

The Ideology of Party Leadership in the U.S. House

Using the Normal Approximation and the ECDF

Below, I plotted the distribution of the ideology scores for the Democratic and Republican members of the 114th Congress along with the normal approximation. I also calculated the average and SD of the ideology score for members of the U.S. House for the 114th Congress for each party. Use these values to answer the following questions:



Party	Statistic	Value
Democrat	Average	-0.40
Democrat	SD	0.11
Republican	Average	0.48
Republican	SD	0.15

The table below contains the leaders in the U.S. House for the Republican and Democratic parties and those leaders' ideology scores.

Member Name	Party	Position	Ideology Score	Percent More Conservative/Liberal			
				Inspect Histogram	Normal Approximation	Inspect ECDF Plot	Compute ECDF
Paul Ryan	Republican	Speaker of the House	0.56				
Kevin McCarthy	Republican	Majority Leader	0.46				
Steve Scalise	Republican	Majority Whip	0.53				
Patrick McHenry	Republican	Majority Chief Deputy Whip	0.58				
Nancy Pelosi	Democrat	Minority Leader	-0.49				
Steny Hoyer	Democrat	Minority Whip	-0.38				
Jim Clyburn	Democrat	Assistant Democratic Leader	-0.47				
John Lewis	Democrat	Senior Chief Deputy Minority Whip	-0.59				

Use the information above to answer the following questions:

1. By inspecting the histograms, estimate the percentage of Republicans more conservatives than each Republican leader and the percentage of Democrats more liberal than each Democratic leader. Fill these percentages in to the table above.
2. Based on the histograms above, predict whether the normal approximation will work better for Republicans or Democrats? About what size errors do you expect for each party (e.g., 1-2%, 5-10%, 10-20%, etc.)?
3. Repeat Question 1 using the normal approximation, inspecting of the ECDF plot, and computing the ECDF function.
4. Who are the most extreme leaders within each party? The most moderate? Overall, which party's leadership is more extreme (relative to other members of their party)?
5. What should party leaders look like? Should party leaders be ideologically extreme members of their party, ideologically moderate members of their party, or ideologically moderate members of the legislature?