

# GASTÓN P. FERNÁNDEZ

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EDUCATION:	Ph.D. in Economics, <i>KU Leuven</i>	2021–present
	Visiting Researcher, <i>Tilburg University, Dpt. of Econometrics &amp; OR</i>	02.2024–04.2024
	M.Sc. in Advanced Studies of Economics ( <i>magna cum laude</i> ), <i>KU Leuven</i>	2020–2021
	M.Sc. in Economics ( <i>magna cum laude</i> ), <i>KU Leuven</i>	2019–2020
	Diploma in Impact Evaluation, <i>J-PAL &amp; Pontificia Universidad Católica de Chile</i>	2016
	M.Sc. in Economics and Public Policies, <i>Universidad Adolfo Ibáñez</i>	2014–2015
	B.S. in Business Administration Sciences, <i>Universidad Adolfo Ibáñez</i>	2010–2013

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FIELDS OF INTEREST:	Labor and Demographic Economics, Family Economics, Innovation and Technological Change
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PUBLISHED ARTICLES:	[1] Artificial intelligence and firm-level productivity with Dirk Czarnitzki <i>Journal of Economic Behavior and Organization</i> , 211, July 2023, 188-205 <a href="#">[download]</a>
	[2] Artificial intelligence and industrial innovation: evidence from firm-level data with Dirk Czarnitzki and Christian Rammer <i>Research Policy</i> , 51(7), September 2022, 104555 <a href="#">[download]</a>

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COMPLETED WORKING PAPERS:	[1] Parental personality and child skills formation <i>Job Market Paper</i> <a href="#">[download]</a> <p>This paper studies the influence of parental personality on child development. I exploit detailed individual-level data from the PSID and its Child Development and Wellbeing Supplements on parental personality, children’s skills, wages, and time-use decisions. The empirical results suggest a systematic gap in cognitive and non-cognitive skills between children of parents with different personalities. This skills gap increases as children grow older and remains significant after accounting for traditional family attributes. To provide a rationale for these observed patterns, I estimate a life cycle model that incorporates parental personality and considers household decisions with endogenous formation for a child’s cognitive and non-cognitive skills. In this framework, parental personality affects the monetary and time inputs in children as well as the type of interactions between parents and children. The simulations indicate that most of the influence of personality on a child’s skills is through its effect on the quality of parent-child interactions. Also, cash transfer policies that do not account for the productivity associated with parental personality can have unexpected, negative effects on child development.</p>
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- [2] Does personality affect the allocation of resources within households?

***Revise & Resubmit, Review of Economics of the Household***

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This paper examines whether personality influences the allocation of resources within households. To do so, I model households as couples that make Pareto-efficient allocations and divide resources according to a distribution function. Using a sample of Dutch couples from the LISS survey with detailed information on consumption, labor supply, and personality traits at the individual level, I find that personality affects intrahousehold allocations through two channels. Firstly, the level of these traits act as preference factors that shape individual tastes for consumed goods and leisure time. Secondly, by testing distribution factor proportionality and the exclusion restriction of a conditional demand system, I observe that differences in personality between spouses act as distribution factors. Specifically, these differences in personality impact the allocation of resources by affecting the bargaining process within households. For example, women who are relatively more conscientious and engage more cognitively than their male partners receive a larger share of intrafamily resources.

- [3] Evidence on the adoption of artificial intelligence: the role of skills shortage in German firms with Paolo Carioli and Dirk Czarnitzki

***Under revision***

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Artificial Intelligence (AI) is considered to be the next general-purpose technology, with the potential of performing tasks commonly requiring human capabilities. While it is commonly feared that AI replaces labor and disrupts jobs, we instead investigate the potential of AI for overcoming increasingly alarming skills shortages in firms. We exploit unique German survey data from the Mannheim Innovation Panel on both the adoption of AI and the extent to which firms experience scarcity of skills. We measure skills shortage by the number of job vacancies that could not be filled as planned by firms, distinguishing among different types of skills. To account for the potential endogeneity of skills shortage, we also implement instrumental variable estimators. Overall, we find a positive and significant effect of skills shortage on AI adoption, the breadth of AI methods, and the breadth of areas of application of AI. In addition, we find evidence that scarcity of labor with academic education relates to firms exploring and adopting AI.

- [4] Personality traits, the marriage market, and household behavior with Mariia Kovaleva

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We develop an empirical framework to analyze the dynamic effect of personality traits in marriage market patterns and intrahousehold decisions. We exploit detailed information at the individual level from the HILDA survey about consumption, labor supply, time use, and personality traits (as measured by the Big Five). First, we document that personality types are related to marital and divorce patterns, time allocated to both market labor and non-market labor activities, and the evolution of earnings. Next, to rationalize these empirical facts, we build a life-cycle model that integrates endogenous household formation and collective household choices under limited commitment. Our framework allows personality to affect both wages and individual preferences. In the latter, personality traits enter indirectly through the intrahousehold production of a public good and the utility of marriage (match quality). We use the estimates of our model to conduct policy counterfactuals associated with sorting in the marriage market and intrahousehold behavior.

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**WORK IN  
PROGRESS:**

- [1] What explains the gains from a stable marriage? A revealed preference analysis with Laurens Cherchye

- [2] The arguable evolution of Chilean income inequality with Leonardo Cáceres

- [3] Artificial Intelligence and the demand for labor: evidence from German firm-level with Dirk Czarnitzki and Bettina Peters

- [4] Technological change and intrahousehold resources allocation
- [5] Legal cohabitation, household insurance, and female labor supply  
with Valeria Cordova and Wietse Leleu
- [6] Female human capital investment and household dynamics  
with Marcos Balmaceda
- [7] Evidence on firm adoption of artificial intelligence  
with Dirk Czarnitzki and Christian Rammer  
*In preparation for the Edward Elgar Handbook on the Economics and Theory of the Firm*

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**TEACHING  
EXPERIENCE:**

Economic Evaluation of Economic Policy, <i>KU Leuven</i> T.A. for Prof. Frederic Vermeulen, graduate-level	<i>Spring 2023</i>
Master's Thesis Advisor, <i>KU Leuven</i> For Prof. Frederic Vermeulen & Prof. Laurens Cherchye, graduate-level	<i>2022–present</i>
Econometrics, <i>Universidad Adolfo Ibáñez</i> T.A. for Prof. Julio Guzmán, undergraduate level	<i>Spring &amp; Fall 2014</i>

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**RESEARCH  
ASSISTANCE:**

Prof. Dirk Czarnitzki, <i>KU Leuven</i>	<i>2020–2021</i>
Prof. Laurens Cherchye & Prof. Frederic Vermeulen, <i>KU Leuven</i>	<i>2020</i>
Prof. Claudio Agostini & Prof. Ignacio Briones, <i>Universidad Adolfo Ibáñez</i>	<i>2017</i>

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**OTHER  
EXPERIENCE:**

Bureau of Studies and Agricultural Policies, <i>Ministry of Agriculture of Chile</i>	<i>2017–2019</i>
Public Policy Research Center, <i>Pontificia Universidad Católica de Chile</i>	<i>2015–2017</i>
Superintendency of Pensions, <i>Ministry of Work and Social Security of Chile</i>	<i>2015</i>

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**GRANTS:**

Full doctoral scholarship, <i>KU Leuven</i>	<i>2021–2025</i>
European Economic Association's (EEA) travel grant	<i>2023</i>

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**PRESENTATIONS:** 2021: Public-Labour-Health Seminar (Leuven - seminar)  
2022: ECORES Summer School (Leuven); Household Economics Gathering (Brussels); 9th ZEW/MaCCI Conference (Mannheim)  
2023: Trans-Atlantic Doctoral Conference (TADC, London); European Society of Population Economics Conference (ESPE, Belgrade); European Economic Association Conference (EEA-ESEM, Barcelona); European Association of Labour Economists Conference (EALE, Prague); 18th Belgian Day of Labour Economists (BDLE, Brussels)  
2024: Structural Econometrics Group Seminar (Tilburg - seminar); TSE Workshop on the Economics of Education (Toulouse); New Advances in Family Economics Workshop (Paris - poster); Inaugural Conference of the French Association of Population Economists (AFÉPOP, Paris); Scottish Economic Society Conference (SAS, Glasgow); 9th LEER Conference on Education Economics (LEER, Leuven); Applied-Micro Leuven Workshop (Leuven); Household Economics Gathering (Brussels)

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**EDITORIAL SERVICE:** Referee for *Research Policy* (x3), *Economic Modelling*, *Economics of Innovation and New Technology*, *Science and Public Policy*

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**LANGUAGES:** Spanish (native), English (proficient), French (B1)

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**REFERENCES:**

<b>Prof. Laurens Cherchye</b> Full Professor Faculty of Economics and Business KU Leuven <a href="mailto:laurens.cherchye@kuleuven.be">laurens.cherchye@kuleuven.be</a>	<b>Prof. Frederic Vermeulen</b> Full Professor Faculty of Economics and Business KU Leuven <a href="mailto:frederic.vermeulen@kuleuven.be">frederic.vermeulen@kuleuven.be</a>
<b>Prof. Edoardo Ciscato</b> Associate Professor Faculty of Economics and Business KU Leuven <a href="mailto:edoardo.ciscato@kuleuven.be">edoardo.ciscato@kuleuven.be</a>	