

BUREAUCRATIC
RESPONSIVENESS TO
LGBT AMERICANS

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Lowande, Kenneth, and Andrew Proctor. "Bureaucratic Responsiveness to LGBT Americans." *American Journal of Political Science* 64, no. 3 (2020): 664–81.
<https://doi.org/10.1111/ajps.12493>.

THE STUDY



US Historical Precedent:
Government officials fail to
enforce civil rights legislation
regarding racial equality.

Does this hold true for
marriage equality?

DESIGN

Audit Experiment for Difference in
Two Means



TABLE 1 Treatment Groups

		Requester	
		<i>Female</i>	<i>Male</i>
Spouse	<i>Female</i>	G_1 (1,103)	G_2 (1,105)
	<i>Male</i>	G_3 (1,105)	G_4 (1,103)

Note: N of 4,414 is less jurisdictions missing electronic contact info.

Email with 4 random name combinations,
sent to random officials

FIGURE 2 Email Instrument Example

Hello,

My name is [random: {female full name, male full name}]. My future
[random: {husband, wife}], [random: {female first name, male first name}],
and I need to get a marriage license. When can we apply for one?
How long is it valid? How much does it cost?

We plan to tie the knot on [date].

Thank you,
[rand: {female first name, male first name}]

HYPOTHESES



- ***Discrimination Hypothesis:*** Licensers will be less responsive to same-sex requesters.
- ***Legacy Hypothesis:*** Licensers in states with a recent legal history of limiting LGBT rights will be less responsive to same-sex requesters, relative to officials in other states.
- ***Selection Hypothesis:*** Licensers who are elected will be less responsive to same-sex requesters in areas of higher local-level conservatism, compared with other requesters, relative to elected officials in liberal areas and appointed officials

MEASUREMENT



Variables of Interest

- Response
- Congratulations

Covariates

- Regional Same Sex Marriage History
- Sodomy History
- Population
- Obama Vote Share
- Appointment type: (elected, appointed, or other)
- Governing Body issuing Marriage License (municipal or county level)
- General Felicitations
- Contact Form: whether official was contacted via online form or email

RESULTS

That's What We Call a Win, Folks.

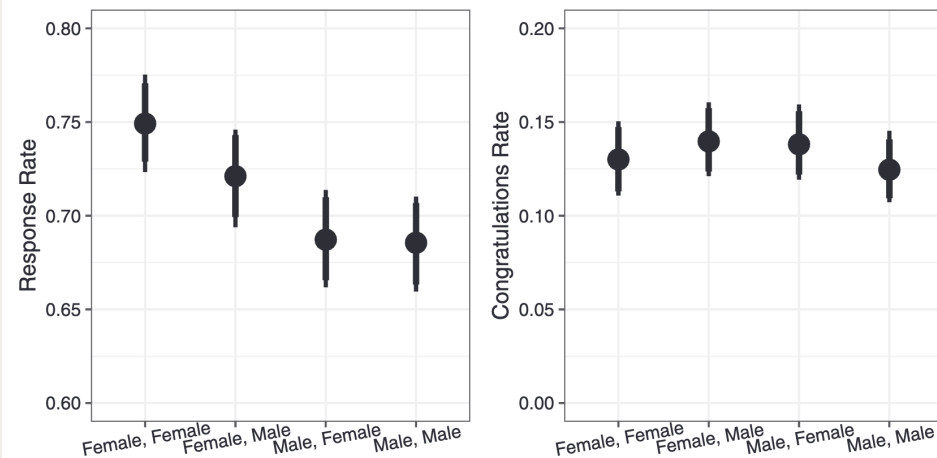


TABLE 2 Mean Response by Treatments in All States

Treatment	Response	Congrats	Cost	Valid	When	Well Wishes	N
Male Emailer, Male Spouse	0.678	0.124	0.482	0.469	0.334	0.127	1,067
Female Emailer, Female Spouse	0.744	0.132	0.538	0.510	0.387	0.132	1,094
Male Emailer, Female Spouse	0.684	0.138	0.482	0.468	0.355	0.134	1,088
Female Emailer, Male Spouse	0.718	0.142	0.534	0.503	0.384	0.137	1,072

Not a statistically significant difference in response to gay vs straight couples

FIGURE 3 Predicted Probability of Response and Congratulations by Treatment Group



Note: The figure plots point estimates and 90% and 95% confidence intervals simulated from observed data and logistic regression, with controls for state legal history, institution level, population, selection method, democratic presidential vote share, and contact method.

REPLICATION

It works, friends. ☺ The code ran.



Constructing 95% confidence intervals for point estimates using Inverse Probability Weighting using `ssm_history`, `type`, `population`, `appointed`, `obamavote`, & `cf`

```
107 D=cbind(D,model.matrix(~type-1,data=D))
108 D=cbind(D,model.matrix(~appointed-1,data=D))
109 d.MM=cbind(1, 0, 0, 0, D$ssm_history, D$typeCOUNTY, D$population, D$appointedEl
110 d.FF=cbind(1, 1, 0, 0, D$ssm_history, D$typeCOUNTY, D$population, D$appointedEl
111 d.MF=cbind(1, 0, 1, 0, D$ssm_history, D$typeCOUNTY, D$population, D$appointedEl
112 d.FM=cbind(1, 0, 0, 1, D$ssm_history, D$typeCOUNTY, D$population, D$appointedEl
113 p.MM=apply((1/(1+exp(-as.matrix(d.MM)%% t(betas))))),1,as.vector)
114 p_MM=apply(p.MM,1,mean)
115 p.FF=apply((1/(1+exp(-as.matrix(d.FF)%% t(betas))))),1,as.vector)
116 p_FF=apply(p.FF,1,mean)
117 p.MF=apply((1/(1+exp(-as.matrix(d.MF)%% t(betas))))),1,as.vector)
118 p_MF=apply(p.MF,1,mean)
119 p.FM=apply((1/(1+exp(-as.matrix(d.FM)%% t(betas))))),1,as.vector)
120 p_FM=apply(p.FM,1,mean)
```


THE OL' RAZZLE DAZZLE



Covariate 'sodomy_history' was not included in logistic regression, so I added it.

This contributed absolutely nothing to model fit; not a significant predictor.

```
Call:
glm(formula = congrats ~ as.factor(treatment) + sodomy_history +
    ssm_history + type + population + appointed + obamavote +
    cf, family = "binomial", data = dt)

Deviance Residuals:
    Min       1Q   Median       3Q      Max
-0.6873  -0.5805  -0.5300  -0.4062   2.3999

Coefficients:
            Estimate Std. Error z value Pr(>|z|)
(Intercept) -2.268e+00  2.653e-01  -8.548  < 2e-16 ***
as.factor(treatment)2  7.150e-02  1.300e-01   0.550  0.58227
as.factor(treatment)3  1.279e-01  1.290e-01   0.992  0.32142
as.factor(treatment)4  1.531e-01  1.286e-01   1.190  0.23406
sodomy_history  3.894e-02  1.386e-01   0.281  0.77874
ssm_history    5.866e-01  1.420e-01   4.132  3.6e-05 ***
typeCOUNTY   -4.474e-01  1.387e-01  -3.225  0.00126 **
population     -8.036e-09  2.123e-07  -0.038  0.96981
appointedElected  2.650e-01  1.172e-01   2.261  0.02374 *
appointedUnknown -9.463e-02  3.248e-01  -0.291  0.77076
obamavote      -2.717e-01  3.667e-01  -0.741  0.45872
cf             -1.535e-01  1.718e-01  -0.893  0.37167
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for binomial family taken to be 1)

    Null deviance: 3400.5  on 4320  degrees of freedom
Residual deviance: 3338.4  on 4309  degrees of freedom
AIC: 3362.4

Number of Fisher Scoring iterations: 5
```

```
Call:
glm(formula = congrats ~ as.factor(treatment) + ssm_history +
    type + population + appointed + obamavote + cf, family = "binomial",
    data = dt)

Deviance Residuals:
    Min       1Q   Median       3Q      Max
-0.6873  -0.5803  -0.5308  -0.4060   2.3929

Coefficients:
            Estimate Std. Error z value Pr(>|z|)
(Intercept) -2.239e+00  2.448e-01  -9.148  < 2e-16 ***
as.factor(treatment)2  7.158e-02  1.300e-01   0.551  0.58189
as.factor(treatment)3  1.281e-01  1.290e-01   0.993  0.32083
as.factor(treatment)4  1.531e-01  1.286e-01   1.191  0.23385
ssm_history    5.935e-01  1.399e-01   4.243  2.21e-05 ***
typeCOUNTY   -4.601e-01  1.313e-01  -3.503  0.00046 ***
population     -8.223e-09  2.129e-07  -0.039  0.96919
appointedElected  2.670e-01  1.169e-01   2.283  0.02244 *
appointedUnknown -9.392e-02  3.248e-01  -0.289  0.77243
obamavote      -2.674e-01  3.661e-01  -0.730  0.46516
cf             -1.533e-01  1.718e-01  -0.892  0.37218
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for binomial family taken to be 1)

    Null deviance: 3400.5  on 4320  degrees of freedom
Residual deviance: 3338.5  on 4310  degrees of freedom
AIC: 3360.5

Number of Fisher Scoring iterations: 5
```


THE OL' RAZZLE DAZZLE (PART II)

With A Little Bit of Data Wrangling



Significance testing was neither reported in the paper, nor in the replication code. I ran T-tests on Response and Congrats for:

- *LGBT vs Straight:*

R: p-value = 0.4567

C: p-value = 0.2429

- *Men vs Women:*

R: p-value = 0.0002632

C: p-value = 0.5756

THE OL' RAZZLE DAZZLE (PART III)



More Significance Testing

- *Lesbian vs Straight Women:*

R: p-value = 0.1764

C: p-value = 0.4915

- *Gay vs Straight Men:*

R: p-value = 0.7569

C: p-value = 0.3299

THAT'S ALL, FOLKS.