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

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Background

Data and Identification Strategy

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Background

A Progressive Gender Perspective of *ROC Consitution*

> 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 $\geq$ 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

Main Question

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

Data and Identification Strategy

Treatment

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.

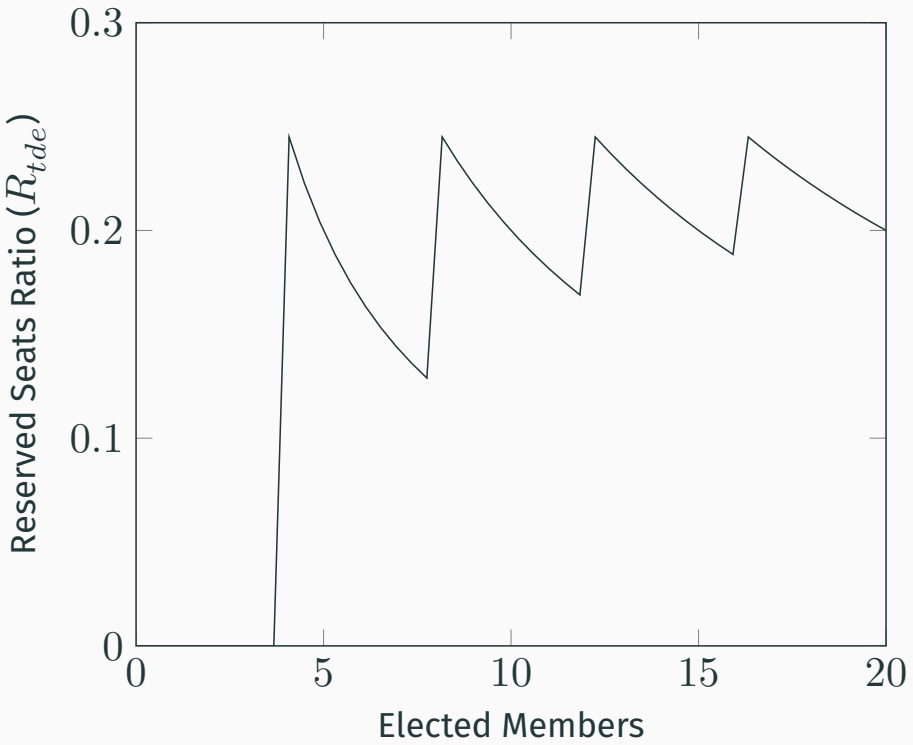
Data gathered from the City Council Elections:

- 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.

Outcomes

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

2SLS Specification

2nd Stage:

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

1st Stage:

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

Controlling ln population to resolve omitted variable bias.

Estimations

First Stage

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

Table 1: 2SLS 1st Stage

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

Standard errors in parentheses

$^{*}\ p < 0.05, ^{**}\ p < 0.01, ^{***}\ p < 0.001$

Outcome: Son Preference

Table 2: 2SLS Birth Outcomes of City Council Elections

	(1)	(2)	(3)	(4)
	Having 3rd Child		3rd Child is Son	
Elected Female %	-0.295***	-0.0496***	0.0429	0.116
	(0.0235)	(0.0124)	(0.0606)	(0.0639)
2nd Child is Son	-0.0293***	-0.0292***	-0.0632***	-0.0634***
	(0.00113)	(0.00111)	(0.00670)	(0.00669)
1st Child is Son	-0.0237***	-0.0234***	-0.0454***	-0.0452***
	(0.00105)	(0.00104)	(0.00657)	(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)	(2)	(3)	(4)
	Having 3rd Child		3rd Child is Son	
Elected Female %	-0.0699***	0.0103**	0.0634	0.132
	(0.00490)	(0.00357)	(0.0735)	(0.0763)
Two Child Both Daughter × Elected Female %	-0.369***	-0.383***	-0.0501	-0.0514
	(0.0367)	(0.0359)	(0.121)	(0.120)
Two Child Both Daughter	0.182***	0.182***	0.102***	0.102***
	(0.00805)	(0.00798)	(0.0245)	(0.0245)
Log-Population Control	Yes	Yes	Yes	Yes
Year FE	No	Yes	No	Yes
County FE	No	Yes	No	Yes
Mean	0.0176	0.0176	0.554	0.554
Observations	1261020	1261020	22229	22229
Adj. R-square	0.0253	0.0373	0.00775	0.00813

Standard errors in parentheses

$^{*}\ p < 0.05, ^{**}\ p < 0.01, ^{***}\ p < 0.001$

Discussion

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

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