

# Flipping the Script to Support Wider Engagement with Physics

Discussing the profiles of physicists from minoritized groups with high school students keeps students from such groups engaged in physics beyond school.

By **Martin Rodriguez-Vega**

Physics-degree holders are not reflective of society, a problem perpetuated by cultural conceptions about who can study physics. Researchers have theorized that discussing underrepresentation in physics with high school students from minoritized groups could motivate them to pursue careers in physics. Previously, there was no quantitative evidence of this positive effect. That has now changed with Geoff Potvin at Florida International University and collaborators showing quantitatively that counternarrative lessons can increase the interest of those students in pursuing physics careers [1].

For their study, the researchers had teachers implement counternarrative lesson plans that were designed in collaboration with members of the **STEP UP project** to engage women students in physics classes. During the lessons, the students learned about career opportunities for physics bachelor's degree holders through the profiles of women and

people of color. The teachers and students also discussed women's underrepresentation in physics.

Analyzing the results of surveys conducted before and after the lessons, Potvin and his colleagues found that the lessons led students who identified as women, Black, or as coming from another minoritized group to express increased intention (about 8 additional points on a scale of 100) to pursue a physics-based career. Despite the encouraging results, the team says it is essential to conduct further research to understand the long-term impact of the counternarrative experiences. They think that counternarratives could be a crucial lever for helping students who might otherwise discount the subject see themselves as physicists.

Martin Rodriguez-Vega is an Associate Editor for *Physical Review Letters*.

## REFERENCES

1. G. Potvin *et al.*, "Examining the effect of counternarratives about physics on women's physics career intentions," *Phys. Rev. Phys. Educ. Res.* **19**, 010126 (2023).



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