

Reserving Female Status — Women Reserved Seats and Gender Empowerment in Taiwan

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Background

Data and Identification Strategy

Estimations

Potential Issues

Background

中華民國憲法第 134 條

各種選舉，應規定婦女當選名額，其辦法以法律定之。

- Mandatory women reserved seats in *any* election codified in *ROC Constitution* since 1946
 - Established long before new left feminism movement in 1960s Western world
 - Mainly Influenced by May Fourth Movement (新文化運動) and KMT-CCP Alliance (聯俄容共)(黃長玲, 2012)

Past researches on effects of women political representation utilized a natural experiment in India

1993 Constitution Amendment in India

- 1/3 seats reserved for women in local council elections
- Higher female political representation due to this policy
- **Identification:** States adopting this policy was designated randomly, causing random treatment and time variation

Outcomes: son preference, crime against women, educational attainment/investment, gender attitudes, etc.

- Local council elections in Taiwan reserved 1 woman seat per 4 elected member
 - Guaranteeing 14% ~ 25% female representatives for electoral districts having ≥ 4 members
- If the number of female elected doesn't meet the requirement, then the lowest voted male winner will be replaced by highest voted female candidate.
- This provides neater identification of policy effect than India

- Effects of women reserved seats on **female political representation**
- And its corresponding effects on **female social status**

Data and Identification Strategy

Elected Female % $E_{tde} = \frac{\text{Female Member Size 女性當選人數}}{\text{Member Size 應選人數}}$ in year t , period e , and electoral district d .

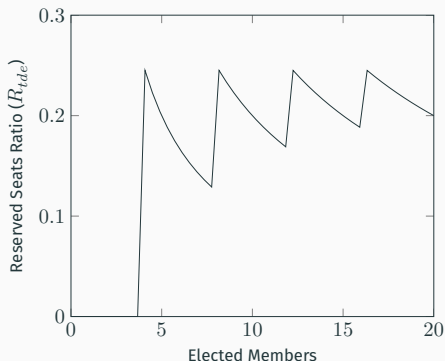
Data gathered from the City Council Elections:

- from 1998 to 2018 (6 periods in total)
- electoral district level

We use IV to deal with endogeneity of E_{tde} , instrumented by the % of reserved seats for women R_{tde} .

Instrumenting E_{tde} by Reserved Seats Proportion R_{tde}

Reserved Seats % $R_{tde} = \frac{\text{Reserved Seats 保留名額數}}{\text{Member Size 應選人數}}$ in year t , period e , and electoral district d .



We capture this discontinuous “ticks” as instrument of treatment.

1st Stage

Effects of women reserved seats on **female political representativeness**

2nd Stage

Treatment effects on couple's **son preference**

- Variables:
 1. **Third Child**: Dummy of having 3rd child or not
 2. **Third Child is Son**: Dummy of 3rd child being male
- Data: Newborns Birth Data 出生人口檔 between 1998 to 2006
- Observation: couple level

2nd Stage:

$$Y_{itde} = \alpha + \beta_1 \hat{E}_{tde} + \gamma_1 \ln \text{population}_{\text{county}} + \delta_t + \delta_d + \epsilon_i$$

1st Stage:

$$\hat{E}_{itde} = \alpha + \beta_1 R_{tde} + \gamma_1 \ln \text{population}_{\text{county}} + \delta_t + \delta_d$$

Controlling $\ln \text{population}$ to resolve omitted variable bias.

Estimations

Elasticity of reserved seats on female elected and female candidates are high.

Table 1: 2SLS 1st Stage

	(1)	(2)
	Female Elected %	Female Candidates %
Reserved Seats %	0.917*** (0.0785)	0.781*** (0.0634)
Population Control	Yes	Yes
Election Year FE	Yes	Yes
County FE	Yes	Yes
Observations	966	966

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 2: 2SLS Birth Outcomes of City Council Elections

	(1) Having 3rd Child	(2) 3rd Child is Son	(3) 3rd Child is Son	(4) 3rd Child is Son
Elected Female %	-0.295*** (0.0235)	-0.0496*** (0.0124)	0.0429 (0.0606)	0.116 (0.0639)
2nd Child is Son	-0.0293*** (0.00113)	-0.0292*** (0.00111)	-0.0632*** (0.00670)	-0.0634*** (0.00669)
1st Child is Son	-0.0237*** (0.00105)	-0.0234*** (0.00104)	-0.0454*** (0.00657)	-0.0452*** (0.00657)
Log-Population Control	Yes	Yes	Yes	Yes
Year FE	No	Yes	No	Yes
County FE	No	Yes	No	Yes
Mean	0.0753	0.0753	0.554	0.554
Observations	293618	293618	22110	22110
Adj. R-square	.	0.0280	0.00664	0.00704

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Outcome: Subgroup Son Preference

Treatment interacted with dummy “two child both daughter”

Table 3: 2SLS Subgroup Birth Outcomes of City Council Elections

	(1) Having 3rd Child	(2)	(3) 3rd Child is Son	(4)
Elected Female %	-0.252*** (0.0207)	-0.00710 (0.0126)	0.0671 (0.0743)	0.138 (0.0770)
Two Child Both Daughter × Elected Female %	-0.186*** (0.0283)	-0.184*** (0.0277)	-0.0540 (0.121)	-0.0558 (0.121)
Two Child Both Daughter	0.0935*** (0.00635)	0.0927*** (0.00620)	0.103*** (0.0247)	0.103*** (0.0246)
Log-Population Control	Yes	Yes	Yes	Yes
Year FE	No	Yes	No	Yes
County FE	No	Yes	No	Yes
Mean	0.0753	0.0753	0.554	0.554
Observations	293618	293618	22110	22110
Adj. R-square	.	0.0296	0.00777	0.00813

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Increased female seats might reduce people's willingness to pay for sons.

Model (1), (2)

- For those who already had 2 daughters: gave up having 3rd child
- Son preference weaken

Model (3), (4)

- Indicating behaviors of those who had conservative gender attitudes
 - *"insist to give a shot at third child"*
- Sex selection existed, and higher female representation didn't abolish it.

Potential Issues

Outcomes on Gender Attitudes

- Taiwan Social Change Survey

Other Influencing Channels

- Elected or Candidacy?

Mechanisms

- Role-model effect
- Policy effect
 - Labor market outcomes
 - Pro-female policies