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

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March 03, 2022

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Background

Data and Identification Strategy

Estimations

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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.

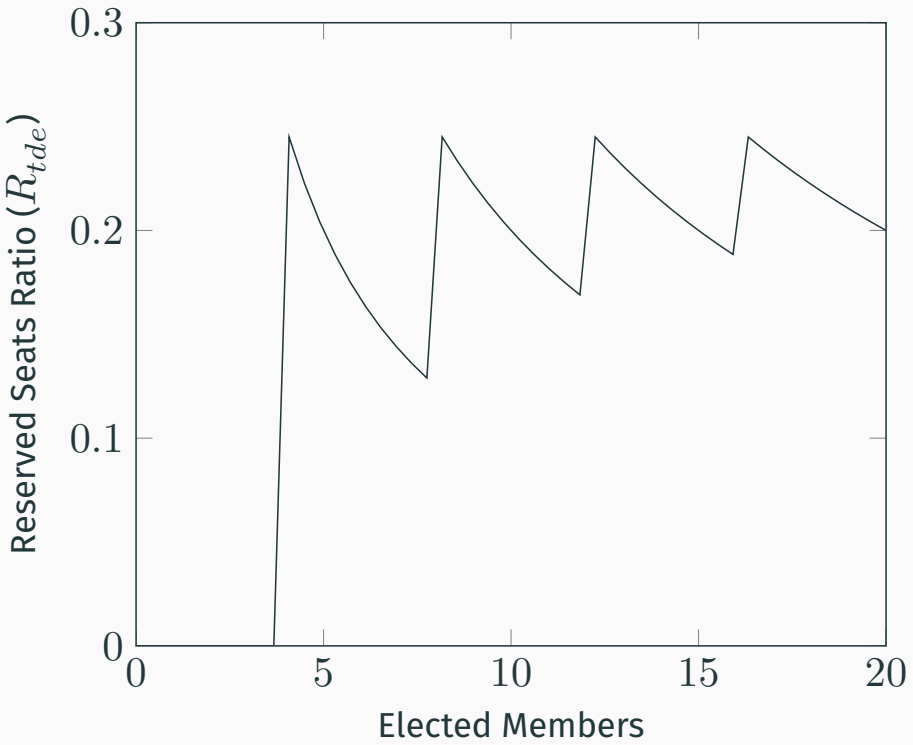
Data gathered from the City Council Elections:

- 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 %	-0.273***	-0.0473***	-0.0000635	0.0802
	(0.0223)	(0.0119)	(0.0551)	(0.0588)
1 sex	-0.0256***	-0.0253***	-0.0478***	-0.0472***
	(0.00106)	(0.00105)	(0.00591)	(0.00591)
2 sex	-0.0288***	-0.0288***	-0.00698	-0.00671
	(0.00113)	(0.00112)	(0.00612)	(0.00612)
Parent Age Control	Yes	Yes	Yes	Yes
Log-Population Control	Yes	Yes	Yes	Yes
Year FE	No	Yes	No	Yes
County FE	No	Yes	No	Yes
Mean	0.0862	0.0862	0.548	0.548
Observations	314827	314827	27132	27132
Adj. R-square	0.00329	0.0291	0.00224	0.00251

Standard errors in parentheses

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

Outcome: Subgroup Son Preference

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

	(1)	(2)	(3)	(4)
	Having 3rd Child		3rd Child is Son	
Elected Female %	-0.398***	-0.170***	-0.0689	0.00571
	(0.0378)	(0.0261)	(0.0935)	(0.0961)
Daughter Son × Elected Female %	0.183***	0.177***	0.0820	0.0882
	(0.0312)	(0.0308)	(0.158)	(0.158)
Son Daughter × Elected Female %	0.184***	0.179***	0.0894	0.0907
	(0.0316)	(0.0309)	(0.145)	(0.144)
Both Son × Elected Female %	0.123***	0.125***	0.154	0.158
	(0.0299)	(0.0294)	(0.147)	(0.147)
Daughter Son	-0.0936***	-0.0927***	-0.0601	-0.0609
	(0.00703)	(0.00692)	(0.0324)	(0.0324)
Son Daughter	-0.0921***	-0.0910***	-0.104***	-0.104***
	(0.00718)	(0.00703)	(0.0296)	(0.0296)
Both Son	-0.0818***	-0.0819***	-0.0766*	-0.0767*
	(0.00675)	(0.00664)	(0.0303)	(0.0303)
Parent Age Control	Yes	Yes	Yes	Yes
Log-Population Control	Yes	Yes	Yes	Yes
Year FE	No	Yes	No	Yes
County FE	No	Yes	No	Yes
Mean	0.0862	0.0862	0.548	0.548
Observations	314827	314827	27132	27132
Adj. R-square	0.00455	0.0306	0.00350	0.00376

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