

# Why I'm not surprised Nobel Laureate Donna Strickland isn't a full professor

October 5 2018, by Michelle Stack

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Donna Strickland, an associate professor at the University of Waterloo in Canada, was awarded the 2018 Nobel Prize in physics. The third

woman to have ever been awarded this prize in 117 years, she shares it with Arthur Ashkin and Gérard Mourou.

Strickland explained [that she's been treated as an equal by her male peers](#), which does bring a ray of hope in a rather bleak time for women. Her experience is also different than that of many.

Women make up 27 per cent of full professors in the academy as a whole, and in science, technology, engineering and math, that number is much lower. For [racialized and Indigenous women](#) in all fields, the numbers go down even further.

The rank of full professor offers more pay, more prestige and more opportunities to be selected for senior leadership roles within a university.

As Kirsty Duncan, Canada's minister of science, explained in an opinion piece last summer, [sexism was a problem for her and still is a problem for women in universities](#).

[A 2018 report](#) from the Canadian Association of University Teachers also concluded that, despite talk by universities and colleges of a commitment to inclusive institutions, progress on equity has been exceptionally slow.

## **The twins of sexism and racism**

The reasons why so few women get Nobel Prizes and achieve full professorship, and even fewer who are racialized or Indigenous do, are interconnected.

It's the twins of [sexism](#) and racism. As [political scientist Malinda Smith](#) shows, there are a number of factors —she calls them the "dirty dozen"

—that normalize gender and racial biases. This results in a tiny demographic (white, male) as the predictable winners in a rigged game.

Examples of the "dirty dozen" include white male students receiving more opportunities to network. Then there are [the reference letters](#). While female students might have better grades, it is more likely in letters of reference that their professors will talk about them as having potential or being hard workers, compared to white men who are cast as brilliant.

On top of that, workload concerns leave women less time for research. For example, women, particularly if racialized or Indigenous, are [more likely to get sessional work](#), with significantly lower pay scales, higher teaching loads and little time for research.

Finally, tenure-track women are less likely to get competitive research funding, and when they do, they [often earn less money than men](#).

To become a full professor, one needs to apply and be evaluated by committees repeatedly —first for a tenure-track position, then for tenure and promotion —usually with an impressive portfolio of research funding and peer-reviewed publications. This is a portfolio that requires extensive research time, collaborations and support to achieve.

Women scientists are victims of a systemic inequity that impacts us all.

## **A reward system biased towards men**

I have just completed a research project on the role of the Nobel Prize in university rankings and the impact on equity. The study found that influential university rankings judge institutions based on the number of articles published by faculty and staff in top-ranked journals.

It found that this reward system is biased towards men.

Men [are more likely to publish other men](#) in top-ranked health and [science](#) journals. The role of sexism in terms of who gets published and what gets published isn't considered when deciding who and what is ranked as world-class.

This can impact our health. For example, an abundance of studies demonstrate the bias against including women in health research, and [the harm to women's health when they are not included in all stages of research studies](#).

The majority of decision-makers who create or accept the metrics used to decide who and what is world-class are white and male—including ranking advisories, university leaders, top journal editors and adjudication committees for major awards. Sexism and racism are reinforced and normalized through these feedback loops.

This Boys Club impacts women when they go up for promotion at research-intensive universities, because how they are deemed worthy or unworthy is largely based on how many publications they have in top-ranked journals, awards and, depending on the field, the [research funding](#) that they bring in.

## **Science as the heroic man**

All the talk of equity over the last 30 years has really been a distraction from talking about how little progress has actually been made. Not because women, racialized and Indigenous scholars are less productive or doing less innovative work, but because of sexism and racism.

As education scholar Annette Henry reminds us, it's also important to understand how issues intersect—white women might get in but we still

need [to look at white privilege so racialized women have opportunities as well.](#)

Since 2003, 95 per cent of Nobel Prize winners with university appointments have been male. Yet the [Nobel Prize and Fields Medal in Math count for 30 per cent](#) of how the influential [ARWU Rankings](#) determine which universities are "world class."

By promoting and accepting this ranking as legitimate, universities reinforce a sexist and racist metric as the way to determine the quality of a university and what counts in the wider academic systems.

The Nobel as an indicator of world-class research maintains the illusion that science is conducted by the heroic man and —very, very rarely —a woman. Men are represented as toiling away to make great discoveries.

What is left out is the reality of science as a collaborative effort —with [women](#) most likely not receiving credit for their work. What is left out is that the Nobel is decided by a few men.

## **White men decide who is world-class**

In the case of the Nobel, [a few \(mainly Swedish and Norwegian\) white men](#) ultimately decide who is best in the fields of physics, medicine, chemistry, advocating for world peace and literature.

Incidentally, this year the Nobel Prize for literature was cancelled after the Swedish Academy announced it was investigating allegations of sexual misconduct and other improprieties by the husband of a key member of the committee that awards the literature prize.

The Nobel adjudication committees mirror society. Predominately [white men](#) decide on who and what is world-class, and based on these

decisions, who to invite into the club.

Once in a while someone who isn't part of the demographic gets in, but the status quo remains intact.

What Strickland achieved is impressive. But it isn't a sign that the patriarchy is being smashed.

*This is a corrected version of a story originally published Oct. 4, 2018. The earlier story said the Nobel Prize for literature was cancelled in 2018 because of allegations of rape against a former committee chair. The allegations were against the husband of a committee member, not a member of the committee.*

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