Confidence Men? Gender and Confidence: Evidence among Top Economists*

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Abstract

Does a confidence gap exist between men and women who made it to the top of their careers? Using data from economists working in top U.S. universities, we find that women are less confident than men along two margins. When asked about their level of agreement on survey questions about the economy, women are less likely to give "extreme" answers in which they strongly agree or disagree. Women are also less confident in the accuracy of their answer. We provide evidence that the confidence gap is driven by women being less confident when asked questions outside their field of expertise.

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1 Introduction

Gender gaps in labour market outcomes have remained large despite continued efforts to promote equality. While the sources of these gaps have been traditionally ascribed to differences in human capital accumulation and discrimination, a growing body of literature has attributed the gender gap to psychological factors, in particular the role of confidence (Bertrand 2011). From a young age, women appear less confident than men. This confidence gap has been argued to play a key role in explaining differences in academic success, occupational choices, and career progression. Samek (2015), for example, uses data on college graduates to show that women are less likely to apply for jobs with competitive compensation schemes. This boxes them out of many high-paying careers, such as those in finance, that have been traditionally dominated by men.

While confidence is often treated as a pre-determined personality trait, it can in itself be a result of labour market discrimination: Are women less confident because they are discriminated against on the labour market? Or do they progress less in their careers because they feel less confident? Making progress towards understanding the nature of the confidence gap is an important step to removing remaining barriers to gender equality.

This paper asks whether a confidence gap exists between men and women who have made it to the very top of their careers. While the existing literature explains why we see fewer women in upper-level management and STEM positions (Bertrand et al. 2010; Goldin 2014), few have looked at how the confidence gap changes when

women break the glass ceiling. It could be that women who rise to the top of their profession do so because they are confident, meaning that the confidence gap should disappear. Similarly, rising through the ranks could heighten a woman's sense of confidence and beliefs about her ability.

Using data from a select group of economists working in top U.S. universities, we find that women are still less confident than men along two margins. First, when asked about their level of agreement on survey questions about the economy, women are 7.6% points less likely to give "extreme" answers in which they strongly agree or disagree. Second, women are less confident in the accuracy of their answer. Women express a level of confidence that is 0.340 points lower than a comparable man, as measured on a scale of 1 (unconfident) to 10 (very confident). The results persist after controlling for the year the PhD was granted, the PhD awarding institution, the current institution, and the number of solo and co-authored publications up to the point of tenure. We also provide suggestive evidence that the confidence gap is largely driven by women being less confident when asked questions that are outside their field of expertise.

Overall, the paper provides "real world" evidence of a confidence gap that persists even among the most successful academics and distinguishes between two types of confidence along which men and women differ. The results hence complement existing experimental evidence on the role of confidence in economic choices: Niederle and Vesterlund (2007) demonstrate in a lab experiment that confidence is a driving factor in women's occupational choices. Conducting an experiment in which men and women choose to participate in a task with tournament (competitive) or piece-

rate (non-competitive) pay, they find that women are far less likely to choose the tournament than men are. However, this is not due to differences in preferences for competition but in differences in confidence. Men are overconfident, selecting the tournament more than they should while women are underconfident, selecting the tournament less often than they should. Mobius et al. (2015) also conduct a lab experiment to document individuals' biases in assessing their own ability. They find that women are more conservative when updating their beliefs over their ability in the face of positive signals. This leads high ability women to be less confident than high ability men which could again explain why we see fewer women in high ranking positions.

Our finding that the confidence gap is driven by women being less confident about questions outside their field of expertise is closely aligned to Coffman (2014), who finds that, even within occupation or field of study, women are hesitant to share their ideas with their colleagues. Using lab experiment to look at the implications of the confidence gap when it comes to "speaking up", she finds that women do not contribute their ideas when tasks are stereotyped as male (e.g. math and science) even when they know that they are the group's expert on the topic. Similarly, men are less likely to contribute ideas when tasks are stereotypically female.

The remainder of this paper is organized as follows. Section 2 describes the data used in our analysis. In Section 3, we present the main results and explore mechanisms that might explain the findings. Section 4 concludes.

2 Data

Our main data source is the Initiative of Global Markets (IGM) survey. The survey asks a select group of 51 economists, all at top U.S. institutions, questions related to the current state of the economy as well as other policy issues. The economists are chosen to represent a range of political views, ages, and research interests. All are reported to have a "keen interest in public policy".[1]

A total of 166 questions[2] were asked between September 2011 and May 2015, leaving us with 7,026 responses. Respondents answer each question along two dimensions. First, they are asked the degree to which they agree with a given statement (e.g. "Some Americans who work in the production of competing goods, such as clothing and furniture, are made worse off by trade with China."), measured on a Likert scale of 1 (strongly disagree) to 5 (strongly agree). Second, they are asked how much confidence they have in their answer which is measured on a scale of 1 (lowest) to 10 (highest).

Each response captures a different aspect of confidence. The first captures whether respondents are overly confident in their level of dis/agreement with the statement, known as overestimation in the psychology literature (Moore and Healy 2008). The second elicits confidence in the accuracy of an individual's response, known as overprecision. We look at whether the confidence gap is primarily a result in differences in extremeness of opinions or confidence in views. As shown in Figures 1 and 2,

[1]Refer to http://www.igmchicago.org/igm-economic-experts-panel/, retrieved 11 June 2015 and Gordon and Dahl (2013) for a description and alternative use of the data.

[2]The full list of questions can be viewed at http://www.igmchicago.org/igm-economic-experts-panel/poll-results?SurveyID=SV_72JJHkpH4FvJb9j.

women are less likely to hold strong views than men and are more dispersed in their self-reported confidence.

We combine the IGM data with pre-tenure characteristics for the 51 economists. This is the period all respondents have already completed and for which more comparable data is obtainable from the public CVs. These data include each economist's primary field of specialization, the year the PhD was received, the number of published papers broken down into solo and coauthored papers, and whether the individual received tenure at his or her initial placement school. These data are collected and coded as described in Sarsons (2015). Due to missing values, the final sample consists of 47 economists.

Table 1 summarizes the differences among male and female economists of the IGM panel. Given the highly selected nature of a sample of top economists, male and female economists are, in terms of their average characteristics, comparable (Panel A). However, given the small sample size, some differences may be insignificant due to lack of power. Women appear, for example, to be younger than their male counterparts, as indicated by the later average year of PhD award, although the difference is statistically insignificant. The share of PhDs awarded from Harvard and MIT are comparable at roughly 60%. While there are differences in fields, these are, with the exception of International/Trade, insignificant. The number of publications is comparable across gender.

Even with the highly selected sample, we observe stark differences in confidence (Panel B). While the average level of confidence is the same, the distributions for men and women are very different. Men hold more extreme views, as measured

by the share of extreme answers, and believe these views to be more accurate, as measured by the self-reported confidence level. These differences are significant at the 1% level.

3 Results

3.1 Main Results

To test whether women are less confident than men, we estimate:

$$y_{ijs} = \beta_1 fem_i + x_i'\gamma + \theta_j + \theta_s + \epsilon_{ijs} \quad (1)$$

where fem_i is a dummy indicating whether respondent i is female, x_i is a vector of individual-level control discussed in Section 2, and θ_j and θ_s are question and school fixed effects. The question fixed effect is included to confine the identifying variation to within-question comparisons. As a conservative specification and to ensure the results are not driven by differences across schools, we also include current school fixed effects to compare gender differences only among academics at the same school.[3]

As discussed in the data section, we measure confidence, y_{ijs}, in two ways: (i) the propensity to provide extreme judgements, as measured by a dummy for whether the respondent strongly agreed or disagreed, and (ii) the self-reported confidence level on an integer scale of 1 to 10. If a confidence gap exists, with women being less

[3]The same university may both have a business school and an economics department. We distinguish between both institutions within the same university by including separate school fixed effects.

confident than men, we expect β_1 to be negative. We cluster the standard errors on the question-level.[4]

The results are reported in Tables 2 and Table 3 and confirm that a gap exists for both measures of confidence. Women are less confident in both the level and precision of their answers (Column 1). This gap is not driven by gender-specific differences across questions or schools, as it is robust to question and school fixed effects (Column 2-3). The inclusion of pre-tenure individual controls does not substantially affect the gap (Column 4).

In terms of magnitude, the confidence gap is economically large. Women are 7.6% points less likely to provide extreme judgements (Table 2, Column 4).[5] Compared to the mean of the dependent variable (25.2%), this corresponds to a gap of 30%. The gap is somewhat smaller for the confidence level (Table 3). On average, women tend to report a confidence score that is 0.340 point lower than men. This corresponds to a gap of 6% when evaluated against the mean. Interestingly, those who were awarded PhDs from Harvard or MIT are 0.604 points more confident than respondents who received their PhD elsewhere (Table 3, Column 4). The gender confidence gap is about half of the size.[6]

[4]We also cluster at the individual level. However, this leaves us with only 46 clusters which greatly reduces the significance of our results. More data is therefore needed to determine whether the results are robust to individual-level clustering.

[5]This finding is consistent with Mondak and Anderson (2004), who document that women are more likely to report "I don't know" in surveys of political knowledge than men.

[6]The reader can therefore expect the confidence gap between the co-authors of this paper to be more than closed upon completion of their PhDs.

3.2 Mechanisms

The persistence of a confidence gap among highly selected economists is striking. Having confirmed that a confidence gap exists, we now attempt to disentangle mechanisms that could be driving the results. In particular, we explore the role of differential confidence in answering questions outside one's primary field of expertise in driving the gender gap. We explore this mechanism by exploiting variation in the questions asked. Since respondents are asked about a variety of questions related to many aspects of economics, some of the questions fall outside their field of expertise. We estimate the following equation to test whether women's lack of confidence appears when they are asked questions about topics outside of their fields:

$$y_{ijs} = \beta_1 fem_i + \beta_2 foreign_{ij} + \beta_3 \left(fem_i \times foreign_{ij}\right) + x_i^{'}\gamma + \theta_j + \theta_s + \epsilon_{ijs} \qquad (2)$$

Here, $foreign_{ij}$ equals one when the question j is outside of respondent i's primary field and all other variables are defined as in Section 3.1.

The results are presented in Table 4 for both measures of confidence. In Column 1 and 3, we report the results of Section 3.1 with an added dummy for whether a question lies outside the respondent's own field. Respondents are less confident when answering questions outside their fields. In particular, respondents are 6.1% points less likely to provide an extreme judgement (Column 1) and are 0.857 points less confident (Column 3) when answering a foreign field question compared to a question in their own field.

In Column 2 and 4 we report the results when $foreign_{ij}$ is interacted with fem_i. The results show that women's confidence falls more when being asked questions outside of their field. Men are also less confident when being asked questions outside of their field but women suffer from an additional lack of confidence. This result is statistically insignificant for the propensity to provide extreme judgements (Column 2, with $p = 0.124$ for the interaction) and significant on the 10% level for the self-reported level of confidence (Column 4). More importantly, accounting for the differential confidence when moving beyond one's own field "explains away" the level effect of gender.

These findings are somewhat in line with Coffman (2014)'s work showing that both men and women are less likely to voice their opinion while working on group projects that are outside of their expertise. However, Coffman finds that even when women find out that they are the "expert" on a topic, they are still unwilling to contribute their ideas. We do not find this to be the case: women who are asked a question related to their area of expertise are not significantly less confident than men are. It could be, then, that successful women are not underconfident but rather are more aware of the bounds of their expertise. Given the data constraints, however, we are unable to firmly corroborate this interpretation.

3.2.1 Breadth of expertise

If women actually have a narrower range of expertise, we would expect them to be less confident than men when answering questions outside of their field. For example, women might choose to specialize in topics related to a single field while men work

on topics in a range of areas. Our data only distinguishes two primary fields but it is possible that economists work in several fields during their careers. If men do work in more fields than women, the confidence gap is justified.

In Table 5 we control for an economist's breadth of expertise using data from RePEc.[7] RePEc creates a measure of "breadth" using the number of distinct fields in which there are one or more papers citing an economist's work. This proxy should be closely related to an individual's breadth of expertise since being cited in a given field suggests that the author has worked in that field or does work closely related to that field. We estimate equation (3) below and present the results in Table 5:

$$\begin{aligned} y_{ijs} &= \beta_1 fem_i + \beta_2 foreign_{ij} + \beta_3 \left(fem_i \times foreign_{ij}\right) + \beta_4 breadth_i + \\ &\quad \beta_5 \left(fem_i \times breadth_i\right) + x_i^{'}\gamma + \theta_j + \theta_s + \epsilon_{ijs}. \end{aligned} \tag{3}$$

Correlating breadth and gender reveals that women do have a narrower breadth of expertise[8] but this does not affect our results. The gender gap in confidence remains significant: conditional on an individual's breath of expertise, women are still less confident in their views than men are.

3.2.2 Are women responding to disagreement?

Some of the questions on the IGM panel are more controversial than others. Opinion differs widely for such questions while there is much more consensus for other questions. For example, all economists agree that the benefits of free trade and NAFTA

[7] See https://ideas.repec.org/top/top.person.nepcites.html for more details.

[8] Difference in means between male - female is 4.128 (standard errors: 2.284 in a two-sided t-test).

outweigh the costs. There is much disagreement, though, as to whether using tax incentives to affect a firm's location choice is beneficial. In Table 6 we test whether women are less confident on questions that have a greater spread of answers.

Specifically, we estimate

$$y_{ijs} = \beta_1 SDrating_j + \beta_2 fem_i + \beta_3 \left(fem_i \times SDrating_j\right) + x_i^{'}\gamma + \theta_s + \epsilon_{ijs} \qquad (4)$$

where $SDrating_j$ is the standard deviation in responses for question j. Column 3 includes question fixed effects which absorb the $SDrating$ term. The results show that while both men and women are less confident when responding to questions on which there is less consensus, a marginal increase in the dispersion of answers matters less for women's confidence than it does for men's.

Figure 3 plots the regression lines from equation (4). Here we see that there is a confidence gap when there is more of a consensus on a question with men being significantly more confident than women. On questions with more disagreement, though, men's confidence converges that of women. Therefore, on questions in which there is broad disagreement, both men and women recognize that disagreement and adjust their confidence accordingly. However, women do not seem to take others' agreement with their view as a signal to be confident. We cannot say, though, whether men are being overconfident in these situations or if women are being underconfident. It also could be that while there is a consensus within the economics community on a topic, there is broad disagreement in other communities and women take this into account more than men. From this analysis, we can only say that women seem to be "sticky" in their confidence as they do not adjust it as much as men do. Finally, the *female*

$\times$ *foreign field* remains negative and significant, providing further evidence for the robustness of our results.

3.2.3 Robustness

We provide robustness checks to rule out alternative mechanisms (Table 7). An alternative explanation for the gender gap in confidence is that women sort into fields in which people are generally less confident or less extreme in their answers. It could be, for example, that macroeconomists are especially confident. Since there are few women in macroeconomics, the effects could be picking up this sorting rather than measuring an overall lack of confidence among women. However, the confidence gap persists, and is in fact larger, when controlling for field of study (Column 2) suggesting that sorting is not at play.

We include answer fixed effects in Column 3 of Table 7. In this sense, we are holding constant one margin of confidence and asking, for example, for all individuals who strongly agree with a statement, are there differences in how confident they are about strongly agreeing? The fixed effect takes out any correlation between the extremeness of the answer and the confidence in the answer. The fact that the size of the coefficient decreases, suggests that strongly agreeing with an answer is correlated with being more confident and that women are less likely to strongly agree with answers. Further, within each answer type, women are still less confident than men. Some of the confidence gap is thus driven by men having more extreme stances in addition to being more confident in their stance.[9]

[9]For brevity, we report the results for the explicit confidence-level measure but the results are similar for the propensity to provide extreme judgements. We also estimate the equations controlling

4 Conclusion

Several papers have found that women are less confident than men. We test whether the confidence gap persists for women who have reached the top of their careers. While we do find that a confidence gap persists, it is primarily driven by women being less confident when asked about topics they are not an expert on. It is therefore difficult to state that women being less confident is always negative. It could be that women have an optimal level of confidence and adjust it depending on whether they are an expert whereas men are consistently overconfident. We also look at measures of confidence and find that the confidence gap has two components. Women hold less extreme views and are also less confident in their views.

Our paper helps explain why women can still be less confident than men even after breaking through the glass ceiling. Further research would help to understand why this gap exists and the implications that holding less extreme views and being less confident in their views has for women. For example, are women penalized for holding extreme views and does this contribute to the low number of women reaching upper-level positions? We leave such questions for future research.

for tenure. Tenure is negatively correlated with confidence, however, because only 4 people in our sample did not receive tenure and 3 of them are women, we refrain from drawing any conclusions from this result.

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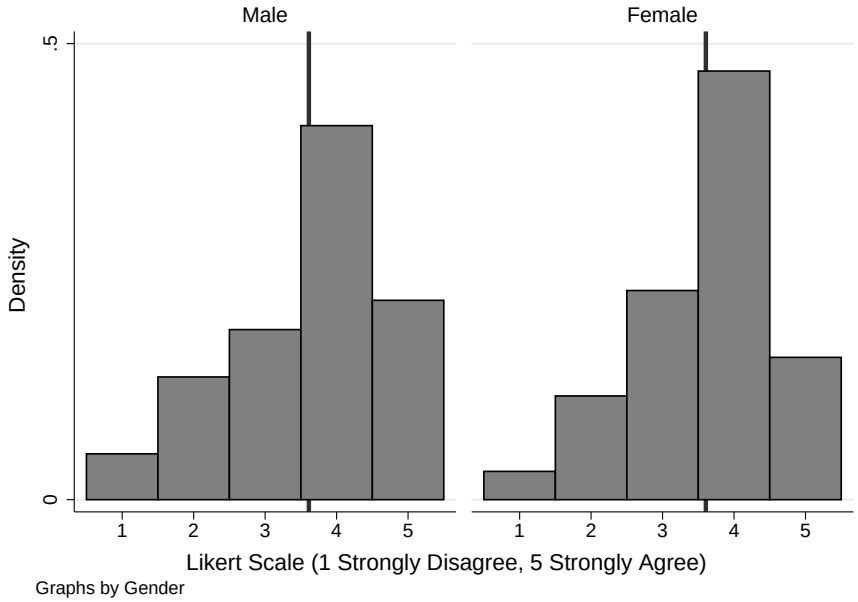
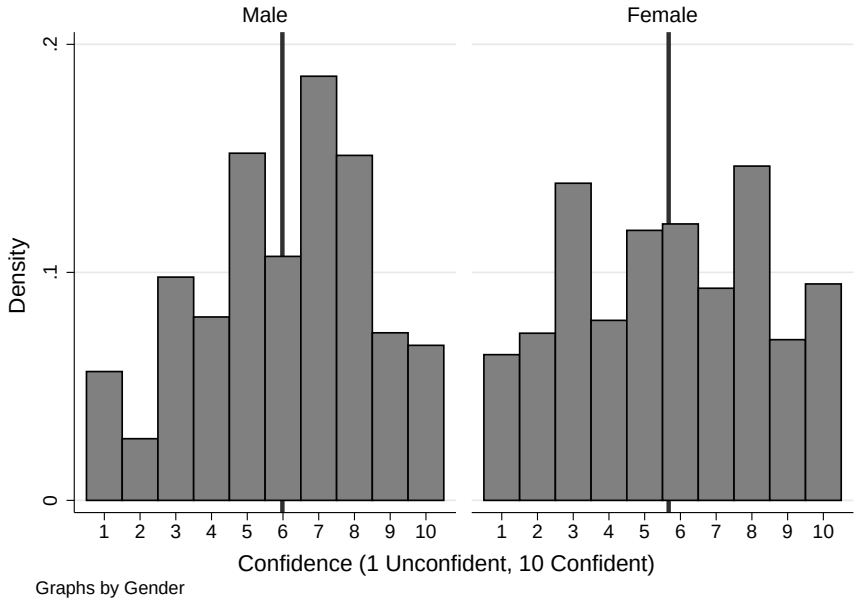
Tables and Figures

Figure 1: Distribution of responses (Likert scale)



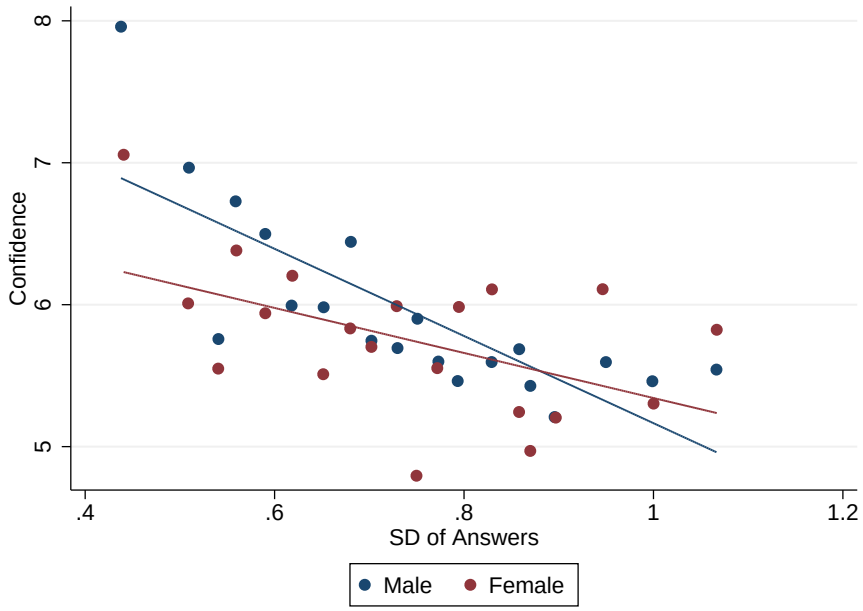
N=5241. Vertical line marks the mean

Figure 2: Distribution of subjective scores for effectiveness



N=5241. Vertical line marks the mean

Figure 3: Confidence and disagreement



Self-reported confidence (1-10) and level of disagreement (as measured by the standard deviation in ratings) for a question, broken down by gender.

Table 1: Comparison of background characteristics and confidence by gender

	(1)	(2)	(3)	(4)	(5)	(6)
	Male		Female		p-value	
	Mean	SD	Mean	SD	Diff mean	KS-test
Panel A						
Individual characteristics						
Year PhD award	1985.6	10.222	1990.6	2.887	0.174	0.135
Harvard/MIT PhD	0.567	0.502	0.600	0.516	0.857	1.000
Field: IO	0.027	0.164	0.100	0.316	0.320	1.000
Field: Labour	0.108	0.314	0.300	0.483	0.136	0.882
Field: Dev/Hist/Pol.	0.162	0.373	0	0	0.180	0.969
Field: Behavioural/Exp.	0.027	0.164	0	0	0.608	1.000
Field: Public/Health/Env	0.189	0.397	0.400	0.516	0.169	0.797
Field: Finance	0.081	0.276	0	0	0.362	1.000
Field: International	0	0	0.100	0.316	0.053	1.000
Field: Macro	0.216	0.417	0.100	0.316	0.418	1.000
Field: Microtheory	0.162	0.373	0	0	0.180	0.969
Field: Econometrics	0.027	0.164	0	0	0.608	1.000
Solo pubs. until tenure	5.540	3.870	4.600	2.319	0.469	0.448
Co-authored pubs. until tenure	6.405	4.312	6.100	1.462	0.840	0.958
Tenured at first job	0.972	0.164	0.700	0.152	0.005	0.474
Observations	37		10			
Panel B						
Voting behaviour						
Vote (Likert 1-5)	3.612	1.116	3.606	0.982	0.873	0.002
Extreme answers (1 or 5)	0.268	0.443	0.187	0.390	0.001	0.001
Confidence (1-10)	5.983	2.396	5.671	2.681	0.001	0.001
Observations	4177		1064			

Column (5) shows the p-value of the simple t-test for equality of means between male and female. Column (6) shows the p-value for the Kolmogorov-Smirnov test for equality of distributions. *** p<0.01, ** p<0.05, * p<0.1

Table 2: Propensity to provide extreme judgements and gender

	(1)	(2)	(3)	(4)
	Dependent variable: Strongly agree or disagree			
Mean of dep. var.	0.252	0.252	0.252	0.252
Female	-0.082***	-0.084***	-0.092***	-0.076***
	(0.01)	(0.01)	(0.01)	(0.01)
Year PhD award				-0.002***
				(0.00)
PhD Harvard/MIT				0.001
				(0.01)
Total solo pubs.				-0.001
				(0.00)
Total co-authored pubs.				-0.006***
				(0.00)
Question FE		X	X	X
School FE			X	X
Observations	5,241	5,241	5,241	5,241

The unit of observation is the economist-question pair. The dependent variable is a dummy that is 1 if the respondent replied either strongly disagree or strongly agree to a question. *Female* is a dummy that is 1 if the respondent is female. *Year of PhD award* is the year the respondent was awarded the PhD. *PhD Harvard/MIT* is a dummy that is 1 if the respondent was awarded a PhD from either Harvard or MIT. *Total solo pubs.* is the number of total single authored publication. *Total co-authored pubs.* is the total number of co-authored publications. Robust standard errors in parentheses, clustered at the question level. *** p<0.01, ** p<0.05, * p<0.1

Table 3: Self-reported confidence level and gender

	(1)	(2)	(3)	(4)
	Dependent variable: Level of confidence (1-10)			
Mean of dep. var.	5.920	5.920	5.920	5.920
Female	-0.082***	-0.330***	-0.399***	-0.340***
	(0.01)	(0.09)	(0.09)	(0.09)
Year PhD award				-0.011***
				(0.00)
PhD Harvard/MIT				0.604***
				(0.08)
Total solo pubs				0.019*
				(0.01)
Total co-authored pubs				-0.038***
				(0.01)
Question FE		X	X	X
School FE			X	X
Observations	5,241	5,241	5,241	5,241

The unit of observation is the economist-question pair. The dependent variable is the self-reported measure of confidence vis-a-vis a given question's reply (1 lowest, 10 highest on integer scale). *Female* is a dummy that is 1 if the respondent is female. *Year of PhD award* is the year the respondent was awarded the PhD. *PhD Harvard/MIT* is a dummy that is 1 if the respondent was awarded a PhD from either Harvard or MIT. *Total solo pubs.* is the number of total single authored publication. *Total co-authored pubs.* is the total number of co-authored publications. Robust standard errors in parentheses, clustered at the question level. *** p<0.01, ** p<0.05, * p<0.1

Table 4: Differential confidence in answering foreign field questions and gender

	(1)	(2)	(3)	(4)
	Extreme answer		Confidence	
Mean of dep. var.	0.252	0.252	5.920	5.920
Female	-0.077***	-0.031	-0.354***	-0.054
	(0.01)	(0.03)	(0.09)	(0.18)
Year PhD award	-0.002***	-0.002***	-0.011***	-0.011***
	(0.00)	(0.00)	(0.00)	(0.00)
PhD Harvard/MIT	-0.004	-0.003	0.533***	0.537***
	(0.01)	(0.01)	(0.08)	(0.08)
Total solo pubs	-0.001	-0.001	0.022**	0.022**
	(0.00)	(0.00)	(0.01)	(0.01)
Total co-authored pubs	-0.005***	-0.005***	-0.036***	-0.036***
	(0.00)	(0.00)	(0.01)	(0.01)
Foreign field question	-0.061***	-0.047**	-0.857***	-0.767***
	(0.02)	(0.02)	(0.09)	(0.11)
Female × Foreign field		-0.058		-0.374*
		(0.04)		(0.20)
Question FE	X	X	X	X
School FE	X	X	X	X
Observations	5,241	5,241	5,241	5,241

The unit of observation is the economist-question pair. For Column 1-2 the dependent variable is a dummy that is 1 if the respondent replied either strongly disagree or strongly agree to a question. For column 3-4 the dependent variable is the self-reported measure of confidence vis-a-vis a given question's reply (1 lowest, 10 highest on integer scale). *Female* is a dummy that is 1 if the respondent is female. *Year of PhD award* is the year the respondent was awarded the PhD. *PhD Harvard/MIT* is a dummy that is 1 if the respondent was awarded a PhD from either Harvard or MIT. *Total solo pubs.* is the number of total single authored publication. *Total co-authored pubs.* is the total number of co-authored publications. Robust standard errors in parentheses, clustered at the question level. *** p<0.01, ** p<0.05, * p<0.1

Table 5: Confidence in answering foreign field questions, breadth and gender

	(1)	(2)	(3)	(4)
	Extreme answer		Confidence	
Mean of dep. var.	0.252	0.252	5.920	5.920
Female	-0.019	-0.017	0.208	0.207
	(0.04)	(0.04)	(0.20)	(0.20)
Year PhD award	-0.002**	-0.002***	-0.006*	-0.006*
	(0.00)	(0.00)	(0.00)	(0.00)
PhD Harvard/MIT	0.002	0.001	0.481***	0.481***
	(0.01)	(0.01)	(0.08)	(0.08)
Total solo pubs	-0.001	-0.001	0.032***	0.032***
	(0.00)	(0.00)	(0.01)	(0.01)
Total co-authored pubs	-0.005***	-0.005***	-0.032***	-0.032***
	(0.00)	(0.00)	(0.01)	(0.01)
Foreign field question	-0.048**	0.186	-0.752***	-0.851
	(0.02)	(0.18)	(0.11)	(1.12)
Female × Foreign field	-0.070*	-0.073*	-0.525**	-0.524**
	(0.04)	(0.04)	(0.22)	(0.22)
Breadth	-0.000	0.002	-0.029***	-0.030***
	(0.00)	(0.00)	(0.01)	(0.01)
Female × Breadth		-0.003		0.001
		(0.00)		(0.01)
Question FE	X	X	X	X
School FE	X	X	X	X
Observations	5,044	5,044	5,044	5,044

The unit of observation is the economist-question pair. For Column 1-2 the dependent variable is a dummy that is 1 if the respondent replied either strongly disagree or strongly agree to a question. For column 3-4 the dependent variable is the self-reported measure of confidence vis-a-vis a given question's reply (1 lowest, 10 highest on integer scale). *Female* is a dummy that is 1 if the respondent is female. *Year of PhD award* is the year the respondent was awarded the PhD. *PhD Harvard/MIT* is a dummy that is 1 if the respondent was awarded a PhD from either Harvard or MIT. *Total solo pubs.* is the number of total single authored publication. *Total co-authored pubs.* is the total number of co-authored publications. *Breadth* measures the number of distinct fields in which there are one or more papers citing an economist's work. Robust standard errors in parentheses, clustered at the question level. *** p<0.01, ** p<0.05, * p<0.1

Table 6: Confidence and disagreement by gender

	(1)	(2)	(3)
		Confidence	
Mean of dep. var.	5.920	5.920	5.920
Female	0.052	-0.960***	-1.053***
	(0.18)	(0.33)	(0.32)
Year PhD award	-0.010***	-0.010***	-0.011***
	(0.00)	(0.00)	(0.00)
PhD Harvard/MIT	0.539***	0.539***	0.535***
	(0.07)	(0.07)	(0.08)
Total solo pubs	0.018*	0.018*	0.022**
	(0.01)	(0.01)	(0.01)
Total co-authored pubs	-0.037***	-0.037***	-0.036***
	(0.01)	(0.01)	(0.01)
Foreign field question	-0.636***	-0.635***	-0.766***
	(0.11)	(0.11)	(0.11)
Female × Foreign field	-0.496**	-0.484**	-0.362*
	(0.20)	(0.20)	(0.20)
SD rating	-2.752***	-3.029***	
	(0.45)	(0.45)	
Female × SD rating		1.355***	1.339***
		(0.38)	(0.38)
Question FE			X
School FE	X	X	X
Observations	5,241	5,241	5,241

The unit of observation is the economist-question pair. For Column 1-2 the dependent variable is a dummy that is 1 if the respondent replied either strongly disagree or strongly agree to a question. For column 3-4 the dependent variable is the self-reported measure of confidence vis-a-vis a given question's reply (1 lowest, 10 highest on integer scale). *Female* is a dummy that is 1 if the respondent is female. *Year of PhD award* is the year the respondent was awarded the PhD. *PhD Harvard/MIT* is a dummy that is 1 if the respondent was awarded a PhD from either Harvard or MIT. *Total solo pubs.* is the number of total single authored publication. *Total co-authored pubs.* is the total number of co-authored publications. *SD rating* measures the standard deviation of ratings submitted, capturing the level of disagreement in a given question. Robust standard errors in parentheses, clustered at the question level. *** p<0.01, ** p<0.05, * p<0.1

Table 7: Robustness checks: Self-reported confidence level and gender

	(1)	(2)	(3)
Dependent variable: Level of confidence (1-10)			
Mean of dep. var.	5.920	5.920	5.920
Female	-0.054	-0.357**	0.020
	(0.18)	(0.18)	(0.16)
Year PhD award	-0.011***	-0.022***	-0.004
	(0.00)	(0.00)	(0.00)
PhD Harvard/MIT	0.537***	0.319***	0.553***
	(0.08)	(0.10)	(0.07)
Total solo pubs	0.022**	0.023**	0.029***
	(0.01)	(0.01)	(0.01)
Total co-authored pubs	-0.036***	-0.048***	-0.024***
	(0.01)	(0.01)	(0.01)
Foreign field question	-0.767***	-0.827***	-0.697***
	(0.11)	(0.11)	(0.09)
Female × Foreign field	-0.374*	-0.509**	-0.190
	(0.20)	(0.21)	(0.18)
Question FE	X	X	X
School FE	X	X	X
Field FE		X	
Answer FE			X
Observations	5,241	5,241	5,144

The unit of observation is the economist-question pair. The dependent variable is the self-reported measure of confidence vis-a-vis a given question's reply (1 lowest, 10 highest on integer scale). *Female* is a dummy that is 1 if the respondent is female. *Year of PhD award* is the year the respondent was awarded the PhD. *PhD Harvard/MIT* is a dummy that is 1 if the respondent was awarded a PhD from either Harvard or MIT. *Total solo pubs.* is the number of total single authored publication. *Total co-authored pubs.* is the total number of co-authored publications. Robust standard errors in parentheses, clustered at the question level. *** p<0.01, ** p<0.05, * p<0.1