

# On the Foundations of Board Gender Diversity

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## Abstract

Women are underrepresented on corporate boards. By employing the large variation in socioeconomic development across provinces in China, we show that societal gender attitudes, rather than supply related factors, are obstacles to boardrooms. Boards tend to be more gender-diverse in a province (1) where there is a smaller gender gap in students' enrolment into the top-ranked STEM university, (2) where there is a stronger belief that women and men have equal innate abilities, equal opportunities in employment and career development, and equal housework loads; and (3) where there are female political leaders in the local government.

Keywords: gender diversity, attitudes, stereotypes, prejudice

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## 1. Introduction

Cross-nationally, women are underrepresented on corporate boards (Adams & Kirchmaier, 2015) and increasing board gender diversity has become a critical social target for policymakers. For example, Norway, Germany, France, Belgium, Iceland and Italy have adopted mandatory gender quotas on board composition; whereas Austria, Finland, the Netherlands, Spain, Sweden and the UK have introduced voluntary codes to improve women's representation on boards (Wiersema & Mors, 2016). The reasons of underrepresentation are, however, not well understood. If barriers to women's advancement to board directorship are rooted in local institutional environments, such as negative beliefs and stereotypes about women's roles in society, then board restructuring policies that target firms may be ineffective and even cause low operational efficiency (e.g., Ahern & Dittmar, 2012). If increased gender diversity was desirable for firms, then it would be necessary to take actions at a higher level and promote gender equality in local institutions, not merely in target firms.

Previous literature on this issue has largely focused on firm-level characteristics to test what are the determinants of board gender diversity (Farrell & Hersch, 2005; Hillman, Shropshire, & Cannella, 2007). A few studies, exploit cross-country institutional settings to investigate how country-specific socioeconomic factors impact women's board representation (Adams & Kirchmaier, 2015; Ferreira & Kirchmaier, 2013). The non-uniform institutional establishments across countries, such as regulatory gender quotas and governance codes, challenge the study of the role that *informal* institutions play in this debate. We aim to start filling this gap in the literature and to overcome some of the methodological challenges by employing the unique Chinese setting.

The one-child policy and extended nuclear family culture in China reduce the concern over potential omitted variable biases associated with the supply of women director candidates. For example, it has been documented that career breaks – usually related to childcare – have a detrimental effect on women's career progression (Bertrand, Goldin, & Katz, 2010). In China, most women have only one child and are assisted

by their extended families. Although some developed countries have similar fertility rates to those in China, an extended family culture and limited maternity leave benefits reduce the career disruptions that have been documented in low-fertility countries. Therefore, by using Chinese data we are less likely to omit important supply-related factors that could potentially bias our results.

Second, formal legal rules and regulations are generally identical across different provinces of China, but informal institutions such as cultures, values and traditions vary. In this setting, we study how the *informal* provincial-level gender equality values and beliefs, defined as *local gender equality attitudes*, influence board gender diversity.

We construct three categories of proxies to measure provincial-level gender equality beliefs. For the first category, we use hand-collected enrolment data from Tsinghua University, the top-ranked STEM-oriented Chinese university, by tracing back students at this institution to the provinces where they grew up. The gender composition of the newly enrolled students from each province is used as a proxy for the provincial-level gender equality. Given the study by Guiso, Monte, Sapienza, and Zingales (2008) showing that gender equality is positively associated with women's mathematics performance, we claim that provinces with stronger beliefs about gender equality are those having a higher percentage of female students entering the top STEM-oriented university. Proxies in the second category are derived from the Chinese General Social Survey, which contains a range of questions that can yield inferences of provincial attitudes and stereotypes about gender differences in innate abilities, employment and career development; and family roles. The third category is based on the presence of female political role models in the provincial government and communist party. The rationale is that those provinces with female political leaders are more likely to hold positive attitudes towards gender equality.

Several empirical findings emerge. First, board gender diversity is positive and significantly related to the proportion of female students entering the top university. When looking into the students' major of subject in the university, we find that the significant relation holds only for the gender ratio of students who

major in STEM subjects. One possible explanation is that only the gender gap in STEM subject performance relates to local gender equality attitudes (e.g., Adams & Kirchmaier, 2016; Guiso et al., 2008).

Second, we show that board gender diversity is higher in a province where there is a stronger belief that women and men have equal intrinsic abilities. Traditional gender stereotypes argue that women are inferior to men in leadership positions because women in general are less competent or talented (Oakley, 2000; Schein, 1973). Previous studies (e.g., Fortin, 2005; Guiso et al., 2008; Guiso, Sapienza, & Zingales, 2003) have used the World Value Survey to infer attitudes towards gender diversity but the questions available are not as clean as those derived from the Chinese survey. Thus, our study contributes to existing research by providing more direct evidence on the link between societal gender attitudes and board gender diversity. In addition, we document consistent results by using other questions concerning the gender differences in employment opportunities, career goals and housework loads.

Third, ‘female political role models’ refer to women serving as the provincial governor (like the CEO of the province) or secretary of the provincial party standing committee (like the board chair of the province) in China. We find that corporate boards are more gender-diverse when female role models are set at the top political level in the province.

We conduct a number of robustness tests and find the above relations remain valid. First, we use the province-level random effects generalised least squares (GLS) estimator, which controls for cross-province heterogeneity and allows for inclusion of time-invariant provincial-level independent variables. Second, although using Chinese data allows us to exclude omitted supply-related variables, we explicitly add a control for female labour supply and find the results unchanged. Third, we control for childcare services available in each province that would enable women to participate in the labour force (Kilburn & Datar, 2002) and potentially increase the supply of female directors. Although we do not formally test whether childcare provision impacts the supply-of women at the grass-level; we find little evidence that it is associated with board gender diversity. Even though there could be more women participating in the labour force, if the gender stereotypes exist and work against women, these women still cannot break the glass

ceiling to the top corporate hierarchy. Finally, the baseline regression model is estimated at the aggregate province level to deal with the multilevel structure of our data set. Alternatively, we show that the results are qualitatively unchanged when using firm-level regressions and including a variety of firm-level control variables.

This study contributes to the literature in two main ways. First, we provide the first evidence that greater beliefs towards gender equality can promote corporate board gender diversity in contemporary China. From an econometrics perspective, by using provincial-level gender equality measurements within a single country can mitigate some of the endogeneity concerns that challenge the cross-country studies based on the World Values Survey, such as Adams and Kirchmaier (2015).<sup>4</sup>

Second, in contrast to Adams and Kirchmaier (2015) who find corporate board gender diversity also associated with female labour supply, our study shows that the base level female labour supply across China's provinces has no statistical effect on board gender diversity. Furthermore, our results suggest that the provision of professional childcare service, which can afford women more time to develop their professional careers, appears to exert no statistical impact on women's boardroom representation. The negative gender stereotypes regarding women's role in society seem more influential in the Chinese setting.

The rest of this paper is organised as follows. Section 2 discusses the conceptual framework. Section 3 describes the data and sample. Section 4 analyses the empirical results. Section 5 concludes this paper.

## **2. Conceptual framework**

### **2.1. Division of gender roles in China**

The division of gender roles between women and men has prevailed in China for centuries. As Greenhalgh (1985: 267) states, 'China's traditional family system was without doubt one of the most

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<sup>4</sup> Similar to the spirit of our study, Adams and Kirchmaier (2015) argue that cross-country cultural norms on gender equality influences women's progression to boardrooms.

brutally patriarchal in the world. The legal, economic, physical, and ideological mechanisms by which it subordinated women have been detailed in many places and need no repetition’.

Ancient China is predominantly a labour intensive agricultural economy in great demand of male labour force in farming, construction and civil defence activities (Zhang, 2016). Under the Confucian ideology dominating ancient China, having male descendants means the continuation of family blood. Sons are taken as lifetime members of their natal family and would care for the well-being of their parents even after they are married. Therefore, parents usually invest a lot in their sons’ education and upbringing relative to their daughters. Daughters will belong to their husband’s extended family once married. Parents thus have less intention to bring them up in a fruitful way. Daughters’ education becomes more oriented to training of merely feminine work such as housekeeping and childcare (Boserup, 2007). As a result, women have been historically placed in a socially disadvantaged position relative to men.

Since the founding of the People’s Republic of China in 1949, women’s socioeconomic status has greatly improved, primarily due to establishment of modern legal rules and laws. The *Law on the Protection of Rights and Interests of Women* ensures the equal rights of women and men in terms of education, health care and political participation. The *Labour Law* prohibits any kind of gender discrimination in employment and promotion practices. The *Inheritance Law* grants women the rights to inherit fortunes from their parents even after they are married, while in ancient China only sons have such rights.

Gender equality and women’s development are important goals of the Chinese government to realise social harmony and justice. In China, children receive nine-year free primary and secondary education in public schools. As Wu and Zhang (2010) document, the educational opportunities and college enrolments have significantly risen for women since the 1990s. Under the one-child policy, most Chinese families are allowed to have only one child. If the only child is a girl, the families will be willing to invest as much as they can in rearing the girl. Tsui and Rich (2002) document similar academic performance and engagement levels for girls and boys from single child families.

Despite the substantial improvement in women's social status, gender disparity has not disappeared. As the 2013 *Well-Being Development Report of China* reveals, women remain underrepresented in scientific research institutions, government authorities and senior corporate positions.

## **2.2. Women's underrepresentation on board: Can gender equality attitudes in local communities help women break the glass ceiling?**

In corporations, women are numerical minorities of the board of directors. In Chinese listed firms, only 11% of board members are women. Current studies explore the determinants of female board representation aiming to overcome women's barriers to boardrooms.

The investigation has been carried out at both the micro firm level and macro institutional level. A range of firm characteristics have been found to be related to female director representation. For instance, Farrell and Hersch (2005) show that a woman is likely to be added to the board when a female director steps down – a finding consistent with tokenism. Hillman et al. (2007) find that women are more likely to participate on the board of firms that are larger in size, are from industries with higher female labour force participation, have highly diversified corporate strategy, and are closely linked to other firms with women board directors.

Gender diversity on board is largely a socioeconomic issue. Standard economic models suggest that women are underrepresented in some occupations because of discrimination in the labour market. The taste-based discrimination literature (e.g., Becker, 2010; Eagly & Karau, 2002) argues that women are less likely than men to get promoted to leadership roles because of employers' prejudice and discriminatory tastes. In contrast, the statistical discrimination literature (e.g., Bielby & Baron, 1986; Lazear & Rosen, 1990) assumes that employers make statistical inferences about the productivity of women and men for a specific job. Employers may consider that women on average are more likely to quit their jobs because of maternity, and thus presume that women's productivity is lower than men's productivity. Consequently, they would discriminate against women in making appointment or promotion decisions even without specific tastes.

We argue that the Chinese framework facilitates disentangling taste-based discrimination from statistical discrimination.

Employing a data set of 28 European countries, Ferreira and Kirchmaier (2013) find that country-fixed effects explain more of the cross-sectional variation of board gender diversity than do firm and industry characteristics. Their study reveals that board gender diversity is driven by cross-country institutional factors. Furthermore, using a data set of 22 countries worldwide, Adams and Kirchmaier (2015) show that economic and cultural barriers (e.g., family-oriented policies regarding managing the work–family balance, discrimination in the labour market and traditional family values) as well as insufficient female labour supply inhibit women’s progression to the board level.

A limitation of cross-country studies is the difficulty in disentangling the effect on diversity attributed to formal institutions from that attributed to informal ones. As the formal institutional setting varies significantly across countries, it is challenging to find a complete set of control variables to identify its impact. The single-country analysis for China, where the formal legal rules and regulations are nearly identical across different regions, helps curb this endogeneity concern.

In this study, we examine the effect of informal institutional environments, specifically local gender equality attitudes, on board gender diversity. China’s law and institutions, including investor protection, corporate governance and government quality, are less advanced than those of the U.S. and other developed countries (Allen, Qian, & Qian, 2005). Informal institutions, such as local values, norms and beliefs, would be especially influential in the Chinese setting. In addition, the informal institutions and social development differ widely across China’s provinces. Therefore, a link between regional gender equality attitudes and board gender diversity, if it exists, should be evident. We expect that improved gender equality in local environments enhances board gender diversity in corporations.

### **2.3. Measurement of gender equality attitudes**



It has been suggested that the gender gap in mathematics performance captures societal attitudes towards gender equality. Guiso et al. (2008) find that, on average, girls score lower in mathematics but higher in reading than boys, and that this gender disparity is not due to biological gender differences. The gender gap in mathematics scores can be shortened with enhanced gender equality in society, while the gender gap in reading scores is widened with it. Else-Quest, Hyde, and Linn (2010) find that the cross-country gender gap in mathematics achievement can be reduced if the country adopts effective policies to enhance women's welfare and social status. Women's equal opportunity in schooling, participation in scientific research, and increased parliamentary representation can narrow the gender gap in mathematics.

Gender stereotypes generally portray women as less capable or talented than men, less devoted to their career, and more responsible for household chores. A large literature has compared the performance of women and men on tests of cognitive abilities and general intelligence, showing that the gender-related differences are rather small and vanishing over time (Feingold, 1988; Hyde, 1981; Hyde, 1990; Maccoby & Jacklin, 1978). In corporations, it has been found that women managers possess as equally qualified leadership abilities as men managers (Dobbins & Platz, 1986).

Women's family roles can affect their commitment to the labour force and ultimate career success (Kirchmeyer, 1998). Marriage and the anticipated shorter and more disrupted career life hinder women's acquisition of necessary work experience to take part in upper-level positions (Marini, 1989). The gender differences in employment and career development opportunities signify gender inequality in the workplace and women's work-life preferences (Bielby & Baron, 1986; Hakim, 2006; Ohlott, Ruderman, & McCauley, 1994). Furthermore, stereotypical gender roles usually assign housework to the women of the family. Women's devotion to housework likely impedes their career advancement and pay increment (Becker, 1985). The equitable housework division between women and men delineates gender equality in the household (e.g., Blair & Lichter, 1991; Fuwa, 2004; Hook, 2010; Mencarini & Sironi, 2010). Yu and Xie (2011) further show that as gender equality improves, women in China have more power in bargaining over housework division with their husbands.

Women's political representation in governments can promote gender equality in local communities. Chattopadhyay and Duflo (2004) find that the increased representation of women in Indian village councils impacts policy decisions on local infrastructure construction in a way that caters to women's needs. Beaman, Chattopadhyay, Duflo, Pande, and Topalova (2009) show that the prior exposure to female political leaders lessens negative stereotypes against female leaders and promotes perceptions of female leadership's effectiveness. These female political leaders serve as the role models motivating women at lower levels.

### **3. Sample construction**

#### **3.1. Data**

As the top-ranked university in China, Tsinghua University is internationally renowned for its education and scientific research in disciplines of science, technology, engineering and mathematics (STEM). The students recruited are elite students in their home provinces. They choose Tsinghua University as their priority mainly because they are interested and specialised in STEM subjects – mathematics is the fundamental. The national university entrance examination results show that women are less likely than men to get enrolled into Tsinghua University. This is consistent with the finding that women are severely underrepresented on corporate boards of STEM sectors (Adams & Kirchmaier, 2016). The gender disparity in enrolment into Tsinghua University varies across provinces. Given the strong link between mathematics performance and gender equality, we argue that the gender composition of the new students recruited from different provinces, defined as *%Female freshmen in Tsinghua University*, reflects, to some extent, the provincial-level gender equality attitudes. We extract the gender of the new students of Tsinghua University from public web sources. The data is available for the years 2006–2009, 2012 and 2013. The data also records the students' major of discipline in Tsinghua University.

To assess provincial values and beliefs about gender roles in society, we collect data from the Chinese General Social Survey (CGSS). Gender equality relates to six questions in this survey:

*Q1: Men have inherently higher abilities than women;*

*Q2: In the economic downturn, women employees should be dismissed first;*

*Q3: Men should be career-oriented, and women should be family-oriented;*

*Q4: Men should undertake more housework than what they have done now;*

*Q5: Husband and wife should share housework equally;*

*Q6: For women, marrying a good man is more important than pursuing their own career.*

We define these survey questions as *Gender role belief* questions. Q1 relates to societal beliefs about gender difference in innate abilities.<sup>5</sup>Q2 is conceptually similar to the World Values Survey (WVS) question: ‘When jobs are scarce, men should have more right to a job than women.’ A critique is that this question may not measure gender equality. For example, in economic downturns, jobs are scarce and maximising household earnings is likely to be the top priority of the family. If only one job can be kept, the wife is more likely to sacrifice her own career and stay at home for housekeeping because the husband typically earns more. Therefore, agreeing men have a priority over jobs may not precisely reflect one’s attitudes towards gender-equality. Furthermore, Q3 and Q6 relate to gender differences in career–family goals. Q4 and Q5 describe gender division of household work. We believe that analysing attitudes towards division of housework is important because gender-equality starts at home.

Each of the CGSS questions asks respondents:

*How do you place your view on the statement?*

*6: very strongly agree;*

*5: strongly agree;*

*4: slightly agree;*

*3: indifferent;*

*2: slightly disagree;*

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<sup>5</sup> In Chinese ‘physical abilities’ (体力) are written differently to “intellectual abilities” (能力). Therefore, Q1 does not relate to perceptions of gender differences in physical strength.

1: *strongly disagree*;

0: *very strongly disagree*.

Note that a higher score in questions 1, 2, 3 and 6 represents more gender inequality, while a higher score in questions 4 and 5 represents more gender equality. We concentrate on clear agreements or disagreements to each question. We calculate the fraction of respondents scoring lower than 2 in questions 1, 2, 3 and 6, and the fraction of respondents scoring higher than 4 in questions 4 and 5.<sup>6</sup> As such, a higher fraction indicates higher gender equality in local attitudes about gender roles. The survey data is available for 28 provinces and municipalities in the years 2006, 2008, 2010, 2012 and 2013.

For women's political empowerment, defined as *Female political role model*, we focus on two political roles. The first is the provincial governor – that is, the top officer of the provincial government. The other is the secretary of the provincial party standing committee – that is, the leader of the provincial subsidiary of the Chinese communist party. In a typical province, the party secretary has a slightly higher political ranking than the provincial governor. We collect the provincial governors and secretaries' gender from public web sources. The definitions of all gender equality attitude proxies are summarised in Table 1.

<Insert Table 1 about here>

We collect firm-level board composition data and financial statement data for the period 2000–2014 from the China Stock Market and Accounting Research (CSMAR) database. The sample consists of all public firms listed on the Shanghai and Shenzhen Stock Exchanges in China. A limitation of the data set is that the university enrolment and CGSS survey data are missing in a few sample years. To decide on the best way to fill in the missing data, we explore whether cross-provincial institutional variation or time-series variation within provinces is more powerful in predicting provincial-level board gender diversity.

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<sup>6</sup> Averages are highly influenced by the large proportion of respondents who are indifferent to the question being asked and they do not add to our understanding of gender attitudes. Fernandez (2007) also concentrate on agreement and/or disagreement scores. Results are similar if we only include strong and very strong agreements (disagreements).

In addition to the gender equality attitude proxies, other factors could also affect board gender diversity. As control variables, we include provincial-level yearly GDP and GDP growth rate to account for the impact of economic development, because Mammen and Paxson (2000) show that women's work status and well-being are associated with economic development. Population birth rate and population density (per square kilometre) control for the general population growth. The fraction of women in the population (*%women*) captures the sex ratio in the general population. Since women's education levels and marriage status are potential determinants of women's labour market outcomes (Fortin, 2005), we control for the proportion of women with above college education as a fraction of the female population (*%educated women*) and the proportion of married women as a fraction of the female population (*%married women*). The data come from the China Statistical Yearbook.

Table 2 reports the mean values of these provincial-level variables in the province-year panel. The average GDP growth rate is 15.10%, which suggests that China's provincial economy has been growing very fast. The average sex ratio is 0.492, indicating that the gender composition of the total population is nearly balanced. As China is a developing country, the education level of women is still very low. Only 7.1% of women have received above-college education. In addition, 81.16% of women are married.

<Insert Table 2 about here>

In Table 3 we disaggregate the variation in the proportion of women directors in a province into three components: (i) cross-sectional variation across provinces (also known as between variation), (ii) time effects common to all provinces and (iii) province-specific time variation (also known as within variation, on which the fixed effects estimator hinges). In theory, this disaggregation means regressing the variable of interest on a set of (i) province dummies, (ii) year dummies and (iii) province-year interactions. If one includes a separate dummy variable for each year of data, then the regression cannot be estimated because the number of explanatory variables is greater than the

number of observations. We define the time effects according to Chang et al. (2016) as periods of major structural changes in China.

<Insert Table 3 about here>

Models 1–4 of Table 3 report regression results where the dependent variable is the average firm-level board gender diversity for each province-year, and the dependent variables are related to different fixed effects specifications.

We report adjusted R-squares for all the models. When only province dummies are included, i.e. model (1), we note that the adjusted R-square is 44.6%, while the proportion accounted for by time dummies is only 2.7% (model 2). Year fixed effects, however, do not account for province-specific sources of time-variation in gender-diversity but only for simultaneous shifts in gender-diversity for all firms. By including province-time interactions, in Model 4, we account for these sources of province-specific time variation. The large explanatory power of province-fixed effects (44.6%) and the modest increase of the adjusted R-square when interactions are added (to 49%) suggest that most of the variation in gender-diversity is cross-sectional. Therefore, our baseline results exploit this cross-sectional variation.

### **3.2. Descriptive statistics**

In Table 4, we report the mean scores of the gender equality attitude proxies across 32 provinces and municipalities. For the first proxy, *%Female freshmen in Tsinghua University*, we observe in Panel A that on average only 31.3% of new students are female, which suggests that women are less likely than men to enter the top STEM-oriented university. It is noteworthy that the gender composition ratio differs substantially across disciplines. In the school of medical science, 48.3% of new students are women – nearly gender-balanced. In the schools of humanities and social science, 61.6% are women – there are significantly

more women than men. In the schools of physical science, technology and engineering, only 19.5% are women – women are severely underrepresented in STEM disciplines.

<Insert Table 4 about here>

For each discipline, the cross-province difference is non-negligible.<sup>7</sup> In the medical school, only 14.4% of students enrolled from Jiangxi province are women, while 76.4% of students coming from Ningxia province are women. In the schools of humanities and social science, only 44.9% of students from Guizhou province are women, while 72.7% of students from Shanghai are women. In the schools of physical science, technology and engineering, women represent 10.2% of all the students coming from Jiangxi province and 26.8% of the students from Beijing – the capital of China.

In Panel B of Table 4, we report the provincial scores of gender role attitudes based on each CGSS survey question. On average, 13.8% of respondents (very) strongly disagree that women are inherently less capable than men; 33.9% of respondents (very) strongly disagree that women employees should be laid off first in economic recession; only 8.3% of respondents (very) strongly disagree that men should be more career-oriented while women should be more family-oriented; 20.9% of respondents (very) strongly agree that men should do more housework than before; 33.6% of respondents (very) strongly agree that housework should be divided equally between women and men; 10.2% of respondents (very) strongly disagree that marrying a good man is more important than pursuing their own career. These show that the gender roles in China are far from being equal.

The gender role attitudes vary across provinces. For example, if we assess attitudes based on Q1, Tibet is the least gender-equal province, where only 2.7% of respondents (very) strongly disagree that women are inherently less capable than men are; whereas Qinghai is the most gender-equal province, where 43.6%

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<sup>7</sup> Tibet is the least developed region in China. Every year Tsinghua University recruits no more than ten students from Tibet. Due to the limited enrolment number, the student gender composition from Tibet could be an outlier. In the subsequent analysis, the regression results based on student enrolment remain valid if Tibet is excluded from the sample.

of respondents (very) strongly refute that statement. The more noticeable provincial-level variation occurs in Q2. Only 16.7% of respondents in Tibet (very) strongly disagree that women should be dismissed first in economic downturns, while in Qinghai 63.7% of respondents (very) strongly refute the statement. For the other survey questions, the cross-province variation is also measurable.

The above results show the important cross-province variation in the variables of *%Female freshmen in Tsinghua University* and *Gender role attitude* that will be employed in our cross-sectional analysis.

Regarding the female political role model, in Panel C of Table 4, we show that Chinese governments are predominantly led by men. Very few have ever had female provincial governors in local governments. These figures suggest that women are severely underpowered in provincial governments and in the communist party. From an econometric perspective, the lack of women in top political positions could pose a challenge to finding a statistically significant result even if there existed a significant relation between political role models and board gender diversity.

Using the firms' headquarters locations, we tabulate the distribution of board gender diversity across 32 provinces and municipalities of China in Panel D of Table 4. It is worth noting that the cross-sectional difference on board gender diversity is not negligible. Women are least represented on corporate boards in Guizhou province, where only 6.6% of directors are women, and are most represented in Ningxia province, where 14.5% of directors are women.

In Panel E of Table 4, we report the correlations between the gender equality attitude proxies and provincial-level board gender diversity. As expected, board gender diversity is positively correlated with the three categories of gender equality proxies in terms of women's educational achievement, gender roles in society, and women's political empowerment.

## **4. Results**

### **4.1. Gender disparity in educational achievement and board gender diversity**



In Table 5, we regress provincial-level board gender diversity on *%Female freshmen in Tsinghua University* and provincial-level control variables. When we take the new students as a whole and disregard the academic discipline they are enrolled into, the result in model 4 shows that corporate boards are more gender-diverse in a province where a higher proportion of the students accepted by the university are women. More women being recruited from a province could potentially unveil a more gender-equal institutional environment that helps girls achieve academic success. Although there is the possibility that these high-achieving women are related to the pool of future female board directors, the timing suggests that the observed relationship is related to gender attitudes rather than a supply argument.

<Insert Table 5 about here>

To clarify this issue, we classify the academic divisions into three categories: (1) medical science, (2) humanities and social science, and (3) physical science, technology and engineering. In model 2, we find that *%Female freshmen* enrolled into the faculties of humanities and social science has no statistically significant effect on board gender diversity, while the gender diversity is significantly positively associated with *%Female freshmen* enrolled into the schools of physical science, technology and engineering in model 3 and the medical school as reported in model 1.

If the proportion of female students is related to a plain supply argument, we should find a consistent relation across all academic divisions or at a minimum, in schools of humanities and science. For example, to assess whether gender-quotas in Norway had an effect on the supply of future women directors, Bertrand et al (2018) investigate whether there is an increment in the proportion of women enrolled in Business-related degrees after the quota. Furthermore, as women are generally overrepresented in schools of humanities and social science (see Panel A of Table 4), the relationship —if present— should be easier to detect in this sample. Rather, the significant effect only appears in STEM-intensive disciplines. Given that local gender equality attitudes are particularly crucial to encouraging women to specialise in STEM subjects (e.g., Guiso et al., 2008), our results are consistent with the hypothesis that some firms have higher board

gender diversity because in their province women are treated more equally. This suggests that board gender diversity is associated with provincial-level gender equality environments.

#### **4.2. Gender role values and board gender diversity**

In Table 6, we examine how provincial attitudes about gender roles in society are associated with board gender diversity. We show that high gender equality—as proxied by a higher score derived from each survey question—significantly increases women’s representation on board.<sup>8</sup> The only exception is Q6; where the coefficient is statistically insignificant but positive, as expected. The results show that better attitudes towards gender equality as proxied by a stronger belief that women and men have equal intrinsic abilities (Q1), equal employment opportunities and career goals (Q2, Q3 and Q6) and equal housework loads (Q4 and Q5); facilitate women’s progression to corporate boardrooms.

<Insert Table 6 about here>

#### **4.3. Female political role model and board gender diversity**

In Table 7, we study the relation between board gender diversity and the presence of female role models in political establishments. If the provincial government or communist party standing committee is led by a female politician, then this could potentially lead to a reduction in negative stereotypes that could ultimately translate in more gender-diverse boards. The results in model 1 and 2 show that the presence of female provincial governor and female party secretary is positively and significantly associated with board gender diversity. Since women have ever served as provincial governor or secretary in only three provinces (see Table 4 Panel C), the variation in these two women political empowerment proxies is small and its statistical significance could be understated. In model 3, we create a dummy indicator *Total*, which is equal

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<sup>8</sup> The provincial gender equality attitude is delineated through six questions on gender roles. Some of these questions are strongly correlated as shown in Panel E of Table 4 and it is difficult to decide on which question(s) to focus on without being arbitrary. In Appendix 1, we apply principal component factor analysis and extract the common factors from these separate questions. The conclusion remains similar.

to 1 if either the provincial governor or the secretary is female, and 0 if both are male. The relation still holds.

<Insert Table 7 about here>

#### 4.4. Endogeneity

In this study, reverse causality – board gender diversity affecting provincial-level gender equality attitudes – is not a major concern because board gender diversity is a firm-specific corporate characteristic and its effect on province-wide informal attitudes and values seems implausible. Nonetheless, omitted variables may still bias our estimates.

By concentrating in the cross-sectional variation we have ignored the panel structure of our model that could eventually help us mitigate endogeneity concerns. It is well known that one of the advantages of the fixed effects estimator is to control for time invariant omitted variables that could be related to our variable of interest. In our context, however, some of the variables of interest (e.g. *%Female freshmen in Tsinghua University* and *Gender role attitude*) are themselves time-invariant or present little variation, a fact that results in perfect or very high multicollinearity with the province fixed effects. To circumvent this problem, we use a random effects GLS estimator, which optimally combines the within and between estimator and allows for the inclusion of time-invariant explanatory variables.

In Table 8, the random effects GLS regression results show that board gender diversity increases with *%Female freshmen in Tsinghua University in schools of physical science, technology and engineering*, *Gender role* equality as assessed by the CGSS survey questions, and the proxies for *Female political role model*. Overall, the results are consistent with our baseline OLS regression results, reinforcing our argument that corporate boards are more gender-diverse when provincial attitudes about women’s roles in society are more positive and supportive.

<Insert Table 8 about here>

#### **4.5. Is female labour supply a missing explanatory factor for board gender diversity?**

Adams and Kirchmaier (2015) argue that increased female labour force participation and women's full-time employment facilitate generating a pipeline of potential female directors. An implication for our study is that the supply of female labour could be a missing factor explaining the heterogeneity of board gender diversity. To rule out this possibility, we explicitly add a control for female labour supply. *%working women* is women's labour force participation ratio, calculated as the proportion of working women as a fraction of the female population, collected from the 2010 Population Census of China.

In Table 9, we show that the results for *%Female freshmen in Tsinghua University*, *Gender role attitude* and *Female political role model* are qualitatively unchanged when the control variable of *%working women* is incorporated into the regressions. In addition, *%working women* is not significantly related to board gender diversity, which implies that the supply of work of average women has no direct effect on board gender diversity in corporations.

<Insert Table 9 about here>

#### **4.6. Childcare provision and board gender diversity**

Most women, at some point in their careers, need to take time off for child rearing. Budig and England (2001) document that motherhood is associated with the gender gap in pay. Bertrand et al. (2010) further show that the relatively low income of women is due to women's motherhood-related career interruptions and resultant short weekly working hours. Kilburn and Datar (2002) find that the sufficient provision of childcare service is conducive to women's participation in the labour force. Although we have argued that the one-child policy and the extended-family model that prevails in China control for supply-related factors that could be omitted from our main regression, it is nevertheless possible that non-household childcare services could enable some women to increase their chances of rising to the board level.

To measure childcare provision, we use questionnaire data from the China Health and Nutrition Survey and compute three variables: the average days of child being cared outside home per week, the

fraction of survey respondents having their child cared for in non-household, and the fraction of survey respondents having their child cared for in professional childcare facilities.<sup>9</sup> The surveys were carried out in 1991, 1993, 1997, 2000, 2004, 2006, 2009, 2011 in 12 provinces of China.<sup>10</sup> The constructed variables are provincial averages across available survey years.

In Table 10, we report the results of OLS regressions of provincial-level board gender diversity on childcare provision. Across models 1–3, the different proxies for childcare provision have no statistical effect on board gender diversity. This finding suggests that, even though provision of childcare may have the potential to increase women’s participation in the labour force there is no direct link to the gender composition at the top corporate ladder – the board of directors.

<Insert Table 10 about here>

#### **4.7. Local gender equality, childcare provision and firm-level board gender diversity**

As the main variable in our study is provincial-level gender equality attitude measures, the baseline regressions are estimated at the aggregate province level. Nonetheless, since board gender diversity is a firm-level characteristic, we rerun our regressions at the firm level to ensure robustness.

In Table 11, the dependent variable is firm-level board gender diversity. As independent variables, we include the province-level control variables and an array of firm-level control variables, including *Ln(Board size)*, *%Independent directors*, *Leverage*, *Ln(1+Sales growth)*, *ROA*, *Ln(Assets)*, *Ln(Firm age)*, and *Government ownership*, *Institutional ownership* and *Managerial ownership*. Furthermore, Adams and Ferreira (2009) show that firms in which male directors are more closely connected to female directors in other firms are more likely to add women to their boards. We thus control for *Male directors’ connectedness*

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<sup>9</sup> Non-household refers to grandparents’ home, other relatives’ home, neighbours’ home, childcare centre, primary school’s pre-school, nursery school and other professional facilities. Professional childcare facilities refer to childcare centre, primary school’s pre-school, nursery school and other professional facilities.

<sup>10</sup> The survey data are only available for 12 provinces out of 32 provinces in our sample. Including childcare provision as controls in replace of female labour supply in Table 11 will drop a large number of observations.

*to female directors*, calculated as the proportion of male directors with external board connections to female directors. We also control for *Director connectedness*, defined as the total number of external board seats held by all directors in the firm, as a proxy for the overall connectedness of the board. The data are collected from the CSMAR database. In addition, industry- (2-digit Global Industry Classification Standard codes) and year-fixed effects are included to account for industry-wide and yearly economic fluctuations.

<Insert Table 11 about here>

Table 11 reports OLS regressions of firm-level board gender diversity on provincial-level gender equality proxies. The data set has a multilevel structure, where firms are nested within provinces. Using OLS regressions to estimate the model has two limitations. One is the disproportionate representation of provinces in the firm-level sample. Large provinces that are over-represented in the sample could be driving the regression results. The other limitation is clustering. If the residuals are correlated across provinces, then using firm-level clustering may invalidate our standard errors.

In Table 11, we find that our main conclusion holds when using the firm-level regressions, although the statistical significance is much lower. Lower significance levels are not surprising given the little time variation in our variables on interest. Panel D reports the relation between firm-level board gender diversity and provincial-level childcare provision. The relation remains statistically insignificant. Furthermore, we find that China's corporate boards tend to be less gender-diverse in larger firms and in government-controlled firms. In the untabulated regression results, we add industry×year dummies. Our findings continue to hold.

## **5. Conclusion**

The underrepresentation of women on corporate boards has long been the focus of financial research (e.g., Adams & Kirchmaier, 2015). China provides an excellent setting to look into the determinants of gender diversity for at least two reasons. First, the one-child policy and the extended-family model minimise the omitted variable biases associated with the supply of women director candidates and allows us to better

recognise barriers related to demand factors (e.g. attitudes). Second, because socioeconomic development varies significantly across provinces but formal institutions remain constant, our setting overcomes the shortcomings of cross-country studies that find difficult to account for omitted country-specific factors. We test whether the measurable cross-province variation in gender equality attitudes leads to different levels of board gender diversity.

The provincial-level gender equality attitudes are measured by (1) the gender composition of the student enrolment from different provinces into Tsinghua University, the top-ranked STEM-oriented university in China; (2) the attitudes and beliefs about the gender differences in intrinsic abilities, employment opportunities and career development, and housework division from the Chinese General Social Survey; and (3) the existence of female political role models in the provincial government and communist party. We find robust evidence that in a province with positive attitudes towards gender equality, corporate boards tend to be more gender-diverse. Meanwhile, there is little evidence that female labour supply or non-household childcare provision would improve board gender diversity. Collectively, these findings suggest that board gender diversity is primarily associated with gender equality attitudes.

Although we have taken several steps to address endogeneity, we recognise that our results not necessarily imply a causal relationship. In ongoing work, we are further improving our methods to alleviate endogeneity concerns.

## References:

- Adams, R. B. & Ferreira, D. 2009. Women in the boardroom and their impact on governance and performance. *Journal of financial economics*, 94(2): 291-309.
- Adams, R. B. & Kirchmaier, T. 2015. Barriers to boardrooms.
- Adams, R. B. & Kirchmaier, T. 2016. Women on boards in finance and STEM industries. *The American Economic Review*, 106(5): 277-281.
- Ahern, K. R. & Dittmar, A. K. 2012. The changing of the boards: The impact on firm valuation of mandated female board representation. *Quarterly Journal of Economics*, 127(1): 137-197.
- Allen, F., Qian, J., & Qian, M. 2005. Law, finance, and economic growth in China. *Journal of financial economics*, 77(1): 57-116.
- Beaman, L., Chattopadhyay, R., Duflo, E., Pande, R., & Topalova, P. 2009. Powerful women: does exposure reduce bias? *The Quarterly journal of economics*, 124(4): 1497-1540.
- Becker, G. S. 2010. *The economics of discrimination*: University of Chicago press.
- Becker, G. S. 1985. Human capital, effort, and the sexual division of labor. *Journal of labor economics*, 3(1, Part 2): S33-S58.
- Bertrand, M., Goldin, C., & Katz, L. F. 2010. Dynamics of the gender gap for young professionals in the financial and corporate sectors. *American Economic Journal: Applied Economics*, 2(3): 228-255.
- Bielby, W. T. & Baron, J. N. 1986. Men and women at work: Sex segregation and statistical discrimination. *American journal of sociology*, 91(4): 759-799.
- Blair, S. L. & Lichter, D. T. 1991. Measuring the division of household labor: Gender segregation of housework among American couples. *Journal of family issues*, 12(1): 91-113.
- Boserup, E. 2007. *Woman's role in economic development*: Earthscan.
- Budig, M. J. & England, P. 2001. The wage penalty for motherhood. *American sociological review*: 204-225.
- Chattopadhyay, R. & Duflo, E. 2004. Women as policy makers: Evidence from a randomized policy experiment in India. *Econometrica*, 72(5): 1409-1443.
- Dobbins, G. H. & Platz, S. J. 1986. Sex differences in leadership: how real are they? *Academy of Management review*, 11(1): 118-127.
- Eagly, A. H. & Karau, S. J. 2002. Role congruity theory of prejudice toward female leaders. *Psychological review*, 109(3): 573.
- Else-Quest, N. M., Hyde, J. S., & Linn, M. C. 2010. Cross-National Patterns of Gender Differences in Mathematics: A Meta-Analysis. *Psychological Bulletin*, 136(1): 103-127.
- Farrell, K. A. & Hersch, P. L. 2005. Additions to corporate boards: the effect of gender. *Journal of Corporate finance*, 11(1): 85-106.



- Feingold, A. 1988. Cognitive gender differences are disappearing. *American Psychologist*, 43(2): 95.
- Ferreira, D. & Kirchmaier, T. 2013. *Corporate boards in Europe: size, independence and gender diversity*: Cambridge University Press.
- Fortin, N. M. 2005. Gender role attitudes and the labour-market outcomes of women across OECD countries. *oxford review of Economic Policy*, 21(3): 416-438.
- Fuwa, M. 2004. Macro-level gender inequality and the division of household labor in 22 countries. *American Sociological Review*, 69(6): 751-767.
- Greenhalgh, S. 1985. Sexual stratification: The other side of "growth with equity" in east Asia. *Population and development review*: 265-314.
- Guiso, L., Monte, F., Sapienza, P., & Zingales, L. 2008. Culture, Gender, and Math. *Science*, 320(5880): 1164-1165.
- Guiso, L., Sapienza, P., & Zingales, L. 2003. People's opium? Religion and economic attitudes. *Journal of monetary economics*, 50(1): 225-282.
- Hakim, C. 2006. Women, careers, and work-life preferences. *British Journal of Guidance & Counselling*, 34(3): 279-294.
- Hillman, A. J., Shropshire, C., & Cannella, A. A. 2007. Organizational predictors of women on corporate boards. *Academy of Management Journal*, 50(4): 941-952.
- Hook, J. L. 2010. Gender inequality in the welfare state: Sex segregation in housework, 1965–2003. *American journal of sociology*, 115(5): 1480-1523.
- Hyde, J. S. 1981. How large are cognitive gender differences? A meta-analysis using  $w^2$  and  $d$ . *American Psychologist*, 36(8): 892.
- Hyde, J. S. 1990. Meta-analysis and the psychology of gender differences. *Signs: Journal of Women in Culture and Society*, 16(1): 55-73.
- Kilburn, M. R. & Datar, A. 2002. *The availability of child care centers in China and its impact on child care and maternal work decisions*.
- Kirchmeyer, C. 1998. Determinants of managerial career success: Evidence and explanation of male/female differences. *Journal of management*, 24(6): 673-692.
- Lazear, E. P. & Rosen, S. 1990. Male-female wage differentials in job ladders. *Journal of Labor Economics*, 8(1, Part 2): S106-S123.
- Maccoby, E. E. & Jacklin, C. N. 1978. *The psychology of sex differences*: Stanford University Press.
- Mammen, K. & Paxson, C. 2000. Women's work and economic development. *Journal of economic perspectives*, 14(4): 141-164.
- Marini, M. M. 1989. Sex differences in earnings in the United States. *Annual review of sociology*, 15(1): 343-380.

- Mencarini, L. & Sironi, M. 2010. Happiness, housework and gender inequality in Europe. *European Sociological Review*, 28(2): 203-219.
- Oakley, J. G. 2000. Gender-based barriers to senior management positions: Understanding the scarcity of female CEOs. *Journal of business ethics*, 27(4): 321-334.
- Ohlott, P. J., Ruderman, M. N., & McCauley, C. D. 1994. Gender differences in managers' developmental job experiences. *Academy of management Journal*, 37(1): 46-67.
- Schein, V. E. 1973. The relationship between sex role stereotypes and requisite management characteristics. *Journal of applied psychology*, 57(2): 95.
- Tsui, M. & Rich, L. 2002. The only child and educational opportunity for girls in urban China. *Gender & Society*, 16(1): 74-92.
- Wiersema, M. & Mors, M. 2016. What board directors really think of gender quotas. *Harvard Business Review*: 1-6.
- Wu, X. & Zhang, Z. 2010. Changes in educational inequality in China, 1990–2005: Evidence from the population census data, *Globalization, changing demographics, and educational challenges in East Asia*: Emerald Group Publishing Limited.
- Yu, J. & Xie, Y. 2011. The Varying Display of " Gender Display" A Comparative Study of Mainland China and Taiwan. *Chinese Sociological Review*, 44(2): 5-30.
- Zhang, Q. 2016. *An Introduction to Chinese History and Culture*: Springer.
- Zhu, W. X., Lu, L., & Hesketh, T. (2009). China's excess males, sex selective abortion, and one child policy: Analysis of data from 2005 national intercensus survey. *BMJ: British Medical Journal*, 338.

## Appendix 1 Factor Analysis of Gender Role Values

In Table A1, we apply principal component factor analysis to the six gender role questions. According to Kaiser's (1960) criterion, only factors with eigenvalues greater than 1 are meaningful and worth retaining. We keep the first two factors, which together explain 83.9% of the total variance of the six independent attitude questions. The factor loadings for Q1, Q2, Q3, Q5 and Q6 on *Factor 1* are positive and higher than 0.80, and the factor loading of Q4 on *Factor 2* is equal to 0.981. The factor loadings are actually the correlation coefficients between each question score and the underlying factor. The uniqueness of Q2 and Q3 is around 0.27, which means that about 27% of the variance in Q2 and Q3 scores is not shared with the variance of other questions in the factor model. Collectively, it appears that *Factor 1* is mainly defined by Q1, Q2, Q3, Q5 and Q6, while *Factor 2* is defined by Q4.

In Table A2, we test whether the gender role factors can explain board gender diversity. In models 1 and 2, where *Factor 1* and *Factor 2* are included as separate factors, each of them is significantly and positively associated with board gender diversity. In model 3, where both factors are included simultaneously, we find that only *Factor 1* has a significantly positive effect, while the coefficient on *Factor 2* is positive but insignificant. Jointly, the results suggest that when the societal gender roles are more equal, women's representation on corporate boards is much higher.

**Table A1 Factor Analysis of Gender Role Beliefs**

This table presents the principal component factor analysis of the gender equality attitude variables derived from CGSS survey questions regarding gender roles in society. Panel A reports the factor eigenvalue, Panel B reports the factor loadings on the first two factors, and Panel C reports the scoring coefficients to generate the scores of the first two factors.

***Panel A: Factor analysis***

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor 1	3.992	2.950	0.665	0.665
Factor 2	1.042	0.663	0.174	0.839
Factor 3	0.379	0.036	0.063	0.902
Factor 4	0.343	0.174	0.057	0.960
Factor 5	0.170	0.096	0.028	0.988
Factor 6	0.073	.	0.012	1.000

***Panel B: Factor loadings***

Variable	Factor 1	Factor 2	Uniqueness
Q1	0.956	-0.029	0.085
Q2	0.854	-0.028	0.270
Q3	0.814	-0.252	0.273
Q4	0.116	0.981	0.024
Q5	0.905	0.113	0.168
Q6	0.923	0.044	0.146

***Panel C: Scoring coefficients***

Variable	Factor 1	Factor 2
Q1	0.240	-0.027
Q2	0.214	-0.027
Q3	0.204	-0.242
Q4	0.029	0.941
Q5	0.227	0.108
Q6	0.231	0.042

**Table A2 Gender Role Factors and Board Gender Diversity**

This table presents OLS regressions of provincial-level board gender diversity on the first two factors derived from the principal factor analysis of CGSS survey questions. All time-varying control variables are lagged by one year relative to the dependent variable. Cluster-robust *t*-statistics are reported in brackets. \*\*\*, \*\*, and \* indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Variables are defined in Table 4.1.

	Dependent variable = Board gender diversity		
	[1]	[2]	[3]
<i>Gender role attitude:</i>			
Factor 1	0.008** [2.23]		0.007* [1.74]
Factor 2		0.005** [2.13]	0.003 [0.97]
<i>Control variables:</i>			
GDP	0.004** [2.58]	0.002 [1.13]	0.004** [2.24]
GDP growth	0.045 [0.73]	0.043 [0.63]	0.034 [0.57]
Birth rate	-0.005*** [-4.31]	-0.003 [-1.64]	-0.004*** [-3.50]
%women	0.420 [1.48]	0.468 [1.42]	0.427 [1.54]
%educated women	-0.021 [-0.27]	0.048 [0.49]	-0.003 [-0.05]
%married women	-0.046 [-0.77]	-0.044 [-0.80]	-0.040 [-0.74]
Population density	-1.526*** [-3.74]	-1.144* [-1.97]	-1.438*** [-3.25]
Constant	-0.017 [-0.13]	-0.071 [-0.48]	-0.032 [-0.26]
Year fixed effect	Yes	Yes	Yes
Adj. R <sup>2</sup>	0.473	0.428	0.479
N	308	308	308

**Table 1 Variable Definitions**

Variable	Description
<i>%Female freshmen in Tsinghua University:</i>	
School of Medical Science	The proportion of female students enrolled in the school of medical science of Tsinghua University, as a fraction of all students recruited by the university from the province
Schools of Humanities and Social Science	The proportion of female students enrolled in schools of humanities and social science of Tsinghua University, as a fraction of all students recruited by the university from the province
Schools of Physical Science, Technology and Engineering	The proportion of female students enrolled in the schools of physical science, technology and engineering of Tsinghua University, as a fraction of all students recruited by the university from the province
Total	The proportion of female students as a fraction of all students recruited by Tsinghua University from the province
<i>Gender role attitude:</i>	
Q1	The proportion of survey respondents who (very) strongly disagree with the argument 'men have inherently higher abilities than women'
Q2	The proportion of survey respondents who (very) strongly disagree with the argument 'in the economic downturn, women employees should be dismissed first'
Q3	The proportion of survey respondents who (very) strongly disagree with the argument 'men should be career-oriented, and women should be family-oriented'
Q4	The proportion of survey respondents who (very) strongly agree with the argument 'men should undertake more housework than what they have done now'
Q5	The proportion of survey respondents who (very) strongly agree with the argument 'husband and wife should share housework equally'
Q6	The proportion of survey respondents who (very) strongly disagree with the argument 'for women, marrying a good man is more important than pursuing their own career'
<i>Female political role model:</i>	
Presence of female provincial governor	A dummy variable equal to 1 if the governor of the provincial government is female, and 0 otherwise

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Presence of female party secretary	A dummy variable equal to 1 if the secretary of the provincial party standing committee is female, and 0 otherwise
Total	A dummy variable equal to 1 if either the governor or the party secretary is female, and 0 otherwise
<i>Provincial-level control variables:</i>	
GDP	GDP in billion RMB
GDP growth	GDP growth rate
Birth rate	The number of births per 1,000 population
%women	The proportion of women as a fraction of the total population
%educated women	The proportion of women with above college education as a fraction of the female population
%married women	The proportion of married women as a fraction of the female population
Population density	The number of residents per square kilometre

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**Table 2 Descriptive Statistics of Provincial-Level Control Variables**

This table reports the mean values of the provincial-level control variables across provinces. The provincial-level variables are *GDP*, *GDP growth*, *birth rate*, *%women*, *%educated women*, *%married women* and *population density*. All the variables are defined in Table 1.

Province	GDP	GDP growth	Birth rate	%women	%educated women	%married women	Population density
Shanghai	1.161	12.65%	7.242	0.496	0.178	0.807	0.030
Yunnan	0.508	13.54%	14.324	0.484	0.036	0.835	0.001
Inner Mongolia	0.694	19.64%	9.621	0.489	0.075	0.839	0.000
Beijing	0.934	16.81%	7.288	0.489	0.267	0.763	0.010
Jilin	0.566	15.32%	7.206	0.493	0.070	0.820	0.001
Sichuan	1.135	14.39%	9.622	0.494	0.047	0.857	0.002
Tianjin	0.591	17.32%	7.905	0.503	0.153	0.804	0.010
Ningxia	0.105	17.80%	14.903	0.491	0.066	0.818	0.001
Anhui	0.822	13.87%	12.395	0.493	0.039	0.845	0.004
Shandong	2.556	14.71%	11.575	0.499	0.052	0.847	0.006
Shanxi	0.593	15.68%	11.553	0.489	0.065	0.825	0.002
Guangdong	3.029	14.88%	12.076	0.488	0.055	0.753	0.005
Guangxi	0.621	14.65%	14.005	0.480	0.042	0.809	0.002
Xinjiang	0.369	14.61%	16.024	0.491	0.099	0.786	0.000
Jiangsu	2.666	15.26%	9.365	0.508	0.068	0.854	0.007
Jiangxi	0.617	14.85%	13.919	0.490	0.045	0.848	0.003
Hebei	1.366	13.62%	12.555	0.493	0.048	0.830	0.004
Henan	1.493	14.42%	11.836	0.495	0.043	0.824	0.006
Zhejiang	1.816	14.55%	10.187	0.494	0.089	0.832	0.005
Hainan	0.138	14.22%	14.753	0.477	0.048	0.775	0.002
Hubei	1.047	13.83%	9.393	0.492	0.065	0.836	0.003
Hunan	1.041	14.93%	12.470	0.488	0.049	0.840	0.003
Gansu	0.280	14.27%	12.714	0.490	0.043	0.821	0.001
Fujian	0.980	13.57%	11.803	0.496	0.059	0.814	0.003
Tibet	0.035	15.77%	16.709	0.508	0.017	0.684	0.000
Guizhou	0.316	16.39%	14.622	0.484	0.040	0.823	0.002
Liaoning	1.214	13.99%	6.603	0.498	0.103	0.824	0.003
Chongqing	0.522	15.92%	9.852	0.495	0.049	0.859	0.004
Shaanxi	0.643	17.98%	10.215	0.491	0.068	0.830	0.002
Qinghai	0.087	16.47%	15.621	0.491	0.063	0.809	0.000
Heilongjiang	0.725	11.72%	7.571	0.493	0.064	0.839	0.001
Average	0.991	15.10%	11.500	0.492	0.071	0.816	0.004



**Table 3 Board Gender Diversity and Fixed Effects Estimator**

This table presents OLS regressions of provincial-level board gender diversity using different fixed-effects specifications. \*\*\*, \*\*, and \* indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Variables are defined in Table 1.

Dependent variable = Board gender diversity				
	[1]	[2]	[3]	[4]
year 2001		-0.020*** [-4.58]	-0.020*** [-4.43]	-0.004*** [-1.47e+13]
year 2005		-0.009*** [-3.34]	-0.009*** [-3.23]	-0.016*** [-9.21e+12]
year 2008-2010		-0.001 [-0.50]	-0.001 [-0.49]	-0.012*** [-9.25e+12]
Constant	0.100*** [4.36e+14]	0.108*** [30.79]	0.102*** [176.40]	0.101*** [2.41e+14]
Province fixed effects	Yes	No	Yes	Yes
Province fixed effects × year 2001	No	No	No	Yes
Province fixed effects × year 2005	No	No	No	Yes
Province fixed effects × year 2008-2010	No	No	No	Yes
adj. R-sq	0.446	0.028	0.479	0.490
N	480	480	480	480

**Table 4 Descriptive Statistics of Gender Equality Attitude Proxies**

This table describes the distributions of local gender equality attitude proxies and board gender diversity. Panels A, B and C report the mean values of the gender equality attitude proxies across provinces. Panel D reposts the summary statistics of board gender diversity across provinces. Panel E presents the correlations between the gender equality attitude proxies and board gender diversity. \* indicates statistical significance at the 1% level. Variables are defined in Table 1.

<i>Panel A</i> Province	%Female freshmen in Tsinghua University			Total
	School of Medical Science	Schools of Humanities and Social Science	Schools of Physical Science, Technology and Engineering	
Shanghai	0.528	0.727	0.203	0.384
Yunnan	0.435	0.671	0.212	0.291
Inner Mongolia	0.556	0.548	0.222	0.307
Beijing	0.565	0.677	0.268	0.422
Jilin	0.394	0.689	0.224	0.327
Sichuan	0.569	0.671	0.213	0.337
Tianjin	0.551	0.594	0.230	0.342
Ningxia	0.764	0.576	0.206	0.303
Anhui	0.530	0.525	0.159	0.250
Shandong	0.481	0.528	0.182	0.332
Shanxi	0.542	0.589	0.199	0.304
Guangdong	0.559	0.610	0.134	0.299
Guangxi	0.319	0.606	0.237	0.306
Xinjiang	0.639	0.602	0.294	0.393
Jiangsu	0.588	0.686	0.220	0.377
Jiangxi	0.144	0.467	0.102	0.175
Hebei	0.566	0.640	0.166	0.339
Henan	0.572	0.544	0.185	0.276
Zhejiang	0.434	0.678	0.186	0.348
Hainan	0.300	0.631	0.216	0.329
Shenzhen	0.559	0.610	0.134	0.299
Hubei	0.463	0.598	0.175	0.288
Hunan	0.358	0.601	0.144	0.304
Gansu	0.581	0.670	0.183	0.268
Fujian	0.542	0.551	0.151	0.259
Tibet	0.000	0.864	0.297	0.380
Guizhou	0.319	0.449	0.189	0.223
Liaoning	0.478	0.593	0.178	0.325
Chongqing	0.558	0.593	0.163	0.320
Shaanxi	0.456	0.594	0.212	0.303
Qinghai	0.633	0.694	0.204	0.314
Heilongjiang	0.475	0.646	0.165	0.297
Average	0.483	0.616	0.195	0.313

(Table 4 continued)

<b>Panel B</b> Province	Gender role attitude					
	Q1	Q2	Q3	Q4	Q5	Q6
Shanghai	0.233	0.530	0.147	0.193	0.433	0.189
Yunnan	0.116	0.289	0.072	0.219	0.355	0.125
Inner Mongolia	0.196	0.303	0.100	0.414	0.652	0.144
Beijing	0.160	0.460	0.099	0.178	0.291	0.089
Jilin	0.118	0.331	0.069	0.500	0.296	0.082
Sichuan	0.112	0.288	0.080	0.237	0.274	0.110
Tianjin	0.159	0.424	0.073	0.194	0.326	0.123
Ningxia	0.189	0.556	0.093	-	0.504	0.098
Anhui	0.071	0.274	0.060	0.141	0.186	0.061
Shandong	0.115	0.331	0.063	0.226	0.326	0.084
Shanxi	0.089	0.281	0.060	0.267	0.193	0.082
Guangdong	0.106	0.354	0.059	0.135	0.265	0.071
Guangxi	0.084	0.300	0.068	0.247	0.264	0.082
Xinjiang	0.286	0.442	0.204	0.211	0.670	0.234
Jiangsu	0.098	0.333	0.057	0.316	0.241	0.077
Jiangxi	0.068	0.245	0.136	0.085	0.252	0.061
Hebei	0.103	0.223	0.051	0.115	0.229	0.058
Henan	0.121	0.251	0.040	0.153	0.286	0.077
Zhejiang	0.141	0.388	0.104	0.277	0.368	0.098
Hainan	0.180	0.375	0.140	0.235	0.500	0.140
Hubei	0.081	0.212	0.028	0.180	0.205	0.056
Hunan	0.100	0.293	0.053	0.060	0.252	0.067
Gansu	0.152	0.517	0.094	0.175	0.552	0.132
Fujian	0.100	0.266	0.056	0.148	0.318	0.075
Tibet	0.027	0.167	0.026	-	0.158	0.081
Guizhou	0.193	0.430	0.087	0.163	0.367	0.223
Liaoning	0.089	0.258	0.085	0.290	0.164	0.039
Chongqing	0.113	0.243	0.035	0.176	0.272	0.080
Shaanxi	0.135	0.271	0.064	0.203	0.314	0.097
Qinghai	0.436	0.630	0.208	-	0.636	0.152
Heilongjiang	0.103	0.227	0.066	0.119	0.265	0.081
Average	0.138	0.339	0.083	0.209	0.336	0.102

(Table 4 continued)

<i>Panel C</i> Province	Female political role model		
	Presence of female provincial governor	Presence of female party secretary	Total
Shanghai	0.000	0.000	0.000
Yunnan	0.000	0.000	0.000
Inner Mongolia	0.000	0.000	0.000
Beijing	0.000	0.000	0.000
Jilin	0.000	0.000	0.000
Sichuan	0.000	0.000	0.000
Tianjin	0.000	0.000	0.000
Ningxia	0.000	0.000	0.000
Anhui	0.067	0.000	0.067
Shandong	0.000	0.000	0.000
Shanxi	0.000	0.000	0.000
Guangdong	0.000	0.000	0.000
Guangxi	0.000	0.000	0.000
Xinjiang	0.000	0.000	0.000
Jiangsu	0.000	0.000	0.000
Jiangxi	0.000	0.000	0.000
Hebei	0.000	0.000	0.000
Henan	0.000	0.000	0.000
Zhejiang	0.000	0.000	0.000
Hainan	0.000	0.000	0.000
Shenzhen	0.000	0.000	0.000
Hubei	0.000	0.000	0.000
Hunan	0.000	0.000	0.000
Gansu	0.000	0.000	0.000
Fujian	0.000	0.200	0.200
Tibet	0.000	0.000	0.000
Guizhou	0.000	0.000	0.000
Liaoning	0.000	0.000	0.000
Chongqing	0.000	0.000	0.000
Shaanxi	0.000	0.000	0.000
Qinghai	0.333	0.000	0.333
Heilongjiang	0.000	0.000	0.000
Average	0.013	0.006	0.019

(Table 4 continued)

<i>Panel D</i> Province	Board Gender Diversity						
	Mean	SD	P1	P25	Median	P75	P99
Shanghai	0.101	0.106	0.000	0.000	0.100	0.167	0.444
Yunnan	0.086	0.084	0.000	0.000	0.091	0.111	0.333
Inner Mongolia	0.138	0.141	0.000	0.000	0.111	0.222	0.500
Beijing	0.102	0.102	0.000	0.000	0.095	0.154	0.429
Jilin	0.140	0.139	0.000	0.000	0.111	0.222	0.545
Sichuan	0.104	0.115	0.000	0.000	0.095	0.143	0.455
Tianjin	0.128	0.102	0.000	0.000	0.111	0.214	0.400
Ningxia	0.145	0.157	0.000	0.000	0.108	0.222	0.556
Anhui	0.093	0.101	0.000	0.000	0.091	0.143	0.385
Shandong	0.111	0.115	0.000	0.000	0.100	0.176	0.500
Shanxi	0.072	0.080	0.000	0.000	0.074	0.111	0.286
Guangdong	0.109	0.100	0.000	0.000	0.111	0.167	0.364
Guangxi	0.113	0.118	0.000	0.000	0.111	0.167	0.500
Xinjiang	0.128	0.099	0.000	0.067	0.111	0.200	0.400
Jiangsu	0.124	0.113	0.000	0.000	0.111	0.200	0.444
Jiangxi	0.090	0.080	0.000	0.000	0.091	0.143	0.286
Hebei	0.096	0.088	0.000	0.000	0.111	0.133	0.333
Henan	0.093	0.121	0.000	0.000	0.083	0.125	0.500
Zhejiang	0.122	0.113	0.000	0.000	0.111	0.200	0.444
Hainan	0.083	0.090	0.000	0.000	0.091	0.143	0.333
Shenzhen	0.125	0.110	0.000	0.000	0.111	0.200	0.429
Hubei	0.095	0.109	0.000	0.000	0.083	0.143	0.444
Hunan	0.097	0.102	0.000	0.000	0.091	0.143	0.364
Gansu	0.108	0.097	0.000	0.000	0.111	0.167	0.429
Fujian	0.125	0.110	0.000	0.000	0.111	0.200	0.444
Tibet	0.114	0.102	0.000	0.000	0.111	0.222	0.333
Guizhou	0.066	0.086	0.000	0.000	0.000	0.111	0.333
Liaoning	0.141	0.121	0.000	0.056	0.111	0.222	0.444
Chongqing	0.118	0.102	0.000	0.000	0.111	0.200	0.381
Shaanxi	0.115	0.127	0.000	0.000	0.111	0.167	0.556
Qinghai	0.115	0.107	0.000	0.000	0.091	0.154	0.500
Heilongjiang	0.112	0.124	0.000	0.000	0.106	0.182	0.556
Average	0.110	0.110	0.000	0.000	0.111	0.167	0.444

(Table 4 continued)

<b>Panel E</b>		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]
Board gender diversity	[1]	%women on board	1												
%Female freshmen in Tsinghua University	[2]	School of Medical Science	0.241*	1											
	[3]	Schools of Humanities and Social Science	0.153*	-0.140*	1										
	[4]	Schools of Physical Science, Technology and Engineering	0.180*	-0.045	0.519*	1									
	[5]	Total	0.240*	0.202*	0.682*	0.698*	1								
Gender role attitude	[6]	Q1	0.132*	0.439*	0.055	0.272*	0.208*	1							
	[7]	Q2	0.128*	0.462*	0.097	0.231*	0.212*	0.811*	1						
	[8]	Q3	0.073	0.176*	0.020	0.221*	0.138*	0.824*	0.698*	1					
	[9]	Q4	0.388*	0.090	0.299*	0.509*	0.333*	0.166*	0.098	0.089	1				
	[10]	Q5	0.210*	0.378*	-0.015	0.294*	0.106	0.829*	0.710*	0.754*	0.244*	1			
	[11]	Q6	-0.05	0.133*	0.004	0.439*	0.161*	0.717*	0.618*	0.668*	0.106	0.750*	1		
Female political role model	[12]	Presence of female provincial governor	0.068	0.103	0.071	0.003	-0.022	0.361*	0.241*	0.264*	-0.037	0.185*	0.085	1	
	[13]	Presence of female party secretary	0.113	0.032	-0.067	-0.083	-0.088	-0.041	-0.053	-0.051	-0.057	-0.011	-0.048	-0.009	1
	[14]	Total	0.121*	0.103	0.019	-0.046	-0.069	0.272*	0.167*	0.187*	-0.067	0.145*	0.042	0.814*	0.574*

**Table 5 Gender Disparity in Educational Achievement and Board Gender Diversity**

This table presents OLS regressions of provincial-level board gender diversity on the gender disparity in educational achievement. All time-varying control variables are lagged by one year relative to the dependent variable. Cluster-robust *t*-statistics are reported in brackets. \*\*\*, \*\*, and \* indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Variables are defined in Table 1.

Dependent variable = Board gender diversity				
	[1]	[2]	[3]	[4]
<i>%Female freshmen in Tsinghua University:</i>				
School of Medical Science	0.041*			
	[1.73]			
Schools of Humanities and Social Science		0.061		
		[1.47]		
Schools of Physical Science, Technology and Engineering			0.142**	
			[2.39]	
Total				0.142**
				[2.33]
<i>Control variables:</i>				
GDP	0.000	0.002	0.003	0.001
	[0.17]	[1.22]	[1.52]	[0.39]
GDP growth	0.094	0.117	0.088	0.099
	[1.38]	[1.64]	[1.28]	[1.41]
Birth rate	-0.002	-0.001	-0.002	-0.002
	[-1.29]	[-0.80]	[-1.16]	[-0.98]
%women	0.613**	0.515*	0.536*	0.497*
	[2.74]	[1.96]	[2.02]	[1.79]
%educated women	0.010	0.084	0.024	0.014
	[0.11]	[0.78]	[0.24]	[0.14]
%married women	-0.118*	0.013	0.001	0.000
	[-1.83]	[0.20]	[0.02]	[0.01]
Population density	-1.210*	-1.483**	-1.192*	-1.383**
	[-1.84]	[-2.25]	[-1.78]	[-2.13]
Constant	-0.111	-0.201	-0.180	-0.180
	[-0.91]	[-1.34]	[-1.21]	[-1.14]
Year fixed effect	Yes	Yes	Yes	Yes
Adj. R <sup>2</sup>	0.293	0.277	0.286	0.297
N	341	341	341	341

**Table 6 Gender Role Attitude and Board Gender Diversity**

This table presents OLS regressions of provincial-level board gender diversity on the gender equality attitude variables derived from CGSS survey questions regarding gender roles in society. All time-varying control variables are lagged by one year relative to the dependent variable. Cluster-robust *t*-statistics are reported in brackets. \*\*\*, \*\*, and \* indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Variables are defined in Table 1.

	Dependent variable = Board gender diversity					
	[1]	[2]	[3]	[4]	[5]	[6]
<i>Gender role attitude:</i>						
Q1	0.117*** [2.91]					
Q2		0.078** [2.55]				
Q3			0.168* [2.04]			
Q4				0.079** [2.48]		
Q5					0.086*** [4.22]	
Q6						0.073 [0.68]
<i>Control variables:</i>						
GDP	0.003* [1.79]	0.003 [1.49]	0.003 [1.41]	0.002 [1.16]	0.004** [2.71]	0.002 [1.23]
GDP growth	0.079 [1.24]	0.077 [1.13]	0.106 [1.55]	0.043 [0.63]	0.064 [1.22]	0.087 [1.29]
Birth rate	-0.003** [-2.12]	-0.003** [-2.34]	-0.003 [-1.60]	-0.003 [-1.65]	-0.003** [-2.44]	-0.002 [-1.27]
%women	0.628** [2.70]	0.614** [2.63]	0.655** [2.73]	0.464 [1.42]	0.645** [2.62]	0.651*** [2.82]
%educated women	-0.004 [-0.05]	-0.014 [-0.15]	0.000 [0.00]	0.041 [0.44]	0.013 [0.20]	0.052 [0.52]
%married women	-0.091 [-1.53]	-0.084 [-1.48]	-0.096 [-1.39]	-0.048 [-0.87]	-0.056 [-1.01]	-0.062 [-1.12]
Population density	-1.428*** [-3.06]	-1.578*** [-2.76]	-1.465*** [-2.88]	-1.154** [-2.15]	-1.392*** [-3.34]	-1.497*** [-2.46]
Constant	-0.118 [-0.89]	-0.125 [-0.96]	-0.129 [-0.88]	-0.080 [-0.54]	-0.163 [-1.13]	-0.160 [-1.12]
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R <sup>2</sup>	0.320	0.317	0.292	0.438	0.369	0.267
N	341	341	341	308	341	341



**Table 7 Female Political Role Model and Board Gender Diversity**

This table presents OLS regressions of provincial-level board gender diversity on the presence of female political role models in political establishments. All time-varying control variables are lagged by one year relative to the dependent variable. Cluster-robust *t*-statistics are reported in brackets. \*\*\*, \*\*, and \* indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Variables are defined in Table 1.

Dependent variable = Board gender diversity			
	[1]	[2]	[3]
<i>Female political role model:</i>			
Presence of female provincial governor	0.022* [1.70]		
Presence of female party secretary		0.020** [2.47]	
Total			0.022** [2.07]
<i>Control variables:</i>			
GDP	0.002 [0.95]	0.002 [0.90]	0.002 [0.94]
GDP growth	0.097 [1.28]	0.101 [1.40]	0.096 [1.27]
Birth rate	-0.002 [-1.21]	-0.002 [-1.10]	-0.002 [-1.23]
%women	0.367 [1.64]	0.355 [1.54]	0.339 [1.53]
%educated women	0.068 [0.60]	0.071 [0.62]	0.063 [0.56]
%married women	-0.071 [-1.16]	-0.064 [-1.01]	-0.072 [-1.16]
Population density	-1.366* [-1.91]	-1.362* [-1.87]	-1.339* [-1.88]
Constant	-0.010 [-0.08]	-0.013 [-0.10]	0.005 [0.04]
Year fixed effect	Yes	Yes	Yes
Adj. R <sup>2</sup>	0.246	0.238	0.249
N	341	341	341

**Table 8 Random Effects GLS Estimation**

This table presents province-level random effects GLS regressions of board gender diversity on the proxies for local gender equality attitudes. All time-varying control variables are lagged by one year relative to the dependent variable. Cluster-robust *t*-statistics are reported in brackets. \*\*\*, \*\*, and \* indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Variables are defined in Table 1.

<i>Dependent variable = Board gender diversity</i>	
<u>%Female freshmen in Tsinghua University:</u>	
School of Medical Science	0.037 [1.13]
Schools of Humanities and Social Science	0.002 [0.19]
Schools of Physical Science, Technology and Engineering	0.211*** [2.82]
Total	0.185*** [2.65]
<u>Gender role attitude:</u>	
Q1	0.107** [2.33]
Q2	0.071** [2.15]
Q3	0.133* [1.73]
Q4	0.092*** [2.61]
Q5	0.078*** [3.42]
Q6	0.065 [0.57]
<u>Female political role model:</u>	
Presence of female provincial governor	0.015* [1.88]
Presence of female party secretary	0.024*** [4.79]
Total	0.018*** [3.20]

**Table 9 Control for Female Labour Supply**

This table presents OLS regressions of provincial-level board gender diversity on the proxies for local gender equality attitudes by controlling for provincial-level female labour supply (*%working women*). All time-varying control variables are lagged by one year relative to the dependent variable. Cluster-robust *t*-statistics are reported in brackets. \*\*\*, \*\*, and \* indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Variables are defined in Table 1.

<i>Panel A:</i> Dependent variable = Board gender diversity				
	[1]	[2]	[3]	[4]
<i>%Female freshmen in Tsinghua University:</i>				
School of Medical Science	0.043*			
	[1.86]			
Schools of Humanities and Social Science		0.068		
		[1.40]		
Schools of Physical Science, Technology and Engineering			0.147**	
			[2.14]	
Total				0.148**
				[2.14]
<i>Control variables:</i>				
GDP	-0.001	0.003	0.003	0.001
	[-0.22]	[0.86]	[1.00]	[0.41]
GDP growth	0.095	0.119	0.087	0.099
	[1.38]	[1.64]	[1.28]	[1.41]
Birth rate	-0.002	-0.001	-0.002	-0.001
	[-1.33]	[-0.66]	[-1.08]	[-0.87]
%women	0.608***	0.504*	0.534*	0.493*
	[2.78]	[1.87]	[1.99]	[1.75]
%educated women	0.021	0.076	0.018	0.004
	[0.21]	[0.68]	[0.15]	[0.04]
%married women	-0.124*	0.022	0.004	0.004
	[-1.90]	[0.28]	[0.07]	[0.07]
Population density	-1.209*	-1.492**	-1.184*	-1.380**
	[-1.85]	[-2.27]	[-1.76]	[-2.13]
%working women	0.047	-0.034	-0.019	-0.026
	[0.40]	[-0.23]	[-0.14]	[-0.19]
Constant	-0.127	-0.192	-0.174	-0.171
	[-0.99]	[-1.23]	[-1.07]	[-1.01]
Year fixed effect	Yes	Yes	Yes	Yes
Adj. R <sup>2</sup>	0.294	0.276	0.285	0.296
N	341	341	341	341

(Table 9 continued)

<b>Panel B:</b> Dependent variable = Board gender diversity						
	[1]	[2]	[3]	[4]	[5]	[6]
<i>Gender role attitude:</i>						
Q1	0.117*** [2.94]					
Q2		0.078** [2.55]				
Q3			0.168** [2.05]			
Q4				0.077* [1.90]		
Q5					0.086*** [4.20]	
Q6						0.073 [0.67]
<i>Control variables:</i>						
GDP	0.003 [1.09]	0.002 [0.80]	0.002 [0.93]	0.002 [0.60]	0.004* [1.87]	0.002 [0.70]
GDP growth	0.080 [1.25]	0.077 [1.13]	0.107 [1.55]	0.044 [0.64]	0.064 [1.23]	0.088 [1.30]
Birth rate	-0.003* [-2.03]	-0.003** [-2.27]	-0.003 [-1.55]	-0.003 [-1.56]	-0.003** [-2.32]	-0.002 [-1.25]
%women	0.626** [2.71]	0.612** [2.65]	0.653** [2.74]	0.471 [1.40]	0.645** [2.61]	0.649** [2.83]
%educated women	0.002 [0.02]	-0.006 [-0.06]	0.006 [0.06]	0.045 [0.45]	0.012 [0.18]	0.057 [0.52]
%married women	-0.092 [-1.53]	-0.085 [-1.50]	-0.097 [-1.38]	-0.053 [-0.82]	-0.056 [-0.97]	-0.063 [-1.12]
Population density	-1.430*** [-3.07]	-1.582*** [-2.78]	-1.467*** [-2.88]	-1.155** [-2.14]	-1.392*** [-3.33]	-1.497** [-2.46]
%working women	0.021 [0.20]	0.028 [0.25]	0.018 [0.17]	0.022 [0.17]	-0.003 [-0.03]	0.017 [0.14]
Constant	-0.126 [-0.93]	-0.135 [-1.00]	-0.136 [-0.92]	-0.088 [-0.55]	-0.162 [-1.14]	-0.167 [-1.11]
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R <sup>2</sup>	0.318	0.316	0.291	0.437	0.367	0.265
N	341	341	341	308	341	341

(Table 9 continued)

<b>Panel C: Dependent variable = Board gender diversity</b>			
	[1]	[2]	[3]
<i>Female political role model:</i>			
Presence of female provincial governor	0.022 [1.70]		
Presence of female party secretary		0.020** [2.46]	
Total			0.022** [2.06]
<i>Control variables:</i>			
GDP	0.001 [0.47]	0.001 [0.43]	0.001 [0.46]
GDP growth	0.097 [1.28]	0.102 [1.40]	0.097 [1.27]
Birth rate	-0.002 [-1.19]	-0.002 [-1.08]	-0.002 [-1.21]
%women	0.365 [1.65]	0.352 [1.55]	0.337 [1.54]
%educated women	0.075 [0.62]	0.077 [0.64]	0.070 [0.58]
%married women	-0.073 [-1.17]	-0.065 [-1.02]	-0.074 [-1.17]
Population density	-1.369* [-1.91]	-1.364* [-1.87]	-1.342* [-1.89]
%working women	0.025 [0.21]	0.024 [0.20]	0.026 [0.22]
Constant	-0.020 [-0.14]	-0.022 [-0.15]	-0.004 [-0.03]
Year fixed effect	Yes	Yes	Yes
Adj. R <sup>2</sup>	0.244	0.236	0.248
N	341	341	341

**Table 10 Childcare Provision and Board Gender Diversity**

This table presents OLS regressions of provincial-level board gender diversity on childcare provision. All time-varying control variables are lagged by one year relative to the dependent variable. Cluster-robust *t*-statistics are reported in brackets. \*\*\*, \*\*, and \* indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	Dependent variable = Board gender diversity		
	[1]	[2]	[3]
<i>Childcare provision:</i>			
# Days of child being cared outside home per week	0.023 [0.19]		
% Survey respondents having their child cared for in non-household		0.166 [0.98]	
% Survey respondents having their child cared for in professional childcare facilities			0.005 [0.39]
Control variables:			
GDP	0.001 [0.38]	0.006 [1.77]	0.004 [1.57]
GDP growth	0.099 [1.36]	0.059 [0.92]	0.038 [0.61]
Birth rate	-0.002 [-0.95]	-0.004 [-1.58]	-0.006*** [-3.54]
%women	0.631** [2.67]	0.035 [0.18]	0.039 [0.17]
%educated women	0.075 [0.66]	-0.194 [-1.72]	-0.109 [-1.43]
%married women	-0.052 [-0.94]	-0.143 [-0.74]	-0.063 [-0.37]
Population density	-1.368* [-1.94]	-0.593* [-1.82]	-0.336 [-0.70]
Constant	-0.171 [-1.13]	0.213 [0.94]	0.174 [0.87]
Year fixed effect	Yes	Yes	Yes
Adj. R <sup>2</sup>	0.256	0.556	0.523
N	341	132	132

**Table 11 Local Gender Equality Attitudes and Firm-Level Board Gender Diversity**

This table presents firm-level OLS regressions of board gender diversity on the proxies for local gender equality attitudes and childcare provision. The sample is a firm-year panel data set. All time-varying control variables are lagged by one year relative to the dependent variable. The *t*-statistics based on standard errors corrected for heteroscedasticity and firm-level clustering are reported in brackets. \*\*\*, \*\*, and \* indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

<i>Panel A:</i>	Dependent variable = Board gender diversity			
	[1]	[2]	[3]	[4]
<i>%Female freshmen in Tsinghua University:</i>				
School of Medical Science	0.002 [0.36]			
Schools of Humanities and Social Science		-0.011 [-1.01]		
Schools of Physical Science, Technology and Engineering			0.045* [1.83]	
Total				0.007 [0.30]
<i>Control variables:</i>				
Ln(Board size)	0.001 [0.12]	0.001 [0.13]	0.001 [0.14]	0.001 [0.12]
%Independent directors	0.003 [0.12]	0.002 [0.12]	0.003 [0.13]	0.003 [0.12]
Leverage	0.750 [0.10]	0.748 [0.10]	0.719 [0.09]	0.761 [0.10]
Ln(1+Sales growth)	-0.004* [-1.77]	-0.004* [-1.74]	-0.004* [-1.78]	-0.004* [-1.78]
ROA	0.014 [0.84]	0.015 [0.85]	0.015 [0.88]	0.014 [0.84]
Ln(Assets)	-0.009*** [-5.64]	-0.009*** [-5.67]	-0.009*** [-5.63]	-0.009*** [-5.64]
Ln(Firm age)	-0.003 [-1.20]	-0.003 [-1.19]	-0.003 [-1.23]	-0.003 [-1.21]
Government ownership	-0.032*** [-4.44]	-0.033*** [-4.46]	-0.032*** [-4.42]	-0.032*** [-4.43]
Institutional ownership	-0.000 [-0.06]	-0.000 [-0.05]	-0.000 [-0.05]	-0.000 [-0.05]
Managerial ownership	0.047 [1.55]	0.046 [1.53]	0.047 [1.57]	0.047 [1.55]
%Male directors with external connections to female directors	0.036* [1.74]	0.036* [1.75]	0.036* [1.77]	0.036* [1.75]
Director connectedness	-0.005*** [-4.28]	-0.005*** [-4.28]	-0.005*** [-4.29]	-0.005*** [-4.29]
GDP	0.001 [0.40]	0.001 [0.40]	0.001 [0.50]	0.001 [0.40]
GDP growth	0.025 [0.52]	0.027 [0.55]	0.029 [0.59]	0.027 [0.55]
Birth rate	-0.003** [-2.28]	-0.003** [-2.38]	-0.003** [-2.32]	-0.003** [-2.26]
%women	0.420** [2.45]	0.456*** [2.66]	0.402** [2.35]	0.418** [2.46]
%educated women	-0.008 [-0.21]	-0.007 [-0.18]	-0.024 [-0.58]	-0.011 [-0.26]
%married women	-0.056 [-0.94]	-0.059 [-0.99]	-0.057 [-0.97]	-0.056 [-0.94]

Population density	-0.488	-0.461	-0.395	-0.483
	[-1.64]	[-1.55]	[-1.31]	[-1.63]
Constant	0.149	0.144	0.150	0.149
	[1.51]	[1.45]	[1.52]	[1.51]
Industry fixed effect	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes
Adj. R <sup>2</sup>	0.064	0.064	0.064	0.064
N	14325	14325	14325	14325

<b>Panel B:</b>		Dependent variable = Board gender diversity					
	[1]	[2]	[3]	[4]	[5]	[6]	
<i>Gender role attitude:</i>							
Q1	0.151***						
	[3.35]						
Q2		0.072**					
		[2.24]					
Q3			0.229***				
			[3.15]				
Q4				0.067*			
				[1.68]			
Q5					0.081***		
					[3.32]		
Q6						0.131**	
						[2.05]	
Firm-level controls	Yes	Yes	Yes	Yes	Yes	Yes	
Province-level controls	Yes	Yes	Yes	Yes	Yes	Yes	
Industry fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	
Adj. R <sup>2</sup>	0.067	0.065	0.066	0.066	0.068	0.065	
N	14325	14325	14325	14021	14325	14325	

<b>Panel C:</b>		Dependent variable = Board gender diversity		
	[1]	[2]	[3]	
<i>Female political role model:</i>				
Presence of female provincial governor		0.004		
		[0.51]		
Presence of female party secretary			0.020*	
			[1.81]	
Total			0.012*	
			[1.80]	
Firm-level controls		Yes	Yes	
Province-level controls		Yes	Yes	
Industry fixed effect		Yes	Yes	
Year fixed effect		Yes	Yes	
Adj. R <sup>2</sup>		0.076	0.076	
N		14325	14325	

(Table 11 continued)

<b>Panel D:</b>		Dependent variable = Board gender diversity		
	[1]	[2]	[3]	



Childcare provision:

# Days of child being cared outside home per week	0.009		
	[0.82]		
% Survey respondents having their child cared for in non-household		-0.019	
		[-0.21]	
% Survey respondents having their child cared for in professional childcare facilities			0.035
			[0.27]
Firm-level controls	Yes	Yes	Yes
Province-level controls	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes
Adj. R <sup>2</sup>	0.078	0.078	0.078
N	7368	7368	7368

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