

# Once women embrace STEM, there's no going back to the old culture of 'pink-collar' jobs



In 2020, the gender wage gap is essentially due to two main factors. First, occupational segregation, in particular the underrepresentation of women in maths and science in education and in the labour market, while these fields are important avenues of professional success and high earnings. Second, women's weaker attachment to paid work: interrupted careers, shorter working hours, and higher demand for time flexibility; traits which reflect different work-life compromises, where the presence of children plays an important role for women. Existing institutions and traditional gender roles sustain both factors, and form what we would call a **cultural equilibrium**. This equilibrium is sustained because individuals and households anticipate the situation of women in the labour market, and make early educational choices accordingly. However, different cultural equilibria may arise depending on local institutions.

In our paper, we look at what happens when two different cultures mix, namely the Western-style gender culture just described, which is prevalent in Israel, and the Soviet-style gender culture prevalent among immigrants from the former Soviet Union (FSU).

## Soviet-style gender culture

Socialist societies of Central and Eastern Europe were characterised by two important features, the legacy of which is still visible today:

- The utmost valorisation of science and engineering in education, research and the economy. This served the priority of the military-industrial sector, in the context of the competition with the Western capitalist world (arms, space race, and economic race).
- The strong female attachment to work, harnessed to the objective of rapid industrial growth, and sustained by a host of institutions that made full employment and maternity compatible (e.g. kindergartens).

These features have created a specific gender culture marked by strong work values of women, which, in turn, changed the general conception of gender roles. Previous studies have documented the persistence of this specific gender culture in former socialist countries, even after socialist institutions were long gone.

## How do gender cultures mix?

We study the natural experiment created by the massive, sudden, and unexpected inflow of Soviet immigrants in Israel after the fall of the Iron Curtain. Within 10 years, about 1 million immigrants flew from the former Soviet Union (FSU) into Israel, a country that counted 4.5 million people. This was triggered by the long-awaited freedom to emigrate from the “prison of the peoples”, the collapse of the socialist economic system, and the Israeli Law of Return.

In order to study the ensuing cultural mix, we follow an entire cohort of females born in 1988-1989, within which 15% were born in the former Soviet Union (and immigrated as babies), 4% in other countries, and the rest are Israeli natives. We follow them from middle school up to higher education and the labour market, using administrative educational data, the Israeli labour force survey and income survey.

We observe two types of cultural transmission of Soviet gender norms.

First, vertical inter-generational transmission from former Soviet Union parents to their daughters. We show that FSU young women:

- are over-represented in STEM study fields in secondary and tertiary education;
- avoid tertiary study fields leading to female-dominated “pink-collar occupations”, such as education and social work;
- exhibit stronger labour force attachment (longer working hours and higher earnings).

Second, horizontal diffusion from FSU immigrants to native Israeli girls. The higher their early exposure to FSU immigrants in middle school, the more likely are native Israeli women to choose STEM tertiary study fields and the less likely they are to choose pink-collar study fields.

### **After Eve eats the apple: stereotype threats do not revive**

These influences have unequal strength. Native girls are all the more influenced by the Soviet-style gender script as the proportion of FSU immigrants in their school increases, but the reverse is not true. FSU immigrant girls are not influenced by the composition of their school: no matter whether their ethnic group represents 5% or 50% or all pupils, they will systematically avoid pink-collar study fields, i.e. education and social work.

We interpret this asymmetry as a sign of irreversibility in the evolution of gender norms: once the stereotype threat that prevented women from choosing STEM has been lifted, there is no going back to traditional beliefs and preferences.

This suggests that gender cultures that favour female's ambition will spread. Like Eve having eaten the apple, there is no return to a state of ignorance that math and STEM, or any avenue of success, are open to women.



#### *Notes:*

- *This blog post is based on [From Pink-Collar to Lab Coat: Cultural Persistence and Diffusion of Socialist Gender Norms](#), presented at the European Economic Association's Annual Congress, August 2020.*
- *The post expresses the views of its author(s), not the position of LSE Business Review or the London School of Economics.*
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