Online Appendix to "A Legislature or a Legislator Like Me? Citizen Demand for Collective and Dyadic Political Representation"

Jeffrey J. Harden[*]   Christopher J. Clark[†]

September 18, 2015

1 Full Survey Instrument

The full text of the survey experiment is given below. The race version was administered to 871 African American respondents through the survey research firm Qualtrics in May 2012. The party version was administered to 1,000 respondents in October 2012 as part of the Cooperative Congressional Election Study (CCES).

1.1 Race Version

Introductory Text

The text below comes from a newspaper's summary of state legislative election results in another state last fall.

[Respondents were randomly assigned to one of the following treatment conditions]

Collective/Dyadic (Treatment A)

> **ELECTION NOTES**
>
> Maurice Allen won the race in district 15 with 53% of the vote, becoming the first black candidate to win in that district. Additionally, the state as a whole elected the largest contingent of black legislators in the last decade. 20% of the seats in the state legislature will be filled by black representatives when the next session begins.

---

[*]Assistant Professor, Department of Political Science, University of Colorado Boulder, 416 Fleming, 333 UCB, Boulder, CO 80309, jeffrey.harden@colorado.edu.

[†]Assistant Professor, Department of Political Science, University of North Carolina at Chapel Hill, 372 Hamilton Hall, CB #3265, Chapel Hill, NC 27599, chriclar@email.unc.edu

Collective/No Dyadic (Treatment B)

> **ELECTION NOTES**
>
> Colin Hunter won the race in district 15 with 53% of the vote, which means the district will go at least another four years without ever being represented by a black legislator. However, the state as a whole elected the largest contingent of black legislators in the last decade. 20% of the seats in the state legislature will be filled by black representatives when the next session begins.

No Collective/Dyadic (Treatment C)

> **ELECTION NOTES**
>
> Maurice Allen won the race in district 15 with 53% of the vote, becoming the first black candidate to win in that district. However, the state as a whole elected the smallest contingent of black legislators in the last decade. Only 5% of the seats in the state legislature will be filled by black representatives when the next session begins.

No Collective/No Dyadic (Treatment D)

> **ELECTION NOTES**
>
> Colin Hunter won the race in district 15 with 53% of the vote, which means the district will go at least another four years without ever being represented by a black legislator. Additionally, the state as a whole elected the smallest contingent of black legislators in the last decade. Only 5% of the seats in the state legislature will be filled by black representatives when the next session begins.

Question

> Imagine that you live in district 15. From the information given above, would you feel represented in government based on these election results?

[0-100 Slide Bar: 0 = Most unrepresented; 50 = Neutral; 100 = Most represented]

1.2   Party Version

Introductory Text

> The text below comes from a newspaper's summary of state legislative election results in another state last fall.

[Respondents were randomly assigned to one of the following treatment conditions. Text in brackets matched the self-reported party of each respondent. Independents were randomly assigned a party label.]

Collective/Dyadic (Treatment A)

> **ELECTION NOTES**
>
> Colin Hunter won the race in district 15 with 53% of the vote, becoming the first [Democratic/Republican] candidate to win in that district. Additionally, the state as a whole elected the largest contingent of [Democratic/Republican] legislators in the last decade. 77% of the seats in the state legislature will be filled by [Democratic/Republican] representatives when the next session begins.

Collective/No Dyadic (Treatment B)

> **ELECTION NOTES**
>
> Colin Hunter won the race in district 15 with 53% of the vote, which means the district will go at least another four years without ever being represented by a [Democratic/Republican] legislator. However, the state as a whole elected the largest contingent of [Democratic/Republican] legislators in the last decade. 77% of the seats in the state legislature will be filled by [Democratic/Republican] representatives when the next session begins.

No Collective/Dyadic (Treatment C)

> **ELECTION NOTES**
>
> Colin Hunter won the race in district 15 with 53% of the vote, becoming the first [Democratic/Republican] candidate to win in that district. However, the state as a whole elected the smallest contingent of [Democratic/Republican] legislators in the last decade. Only 23% of the seats in the state legislature will be filled by [Democratic/Republican] representatives when the next session begins.

No Collective/No Dyadic (Treatment D)

> **ELECTION NOTES**
>
> Colin Hunter won the race in district 15 with 53% of the vote, which means the district will go at least another four years without ever being represented by a [Democratic/Republican] legislator. Additionally, the state as a whole elected the smallest contingent of [Democratic/Republican] legislators in the last decade. Only 23% of the seats in the state legislature will be filled by [Democratic/Republican] representatives when the next session begins.

Question

> Imagine that you live in district 15. From the information given above, would you feel represented in government based on these election results?

[0-100 Slide Bar: 0 = Most unrepresented; 50 = Neutral; 100 = Most represented]

2   Comparison of Qualtrics Sample to Black Population

Table 1 presents a comparison of key variables between our Qualtrics sample of black respondents and estimates from the black population in America. We use the following sources for the

black population estimates: U.S. Census Bureau (income, education), Bureau of Labor Statistics (employment status), 2008 American National Election Study black oversample (ideology, party, attention to politics), and 2008 and 2012 exit polls (Obama vote).

[Insert Table 1 here]

The table shows that our Qualtrics sample is reasonably representative of the black population, though it does tend to be slightly more educated, unemployed, liberal, and Democratic.

3 Balance Checks

We employed a regression model framework to assess balance between experimental groups. For each experiment we modeled assignment to each of the four conditions as a function of several covariates via multinomial logistic regression (MNL). We then counted the number of statistically significant coefficient estimates ($p < 0.05$) in each MNL model and compared that number with the number of significant estimates we would expect due to random chance. This approach is not without its detractors (e.g., Mutz and Pemantle 2015). However, it is an efficient means of checking for differences between conditions on a wide range of covariates.

In the Qualtrics data, the MNL model of treatment assignment included vote choice in 2008 and 2012, party, ideology, attention to politics, views on the role of government internal and external efficacy, gender, marital status, the number of children in respondents' households, religious importance, income, education, and employment status. With four categories in the dependent variable, this specification yielded 126 coefficients to be estimated. Using 0.05 as the criterion for statistical significance, this implies that random chance should produce about six statistically significant coefficient estimates (0.05×126). In this case, only one coefficient estimate reached statistical significance at the 0.05 level.

We employed the same approach in the CCES data. There the covariates we used included vote choice in 2012, party, ideology, attention to politics, gender, marital status, an indicator for children under 18 in respondents' households, religious importance, income, education, and employment status. This model contained 144 coefficient estimates, yielding an expected 7 significant estimates

due to random chance. Our model showed four coefficients that are significant at the 0.05 level.

Mutz and Pemantle (2015) make the case that randomization processes either do or do not "work" and thus there is little researchers can do to identify an "unlucky draw" from an assumed valid mechanism. Nonetheless, this exercise does provide some suggestive evidence that our experimental conditions were, in fact, balanced by the randomization procedure.

References

Mutz, D. and Pemantle, R. (2015). Standards for experimental research: Encouraging a better understanding of experimental methods. Forthcoming, *Journal of Experimental Political Science*.

Table 1: Qualtrics Sample Summary with Comparison to the Black Population

	Qualtrics Sample	Black Population
Income	Median household income category: $30,000–$39,000	Median household income: $33,321 (2012, Census)
Education	Proportion with a bachelor's degree: 0.258; 95% CI: [0.229, 0.287]	Proportion with a bachelor's degree: 0.199 (2011, Census)
Employment status	Proportion unemployed: 0.164; 95% CI: [0.140, 0.189]	Proportion unemployed: 0.136 (May 2012, BLS)
Ideology	Mean: 3.566; 95% CI: [3.469, 3.662]	Mean: 3.895; 95% CI: [3.714, 4.075] (2008, ANES)
Party	Proportion Democrat: 0.788; 95% CI: [0.760, 0.815]	Proportion Democrat: 0.707; 95% CI: [0.668, 0.745] (2008, ANES)
	Proportion Republican: 0.083; 95% CI: [0.064, 0.101]	Proportion Republican: 0.022; 95% CI: [0.010, 0.034] (2008, ANES)
	Proportion Independent: 0.130; 95% CI: [0.107, 0.152]	Proportion Independent: 0.226; 95% CI: [0.191, 0.261] (2008, ANES)
Attention to politics	Median category: Only now and then	Median category: Moderately interested (2008, ANES)
Obama vote 2008	Estimate: 0.938; 95% CI: [0.919, 0.956]	0.950 (Exit Polls)
Obama vote 2012	Estimate: 0.891; 95% CI: [0.868, 0.914]	0.930 (Exit Polls)

Note: Cell entries report summaries of the Qualtrics sample of black respondents and comparisons to the black population. Data sources for the black population estimates are the U.S. Census Bureau (income, education), Bureau of Labor Statistics (employment status), 2008 American National Election Study black oversample (ideology, party, attention to politics), and 2008 and 2012 exit polls (Obama vote).