

Quentin Lippmann and Claudia Senik The Impact of the Socialist Episode on Gender Norms in Germany



Quentin Lippmann
Aix-Marseille
School of Economics.



Claudia Senik
Sorbonne University,
Paris School of Economics,
IZA.

One of the striking features of the Soviet societies – for citizens of the Western world who have known them – was the highly visible implication of women in the labor market. Women were everywhere, in every firm and every occupation, even in sectors which are usually reserved for men, such as the construction sector. They performed physically strenuous tasks, such as clearing the snow from the porch of houses, or mending electric wires in the street, not to mention the hive of female activity one could find in the buildings of government institutions, such as Goskomstat (the Soviet statistical office), where you had to reach the highest floors to meet the ruling men. This unusual feature was the product of the full-time employment norm and policy enacted by socialist governments in view of their ambition to catch up with the capitalist world, and the route they took to this goal, which entailed mobilizing all available resources in the framework of an extensive growth strategy. Female labor market participation was also part of the egalitarian objectives of these regimes, where gender equality was one of the initial claims of the revolutionary leaders (Kranz 2005).

This specificity of the socialist regimes in Eastern Europe is likely to have influenced gender behavior and stereotypes. Expecting to work full-time and during their entire life (and have children), it is likely that Eastern European women invested more in education and in paid work than young Western European women, who were deemed to participate in the labor market in a more intermittent way, if they did at all. It is also likely that eastern women's role within the household was based on different grounds than those of asymmetric single-breadwinner couples. Actually, in the case of the German Democratic Republic (GDR) for instance, women's education, paid work, motherhood, and family responsibilities were all part of a deliberate policy aimed at ensuring the compatibility of these different spheres of life.

How much of this specific pattern has subsisted after the fall of the Berlin Wall and the withering away of socialist institutions? Economists call "culture" the permanence of representations, mentalities, expectations, habits and norms that persist beyond the origins that caused them in the first place. Such cultural habits are transmitted over time, from generation to generation, by families, schools, and other socialization instances.

Assuming that a more gender equal culture has prevailed in socialist countries than what existed in the capitalist world at the same period, it is interesting to assess how much of this culture has persisted to date. In order to answer this question, it is not sufficient to compare the current situation of the socialist bloc to that of the former capitalist bloc. This is because many other national features and events may distinguish different countries, so that it is difficult to attribute a national feature to the past political regime of a country, rather than to any other potential factor. However, there is one particular episode that researchers can study as an almost perfect "natural experiment" to assess the impact and legacy of the socialist regime: the German division (in 1949) and reunification (in 1990).

We will thus focus on this German experience to show how institutions can durably modify culture, and more specifically, gender norms, in four major domains: female labor market participation, within-household relationships, education, and general values. In each of these four aspects of life, gender stereotypes still differ across the former Iron Curtain.

BEFORE THE DIVISION

In order to argue convincingly that the socialist episode has durably modified gender roles, it is necessary to show that there was no specific difference between the Länder of the future GDR versus the Federal Republic of Germany (FRG).

First, it is important to recall that the division of Germany into five (GDR) and 11 (FRG) Länder in 1949 was drawn up by a postwar agreement between the Allies on the basis of the zones occupied by the Soviet Union and Western countries and without any connection to potential pre-existing differences between the two regions.

Next, several studies have shown that before the division, no specific structural differences were noticeable across the regions that would later become the GDR and FRG. For instance, Lippmann et al. (2019) showed that in 1933, the employment structure was similar in the two regions. Naturally, there were some differences. For instance, about 45 percent of East Germans worked in industry compared with 40 percent in the West; the female share of employment was 2.8 percentage points higher in the East, and the birth rate (per thousand) 1.95 points higher in the West (see Table 1 in Lippmann et al. 2019). However, the dissimilarities between the two groups of Länder (East versus West) is statistically similar to what would emerge from any random partition of Germany (excluding Berlin) into two groups of respectively 15 and 5 regions. Beblo and Gorges (2018) have also documented the similarity of eastern and western regions before the German division, based on historical data.

THE DIVERGENCE OF EAST VERSUS WEST GERMANY DURING THE DIVISION

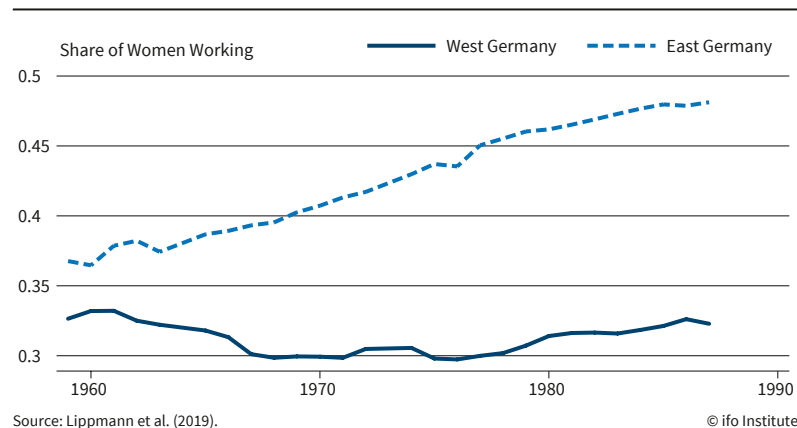
Starting from a similar situation, East and West Germany adopted totally different institutions during the division, which had important consequences in terms of gender roles.

In East Germany, where the constitution ensured full equality between men and women, the socialist party's women's policy was characterized by three objectives: (1) legal equality between men and women, (2) promotion of female work, and (3) special protection of mothers and children (Kranz 2005). The party's policy toward women progressed along three stages. The first phase, from 1946 until the mid-sixties, was shaped by the integration of women into the workforce. Work-family balance programs, kindergarten, and other childcare facilities were put in place after 1949. The Mother and Child Care and Women's Rights Acts, adopted in 1950, aimed at "[establishing] a range of social services in support of full female employment, including a network of public childcare centers, kindergartens, and facilities for free school meals," as well as paid maternity leave. The second phase, from the mid-sixties until 1971, comprised further education, qualified job training, and the introduction of women into male professions. For instance, special classes and university studies were established to enable women to pursue further education while being employed full-time and raising children. The third phase began in 1971: additional policies expanded childcare facilities and extended paid maternity leave to 18 weeks. A final set of reforms improved childcare facilities, extended parental leave to 20 weeks, and allowed fathers as well as grandmothers to take this leave. In summary, these policies were targeted at making participation in the labor force compatible with maternity.

In the meantime, the FRG's policies strengthened the traditional family model. Irregular school schedules and scarce childcare facilities inhibited female employment. The tax system favored single earner families as non-employed spouses and children could obtain public health insurance at no extra cost. Until 1977, the Marriage and Family law stated that: "*The wife is responsible for running the household. She has the right to be employed as far as this is compatible with her marriage and family duties*". Subsequent policies then alternated more or less conservative incentives for female participation in the labor market (see Schaffer 1987; Cooke 2007; Rosenfeld et al. 2004; Bauernschuster and Rainer 2012; Beblo and Gorges 2018; Campa and Serafinelli 2019).

Figure 1

Evolution of the Share of Women Working



As a result of these very different policies, the female labor market participation rate started to diverge after the division. Figure 1 illustrates how, starting from approximately the same level, the trends of women's share in total employment diverged between 1959 and 1987.

THE SOCIALIST LEGACY AFTER REUNIFICATION

After reunification, the government of the former Federal Republic of Germany took over East Germany and rapidly dissolved its institutions and structures, absorbing them into those of West Germany, which remained unchanged. Yet, persisting differences between the two regions are still observable 15 years later in the four aforementioned domains: labor market participation, household behavior, education, and values.

Labor Market Participation

It is remarkable that ten years after reunification, in 2000, labor force participation was still approximately the same for men and women in the regions of the former GDR (around 80 percent), whereas the gender gap remained wide in western Germany, with 65 percent of women in the labor force compared with 81 percent of men (Schenk 2003). In 2000, workers in eastern Germany generally worked longer hours than those in western Germany (probably a legacy of the different labor laws that prevailed during the division), but the gender gap was smaller as concerns working hours: 35 hours for women and 42 hours for men in the former GDR compared with respectively 29 and 40 hours in the former FRG. Finally, it is of interest to look at part-time employment, which is mostly the lot of women: in western Germany, part-time workers most often worked less than 20 hours and were not eligible for the same social benefits as full-time workers. In eastern Germany, part-time workers had longer hours, received identical social benefits and used these contracts primarily as a transition to retirement.

Because these differences could be due to some unobservable regional differences, such as the different equipment in kindergartens along an east-west axis, it is of interest to zoom in on smaller areas around the former East-West border, where people live in similar local conditions. Lippmann et al. (2019) used a survey that was run on a large sample of Berliners in 2011.¹ It turns out that, as of 2011, the proportion of working women is about 12 percentage points higher, i.e., approximately one third higher, among women who used to live in the East before 1990 as compared to women who used to live in the West. Here again, within Berlin, childcare facilities and other local amenities are identically accessible to every household, so that the women's higher attachment to work can be attributed to their "East German" culture, rather than to the network of kindergartens or other local amenities.

Household Behavior

One of the most striking consequences of the greater involvement of eastern German women in the labor market is the more gender-equal distribution of earnings within couples. Figure 2 (taken from Lippmann et al. 2019) depicts the entire distribution of female relative income in dual-earner married couples aged 18–65. In the sample of western German couples, the mode is the point where the wife earns about 20 percent of the total family earnings. By contrast, in the eastern German sample, the distribution is much more symmetric, with the mode around equal earnings (see also Cooke 2007; Sprengholz et al. 2019).

Does the greater equality in the distribution of earnings abolish the so-called male breadwinner norm? As already evoked, the division of tasks within households often becomes self-sustained through gender norms and identity (Akerlof and Kranton 2000).

¹ UK Data Service, <https://beta.ukdataservice.ac.uk/datacatalogue/studies/study?id=8267#1/details>

Going one step further in the reasoning, sociologists such as West and Zimmerman (1987) and Hoshchild (1989) coined the term "doing gender" to describe couples' behavior aimed at preserving gender identity. The idea is that when women transgress the male breadwinner norm by earning more than their husband, they compensate this breach of identity by spending more time on traditional female tasks, such as housework. This "gender display" behavior has been documented by several studies in the case of American and Australian couples (Atkinson and Boles 1984; Brines 1994; Greenstein 2000; Bittman et al. 2003; Schneider 2011; Bertrand et al. 2015). Hence, as put by Bittman and her co-authors, "gender trumps money". Could it be that socialist institutions have "undone gender"?

First, it is true that men participate more in housework in eastern Germany, although eastern German women still take on a greater share of housework (Cooke 2004, 2007; Kunzler et al. 2001). Moreover, it is of interest to look at the relationship between earnings and housework in the Länder of eastern and western Germany.

Lippmann et al. (2019) study this relationship. In a nutshell, they show that the male breadwinner norm is prevalent in western Germany but has disappeared in the east of the country. Regarding housework, western German women decrease their number of housework hours as their relative earnings rise, until they reach the vicinity of equal earning. Beyond that point, their number of housework hours stops decreasing. By contrast, there is no evidence of "doing gender" in eastern Germany. Eastern German women monotonically reduce the time they devote to housework as their relative contribution to household finances increases.

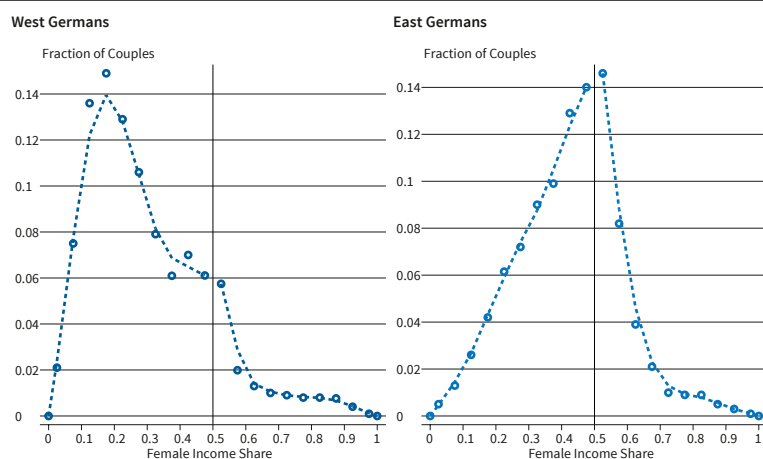
Another sign of the male breadwinner norm can be found in marriage stability. Where gender norms are compelling, transgressing them could put one's marriage at risk. Brines and Joyner (1999) and Cooke (2006) have documented this risk. To investigate, Lippmann et al. (2019) looked at the association between women's relative income and marital instability.

It turns out that, among western German couples, when a wife starts earning more than her husband the risk of divorce in the next five years does indeed increase by about 3 percentage points. But nothing of this kind happens for eastern German couples.

Bertrand et al. (2015) have even shown that in order to abide by the male breadwinner model, American women avoid earning more than their husband. This drives some of them, when their earning capacity is greater than that of their hus-

Figure 2

Female Income Share Within Couples



Source: Lippmann et al. (2019).

© ifo Institute

band, to simply withdraw from the labor market. Lippmann et al. (2019) find that this traditional behavior is also adopted by some western German couples, but not by eastern ones.

Hence, it seems that in eastern Germany the socialist episode has undone the male breadwinner norm and its consequences. By contrast, since reunification, the norm of higher male income, and its consequences, are still prevalent in western Germany

Education and the Gender Gap in Math

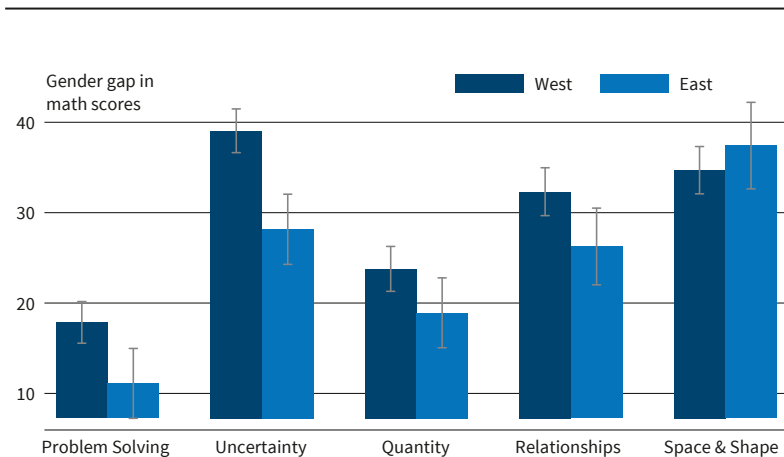
Another traditionally important domain of gender asymmetry is education. However, it is well established that women, starting from a lower level of education than men, have almost universally increased their level of education and have now reached a point where, on average, they spend more years in school and earn higher diplomas than men (Goldin et al. 2006; Goldin 2014; Kane and Mertz 2012; Autor and Wasserman 2013; Fortin et al. 2015). Nonetheless, it is also a general remark that women stay away from the fields of math and science (STEM), although they have now conquered most of the avenues to professional success, such as business, medicine, law, and biology, not to mention their traditional and intact advantage in reading and literature. They stagger at the door of math-based curricula and occupations, especially at top levels (Ceci et al. 2014; Blau and Kahn 2017). This has important consequences, as math skills are associated with higher individual earnings (Altonji 1995; Altonji et al. 2012; Blau and Kahn 2017) and faster GDP growth (Kimko and Hanushek 2000).

This educational behavior of women has been rationalized as the logic consequence of expecting a bleaker professional future. It has also been attributed to a gender stereotype carrying the idea that boys are “naturally” more skilled in math and science. De facto, several studies have shown that in countries where socio-economic gender inequality is higher, so is the size of the gender gap in math and science (Guiso et al. 2008; Nollenberger et al. 2014; Pope and Sydnor 2010; Hyde and Mertz 2009; Kane and Mertz 2012; Ellison and Swanson 2010).

Following this reasoning, the socialist episode should have altered such gender stereotypes in eastern Germany. This is not only because of the greater involvement of women in the labor market, but also because of the greater encouragement offered to girls by the education system itself (Trappe 1996; Campa and Serafinelli 2019).

Figure 3

Gender Gap in PISA-E Math Scores (2003)



Source: Lippmann and Senik (2018).

© ifo Institute

The general gender gap in education has actually been shown to be smaller in former socialist countries as opposed to other OECD countries (Schnepf 2007; Amini and Commander 2012). As for Germany, Lippmann and Senik (2018) show that in eastern Germany, women’s educational attitudes differ from that of their western counterparts. The stereotypical threat that keeps them away from STEM has been durably attenuated in eastern Länder in contrast with western ones. This is illustrated by the scores obtained by 15-year-old German pupils in the math exercises proposed by the OECD Program for International Student Assessment (PISA-E 2003).

The underperformance of girls in math is still sharply attenuated in the regions of the former GDR in contrast with those of the former FRG. On average, the scores of eastern German pupils do not differ from western ones (Figure 3). Girls’ scores are lower than boys’ by 18 points (Problem Solving) to 39 points (Uncertainty), where the average score is about 500. However, the gender gap is reduced in eastern Germany by five points (Quantity) to eleven points (Uncertainty). The only exception is the Space and Shape category. In general, the gender gap in math is thus reduced in eastern Germany as compared to western Germany by about one tenth to one third, depending on the subjects. This is quite impressive, as this effect is measured at least ten years after the dissolution of the GDR.

In addition to tests, PISA also contains a student questionnaire. In general, the latter reveals that girls express a lower appetite for math, lower self-confidence, more stress, and less pleasure in the practice of math. But again, in eastern Germany the subjective gender gap in self-confidence in math is reduced by about one tenth to one third.

One of the main channels through which gender stereotypes are thought to influence girls’ attitude to math is that they “shy away from competition” (Nied-

erle and Vesterlund 2007; Croson and Gneezy 2009). It turns out that part of PISA’s student questionnaire addresses this notion of competitive spirit. Again, although girls generally express less competitive views, girls from Eastern Germany are much more competitively minded than girls from western Germany. Figure 4 plots, for each level of average math score, the gender gap in competitive attitudes. The gender gap in competitive spirit is generally greater in western Germany than in eastern Germany. But the difference between eastern and western Germany is particularly important at intermediate levels of performance. This suggests that the greater the uncertainty about their skills, the more girls underestimate themselves and shy away from competition. Indeed, at very low levels of math skills, it is likely that boys and girls have a precise notion of their (low) performance. The same reasoning goes for very high levels of performance. It is in between the two extremes that there is room for under/over-confidence, and this is where the gender gap in self-concept takes place.

Diverging Preferences

If the legacy of the more socialist gender-equal culture is cultural, it means that it is transmitted through values. Here, illustrations of the East-West divide are abundant.

Concerning the gendered division of labor, i.e., the allocation of time between paid work versus housework, both women and men in the former GDR express less support for the traditional male breadwinner family than their counterparts from the West (Breen and Cooke 2005). Preferences for gender roles are more egalitarian in eastern Germany and there does not seem to be a convergence over time between the two regions (Bauernschuster and Rainer 2012). On the contrary, there seems to be a persistence of the “gap in the gap”, i.e., a smaller gender gap in work-related attitudes in eastern Germany, as opposed to the west of the country. Attachment to work has remained higher

for eastern German women, as measured by the importance they declare to assign to work and their career, high income, and promotion opportunities (Beblo and Georges 2018; Campa and Serafinelli 2019; Lippmann et al. 2019). Questions related to motherhood and marriage also illustrate the more traditional views of western Germans in these dimensions (Bauernschuster and Rainer 2012).

In conclusion, citizens of eastern Germany seem to exhibit a certain “stubbornness” (Eigensinn) in retaining the “the German Democratic Republic standard biography” (Breen and Cooke 2005).

**CONCLUSIONS:
HOW GENERAL IS THE GERMAN CASE?**

Paid work and housework are two major elements of time use that are part of intra-household bargaining and are strongly influenced by gender stereotypes. The asymmetry in the financial contributions of spouses that derives from the traditional specialization of spouses into paid work versus housework has been pointed out as a source of male ruling, not only by feminists scholars, but also in the framework of household economic models à la Chiappori, where the male’s earning capacity plays the role of an outside option that grants him bargaining power. It so happens that the socialist institutions that prevailed in East Germany have partly reduced this power imbalance. The legacy of these changes is still visible more than 15 years after the reunification of Germany, in the education, work, and values of eastern versus western Germans.

Is the legacy of the socialist system the same in other central and Eastern European countries? Some evidence seems to testify to the affirmative, but new observations also suggest that a setback has taken place in several of these countries.

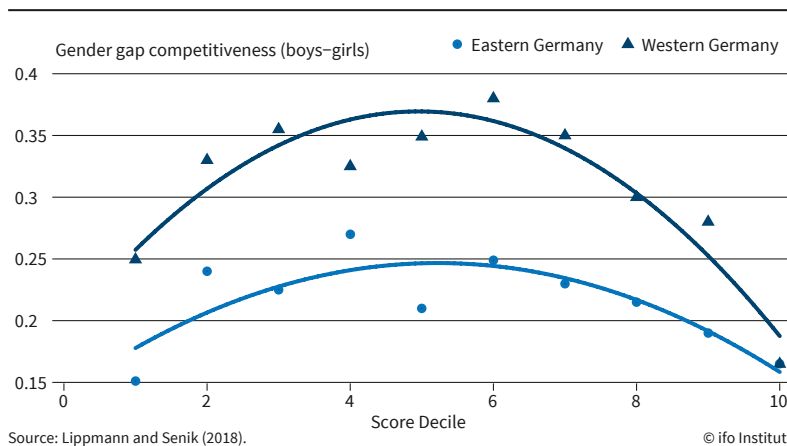
Concerning self-reported attachment to work and beliefs about gender roles and motherhood, Campa and Serafinelli (2019) have shown that the smaller gender gap in values is a hallmark of socialist states. Looking

at different generations of migrants from Europe to the United States, they showed that gender role attitudes formed in Eastern Europe are less traditional than those formed in the west. In particular, concerning the idea that “it is much better for everyone involved if the man is the achiever outside the home and the woman takes care of the home and family.”

Concerning education, the system was deliberately more gender-equal during the socialist episode. For

Figure 4

Math Grades and Competitiveness in Math



example, the share of women in higher education was greater in Central and Eastern Europe than in the Western Europe (Campa and Serafinelli 2019). Looking at PISA for instance, it is noticeable that within the sample of European countries participating in PISA from 2000 until 2012, girls from formerly socialist countries closed more than half of the gender gap in math scores (Lippmann and Senik 2018).

Hence, from ten to twenty years after the dissolution of the GDR, one can still observe the legacy of the socialist episode on girls' self-concept and performance in math and math-related domains.

However, there also seems to be a backlash to more traditional behavior and policies in certain Eastern European countries. Mullerova (2017) for instance, showed that in the Czech Republic, mothers tend to prefer staying at home after their paid leave rather than going back to their guaranteed job under generous dispositions. It is an avenue for future research to investigate the reasons for this return to traditional gender models. Is it driven by the strength of religion, by the rejection of policies that were viewed as imposed by the Soviet Union, or by some other reasons?

REFERENCES

- Akerlof, G. A. and R. E. Kranton (2000), "Economics and Identity", *Quarterly Journal of Economics* 115, 715–53.
- Akerlof, G. A. and R. E. Kranton (2010), *Identity Economics: How Our Identities Affect Our Work, Wages, and Well-being*, Princeton University Press, Princeton USA.
- Bauernschuster S. and H. Rainer (2012), "Political Regimes and the Family: How Sex-Role Attitudes Continue to Differ in Reunified Germany", *Journal of Population Economics* 25, 5–27.
- Beblo, M. and L. Gorges (2018), "On the Nature of Nurture. The Malleability of Gender Differences in Work Preferences", *Journal of Economic Behavior and Organization* 151, 19–41.
- Becker G., W. Hubbard, and K. Murphy (2010), "The Market for College Graduates and the Worldwide Boom in Higher Education of Women", *American Economic Review* 100 (2), 229–33.
- Bertrand, M., E. Kamenica, and J. Pan (2015), "Gender Identity and Relative Income within Households", *Quarterly Journal of Economics* 130 (2), 571–614.
- Blau F. and L. Kahn (2015), "The Gender Wage Gap: Extent, Trends, and Sources", *Journal of Economic Literature* 55 (3), 789–865.
- Brines, J. (1994), "Economic Dependency, Gender, and the Division of Labor at Home", *American Journal of Sociology* 100 (3), 652–88.
- Brines, J. and K. Joyner (1999), "The ties that bind: Principles of Cohesion in Cohabitation and Marriage", *American Sociological Review* 64, 333–55.
- Campa P. and M. Serafinelli (2019), "Politico-Economic Regimes and Attitudes: Female Workers under State-Socialism", *The Review of Economics and Statistics* 101 (2), 233–48.
- Ellison G. and A. Swanson (2010), "The Gender Gap in Secondary School Mathematics at High Achievement Levels: Evidence from the American Mathematics Competitions", *Journal of Economic Perspectives* 24, 109–28.
- Fortin N., P. Oreopoulos, and S. Phipps (2015), "Leaving Boys Behind. Gender Disparities in High Academic Achievement", *Journal of Human Resources* 50 (3), 549–579.
- Gneezy U., M. Niederle, and A. Rustichini (2003), "Performance in Competitive Environments: Gender Differences", *Quarterly Journal of Economics* 118 (3), 1049–74.
- Goldin C. (2014), "A Grand Convergence: Its Last Chapter?" *American Economic Review* 104 (4), 1091–1119.
- Guiso L., F. Monte, P. Sapienza, L. and Zingales (2008), "Education Forum: Culture, Gender, and Math", *Science* 320, 1164–65.
- Hanushek, E. and D. Kimko (2000), "Schooling, Labor-Force Quality and the Growth of Nations", *American Economic Review* 90(5), 1184–1208.
- Lippmann, Q. and C. Senik (2018), "Math, Girls and Socialism", *Journal of Comparative Economics* 46 (3), 874–88.
- Lippmann, Q., A. Georgieff, and C. Senik (2019), "Undoing Gender with Institutions: Lessons from the German Division and Reunification", IZA discussion papers no. 12212.
- Mullerova A. (2017), "Family Policy and Maternal Employment in the Czech Transition: A Natural Experiment", *Journal of Population Economics* 30, 1185.
- Niederle M. and L. Vesterlund (2010), "Explaining the Gender Gap in Math. Test Scores: the Role of Competition", *Journal of Economic Perspectives* 24 (3), 129–44.
- Nollenberger N., N. Rodríguez-Planas, and Sevilla A. (2014), "The Math Gender Gap: The Role of Culture", *American Economic Review* 106 (5), 257–61.
- Pope D. and J. Sydnor (2010), "Geographic Variation in the Gender Differences in Test Scores", *Journal of Economic Perspectives* 24 (2), 95–108.
- Richter T. (2014), *Stéréotypes, Représentations et Identités en RDA et en RFA. Thèse de Doctorat*, Université de Strasbourg.
- Rosenfeld, R. A., H. Trappe, and J. C. Gornick (2004), "Gender and Work in Germany: Before and After Reunification", *Annual Review of Sociology*, 103–124.
- Schenk, S. (2003), "Employment Opportunities and Labour market Exclusion: Towards a New Pattern of Gender Stratification", in H. M. Nickel and E. Kolinsky, eds, *Reinventing Gender: Women in Eastern Germany Since Unification*, 53–77, Psychology Press.
- Schnepf, S.V. (2007), *Women in Central and Eastern Europe. Measuring Gender Inequality Differently*, VDM, Saarbruecken.
- Sprengholz M., A. Wieber, E. and Holst, (2019), "Gender Identity and Wives' Labor Market Outcomes in West and East Germany between 1984 and 2016", SOEPpapers on Multidisciplinary Panel Data Research 1030, DIW Berlin.
- Trappe, H. (1996), "Work and Family in Women's Lives in the German Democratic Republic", *Work and Occupations* 23 (4), 354–77.
- Wolchik, S. L. (1981), "Ideology and Equality: The Status of Women in Eastern and Western Europe", *Comparative Political Studies* 13 (4), 445–76.