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 study research collaborations involving junior female academic economists and show they start fewer new research projects after #MeToo. The decline is driven largely by fewer collaborations with new male co-authors at the same institution. I show that the drop in collaborations is concentrated in universities where the perceived risk of sexual harassment accusations for men is high – that is, when both sexual harassment policies are more ambiguous exposing men to a larger variety of claims and the number of public sexual harassment incidents is high. The results suggest that the social movement is associated with increased cost of collaboration that disadvantaged the career opportunities of women.

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1   Introduction

Collaborations clearly benefit participants in the production of output (Hamilton et al., 2003; Anderson and Richards-Shubik, 2021), but the costs of social interactions involved in collaboration has thus far not received much attention. One explanation for the gender gap in career outcomes is that women have smaller networks and fewer collaborations than men (e.g., Beaman et al., 2018; American Economic Association, 2019; Cullen and Perez-Truglia, 2019; Card et al., 2020; Ductor et al., 2021). 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 to improve conditions for women by altering the way women and men interact with each other in the workplace. It is an open question whether the movement on net increased or decreased the costs of collaboration between women and men.[1] I show that junior female economists start fewer new research projects after #MeToo and the drop is largely explained by fewer new research projects with male colleagues at the same institution. Although the #MeToo movement was important to raise awareness of the prevalence of sexual harassment in the workplace, my results suggest that #MeToo had important effects on the costs and benefits of collaborations between male and female colleagues.[2]

To understand how costs of collaboration shifted, I use academia as my setting – an environment where collaborations are observable, formed voluntarily, and are highly consequential for career outcomes. In particular, I use CV data to track the composition of collaborators on the research projects of individual junior female faculty members in economics over six years around #MeToo (2015-2020). Junior researchers have not yet developed a reputation as colleagues and are under pressure to produce research output to qualify for a permanent position

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[1] Although I realize that there are other members from underrepresented groups who 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. Most reports of workplace harassment are made by women, and women constitute the large majority of victims of sexual harassment (U.S. Equal Employment Opportunity Commission, 2021). In addition, according to the "contact hypothesis" the harassed group is typically the group that constitutes the minority in the workplace (Gutek et al., 1990; Folke and Rickne, 2022), which is the case for economics departments at academic institutions (Pence, 2021).

[2] Readers and audiences occasionally remark that preventing women from working with predatory men is the intent of #MeToo and that the decrease in collaborations is therefore the intended consequence of #MeToo. Although the intent of #MeToo is clearly protecting women from working with predatory men, the intent of #MeToo is not to overall reduce women's productive output.

(tenure).[3] At the same time, sole-authored work constitutes the minority of published research, so collaborations are vital for junior researchers (Ductor et al., 2021; Sherman and Tookes, 2022). Unlike in many other settings, researchers are not assigned to teams by the organization. This means when costs of interaction increase, we can see changes in collaborations. In other settings, costs can increase, but collaborations are mandatory. In academia, collaborations are often preceded and followed by some extent of informal interaction and usually persist over long periods. Moreover, research collaborations produce measurable outputs (research papers) and are usually publicly disclosed by researchers in their vita even for very early-stage projects. Especially for junior researchers, this information is frequently updated to demonstrate evidence of sustained performance.

My results show that after the #MeToo movement (as of 2018), junior female academics start 0.7 fewer projects per year than 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 who account for a total of 29% of the decline in new project initiations after #MeToo. This decline is largely due to fewer new collaborations with tenured (senior) male co-authors. I also show that this slowdown in productive output coincides with a reduction in growth of the co-author network: junior female academics connect to 0.3 fewer new male co-authors within their home university relative to before the movement. 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 initial response to #MeToo was public naming and shaming that brought down high-profile male figures (Carlsen et al., 2018). Several organizations issued zero-tolerance policies comprising of new governance structures that would increase incentives for firms to punish perpetrators and decrease costs of reporting for victims (Griffin et al., 2018).[4] Reports of sex crimes

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[3]Permanent faculty positions (tenure) are highly competitive and are only obtained following a sustained (usually six-year) record of research publications. This makes early voluntary terminations and turnovers a relatively infrequent occurrence in the industry.

[4]For instance, 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 (see also Arnow-Richman et al. (2021)). Moreover, firms in the technology industry banned forced arbitration that previously ensured that disputes were settled behind closed doors (Bloomberg, 2019). In academia, the American Economic Association now includes questions related to sexual assault in its Professional Climate Survey (American Economic Association, 2018).

(but not incidents) increased by 10% in the United States over the first six months after the campaign as a result of it (Levy and Mattsson, 2020). Survey results and extant anecdotal evidence indicate that men think there is a higher risk of being falsely accused of sexual harassment and that they intend to manage this risk by reducing exposure to women post #MeToo (Miller, 2017; Jorge, 2018; Smith, 2018; Tan and Porzecanski, 2018; Atwater et al., 2019; Bennholt, 2019).[5] The resulting increased uncertainty about what constitutes socially appropriate behavior in the workplace, higher public scrutiny, and increased reporting rates create a heightened perceived risk for men of being exposed to sexual harassment accusations post #MeToo.

Conversely, for women, more awareness among men about their conduct, stronger peer support and institutional commitment to protection from sexual harassment should lead to the perception of a safer working environment decreasing their cost of working with men post #MeToo. However, 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.[6]

Although I cannot pinpoint a specific mechanism that explains why collaborations of junior female academics with men decrease post #MeToo, I argue that my results are most consistent with a story of men managing an increased perceived risk of sexual harassment accusations subsequent to the movement.[7] To show the potential effects of men's risk-mitigating behavior, 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

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[5]Note that 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 regarding workplace behavior they do not understand as inappropriate (i.e., sexual harassment) but the #MeToo movement labels as such, or (ii) to be falsely accused of sexual harassment (when they have not committed it at all). If as a result of the #MeToo movement men who intend to engage in sexual harassment are removed or disciplined so they change their behavior, this should result in productivity increases for women.

[6]There is no evidence that actual risk of being sexually harassed increased post #MeToo.

[7]Research collaborations are voluntary. This means the net benefits of collaboration must be positive for both parties. It is therefore difficult to separate mechanisms that help or hurt women from those that help or hurt men even conceptually. For example, if #MeToo makes society more likely to believe women who make accusations of inappropriate behavior, it simultaneously makes society less likely to believe men who are accused of inappropriate behavior. However, if collaborations decrease, we can say that at least one party views the costs of collaborations as higher. For instance, men could offer to co-author with women under worse conditions– for example, work together but only in the office during normal hours with the door open – that women do not accept. Because we cannot see the bargaining that allocates costs and benefits, it is difficult to ascribe changes in behavior purely to men or women after shocks like #MeToo.

the universities' sexual harassment policies and the number of public sexual harassment incidents in these universities. The idea is that although #MeToo increased external pressure to side with the accuser, consequences related to employment faced by the accused depend on the outcome of the university's internal investigation. A higher perceived risk of sexual harassment accusations emerges when the probability of reporting appears high (i.e., many public incidents) and policies are not specific (i.e., ambiguous) about which behaviors are considered a violation of the sexual harassment policy. Policy ambiguity affects a man's incentives to collaborate but not a woman's if women are more concerned about being sexually harassed or view more behaviors as sexual harassment post #MeToo. The reason is that ambiguous policies do not offer specific protections to a woman against these behaviors. Consistent with men managing the increased risk of sexual harassment accusations, I find that the negative effect of #MeToo on research collaborations is less pronounced in high public sexual harassment settings when sexual harassment policies are more clear in specifying prohibited behaviors. This effect is particularly strong in environments with more liberal attitudes toward gender – an environment where collaborations between women and men decline most after the movement.

In my analysis, I rule out a number of alternative explanations for the observed changes in collaboration patterns between women and men after #MeToo. First, all analyses are conducted within the same junior female academic and university. Hence, the identification comes from variation within the same individual before and after the #MeToo movement. This mitigates the concern that the effect is driven by a change in the composition (i.e., quality) of female academics or differences in her institutional environment.[8] My results are also inconsistent with a story where women switch collaboration patterns due to anticipation of less credit for projects with male co-authors (Sarsons et al., 2021) or a move to project topics that are less researched by male colleagues because women are not substituting toward other research outputs.[9] Furthermore, my findings cannot be explained by changes in productivity through a junior woman's career, as I include fixed effects for the number of years since the start of tenure track. Hence, I am comparing junior women who are at the same stage in their career pre and post #MeToo. In addition, I

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[8]I eliminate a small number of women who switch institutions over the sample period. I discuss implications in more detail in the Section 3.

[9]For a story that would be consistent with women collaborating less with men due to less anticipated credit, women would have to receive negative credit from collaborating with men. In other words, women would have to prefer to have no project rather than a project with men.

conduct a placebo test over an alternate time period outside of #MeToo (2012-2017). The results do not support the conjecture that the changes in collaborations are due to (unobserved) general trends in the career trajectories of junior female academics. Moreover, I consider the potential effects of the COVID-19 pandemic (2020) which has been shown to affect women's productivity (Kruger et al., 2020; Barber et al., 2021; Deryugina et al., 2021). I find that post-COVID-19, the decline in initiating new projects for junior female academics that started after #MeToo partially reverses, suggesting that #MeToo was a more negative shock to junior women's productivity than the pandemic. Last, I check whether junior male academics experienced similar changes in collaborations post #MeToo as junior female academics. My results show that men initiate 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. Hence, although women do not substitute for the lost collaborations, men do. The fact that women bear the cost of lower output and are more isolated in their network is more consistent with women being unexpectedly exposed to a situation that requires them to respond to and time to adapt.

The #MeToo movement does not constitute a clean experiment.[10] Even though 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 study is the first 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.

This study adds to the nascent literature examining the behavioral responses to #MeToo. For instance, in their theoretical work, Cheng and Hsiaw (2020) model a victim's decision to report sexual misconduct as a miscoordination problem with other victims. Their model demonstrates that the risk of being accused may affect men's decisions to mentor women which has spillover effects on a victim's willingness to report misconduct. Batut et al. (2021) study worker flows in France and show that women in low-wage sectors subject to toxic environments are more likely to quit their jobs after #MeToo. The authors interpret this as an empowering effect

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[10]The #MeToo movement was likely preceded by changes in attitudes regarding the tolerance toward sexual harassment. Also, #MeToo affected the entire United States at the same time, so there is no staggered treatment. These two factors limit the extent to which a causal effect of #MeToo can be established.

of the movement. However, a clear mechanism that caused the job move is not identified and the authors do not show any evidence of costs borne by women during these moves. Assuming that sexual harassment did not increase post #MeToo, it is unclear whether women switch jobs due to a change in women's attitudes, because they experience more backlash from their male colleagues (impacting the ability to collaborate) or because, for instance, future employers are more sympathetic to job terminations for reasons related to experiencing toxic environments.[11] In addition, in a field experiment among high school students in India, Sharma (2021) shows that providing sexual harassment awareness training to boys increased boys' perception of peer disapproval of sexual harassment which led to less sexual harassment in the short-term. At the same time, it increased girls' (who did not receive training) reluctance to enter interpersonal relationships with boys (who did receive training).[12] However, boys did not perceive any higher risk of legal repercussions, and there was no clear cost associated with less interaction for either party. I add to these studies by documenting an unintended consequence of the #MeToo movement in a setting where collaborations are important for career success and job mobility is low without research output due a high level of competition in the profession, so costs borne by women in terms of reduced collaborations are clear.

More broadly, this papers adds to the literature that studies unintended effects of initiatives that aim to help underrepresented groups. Acemoglu and Angrist (2001) demonstrate how the Americans with Disabilities Act further marginalized the intended beneficiaries due to high cost of compliance for firms. My work shows how a social movement that intends to increase workplace safety comes at the cost of decreased productivity for the targeted group.

The paper is organized as follows. Section 2 describes the institutional setting. Section 3 describes the data and empirical strategy. Section 4 presents the results, and section 5 investigates potential mechanisms. Section 6 concludes.

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[11] Folke and Rickne, 2022 show that a higher risk of sexual harassment is associated with a higher job quit rate even in the absence of #MeToo.

[12] Sharma, 2021 presents a model in which men harass women in short- and long-term ways. After training, harassers pool with non-harassers in the short-term; this takes away women's ability to distinguish the long-term harassers from non-harassers. Thus, women avoid working with men after training to avoid long-term harassers.

2 Institutional Setting: Collaborations among Academic Economists

In academia, professional success depends on research productivity. It is commonly measured as the number of peer-reviewed publications in top academic journals. In turn, productivity is driven by one's ability to form good collaborations with other colleagues. Research projects are rarely carried out individually because these are less likely to lead to successful publications (Ductor et al., 2021; Sherman and Tookes, 2022).[13] There is evidence of a growing trend toward conducting research in teams (Card and DellaVigna, 2013; Hamermesh, 2013). Anderson and Richards-Shubik, 2021 show that in economics, larger collaborator teams are more successful in producing papers with larger impact. At the same time, collaborations are formed voluntarily based not only on joint research interests and skills but also prior interaction. Research collaborations typically span periods of several years due to long project duration. Thus, initiating as well as carrying out research projects requires social interaction with others.

Collaborations have been shown to be especially important for women who are less likely to conduct projects by themselves due to risk-sharing benefits of collaborations (Ductor et al., 2021). Moreover, women are held to a higher standard in the review process than men (Hengel, 2022; Card et al., 2020) and undersell their research, leading to fewer citations (Kosnik, 2022).

At the same time, women in economics are highly underrepresented. Women comprise 30% of tenure-track faculty members (Assistant Professors) and only 14% of full (tenured) Professors (American Economic Association. Committee on the Status of Women in the Economics Profession., 2020). In particular, more senior and established colleagues (of whom the majority are male) contribute important resources like experience and networks. As a result, given the large share of men in the profession especially in the most senior positions, reduced interaction between men and women is likely to decrease the number of established collaborations and, hence, productive output for women.

Importantly, the nature of interaction in the profession is one where professional and personal life blur. As a result, ambiguous situations in social interactions are likely to arise. Work is

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[13] Conditional on a solo-authored paper ending up being published in a top journa,l women benefit to a larger extent than men (Sarsons et al., 2021). However, solo-authored projects are less likely to lead to top publications than solo-authored projects in the first place (Ductor et al., 2021; Sherman and Tookes, 2022).

frequently conducted outside of working hours and the office. Social activities are conducted among colleagues and involve seminar dinners and conference travel.

As in many other industries, sexual harassment is also a topic of concern in academia. In economics, based on the climate survey of the American Economic Association (2019) half of women report to have experienced or witnessed sex-based discrimination. The #MeToo movement also resonated in academia and uncovered a large number of sexual harassment cases that brought down highly reputable academics in top research institutions (Anderson, 2018).

Overall, intellectual exchange and social interaction are a key component of the academic profession that frequently take place in an unstructured, unplanned, and informal manner. Because academic careers are dependent on collaborations and social interaction, I expect changes in the cost of interaction after #MeToo to reflect in altered collaboration patterns among academics.

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 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 make it to the stage of dissemination and publication.

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.[15] 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

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

[15]Issues of sexual harassment do not only concern junior women. However, the focus on junior women offers a cleaner setting to study the effects of the movement.

affect the decision to start a collaboration.[16] As a result, this group of "early-career" academics is particularly vulnerable to career interruptions 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.

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.[17,18] Next, I create a list of all female academics who were on a tenure-track at these top 100 economics departments in 2017.[19] I use (historical) university catalogs to ensure my sample includes all women who were on a tenure-track in 2017 (and whose PhD is from 2014 or later). All historical data were collected using the internet archive Wayback Machine.

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. 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

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[16]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.

[17]I consider only the main economics department of the listed university. Some universities have economics departments that belong to other parts of the university (such as public policy schools).

[18]The rank goes up to 96 because of 4 ties.

[19]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.

that projects likely started earlier than their first appearance in public sources. However, in my analysis I investigate how the pandemic interacted with #MeToo.

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. In addition, I extract information on their PhD-granting institution and the year they obtained their PhD. 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.[20,21]

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). 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 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 stayed at the same university pre and post #MeToo.[22] If a female academic moved institutions

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[20]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.

[21]Note that I focus on the initiations of new project. This means that I do not follow up on a project once it starts. Project milestones cannot be observed in a consistent and comprehensive manner in academia as these are not recorded or made public. Also, project outcomes in the form of journal publications cannot be tracked. Given the length of the publication process, most projects will not have reached this stage (especially those that started post #MeToo).

[22]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

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 sample consists of 83 female academics from 58 universities.

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, in order 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.

In order to relate changes in the number of projects to a particular group of co-authors, I create non-overlapping 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.[23,24] For every junior

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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.

[23] 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 non-academic institution (such as economists at the Federal Reserve). These further include PhD students, postdoctoral students, visiting faculty, and research affiliates.

[24] 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.

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.

As an alternative measure for the extent of collaborations with different types of co-authors, I use a junior female academic's yearly total number of distinct co-authors of each type. Note that although the main measure is on project level, the latter measure is on co-author level. The project-level measure informs whether the total number of projects with a particular type of co-author decreases post #MeToo. However, it is also possible that a female academic conducts fewer projects albeit with the same co-author pool. Hence, the co-author count indicates whether the network of co-authors changes post #MeToo.

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

My analysis is conducted at the level of an individual junior female academic and her affiliated university. This means that I follow the same academic in her respective institution over time. In addition, I control for a number of other factors that may influence collaboration choices.

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 control for time trends in how projects are conducted over 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. Huang et al. (2020) show that career span has an important influence on research productivity. 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. 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 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

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[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.

[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.

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.

In my analysis, I cannot entirely rule out that the observed changes in collaborations have a different cause other than #MeToo. For an omitted variable to explain the results, it would have to affect the nature of collaborations as well as the occurrence of the #MeToo movement after October 2017. One may wonder whether the movement impacted the type of women who enter academia. However, all the junior female academics in my sample are already in their respective positions as #MeToo takes place. 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 A1 in the appendix illustrates the share of junior women in the sample economics departments and shows that their share remains constant pre relative to post #MeToo.[27] Moreover, my analysis is conducted within the same academic over time. This means the quality of junior 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.[28]

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).

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[27] These numbers are also consistent with those documented by American Economic Association. Committee on the Status of Women in the Economics Profession., 2020 who find that 23% of economics faculty was composed of women in 2017.

[28] Another potential concern is that my results are affected by other university policies that improve working conditions post #MeToo for women leading them to reduce output because it allows them to extend their tenure clock. One such example is maternity leave. In my sample, there are only three instances where junior women take maternity leave post #MeToo. Excluding these cases does not qualitatively affect my results.

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 Descriptive Statistics

Table 1 shows descriptive statistics for the junior female academics in my sample. Overall, there are 393 female academic - institution - year observations 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. Only 1.3% of the observations involve women with tenure. The average university rank where a female academic is employed is 42, and 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 discussed in the results section are presented in Table 2. For brevity, I do not discuss these variables here.

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

First, I test whether the number of new project initiations for junior female academics changes after #MeToo.

Figure 1 shows the raw-data average yearly number of new initiated projects adjusted by career stage (i.e. the number of years since tenure track start) pre and post #MeToo. Because productivity varies with career stage and universities asses progress based on years since tenure track start it is important to compare output of academics who are the same stage in their career. Figure 1 show how average productivity increases over the career with junior female academics

starting a higher number of new projects each year. The key insight of the figure is that women post #MeToo (dark solid line) deviate from the productivity trend women have pre #MeToo (light solid line) at the same career stage. For instance, women who were since one year on a tenure track pre #MeToo started 0.89 new projects each year whereas women who were since one year on a tenure track post #MeToo started 0.69 new projects each year. This spread widens over the career with women falling further behind each year from the trend. In addition, the trend in productivity started by women pre #MeToo early in their career flattens after #MeToo (dotted line) in later years of their career.[29]

Table 3 Column (1) presents the multivariate results from the regression specification in Equation 1. The outcome variable is the yearly number of new initiated projects. 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.[30]

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.

4.3 Which Group of Co-authors Drives the Decrease 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, Figures A2 to A6 show all post-#MeToo coefficients for every type of collaboration using the regression specification in Equation 1. Figure A2 presents the post-#MeToo coefficients for the top level of collaboration types with the path I follow in my

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[29]Because 2014 is the earliest year when a tenure track can start for a junior female academic in my sample, a woman can only be observed up to three years since tenure-track start in the pre-#MeToo period.

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

main analysis highlighted in green. Subsequently, Figure A3 provides post-#MeToo coefficients for all collaboration types involving male co-authors only, Figure A4 shows the post-#MeToo coefficients for all collaboration types involving female co-authors only, Figure A6 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. I start by decomposing the change in new project initiations into changes in solo-authored and coauthored projects. Figure 2a illustrates the marginal effects for the post-#MeToo dummy (see Table 3 Columns (1) to (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 2a (and Table 3 Columns (3) to (5)) illustrates that it is mainly projects that involve faculty rather than 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? I decompose the number of coauthored projects with faculty into collaborations with (a) men only, (b) women only, and (c) collaborations that include both male and female co-authors. Figure 2a (and Table A2 in the appendix) shows that there is a small and statistically insignificant decline in female-only projects after #MeToo. The most pronounce 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. Having established that fewer new projects with male co-authors are the main driver for the fall in total new project initiations after #MeToo, I now zoom-in closer into this co-author group. Figure 2b 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 2b (and Table A3) 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 pronounced than the decline in collaborations with existing male co-authors (0.17 fewer new projects).

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.

Next, 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 A5), 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.[31,32] This is an interesting result given that behaviors are more likely to be interpreted as sexual harassment if they involve a junior female and a senior male employee (Antecol and Cobb-Clark, 2003).

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[31] Typically, full Professors are tenured, Assistant Professors are nontenured, and Associated Professor may or may not be tenured.

[32] Note that 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.

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Although the previous result shows that the decline in projects with new inside male co-authors is more pronounced, the decline in existing outside male co-authors is also an interesting phenomenon. I show that lower-ranked universities drive the decline in collaborations with existing outside male co-authors. The effect can be somewhat explained by fewer collaborations with their academic advisors post #MeToo. This result along with a more detailed analysis is provided in Appendix B.

With respect to collaborations of junior female academic with female co-authors, Figure A4 shows that although there is overall no meaningful change post #MeToo, 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.[33] The loss in these collaborations appears to be compensated by an increase of similar magnitude in project collaborations with existing (outside) female co-authors. Such compensations cannot be observed for collaborations with male co-authors.

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.

4.4 Robustness Checks

Changes in the number of co-authors. I consider my 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

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[33]Interestingly, in support of this, junior male academics slightly increase collaborations with senior female co-authors at the same university.

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.

Figure 3 shows the marginal effects for the change in the yearly number of different co-author groups. Overall, the number of co-authors drops by 0.81 co-authors per year after #MeToo relative to before (Table 4 Column (1)). Figure 3a shows results consistent with the patterns observed on project level that consider the number of new initiated projects involving only female and only male co-authors, respectively (Figure 2a): whereas the number of female (faculty) co-authors 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. Figure 3b (and Table A6 Columns (1) and (4) in the appendix) 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 (see Table A6 Columns 2 and 3 in the appendix). 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 A8 in the appendix).

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.

Collaborations of junior male academics post #MeToo. I investigate whether junior male academics experience similar changes as junior female academics post #MeToo. 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 academics and a total of 869 junior male academic - year observations. Figure A5 shows the raw-data average yearly number of new initiated projects adjusted by career stage (i.e. the number of years since

tenure track start) pre and post #MeToo (corresponding to Figure 1 for junior female academics). Unlike for women, men's productivity post #MeToo does not fall behind from the productivity trend of men in the pre #MeToo period. Figure A7 shows the coefficients on the post-#MeToo dummy from a regression based on Equation 1 for different collaboration types (corresponding to Figure A2 for junior female academics). The result shows that the overall number of new project initiations reduces slightly (by 0.1 projects per year) for men post #MeToo, but 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.[34] 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.

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

The effect of the COVID-19 pandemic. The COVID-19 pandemic started to interfere with normal work life after the first quarter of 2020 when the World Health Organization declared the pandemic.[35] One may wonder how my results are affected by the pandemic. In financial economics, Barber et al., 2021 provide survey-based evidence that the productivity of female academics, particularly senior ones with child-caring obligations, was negatively affected by the pandemic.[36] This could imply that the loss in productivity that I find and attribute to #MeToo could be explained by COVID-19. At the same time, Kruger et al. (2020) report productivity gains in the top 50 U.S. economics and finance departments based on working paper online postings.

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[34] For junior male academics, the decrease in new collaborations with female co-authors is driven by fewer new projects with new junior female co-authors inside and outside of their institution. This is compensated for by more new collaborations with existing and new male co-authors outside of their institution. Junior male academics also decrease collaborations with other new male academics at the same university to some extent. However, unlike women, this is restricted to the group of nontenured male academics. Overall, this suggests that men collaborate more within their existing network and expand their outside network as men's capacity frees up due to fewer collaborations with women post #MeToo.

[35] The World Health Organization declared the pandemic on March 11, 2020.

[36] Deryugina et al. (2021) arrive at similar conclusions.

Hence, it may also be the case that COVID-19 offsets the negative effects on productivity of the #MeToo movement. Note that it is not clear what effect the pandemic would have on collaborations between junior female and male academics and why it should affect these to a larger extent. On the one hand, the pandemic made it generally more difficult to connect with new potential collaborators. On the other hand, the shift to working from home reduced the risk of sexual harassment as well as being accused of it because interactions were mainly carried out virtually and in a more organized manner.[37]

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, I identify projects of which there is public evidence before the first quarter of 2020. I then annualize these 2020 first-quarter projects 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. Second, I analyze how the effect of COVID-19 compares to the effect of #MeToo by including a dummy variable that identifies the pandemic year (2020) into my baseline regression. Last, I exclude the entire year 2020 from my analysis. A detailed description of the analysis and results are provided in Appendix D.

Overall, the results of this analysis show that the smaller number in collaborations between junior female and male academics post #MeToo cannot be solely attributed to the effects of the pandemic. Another important implication of these results is that although the pandemic had an aggravating effect on women's productivity and research collaborations between junior female and male academics, it had a less severe effect than the #MeToo movement.

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[37]Men who derive utility from sexual harassment and start collaborations with women because of this may experience lower incentives to start collaborations with women during the pandemic when work was carried out remotely.

5 Channels

5.1 Can Ambiguity in Sexual Harassment Policies Explain the Decrease in Collaborations between Women and Men?

Increased uncertainty about what constitutes socially appropriate behavior in the workplace, higher public scrutiny, and increased reporting rates create a heightened perceived risk for men of being exposed to sexual harassment accusations post #MeToo. As indicated by survey and anecdotal evidence, men intend to manage the increased perceived accusation risk by stop working with women (Miller, 2017; Jorge, 2018; Smith, 2018; Tan and Porzecanski, 2018; Atwater et al., 2019; Bennholt, 2019).[38] However, sexual harassment accusation claims are handled by universities themselves through internal investigations.[39] 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, 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.

#MeToo increased external pressure on organizations to believe women and act on sexual harassment claims (Griffin et al., 2018; The Economist, 2018). It did so by offering support for victims through a public arena encouraging them to make their accusations public if they felt that their claims were not sufficiently addressed by the organization. Prior to #MeToo, making claims public was riskier for victims as it was associated with a low perceived chance of being believed resulting in stigma (McDonald, 2012). 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. 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

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[38] My argument does not require the actual but only the perceived threat of sexual harassment accusations among men to increase post #MeToo.

[39] In the United States, sexual harassment is covered by Title VII of the 1964 Civil Rights Act where it falls under gender (sex) discrimination. This civil law legally mandates organizations to prevent any form of workplace discrimination based on gender.

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.

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 (Edelman, 1992).[40] The ambiguity creates uncertainty as it requires the individual to make a prediction whether their behavior will be interpreted as compliant or not (Guttel and Harel, 2008). This is especially applies to sexual harassment regulations (Basu, 2003). Ambiguous sexual harassment policies leave uncertainty about which behaviors constitute a violation of the policy. Depending on 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.[41,42] An ambiguous policy leaves open more opportunities for universities to side with women post #MeToo.

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 suggests we may or may not see new reports post #MeToo. I therefore do not

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[40] For instance, the legal "hostile environment" clause suggests that what is considered sexual harassment may be culturally dependent and differ across environments and time (Basu, 2003). The use of legal standards rather than rules has the benefit that standards are easier to formulate (for organizations) at the cost of more difficult application (for courts and defendants) (Guttel and Harel, 2008).

[41] 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.

[42] Please 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.

make a prediction on whether sexual harassment policy ambiguity is related to collaborations in universities with low public reporting of sexual harassment pre #MeToo.

How does policy ambiguity affect women's willingness to collaborate with men post #MeToo? It is less clear how women's response to #MeToo will differ according to policy ambiguity. Keeping policies vague is a way to broaden applicability (Kaplow, 1995). Hence, 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 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 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 for men working less with women as they try to manage an increased perceived risk of sexual harassment accusations.

In the subsequent analysis, I relate the changing pattern in research collaborations to the level of ambiguity in the universities' sexual harassment policies and the universities' number of public sexual misconduct incidents. 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). In the analysis, I focus on the decrease in collaborations between women and new male co-authors at the same institution which account for a large share of the total decline in collaborations between women and men post #MeToo. If the risk of accusation is of concern to men, it should be most prevalent when men and women are at the same institution because personal interaction is more frequent. Reporting an academic for inappropriate behavior is also procedurally easier if both the accuser

and accused are in the same institution as both are covered by the same policy.

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.[43,44] 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.[45] 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 A8 shows an example of a more ambiguous (Figure A8a) and a less ambiguous (Figure A8b) definition of sexual harassment in university policies. Whereas the definition in Figure A8a 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 A8b 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.

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)

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

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

[45]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).

and Fitzgerald et al. (1997)) which is described in detail in Appendix E. The classification consists of the two broad categories *Hostile Environment* and *Quid pro Quo* sexual harassment. *Hostile Environment* consists of the sub-categories *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. I use both a manual and algorithmic approach (topic modeling) for the classification that both yield similar results. Figure E1 presents the classification matrix and provides examples of each type of behavior.

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. I also include the number of examples of behaviors in each category separately in my regressions to see whether examples in an individual category are particularly important for changes in collaborations post #MeToo. Moreover, I also consider the length of the 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 A9 in the appendix shows the summary statics for all measures.

One may wonder to what extent there is disagreement about what constitutes sexual harassment. Although most people likely agree that pressure for sexual favors or repeated requests for a date are inappropriate workplace behaviors, it is less clear whether compliments about clothing or a single request for a date is inappropriate behavior (e.g., 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).[46]

5.1.2 Results

Table A11 shows results for the effect of each of the policy ambiguity measures and the number of sexual misconduct cases pre #MeToo on the number of new project initiations with new male co-authors in the same institution post #MeToo when included by themselves. The coefficient on the interaction term with the post-#MeToo dummy is for neither measure statistically significant. This is also the case when the individual categories of sexual harassment behaviors are considered separately (see Table A10 in the appendix).[47]

Table 5 shows the results when the policy ambiguity measures are interacted with the number of sexual misconduct media reports at a university pre #MeToo. 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 A12 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*

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[46]The disagreement about which behaviors constitute sexual harassment can be illustrated by a number of examples from a recent survey conducted by Atwater et al. (2019). They find that 52% of men (44% of women) agree that "putting your arm around a female co-worker whenever you see her" constitutes sexual harassment. Moreover, 63% of men (66% of women) view "asking a female co-worker out on a date multiple times when she has said no" as sexual harassment. With this is mind, note how the policy in Figure A8a prohibits requests for dates. Requests for dates are prohibited when "unwelcome". However, it is ex-ante difficult to know whether a request for a date is unwelcome.

[47]The exception is the number of examples in the impersonal harassment category which has a positive effect on collaborations post #MeToo. However, there is very little variation in this category, and policies with many examples in this category are likely very uncommon policies.

(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 A13 in the appendix shows that less ambiguity in policies does 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)) 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).

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 lots of sexual harassment cases see the largest decline in productivity for female academics post #MeToo. This result can be viewed as supporting evidence for the hypothesized channel whereby the uncertainty about appropriate behavior and associated fear of accusation of sexual harassment by men is driving the reduced interaction between men and women.

5.2 Do Attitudes toward Women Matter?

Theory suggests attitudes toward women will affect the change in collaborations around #MeToo. Stern et al. (1999) predict that social movements aligned with prevailing values receive more support than those not aligned with prevailing values. For example, women in less liberal areas

may have more conservative attitudes regarding gender roles and not identify as much with the ideas of the movement. Men, on the other hand, may feel more protected and less scrutinized in more conservative areas. This implies that collaborations between men and women should be more negatively affected among those who hold more liberal attitudes toward gender. However, evidence also shows that social movements can be effective in changing prevailing norms as more people speak out (DellaVigna et al., 2016; Bursztyn et al., 2017). Because there is more scope for change among those who hold more conservative gender attitudes, #MeToo could affect behavior more strongly when gender norms are more conservative. In locations where attitudes regarding gender equality are already strong prior to the movement, #MeToo would have little additional impact.

In order to test how attitudes toward gender interact with the change in collaborations between junior female and male academics post #MeToo, I first test whether the #MeToo movement had a different impact depending on whether the junior female academic's institution is located in a red (conservative), blue (liberal), or swing state over the sample period (2015-2019) based on voting behavior in presidential elections.[48] I create a dummy variable that identifies red states and interact it with the post-#MeToo dummy. The result of this regression is presented in Column (1) of Table 6. The interaction term between the Post and Red State indicator is positive and statistically significant. This implies that the #MeToo movement had a more pronounced effect on collaborations between junior women and men in more liberal (blue or swing) than conservative (red) states relative to blue or swing states. This result is in line with the #MeToo movement affecting collaborations more where the ideology of the movement is more aligned with prevailing (local) values.

Next, I use a more direct measure of attitude toward gender norms. The state-level sexism composite index developed by Charles et al. (2018) measures labor market-related gender attitudes ("sexism") among men and women, whereby larger values of the index correspond to a

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[48]Red states are states where voters predominantly choose the Republican Party in presidential elections as 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). The effect of #MeToo on collaborations in Swing states is similar to the effect observed in red states. Hence, combining red and swing states in one dummy variable category leaves my results qualitatively unaffected. Note that the sample of swing state universities is very small, so where I count Swing states does not affect the results.

higher level of sexism.[49] Hence, this index also allows me to distinguish between female or male attitudes toward gender norms and to understand whether female or male attitudes matter to a different extent in explaining #MeToo's effect on collaborations.

I run an analysis where I interact the overall, male, and female sexism index measures with the post-#MeToo dummy. The results are presented in Columns (2) to (4) of Table 6.[50] These show that attitudes toward gender matter in explaining how collaborations respond to #MeToo whereby collaborations are less negatively affected in states with more sexist attitudes. In particular, a higher extent of sexism among women mitigates the negative impact of the #MeToo movement on collaborations between men and women.

Overall, the results suggest that the #MeToo movement affected collaborations more negatively in areas with liberal attitudes toward gender, especially when these are held by women. This is consistent with men inferring women's attitudes and abstaining from collaborations with higher perceived risk that a female colleague might regard behavior as inappropriate. It is also consistent with women being less sensitive to the #MeToo movement in more conservative states. At the same time, it is strongly counter to the interpretation that women in areas with more conservative attitudes toward gender feel more liberated by the movement.

Based on the results above, one may view being located in a state with more liberal attitudes toward gender as an additional factor that increases the perceived exposure to sexual harassment allegations for men. In particular, men could be concerned that they will be believed less post #MeToo if attitudes are more female friendly, leading them to collaborate less with women to mitigate their perceived risk. Therefore, I separately test the effect of ambiguous sexual harassment policies on collaborations in high public sexual harassment settings in states with more and less friendly attitudes toward gender. Table 7, Panel A shows results for the sub-sample of blue and swing states (Columns (1) to (3)) and states with more female-friendly attitudes based on the median sexism index of Charles et al., 2018 (Columns (4) to (6)) only. The results indicate that less ambiguous policies have an even stronger mitigating effect on declining research col-

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[49] The composite index consists of responses to eight different survey questions in the General Social Survey. Because I am investigating attitudes in the area where academics reside rather than where they grew up, it is a "residential index". Charles et al. (2018) show that "residential sexism" (where a woman works and lives in later life) matters more for labor market outcomes than "background sexism" (where a woman grew up).

[50] The number of observations in these regressions is smaller because no sexism index is available for the District of Columbia and Nebraska.

laborations between junior female and male academics in the same university post #MeToo in high public sexual harassment settings in environments where attitudes toward women are more liberal. In this sub-sample, policy length also exerts a positive effect on research collaborations. In the sub-set of universities that are located in states with less female-friendly attitudes (Panel B), policy ambiguity does not impact collaborations in high public sexual harassment settings post #MeToo.

Overall, the results indicate that less ambiguous policies are effective in mitigating the negative impact on declining research collaborations between junior female and male academics in the same university post #MeToo in environments where attitudes toward women are more liberal.

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. This is the first study to provide evidence of unintended costs of the #MeToo movement on collaborations that negatively impact the careers of women.

My results show that after the #MeToo movement, research productivity among junior female academics declined. The most important driver are fewer collaborations with new male co-authors. Women do not substitute for the lost collaborations. Men do not experience the same decline in productivity post #MeToo, as they substitute the reduction in collaborations with women with new collaborations with men.

The #MeToo movement was important to raise awareness of the prevalence of sexual harassment in the workplace. At the same time, an intervention like #MeToo may have unintended spillover effects that induce reluctance for women and men to interact with each other in the workplace. My results show that the movement affects research collaborations in high public sexual harassment settings particularly negatively when sexual harassment policies are ambiguous leaving uncertainty about behaviors that constitute a violation of the policy. This is consistent with men ceasing collaborating with women to manage an increased risk of sexual harassment accusations.

The findings of this study have important implications. 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. Within the context of this study, junior female economists who are on a tenure-track may face a disadvantage in future promotion decisions relative to their male colleagues as a result of the movement.

My results have important policy implications. Regulating social interactions is an inherently difficult task due to the complexity in human interactions which makes complete policies less feasible. The benefit of ambiguous definitions is to broaden their applicability and leave room for unanticipated cases. This study demonstrates associated unintended costs of ambiguous policies on the career opportunities of the protected group.

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.

American Economic Association. Committee on the Status of Women in the Economics Profession. 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.

Anderson, Nick. 2018. "MeToo and the trouble with new norms." https://www.washingtonpost.com/local/education/academias-metoo-moment-women-accuse-professors-of-sexual-misconduct/2018/05/10/474102de-2631-11e8-874b-d517e912f125_story.html.

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.

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.

Basu, Kaushik. 2003. "The economics and law of sexual harassment in the workplace." *Journal of Economic Perspectives* 17 (3): 141–157.

Batut, Cyprien, Caroline Coly, and Sarah Schneider-Strawczynski. 2021. "It's a man's world: culture of abuse,#MeToo and worker flows." *Working Paper.*

Beaman, Lori, Niall Keleher, and Jeremy Magruder. 2018. "Do job networks disadvantage women? Evidence from a recruitment experiment in Malawi." *Journal of Labor Economics* 36 (1): 121–157.

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.

Bloomberg. 2019. *Mandatory Arbitration Enables Sexual Harassment.* https://www.bloomberg.com/opinion/articles/2019-06-12/forced-arbitration-enables-sexual-harassment.

Bursztyn, Leonardo, Georgy Egorov, and Stefano Fiorin. 2017. "From extreme to mainstream: How social norms unravel." *Working Paper.*

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.

Charles, Kerwin Kofi, Jonathan Guryan, and Jessica Pan. 2018. "The effects of sexism on American women: The role of norms vs. discrimination." *NBER 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.*

DellaVigna, Stefano, John A. List, Ulrike Malmendier, and Gautam Rao. 2016. "Voting to tell others." *The Review of Economic Studies* 84 (1): 143–181.

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.

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

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.*

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

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.

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.*

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.

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.

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. 2020. "How Has COVID-19 impacted research productivity in economics and finance?" *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.

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

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.

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

Pence, Karen. 2021. "FOCUS introduction: Women in economics, an international perspective." https://www.aeaweb.org/content/file?id=15374.

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.

Sharma, Karmini. 2021. "Tackling sexual harassment: Experimental evidence from India." *Working Paper.*

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/.

Stern, Paul C., Thomas Dietz, Troy Abel, Gregory A. Guagnano, and Linda Kalof. 1999. "A value-belief-norm theory of support for social movements: The case of environmentalism." *Human Ecology Review,* 81–97.

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.

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).*

———. 2021. *Charges Alleging Sex-Based Harassment (Charges Filed with EEOC) FY 2010 - FY 2020.* https://www.eeoc.gov/statistics/charges-alleging-sex-based-harassment-charges-filed-eeoc-fy-2010-fy-2020.

Figures and Tables
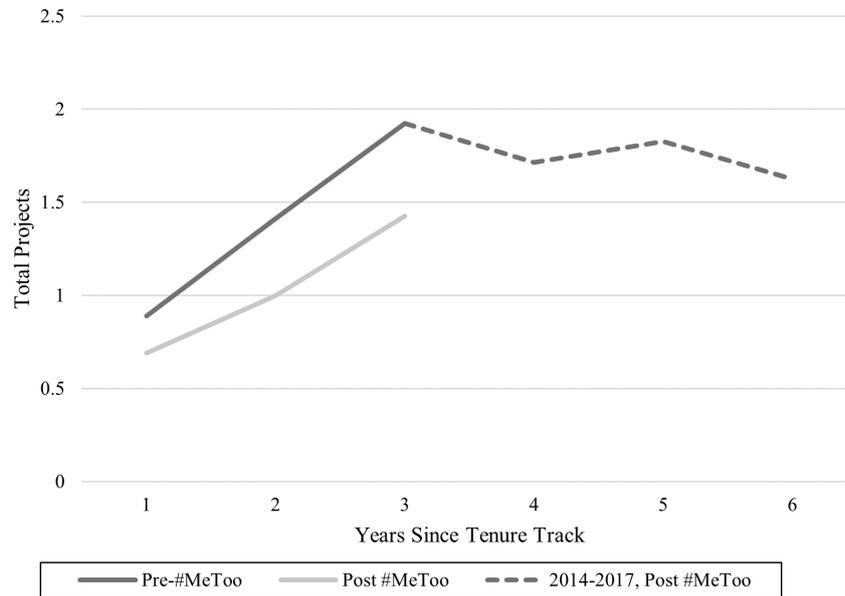
Figure 1: This figure shows the number of new initiated projects per year by the number of years since tenure track start pre (dark-gray line) and post #MeToo (light-gray line) for the sample junior female academics. Because the earliest tenure track start year is 2014, there is no one in the sample who is on the a tenure track since more than three years in the pre #MeToo period.
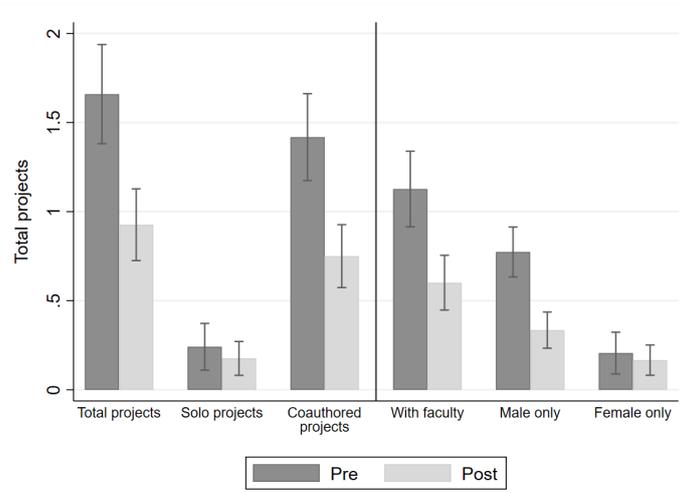
(a) Number of total, solo-authored and coauthored projects with male and female faculty.
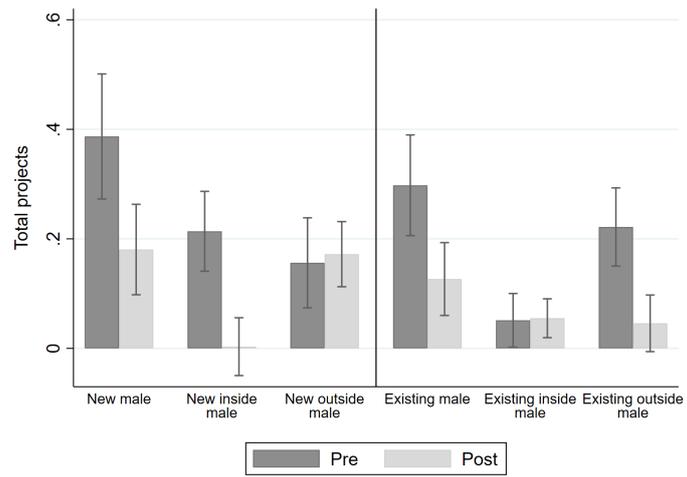
(b) Number of projects with new and existing male co-authors.

Figure 2: 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. All regressions are based on the specification in Equation 1 and the regression coefficients can be found in Tables 3, A2, and A3. 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 3), (v) new initiated projects that are coauthored with male faculty only, and (vi) new initiated projects that are coauthored with female faculty only (Table A2) 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 A3) 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 A2 to A6 for details.

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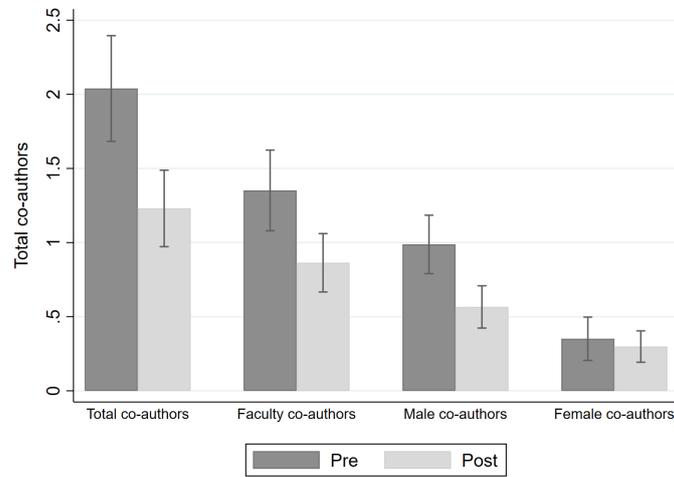
(a) Number of total, faculty, male, and female co-authors.
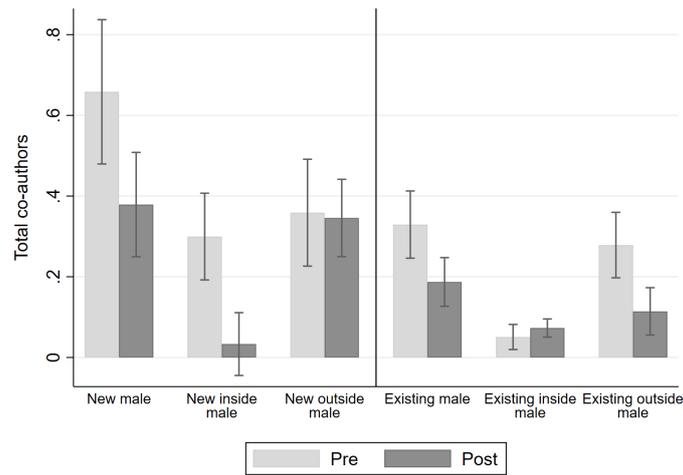
(b) Number of new and existing male co-authors.

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. All regressions are based on the specification in Equation 1 and the regression coefficients can be found in Tables 4, and A6. Figure (a) illustrates the change in (i) the total number of all co-authors, (ii) faculty co-authors, (iii) male and, (iv) female co-authors (Table 4) after #MeToo. (ii), (iii) and (iv) add up to (i). Figure (b) illustrates the change in the number of new and existing male co-authors inside and outside of the junior female academics' university (Table A6) after #MeToo. New inside male and new outside male add up to New male. Existing inside male and Existing outside male add up to Existing male. New and Existing male add up to Male co-authors is (a).

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Table 1: Descriptive statistics of ambiguity measures in sexual harassment policies

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 2: 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
No. projects with new inside male co-authors (faculty) - Professors	393	0.031	0.186	0	0	0
No. projects with new inside male co-authors (faculty) - Assoc. Professors	393	0.018	0.132	0	0	0
No. projects with new inside male co-authors (faculty) - Assist. Professors	393	0.031	0.186	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
No. new inside male co-authors (faculty) - Professors	393	0.056	0.241	0	0	0
No. new inside male co-authors (faculty) - Assoc. Professors	393	0.036	0.186	0	0	0
No. new inside male co-authors (faculty) - Assist. Professors	393	0.053	0.236	0	0	0

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

Table 3: Change in the number of new initiated projects after #MeToo

| Variables | All projects | Solo | Coauthored | Of coauthored | |
				Nonfaculty	With faculty
Post	-0.733***	-0.065	-0.668***	-0.142	-0.526***
	(0.245)	(0.115)	(0.215)	(0.096)	(0.187)
Tenured	1.914***	0.541	1.374**	-0.138	1.512**
	(0.382)	(0.324)	(0.591)	(0.098)	(0.617)
Log past no. all faculty co-authors (cum.)	-1.168***	-0.001	-1.167***	-0.024	-1.143***
	(0.266)	(0.114)	(0.210)	(0.093)	(0.182)
Log no. female Assistant Professor in department	-0.460	0.004	-0.464	0.177	-0.641**
	(0.340)	(0.127)	(0.322)	(0.128)	(0.306)
Log no. male Assistant Professor in department	-0.379	-0.263	-0.116	-0.199	0.083
	(0.420)	(0.162)	(0.351)	(0.137)	(0.325)
Constant	4.213***	0.711*	3.502***	0.457	3.045***
	(0.872)	(0.389)	(0.736)	(0.327)	(0.685)
Junior female academic FEs	Yes	Yes	Yes	Yes	Yes
University FEs	Yes	Yes	Yes	Yes	Yes
Years since T-track start FEs	Yes	Yes	Yes	Yes	Yes
Observations	393	393	393	393	393
R-squared	0.360	0.307	0.396	0.304	0.444

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 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); All regressions are based on the specification in Equation 1. Corresponds to Figure 2a. 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 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. 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. Correspond to Figure 3a. 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 5: 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. *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). The classification of sexual harassment behaviors is illustrated in Figure E1 in Appendix E. *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 6: Change in the number of new initiated projects with new male co-authors at the same university after #MeToo: Interacted with attitudes toward gender at sample university states

Variables	Red state	Sexism index		
		All	Male	Female
Post	-0.241***	-0.214***	-0.220***	-0.210***
	(0.069)	(0.065)	(0.065)	(0.065)
Post x Red State	0.111**			
	(0.047)			
Post x Sexism		0.088**		
		(0.037)		
Post x Sexism Male			0.057	
			(0.034)	
Post x Sexism Female				0.090**
				(0.035)
Tenured	0.367	0.388	0.377	0.369
	(0.349)	(0.350)	(0.353)	(0.351)
Log past no. all faculty co-authors (cum.)	-0.176**	-0.183**	-0.186**	-0.181**
	(0.078)	(0.082)	(0.083)	(0.081)
Log no. female Assistant Professor in department	-0.047	-0.045	-0.047	-0.040
	(0.052)	(0.054)	(0.056)	(0.053)
Log no. male Assistant Professor in department	0.064	0.062	0.059	0.052
	(0.064)	(0.069)	(0.070)	(0.068)
Constant	0.345*	0.365**	0.377**	0.376**
	(0.173)	(0.171)	(0.172)	(0.172)
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	379	379	379
R-squared	0.274	0.275	0.272	0.276

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. *Red State* is a dummy equal to one if state where the university is located is considered a red state based on presidential election votes over the sample period and zero otherwise. *Sexism* is the state-level sexism composite index from Charles et al. (2018). The index measures labor market-related gender attitudes among men and women. Larger values of the index correspond to a higher level of sexism. *Sexism Male* is the state-level sexism index measure for male attitudes toward gender norms. *Sexism Female* is the state-level sexism index measure for female attitudes toward gender norms. No index is available for the states of Nebraska and the District of Columbia. *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 7: 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 – state-level attitudes toward women

Panel A

	Excluding red states			More female-friendly attitudes		
	(1)	(2)	(3)	(4)	(5)	(6)
Post	-0.098	-0.267***	-0.212	-0.222	-0.316**	0.205
	(0.223)	(0.097)	(0.286)	(0.397)	(0.131)	(0.595)
Post x Log no. incidents (cum.)	-0.505***	-0.087	-0.797***	-0.366*	-0.055	-0.743**
	(0.168)	(0.054)	(0.227)	(0.214)	(0.062)	(0.357)
Post x Log no. examples	-0.071			-0.045		
	(0.058)			(0.105)		
Post x Log no. incidents (cum.) x Log no. examples	0.165***			0.132**		
	(0.048)			(0.063)		
Post x Log no. categories with examples		-0.069			-0.050	
		(0.069)			(0.086)	
Post x Log no. incidents (cum.) x Log no. categories with examples		0.145***			0.129**	
		(0.048)			(0.059)	
Post x Log policy word count			-0.024			-0.100
			(0.045)			(0.100)
Post x Log no. incidents (cum.) x Log policy word count			0.148***			0.142**
			(0.038)			(0.063)
Controls and FEs	Yes	Yes	Yes	Yes	Yes	Yes
Observations	278	278	278	209	209	209
R-squared	0.293	0.290	0.293	0.331	0.330	0.331

Panel B

	Red states			Less female-friendly attitudes		
	(1)	(2)	(3)	(4)	(5)	(6)
Post	0.199	-0.004	0.330	-0.104	-0.158	-0.284
	(0.192)	(0.164)	(0.292)	(0.199)	(0.102)	(0.373)
Post x Log no. incidents (cum.)	0.320	0.074	0.363	-0.181	-0.102	0.073
	(0.215)	(0.236)	(0.213)	(0.359)	(0.117)	(0.426)
Post x Log no. examples	-0.079			-0.022		
	(0.063)			(0.059)		
Post x Log no. incidents (cum.) x Log no. examples	-0.083			0.049		
	(0.055)			(0.092)		
Post x Log no. categories with examples		-0.060			-0.024	
		(0.171)			(0.112)	
Post x Log no. incidents (cum.) x Log no. categories with examples		-0.046			0.087	
		(0.159)			(0.085)	
Post x Log policy word count			-0.070			0.017
			(0.053)			(0.061)
Post x Log no. incidents (cum.) x Log policy word count			-0.060			-0.013
			(0.036)			(0.068)
Controls and FEs	Yes	Yes	Yes	Yes	Yes	Yes
Observations	115	115	115	170	170	170
R-squared	0.292	0.280	0.293	0.253	0.255	0.252

Panel A presents results for the sub-sample of universities that are located in blue or swing states based on presidential election votes over the sample period (Columns (1) to (3)) and universities that are located in states with more female-friendly attitudes (sexism index at or below sample median) (Columns (4) to (6)). Panel B presents results for the sub-sample of universities that are located in red states (Columns (1) to (3)) and universities that are located in states with less female-friendly attitudes (sexism index above sample median) (Columns (4) to (6)). Attitudes toward women is based on the state-level sexism composite index from Charles et al. (2018). 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. *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). The classification of sexual harassment behaviors is illustrated in Figure E1 in Appendix E. *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). The unit of analysis is a female junior academic at a particular university and includes the same control variables as Table 5. 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
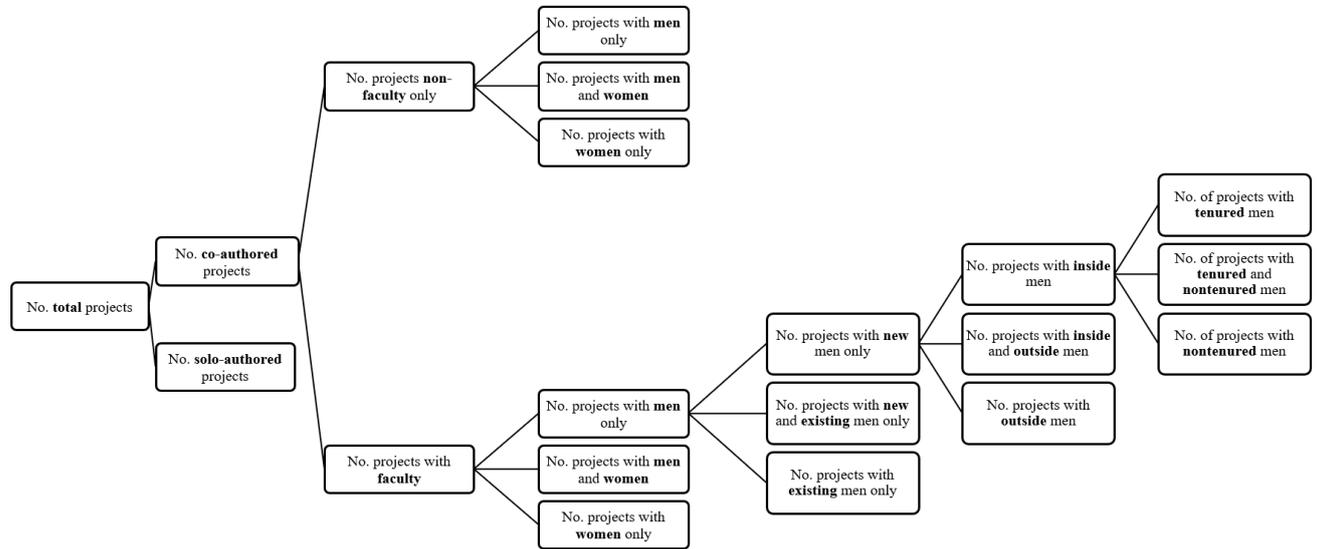
Figure A1: Breakdown of total projects into collaboration types with distinct co-author groups. Each node consists of a non-overlapping combination of projects involving distinct co-author groups. Each node will be used as dependent variable in Equation 1 to determine the change in each collaboration type post relative to pre #MeToo. The resulting coefficients on the post dummy for each collaboration type are illustrated in Figures A2 to A6.
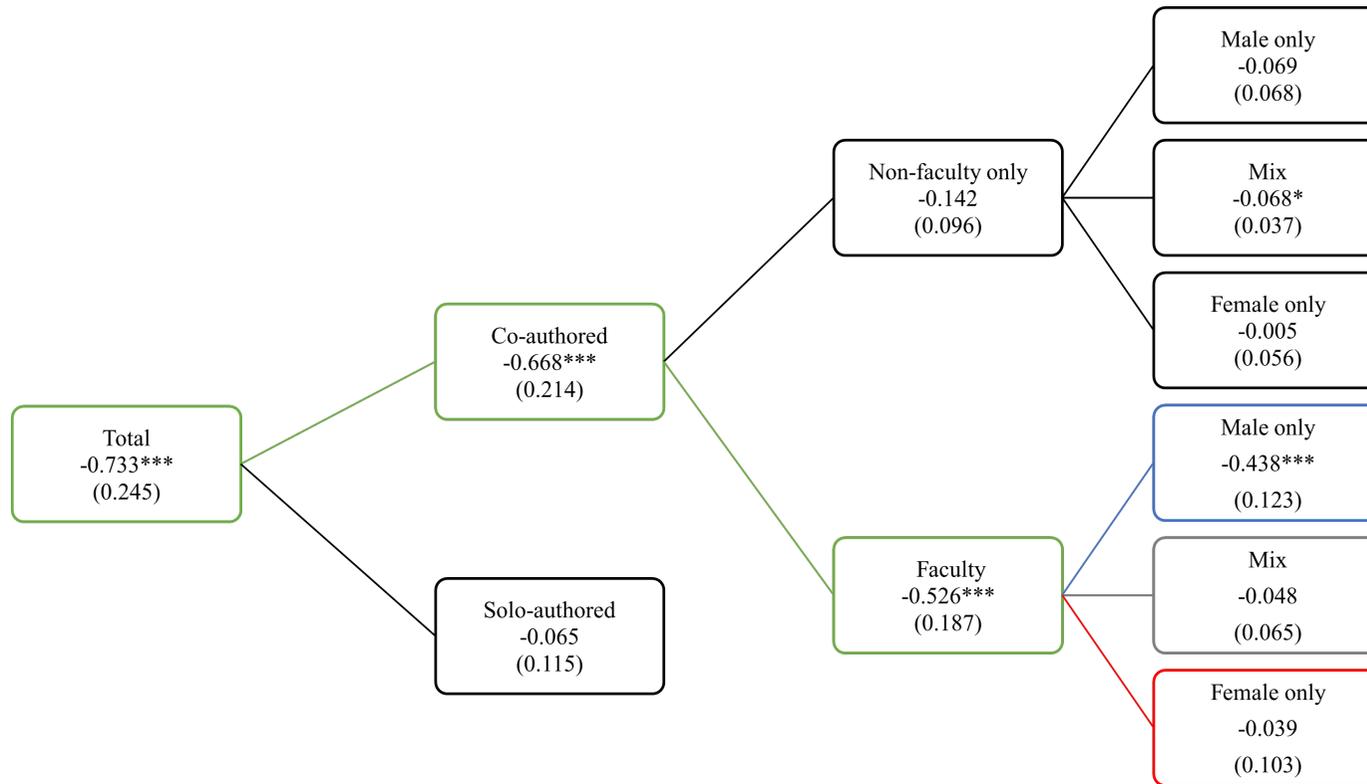
Figure A2: Overview of coefficients on the post dummy from a regression where the dependent variable is the number of new projects started with different co-author types in a given year by a junior female academic. Each coefficient represents a different co-author type. E.g. "Male Only" provides the 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 A3 to A6. The specification is based on Equation 1. Robust standard errors clustered on university level are in parenthesis.

Figure A3: Overview of coefficients on the post dummy for projects initiated with male co-authors only who are faculty members (Assistant, Associate, and full Professors). 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.

Figure A4: Overview of coefficients on the post dummy for projects initiated with female co-authors only who are faculty members (Assistant, Associate, and full Professors). 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.
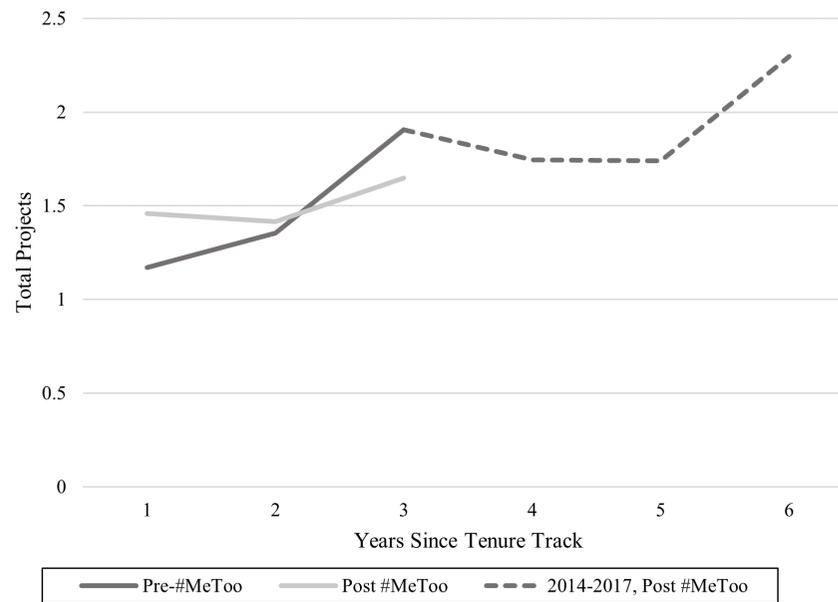
Figure A5: This figure shows the number of new initiated projects per year by the number of years since tenure track start pre (dark-gray line) and post #MeToo (light-gray line) for the sample junior male academics. Because the earliest tenure track start year is 2014, there is no one in the sample who is on the a tenure track since more than three years in the pre #MeToo period.

Figure A6: 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). 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.
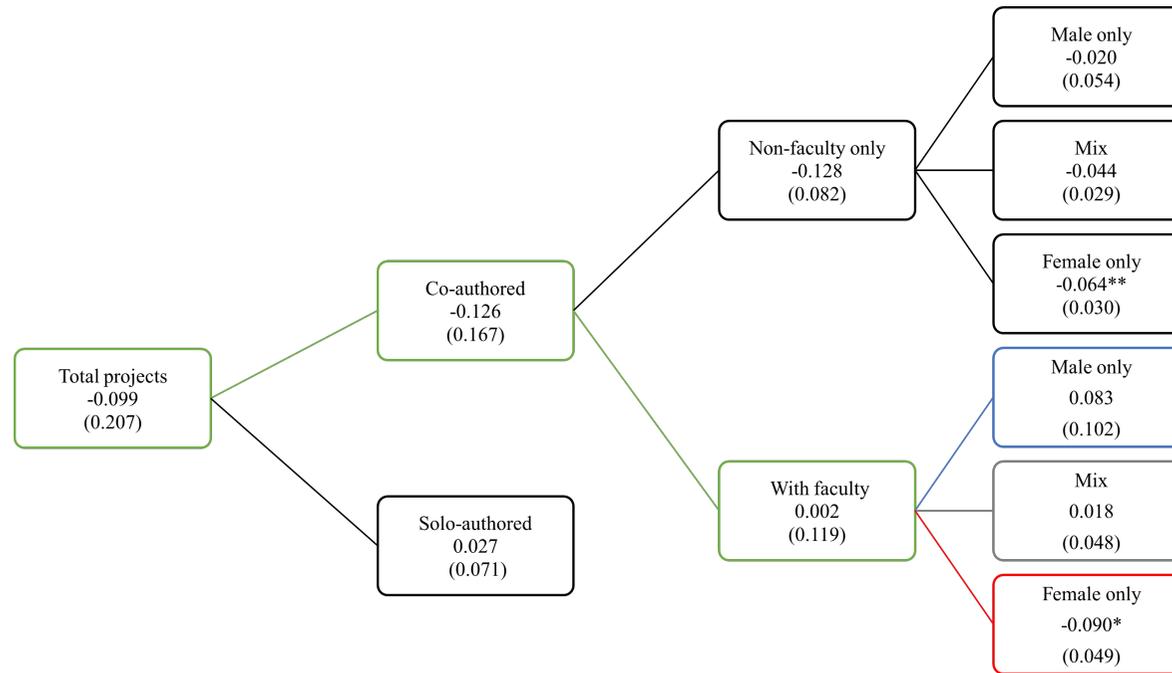
Figure A7: Overview of coefficients on the post dummy from a regression where the dependent variable is the number of new projects started with different co-author types in a given year by a junior male academic at a sample economics department. Each coefficient represents a different co-author type. 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.

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 A8: Examples of sexual harassment definitions in university policies.

Table A1: Average share of junior female faculty in sample departments before and after #MeToo

Share junior female faculty	Pre (N)	Post (N)	Difference (post-pre)
All	0.358 (2.794)	0.355 (2.921)	-0.003 (0.127)
Higher-ranked universities (rank 42 or higher)	0.323 (2.890)	0.330 (2.955)	0.007 (0.064)
Lower-ranked universities (rank 43 or lower)	0.401 (2.676)	0.390 (2.875)	-0.011 (0.199)

This table shows the share of junior (non-tenured) female faculty at the sample universities pre and post #MeToo. The count is provided in parenthesis. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Table A2: Change in the number of new initiated projects after #MeToo by gender composition of involved co-authors

Variables	(1) Male co-authors only	(2) Female co-authors only	(3) Female and male co-authors
Post	-0.438***	-0.039	-0.048
	(0.123)	(0.103)	(0.065)
Tenured	1.557**	-0.183*	0.138
	(0.773)	(0.096)	(0.183)
Log past no. all faculty co-authors (cum.)	-0.680***	-0.183**	-0.281***
	(0.190)	(0.083)	(0.064)
Log no. female Assistant Professor in department	-0.271	-0.145*	-0.225**
	(0.228)	(0.078)	(0.101)
Log no. male Assistant Professor in department	-0.016	0.095	0.004
	(0.252)	(0.086)	(0.115)
Constant	1.884***	0.423*	0.738***
	(0.559)	(0.221)	(0.251)
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	0.466	0.347	0.342

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 with male co-authors only in Column (1); the total yearly number of new project initiations with female co-authors only in Column (2); the total yearly number of new project initiations with both female and male co-authors (mixed-gender) in Column (3); All regressions are based on the specification in Equation 1. Correspond to Figure 2a; 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 A3: Change in the number of new initiated projects with male co-authors after #MeToo: new and existing co-authors

	New co-authors			Existing co-authors		
Variables	All	Inside	Outside	All	Inside	Outside
Post	-0.206**	-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. 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 2b. 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 A4: Change in the number of new initiated projects with female co-authors after #MeToo: new and existing co-authors

Variables	(1) New co-authors	(2) Existing co-authors	(3) New and existing co-authors
Post	-0.050	0.027	-0.016
	(0.074)	(0.049)	(0.010)
Tenured	0.034	-0.179	-0.039
	(0.103)	(0.130)	(0.030)
Log past no. all faculty co-authors (cum.)	-0.236***	0.049	0.004
	(0.072)	(0.043)	(0.008)
Log no. female Assistant Professor in department	-0.024	-0.060	-0.061
	(0.082)	(0.055)	(0.043)
Log no. male Assistant Professor in department	0.102	-0.004	-0.003
	(0.092)	(0.044)	(0.015)
Constant	0.255	0.067	0.101
	(0.180)	(0.126)	(0.070)
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	0.245	0.287	0.217

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 with new female co-authors (no past co-author relationship) only in Column (1); the total yearly number of new project initiations with existing female co-authors (with past co-author relationship) only in Column (2); the total yearly number of new project initiations with both new and existing female co-authors in Column (3); 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 A5: 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. 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 A6: Change in the number male co-authors after #MeToo: new and existing co-authors

Variables	New co-authors			Existing co-authors		
	All	Inside	Outside	All	Inside	Outside
Post	-0.279*	-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. 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.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 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 female co-authors after #MeToo: new and existing co-authors

Variables	(1) New co-authors	(2) Existing co-authors
Post	-0.070	0.017
	(0.114)	(0.064)
Tenured	0.010	-0.109
	(0.114)	(0.066)
Log past no. all faculty co-authors (cum.)	-0.597***	0.067*
	(0.107)	(0.034)
Log no. female Assistant Professor in department	-0.180*	-0.155**
	(0.105)	(0.069)
Log no. male Assistant Professor in department	0.065	0.065
	(0.132)	(0.059)
Constant	1.055***	0.079
	(0.290)	(0.150)
Junior female academic FEs	Yes	Yes
University FEs	Yes	Yes
Years since T-track start FEs	Yes	Yes
Observations	393	393
R-squared	0.333	0.336

The dependent variables are specified in the respective columns and represent the yearly number of co-authors of the indicated type. The dependent variable is the total yearly number of new female co-authors (no past co-author relationship) in Column (1); the total yearly number of existing female co-authors (with past co-author relationship) in Column (2); the total yearly number of existing female co-authors in Column (3); 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 A8: 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	-0.167**	-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. 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. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Table A9: 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 A10: 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

Variables	(1)	(2)	(3)	(4)	(5)	(6)
Post	-0.220***	-0.274**	-0.256***	-0.200**	-0.231***	-0.292**
	(0.076)	(0.111)	(0.093)	(0.083)	(0.065)	(0.138)
Post x Log no. examples - physical behaviors	0.011					
	(0.050)					
Post x Log no. examples - verbal requests		0.036				
		(0.041)				
Post x Log no. examples - personal harassment verbal			0.022			
			(0.028)			
Post x Log no. examples - personal harassment non-verbal				-0.007		
				(0.036)		
Post x Log no. examples - impersonal harassment					0.043**	
					(0.020)	
Post x Log no. examples - quid pro quo						0.030
						(0.043)
Tenured	0.324	0.320	0.326	0.325	0.346	0.321
	(0.347)	(0.352)	(0.350)	(0.344)	(0.347)	(0.351)
Log past no. all faculty co-authors (cum.)	-0.181**	-0.181**	-0.181**	-0.179**	-0.184**	-0.181**
	(0.079)	(0.078)	(0.078)	(0.079)	(0.078)	(0.078)
Log no. female Assistant Professor in department	-0.039	-0.037	-0.040	-0.041	-0.033	-0.036
	(0.050)	(0.051)	(0.051)	(0.052)	(0.049)	(0.051)
Log no. male Assistant Professor in department	0.022	0.028	0.031	0.021	0.038	0.025
	(0.061)	(0.062)	(0.062)	(0.060)	(0.064)	(0.062)
Constant	0.419**	0.408**	0.405**	0.423**	0.386**	0.410**
	(0.173)	(0.171)	(0.171)	(0.171)	(0.172)	(0.175)
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	0.269	0.270	0.270	0.269	0.271	0.270

Corresponds to regression analysis in Table A11 but includes disaggregate sexual harassment ambiguity policy measures as explanatory variables. The classification of sexual harassment behaviors is illustrated in Figure E1 in Appendix E. 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. *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 A11: 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

Variables	(1)	(2)	(3)	(4)
Post	-0.236***	-0.329*	-0.294***	-0.409
	(0.065)	(0.173)	(0.087)	(0.307)
Post x Log no. incidents (cum.)	0.026			
	(0.026)			
Post x Log No. examples		0.034		
		(0.043)		
Post x Log No. categories with examples			0.077	
			(0.058)	
Post x Log policy word count				0.034
				(0.048)
Tenured	0.329	0.324	0.342	0.326
	(0.333)	(0.352)	(0.349)	(0.351)
Log past no. all faculty co-authors (cum.)	-0.185**	-0.181**	-0.186**	-0.182**
	(0.079)	(0.078)	(0.078)	(0.079)
Log no. female Assistant Professor in department	-0.039	-0.036	-0.036	-0.036
	(0.051)	(0.050)	(0.050)	(0.050)
Log no. male Assistant Professor in department	0.033	0.029	0.040	0.031
	(0.067)	(0.062)	(0.065)	(0.064)
Constant	0.403**	0.404**	0.389**	0.401**
	(0.176)	(0.172)	(0.173)	(0.172)
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	0.270	0.270	0.272	0.270

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. *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). The classification of sexual harassment behaviors is illustrated in Figure E1 in Appendix E. *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 A12: 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 5 but includes disaggregate sexual harassment ambiguity policy measures as explanatory variables. The classification of sexual harassment behaviors is illustrated in Figure E1 in Appendix E. 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 A13: 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 A11 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)). 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. *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). The classification of sexual harassment behaviors is illustrated in Figure E1 in Appendix E. *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. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

B   Appendix

University Rank and Collaborations with PhD Advisors

While my results show that the decline in projects with new inside male co-authors is more pronounced, the decline in existing outside male co-authors is also an interesting phenomenon. To better understand these large effects, in these analyses I explore whether there is heterogeneity depending on university rank. Adams and Lowry (2022) find that female faculty in research-intensive institutions, which are typically associated with a higher ranking, report a higher level of job satisfaction than women in non-research intensive institutions.[51] Academics in higher-ranked universities may be subject to different dynamics in terms of performance expectations and resources that influence incentives and collaboration decisions. For instance, academics in higher-ranked institutions are likely to have better outside options in terms of potential co-authors than academics in lower-ranked universities. In addition, departments of higher-ranked institutions are typically larger than those of lower-ranked institutions.[52] I therefore next distinguish between junior female academics in higher versus lower-ranked universities and split my sample at the median (rank 42) to analyze whether there is a difference between the two groups in terms of changes in collaborations with new inside and existing outside male co-authors post #MeToo. I present separate summary statistics for both groups in Table B1. Table B2 reports the results which show that female academics in higher-ranked universities drive the decline in collaborations new inside male co-authors whereas female academics in lower-ranked universities drive the decline in collaborations with existing outside male co-authors. The weaker result in lower-ranked universities with respect to new collaborations with new male academics is the same university is likely due to their smaller department sizes. Hiring of new faculty takes place less frequently meaning that collaborations with new faculty are exhausted quicker.[53]

To further explore the decline in collaborations in projects with existing outside male co-authors I check whether there are any sorting effects in terms of co-authors between women in

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[51] The survey was conducted among participants who self-report to be active in the field of Finance, a sub-field of economics. A research-intensive university is defined by Adams and Lowry (2022) as an institution where faculty regularly publishes in top three finance or top 5 economics journals.

[52] In my sample, higher-ranked (lower-ranked) institutions have, on average, 35 (23) faculty members.

[53] In higher-ranked departments, collaborations with new inside male co-authors account for 0.26 collaborations per year pre #Metoo. In lower-ranked departments, collaborations with new inside male co-authors account for 0.15 collaborations per year pre #Metoo. In both types of departments, they fall to nearly zero post #MeToo.

higher versus lower ranked-universities. For instance, it could be the case that junior women in lower-ranked universities lose their existing outside male co-authors from higher-ranked universities as those males focus on collaborations with their existing junior female co-authors in higher-ranked universities. Therefore, I test whether the decline in collaborations with existing outside male co-authors is driven by a decline in collaborations with co-authors in higher-ranked institutions relative to the junior female academic's institution. Due to their higher rank, is it is statistically less likely for women in higher-ranked universities to have collaborators in even higher ranked universities. Therefore, I additionally test whether there is a decline in collaborations with co-authors in the top 25 institutions. Table B3 shows some weak evidence that both women in higher and lower-ranked universities lose collaborations with existing male co-authors from higher-ranked universities post #MeToo. While the post dummy coefficient is not statistically significant for the group of female academics in lower-ranked universities, it is large in magnitude explaining a large portion of the decline (see Table B2 Column (8)). One may also wonder to what extent the effect is driven by a decline in collaborations with the female academic's PhD advisor. I repeat the regressions in Tables B2 and B3 excluding the female academics' PhD advisors. The results are reported in Table B4 and show that for women in lower-ranked universities, the decline in existing outside male co-authors appears to be somewhat explained by fewer collaborations with their academic advisors post #MeToo. This is not the case for junior female academics in higher-ranked universities.

Table B1: Descriptive statistics of main variables - by university rank

Variable	Higher-ranked universities						Lower-ranked universities						Difference	
	N	Mean	SD	P25	Median	P75	N	Mean	SD	P25	Median	P75	High-Low
No. all projects	223	1.278	1.475	0	1	2	170	1.176	1.28	0	1	2	0.102	
Post	223	0.592	0.493	0	1	1	170	0.565	0.497	0	1	1	0.027	
Years since start tenure track	223	2.157	1.582	1	2	3	170	2.129	1.548	1	2	3	0.028	
Year of Phd	223	2015	1.072	2014	2015	2016	170	2016	1.246	2014	2016	2017	-0.289	**
Tenured	223	0.022	0.148	0	0	0	170	0	0	0	0	0	0.022	**
University rank	223	23.717	13.810	12	27	37	170	65.412	13.779	55	63	78	-41.694	***
Log past no. all faculty co-authors (cum.)	223	1.171	0.706	0.693	1.099	1.609	170	1.026	0.721	0.693	1.099	1.609	0.144	**
Log no. female Assistant Professors in department	223	1.302	0.319	1.099	1.386	1.609	170	1.259	0.371	1.099	1.386	1.609	0.042	
Log no. male Assistant Professors in department	223	1.967	0.446	1.792	2.079	2.303	170	1.641	0.545	1.386	1.792	1.946	0.326	***

This table reports descriptive statistics for the sample of junior female academics who obtained their PhD in 2014 or later. The sample is split by university rank at the sample median (rank 42). The ranking is based on the US News Ranking in 2017.

Table B2: Change in the number of new initiated projects with new and existing male co-authors after #MeToo: sample-split by university rank

Variables	New co-authors		New inside co-authors		Existing co-authors		Existing outside co-authors	
	Higher rank	Lower rank	Higher rank	Lower rank	Higher rank	Lower rank	Higher rank	Lower rank
Post	-0.293*	-0.084	-0.281***	-0.112	-0.105	-0.255*	-0.139**	-0.213*
	(0.146)	(0.120)	(0.099)	(0.071)	(0.093)	(0.128)	(0.055)	(0.115)
Tenured	1.196***		0.223		0.393		0.120	
	(0.419)		(0.308)		(0.244)		(0.438)	
Log past no. all faculty co-authors (cum.)	-0.699***	-0.790***	-0.125	-0.261*	0.074	0.074	-0.058	0.009
	(0.228)	(0.160)	(0.092)	(0.135)	(0.123)	(0.099)	(0.069)	(0.077)
Log no. female Assistant Professor in department	-0.340	-0.227*	-0.030	-0.051	0.090	-0.192	0.059	-0.191
	(0.285)	(0.110)	(0.084)	(0.068)	(0.177)	(0.197)	(0.115)	(0.182)
Log no. male Assistant Professor in department	-0.080	0.162	-0.061	0.073	-0.462	0.313	-0.218	0.227
	(0.235)	(0.162)	(0.089)	(0.088)	(0.341)	(0.235)	(0.174)	(0.199)
Constant	1.888**	1.073***	0.565**	0.357*	1.009	-0.075	0.634	0.079
	(0.699)	(0.212)	(0.262)	(0.195)	(0.761)	(0.252)	(0.424)	(0.195)
Junior female academic FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
University FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Years since T-track start FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	223	170	223	170	223	170	223	170
R-squared	0.312	0.420	0.290	0.282	0.541	0.299	0.486	0.355

This table shows the change in the yearly number of new initiated projects with new male co-authors (Columns (1)-(2)), new inside (same university) male co-authors (Columns (3)-(4)), existing male co-authors (Columns (5)-(6)), existing outside male co-authors (Columns (7)-(8)). The sample is split at the median (rank 42) based on the junior female academic's university's ranking in 2017 (*U.S. News & World Report* ranking for economics department). Columns (1), (3), (5), (7) show sub-sample results for higher-ranked universities; Columns (2), (4), (6), (8) show sub-sample results for lower-ranked universities. 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. *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 B3: Change in the number of new initiated projects with existing outside male co-authors after #MeToo: sample-split by junior female academic and co-author university rank

Variables	Higher-ranked		Lower-ranked	
	Higher-ranked co-authors	Top 25 co-authors	Higher-ranked co-authors	Top 25 co-authors
Post	-0.107**	-0.108**	-0.165	-0.074
	(0.046)	(0.045)	(0.100)	(0.048)
Tenured	-0.192*	-0.072		
	(0.111)	(0.600)		
Log past no. all faculty co-authors (cum.)	-0.027	0.040	0.037	0.021
	(0.067)	(0.054)	(0.053)	(0.032)
Log no. female Assistant Professor in department	-0.014	0.076	-0.135	-0.199
	(0.116)	(0.125)	(0.180)	(0.127)
Log no. male Assistant Professor in department	-0.187	-0.171	0.105	0.180
	(0.147)	(0.131)	(0.188)	(0.152)
Constant	0.566	0.336	0.124	0.011
	(0.374)	(0.342)	(0.126)	(0.123)
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	223	223	170	170
R-squared	0.468	0.412	0.280	0.348

This table corresponds to Table B2 Columns (7) and (8) and distinguishes between the co-author's university rank: in Column (1) and (3), the dependent variable is yearly number of initiated projects with existing outside male co-authors employed at a university ranked higher than the junior female academic's university; in Column (2) and (4), the dependent variable is yearly number of initiated projects with existing outside male co-authors employed at a top 25 university. The sample is split at the median (rank 42) based on the junior female academic's university's ranking in 2017 (US News ranking for economics department). Columns (1) and (2) show sub-sample results for higher-ranked universities; Columns (3) and (4) show sub-sample results for lower-ranked universities. 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. *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 B4: Change in the number of new initiated projects with existing outside male co-authors after #MeToo: sample-split by junior female academic and co-author university rank - excluding PhD advisors

		Higher-ranked			Lower-ranked		
Variables	Full Sample	All co-authors	Higher-ranked co-authors	Top 25 co-authors	All co-authors	Higher-ranked co-authors	Top 25 co-authors
Post	-0.135**	-0.125**	-0.105*	-0.075*	-0.130	-0.126	-0.043
	(0.067)	(0.059)	(0.054)	(0.043)	(0.129)	(0.101)	(0.044)
Tenured	0.253	0.126	-0.192*	-0.078			
	(0.429)	(0.394)	(0.103)	(0.559)			
Log past no. all faculty co-authors (cum.)	-0.018	-0.024	-0.004	0.049	0.022	0.052	0.018
	(0.048)	(0.063)	(0.061)	(0.050)	(0.079)	(0.055)	(0.019)
Log no. female Assistant Professor in department	0.091	0.153	0.050	0.161	0.003	0.049	-0.015
	(0.077)	(0.107)	(0.105)	(0.115)	(0.119)	(0.105)	(0.015)
Log no. male Assistant Professor in department	-0.047	-0.196	-0.173	-0.150	0.038	-0.104	-0.008
	(0.105)	(0.161)	(0.138)	(0.128)	(0.134)	(0.100)	(0.011)
Constant	0.161	0.392	0.408	0.132	0.068	0.173*	0.045
	(0.216)	(0.382)	(0.347)	(0.327)	(0.146)	(0.087)	(0.039)
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	223	223	223	170	170	170
R-squared	0.387	0.470	0.452	0.440	0.318	0.271	0.213

This table corresponds to Table B3 but excludes the PhD advisors of the junior female academics among existing outside male co-authors. The dependent variable in all regression specifications is the yearly number of new initiated project with existing outside male co-authors. The sample is split at the median (rank 42) based on the junior female academic's university's ranking in 2017 (*U.S. News World Reports* ranking for economics department). Columns (2) to (4) show sub-sample results for higher-ranked universities; Columns (5) to (7) show sub-sample results for lower-ranked universities. In Columns (3) and (6), the dependent variable is yearly number of initiated projects with existing outside male co-authors employed at a university ranked higher than the junior female academic's university; in Columns (4) and (7), the dependent variable is yearly number of initiated projects with existing outside male co-authors employed at a top 25 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. *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. *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

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C   Appendix

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.[54] 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.[55] 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).[56]

The results of the placebo test are reported in Tables C1 and C2. 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 C1 also 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 C2 also does not show any evidence of changes in the collaborations of junior female academics

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

[55]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.

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

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.

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 C1: 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 C2: 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 C1 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. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

D   Appendix

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).[57] 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.[58] 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

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

[58]This may not be a fair a assumption if there is 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.

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 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.[59]

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.[60] 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

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[59]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.

[60]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.

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 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.

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

Specification 1: Considering Q1 in 2020

				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	-0.677**	-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

				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	-0.607**	-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

				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	-0.565*	-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 US 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 (sub-sample 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 Table 3. 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				
Variables	Female co-authors only	Existing female co-authors only	New female co-authors only	New inside 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				
Variables	Female co-authors only	Existing female co-authors only	New female co-authors only	New inside 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				
Variables	Female co-authors only	Existing female co-authors only	New female co-authors only	New inside 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 US 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 (sub-sample 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 Table 3. 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

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. 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.

Note that I exclude sections that cover sexual assault such as rape and violence.[61] 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.

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

I assume that there is no ambiguity about behaviors that relate to violence and rape.

Figures E2 and E3 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 E1: Illustration of classification scheme of behaviors associated with sexual harassment used in textual analysis of the sample universities' sexual harassment policies with color coding.

> 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 E1.

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
	• Verbal conduct of sexual nature (1)		• Unwelcome sexual advances (1) • Requests for sexual favors (1)	• Physical conduct of sexual nature (1)	• Submission to such conduct is made condition of • Employment (1) • Academic standing (1) • Submission to or rejection used as basis for • Employment decisions (1) • Academic evaluation (1) • Grades (1) • Advancement (1)
0	1	0	2	1	6

Total no. behavior examples: 10

Total no. categories without behavior examples: 2

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

Figure E2: 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 E1.

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 E3: Illustration of classification scheme of examples of prohibited behaviors in university sexual harassment policies (applied to less ambiguous sexual harassment policy).