Why women leave academia: A longitudinal study of the leaky pipeline in German sociology

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Abstract

The metaphor of a "leaky pipeline" is often used to describe the disproportionate loss of women at successive stages of academic careers, yet surprisingly little empirical evidence exists on actual academic attrition. This study fills this gap by employing an original longitudinal panel design tracking nearly the entire population of sociologists in Germany from 1980 to 2022. Applying Cox regression models to career histories, the analysis examines gender differences among sociologists who exited academia since 2013. The *within-gender* findings show that women are more likely to leave academia during the pre-doctoral stage and face a higher risk of leaving academia when they have children—patterns not observed among men. Importantly, the *between-gender* findings reveal that women with comparable scientific capital to men face a 35% higher risk of leaving academia, a disparity that cannot be explained by differences in parenthood, career stage, productivity, or academic recognition.

Keywords: academic careers, gender inequality, leaky pipeline, higher education, leaving academia, attrition and retention

1 Introduction

There is broad consensus that a disproportionate number of women leave academic careers before attaining tenure, a phenomenon commonly described as the "leaky pipeline" (e.g., Goulden et al., 2009; Long, 2001; Schubert & Engelage, 2011). Although scholars widely acknowledge this pattern, they offer differing explanations for the gradual attrition of women from academia. These include the challenges of balancing family responsibilities with academic careers, productivity gaps, or systemic disadvantages within academic environments. Empirical studies support these explanations, showing that female academics in Germany are less likely than men to have children (for sociology, see Lutter & Schröder, 2020, p. 447; Rusconi & Solga, 2011, p. 18), publish less (e.g., Cole & Zuckerman, 1984; Long, 1992; Schubert & Engelage, 2011; Schucan Bird, 2011), express lower career ambitions (Berweger & Keller, 2005; Evers & Sieverding, 2015), are excluded from "old boy" networks that confer labor market advantages (McDonald, 2011), or receive fewer rewards for their work (Cohen & Huffman, 2003; Lincoln et al., 2012; Rossiter, 1993). However, more recent research has reported fewer disadvantages for women in academia (Bol et al., 2022; Carlsson et al., 2021; Mason et al., 2013, p. 43; Schubert & Engelage, 2011; Silander et al., 2013, p. 185; Solga et al., 2023) raising the question: do earlier studies merely reflect a snapshot of the past or are there still enduring differences that drive women out of academia?

To address these inconsistent findings, this study focuses on female sociologists in German academia to examine whether—and why—they continue to face structural barriers along their career paths. Specifically, we aim to answer two research questions: *(Q1) Do women leave academia more often than men, and if so, why? (between-gender perspective),* and *(Q2) Which groups of women are more likely to leave academia? (within-gender perspective)*. Research on this "leaky pipeline"-phenomenon remains limited. One reason for this is that it is difficult to account for scholars who have already left academia. Most studies therefore focus solely on those who remain *within* academic institutions, leaving unanswered who *exited academia*—an omission that likely results in a so-called "survivorship bias" in their findings (for a critical discussion, see Habicht et al., 2024). To overcome this limitation, some scholars have used qualitative approaches, such

as interviews with women in STEMM fields (Christian et al., 2021), while others use career intentions as proxies for potential leavers (Dorenkamp & Weiß, 2018; Evers & Sieverding, 2015). A notable study tracked the careers of Japanese PhDs over 20 years until they left academia but excluded the social sciences (Geuna & Shibayama, 2015). The most recent and comprehensive study to date by Kwiek and Szymula (2024) tracked academic careers across 38 OECD countries using a longitudinal, cohort-based design across 16 STEMM disciplines—but similarly excluded the social sciences. In the German context, Jaksztat, Neugebauer and Brandt (2021) examined dropout during doctoral education but only until PhD completion. To our knowledge, no comparable longitudinal research on academic attrition across successive career stages (pre- and post-doc) exists for Germany.

To fill this research gap and investigate who leaves academia and why, we use an original longitudinal research design. Improving on prior studies, this project tracks the virtually complete population of sociologists at German universities across their career trajectories. We assembled a four-wave longitudinal dataset (data collected in 2013, 2016, 2019, and 2022) to follow academic cohorts retrospectively and to prospectively focus on sociologists who exited academic careers since 2013 for reasons other than retirement.

2 Why (do) women leave academia at higher rates than men?

Research consistently indicates that women leave academic careers at disproportionately higher rates before attaining tenure, a phenomenon commonly described as the "leaky pipeline" (Alper & Gibbons, 1993; Ceci & Williams, 2011; Ceci et al., 2009; Goulden et al., 2009; Goulden et al., 2011; Jaksztat et al., 2021; Kwiek & Szymula, 2024; Long, 2001). This pattern is also reflected in aggregate statistics for German sociology, which show that women are overrepresented at the student level (e.g., 75% of sociology students in 2023/2024) but become progressively underrepresented at higher academic ranks (e.g., only 34% of

sociology professorships are held by women).[1] Against this backdrop, our starting point is to test whether this higher dropout risk in German academia is also observable in disaggregated individual-level data for sociologists:

H1: Consistent with the leaky pipeline metaphor, women are more likely to leave academia than men.

However, aggregate statistics alone cannot explain *why* women leave academia at higher rates. To address this, we next turn to theories of gendered work–family conflict and structural barriers in academic careers to explore the underlying mechanisms. We examine the reasons contributing to women's higher attrition (Q1) and explore how these may be linked to motherhood (Section 2.1), institutional constraints in academic careers (Section 2.2), publication productivity (Section 2.3), or unequal academic recognition (Section 2.4).

2.1 Motherhood and gendered attrition and in the academic labor market

One of the most frequently cited reasons for women's disproportionate attrition from academia is motherhood—particularly the impact of marriage and childbirth (Goulden et al., 2011). Women experience more work–family conflict due to persistent gender norms that assign them primary caregiver responsibilities. As a result, women often continue to shoulder the majority of childcare, which can force them to shift academic work to nonstandard hours, which reduces opportunities not only for sustained research engagement, but also for networking opportunities and professional visibility (Monroe et al., 2008, p. 231). Based on this, we propose the following hypothesis:

H2: Women with children are more likely to leave academia.

Some studies, however, have found no significant disparities in working hours between female and male social scientists once they become parents (Ceci et al., 2014, p. 109). Consequently, our study builds on and extends this literature by explicitly testing this hypothesis within the context of German sociology.

[1] See Statistisches Bundesamt (Destatis), GENESIS-Online (https://www-genesis.destatis.de/datenbank/online), Tables 21311-0012, 21352-0003, 21351-0001, and 21341-0003, retrieved on 23 April 2025.

2.2 Gender attrition due to institutional constraints in academic careers

A second driver of gendered attrition in academia lies in the institutional constraints of the German academic system, which create structural barriers that disproportionally affect women. Early career stages—particularly the doctoral and postdoctoral phases—are characterized by fixed-term contracts, intense competition, and high levels of uncertainty. One major constraint is the legal requirement that researchers complete their doctorate within six years, and their doctorate plus their postdoctoral qualification (i.e., *habilitation*) within a strict 12-year period to remain eligible for tenure. Although this statutory cap can be extended by two years per child that a researcher has, it still places considerable pressure on researchers during a life phase in which many consider starting a family (e.g., Baader et al., 2017).

The structural demands of academic careers—such as international mobility, sustained publication output, and full-time availability—often conflict with caregiving responsibilities, but more broadly, they reinforce gendered barriers to long-term academic participation. These constraints disproportionately affect women, not only because they are more often responsible for caregiving, but also because they face greater obstacles in navigating institutional hierarchies and long-term career planning.

Empirical studies support this pattern. Jaksztat et al. (2021) report that women in general are more likely to discontinue their doctoral studies (Jaksztat et al., 2021). Similarly, Habicht et al. (2024) show descriptively that female sociologists are more likely to drop out at the pre-doctoral stage than at the postdoctoral stage, whereas male sociologists tend to leave academia at the subsequent postdoctoral stage. This suggests that anticipated constraints in later academic phases may discourage women from further investing in early-career academic tracks. From this, we derive the next hypothesis:

H3: Women are more likely to leave academia during the pre-doctoral stage.

Yet, alternative interpretations challenge this hypothesis. Hillmert (2003) found that although men and women graduate at similar ages, women take significantly longer to achieve doctoral and postdoctoral qualifications (for similar findings, see Long et al., 1993). This raises the question of whether observed

gender gaps at later stages reflect actual attrition or instead delayed progression—and at point in the pipeline women are most at risk of existing academia.

2.3 Gender differences in publishing

While institutional constraints can shape gendered career trajectories, performance-based metrics—especially publication output—ultimately determine who advances in academia promotion (for an early and general perspective, see Long et al., 1993; for evidence in German sociology, see Habicht et al., 2024; Jungbauer-Gans & Gross, 2013; Lutter & Schröder, 2016). Yet these very same determinants of academic success may also function as mechanisms of exclusion, pushing scholars out of the system if they are unable to meet performance benchmarks.

Empirical studies have consistently documented that women publish less than men—a persistent gender gap that may now be widening further due to the predominately male use of AI tools (Tang et al., 2025)—leading not only to lower publication output but consequently to reduced academic visibility (e.g., Cole & Zuckerman, 1984; Long, 1992; Schubert & Engelage, 2011; Schucan Bird, 2011). We therefore derive the following hypothesis:

H4: Women who publish less are more likely to leave academia.

Lower research productivity may be the result from parenting responsibilities. Fox (2005) finds that the impact of parenthood on productivity varies depending on factors such as the age of children and the selectivity of scholars, suggesting that only highly productive scholars may choose to have children (see also Hunter & Leahey, 2010). Similar findings of a "performance-driven" self-selection effect are reported by Lutter and Schröder (2020), who show that productivity differences partly reflect selection effects rather than direct penalties. In our study, we can disentangle these explanations by testing whether women are more likely to leave academia because they have children, because they publish less regardless of them having children, or whether both factors contribute simultaneously.

2.4 Gender differences in academic rewards

Disparities in scholarly recognition and reward structures constitute another mechanism behind gendered career advancement and attrition. Women may be less likely to receive prestigious grants, awards, and other forms of scholarly recognition (Bornmann et al., 2007; Lincoln et al., 2012). This phenomenon is widely referred to as the *"Matilda effect"*—a term introduced by Rossiter (1993) to describe the systematic undervaluation of women's scientific contributions through their misattribution to male colleagues. While the *"Matthew effect"* described by Merton (1968, 1988) highlights that already successful researchers cumulate advantages, the Matilda effect illustrates how cumulative disadvantage disproportionately affects women. This devaluation of women's work (e.g., Long & Fox, 1995; Magnusson, 2008; Ochsenfeld, 2014) may contribute to attrition in academia, as long-term careers are built on the recognition of academic merits. This leads to our last hypothesis:

H5: Women who receive fewer rewards—in the form of grants and scholarly awards—are more likely to leave academia.

However, more recent evidence challenges earlier findings on structural disadvantages (for an overview, see Ceci et al., 2014, pp. 112–115 as well as Schmaling & Gallo, 2023). More specifically, Bol et al. (2022) find no disadvantage for women in award allocation. Similarly, Lutter et al. (2022) show that in German academia, women are not less likely to be rewarded for their scientific achievements—indicating no empirical evidence of devaluation. These findings call into question the persistence of the Matilda effect and suggest that gendered patterns of academic recognition may have changed over time. We therefore seek to contribute to this ongoing debate by examining whether current gender differences in scholarly recognition still drive attrition—or whether other mechanisms are now more relevant.

3 Data and Methods

3.1 Study design

This study draws on a unique longitudinal dataset covering the virtually complete population of sociologists working at German universities at four time points: 2013, 2016, 2019, and 2022. The initial data collection in 2013 involved student assistants compiling CVs and publication records of sociologists from departmental websites. Inclusion was limited to researchers with a) at least one publication and who b) obtained their PhD after 1980.

In 2016, the research team updated all existing records, added new researchers, and, crucially, flagged individuals who left academia since the last coding wave. This procedure was repeated in 2019 and 2022, allowing us to identify "academic leavers" since the initial wave in 2013. We define academic exit as a scholar no longer being affiliated with a university or research institution in Germany or abroad, in the sense of no longer being publicly visible through institutional websites or research profiles. To supplement the institutional data, we conducted follow-up email surveys to collect information on parental status. This yielded child-related data for approximately 57% of sociologists in the data set.

3.2 Methods and variables

To examine the timing of exits from academia, we employed event history analysis, specifically Cox regression models (Allison, 2014; Cox, 1972). This approach is particularly suited for right-censored data, where the event (academic exit) may not yet have occurred with the end of the observation window in 2022. The analytical sample includes 2,689 sociologists with a total of 62,133 publication-years, among whom 345 sociologist (13%) exited academia between 2013 and 2022.

To answer *Q1* (*Do women leave academia more often than men, and if so, why?*), we adopt a between-gender perspective. To directly compare female and male sociologists, we begin by introducing a gender

dummy variable (*female*) in Model 1 to test the leaky pipeline empirically. Our modeling strategy follows a hierarchical (also known as sequential) regression approach, where each subsequent model includes additional variables to assess how much of the initial gender effect remains after accounting for other factors. In Model 2, we add therefore a time-varying categorical variable for parenthood (0 = childless [ref.], 1 = *with children*, 2 = missing information, with the latter category used to address potential non-response bias).[2] Model 3 distinguishes between *pre-doctoral* and post-doctoral career stages using a time-varying indicator. Model 4 incorporates measures of research productivity through time-varying indicators for six types of *publications*: (1) number of articles indexed in the Social Science Citation Index (SSCI) and Science Citation Index Expanded (SCIE); (2) non-SSCI/SCIE journal articles; (3) monographs; (4) edited volumes; (5) book chapters; (6) and gray literature, such as working papers, reports, or newspaper articles.[3] Model 5 additionally includes two indicators of academic recognition: number of *awards* (collected from CVs) and number of research *grants*. Grant data were obtained from the German Research Foundation (*Deutsche Forschungsgemeinschaft, DFG*), the country's most prominent research funding body. To ensure our findings are not biased by other confounders in female and male academic careers, Model 6 introduces additional controls capturing various forms of *scientific capital* based on other observable CV characteristics: educational background, international experience, career mobility, co-authorship networks, and academic cohorts.

To answer Q2 (*Which groups of women are more likely to leave academia?*), we adopt a within-gender perspective by replicating the analyses separately for women and men. This allows us to examine whether the hypotheses also hold when comparing characteristics among women themselves—for example, whether mothers are more likely to leave academia than childless women. In doing so, we provide a more in-depth

[2] As robustness checks, we also ran models separately for survey respondents and non-respondents (see Table A6, Models 3-5).
[3] To account for co-author-adjusted publication outputs, we weighted each publication by the number of authors n, applying the formula: $2/(n+1)$.

perspective on the leaky pipeline puzzle, complementing the between-gender comparison of female and male sociologists.

To normalize skewed distributions and account for diminishing marginal returns, we log-transformed all continuous variables related to scientific productivity and recognition, that is, publications, awards, and grants. This reflects the theoretical assumption that additional achievements yield progressively smaller returns in academic capital. We then calculated the *relative performance* compared to peers for each year in academia using the following formula: $e^{-log\ difference}$. A log difference of 1 reflects a roughly 63% lower output relative to the peer group average, with larger log differences representing increasingly pronounced underperformance. The log scale thus enables more meaningful comparisons across individuals at different productivity levels and allows us to model how varying degrees of underperformance relate to the risk of leaving academia.

4 Results

4.1 Bivariate findings: Academic leavers versus remainers

Table 1 presents bivariate statistics for individuals in sociology who either left academia ("leavers") or remained in an academic career ("remainers") between 2013 and 2022. On average, leavers exited the academic track after 6.8 years, which closely aligns with the maximum fixed-term period for doctoral qualification under German academic law. To enable meaningful comparisons, remainers were selected based on equivalent career durations—averaging 7.4 years—providing a matched temporal reference point. A full summary of descriptive statistics, including all dimensions of scientific capital, is available in Appendix Tables A1–A4.

Table 1. Summary statistics of leavers (L) at time of exit vs. remainers (R) at equivalent years.

	Remainer	Mean(R)	Leaver	Mean(L)	Min(L)	Max(L)	Dif	p
Years to exit	1701	7.38	341	6.75	1	34.47	.63	***
Female	1701	0.45	341	.53	0	1	-.08	*
Parents	1129	0.36	179	.39	0	1	-.03	
No. of children	1129	0.55	179	.63	0	3	-.08	
Pre-doc	1701	0.87	341	.45	0	1	.42	***
SSCI/SCIE articles	1701	0.89	341	.48	0	7	.41	***
Non-SSCI articles	1701	1.53	341	1.02	0	21.33	.51	***
Monographs	1701	0.62	341	.53	0	9.67	.09	+
Edited volumes	1701	0.22	341	.17	0	3.5	.05	
Book chapters	1701	2.49	341	2.57	0	38.07	-.08	
Gray literature	1701	2.03	341	1.92	0	28.33	.1	
Awards	1701	0.21	341	.08	0	3	.13	***
Grants	1701	0.06	341	.02	0	1	.04	*

Note: Only cases with complete publication lists included. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 1 suggests that women are slightly more likely to leave academia: 53% of the leavers are women, compared to 45% among the remainers. Parenthood shows only minor and statistically non-significant differences between groups: 39% of leavers and 36% of remainers have children. However, among parents, those who leave academia have, on average, more children than their peers who remain. Notably, both groups tend to remain childless for the first 6 years in academia.

When examining academic progression, the data show that 87% of remainers have completed their PhD by the time of observation, indicating that most have already transitioned to the postdoctoral stage. Among leavers, however, only 45% have completed their doctorate, suggesting that the majority exit academia while still in the pre-doctoral phase. This pattern implies that the pre-doctoral stage may represent a particularly critical juncture for academic attrition.

Regarding research productivity, remainers have published more on average across nearly all publication types. While differences in book chapters are not statistically significant, remainers have produced 85% more SSCI/SCIE-indexed journal articles, 50% more non-indexed articles, and 17% more monographs. Similar patterns are found in grant acquisition and recognition: remainers have received 163% more DFG grants and 200% more scholarly awards than leavers. However, at the observed career stage, most early-career researchers have only just become eligible to apply for competitive grants such as those from the

DFG, since a completed PhD is typically a prerequisite. Accordingly, more than 90% of the sample had not yet received a DFG grant. Likewise, at least 75% of the full sample had not received any academic award, reflecting the early career timing of the observation period (see Appendix A3 – A4).

Table 2. Summary statistics of leavers at time of exit vs. remainers at equivalent years by gender.

	Male				t-test R_m vs. L_m	Female				t-test R_f vs. L_f
	Remainer		Leaver			Remainer		Leaver		
	N	Mean	N	Mean		N	Mean	N	Mean	
Years to exit	896	7.84	160	7.06	***	772	7.28	181	6.48	***
Parents	592	0.39	79	0.37		523	0.35	100	0.41	
No. of children	592	0.62	79	0.57		523	0.50	100	0.68	*
Pre-doc	896	0.89	160	0.50	***	772	0.86	181	0.40	***
SSCI/SCIE articles	896	1.11	160	0.54	***	772	0.72	181	0.43	***
Non-SSCI articles	896	1.79	160	1.14	***	772	1.28	181	0.91	*
Monographs	896	0.73	160	0.57	*	772	0.52	181	0.49	
Edited volumes	896	0.27	160	0.15	*	772	0.18	181	0.20	
Book chapters	896	2.76	160	2.75		772	2.30	181	2.42	
Gray literature	896	2.25	160	2.21		772	1.88	181	1.67	
Awards	896	0.22	160	0.07	*	772	0.20	181	0.08	*
Grants	896	0.07	160	0.02	*	772	0.06	181	0.02	*

Note: Only cases with complete publication lists included. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 2 complements the previous descriptives by presenting separate results for male and female sociologists. Overall, the remainer-leaver-patterns observed in Table 1 are largely confirmed across both gender groups, with only minor exceptions.

One notable exception concerns the number of children. While the overall share of parents is very similar among men and women, the number of children differs by career track and gender: Among men, those who remain in academia have more children on average than their male peers who leave. In contrast, among women, the opposite pattern emerges: female leavers tend to have more children on average than female remainers. This may suggest that it is not parenthood per se, but the number of children that increases the likelihood of women leaving academia—an effect not observed among men.

Also, the ratio of individuals in the pre-doctoral and post-doctoral stages further supports previous findings: among remainers, approximately twice as many sociologists have already reached the post-doctoral stage

compared to leavers. However, across both groups, women are underrepresented at the post-doctoral stage compared to men.

With regard to publication output, grants, and awards, the remainer–leaver pattern persists across both genders: individuals who remain in academia consistently outperform those who leave in terms of academic productivity and recognition. However, when disaggregated by gender, another persistent inequality emerges—women publish less on average than men, regardless of whether they stay or leave academia. This publishing behavior across individual years in academia, separately for remainers and leavers by gender, is reflected in the overall number of publications shown in Figure B in the Appendix.

4.2 Cox regression analyses

4.2.1 Do women leave academia more often than men, and if so, why?

We conducted Cox regression analyses to test our hypotheses, examining differences by gender, parenthood, career stages, productivity, and academic rewards. Table 3 includes the variables stepwise (see Appendix A5 for full results). The coefficients can be interpreted as follows: coefficients above 1 indicate by how much a factor *increases* the risk of leaving an academic career in sociology, whereas coefficients below 1 indicate by how much a factors *reduces* this risk.

In line with the leaky pipeline and our first hypothesis, Model 1 in Table 3 includes only gender as a predictor and shows that women face a statistically significant 43% higher risk of leaving academia compared to men. This finding confirms the initial existence of a gender gap in attrition risk, thus the "leaky pipeline" (H1).

Table 3. Cox regression models on leaving academia.

	(1)	(2)	(3)	(4)	(5)	(6)
Female	1.43**	1.43***	1.40**	1.38**	1.41**	1.35**
	(3.27)	(3.32)	(3.14)	(2.92)	(3.08)	(2.70)
Explanatory factors						
Children		X	X	X	X	X
Career stage			X	X	X	X
Publications				X	X	X
Awards and grants					X	X
Controls						X
Pseudo R2	0.00	0.01	0.01	0.02	0.02	0.07
Log-likelihood	-2549.77	-2539.45	-2522.10	-2508.35	-2503.16	-2380.80
Degrees of freedom	1	3	4	10	12	23
Chi2	10.71	32.50	60.37	87.92	100.49	283.38
AIC	5101.55	5084.89	5052.21	5036.70	5030.32	4807.61
BIC	5110.58	5112.00	5088.36	5127.07	5138.77	5015.46
Number of events (exits)	345	345	345	345	345	345
N (persons)	2,689	2,689	2,689	2,689	2,689	2,689
N (persons-publications)	62,133	62,133	62,133	62,133	62,133	62,133

Exponentiated coefficients (hazard ratios); t statistics in parentheses; ln = logged values.
+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001.
Control variables: doctoral degree from a German university of excellence or from abroad, number of international publications, months spent abroad, institutional mobility, interim professorships, number of co-authors, selected publication lists, and academic cohort.

To assess whether this gender gap can be explained by gendered family responsibilities—such as motherhood and the unequal burden of care—Model 2 introduced a time-varying variable for parenthood. Yet, the net gender effect remains virtually unchanged, offering no support for Hypothesis 2. In other words, women's higher dropout risk cannot be solely attributed to whether they have children or not.

Model 3 tests Hypothesis 3—whether women are more likely to leave academia at earlier academic career stages compared to men. To examine this, we include a time-varying variable for academic stage. If the predoctoral stage were a critical exit point specifically for women—but not for men—and thus explained why women are more likely to leave academia overall, we would expect the inclusion of this variable to reduce the gender effect. However, the gender gap remains statistically significant at 40%, indicating that even when accounting for career stage, women are more likely than men to leave academia. Thus, Hypothesis 3 is not supported: career stage does not explain the observed gender gap in attrition risk.

Model 4 shifts focus to scholarly productivity. We test whether women's higher dropout risk reflects lower research output in terms of different types of publications. If only less productive women were leaving but

not less productive men, this could explain the net gender effect. Yet, after controlling for six types of publication output**,** the gender gap remains statistically significant at 38%. This finding suggests that productivity differences alone do not account for the gender disparity, and Hypothesis 4 cannot be supported.

Next, Model 5 tests whether differential access to academic recognition—measured through awards and research grants—might drive the observed gender gap, and thus the leaky pipeline. Including awards and grants does not diminish the net gender effect, and thus Hypothesis 5 is also not supported.

Finally, Model 6 incorporates additional exogenous controls for a researcher's broader scientific capital—including educational background (e.g., doctoral institution), international experience, career mobility, co-authorship networks, and academic cohort. These variables allow for more refined comparison of equally qualified men and women. Still, the gender gap persists, with women facing a statistically significant 35% higher risk of leaving academia as men, even when all observable factors are held constant.

This final result of Model 6 is also illustrated in Figure 3b, which displays survival curves adjusted for all independent and control variables, separately for female and male sociologists. The figure shows that the risk of leaving academia is consistently higher among women as compared to equally qualified men in sociology. Notably, a similar attrition pattern is visible in Figure 3a, which presents the unadjusted Kaplan–Meier survival curve. While Figure 3a reflects raw survival probabilities over time—without accounting for covariates—Figure 3b shows the adjusted survival probabilities, controlling for relevant explanatory factors. The consistency across both curves indicates that although factors such as parenthood, career stage, productivity, and academic rewards may be associated with academic attrition per se, they do not explain the "leaky pipeline"—that is, *gendered* patterns of academic attrition. Even when accounting for these influences, women remain at a systematically higher risk of leaving academia than men *(between-gender perspective)*; a gap that cannot be explained by gender differences in parenthood, career stage, productivity, or rewards.

Figure 3a. Kaplan−Meier w/o covariates.

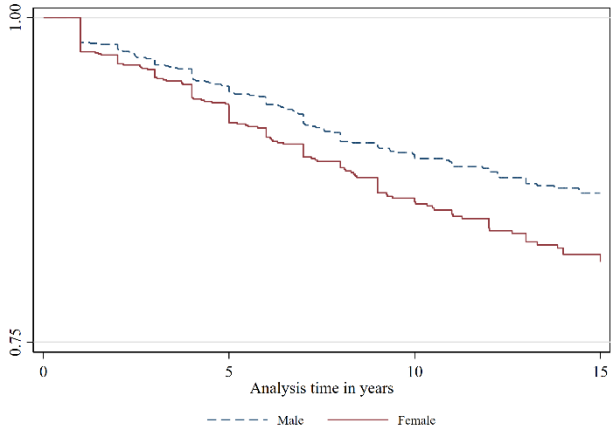
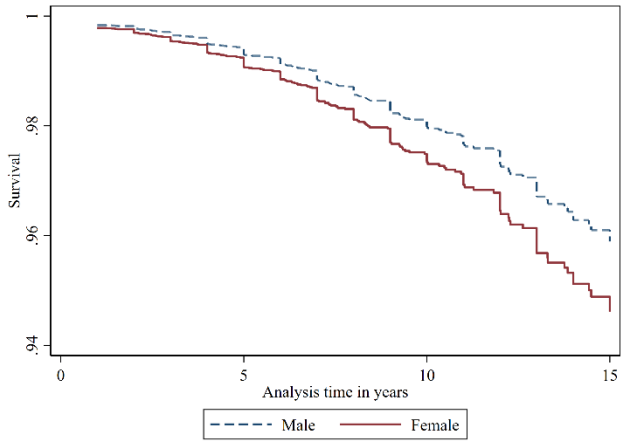


Figure 3b. Survival curve w/ covariates.



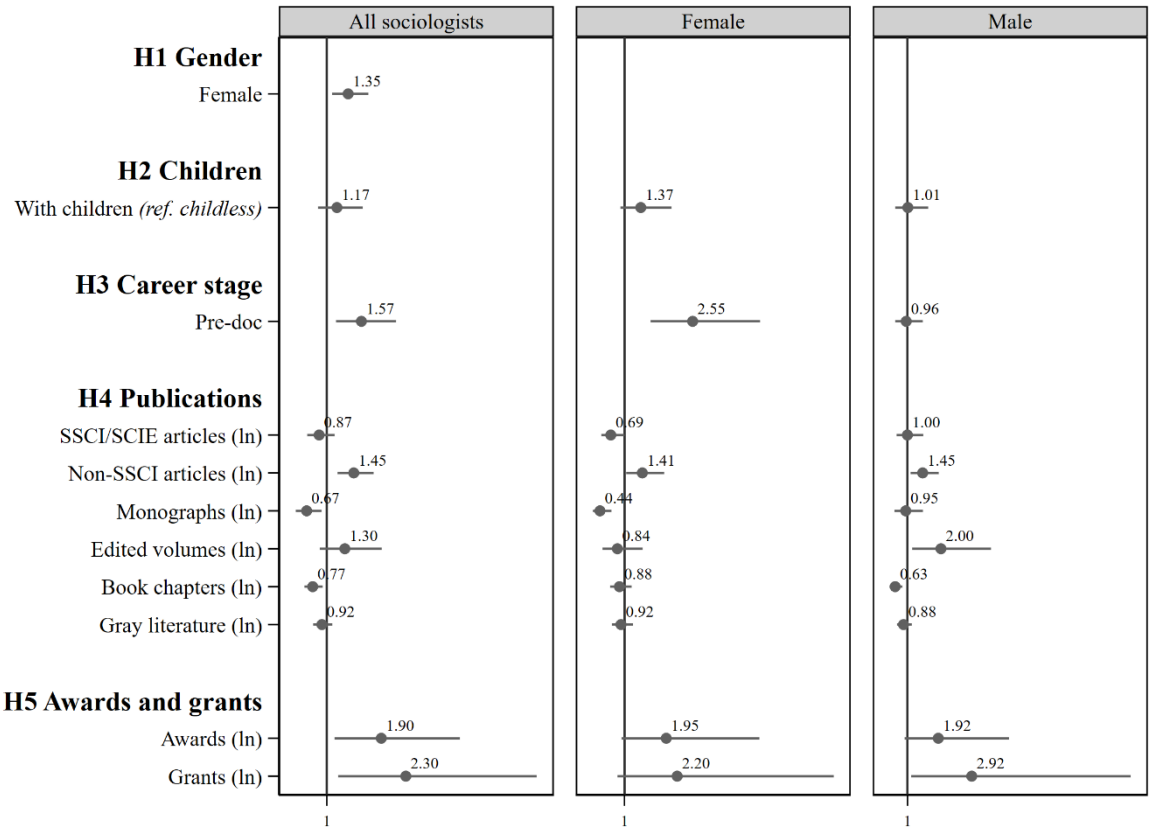
4.2.2 Which groups of women are more likely to leave academia?

While we have so far addressed Q1 from a between-gender perspective—asking why women leave academia more often than men—we now turn to Q2, which adopts a within-gender perspective: *Which groups of women are more likely to leave academia?*

Although the previous models showed that women face a higher risk of attrition—a pattern not fully explained by parenthood, career stage, productivity, or rewards—we now expand on these findings by focusing exclusively on the female sample. This within-group analysis allows us to compare characteristics among women themselves; for example, are women with children more likely to leave academia as compared to childless women?

To answer this question, among others, we replicate the hypothesis tests (H2–H5) for each gender separately. Figure 1 visualizes the full model from Table 3, followed by results for the female and male subsamples.

Figure 1. Plotted Cox regression models on the risk of leaving academia (hazard ratios).



Note: None of the gender differences are statistically significant at the 5% significance level (see interaction terms in Appendix Table A7). Control variables: doctoral degree from a German university of excellence or from abroad, number of international publications, months spent abroad, institutional mobility, interim professorships, number of co-authors, selected publication lists, and academic cohort.

Suggesting a double burden for parents, a trend emerges indicating that parenthood increases the risk of leaving academia only for women. Female sociologists with children face a 37% higher risk of leaving academia compared to childless women, a finding not observed among their male counterparts. Although the result is not statistically significant, it is important to note that our study relies on full population data rather than random samples; thus, while inferential statistics are limited, observable trends—such as the elevated risk for mothers as compared to childless women—remain analytically meaningful.

Turning to career stage, we examined whether women are particularly likely to leave academia during the pre-doctoral phase as compared to the post-doc stage. The analysis confirms this pattern: women face a statistically significantly 155% higher risk of exiting academia during the pre-doctoral stage. No comparable risk is observed among men, who are equally likely to leave at the pre-doc or post-doc stage. These results align with our earlier findings in Table 3, suggesting that the pre-doctoral stage constitutes a critical hurdle specifically for women, which, however, does not explain why women overall are more likely than men to leave academia.

While the effects of parenthood and career stage differ across gender groups, the patterns for productivity and rewards are largely similar for both women and men. Underperformance was measured in log-transformed units: A log difference of 1 indicates approximately 63% fewer outputs than the peer group average, a log difference of 2 corresponds to 86% fewer outputs, and a log difference of 5 to about 99% fewer outputs relative to peers. Thus, larger log differences reflect substantial underperformance compared to academic norms. For example, a hazard ratio of 1.41 for non-indexed articles implies that female sociologists who produce 63% fewer such outputs than their female peers are 45% more likely to leave academia. However, again, underperformance does not fully explain why women are more likely to leave academia: similar effects are observed among men. For both genders, underperformance in non-indexed publications is associated with a higher risk of leaving academia.

As for academic rewards, our results show that female sociologists with fewer awards face a 95% higher risk of leaving academia (significant at the 10% level), and those with fewer grants face a 120% higher risk of leaving academia (not statistically significant). These are substantial effects and thus represent key indicators of dropout risk among both female and male sociologists, as similar patterns are observed among male sociologists as well (92% higher dropout risk with fewer awards, significant at the 10% level, and a 192% higher dropout risk with fewer grants, significant at the 5% level). This confirms the findings from Table 3: while lower recognition in the form of awards and grants increases the risk of academic attrition, it does not explain gender-specific dropout rates.

4.3 Sensitivity tests

To assess the robustness of our results, we conducted several sensitivity tests. *First*, we estimated separate models for sociologists at the pre-doctoral and post-doctoral stages (Appendix Table A6, Models 1 and 2). The results show that women at the pre-doctoral stage face a 57% higher risk of leaving academia compared to equally qualified men. In contrast, we find no significant gender difference in attrition risk at the post-doctoral stage, reinforcing our earlier findings that gender disparities are concentrated in the early stages of academic careers. *Second*, we ran separate models for childless sociologists, parents, and those who did not disclose their parental status (Appendix Table A5, Models 3–5). Across all three groups, a persistent gender gap in dropout risk emerges, indicating that parenthood status alone does not account for the higher risk faced by women. *Third*, we tested whether different degrees of underperformance affect the gender gap by calculating models for sociologists with 10%, 20%, and 50% fewer publications, awards, or grants than their peers (Appendix Table A6, Models 6–13). The pattern remains consistent: underperformance in non-indexed articles, awards, and grants is associated with a higher dropout risk, and a gender gap persists across all levels of underperformance. Appendix Figure D illustrates this with survival curves plotted at 10%, 20%, and 50% fewer non-indexed articles, shown separately by gender. *Fourth*, we re-estimated all models using non-log-transformed variables (Appendix Table A8), thereby assuming that each publication, award, and grant carries equal weight. While the magnitude of effects was reduced, the overall findings remained robust. *Fifth*, instead of estimating models separately by gender, we introduced interaction terms between gender and each explanatory factor (Appendix Table A7) to maximize statistical power. Interestingly, none of the interaction effects were statistically significant, suggesting that no single factor—whether parenthood, career stage, or underperformance—fully accounts for the elevated dropout risk among women. The gender gap in attrition thus persists independently of the measured explanatory variables.

5 Conclusions

This study draws on a large-scale longitudinal dataset covering nearly the entire population of sociologists at German universities, compiled in four waves (2013, 2016, 2019, and 2022). By tracking individual career trajectories through CVs and publication records, we identified who exited academia and examined the factors associated with academic attrition—focusing particularly on the "leaky pipeline" in women's careers. To explore mechanisms such as parenthood, institutional constraints, differences in publishing and academic rewards that may disproportionately affecting women, we combined indicators of scientific capital with survey data on parental status. We addressed two core research questions: *(Q1) Do women leave academia more often than men—and why? (between-gender perspective);* and *(Q2) Which groups of women are more likely to leave academia? (within-gender perspective)*. Analyzing these questions, this research makes several important contributions to understanding gendered attrition in academia:

Our *between-gender analysis*—comparing the career trajectories of men and women—confirms prior findings of a persistent "leaky pipeline" in academia (Alper & Gibbons, 1993; Ceci & Williams, 2011; Ceci et al., 2009; Goulden et al., 2009; Goulden et al., 2011; Jaksztat et al., 2021; Kwiek & Szymula, 2024; Long, 2001), and extends this evidence by applying the analysis to the field of German sociology. However, we expand this literature by demonstrating that the gender gap in attrition cannot be fully explained by observable factors such as parenthood, career stage, research productivity, or academic recognition: Even after controlling for these variables, women remain at significantly higher risk of leaving academia than men. While it is consistently documented that women, on average, publish less than men (Cole & Zuckerman, 1984; Long, 1992; Schubert & Engelage, 2011; Schucan Bird, 2011), this pattern is less clear when it comes to awards and grants. Earlier studies found that women received fewer prestigious awards and grants (Bornmann et al., 2007; Lincoln et al., 2012), but more recent findings show this gap has diminished—or may even have reversed (e.g., Bol et al., 2022; Ceci et al., 2014, pp. 112–115; Habicht et al., 2024; Lutter & Schröder, 2016; Schmaling & Gallo, 2023). Importantly, our findings suggest that these merit-based differences do not account for women's higher attrition because similar patterns of low

productivity and recognition are found also among male leavers, indicating that performance alone cannot explain the gender attrition. However, consistent with the logic of a merit-based research system, it is primarily "low performers"—regardless of gender—who tend to leave academia.

From a *within-gender* perspective, in line with Goulden et al. (2011), our findings point to childbirth as a key predictor of the leaky pipeline—reflecting anticipated career exits associated with starting or having a family. Although the effect of motherhood is not statistically significant in our fully controlled model, the observed trend suggests that mothers are more likely to leave academia than childless women, while no difference appears among the male sample. This supports earlier research showing that caregiving responsibilities disproportionately affect mothers in academia but not fathers, thus pinpointing to a gender-specific barrier (cf., Leemann et al., 2010). This contrasts with findings by Jaksztat et al. (2021), who report higher dropout rates among parents regardless of gender. However, in their study, this effect reaches significance only at the 10% level in the multivariate model and is limited to doctoral cohorts—both of which may account for the discrepancy.

In addition, our results highlight that the pre-doctoral stage is particularly critical: women are significantly more likely to exit at this early stage, whereas men are equally likely to leave during the postdoctoral stage. This suggests that gender disparities in retention may begin early, potentially reflecting different opportunity structures, life planning considerations, or career preferences—well before formal decisions around tenure or permanent positions are made. While the specific reasons for early exits cannot be determined with our data, these patterns may have long-term implications by shaping access to academic capital and contributing to cumulative disadvantage later in the academic pipeline (e.g., Long et al., 1993; Weeden et al., 2017).

Taken together, our results confirm several established patterns in academic career research: women are more likely to exit, publish less, and face greater barriers when becoming mothers. Yet none of these factors individually fully explain women's higher exit risk compared to men. Instead, these patterns offer insight into how female academic careers are shaped by intersecting characteristics. We therefore argue that to better understand the leaky pipeline, it is not sufficient to only ask *why* women leave academia compared to

equally qualified men. Rather, we must also ask *which* groups of women leave—and what structural conditions or individual motivations may selectively push certain women out of academia or lead them to choose to leave.

While our results provide strong empirical evidence of where and under which conditions gendered attrition is likely to occur in the academic pipeline, they still raise important questions about the underlying mechanisms—many of which go beyond what can be observed in CV and survey data. Several possible explanations for the gendered attrition in academia have been suggested in the literature—ranging from gendered self-selection and career aspirations to unequal mentoring and structural exclusion. Some studies suggest that women express lower career ambitions or competitiveness (August & Waltman, 2004; Berweger & Keller, 2005; Main et al., 2019). Others cite institutional barriers, such as dependency on a single supervisor and uncertain career prospects, as reasons for early dropout (Jaksztat et al., 2021). However, in Germany, these structural hurdles exist not only in the pre-doc phase but also persist throughout the postdoctoral stage (e.g., temporary contracts, hierarchical dependencies on tenured professors who serve as immediate supervisors). Gendered parenthood effects may also stem from anticipatory self-selection: some women may opt out of motherhood to avoid compounded disadvantage, while others who choose to have children may face steeper barriers to career advancement (Fox, 2005; Joecks et al., 2014).

Focusing on the impact and generalizability of our findings, this study addresses a significant empirical gap by applying a longitudinal design that tracks nearly the entire population of sociologists in Germany across the full academic career pipeline. To our knowledge, only two comparable longitudinal studies exist to date: Jaksztat et al. (2021), which focused solely on doctoral students in Germany, and Kwiek and Szymula (2024), which analyzed career trajectories in 38 OECD countries but only in STEMM fields. Our study builds on this work by offering more granular insight into career exits within the social sciences. Specifically, our data goes beyond doctoral students and extend to full academic career paths, allowing us to confirm and expand on the finding by Jaksztat et al. (2021): women are more likely to leave academia during the pre-doctoral stage compared to later career-stages—a pattern observed exclusively among

women. In this way, we extend Kwiek and Szymula's (2024, p. 1) conclusion for STEMM fields: "Attrition in science means different things for men versus women depending on the discipline," by empirically illustrating this pattern in the field of sociology in Germany. However, while out study focuses on sociology, its findings may have broader implications. We consider sociology a conservative case for gender inequality due to its relatively balanced gender representation in the beginning of the career pipeline, which allows sufficient statistical power to detect gender differences (Leahey, 2006, p. 760). The mechanisms we identify may be even more pronounced in disciplines with larger gender imbalances or more hostile work-family environments (Ceci et al., 2014, p. 121; Mason et al., 2013, pp. 48–49). Indeed, previous research has shown that gender imbalance in a field increases female exit rates (Hunt, 2010), while growing female representation may reduce attrition over time (Kwiek & Szymula, 2024). Thus, our findings provide a baseline for future research across disciplines and policy contexts.

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Appendix

Table A1. Summary statistics of all scientific capital of leavers (L) at time of exit vs. remainers (R) at equivalent years.

	Remainer	Mean(R)	Leaver	Mean(L)	Min(L)	Max(L)	Dif	p
Years to exit	1701	7.38	341	6.75	1	34.47	.63	***
Female	1701	0.45	341	.53	0	1	-.08	*
Parents	1129	0.36	179	.39	0	1	-.03	
No. of children	1129	0.55	179	.63	0	3	-.08	
PhD	1701	0.87	341	.45	0	1	.18	***
SSCI/SCIE articles	1701	0.89	341	.48	0	7	.41	***
Non-SSCI articles	1701	1.53	341	1.02	0	21.33	.51	***
Monographs	1701	0.62	341	.53	0	9.67	.09	+
Edited volumes	1701	0.22	341	.17	0	3.5	.05	
Book chapters	1701	2.49	341	2.57	0	38.07	-.08	
Gray literature	1701	2.03	341	1.92	0	28.33	.1	
Awards	1701	0.21	341	.08	0	3	.13	***
DFG funding	1701	0.06	341	.02	0	1	.04	*
International publications	1701	2.56	341	1.81	0	47	.74	***
Months abroad	1701	9.78	341	4.76	0	168	5.02	***
PhD from abroad	1701	0.07	341	.03	0	1	.05	***
PhD from university of excellence	1701	0.15	341	.08	0	1	.07	***
Habilitation	1701	0.01	341	.01	0	1	0	
Junior professor	1701	0.02	341	.01	0	1	.01	
Mobility	1701	1.41	341	1.22	0	7	.18	*
Interim professor	1701	0.06	341	.04	0	2	.02	
Co-authors	1701	9.27	341	8.29	0	114	.97	

Note: Only cases with complete publication lists included. + p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001.

Table A2. Summary statistics of all scientific capital of leavers at time of exit vs. remainers at equivalent years, by gender.

	Male				t-test	Female				t-test
	Remainer		Leaver		R_m vs. L_m	Remainer		Leaver		R_f vs. L_f
	N	Mean	N	Mean		N	Mean	N	Mean	
Years to exit	896	7.84	160	7.06	***	772	7.28	181	6.48	***
Parents	592	0.39	79	0.37		523	0.35	100	0.41	
No. of children	592	0.62	79	0.57		523	0.50	100	0.68	*
PhD	896	0.89	160	0.50	***	772	0.86	181	0.40	***
SSCI/SCIE articles	896	1.11	160	0.54	***	772	0.72	181	0.43	***
Non-SSCI articles	896	1.79	160	1.14	***	772	1.28	181	0.91	*
Monographs	896	0.73	160	0.57	*	772	0.52	181	0.49	
Edited volumes	896	0.27	160	0.15	*	772	0.18	181	0.2	
Book chapters	896	2.76	160	2.75		772	2.30	181	2.42	
Gray literature	896	2.25	160	2.21		772	1.88	181	1.67	
Awards	896	0.22	160	0.07	*	772	0.20	181	0.08	*
DFG funding	896	0.07	160	0.02	*	772	0.06	181	0.02	*
International publications	896	2.60	160	2.09		772	2.57	181	1.57	***
Months abroad	896	8.98	160	4.67	*	772	11.12	181	4.83	***
PhD from abroad	896	0.07	160	0.02	*	772	0.09	181	0.03	*
PhD from university of excellence	896	0.17	160	0.09	*	772	0.13	181	0.07	*
Habilitation	896	0.02	160	0.02		772	0.01	181	0.01	
Junior professor	896	0.01	160	0.01		772	0.02	181	0.02	
Mobility	896	1.43	160	0.99	***	772	1.44	181	1.43	
Interim professor	896	0.08	160	0.04		772	0.04	181	0.04	
Co-authors	896	9.95	160	7.84	+	772	8.72	181	8.69	

Table A3. Summary statistics: only leavers.

	N	Mean	SD	min	max	p25	Median	p75	p90	p95
Years to exit	341	6.75	5.60	1	34.47	2.51	5.51	9	14	17.27
Female	341	.53	0.50	0	1	0	1	1	1	1
Parents (Dummy)	179	.39	0.49	0	1	0	0	1	1	1
Kinder	179	.63	0.89	0	3	0	0	1	2	2
Promotion	341	.45	0.50	0	1	0	0	1	1	1
SSCI/SCIE articles	341	.48	1.03	0	7	0	0	.5	1.67	2.67
Non-SSCI articles	341	1.02	2.07	0	21.33	0	.4	1	2.67	4.12
Monographs	341	.53	0.98	0	9.67	0	0	1	1.67	2
Edited volumes	341	.17	0.50	0	3.5	0	0	0	.67	1.17
Book chapters	341	2.57	4.10	0	38.07	0	1	3.29	6.9	10
Gray literature	341	1.92	3.35	0	28.33	0	1	2.4	5.5	8
Awards	341	.08	0.34	0	3	0	0	0	0	1
DFG funding	341	.02	0.13	0	1	0	0	0	0	0
International publications	341	1.81	3.83	0	47	0	0	2	5	7
Months abroad	341	4.76	13.96	0	168	0	0	5	12	24
PhD from abroad	341	.03	0.18	0	1	0	0	0	0	0
PhD from university of excellenc	341	.12	0.33	0	1	0	0	0	1	1
Habilitation	341	.02	0.13	0	1	0	0	0	0	0
Juniorprofessur	341	.01	0.12	0	1	0	0	0	0	0
Mobility	341	1.22	1.32	0	7	0	1	2	3	4
Interim professor	341	.04	0.21	0	2	0	0	0	0	0
Co-authors	341	8.29	13.71	0	114	1	4	10	22	30

Table A4. Summary statistics: only remainers.

	N	Mean	SD	min	max	p25	Median	p75	p90	p95
Years to exit	1701	7.38	0.94	6.75	18	6.93	7.02	7.45	8.15	9
Female	1701	.45	0.50	0	1	0	0	1	1	1
Parents (Dummy)	1129	.54	0.50	0	1	0	1	1	1	1
Kinder	1129	.55	0.83	0	5	0	0	1	2	2
Promotion	1701	.87	0.34	0	1	1	1	1	1	1
SSCI/SCIE articles	1701	.89	1.40	0	9	0	0	1.17	2.73	4
Non-SSCI articles	1701	1.53	1.93	0	20.33	0	1	2	3.67	5.17
Monographs	1701	.62	0.77	0	5.67	0	.29	1	1.67	2
Edited volumes	1701	.22	0.61	0	10.33	0	0	0	.67	1.17
Book chapters	1701	2.49	2.56	0	24.33	.67	1.83	3.5	5.67	7.33
Gray literature	1701	2.03	2.70	0	32.33	0	1.17	3	4.8	6.33
Awards	1701	.21	0.61	0	6	0	0	0	1	1
DFG funding	1701	.06	0.27	0	3	0	0	0	0	1
International publications	1701	2.56	3.71	0	32	0	1	4	7	10
Months abroad	1701	9.78	20.69	0	160	0	0	10	30	56
PhD from abroad	1701	.12	0.33	0	1	0	0	0	1	1
PhD from university of excellenc	1701	.24	0.43	0	1	0	0	0	1	1
Habilitation	1701	.26	0.44	0	1	0	0	1	1	1
Juniorprofessur	1701	.09	0.29	0	1	0	0	0	0	1
Mobility	1701	1.41	1.31	0	8	0	1	2	3	4
Interim professor	1701	.06	0.28	0	3	0	0	0	0	0
Co-authors	1701	9.27	11.97	0	123	2	6	13	21	29

Table A5. Cox regression models on the risk of leaving academia (hazard ratios).

	(1) Gender	(2) Children	(3) Career stage	(4) Publications	(5) Awards and grants	(6) Full model	(7) Only women	(8) Only men
Female	1.43**	1.43***	1.40**	1.38**	1.41**	1.35**		
	(3.27)	(3.32)	(3.14)	(2.92)	(3.08)	(2.70)		
With children it:(ref. childless)		1.16	1.28	1.29	1.30+	1.17	1.37	1.01
		(0.94)	(1.59)	(1.63)	(1.68)	(0.97)	(1.50)	(0.05)
W/o child info it:(ref. childless)		1.71***	1.71***	1.73***	1.73***	1.48**	1.52*	1.44+
		(4.36)	(4.35)	(4.43)	(4.42)	(3.12)	(2.40)	(1.92)
Pre-doc			2.25***	2.20***	2.13***	1.57**	2.55***	0.96
			(5.64)	(5.11)	(4.92)	(2.86)	(3.90)	(-0.19)
SSCI/SCIE articles (ln)				1.23*	1.12	0.87	0.69+	1.00
				(1.97)	(1.08)	(-1.03)	(-1.96)	(-0.02)
Non-SSCI articles (ln)				1.50***	1.48***	1.44***	1.41*	1.45*
				(3.94)	(3.89)	(3.52)	(2.20)	(2.57)
Monographs (ln)				0.86	0.85	0.67*	0.44***	0.95
				(-0.98)	(-1.11)	(-2.54)	(-3.45)	(-0.24)
Edited volumes (ln)				1.43+	1.41+	1.30	0.84	2.00*
				(1.94)	(1.91)	(1.33)	(-0.67)	(2.43)
Book chapters (ln)				0.76**	0.75**	0.77**	0.88	0.63**
				(-2.86)	(-3.07)	(-2.68)	(-0.89)	(-3.09)
Gray literature (ln)				0.91	0.90	0.92	0.92	0.88
				(-1.09)	(-1.21)	(-0.96)	(-0.63)	(-1.00)
Awards (ln)					1.66*	1.90*	1.95+	1.92+
					(2.00)	(2.41)	(1.78)	(1.72)
Grants (ln)					2.47**	2.30*	2.20	2.92*
					(2.78)	(2.47)	(1.60)	(2.17)
PhD from university of excellence						0.63**	0.62*	0.60*
						(-2.78)	(-2.09)	(-2.09)
PhD from abroad						0.32***	0.33**	0.34*
						(-3.54)	(-2.59)	(-2.33)
International publications (ln)						0.88	0.79+	0.94
						(-1.42)	(-1.92)	(-0.39)
Months abroad (ln)						0.88**	0.85*	0.91
						(-2.61)	(-2.44)	(-1.25)
Mobility (ln)						0.78*	0.96	0.61**
						(-2.34)	(-0.28)	(-3.07)
Interim professor (ln)						0.43*	0.42+	0.47
						(-2.43)	(-1.83)	(-1.48)
Co-authors (ln)						0.84**	0.87	0.80*
						(-2.85)	(-1.53)	(-2.46)
Only selected publications						0.64	1.13	0.00
						(-0.88)	(0.21)	(.)
<1990						1.00	1.00	1.00
						(.)	(.)	(.)
1990-1999						2.55+	5.85	0.97
						(1.80)	(1.59)	(-0.03)
2000-2009						16.73***	27.65**	12.96***
						(5.60)	(2.84)	(4.31)
>2009						37.95***	54.74***	34.98***
						(7.13)	(3.40)	(5.89)
Pseudo R2	0.00	0.01	0.01	0.02	0.02	0.07	0.07	0.10
Log-likelihood	-2549.77	-2539.45	-2522.10	-2508.35	-2503.16	-2380.80	-1146.46	-978.26
Degrees of freedom	1	3	4	10	12	23	22	21
Chi2	10.71	32.50	60.37	87.92	100.49	283.38	138.70	156.72
AIC	5101.55	5084.89	5052.21	5036.70	5030.32	4807.61	2336.92	1998.51
BIC	5110.58	5112.00	5088.36	5127.07	5138.77	5015.46	2514.42	2178.27
Number of events (exits)	345	345	345	345	345	345	185	160
N (persons)	2,689	2,689	2,689	2,689	2,689	2,689	1,292	1,397
N (persons-publications)	62,133	62,133	62,133	62,133	62,133	62,133	23,575	38,558

Exponentiated coefficients (hazard ratios); t statistics in parentheses; ln = logged values.
+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001.

Table A6. Robustness Tests: Cox regression models on the risk of leaving academia (hazard ratios).

	(1) Pre-doc	(2) Post-doc	(3) Only childless	(4) Only parents	(5) Only non-response	(6) 10% less pubs	(7) 20% less pubs	(8) 50% less pubs	(9) 10% less awards/ grants	(10) 20% less awards/ grants	(11) 50% less awards/ grants	(12) Only women: 10% less	(13) Only men: 10% less
Female	1.58**	1.08	1.23	1.57+	1.34+	1.35**	1.35**	1.35**	1.35**	1.35**	1.35**	1.00	1.00
	(3.12)	(0.40)	(1.05)	(1.71)	(1.76)	(2.70)	(2.70)	(2.70)	(2.70)	(2.70)	(2.70)	(.)	(.)
With children (ref. childless)	1.04	1.30				1.17	1.17	1.17	1.17	1.17	1.17	1.37	1.01
	(0.17)	(1.15)				(0.97)	(0.97)	(0.97)	(0.97)	(0.97)	(0.97)	(1.50)	(0.05)
W/o child info (ref. childless)	1.58**	1.37				1.48**	1.48**	1.48**	1.48**	1.48**	1.48**	1.52*	1.44+
	(2.91)	(1.42)				(3.12)	(3.12)	(3.12)	(3.12)	(3.12)	(3.12)	(2.40)	(1.92)
Pre-doc						1.57**	1.57**	1.57**	1.57**	1.57**	1.57**	2.55***	0.96
						(2.86)	(2.86)	(2.86)	(2.86)	(2.86)	(2.86)	(3.90)	(-0.19)
SSCI/SCIE articles (ln)	0.72	1.01	0.88	1.06	0.83	0.99	0.97	0.91	0.87	0.87	0.87	0.69+	1.00
	(-1.46)	(0.07)	(-0.58)	(0.19)	(-0.93)	(-1.03)	(-1.03)	(-1.03)	(-1.03)	(-1.03)	(-1.03)	(-1.96)	(-0.02)
Non-SSCI articles (ln)	1.52*	1.39*	1.15	1.52*	1.60**	1.04***	1.09***	1.29***	1.44***	1.44***	1.44***	1.41*	1.45*
	(2.39)	(2.38)	(0.70)	(2.30)	(3.02)	(3.52)	(3.52)	(3.52)	(3.52)	(3.52)	(3.52)	(2.20)	(2.57)
Monographs (ln)	0.45**	0.78	0.86	0.65	0.81	0.96*	0.91*	0.76*	0.67*	0.67*	0.67*	0.44***	0.95
	(-3.21)	(-1.21)	(-0.51)	(-1.39)	(-1.03)	(-2.54)	(-2.54)	(-2.54)	(-2.54)	(-2.54)	(-2.54)	(-3.45)	(-0.24)
Edited volumes (ln)	0.53+	1.87**	1.34	1.76+	1.03	1.03	1.06	1.20	1.30	1.30	1.30	0.84	2.00*
	(-1.91)	(2.61)	(0.62)	(1.84)	(0.11)	(1.33)	(1.33)	(1.33)	(1.33)	(1.33)	(1.33)	(-0.67)	(2.43)
Book chapters (ln)	0.68**	0.88	0.78	0.69+	0.80	0.97**	0.94**	0.83**	0.77**	0.77**	0.77**	0.88	0.63**
	(-2.73)	(-0.99)	(-1.32)	(-1.80)	(-1.60)	(-2.68)	(-2.68)	(-2.68)	(-2.68)	(-2.68)	(-2.68)	(-0.89)	(-3.09)
Gray literature (ln)	0.90	0.91	0.84	1.18	0.85	0.99	0.98	0.94	0.92	0.92	0.92	0.92	0.88
	(-0.78)	(-0.71)	(-1.07)	(0.98)	(-1.24)	(-0.96)	(-0.96)	(-0.96)	(-0.96)	(-0.96)	(-0.96)	(-0.63)	(-1.00)
Awards (ln)	2.36*	1.72	2.34+	1.39	2.79*	1.90*	1.90*	1.90*	1.07*	1.15*	1.56*	1.95+	1.92+
	(2.01)	(1.64)	(1.85)	(0.71)	(2.33)	(2.41)	(2.41)	(2.41)	(2.41)	(2.41)	(2.41)	(1.78)	(1.72)
Grants (ln)	0.60	2.93**	1.48	5.18**	1.61	2.30*	2.30*	2.30*	1.09*	1.20*	1.78*	2.20	2.92*
	(-0.44)	(2.71)	(0.54)	(2.68)	(1.02)	(2.47)	(2.47)	(2.47)	(2.47)	(2.47)	(2.47)	(1.60)	(2.17)
PhD from university of excellence	0.36**	0.84	0.46*	0.59	0.71	0.63**	0.63**	0.63**	0.63**	0.63**	0.63**	0.62*	0.60*
	(-3.04)	(-0.83)	(-2.48)	(-1.58)	(-1.38)	(-2.78)	(-2.78)	(-2.78)	(-2.78)	(-2.78)	(-2.78)	(-2.09)	(-2.09)
PhD from abroad	0.07**	0.50+	0.08*	1.05	0.23**	0.32***	0.32***	0.32***	0.32***	0.32***	0.32***	0.33**	0.34*
	(-2.72)	(-1.90)	(-2.48)	(0.10)	(-2.91)	(-3.54)	(-3.54)	(-3.54)	(-3.54)	(-3.54)	(-3.54)	(-2.59)	(-2.33)
International publications (ln)	0.79	0.99	0.78	0.99	0.84	0.88	0.88	0.88	0.88	0.88	0.88	0.79+	0.94
	(-1.56)	(-0.05)	(-1.35)	(-0.08)	(-1.28)	(-1.42)	(-1.42)	(-1.42)	(-1.42)	(-1.42)	(-1.42)	(-1.92)	(-0.39)
Months abroad (ln)	0.91	0.85*	0.94	0.79*	0.87*	0.88**	0.88**	0.88**	0.88**	0.88**	0.88**	0.85*	0.91
	(-1.29)	(-2.37)	(-0.68)	(-2.33)	(-2.07)	(-2.61)	(-2.61)	(-2.61)	(-2.61)	(-2.61)	(-2.61)	(-2.44)	(-1.25)
Mobility (ln)	0.80	0.73+	0.68+	0.83	0.76+	0.78*	0.78*	0.78*	0.78*	0.78*	0.78*	0.96	0.61**
	(-1.56)	(-1.91)	(-1.87)	(-0.86)	(-1.79)	(-2.34)	(-2.34)	(-2.34)	(-2.34)	(-2.34)	(-2.34)	(-0.28)	(-3.07)
Interim professor	0.00	0.58	0.13	0.52	0.45	0.43*	0.43*	0.43*	0.43*	0.43*	0.43*	0.42+	0.47

(ln)													
	(.)	(-1.53)	(-1.60)	(-1.28)	(-1.60)	(-2.43)	(-2.43)	(-2.43)	(-2.43)	(-2.43)	(-2.43)	(-1.83)	(-1.48)
Co-authors (ln)	0.82*	0.83+	0.88	0.87	0.83*	0.84**	0.84**	0.84**	0.84**	0.84**	0.84**	0.87	0.80*
	(-2.36)	(-1.85)	(-1.02)	(-0.85)	(-2.29)	(-2.85)	(-2.85)	(-2.85)	(-2.85)	(-2.85)	(-2.85)	(-1.53)	(-2.46)
Only selected publications	0.00	1.18	0.00	0.00***	0.64	0.64	0.64	0.64	0.64	0.64	0.64	1.13	0.00
	(.)	(0.32)	(.)	(-32.59)	(-0.87)	(-0.88)	(-0.88)	(-0.88)	(-0.88)	(-0.88)	(-0.88)	(0.21)	(.)
<1990	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)
1990-1999	0.68	3.39*	2.63e+08***	5.65e+09***	0.71	2.55+	2.55+	2.55+	2.55+	2.55+	2.55+	5.85	0.97
	(-0.30)	(2.06)	(35.86)	(16.05)	(-0.60)	(1.80)	(1.80)	(1.80)	(1.80)	(1.80)	(1.80)	(1.59)	(-0.03)
2000-2009	25.39***	13.37***	1.73e+09***	2.34e+10***	5.75***	16.73***	16.73***	16.73***	16.73***	16.73***	16.73***	27.65**	12.96***
	(5.49)	(4.38)	(101.68)	(17.46)	(3.48)	(5.60)	(5.60)	(5.60)	(5.60)	(5.60)	(5.60)	(2.84)	(4.31)
>2009	48.02***	36.75***	4.06e+09	5.72e+10***	12.80***	37.95***	37.95***	37.95***	37.95***	37.95***	37.95***	54.74***	34.98***
	(6.64)	(5.85)	(.)	(18.52)	(5.01)	(7.13)	(7.13)	(7.13)	(7.13)	(7.13)	(7.13)	(3.40)	(5.89)
Pseudo R2	0.07	0.08	0.09	0.11	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.10
Log-likelihood	-1367.61	-816.01	-664.66	-357.38	-1004.25	-2380.80	-2380.80	-2380.80	-2380.80	-2380.80	-2380.80	-1146.46	-978.26
Degrees of freedom	20	22	18	20	20	23	23	23	23	23	23	22	21
Chi2	140.85	159.48	12752.81	5065.67	143.26	283.38	283.38	283.38	283.38	283.38	283.38	138.70	156.72
AIC	2775.22	1676.03	1365.32	754.76	2048.51	4807.61	4807.61	4807.61	4807.61	4807.61	4807.61	2336.92	1998.51
BIC	2930.02	1867.82	1510.75	911.28	2206.35	5015.46	5015.46	5015.46	5015.46	5015.46	5015.46	2514.42	2178.27
Number of events (exits)	211	134	109	70	166	345	345	345	345	345	345	185	160
N (persons)	2,420	1,760	1,310	749	1,161	2,689	2,689	2,689	2,689	2,689	2,689	1,292	1,397
N (persons-publications)	16,979	45,154	23,853	18,501	19,779	62,133	62,133	62,133	62,133	62,133	62,133	23,575	38,558

Exponentiated coefficients (hazard ratios); t statistics in parentheses; ln = logged values.
+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001.

Table A7. Cox regression models on exits, interaction effects on gender.

	(1) Female × Children	(2) Female × Career stage	(3) Female × SSCI/SCIE publications	(4) Female × Non-SSCI/SCIE publications	(5) Female × Monographs	(6) Female × Edited volumes	(7) Female × Book chapters	(8) Female × Gray literature	(9) Female × Awards	(10) Female × Grants
Female	1.27	1.16	1.40**	1.39*	1.46**	1.46**	1.31*	1.34*	1.34*	1.37**
	(1.22)	(0.80)	(2.68)	(2.44)	(3.19)	(3.06)	(2.13)	(2.39)	(2.51)	(2.68)
With children *(ref. childless)*	1.00		1.17	1.17	1.18	1.17	1.16	1.16	1.17	1.17
	(0.00)		(0.97)	(0.98)	(1.03)	(1.02)	(0.95)	(0.97)	(0.98)	(0.97)
W/o child info *(ref. childless)*	1.46*		1.49**	1.49**	1.50**	1.49**	1.48**	1.48**	1.48**	1.48**
	(2.06)		(3.13)	(3.12)	(3.20)	(3.16)	(3.06)	(3.12)	(3.12)	(3.12)
Pre-doc	1.57**	1.39+	1.57**	1.57**	1.59**	1.57**	1.56**	1.57**	1.57**	1.57**
	(2.86)	(1.66)	(2.87)	(2.87)	(2.95)	(2.85)	(2.83)	(2.85)	(2.86)	(2.86)
SSCI/SCIE articles (ln)	0.87	0.89	0.93	0.87	0.87	0.87	0.87	0.87	0.87	0.87
	(-1.06)	(-0.88)	(-0.47)	(-1.03)	(-1.09)	(-1.05)	(-1.03)	(-1.03)	(-1.02)	(-1.03)
Non-SSCI articles (ln)	1.45***	1.44***	1.45***	1.49**	1.45***	1.45***	1.45***	1.44***	1.44***	1.45***
	(3.51)	(3.50)	(3.52)	(2.99)	(3.53)	(3.59)	(3.53)	(3.52)	(3.53)	(3.53)
Monographs (ln)	0.67*	0.67*	0.67*	0.67*	0.85	0.66**	0.67*	0.67*	0.67*	0.67*
	(-2.55)	(-2.51)	(-2.54)	(-2.54)	(-0.81)	(-2.58)	(-2.52)	(-2.49)	(-2.54)	(-2.53)
Edited volumes (ln)	1.29	1.34	1.30	1.30	1.28	1.67*	1.30	1.30	1.30	1.30
	(1.28)	(1.49)	(1.32)	(1.34)	(1.26)	(2.12)	(1.34)	(1.33)	(1.33)	(1.34)
Book chapters (ln)	0.77**	0.77**	0.77**	0.77**	0.77**	0.77**	0.72*	0.77**	0.77**	0.77**
	(-2.67)	(-2.66)	(-2.67)	(-2.68)	(-2.70)	(-2.63)	(-2.47)	(-2.67)	(-2.69)	(-2.67)
Gray literature (ln)	0.92	0.93	0.92	0.92	0.90	0.92	0.92	0.90	0.92	0.92
	(-1.00)	(-0.78)	(-0.96)	(-0.96)	(-1.13)	(-0.96)	(-0.93)	(-0.93)	(-0.96)	(-0.95)
Awards (ln)	1.91*	1.89*	1.90*	1.90*	1.92*	1.91*	1.89*	1.90*	1.73	1.90*
	(2.43)	(2.40)	(2.40)	(2.41)	(2.44)	(2.43)	(2.40)	(2.41)	(1.52)	(2.41)
Grants (ln)	2.33*	2.30*	2.30*	2.32*	2.31*	2.36*	2.28*	2.29*	2.30*	2.52*
	(2.50)	(2.48)	(2.46)	(2.48)	(2.47)	(2.54)	(2.43)	(2.44)	(2.47)	(2.25)
PhD from university of excellence	0.63**	0.62**	0.63**	0.63**	0.62**	0.64**	0.63**	0.63**	0.63**	0.63**
	(-2.78)	(-2.91)	(-2.79)	(-2.78)	(-2.86)	(-2.73)	(-2.81)	(-2.78)	(-2.78)	(-2.78)
PhD from abroad	0.32***	0.33***	0.32***	0.32***	0.32***	0.32***	0.32***	0.32***	0.32***	0.32***
	(-3.54)	(-3.47)	(-3.55)	(-3.54)	(-3.54)	(-3.53)	(-3.55)	(-3.55)	(-3.54)	(-3.54)
International publications (ln)	0.87	0.88	0.88	0.88	0.87	0.88	0.87	0.88	0.88	0.88
	(-1.46)	(-1.32)	(-1.41)	(-1.43)	(-1.45)	(-1.42)	(-1.44)	(-1.42)	(-1.43)	(-1.43)
Months abroad (ln)	0.88**	0.88**	0.88**	0.88**	0.88*	0.88**	0.88**	0.88**	0.88**	0.88**
	(-2.63)	(-2.72)	(-2.63)	(-2.61)	(-2.57)	(-2.63)	(-2.62)	(-2.60)	(-2.62)	(-2.62)
Mobility (ln)	0.78*	0.76*	0.78*	0.78*	0.78*	0.78*	0.78*	0.78*	0.78*	0.78*
	(-2.33)	(-2.49)	(-2.32)	(-2.32)	(-2.34)	(-2.31)	(-2.34)	(-2.34)	(-2.34)	(-2.34)
Interim professor (ln)	0.44*	0.44*	0.43*	0.43*	0.43*	0.43*	0.43*	0.43*	0.43*	0.43*
	(-2.42)	(-2.37)	(-2.43)	(-2.43)	(-2.45)	(-2.46)	(-2.42)	(-2.42)	(-2.43)	(-2.43)
Co-authors (ln)	0.84**	0.83**	0.83**	0.84**	0.83**	0.84**	0.84**	0.84**	0.83**	0.83**
	(-2.82)	(-2.97)	(-2.87)	(-2.85)	(-2.89)	(-2.87)	(-2.84)	(-2.86)	(-2.86)	(-2.85)

Only selected publications	0.64	0.72	0.63	0.64	0.65	0.63	0.64	0.64	0.64	0.64
	(-0.87)	(-0.63)	(-0.89)	(-0.88)	(-0.85)	(-0.91)	(-0.89)	(-0.88)	(-0.88)	(-0.88)
<1990	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)
1990-1999	2.54+	2.76+	2.55+	2.57+	2.50+	2.62+	2.51+	2.54+	2.55+	2.56+
	(1.80)	(1.95)	(1.81)	(1.83)	(1.76)	(1.86)	(1.79)	(1.80)	(1.80)	(1.81)
2000-2009	16.61***	17.63***	16.70***	16.78***	16.25***	17.11***	16.58***	16.75***	16.72***	16.76***
	(5.60)	(5.65)	(5.60)	(5.61)	(5.54)	(5.66)	(5.59)	(5.60)	(5.60)	(5.60)
>2009	37.60***	41.77***	37.75***	38.05***	36.88***	38.84***	37.73***	37.98***	37.94***	38.04***
	(7.12)	(7.28)	(7.12)	(7.14)	(7.08)	(7.20)	(7.13)	(7.13)	(7.13)	(7.13)
Female × children	1.32									
	(0.88)									
Female × w/o child info	1.02									
	(0.09)									
Female × Pre-doc		1.26								
		(1.03)								
Female × SSCI/SCIE articles (ln)			0.88							
			(-0.60)							
Female × non-SSCI articles (ln)				0.93						
				(-0.38)						
Female × monographs (ln)					0.59+					
					(-1.90)					
Female × edited volumes (ln)						0.58				
						(-1.54)				
Female × book chapters (ln)							1.13			
							(0.72)			
Female × gray literature (ln)								1.05		
								(0.28)		
Female × Awards (ln)									1.18	
									(0.32)	
Female × Grants (ln)										0.83
										(-0.29)
Pseudo R2	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Log-likelihood	-2380.34	-2385.42	-2380.65	-2380.74	-2379.00	-2379.64	-2380.54	-2380.76	-2380.75	-2380.77
Degrees of freedom	25	22	24	24	24	24	24	24	24	24
Chi2	286.37	278.79	284.54	283.12	283.92	288.13	283.44	283.39	285.21	283.39
AIC	4810.68	4814.84	4809.29	4809.47	4805.99	4807.27	4809.07	4809.53	4809.51	4809.55
BIC	5036.61	5013.66	5026.18	5026.36	5022.88	5024.16	5025.96	5026.42	5026.40	5026.44
Number of events (tenure)	345	345	345	345	345	345	345	345	345	345
N (persons)	2,689	2,689	2,689	2,689	2,689	2,689	2,689	2,689	2,689	2,689
N (persons-publications)	62,133	62,133	62,133	62,133	62,133	62,133	62,133	62,133	62,133	62,133

Exponentiated coefficients (hazard ratios); t statistics in parentheses; ln = logged values; sq. = squared.
+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A8. Cox regression models on dropouts (non-logged coefficients).

	(1) Only controls	(2) Gender	(3) Children	(4) Career stage	(5) Publications	(6) Awards and grants	(7) Only women	(8) Only men
Female		1.31*	1.33**	1.32*	1.32*	1.34**		
		(2.47)	(2.58)	(2.51)	(2.51)	(2.60)		
With children (ref. childless)			1.14	1.19	1.18	1.20	1.40	1.06
			(0.84)	(1.10)	(1.04)	(1.13)	(1.61)	(0.26)
W/o child info (ref. childless)			1.48**	1.48**	1.48**	1.48**	1.49*	1.46*
			(3.11)	(3.10)	(3.12)	(3.12)	(2.29)	(2.01)
Pre-doc				1.41*	1.49**	1.44*	2.20***	0.94
				(2.37)	(2.64)	(2.42)	(3.49)	(-0.32)
SSCI/SCIE articles (ln)					1.01	0.99	0.93	1.03
					(0.30)	(-0.31)	(-1.52)	(0.50)
Non-SSCI articles (ln)					1.09**	1.08*	1.11*	1.07
					(2.61)	(2.53)	(1.97)	(1.63)
Monographs (ln)					0.89+	0.89+	0.76**	0.99
					(-1.78)	(-1.77)	(-2.77)	(-0.13)
Edited volumes (ln)					1.15+	1.16+	0.99	1.38*
					(1.77)	(1.83)	(-0.07)	(2.46)
Book chapters (ln)					0.97+	0.97*	0.98	0.96+
					(-1.87)	(-2.04)	(-1.04)	(-1.94)
Gray literature (ln)					0.98+	0.98+	0.98	0.98
					(-1.70)	(-1.67)	(-1.03)	(-1.51)
Awards (ln)						1.38*	1.35	1.44+
						(2.05)	(1.35)	(1.67)
Grants (ln)						1.61*	1.62	1.87*
						(2.32)	(1.58)	(2.03)
PhD from university of excellence	0.57***	0.57***	0.59**	0.62**	0.62**	0.62**	0.64*	0.59*
	(-3.36)	(-3.36)	(-3.23)	(-2.90)	(-2.87)	(-2.86)	(-1.96)	(-2.10)
PhD from abroad	0.28***	0.28***	0.26***	0.28***	0.29***	0.31***	0.32**	0.32*
	(-3.96)	(-4.04)	(-4.13)	(-3.95)	(-3.80)	(-3.68)	(-2.61)	(-2.45)
International publications (ln)	0.83*	0.83*	0.83*	0.85*	0.87	0.88	0.81+	0.95
	(-2.36)	(-2.34)	(-2.36)	(-2.01)	(-1.58)	(-1.41)	(-1.79)	(-0.31)
Months abroad (ln)	0.87**	0.87**	0.87**	0.88**	0.88**	0.88*	0.86*	0.91
	(-2.79)	(-2.91)	(-2.79)	(-2.68)	(-2.66)	(-2.57)	(-2.39)	(-1.22)
Mobility (ln)	0.77*	0.76*	0.77*	0.79*	0.79*	0.78*	0.97	0.60**
	(-2.40)	(-2.57)	(-2.45)	(-2.17)	(-2.18)	(-2.28)	(-0.23)	(-3.05)
Interim professor (ln)	0.40**	0.41*	0.40**	0.43*	0.41*	0.44*	0.44+	0.47
	(-2.61)	(-2.57)	(-2.60)	(-2.44)	(-2.56)	(-2.35)	(-1.70)	(-1.44)
Co-authors (ln)	0.84**	0.84**	0.86**	0.85**	0.84**	0.84**	0.89	0.80*
	(-2.76)	(-2.76)	(-2.58)	(-2.73)	(-2.71)	(-2.71)	(-1.27)	(-2.48)
Only selected publications	0.67	0.67	0.58	0.61	0.62	0.62	1.15	0.00
	(-0.77)	(-0.79)	(-1.07)	(-0.98)	(-0.93)	(-0.93)	(0.25)	(.)
<1990	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)
1990-1999	2.64+	2.51+	2.39+	2.42+	2.51+	2.58+	5.75	0.98
	(1.89)	(1.79)	(1.70)	(1.72)	(1.76)	(1.82)	(1.58)	(-0.03)
2000-2009	16.60***	15.96***	15.47***	15.38***	15.81***	16.40***	25.52**	13.12***
	(5.71)	(5.58)	(5.55)	(5.49)	(5.48)	(5.55)	(2.83)	(4.38)
>2009	38.63***	36.64***	34.13***	33.47***	35.16***	36.68***	50.51***	34.39***
	(7.37)	(7.20)	(7.07)	(6.96)	(6.97)	(7.05)	(3.38)	(5.94)
Pseudo R2	0.06	0.06	0.06	0.06	0.06	0.07	0.06	0.09
Log-likelihood	-2409.06	-2405.96	-2400.81	-2397.98	-2390.83	-2386.21	-1150.12	-982.42
Degrees of freedom	11	12	14	15	21	23	22	21
Chi2	244.55	249.85	259.67	261.60	273.81	281.46	137.90	155.41
AIC	4840.12	4835.91	4829.62	4825.96	4823.67	4818.43	2344.25	2006.84
BIC	4939.52	4944.36	4956.13	4961.52	5013.44	5026.28	2521.74	2186.60
Number of events (exits)	345	345	345	345	345	345	185	160
N (persons)	2,689	2,689	2,689	2,689	2,689	2,689	1,292	1,397
N (persons-publications)	62,133	62,133	62,133	62,133	62,133	62,133	23,575	38,558

Exponentiated coefficients (hazard ratios); t statistics in parentheses; ln = logged values.
+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001.

Figure B. Publication pattern over years, separately for remainer and leavers by gender.

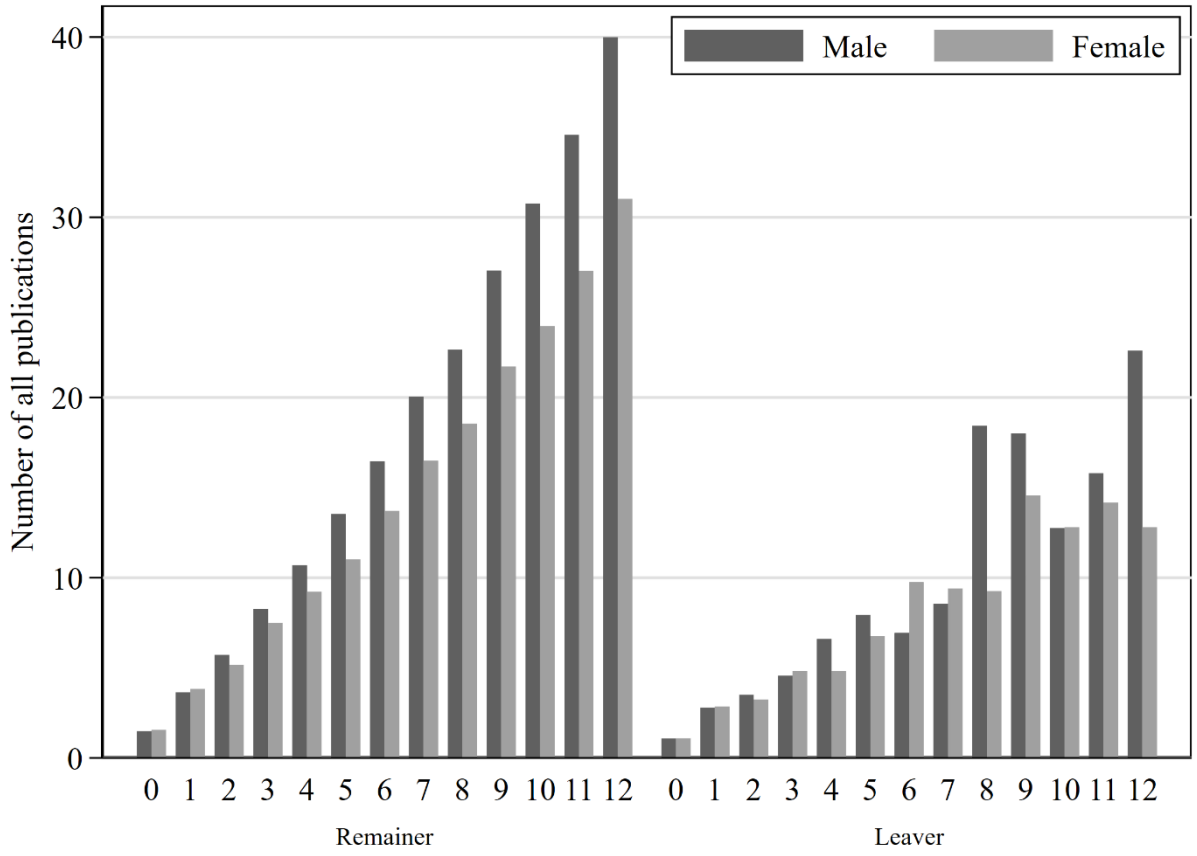

Figure C. Dropout risk in sociology, in descending order of the coefficient estimates.

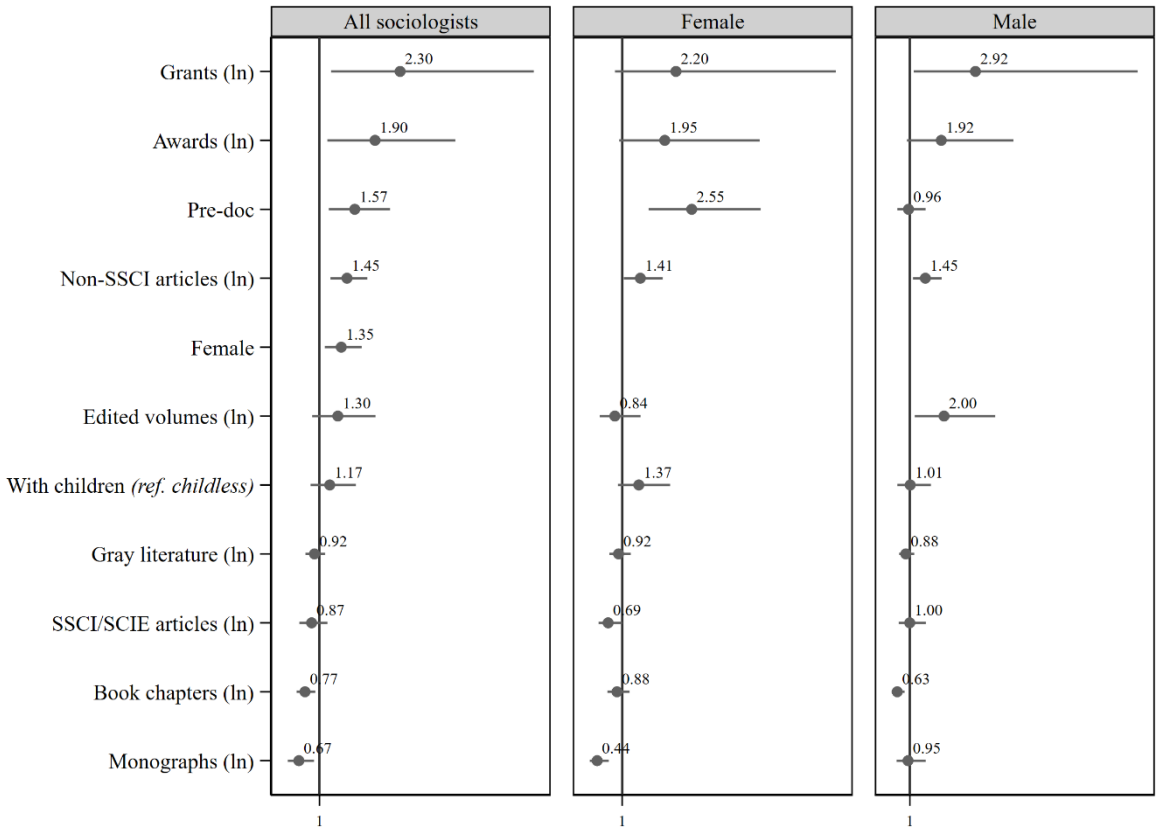

Figure D. Survival curve plotted according to 10% (Table A6, Model 12/13), 20%, 50% less publications (non-indexed articles).