Daughters

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Table 2: Demographics of U.S. Courts of Appeals Judges Who Voted on Gender-Related Cases, 1996-2002

	All	Democrats	Republicans	Women	Men
Mean Number of Children	2.47	2.40	2.54	1.58	2.66
Mean Number of Girls	1.24	1.33	1.16	0.71	1.34
Proportion Who Have 0 Children	0.11	0.12	0.11	0.29	0.08
1 Child	0.09	0.13	0.07	0.21	0.07
2 Children	0.34	0.32	0.36	0.26	0.36
3 Children	0.24	0.23	0.25	0.13	0.26
4 Children	0.13	0.15	0.12	0.08	0.15
5 Children	0.05	0.04	0.06	0.03	0.05
6 Children or More	0.03	0.02	0.03	-	0.03
Proportion Female	0.17	0.26	0.09	-	-
Proportion Republican	0.54	-	-	0.29	0.59
Proportion White	0.91	0.78	0.99	0.93	0.91
Mean Year Born	1932.55	1931.23	1933.43	1938.57	1931.49
N	224.00	103.00	121.00	38.00	186.00

Table 3: Distribution of the Number of Gender-Related Cases Heard per Judge, 1996-2002

	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
All Judges	1	5	8	11.10	14	46
Democrats	1	5	7	10.12	13	39
Republicans	1	5	9	11.94	14	46

Table 4: Weighted Least Squares Results, Gender-Related Cases Only

This table deals with a regression of the percent increase in the likelihood of a judge deciding a case in a feminine direction. The weights in the regression are corresponding to the number of cases that have been heard by each judge. This application in the paper makes sense, because it is desireable to assign more significance in our model to the data that we are more sure is correct (in this case defined as having more observed occurences of a judge's behavior).

However, there are concerns with the overall shape of the data. The data set first of all contains a lot of very low numbers of cases in it - 50% of hthe judges have less than or equal to 8 cases that describe them, and 25% have less than or equal to 5 cases. On the low end, that means that there are a lot of judges that have very low numbers of caes thatwe have data on. This means that their proportion of progressive votes decided could be significantly inaccurate for these many judges with very small case files. Because the model underweights these areas of the data, however, the deletion of these potentially incorrect points should not affect the ultimate model, however.

The algorithm also very heavily weights the cases with a significant amount of data. However, because there are very few of these cases, that means that potentially outlying statistical effects can be greatly increased. One interesting artifact of their removal, however, is that the significance of some the factors increases slightly. It is possible that this is due to some significant outliers in the dataset from the weighted method used to compute the regression.

The main motivation for this analysis for table 4 is the realization there are many low case coutns for many judges, which potentially results in a significant discrepancy or error interval surrounding their empirically observed proportion of votes cast in a feminist manner. For example, using a bayesian and binomial interpretation of the proportion of votes cast in a feminist manner, a judge that only had four data points informing an estimate of his or her likelihood to vote would have a large error interval (QUANTIFY).

It should be recognized that the quality and estimation of this data is of the utmost importance. If the predictor is biased towards a fewer number of values than needed, or is off by some small but unexpected amount, that could potentially affect the outcomes of many court cases.

"Weighted least squares results, gender cases only. Outcome is proportion of feminist votes. Models 1–4 are for all judges, while Models 5–8 are for judges with 1–4 children. (No judge among those with 1–4 children had four girls.) All models include fixed effects for number of children and use weights based on the number of cases heard by each judge."

Table 4: Weighted Least Squares Results, Gender-Related Cases Only

Table 4:

	All Judges							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1 Girl	0.09^{**}				0.09^{**}			
	(0.04)				(0.04)			
2 Girls	0.05				0.05			
	(0.04)				(0.04)			
3 Girls	0.06				0.08			
	(0.06)				(0.07)			
4 Girls	−0.35							
	(0.46)							
5 Girls	0.27							
	(0.17)							
At Least 1 Girl		0.07^{**}	0.09^{**}	0.07^{*}		0.07^{**}	0.09^{**}	0.07^{*}
		(0.03)	(0.04)	(0.04)		(0.04)	(0.04)	(0.04)
Republican			-0.15^{***}	-0.17^{***}			-0.15^{***}	-0.17^{***}
			(0.04)	(0.03)			(0.04)	(0.04)
Age at Investiture			0.01^{**}	0.004			0.004	0.004
			(0.002)	(0.002)			(0.003)	(0.003)
Catholic			-0.08^{**}	-0.08^{**}			−0.06	−0.05
			(0.03)	(0.03)			(0.04)	(0.03)
Woman			-0.08^{*}	-0.07^{*}			−0.05	−0.04
			(0.05)	(0.04)			(0.05)	(0.05)
African American			−0.06	−0.06			−0.04	−0.05
			(0.07)	(0.07)			(0.08)	(0.08)
Hispanic			−0.11	−0.10			−0.17	−0.17
			(0.11)	(0.10)			(0.12)	(0.11)
N	224	224	161	161	182	182	130	130
R^2	0.06	0.04	0.21	0.42	0.04	0.03	0.19	0.39
Adjusted R^2	−0.01	−0.01	0.12	0.30	0.01	0.01	0.13	0.28

$^{*}p < .1$; $^{**}p < .05$; $^{***}p < .01$

"Weighted least squares results, gender cases only. Outcome is proportion of feminist votes. Models 1–4 are for all judges, while Models 5–8 are for judges with 1–4 children. (No judge among those with 1–4 children had four girls.) All models include fixed effects for number of children and use weights based on the number of cases heard by each judge."

THIS IS THE ONE WITH THE DATA THAT WE CHANGED UP! SO THIS IS THE CASE WHERE WE ONLY USE THE DATA FOR JUDGES WITH less than 14 CASES IN THE DATA

Table 4: Weighted Least Squares Results, Gender-Related Cases Only

Table 4:

	All Judges							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1 Girl	0.03				0.03			
	(0.05)				(0.05)			
2 Girls	0.03				0.03			
	(0.06)				(0.06)			
3 Girls	0.09				0.02			
	(0.09)				(0.10)			
4 Girls	−0.49							
	(0.44)							
5 Girls		0.03	0.001	−0.03		0.03	0.001	−0.04
		(0.05)	(0.07)	(0.07)		(0.05)	(0.07)	(0.07)
At Least 1 Girl			-0.17^{***}	-0.19^{***}			-0.16^{***}	-0.20^{***}
			(0.06)	(0.06)			(0.06)	(0.06)
Republican			0.003	0.003			0.003	0.005
			(0.004)	(0.003)			(0.004)	(0.004)
Age at Investiture			−0.05	−0.06			−0.05	−0.03
			(0.06)	(0.06)			(0.06)	(0.06)
Catholic			−0.04	−0.09			0.04	0.003
			(0.08)	(0.08)			(0.11)	(0.11)
Woman			−0.14	−0.09			−0.05	−0.08
			(0.10)	(0.11)			(0.12)	(0.12)
African American			−0.14	−0.15			−0.20	−0.25
			(0.14)	(0.14)			(0.18)	(0.17)
N	172	172	116	116	141	141	96	96
R^2	0.03	0.02	0.14	0.36	0.01	0.01	0.13	0.36
Adjusted R^2	−0.04	−0.03	0.02	0.18	−0.04	−0.02	0.02	0.17

$^{*}p < .1$; $^{**}p < .05$; $^{***}p < .01$

"Weighted least squares results, gender cases only. Outcome is proportion of feminist votes. Models 1–4 are for all judges, while Models 5–8 are for judges with 1–4 children. (No judge among those with 1–4 children had four girls.) All models include fixed effects for number of children and use weights based on the number of cases heard by each judge."

THIS IS THE ONE WITH THE DATA THAT WE CHANGED UP! SO THIS IS THE CASE WHERE WE ONLY USE THE DATA FOR JUDGES WITH MORE THAN 5 CASES IN THE DATA

Table 4: Weighted Least Squares Results, Gender-Related Cases Only

Table 4:

	All Judges							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1 Girl	0.08^{*}				0.08^{**}			
	(0.04)				(0.04)			
2 Girls	0.03				0.03			
	(0.04)				(0.04)			
3 Girls	0.05				0.09			
	(0.07)				(0.08)			
4 Girls	−0.21							
	(0.27)							
5 Girls	0.28							
	(0.18)							
At Least 1 Girl		0.06	0.10^{**}	0.07^{*}		0.06^{*}	0.09^{**}	0.08^{*}
		(0.04)	(0.04)	(0.04)		(0.04)	(0.04)	(0.04)
Republican			-0.14^{***}	-0.17^{***}			-0.15^{***}	-0.18^{***}
			(0.04)	(0.04)			(0.04)	(0.04)
Age at Investiture			0.01^{**}	0.005^{*}			0.004	0.004
			(0.003)	(0.002)			(0.003)	(0.003)
Catholic			-0.08^{**}	-0.07^{**}			−0.05	−0.05
			(0.03)	(0.03)			(0.04)	(0.04)
Woman			−0.08	−0.08			−0.06	−0.07
			(0.05)	(0.05)			(0.05)	(0.05)
African American			−0.04	−0.05			−0.02	−0.05
			(0.08)	(0.07)			(0.09)	(0.08)
Hispanic			−0.10	−0.11			−0.17	-0.19^{*}
			(0.11)	(0.10)			(0.12)	(0.11)
N	160	160	116	116	129	129	91	91
R^2	0.06	0.04	0.24	0.48	0.04	0.03	0.23	0.46
Adjusted R^2	−0.02	−0.02	0.12	0.32	−0.004	−0.004	0.13	0.30

$^{*}p < .1$; $^{**}p < .05$; $^{***}p < .01$

Table 5

One main critique of this table is that it treats every case as if it is identical, and tries to abstract away the details. This could not be further from the truth. It is possible that some judges do not hear some cases because the lower courts within the jurisdiction are more conservative/liberal, and so prevent reasonable cases from showing up in some areas, as opposed to others. There are other potential errors, including a small number of people who have heard a large number of cases - this means that there are going to be a lot of cases with the same inputs, and this can greatly affect the model.

The whole argument for this paper is based off of the correctness of the variable progressive_vote, and this assumption appears to be questionable. The skewness of the number of cases makes it so that a small proportion of judges have heard a large number of the cases in the dataset. These prolific judges will result in a large number of cases that all have the same inputted demographic features, which will mean that the model can fit to this small portion of the population well and predict the overall outcomes of the lawsuits.

Future work would check if there is a significant but spurious correlation between the number of cases in this dataset, the pattern of voting, and the pattern of demographic data. If these correlations existed, then the validity of the paper would be in question.

"Logit and ordered logit results, gender cases only. Outcome is whether judge in a case votes in a feminist direction (Columns 1–5) or in a conservative, moderate, or liberal direction (Column 6). All models include fixed effects for total number of children and Columns 3–6 include circuit and year fixed effects. Column 5 additionally includes standard errors clustered at the case level

Table 5: Logit and Ordered Logit Results, Gender-Related Cases Only

Table 5:

	progressive_vote				
	(1)	(2)	(3)	(4)	(5)
1 Girl	0.38^{***}				
	(0.13)				
2 Girls	0.20				
	(0.14)				
3 Girls	0.35				
	(0.23)				
At Least 1 Girl		0.32^{***}	0.40^{**}	0.42^{**}	0.42^{**}
		(0.12)	(0.16)	(0.17)	(0.17)
Republican			-0.70^{***}	-0.68^{***}	-0.68^{***}
			(0.15)	(0.15)	(0.16)
Age at Investiture			0.02	0.02	0.02
			(0.01)	(0.01)	(0.01)
Catholic			−0.19	−0.21	−0.21
			(0.14)	(0.14)	(0.14)
Woman			−0.07	−0.10	−0.10
			(0.21)	(0.21)	(0.21)
African American			−0.18	−0.20	−0.20
			(0.31)	(0.31)	(0.32)
Hispanic			−0.65	−0.65	−0.65
			(0.45)	(0.45)	(0.51)
Employment				-1.54^{***}	−1.54
				(0.50)	(1.10)
Pregnancy				-1.73^{***}	−1.73
				(0.55)	(1.16)
Reproductive				−1.43	−1.43
				(1.16)	(10.56)
Title IX				−0.29	−0.29
				(0.69)	(2.46)
N	1,974	1,974	1,507	1,507	1,507
Log Likelihood	−1,319.68	−1,320.98	−941.41	−932.03	−932.03
AIC	2,653.37	2,651.97	1,938.81	1,928.06	1,928.06

*p < .1; **p < .05; ***p < .01

Table 6: omitted from results

Table 7: Weighted Least Squares Results

Table 7: Weighted least squares results. Outcome is judges' proportion of feminist votes on gender-related cases. All models include fixed effects for total number of children and use weights based on the number of cases heard by each judge.

	Share of Votes in Feminist Direction				
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
At Least 1 Girl	0.07*	0.04	0.08**	0.05	0.08*
	(0.04)	(0.05)	(0.04)	(0.08)	(0.04)
2 Children	−0.005	0.10*	0.03	0.08	0.02
	(0.06)	(0.06)	(0.05)	(0.09)	(0.07)
3 Children	−0.01	0.08	0.04	−0.01	0.01
	(0.06)	(0.06)	(0.06)	(0.10)	(0.07)
4 Children	−0.07	0.19**	0.02	0.01	−0.06
	(0.07)	(0.08)	(0.07)	(0.13)	(0.08)
Constant	0.30***	0.35***	0.30***	0.34***	0.28***
	(0.06)	(0.06)	(0.06)	(0.06)	(0.07)
N	97	85	156	26	90
R-squared	0.04	0.09	0.03	0.08	0.05
Adj. R-squared	−0.004	0.05	0.01	−0.09	0.001

***p < .01; **p < .05; *p < .1

Table 8

Table 8:

	Liberal Judge-Vote		
	Model 1	**Model 2**	**Model 3**
1 Girl	0.161**	0.161**	0.159**
	(0.080)	(0.068)	(0.069)
1 Child	−0.119*		
	(0.067)		
Republican			−0.037
			(0.069)
Constant	0.393***	0.274***	0.292***
	(0.037)	(0.047)	(0.059)
N	46	21	21
R-squared	0.097	0.230	0.242
Adj. R-squared	0.055	0.189	0.158

***p < .01; **p < .05; *p < .1

Table 9: Proportion of Girls (Conditional on Number of Children) for U.S. Courts of Appeals Judges Participating in Gender-Related Cases, 1996-2002

	0 Girls	1 Girl	2 Girls	3 Girls	4 Girls	5 Girls	0 Girls	1 Girl	2 Girls	3 Girls	4 Girls
0	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
1	0.46	0.54	0.00	0.00	0.00	0.00	0.38	0.62	0.00	0.00	0.00
2	0.15	0.48	0.36	0.00	0.00	0.00	0.32	0.50	0.18	0.00	0.00
3	0.08	0.46	0.33	0.12	0.00	0.00	0.13	0.37	0.37	0.13	0.00
4	0.07	0.07	0.53	0.33	0.00	0.00	0.07	0.27	0.60	0.07	0.00
5	0.00	0.00	0.25	0.50	0.00	0.25	0.14	0.00	0.43	0.29	0.14
7	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.33	0.00	0.67	0.00
9	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00

REMOVED TABLES:

Table 1: Number of Children and Girls for U.S. Courts of Appeals Judges Participating in Gender-Related Cases, 1996-2002

Count	0	1	2	3	4	5	6	7	8	9	N
Number of Children											
Democrats	12	13	33	24	15	4	-	1	-	1	103
Republicans	13	8	44	30	15	7	3	-	1	-	121
Number of Girls											
Democrats	26	35	29	10	1	2	-	-	-	-	103
Republicans	36	43	31	9	2	-	-	-	-	-	121

Figure 1: Distribution of the Proportion of Cases Decided in a Feminist Direction out of All Gender-Related Cases Decided, 1996-2002