

NOTEBOOKS  
OF THE FONDATION

Challenge n°1

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# GENDER BIAS

ANALYZING CAREER OBSTACLES  
FOR WOMEN IN SCIENCE



The world has seen steady improvements for women, from access to education to the number of women in leadership roles. The #MeToo movement has not only given women the freedom to speak out about sexual abuse but has also shed light on gender bias in the workplace. Although #MeToo has its origins in the entertainment industry, equality has become a major issue for all sectors.

All but one, if you ask me. The world of science has not yet had its moment of reckoning. Some may point to the slightly growing number of women in senior positions at academic or other scientific institutions as a sign of progress. Yet this only obscures the systemic challenges many women face.

To pinpoint and redress the extent and impact of these barriers more clearly, the Fondation L'Oréal conducted a survey of L'Oréal-UNESCO For Women in Science program alumnae – women who have been recognised for their excellence in life sciences, chemistry, physics, mathematics and computer science.

Many of the study's findings are enlightening, but women clearly cited two main obstacles to advancement. The first is the difficulty to achieve a work-life balance. The second is sexual harassment. More than half of women surveyed - all of whom, we must remember, are award-winning scientists - have experienced sexism or sexual harassment in some form.

What also struck me about the study is the apparent need for greater recognition of these issues. Scientific institutions must first recognize the scale of the problem, before they can address it. Only then can organizations move from making incremental changes to the broader structural and cultural reforms needed.

For more than two decades, L'Oréal and the Fondation L'Oréal have supported women in science. But all our efforts will be in vain if women continue to encounter the same obstacles they face today. We cannot encourage women and girls to choose careers in scientific research if we do not speak out against discrimination.

We believe the world needs science, and science needs women. It needs their diverse perspectives, innovation and creativity to tackle challenges such as climate change, disease, and resource scarcity. With this research, we hope to help the scientific community to better support women's advancement for the greater good of society.

**Alexandra Pali**  
*Executive Vice President of the Fondation L'Oréal*

## ABOUT THE STUDY

In recent years, the number of women in science has increased. Yet women continue to be underrepresented at universities and other scientific institutions. Despite more than half of all PhDs being awarded to women, they make up only 20-33% of tenured faculty in the United States and Europe. This number falls to as low as 5% in fields such as engineering. The data is clear: more needs to be done to fight against gender inequality in science.

*GENDER BIAS - Analyzing career obstacles for women in science* is a report on what it is like to be a woman working in science today. The results indicate overwhelming agreement among L'Oréal-UNESCO *For Women in Science* alumnae that women are still held back from advancing in science because of their gender.

The Fondation L'Oréal commissioned the study - which was conducted by Kite Insight - as a means to chart the challenges women face and how these challenges have been overcome. Overall, 327 out of 668 women contacted from the L'Oréal-UNESCO *For Women in Science* program took part in the research. They answered questions about their workplace experiences in an online survey and in telephone interviews. The study ran from January 29-February 11, 2019.

The report provides a unique insight into the views of some of science's leading women from all over the world. The findings, however, cannot claim to be representative of all women in science. After all, the alumnae of the L'Oréal-UNESCO *For Women in Science* program are a select group, with distinct privileges and challenges. Despite this, it is likely that their experiences will resonate with other women at scientific institutions.

**The complete study is available on the Foundation's website : [fondationloreal.com](http://fondationloreal.com)**

## FONDATION L'ORÉAL

The Fondation L'Oréal is a philanthropic organization committed to supporting women. Since 1998, it has celebrated women at the cutting edge of science through its L'Oréal-UNESCO *For Women in Science* program. Each year five women from five different regions around the world are rewarded for their contributions to their field. The L'Oréal-UNESCO *For Women in Science* program also supports hundreds of talented, young scientists through its fellowship program.



## IN THE WORKPLACE

# 62%

of women surveyed say they have experienced prejudice at work because of their gender.

“I liked your talk; you think like a man”

comment made by a male professor after a talk at a prestigious European institute

## HOW GENDER BIAS HOLDS WOMEN BACK

The workplace culture in many academic institutions is a barrier to women's advancement  
(3% no answer)

- Completely agree
- Strongly agree
- Somewhat agree
- Neither agree or disagree
- Somewhat disagree
- Strongly disagree
- Completely disagree
- No opinion



One of the most common obstacles women in science face at work is gender bias. It can impact their day-to-day experience and limit their ability to advance by creating an environment that makes them feel marginalized.

### What is in a name?

In recent years and in most parts of the world, measures have been taken to recruit and promote women scientists more. But systemic discrimination persists. Women are less likely to be published, meaning they are missing out on valuable opportunities to advance their careers. Some have even been encouraged to use their initials instead of their full name to maximize their chances of success - a practice the concerned women described as "unacceptable." Overall, 61% of women surveyed said that they had experienced "issues with ownership or authorship" of their work.

### The invisible (wo)man

Women are often overlooked for prominent roles such as serving on jury or joining the editorial board of a journal. These positions not only carry a certain amount of prestige but are also an important opportunity for

scientists to promote their careers. The lack of visibility can make it harder for women to be seen as key contributors and prevent them from progressing in their fields.

### Odd woman out

Workplace culture plays an important role in boosting morale and productivity at any company or institution. Yet in the male-dominated world of science, many women feel excluded from the "inner circle" - or informal social relationships - where important ideas and opportunities are shared. Off-the-cuff remarks, sexist jokes and assumptions about gender can also contribute to creating a hostile work environment. This can affect women's self-confidence, leading some to disengage. More than half of women surveyed said that their self-confidence had had a direct impact on career decisions, such as whether to apply for a grant.

## IN THE WORKPLACE

# SOLUTIONS

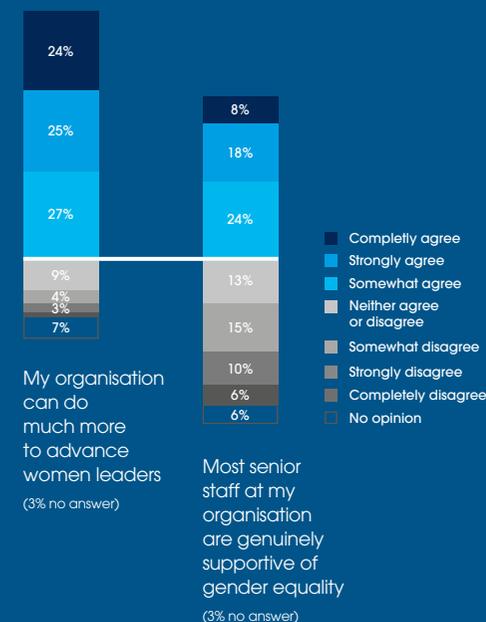
Fighting against bias in the workplace begins with building on past successes and recognizing the full extent of the challenges women face. This means identifying problem areas and implementing meaningful change.

# 76%

of women surveyed said their organizations could do more to advance women leaders.

## WAYS TO FIGHT GENDER BIAS AT WORK

“Policy changes, along with increased awareness, have made a big difference at our university.”



### Work in progress

The number of women working in science has gradually increased over the last 15 years. In some contexts, discussion about the challenges women face at work constitutes progress. In the United States, a 2007 report by the National Academies of Science, Engineering and Medicine led to a number of publicly-funded programs intended to break down gender bias. Scientific institutions must build on these past successes in order to change workplace culture.

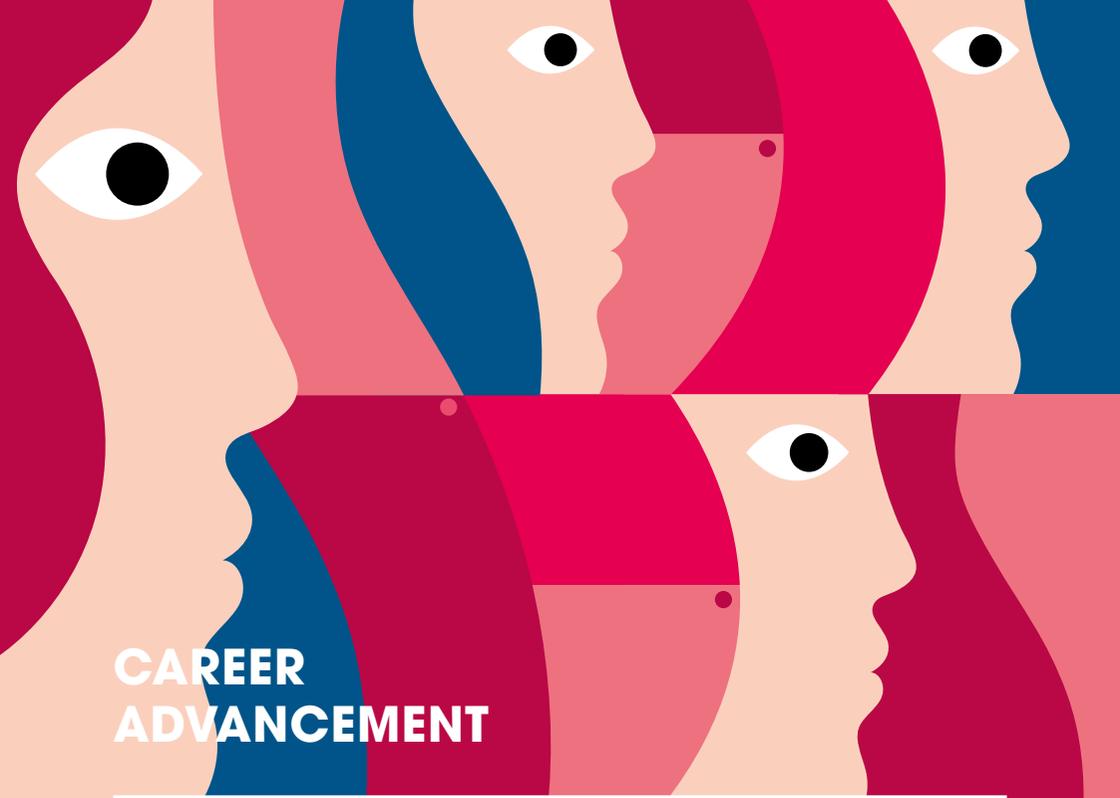
### Name it. Change it.

Scientific institutions need to do more to identify and measure gender bias in the workplace. In the 1990s, a group of women scientists at MIT gathered evidence on how they were being systematically excluded

from opportunities to advance their careers, pushing the university to change. A number of women surveyed said they had been involved in similar efforts. One wrote that she served on a committee that successfully proposed policy changes after uncovering gaps in the way women were paid and promoted.

### Invest, invest, invest

While pay and promotion transparency are a priority, just as important is equal funding. Women receive less start-up funding from universities and also receive less first-time grant funding. More outside money, such as the L'Oréal-UNESCO For Women in Science fellowships, is needed to help women succeed.



## CAREER ADVANCEMENT

# 61%

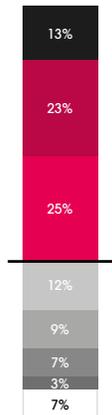
of women surveyed agree that the way science careers are structured is a barrier to women's advancement.

“I was dropped as a speaker for being pregnant.”

## WHEN SCIENCE AND FAMILY COLLIDE

The way science careers and institutions are structured is a barrier to women's advancement (2% no answer)

- Completely agree
- Strongly agree
- Somewhat agree
- Neither agree or disagree
- Somewhat disagree
- Strongly disagree
- Completely disagree
- No opinion



Scientists are expected to work a string of low-paying post-doctoral fellowships, teaching and research positions if they want to succeed in academia. Yet for many women with families, the demands and instability of these jobs can make it hard to advance at a critical moment in their careers.

### Here today, gone tomorrow

Half of scientists who pursue a career at a scientific institution give up after just five years. For many women - especially between the ages of 25 and 34 - this may be in part due to a lack of employment and financial stability. Low-paid postdoctoral positions and short-term contracts are commonplace, making it difficult to keep up with the rising cost of living or consider starting a family. Overall, nearly 40% of women surveyed listed insecurity as a major career hurdle (the same might be true for their male counterparts).

### Maternal bias

Mothers are sometimes falsely perceived as less committed to their careers or less competent. A number of respondents described having been passed over for promotion, given "below average" performance reviews during pregnancy or having been removed from projects after

returning to work from maternity leave. One medical student said that while pregnant, she was told that it was "irresponsible" to have a child during residency and that her non-permanent contract would not be renewed because of her choice to start a family. Almost half of women surveyed agreed to some extent that "women who choose to have children are treated differently."

### Work-life balance

The greatest challenge many women face is striking a work-life balance. Attending out-of-town conferences and working after-hours can be difficult for women with families, especially if they are the primary caregiver. This can limit their ability to network and advance their careers. Sixty percent of respondents said that their professional goals had a direct influence on personal decisions, such as whether to have a child and when.

## CAREER ADVANCEMENT

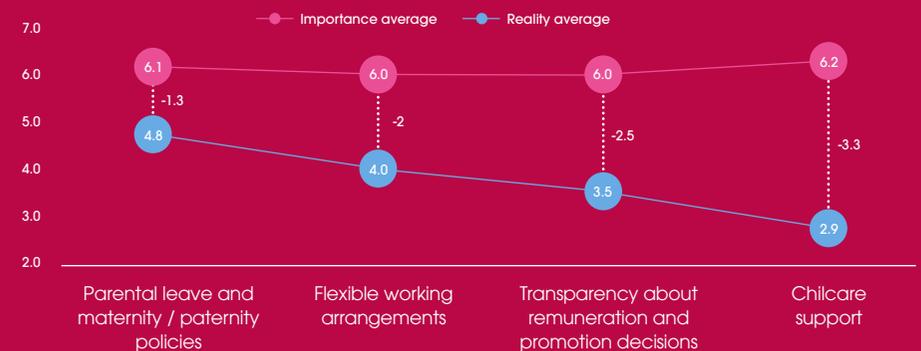
# SOLUTIONS

Scientific institutions need to rethink work conditions. By introducing fairer parental leave, childcare and promotion policies, employers can create greater opportunities for women to succeed.

“There should be more weight on the quality of work rather than the number of publications.”

## HOW TO HELP WOMEN ADVANCE IN THE WORKPLACE

Gap between the important policies and practices for the respondents to advance women in academic science and the real actions they observe in their place of work (scale form 1 to 7)



### Equal leave

Unequal family leave pushes men and women into gendered roles both at home and at work. Scientific institutions can fight against maternal bias by introducing equal leave. If all workers take the same amount of time off to spend with their children, it makes it harder to discriminate on these grounds.

### Childcare support

Childcare support is critical to helping women progress in their careers. Scientists are often required to travel for work, increasing families' childcare needs. Employers can ease the cost by helping to hire additional

care or encouraging nursing mothers to travel with their infants. Respondents also recommended introducing on-site childcare facilities at the workplace.

### Quality not quantity

Using publication volume as a criteria for promotion puts women who take time off work for maternity leave or other family obligations at an unfair disadvantage. Scientific institutions can help level the playing field by focusing on the quality of work instead.

## SEXISM & HARASSMENT

# 47%

of women surveyed say they have experienced sexual harassment at work.

“One respondent said her doctoral supervisor consistently made comments that made her uncomfortable.”

## THE MAKINGS OF A HOSTILE WORKPLACE ENVIRONMENT

- One or more times a day
- Once a week or more
- Two-three times per month
- Once a month or less
- Once

In the past 12 months, how often did someone at work :



Tell sexist stories or jokes that were offensive to you  
(No opinion = 8%)



Make offensive remarks about your appearance, body or sexual activities  
(No opinion = 10%)



Put down or act in a condescending way toward you because of your gender  
(No opinion = 8%)

Sexual harassment can be defined as any unwelcome attention, verbal remark or physical behavior of a sexual nature. It also includes sexist jokes or comments. It can create a toxic work environment that affects women’s wellbeing and ability to progress at work.

### Nobody’s ‘sweetheart’

Sexual harassment is a global problem. Between 30% and 50% of women scientists surveyed from different countries around the world said that they had experienced some form of sexual harassment in the last year alone. For some, it was a sexist joke or story, for others it was an insulting remark about their gender. While these offenses may appear “minor,” they create a hostile workplace for women.

Over a third (34%) of respondents said they had heard offensive remarks about their gender, body or sexual activities. Sexual coercion, meanwhile, is when sexual favors or contact are held up as a condition of employment or advancement. One respondent wrote about how she was

sexually assaulted by a lecturer during her undergraduate degree and was told she would pass the course only if she complied with his demands.

### Nowhere to turn

Many workplaces lack the resources to adequately deal with sexual harassment. If women feel uncomfortable or unsafe at work, it can impact how they interact with colleagues, limiting their ability to perform. Fifty-one percent of women surveyed said they chose to avoid their harassers instead of reporting them, in part because of what they described as a lack of understanding or action on behalf of their employer. A smaller group said they had resorted to more drastic measures, such as changing jobs altogether.

## SEXISM & HARASSMENT

# SOLUTIONS

Efforts to combat sexual harassment run the gamut from nationwide to non-existent. Scientific institutions need to adopt more effective policies and procedures to create safer work environments for women.

**ONLY 18%**

of women surveyed agreed that staff had been adequately trained to deal with sexual harassment.

## WAYS TO DEAL WITH SEXUAL HARASSMENT

“[Nothing is reported] unless it becomes a very dramatic situation.”

Management and relevant departments at my workplace consistently take accusations of sexual harassment and assault seriously  
(11% no answer)

- No opinion
- Completely disagree
- Strongly disagree
- Somewhat disagree
- Neither agree or disagree
- Somewhat agree
- Strongly agree
- Completely agree



### Take it seriously

Scientific institutions require systemic change to fight against sexual harassment. This begins with making sure managers take all reports of sexual harassment seriously and give victims the support they need.

### Training programs

Many sexual harassment policies are not working. This may in part be due to the fact that students and staff at scientific institutions are not getting the right training. Only 25% of respondents said they were satisfied

with their workplace's policies, while even fewer approved of how these policies were enforced.

### Policy that works

Without effective policy, sexual harassment will continue to be a major problem in the workplace. Institutions need to introduce comprehensive procedures on how to combat sexual harassment, from prevention and response to careful measurement of impact.

# WHAT MEN CAN DO

Most leadership positions at scientific institutions are held by men. This is why it is so important to engage them in the fight for gender equality which will benefit men and women.



## SPONSORSHIP

Mentorship is essential for women as it is for men to succeed. Actively put women forward: include them on projects and invite them to join teams. Use actions instead of words to show your support.



## INCLUSION

Take the time to regularly assess whether men and women have equal access to opportunities: are women outnumbered by their male colleagues on teams? Are they published less frequently? Who receives the majority of grant funding? Think about how things can improve and then take steps to implement change.



## ASK WOMEN WHAT THEY NEED

Instead of making assumptions about what women need, ask. Well-intentioned managers sometimes hold women back by shielding them from greater responsibility in an effort to reduce stress or improve work-life balance.



## SIGN A PANEL PLEDGE

Step up by refusing to take part in conferences or on panels where women are underrepresented. Or share the opportunity by offering your spot as a speaker to a female colleague instead.

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### The risk of inaction

Science thrives off of different perspectives and expertise. Yet it is apparent many scientific institutions are missing out on a crucial opportunity to recruit and mentor talented candidates because of gender bias and discrimination. If men fail to take action, the consequences are clear: the best and the brightest will move on to different sectors and the quality of science will suffer

as a whole. Men need to step up by building on the progress of the last decade. This means changing a number of practices such as hiring and parental leave. In the words of a respondent: "men should bear the load of childcare and running a household more. Right now, both of these are on women's shoulders. It's hard for academia to change without these social expectations changing too."

“Gender equality is not a problem with a solution to be engineered; rather, it is a change to be continually managed.”

Harvard University President  
Lawrence Bacow

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