudinal Data Analysis Contest Award**, LaCOSA II Conference, Lausanne, Switzerland.

2014 **Best Poster Award**, Nordstat, Turku, Finland.

Other key academic merits

Member of the management team: INVEST Research Flagship Centre (2025–)

Member of the executive committee for Sequence Analysis Association (2018–)

Associate Member of Nuffield College, University of Oxford (2017–2019).

Reviewer committee member for a PhD thesis (Cheng Lin, Linköping University, 2025).

Reviewer for a funding application for the Swiss National Science Foundation.

Expert evaluator in recruitment for the position of a university lecturer for Linköping University.

Reviewer for journals *Advances in Life Course Research*, *Demographic Research*, *Demography*, *European Societies*, *Evolutionary Human Sciences*, *Finnish Yearbook of Population Research*, *Journal of Business Venturing*, *Multivariate Behavioural Research*, *Population Studies*, *Research in Social Stratification and Mobility*, *Scandinavian Journal of Educational Research*, *Social Forces*, *Sociological Methods & Research*, *Sosiaalilääketieteellinen aikakauslehti*, and *Statistical Methods & Applications*.

Member of the review committee for G. Ritschard & M. Studer (2018) *Sequence Analysis and Related Methods: Innovative Methods and Applications*. Springer.

Expert discussant and/or reviewer for Panel discussion: Migrant trajectories workshop (University of Stockholm, Sweden, 2018) and NCCR LIVES Doctoriales (University of Geneva, Switzerland, 2017).

Invited international presentations at Webinar of the Sequence Analysis Association (online, February 2022; March 2023; October 2023), International Symposium on Sequence Analysis and Related Methods (Monte Verità, Switzerland, 2018), Multi-generational social mobility workshop (Oxford, UK, 2017), and in research seminars at the CEREMADE, Paris Dauphine University, France (2024), Estonian Institute of Population Studies, University of Tallinn, Estonia (2023) and in Department of Statistics, University of Umeå, Sweden (2014).

Paper presentations in PAA (2025), ESPAnet (2025, 2024), EPC (2024), RC28 (2025, 2021, 2019, 2018, 2017), ECSR (2019), LaCOSA II (2016), SLLS (2021, 2014, 2021).

Member of the organizing committee for ISA RC28 Spring Meeting 2020 (Turku, Finland), ISA RC28 Spring Meeting 2020 (cancelled), International Conference of the Sequence Analysis Association 2020 (Milan, Italy, cancelled).

Scientific and societal impact

Interactions with decision-makers and political parties: Presentation to the Members of the Parliament on fathers' parental leave in Finland (TUTKAS seminar, Parliamentary House, Helsinki 10/2024). Meetings with Christian Democrats (11/2024) and the youth organisation of the Finns Party (2/2025).

Reporting for Finnish decision makers about the latest research on COVID-19 and inequality, August 2020–June 2022. 26 reports available at tietokayttoon.fi/covid-19-tutkimuskatsaukset (in Finnish).

Expert discussant for panel discussion on Welfare and inequality impacts of COVID-19 in Finland (University of Turku, Finland, 2021). invest.utu.fi/fi/events/paneelikeskustelu-koronan-hyvinvointi-ja-eriarvoisuusvaikutukset-suomessa (in Finnish).

Chair for panel discussion on COVID-19 webinar series: Inequality and vulnerable groups, September 2021 (Finnish Institute for Health and Welfare). thl.fi/fi/web/hyvinvoinnin-ja-terveyden-edistamisen-johtaminen/ajankohtaista/tapahtumat/koronan-yhteiskunnalliset-vaikutukset-webinaarisarja (in Finnish).

Expert statements in media: Newspaper interviews on fathers' parental leave by [Yle](#), [Helsingin Sanomat](#), STT (e.g., [Keskisuomalainen](#), [Suomenmaa](#)). Panel discussion on COVID-19 and inequality, [Aurora Future Event](#) by the Finnish Broadcasting Company Yle (Levi, 2021).