

**Research Proposal Outline – Research Methods and Professional Practice –
Michael Geiger**

Project title:

- Comparative study of ideological factors of family care work in capitalist and former communist countries in Europe on the gender pay gap in the technology sector.

Or

- Evaluation of ideological factors of family care work in capitalist and former communist countries in Europe on the gender pay gap in the technology sector.

Significance/contribution to the discipline/research problem:

- Equality between women and men in the central interest of states (Bundesministerium für Familie, Senioren, Frauen und Jugend, 2021).
- A two-digit gender pay gap can still be found in many European countries (Eurostat, 2022).
- With regard to the technology sector, the gender pay gap shows significant differences between the respective countries (European institute for Gender Equality, 2020).
- The technology sector has a steadily growing labour market with a continuous demand for professional workers (Beckert, 2020).

- It has been proven that a mixed working group can achieve better results and have a profitable impact on companies (Rock & Grant, 2016).
- The above-average gender pay gap in the technology sector can contribute to the fact that the technology sector is viewed as an unattractive industry for women and is therefore avoided.
- Therefore, states and companies have a central interest in closing the gender pay gap in the technology sector.
- A decisive factor for the gender pay gap in Germany is the family-related career break of women (Geiger, 2023).
- However, regional differences can be identified with regard to the gender pay gap in Germany.
- Even more than 30 years after the end of the Soviet Union and thus the turning away from communist systems, there are still major differences between West and East Germany in terms of gender pay gaps (Schrenker & Wrohlich, 2022).
- At 19% in 2020, western Germany has an unadjusted gender pay gap that is more than 3 times as high as eastern Germany (Statistisches Bundesamt, 2022).
- The reason for this is suspected to be the different social perception of family care work based on the contrary ideologies that used to prevail (Hobler et al., 2020).
- However, this theory has not yet been confirmed, nor has there been an international comparison to falsify or verify this assumption

Research question:

- Do the former communist countries of Europe show differences in relation to the gender pay gap compared to traditionally capitalist European countries?
- Can the theory of the different social perceptions of family care work between East and West Germany be confirmed as the cause of the prevailing regional differences in the gender pay gaps in the technology sector in an international comparison?

Aims and objectives:

- Identification of outstanding gender pay gap countries in Europe in a positive and negative context.
- Comparison of the gender pay gap rates from countries of the former Soviet Union with capitalist countries.
- Evaluation of the historical development of the gender pay gaps in selected European countries.
- Analysis of statistical significance to verify or falsify the theory in the macroscopic context (all countries combined) and in the microscopic context (selected countries) including horizontal and vertical segregation.

Key literature related to the project:

Introductory literature:

- Fuchs, M., Rossen, A., Weyh, A. & Wydra-Somaggio, G. (2019) Unterschiede in der Lohnlücke erklären sich vor allem durch die Betriebslandschaft vor Ort. Available from: <https://doku.iab.de/kurzber/2019/kb1019.pdf> [Accessed 30 December 2022].
- Schober, P. S. & Stahl, J. F. (2014) Trends in der Kinderbetreuung: sozioökonomische Unterschiede verstärken sich in Ost und West. *DIW Wochenbericht* 81(40): 986-994. Available from: <https://www.econstor.eu/handle/10419/104037> [Accessed 02 January 2023].
- Brainerd, E. (2000) Women in transition: Changes in gender wage differentials in Eastern Europe and the former Soviet Union. *ILR Review* 54(1): 138-162. Available from: <https://journals.sagepub.com/doi/abs/10.1177/001979390005400108> [Accessed 05 January 2023].
- Hamjediers, M. (2021) Can Regional Gender Ideologies Account for Variation of Gender Pay Gaps? The Case of Germany. *Social Sciences*, 10(9): 347. Available from: <https://www.mdpi.com/2076-0760/10/9/347> [Accessed 06 January 2023].
- Anger, C. & Schmidt, J. (2008) Gender Wage Gap und Familienpolitik. *IW-Trends-Vierteljahresschrift zur empirischen Wirtschaftsforschung* 35(2): 55-68. Available from: <https://www.econstor.eu/handle/10419/156951> [Accessed 05 January 2023].
- Newell, A. & Reilly, B. (2001) The gender pay gap in the transition from communism: some empirical evidence. *Economic Systems*, 25(4): 287-304. Available from: <https://www.sciencedirect.com/science/article/pii/S0939362501000280> [Accessed 06 January 2023].

Statistical Literature:

- Eurostat (2022) Gender pay gap in unadjusted form. Available from: https://ec.europa.eu/eurostat/databrowser/view/sdg_05_20/default/table?lang=en [Accessed 07 January 2022].

Survey and Research Analysis:

- Landmesser, J. M., Orłowski, A. J. & Rusek, M. A. (2020) Gender Pay Gap Across the Income Distribution: Analysis for the EU. *Acta Physica Polonica* 138(1). Available from: https://web.archive.org/web/20200916195542id_/http://przyrbwn.icm.edu.pl/A/P/PDF/138/app138z1p05.pdf [Accessed 07 January 2023].
- Zucco, A. (2020). Der Gender Pay Gap in IT-Berufen. *Expertise für den Dritten Gleichstellungsbericht der Bundesregierung*. Available from: <https://www.dritter-gleichstellungsbericht.de/de/article/222.gender-pay-gap.html> [Accessed 15 January 2023].
- Fuchs, M., Rossen, A., Weyh, A. & Wydra-Somaggio, G. (2019) *Why do women earn more than men in some regions? Explaining regional differences in the gender pay gap in Germany* (No. 11/2019). IAB-Discussion Paper. Available from: <https://www.econstor.eu/handle/10419/204859> [Accessed 15 January 2023].
- Gomolka, A. (2018) Gender Pay Gap in the ICT Sector in Poland in 2010-2016. *Economic and Social Development: Book of Proceedings* 813-822. Available from: [https://d1wgtxts1xzle7.cloudfront.net/58010665/Book_of_Proceedings_esdZagreb2018_Online-libre.pdf?1545035913=&response-content-disposition=inline%3B+filename%3DEXAMINING THE EFFECTS OF TRAVEL CONSTRAINTS.pdf&Expires=1672916186&Signature=BWRpXiN9cd7Xu-1d5cTJs~zIPzJX99RsmZklkmq56ZGEioJLEgtG6XH2O8f5ajJOeALFu5W7r0XTpN9WgRn0GAwCj-Ru9C2U6i~Zw0zRVefek4CAtZVN0~h22uk8HHUuQezRiKZt7m2gm9KjpN0HP1r8tiVmoonASg93Yx0goAkq1GC0V5j-WQS-2-SAlgxKb4YBb~IB2-is7jfmzOKtRroQK9cnGYECYUTdrk65vL83wn1V1UIFAZUb3svl0FaSbCDy5GOZmowwyllkYGpWONIXzjaAltN4NCH2nvqIJUN83zgdVR~sYP~m52rS493lOHp2UO0~mm1FpB9BZP-XA_&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA#page=824](https://d1wgtxts1xzle7.cloudfront.net/58010665/Book_of_Proceedings_esdZagreb2018_Online-libre.pdf?1545035913=&response-content-disposition=inline%3B+filename%3DEXAMINING%20THE%20EFFECTS%20OF%20TRAVEL%20CONSTRAINTS.pdf&Expires=1672916186&Signature=BWRpXiN9cd7Xu-1d5cTJs~zIPzJX99RsmZklkmq56ZGEioJLEgtG6XH2O8f5ajJOeALFu5W7r0XTpN9WgRn0GAwCj-Ru9C2U6i~Zw0zRVefek4CAtZVN0~h22uk8HHUuQezRiKZt7m2gm9KjpN0HP1r8tiVmoonASg93Yx0goAkq1GC0V5j-WQS-2-SAlgxKb4YBb~IB2-is7jfmzOKtRroQK9cnGYECYUTdrk65vL83wn1V1UIFAZUb3svl0FaSbCDy5GOZmowwyllkYGpWONIXzjaAltN4NCH2nvqIJUN83zgdVR~sYP~m52rS493lOHp2UO0~mm1FpB9BZP-XA_&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA#page=824) [Accessed 05 January 2023].
- Kowalczyk, A. K. (2021) GENDER WAGE INEQUALITIES. ANALYSIS AND COMPARISON OF THE SITUATION IN POLAND AND ITALY IN THE LAST DECADE. Available from: <https://tesi.univpm.it/bitstream/20.500.12075/7269/1/Kowalczyk%20-%20MASTER.pdf> [Accessed 07 January 2023].
- Boll, C. & Lagemann, A. (2019) The gender pay gap in EU countries—new evidence based on EU-SES 2014 data. *Intereconomics* 54(2): 101-105. Available from: <https://link.springer.com/article/10.1007/s10272-019-0802-7> [Accessed 07 January 2023].

- Cukrowska-Torzewska, E. & Lovasz, A. (2020) The role of parenthood in shaping the gender wage gap—A comparative analysis of 26 European countries. *Social Science Research* 85: 102355. Available from: <https://www.sciencedirect.com/science/article/pii/S0049089X19302686> [Accessed 14 January 2023].
- Vasilescu, M. D., Dimian, G. C. & Cristescu, A. (2019) Analysis of the perception about the gender pay gap in the EU Member States. *Proceedings of the International Conference on Applied Statistics* 1(1): 512-521. Available from: <https://sciendo.com/article/10.2478/icas-2019-0045> [Accessed 14 January 2023].
- Meurs, D., Pailhé, A. & Ponthieux, S. (2010) Child-related career interruptions and the gender wage gap in France. *Annals of Economics and Statistics* 15-46. Available from: <https://www.jstor.org/stable/41219158> [Accessed 14 January 2023].
- Coudin, E., Maillard, S. & Tô, M. (2018) *Family, firms and the gender wage gap in France* (No. W18/01). IFS Working Papers. Available from: <https://www.econstor.eu/handle/10419/200290> [Accessed 15 January 2023].
- Christofides, L. N., Polycarpou, A. & Vrachimis, K. (2010) The gender wage gaps, 'sticky floors' and 'glass ceilings' of the European Union. Available from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1638480 [Accessed 05 January 2023].
- Moreno-Galbés, E. & Wolff, F. C. (2008) New technologies and the gender wage gap: Evidence from France. *Relations Industrielles/Industrial Relations* 63(2): 317-339. Available from: <https://www.erudit.org/en/journals/ri/1900-v1-n1-ri2346/018578ar/abstract/> [Accessed 15 January 2023].

Methodology/development strategy/research design:

- Conceptual approach
- Inductive reasoning
- Exploratory research
- Mixed Method research: Quantitative examination of statistical data as a confirmation of assumption; Qualitative examination of existing Surveys and Literature to evaluate evidence.

Ethical considerations and risk assessment:

- Results could be distorted by a generalized view.
 - ➔ Reflected handling of statistical values and distinction between necessary and sufficient justification.

- Apparently valid results could be superimposed by unconsidered dominant factors.

- There may be regional differences within the respective countries (as is the case in Germany).

- Evaluation of the literature could lead to contrary conclusions.
 - ➔ Detailed discussion and qualitative assessment of the significance of the results is therefore absolutely necessary.

- A targeted demarcation in the literature evaluation in relation to the gender pay gap in general and explicitly in the technology sector could be difficult.
 - ➔ Transparent evaluation and goal-oriented discussion necessary.

- Validity problems and data overload

Description of artefacts:

- Statistical (quantitative) evaluation of the European gender pay gaps considering the capitalist and former communist states.
- Qualitative structuring of the existing literature and analysis of the focal points found in relation to the gender pay gap in the technology sector.
- Qualitative investigation of ideological differences in child care and its impact on the gender pay gap in the technology sector.

Timeline of proposed activities:

Classification and structuring of the literature → 2 Weeks

Quantitative analysis and statistical evaluation → 1 Week

Qualitative analysis → 2 Weeks

Creation of an outline/first draft → 1 Week

Potential further literature research to close open gaps → 1 Week

Evaluation of the research results and creation of the research paper → 8 Weeks

Revision and correction → 2 Weeks

References:

- Anger, C. & Schmidt, J. (2008) Gender Wage Gap und Familienpolitik. *IW-Trends-Vierteljahresschrift zur empirischen Wirtschaftsforschung* 35(2): 55-68. Available from: <https://www.econstor.eu/handle/10419/156951> [Accessed 14 January 2023].
- Beckert, F. (2020) Gender Diversity in der Tech-Branche: Warum Frauen nach wie vor unterrepräsentiert sind. Verlag Barbara Budrich. Available from: <https://library.oapen.org/handle/20.500.12657/43312> [Accessed 05 January 2023].
- Boll, C. & Lagemann, A. (2019) The gender pay gap in EU countries—new evidence based on EU-SES 2014 data. *Intereconomics* 54(2): 101-105. Available from: <https://link.springer.com/article/10.1007/s10272-019-0802-7> [Accessed 07 January 2023].
- Brainerd, E. (2000) Women in transition: Changes in gender wage differentials in Eastern Europe and the former Soviet Union. *ILR Review* 54(1): 138-162. Available from: <https://journals.sagepub.com/doi/abs/10.1177/001979390005400108> [Accessed 05 January 2023].
- Bundesministerium für Familie, Senioren, Frauen und Jugend (2021) VN-Freunrechtskonvention (CEDAW): Staatenberichtsverfahren und Dokumente. Available from: <https://www.bmfsfj.de/bmfsfj/themen/gleichstellung/internationale-gleichstellungspolitik/vn-frauenrechtskonvention-cedaw-staatenberichtsverfahren-und-dokumente-80794> [Accessed 03 January 2023].
- Christofides, L. N., Polycarpou, A. & Vrachimis, K. (2010) The gender wage gaps, 'sticky floors' and 'glass ceilings' of the European Union. Available from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1638480 [Accessed 05 January 2023].
- Coudin, E., Maillard, S. & Tô, M. (2018) *Family, firms and the gender wage gap in France* (No. W18/01). IFS Working Papers. Available from: <https://www.econstor.eu/handle/10419/200290> [Accessed 15 January 2023].
- Cukrowska-Torzewska, E. & Lovasz, A. (2020) The role of parenthood in shaping the gender wage gap—A comparative analysis of 26 European countries. *Social Science Research* 85: 102355. Available from: <https://www.sciencedirect.com/science/article/pii/S0049089X19302686> [Accessed 14 January 2023].
- European Institute for Gender Equality (2020) Gender Equality Index 2020: Digitalisation and the future of work. Available from: <https://eige.europa.eu/publications/gender-equality-index-2020-report/gender-pay-gap-ict-and-platform-work> [Accessed 02 January 2023].

Eurostat (2022) Gender pay gap in unadjusted form. Available from: https://ec.europa.eu/eurostat/databrowser/view/sdg_05_20/default/table?lang=en [Accessed 02 January 2023].

Eurostat (2022) Gender pay gap in unadjusted form. Available from: https://ec.europa.eu/eurostat/databrowser/view/sdg_05_20/default/table?lang=en [Accessed 07 January 2022].

Fuchs, M., Rossen, A., Weyh, A. & Wydra-Somaggio, G. (2019) Unterschiede in der Lohnlücke erklären sich vor allem durch die Betriebslandschaft vor Ort. Available from: <https://doku.iab.de/kurzber/2019/kb1019.pdf> [Accessed 30 December 2022].

Fuchs, M., Rossen, A., Weyh, A. & Wydra-Somaggio, G. (2019) *Why do women earn more than men in some regions? Explaining regional differences in the gender pay gap in Germany* (No. 11/2019). IAB-Discussion Paper. Available from: <https://www.econstor.eu/handle/10419/204859> [Accessed 15 January 2023].

Geiger, M. (2023) What is the gender pay gap in the technology sector in Germany? Available from: <https://mgeiger94.github.io/MSc-Cybersecurity-E-Portfolio/Artefacts/Reserach Methods and Professional Practice/Literature%20Review Michael%20Geiger.pdf> [Accessed 05 January 2023].

Gomolka, A. (2018) Gender Pay Gap in the ICT Sector in Poland in 2010-2016. *Economic and Social Development: Book of Proceedings* 813-822. Available from: https://d1wqtxts1xzle7.cloudfront.net/58010665/Book_of_Proceedings_esdZagreb2018_Online-libre.pdf?1545035913=&response-content-disposition=inline%3B+filename%3DEXAMINING_THE_EFFECTS_OF_TRAVEL_CONSTRAI.pdf&Expires=1672916186&Signature=BWRpXiN9cd7Xu-1d5cTJs~zIPzJX99RsmZklkmq56ZGEioJLEqtG6XH2O8f5ajJOeALFu5W7r0XTpN9WgRn0GAwCj-Ru9C2U6i~Zw0zRVefek4CAtZVN0~h22uk8HHUuQezRiKZt7m2gm9KjpN0HP1r8tiVmoonASg93Yx0qoAkq1GC0V5j-WQS-2-SAlgxKb4YBb~IB2-is7jfmzOKtRroQK9cnGYECYUTdrk65vL83wn1V1UIFAZUb3svl0FaSbCDy5GOZmowwylIlkYGpWONIXziaAltN4NCH2nvqIJUN83zgdVR~sYP~m52rS493l0Hp2UO0~mm1FpB9BZP-XA &Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA#page=824 [Accessed 05 January 2023].

Hamjediers, M. (2021) Can Regional Gender Ideologies Account for Variation of Gender Pay Gaps? The Case of Germany. *Social Sciences*, 10(9): 347. Available from: <https://www.mdpi.com/2076-0760/10/9/347> [Accessed 06 January 2023].

Hobler, D., Pfahl, S. & Zucco, A. (2020). *30 Jahre Deutsche Einheit: Gleichstellung von Frauen und Männern auf den Arbeitsmärkten in West-und Ostdeutschland?*. WSI Report. Available from: <https://www.econstor.eu/handle/10419/225423> [Accessed 03 January 2023].

Kowalczyk, A. K. (2021) GENDER WAGE INEQUALITIES. ANALYSIS AND COMPARISON OF THE SITUATION IN POLAND AND ITALY IN THE LAST DECADE. Available from:

<https://tesi.univpm.it/bitstream/20.500.12075/7269/1/Kowalczyk%20-%20MASTER.pdf> [Accessed 07 January 2023].

Landmesser, J. M., Orłowski, A. J. & Rusek, M. A. (2020) Gender Pay Gap Across the Income Distribution: Analysis for the EU. *Acta Physica Polonica* 138(1). Available from:

https://web.archive.org/web/20200916195542id_/http://przyrbwn.icm.edu.pl/APP/PDF/138/app138z1p05.pdf [Accessed 07 January 2023].

Meurs, D., Pailhé, A. & Ponthieux, S. (2010) Child-related career interruptions and the gender wage gap in France. *Annals of Economics and Statistics* 15-46. Available from: <https://www.jstor.org/stable/41219158> [Accessed 14 January 2023].

Moreno-Galbis, E. & Wolff, F. C. (2008) New technologies and the gender wage gap: Evidence from France. *Relations Industrielles/Industrial Relations* 63(2): 317-339.

Available from: <https://www.erudit.org/en/journals/ri/1900-v1-n1-ri2346/018578ar/abstract/> [Accessed 15 January 2023].

Newell, A. & Reilly, B. (2001) The gender pay gap in the transition from communism: some empirical evidence. *Economic Systems*, 25(4): 287-304. Available from:

<https://www.sciencedirect.com/science/article/pii/S0939362501000280> [Accessed 06 January 2023].

Rock, D. & Grant, H. (2016) Why diverse teams are smarter. *Harvard Business Review* 4(4): 2-5. Available from:

<https://www.agileleanhouse.com/lib/lib/Topics/Teams/Why%20Diverse%20Teams%20Are%20Smarter.pdf> [Accessed 07 January 2023].

Schober, P. S. & Stahl, J. F. (2014) Trends in der Kinderbetreuung: sozioökonomische Unterschiede verstärken sich in Ost und West. *DIW Wochenbericht* 81(40): 986-994. Available from:

<https://www.econstor.eu/handle/10419/104037> [Accessed 02 January 2023].

Schrenker, A. & Wrohlich, K. (2022) Der Gender Pay Gap ist in den letzten 30 Jahren fast nur bei Jüngeren gesunken. DIW Berlin. Available from:

https://www.diw.de/de/diw_01.c.836567.de/publikationen/wochenberichte/2022_09_3/gender_pay_gap_ist_in_den_letzten_30_jahren_fast_nur_bei_juengeren_gesunken.html [Accessed 04 January 2023].

Statistisches Bundesamt (2022) Pressemitteilung Nr. 088 vom 7. März 2022. Available from:

https://www.destatis.de/DE/Presse/Pressemitteilungen/2022/03/PD22_088_621.html [Accessed 07 January 2023].

Vasilescu, M. D., Dimian, G. C. & Cristescu, A. (2019) Analysis of the perception about the gender pay gap in the EU Member States. *Proceedings of the International Conference on Applied Statistics* 1(1): 512-521. Available from: <https://sciendo.com/article/10.2478/icas-2019-0045> [Accessed 14 January 2023].

Zucco, A. (2020) Der Gender Pay Gap in IT-Berufen. *Expertise für den Dritten Gleichstellungsbericht der Bundesregierung*. Available from: <https://www.dritter-gleichstellungsbericht.de/de/article/222.gender-pay-gap.html> [Accessed 15 January 2023].