Learning but Not Acting in Rural China

Women in the Ningxia Autonomous Region, Voting Rights Training, and Voting Behavior in Village Elections

ABSTRACT

This paper studies women’s participation in village elections. It focuses on the impact of voting rights training on women’s knowledge, and their voting behaviors in Ningxia, China, a Hui nationality autonomous region with a conservative cultural environment for women. A randomized controlled trial has been used in the study.

KEYWORDS: rural women, political participation, village election, rural China, randomized controlled trial, RCT

INTRODUCTION

Many women in rural China do not vote. Despite high voting rates claimed by officials in China, micro-level data show that the actual voting rates of women are often low.1 When rigorous definitions are applied to what constitutes actual voting (i.e., if “voting” is only counted when individuals each mark their own ballot or are consulted about their vote while someone else marks the ballot, and the voter physically places it in the ballot box), based on a nationally representative dataset, only 60% of women fully exercise their

voting rights.² The actual voting rate is even lower for young women and migrant women. In contrast, nearly 90% of men in rural China vote. This is a wide gap, in comparison with other developed and developing countries.³

A paper focusing on Fujian and Liaoning Provinces showed that training women on their voting rights helped increase voting rates and close the male-female voting gap. Despite this finding, it is important to note that after the training many of the women did not change their behavior.⁴ This, of course, motivates the question: why is it that in some cases women in rural villages do not vote even though they are aware of their voting rights and were trained on how to vote? The question can also be restated in terms of comparisons between men and women: why is it that women participate in community activities (including voting) less than men?⁵

In fact, scholars studying elections in China have suggested a number of possible reasons for the low voting rates. Most of these reasons, interestingly, appear to be founded on basic differences between the genders—when measured by individual characteristics. For example, one researcher suggests that voting rates are low because education levels of rural women are low.⁶ One of the consequences of these facts may be that many women were not able to fully comprehend the training material. Illiterate women may shy away from voting because marking the ballot requires reading

---

⁵ Besides lower rates of voting, it has been documented that women participate in village activities at rates lower than that of men. For example, men make up 78.5% of Communist Party membership (data are from the website of *Zhongguo Gongchandang Xinwenwang* [Communist Party of China news website], <http://cpc.people.com.cn/GB/164113/11990628.html>). In water user associations (WUA), according to the authors’ interview with lead author Jinxia Wang et al. below, more than 80% of WUA participants are men (Jinxia Wang, Jikun Huang, Lijuan Zhang, Qiuqiong Huang, and Scott Rozelle, “Water Governance and Water Use Efficiency: The Five Principles of WUA Management and Performance in China,” *Journal of the American Water Resources Association* 46:4 (2010), pp. 665–85).
skills.\textsuperscript{7} Other scholars have suggested that women often do not have their own sources of income and, as a result, may be pressured to vote in a way dictated by their husbands.\textsuperscript{8}

Above all, traditional cultural norms do not always encourage women to participate in the public affairs of rural communities.\textsuperscript{9} Based on our interviews during fieldwork in all parts of China, we find that despite a rapidly developing economic landscape, cultural norms still play an active role in defining social and economic behavior. In the field of economic development, economic behavioral and material determinants are often looked to as explanations for economic/social behavior.\textsuperscript{10} However, there are schools of economists that also recognize that cultural norms can play a role.\textsuperscript{11} Specifically, if cultural norms in a village stress values that discourage women from participating in community activities, these norms may well be helping to dampen their participation in voting.

It is almost certainly impossible to quantitatively measure the strength of cultural norms and the importance of the role they play in shaping women’s behavior, including their willingness to vote. Because of this, it also is impossible to study this issue using traditional quantitative approaches. However, we do believe that it is possible to learn something about this issue by conducting a randomized control trial (RCT). The approach strives to replicate the study of the impact of training programs on the voting behavior of women in villages in which it was clear that communities were being governed by strong traditional (or more conservative) cultural values/norms.

\textsuperscript{7} In the sample that will be analyzed, it is possible that low levels of education/literacy are one of the explanations for a low voting rate. In our sample, 31\% women had never attended school; 19\% of the sample women did not graduate from elementary school.

\textsuperscript{8} Fenglian Shi, “Zhongguo Nongcun Funvu Zhengzhi Lengmo Xianxiang Tanxi” [Analysis of Chinese rural women’s political indifference], in Shandong Daxue Xuebao (Zhexue Shehui Xueban) [Journal of Shandong University (Philosophy and Social Sciences)] 1 (2009), pp. 154–60.


Therefore, in this study we report on the results of an empirical analysis in the Ningxia Hui Autonomous Region. We chose Ningxia for two reasons. First, a large share of the population (35%) is Hui,\textsuperscript{12} individuals categorized as a minority group in China that has been studied by anthropologists and identified as conservative.\textsuperscript{13} In our data (described more below) around half (45%) of our sample villages were Hui villages. Second, it should be noted that Ningxia is a poor and remote province (compared to the coastal provinces of Fujian and Liaoning). In our data, these rates of poverty and remoteness can be seen in the following factors:

- low levels of education (women have only five years of schooling),
- low share of the population that works off the farm as migrant workers (around 20%),
- large share of villages dominated by single surnames (70%), and
- the male-dominated nature of village politics (the village leader and party secretary were male in more than 98% of our villages).

So what did we do in this sample of Ningxia villages? Specifically, in 2010 we repeated the training program and impact evaluation work that we reported on for Fujian and Liaoning in \textit{China Quarterly}. In this new study, we trained women/leaders in these more traditional/conservative and remote Han communities in which large shares of the inhabitants are either Hui minority or poor Han (or poor Hui). In Hui communities (and often in poor communities), cultural norms are such that the job of the wife/daughter-in-law should be primarily confined to looking after household matters and under the direction of one’s husband or parents-in-law.\textsuperscript{14}

The overall goal of this paper is to understand the level of women’s participation in village elections and the impact of training women on their voting rights and the actual voting rates in villages in Ningxia. To meet this overall goal, we pursue three specific objectives. First, we measure the voting

\textsuperscript{12} The Hui, a Chinese minority, are Muslims.

\textsuperscript{13} Dru C. Gladney, “The Hui, Islam, and the State: A Sufi Community in China’s Northwest Corner,” in \textit{Central Asia: Expressions of Identity and Change}, ed. by Jo-Ann Gross (Durham, N. C.: Duke University Press, 1992), pp. 93–96. In this paper, “conservative” is used in a way that represents a set of societal norms in which (1) public activities are male-dominated, and (2) it is a woman’s job to take care of family and household matters under the direction of her father, husband, or parents-in-law.

\textsuperscript{14} Qichen Ma and Ding Hong, \textit{Zhongguo Yisilan Wenhua Leixing Yu Minzu Tese} [Type of Chinese Islamic culture and ethnic characteristics] (Beijing: Central University for Nationalities Press, 1998). See also our more complete discussion in the next section below.
rates of women in Ningxia’s rural areas. Second, we measure the effect of training on women’s knowledge about their voting rights. Third, we measure the effect of training on the propensity of women to exercise their voting rights, and seek to understand the reasons why women vote at the rates that they do. In the conclusion, we step back and compare the findings from Ningxia with those from Fujian and Liaoning.

In pursuing these goals, we seek, as economists, to offer two possible explanations for our findings. One is an economic explanation. Traditionally (at least since World War Two), economists have mainly focused on pure economic causality and allowed little room for culture as an explanation. Instead of culture, using the terminology of Binswanger and Rosenzweig, we are looking for the behavioral and material determinants associated with being in remote and undereducated communities that keep the villages in our sample isolated and resistant to change, in short, “conservative.” In other words, it is this under-education and the lack of access to employment in the wider economy that tend to limit the ability of women to learn about their voting rights and responsibilities—much less to act on their new-found knowledge.

We also seek to examine the role that culture or the presence of conservative social values is playing. More recently, empirical social scientists, including economists, have taken on the challenge of trying to assess how an area’s culture helps to create and foster economic and social outcomes. While some researchers such as Guiso et al. have begun to try to quantify culture (usually in admittedly partial ways), we do not take this path. Instead, we follow the lead of two social scientists. First, we follow Greif, who understands that culture plays an important role, tries to explain it (and its importance), but does not try to measure it per se. Second, we adopt the strategy of Landes, who believes that both culture and traditional values are important and uses more qualitative approaches to illustrate their importance.

The choice of Ningxia for our study is both a strength of the paper but also embodies some limitations. Ningxia’s population has a relatively high share

15. See Guiso et al., “Does Culture Affect Economic Outcomes?”
16. See Binswanger and Rosenzweig, “Behavioural and Material Determinants of Production Relations in Agriculture.”
of Hui ethnic minority members. It is a poor and remote province of China. We chose this autonomous region because it is widely perceived (as we will show below) as being relatively conservative. However, because we are choosing villages in only one autonomous region, we may be limiting the external validity of our findings. We also would like to be able to identify the different effects that our intervention has in both Hui and Han communities in the same area. Unfortunately, although we execute this analysis and report the results in an online appendix, the absence of statistical power (because our sample sizes are too small if we separate our sample into Hui villages only and Han villages only) means that we cannot determine if our findings derive from low power, or if we are truly measuring a zero effect. The key finding here is that the intervention had no effect on voting behavior in either Han or Hui villages.

The rest of the paper is organized as follows. The next section describes the sample, the interventions, the data collection efforts, and our methodological approach. The following section describes the results. We initially look at the descriptive results and then the results from the multivariate analysis. The final substantive sections step back and reexamine the quantitative results using the findings of detailed interviews conducted by the authors. The last section of the paper summarizes our findings, drawing comparisons with the findings from our China Quarterly paper.

SAMPLING, DATA, AND METHODS

The Choice of Ningxia

Our choice of Ningxia as being a conservative, tradition-bound location in China is consistent with the anthropological literature. Gladney has provided the China community with the most comprehensive sets of ethnographies of the Hui in Ningxia (as well as other parts of China). The observations in his work reveal a daily life that is lived within the dictates of religion, traditional village leadership, and in-the-home traditions that are not found in other parts of China (e.g., the communities of Fujian and Liaoning in which we did our original work). Gladney and others demonstrate how, at least in part,

these traditional values have affected gender relations and the lives of women in the Hui villages.\textsuperscript{20}

The prominence of the ethnic component to the local political economy and status of women, however, raises the issue of whether all communities in the Ningxia sampling area (poor communities in rural Ningxia) are similarly conservative because more than half of Ningxia’s population is Han (and not Hui). When looking at aggregate statistics of Han and Hui outcomes in education, for example, there are systematic differences.\textsuperscript{21} Differences in off-farm employment and income have been found between Han and Hui in large national studies. Given that there is little intermarriage and the two communities are usually distinct, there is reason to doubt that the conservative nature of the Hui communities in Ningxia would also pertain to the Han.\textsuperscript{22}

However, many anthropologists including Lipman and Gillette are quick to point to the dangers of relying on aggregations of Han and Hui across China.\textsuperscript{23} There is a clear sense that the differences among Hui communities across China are greater than the differences between Hui and Han communities locally. There are differences between Han and Hui, to be sure, but the local environments appear to exert considerable influence in shaping both Hui and Han communities in a single location (such as Ningxia).

The data used in this study, described in detail below, bear this out. When looking at levels of educational attainment, graduation from high school is less than 6\% for both Han and Hui. The same is true for access to off-farm employment. In Han villages, 19\% of women work off the farm; in Hui villages, it is 24\%. These rates are statistically identical. Hence, although there are notable differences between Hui and Han communities when one visits them, in fact, with regard to several key characteristics thought to reflect the status of women and their access to resources, Hui and Han women in our villages are similar.


\textsuperscript{21} See Gladney, \textit{Dislocating China}.


In the rest of the main part of this analysis, including the qualitative discussion, we combine the samples together and analyze the effect of training women on their knowledge and voting behavior. Indeed, the sample is statistically powered to distinguish between the arms of the intervention and the control group using the combined sample. However, in an online appendix we included the results of subanalyses in which we divide the sample into two parts (only Han villages vs. only Hui villages). The results for both of the subsamples are largely consistent with the statistical analysis in the main body of this paper (using the combined Hui and Han sample).

**Sampling and the Process of Randomization**

We conducted an RCT on the effect of training for women and village leaders on women’s voting rights in 2010. A total of 360 women and more than 100 village leaders from 36 villages in Ningxia participated in our study. To make our results more comparable to the work in less conservative regions of China (i.e., Fujian and Liaoning), the steps of the study’s methodological protocol are almost identical to those used in the study of Fujian and Liaoning. After choosing Ningxia as the general location of our study, we randomly chose three counties in Ningxia, one from the richest tercile of counties, one from the middle tercile, and one from the poorest.

We then chose the sample towns, villages, and study respondents. To do so, we randomly chose three towns from each county and four villages from each town. Using the official household list, we randomly selected 10 households from each village, and randomly chose one woman from each household who was over 22 years old and had permanent rural residency status. In total, there were 36 villages and 360 women in our initial sample, and they were ultimately assigned to one of three experimental arms or a control arm.

---


25. Please see our online working paper for a more complete version of the Sampling, Data, and Methods section.

26. Note that our sample of respondents only included women. We did not survey men.

27. Some attrition in these numbers occurred by the end of the study. Because elections were not held on schedule in one of the sample villages, our final sample only included 35 villages. A total of 24 women were lost to followup in the final set of study villages between the baseline and evaluation surveys, mostly due to the fact that off farm jobs took them away from the village. We also had one village drop out (of the control group) because they did not hold an election. A total of 326 women
The study villages were balanced on observable characteristics at the time of our baseline survey (see Table 1). To help the reader better understand the project timeline, Figure 1 includes a summary of the flow of participants through each phase of the study.

The study villages were balanced on observable characteristics at the time of our baseline survey (see Table 1). To help the reader better understand the project timeline, Figure 1 includes a summary of the flow of participants through each phase of the study.

Table 1. Baseline Individual Characteristics by Experimental Group

<table>
<thead>
<tr>
<th></th>
<th>Women’s Training Group</th>
<th>Dual Training Group</th>
<th>Leaders’ Training Group</th>
<th>Control Group</th>
<th>P-value (Test of Equality of Groups)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>39.8 (10.9)</td>
<td>41.4 (9.8)</td>
<td>40.4 (9.8)</td>
<td>41.4 (10.8)</td>
<td>0.69</td>
</tr>
<tr>
<td>Years of education</td>
<td>4.9 (4.0)</td>
<td>5.1 (4.1)</td>
<td>5 (4.4)</td>
<td>5.2 (4.0)</td>
<td>0.96</td>
</tr>
<tr>
<td>Years married</td>
<td>21.5 (14.8)</td>
<td>24.1 (12.3)</td>
<td>21.8 (11.3)</td>
<td>24.7 (14.6)</td>
<td>0.31</td>
</tr>
<tr>
<td>Member of Party (%)</td>
<td>3.4 (18.3)</td>
<td>1.2 (11.1)</td>
<td>0 (0.0)</td>
<td>2.6 (5.9)</td>
<td>0.37</td>
</tr>
<tr>
<td>Ever been village cadre (%)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>1</td>
</tr>
<tr>
<td>Off farm employment (%)</td>
<td>25.3 (43.7)</td>
<td>19.8 (40.1)</td>
<td>23.8 (42.9)</td>
<td>16.7 (37.5)</td>
<td>0.53</td>
</tr>
<tr>
<td>Han (%)</td>
<td>54.0 (50.1)</td>
<td>64.2 (48.2)</td>
<td>61.3 (49.0)</td>
<td>69.2 (46.4)</td>
<td>0.24</td>
</tr>
<tr>
<td>Dominant surname a (%)</td>
<td>66.7 (47.4)</td>
<td>70.4 (45.9)</td>
<td>71.3 (45.5)</td>
<td>73.1 (44.6)</td>
<td>0.83</td>
</tr>
<tr>
<td>Baseline score on voting knowledge test b</td>
<td>56.0 (15.8)</td>
<td>56.2 (16.3)</td>
<td>56.7 (17.0)</td>
<td>58.1 (18.2)</td>
<td>0.86</td>
</tr>
</tbody>
</table>

SOURCE: Authors’ survey.
NOTE: Percentages are of the total number of women in the experiment arm. Standard deviations are in parentheses.

a Husband’s surname is the dominant one in the village.
b Percent correct out of 18 questions.

The study villages were balanced on observable characteristics at the time of our baseline survey (see Table 1). To help the reader better understand the project timeline, Figure 1 includes a summary of the flow of participants through each phase of the study.

participated in the evaluation survey. Total attrition from the baseline survey to the follow-up survey was 9.4%. Importantly, the rate of attrition of women respondents and the characteristics of the women were balanced across the control group and experimental arms. In our sample, 62% of the women were Han; 28% were Hui.
3 counties randomly selected from Ningxia

3 townships randomly selected from each county

4 villages randomly selected from each township, and randomized across 3 experimental groups + control (36 villages in the baseline)

Allocation (August 2010)

Evaluation Survey (December 2010)

Analysis

SOURCE: By authors.
Experiment Arms/Interventions

Our experiment included three intervention arms:

WOMEN’S TRAINING GROUP. This intervention provided training about voting, to women only. There were two trainers from Renmin University of China. Most of the training focused on presenting the training material in a clear and consistent manner.

While we were in a given village, we also followed a standardized protocol. Shortly after completing the baseline survey, the trainer gathered the women together in a meeting room or in one of the women’s homes. All 10 women were trained together. Village and township leaders were not allowed in or near the training room.

The contents of the training included (i) an overview of women’s voting behavior in rural China and the importance of women’s voting, (2) the basic rights of women and their voting responsibilities, (3) a description of the mechanics of correct voting behavior, and (4) encouragement to mark and cast their ballots themselves. The material came from one of three sources: official policy and legal documents, published academic literature, and instructional material from the Ministry of Civil Affairs. Care was taken to rewrite the material in a way that women with low levels of literacy could understand the concepts being communicated.

LEADERS’ TRAINING GROUP. This intervention provided more or less the same training to village leaders as was given to women in the Women’s Training Group, but did not give any intervention to women themselves. In carrying out the intervention, three of the main leaders in the village were selected to participate in the training: the secretary of the village Communist Party committee (cunshuji), the village chairman (cunzhuren or cunzhang), and either the women’s director (funuzhuren) or the village accountant (kuaiji). The material presented to the village leaders was similar to that given to the women, except that it focused on how to enhance women’s ability to vote in all stages of the election process, from the campaign through the actual casting of ballots. Suggestions were also given to the village leaders of ways to encourage women to fully exercise their voting rights.

DUAL TRAINING GROUP. In these villages, both women and village leaders were trained. The protocols, materials, and approach for training the women
(leaders) were identical to those used in the Women’s Training Group (Leaders’ Training Group).

Control Group. Women/leaders in the control villages were given no training.

Data Collection

Women’s Survey. We collected two rounds of data: a baseline and an evaluation survey. The women who completed the baseline survey also completed the evaluation survey. We conducted the baseline survey before the training/village election and conducted the evaluation survey after the training/village election. The survey was given to 10 randomly chosen women in each village and no men.

The women’s survey for the baseline included two blocks. The first block was designed to collect information about household/individual characteristics. The second block collected information about the women’s voting experience during the most recent election. The information on voting experience included three sections: (1) whether she participated in the last election, marked the ballot by herself, and/or cast the ballot by herself; (2) whether she designated anyone else to mark and cast her ballot; and (3) her understanding of the village election. The third part of the second block was an 18-question test on voting knowledge.

During the evaluation survey, enumerators helped women fill out a questionnaire that was almost identical to that filled out during the baseline survey. In particular, the knowledge test was given again as a way to evaluate what women had learned from the training program. Once the survey forms were filled out and filed, qualitative interviews were carried out.

Village Leaders’ Survey. In addition to the women’s survey, we also conducted a multiple block survey to collect information about the village and village leaders. The village leaders were interviewed by enumerators during the baseline and evaluation surveys using a three-part questionnaire. The first section of the survey collected basic characteristics of the village.

28. We have posted a copy of the survey instruments in our online working paper.
leaders. The second section covered village policies related to women during elections. The third section was a test of leaders’ knowledge.

**Statistical Analysis**

To improve estimation efficiency, we ran a series of multivariate double difference models in order to estimate the net effect of the treatments on changes in test scores and voting behavior before and after the interventions. The main point of the modeling strategy is that we included nine variables that control for the individual and household characteristics of the women and four variables that control for village-level characteristics. We use OLS regression analysis to estimate how test scores and voting behavior changed in the intervention groups relative to the control group. The statistical power of our analysis is sufficient to detect a standardized effect size of 0.25 with approximately 80% power at the 5% significance level.

**QUANTITATIVE RESULTS**

**Impact of the Experiments on Women’s Knowledge**

Our descriptive statistics show that when the training programs included women, women increased their knowledge about their right to vote and the mechanics involved in exercising that right (see Table 2). At the baseline, there was no significant difference in average test scores across the intervention groups and control group (Panel A, row 1). Women in each of the groups, on average, answered between 56% and 58.1% of the questions correctly. At the follow-up testing, however, the percent of correct answers differed slightly more among the groups (Panel A, row 2). The percentages range from 62.5% (among women in the control group) to 66.7% (among women in the Dual Training Group). However, when examining the

29. The models can be seen in our online working paper.
30. In all regressions, we accounted for the clustered nature of our sample by constructing Huber-White standard errors corrected for village-level clustering.
31. As discussed in the introduction, in an on-line appendix we include the results of subanalyses in which we divide the sample into two parts (only Han villages; and only Hui villages). The results for both of the subsamples are largely consistent with the statistical analysis in the main body of this paper (using the combined Hui and Han sample). The interested reader can find the tables at <http://reap.stanford.edu/docs/learning_but_not_acting_women_in_ningxia_autonomous_region_voting_rights_training_and_voting_behavior>.
changes in test scores from baseline to evaluation, the low p-value (0.09) means that the changes differ significantly across the groups (Panel A, row 3). The descriptive statistics show that women who received training scored over four to five percentage points higher (or more than 10% higher) than women who did not receive training.
When we aggregate all women who received training (Aggregated Women’s Training Group) and compare their test scores to the test scores of women who did not receive training (Aggregated Control Group), the increase in test scores, while still modest, is statistically larger when women received training (10.15 versus 5.13—Panel B, row 6). The multivariate analysis results are mostly consistent with the descriptive results (see Table 3). The coefficients measuring the impacts on test scores of the experimental interventions that included women’s training are all positive, and are significant in five of the six cases. When women received training in either the Women’s Training Group or the Dual Training Group, their test scores

<table>
<thead>
<tr>
<th>Panel A. By Three Experimental Groups and One Control Group</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(i)</td>
<td>(2)</td>
</tr>
<tr>
<td>Women’s Training Group</td>
<td>5.42</td>
<td>5.77</td>
</tr>
<tr>
<td></td>
<td>(2.82)*</td>
<td>(2.93)*</td>
</tr>
<tr>
<td>Dual Training Group</td>
<td>6.08</td>
<td>5.17</td>
</tr>
<tr>
<td></td>
<td>(2.35)**</td>
<td>(2.43)**</td>
</tr>
<tr>
<td>Leaders’ Training Group</td>
<td>1.42</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>(2.80)</td>
<td>(2.60)</td>
</tr>
</tbody>
</table>

| Individual-level variables | No | Yes | Yes |
| Village-level variables | No | No | Yes |
| Observations | 326 | 326 | 326 |
| R-square | 0.02 | 0.07 | 0.11 |

<table>
<thead>
<tr>
<th>Panel B. By Aggregated Treatment and Control Groups</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(4)</td>
<td></td>
</tr>
<tr>
<td>Aggregated Women’s Training Group*</td>
<td>5.02</td>
<td>4.77</td>
</tr>
<tr>
<td></td>
<td>(2.05)**</td>
<td>(2.02)**</td>
</tr>
</tbody>
</table>

| Individual-level variables | No | Yes | Yes |
| Village-level variables | No | No | Yes |
| Observations | 326 | 326 | 326 |
| R-square | 0.02 | 0.04 | 0.11 |

**SOURCE:** Ibid. to Table 2.

**NOTE:** Robust standard errors clustered at the village level are in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1%, respectively.

*Aggregated Women’s Training Group includes observations from both the Women’s Training Group and the Dual Training Group.

When we aggregate all women who received training (Aggregated Women’s Training Group) and compare their test scores to the test scores of women who did not receive training (Aggregated Control Group), the increase in test scores, while still modest, is statistically larger when women received training (10.15 versus 5.13—Panel B, row 6). The multivariate analysis results are mostly consistent with the descriptive results (see Table 3). The coefficients measuring the impacts on test scores of the experimental interventions that included women’s training are all positive, and are significant in five of the six cases. When women received training in either the Women’s Training Group or the Dual Training Group, their test scores.
significantly increased by 5.42 to 6.08 percentage points. When we control for individual characteristics, as is done in Equation 2 (Table 3, column 2), the coefficients on the Women’s Training Group and Dual Training Group variables remain both robustly positive (though modest in size) and statistically significant (5.77 and 5.17). The same is true for the Women’s Training Group when we control for individual variables and village-level variables in Equation 3 (Table 3, column 3, row 1).

The coefficients on the Leaders’ Training Group variable, in contrast, demonstrate that the intervention that trained only leaders did not have an effect on women’s knowledge (Table 3, Panel A, row 3). The coefficients are all insignificantly different from zero. The implication of this result is that leaders either were not willing or able to transmit the content of the training to the women in their village.

Table 4 suggests that the failure of leaders to increase the voting knowledge of women may at least in part be due to the way that leaders absorbed the training material.32 The increases in leaders’ scores on their own test of voting

32. Although the two tests (the one given to women respondents and the one given to leaders) were “similar,” they did contain fundamental differences. Because of this (that is, because the exam given to leaders contained different questions and emphasized different aspects of the training than the one given to women), the results are not comparable.
knowledge are slightly lower in the Leaders’ Training Group than in the Control Group (Table 4, row 3, columns 3 and 4). Across all groups, there is no statistical difference in increase.

The regression results (not included for brevity but available from the authors upon request), looking at the impact on the test scores of leaders, support the descriptive statistics: the coefficients on the different intervention groups are all significantly indistinguishable from zero. In other words, even after receiving training, leaders’ test scores did not increase relative to those who did not receive training. When we look at the performance of female village leaders, there is no difference in performance from male leaders.33

Impact of the Interventions on the Way Women Vote

The need to increase women’s voting rates in Ningxia can best be understood by considering the results of the baseline survey (Table 5, row 1). Only one-third of women who participated in the election fully exercised their voting rights. These rates are lower than those reported in Pang and Rozelle (2010),34 who used a separate set of data from a larger, nationally representative sample (74%) and even lower than those of other provinces (69%) reported in our China Quarterly paper. It can also be seen from the results of the baseline survey that the share of women who marked their ballots by themselves (row 4) and the share of women who cast their own ballots (row 7) are also quite low. Clearly, women were not fully exercising their voting rights at the time of the baseline survey.

Even though training for women on their voting rights has been shown as a way to improve women’s voting behavior (both in our China Quarterly report and in the research of others),35 the results from the evaluation survey indicate that the study’s interventions have no impact on improving women’s voting behavior in Ningxia. When examining the changes between the baseline and evaluation surveys, the number of women who fully exercised their voting rights in the Women’s Training Group and the Dual Training Group

---

33. In total, 73 male (14 female) village leaders took both the baseline and endline survey/examination. When using sample (n = 87) of leaders that took the examination twice, there is no difference between men and women in the change of their knowledge.

34. Pang and Rozelle, “Who Are True Voters?”

The change in voting behavior, by aggregated treatment and control groups, is shown in Table 5.

<table>
<thead>
<tr>
<th>Panel A. Change in Actual/Reported Voting</th>
<th>Aggregated Women’s Training Group</th>
<th>Aggregated Control Group</th>
<th>P-value (Equality of Groups)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>32.14</td>
<td>32.91</td>
<td>0.88</td>
</tr>
<tr>
<td>Evaluation</td>
<td>34.52</td>
<td>45.57</td>
<td>0.04</td>
</tr>
<tr>
<td>Change</td>
<td>2.38</td>
<td>12.66</td>
<td>0.13</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel B. Change in Marking Ballot by Herself</th>
<th>Aggregated Women’s Training Group</th>
<th>Aggregated Control Group</th>
<th>P-value (Equality of Groups)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>37.5</td>
<td>43.04</td>
<td>0.31</td>
</tr>
<tr>
<td>Evaluation</td>
<td>36.31</td>
<td>51.9</td>
<td>0.00</td>
</tr>
<tr>
<td>Change</td>
<td>-1.19</td>
<td>8.86</td>
<td>0.13</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel C. Change in Casting Ballot by Herself</th>
<th>Aggregated Women’s Training Group</th>
<th>Aggregated Control Group</th>
<th>P-value (Equality of Groups)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>36.31</td>
<td>36.71</td>
<td>0.94</td>
</tr>
<tr>
<td>Evaluation</td>
<td>43.45</td>
<td>49.37</td>
<td>0.29</td>
</tr>
<tr>
<td>Change</td>
<td>7.14</td>
<td>12.66</td>
<td>0.43</td>
</tr>
</tbody>
</table>

Source: Ibid. to Table 4.

Note: Percentages are of the total number of women in the experiment arm. Robust standard errors clustered at the village level are in parentheses.

* Aggregated Women’s Training Group includes observations from both the Women’s Training Group and the Dual Training Group.

* Aggregated Control Group includes observations from both the Leaders’ Training Group and the Control Group.

The change in voting behavior, by aggregated treatment and control groups, is shown in Table 5. The same was true when using the aggregated groups.
The results of the multivariate analysis on the effect of our RCT experiments on the voting behavior of women (Table 7, rows 1 to 2) are consistent with the descriptive analysis. When we run regressions using our multivariate models based on Equations 1 to 3 (columns 1 to 3), five of the six coefficients on the Women’s Training Group and Dual Training Group variables are all insignificant (rows 1 and 2). When we aggregated the two groups in which women received training, the coefficient is insignificant in two of the three cases (row 4).

Unsurprisingly, given the fact that there was no effect of leaders’ training on the knowledge of either the women or the leaders, we also find no effect of leaders’ training on the rate at which women fully exercise their voting rights. In both the descriptive statistics (Table 6, columns 3 and 4) and the multivariate regressions (Table 7, row 3), there is no detectable difference in women’s voting behavior between women in the Leaders’ Training Group.

<table>
<thead>
<tr>
<th>Table 6. Change in Voting Behavior, by Three Experimental Groups and One Control Group (in %)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Panel A. Change in Actual/Reported Voting</strong></td>
</tr>
<tr>
<td>(1) Baseline</td>
</tr>
<tr>
<td>(2) Evaluation</td>
</tr>
<tr>
<td>(3) Change</td>
</tr>
<tr>
<td><strong>Panel B. Change in Marking Ballot by Herself</strong></td>
</tr>
<tr>
<td>(4) Baseline</td>
</tr>
<tr>
<td>(5) Evaluation</td>
</tr>
<tr>
<td>(6) Change</td>
</tr>
<tr>
<td><strong>Panel C. Change in Casting Ballot by Herself</strong></td>
</tr>
<tr>
<td>(7) Baseline</td>
</tr>
<tr>
<td>(8) Evaluation</td>
</tr>
<tr>
<td>(9) Change</td>
</tr>
<tr>
<td>(9 villages, 87 women)</td>
</tr>
<tr>
<td>(8 villages, 78 women)</td>
</tr>
<tr>
<td><strong>SOURCE:</strong> Ibid. to Table 5.</td>
</tr>
<tr>
<td><strong>NOTE:</strong> Percentages are of the total number of women in the experiment arm.</td>
</tr>
</tbody>
</table>
and women in the Control Group. Of course, the absence of learning may explain only part of the results. Village leaders may very well have many other calculations that help to determine their action (or lack of action).

**Summary of the Quantitative Findings and Comparisons**

The descriptive and multivariate analyses have sketched a clear story in our Ningxia study area. The interventions—when they trained women directly on their voting rights and on the mechanisms of voting—were successful in raising the knowledge of women. Perhaps, in part, because the magnitude of

---

**TABLE 7. OLS Regression Analysis of Change in Rate of Actual/Reported Voting**

<table>
<thead>
<tr>
<th>Panel A. By Three Experimental Groups and One Control Group</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Women’s Training Group</td>
<td>–15.12</td>
<td>–16.8</td>
<td>–12.9</td>
</tr>
<tr>
<td></td>
<td>(10.40)</td>
<td>(8.69)*</td>
<td>(9.56)</td>
</tr>
<tr>
<td>(2) Dual Training Group</td>
<td>–5.41</td>
<td>–7.28</td>
<td>–4.67</td>
</tr>
<tr>
<td></td>
<td>(11.91)</td>
<td>(11.50)</td>
<td>(10.54)</td>
</tr>
<tr>
<td>(3) Leaders’ Training Group</td>
<td>–0.32</td>
<td>–0.56</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>(9.33)</td>
<td>(8.97)</td>
<td>(7.15)</td>
</tr>
</tbody>
</table>

- Individual-level variables
- Village-level variables
- Observations: 326
- R-square

<table>
<thead>
<tr>
<th>Panel B. By Aggregated Treatment and Control Groups</th>
<th>(4) Aggregated Women’s Training Group*</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(4) Aggregated Women’s Training Group*</td>
<td>–10.28</td>
<td>–11.84</td>
<td>–9.54</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(7.82)</td>
<td>(6.92)*</td>
<td>(6.52)</td>
<td></td>
</tr>
</tbody>
</table>

- Individual-level variables
- Village-level variables
- Observations: 326
- R-square

**SOURCE**: Ibid. to Table 6.

**NOTE**: Robust standard errors clustered at the village level are in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1%, respectively.

*Aggregated Women’s Training Group includes observations from both the Women’s Training Group and the Dual Training Group.
the impact was modest, the impact of the interventions did not go further. In both the descriptive statistics and in most of the regression results, there is no real difference between women in the intervention groups and women in the Control Group.

These results contrast with the samples in Fujian and Liaoning Provinces reported in our *China Quarterly* paper. In the latter villages, even though baseline voting rates started higher (about 69% in Fujian and Liaoning compared to about 33% in Ningxia), the tests of knowledge and actual voting rates both rose significantly (and larger in magnitude terms). Hence, while the training was effective in teaching women in Ningxia, Fujian, and Liaoning Provinces, voting rates increased in Fujian and Liaoning—but not in Ningxia.

**QUALITATIVE DISCUSSION**

In seeking an explanation about why our results in Ningxia differed from those in Fujian and Liaoning, we first must admit that we are not able to quantitatively address this with empirical-based analyses. Instead, we turn to qualitative analysis. We listen to the voices of the actors in the field and hear what they have to say—the women themselves, their families, and those in the community/village leaders.

In organizing the material from our interviews, we divide the analysis into three parts. The first two report on interviews with women respondents. First, we review a number of interviews from women about their views on the training program itself and why it might be that they did acquire knowledge during the training. Second, we examine the barriers that might exist in keeping women from actually exercising their vote. The women discuss three types of barriers: their own thinking, barriers within their family, and barriers in the village. The final section reports on the interviews we did with village leaders and seeks to demonstrate their views on the matter.

This section presents observations that are based on more than 50 interviews carried out by the authors. In total, we spent between 10 and 20 person-days doing interviews. All interviews were done in private in the homes of women or the offices of the village leaders. Each day the interview teams recorded their interview notes and summarized the conversations they had with both the women and the leaders. The names of the respondents were coded in order to conceal their identities. The voices, importantly, are from
women in both Han and Hui villages. As with our statistical results, in doing our interviews, we did not find a lot of difference between Han and Hui.

Training, New Things, and Learning about Voting

Immediately after the baseline survey and training program, our qualitative interviewers heard a number of statements (some are listed below), revealing that the women were excited that there was an activity for them; there was excitement about what the women learned; and there was hope that the training program could make a difference:

This was one of the most exciting days we have had in our village in a long time. Life for women in the village is typically really boring. We never get out. There are no community activities for us. We really appreciate you caring for us. [C1-T3-V1-R4-Han]

You can’t believe how tough life is here. Women never get to leave. We are stuck in this canyon. It is so poor. Nothing ever goes on here—especially for the women. We all liked your training program and appreciate you coming because you care. Thank you for coming. [C3-T2-V3-R6-Hui]

I am very excited to know these! I have never thought of these things before. Now, I know women have same rights with those of men on voting. I am going to exercise my rights in future elections in our village. [C2-T2-V1-R4-Han]

After I participated in the training, I learned that women have equal voting rights with those of men. I learned how to vote. Women should exercise their own rights to vote. I now have confidence to vote. [C2-T3-V3-R9-Hui]

Hence, as these interviews demonstrate, at least some women had a deep impression of the training program. Interviews after the elections also show that at least some women were still thinking about the training program two to three months after it was conducted. The women were basically still echoing the same messages that the interviewers had heard during the baseline:

Of course I still remember the training program. I learned a lot about elections and voting. On the day before the election, I reread the calendar. I thought

36. In citing the interviews, we have recorded the interview numbers, which includes the reference to the county, town, village, and respondent. All of the locations of the interviewees except the provinces have been randomized and de-identified to protect the anonymity of the respondent.
about what we were taught during the training. I was determined to carry out
the lessons that I learned: it is my right to vote by myself. [Ct-T1-V1-R9-Han]

I remember clearly everything that you taught us. It was like being in school
again. Fun and interesting. Before the training, I thought that only men could
be elected as village leaders. Now, I know that the most important thing for
candidates is their ability to manage or lead the village. It made me watch the
elections differently. [Ct-T1-V1-R5-Hui]

Before the training, I felt there was a veil that covered the elections in the
village. I did not know what really happened. None of the other women that I
talked to did either. You might say that I did not care about what was going on
and just followed the ideas and actions of others. After the training, I started to
think about who was able to be our village leader. [Ct-T1-V3-R5-Han]

From these interviews it is not difficult to understand that the interventions
had an impact on many women. Clearly, some women were interested,
seemed to pay attention, and were willing to learn. However, despite the
intentions of some women to act on what they learned in training, they still
faced barriers to action.

**Barriers to Action: At Home, in the Village, and Women’s Minds**

Although women wanted to vote and put into action some of the things that
they learned, there were many reasons why they could not. In this section, we
listen to women describe the barriers they faced—in their homes, in their
village, and in their own minds.

*Voices about Voting: Inside the Home*

Women in our village are very busy in taking care of kids and doing house-
work. If a woman wants to do something outside the household, not only will
her husband be against her, but also her mother-in-law. It was my mother-in-
law that did not let me vote. [Ct-T2-V2-Rt-Hui]

Yes, I remember the training. But, as married women, it is better for us to stay
at home, otherwise, we might suffer beating by our husbands. It is for this
reason that we’d better obey our husbands on the day of the village elections.
[C3-T2-V3-R7-Han]

I was at my new house located in town on the voting day. I was there with my
child whose school is there. I happened to call home that day for something
else. My father-in-law told me about the election. I told him whom I wanted to
vote for and asked him to vote for me. But my father-in-law wanted to vote for another person, and he said: “You are so troublesome. All you need to know is that tomorrow is the voting day and I will vote for you.”

I know that it is important for women to vote. I believe that women are able to manage a family very well, and can manage a village very well. But, we are not allowed [to] participate in any activity outside of the home. Should I have insisted? Not in my household. I don’t want to offend my husband or father-in-law. I want to keep a good relationship inside the family. [C2-T2-V3-R1-Han]

Voices about Voting in the Community

I remembered what you taught me during the training. I was very encouraged after the training. But, I did not vote because no women voted by themselves in my village. It was because of the way that the election was held. Only men went to vote. If a woman went to vote, villagers would laugh at her for showing off. [C3-T1-V3-R3-Hui]

The election in our village was only a formality. I think all of the candidates were appointed by upper-level government. I know that it is important for women to vote, but I didn’t vote. None of the women were allowed to vote. [C2-T2-V3-R7-Han]

I knew that ballots were issued to my husband. You know in my village, it is impossible to give ballots to the wife. It just does not happen. The village leader gave all of the ballots to my husband. So, I asked to fill out my own ballot, but my husband did not allow me to do. He filled out the ballots of my family and cast them without consulting me. He is used to doing it like this. He said that the village leader said he could. [C2-T1-V1-R4-Han]

My husband is the deputy chairman of my village. But I didn’t vote. I was told clearly that both voting and elections are men’s business. [C2-T2-V3-R10-Hui]

Voices about Voting and the Identity of Women Themselves

I should listen to my husband; I don’t care about elections in the village. Of course, I need obey my husband because he is the head of my family. Voting has no relation with me, with women. It is totally my husband’s business. If you give us some cows or sheep, it is my business. [C2-T3-V1-R6-Hui]

The chairman of my village called me to vote. He asked: “For whom do you vote?” I did not like him, but what could I say. I said: “I vote for you.” I had to. There was no choice. I didn’t want to show that I had different ideas and ways of thinking than others. Otherwise, my family and I would be gossiped about by others. [C2-T2-V4-R3-Han]
I like your training, and I agree that it is important for women to vote by themselves. But, we Hui women should obey our husbands. It is impossible for women to express their own opinions outside their households. [C2-T3-V1-R6-Hui]

Voting is for sure my husband’s business. My husband and I never talk about the village elections. He voted on behalf of all of my family members. He never told me for whom he voted. In fact, despite what I heard in the training, this is the right way to do things. Your training was interesting, but, I think there is no need to talk about this. [C2-T3-V2-R2-Han]

It is not right for us to participate in village public activities, like voting. Women are supposed to stay at home and take care of our children. If you take very good care of your child, this will show others that you are a great woman and a successful wife. I like what you taught during the training. But voting is really not women’s business. It is impossible for us to have our own ideas. [C2-T1-V4-R3-Hui]

After listening to these interviews, it is easy to understand why the knowledge women had been given was not translated into action. The norms in these villages—both Han and Hui—were clear. In most cases, men run the household. The village leaders (or at least many of those we interviewed) did not want women to be active in community affairs. The basis of this way of thinking appears to be deeper than strategic thinking by men. Such views appear to be based in long-standing community norms. Interestingly, perhaps the highest barriers were found in the women’s own minds. Many of them, including some Han women, were convinced that taking new sorts of action was not only futile but was simply not right. Many women knew what the community norms were. In other words, women realize that community norms and the way things “have always been done” contributed to the lack of action taken by the women themselves. There were not many that believed this was wrong, or wrong enough to take actions to the contrary.

Community Leaders: “We Have Always Done It This Way”

Finally, the interviews demonstrated that the women’s perceptions of what they believed to be community norms were largely consistent with those of the leaders of the community. In this section, we provide excerpts from several interviews that our interview teams conducted with village leaders. As can be seen, there is little sympathy for the argument that women should
exercise their right to vote. Despite this being national policy, many leaders believed that the norms that had guided the villages in the past were more important than any policy directive. Some of their comments are below:37

It is not necessary to train women and encourage them to vote in the village. Women themselves, in fact, don’t like to be engaged in the election. In our community environment in rural areas, women don’t have the courage to participate in public activities, such as elections. [C2-T2-V2-L1-Hui]

Women in minority rural areas, like ours, are very feudal and backward. They are very conservative. They have more housework than women in other areas. In the whole township, there is not even one woman who works as a village leader. If women worked together with men, other villagers would gossip about the women. Women are used to following these norms. Training about knowledge can’t change the behavior of women—even though what you taught is right and very good. [C2-T3-V2-L2-Hui]

As village leaders, we also tried to encourage women to vote because most men in my village work outside. Women in my village make up about 60% of the total number of eligible voters. But I am sure that they don’t care about the election. Most women only care about the pots and pans in their own homes. [C2-T1-V2-L2-Han]

I am the women’s director of the village. In our township, women’s directors are not considered to be village leaders. Most of the time, we are like decorations at meetings because the local county policy requires that there must be one woman on the village committee. I didn’t know that I was supposed to receive a financial subsidy for being the women’s director. I don’t know how much other village leaders get. I am never asked about anything, I know nothing about the elections. [C3-T1-V2-L4-Han]

CONCLUSIONS

The results of our study were clear and differed fundamentally in some ways from the results at the study sites in Fujian and Liaoning (areas that were populated almost completely by Han). The rates at which women vote in

37. In citing the interviews of village leaders, we have recorded the interview numbers, which include the reference to the county, town, village, and village leader. Usually, there are three main leaders in a village; we numbered L1 as the secretary of the village Party committee, L2 as the village chairman, L3 as the village accountant, L4 as the women’s director.
Ningxia, relative to women in other parts of China, are much lower. The rate compared to men is also lower.

In contrast to the previous work, the study shows that women do not have a sophisticated understanding of the voting process. When they are trained, their knowledge does increase slightly. However, either because they did not change sufficiently—or because of some other barrier—after the women in the samples were trained about their right to vote and the mechanics of voting, voting rates did not rise. These results differ fundamentally from our other study in Liaoning and Fujian. In those two provinces, knowledge levels rose more and so did the rate of voting.

In order to try to understand why we observed such results, the study included in-depth qualitative interviews. Through these interviews, we discovered that women did absorb the information and, in fact, in many cases told us that they were excited about learning new things. However, it is clear that many barriers kept women from acting on their newfound knowledge. These barriers are pervasive: they exist in their own families, in the village, and in their own minds.

While as empirical economists we are unable to identify the exact source of the problem, we consider two types of explanations. One is that cultural norms are pervasive in Ningxia because of its high share of Hui minorities. Gladney and others have spelled out the conservative nature of the Hui. Religion, the search for their own identity, and cultural rules that govern gender relations would account for the results that we are seeing. Even though women have learned, they are unable to act on their knowledge.

However, there is one major problem with this interpretation. In both the statistical analysis\(^3\) and in our qualitative analysis, the relationships between our intervention, learning, and changes in voting behavior are almost identical in Hui and Han communities.

Hence, this would point us in another direction. It might be that because of the remote nature of Ningxia and the level of poverty in these communities, political empowerment of women is nearly absent. One would not be surprised to discover that when women go out to work and when they are educated (as they are—in relative terms—in Fujian and Liaoning), they can learn more significant information from a training exercise and ultimately be able to act on this knowledge. However, the women in our Ningxia

\(^3\) See our online working paper.
sample—in both Han and Hui villages—are poorer, less educated, and have less experience in off-farm jobs. If such isolation and absence of empowerment can account for our results (Ningxia women did not learn a lot, in general, and they did not act on what they learned, at all), then such findings derive from material and behavioral determinants rather than cultural ones, in the sense that the actions are being determined by religious norms.

The low rates of initial voting and the absence of the effectiveness of the intervention (for both the women’s training and the leaders’ training) can perhaps be added to what is referred to as feminist disappointment literature on China. In this literature, the progress in family reform and the liberation of women that had been touted as being pervasive in the pre-Reform Era (of the 1960s and 1970s) was found to be hollow. For example, Marjery Wolf found evidence of women having less equality than men in the workplace and in villages. Our findings are certainly supportive of this, and illustrate that this is true in villages, at least in remote and poor Ningxia villages, three decades after the 1980s studies.

There is one more finding of note. The homogeneity of the results from our study in Han and Hui communities is supportive of the observations by anthropologists that Hui communities tend to be quite similar to the Han communities around them. Because the villages we studied comprise one of many different types of Hui community, more research is needed to assure that this is not an anomaly.


40. See Wolf, Revolution Postponed.

41. See Lipman, Familiar Strangers: A History of the Muslims in Northwest China; and Gillette, Between Mecca and Beijing.