

Gender norms and adolescents' educational and career aspirations and expectations: Evidence from a survey experiment in Ghana

Elisabetta Aurino¹ Chukwunonye Emenalo² Katherina Thomas¹

¹Universitat de Barcelona ²Lagos Business School, Universitat de Barcelona

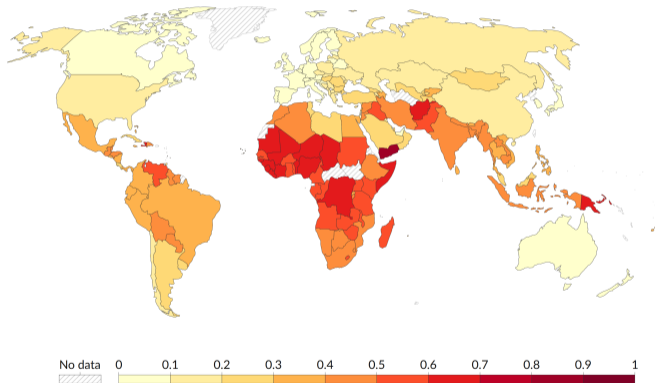
September 5, 2024

Advances with Field Experiments (AFE) conference

Gender Inequality Index, 2022

This index covers three dimensions: reproductive health, empowerment, and economic status. Scores are between 0-1 and higher values indicate higher inequalities.

Our World
in Data



Data source: UNDP, Human Development Report (2024)

OurWorldInData.org/economic-inequality-by-gender | CC BY

Gender norms, aspirations and economic outcomes

Gender norms

90% of people have at least one dimension of gender bias (Gender Social Norms Index, UNDP (2023))



Gender inequality in economic and life outcomes

Gender gaps are systematically larger in LMICs (Jayachandran, 2015)

Gender norms, aspirations and economic outcomes

Gender norms

90% of people have at least one dimension of gender bias (Gender Social Norms Index, UNDP (2023))



Gender inequality in economic and life outcomes

Gender gaps are systematically larger in LMICs (Jayachandran, 2015)

Pathways:

- For example: investment in girls, socio-emotional skills, labor market structures
- **Aspirations and expectations** influencing outcomes (Genicot and Ray, 2020)

This paper

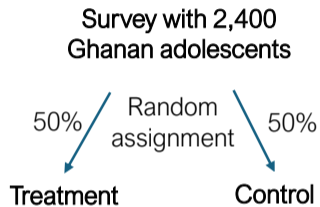
- ▶ **Survey experiment** on the effect of **priming gender norms** on adolescent's self-reported educational and career **aspirations** and **expectations**
- ▶ Sample: 2,400 adolescents (around age 13) in Ghana
- ▶ Method: **randomizing** the **order** of two **survey modules**:
 1. gender bias module
 2. educational and career aspirations and expectations module

→ Does **priming gender norms** affect adolescents' self-reported **aspirations** and **expectations**?

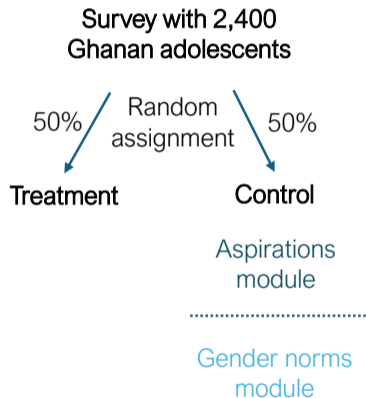
Study sample and their gender norms

- ▶ Sampled across 6 districts in Greater Accra region in Ghana
- ▶ 37% of caregivers have an education below junior high school
- ▶ Caregiver's gender bias:
 - 25% of caregivers agree education is more important for boys than for girls
- ▶ Adolescent's gender bias:
 - 31% believe school is more important for boys than girls
→ 13% of females, 49% of males
 - 33% agree believe boys are better leaders than girls
→ 15% of females, 51% of males

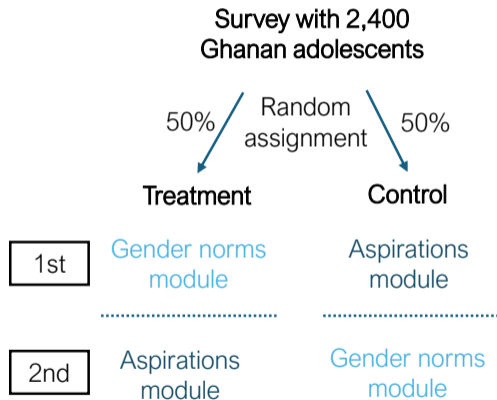
Experimental design



Experimental design

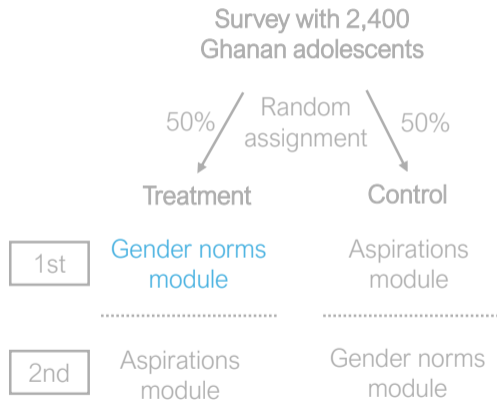


Experimental design



Balance

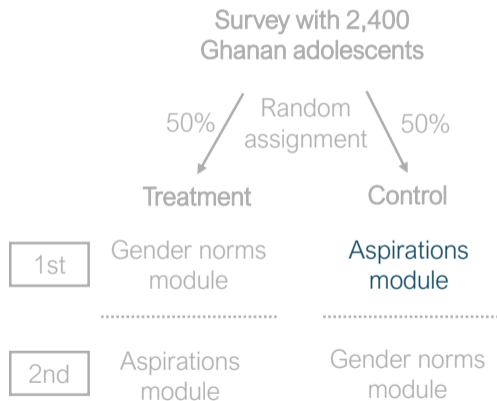
Experimental design



Gender norms module

- **Agreement** to the statements:
 - It is **more important for boys** than girls **to do well in school**.
 - **Boys** are **better leaders** than girls.
 - **Girls** should be more concerned with **becoming good wives and mothers** than desiring a professional or business career.

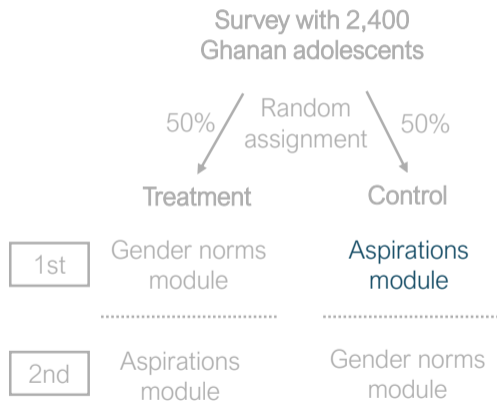
Experimental design



Aspirations module

- ▶ Aspirations:
 - Desired level of education
 - Desired job at age 25
- ▶ Expectations: does expect to reach that goal given current situation

Experimental design



Aspirations module

- ▶ Aspirations:
 - Desired level of education
 - Desired job at age 25
- ▶ Expectations: does expect to reach that goal given current situation

Treatment effect: Declared aspirations and expectations differ when gender norms are primed before module, hence more salient.

Aspirations and expectations of adolescents by gender in Ghana

	Female		Male		Difference	p-value
	N	Mean	N	Mean		
University aspiration	1,184	0.828	1,176	0.767	0.061	0.000***
Education expectation	1,137	0.945	1,148	0.943	0.002	0.827
STEM jobs	1181	0.489	1,139	0.365	0.124	0.000***
Female-dominated jobs	1,181	0.445	1,139	0.068	0.377	0.000***
Job expectation	1,164	0.958	1,132	0.975	-0.017	0.021**

Note: STEM job and female-dominated job are dummies for declaring a STEM or female-dominated desired job categorized by ONET/ILOSTAT classification.

→ **Girls** have **higher aspirations than boys** in education and STEM jobs, little difference in expectations

Main findings

1. **No effects of priming gender norms** overall on career or educational aspirations or expectations for girls and boys for:
 - University, STEM and female-dominated jobs aspirations
 - Education and career expectations

Main findings

1. **No effects of priming gender norms** overall on career or educational aspirations or expectations for girls and boys for:
 - University, STEM and female-dominated jobs aspirations
 - Education and career expectations
2. **Heterogeneous effects on education expectations** for girls by **caregiver's gender bias and education**:
 - ↓ 2% for girls of parents with education < junior high school, ↑ 4% for girls of parents with education \geq junior high school
 - ↓ 7% for girls with parents with gender bias, ↑ 4% parents with no gender bias

Potential reasons for null-effects on aspirations and expectations

- ▶ Priming is **not strong** enough to increase salience of **gender norms**
- ▶ **Gender norms** do **not influence aspirations** and **expectations** strongly, and therefore increased salience neither:
 - **Girls** seem to have **higher aspirations than boys**, little difference in expectations
 - **Own gender bias** is **weaker for girls**: 13% gender biased vs 49% of boys
- ▶ Adolescents react to gender norms **later in life** in this setting

Conclusion

- ▶ **Survey experiment** on the effect of **priming gender norms** on adolescent's self-reported educational and career **aspirations** and **expectations** in Ghana
- ▶ **Evidence of gender bias** in Ghana, but we do **not find evidence** that **priming** these norms in the context of a survey **changes** reporting of **aspirations** and **expectations**
- ▶ **Heterogeneous effects** on educational expectations for girls by **caregiver's education** and **gender bias**

Thank you!

If you have any further feedback, please feel free to contact me!

Email: `katherina.thomas@ub.edu`

Website: `www.thomaskatherina.com`

Twitter: `@thom_katherina`

Appendix

Sources I

- Alesina, A., Miano, A., and Stantcheva, S. (2023). Immigration and redistribution. *The Review of Economic Studies*, 90(1):1–39.
- Bernard, T., Dercon, S., Orkin, K., and Taffesse, A. S. (2014). The Future in Mind: Aspirations and Forward-Looking Behaviour in Rural Ethiopia. CSAE Working Paper Series 2014-16, Centre for the Study of African Economies, University of Oxford.
- Besley, T. (2016). Aspirations and the political economy of inequality. *Oxford Economic Papers*, 69(1):1–35.
- Brañas-Garza, P., Ciacci, R., and Ramírez, E. G. R. (2022). Anchors matter: Eliciting maternal expectations on educational outcomes. *Journal of Economic Psychology*, 90:102510.
- Carlana, M., La Ferrara, E., and Pinotti, P. (2022). Goals and gaps: Educational careers of immigrant children. *Econometrica*, 90(1):1–29.

Sources II

- Fryer, Roland G., J., Levitt, S. D., and List, J. A. (2008). Exploring the impact of financial incentives on stereotype threat: Evidence from a pilot study. *American Economic Review*, 98(2):370–75.
- Genicot, G. and Ray, D. (2020). Aspirations and economic behavior. *Annual Review of Economics*, 12(Volume 12, 2020):715–746.
- Goux, D., Gurgand, M., and Maurin, E. (2017). Adjusting your dreams? high school plans and dropout behaviour. *The Economic Journal*, 127(602):1025–1046.
- Günther, C., Ekinci, N. A., Schwieren, C., and Strobel, M. (2010). Women can't jump?—an experiment on competitive attitudes and stereotype threat. *Journal of Economic Behavior & Organization*, 75(3):395–401.
- Jayachandran, S. (2015). The roots of gender inequality in developing countries. *Annual Review of Economics*, 7(Volume 7, 2015):63–88.

Sources III

- Jayachandran, S. (2020). Social norms as a barrier to women's employment in developing countries. Working Paper 27449, National Bureau of Economic Research.
- LeBoeuf, R. A. and Estes, Z. (2004). "fortunately, i'm no einstein": Comparison relevance as a determinant of behavioral assimilation and contrast. *Social Cognition*, 22(6):607–636.
- Mukherjee, P. (2017). The effects of social identity on aspirations and learning outcomes: a field experiment in rural india. Working Paper S-35120-INC-7, International Growth Centre, London School of Economics.
- Spencer, S. J., Logel, C., and Davies, P. G. (2016). Stereotype threat. *Annual Review of Psychology*, 67:415–437. Epub 2015 Sep 10.
- Stantcheva, S. (2023). How to run surveys: A guide to creating your own identifying variation and revealing the invisible. *Annual Review of Economics*, 15(Volume 15, 2023):205–234.

Sources IV

- Tinghög, G., Ahmed, A., Barrafreem, K., Lind, T., Skagerlund, K., and Västfjäll, D. (2021). Gender differences in financial literacy: The role of stereotype threat. *Journal of Economic Behavior & Organization*, 192:405–416.
- UNDP (2023). 2023 gender social norms index (gsni): Breaking down gender biases: Shifting social norms towards gender equality.

Balance table

	Control		Treatment		Difference	p-value
	N	Mean	N	Mean		
Adolescent age	1,226	13.26	1,250	13.28	-0.03	0.59
Caregiver education	1,172	4.04	1,203	4.08	-0.04	0.65
Male adolescent	1,226	0.50	1,250	0.50	-0.00	0.84
Caregiver's gender bias	1,171	0.26	1,203	0.24	0.02	0.32
Wealth score	1,203	67.05	1,229	67.47	-0.42	0.55

Contribution to the literature

- ▶ Social norms, gender inequality and aspirations and expectations

Bernard et al. (2014), Jayachandran (2015), Besley (2016), Mukherjee (2017), Goux et al. (2017), Genicot and Ray (2020), Jayachandran (2020), Carlana et al. (2022)

- ▶ Stereotype threat/lift theory

Fryer et al. (2008), Günther et al. (2010), Spencer et al. (2016), Tinghög et al. (2021)

- ▶ Survey experiments and priming, anchoring and response order bias

LeBoeuf and Estes (2004), Brañas-Garza et al. (2022), Mukherjee (2017), Stantcheva (2023), Alesina et al. (2023)

→ We focus on effect of **gender stereotypes on aspirations** not test scores

→ We **test for response order bias** for aspirations and gender bias modules

→ We study these effects and aspirations of **adolescents** in a understudied **LMIC context**

Treatment effects for education aspirations and expectations

	University aspirations		Education expectations	
	(1) Girls	(2) Boys	(3) Girls	(4) Boys
Treated	-0.01 (0.02)	0.02 (0.02)	0.02 (0.01)	-0.00 (0.01)
Observations	1,184	1,176	1,137	1,148

Note: Robust standard errors in brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Treatment effects for career aspirations and expectations

	STEM jobs		Female-dominated jobs		Job expectations	
	(5) Girls	(6) Boys	(7) Girls	(8) Boys	(9) Girls	(10) Boys
Treated	0.02 (0.03)	-0.01 (0.03)	0.02 (0.03)	0.01 (0.01)	0.00 (0.01)	0.01 (0.01)
Observations	1,181	1,139	1,181	1,139	1,164	1,132

Note: Robust standard errors in brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Treatment effects by caregiver education

	University aspiration		Education expectation	
	(1)	(2)	(3)	(4)
	Girls	Boys	Girls	Boys
Treated	-0.02 (0.03)	-0.01 (0.03)	0.04** (0.02)	-0.01 (0.02)
Caregiver low education	-0.11*** (0.03)	-0.13*** (0.04)	0.03 (0.02)	-0.01 (0.02)
Treated x Caregiver low education	0.04 (0.05)	0.07 (0.05)	-0.06** (0.03)	0.02 (0.03)
Observations	1,162	1,153	1,116	1,127

Note: Robust standard errors in brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Caregivers with low education have no education or primary schooling.

Treatment effects by caregiver gender bias

	University aspiration		Education expectation	
	(1) Girls	(2) Boys	(3) Girls	(4) Boys
Treated	-0.03 (0.06)	-0.01 (0.05)	0.04** (0.03)	0.01 (0.02)
Caregiver's gender bias	0.05 (0.04)	0.08* (0.04)	0.05*** (0.02)	0.00 (0.02)
Treated x Caregiver's gender bias	0.04 (0.06)	0.03 (0.06)	-0.11*** (0.03)	-0.01 (0.03)
Observations	1,161	1,153	1,115	1,127

Note: Robust standard errors in brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.