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The Status of Women in Physics

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Outline

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Why Women and Girls Should Pursue Physics Education

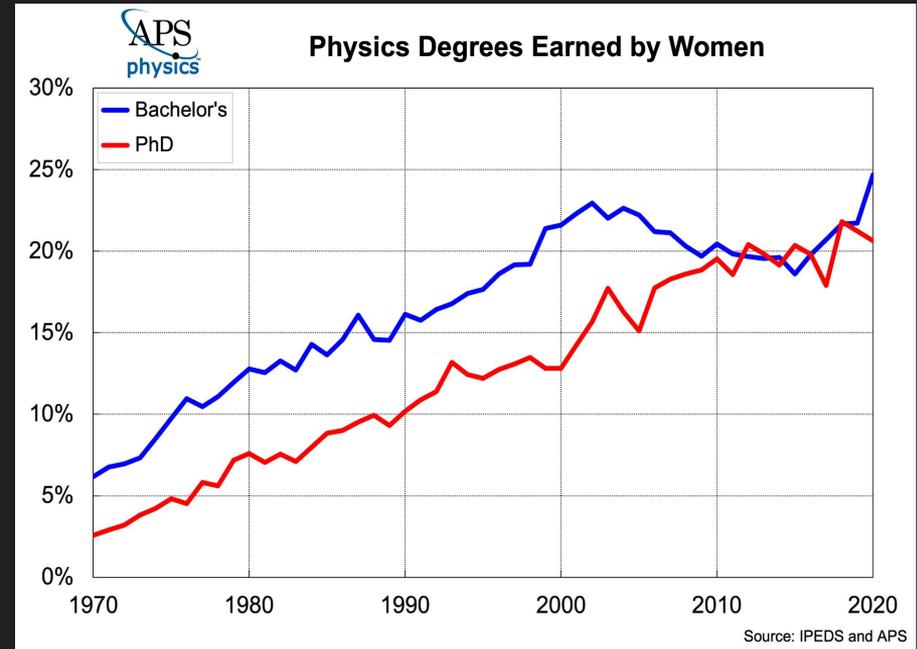
Physics is a fascinating subject that has contributed to many groundbreaking discoveries throughout history. However, despite its importance, there is a significant gender gap in the field, with women being underrepresented in physics education and careers.

It's crucial to encourage more women and girls to pursue physics education for several reasons. Firstly, it's essential to have diversity in any field, including physics. Bringing different perspectives and experiences to the table can lead to innovative solutions and breakthroughs. Secondly, physics offers many exciting career opportunities, from research to engineering to teaching. By pursuing physics education, women and girls can open up new doors and possibilities for themselves.

The Gender Gap in Physics Education

Despite progress made in recent years, there remains a significant gender gap in physics education. According to a study by the American Institute of Physics, women earn only 20% of bachelor's degrees in physics, and this number drops even further at the graduate level.

This is not just an issue of representation - addressing the gender gap in physics education is crucial for advancing scientific progress and innovation. By excluding half of the population from pursuing physics education, we are missing out on diverse perspectives and ideas that could lead to breakthrough discoveries.



Source (<https://www.aps.org/programs/women/resources/statistics.cfm>)

Barriers to Women and Girls in Physics Education

Despite significant progress, women in physics continue to face numerous barriers and challenges. Gender bias and discrimination are still prevalent in hiring, promotion, and funding decisions, which can limit opportunities for women physicists. Additionally, the lack of representation of women in physics can make it difficult for them to find mentors and role models who can provide guidance and support.

Furthermore, women physicists often struggle with work-life balance due to long hours and inflexible schedules, which can disproportionately affect women with caregiving responsibilities. These challenges can discourage women from pursuing careers in physics or cause them to leave the field prematurely.

Successful Women in Physics

Marie Curie was one of the most influential physicists of all time, and the first woman to win a Nobel Prize. Her pioneering work on radioactivity paved the way for numerous scientific discoveries and innovations. Her story is a powerful example of how women can make significant contributions to the field of physics, despite facing numerous obstacles and barriers.

Another inspiring figure is Vera Rubin, who made groundbreaking contributions to our understanding of dark matter. Despite facing gender discrimination throughout her career, she persevered and became a leading expert in her field. Her legacy continues to inspire young women to pursue physics education and push the boundaries of our knowledge.

Effective Strategies to Encourage Girls in Physics Education

One effective strategy to encourage girls in physics education is through mentorship programs. By pairing female students with successful women in the field of physics, young girls can gain valuable insights and guidance on how to navigate a career in this male-dominated field. Mentorship programs can also provide a sense of community and support, which can be especially helpful for girls who may feel isolated or discouraged in their pursuit of physics education.

Another strategy is through outreach initiatives that aim to engage and inspire young girls about the possibilities of physics education. This can include workshops, presentations, and interactive activities that showcase the fun and exciting aspects of physics. By making physics education more accessible and approachable, we can help break down some of the social and cultural barriers that prevent girls from pursuing this field.

Effective Strategies to Encourage Girls in Physics Education

Finally, creating an inclusive classroom environment is crucial for encouraging girls in physics education. This means providing equal opportunities and resources to all students, regardless of gender, and actively promoting diversity and inclusion in the classroom. Teachers can also work to challenge gender stereotypes and biases that may discourage girls from pursuing physics education.

Conclusion: The Future of Women and Girls in Physics Education

In conclusion, it is clear that encouraging women and girls to pursue physics education is crucial for the future of the field. By addressing the gender gap and breaking down social and cultural barriers, we can create a more diverse and inclusive community of physicists.

Not only does this benefit individual women and girls by providing them with opportunities and empowering them to pursue their passions, but it also benefits the field as a whole by bringing in fresh perspectives and new ideas. It is time to recognize the importance of women and girls in physics education and take action to support and encourage them.

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Thank you