A Time to Make Laws and a Time to Fundraise? 
On the Relation between Salaries 
and Time Use for State Politicians

Mitchell Hoffman     Elizabeth Lyons

2018 ASSA Conference, New Perspectives on Time Use
January 6, 2018
Relationship between voters & politicians is a classic example of principal agent problem

- Noisy relationship between politician inputs and outcomes
A Time to Make Laws and a Time to Fundraise?

Introduction

Relationship between voters & politicians is a classic example of principal agent problem

- Noisy relationship between politician inputs and outcomes

Moreover, politicians face a multidimensional task problem

- Voters may care about multiple outcomes
- Even with very good outcomes along some dimensions, re-election is uncertain
Relationship between voters & politicians is a classic example of principal agent problem

▶ Noisy relationship between politician inputs and outcomes

Moreover, politicians face a multidimensional task problem

▶ Voters may care about multiple outcomes
▶ Even with very good outcomes along some dimensions, re-election is uncertain

Anecdotal evidence that many politicians may not be allocating their effort across tasks to optimize on their stated objectives as elected officials

▶ e.g. “Members of Congress spend too much time raising money and not enough time doing their job” - David Jolly (Florida congressman)
Do state legislator salaries relate to how state legislators allocate their time across tasks?

- Substantial variation in state legislator pay across states ($0 in New Mexico, over $100,000 in California)
- Higher pay may lead to higher quality legislators, more effort invested
- However, depending on what politicians expect voters to reward, overall quality of output may not be improved
Why Study Politician Time Use?

- Allows us to directly measure inputs across task dimensions to infer what politicians appear to believe about dimensions’ relative returns

- Politician productivity measures are challenging
  - Are higher or lower expenditures associated with higher productivity?
  - Counts of bills passed or proposed do not account for relative importance or fit with voter priorities

- Very little existing empirical work on how politicians spend their time
  - Substantial body of work on politician salary and worker selection and outcomes
    - e.g. Besley (2004); Caselli and Morelli (2004); Ferraz and Finan (2010); Fisman et al. (2015); Gagliarducci and Nannicini (2013); Mocan and Altindag (2013)
Summary of Takeaways

Using two years of confidential survey data on state legislator time use, find on average:

1. Higher paid legislators spend more time fundraising, particularly fundraising for themselves as opposed to for their party

2. Higher paid legislators spend less time on legislative activities including reviewing proposed legislation and building cross- and within-party coalitions

3. No relationship between salary and spending time on constituent services

4. The relationship between time spent fundraising and salary is largest among legislators who do not have desires for higher office
A Time to Make Laws and a Time to Fundraise?

- Introduction

Presentation Overview

1. Introduction
2. Institutional Context
3. Data
4. Results
5. Discussion
Institutional Context: State Legislators

- Responsibilities include provision of education, healthcare, prisons
- Time commitment varies across states
- 2 or 4 year terms, some states have term limits
- In some states legislators are paid annual salary, in some daily wage
- Evidence that coalition building is important for legislators to pass legislation (Groseclose and Snyder, 1996)
- In addition to legislation, serve constituents through casework
Institutional Context: State Legislator Salary

- How pay is determined varies across 48 contiguous states. In 2001:
  - 16% determined by state compensation commission
  - 8.3% set by constitution (change in pay requires constitutional amendment)
  - 35% set by statute (law outside constitution or compensation bills passed by legislature)
    - Generally does not take effect until subsequent term
  - Remaining states use some mix of these
- Salaries increase with legislature professionalization, time commitments, economic growth
- Many large, hard to explain, increases
Time Use Data

Confidential survey of state legislators done by Carey et al. (1995) and Carey et al. (2002) on broad range of topics

- 1995 response rate: 47%; 2002 response rate: 40.1%
  - Conditional on legislature and state characteristics, no relationship between response rates and salary

- Time use questions asked legislators to rate time spent on several activities from 1=“Hardly Any” to 5=“A Great Deal”
  - Normalize responses by year for our analysis

- Focus on 3 measures of time use that each combine multiple questions: Legislative activities, constituent services, fundraising/campaigning
Time Use Distribution

(a) Legislative Activities

(b) Constituent Services

(c) Fundraising
Salaries

Salaries hand collected from *Book of the States*

- Single annual salary figure per state by annualizing relevant time frame
- Biennial salaries divided by two
- Daily salaries multiplied by average number of session days
- Deflate by national CPI (2009 level)
- Ignore non-salary benefits, but results are robust to including controls for per diems
- Use salary in levels divided by $10,000
Legislature and State Characteristics

Legislature characteristics hand collected from Book of the States
  ➤ Salary setting methods, session length, bill-passing, legislative support staff, term limits

Legislator characteristics collected from surveys
  ➤ Gender, ethnicity, democrat/republican, profession

State characteristics
  ➤ Unemployment rate, gdp/capita, population, proportion of pop over 65, proportion black
Empirical Approach

1. Main regressions testing relationship between main time use categories and salary
   ▶ Gradual inclusion of controls with Oster test
   ▶ Robustness Tests:
     ▶ State fes, State CPIs
     ▶ Restrict to states that can’t set own salaries
     ▶ Test for substitution across time use categories
     ▶ Exclude states with high per diems, exclude outlier states
     ▶ No relationship between salary and observable legislator characteristics
   ▶ Tests for Relevance of Analysis:
     ▶ Relationship between time use categories and legislative outcomes
     ▶ Relationship between salary and outside job
     ▶ Relationship between overall time spent on job and salaries

2. Narrower time use categories and salary

3. Heterogeneous relationship across legislator characteristics
## Main Results

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Panel A: Time Spent on Legislative Activities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salary/$10,000</td>
<td>-0.025***</td>
<td>-0.028***</td>
<td>-0.030***</td>
<td>-0.027***</td>
</tr>
<tr>
<td></td>
<td>(0.009)</td>
<td>(0.009)</td>
<td>(0.008)</td>
<td>(0.008)</td>
</tr>
<tr>
<td>Observations</td>
<td>6,334</td>
<td>6,334</td>
<td>6,334</td>
<td>6,334</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.014</td>
<td>0.017</td>
<td>0.022</td>
<td>0.044</td>
</tr>
<tr>
<td><strong>Panel B: Time Spent on Constituent Services</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salary/$10,000</td>
<td>0.031</td>
<td>0.028</td>
<td>0.025</td>
<td>0.026</td>
</tr>
<tr>
<td></td>
<td>(0.021)</td>
<td>(0.021)</td>
<td>(0.019)</td>
<td>(0.020)</td>
</tr>
<tr>
<td>Observations</td>
<td>6,325</td>
<td>6,325</td>
<td>6,325</td>
<td>6,325</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.084</td>
<td>0.085</td>
<td>0.103</td>
<td>0.111</td>
</tr>
<tr>
<td><strong>Panel C: Time Spent on Fundraising and Campaigning</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salary/$10,000</td>
<td>0.053***</td>
<td>0.052***</td>
<td>0.040***</td>
<td>0.040***</td>
</tr>
<tr>
<td></td>
<td>(0.015)</td>
<td>(0.016)</td>
<td>(0.012)</td>
<td>(0.012)</td>
</tr>
<tr>
<td>Observations</td>
<td>6,269</td>
<td>6,269</td>
<td>6,269</td>
<td>6,269</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.049</td>
<td>0.059</td>
<td>0.064</td>
<td>0.071</td>
</tr>
<tr>
<td>Baseline Controls</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Professionalization Controls</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>State Characteristic Controls</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Region Fixed Effects</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Legislator Characteristic Controls</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Narrow Time Use Categories & Salary

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary/$10,000</td>
<td>-0.023* (0.013)</td>
<td>0.002 (0.013)</td>
<td>-0.035** (0.014)</td>
<td>-0.058*** (0.013)</td>
<td>0.028 (0.019)</td>
</tr>
<tr>
<td>Observations</td>
<td>6,298</td>
<td>6,289</td>
<td>6,244</td>
<td>6,264</td>
<td>6,291</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dep var:</th>
<th>(6) Helping Constituents</th>
<th>(7) Fair Share of Money for District</th>
<th>(8) Fundraising for Self</th>
<th>(9) Fundraising for Caucus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary/$10,000</td>
<td>0.025 (0.021)</td>
<td>0.018 (0.018)</td>
<td>0.050*** (0.014)</td>
<td>0.018 (0.028)</td>
</tr>
<tr>
<td>Observations</td>
<td>6,294</td>
<td>6,294</td>
<td>2,799</td>
<td>2,735</td>
</tr>
</tbody>
</table>
## Heterogeneity in Relation of Salary to Fundraising

### Panel A: Non-Pecuniary Value of Being in Office

<table>
<thead>
<tr>
<th>Sample:</th>
<th>No Higher Office Objective</th>
<th>Higher Office Objective</th>
<th>No Desire for Lobby Job</th>
<th>Desire for Lobby Job</th>
<th>Below Median Expend</th>
<th>Above Median Expend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary/$10K</td>
<td>0.060*** (0.013)</td>
<td>-0.010 (0.018)</td>
<td>0.038*** (0.013)</td>
<td>0.044 (0.028)</td>
<td>0.055*** (0.020)</td>
<td>0.044** (0.017)</td>
</tr>
<tr>
<td>Obs</td>
<td>4,713</td>
<td>1,553</td>
<td>5,331</td>
<td>935</td>
<td>3,081</td>
<td>3,188</td>
</tr>
</tbody>
</table>

### Panel B: Election Competitiveness

<table>
<thead>
<tr>
<th>Sample:</th>
<th>Unopp in Last Gen Elec</th>
<th>Opp in Last Gen Elec</th>
<th>Unopp in Last Prim Elec</th>
<th>Opp in Last Prim Elec</th>
<th>Not (Last Gen Elec Margin ≤ 10%)</th>
<th>Last Gen Elec Margin ≤ 10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary/$10K</td>
<td>0.050*** (0.017)</td>
<td>0.042*** (0.014)</td>
<td>0.041*** (0.014)</td>
<td>0.053*** (0.015)</td>
<td>0.039*** (0.012)</td>
<td>0.043* (0.023)</td>
</tr>
<tr>
<td>Obs</td>
<td>1,624</td>
<td>4,260</td>
<td>3,829</td>
<td>2,084</td>
<td>5,054</td>
<td>1,215</td>
</tr>
</tbody>
</table>

### Panel C: Individual Characteristics

<table>
<thead>
<tr>
<th>Sample:</th>
<th>Republican</th>
<th>Democrat</th>
<th>Female</th>
<th>Male</th>
<th>White</th>
<th>Non-white</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary/$10K</td>
<td>0.051*** (0.017)</td>
<td>0.029* (0.015)</td>
<td>0.011 (0.022)</td>
<td>0.047*** (0.013)</td>
<td>0.034*** (0.012)</td>
<td>0.081*** (0.029)</td>
</tr>
<tr>
<td>Obs</td>
<td>2,945</td>
<td>3,240</td>
<td>1,524</td>
<td>4,733</td>
<td>5,619</td>
<td>521</td>
</tr>
</tbody>
</table>
Summary of Findings

- Politicians who are paid more spend more time fundraising and less time on legislative activities.
- Cannot fully rule out omitted variable bias, but results are robust to variety of tests.
  - Oster test suggests omitted variables would have to be at least as important as included controls to change our fundraising findings, 3 times as important to change our legislative activities finding.
- Relationship between fundraising and salary is largest for legislators who do not have higher office objectives, consistent with those with non-pecuniary benefits from the job being less influenced by salary.
Suggested Implications

- While higher salaries can attract people with higher outside options, and increase incentives for retaining the position, our results suggest that policy-makers should take into account that politicians may respond to salaries on multiple effort margins.
- Findings may also suggest mechanisms to improve voter monitoring of politician inputs may be important for ensuring salaries have intended effects.
Suggested Implications

- While higher salaries can attract people with higher outside options, and increase incentives for retaining the position, our results suggest that policy-makers should take into account that politicians may respond to salaries on multiple effort margins.

- Findings may also suggest mechanisms to improve voter monitoring of politician inputs may be important for ensuring salaries have intended effects.

“If [we] could tell you how many hours we spend with our good colleagues on our side of the issues talking about raising money, it would be an embarrassment.” - Senator Dick Durbin