The Unintended Consequences of #MeToo:
Evidence from Research Collaborations[*]

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Abstract

How did #MeToo alter the cost of collaboration between women and men? I show junior female academics start fewer projects after #MeToo. A decrease in collaborations with new male co-authors at the same institution largely explains the decline in projects. The decline in collaborations is concentrated in universities where both sexual harassment policies are more ambiguous (i.e., broader), and the number of public incidents (salience of sexual harassment accusations) is high. This is consistent with men managing a higher perceived risk of sexual harassment accusations as a potential explanation for the decrease in collaborations. Overall, #MeToo appears to bring unintended consequences that impact the career opportunities of junior women.

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JEL Codes: D91, D22, J7, J8, J16, J24

1 Introduction

Collaborations clearly benefit participants in the production of output (Hamilton et al., 2003; Anderson and Richards-Shubik, 2021). Whereas the literature has explored the role of distance on information exchange among team members in organizations (Stein, 2002; Liberti and Mian, 2008), the costs of social interactions involved in collaboration have not received much attention so far. One explanation for the gender gap in career outcomes is that women form smaller networks leaving them with fewer opportunities for collaborations than men (Card et al., 2020; Ductor et al., 2021; Kruger et al., 2022; Sherman and Tookes, 2022). This fact makes changes to the costs of collaboration for women particularly important.

In October 2017, #MeToo focused attention on sexual harassment in the workplace with the goal of improving conditions for women by altering the way women and men interact with each other in the workplace.[1] Increased awareness among men of their behavior, stronger peer support, and institutional commitment to protecting women from sexual harassment (Griffin et al., 2018) should lead to a perception of a safer working environment for women post #MeToo.[2] At the same time, uncertainty about what constitutes socially appropriate behavior in the workplace, higher public scrutiny (Carlsen et al., 2018), and increased reporting rates (Levy and Mattsson, 2020; Gauthier, 2022) create a heightened perceived risk for men of being exposed to sexual harassment accusations post #MeToo.[3,4] Hence, it is an open question whether the movement on net increased or decreased the costs of collaboration between women and men.

I use the academic discipline of economics to understand how costs of collaboration shifted after #MeToo. The academic discipline of economics is a unique setting, as collaborations are

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[1] Although other members from underrepresented groups are affected, for the simplicity of this study, I limit my focus on only the interaction between women and men and sexual harassment directed toward women by men. According to the contact hypothesis, the harassed group is typically the minority group (Gutek et al., 1990; Folke and Rickne, 2022).

[2] After #MeToo, a larger number of top executive contracts included a "termination without cause" clause that allows firms to terminate executive contracts as a result of sexual harassment allegations without severance pay (Arnow-Richman et al., 2021). In academia, the American Economic Association now includes questions related to sexual assault in its Professional Climate Survey (American Economic Association, 2018).

[3] See Miller (2017), Jorge (2018), Tan and Porzecanski (2018), Atwater et al. (2019), and Bennholt (2019) for media reports and survey evidence on men's concerns of sexual harassment accusations after #MeToo.

[4] This study is not merely about the negative consequences of women not collaborating with men who intend to engage in predatory behavior post #MeToo. The focus is on the incentives and coping strategies of men who do not intend to engage in sexual harassment but are either concerned (i) about accusations about workplace behavior they do not understand as inappropriate but are considered as such after the #MeToo movement, or (ii) to be falsely accused of sexual harassment. If as a result of the #MeToo movement men who intend to engage in sexual harassment are removed or disciplined, this should result in increases in productivity for women.

formed voluntarily, are highly consequential for career outcomes, and are observable. Hence, when the costs of interaction increase, we are more likely see changes in collaborations compared to other settings.[5] My focus is on junior female academics who were hired on a tenure-track position at the top 100 U.S. economics departments between 2014 and 2017 and obtained their PhD no earlier than 2014.[6] These women have not yet reached the tenure decision process when #MeToo takes place, are particularly vulnerable to career disruptions, have not developed a reputation as co-authors in the profession, and are more likely to keep their public vita updated.

To measure changes in collaborations, I hand-collect historical CV data and track the composition of collaborators on each new work-in-progress research project of junior female academics over six years around the movement (2015-2020). Hence, the research design is an event study which uses #MeToo as a shock to collaborations between women and men. Because the movement affected the entire US at the same time, there is no clean control group. A key concern is that the observed changes in collaborations were caused by something other than #MeToo.

In my empirical strategy, I rule out various important confounds. First, all junior female academics were hired to their positions before #MeToo, and all analyses are conducted within the *same junior female academic and university*. This rules out concerns about changes in female academic composition or institutional environment after #MeToo. Additionally, I include fixed effects for the number of years since the start of the tenure-track to mitigate the impact of productivity changes over time. I also control for any time-variant effects that could affect collaborations, such as co-author network and department composition. Furthermore, I use junior male academics at the same institutions as a control group in a difference-in-differences specification to support that the observed trends in collaborations are unique to junior women. Moreover, I conduct a placebo test over an alternate time period outside of #MeToo to rule out that the changes in collaborations are due to (unobserved) general trends in the career trajectories of junior female academics. Last, I test the impact of potentially confounding events (COVID-19

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[5]In most other academic disciplines (e.g., psychology, physics, and medicine), research activities are organized as labs, which predetermine the composition of collaborators to a large extent. Hence, even if collaboration between men and women decreases in labs it would be more difficult to detect it. Moreover, economics departments are typically large, which allows for a sufficient sample size of women compared to related fields such as finance. Women represent 30% (American Economic Association, 2019) of faculty in economics and 16% in finance (Sherman and Tookes, 2022). Departments are typically smaller in finance than in economics.

[6]My sample of 83 junior female academics constitutes the full population of junior female academics at the top 100 U.S. economics departments who (i) obtained their PhD no earlier than 2014, (ii) were hired pre #MeToo (between 2014 and 2017), and (iii) were employed at that institution for at least one year post #MeToo.

and the election of President Trump).

I show that junior female academics start 0.7 fewer new research projects per year after the #MeToo movement (as of 2018) compared to before. Overall, 60% of this decline can be explained by a decrease in collaborations with male co-authors. The most important driver is the decline in collaborations with new male co-authors at the same university that account for a total of 29% of the decline in new project initiations after #MeToo. This decline is more pronounced for collaborations with senior (tenured) male co-authors and in research fields where women are more underrepresented (e.g., Financial Economics). Importantly, the decline in new coauthored projects with men and the resulting fall in new project initiations is not compensated for with an increase in projects with female co-authors or solo-authored projects. The fact that women don't shift to other outputs also contradicts the notion that women alter collaboration patterns expecting less credit for work joint work with men. Conversely, women don't appear more likely to have children during their tenure-track due to anticipation of more credit after #MeToo.[7] For junior male academics, I find that they initiated as many new projects as before the movement. Although they start fewer projects with female co-authors after #MeToo, men compensate with more projects with male co-authors.

Next, I test whether there is evidence that men manage an increased perceived risk of sexual harassment accusations as a potential explanation for the decline in collaborations between women and men after #MeToo. To do so, I relate the intensity of research collaborations between junior female and male academics at the same university post #MeToo to the level of ambiguity in the definition of sexual harassment in university sexual harassment policies and the number of public sexual harassment incidents (salience) in these universities. The legal purpose of keeping definitions vague is to broaden the applicability of policies (Edelman, 1992). #MeToo increased external pressure to side with the accuser, and decisions about the accused individual's employment continuation are the result of the university's internal investigations. Hence, after #MeToo, policies that are not specific (i.e., ambiguous) on which behaviors are considered a violation (e.g., dating requests or comments on physical appearance) of the policy expose men to more claims and increase perceived risk of sexual harassment accusations post #MeToo.[8] Since

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[7]We would also not expect women to predominantly discontinue projects involving men since historically these projects have composed the majority of their top-tier publications.

[8]Pre #MeToo, when there was no pressure to side with women, an ambiguous policy likely helped protect men.

policy ambiguity and salience of sexual harassment accusation are both measured at the time of #MeToo, this can viewed as the intensity of treatment for men. Note that a clearer policy does not offer more protection to women and therefore should not increase women's willingness to work more with men after #MeToo than before.[9] Consistent with men managing an increased risk of sexual harassment accusations, the negative effect of #MeToo on research collaborations is more pronounced in high public sexual harassment settings when sexual harassment policies are less clear in specifying prohibited behaviors.

Moreover, to provide evidence that my empirical findings align with attitude changes among economists – my population of interest – I analyze blog posts on the online platform Economics Job Market Rumors (EJMR) around the event date of #MeToo. The forum is anonymous, so contributors likely feel free to express their opinions. At the same time, recent evidence shows that EJMR contributors are representative of my sample universities (Ederer et al., 2023). My analysis provides anecdotal evidence of changes in attitudes among (male) economists who express concern about sexual harassment accusations and the intent to stop working with women after #MeToo. I do not find evidence of a higher perceived risk of sexual harassment among women and an intent to stop working with men.[10]

Last, I analyze the effect of regulatory changes to Title IX (2020), which increased (decreased) protection for individuals accused of (reporting) sexual harassment. Whereas the #MeToo movement increased the perceived risk of sexual harassment accusations for men, the amended Title IX decreased it. I find that collaborations between junior female and male academics recover more after the Title IX amendments at universities that are more exposed to the new policy guidelines (due to higher reliance on federal funding) offering more protection from accusations for men. The positive response in collaborations to the regulatory change is consistent with perceived risk of accusations being a plausible driver in men's decision to work with women.

Although other interpretations are possible, jointly these pieces of evidence are consistent with men managing a higher perceived risk of sexual harassment accusations as an explanation

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[9]More explicit (less ambiguous) definitions of sexual harassment in university policies limit the range of claims women can make against men that can be expected to be supported by university administrations. Therefore, it is unlikely that the cost to women after #MeToo will be higher when an ambiguous policy is in place instead of unambiguous sexual harassment policy.

[10]Women may also face incentives to stop working with men after #MeToo. This would require the movement to either shift women's attitudes of what behaviors they view as appropriate post #MeToo or to insinuate that the risk of being sexually harassed when working with men is higher than they thought pre #MeToo.

for the decline in collaborations between women and men after #MeToo.

Last, I provide support that my results are unlikely driven by other events that took place around my sample period and affected women's collaborations. First, I show that my findings are unlikely to be the result of President Donald Trump taking office in 2017, as collaborations between women and men did not decline more in swing states where Trump's victory was most unexpected.[11] I also consider the impact of the COVID-19 pandemic on women's productivity, finding that the decline in new project initiations among junior female academics that started after #MeToo has slowed with the start of COVID-19. This trend is particularly pronounced in universities that enforced physical distancing more strictly. This is important evidence since remote work reduces the risk of sexual harassment as well as being accused of it.

This is the first study to show evidence of a substantial reduction in women's productive output associated with the #MeToo movement due to fewer collaborations with men. This is important as lower output can impose real costs on women's careers. Although I cannot entirely rule out that the observed changes in collaborations have a different cause other than #MeToo, developing an understanding for potential unintended consequences is crucial given the overall large impact of the social movement.

My findings have important policy implications. First, they underscore the need for organizations to support the goals #MeToo through clear workplace behavior policies, especially in male-dominated fields and where informal interaction drives collaboration. Second, the results suggest factoring in potential productivity declines for women around #MeToo in promotion decisions. Overall, my study demonstrates that clear policies could yield #MeToo's intended benefits without harming women's career prospects.

My work closely relates to studies on the unintended effects of interventions that intend to help marginalized groups but backfire as firms preemptively discriminate against the protected group to prevent future costs of compliance or risk of litigation (Acemoglu and Angrist, 2001; Oyer and Schaefer, 2002; Autor, 2003; Antecol et al., 2018; Neumark et al., 2019). I contribute to this literature by documenting how a social movement, intending to enhance workplace safety for the targeted group, changes employee dynamics and elicits risk-mitigating behavior that comes

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[11] This would be a concern if I incorrectly measured project initiations, wrongly attributing projects that started in 2017 (pre #MeToo) to the year 2018 (post #MeToo).

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at the cost of reduced productivity for the intended beneficiaries of the movement.

I also contribute to the literature on frictions in information exchange required for the creation output among employees in organizations. So far, the literature focused on factors such as hierarchical, geographical, or cultural distance between employees (Stein, 2002; Mian, 2006; Liberti and Mian, 2008). I study the effect on external event that introduces an unintended friction increasing the costs of communication between employees in a setting where employees form collaborations themselves. My unique setting allows me to observe changes in collaborations as interaction costs increase, which is less feasible when collaboration is mandatory, as is frequently the case in most organizational settings.

Moreover, this work adds to the emerging literature studying the #MeToo movement. Most research focuses on the movement's effects on reporting and detection of sexual harassment (Cheng and Hsiaw, 2020; Levy and Mattsson, 2020; Arnow-Richman et al., 2021; Gauthier, 2022). Other studies analyze stock value implications of #MeToo depending on corporate culture and shareholder preferences (Lins et al., 2020; Billings et al., 2022) and corporate sexual misconduct (Borelli-Kjaer et al., 2021). Unlike these studies, I focus on how the movement affects individual employee behavior and the productivity of the protected group.

Last, my work contributes to the existing body of literature on factors contributing to gender inequality in the labor market, both within (Chari and Goldsmith-Pinkham, 2017; Sarsons et al., 2021; Hospido et al., 2022; Adams and Lowry, 2022; Lagaras et al., 2022; Sherman and Tookes, 2022) and outside of the financial economics profession (Goldin, 2014; Azmat and Ferrer, 2017; Babcock et al., 2017; Cullen and Perez-Truglia, 2019; Egan et al., 2022; R. Huang et al., 2022). My research demonstrates how a social movement can exacerbate inequality between the career opportunities of women and men by reducing incentives for workplace interaction. I show evidence that this happens as new social norms are not translated into policies in the workplace. Most recently, the literature has documented heterogeneous effects on the productivity of women and men in academia caused by the COVID-19 pandemic (Barber et al., 2021; Deryugina et al., 2021; Kruger et al., 2022). My study complements this research by providing suggestive evidence of interaction effects between the COVID-19 pandemic and the #MeToo movement.

The paper is organized as follows. Section 2 outlines the setting. Section 3 describes the data and empirical strategy. Section 4 presents the results. Section 5 investigates potential explana-

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tions. Section 6 concludes.

2 Setting

Detecting evidence of reduced interaction between women and men is inherently challenging in the field. Unlike many other settings, economists have the freedom to independently form collaborations instead of being assigned to teams by the organization. This means that when the costs of interaction increase, we can see changes in collaborations. In other settings, costs can increase, but collaborations are mandatory.

Collaborations are vital in academia, representing the majority of published research (Card and DellaVigna, 2013; Hamermesh, 2013; Anderson and Richards-Shubik, 2021; Ductor et al., 2021; Sherman and Tookes, 2022). Junior researchers require publications for tenure and therefore collaborations but have not established a reputation as colleagues.[12] Hence, an increase in the cost of forming collaborations is particularly consequential for the careers of junior scholars.

Moreover, collaborations have been shown to be especially important for female economists who value the associated benefits of risk sharing (Ductor et al., 2021). However, women are underrepresented in economics, especially among senior faculty who contribute important resources, such as experience and networks essential for publication success (American Economic Association, 2020). Therefore, if the cost of collaboration between women and men increases, women are faced with a smaller pool of potential collaborators than men, leading to a decline in productive output.

In economics, collaborations are often preceded and followed by informal social interaction and typically persist for long periods. Intellectual exchange frequently takes place in social settings (e.g, during seminar dinner or drinks) prone to ambiguous situations. Because collaborations are formed voluntarily and social interaction is essential, increasing the cost of social interaction between women and men will result in fewer collaborations and lower output for women.[13]

Last, research collaborations in economics produce measurable outputs (research papers) and are usually publicly disclosed by researchers in their vita even for very early-stage projects.

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[12] Permanent faculty positions (tenure) are highly competitive and are only obtained following a sustained (usually six-year) record of research publications.

[13] Women are already less likely to participate in social events and do not benefit to the same extent from networks (American Economic Association, 2019; Ductor et al., 2021).

Especially for junior researchers, this information is frequently updated to demonstrate evidence of sustained performance.

Overall, collaborations in the academic discipline of economics are formed voluntarily, are highly consequential for career outcomes, and are observable. This makes it an ideal natural laboratory in which to test how the #MeToo movement impacted the cost of collaboration between women and men.

3 Data

To measure collaborations between junior female and male faculty members before and after the #MeToo movement, I collect data on the composition of the co-authors on work-in-progress (WIP) research projects of female faculty members who were on a tenure-track position in 2017 (the year of the #MeToo movement) and obtained their PhD no earlier than 2014.[14] My focus is specifically on WIP work as opposed to mature working papers (SSRN) and those disseminated through prestigious working series (e.g., CEPR or NBER) or work that is already published in academic journals. The reason is that my goal is to match the initiation of the collaboration as closely as possible to its first measurable outcome (a working paper). The publication process typically takes several years after a first draft of the work is available. Therefore, the publication date would not be an accurate approximation of the initiation of the project. Moreover, initiating new projects is key to making it to the stage of dissemination and publication.

All women in my sample were hired on a tenure-track between 2014 and 2017. This implies that the impact of #MeToo on the female academics occurred in a staggered fashion at different stages (ranging from year one to year three) of their tenure-track. I focus only on junior female academics who obtained their PhD in 2014 or after because I want to capture career consequences for women who recently finished their PhD and started their first tenure-track position. These women are typically not yet known to the profession and could not develop a reputation as a collaborator, particularly on a social level, which may affect the decision to start a collaboration.[15] As a result, this group of "early career" academics is particularly vulnerable to career interruptions

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[14] I define both WIP and working papers as WIP research papers.

[15] During the PhD program, students typically work on projects alone or in some cases with their advisors. There is usually little interaction with faculty at other universities at this stage. Although there is information about their technical skills, it is very limited with regard to other personality traits.

given that they are not yet established in the profession.

Focusing on junior female academics who obtained their PhD in 2014 also ensures that most women will not have attained or initiated the tenure process throughout my sample period, which typically takes place six to eight years after one's first (tenure-track) appointment. Tenured academics face very little job insecurity relative to nontenured faculty, which subjects them to different incentives affecting productivity. Another related benefit is that junior academics are more likely (than senior academics) to list and update their WIP papers on their websites and CVs, which are my main data sources. This is because publicly showing evidence of a promising project pipeline is important for junior academics. Moreover, listing WIP work publicly on one's website or CV also signals commitment to the project and active interaction between the collaborators.

In collecting WIP projects of junior female faculty members who were on a tenure-track position in 2017, I follow a similar approach as in Sarsons (2017), Ghosh and Liu (2020), and Heckman and Moktan (2020) and focus on the top 100 economics departments (universities) based on the 2017 *U.S. News & Reports* ranking.[16] Next, I create a list of all female academics who were on a tenure-track at these top 100 economics departments in 2017.[17] I use (historical) university catalogs that list all faculty members in a year to ensure that my sample includes all women who were on a tenure-track in 2017 (and whose PhD is from 2014 or later).

For all junior female academics in my sample, I collect all of their historical CVs available through university websites, their personal websites, or past conference websites using the Wayback Machine. I then extract their (historical) WIP projects from 2015 until the end of 2020. I restrict my sample period to end in 2020 because the worsening COVID-19 situation started affecting projects that were initiated after the first quarter of 2020. I collect data for the full year of 2020 to have a sufficiently long post-#MeToo period and to reduce potential noise in the post period arising from the fact that projects likely started earlier than their first appearance in public sources. However, in my analysis, I investigate how the pandemic interacted with #MeToo.

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[16] I consider only the main economics department of the listed university. The rank goes up to 96 because of 4 ties.

[17] Note that because 13 of the top 100 economics departments did not have a single woman on a tenure-track in 2017, these universities are not part of the sample.

I record the earliest year when I find the WIP paper listed in one of the sources mentioned above. I also look for the earliest draft of the paper and the earliest instance when it was presented at a conference or university seminar. The recorded year is the earliest of the former sources. For each of their co-authors on the WIP projects, I collect information on their gender, PhD granting institution, the year they obtained their PhD, as well as their current affiliation and academic position (rank) at the time of the collaboration.[18]

One challenge in the data collection is the limited ability to identify the exact start date of a collaboration. I aggregate all data on a yearly basis. This is because biographical sources typically list events on a yearly level. This implies that I cannot exactly match the start of the collaboration to the event date of the #MeToo movement (October 15, 2017).[19] Throughout my analysis, I denote 2018 as the start of the post-#MeToo period. The risk with this approach is that I allocate a project to the post-#MeToo period when it actually started earlier. This is because once there is public evidence of a project, it cannot have started later by definition. To mitigate the risk of a wrong date allocation, I manually double-check the initiation dates for all projects that started in 2018. However, wrongly allocating a project to the post period when it actually started pre #MeToo biases my results toward not finding a decrease in collaborations between junior female and male academics when such a decrease exists. I also test the effect of potential confounding events (such as COVID-19, the Trump administration, and unobserved trends in career trajectories) on my results in Section 5.4.

I consider only projects that were initiated as of the year when the female academic started her tenure-track position at the sample institution in my main analysis. Because I follow the same female academic at the same university before and after #MeToo, I include only those who

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[18] For projects that have more than six authors, I consider only the first six co-authors. There are only 12 WIP projects where the number of co-authors is larger than six. These projects are interdisciplinary or outside the discipline of economics where co-authors are typically sorted by the extent of their contribution. This implies that with co-authors who are listed last, the extent of interaction should be lower.

[19] It is difficult to think of an alternative (public) data source that measures collaborations between women and men and fulfills three criteria: (i) provides an exact start date of an interaction, (ii) represents a voluntary collaboration, and (iii) is committal. One potential alternative is randomized controlled trial (RCT) preregistrations, whereby the preregistration (and institutional review board approval) dates might be closer to the true project initiation date in some cases. I repeated my analysis using preregistration data from the AEA RCT Registry. The results of this analysis broadly support the pattern that female researchers have fewer collaborations with all-male co-author teams after #MeToo. However, there are important limitations that make these data less suitable for my analysis. First, preregistrations highly increased in popularity after #MeToo. The choice to preregister a study may not be independent of collaborator choice. Second, it limits my sample to experimental researchers. Experimental economics is known to be more female-friendly, and collaborations were less affected by #MeToo (see Section 4.3). The data and analysis are available upon request.

stayed at the same university pre and post #MeToo.[20] If a female academic moved institutions during the sample period, I remove her from my sample as of the time of the move. This allows me to hold the institutional environment constant post #MeToo.

Overall, my main analytic sample consists of 83 female academics from 58 universities. Note that this sample represents the entire population of junior female academics who obtained their PhDs after 2014 and were in tenure-track positions at a top 100 U.S. institution both before and after #MeToo. In total, my sample comprises of 393 female academic–institution-year observations.

I also investigate whether junior male academics experience similar changes to collaboration patterns as junior female academics post #MeToo. Therefore, I collect corresponding collaboration data for junior male academics who are at the same departments as the sample junior female academics. This junior male academics sample consists of 183 individuals and a total of 896 junior male academic–institution-year observations.[21]

3.1 Identifying Changes in Collaborations after #MeToo

In this study, I aim to understand how the collaborations of female junior academics changed after the #MeToo movement.

When starting a new project, an academic faces different choices with respect to the composition of collaborators (co-authors). On the highest level, the choice can be split into collaborating with other academics, conducting a project alone, or to not conduct the project at all. The last cannot be directly observed. However, a decrease in the number of initiated projects is important as it indicates a decline in research productivity (conditional on career progression). Thus, to identify changes in different types of collaborations, I proceed as follows: I first identify whether there are changes in the total number of project initiations after relative to before #MeToo. Then I sequentially decompose the change in the number of initiated projects into different types of collaborations to identify which type of collaboration the change can be attributed to.

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[20] There are 14 junior academics who leave their institution over the sample period, which may lead to selection issues. Out of the 14 academics, 11 move down to a lower-ranked university or leave academia. This suggests that the less productive women in a cohort left the institution, which should bias my results toward not finding an adverse change of #MeToo on research collaborations. Nevertheless, my results remain qualitatively unchanged if I include these academics in my analysis.

[21] Note that junior male academics are not a placebo group as they were also treated by #MeToo.

To relate changes in the number of projects to a particular group of co-authors, I create nonoverlapping combinations of co-authors based on various dimensions of co-author identity. I broadly distinguish between the following dimensions: sole-authored versus coauthored projects, collaborations with nonfaculty members versus collaborations with (full-time) faculty members, collaborations with female versus male co-authors, collaborations with co-authors inside versus outside of the university, collaborations with existing versus new co-authors, and collaborations with junior (nontenured) versus senior (tenured) co-authors.[22,23] For every junior female academic at a particular institution, I count the number of collaborations of each type in every year. I use these counts as dependent variables in my regressions.

Figure A1 illustrates my approach. The starting point (parent node) is the change in the total number of new initiated projects post relative to pre #MeToo (i.e., the post-#MeToo dummy). Each node represents a non-overlapping combination of co-authors conditional on the prior node. In turn, the change in collaborations in the particular node equals the aggregate changes in its child nodes with each representing a different co-author dimension. For instance, the change in the number of projects consisting of male co-authors equals the sum of the changes in the number of projects with (1) existing male co-authors, (2) new male co-authors, and (3) a mix of new and existing male co-authors.

3.2 Control Variables

At the female academic level, I include fixed effects for the number of years since the start of her tenure-track at the sample university. These controls consider the variation in career stages at which female academics were affected by #MeToo, as well as the corresponding time trends in how projects are conducted throughout one's career. This means that in my analysis, I compare, for instance, junior women in the pre #MeToo period who are on their tenure-track since two years to junior women who are on their tenure-track since two years in the post-#MeToo period. J. Huang et al. (2020) show that career span has an important influence on research productivity.

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[22] Full-time faculty members are Assistant, Associate and full Professors. Nonfaculty members include collaborators who are not part of the permanent or full-time faculty or who are researchers at a nonacademic institution (e.g., economists at the Federal Reserve). These further include PhD students, postdoctoral students, visiting faculty, and research affiliates.

[23] The category "inside the same university" is not restricted to the same department only, as research in economics may span various disciplines and include collaborators in other departments. In addition, the same benefits and costs should apply to departmental as well as university collaborations.

In addition, a small number of female junior academics attain tenure over the sample period. I control for this occurrence by including a dummy variable that is equal to one as of the year when tenure is granted and zero otherwise.

Furthermore, the decision to form a collaboration with a co-author likely also depends on one's existing co-author pool. Therefore, I control for the (log-transformed) size of the female academic's existing co-author pool of faculty members accumulated up until the current year. Here, I consider all projects since the start of the PhD for which I can find publicly available evidence. Similarly, whether a collaboration within the same institution is initiated may depend on the composition of the department which can vary over time.[24] A larger number of junior faculty may increase competition and lead to less collaboration. Moreover, an increase in affirmative action initiatives may lead to a larger number of junior female academics, which will create fewer opportunities for collaboration with men. To account for these dynamics, I control for the (log-transformed) number of female and male Assistant Professors who are on a tenure-track in the same department in the same year.[25]

3.3 Descriptive Statistics

Table A1 in the appendix shows descriptive statistics for the junior female academics in my sample. The average sample female academic obtained her PhD in 2015 and is since two years on a tenure-track in her respective institution. She accumulated a pool of three co-authors (logarithm of 1.1). There are, on average, 3.6 (logarithm of 1.3) female and 6.2 (logarithm of 1.8) male Assistant Professors who are on a tenure-track in the same department.

The descriptive statistics for all outcome variables for the junior female academics in my sample discussed in the results section are presented in Table A2 in the appendix. For brevity, I do not discuss these variables here.

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[24]Ductor and Prummer (2023) show that the increasing share of women in economics over time did not increase the number of collaborators for women. This suggests that the gender composition in the profession does not explain co-author choice and productivity.

[25]I focus on Assistant Professors since competitive dynamics among them is likely more pronounced than among Associate Professors. My results are robust to controlling for the number of all junior tenure-track faculty (Assistant and Associate Professors) in the department.

3.4 Estimation

To analyze changes in collaborations for junior female academics after #MeToo, I estimate the following baseline specification:

$$N_{iu,t} = \alpha + \beta_1 Post_t + \beta_2 A_{iu} + \beta_3 C_{iu,t} + \epsilon_{iu,t}, \tag{1}$$

where $N_{iu,t}$ is the number of newly initiated project collaborations of a particular type (see Section 3.1) for an individual female academic i at university u in year t. I use levels rather than logarithms so that the coefficients naturally provide a decomposition of projects into different types.[26] $Post_{i,ut}$ is an indicator of the observation being pre versus post #MeToo – that is, $Post_t$ takes a value of one if the collaboration started in 2018 or later and zero otherwise. The coefficient of interest is β_1 which indicates the change in the number of collaborations of a particular type after the #MeToo movement for an individual female academic at her respective institution. A_{iu} are female academic - institution fixed effects, and $C_{iu,t}$ are vectors of time-variant and time-invariant control variables at the junior female academic and institution levels as described in Section 3.2. Last, ϵ is the error term. I cluster standard errors at the university level.[27]

Note that all the junior female academics in my sample are already in their respective positions as #MeToo takes place. Therefore, my findings cannot be explained by a shift in the type of women who enter academia as a result of the movement. There is also no evidence that the #MeToo movement constituted a shock to gender composition in the academics profession (e.g., affirmative action initiatives whereby more junior women than men are hired). Table A3 in the appendix illustrates the share of junior women as a share of all new nontenured hires and departures in the sample economics departments. There is a small but statistically insignificant increase in the share of junior women among new junior hires post relative to pre #MeToo.[28] At the same time, there is no evidence that junior women leave academia after #MeToo. Moreover, my analysis is conducted within the same academic over time. This means the quality of junior

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[26] Cohn et al. (2021) also show that adding a constant (i.e., one) to an outcome that is a count variable and then estimating log-linear regressions can lead to biased coefficients and have the wrong sign. However, my results remain robust when I use a log-transformed version of the dependent variable or estimate the model with a fixed effects Poisson model.

[27] My results are robust to clustering the standard errors at the university level, junior academic level, or double-clustering (university - junior academic level).

[28] These numbers are also consistent with those documented by American Economic Association (2020) who find that 23% of economics faculty was composed of women in 2017.

female academics should not change after the movement relative to before. As a result, changes in research output are unlikely to be explained by a change in the quality of women caused by a change in their composition. Individual academic fixed effects also capture the women's research areas which are unlikely to be affected by the movement.[29] Last, university fixed effects capture the size of a department and can be viewed as a proxy for the number of potential co-authors within a department.

I fit the model in Equation 1 sequentially conditional on the category in the prior node as illustrated in Figure A1. I start by showing changes in the total number of new projects post #MeToo, which I then split into sole authored and coauthored. Within coauthored projects, I split those into projects with only male co-authors, only female co-authors, and a mix (female and male co-authors). Within each of these three project categories (female, male, mix), I split projects into projects with new co-authors only, existing co-authors only, and a mix (new and existing co-authors). Then, within each of these three project categories (new, existing, mix), I split projects into projects with inside (same-university) co-authors only, outside (outside of the female academic's university) co-authors only, and a mix (inside and outside co-authors). Then, within each of these three project categories (new, existing, mix), I split projects into projects with inside (same university) co-authors only, outside (outside of the female academic's university) co-authors only, and a mix (inside and outside co-authors). Last, within each of these three project categories (inside, outside, mix), I split projects into projects with tenured co-authors only, nontenured co-authors only, and a mix (tenured and nontenured co-authors). The sum of all coefficients on the post-#MeToo dummy for each category adds up to the change in the total number of new projects post #MeToo (first node).

4   Results

4.1   Does the Number of New Initiated Projects Change after #MeToo?

Univariate analysis.   The junior female academics were affected by #MeToo at different career stages during their tenure-tracks. Moreover, productivity varies with career stage, and

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[29]Even if women decide to move to a different research area after #MeToo, this should not decrease overall output.

universities assess progress based on years since tenure-track start. Therefore, it is important to compare the output of academics who are at the same career stage rather than a comparison over calendar years. For instance, an academic's output in their first tenure-track year pre #MeToo needs to be compared to an academic's output in their first tenure-track year post #MeToo. Figure 1a shows the raw-data average yearly number of new project initiations over the number of years since tenure-track start (i.e., career stage) for junior female (red lines) and male academics (blue lines) before (dotted lines) and after (solid lines) #MeToo. The figure illustrates the increasing trend in new project initiations over the first three years of the tenure-track for both junior women and men pre #MeToo. Figure 1b provides an overview in which calendar year each cohort is observed in their respective career stage (tenure-track year). Note that there are only three cohorts (years one, two, and three) for which a comparison by career stage can be made pre and post #MeToo.

Figure 1a illustrates the pronounced change in research output for junior female academics in the first year of their tenure-track. The figure shows that women started an average of 0.69 new projects per year in their first tenure-track year post #MeToo. This is a decline relative to the number of new projects junior women started pre #MeToo (0.89) and substantially lower than the number of new projects junior male academics started post #MeToo (1.64) at the same career stage. Junior women, post #MeToo, continue to fall behind on the trend in new project initiations relative to the trend of junior women pre #MeToo and men post #MeToo in years two and three of their tenure-tracks.[30]

The key insight from the figure is that women after #MeToo deviate from the productivity trend that women had before #MeToo and that men had after #MeToo at the same career stage. The effect is most pronounced for women in the most initial stages of their tenure-tracks.[31]

Multivariate analysis. Table 1, Column (1) presents the multivariate results from the regression specification in Equation 1 that includes junior academic fixed effects and other controls. The outcome variable is the yearly number of new initiated projects for junior female academics.

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[30] There is evidence of another divergence in output between women and men who are in the later stages of their tenure-tracks (year six). This year also coincides with 2020 for the oldest (year six-) cohort, the year of the pandemic, which I will further discuss in Section 5.4.

[31] The effect remains consistent when including controls and female academic fixed-effects. However, given my limited sample size, I do not analyze differences between individual cohorts in my main analysis. However, all regressions include career-stage fixed-effects.

The coefficient on the *Post* dummy shows that junior female academics start 0.73 fewer new projects per year after #MeToo relative to before. The effect is highly statistically significant. This translates into a decline of 44.2% from 1.66 new projects per year before #MeToo to 0.93 projects per year post #MeToo.[32]

In the subsequent analysis, I zoom into the changes in collaborations of junior female academics and decompose them into their constituent collaboration types to understand which types of collaborations are driving the observed decline of 0.73 new project initiations per year after the #MeToo movement.

4.2 Which Co-author Group Drives the Decrease in New Initiated Projects?

In decomposing the change in new project initiations after the #MeToo movement, I follow the map presented in Figure A1. All illustrated marginal effects are based on the post-#MeToo dummy coefficient estimate. In the results section, I highlight and discuss only the main collaboration constituents of interest. However, Figure 2 and Figures A2 - A4 in the appendix show all post-#MeToo coefficients for every type of collaboration using the regression specification in Equation 1 for junior female academics. Figure 2 presents the post-#MeToo coefficients for the top level of collaboration types with the path I follow in my main analysis highlighted in green. Subsequently, Figure A2 provides post-#MeToo coefficients for all collaboration types involving male co-authors only, Figure A3 shows the post-#MeToo coefficients for all collaboration types involving female co-authors only, and Figure A4 shows the post-#MeToo coefficients for all collaboration types involving a mix of female and male co-authors.

Single-authored and coauthored new project collaborations. Figure 3a illustrates the marginal effects for the post-#MeToo dummy (see Table 1, Columns (1) - (3) for the full regression results). It shows that although the number of solo-authored projects remains stable after #MeToo, the number of coauthored projects declines by 0.67, which constitutes 91.1% of the decline in total projects (0.67/0.73). Within the group of coauthored projects, Figure 3a (and Table 1, Columns (3) - (5)) illustrates that it is mainly projects that involve faculty rather than

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[32]The calculation of marginal effects and changes is based on unrounded coefficient estimates.

PhD students and temporary research affiliates where we see a decline in new project initiations. Overall, coauthored projects with faculty are responsible for 71.7% (0.53/0.73) of the total decline in new project initiations for junior female academics post #MeToo.

New project collaborations with female and male co-authors. I proceed with the main question of interest: Is there a decline in collaborations with male co-authors for junior female academics after the #MeToo movement? Figure 3a (and Table 1, Columns (6) and (7)) shows that there is a small and statistically insignificant decline in female-only projects after #MeToo.[33] The most pronounced change in new projects can be observed for collaborations with male co-authors only. These projects fall by 0.44 projects after #MeToo from a level of 0.77 new projects per year pre #MeToo. Overall, the decline in projects with male co-authors is responsible for 59.8% (0.44/0.73) in the decline of total new projects after #MeToo for junior female academics.

New project collaborations with new and existing male co-authors. Figure 3b shows the marginal effects for the post-#MeToo dummy for collaborations with new male co-authors and existing male co-authors inside and outside of the junior female academic's university. Of particular interest is the group of new male co-authors inside the same institution as the junior female academic. This group is most at risk to be affected by the #MeToo movement. This is because these kind of collaborations are associated with interactions of higher intensity which are more susceptible to instances of inappropriate behavior. Moreover, there is no public evidence of a previous relationship that would mitigate potential concerns that could arise in a collaboration through close interaction. Also, reporting an academic for inappropriate behavior is procedurally easier if both the accuser and accused are in the same institution.

Figure 3b (and Table 2) shows that there is a statistically significant decline in collaborations with both new and existing male co-authors. The decline in collaborations with new male co-authors (0.21 fewer new projects) after #MeToo relative to before is slightly stronger and more

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[33]Figure A3 shows that projects with new female co-authors in the same university also decline somewhat. However, the decline is small in magnitude and responsible for 6.3% (0.05/0.73) of the fall in total new project initiations post #MeToo. A potential explanation is increased competition for collaborations with (particularly senior) female colleagues after #MeToo. Interestingly, in support of this, in unreported results, I find that junior male academics slightly increase collaborations with senior female co-authors at the same university. Meanwhile, for junior women, the loss in collaborations with new female co-authors within the same university appears to be compensated by a similar magnitude increase in project collaborations with existing (outside) female co-authors. Such compensations cannot be observed for collaborations with male co-authors.

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pronounced than the decline in collaborations with existing male co-authors (0.17 fewer new projects).

Consider collaborations with new male co-authors. Collaborations with new outside male co-authors remain unchanged post #MeToo. However, collaborations with new inside male co-authors fall from 0.21 new projects per year pre #MeToo to almost zero new projects per year post #MeToo. Overall, the decline in collaborations with new inside male co-authors accounts for 28.7% (0.21/0.73) in the decline of total new projects post #MeToo. In terms of author seniority (see Table 3), the decline in project collaborations with new inside male co-authors is to a larger extent due to fewer projects with tenured rather than nontenured male co-authors.[34] This is an intuitive result given that sexual harassment incidents are more frequently reported and behaviors are more likely to be interpreted as sexual harassment when they involve a junior female and a senior male employee (Antecol and Cobb-Clark, 2003).[35]

Next, consider collaborations with existing male co-authors. Collaborations with existing male co-authors outside the female's institution fall from 0.22 new projects pre #MeToo to 0.05 new projects post #MeToo. The decline in collaborations with existing outside male co-authors accounts for 24.0% (0.18/0.73) in the decline of total new projects post #MeToo. Collaborations with existing male co-authors inside the female's institution do not change after #MeToo.

It is not straightforward as to why the movement should affect junior women's collaborations with existing outside male co-authors. These collaboration are less prone to uncertainty about the collaborator's behavior and physical distance decreases the risk of sexual harassment and accusations of it. It is difficult to identify direct co-author substitutions. However, a potential explanation is that as junior men intensify collaborations with their existing network of male outside co-authors, it leaves junior women with fewer potential co-authors to substitute for the disappearing collaborations with new male co-authors inside their institutions.

The observed changing pattern in collaborations among junior women post #MeToo is also inconsistent with it being a reaction to the evidence presented by Sarsons (2017), which showed

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[34]Typically, full Professors are tenured, Assistant Professors are nontenured, and Associated Professor may or may not be tenured. Co-author rank can change over time (e.g., from nontenured to tenured). This means that the decline in male nontenured faculty co-authors may be overstated. In a robustness check, I hold co-author rank fixed over the sample period. The results remain qualitatively unchanged.

[35]I do not separately investigate collaborations of tenured male (or female) faculty members. Because senior faculty does not consistently update their working papers on their CV, it would be difficult to obtain reliable data on their collaborations around #MeToo.

that women receive less credit than men for joint work. First, women are not shifting towards working more with other women or pursuing solo projects, for which they receive more credit. Second, the unequal attribution of credit in Sarsons (2017) is not driven by women's collaborations with senior male co-authors. In economics, it is also common knowledge that collaborations with senior faculty yield least credit for junior faculty but have a higher chance of being published successfully (e.g., Card et al., 2020; Hengel, 2022; Kosnik, 2022). In my sample, out of the eight projects that were initiated before #MeToo and were published in the top five economics journals by 2023, seven (five) involved (tenured) male collaborators. This suggests that projects that involve male co-authors unlikely constitute the marginal projects women decide to drop post #MeToo.[36]

Overall, the key takeaway from these results is that collaborations with male co-authors decline for junior female academics after #MeToo. The main driver of this decline are fewer collaborations with new inside male co-authors. This leads to fewer new project initiations post #MeToo.

Collaborations of junior male academics post #MeToo. Junior male academics do not constitute a clear control group since they were also impacted by the #MeToo movement. The effect on junior men is less straightforward and not yet well understood. There might be more heterogeneity in how junior men perceive the risk of being accused of sexual harassment after #MeToo, given their greater familiarity with the new social norms compared to senior men. The movement could also have other effects on junior men. For instance, they might perceive increased competitive pressure, anticipating preferential treatment of women in tenure decisions due to #MeToo, potentially at the expense of junior men. Nevertheless, it is crucial to provide evidence that junior men do not experience the same decline in new research output as junior women after #MeToo. This is important to ensure that my results are not influenced by unobserved trends in the career trajectories of junior academics around that time.

Figure 4 shows the coefficients on the post-#MeToo dummy from a regression based on Equation 1 for different collaboration types (corresponding to Figure 2) for junior male aca-

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[36] I also do not observe women making more use of female-friendly policies that extend their tenure clock or to give birth after #MeToo. For instance, in my sample, only three junior women take maternity leave post #MeToo. Excluding these cases does not qualitatively affect my results.

demics. The result shows that the overall number of new project initiations reduces slightly (by 0.1 projects per year) for men post #MeToo, who started an average of 1.58 new projects pre #MeToo. However, this change is statistically indistinguishable from zero. In particular, collaborations that involve faculty remain entirely unchanged. Although there is a decrease in new project initiations with female co-authors post #MeToo, this is compensated for by an increase in new project initiations with male co-authors.

Table 4 presents the results from a difference-in-differences specification where I combine the samples of junior female and male academics in the same regression. I introduce separate interaction terms that identify the changes in collaborations for women (*Post female*) and men (*Post male*) post #MeToo. The specification excludes the constant term and includes all control variables as shown in Equation 1. Additionally, I conduct a separate regression with a dummy variable that identifies the difference in the change of collaboration between women and men post #MeToo (*Difference: female-male*). The results confirm that junior women experience a statistically significant larger decline in total new research output than junior men (-0.64) after #MeToo. The results also confirm the disproportionate decline in research collaborations with male co-authors for junior women.

Moreover, Table 4 suggests that junior men also experience a decrease in new collaborations with new male co-authors at the same institutions to some extent (0.12 fewer new projects per year). This would be consistent with preceived higher competition amoung junior academics at the institution after #MeToo. Nevertheless, unlike junior women, whose decline is concentrated in collaborations with new male tenured co-authors, the decline for junior men is driven by fewer collaborations with new male nontenured faculty. Moreover, the results show evidence of substitution effects whereby junior men rely more on existing network of male outside collaborators for new projects which appears to compensate for the lost projects women after #MeToo. Note that such compensation does not happen for junior female academics: women lose collaborations with male co-authors which is not compensated by an increase of any other project type, leading to a decline in women's productive output after #MeToo.

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4.3 Are There Differences across Research Fields?

New project initiations and collaborations of junior female academics should be more negatively affected by the #MeToo movement in research fields where women are historically underrepresented as it is harder to find substitute co-authors. If men perceive a higher risk of sexual harassment accusations after #MeToo, they should be less hesitant to stop collaborating with women in these fields, given a larger number of potential alternative co-authors. If #MeToo increases women's sensitivity to inappropriate conduct, women may be more likely to cease collaborating with men in areas where women are underrepresented as female underrepresentation typically coincides with a less female-friendly climate (American Economic Association, 2018). However, in either case, women should find it harder to find alternative co-authors, leading to a decline in output in fields with fewer women.

Women's representation has historically been lower in financial economics and macroeconomics and higher in health and labor economics (Chari and Goldsmith-Pinkham, 2017; Meade et al., 2021). Table 5 shows separate results for the subsample of junior female academics active in research fields with a historically lower share of women (Panel A) and research fields with a historically higher share of women (Panel B) pre #MeToo. Despite a smaller sample size, the decline in new research project initiations post #MeToo is more pronounced in fields with a lower share of women. For women in fields with a larger share of women, the decline in new research output is not statistically significant. Moreover, the decline in new collaborations with men is twice as large in fields with a lower share of women. Overall, these results show that women's output is most negatively affected when it is more difficult to find substitute co-authors as collaborations with men decline after #MeToo. An important takeaway is that women's productivity may be more negatively affected by #MeToo in fields where women are a minority (e.g., physics) compared to areas where women are more numerous (e.g., psychology).

5 Potential Explanations for the Decline in Collaborations between Junior Women and Men

So far, my analysis provides evidence that junior female academics start fewer new projects post #MeToo and that the decrease in collaborations with new male co-authors at the same institution account for a large share of the decline. What could explain this decline?

Extant surveys and anecdotal evidence show that men are concerned about an increased risk of sexual harassment accusations and intend to manage this risk by stop working with women (Miller, 2017; Jorge, 2018; Smith, 2018; Tan and Porzecanski, 2018; Atwater et al., 2019; Bennholt, 2019). Similarly, women express concern about being denied career opportunities because of men's avoidance of women but not a perceived increased risk of sexual harassment following the #MeToo movement (North, 2018; Keplinger et al., 2019).

In the subsequent section, I explore whether the decline in collaborations between women and men can be explained by an increase in men's perceived risk of sexual harassment accusations after #MeToo.

5.1 Clarity on Prohibited Behaviors in Sexual Harassment Policies

Increased uncertainty about what constitutes socially appropriate behavior in the workplace combined with greater public scrutiny, and increased reporting rates create a heightened perceived risk for men of being exposed to sexual harassment accusations post #MeToo. However, sexual harassment accusation claims are handled by universities themselves through internal investigations. Typically, the identity of the accused and the accuser are not made public. If the internal investigation concludes that there is substantiated evidence for a claim, universities take action. Although #MeToo increased external pressure through public scrutiny, the consequences related to the employment relationship with the university of the accused depend on the outcome of the internal investigation. Hence, the costs associated with the perceived threat of being exposed to sexual harassment accusations can be affected by policies universities put in place to address sexual harassment.

University policies define conduct that violates the policy and hence serve as one basis for a

sexual harassment claim. Such policies shape male employees' understanding of behaviors that constitute sexual harassment within the organization (Antecol and Cobb-Clark, 2003). At the same time, policies that regulate social interactions and derive from social norms are purposefully incomplete and thus ambiguous to broaden applicability (Edelman, 1992; Kaplow, 1995).The ambiguity creates uncertainty as it requires the individual to make a prediction as to whether their behavior will be interpreted as a violation of the policy (Guttel and Harel, 2008). Depending on the circumstances, ambiguous policies can either protect perpetrators from punishment or increase exposure to a larger variety of claims. #MeToo provides social pressure for universities to side with an accuser that did not exist pre #MeToo.[37,38] An ambiguous policy leaves open more opportunities for universities to side with women post #MeToo.

#MeToo increased external pressure on organizations to believe women and act on sexual harassment claims (Griffin et al., 2018; The Economist, 2018). However, increasing whether victims are believed has an unknown effect on the likelihood of reporting. Cheng and Hsiaw (2020) develop a model in which women only report sexual harassment when they believe others will corroborate.[39] Hence, the risk of reporting post #MeToo is higher when some sexual harassment cases are already publicly observed when the movement happens.

Overall, I expect a negative effect of #MeToo on collaborations between junior female and male academics at the same university where (1) women are already reporting and therefore the environment already encourages reporting and (2) the sexual harassment policies are ambiguous and so men face a large range of possible accusations. When women are not yet reporting, Cheng and Hsiaw (2020) suggest we may or may not see new reports post #MeToo. I therefore do not make a prediction on whether sexual harassment policy ambiguity is related to collaborations in universities with low public reporting of sexual harassment pre #MeToo.

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[37] For instance, an ambiguous policy that was interpreted in favor of the accused pre #MeToo is more likely to be interpreted in favor of the accuser post #MeToo. However, a more specific policy will still provide some protection to men internally even if they are less protected externally post #MeToo because of external pressure.

[38] Note that I am not arguing that false claims are supported. It may well be the case that claims were too infrequently supported pre #MeToo and will be correctly supported post #MeToo. From the standpoint of men, however, their risk has increased.

[39] The idea is that women face a personal cost of reporting and a single report will not result in any action against the accused. Because all beliefs and reports are endogenous, events like #MeToo could lead to a decrease or increase in the probability of reporting when women do not yet report sexual harassment. In either case, when there are few or no reports pre #MeToo, we do not know whether risks of reporting increased or decreased. It could be the risk increased, but we are still far from the reporting threshold, so collaborations do not fall. It could also be that the risk decreased, so collaborations do not fall. When we already observe cases, however, there is some extant level of risk that we can see changing.

How does policy ambiguity affect women's willingness to collaborate with men post #MeToo? Policies that more clearly specify behaviors that are viewed as sexual harassment by the university, if any, limit but not increase the perceived space of behaviors women can expect men to be punished for by the university administration. Even if an ambiguous policy was used to protect perpetrators rather than the victim before #MeToo, this does not become more prevalent after #MeToo. As a result, if women perceive the risk of sexual harassment as higher or if women increase the range of actions they view as sexual harassment, then unambiguous sexual harassment policies reduce (or at least do not increase) protection against those actions. As a result, more explicit sexual harassment policies should not encourage women to collaborate more with men.

Hence, if the decline in collaborations between women and men post #MeToo is less pronounced in environments where sexual harassment policies are less ambiguous and the prevalence of incidents is high, I interpret this as supporting evidence that the decline in collaboration between women and men is because of men's efforts to manage an increased perceived risk of sexual harassment accusations.

In the subsequent analysis, I relate the changing pattern in research collaborations between junior female and new male co-authors at the same university to the level of ambiguity in the universities' sexual harassment policies and the universities' number of public sexual misconduct incidents. Both policy ambiguity and the number of public sexual misconduct incidents were measured prior to the movement as they were likely affected it. My main measure of ambiguity is the extent to which university sexual harassment policies clarify prohibited workplace behaviors. I use the number of public media reports of sexual misconduct at each university as my proxy for a university's reporting environment. The actual number of reports is typically unobserved to faculty whereas public incidents are very salient and increase in probability with the number of reports. The data are based on the Sexual Misconduct Database compiled by Libarkin (2019).

5.1.1 Sexual Harassment Policies

For every university in my sample, I collect all of their past and current sexual harassment policies available through their websites. Because sexual harassment policies likely changed as

a result of the #MeToo movement, I focus on the last pre-#MeToo policy in my analysis.[40] I specifically focus on sexual harassment policies that cover staff as opposed to student relations.

In my analysis, I am interested in how specific universities are in outlining prohibited behaviors. Therefore, in every sexual harassment policy, I identify the section that contains the definition of sexual harassment. In their definitions of sexual harassment, universities typically roughly follow the U.S. Equal Employment Opportunity Commission (EEOC) guidelines. However, most universities take these as a starting point and expand on them by specifying application areas and examples of behavior. As a result, there is considerable variation in the detail of sexual harassment policies between universities that I exploit for my analysis. For illustration, Figure A5 shows an example of a more ambiguous (Figure A5a) and a less ambiguous (Figure A5b) definition of sexual harassment in university policies.

I extract all behaviors that are addressed in the universities' sexual harassment definition sections of their policies. Subsequently, I classify the behaviors in a meaningful way along a number of dimensions based on the legal definition (EEOC) and previous literature (Till, 1980; Fitzgerald et al., 1997) which is described in detail in Appendix B. The classification consists of the two broad categories Hostile Environment and Quid pro Quo sexual harassment. Hostile Environment consists of the subcategories Gender Harassment and Unwanted Sexual Advances. Unwanted Sexual Advances is particularly relevant within the context of the #MeToo movement. Each category is further broken down into personally/impersonally directed and verbal/physical behaviors. This leads to a total of six categories of sexual harassment behaviors.

In my regression analysis, I use the classification above to construct two aggregate measures of policy ambiguity with respect to prohibited behaviors. The first one, *No. examples*, is the sum of the number of examples of behaviors in each category listed above. Note that this measure is equivalent to a count of all behavioral examples in the policy and thus independent of my classification into categories. A higher value on this measure implies a less ambiguous policy. The second measure, *No. categories with examples*, is constructed by counting for how many categories no examples are provided. I then recenter the variable by subtracting this count from the sample maximum count. This makes the variable more similar to the number of examples; a higher value is associated with a less ambiguous policy. Moreover, I also consider the length of the

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[40]Indeed, my data show that sexual harassment policies became more comprehensive after #MeToo.

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sexual harassment definition section of the policy, *Policy word count*, as an alternative measure for policy ambiguity. I interact all measures with the cumulative number of media reports of sexual misconduct incidents at a university pre #MeToo (*No. incidents (cum.)*). I use a logarithmic transformation of all variables. Table A4 in the appendix shows the summary statistics for all measures.

One may wonder to what extent there is disagreement about what constitutes sexual harassment. Although most people likely agree that requests for sexual favors are inappropriate workplace behaviors, it is less clear whether compliments about clothing or a single request for a date is inappropriate behavior (Osman, 2004). This is in line with evidence in the literature that suggests that people hold different views on what constitutes sexual harassment (McDonald, 2012; Atwater et al., 2019).

5.1.2 Results

Table 6 shows the results. The negative coefficient on the interaction term between the post dummy and the number of sexual misconduct incidents implies that at universities with a large number of public sexual misconduct media reports and ambiguous sexual harassment policies, collaborations between junior female academics and new male faculty at the same university decreased after #MeToo. The positive coefficient on the triple-interaction term with policy ambiguity measures in Columns (1) and (2) means that less ambiguous policies mitigate the negative effect on collaborations when perceived salience of sexual harassment issues (the number of public sexual misconduct media reports) is high. Note that the length of the sexual harassment definition section (Column (3)) does not have any effect on collaborations. This suggests that examples of prohibited behaviors appear to be relevant information and important in alleviating the negative effect on collaborations post #MeToo.

Table A5 in the appendix considers every behavioral category separately. The results show that the positive effect observed in the aggregate analysis above is driven by less ambiguity with respect to prohibited behaviors within the category *Unwanted Sexual Advances/-Attention* (i.e., physical behaviors and verbal requests). This category is most relevant to the ideology of the #MeToo movement which directly relates to sexual harassment as opposed to gender discrimination/harassment in general.

Less ambiguity in sexual harassment policies should be most meaningful for collaborations with new male colleagues in the same university post #MeToo. This is because the policy only applies to employees at the same institution and because in established co-author relationships, there should be less asymmetric information about potential sexual harassment accusations. Table A6 in the appendix shows that less ambiguity in policies does not seem to affect collaborations with existing male co-authors (Columns (1) and (2)) or collaborations with new male co-authors outside of the junior female academic's institution (Columns (3) and (4)) post #MeToo. Interestingly, Columns (5) and (6) show that less ambiguous policies have a negative effect on collaborations with new female faculty inside the same university post #MeToo which, however, increase when the perceived salience of sexual harassment issues is higher and the policies are ambiguous (interaction between the post dummy and the number of incidents).

The analysis in Section 4 showed that junior male academics also decrease collaboration with new male faculty to some extent after #MeToo. A potential explanation is that junior men perceive more competition for tenured positions in anticipation of female-friendly policies that advantage junior women in promotion decisions at their expense after #MeToo. However, the extent of ambiguity in sexual harassment policies should not directly affect this concern and therefore not influence collaborations between junior male academics. Table A7 in the appendix confirms that there is no relationship between the number of public sexual misconduct media reports, the level of ambiguity in policies and collaborations with new inside male co-authors for junior men.

Overall, the results of this analysis show that university sexual harassment policy matters for mitigating the negative unintended consequences of the #MeToo movement when perceived risk of reporting is high. Universities with less ambiguous sexual harassment policies that specify prohibited behaviors in the workplace dampen the decrease in new research collaborations between junior female and male faculty at the same institution as #MeToo takes place. In contrast, universities with more ambiguous sexual harassment policies and many sexual harassment cases see the largest decline in productivity for female academics post #MeToo. This result can be viewed as further supporting evidence that men's uncertainty about appropriate behavior and associated fear of accusation of sexual harassment is driving the reduced interaction between men and women.

5.2 Changing Attitudes on Collaborating with Women among Economists

Individual perceptions of women and men among the population of interest can differ and drive behavior. To shed some light on the changes in attitudes of economists after #MeToo, I collect blog posts from EJMR. The sensitive nature of my study's question, limits the extent to which I can elicit truthful responses from my sample population. I am also not able to examine attitudes pre #MeToo. EJMR is an anonymous online discussion forum that has been used in previous academic research to study the climate within the economics profession (Wu, 2020; Ederer et al., 2023). Importantly, contemporaneous research that geolocated EJMR contributors shows that these are predominantly economists in U.S. economics departments, highly representative of my sample universities (Ederer et al., 2023). An important advantage within my study is that the platform is fully anonymous, meaning that contributors unlikely feel the need to censor their views. As such, EJMR is criticized for giving voice to extreme views. The platform is reported to be predominately popular among male economists (about 80%) (Wu, 2020). I use EJMR data as an independent source to proxy attitudes on collaborations with the opposite sex among economists around #MeToo.

For my analysis, I scraped posts from EJMR two years around the event date of the #MeToo movement (October 15, 2017). In total, I obtain 978,758 posts for this period.[41] Through the website's RSS (Really Simple Syndication) functionality, I am able to obtain close to the exact time of each post, which means that I can distinguish very accurately (by a margin of seconds) between posts written before and after #MeToo.

I define search words to identify posts whose content is consistent with (a) a perceived risk of interacting with women and the intent to limit interaction with female colleagues and (b) concerns about being sexually harassed and the intent to limit professional interaction with men. To identify these two types of content, I define three categories of search words (gender classifiers, action, and association) and check whether different combinations of the three word categories appear in the same post. Then I manually examine all posts to check whether the post is consistent with the content I aim to identify. Table A8 in the appendix shows both sets of search words.

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[41] Around 5% of posts could not be scraped due to a block on the platform. The block appears to be applied randomly rather than to posts with specific content.

Figure 5 displays the results of my textual analysis. The figure shows that discussions about the risks associated with working with women and expressing the intent to limit professional interactions with women were mainly prompted by the #MeToo movement. I found 23 (0.005%) posts containing such content in the year before #MeToo and 253 (0.05%) such posts in the year after #MeToo. The small spike before #MeToo (April 2017) coincided with a *Washington Post* article reporting on a politician's, Mike Pence's, rule to never eat alone with women other than his wife as this could be misinterpreted and result in sexual harassment accusations (the Pence rule) (Parker, 2017). The other large spike in August 2018 coincided with a court ruling on the first sexual harassment lawsuit in academia (financial economics) (Roberston, 2018). Note that neither the Pence rule nor the lawsuit which was filed over a year before the ruling received much attention before the #MeToo campaign. It was only after #MeToo that EJMR bloggers concluded that working with women is risky and expressed the intention to avoid doing so in the future. In my analysis, I did not find any instances where posts express concerns about being sexually harassed and the intent to limit professional interaction with men. The absence of such posts cannot be explained by women's reluctance to express such views publicly, as the platform is fully anonymous. Related posts that appear to have been written by women assert the existence of sexual harassment. However, I could not find any posts expressing the intent to stop working with men.

Overall, the results of this analysis provide anecdotal evidence of changing attitudes among male economists who appear to be concerned about being accused of sexual harassment when working with women and express the intent to limit their interaction with women after #MeToo. This change in attitude is consistent with the observed decline in research collaboration between women and men post #MeToo.

5.3 Increasing Protection for the Accused: Amendments to Title IX

In May 2020, the Trump administration made changes to Title IX regulations. It was the first ruling ever dedicated to sexual harassment. Title IX is a federal civil rights law (1972) that requires educational institutions that receive federal financial assistance to prevent sex discrimination and to respond effectively to reports of sexual misconduct. The aim of Trump's amendments to Title

IX was to provide more protections for those accused of sexual harassment allegations.

I exploit differences in universities' dependence on government funds to finance research activities as a source of variation in the exposure to the Title IX amendments. Universities that are more dependent on federal funds should follow the new Title IX guidelines more closely. A higher exposure to the Title IX amendments should lead to a decrease in men's perceived fear of sexual harassment accusations and, at the same time, less perceived protection from sexual harassment for women. Therefore, if men backed off from collaborating with women due to concerns about sexual harassment accusations, we should see a positive effect on collaborations after the Title IX amendments at universities with a higher exposure to the new regulations.

A detailed description of the analysis and results is provided in Appendix C. Overall, the results of this analysis show an increase in collaborations between junior female academics and new male co-authors at universities with a higher reliance on government funding (where protection for men should increase more) after the Title IX amendments. This result can be viewed as additional supporting evidence that men's perceived fear of accusation of sexual harassment is driving the reduced interaction between men and women.

5.4 Robustness Checks and Alternative Explanations

In my study, I cannot entirely rule out that the observed changes in collaborations of junior female academics have a cause other than #MeToo. The movement affected the entire United States simultaneously, so there was no staggered treatment. Moreover, the movement was likely preceded by changes in attitudes regarding tolerance toward sexual harassment. Because I cannot observe the exact start date of a collaboration, I cannot precisely match the start of the collaboration to the event date of the #MeToo movement. Next, I discuss and empirically address potential confounding effects.

First, in Section 5.3, I showed that Title IX amendments implemented by the Trump administration (2020) affected collaborations between women and men. In Appendix C, I show that the anticipation of increased workplace misogyny when Trump took office in 2017 as president is unlikely responsible for the observed decline in women's output and collaborations with men after #MeToo. That is because collaborations between women and men were not affected more

strongly in swing states, where Trump's election was least expected.

Second, in Appendix D, I provide evidence that the observed changes in collaborations are unlikely due to the COVID-19 pandemic that started in 2020. My analysis shows that #MeToo had a more negative effect on junior women's productivity than the pandemic. Moreover, I show some support that collaborations between women and men rebound more after #MeToo at universities that enforce social distancing more strictly during the pandemic. This is consistent with social distancing decreasing both the risk of sexual harassment as well as being accused of it.

Another potential concern is that my analysis does not pick up trends in collaborations over the career trajectories that is specific to junior female academics. The results of a placebo test (Appendix E) over an alternate period outside of #MeToo (2012-2017) do not support this conjecture.

Last, in Appendix F, I use the yearly number of different types of co-authors in research collaborations as an alternative dependent variable to demonstrate that women's slowdown in productive output coincides with a reduction in the growth of junior women's co-author networks.

6   Conclusion

In this study, I investigate the impact of the #MeToo movement on collaborations between men and women. I use academia as my laboratory and investigate research collaborations in economics departments of U.S. universities. My results show that after the #MeToo movement, research productivity among junior female academics declined. The most important driver is fewer collaborations with new male co-authors. This is the first study to provide evidence of unintended costs of the #MeToo movement on collaborations.

The intent of the #MeToo movement was to decrease tolerance for sexual harassment in the workplace. At the same time, a social movement like #MeToo may have unintended spillover effects that induce reluctance for women and men to interact with each other in the workplace. This is likely to happen if change relies on regulation through social norms rather than clear and effective corporate governance structures supporting the movement. My results show that the movement affects research collaborations particularly negatively when the perceived salience

sexual harassment issues is high and there are no policies in place that unambiguously regulate social interactions.

The results of this study have important policy implications. Regulation social interactions is an inherently difficult task due large heterogeneity in cases and complexity in human interactions. This study emphasizes the importance of drafting clearer and more complete sexual harassment policies to support the goals of the #MeToo movement.

Many domains with high earnings potential are still male-dominated. Reduced interaction between men and women that limit professional collaborations will exacerbate inequality between the career opportunities of men and women if they isolate women and restrict their access to resourceful networks.

References

Acemoglu, Daron, and Joshua D Angrist. 2001. "Consequences of employment protection? The case of the Americans with Disabilities Act." *Journal of Political Economy* 109 (5): 915–957.

Adams, Renee B., and Michelle Lowry. 2022. "What's good for women is good for science." *The Review of Corporate Finance Studies.*

American Economic Association. 2018. *Interim Report - Ad Hoc Committee on the Professional Climate in Economics.* https://www.aeaweb.org/resources/member-docs/report-on-professional-climate.

———. 2019. *AEA Professional Climate Survey: Final Report.* https://www.aeaweb.org/resources/member-docs/final-climate-survey-results-sept-2019.

———. 2020. "Committee on the Status of Women in the Economics Profession (CSWEP) Annual Survey of U.S. Economics Departments, United States, 1994-2018." *Inter-university Consortium for Political and Social Research.*

Anderson, Katharine A., and Seth Richards-Shubik. 2021. "Collaborative production in science: An empirical analysis of coauthorships in economics." *The Review of Economics and Statistics,* 1–45.

Antecol, Heather, Kelly Bedard, and Jenna Stearns. 2018. "Equal but inequitable: Who benefits from gender-neutral tenure clock stopping policies?" *American Economic Review* 108 (9): 2420–2441.

Antecol, Heather, and Deborah Cobb-Clark. 2003. "Does sexual harassment training change attitudes? A view from the federal level." *Social Science Quarterly* 84 (4): 826–842.

Arnow-Richman, Rachel S., Steven Davidoff Solomon, and James Hicks. 2021. "Anticipating harassment: MeToo and the changing norms of executive contracts." *Working Paper.*

Atwater, Leanne E., Allison M. Tringale, Rachel E. Sturm, Scott N. Taylor, and Phillip W. Braddy. 2019. "Looking ahead: How what we know about sexual harassment now informs us of the future." *Organizational Dynamics* 48 (4): 100–677.

Autor, David H. 2003. "Outsourcing at will: The contribution of unjust dismissal doctrine to the growth of employment outsourcing." *Journal of Labor Economics* 21 (1): 1–42.

Azmat, Ghazala, and Rosa Ferrer. 2017. "Gender gaps in performance: Evidence from young lawyers." *Journal of Political Economy* 125 (5): 1306–1355.

Babcock, Linda, Maria P Recalde, Lise Vesterlund, and Laurie Weingart. 2017. "Gender differences in accepting and receiving requests for tasks with low promotability." *American Economic Review* 107 (3): 714–747.

Barber, Brad M., Wei Jiang, Adair Morse, Manju Puri, Heather Tookes, and Ingrid M. Werner. 2021. "What explains differences in finance research productivity during the pandemic?" *The Journal of Finance* 76 (4): 1655–1697.

Bennholt, Katrin. 2019. "Another side of MeToo: Male managers fearful of mentoring women." https://www.nytimes.com/2019/01/27/world/europe/metoo-backlash-gender-equality-davos-men.html.

Billings, Mary Brooke, April Klein, and Yanting Crystal Shi. 2022. "Investors' response to the# MeToo movement: does corporate culture matter?" *Review of Accounting Studies* 27 (3): 897–937.

Borelli-Kjaer, Mads, Laurids Moehl Schack, and Ulf Nielsson. 2021. "#MeToo: Sexual harassment and company value." *Journal of Corporate Finance* 67:101875.

Card, David, and Stefano DellaVigna. 2013. "Nine facts about top journals in economics." *Journal of Economic Literature* 51 (1): 144–161.

Card, David, Stefano DellaVigna, Patricia Funk, and Nagore Iriberri. 2020. "Are referees and editors in economics gender neutral?" *The Quarterly Journal of Economics* 135 (1): 269–327.

Carlsen, Audrey, Maya Salam, Clair Cain-Miller, Denise Lu, Ash Ngu, Jugal K. Patel, and Zach Wichter. 2018. "MeToo brought down 201 powerful men. Nearly half of their replacements are women." https://www.nytimes.com/interactive/2018/10/23/us/metoo-replacements.html.

Chari, Anusha, and Paul Goldsmith-Pinkham. 2017. "Gender representation in economics across topics and time: Evidence from the NBER summer institute." *Working Paper.*

Cheng, Ing-Haw, and Alice Hsiaw. 2020. "Reporting sexual misconduct in the#Metoo era." Forthcoming, *American Economic Journal: Microeconomics.*

Cohn, Jonathan B., Zack Liu, and Malcolm Wardlaw. 2021. "Count data in finance." *Working Paper.*

Cullen, Zoe, and Ricardo Perez-Truglia. 2019. "The old boys' club: Schmoozing and the gender gap." *Working Paper.*

Deryugina, Tatyana, Olga Shurchkov, and Jenna Stearns. 2021. "COVID-19 disruptions disproportionately affect female academics." *AEA Papers and Proceedings* 111:164–168.

Ductor, Lorenzo, Sanjeev Goyal, and Anja Prummer. 2021. "Gender and collaboration." *The Review of Economics and Statistics,* 1–40.

Ductor, Lorenzo, and Anja Prummer. 2023. "Gender Homophily, Collaboration, and Output." *Working Paper.*

Edelman, Lauren B. 1992. "Legal ambiguity and symbolic structures: Organizational mediation of civil rights law." *American Journal of Sociology* 97 (6): 1531–1576.

Ederer, Florian, Goldsmith-Pinkham Paul, and Kyle Jensen. 2023. "Anonymity and Identity Online: An Empirical Study." *Working Paper.*

Egan, Mark, Gregor Matvos, and Amit Seru. 2022. "When Harry fired Sally: The double standard in punishing misconduct." *Journal of Political Economy* 130 (5): 1184–1248.

Fitzgerald, Louise F, Suzanne Swan, and Vicki J Magley. 1997. "But was it really sexual harassment? Legal, behavioral, and psychological definitions of the workplace victimization of women." *Sexual Harassment: Theory, Research, and Treatment,* 5–28.

Folke, Olle, and Johanna Karin Rickne. 2022. "Sexual harassment and gender inequality in the labor market." *The Quarterly Journal of Economics.*

Gauthier, Germain. 2022. "Measuring Crime Reporting and Incidence: Method and Application to# MeToo." *Working Paper.*

Ghosh, Pallab, and Zexuan Liu. 2020. "Coauthorship and the gender gap in top economics journal publications." *Applied Economics Letters* 27 (7): 580–590.

Goldin, Claudia. 2014. "A grand gender convergence: Its last chapter." *American Economic Review* 104 (4): 1091–1119.

Griffin, Riley, Hannah Recht, and Jeff Green. 2018. "MeToo: one year later." https://www.bloomberg.com/graphics/2018-me-too-anniversary/.

Gruber, James E. 1992. "A typology of personal and environmental sexual harassment: Research and policy implications for the 1990s." *Sex Roles* 26 (11): 447–464.

Gutek, Barbara A., Aaron Groff Cohen, and Alison M. Konrad. 1990. "Predicting social-sexual behavior at work: A contact hypothesis." *Academy of Management Journal* 33 (3): 560–577.

Guttel, Ehud, and Alon Harel. 2008. "Uncertainty revisited: Legal prediction and legal postdiction." *Michigan Law Review* 107:467.

Hale, Thomas, Noam Angrist, Rafael Goldszmidt, Beatriz Kira, Anna Petherick, Toby Phillips, Samuel Webster, Emily Cameron-Blake, Laura Hallas, Saptarshi Majumdar, et al. 2021. "A global panel database of pandemic policies (Oxford COVID-19 Government Response Tracker)." *Nature Human Behaviour* 5 (4): 529–538.

Hamermesh, Daniel S. 2013. "Six decades of top economics publishing: Who and how?" *Journal of Economic Literature* 51 (1): 162–172.

Hamilton, Barton H., Jack A. Nickerson, and Hideo Owan. 2003. "Team incentives and worker heterogeneity: An empirical analysis of the impact of teams on productivity and participation." *Journal of Political Economy* 111 (3): 465–497.

Heckman, James J., and Sidharth Moktan. 2020. "Publishing and promotion in economics: The tyranny of the top five." *Journal of Economic Literature* 58 (2): 419–470.

Hengel, Erin. 2022. "Publishing while female. Are women held to higher standards? Evidence from peer review." *Economic Journal.*

Hill, Seth J, Daniel J Hopkins, and Gregory A Huber. 2021. "Not by turnout alone: Measuring the sources of electoral change, 2012 to 2016." *Science Advances* 7 (17): eabe3272.

Hospido, Laura, Luc Laeven, and Ana Lamo. 2022. "The gender promotion gap: evidence from central banking." *Review of Economics and Statistics* 104 (5): 981–996.

Huang, Junming, Alexander J. Gates, Roberta Sinatra, and Albert-László Barabási. 2020. "Historical comparison of gender inequality in scientific careers across countries and disciplines." *Proceedings of the National Academy of Sciences* 117 (9): 4609–4616.

Huang, Ruidi, Erik J Mayer, and Darius P Miller. 2022. "Gender bias in promotions: Evidence from financial institutions." *Forthcoming in Review of Financial Studies.*

Jorge, Ortiz. 2018. "Will #MeToo turn into NotHer? Movement may come with unintended workplace consequences." https://www.usatoday.com/story/news/2018/10/04/.

Kaplow, Louis. 1995. "A model of the optimal complexity of legal rules." *Journal of Law, Economics and Organization* 11:150.

Keplinger, Ksenia, Stefanie K Johnson, Jessica F Kirk, and Liza Y Barnes. 2019. "Women at work: Changes in sexual harassment between September 2016 and September 2018." *PloS One* 14 (7): e0218313.

Kosnik, Lea-Rachel. 2022. "Who are the more dismal economists? Gender and language in academic economics research." *AEA Papers and Proceedings* 112:592–596.

Kruger, Samuel, Gonzalo Maturana, and Jordan Nickerson. 2022. "How Has COVID-19 Impacted Research Production in Economics and Finance?" *Review of Financial Studies, Forthcoming.*

Lagaras, Spyridon, Maria-Teresa Marchica, Elena Simintzi, and Margarita Tsoutsoura. 2022. "Women in the financial sector." *Working Paper.*

Levy, Roee, and Martin Mattsson. 2020. "The effects of social movements: Evidence from #MeToo." *Working Paper.*

Libarkin, Julie. 2019. *Academic Sexual Misconduct Database.* https://academic-sexual-misconduct-database.org.

Liberti, Jose M, and Atif R Mian. 2008. "Estimating the effect of hierarchies on information use." *The Review of Financial Studies* 22 (10): 4057–4090.

Lins, Karl V, Lukas Roth, Henri Servaes, and Ane Tamayo. 2020. "Gender, culture, and firm value: Evidence from the Harvey Weinstein scandal and the# MeToo movement." *Working Paper.*

McDonald, Paula. 2012. "Workplace sexual harassment 30 years on: A review of the literature." *International Journal of Management Reviews* 14 (1): 1–17.

Meade, Ellen E, Martha Starr, and Cynthia Bansak. 2021. "Changes in Women's Representation in Economics: New Data from the AEA Papers and Proceedings." *Working Paper.*

Mian, Atif. 2006. "Distance constraints: The limits of foreign lending in poor economies." *The Journal of Finance* 61 (3): 1465–1505.

Miller, Claire Cain. 2017. "Unintended consequences of sexual harassment scandals." https://www.nytimes.com/2017/10/09/upshot/as-sexual-harassment-scandals-spook-men-it-can-backfi%20re-for-women.html.

Neumark, David, Ian Burn, Patrick Button, and Nanneh Chehras. 2019. "Do state laws protecting older workers from discrimination reduce age discrimination in hiring? Evidence from a field experiment." *The Journal of Law and Economics* 62 (2): 373–402.

North, Anna. 2018. "The Aziz Ansari story is ordinary. That's why we have to talk about it." https://www.vox.com/2018/1/15/16886420/aziz-ansari-story.

Osman, Suzanne L. 2004. "Victim resistance: Theory and data on understanding perceptions of sexual harassment." *Sex Roles* 50 (3): 267–275.

Oyer, Paul, and Scott Schaefer. 2002. "Litigation costs and returns to experience." *American Economic Review* 92 (3): 683–705.

Parker, Ashley. 2017. "Karen Pence is the vice president's 'prayer warrior,' gut check and shield." *The Washington Post.*

Roberston, Aaron. 2018. "Former Assistant Professor Wins Retaliation Claim Against Columbia." *The New York Times.*

Rotundo, Maria, Dung-Hanh Nguyen, and Paul R Sackett. 2001. "A meta-analytic review of gender differences in perceptions of sexual harassment." *Journal of Applied Psychology* 86 (5): 914.

Sarsons, Heather. 2017. "Recognition for group work: Gender differences in academia." *American Economic Review Papers & Proceedings* 107 (5): 141–145.

Sarsons, Heather, Klarita Gërxhani, Ernesto Reuben, and Arthur Schram. 2021. "Gender differences in recognition for group work." *Journal of Political Economy* 129 (1): 101–147.

Sherman, Mila Getmansky, and Heather E. Tookes. 2022. "Female representation in the academic finance profession." *The Journal of Finance* 77 (1): 317–365.

Smith, Kyle. 2018. "A male backlash against MeToo is brewing." https://nypost.com/2018/02/03/%20a-male-backlash-against-metoo-is-brewing/.

Stein, Jeremy C. 2002. "Information production and capital allocation: Decentralized versus hierarchical firms." *The Journal of Finance* 57 (5): 1891–1921.

Tan, Gillian, and Katia Porzecanski. 2018. "Wall Street Rule for the #MeToo era: Avoid women at all cost." https://www.bloomberg.com/news/articles/2018-12-03/%20a-wall-street-rule-for-the-metoo-era-avoid-women-at-all-cost.

The Economist. 2018. *American business and #MeToo.* https://www.economist.com/business/2018/09/27/american-business-and-metoo.

The New York Times. 2021. *Coronavirus (Covid-19) Data in the United States.* https://github.com/nytimes/covid-19-data.

Till, Frank J. 1980. *Sexual Harassment: A Report on the Sexual Harassment of Students.* U.S. Department of Education.

U.S. Equal Employment Opportunity Commission. 1980. *Guidelines on Discrimination because of Sex (Sect. 1604. 11)*.

Woolf, Steven H. 2022. "The growing influence of state governments on population health in the United States." *JAMA* 327 (14): 1331–1332.

Wu, Alice H. 2020. "Gender bias among professionals: an identity-based interpretation." *Review of Economics and Statistics* 102 (5): 867–880.

Figures and Tables
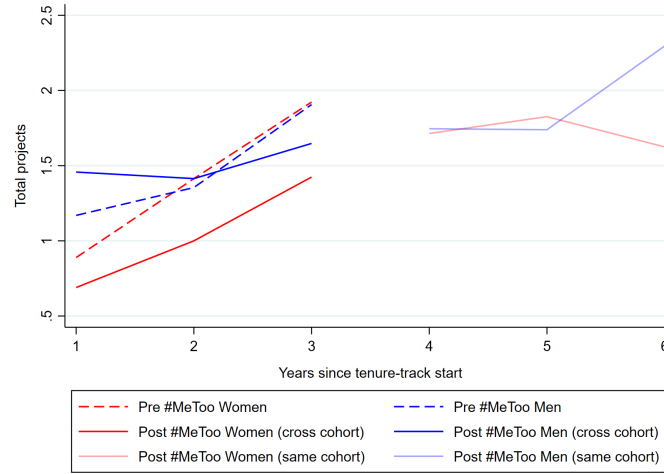
(a) Average number of new initiated projects per year by the number of years since tenure-track start for junior female and male academic around #MeToo.
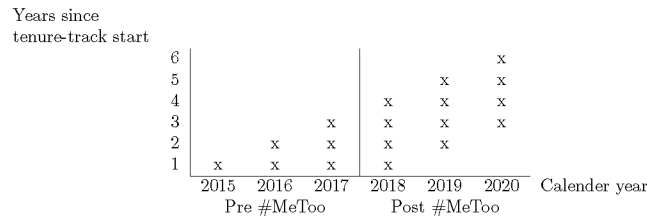
(b) Overview of distribution of observed cohorts over calendar years around #MeToo.

Figure 1: Figure 1a shows the average number of new initiated projects per year (y-axis) by the number of years since tenure-track start (x-axis) for i) junior female academics pre #MeToo (dotted red line); ii) junior male academics pre #MeToo (dotted blue line); iii) junior female academics post #MeToo (cross cohort) (solid red line); iv) junior male academics post #MeToo (cross cohort) (solid blue line); v) junior female academics post #MeToo (same cohort) (solid light-red line); and vi) junior male academics post #MeToo (same cohort) (solid light-blue line); All junior academics were hired pre #MeToo (2014 to 2017). The groups i) and ii) include observations from junior academics who had (at least) one of their first three years of their tenure-track during the pre #MeToo period. The groups iii) and iv) include observations from junior academics who had (at least) one of their first three years of their tenure-track during the post #MeToo period. The groups v) and vi) include observations from junior academics who had (at least) one of their second three years (year four, five, or six) of their tenure-track during the post #MeToo period. Because the earliest tenure-track start year is 2014, there is no one in the sample who had their second three years (year four, five, or six) of their tenure-track during the pre #MeToo period. The figure is based on 393 (academic-year) observations for junior female and 896 (academic-year) observations for junior male academics at the same institutions. Figure 1b illustrates for which calendar years each cohort junior academics is observed in the sample.
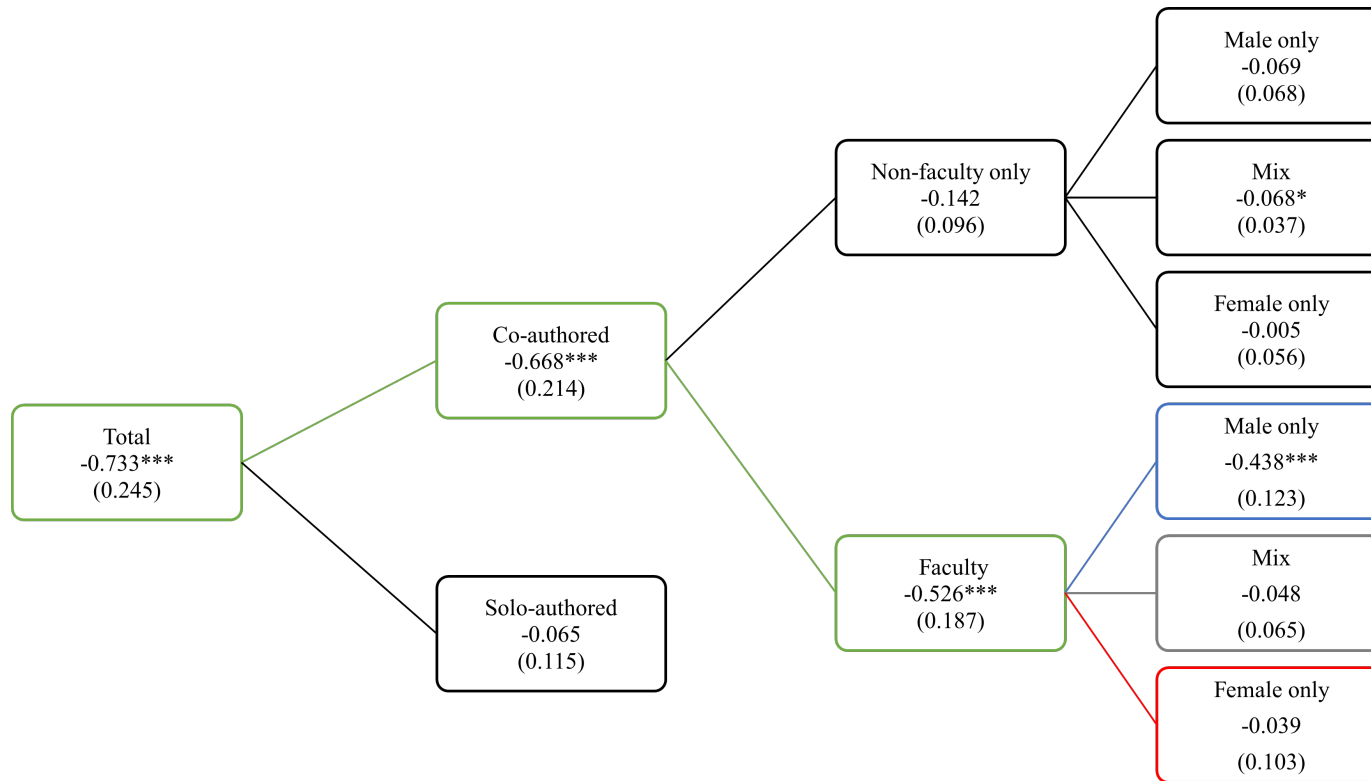
Figure 2: Overview of coefficients on the post dummy from a regression where the dependent variable is the number of new projects started with different co-author types in a given year by a junior female academic (N=393). Each coefficient represents a different co-author type. E.g. "Male Only" provides the coefficient for the post dummy from a regression where the dependent variable is number of projects initiated by a junior academic with male co-authors only. "Nonfaculty Only" represents the number of new projects with co-authors who are not part of faculty (e.g. PhD students, Postdocs, and visiting faculty). "With faculty" represents the number of new projects involve co-authors who are part of faculty (Assistant, Associate, and full Professors). The post dummy is equal to one if a research project started after #MeToo and zero otherwise. The co-author types under "With faculty" the co-authors sub-groups "Male only", "Female only", and "Mix" are further broken down in Figures A2 to A4. The specification is based on Equation 1. Robust standard errors clustered on university level are in parenthesis.
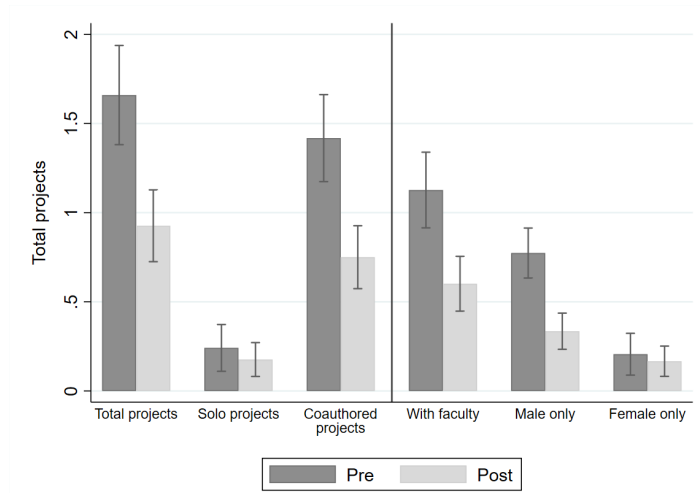
(a) Number of total, solo-authored and coauthored projects with male and female faculty.
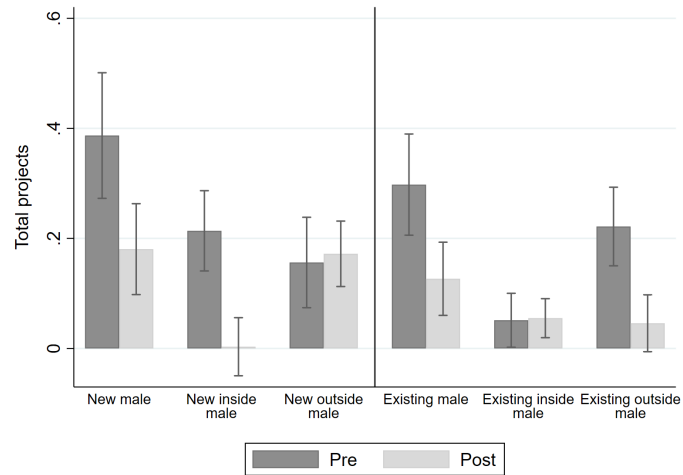
(b) Number of projects with new and existing male co-authors.

Figure 3: This figure shows the marginal effects from an ordinary least squares regression of the post-#MeToo dummy on the change in the number of yearly new initiated projects with different co-author types for the sample of junior female academics (N=393). All regressions are based on the specification in Equation 1 and the regression coefficients can be found in Tables 1, and 2. Figure (a) illustrates the change in (i) the total number of new initiated projects, (ii) new initiated projects that are solo-authored, (iii) new initiated projects that are coauthored, (iv) new initiated projects that are coauthored with faculty (Table 1), (v) new initiated projects that are coauthored with male faculty only, and (vi) new initiated projects that are coauthored with female faculty only (Table 1) after #MeToo. Note that (ii) and (iii) add up to (i). (iv) is a sub-component of (iii). (v) and (vi) are components of (iv). Figure (b) illustrates the change in the number of new initiated projects that are coauthored with new and existing male faculty only inside and outside of the junior female academics' university (Table 2) after #MeToo. New inside male and New outside male are components of New male. Existing inside male and Existing outside male are components of Existing male. Both are components of Male Only. See Figures 2 to A4 for details.

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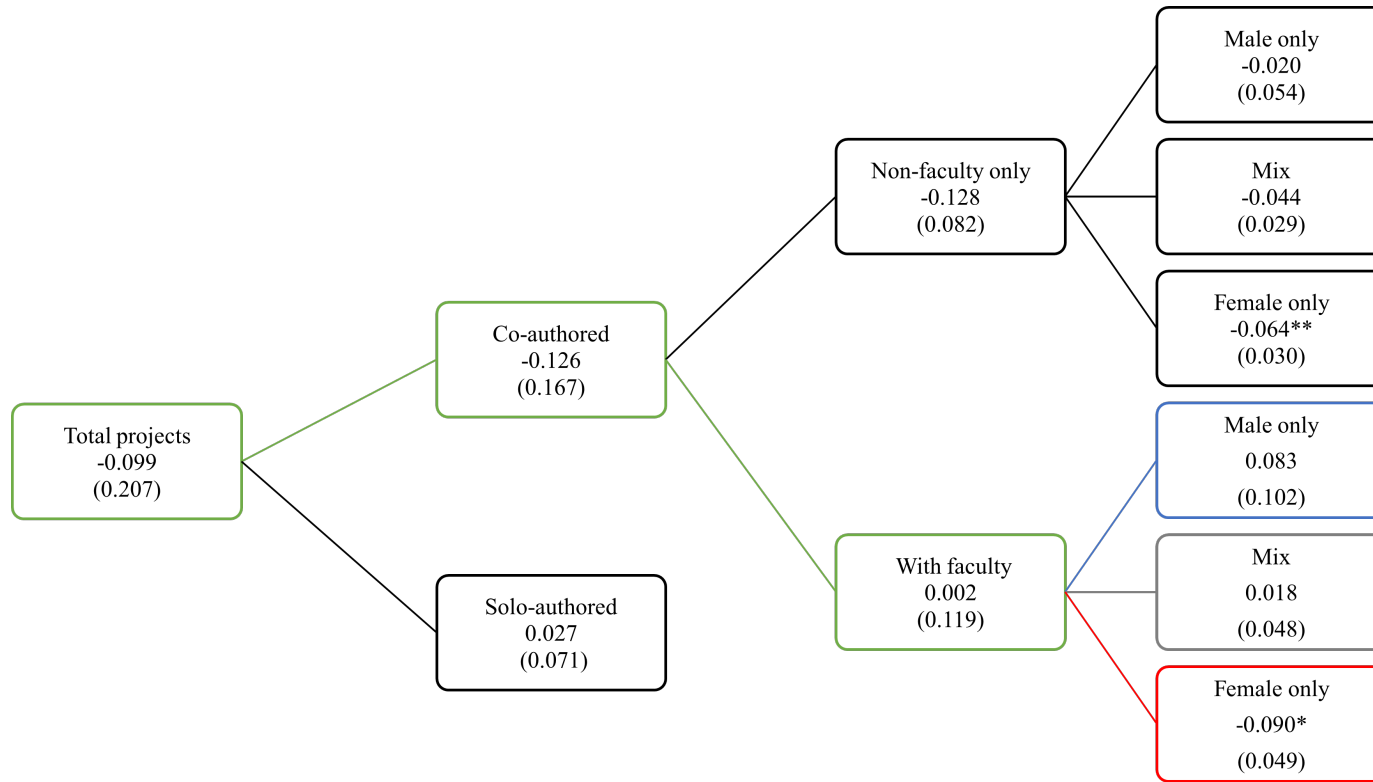
Figure 4: Overview of coefficients on the post dummy from a regression where the dependent variable is the number of new projects started with different co-author types in a given year by a junior male academic at a sample economics department (N=896). Each coefficient represents a different co-author type. E.g. "Male Only" provides the coefficient for the post dummy from a regression where the dependent variable is number of projects initiated by a junior academic with male co-authors only. "Nonfaculty Only" represents the number of new projects with co-authors who are not part of faculty (e.g. PhD students, Postdocs, and visiting faculty). "With faculty" represents the number of new projects involve co-authors who are part of faculty (Assistant, Associate, and full Professors). The post dummy is equal to one if a research project started after #MeToo and zero otherwise. The specification is based on Equation 1. Robust standard errors clustered on university level are in parenthesis.

Figure 5: This figure shows the total number of posts on the platform Economics Job Market Rumors (EJMR) that mention that there is a perceived risk of interacting with women and the intention to limit professional interaction with women one year around the event date of the #MeToo movement (Oct 15, 2017) (dashed light-gray line). The daily posts are aggregated on a monthly basis.

Table 1: Change in the number of new initiated projects after #MeToo

Variables	All projects	Solo	Coauthored	Of coauthored		Of coauthored with faculty	
				Nonfaculty	With faculty	Male co-authors only	Female co-authors only
Post	-0.733***	-0.065	-0.668***	-0.142	-0.526***	-0.438***	-0.039
	(0.245)	(0.115)	(0.215)	(0.096)	(0.187)	(0.123)	(0.103)
Tenured	1.914***	0.541	1.374**	-0.138	1.512**	1.557**	-0.183*
	(0.382)	(0.324)	(0.591)	(0.098)	(0.617)	(0.773)	(0.096)
Log past no. all faculty co-authors (cum.)	-1.168***	-0.001	-1.167***	-0.024	-1.143***	-0.680***	-0.183**
	(0.266)	(0.114)	(0.210)	(0.093)	(0.182)	(0.190)	(0.083)
Log no. female Assistant Professor in department	-0.460	0.004	-0.464	0.177	-0.641**	-0.271	-0.145*
	(0.340)	(0.127)	(0.322)	(0.128)	(0.306)	(0.228)	(0.078)
Log no. male Assistant Professor in department	-0.379	-0.263	-0.116	-0.199	0.083	-0.016	0.095
	(0.420)	(0.162)	(0.351)	(0.137)	(0.325)	(0.252)	(0.086)
Constant	4.213***	0.711*	3.502***	0.457	3.045***	1.884***	0.423*
	(0.872)	(0.389)	(0.736)	(0.327)	(0.685)	(0.559)	(0.221)
Junior female academic FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
University FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Years since T-track start FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	393	393	393	393	393	393	393
R-squared	0.360	0.307	0.396	0.304	0.444	0.466	0.347

The dependent variables are specified in the respective columns and represent the yearly number of new initiated projects of the indicated type for the sample of junior female academics. Corresponds to Figure 2. The dependent variable is the total yearly number of new project initiations in Column (1), the total yearly number of solo-authored new project initiations in Column (2), the total yearly number of coauthored new project initiations in Column (3), the total yearly number of new project initiations coauthored with only nonfaculty members in Column (4), the total yearly number of new project initiations coauthored with faculty members (Assistant, Associate, and full Professors) in Column (5); the total yearly number of new project initiations with male co-authors only in Column (6); the total yearly number of new project initiations with female co-authors only in Column (7); All regressions are based on the specification in Equation 1. The unit of analysis is a female junior academic at a particular university. *Post* is a dummy equal to one if the project was initiated in 2018 or later and zero otherwise. *Tenured* is an indicator equal to one if the female academic was tenured in a given year. *Log past no. all faculty co-authors* is the log-transformed yearly accumulated count of the junior female academic's co-author network involving faculty (Assistant, Associate, and full Professors). *Log no. female (male) Assistant Professors in department* is the log-transformed yearly number of female (male) Assistant Professors who are on a tenure-track in the female academic's department. Female junior academic, university, and years since tenure-track fixed effects are included in all regressions. Robust (White) standard errors clustered on university level in parentheses. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Table 2: Change in the number of new initiated projects with male co-authors after #MeToo: new and existing co-authors

Variables	New co-authors			Existing co-authors		
	All	Inside	Outside	All	Inside	Outside
Post	-0.206**	-0.211***	0.016	-0.171**	0.004	-0.176***
	(0.100)	(0.064)	(0.072)	(0.081)	(0.043)	(0.063)
Tenured	1.295***	0.324	0.943***	0.650***	0.364	0.325
	(0.401)	(0.346)	(0.123)	(0.199)	(0.365)	(0.495)
Log past no. all faculty co-authors (cum.)	-0.749***	-0.180**	-0.508***	0.059	0.058	-0.042
	(0.152)	(0.079)	(0.110)	(0.074)	(0.046)	(0.050)
Log no. female Assistant Professor in department	-0.276*	-0.039	-0.207	-0.050	-0.050	-0.057
	(0.162)	(0.051)	(0.149)	(0.157)	(0.075)	(0.116)
Log no. male Assistant Professor in department	0.065	0.022	0.058	-0.083	-0.104	0.025
	(0.146)	(0.061)	(0.132)	(0.214)	(0.092)	(0.146)
Constant	1.436***	0.418**	0.866***	0.440	0.235	0.293
	(0.385)	(0.173)	(0.319)	(0.403)	(0.198)	(0.236)
Junior female academic FEs	Yes	Yes	Yes	Yes	Yes	Yes
University FEs	Yes	Yes	Yes	Yes	Yes	Yes
Years since T-track start FEs	Yes	Yes	Yes	Yes	Yes	Yes
Observations	393	393	393	393	393	393
R-squared	0.341	0.269	0.325	0.446	0.415	0.396

The dependent variables are specified in the respective columns and represent the yearly number of new initiated projects of the indicated type for the sample of junior female academics. The dependent variable is the total yearly number of new project initiations with new male co-authors (no past co-author relationship) only in Column (1); the total yearly number of new project initiations with new male co-authors inside the same university only in Column (2); the total yearly number of new project initiations with new male co-authors outside of the university only in Column (3); the total yearly number of new project initiations with existing male co-authors (with past co-author relationship) only in Column (4); the total yearly number of new project initiations with existing male co-authors inside the same university only in Column (5); the total yearly number of new project initiations with existing male co-authors outside of the university only in Column (6); All regressions are based on the specification in Equation 1. Corresponds to Figure 3b. The unit of analysis is a female junior academic at a particular university. *Post* is a dummy equal to one if the project was initiated in 2018 or later and zero otherwise. *Tenured* is an indicator equal to one if the female academic was tenured in a given year. *Log past no. all faculty co-authors* is the log-transformed yearly accumulated count of the junior female academic's co-author network of involving faculty (Assistant, Associate, and full Professors). *Log no. female (male) Assistant Professors in department* is the log-transformed yearly number of female (male) Assistant Professors who are on a tenure-track in the female academic's department. Female junior academic, university, and years since tenure-track fixed effects are included in all regressions. Robust (White) standard errors clustered on university level in parentheses. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Table 3: Change in the number of new initiated projects with new inside male co-authors after #MeToo: by co-author seniority (tenure)

	Tenure	
Variables	Yes	No
Post	-0.126***	-0.061
	(0.037)	(0.040)
Tenured	0.460	-0.123**
	(0.371)	(0.052)
Log past no. all faculty co-authors (cum.)	-0.077	-0.061
	(0.062)	(0.044)
Log no. female Assistant Professor in department	0.003	-0.052
	(0.045)	(0.037)
Log no. male Assistant Professor in department	0.000	-0.017
	(0.045)	(0.050)
Constant	0.193	0.239**
	(0.135)	(0.106)
Junior female academic FEs	Yes	Yes
University FEs	Yes	Yes
Years since T-track start FEs	Yes	Yes
Observations	393	393
R-squared	0.253	0.250

The dependent variables are specified in the respective columns and represent the yearly number of new initiated projects of the indicated type for the sample of junior female academics. The dependent variable is the total yearly number of new project initiations with new tenured male co-authors in the same university only in Column (1); the total yearly number of new project initiations with new nontenured male co-authors in the same university only in Column (2); All regressions are based on the specification in Equation 1. The unit of analysis is a female junior academic at a particular university. *Post* is a dummy equal to one if the project was initiated in 2018 or later and zero otherwise. *Tenured* is an indicator equal to one if the female academic was tenured in a given year. *Log past no. all faculty co-authors* is the log-transformed yearly accumulated count of the junior female academic's co-author network involving faculty (Assistant, Associate, and full Professors). *Log no. female (male) Assistant Professors in department* is the log-transformed yearly number of female (male) Assistant Professors who are on a tenure-track in the female academic's department. Female junior academic, university, and years since tenure-track fixed effects are included in all regressions. Robust (White) standard errors clustered on university level in parentheses. $*p < 0.10$, $**p < 0.05$, $***p < 0.01$.

Table 4: Change in the number of new initiated projects after #MeToo for junior female and male academics: Differnce-in-Differences

Variables	All	Of coauthored with faculty		Existing male co-authors		New male co-authors		New inside male co-authors	
		Male co-authors	Female co-authors	Outside	Inside	Outside	Inside	Tenured	Non-tenured
Post female	-0.737***	-0.458***	-0.037	-0.193***	0.008	0.023	-0.219***	-0.129***	-0.062
	(0.239)	(0.118)	(0.103)	(0.062)	(0.042)	(0.072)	(0.063)	(0.037)	(0.040)
Post male	-0.100	0.088	-0.091*	0.095	0.022	0.078	-0.123**	-0.032	-0.099***
	(0.207)	(0.103)	(0.048)	(0.057)	(0.032)	(0.084)	(0.052)	(0.034)	(0.033)
Difference: female - male	-0.636*	-0.546***	0.054	-0.288***	-0.015	-0.055	-0.096	-0.097*	0.037
	(0.333)	(0.160)	(0.113)	(0.080)	(0.058)	(0.114)	(0.090)	(0.051)	(0.055)
Time-variant controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Junior academic FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
University FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Years since T-track start FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,289	1,289	1,289	1,289	1,289	1,289	1,289	1,289	1,289

The dependent variables are specified in the respective columns and represent the yearly number of new initiated projects of the indicated type for the combined samples of junior female (N=393) and male (N=896) academics. All regressions are based on the specification in Equation 1. The unit of analysis is a junior academic at a particular university. *Post female* is an interaction term between the post #MeToo and a female junior academic dummy. *Post male* is an interaction term between the post #MeToo and the male (1-female) junior academic dummy. *Post female* and *Post male* are estimated in the same specification. *Difference: female-male* was estimated in a separate regression including a *Post* dummy and a *Post male* dummy. The *Post* dummy is equal to one as of 2018 and zero otherwise identifying the change in the number of new project initiations for junior female academics. Here, the *Post male* dummy represents the difference in new project initiations between junior women and men after #MeToo. In both regressions, the constant term is omitted. All specifications include the same time-variant controls as Table 1 as well as junior academic, university, and years since tenure-track fixed effects are included in all regressions. The years since tenure-track fixed are respectively interacted with a male (female) dummy to account for separate career trajectories of women and men. Robust (White) standard errors clustered on university level in parentheses. $*p < 0.10$, $**p < 0.05$, $***p < 0.01$.

Table 5: Change in the number of new initiated projects after #MeToo: By research field

Panel A: Fields with a lower share of women
a) Financial Economics

				Existing male co-authors only			New male co-authors only		
Variables	All projects	Coauthored	Male co-authors only	All	Inside	Outside	All	Inside	Outside
Post	-0.805*	-0.952**	-0.699**	-0.274	-0.144	-0.114	-0.417**	-0.286*	-0.132
	(0.430)	(0.432)	(0.316)	(0.182)	(0.150)	(0.066)	(0.193)	(0.135)	(0.149)
Controls and FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	74	74	74	74	74	74	74	74	74
R-squared	0.409	0.354	0.415	0.343	0.310	0.387	0.373	0.280	0.252

b) Macroeconomics

				Existing male co-authors only			New male co-authors only		
Variables	All projects	Coauthored	Male co-authors only	All	Inside	Outside	All	Inside	Outside
Post	-1.705***	-1.490***	-0.846***	-0.442**	-0.214*	-0.246*	-0.292	-0.227**	-0.077
	(0.498)	(0.439)	(0.243)	(0.210)	(0.111)	(0.136)	(0.191)	(0.089)	(0.151)
Controls and FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	109	109	109	109	109	109	109	109	109
R-squared	0.528	0.478	0.525	0.564	0.576	0.451	0.373	0.301	0.377

Panel B: Fields with a higher share of women
a) Health Economics

				Existing male co-authors only			New male co-authors only		
Variables	All projects	Coauthored	Male co-authors only	All	Inside	Outside	All	Inside	Outside
Post	-0.511	-0.542	-0.303*	-0.173	0.041	-0.214**	-0.046	-0.151**	0.108
	(0.422)	(0.350)	(0.178)	(0.131)	(0.065)	(0.104)	(0.115)	(0.058)	(0.111)
Controls and FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	200	200	200	200	200	200	200	200	200
R-squared	0.368	0.431	0.523	0.500	0.565	0.411	0.381	0.266	0.377

b) Labor Economics

				Existing male co-authors only			New male co-authors only		
Variables	All projects	Coauthored	Male co-authors only	All	Inside	Outside	All	Inside	Outside
Post	-0.601	-0.566*	-0.324*	-0.079	0.052	-0.132	-0.173	-0.177**	0.009
	(0.385)	(0.330)	(0.174)	(0.109)	(0.050)	(0.089)	(0.131)	(0.072)	(0.098)
Controls and FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	227	227	227	227	227	227	227	227	227
R-squared	0.354	0.408	0.486	0.482	0.504	0.401	0.341	0.243	0.345

All regressions are based on the specification in Equation 1. The sample is split based on the junior female academic's research field (based on the JEL codes associated with their research projects) pre #MeToo. Panel (A) considers the subsample of junior women that are active in research fields with a historically lower representation of women (Financial Economics and Macroeconomics); Panel (B) considers the subsample of junior women that are active in research fields with a historically higher representation of women (Health Economics and Labor Economics) (based on Chari and Goldsmith-Pinkham (2017) and Meade et al. (2021)). The unit of analysis is a female junior academic at a particular university and includes the same control variables as in Table 1. Female junior academic, university, and years since tenure-track fixed effects are included in all regressions. Robust (White) standard errors clustered on university level in parentheses. $*p < 0.10$, $**p < 0.05$, $***p < 0.01$.

Table 6: Change in the number of new initiated projects with new male co-authors at the same university after #MeToo: Interacted with ambiguity measures in university sexual harassment policies and the number of public media cases of sexual harassment

	(1)	(2)	(3)
Post	-0.053	-0.175**	-0.083
	(0.174)	(0.087)	(0.293)
Post x Log no. incidents (cum.)	-0.325*	-0.112*	-0.335
	(0.167)	(0.062)	(0.281)
Post x Log no. examples	-0.053		
	(0.048)		
Post x Log no. incidents (cum.) x Log no. examples	0.100**		
	(0.046)		
Post x Log no. categories with examples		-0.056	
		(0.072)	
Post x Log no. incidents (cum.) x Log no. categories with examples		0.125**	
		(0.051)	
Post x Log policy word count			-0.027
			(0.048)
Post x Log no. incidents (cum.) x Log policy word count			0.062
			(0.048)
Tenured	0.366	0.358	0.346
	(0.345)	(0.354)	(0.339)
Log past no. all faculty co-authors (cum.)	-0.192**	-0.196**	-0.191**
	(0.079)	(0.079)	(0.079)
Log no. female Assistant Professor in department	-0.037	-0.035	-0.038
	(0.049)	(0.049)	(0.049)
Log no. male Assistant Professor in department	0.051	0.060	0.044
	(0.067)	(0.068)	(0.069)
Constant	0.375**	0.361**	0.388**
	(0.171)	(0.172)	(0.172)
Junior female academic FEs	Yes	Yes	Yes
University FEs	Yes	Yes	Yes
Years since T-track start FEs	Yes	Yes	Yes
Observations	393	393	393
R-squared	0.275	0.277	0.272

The dependent variable in all regressions is the yearly number of new project initiations with new male co-authors inside the junior female academic's university. All regressions are based on the specification in Equation 1 for the sample of junior female academics. *Post* is a dummy equal to one if the project was initiated in 2018 or later and zero otherwise. *Log no. incidents* is the log-transformed cumulative number of public media reports of sexual misconduct incidents at a sample university prior to the #MeToo movement. *Log no. examples* is the log-transformed number of examples of prohibited behaviors in a sample university's sexual harassment policy (last available policy pre #MeToo). *Log no. categories with examples* is the log-transformed number of categories that have at least one example of a prohibited behavior in a sample university's sexual harassment policy (last available policy pre #MeToo). *Log policy word count* is the log-transformed number of words in the sexual harassment definition section in a sample university's sexual harassment policy (last available policy pre #MeToo). *Tenured* is an indicator equal to one if the female academic was tenured in a given year. *Log past no. all faculty co-authors* is the log-transformed yearly accumulated count of the junior female academic's co-author network involving faculty (Assistant, Associate, and full Professors). *Log no. female (male) Assistant Professors in department* is the log-transformed yearly number of female (male) Assistant Professors who are on a tenure-track in the female academic's department. Female junior academic, university, and years since tenure-track fixed effects are included in all regressions. Robust (White) standard errors clustered on university level in parentheses. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

A   Appendix – For Online Publication
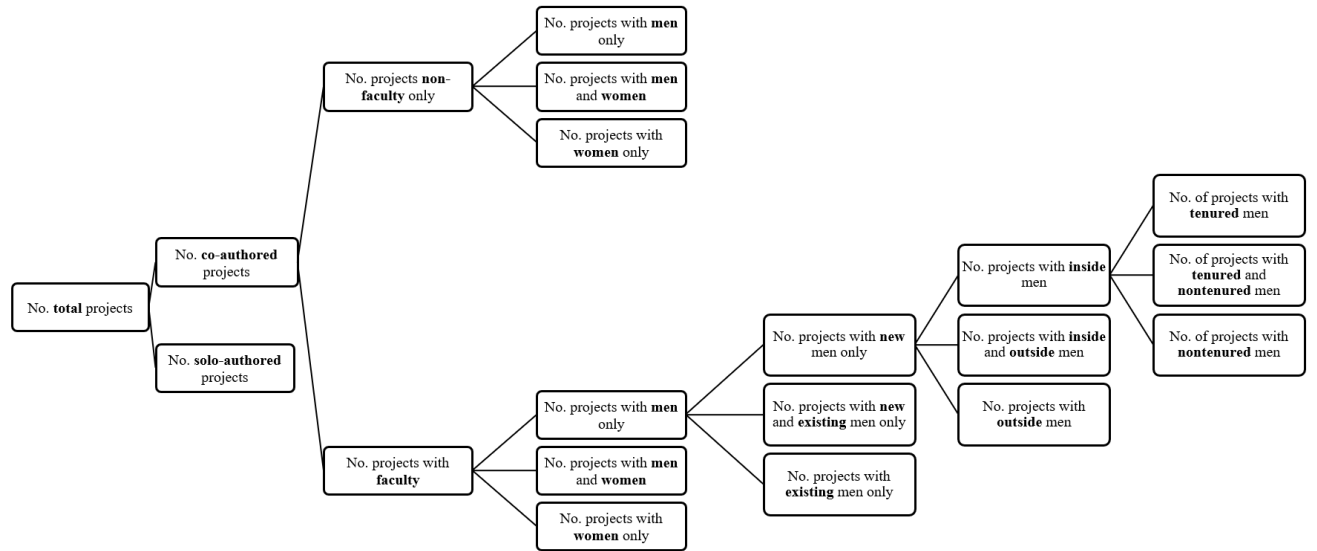
Figure A1: Breakdown of total projects into collaboration types with distinct co-author groups. Each node consists of a non-overlapping combination of projects involving distinct co-author groups. Each node will be used as dependent variable in Equation 1 to determine the change in each collaboration type post relative to pre #MeToo. The resulting coefficients on the post dummy for each collaboration type are illustrated in Figures 2 to A4.

Figure A2: Overview of coefficients on the post dummy for projects initiated with male co-authors only who are faculty members (Assistant, Associate, and full Professors) for the sample of junior female academics (N=393). The dependent variable is the number of new projects started with different types of male co-authors in a given year by a junior female academic. Each coefficient represents a different co-author male type. "New Only" represents the number of new projects with male co-authors the female junior academic has not worked with in the past. "Existing Only" represents the number of new projects with male co-authors the female junior academic has worked with in the past. "Mix" represents the number of new projects with both existing and new male co-authors. "Inside Only" represents the number of new projects with male co-authors inside the same university as the junior female academic. "Outside Only" represents the number of new projects with male co-authors outside of the junior female academic's university. "Mix" represents the number of new projects with both inside and outside male co-authors. The post dummy is equal to one if a research project started after #MeToo and zero otherwise. The specification is based on Equation 1. Robust standard errors clustered on university level are in parenthesis.

		Tenured only		Nontenured only
Female only -0.039 (0.103)				
New only -0.050 (0.074)	Inside only -0.046* (0.024)	-0.027 (0.017)	-	-0.019 (0.019)
	Mix -	-	-	-
	Outside only -0.004 (0.068)	0.026 (0.026)	-	-0.030 (0.054)
Mix -0.016 (0.010)	Inside only -	-	-	-
	Mix -0.008 (0.008)	-	-	-0.008 (0.008)
	Outside only -0.008 (0.011)	-	-0.008 (0.007)	-0.001 (0.009)
Existing only 0.027 (0.049)	Inside only -0.013 (0.023)	0.003 (0.016)	-	-0.017 (0.017)
	Mix -	-	-	-
	Outside only 0.040 (0.044)	0.033 (0.029)	-	0.008 (0.032)

Figure A3: Overview of coefficients on the post dummy for projects initiated with female co-authors only who are faculty members (Assistant, Associate, and full Professors) for the sample of junior female academics (N=393). The dependent variable is the number of new projects started with different types of female co-authors in a given year by a junior female academic. Each coefficient represents a different co-author female type. "New Only" represents the number of new projects with female co-authors the female junior academic has not worked with in the past. "Existing Only" represents the number of new projects with female co-authors the female junior academic has worked with in the past. "Mix" represents the number of new projects with both existing and new female co-authors. "Inside Only" represents the number of new projects with female co-authors inside the same university as the junior female academic. "Outside Only" represents the number of new projects with female co-authors outside of the junior female academic's university. "Mix" represents the number of new projects with both inside and outside female co-authors. The post dummy is equal to one if a research project started after #MeToo and zero otherwise. The specification is based on Equation 1. Robust standard errors clustered on university level are in parenthesis.

		Tenured only	Mix	Nontenured only
Mixed -0.048 (0.065)				
New only -0.056 (0.057)	Inside only -0.014 (0.021)	-	-0.014 (0.021)	-
	Mix 0.013 (0.024)	-0.008 (0.013)	0.021 (0.021)	-
	Outside only -0.055 (0.046)	-0.034** (0.016)	-0.003 (0.036)	-0.018 (0.026)
Mix -0.010 (0.019)	Inside only -0.006 (0.006)	-	-	-0.006 (0.006)
	Mix 0.002 (0.009)	-	-0.005 (0.006)	0.007 (0.007)
	Outside only -0.007 (0.014)	-	-0.007 (0.014)	0.000 (0.019)
Existing only 0.018 (0.024)	Inside only -	-	-	-
	Mix -0.006 (0.007)	-0.006 (0.007)	-	-
	Outside only 0.025 (0.023)	0.014 (0.014)	0.002 (0.003)	0.008 (0.019)

Figure A4: Overview of coefficients on the post dummy for projects initiated with a mix of female and male (mixed-gender) co-authors who are faculty members (Assistant, Associate, and full Professors) for the sample of junior female academics (N=393). The dependent variable is the number of new projects started with different types of mixed-gender co-author groups in a given year by a junior female academic. Each coefficient represents a different co-author mixed-gender type. "New Only" represents the number of new projects with mixed-gender co-author groups the female junior academic has not worked with in the past. "Existing Only" represents the number of new projects with mixed-gender co-author groups the female junior academic has worked with in the past. "Mix" represents the number of new projects with both existing and new mixed-gender co-author groups. "Inside Only" represents the number of new projects with mixed-gender co-author groups inside the same university as the junior female academic. "Outside Only" represents the number of new projects with mixed-gender co-author groups outside of the junior female academic's university. "Mix" represents the number of new projects with both inside and mixed-gender co-author groups. The post dummy is equal to one if a research project started after #MeToo and zero otherwise. The specification is based on Equation 1. Robust standard errors clustered on university level are in parenthesis.

Sexual harassment consists of unwelcome sexual advances, requests for sexual favors, or other verbal or physical conduct of a sexual nature on or off campus, when: (1) submission to such conduct is made either explicitly or implicitly a condition of an individual's employment or academic standing; or (2) submission to or rejection of such conduct is used as the basis for employment decisions or for academic evaluation, grades, or advancement; or (3) such conduct has the purpose or effect of unreasonably interfering with an individual's work or academic performance or creating an intimidating or hostile academic or work environment. Sexual harassment may be found in a single episode, as well as in persistent behavior. All members of our community are protected from sexual harassment, and sexual harassment is prohibited regardless of the sex or gender of the harasser.

(a) Example of a more ambiguous sexual harassment definition in university policy.

Sexual harassment is unwelcome conduct of a sexual nature, such as unwelcome sexual advances, requests for sexual favors, or other verbal, nonverbal, or physical conduct of a sexual nature, when:
Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or academic standing; or
Submission to or rejection of such conduct by an individual is used as the basis for significant employment decisions (such as advancement, performance evaluation, or work schedule) or academic decisions (such as grading or letters of recommendation) affecting that individual; or
The conduct is sufficiently severe or pervasive that a reasonable person would consider it intimidating, hostile or abusive and it adversely affects an individual's educational, work, or living environment.

A partial list of examples of conduct that might be deemed to constitute sexual harassment if sufficiently severe or pervasive include:
Examples of verbal sexual harassment may include unwelcome conduct such as sexual flirtation, advances or propositions or requests for sexual activity or dates; asking about someone else's sexual activities, fantasies, preferences, or history; discussing one's own sexual activities, fantasies, preferences, or history; verbal abuse of a sexual nature; suggestive comments; sexually explicit jokes; turning discussions at work or in the academic environment to sexual topics; and making offensive sounds such as wolf whistles.
Examples of nonverbal sexual harassment may include unwelcome conduct such as displaying sexual objects, pictures or other images; invading a person's personal body space, such as standing closer than appropriate or necessary or hovering; displaying or wearing objects or items of clothing which express sexually offensive content; making sexual gestures with hands or body movements; looking at a person in a sexually suggestive or intimidating manner; or delivering unwanted letters, gifts, or other items of a sexual nature.

(b) Example of a less ambiguous sexual harassment definition in university policy.

Figure A5: Examples of sexual harassment definitions in university policies. Whereas the definition in Figure A5a lists only the general prohibited behavioral categories (e.g., requests for sexual favors, verbal or physical conduct) along with the general EEOC definition, the definition in Figure A5b lists more explicit examples of behaviors that are prohibited (e.g., sexual flirtation, asking about and discussing someone else's sexual preferences, standing closer than appropriate) along with the EEOC definition.

Table A1: Descriptive statistics of independent variables

Variables	N	Mean	Sd	P25	P50	P75
Post	393	0.58	0.494	0	1	1
Years since start tenure-track	393	2.145	1.566	1	2	3
Year of PhD	393	2015	1.158	2014	2015	2016
Tenured	393	0.013	0.112	0	0	0
University rank	393	41.753	24.853	21	42	59
Log past no. all faculty co-authors (cum.)	393	1.108	0.716	0.693	1.099	1.609
Log no. female Assistant Professors in department	393	1.283	0.343	1.099	1.386	1.609
Log no. male Assistant Professors in department	393	1.826	0.517	1.609	1.946	2.197

This table reports descriptive statistics for the sample of junior female academics who obtained their PhD in 2014 or later. *Post* is an indicator of the observation being pre versus post #MeToo (2017). *Years since start tenure-track* are the number of years since the female academic's tenure-track at the sample university. *Year of PhD* is the year when the PhD was obtained. *Tenured* is an indicator equal to one if the female academic was tenured in a given year. *University rank* is rank of the female academic's home university based on the 2017 *U.S. News & World Report* ranking. *Log past no. all faculty co-authors* is the log-transformed yearly accumulated count of the junior female academic's co-author network involving faculty (Assistant, Associate, and full Professors). *Log no. female (male) Assistant Professors in department* is the log-transformed yearly number of female (male) Assistant Professors who are on a tenure-track in the female academic's department.

Table A2: Descriptive statistics of dependent variables

Panel A: Project level

Variables	N	Mean	Sd	P25	P50	P75
No. all projects	393	1.234	1.393	0	1	2
No. solo-authored projects	393	0.204	0.543	0	0	0
No. coauthored projects	393	1.031	1.224	0	1	2
No. projects with nonfaculty	393	0.209	0.532	0	0	0
No. projects with faculty	393	0.822	1.131	0	0	1
No. projects with male co-authors (faculty)	393	0.519	0.906	0	0	1
No. projects with female co-authors (faculty)	393	0.183	0.487	0	0	0
No. projects with female and male co-authors (faculty)	393	0.120	0.362	0	0	0
No. projects with new male co-authors (faculty)	393	0.267	0.587	0	0	0
No. projects with new inside male co-authors (faculty)	393	0.092	0.322	0	0	0
No. projects with new outside male co-authors (faculty)	393	0.165	0.464	0	0	0
No. projects with existing male co-authors (faculty)	393	0.198	0.594	0	0	0
No. projects with existing inside male co-authors (faculty)	393	0.053	0.294	0	0	0
No. projects with existing outside male co-authors (faculty)	393	0.120	0.415	0	0	0
No. projects with new female co-authors (faculty)	393	0.120	0.369	0	0	0
No. projects with existing female co-authors (faculty)	393	0.051	0.281	0	0	0
No. projects with new and existing female co-authors (faculty)	393	0.013	0.112	0	0	0
No. projects with new inside male co-authors (faculty) - Tenured	393	0.046	0.221	0	0	0
No. projects with new inside male co-authors (faculty) - Nontenured	393	0.036	0.199	0	0	0

Panel B: Co-author level

Variables	N	Mean	Sd	P25	P50	P75
No. all co-authors	393	1.570	2.051	0	1	2
No. nonfaculty co-authors	393	0.501	0.961	0	0	1
No. male co-authors (faculty)	393	0.316	0.668	0	0	0
No. female co-authors (faculty)	393	0.183	0.522	0	0	0
No. new male co-authors (faculty)	393	0.496	0.892	0	0	1
No. new inside male co-authors (faculty)	393	0.145	0.413	0	0	0
No. new outside male co-authors (faculty)	393	0.351	0.752	0	0	0
No. existing male co-authors (faculty)	393	0.247	0.569	0	0	0
No. existing inside male co-authors (faculty)	393	0.064	0.244	0	0	0
No. existing outside male co-authors (faculty)	393	0.183	0.465	0	0	0
No. new female co-authors (faculty)	393	0.239	0.557	0	0	0
No. existing female co-authors (faculty)	393	0.081	0.317	0	0	0
No. new inside male co-authors (faculty) - Tenured	393	0.087	0.299	0	0	0
No. new inside male co-authors (faculty) - Nontenured	393	0.059	0.246	0	0	0

This table reports descriptive statistics for all dependent variables that are used for the regression analysis specified in Equation 1 for the sample of junior female academics. See Figure A1 for an illustration of the approach.

Table A3: Share of junior female faculty among departures and new hires of junior faculty in sample departments before and after #MeToo

Share junior female faculty	Pre (N)	Post (N)	Difference (post-pre)
New hires	0.281 (0.333)	0.339 (0.347)	0.059 (0.014)
Departures	0.255 (0.160)	0.259 (0.135)	0.004 (0.025)

This table shows the average share and number (in parenthesis) of junior (nontenured) female academics among all new hires and departures of nontenured faculty at the sample universities pre and post #MeToo. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Table A4: Descriptive statistics of ambiguity measures in sexual harassment policies

Variables	N	Mean	Sd	P25	P50	P75
Log no. incidents (cum.)	393	1.042	0.879	0	1.099	1.792
Log no. examples	393	3.521	0.513	3.178	3.584	3.932
Log no. categories with examples	393	1.086	0.433	0.916	0.916	1.609
Log policy word count	393	5.874	0.504	5.517	5.844	6.356
Log no. examples - physical behaviors	393	0.891	0.529	0.693	0.693	1.386
Log no. examples - verbal requests	393	1.771	0.621	1.386	1.792	2.303
Log no. examples - personal harassment verbal	393	2.051	0.799	1.386	1.946	2.639
Log no. examples - personal harassment non-verbal	393	1.495	0.549	1.099	1.386	1.946
Log no. examples - impersonal harassment	393	0.47	0.716	0	0	0.693
Log no. examples - quid pro quo	393	2.694	0.409	2.565	2.639	3.045

This table reports descriptive statistics for the ambiguity measures used the analysis investigating the effect of ambiguity in sexual harassment policies on collaborations between junior female and male academics pre and post #MeToo.

Table A5: Change in the number of new initiated projects with new male co-authors at the same university after #MeToo: Interacted with disaggregate ambiguity measures in university sexual harassment policies and the number of public media cases of sexual harassment

Variables	(1)	(2)	(3)	(4)	(5)	(6)
Post	-0.157**	-0.129	-0.196**	-0.198**	-0.245***	-0.103
	(0.073)	(0.125)	(0.098)	(0.082)	(0.066)	(0.121)
Post x Log no. incidents (cum.)	-0.083	-0.126	-0.066	-0.014	0.016	-0.272
	(0.054)	(0.095)	(0.058)	(0.062)	(0.029)	(0.195)
Post x Log no. examples - physical behaviors	-0.084					
	(0.060)					
Post x Log no. incidents (cum.) x Log no. examples - physical behaviors	0.121**					
	(0.050)					
Post x Log no. examples - verbal requests		-0.057				
		(0.059)				
Post x Log no. incidents (cum.) x Log no. examples - verbal requests		0.083*				
		(0.047)				
Post x Log no. examples - personal harassment verbal			-0.022			
			(0.035)			
Post x Log no. incidents (cum.) x Log no. examples - personal harassment verbal			0.047*			
			(0.025)			
Post x Log no. examples - personal harassment non-verbal				-0.027		
				(0.033)		
Post x Log no. incidents (cum.) x Log no. examples - personal harassment non-verbal				0.029		
				(0.033)		
Post x Log no. examples - impersonal harassment					0.014	
					(0.044)	
Post x Log no. incidents (cum.) x Log no. examples - impersonal harassment					0.027	
					(0.034)	
Post x Log no. examples - quid pro quo						-0.049
						(0.043)
Post x Log no. incidents (cum.) x Log no. examples - quid pro quo						0.108
						(0.070)
Tenured	0.349	0.348	0.350	0.343	0.355	0.356
	(0.343)	(0.331)	(0.339)	(0.337)	(0.343)	(0.344)
Log past no. all faculty co-authors (cum.)	-0.193**	-0.194**	-0.193**	-0.185**	-0.188**	-0.188**
	(0.080)	(0.079)	(0.079)	(0.080)	(0.080)	(0.078)
Log no. female Assistant Professor in department	-0.038	-0.039	-0.040	-0.040	-0.034	-0.040
	(0.049)	(0.051)	(0.050)	(0.051)	(0.049)	(0.051)
Log no. male Assistant Professor in department	0.029	0.050	0.050	0.035	0.055	0.039
	(0.066)	(0.068)	(0.068)	(0.066)	(0.071)	(0.066)
Constant	0.419**	0.381**	0.381**	0.400**	0.358*	0.397**
	(0.172)	(0.172)	(0.174)	(0.175)	(0.181)	(0.171)
Junior female academic FEs	Yes	Yes	Yes	Yes	Yes	Yes
University FEs	Yes	Yes	Yes	Yes	Yes	Yes
Years since T-track start FEs	Yes	Yes	Yes	Yes	Yes	Yes
Observations	393	393	393	393	393	393
R-squared	0.276	0.275	0.273	0.271	0.273	0.273

Corresponds to regression analysis in Table 6 but includes disaggregate sexual harassment ambiguity policy measures as explanatory variables. The classification of sexual harassment behaviors is illustrated in Figure B1 in Appendix B. The explanatory variables are the log-transformed counts of examples in each sexual harassment behavior category in the sample university's' (last pre #MeToo) sexual harassment polices. The dependent variable in all regressions is the yearly number of new project initiations with new male co-authors inside the junior female academic's university. All regressions are based on the specification in Equation 1. *Log no. incidents* is the log-transformed cumulative number of public media reports of sexual misconduct incidents at a sample university prior to the #MeToo movement. *Post* is a dummy equal to one if the project was initiated in 2018 or later and zero otherwise. *Tenured* is an indicator equal to one if the female academic was tenured in a given year. *Log past no. all faculty co-authors* is the log-transformed yearly accumulated count of the junior female academic's co-author network involving faculty (Assistant, Associate, and full Professors). *Log no. female (male) Assistant Professors in department* is the log-transformed yearly number of female (male) Assistant Professors who are on a tenure-track in the female academic's department. Female junior academic, university, and years since tenure-track fixed effects are included in all regressions. Robust (White) standard errors clustered on university level in parentheses. *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

Table A6: Change in the number of new initiated projects with existing male, new outside male, and new inside female co-authors after #MeToo: Interacted with ambiguity measures in university sexual harassment policies - Effect on other collaboration types

Variables	Existing Male		New Outside Male		New inside Female	
	(1)	(2)	(3)	(4)	(5)	(6)
Post	-0.841*	-0.492**	-0.077	-0.006	-0.527***	-0.212***
	(0.494)	(0.226)	(0.439)	(0.222)	(0.148)	(0.070)
Post x Log no. incidents (cum.)	0.597	0.352*	-0.336	0.027	0.274**	0.083*
	(0.605)	(0.202)	(0.472)	(0.173)	(0.116)	(0.044)
Post x Log. No. examples	0.133		0.021		0.131***	
	(0.138)		(0.114)		(0.038)	
Post x Log no. incidents (cum.) x Log. No. examples	-0.111		0.101		-0.077**	
	(0.169)		(0.125)		(0.036)	
Post x Log no. categories with examples		0.109		0.004		0.135***
		(0.181)		(0.156)		(0.049)
Post x Log no. incidents (cum.) x Log no. categories with examples		-0.132		-0.009		-0.075**
		(0.162)		(0.122)		(0.036)
Tenured	0.645***	0.668***	0.983***	0.944***	0.243***	0.279***
	(0.150)	(0.140)	(0.151)	(0.138)	(0.088)	(0.103)
Log past no. all faculty co-authors (cum.)	0.017	0.021	-0.522***	-0.510***	-0.130**	-0.132**
	(0.067)	(0.065)	(0.108)	(0.110)	(0.051)	(0.052)
Log no. female Assistant Professor in department	-0.043	-0.050	-0.198	-0.207	-0.082	-0.086
	(0.150)	(0.149)	(0.148)	(0.151)	(0.063)	(0.063)
Log no. male Assistant Professor in department	-0.001	-0.014	0.099	0.064	0.017	0.019
	(0.190)	(0.190)	(0.138)	(0.139)	(0.097)	(0.101)
Constant	0.319	0.346	0.794**	0.859**	0.301	0.306
	(0.361)	(0.366)	(0.311)	(0.338)	(0.206)	(0.212)
Junior female academic FEs	Yes	Yes	Yes	Yes	Yes	Yes
University FEs	Yes	Yes	Yes	Yes	Yes	Yes
Years since T-track start FEs	Yes	Yes	Yes	Yes	Yes	Yes
Observations	393	393	393	393	393	393
R-squared	0.468	0.468	0.335	0.329	0.265	0.262

Corresponds to regression analysis in Table 6 for alternative dependent variables: the number of yearly new initiated projects with existing male co-authors (Columns (1) and (2)), the number of yearly new initiated projects with new outside male co-authors (Columns (3) and (4)), the number of yearly new initiated projects with new inside female co-authors (Columns (5) and (6)). All regressions are based on the specification in Equation 1. *Post* is a dummy equal to one if the project was initiated in 2018 or later and zero otherwise. *Log no. incidents* is the log-transformed cumulative number of public media reports of sexual misconduct incidents at a sample university prior to the #MeToo movement. *Log no. examples* is the log-transformed number of examples of prohibited behaviors in a sample university's sexual harassment policy (last available policy pre #MeToo). *Log no. categories with examples* is the log-transformed number of categories that have at least one example of a prohibited behavior in a sample university's sexual harassment policy (last available policy pre #MeToo). *Log policy word count* is the log-transformed number of words in the sexual harassment definition section in a sample university's sexual harassment policy (last available policy pre #MeToo). *Tenured* is an indicator equal to one if the female academic was tenured in a given year. *Log past no. all faculty co-authors* is the log-transformed yearly accumulated count of the junior female academic's co-author involving faculty (Assistant, Associate, and full Professors). *Log no. female (male) Assistant Professors in department* is the log-transformed yearly number of female (male) Assistant Professors who are on a tenure-track in the female academic's department. Female junior academic, university, and years since tenure-track fixed effects are included in all regressions. Robust (White) standard errors clustered on university level in parentheses. *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

Table A7: Change in the number of new initiated projects with new male co-authors at the same university after #MeToo: Interacted with ambiguity measures in university sexual harassment policies and the number of public media cases of sexual harassment - Effect on collaborations of junior male academics

	(1)	(2)	(3)
Post	-0.338*	-0.133	-0.506**
	(0.185)	(0.110)	(0.244)
Post x Log no. incidents (cum.)	0.118	0.016	0.150
	(0.121)	(0.063)	(0.144)
Post x Log no. examples	0.063		
	(0.053)		
Post x Log no. incidents (cum.) x Log no. examples	-0.036		
	(0.034)		
Post x Log no. categories with examples		0.007	
		(0.081)	
Post x Log no. incidents (cum.) x Log no. categories with examples		-0.016	
		(0.051)	
Post x Log policy word count			0.067
			(0.043)
Post x Log no. incidents (cum.) x Log policy word count			-0.027
			(0.025)
Tenured	0.028	0.030	0.029
	(0.202)	(0.202)	(0.203)
Log past no. all faculty co-authors (cum.)	-0.280***	-0.277***	-0.282***
	(0.054)	(0.054)	(0.054)
Log no. female Assistant Professor in department	-0.034	-0.037	-0.034
	(0.047)	(0.046)	(0.047)
Log no. male Assistant Professor in department	-0.137	-0.141	-0.135
	(0.091)	(0.090)	(0.091)
Constant	0.895***	0.904***	0.895***
	(0.186)	(0.183)	(0.185)
Junior female academic FEs	Yes	Yes	Yes
University FEs	Yes	Yes	Yes
Years since T-track start FEs	Yes	Yes	Yes
Observations	896	896	896
R-squared	0.253	0.252	0.253

Corresponds to regression analysis in Table 6 for the sample of junior male academics. The dependent variable in all regressions is the yearly number of new project initiations with new male co-authors inside the junior female academic's university. All regressions are based on the specification in Equation 1 for the sample of junior female academics. *Post* is a dummy equal to one if the project was initiated in 2018 or later and zero otherwise. *Log no. incidents* is the log-transformed cumulative number of public media reports of sexual misconduct incidents at a sample university prior to the #MeToo movement. *Log no. examples* is the log-transformed number of examples of prohibited behaviors in a sample university's sexual harassment policy (last available policy pre #MeToo). *Log no. categories with examples* is the log-transformed number of categories that have at least one example of a prohibited behavior in a sample university's sexual harassment policy (last available policy pre #MeToo). *Log policy word count* is the log-transformed number of words in the sexual harassment definition section in a sample university's sexual harassment policy (last available policy pre #MeToo). *Tenured* is an indicator equal to one if the female academic was tenured in a given year. *Log past no. all faculty co-authors* is the log-transformed yearly accumulated count of the junior female academic's co-author network involving faculty (Assistant, Associate, and full Professors). *Log no. female (male) Assistant Professors in department* is the log-transformed yearly number of female (male) Assistant Professors who are on a tenure-track in the female academic's department. Female junior academic, university, and years since tenure-track fixed effects are included in all regressions. Robust (White) standard errors clustered on university level in parentheses. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Table A8: Search words to identify the intent of female and male economists to stop working with each other on the online platform Economics Job Market Rumors (EJMR)

Panel A: Are men concerned about sexual harassment accusations and intend to limit professional interactions with women?				
Gender classifier	Action	Association	Other	Example
Female/s, women, woman	work, collaborate, meet, contact, co-author, mentor, interact, advise, meet, supervise	risk, concern, fear, afraid, scared, allegation, worried, accusation, claim, (sexual) harassment, trouble	don't, limit, avoid, stop, stay away, be alone, close door, open door, pence rule/ law	*Unfortunately, I am going to severely limit my interaction with the opposite sex in a professional setting. This also means that I will inadvertently discriminate against women unless I know them very well (which is a problem because such knowledge exposes me to the risk of being accused).*
Panel B: Are women concerned about sexual harassment and intend to limit professional interactions with men?				
Gender classifier	Action	Association	Other	Example
Male/s, men, man	work, collaborate, meet, contact, co-author, mentor, interact, advise, meet, supervise	risk, concern, fear, afraid, scared, worried, claim, (sexual) harassment, trouble, uncomfortable	don't, limit, avoid, stop, stay away, be alone, close door, open door, experience, believe, feel	*Women work with men all of the time even though we have to deal with the possibility that some guy…Those are very very very large costs, and we have been working with all of you even though some of you just can't keep your hands to yourselves. So man up and work with us. We take risks, and so can you.*

This table presents the keywords used to identify posts on the online platform Economics Job Market Rumors whose content is consistent with a) a perceived risk of interacting with women and the intent to limit professional interaction with women (Panel A), and b) concerns about being sexually harassed and the intent to limit professional interaction with men (Panel B).

B   Appendix – For Online Publication

Classifying Behaviors in Sexual Harassment Policies

In classifying behaviors mentioned in the sexual harassment definitions of university policies, I follow the legal definition and the guidelines provided by the EEOC as a point of departure which distinguishes between *Hostile Environment* and *Quid pro Quo* sexual harassment.[42] This partition is also typically followed in the sexual harassment policies in my sample universities. To further refine categories I follow the categorization scheme of Till (1980) and Fitzgerald et al. (1997) that is thus far the most commonly adopted classification in the psychological sexual harassment literature which also maps into the legal definition. This classification decomposes *Hostile Environment* into *Gender Harassment* and *Unwanted sexual attention*. While *Gender Harassment* captures demeaning behavior toward women (e.g. inappropriate jokes or comments), *Unwanted sexual attention* captures conduct that aims establishing a romantic relationship with the target (e.g. requests for dates). It is particularly the category of *Unwanted sexual attention* that was targeted by the #MeToo movement.

I further differentiate between *personal* and *impersonal* behaviors. Since I study collaborations (i.e., interpersonal interactions), behaviors that are directed toward the individual collaboration partner (i.e., personal) are of relevance. This categorization is also applied in Rotundo et al. (2001) who focus socio-sexual behaviors of sexual harassment. Note that this categorization is only relevant for *Gender Harassment* as *Unwanted sexual attention* and *Quid pro Quo* sexual harassment are by default targeted at an individual.

Lastly, as in Gruber (1992), I distinguish between *verbal* and *non-verbal* behaviors. There is likely more uncertainty around *verbal* behaviors such as what can be said/ which comments can be made. Again, this distinction is only meaningful for *Hostile Environment* sexual harassment as *Quid pro Quo* sexual harassment requires a verbal element.

I use both a manual and algorithmic approach (topic modeling) for the classification that both yield similar results. Figure B1 presents the classification matrix and provides examples of each type of behavior.

Note that I exclude sections that cover sexual assault such as rape and violence.[43] This is because these are covered under criminal law. Moreover, in my analysis, I am interested to what extent sexual harassment policies resolve ambiguity about what constitutes appropriate behavior. I assume that there is no ambiguity about behaviors that relate to violence and rape.[44]

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[42]The EEOC issued the following guideline: "Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitutes sexual harassment when: 1. submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment, 2. submission to or rejection of such conduct by an individual is used as the basis for employment decisions affecting such individual, or 3. such conduct has the purpose or effect of unreasonably interfering with an individual's work performance, or creating an intimidating, hostile or offensive working environment" (U.S. Equal Employment Opportunity Commission, 1980).

[43]In particular, these include the following offenses: stalking, sexual assault, violence, exhibitionist, exploitation, rape, domestic violence, dating violence, touching of sexual organs.

[44]In cases where I could not find the relevant policy, I directly contacted the Title IX Officer to obtain the missing

Figures B2 and B3 illustrate examples of an application of the classification scheme to sexual harassment definitions.
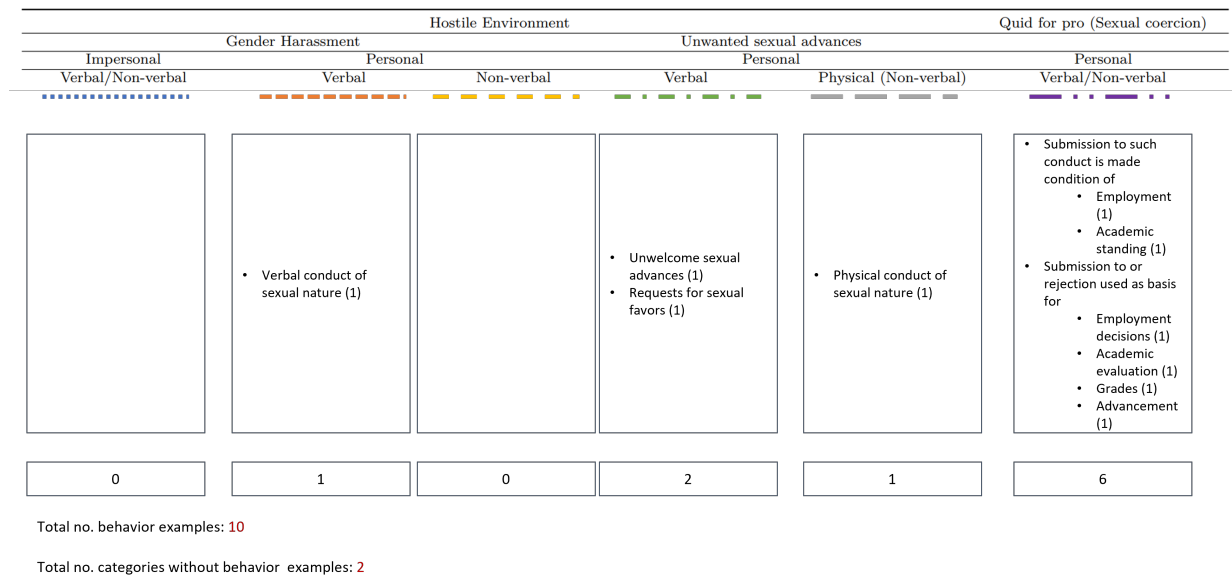
Hostile Environment					Quid pro quo (Sexual coercion)
Gender Harassment		Unwanted sexual advances			
Impersonal	Personal		Personal		Personal
Verbal/Non-verbal	Verbal	Non-verbal	Verbal	Physical (Non-verbal)	Verbal/Non-verbal
··········	– – – – –	– – – –	– · – · –	— — — —	— · · — · ·
		Examples			
Disseminate sexual/ sexist material	Stereotyping	Staring	Requests for dates	Hugging	Favoritism in exchange for sexual favours
Tell rumors	Compliments about appearance	Giving gifts	Requests for private meetings	Pinching	Promise for promotion in exchange or sexual favours
Hanging suggestive images in one's office	Sexual stories or jokes	Whistling	Request for romantic encounters	Touching	Make career advancement conditional on sexual relationship

Figure B1: Illustration of classification scheme of behaviors associated with sexual harassment used in textual analysis of the sample universities' sexual harassment policies with color coding.

policy. Whereas some universities have dedicated sexual harassment policies, in other universities the sexual harassment policy is part of their sexual misconduct or gender harassment policies. In either instance, nearly every university has a dedicated sexual harassment policy section as of 2015.

Sexual harassment consists of unwelcome sexual advances, requests for sexual favors, or other verbal or physical conduct of a sexual nature on or off campus, when: (1) submission to such conduct is made either explicitly or implicitly a condition of an individual's employment or academic standing; or (2) submission to or rejection of such conduct is used as the basis for employment decisions or for academic evaluation, grades, or advancement; or (3) such conduct has the purpose or effect of unreasonably interfering with an individual's work or academic performance or creating an intimidating or hostile academic or work environment. Sexual harassment may be found in a single episode, as well as in persistent behavior. All members of our community are protected from sexual harassment, and sexual harassment is prohibited regardless of the sex or gender of the harasser.

(a) Example of a more ambiguous sexual harassment definition in university policy. Categories of examples of prohibited behaviors are color coded based on scheme in Figure B1.

(b) Illustration of categorization of prohibited behaviors and their aggregation into measures used in analysis (*No. examples* and *No. categories without examples*).

Figure B2: Illustration of classification scheme of examples of prohibited behaviors in university sexual harassment policies (applied to more ambiguous sexual harassment policy).

Sexual harassment is unwelcome conduct of a sexual nature, such as unwelcome sexual advances, requests for sexual favors, or other verbal, nonverbal, or physical conduct of a sexual nature, when:
Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or academic standing; or
Submission to or rejection of such conduct by an individual is used as the basis for significant employment decisions (such as advancement, performance evaluation, or work schedule) or academic decisions (such as grading or letters of recommendation) affecting that individual; or
The conduct is sufficiently severe or pervasive that a reasonable person would consider it intimidating, hostile or abusive and it adversely affects an individual's educational, work, or living environment.

A partial list of examples of conduct that might be deemed to constitute sexual harassment if sufficiently severe or pervasive include:
Examples of verbal sexual harassment may include unwelcome conduct such as sexual flirtation, advances or propositions or requests for sexual activity or dates; asking about someone else's sexual activities, fantasies, preferences, or history; discussing one's own sexual activities, fantasies, preferences, or history; verbal abuse of a sexual nature; suggestive comments; sexually explicit jokes; turning discussions at work or in the academic environment to sexual topics; and making offensive sounds such as wolf whistles.
Examples of nonverbal sexual harassment may include unwelcome conduct such as displaying sexual objects, pictures or other images; invading a person's personal body space, such as standing closer than appropriate or necessary or hovering; displaying or wearing objects or items of clothing which express sexually offensive content; making sexual gestures with hands or body movements; looking at a person in a sexually suggestive or intimidating manner; or delivering unwanted letters, gifts, or other items of a sexual nature.

(a) Example of a less ambiguous sexual harassment definition in university policy. Categories of examples of prohibited behaviors are color coded based on scheme in Figure B1.

	Hostile Environment				Quid for pro (Sexual coercion)
Gender Harassment		Unwanted sexual advances			
Impersonal	Personal		Personal		Personal
Verbal/Non-verbal	Verbal	Non-verbal	Verbal	Physical (Non-verbal)	Verbal/Non-verbal

• Displaying sexual
  • Objects (1)
  • Pictures (1)
  • Images (1)
• Displaying
  • Objects (1)
  • Items of clothing which express sexually offensive content (1)
• Wearing
  • Objects (1)
  • Items of clothing which express sexually offensive content (1)
	• Verbal conduct of sexual nature (1)
	• Sexual flirtation (1)
	• Asking about
	  · Sexual activities (1)
	  · Fantasies (1)
	  · Preferences (1)
	• Discussing own
	  · Sexual activities (1)
	  · Fantasies (1)
	  · Preferences (1)
	• Verbal abuse of a sexual nature (1)
	• Suggestive comments (1)
	• Sexually explicit jokes (1)
	• Turning discussions to sexual topics (1)
		• Non-verbal conduct of sexual nature (1)
		• Making offensive sounds (1)
		• Wolf whistles (1)
		• Invading personal body space (1)
		• Standing closer than necessary (1)
		• Hovering (1)
		• Sexual gestures with
		  • Hands (1)
		  • Body movement (1)
		• Looking in a
		  • Sexually suggestive (1)
		  • Intimidating manner (1)
		• Delivering unwanted
		  • Letters (1)
		  • Gifts (1)
		  • Items of a sexual nature (1)
			• Unwelcome sexual advances (1)
			• Requests for sexual favors (1)
			• Advances for
			  • Sexual activity (1)
			  • Dates (1)
			• Propositions for
			  • Sexual activity (1)
			  • Dates (1)
			• Requests for
			  • Sexual activity (1)
			  • Dates (1)
				• Physical conduct of sexual nature (1)	• Submission to or rejection used as basis for
					  • Significant employment decisions (1)
					  • Advancement (1)
					  • Performance evaluation (1)
					  • Work schedule (1)
					  • Academic decisions (1)
					  • Grading (1)
					  • Letters of recommendation (1)

7	12	13	8	1	7

Total no. behavior examples: 48

Total no. categories without behavior examples: 0

(b) Illustration of categorization of prohibited behaviors and their aggregation into measures used in analysis (*No. examples* and *No. categories without examples*).

Figure B3: Illustration of classification scheme of examples of prohibited behaviors in university sexual harassment policies (applied to less ambiguous sexual harassment policy).

C   Appendix – For Online Publication

The Effect of the Trump Administration on Collaborations

Title IX amendments (2020).   Trump's May 2020 amendments to Title IX constitute the first change to rulemaking of Title IX since 1975, and the only one ever dedicated to sexual harassment. The aim of the changes was to increase clarity in the procedures that schools must follow when responding to allegations of sexual harassment and assault, and to provide more protections for those accused of these allegations. The changes implemented include a higher bar of proof for sexual harassment allegations, notification to the accused about the existence of claims against them, and the right to cross-examine the accuser in a live hearing. This rulemaking was heavily criticized in the media for making it harder for victims to come forward by favoring the accused in the due process and offering less anonymity for the victim.[45]

Within the context of my analysis, the new regulatory requirements of Title IX should reverse some of the effects of the #MeToo movement such as the pressure to believe women and investigate claims. As a result, the Title IX amendments should decrease men's perceived exposure to sexual harassment claims and reduce women's perceived protection from sexual harassment. Hence, if men reduced collaboration with women to manage an increased perceived risk of sexual harassment accusations after #MeToo, I expect an increase in collaboration between junior female academics and new male co-authors after the Title IX amendments relative to post #MeToo. However, if women reduced collaboration with men because of an increase in the range of actions they view as sexual harassment post #MeToo or because #MeToo insinuated that the risk of being sexually harassed when working with men is higher than they thought pre #MeToo, I expect a decrease in collaboration between women and men after the Title IX amendments relative to post #MeToo.

In addition, I expect that Title IX amendments will affect universities to a varying extent depending on universities' dependence on government funding. As a result of the Title IX amendments, universities updated their sexual harassment policies reflecting the new rule making in August 2020. However, most universities retained their previous more comprehensive sexual harassment policies (usually under the equity and non-discrimination policy) resulting in two policies covering sexual harassment. I hypothsize that universities that rely more heavily on government funding for their research activities will follow the new Title IX guidelines more closely. As a result, I expect a larger change in collaborations between junior women and new male co-authors in response to the Title IX amendments at universities that have a higher reliance on government funds.

To determine how much individual universities rely government funding, I use data from the Higher Education Research and Development (HERD) survey. This annual survey, conducted by the National Science Foundation, gathers information on research expenditures and funding

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[45]The Biden administration announced in June 2022 that it will revert some of the amendments to Title IX introduced by the Trump administration.

sources for research-active U.S. universities. For each university in my sample, I calculate the proportion of research expenditures that came from federal and state government sources in 2019 (before the announcement of the Title IX amendments).[46] I then create a binary variable, *High government funds reliance*, which equals one for universities in the top 75th percentile in terms of their share of research expenditures funded by the U.S. government.[47]

In order to capture the changes in collaborations following the Title IX amendments announcement (May 2020), I collect collaboration data for junior female academics for an additional year (2021).[48] I create a dummy variable, *Post Title IX*, that is equal to one in the years 2020 and 2021, and zero otherwise. The *Post Title IX* dummy indicates the difference between collaborations as of the announcement year of the Title IX amendments and post #MeToo. To investigate whether the effects of the Title IX amendments were different for universities with higher government funding for research activities, I interact the *Post Title IX* dummy with the *High government funds reliance* indicator.

Table C1 presents the results of the analysis. In Column (1), the small and statistically insignificant coefficient on the *Post Title IX* dummy and the large and statistically significant coefficient on the interaction term (*Post Title IX x High government funds reliance*) jointly indicate that collaborations between junior women and men have increased after the Title IX amendments at universities that rely more on government funding for research. I then run separate subsample analyses for universities with higher (Columns (2)) and lower (Column (3)) reliance on government funds. The results indicate that there was an increase in collaborations between junior women and new male co-authors after the Title IX amendments (*Post Title IX* variable) at universities with higher reliance on government funding, but not at universities with lower reliance on government funding.

Table C2 shows that the Title IX amendments do not seem to affect collaborations with existing male co-authors (Columns (1) and (2)), nor collaborations with new male co-authors outside of the junior female academic's institution (Columns (3) and (4)) deferentially depending on universities' reliance on government funds. Interestingly, Column (6) shows that the Title IX amendments have a positive effect on collaborations with new female faculty inside the same university at universities with a lower reliance on government funding (where collaborations with new male coauthors remain low). The effect is negative (albeit statistically insignificant) at universities with a higher reliance on government funding (where collaborations with new male coauthors increase) (Column (5)).

Overall, the results of this analysis show that decreasing the risk of sexual harassment accusations for men by imposing rules that protect the accused mitigate the negative unintended

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[46] The other funding sources include funds from businesses, nonprofit organizations, institutional funds, and other sources (e.g., donations).

[47] The 75th percentile corresponds to a government funding share of more than 60%. I do not distinguish between public and private universities because both rely to a large part on government funding for research activities. In my sample, public as well as private universities fund 56% of their research activities through government funds. Private universities have larger endowments than public universities. However, it is not clear whether private universities would choose to draw from these funds in mid to long-run to avoid the regulatory oversight.

[48] CV updates for junior female academics were collected up until November 2021.

consequences of the #MeToo movement on research collaboration between women and men.

Anticipation of worse workplace conditions for women. Donald Trump was elected as President of the United States in November 2016 and took office in 2017. The analysis above shows that changes to Title IX put in place by the Trump administration, which increased protections for the accused, had a positive effect on collaborations between junior women and new male co-authors after #MeToo. It may be the case that the anticipation of such female-unfriendly policies, and a general increase in the acceptance of misogyny in the workplace as a result of Trump taking office, explains the decline in women's productivity and the reduced professional interaction between men and women (rather than #MeToo).

The election of Trump as President should have a more significant impact on attitudes and behaviors in areas where it was least expected. In fact, the election of Donald Trump is largely attributed to voter conversion in a few states (i.e., swing states) where Trump won by a small margin (Hill et al., 2021). If the observed changes in collaborations between women and men are due to Trump's election, I expect to see a stronger effect in swing states, which include Florida, North Carolina, Michigan, Arizona, Wisconsin, and Pennsylvania. To test this conjecture, I conduct separate analyses for the subsamples of universities located in swing and non-swing states.

Table C3 presents the results of the sample splits, indicating that collaborations between junior women and new male co-authors at the same institution decreased in both swing states (Column (1)) and non-swing states (Column (2)). Moreover, the decline in collaborations is more pronounced in non-swing states. These findings do not provide support for the conjecture that the observed changes in collaborations are due to the election of Trump as president.

Table C1: Change in the number of new initiated projects with new male co-authors at the same university after #MeToo: Considering the effect of Title IX amendments depending on universities' reliance on government funds

		Reliance on government funds	
Variables	All	High	Low
Post	-0.201***	-0.188*	-0.203***
	(0.062)	(0.102)	(0.074)
Post Title IX	-0.016	0.396***	-0.021
	(0.073)	(0.121)	(0.078)
Post Title IX x High government funds reliance	0.335**		
	(0.139)		
Tenured	0.283*		0.284*
	(0.145)		(0.160)
Log past no. all faculty co-authors (cum.)	-0.204***	-0.048	-0.248**
	(0.071)	(0.119)	(0.093)
Log no. female Assistant Professor in department	-0.031	0.086	-0.073
	(0.068)	(0.093)	(0.086)
Log no. male Assistant Professor in department	0.049	0.015	0.088
	(0.090)	(0.124)	(0.125)
Constant	0.412**	0.061	0.471**
	(0.175)	(0.428)	(0.212)
Junior female academic FEs	Yes	Yes	Yes
University FEs	Yes	Yes	Yes
Years since T-track start FEs	Yes	Yes	Yes
Observations	459	107	352
R-squared	0.243	0.437	0.229

The dependent variable in all regressions is the yearly number of new project initiations with new male co-authors inside the junior female academic's university. All regressions are based on the specification in Equation 1. *Post* is a dummy equal to one if the project was initiated in 2018 or later and zero otherwise. *Post Title IX* is a dummy equal to one if the project was initiated in 2020 or 2021 (until November 2021) and zero otherwise. *High government funds reliance* is a dummy equal to one if a university is in the top 75% in terms of its reliance on government funds to finance its research activities based on the 2019 HERD survey and zero otherwise. Column (1) shows results for the full sample; Column (2) shows results for the subsample of universities with a high reliance on government funds (*High government funds reliance*=1); Column (3) shows results for the subsample of universities with a low reliance on government funds (*High government funds reliance*=0). *Tenured* is an indicator equal to one if the female academic was tenured in a given year. *Log past no. all faculty co-authors* is the log-transformed yearly accumulated count of the junior female academic's co-author network involving faculty (Assistant, Associate, and full Professors). *Log no. female (male) Assistant Professors in department* is the log-transformed yearly number of female (male) Assistant Professors who are on a tenure-track in the female academic's department. Female junior academic, university, and years since tenure-track fixed effects are included in all regressions. Robust (White) standard errors clustered on university level in parentheses. *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

Table C2: Change in the number of new initiated projects with existing male, new outside male, and new inside female co-authors after #MeToo: Considering the effect of Title IX amendments depending on universities' reliance on government funds - Effect on other collaboration types

	Existing Male		New Outside Male		New inside Female	
	Reliance on government funds					
Variables	High	Low	High	Low	High	Low
Post	0.079	-0.090	-0.120	0.064	-0.040	-0.051*
	(0.139)	(0.093)	(0.163)	(0.073)	(0.076)	(0.027)
Post Title IX	0.178	0.134	-0.030	0.001	-0.159	0.145**
	(0.228)	(0.111)	(0.176)	(0.052)	(0.116)	(0.058)
Tenured		0.467		0.274		0.062
		(0.374)		(0.232)		(0.079)
Log past no. all faculty co-authors (cum.)	-0.092	0.132*	-0.193	-0.479***	-0.193**	-0.109*
	(0.115)	(0.071)	(0.204)	(0.111)	(0.070)	(0.055)
Log no. female Assistant Professor in department	-0.176	-0.062	0.196	-0.180	0.052	-0.070
	(0.285)	(0.134)	(0.233)	(0.144)	(0.102)	(0.048)
Log no. male Assistant Professor in department	-0.635	0.206	-0.476	0.172	-0.333	0.010
	(0.532)	(0.147)	(0.405)	(0.127)	(0.193)	(0.090)
Constant	1.615	-0.208	1.106	0.612*	0.881*	0.254
	(1.223)	(0.252)	(1.142)	(0.323)	(0.483)	(0.183)
Junior female academic FEs	Yes	Yes	Yes	Yes	Yes	Yes
University FEs	Yes	Yes	Yes	Yes	Yes	Yes
Years since T-track start FEs	Yes	Yes	Yes	Yes	Yes	Yes
Observations	107	352	107	352	107	352
R-squared	0.459	0.429	0.381	0.343	0.335	0.266

Corresponds to regression analysis in Table C1 for alternative dependent variables: the number of yearly new initiated projects with existing male co-authors (Columns (1) and (2)), the number of yearly new initiated projects with new outside male co-authors (Columns (3) and (4)), the number of yearly new initiated projects with new inside female co-authors (Columns (5) and (6)). All regressions are based on the specification in Equation 1. *Post* is a dummy equal to one if the project was initiated in 2018 or later and zero otherwise. *Post Title IX* is a dummy equal to one if the project was initiated in 2020 or 2021 and zero otherwise. *High government funds reliance* is a dummy equal to one if a university is in the top 75% in terms of its reliance on government funds to finance its research activities based on the 2019 HERD survey and zero otherwise. Columns (1), (3), and (5) show results for the subsample of universities with a high reliance on government funds (*High government funds reliance*=1); Columns (2), (4), and (6) show results for the subsample of universities with a low reliance on government funds (*High government funds reliance*=0); *Tenured* is an indicator equal to one if the female academic was tenured in a given year. *Log past no. all faculty co-authors* is the log-transformed yearly accumulated count of the junior female academic's co-author involving faculty (Assistant, Associate, and full Professors). *Log no. female (male) Assistant Professors in department* is the log-transformed yearly number of female (male) Assistant Professors who are on a tenure-track in the female academic's department. Female junior academic, university, and years since tenure-track fixed effects are included in all regressions. Robust (White) standard errors clustered on university level in parentheses. $*p < 0.10$, $**p < 0.05$, $***p < 0.01$.

Table C3: Change in the number of new initiated projects with new male co-authors at the same university after #MeToo: Sample split by swing states

	(1)	(2)
Variables	Swing states	Non-swing states
Post	-0.106*	-0.242***
	(0.049)	(0.075)
Tenured		0.339
		(0.372)
Log past no. all faculty co-authors (cum.)	-0.076	-0.223**
	(0.085)	(0.091)
Log no. female Assistant Professor in department	-0.213	-0.053
	(0.171)	(0.054)
Log no. male Assistant Professor in department	0.201	-0.000
	(0.312)	(0.063)
Constant	0.133	0.539***
	(0.445)	(0.192)
Junior female academic FEs	Yes	Yes
University FEs	Yes	Yes
Years since T-track start FEs	Yes	Yes
Observations	62	331
R-squared	0.367	0.287

The dependent variable in all regressions is the yearly number of new project initiations with new male co-authors for the sample of junior female academics inside the junior female academic's university. All regressions are based on the specification in Equation 1. The sample is split based on whether a sample university was located in a U.S. state that was considered a swing state in the 2016 presidential election meaning that Donald Trump was elected by a relatively small margin. Swing states are Florida, North Carolina, Wisconsin, Michigan, Arizona, and Pennsylvania. Column (1) includes the the subsample of universities located in swing states. Column (2) includes the the subsample of universities located in non-swing states. *Post* is a dummy equal to one if the project was initiated in 2018 or later and zero otherwise. *Tenured* is an indicator equal to one if the female academic was tenured in a given year. *Log past no. all faculty co-authors* is the log-transformed yearly accumulated count of the junior female academic's co-author network involving faculty (Assistant, Associate, and full Professors). *Log no. female (male) Assistant Professors in department* is the log-transformed yearly number of female (male) Assistant Professors who are on a tenure-track in the female academic's department. Female junior academic, university, and years since tenure-track fixed effects are included in all regressions. Robust (White) standard errors clustered on university level in parentheses. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

D   Appendix – For Online Publication

The Effect of the COVID-19 Pandemic on Collaborations

Throughout my analysis I include projects that were initiated in 2020. The number of new projects academics start in a year is relatively low and they require an unknown time to build. The first public record of a project is the latest possible starting point. So some projects I allocate to the year 2020 started in 2019. Projects that publicly emerged after the start of the pandemic may have been slowed down by it but were plausibly initiated through interaction with co-authors before the onset of the pandemic. Therefore, including projects of which there is public evidence in of 2020 helps ensure that there is a sufficiently long time period after the event date to capture changes in research activity and collaboration patterns due to #MeToo.

In order to understand to what extent my results are affected by the pandemic and how the #MeToo movement interacts with it I conduct three different tests. First, in the year 2020, I identify projects of which there is public evidence before the first quarter of 2020 (before the start of the pandemic).[49] I include only these projects in my analysis and exclude all remaining project initiations in 2020. I annualize the 2020 quarter one projects by multiplying these projects times four following the assumption that in the absence of the pandemic productivity and the pattern of collaborations would have followed the same trend in the remainder of the year.[50] Allocating a higher number of projects to those women who have projects in the first quarter of 2020 than they otherwise would have also allows to compensate for a lack of projects among women who don't have projects in the first quarter of the year but who will have new projects later in the year.

Table D1 (Specification 1) reports the results of the analysis. These show that research productivity for junior female academics still falls by 0.68 papers per year after #MeToo. In line with the main results, the largest individual driver is the group of projects with new male co-authors in the same university who account for 36.5% of the decline in new project initiations. Note that this suggests that COVID-19 seems to somewhat dampen the negative effect of #MeToo on the research collaborations between junior female academics and new male new male co-authors in the same university. This result is also consistent with decline in the effect of #MeToo over time and implies that taking into the account the year 2020 is important.

Second, based on the preceding results, I analyze how the effect of COVID-19 compares to the effect of #MeToo. To do so, I include a dummy variable, *Post Covid*, that is equal to one in the year 2020 and zero otherwise with the post COVID-19 dummy indicating the difference between productivity in COVID-19 and productivity post #MeToo. The results of the analysis are shown in Table D1 (Specification 2). The positive (and statistically insignificant) coefficient on the *Post Covid* dummy suggests that COVID-19 contributes to the negative effect on women's

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[49]Public evidence means in the form of a working paper, seminar or conference presentation.

[50]This may not be a fair a assumption if there is a pattern in productivity and research collaborations that varies by yearly quarter. However, as mentioned, identifying the initiation of a project even on a quarterly basis is inherently difficult and ambiguous.

productivity and collaborations with new male co-authors in the same university but to a lesser extent than the #MeToo movement and potentially even alleviates it.[51] It is important to note that the decrease in collaborations between junior female and male academics post #MeToo is driven by fewer new project initiations in the pre-pandemic period (*Post Covid* dummy). The frequency of these types of collaborations in the post-pandemic period is not significantly different from the pre-#MeToo period.[52]

Lastly, I conduct the most conservative test where I exclude the entire year 2020 from my analysis. Overall, 18% (70 observations) of my sample falls into the year 2020. The assumption in this analysis is that the arrival of the pandemic put a complete halt to the #MeToo movement and that all effects on the productivity and research collaborations of junior female academics in 2020 are solely attributable to the start of the pandemic. This also leaves me with a shorter post period consisting of the years 2018 and 2019 which reduces power to identify effects in the post period of #MeToo.[53] Table D1 (Specification 3) shows that even when considering this short post period, my results remain qualitatively the same. The research productivity of junior female academics falls by 0.57 papers per year after #MeToo. The decrease in new collaborations with new male co-authors in the same university are the largest driver accounting for 30.1% of the decline in new project initiations.

Note that whereas the magnitude of women's productivity decline post #MeToo is less pronounced when leaving out the period of the pandemic (-0.57 to -0.68 versus -0.73), the decline in new collaborations between women and new male co-authors in the same university consistently remains a large share of the productivity decline across specifications.

Table D2 provides the equivalent analyses for the collaborations of junior female academics with female co-authors. Interestingly, as implied by the negative coefficient on the post Covid dummy that is larger in magnitude than the post #MeToo dummy (Specification 2), the pandemic had a more severe toll on new projects with female co-authors than the #MeToo movement. This is particularly the case for projects with existing female co-authors. This is in line with the result of Barber et al. (2021) who show that some women were hit particularly hard by the pandemic and were likely less available as co-authors on new projects.

The above result suggests that the pandemic has alleviated some of the negative impact on collaborations between women and men after #MeToo. Next, to support a link between the #MeToo movement and changing collaboration patterns, I exploit heterogeneity in universities' responses to the pandemic. If the decline in collaborations between junior women and new male

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[51] For instance, the coefficient of 0.29 on the *Post Covid* dummy means that the pandemic decreases output by 0.29 fewer projects than the #MeToo movement. Jointly, the two events decrease output by 0.93 (0.607+(0.607-0.289)) projects per year post #MeToo. The #MeToo movement is responsible for 65.6% and the pandemic for 34.4% of the decline.

[52] For instance, the pandemic decreases new projects initiations between junior female academics and new male co-authors at the same institution by 0.042 (-0.159+0.117) projects per year relative to pre #MeToo. However, this difference in projects (-0.042) is statistically insignificant.

[53] Remember that some of the projects which I find public records of in 2018 may have actually started in 2017 (before #MeToo). This biases my results toward not finding a decrease in collaborations between junior female and male academics academics when such a decrease exists.

co-authors at the same institution is due to #MeToo, university COVID-19 containment policies that enforce physical distance during the pandemic more strictly should reduce both the risk of sexual harassment and the risk of being accused of it to a larger extent.[54] As a result, I anticipate a stronger increase in collaborations between female and male academics at universities with more stringent COVID-19 containment policies.

In order to test whether there is a different impact on collaborations between junior women and men depending on the strictness of universities' policy responses, I interact the *Post Covid* dummy in Table D1 (Specification 2) with the number of reported COVID-19 cases at the university level in 2020. The data was obtained from The New York Times survey of U.S. Colleges and Universities (The New York Times, 2021). I use COVID-19 case numbers as a proxy for universities' pandemic policy responses instead of the actual policies since they are not publicly available and were subject to change over time. The idea behind my measure is that universities that had more COVID-19 cases are more likely to have had more lenient social distancing rules in place. I scale the number of reported COVID-19 cases by the number of undergraduate students in 2020/21 reported in the *U.S. News Ranking*.[55] I create a dummy variable, *High no. of reported cases*, that is equal to one if a university is above the sample median in terms of their number of reported COVID-19 cases and zero otherwise.[56] In this analysis, I focus on collaborations between junior female and new male co-authors at the same institution.

The results are presented in Table D3 in Column (1). The coefficient on the *Post Covid* dummy is positive, statistically significant, and of the same magnitude as the (negative) coefficient on the *Post* dummy. This implies that the decline in collaborations between junior women and new male co-authors at the same institution after #MeToo is completely offset during the first year of the pandemic (2020) at universities that enforced physical distance more stringently.[57] Even though the difference in the effect between universities with fewer and more reported COVID-19 cases (*Post Covid x High no. of reported cases*) is not statistically significant on conventional levels the offsetting effect is clearly driven by universities with fewer reported COVID-19 cases.

Political partisanship had a significant impact on the COVID-19 policy response in the U.S., with red states adopting less strict measures to manage the pandemic (Woolf, 2022). Hence, it may be the cases that my pandemic policy stringency measure simply proxies for political partisanship. In Column (2) I exclude universities located in red states based on voting behavior during the sample period from my analysis and restrict the sample to universities located in states that followed a more stringent COVID-19 containment strategy (i.e., blue and swing states).[58]

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[54]Virtual interaction removes the possibility of physical sexual harassment. Moreover, within the context of my story, if men feel there is a risk of sexual harassment accusations they can protect themselves by requesting to record the meeting.

[55]I use the total number of students if the university does not have an undergraduate program.

[56]The sample median is 0.054 COVID-19 cases per student.

[57]Pre #MeToo, collaborations between junior women and new male co-authors at the same institution were higher at universities with a higher number of reported COVID-19 cases (0.22 projects per year) than at universities with fewer reported COVID-19 cases (0.14 projects per year). In both types of universities, those collaborations declined to nearly zero after #MeToo. The decline in those collaborations post #MeToo does not change during the pandemic year (2020) at universities with a higher number of COVID-19 cases.

[58]Red states are states where voters predominantly choose the Republican Party in presidential elections as

The results show evidence that the decline in collaborations junior women and new male co-authors at the same institution was alleviated during the pandemic in universities that more strictly enforced social distancing.

Lastly, to ensure that my results are driven by the variation in the stringency of universities' policy responses to the pandemic, I restrict my sample to universities located in states that were above the sample median concerning their stringency in university and school closures during the period from March until December 2020, based on the index developed by Hale et al. (2021). The results are consistent with the previous two tests and are reported in Column (3).

Overall, the results suggest that collaborations between junior female academics and new male co-authors recovered more at universities that enforced social distancing more strictly during the pandemic. Because physical distance reduces both the risk of sexual harassment and the risk of being accused of it this result substantiates the existence of a direct relationship between the #MeToo movement and decline in collaboration between women and men post #MeToo. However, these result should be treated with caution as the analysis is based on only one year (2020).

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opposed to the Democratic Party (blue states). In my sample, 59% are located in blue states, 29% in red states, and 12% in swing states (where voters chose the Republican as well as the Democratic Party over the sample period).

Table D1: Change in the number of new initiated projects after #MeToo: Considering the effects of COVID-19

Specification 1: Considering Q1 in 2020

Variables	All projects	Coauthored	Male co-authors only	Existing male co-authors only			New male co-authors only		
				All	Inside	Outside	All	Inside	Outside
Post	-0.677**	-0.633**	-0.510***	-0.199	-0.030	-0.163*	-0.247**	-0.246***	0.011
	(0.306)	(0.274)	(0.173)	(0.125)	(0.071)	(0.083)	(0.117)	(0.081)	(0.081)
Controls and FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	393	393	393	393	393	393	393	393	393
R-squared	0.332	0.351	0.429	0.395	0.352	0.339	0.314	0.298	0.281

Specification 2: Incremental effect of COVID-19

Variables	All projects	Coauthored	Male co-authors only	Existing male co-authors only			New male co-authors only		
				All	Inside	Outside	All	Inside	Outside
Post	-0.607**	-0.556**	-0.347**	-0.103	0.016	-0.149**	-0.184	-0.159**	0.001
	(0.284)	(0.232)	(0.141)	(0.077)	(0.020)	(0.073)	(0.112)	(0.077)	(0.091)
Post Covid	0.289	0.255	0.208	0.156	0.028	0.061	0.052	0.117	-0.034
	(0.282)	(0.246)	(0.179)	(0.132)	(0.072)	(0.095)	(0.101)	(0.082)	(0.083)
Controls and FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	393	393	393	393	393	393	393	393	393
R-squared	0.362	0.399	0.469	0.450	0.416	0.398	0.341	0.277	0.326

Specification 3: Excluding the year 2020

Variables	All projects	Coauthored	Male co-authors only	Existing male co-authors only			New male co-authors only		
				All	Inside	Outside	All	Inside	Outside
Post	-0.565*	-0.541**	-0.348**	-0.091	0.035*	-0.153**	-0.199*	-0.170**	-0.001
	(0.287)	(0.234)	(0.141)	(0.074)	(0.020)	(0.072)	(0.113)	(0.078)	(0.092)
Controls and FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	323	323	323	323	323	323	323	323	323
R-squared	0.342	0.391	0.473	0.440	0.451	0.409	0.408	0.308	0.389

Specification (1) only considers projects that were started in the first quarter of 2020 (before the start of COVID-19 in the U.S. that is considered March 11, 2020 by the World Health Organization). The dependent variable is annualized by multiplying it times four. Specification (2) includes the dummy variable *Post Covid* that is equal to one in the year 2020 and zero otherwise. Specification (3) excludes observations in the year 2020 (subsample 2015-2019). In all specifications, the dependent variable is the total yearly number of new project initiations in Column (1); the total yearly number of coauthored new project initiations in Column (2); the total yearly number of new project initiations coauthored with only male co-authors in Column (3); the total yearly number of new project initiations coauthored with exist male co-authors only (all, inside, outside of university) in Columns (4)-(6); the total yearly number of new project initiations coauthored with new male co-authors only (all, inside, outside of university) in Columns (7)-(9). All regressions are based on the specification in Equation 1. The unit of analysis is a female junior academic at a particular university and includes the same control variables as in Table 1. Female junior academic, university, and years since tenure-track fixed effects are included in all regressions. Robust (White) standard errors clustered on university level in parentheses. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Table D2: Change in the number of new initiated projects with female co-authors only after #MeToo: Considering effects of COVID-19

Specification 1: Considering Q1 in 2020				
	Female	Existing female	New female	New inside
Variables	co-authors only	co-authors only	co-authors only	female co-authors only
Post	-0.002	0.016	-0.020	-0.054
	(0.111)	(0.060)	(0.072)	(0.035)
Controls and FEs	Yes	Yes	Yes	Yes
Observations	393	393	393	393
R-squared	0.316	0.298	0.243	0.241
Specification 2: Incremental effect of COVID-19				
	Female	Existing female	New female	New inside
Variables	co-authors only	co-authors only	co-authors only	female co-authors only
Post	-0.091	-0.017	-0.063	-0.034
	(0.083)	(0.046)	(0.066)	(0.026)
Post Covid	-0.118	-0.099	-0.031	0.027
	(0.107)	(0.068)	(0.075)	(0.043)
Controls and FEs	Yes	Yes	Yes	Yes
Observations	393	393	393	393
R-squared	0.350	0.294	0.246	0.274
Specification 3: Excluding the year 2020				
	Female	Existing female	New female	New inside
Variables	co-authors only	co-authors only	co-authors only	female co-authors only
Post	-0.088	-0.019	-0.069	-0.030
	(0.084)	(0.046)	(0.065)	(0.026)
Controls and FEs	Yes	Yes	Yes	Yes
Observations	323	323	323	323
R-squared	0.408	0.328	0.309	0.337

Specification (1) only considers projects that were started in the first quarter of 2020 (before the start of COVID-19 in the U.S. that is considered March 11, 2020 by the World Health Organization). The dependent variable is annualized by multiplying it times four. Specification (2) includes the dummy variable *Post Covid* that is equal to one in the year 2020 and zero otherwise. Specification (3) excludes observations in the year 2020 (subsample 2015-2019). In all specifications, the dependent variable is the total yearly number of new project initiations with only male co-authors in Column (1); the total yearly number of new project initiations coauthored with exist female co-authors only (all, inside, outside of university) in Column (2); the total yearly number of new project initiations coauthored with new female co-authors only in Column (3); the total yearly number of new project initiations coauthored with new female co-authors inside the university only in Column (4). All regressions are based on the specification in Equation 1. The unit of analysis is a female junior academic at a particular university and includes the same control variables as in Table 1. Female junior academic, university, and years since tenure-track fixed effects are included in all regressions. Robust (White) standard errors clustered on university level in parentheses. *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

Table D3: Change in the number of new initiated projects with new inside male co-authors after #MeToo: stringency of universities' COVID-19 policy response

Variables	(1) All	(2) Excluding red states	(3) States with high rate of university closures
Post	-0.160**	-0.217**	-0.191*
	(0.077)	(0.106)	(0.103)
Post Covid	0.175**	0.222**	0.238**
	(0.087)	(0.102)	(0.113)
Post Covid x High no. of reported cases	-0.118	-0.257**	-0.208
	(0.107)	(0.115)	(0.158)
Tenured	0.271	0.327	0.353
	(0.306)	(0.335)	(0.336)
Log past no. all faculty co-authors (cum.)	-0.170**	-0.178*	-0.199
	(0.080)	(0.101)	(0.131)
Log no. female Assistant Professor in department	-0.043	-0.066	-0.073
	(0.058)	(0.071)	(0.081)
Log no. male Assistant Professor in department	0.035	0.171	0.192
	(0.063)	(0.102)	(0.118)
Constant	0.340*	0.159	0.115
	(0.197)	(0.264)	(0.268)
Junior female academic FEs	Yes	Yes	Yes
University FEs	Yes	Yes	Yes
Years since T-track start FEs	Yes	Yes	Yes
Observations	393	278	186
R-squared	0.282	0.301	0.335

The dependent variable in all regressions is the yearly number of new project initiations with new male co-authors inside the junior female academic's university. All regressions are based on the specification in Equation 1. The unit of analysis is a female junior academic at a particular university. *Post* is a dummy equal to one if the project was initiated in 2018 or later and zero otherwise. *Post Covid* is a dummy that is equal to one in the year 2020 and zero otherwise. *High no. of reported cases* is a dummy that is equal to one if the number of reported COVID-19 cases scaled by the number of students the at junior female academic's university in the year 2020 is above sample median and zero otherwise. Column (1) presents results for the full sample; Column (2) presents results for the subsample of universities that are located in red states; Column (3) presents results for the subsample of universities that are located in states that were above median in terms of the stringency of their school and university closure policies in the year 2020 (March to December). *Tenured* is an indicator equal to one if the female academic was tenured in a given year. *Log past no. all faculty co-authors* is the log-transformed yearly accumulated count of the junior female academic's co-author network involving faculty (Assistant, Associate, and full Professors). *Log no. female (male) Assistant Professors in department* is the log-transformed yearly number of female (male) Assistant Professors who are on a tenure-track in the female academic's department. Female junior academic, university, and years since tenure-track fixed effects are included in all regressions. Robust (White) standard errors clustered on university level in parentheses. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

E Appendix – For Online Publication

Placebo Test - Changes in Collaborations from 2012 to 2017

A potential concern is that my analysis does not pick up trends in collaborations over the career trajectories of junior female academics. In this case, the decrease in collaborations with male co-authors and the associated fall in productivity that I observe may not be due to the effects of #MeToo movement but reflect collaboration patterns over women's careers.

In order to address this concern, I perform a placebo test where I repeat my main analysis over the time period 2012 to 2017. This event window has the same length as the time window in my original analysis but does not cover #MeToo. I define the post period as the years 2015, 2016 and 2017. Similar to my main analysis and consistent with a six-year clock (contract), I consider junior female academics who obtained their PhD no earlier than 2011 (one year before the start of the event window) and who are still on a tenure-track in the year 2017.[59] As previously, the analysis is performed within the same junior female academic at the same institution. Hence, it includes women who are at the same institution for at a least a period of time in the pre and post period.[60] Again, I control for trends in career trajectories by including fixed effects for the number of years passed since the start of the junior female academic's tenure-track. Due to data collection limitations, I do not include controls for the junior female academics' accumulated co-author network and the yearly departmental composition in terms junior academics (number of female and male Assistant Professors).[61]

The results of the placebo test are reported in Tables E1 and E2. If the patterns in collaborations and output I observe in my main analysis are attributable to trends in productivity through a woman's career, then I will see similar effects outside of the #MeToo period. Table E1 does not provide any evidence of changes in collaborations in the post period. If any, there is evidence of an increase in the number of new project initiations (Column 1) and collaborations that involve new male co-authors (Columns 7 to 9) in the post relative to the pre period. Table E2 also does not show any evidence of changes in the collaborations of junior female academics with female co-authors except for a small decrease in the number of new project initiations with existing female co-authors outside of the female academic's institutions. The latter may be due to fewer collaborations with the junior female academics' PhD advisor. In my main analysis, I observe a slight increase in these types of collaborations that appear to compensate for the small decrease in collaborations with new female co-authors at the same institution.

Sarsons (2017) documented that junior women receive less credit than junior men for joint work. This result was first published in *AER Papers and Proceedings* in 2015. Based on the author's account, the paper was only presented at her PhD-granting institution, Harvard Uni-

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[59]Some sample female academics obtain tenure at some point during the year 2017.

[60]Overall, this sample includes 122 junior female academics from 72 institutions. This sample includes all junior female academics in my original sample as well junior female academics hired in earlier years.

[61]The results in my main analysis are insensitive to the inclusion of these three control variable. Results are available upon request.

versity, prior to publication. The results of the placebo test do not support the conjecture that the decline in junior women's collaborations with men are a response to the dissemination of the work of Sarsons (2017) .

Overall, the results of the placebo test do not support the conjecture that the changes in collaborations and productivity that I find after #MeToo are due to (unobserved) general trends in the career trajectories of junior female academics.

Table E1: Change in the number of new initiated projects after #MeToo: Placebo test over time period 2012-2017

Variables	All projects	Coauthored	Male co-authors only	Existing male co-authors only			New male co-authors only		
				All	Inside	Outside	All	Inside	Outside
Post	0.125	0.146	0.181	0.009	0.006	0.003	0.197	0.036	0.142
	(0.218)	(0.193)	(0.162)	(0.093)	(0.016)	(0.090)	(0.124)	(0.073)	(0.116)
Tenured	-0.493	-0.391	-0.068	-0.382	-0.056	-0.326	-0.085	-0.086***	-0.011
	(0.711)	(0.606)	(0.401)	(0.284)	(0.053)	(0.247)	(0.416)	(0.026)	(0.405)
Constant	1.243***	0.962***	0.437***	0.140**	0.015	0.125*	0.235***	0.064	0.165**
	(0.152)	(0.135)	(0.113)	(0.065)	(0.011)	(0.063)	(0.086)	(0.051)	(0.081)
Junior female academic FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
University FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Years since T-track start FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	473	473	473	473	473	473	473	473	473
R-squared	0.313	0.340	0.370	0.371	0.272	0.383	0.254	0.235	0.272

This table presents placebo test results covering the time period 2012 to 2017. The sample includes junior female academics who obtained their PhD in 2011 or later and were on a tenure-track in 2017. The dependent variables are specified in the respective columns and represent the yearly number of new initiated projects of the indicated type. The dependent variable is the total yearly number of new project initiations in Column (1); the total yearly number of new coauthored project initiations in Column (2); the total yearly number of new project initiations with male co-authors only in Column (3); the total yearly number of new project initiations with existing male co-authors only in Column (4); the total yearly number of new project initiations with existing male co-authors in the same university only in Column (5); the total yearly number of new project initiations with existing male co-authors outside of the same university only in Column (6); the total yearly number of new project initiations with new male co-authors only in Column (7); the total yearly number of new project initiations with new male co-authors in the same university only in Column (8); the total yearly number of new project initiations with new male co-authors outside of the same university only in Column (9); All regressions are based on the specification in Equation 1. The unit of analysis is a female junior academic at a particular university. *Post* is a dummy equal to one if the project was initiated between 2015 and 2017 and zero if the project was initiated between 2012 and 2014. *Tenured* is an indicator equal to one if the female academic was tenured in a given year. The unit of analysis is a female junior academic at a particular university. Female junior academic, university, and years since tenure-track fixed effects are included in all regressions. Robust (White) standard errors clustered on university level in parentheses. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Table E2: Change in the number of new initiated projects with female co-authors after #MeToo: Placebo test over time period 2012-2017

Variables	Female co-authors only	Existing female co-authors only			New female co-authors only		
		All	Inside	Outside	All	Inside	Outside
Post	-0.006	-0.064*	-0.009	-0.055*	0.059	0.005	0.036
	(0.083)	(0.035)	(0.016)	(0.031)	(0.073)	(0.027)	(0.072)
Tenured	-0.067	-0.038	0.002	-0.040	-0.027	-0.000	-0.030
	(0.096)	(0.033)	(0.014)	(0.029)	(0.092)	(0.015)	(0.094)
Constant	0.206***	0.096***	0.017	0.079***	0.100*	0.030	0.079
	(0.058)	(0.024)	(0.011)	(0.022)	(0.051)	(0.019)	(0.050)
Junior female academic FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
University FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Years since T-track start FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	473	473	473	473	473	473	473
R-squared	0.344	0.313	0.250	0.323	0.288	0.273	0.275

This table corresponds to Table E1 for collaborations with female co-authors and presents placebo test results covering the time period 2012 to 2017. The sample includes junior female academics who obtained their PhD in 2011 or later and were on a tenure-track in 2017. The dependent variables are specified in the respective columns and represent the yearly number of new initiated projects with female co-authors. All regressions are based on the specification in Equation 1. The unit of analysis is a female junior academic at a particular university. *Post* is a dummy equal to one if the project was initiated between 2015 and 2017 and zero if the project was initiated between 2012 and 2014. *Tenured* is an indicator equal to one if the female academic was tenured in a given year. The unit of analysis is a female junior academic at a particular university. Female junior academic, university, and years since tenure-track fixed effects are included in all regressions. Robust (White) standard errors clustered on university level in parentheses. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

F   Appendix – For Online Publication

Changes in the Number of Co-authors

I consider an alternative measure for inferring changes in collaborations for junior female academics: the yearly number of different types of co-authors in research collaborations. If there is no corresponding change in the number of co-authors after #MeToo relative to before despite a decline in new project initiations, it indicates that junior female academics start fewer projects but that there is no change in their co-author network. This would be more consistent with a general fall in productive output that arrived with the passage of the #MeToo movement. However, if women start fewer projects after #MeToo relative to before and there is a corresponding decline in the number of co-authors they collaborate with, it means the decline in projects may be due to shrinkage in their co-author network. The following regressions are based on the model specification in Equation 1 with the number of different co-author types as the outcome variable. As before, the presented marginal effects are based on the coefficient on the post-#MeToo dummy.

Overall, the number of co-authors drops by 0.81 co-authors per year after #MeToo relative to before (Table F1 Column (1)). Moreover, consistent with the patterns observed on project level, whereas the number of female (faculty) co-authors (Table F1 Column (4)) remains unchanged post #MeToo, the number of male (faculty) co-authors drops by 0.42 (42.7%) co-authors per year from a level of 0.99 male co-authors per year pre #MeToo (Table F1 Column (3)). Table F2 Columns (1) and (4) shows that the decline in new male co-authors (-0.28) is more than twice as pronounced as the decline in existing male co-authors (-0.14). Again, the fall in new male co-authors is driven by a fall in inside male co-authors (Table F2 Column 2). Hence, consistent with the project-level analysis, the most important change in the collaborations after #MeToo responsible for the decline in the number of co-authors is the fall in new inside male co-authors. Overall, this fall in new inside male co-authors accounts for 33.0% (0.27/0.80) of the decline in the total number of co-authors. Last, the fall in new inside male co-authors appears to be driven to a larger extent by the group of tenured co-authors (Table F3).

Overall, this analysis shows that junior female academics post #MeToo are finding fewer new male co-authors and are not increasing the number of projects with existing male co-authors or other co-author groups. Hence, overall productive output falls.

Table F1: Change in the number of co-authors after #MeToo

			Of faculty authors	
Variables	All co-authors	Nonfaculty	Male co-authors	Female co-authors
Post	-0.809**	-0.321**	-0.422**	-0.052
	(0.314)	(0.151)	(0.173)	(0.129)
Tenured	2.814***	1.195***	1.721	-0.100
	(0.919)	(0.435)	(1.284)	(0.127)
Log past no. all faculty co-authors (cum.)	-2.014***	-0.251	-1.217***	-0.530***
	(0.295)	(0.165)	(0.260)	(0.117)
Log no. female Assistant Professor in department	-0.705	-0.039	-0.348	-0.335**
	(0.531)	(0.211)	(0.337)	(0.128)
Log no. male Assistant Professor in department	-0.065	-0.392	0.202	0.129
	(0.578)	(0.295)	(0.281)	(0.142)
Constant	5.258***	1.717**	2.393***	1.134***
	(1.371)	(0.739)	(0.712)	(0.303)
Junior female academic FEs	Yes	Yes	Yes	Yes
University FEs	Yes	Yes	Yes	Yes
Years since T-track start FEs	Yes	Yes	Yes	Yes
Observations	393	393	393	393
R-squared	0.443	0.358	0.484	0.387

The dependent variables are specified in the respective columns and represent the yearly number of co-authors of the indicated type for the sample of junior female academics. The dependent variable is the total yearly number of co-authors in Column (1), the total yearly number of nonfaculty co-authors in Column (2), the total yearly number of male co-authors who are part of faculty in Column (3), the total yearly number of female co-authors who are part of faculty in Column (4). All regressions are based on the specification in Equation 1. The unit of analysis is a female junior academic at a particular university. *Post* is a dummy equal to one if the project was initiated in 2018 or later and zero otherwise. *Tenured* is an indicator equal to one if the female academic was tenured in a given year. *Log past no. all faculty co-authors* is the log-transformed yearly accumulated count of the junior female academic's co-author network involving faculty (Assistant, Associate, and full Professors). *Log no. female (male) Assistant Professors in department* is the log-transformed yearly number of female (male) Assistant Professors who are on a tenure-track in the female academic's department. Female junior academic, university, and years since tenure-track fixed effects are included in all regressions. Robust (White) standard errors clustered on university level in parentheses. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Table F2: Change in the number of male co-authors after #MeToo: new and existing co-authors

	New co-authors			Existing co-authors		
Variables	All	Inside	Outside	All	Inside	Outside
Post	-0.279*	-0.266***	-0.013	-0.142*	0.022	-0.164**
	(0.157)	(0.095)	(0.116)	(0.073)	(0.027)	(0.071)
Tenured	1.610**	1.099**	0.511	0.111	0.292	-0.181
	(0.743)	(0.428)	(0.343)	(0.561)	(0.286)	(0.830)
Log past no. all faculty co-authors (cum.)	-1.326***	-0.339***	-0.987***	0.109	0.088**	0.021
	(0.212)	(0.081)	(0.209)	(0.088)	(0.043)	(0.066)
Log no. female Assistant Professor in department	-0.255	-0.155**	-0.100	-0.093	-0.004	-0.089
	(0.217)	(0.076)	(0.193)	(0.187)	(0.074)	(0.149)
Log no. male Assistant Professor in department	0.108	-0.007	0.116	0.094	0.025	0.069
	(0.246)	(0.096)	(0.224)	(0.181)	(0.058)	(0.145)
Constant	2.237***	0.874***	1.363**	0.156	-0.090	0.246
	(0.624)	(0.257)	(0.557)	(0.374)	(0.134)	(0.296)
Junior female academic FEs	Yes	Yes	Yes	Yes	Yes	Yes
University FEs	Yes	Yes	Yes	Yes	Yes	Yes
Years since T-track start FEs	Yes	Yes	Yes	Yes	Yes	Yes
Observations	393	393	393	393	393	393
R-squared	0.405	0.349	0.352	0.468	0.511	0.404

The dependent variables are specified in the respective columns and represent the yearly number of co-authors of the indicated type for the sample of junior female academics. The dependent variable is the total yearly number of new male co-authors (no past co-author relationship) only in Column (1); the total yearly number of new male co-authors inside the same university in Column (2); the total yearly number of new male co-authors outside of the university in Column (3); the total yearly number of existing male co-authors (with past co-author relationship) in Column (4); the total yearly number of existing male co-authors inside the same university in Column (5); the total yearly number of existing male co-authors outside of the university in Column (6); All regressions are based on the specification in Equation 1. The unit of analysis is a female junior academic at a particular university. *Post* is a dummy equal to one if the project was initiated in 2018 or later and zero otherwise. *Tenured* is an indicator equal to one if the female academic was tenured in a given year. *Log past no. all faculty co-authors* is the log-transformed yearly accumulated count of the junior female academic's co-author network involving faculty (Assistant, Associate, and full Professors). *Log no. female (male) Assistant Professors in department* is the log-transformed yearly number of female (male) Assistant Professors who are on a tenure-track in the female academic's department. Female junior academic, university, and years since tenure-track fixed effects are included in all regressions. Robust (White) standard errors clustered on university level in parentheses. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Table F3: Change in the number of new inside male co-authors after #MeToo: by co-author seniority (tenure)

	Tenure	
Variables	Yes	No
Post	-0.167**	-0.100*
	(0.072)	(0.052)
Tenured	1.192**	-0.093
	(0.587)	(0.170)
Log past no. all faculty co-authors (cum.)	-0.161***	-0.177***
	(0.059)	(0.057)
Log no. female Assistant Professor in department	-0.069	-0.086*
	(0.074)	(0.049)
Log no. male Assistant Professor in department	0.005	-0.012
	(0.065)	(0.060)
Constant	0.428*	0.446***
	(0.216)	(0.154)
Junior female academic FEs	Yes	Yes
University FEs	Yes	Yes
Years since T-track start FEs	Yes	Yes
Observations	393	393
R-squared	0.346	0.265

The dependent variables are specified in the respective columns and represent the yearly number of co-authors of the indicated type for the sample of junior female academics. The dependent variable is the total yearly number of new tenured male co-authors in the same university in Column (1); the total yearly number of new nontenured male co-authors in the same university in Column (2); All regressions are based on the specification in Equation 1. The unit of analysis is a female junior academic at a particular university. *Post* is a dummy equal to one if the project was initiated in 2018 or later and zero otherwise. *Tenured* is an indicator equal to one if the female academic was tenured in a given year. *Log past no. all faculty co-authors* is the log-transformed yearly accumulated count of the junior female academic's co-author network involving faculty (Assistant, Associate, and full Professors). *Log no. female (male) Assistant Professors in department* is the log-transformed yearly number of female (male) Assistant Professors who are on a tenure-track in the female academic's department. Female junior academic, university, and years since tenure-track fixed effects are included in all regressions. Robust (White) standard errors clustered on university level in parentheses. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.