

The Rise of Partisanship in the US

A Network Science Approach

SLT 13B | Bengielyn Danao, Kyle Ong

The New York Times

Trump Acquitted of Two Impeachment Charges in Near Party-Line Vote

As Republicans rallied behind President Trump, Senator Mitt Romney of Utah, the party's 2012 presidential nominee, joined Democrats in voting to convict, the only senator to cross party lines.



<https://www.nytimes.com/2020/02/05/us/politics/trump-acquitted-impeachment.html>

**Donald Trump's
congress is
very partisan.**

*Analyze the voting behavior of
Republican & Democratic parties
over time (1947 – 2019)*



The Data

Rollcall vote data from voteview.com beta



Congressional rollcalls



Individual votes (Yes / No)



Members & parties



Senate



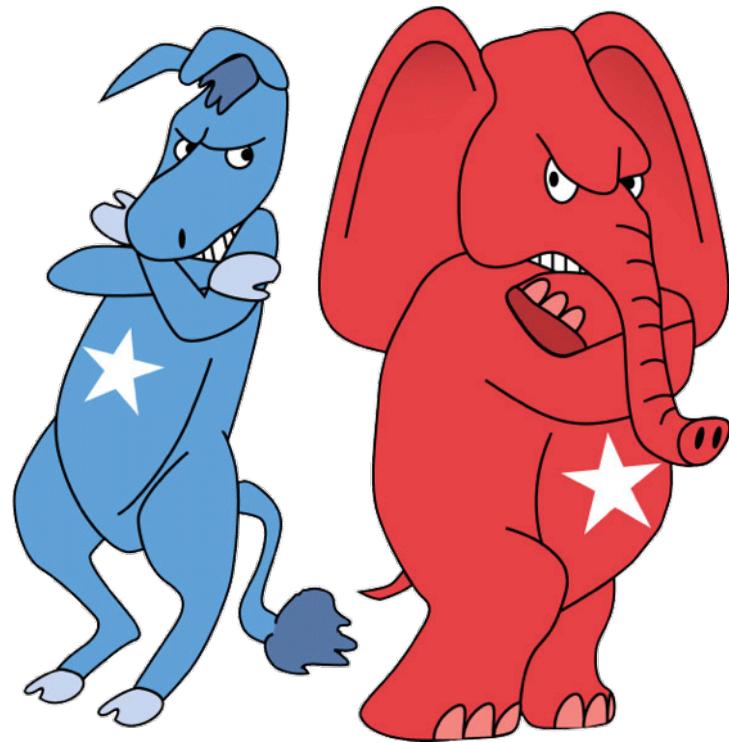
House

80th to 115th
Congress

Network Structure

Observe the polarity / degree of conformity between parties.

- ↑ individuals of the same party vote identically
- ↓ individuals of different parties vote identically

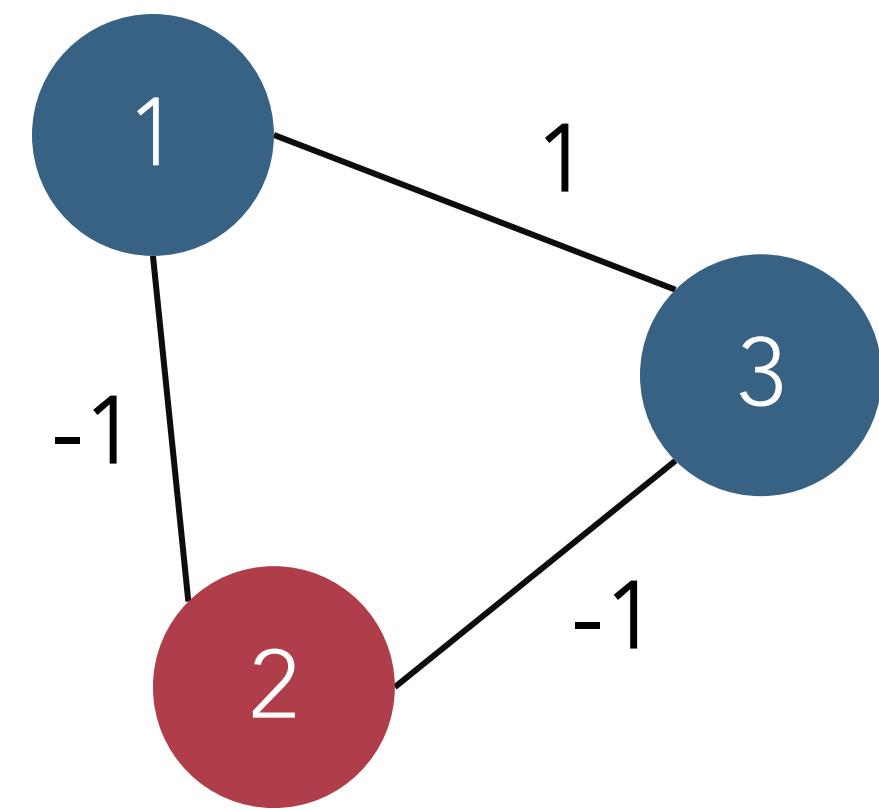


Network Structure

Nodes: Members of the senate or house of representatives

Edges: Connection between all pairs of members (fully-connected)

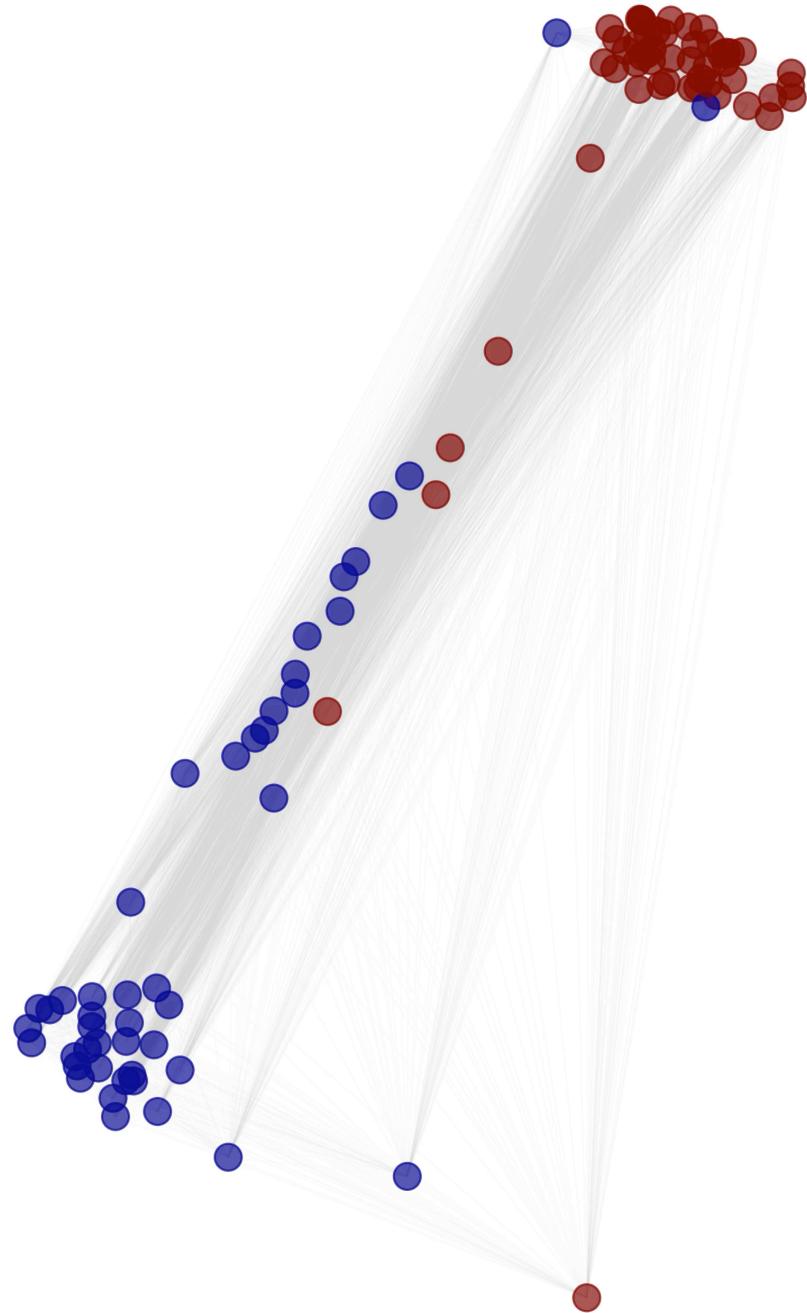
Weight: Cosine similarity of voting patterns between two members of the congress



Network Evolution

Evolution over time

Congress 80

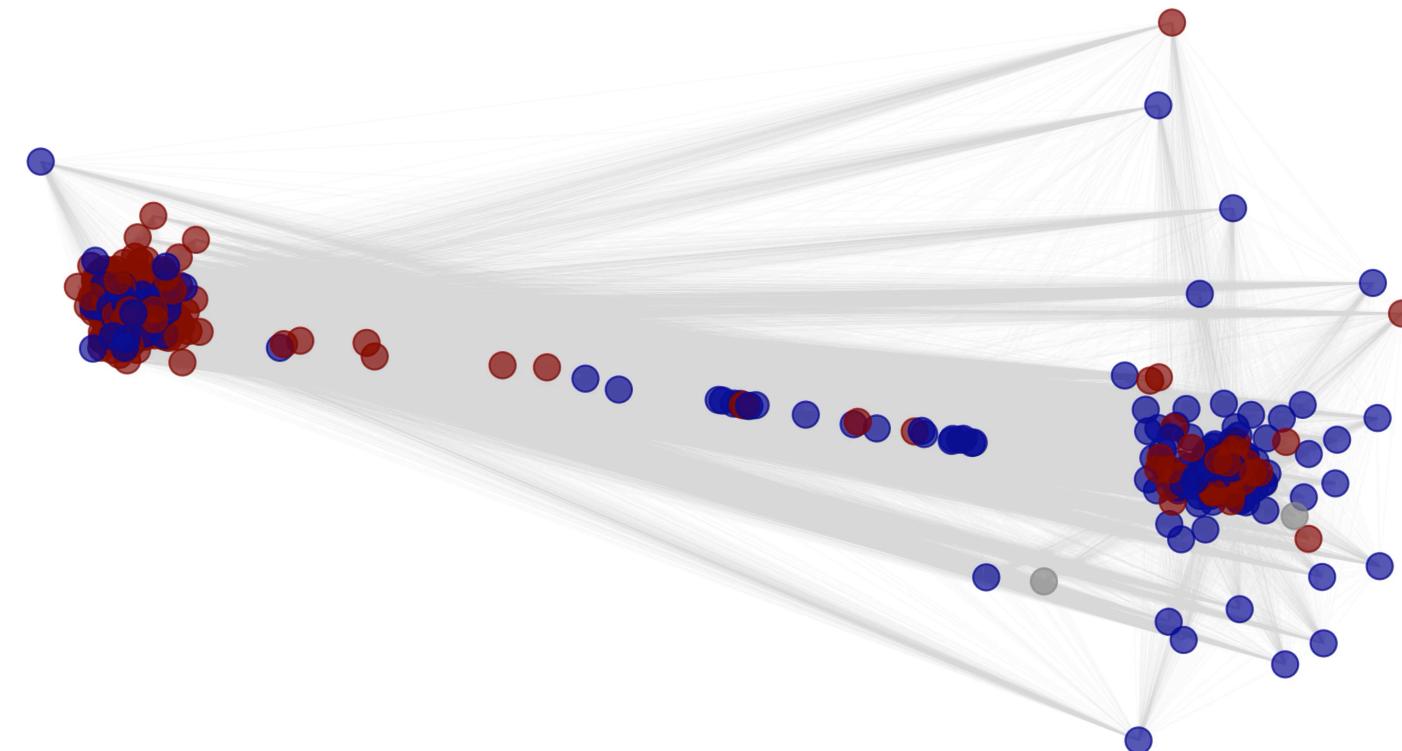


Senate

Voting behavior gets more polar between parties.

Evolution over time

Congress 80



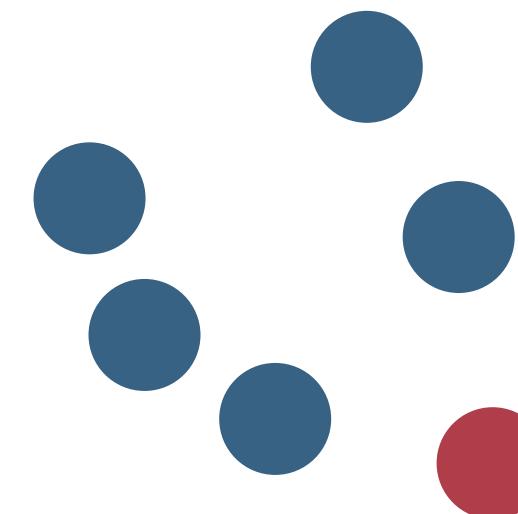
House of Representatives

Voting behavior
gets more polar
between parties.

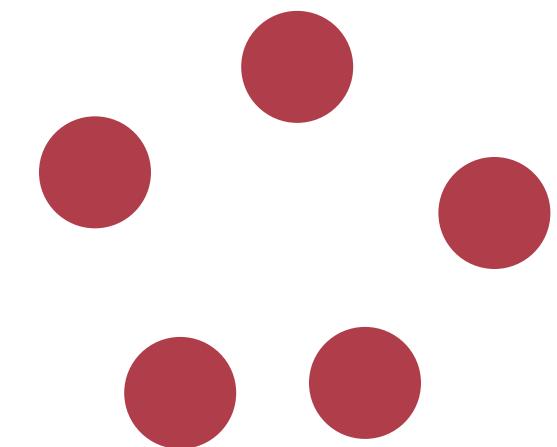
Average Degree

Intra-party Similarity

How often does your party vote along party lines?

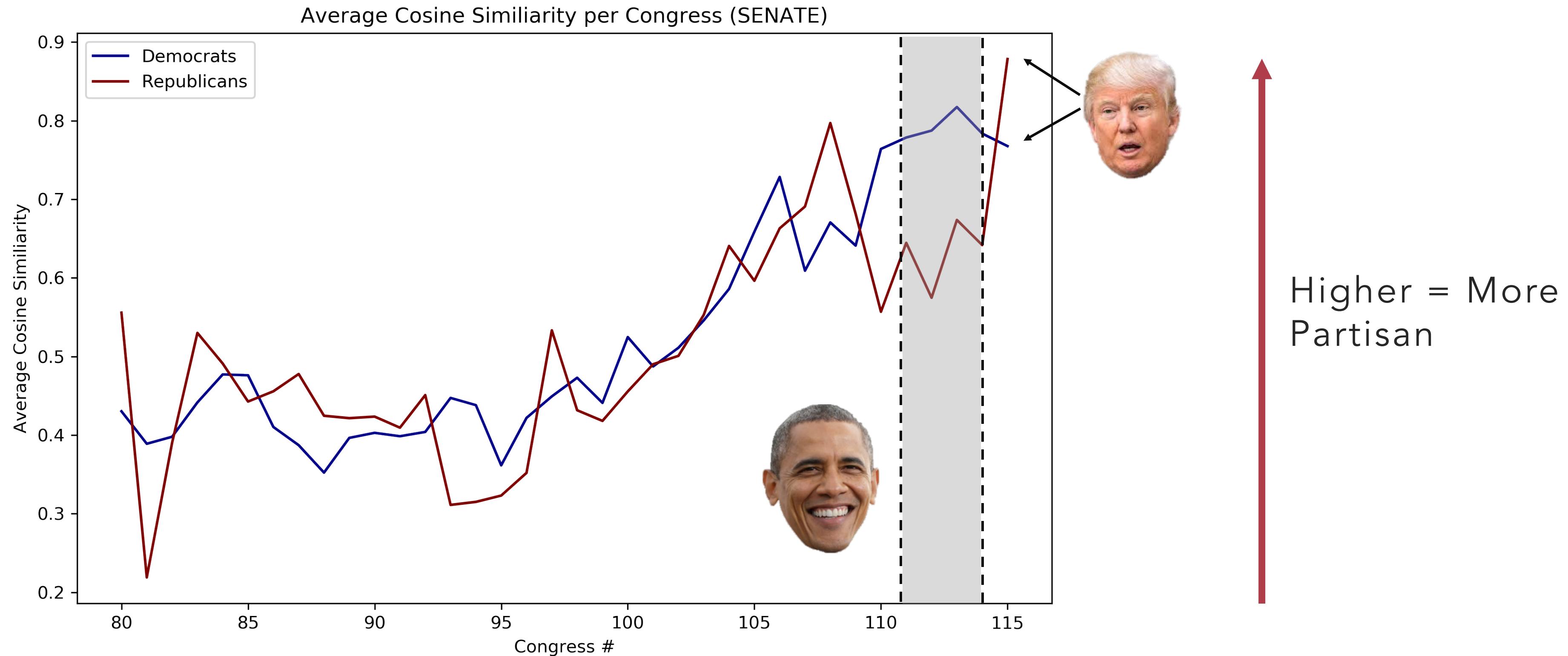


“Yea”

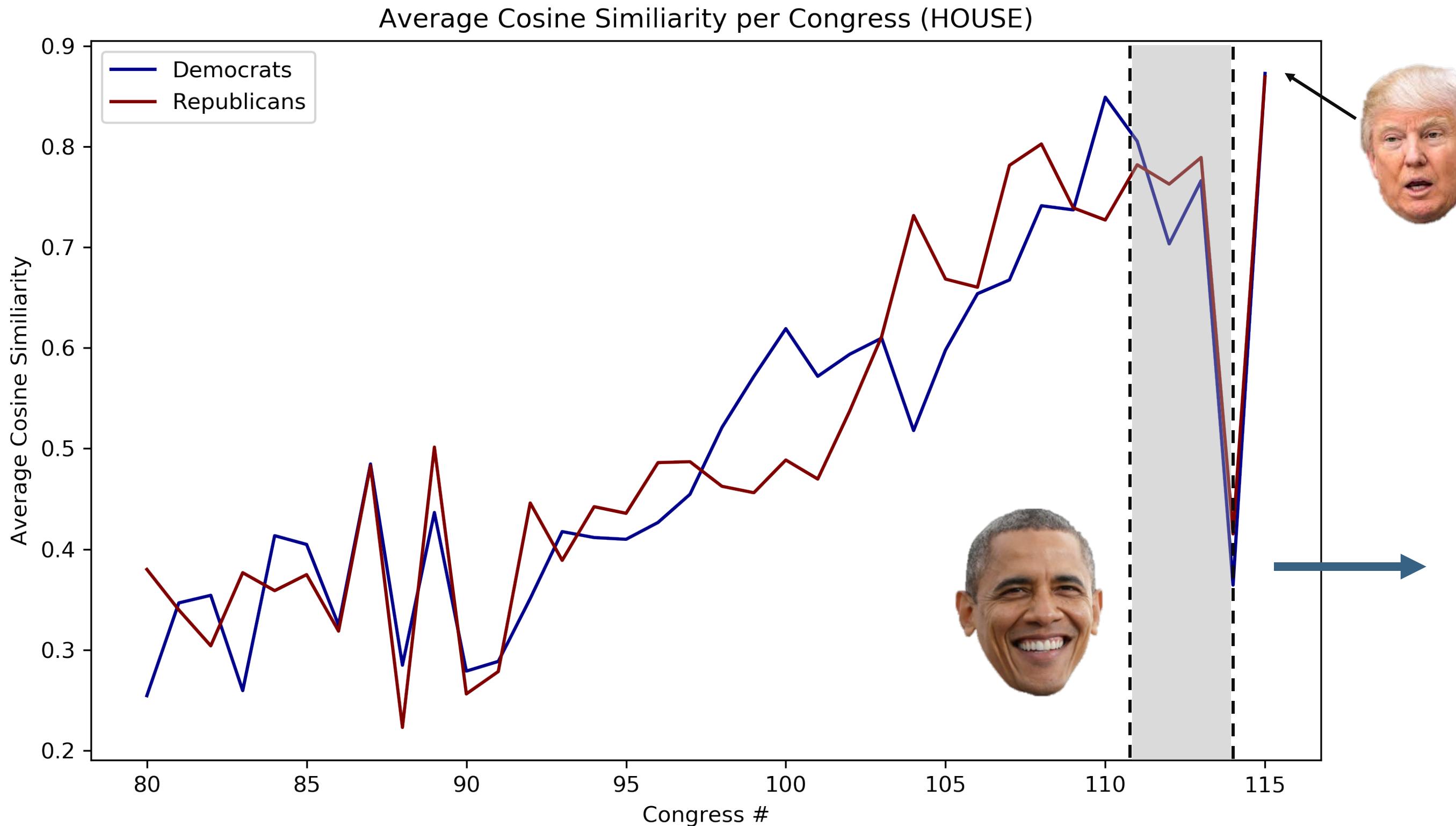


“Nay”

Average Degree (Senate)



Average Degree (House of Representatives)



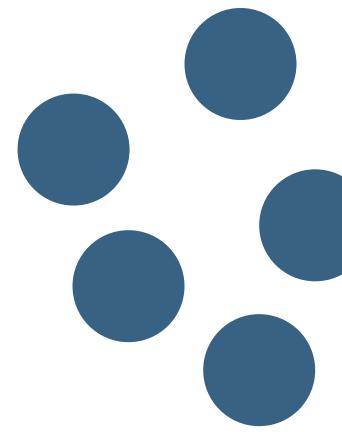
Obama's Last Year
...saw the most
bipartisan House
of Representatives
in over 40 years.



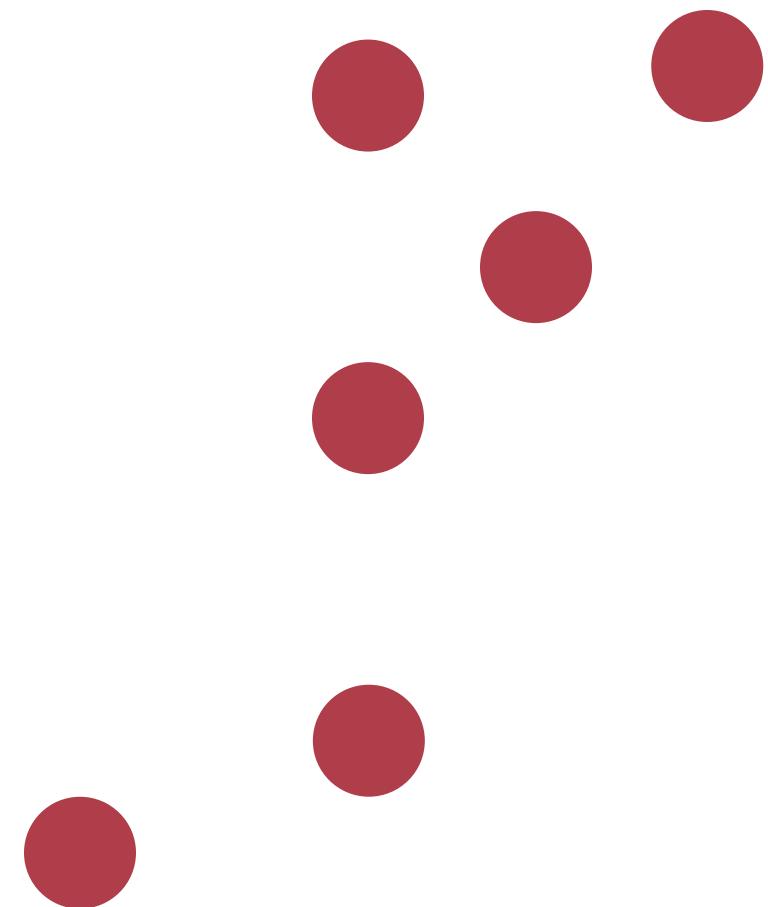
Clustering Coefficients

Intra-party Similarity

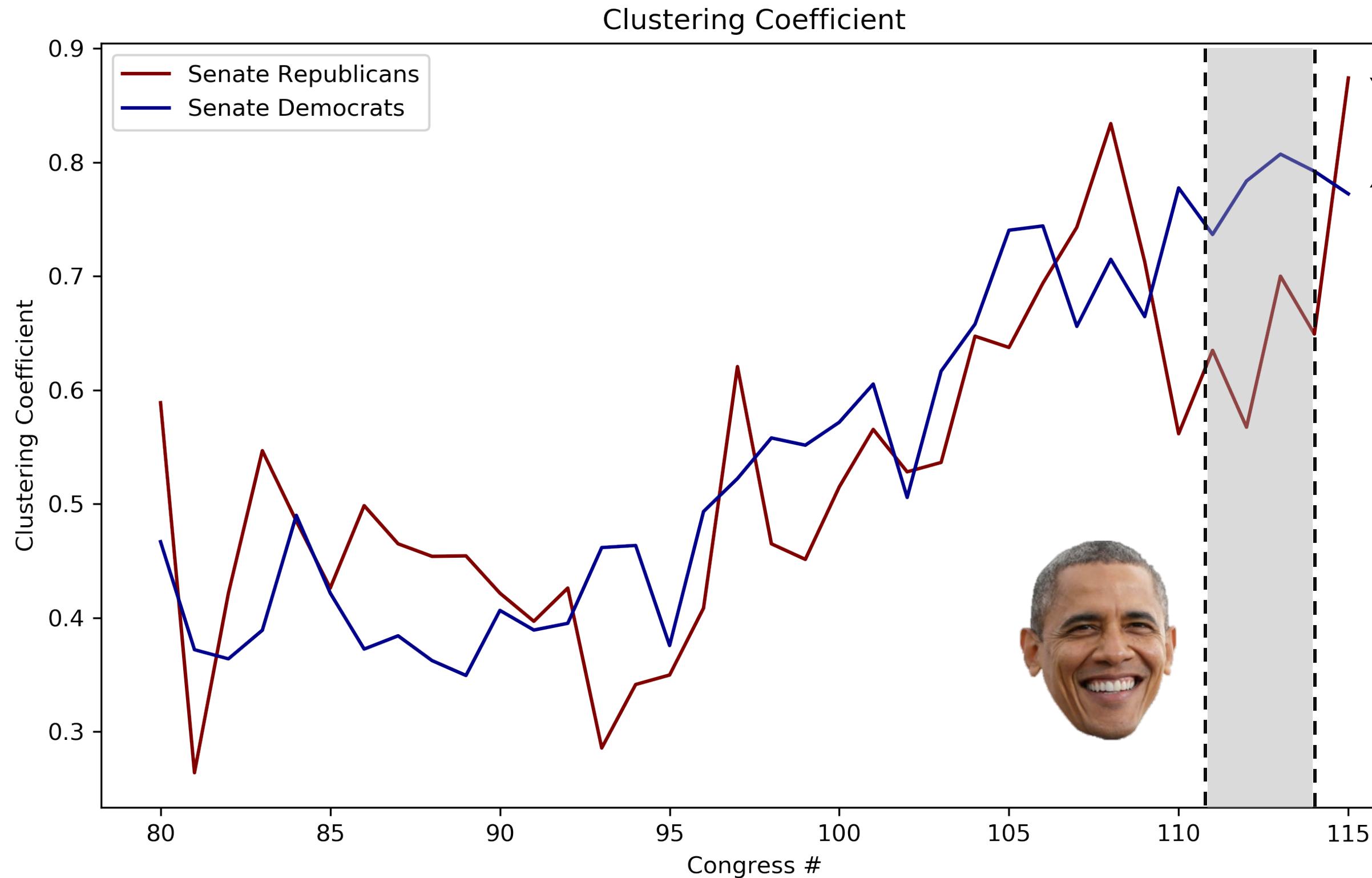
How tightly knit is your party?



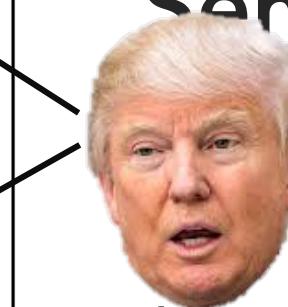
vs.



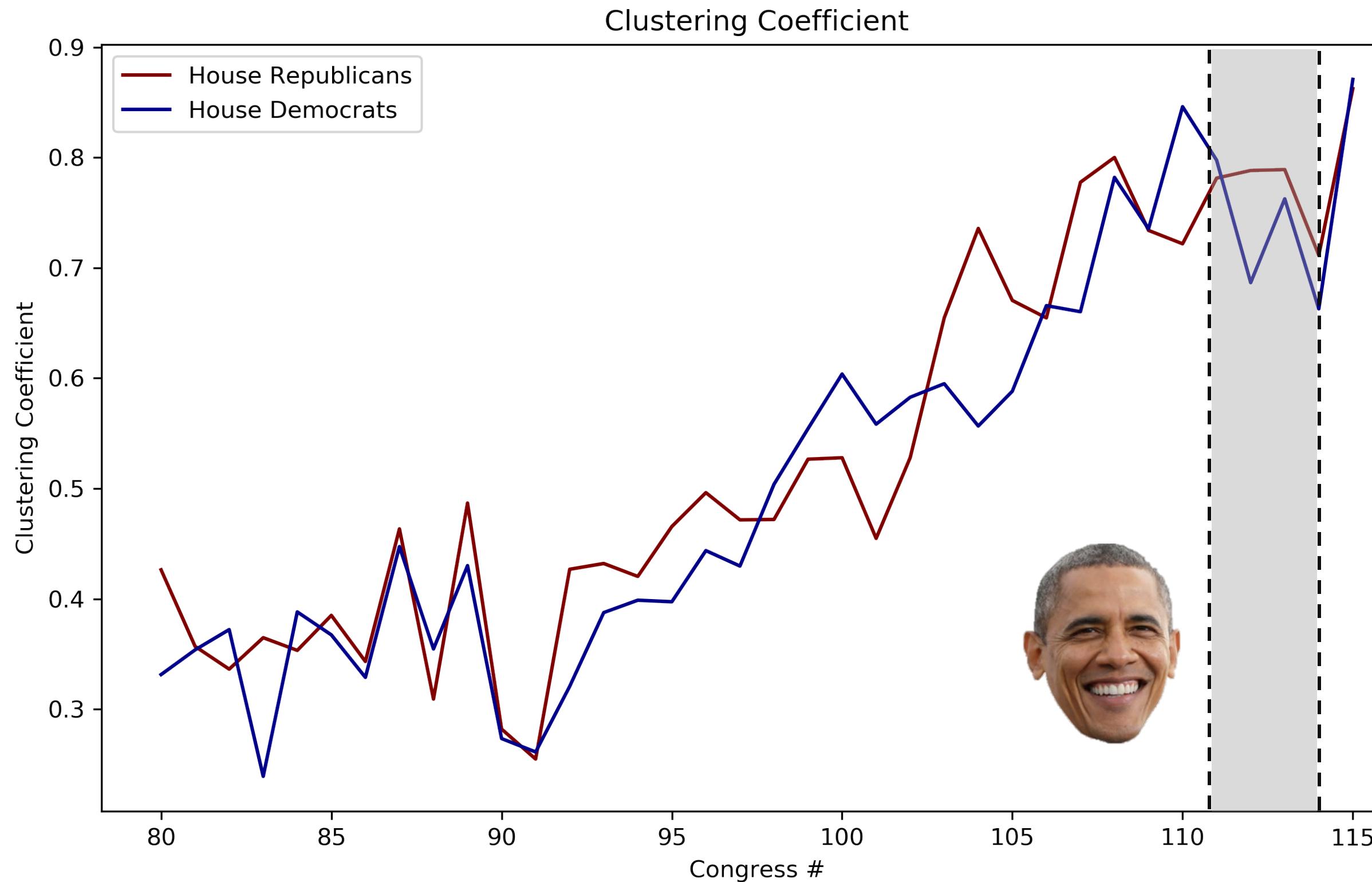
Clustering Coefficients



Senate
ties got more
tightly knit over
the years
especially during
the appointment
of Trump.



Clustering Coefficients



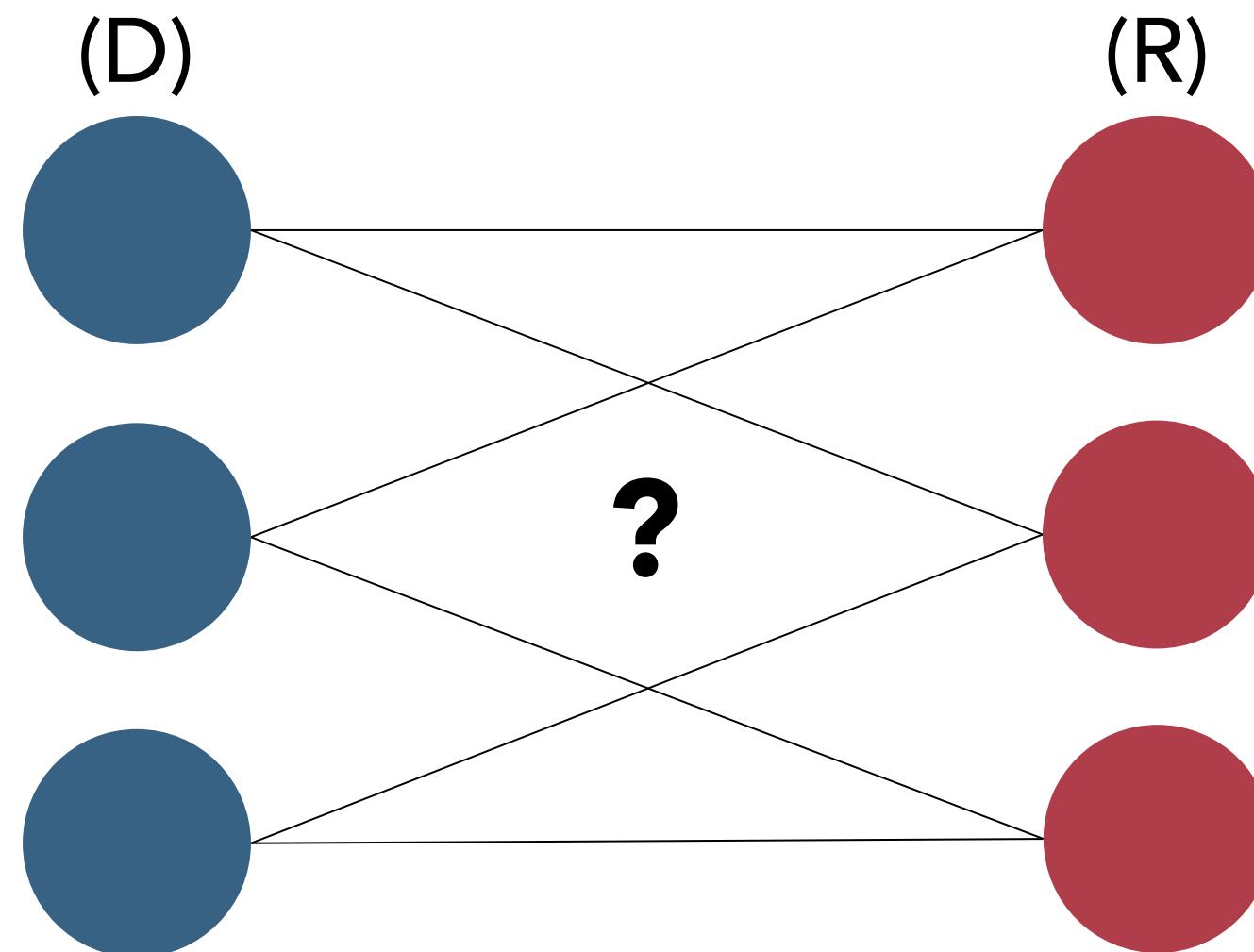
House of Representatives
Parties got more tightly knit over the years especially during the appointment of Trump.



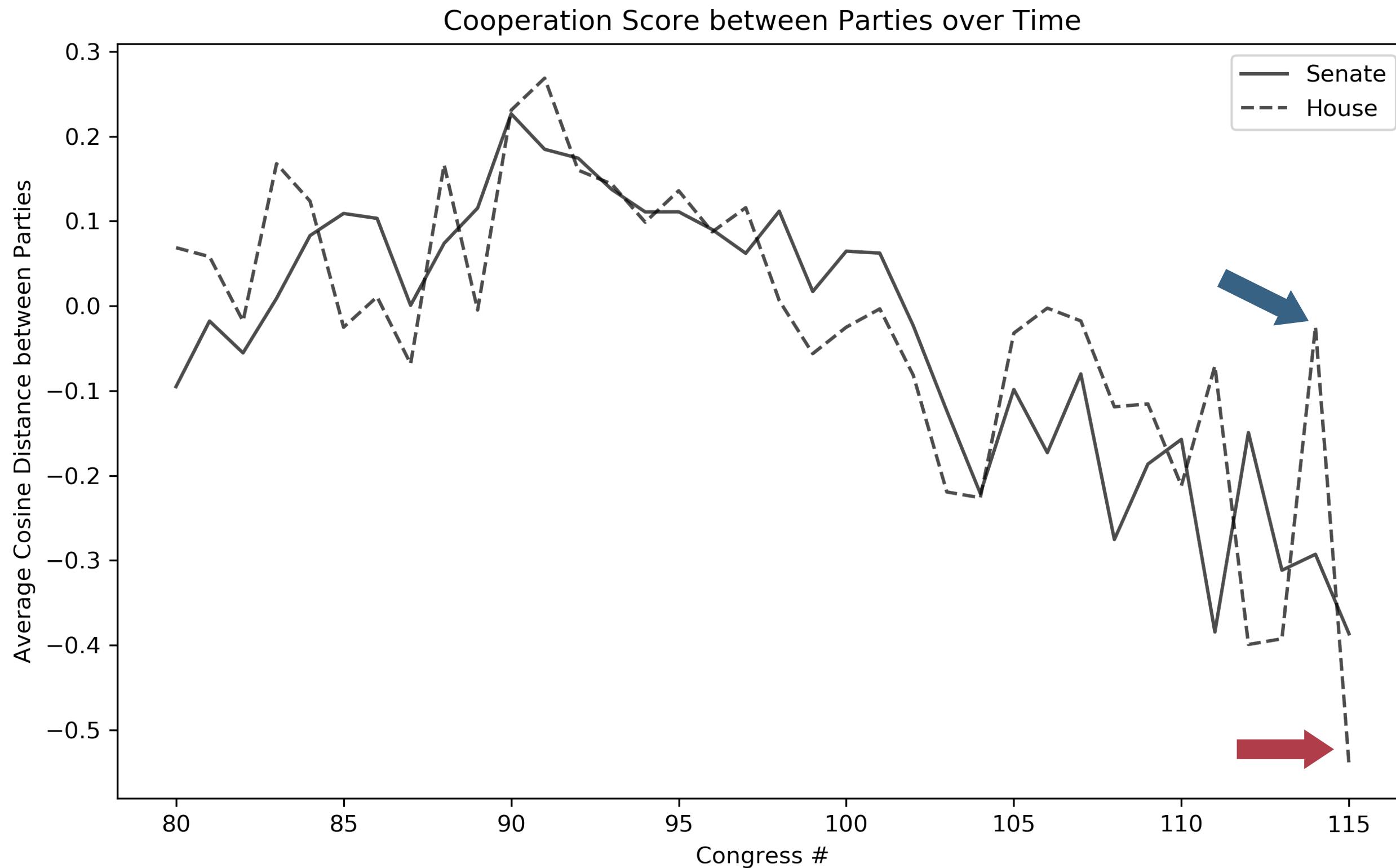
Cooperation Score

Inter-party Similarity

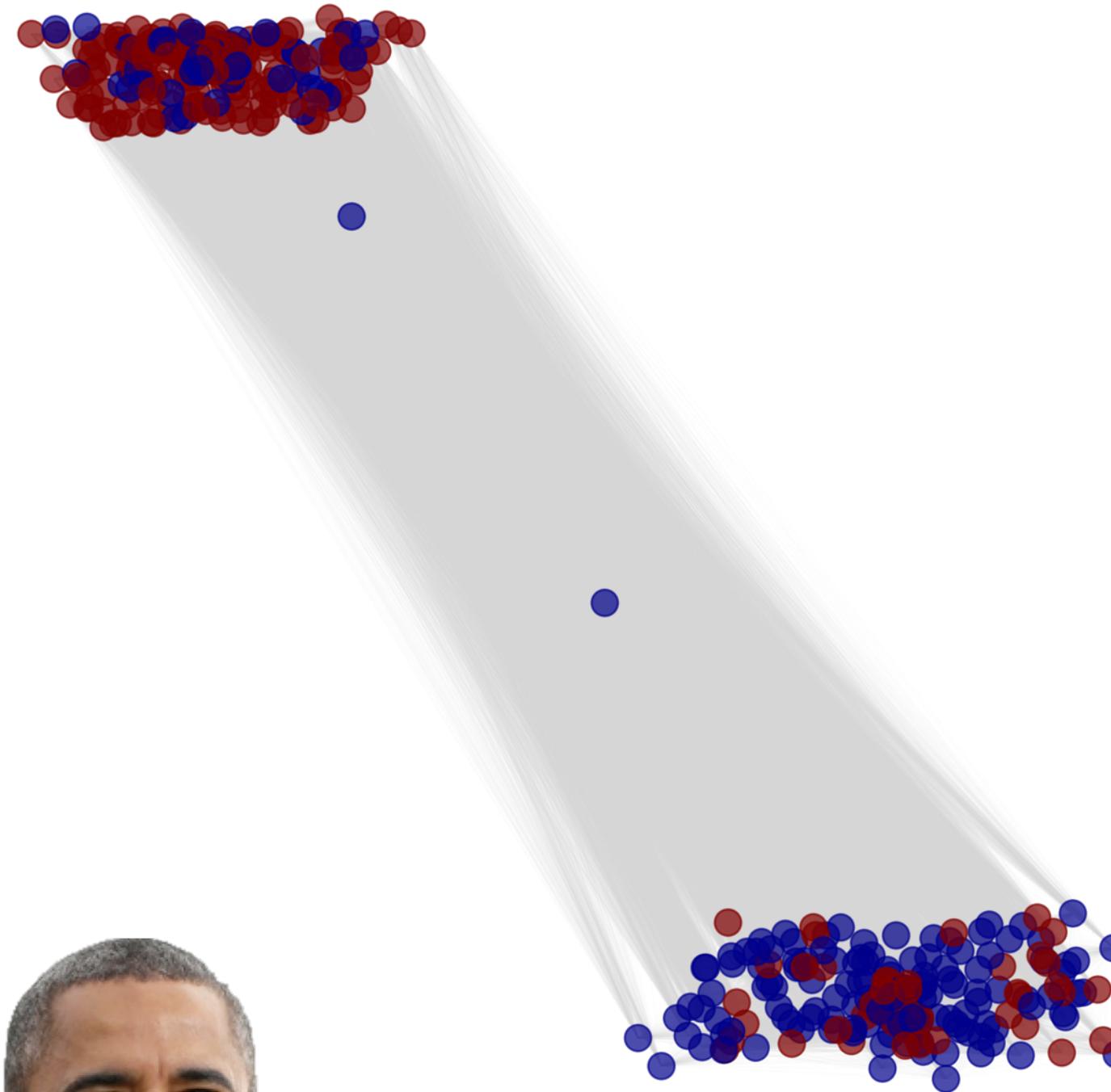
How much do both parties “cooperate” across party lines when voting?



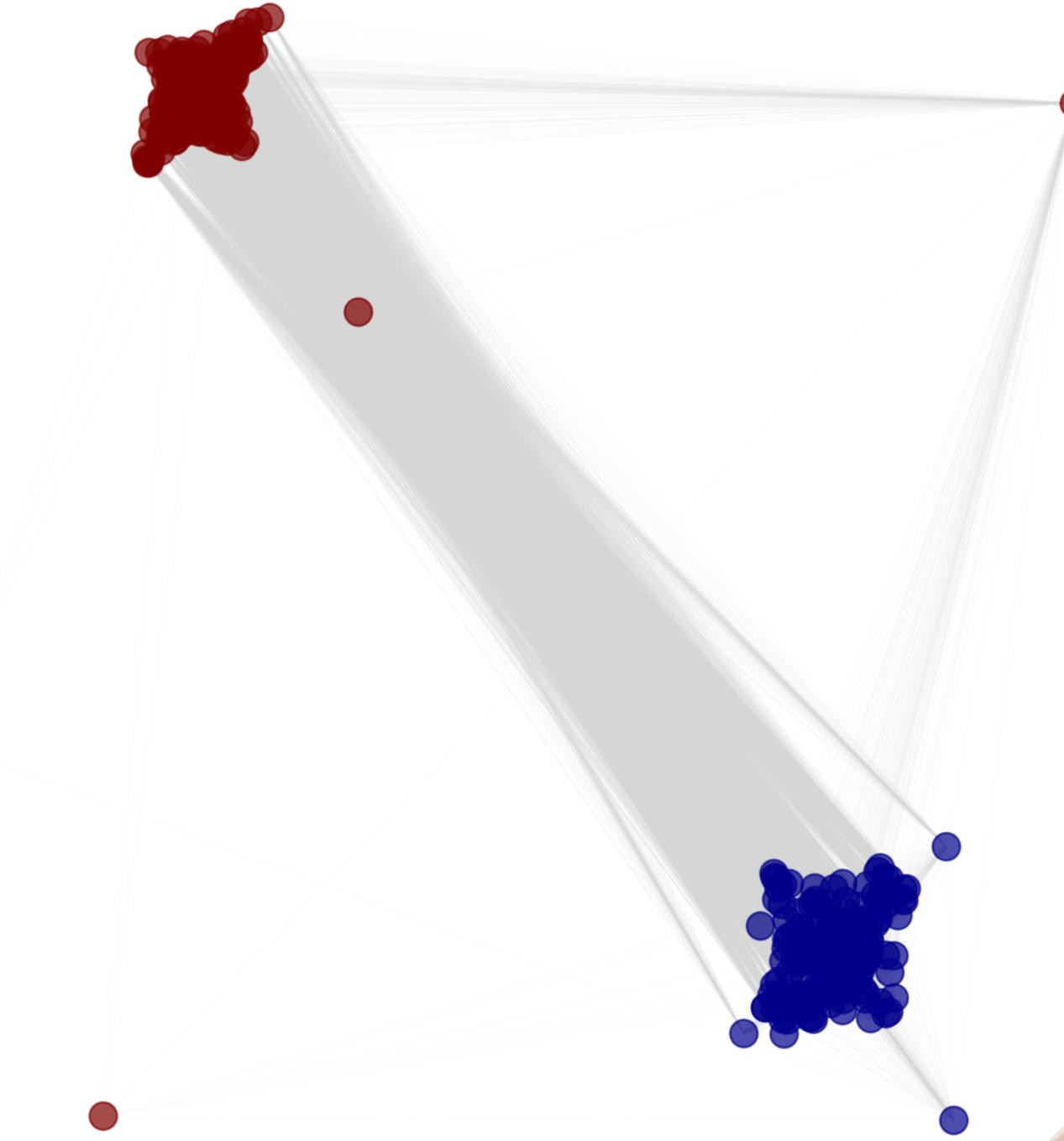
Cooperation Score



Collaboration between parties decreased over the years on both chambers which confirms change in trend of partisanship. Instead of compromising, there is animosity between parties.



Congress 114
(2015-2017)

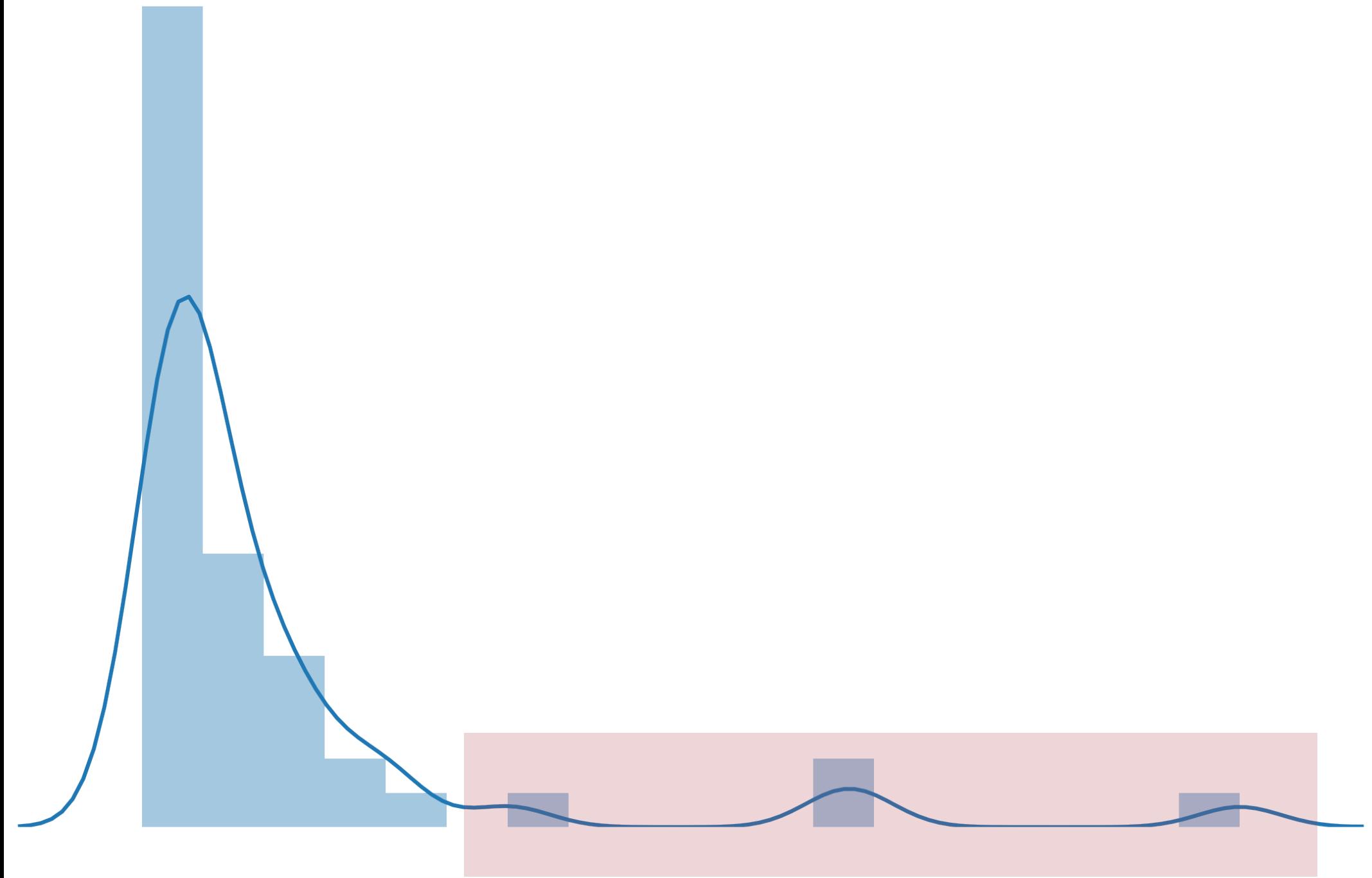


Congress 115
(2017-2019)

Outliers

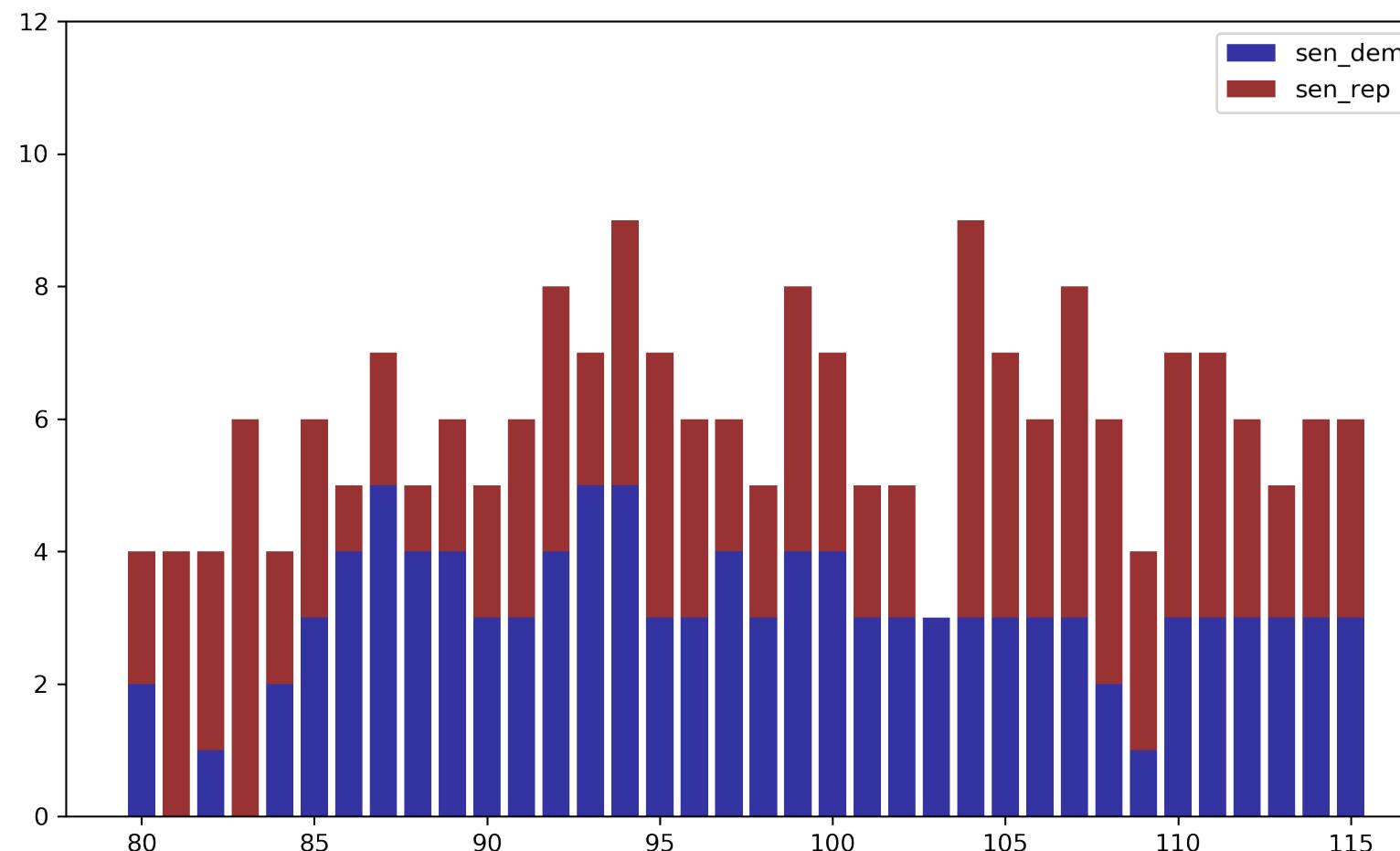
Intra-party Differences

Who and how many are the “dissenters” from each party?

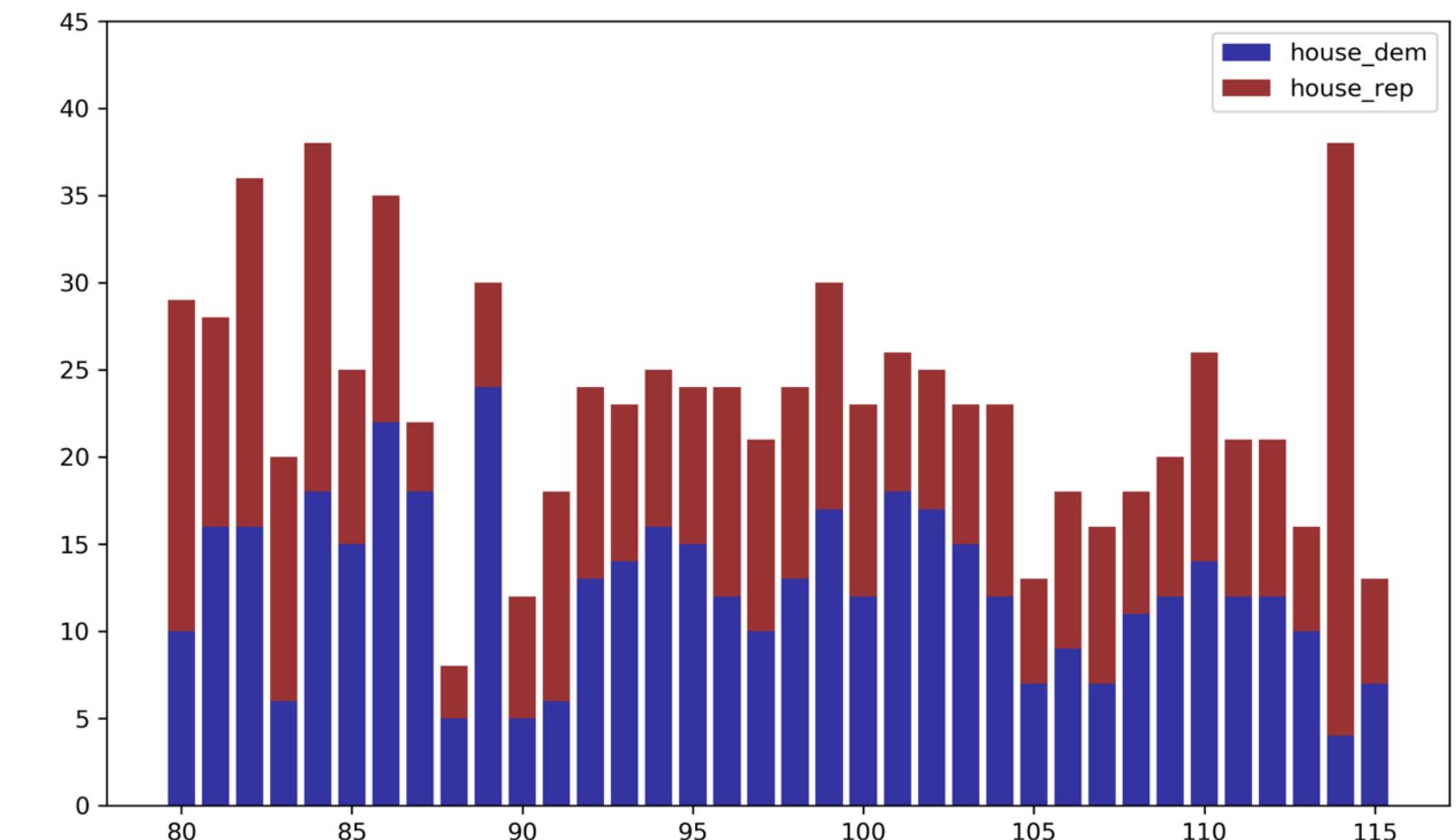


Outliers

Senate



House



Outlier peaks of one party means that the other party has low. The former is more convincing than the other.

Outliers



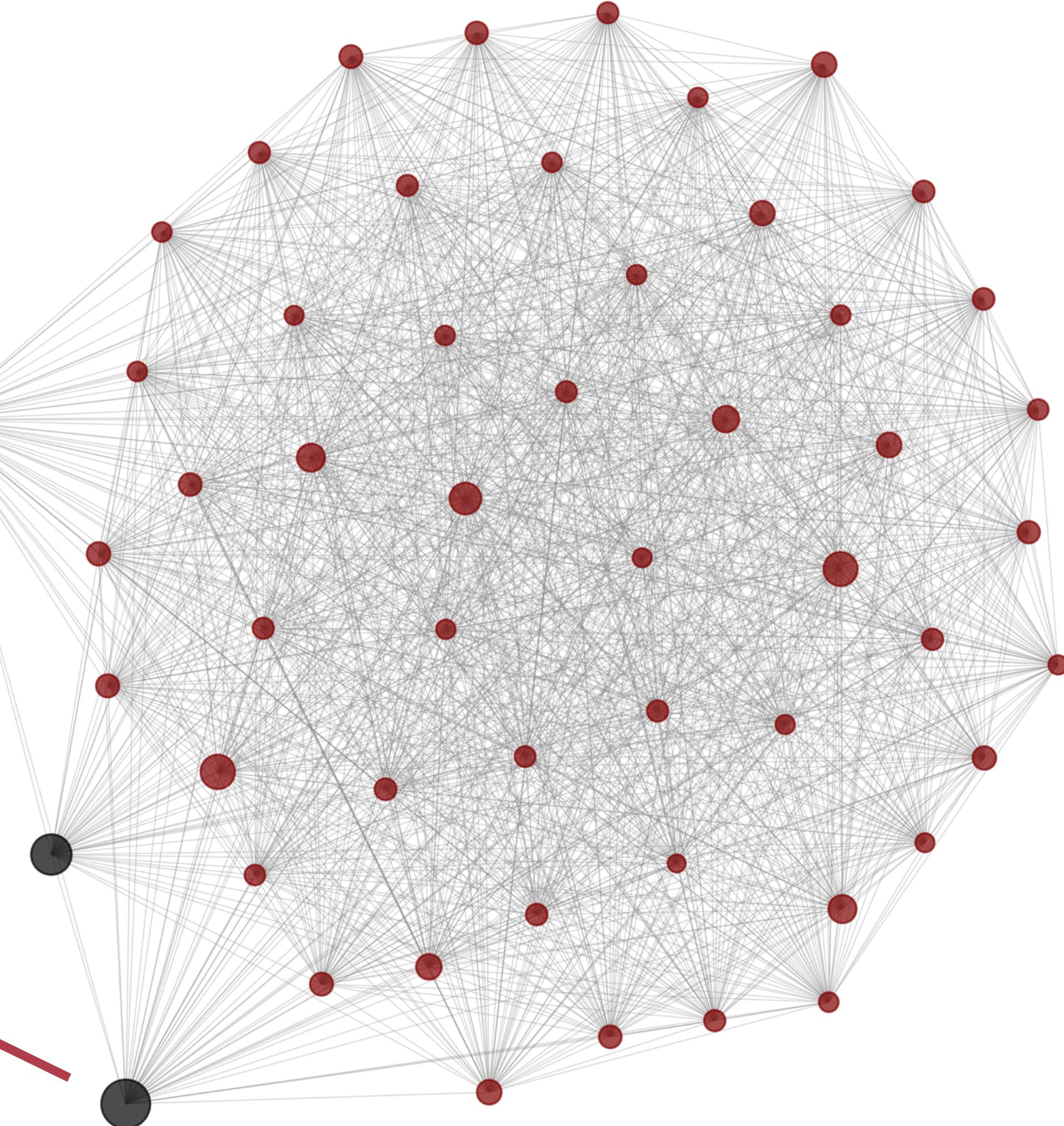
Rand Paul

Votes the least in line with Trump;
Libertarian

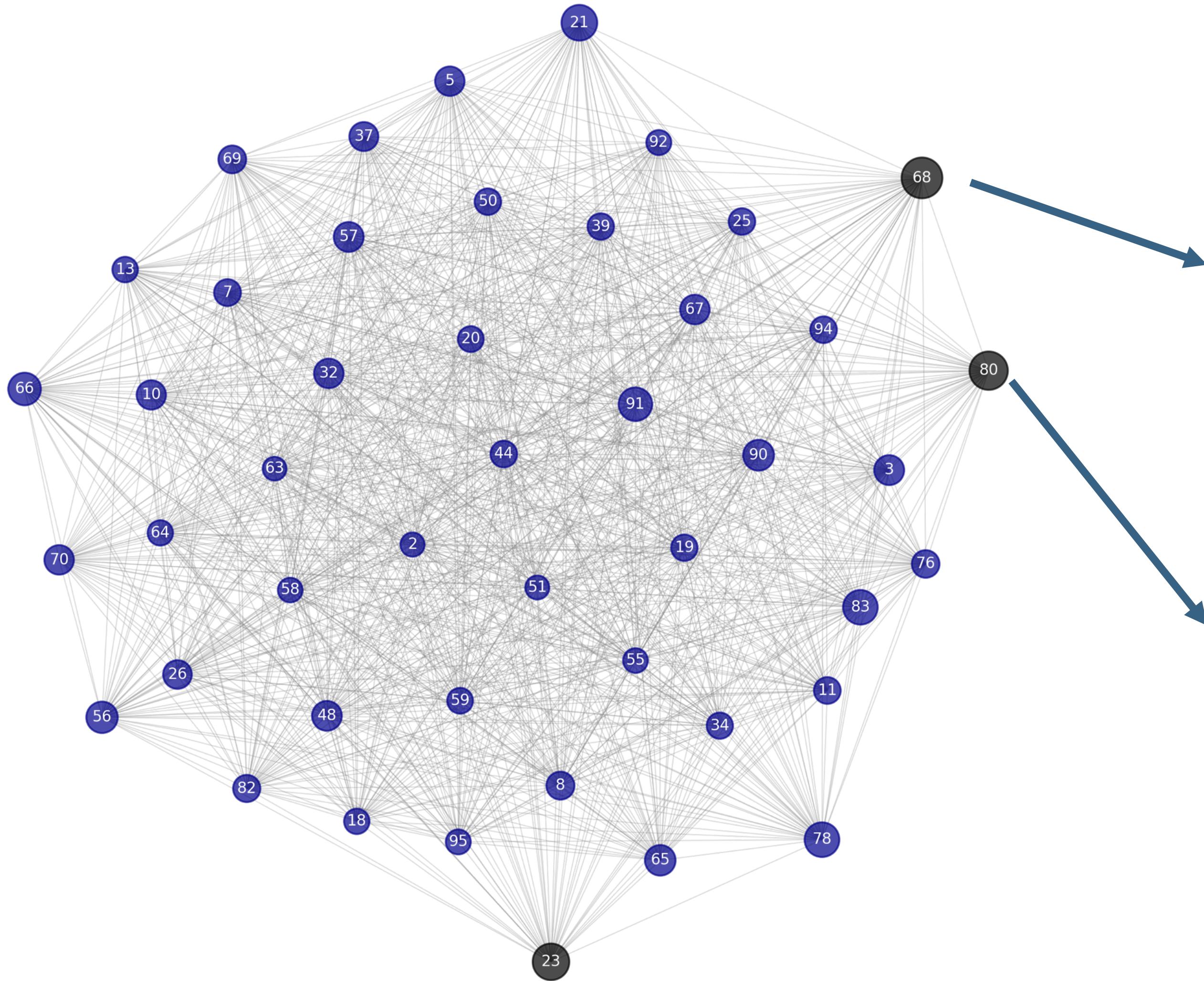


Susan Collins

Voted against Trump



Outliers



Joe Manchin
Noted Bipartisan
Voter



Heidi Heitkamp
Bipartisan Voter
Centrist

Conclusion

The US is more divided than ever which leads to the lack of agreement across party lines. They work together a lot less than they used to.

For an administration to remain effective, members need to cooperate on an agenda.

Partisanship is driving citizens apart instead of bringing them together which results to conflict instead of compromise.