



**Minority Media &
Telecom Council**

3636 16th Street N.W. Suite B-366
Washington, D.C. 20010
Phone: 202-332-0500 Fax: 202-332-0503
www.mmtconline.org

Minority and Women's Representation on State Public Utility Commissions

Marcella Gadson, Director of Communications
Dorrissa Griffin, Law Clerk
David Honig, President and Executive Director

Statistical Analysis by Dr. Simon Foo, Professor and Chair, Department of Electrical and
Computer Engineering, Florida A&M University and Florida State University

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Introduction and Summary

In 2010, the Minority Media and Telecommunications Council (MMTC) studied the number of minorities and women on public utility commissions (PUCs) as a function of several variables: compensation, term of office, number of PUC members, party restrictions, whether they are elected or appointed, and (for minorities) minority representation in the state.

The results showed that minorities and women are both significantly underrepresented. There were no correlations between representation and the variables analyzed, with one exception: a very strong, positive correlation was found between compensation and the number of women represented, with higher compensation correlating with higher representations of women on PUCs. We attribute this to the likelihood that states with more farsighted stewardship of their PUCs are more likely to both provide attractive compensation to PUC members and to promote diversity among their PUCs' commissioners.

The data and tables in this study are accurate and complete as of August 10, 2010.

Narrative Overview

Of the 51 public utilities commissions,¹ 39 (76.5%) did not have minority membership that was greater than or equal to the proportion of minorities in that particular state, and 12 (23.5%) had minority membership that was greater to or equal to the proportion of minorities in the state. Thirty-three of the PUCs (64.7%) did not have a single minority member on their PUC, and 18 of the PUCs (35.3%) had at least one minority member (see Appendix A).

Forty-two of the PUCs (82.4%) did not have women's membership of 50% or greater, while nine (17.6%) did have women's membership of 50% of greater. Fifteen (29.5%) of the PUCs had no woman members, while 36 PUCs (70.5%) had at least one woman member (see Appendix B).

Shown as Figure A below is a map of the United States with the states shaded in red that have no minorities represented on their PUCs. The map shows that generally there are no minorities represented in states in the western and southern regions of the nation, with very low representation in the northeast as well.

¹ These PUCs are for each state and the District of Columbia. PUC information was only found for three of the seven U.S. territories. Each of these territories had very high percentages of minority members, likely due to the very high percentage of minorities in the territories themselves. For this reason, the three territories were considered statistical outliers and not included in the Narrative Overview.

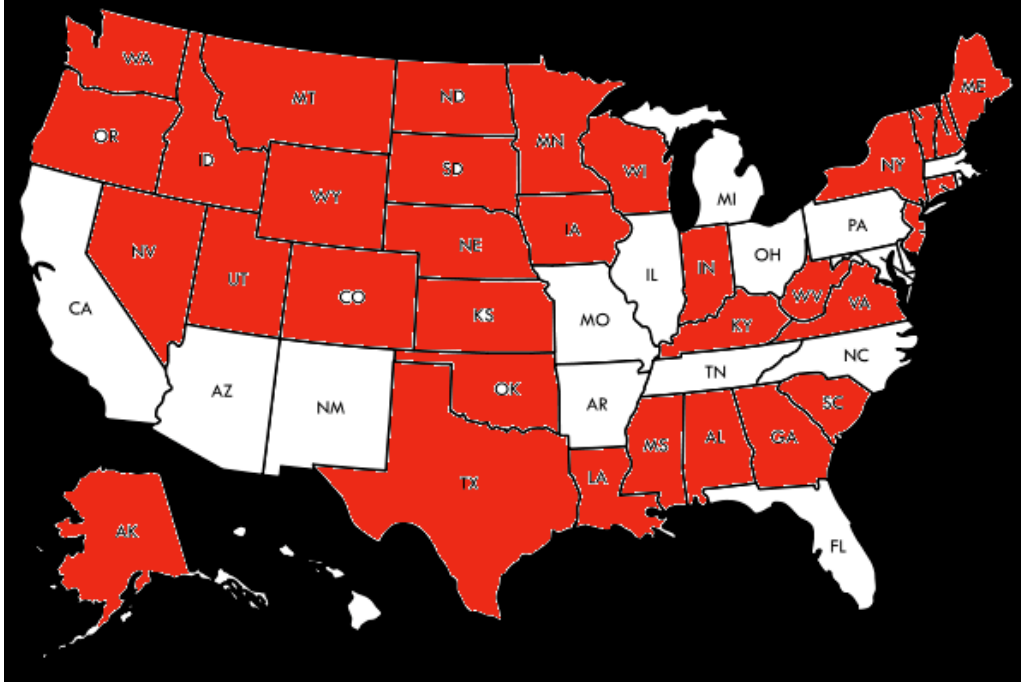


Figure A: States with no Minority PUC Commissioners (August 2010)

Shown as Figure B below is a map of the United States with the states shaded in red that have no women represented on their PUCs. The map shows that the states with no women on their PUCs are primarily in the southern and midwestern regions of the country.

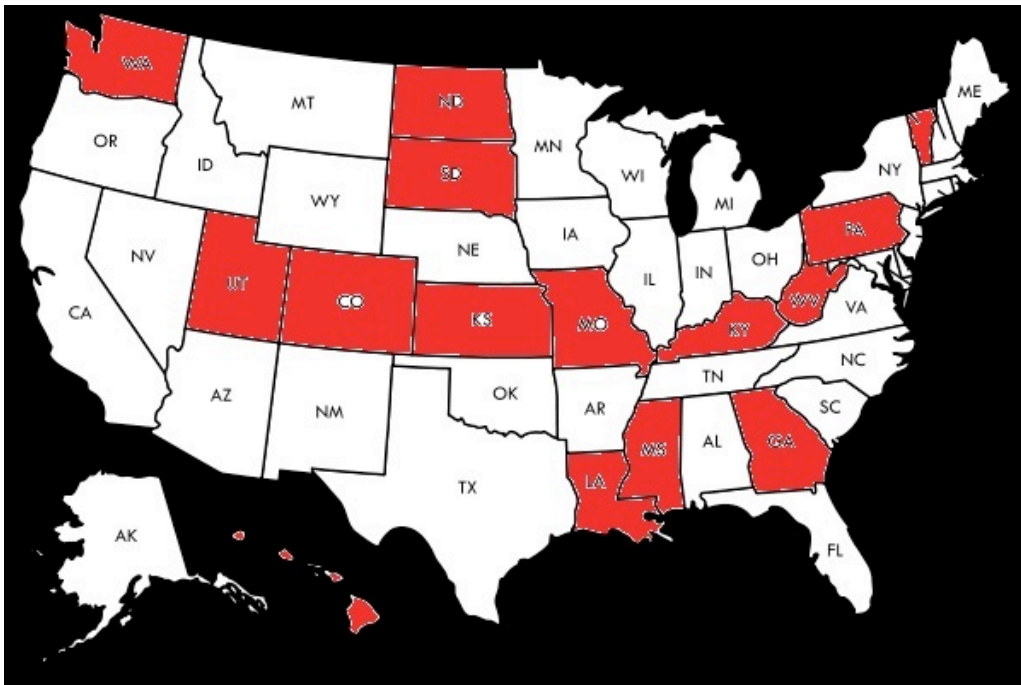


Figure B: States with no Women PUC Commissioners (August 2010)

Shown as Figure C below is a map of the United States with the states shaded in red that have neither women nor minorities (that is, only white males) represented on their PUCs.

Interestingly, most of the states that do not have women PUC members also do not have minority PUC members – 11 of the 15 states (almost 75%) that had no women’s representation also had no minority representation.

Similar to the pattern seen in Figure B, states with no minority or women representation are concentrated in the southern and midwestern regions of the country.

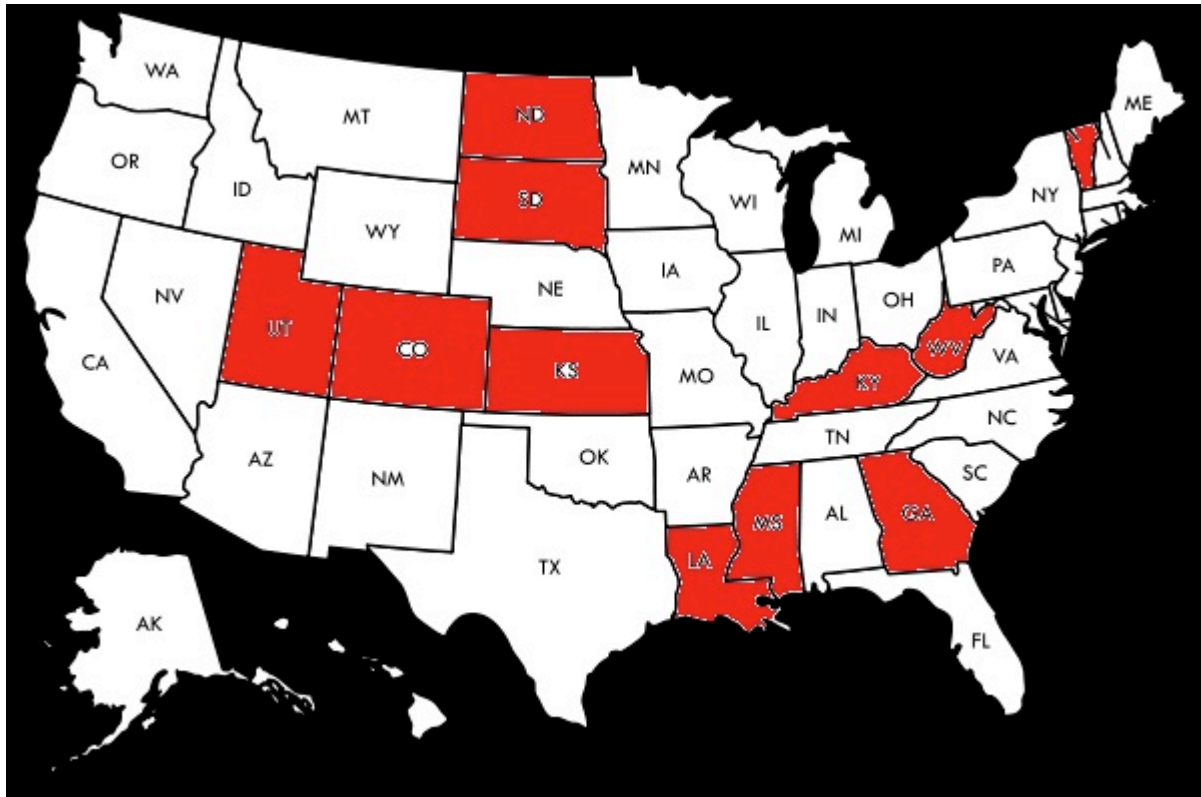


Figure C: States with no Women or Minority PUC Commissioners

Statistical Analysis

For the statistical analysis of the data, a canonical correlation analysis, or CCA, principal component analysis, or PCA, and correlation coefficients were used to study the relationships between minority and women's representation on state PUCs (see Appendices C and D) based on the following variables:

- Whether PUC members are elected or appointed
- Term of office
- Whether there are party restrictions
- Compensation
- Number of PUC members
- Minority representation in the state population (only in the minority analysis)

The CCA and PCA analyses found little correlation between the number of minorities represented in PUCs and any of the other variables.

While the CCA analysis found little correlation between women represented in PUCs, the PCA analysis found a correlation between women's representation and one of the variables: there is a very strong (98.8%) positive correlation between women's representation and compensation – that is, the higher the compensation, the greater the percentage of women's representation (see Appendix E). The raw data is shown in Appendix F. All PSC commissioners (as of August 2010) are identified in Appendix G.

Conclusion

Overall, 33 of the PUCs lacked any minority membership while 15 of the PUCs had no women members. There were no correlations between minority or women's representation and term of office, number of PUC members, minority representation in the state population, party restrictions, or whether PUC members are elected or appointed. Nor was there a correlation between minority PUC membership and compensation.

On the other hand, there was a very strong 98.8% positive correlation between compensation and number of women commissioners. In most occupations, positions disproportionately occupied by women tend to offer lower pay. Thus we attribute the positive correlation between women's commissioner representation and compensation to the likelihood that states with more farsighted stewardship of their PUCs are more likely to both provide attractive compensation to PUC members and to promote diversity among their PUCs' commissioners.

* * * * *

PUCs with no Minorities
Alabama
Alaska
Colorado
Georgia
Idaho
Indiana
Iowa
Kansas
Kentucky
Louisiana
Maine
Minnesota
Mississippi
Montana
Nebraska
Nevada
New Hampshire
New Jersey
New York
North Dakota
Oklahoma
Oregon
Rhode Island
South Carolina
South Dakota
Texas
Utah
Vermont
Virginia
Washington
West Virginia
Wisconsin
Wyoming

PUCs with 1 Minority
Arizona
Arkansas
California
Connecticut
Delaware
District of Columbia
Florida
Illinois
Maryland
Massachusetts
Missouri
Ohio
Pennsylvania
Tennessee

PUCs with 2 or More Minorities
Hawaii
Michigan
New Mexico
North Carolina
Guam
Puerto Rico
Virgin Islands

Appendix A – PUC Minority Representation by State

PUCs with no Women
Colorado
Georgia
Hawaii
Kansas
Kentucky
Louisiana
Mississippi
Missouri
North Dakota
Pennsylvania
South Dakota
Utah
Vermont
Washington
West Virginia

PUCs with 1 Woman
Arizona
Idaho
Indiana
Iowa
Maine
Michigan
Montana
Nebraska
New Hampshire
New Mexico
Oklahoma
Oregon
Rhode Island
Texas
Virginia
Wisconsin
Wyoming
Puerto Rico
Virgin Islands

PUCs with 3 or More Women
Alabama
Alaska
Arizona
California
Connecticut
Delaware
District of Columbia
Florida
Illinois
Maryland
Massachusetts
Minnesota
Nevada
New Jersey
New York
North Carolina
Ohio
South Carolina
Tennessee
Guam

Appendix B – PUC Women’s Representation by State

Figure 1 - CCA results with respect to women's representation. The red dot indicates women, blue dot "not women."

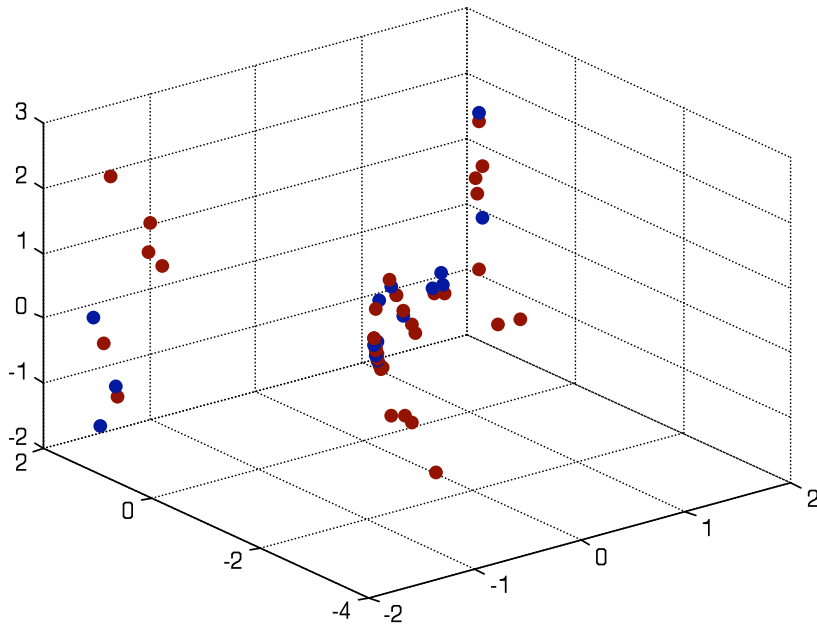


Figure 2 - CCA results with respect to minority representation. The red dot indicates minority, blue dot "not minority." Results showed little correlation between minority variable and the other variables.

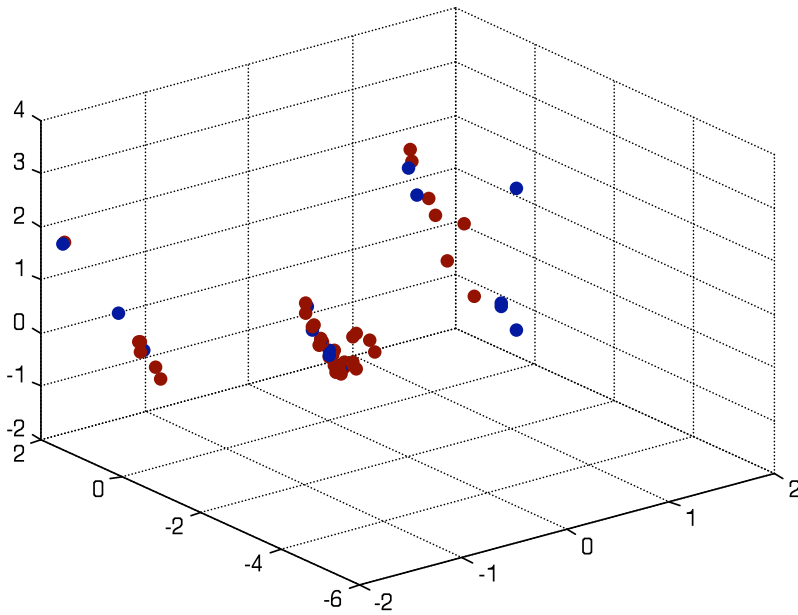


Figure 3 – PCA results with respect to minority representation. Results showed little correlation between minority variable and the other variables.

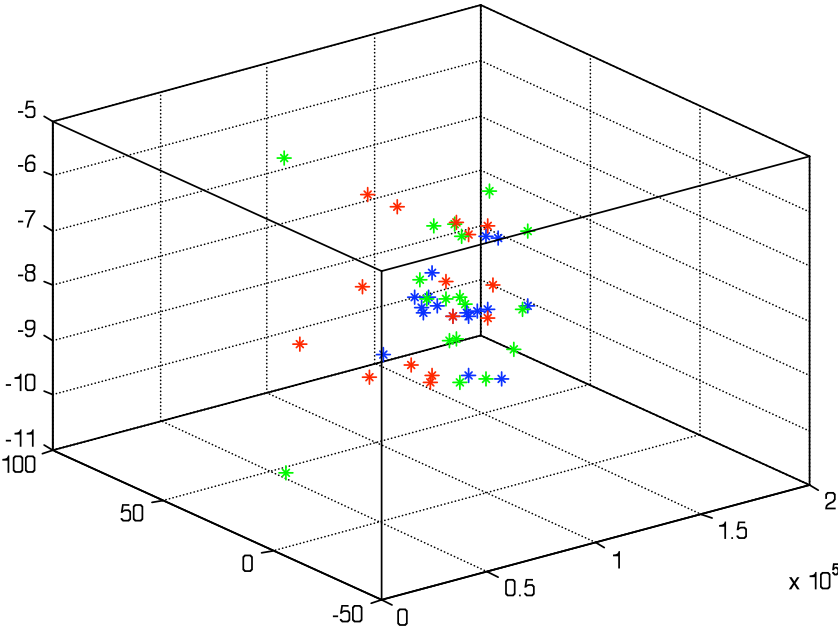
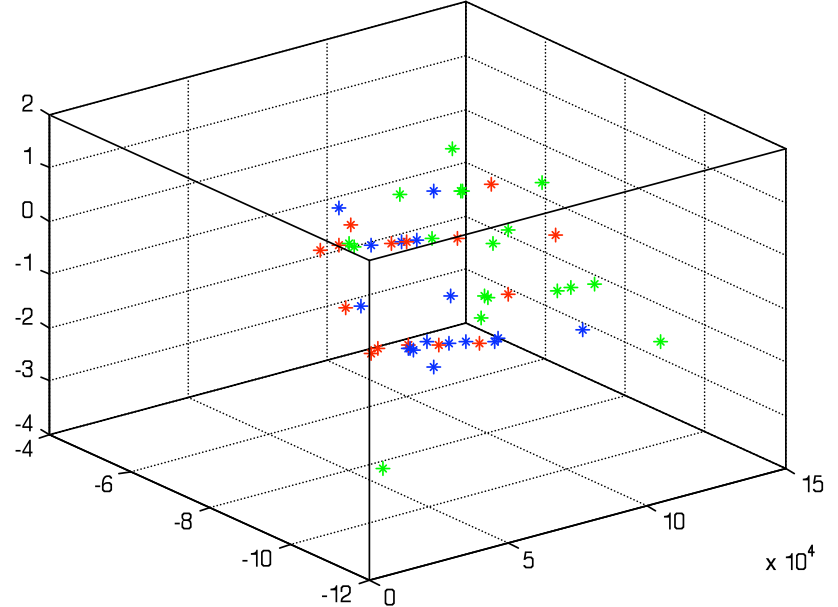


Figure 4 – PCA results with respect to women’s representation.



Appendix D – PCA Analyses of Minorities and Women

Figure 5 – Graphical illustration of correlation between women’s representation and salary. The red line is a curve fit of the mean (average) salaries versus the number of women.

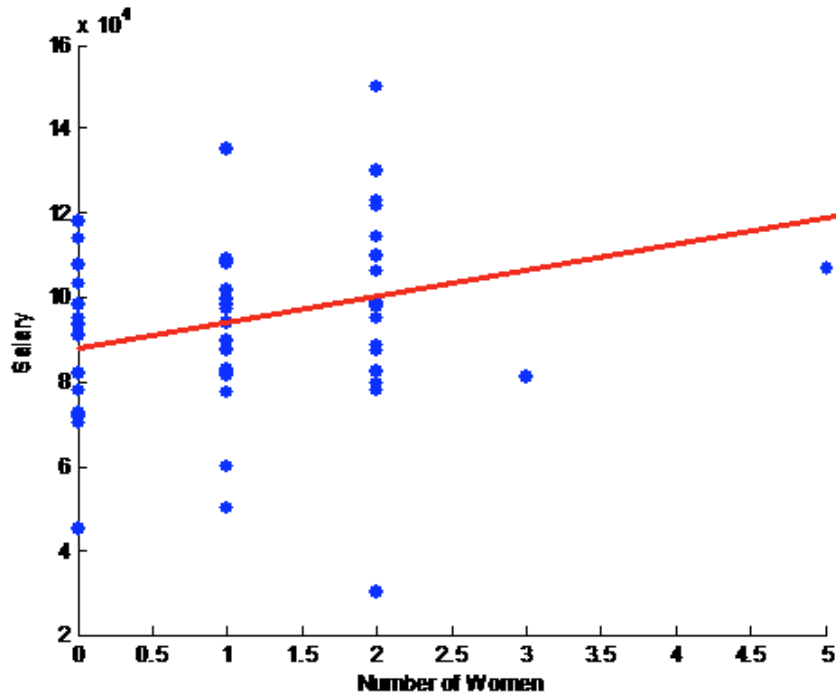


Figure 6 – Average salary based on number of women on PUC. There is a 98.8% correlation between number of women and average salary.

	Average Salary
0 women	\$87,585.33
1 woman	\$90,755.06
2 women	\$96,277.50

Appendix E – Correlation between Number of Women and Average Salary

	State	Name of PUC	Appointed, Elected, or Both?	Term of Office (Years)	Party Restrictions?	Compensation	Number of Members	Number of Women	Percent Female Members	Number of Minorities	Percent Minority Members	Percent Minority Pop.	Percent Minority Comm. / Percent Minority Pop Ratio	Percent Female Comm. / Percent Minority Pop Ratio	Notes
1	AL	Alabama Public Service Commission	Elected	4	No	\$81,014	3	3	100.00	0	0.00	29	0.00	3.45	
2	AK	Regulatory Commission of Alaska	Appointed	6	No	\$87,468	5	2	40.00	0	0.00	29.4	0.00	1.36	One member has no picture. Assumed non-minority for evaluation.
3	AZ	Arizona Corporation Commission	Elected	4	No	\$79,500	5	2	40.00	1	20.00	13.5	1.48	2.96	Can serve 2 terms at most
4	AR	Arkansas Public Service Commission	Appointed	4	No	\$97,099	3	1	33.33	1	33.33	19.2	1.74	1.74	
5	CA	California Public Utilities Commission	Appointed	6	No	\$114,191	5	2	40.00	1	20.00	23.4	0.85	1.71	
6	CO	The Public Utilities Commission of Colorado	Appointed	4	No	\$93,684	3	0	0.00	0	0.00	9.3	0.00	0.00	
7	CT	Connecticut Department of Public Utility Control	Appointed	4	No	\$107,617 - \$138,043	5	2	40.00	1	20.00	15.7	1.27	2.55	One member has no picture. Assumed non-minority for evaluation.
8	DE	Delaware Public Service Commission	Appointed	9	No	\$30,000	5	2	40.00	1	20.00	25.7	0.78	1.56	
9	FL	Florida Public Service Commission	Appointed	4	No	\$130,036	3	2	66.67	1	33.33	21.2	1.57	3.14	* There are currently 3 Commissioners, but 2 additional vacant positions. * There appear to be no party restrictions on the Commissioners themselves, but the 12-member PUC oversight committee must have at least 4 members of the minority party.
10	GA	Georgia Public Service Commission	Elected	4	No	\$107,730	5	0	0.00	0	0.00	34.6	0.00	0.00	
11	HI	Hawaii Public Utilities Commission	Appointed	4	No	\$69,242 - \$74,068	3	0	0.00	2	66.67	70.3	0.95	0.00	One member has no picture. Assumed non-minority for evaluation.
12	ID	Idaho Public Utilities Commission	Appointed	6	Yes	\$82,740	3	1	33.33	0	0.00	5.4	0.00	6.17	No more than two commissioners may be of the same political party.
13	IL	Illinois Commerce Commission	Appointed	5	Yes	\$99,000	5	2	40.00	1	20.00	20.9	0.96	1.91	One member has no picture. Assumed non-minority for evaluation.
14	IN	Indiana Utility Regulatory Commission	Appointed	4	Yes	\$60,000 minimum	5	1	20.00	0	0.00	22	0.00	0.91	No more than three commissioners may be of the same political party.
15	IA	Iowa Utilities Board	Appointed	6	No	\$99,521	3	1	33.33	0	0.00	6.8	0.00	4.90	

Appendix F – Raw Data

	State	Name of PUC	Appointed, Elected, or Both?	Term of Office (Years)	Party Restrictions?	Compensation	Number of Members	Number of Women	Percent Female Members	Number of Minorities	Percent Minority Members	Percent Minority Pop.	Percent Minority Comm. / Percent Minority Pop Ratio	Percent Female Comm. / Percent Minority Pop Ratio	Notes
16	KS	Kansas Corporation Commission	Appointed	4	Yes	\$114,118	3	0	0.00	0	0.00	22.3	0.00	0.00	No more than two commissioners may be of the same political party.
17	KY	Kentucky Public Service Commission	Appointed	4	No	\$98,286	3	0	0.00	0	0.00	20.1	0.00	0.00	
18	LA	Louisiana Public Service Commission	Elected	6	No	\$45,000	5	0	0.00	0	0.00	35.2	0.00	0.00	
19	ME	Maine Public Utilities Commission	Appointed	6	No	\$98,384	2	1	50.00	0	0.00	3.6	0.00	13.89	
20	MD	Maryland Public Service Commission	Appointed	4	No	\$98,096	5	2	40.00	1	20.00	36.6	0.55	1.09	One member has no picture. Assumed non-minority for evaluation.
21	MA	Massachusetts Department of Telecommunications and Energy	Appointed	4	No	\$82,500	3	2	66.67	1	33.33	13.8	2.42	4.83	
22	MI	Michigan Public Service Commission	Appointed	6	Yes	\$108,202	3	1	33.33	2	66.67	28.8	2.31	1.16	No more than two commissioners may be of the same political party.
23	MN	Minnesota Public Utilities Commission	Appointed	6	Yes	\$88,448	5	2	40.00	0	0.00	21	0.00	1.90	No more than three commissioners may be of the same political party.
24	MS	Mississippi Public Service Commission	Elected	4	No	\$78,000	3	0	0.00	0	0.00	39.4	0.00	0.00	
25	MO	Missouri Public Service Commission	Appointed	6	No	\$95,229	5	0	0.00	1	20.00	15	1.33	0.00	
26	MT	Montana Public Service Commission	Elected	6	No	\$77,418	5	1	20.00	0	0.00	9.5	0.00	2.11	
27	NE	Nebraska Public Service Commission	Elected	6	No	\$50,000	5	1	20.00	0	0.00	8.6	0.00	2.33	
28	NV	Public Utilities Commission of Nevada	Appointed	4	No	\$106,080	3	2	66.67	0	0.00	9.1	0.00	7.33	
29	NH	New Hampshire Public Utilities Commission	Appointed	6	No	\$70,523-\$94,024	3	1	33.33	0	0.00	4.5	0.00	7.41	
30	NJ	New Jersey Board of Public Utilities	Appointed	6	No	\$121,770	5	2	40.00	0	0.00	24	0.00	1.67	One member has no picture. Assumed non-minority for evaluation.

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31	NM	The New Mexico Public Regulation Commission	Elected	4	No	\$90,000	5	1	20.00	3	60.00	16	3.75	1.25	
32	NY	New York State Public Service Commission	Appointed	6	Yes	\$109,800	5	2	40.00	0	0.00	26.6	0.00	1.50	Bipartisan by law
33	NC	North Carolina Utilities Commission	Appointed	8	No	\$107,136	7	5	71.43	3	42.86	26.1	1.64	2.74	
34	ND	North Dakota Public Service Commission	Elected	6	No	\$72,669	3	0	0.00	0	0.00	8.6	0.00	0.00	
35	OH	The Public Utilities Commission of Ohio	Appointed	4	No	\$95,514-\$99,965	5	2	40.00	1	20.00	15.2	1.32	2.63	
36	OK	Oklahoma Corporation Commission	Elected	6	No	\$87,875	3	1	33.33	0	0.00	21.9	0.00	1.52	
37	OR	Oregon Public Utility Commission	Appointed	4	No	\$101,844	3	1	33.33	0	0.00	9.9	0.00	3.37	
38	PA	Pennsylvania Public Utility Commission	Appointed	5	No	\$118,234	5	0	0.00	1	20.00	14.6	1.37	0.00	
39	RI	Rhode Island Public Utilities Commission	Appointed	6	No	\$81,467	3	1	33.33	0	0.00	21.5	0.00	1.55	
40	SC	Public Service Commission of South Carolina	Appointed	4	No	\$77,834	7	2	28.57	0	0.00	31.3	0.00	0.91	
41	SD	South Dakota Public Utility Commission	Elected	6	No	\$82,000	3	0	0.00	0	0.00	11.8	0.00	0.00	
42	TN	Tennessee Regulatory Authority	Appointed	6	No	\$95,148	4	2	50.00	1	25.00	19.6	1.28	2.55	
43	TX	Public Utility Commission of Texas	Appointed	6	No	\$109,200	3	1	33.33	0	0.00	17.6	0.00	1.89	
44	UT	Utah Public Service Commission	Appointed	6	No	\$91,000	3	0	0.00	0	0.00	7.1	0.00	0.00	
45	VT	Vermont Public Service Board	Appointed	4	No	\$72,675	4	0	0.00	0	0.00	3.6	0.00	0.00	

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46	VA	Virginia State Corporation Commission	Appointed	6	No	\$135,297	3	1	33.33	0	0.00	27	0.00	1.23	
47	WA	Washington Utilities and Transportation Commission	Appointed	6	Yes	\$103,500	3	0	0.00	0	0.00	15.7	0.00	0.00	No more than two commissioners may be of the same political party.
48	WV	Public Service Commission of West Virginia	Appointed	6	Yes	\$70,000	3	0	0.00	0	0.00	5.5	0.00	0.00	No more than two commissioners may be of the same political party.
49	WI	Public Service Commission of Wisconsin	Appointed	6	No	\$92,000 - \$96,000	3	1	33.33	0	0.00	10.3	0.00	3.24	
50	WY	Wyoming Public Service Commission	Appointed	4	No	\$87,516	3	1	33.33	0	0.00	6.1	0.00	5.46	
51	DC	District of Columbia Public Service Commission	Appointed	4	No	>\$150,000	3	2	66.67	1	33.33	59.9	0.56	1.11	
52	GU	Guam Public Utilities Commission	Unknown	Unknown	Unknown	Unknown	4	2	50.00	2	50.00	95.1	0.53	0.53	
53	PR	Puerto Rico Telecommunications Regulatory Board	Appointed	6	No	Unknown	3	1	33.33	3	100.00	98	1.02	0.34	
54	VI	Virgin Islands Public Service Commission	Appointed	3	No	13000	9	1	11.11	8	88.89	86.9	1.02	0.13	

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