

CSWEP Carolyn Bell Shaw speech

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Thank you –

It is a true honor to receive this award. Thank you Natalia and thanks to everyone who wrote letters. I feel very lucky to follow in the footsteps of so many amazing women.

For my own career progression I have many to thank – my family, those who have mentored me, coauthored with me and the many students I have gotten to know and learnt from. Thank you.

I am grateful for the professional support I have received but, at the same time, I am acutely aware that as a profession we are currently failing many young women. Just ten days ago, over 300 graduate students and research fellows across US economics departments put out an open letter to the profession requesting institutional changes that “address the power imbalances that drive out talented individuals, prevent the inclusion of underrepresented groups, and collectively damage our discipline.”

Young women are falling off – or being pushed off – the ladder in our profession. The share of women studying economics in the US has stagnated for several decades, and even more concerning, the share of junior female faculty in economics is *declining* – Lundberg and Stearns report that the share of female assistant professors fell from 29 to 24 percent between 2009 and 2017. As a result, there has been little net growth in female representation in economics faculty over the last quarter of century. While levels of female faculty representation in economics are comparable to the hard sciences, within this group the trend in economics is among the worst.

We should care about this, not only out of a sense of justice, but out of concern for our profession. When women fall off the ladder, we lose some of our most talented potential economists. A lack of diversity limits the range of questions we examine and the kinds of answers we are able to give – which impoverishes not only us as a profession but also those in governments, companies, and NGOs counting on our insights.

A recurring theme in my talk today is how we can go wrong, even when we believe we are well-intentioned. And, in that vein, let me start with my own personal experience – I grew up in India, and like many born into privilege, it took me a long time to recognize what privilege meant. As I began my second year of an undergraduate economics degree, the Indian government sought to introduce quotas in some government jobs for lower castes. Student protests broke out on my campus – I and my classmates engaged in earnest discussions about how jobs should be granted only on the basis of ability and merit, with no special consideration given to any group. We largely ignored the fact that, pretty much without exception, we all belonged to elite castes.

In 1992 job quotas were implemented and the same year I left for Oxford University. And, suddenly, I went from being a member of the Indian elite to being an outsider in a system where privilege perpetuated itself in a different way. Seeing how privilege operates in a very different setting jarred my thinking. Now I was in a place where you could tell a person's social stature, not by their name but by the way they talked. And I began to realize that we often adopt what we think of as fair systems without recognizing how they put groups of people – typically those who are excluded by the prevalent norm regarding who deserves a chance -- at disadvantage.

I learnt that a theoretically race-blind, caste-blind or gender-blind system that thinks it is rewarding merit may not do so when the playing field is uneven to start with. And that historical discrimination and inequality can imbalance present power structures, meaning that for some groups all playing fields are uneven.

Over the years – from research and from being in this profession -- I have also learnt the power of norms. Socialization of norms means that it can become second nature to us that men and women who behave similarly are judged differently: a man is ambitious but a woman has sharp elbows; a man's research reflects his brilliance while a woman's research reflects her hard work, and so on. This gulf in judgment stems from internalizing different values across genders. Assertiveness, drive, competitiveness... these are considered masculine traits, just as modesty, cooperation and care-giving are considered female traits. We frown on individuals – particularly women – when they possess qualities that society has not neatly prescribed to their gender. In

our profession, women can end up facing the catch-22 of being subject to harsh commentary on their abilities when they show exactly the traits that are used to identify the potential for success in their field.

I have been lucky to have colleagues who have called me out when I have been blinded by biased norms. I have also been lucky to have friends who have led by example. And, I have learnt from an amazing set of students. But I – like many others – have also, on occasion, been careless – I have not always noticed the quiet, thoughtful woman in my classroom and have, often, jumped in too fast with questions in a seminar. I have been guilty of lazily assuming that a six-foot-three male PhD student would be a thick skinned and confident researcher when exactly the opposite was true. And, unfortunately, these careless judgements add up – in terms of who feels supported and confident to pursue the research they love.

And, indeed, as the open letter from graduate students reminds us, systemic change requires institutions that can move us closer to an equal playing field and not just relying on happenstance. The power of norms is such that they make certain behaviors second nature. If we can shape our own norms and institutions, we can limit the careless injustice in our profession

How can we reshape institutions to prevent men and women's career progression being determined by whether or not they look the part? How do we build a consensus for change that debiases institutions when norms and structures of bias push otherwise? How should we design institutions that make economics a less leaky pipeline for women? I don't have answers to most of these challenges but here are some things that, I believe, we have learnt as a profession.

Let me start with what we value and why.

Abstract thinking and hierarchical categorization permeates our profession. We hold dear the idea that our profession is a meritocracy – a free market for talent. Yet, we often categorize some researchers as stars based on simple but poorly justified concepts of quality of mind. In doing so, we often fail to recognize bias and how it perpetuates. We run the danger of making invisible all those on whose work the stars' research depends. We reward the individual for teamwork, such

that our professional rankings reflect an inaccurate model of the academic process. We should not be surprised that we have devalued collaboration among graduate students and junior faculty.

The costs of simplistic categorization can be high. We lose talented individuals who believe that our models don't speak to the issues of social justice they care about. We lose brilliant collaborative researchers who are not identified as stars. And we lose researchers who would bring a new, valid voice to economics. As a result, we often fail to provide the more nuanced policy advice that can support a democracy where not all values are shared and where growth isn't the tide that raises all boats.

Implicit bias and over-simplified categorization don't just occur in individual judgements. There are also often built into our institutional structures. The open letter from our students and predoctoral fellows is asking us to acknowledge how power works and to identify and implement ways of improving institutions as well as individual behavior.

For the case of women in economics, I believe, institutional change requires us to first understand why economics is a leaky pipeline for women. Let me talk about some of what we have learnt for four points along the pipeline:

Stage 1: undergraduate economics experience

Today, women constitute over half of US undergraduates but less than a third of economics majors. Moreover, the proportion of women majoring in economics has been flat for nearly thirty years, despite a rising share of women among undergraduates.

Department-specific experiments, part of an initiative led by Claudia Goldin, are yielding promising results. *For instance, two innovations: informing high-performing students about their relative performance, and exposing students to successful female economics graduates, increases female undergraduate interest in majoring in economics.*

These are relatively easy policies to implement and we should all be pushing our departments to adopt such practices.

These findings are also consistent with a broader theme in the research on women in STEM careers – *to attract more women to study STEM subjects at university and enter STEM careers, we need to tackle the stereotypes they are exposed to and we need to do this early.*

Relatedly, we need to acknowledge diversity in perspectives, values and norms early on. We need to create institutional environments that enable diversity in the research questions we pose and that allow us to attract and retain talented individuals with different moral values in our profession. The questions economics asks needs to include more of what matters to diverse groups. *An important entry point is introductory economics courses: Several departments are reformulating these courses to make explicit the moral values that shape the questions we ask –* AEA could advertise these efforts enabling other departments to know and learn from them.

More broadly, it is key that AEA acts as individual faculty members cannot correct for biases that female undergraduates face during their BA. *Brown university has the highest female to male undergraduate ratio in economics among Ivy League Schools – the introductory economics course has been long taught by female faculty and they have made an active effort to also increase female faculty in intermediate courses. However, we cannot just rely on having female faculty teach classes.* We need to institutionalize ways to ensure departments encourage female undergraduates to go to the graduate seminars, put their hands up in class, take the hard math courses and apply to the top PhD programs. *Here, I would highlight work by my colleague Dan Levy on Teachly software that tracks students' comments in class, alerts instructors of uneven participation, and prompts them to include students more equitably.*

Critically, I see Goldin's undergraduate innovations as telling all of us that we can, and should, be experimenting and learning from pilot projects that change existing practices. In polling some of my colleagues for ideas, I have been struck by how many individual initiatives are being undertaken by faculty in different departments to affect change – and by how little we know about them. *I urge AEA and CSWEP to help us institute systems whereby we can learn more systematically from these efforts.*

Stage 2: Entry into graduate school

The percent of female students in undergraduate and graduate economics programs in US departments with doctoral programs has been nearly identical for the last several years, at around 30 percent. This has led some to suggest that there isn't a problem here and that the first significant leak in the pipeline occurs in the transition from graduate school to first job.

However, two facts suggest otherwise: the proportion of female students varies significantly across programs. Further, a high fraction of economics PhD students in the US are not US citizens. Many completed their undergraduate degree in a non-US program.

Here are some statistics: Boustan and Lange report NSF doctorate surveys show that between 1994 and 2017, 47% of PhDs in economics in US schools were non-US citizens. 52% of job market candidates from six top economics departments this year have non-US undergraduate degrees. Within this pool, the gender imbalance is significantly worse in the non-US undergrad group relative to in the comparable US group – 36% of j-m candidates in the non-US undergrad group were women relative to 52% in the US undergrad group.

In fact, there are two pipelines feeding into the graduate school admit pool. We just don't know how they interact and, so we know little about whether there is a problem and where. We lack comparable statistics across departments on how both level and composition of potential male and female admits changes across the screening process, both for the US and non-US pool.

That said, we can again begin to learn from individual department experiments. At Stanford, female admission rates were comparatively low a few years ago. Muriel Niederle, Pascaline Dupas and other faculty identified narrowness of screening criteria – in particular, a very strong focus on math coursework as one reason – and decided to *evaluate based on full candidate dossier rather than rank on specific criteria like math preparation*. Subsequently, Stanford has seen a significant rise in female admission rates into its PhD program.

A second concern – and one that is echoed in the junior job market – is clustering across departments on fewer female students relative to male students. As a result, female admits in top econ departments tend to have more offers from competing schools than male students.

Such an outcome is consistent with the use of narrow criteria that screen on characteristics more common among male applicants than female applicants. It is possible that such criteria lead to particularly gender-skewed outcomes when applied to non-US applicant pools that are typified by starker gender norms and stereotypes.

A basic issue here is that we know relatively little about what predicts PhD outcomes and, relatedly, how much bias is created by existing screening processes.

So, what can we do?

First, given what we know from work such as Goldin and Rouse's study on orchestra auditions and Bertrand and Mullainathan's work on resume audit studies, *we should be examining the impact of blinding some parts of the admission process (e.g. evaluation of personal statement).*

Second, as job advertisers, letter writers, and reviewers we can be more aware of gendered use of language. While websites to check gendered language exist – currently, we rely on individual faculty to use this. *Departments and centralized processes such as interfolio could easily use such a website to gender-check language as part of the process when uploading letters.* This could be feedback to the letter-writer so that they can change the language if they wish and, at the minimum, the gender score of the letter would be available to departments when they review the file. My own sense is that such processes could be particularly important for letter writers from non-US schools. My own school – HKS – now does this at the job advertisement stage.

Third, given that exposure to female economists influences young women's interest in choosing economics as a major suggests that there could be high returns *to increasing the representation of female academics in international meetings organized by our professional associations.* We

can do better here. We should not hesitate to reach out to seminar and conference organizers when we see agendas with few or no female panelists.

Fourth, departments should track their admissions decisions and learn over time what criteria are good predictors of success – by gender and other demographic characteristics. Because, absent some better understanding of the “model”, we will continue admitting too few women and too few members of other under-represented groups.

Stage 3: Female economists, on average, have worse placement records for their first job.

Performance in coursework influences graduate student confidence in their own work and often, assessment by faculty of their ability. While blinding of exam scripts is common for large undergraduate courses, this is rarer for PhD courses. *We should seek to understand the value of blind grading of PhD exam scripts.*

Turning to later stages of graduate school and job market, a common concern among the female economists I spoke with is that aggressive behavior in seminars shuts women down. This can be particularly paralyzing in high-stakes settings such as job talks.

Furthermore, we have evidence of professional bias that hurts female economists – on average, work by Card, de la Vigna, Funk, Irriberri and Erin Hengel suggests that female-authored papers need to meet a higher standard to be published, and Heather Sarson’s research suggests that women get less credit for co-authored papers. This may well also affect the hiring process.

So, what can be done?

First, simple norm-setting in seminars by banning, for instance, all but clarifying questions for the first 10-15 minutes. Colleagues told me that they have found it valuable to collect quantitative data to create the case for such bans – counting how many questions job market candidates get and how that varies by gender is easy to do and can help convince faculty members that the 10-minute rule make sense.

Second, investigate the returns to job screening processes that are less reliant on individual perceptions of quality and, instead, routinize the process. Small biases in how a department's faculty judge student work can get amplified if the placement process uses these judgments to decide discrete differences in which students get recommended to which departments. And, in so far as initial placements matter for subsequent career outcomes, the effects can be long-lasting. So we could experiment with basing department interview lists on blinded reviews of job market packages rather than non-blind reviews of candidates suggested by placement officers. My understanding is that the use of placement officers is less common in the hard sciences, for instance.

We could also *ensure that identical questions in the same order are asked of all candidates and have one faculty member keeps track of the rates at which male and female candidates are interrupted during interviews.* Decades of research in decision science suggest that structured interviews do a much better job predicting future performance than unstructured conversations.

We could use *written forms for faculty review of candidates, and have the forms feature multiple specific criteria such as innovation of JMP, execution of JMP, quality of talk, and research pipeline.* As a colleague noted, we need to move away from gestalt evaluations such as “I like him better than his JMP” or “strong on unobservables” or, conversely, “her paper is not economics”. Rigor is not the prerogative of our research; we should hold ourselves to the same high standard in our evaluation and hiring processes and base our methods on evidence rather than on gut instinct.

And, finally, improving hiring practices to actually get female faculty is not the same as interviewing the three female candidates that all top schools are interviewing. *Departments should set similar cut-offs for male and female candidates* – far too often schools focus on un-gettable women and gettable men. Department could track the outside offers received by women and men who they interviewed, flown out and given offers receive.

Stage 4: Relative to men, women publish less in the first seven years

Departments can, and should, do more to lower the career costs of having children, in particular, for women. We have evidence that equalizing maternity and paternity leave in economics departments disadvantages women. Departments and tenure letter writers need to now act on this evidence. And, perhaps, departments should consider making allowances for pre-birth pregnancy costs incurred by female faculty.

We should be aiming for greater diversity in department seminar speakers – invitations to weekly seminars are wholly discretionary and offer a great opportunity for us to expose ourselves and our graduate students to diverse perspectives. They also provide speakers with important career opportunities. Some departments have started to track the demographic composition of their speakers, with good success. Too often, women and members of other underrepresented groups are overlooked inadvertently and unintentionally – and presenting the numbers in faculty meetings can help.

Routinize feedback procedures – whether from mentors or committees. I know, firsthand, that as a mentor I have made mistakes and as a mentee earlier on I received advice that I now know was incorrect. Simply instituting mentoring or review processes is not enough – we should be identifying what mentoring should and should not consist of. And, possibly, individuals should have multiple mentors, including mentors from outside one's department.

One important lesson that I learnt is that those of us who act as mentors, advisors or supervisors need to recognize that brilliance in research isn't necessarily correlated with thickness of skin. Negative experiences that some individuals can put behind them or even find something positive in overcoming can prove devastating for others. Some individuals thrive on adversity while others need support. A research career doesn't have to be a trial by fire.

In a profession where women are a minority, female economists are both more likely to be at the receiving end of romantic interest – desired or undesired – from often senior male economists and to partner with them. The power dynamics that ensue when women reject advances or when relationships end can play out in the profession for years in ways that neither party may expect.

These experiences can destroy lives, as we know, and can cause some to leave the profession. This is a problem that, by its very nature, hides its true extent.

Hopefully, instituting profession-wide reporting mechanisms, such as Callisto that AEA is working on, will help us learn and, more importantly, will help reduce sexual harassment.

As my colleague Iris Bohnet puts it – it is easier to de-bias institutions than it is to de-bias individuals. And this is what I have been advocating in this talk. But we need to acknowledge that changing the direction of institutions is heavy and exhausting work and the work of changing institutions to benefit women can often end up becoming a very substantial lady tax. So, how are we going to solve this?

First, small changes are better than no changes at all and can often engender more change. Something as simple as emailing your colleague who is organizing one of the department seminars but has too few female speakers can matter. And do not leave it at that. Make a few recommendations. Organizations like shesource have made it easier to find female experts – we can play our part in adding female economists' voices to our department and to the world.

Second, we also need to acknowledge the value of outside help and the potential value of using external consultants to adopt best-practices.

Third, we need more transparency in profession-wide institutions that influence careers - especially editorial boards of journals. Editor selection procedures largely still function through networks -- with existing editors often responsible for deciding their successors. Some of the top journals are run within departments, with no apparent term limits or accountability mechanisms for editors – unsurprisingly, these are the boards that are also more likely to underrepresent women in editorial positions.

Finally, this cannot just be the work of women. We need to all acknowledge that using the talents of all of us to the full will make us a stronger and better profession and benefit all of us. We need to make the case to the majority of men who believe either that their own decisions are

meritocratic, or that institutional change to correct discrimination is the work of others. We need to show them that institutional bias can mean that the information that they base decisions on is, in itself, warped.

In the end, we are in this field because we believe that economics research done well can change the world for better. And, along those lines let me conclude by acknowledging three pieces of work that changed how I think: Lundberg and Startz on Private discrimination and Social interventions showing that laws preventing discrimination could improve allocative efficiency were an early influence on my PhD work. Claudia Goldin and Ceci Rouse's work on blinding orchestra trials demonstrated the power of debiasing institutions and Marianne Bertrand, Emir Kamenica and Jessica Pan's work on gender identity and relative income highlighted for me the close link between gender dynamics and power struggles.

I am a better economist for these papers having been written, and I look forward to the day when our economics research more fully reflects a diverse range of voices and values and this, in turn, helps shape our departmental and professional practices such that female economists need not have "sharp elbows" for economics to recognize their value.

Thanks very much