

Research and Teaching Statement of Petra Persson

I am an economist with research at the intersection of family economics, health economics, and public finance. My research examines the economic behavior of families, often with a focus on decisions pertaining to health capital formation, and the implications of these behaviors for family wellbeing and social insurance design.

In an era that is often characterized by a rise of individualism and the decline of the family, the broad insight that emerges from my research is that – even in high-income countries with generous social insurance and safety net programs – intra-family interactions are of first-order importance for families’ mental, physical, and economic wellbeing, for broader societal outcomes such as population-level health disparities, and for the design of optimal government policy. My research also reveals some of the *mechanisms* through which family behavior exerts these influences on individual and societal outcomes, including: intra-family provision of insurance, the propagation of shocks across family members, and intra-family exchange of health-related expertise and information. These mechanisms operate beyond the nuclear family, underscoring the essential economic role of the extended family network, even in settings where social insurance minimizes the economic dependence across generations.

More specifically, I focus on three areas:

- I. *Family behavior and health shocks*: How do families respond to health shocks, and how do those responses affect optimal policy design?
- II. *Health disparities and the role of families*: What is the role of families in generating and sustaining health inequality, even in societies where government policies explicitly aim to equalize access to resources?
- III. *Family structure, family finance, and the design of social insurance*: How are decisions that are economic in nature but that we often think of as “private” – such as whether to cohabit, marry, or divorce; or whether to lend money to a family member – shaped by the design of social insurance?

To address these questions, I combine theoretical analyses with large-scale administrative data and natural experiment designs.

- I. **FAMILY BEHAVIOR AND HEALTH SHOCKS**. The first part of my research agenda investigates how families respond to health-related events or shocks, and the implications of those responses for family wellbeing and policy design. I have studied a wide range of such events, including deaths in the family, learning about a child’s ADHD diagnosis or risk of chromosomal abnormalities, and experiencing infertility.

a. Family health shocks and the determinants of health capital: One broad insight from these studies concerns the drivers of health capital, and in particular mental health capital. Despite the importance of mental wellbeing for individual economic outcomes such as employment and earnings – indeed, mental illness is a leading cause of disability world-wide – economists have traditionally placed a larger emphasis on studying the determinants of physical health. My work examines both physical and mental health, and the results underscore the importance of family health shocks for the formation of mental health capital. In “[Family Ruptures, Stress, and the Mental Health of the Next Generation](#),” with Maya Rossin-Slater, we document intra-family transmission of adverse shocks stemming from deaths in the extended family. We use Swedish administrative data to compare children whose mothers experience the death of a relative while they are *in utero* to those whose mothers experience a death during their first year of life. We find that children of mothers who experience the death of a family member during pregnancy are more likely to suffer from anxiety, depression, and attention deficit hyperactivity disorder later in life. These findings suggest that greater stress exposure among the poor may partially explain the intergenerational persistence of poverty, and that programs

that ease the lives of pregnant women could help their children live healthier and more economically productive lives.

In "[Family Spillover Effects of Marginal Diagnoses: The Case of ADHD](#)," with Maya Rossin-Slater, we consider how family linkages propagate spillovers in health conditions, diagnoses, and treatments, and the implications of such spillovers for population well-being. In the context of a healthcare system that frequently relies on family medical history to inform diagnostic decisions, we focus on ADHD, the fastest rising and most prevalent condition among children, both in the US and in many other countries around the world. Building on existing evidence of differential diagnosis rates in children who are young or old relative to their peers in the classroom, we show that one child's *marginal* diagnosis of ADHD "spills over" within the extended family, to the child's cousins. These diagnostic spillovers can account for a substantial share of the escalating ADHD caseloads over the last decade, and likely stem from a combination of communication across extended families and responses among physicians, who rely on a child's medical history in diagnosing ADHD.

In "[When Dad Stays Home: Father Workplace Flexibility and Maternal Health](#)," with Maya Rossin-Slater, we study how families navigate the first time after childbirth, a period when the mother is particularly susceptible to mental health issues. We show that giving fathers more labor market flexibility after childbirth induces parents to allocate more time at home together in the first critical part of the postpartum period, which improves maternal postpartum health. This points to the value of policies that promote not just paternity leave, but leave that can be taken *jointly*.

A second broad lesson from these studies concerns the economic importance of the extended family. While extensive research on the household focuses on the nuclear family, less is known about the economic significance of other members of the broader family network – cousins, adult siblings, grandparents, aunts, and uncles – particularly in well-developed institutional settings where members of the extended family often do not live in the same household and therefore cannot be observed in household-level datasets. By leveraging Swedish population-wide data that allow linking individuals to their extended family network regardless of whether they live in the same household or not, my research shows that the broader family network serves as a nexus for transmission of both adverse shocks and information, with important consequences for family wellbeing. For example, in "Family Ruptures..." *in utero* exposure to the death of a relative up to three generations apart negatively affects the unborn baby's health. Further, in "Family Spillover Effects..." the diagnosis spillovers across cousins in part reflect communication among adult siblings who do not live in the same household.

b. Family health shocks and new health technologies affecting family structure: In several recent papers funded by my NSF CAREER award "Family Behavior, Health Technologies, and Government Policy," I am examining the implications of the arrival of new health technologies that affect individuals who are experiencing fertility-related health shocks, such as infertility (Assisted Reproductive Technologies), or that allow expecting individuals to learn about the presence of chromosomal abnormalities in a fetus (prenatal screening technologies). These technologies have the potential to affect family structure in a fundamental sense, by influencing which couples conceive and which fetuses are kept. This work explores the idea that, because these novel technologies often are expensive, public policies that influence their accessibility and affordability may be crucial for utilization, and thus ultimately for the impacts of these technologies on families and population health. In "[Targeting Precision Medicine: Evidence from Prenatal Screening](#)," with Peter Conner, Liran Einav, and Amy Finkelstein, we study couples' behavior during pregnancy in response to the risk of a chromosomal abnormality (CA) in the fetus. Invasive tests that identify CAs have been available for decades, but they may cause a miscarriage. Recent technological advances have brought non-invasive screenings to the market, which are safe for the fetus and provide an estimate of the CA risk. Thus, a screening can be done first, to help determine whether to proceed to invasive testing. Using a combination of descriptive evidence and a model of prenatal screening and testing choices, we study how the arrival of a more precise, but also more expensive, non-invasive technology affects screening, invasive testing, and birth outcomes in the context of Sweden. Further, we study how these outcomes depend on the affordability of the screen, regulated through health insurance coverage, and the broader implications for optimal policy design. We find that affordability of the screen has major impacts on screening, invasive testing, and birth outcomes; further,

the welfare consequences of the new screen depend crucially on the policy design. Finally, contrary to what is often alleged in popular debates, our results suggest that making screening technologies available for free to all expecting couples would *not* result in an eradication of CAs in the population.

In ongoing work entitled “[Subsidizing Technology Diffusion: Evidence from Reproductive Medicine](#),” with Sarah Bögl, Jasmin Moshfegh, and Maria Polyakova, we study the arrival of various new health technologies affecting fertility (Assisted Reproductive Technologies, ARTs). These technologies have the potential to transform the life for the one in five reproductive-age couples worldwide that are affected by infertility. At the same time, ARTs are often expensive: one round of In Vitro Fertilization (IVF) can cost several months of wages for an individual at the lower end of the income distribution without insurance coverage for IVF. This suggests that the arrival of these technologies may precipitate new health disparities. Whether ARTs induce such inequities may crucially depend on whether they are covered by (public or private) insurance. Using rich administrative data from Sweden with uniquely detailed information on individual-level use of ARTs, we examine how these technologies affect family decisions and family outcomes, whether they serve to widen or narrow inequalities across families, and the implications of these findings for government policies that regulate access to them. We start by examining the causal impact of infertility on mental wellbeing, labor market outcomes, and couple stability. Using quasi-random variation in the likelihood of fertility treatment success, we find that remaining infertile leads to substantial deterioration of mental health and couple stability, with limited impacts on the labor market. Next, we document sharp differences in utilization of ART across the socioeconomic spectrum. Exploiting a series of natural experiments stemming from age thresholds in public health insurance coverage of ART, we estimate the willingness to pay for ARTs and the role of public policy in driving this inequality in diffusion of ARTs.

II. HEALTH DISPARITIES AND THE ROLE OF FAMILIES. Poorer people tend to have worse health at birth, be sicker in adulthood, and die younger than richer people. The causal links driving these associations are the subject of significant academic and policy interest. The second part of my research agenda provides novel characterizations of health disparities and brings new insights pertaining to the mechanisms driving them, with a particular focus on the role of the family in sustaining and perpetuating inequality.

a. Novel characterizations of health disparities and the role of formal insurance: One often-hypothesized driver of health disparities is differences in access to health insurance across the socioeconomic spectrum. In several papers I have examined health by income in Sweden, a country whose universal health insurance shuts down such differences in access to (formal) healthcare. Despite universal health insurance and a broad social safety net, this work has documented substantial disparities in health outcomes and health behaviors by income, across the life cycle: in smoking during pregnancy, vaccine take-up in adolescence, lifestyle-related disease in mid-life, and mortality (“The Roots of Health Inequality...”); in maternal and infant mortality (“Maternal and Infant Health Inequality...”); and in infertility and fertility treatments (“Subsidizing Technology Diffusion...”).¹ Benchmarking these patterns, when possible, to the US shows that while the *levels* of adverse health outcomes are generally higher in the US across the income spectrum, differences in *health inequality* between the US and Sweden depend, in part, on when in the life cycle the health outcome is measured. For example, inequalities in life expectancy are equally stark in Sweden and the US when measured at age 75, but less pronounced in Sweden at younger ages (“The Roots of Health Inequality...”).

In “[Maternal and Infant Health Inequality: New Evidence from Linked Administrative Data](#),” with Kate Kennedy-Moulton, Sarah Miller, Maya Rossin-Slater, Laura Wherry, and Gloria Aldana, we also provide novel insights pertaining to the precise shape of the relationship between income and health, and to the race-income health gradient in the US. While many measures of health gradually worsen with income, we show that key measures of infant and maternal health are non-monotonic, and in fact worsen with income in the upper half of the income distribution. Further, while it is well known that Black mothers and infants’ health is worse than that of their white counterparts in the US, we show that these racial disparities in California exist

¹ I already mentioned “Subsidizing Technology Diffusion...,” and will discuss the two other papers more below.

at each point in the income distribution. In several ongoing projects we probe the mechanisms underlying these associations.

b. Health literacy and the role of informal exchanges of health-related information: My work documenting strong income-health gradients in Sweden contribute to a body of existing evidence suggesting that to understand health disparities, it is important to (also) study other mechanisms than access to health insurance. In a series of papers, I explore the role of health literacy and *informal* access to health-related expertise through the family. The basic idea is that good health depends on health behaviors and health decisions that we make in our everyday lives: smoking and exercising, sticking to prescribed medications, getting routine care and vaccinations, and so on. While such health behaviors are known to be crucial for health, little is known about the mechanisms that alter them or about how to build “health literacy” – information and knowledge about the importance of these behaviors for health.

In “[The Roots of Inequality and the Value of Intra-Family Expertise](#),” with Yiqun Chen and Maria Polyakova, we estimate the causal impact of having a doctor in the extended family network on health behaviors and health outcomes, using event studies and exploiting Sweden’s “admissions lotteries” into medical schools. (The admissions lotteries were an unintended consequence of severe grade inflation in Sweden, analyzed in “[The Long-Term Consequences of Teacher Discretion in Grading of High-Stakes Tests](#),” with Rebecca Diamond.) We find that individuals who have family health experts live longer, are less likely to be addicted to alcohol and drugs, have fewer chronic medical conditions, and engage in more preventive health behaviors throughout the lifecycle. The effects are more pronounced at the lower end of the income distribution, suggesting that the value of family health experts is larger among the poor. These results contribute to our understanding of health literacy and health inequality, by showing that even in a setting with universal access to essentially free government-provided *formal* health insurance, *informal* access to health-related expertise has a first-order impact on health. Our counterfactual calculations suggest that differences in health literacy, more broadly, may be an important driver of health inequities. These results also contribute to our understanding of the family, by showing that it serves as a nexus of transmission of health-related information and expertise, with important consequences for family wellbeing. Medical doctors have positive impacts on the health of family members several generations apart, who do not live in the same household, suggesting that this information transmission extends beyond the nuclear family.

This study motivated two follow-up projects studying mechanisms that have the potential to ameliorate or aggravate the importance of informal expertise for health and inequality. In “[Does medicine run in the family—evidence from three generations of physicians in Sweden: retrospective observational study](#),” with Maria Polyakova, Katja Hofmann, and Anupam B. Jena, we ask how this important source of informal health-related knowledge is distributed in society, and how this has changed over time, by examining occupational heritability – the influence of one’s extended family members’ occupations on own career choice – in medicine. We document that occupational heritability in medicine is *increasing* over time in Sweden, suggesting that valuable informal health expertise is concentrated in a shrinking set of families. Further, in “[A Taste of Their Own Medicine: Guideline Adherence and Access to Expertise](#),” with Amy Finkelstein, Maria Polyakova, and Jesse M. Shapiro, we study how national treatment guidelines – a tool at the government’s disposal that may help equalize health care by setting treatment defaults – affect families with and without medical expertise; we find, somewhat surprisingly, that individuals with access to health expertise are more likely to *deviate* from such guidelines.

III. FAMILY STRUCTURE, FAMILY FINANCE, AND THE DESIGN OF SOCIAL INSURANCE. The third part of my research agenda studies household decisions that are economic in nature but that we often think of as “private,” such as whether to cohabit, marry, or divorce, or whether to lend money to a family member. I examine how these decisions are shaped by, and influence the optimal design of, social insurance and the broader regulatory environment. This work underscores that government policy has far-reaching consequences for a range of such decisions in the “private sphere,” and elucidates several mechanisms that drive these interactions.

In “[Social Insurance and the Marriage Market](#),” I analyze the impact of a ubiquitous feature of social insurance design: the link between social insurance eligibility and marital status. I theoretically show how this linkage turns couples’ decisions in all stages of the marriage market – matching, cohabitation, marriage, and divorce – into decisions about how to use social insurance: entering marriage is akin to signing up, remaining married is a necessary condition for maintaining coverage, and the match influences the value of social insurance. I then use the model to obtain precise predictions for the consequences of removing the linkage between marital status and social insurance, and take the predictions to data in the context of couples’ long-term planning to insure against the risk of death of one spouse. Exploiting Sweden’s elimination of survivors’ insurance, I show that linking survivors’ benefits to marital status has far-reaching and interconnected effects across all four marriage market margins. This evidence highlights a policy trade-off between, on one hand, providing social insurance for women with little labor force participation and, on the other, generating economically important marriage market distortions. Given the ubiquity of the link between marital status and benefit eligibility, this trade-off may be applicable to a broad range of government programs. Further, the paper’s findings underscore that marriage market behavior constitutes an important long-term financial planning mechanism that responds to the design of social insurance.

In “[Financing from Family and Friends](#),” with Samuel Lee, we study another aspect of financial decision-making in families: the decision to loan money to a family member for risky investment. Such intra-family financial transfers are common in settings where formal markets are lacking, but also in developed countries among early-stage entrepreneurs, who often turn to “the bank of mom and dad.” While many theories of informal finance advocate contracts that mimic or harness the power of social relations – often referred to as social lending – we theoretically show that such contracts may stifle investment. Intuitively, intra-family loans for risky investment crowds out another channel of familial support: intra-family consumption insurance. Therefore, successful policies to encourage risk taking include contractual innovations that *decrease* family exposure to risky investment, including the development of social insurance. We discuss such policies further in a handbook chapter on informal financing (“[Alternative Finance through Social Networks](#)”).

IV. OTHER RESEARCH. Many models of the household emphasize the central role of reproduction, and children have been described as the most important ‘products’ of the family. In this sense, the marriage market has been characterized as a market for ‘reproductive sex,’ and contrasted with the prostitution market, which trades in ‘non-reproductive sex.’ In “[Human Trafficking and Regulating Prostitution](#),” with Samuel Lee, we analyze optimal regulation in settings where the marriage market equilibrium depends on the legal system’s treatment of the market for sex. The market for prostitution is important from a health policy perspective, as the market participants face health risks. Further, the regulatory problem that we study, and the optimal regulatory policy that we derive, may be applicable more broadly, to many “repugnant” markets.

In “[Insurance Without Commitment: Evidence from the ACA Marketplaces](#),” with Rebecca Diamond, Michael Dickstein, and Timothy McQuade, we study a setting in which households make decisions about how to use social insurance. Specifically, we study households’ decisions to drop out of (subsidized Affordable Care Act) insurance plans procured through the Covered California platform. While economists and policymakers often focus on incomplete take-up of social insurance, similar market design issues arise with drop-out. We theoretically show that the welfare consequences of allowing dropout is ambiguous: In a fixed pool of insured households, allowing dropout reduces welfare; however, if allowing dropout attracts healthier households into the pool, welfare may increase. We take the model to data and find that the positive effect dominates in the context we study, and use our model to assess the impact of various policy initiatives discouraging drop-out.

Finally, beyond the (extended) family, my research also documents that other members of an individual’s close social circle play important economic roles, including teachers in childhood (“[The Long-Term Consequences of Teacher Discretion...](#)”) and long-term co-workers in adulthood (“[The Limits of Career Concerns in Federalism: Evidence from China](#)”).

V. TEACHING, MENTORSHIP, AND SERVICE. My undergraduate elective course, “Family and Society” (ECON 144), is centered around my own research and was not available prior to my arrival at Stanford. It

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applies tools from economics and related social sciences to study how the functioning of families is shaped by social insurance, laws, and technology. Each time that I taught it, the group of 80 students – the enrollment cap – came from a diverse set of backgrounds and brought a broad range of experiences to their learning. I have also taught two courses at the graduate level: A graduate course in public economics (ECON 242) and a research seminar designed to help third-year PhD students advance from the “course-taking phase” to the “research production stage” of the PhD program (ECON 300).

I have also been an active advisor. I have served on the dissertation committees of more than fifteen PhD students at Stanford, and have mentored many undergraduate advisees and international visiting PhD students. In 2023 I received the Inspiring Early Academic Career Award at Stanford, an award that honors a pre-tenure faculty member “who creates a culture of inclusion and belonging for students and trainees at all levels;” I also received the Stanford Economics Distinguished Faculty Teaching Award.

The fact that my research exploits large-scale administrative data to produce novel knowledge underscores a well-documented trend: Access to administrative data is increasingly essential in economics research. I am using funding from my NSF CAREER award to organize a workshop that teaches PhD students about the process of applying for and gaining access to such data, in the U.S. and beyond. Reducing inequality in access to this information, which currently often is passed on informally, has the potential to help level the playing field in the profession for students who are just beginning their careers in economics.

REFERENCES

Refereed Publications

1. “When Dad Can Stay Home: Fathers’ Workplace Flexibility and Maternal Health,” with Maya Rossin-Slater. *American Economic Journal: Applied Economics*, Accepted.
2. “A Taste of Their Own Medicine: Guideline Adherence and Access to Expertise,” with Amy Finkelstein, Maria Polyakova, and Jesse M. Shapiro. *American Economic Review: Insights*, 4(4): 507-26, December 2022.
3. “Human Trafficking and Regulating Prostitution,” with Samuel Lee. *American Economic Journal: Economic Policy*, 14(3): 78-127, August 2022.
4. “The Roots of Health Inequality and the Value of Intra-Family Expertise,” with Yiqun Chen and Maria Polyakova. October 2018. *American Economic Journal: Applied Economics*, 14(3): 185-223, July 2022.
5. “Does Medicine Run in the Family—Evidence From Three Generations of Physicians in Sweden: Retrospective Observational Study,” with Maria Polyakova, Katja Hofmann, and Anupam B. Jena. *The British Medical Journal*, 371:m4453, December 2020.
6. “Social Insurance and the Marriage Market,”^[L]_[SEP] *Journal of Political Economy*, 128(1): 252-300, January 2020.
7. “Family Ruptures, Stress, and the Mental Health of the Next Generation,” with Maya Rossin-Slater. *American Economic Review*, 108(4-5): 1214-52, April 2018.^[L]_[SEP]
8. “Attention Manipulation and Information Overload: Barriers to Consumer Protection.” *Behavioral Public Policy*, 2(1), 78-106, 2018.
9. “Financing from Family and Friends,” with Samuel Lee. *Review of Financial Studies*, 29(9): 2341–2386, September 2016.
10. “The Limits of Career Concerns in Federalism: Evidence from China,” with Ekaterina Zhuravskaya. *Journal of the European Economics Association*, 14(2): 338–374, April 2016.

Working Papers

11. “Targeting Precision Medicine: Evidence from Prenatal Testing,” with Peter Conner, Liran Einav, and Amy Finkelstein. *Journal of Political Economy*, Revise and Resubmit.
12. “Family Spillover Effects of Marginal Diagnoses: The Case of ADHD,” with Maya Rossin-Slater. *American Economic Journal: Applied Economics*, Revise and Resubmit.
13. “Maternal and Infant Health Inequality: New Evidence from Linked Administrative Data,” with Kate Kennedy-Moulton, Sarah Miller, Maya Rossin-Slater, Laura Wherry, and Gloria Aldana, August 2023.
14. “Insurance Without Commitment: Evidence from the ACA Marketplaces,” with Rebecca

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Diamond, Michael Dickstein, and Timothy McQuade. *Quarterly Journal of Economics*, Reject and Resubmit.

15. “The Long-term Consequences of Teacher Discretion in Grading of High-stakes Tests,” with Rebecca Diamond, October 2017.
16. “Circles of Trust: Rival Information in Social Networks,” with Nikita Roketskiy and Samuel Lee, September 2021.

Book Chapters

17. “Alternative Finance Through Social Networks,” with Samuel Lee. Forthcoming in *The Research Handbook on Alternative Finance* (Ed: Franklin Allen and Julia Meijun Qian), Edward Elgar Publishing.
18. “Violence and Entry in the Market for Sex: Implications for Prostitution Law,” with Samuel Lee. In *The Oxford Handbook of the Economics of Prostitution* (Ed: Scott Cunningham and Manisha Shah), Oxford University Press, 2016.

Selected Work-in-progress

19. “Subsidizing Technology Diffusion: Evidence from Reproductive Medicine,” with Sarah Bögl, Jasmin Moshfegh, and Maria Polyakova.

NSF CAREER AWARD, full reference

“CAREER: Family Behavior, Health Technologies, and Government Policy: Research and Training,” National Science Award No. SES-2144072, 2022—2027.