



Women in the Boardroom and Cultural Beliefs about Gender Roles

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In our [study](#), we ask whether cultural beliefs about gender roles can help explain variation in the representation (or lack thereof) of women in corporate leadership roles. Female corporate leadership varies a good deal across firms, both internationally, and in the U.S. As examples, during the period 2000-2016, in an international sample of 42 countries, on average 9.2% of corporate board members are female (excluding country-years that require female board membership), while the 25th and 75th percentiles are 0% and 17%. Similar effects exist within the U.S, where on average 10.2% of corporate board members are female, and the 25th and 75th percentiles are 0% and 16.7%. In this paper, we ask whether some of this variation can be explained by regional differences in cultural beliefs towards the role of women in society.

We measure cultural beliefs about gender roles using two country-level surveys conducted by the University of Michigan (The World Values Survey) and Hofstede (1980). We create a comprehensive country-level gender-egalitarian index that is based on the standardized values of the two surveys, and test whether it explains variation in female corporate leadership.

We perform our analyses both across countries and across U.S. counties. U.S. census data allows us to estimate cultural differences at the county-level. In the Census, respondents can self-report their ancestry. We use this information to link U.S. Census respondents to their country (or countries) of origin. We then assign country-level gender-attitude variables to each respondent, and average the corresponding variables across respondents within each county.

Our results can be summarized as follows. We find that gender-beliefs have a significant impact on female board representation. In our global sample of firms, we find that women are more likely to serve on corporate boards in more gender-egalitarian countries. The results are both statistically and economically significant. As an example, on average in the three most gender-egalitarian countries, 20% of board members are female, whereas in the three least gender-egalitarian countries only 6% of board members are female.

American firms headquartered in counties with greater proportions of people that emigrated from more gender-egalitarian countries have greater female board representation. A one standard

deviation increase in our county-level gender-egalitarian index is associated with a 0.017 increase in the percentage of female directors, e.g., from 10% to 11.7%, which is an economically meaningful effect. Moreover, women are more likely to chair a board committee, and to serve on one of the more important board committees (e.g., audit, executive hiring) in firms located in more gender-egalitarian counties.

We then broaden our analyses, and explore whether regional culture has an effect on women obtaining executive positions. In our U.S. sample, only 5.6% of executives (defined as one of the top 5 executives by Execucomp) are female. Yet we find that local culture significantly increases the likelihood that executive roles are filled by women. A one standard deviation increase in our gender-egalitarian index is associated with an increase in female executives of 0.6%, i.e., from 5% to 5.6%. The effect increases by another 0.5% if we include the effects of the cultural ancestry of the firms' board members, who can have a central role in choosing the firm's executives.

Guiso, Sapienza, and Zingales (2006) point out that in order to identify the effect of culture on an economic outcome, the aspect of culture being studied must be inherited from earlier generations and largely invariant over an individual's lifetime. Consistent with this requirement, Alesina, Giuliano, and Nunn (2013) find that attitudes towards gender roles have historical roots and have persisted through many generations. Alesina et al. find that gender attitudes can in part be explained by the pre-industrial use of the plough in farming. Pre-industrial ploughs were very heavy, so in regions where the plough was used for farming there was greater division of labor between genders. For robustness, we replicate several of our main findings using Alesina et al.'s plough variables, and continue to find the same results.

Another concern could be that gender attitudes do not survive immigration strongly enough to explain our findings. To address this issue, we use the state-level sexism index developed in Charles, Guryan, and Pan (2018). Their state-level sexism index is created using data from the General Social Survey (GSS), which surveys current U.S residents about their views on gender roles and women's place in society. Using the index of Charles et al., we continue to find that more egalitarian gender attitudes are associated with more women in corporate leadership roles. It has also been documented in several studies that attitudes in southern states are less gender-egalitarian (see Rice and Coates (1995) and Dinoa (2002)). Consistent with this view, our gender-egalitarian index has lower values in southern states, and we find that there is less female corporate leadership in southern states.

We finish our study by asking whether the gender-attitudes surveys that we employ are also associated with differences in labor market participation, as well as differences in the gender pay gap and female participation in STEM (Science, Technology, Engineering, and Math) occupations. We find that more gender-egalitarian countries have greater female labor force participation, and that the gender pay gap is smaller in more gender-egalitarian countries. As examples, in the three most gender-egalitarian countries, women account for 47% of the workforce, and the gender pay gap is \$0.86 per \$1, i.e., women make \$0.86 for every dollar that men make. In the three least gender-egalitarian countries, women account for 42% of the workforce, and the gender pay gap is \$0.70 per \$1.

In the U.S, we find that counties with populations that emigrated from more gender-egalitarian countries have greater female labor market participation, greater female participation in STEM

jobs, but not smaller gender pay gaps. Our U.S. census data allow us to construct female labor market participation rates and gender pay gaps while adjusting for differences in occupations across counties (e.g., some counties have more construction jobs, others more retail). As an example, we can measure gender differences in employment and pay for managers in the hospitality industry in Polk County, Iowa, and ask whether it is higher or lower than the national averages for managers in the hospitality industry. Using this method, we do not find that the pay gap is smaller in more gender-egalitarian counties, although we do find greater overall female labor participation and greater female participation in STEM jobs.

The complete paper is available [here](#).