

# Bipartisanship scores by member and issue area in the U.S. Congress, 1983 – 2024

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## ABSTRACT

Although bipartisanship is central to legislative behavior and often necessary for policymaking success, no centralized, publicly accessible dataset tracks legislators' propensity to offer and attract cross-party support across time and policy issue areas. As a result, scholars are limited in answering key questions about whether bipartisanship is declining over time, who engages in it, which policy areas facilitate cross-party collaboration, and how such behavior shapes governing, representation, and democratic accountability. We introduce a dataset of congressional bipartisanship scores for all members of the U.S. House and Senate from 1983 to 2024. Built from more than 2.4 million cosponsorship decisions on 147,669 bills, the dataset provides two complementary member-term measures: attracting original out-party cosponsors to one's own bills and offering original cosponsorship to out-party-sponsored bills. The dataset includes aggregate and issue-specific scores across 34 policy issue areas for 2,056 unique legislators and 11,549 legislator-term observations. To facilitate broad reuse among academics, researchers, journalists, legislators, and the public, we make the dataset available through Harvard Dataverse and a corresponding R package, `biparty`.

## Background & Summary

Bipartisan collaboration plays a central role in congressional lawmaking. In a system structured by bicameralism, separation of powers, and multiple veto points, the capacity of legislators to work across party lines is not only a normative ideal (1; 2), but also a practical requirement for lawmaking (3; 4). Legislators who work across party lines produce more durable legislation (5), are more effective lawmakers (6; 7), and broaden the representational scope of governing coalitions (8). At the same time, partisan polarization has risen steadily over the past four decades (9; 10), reshaping the conditions under which bipartisan collaboration occurs in Congress. As party leaders increasingly benchmark success by what they deny the out-party rather than what they enact (11), scholars have documented a corresponding decline in legislative productivity (12). Although bipartisanship remains a defining feature of legislative politics (13), rising polarization makes it essential to understand when, why, and how legislators continue to work across party lines. Therefore, measuring bipartisanship is central not only to the study of congressional behavior, but also to broader efforts to evaluate the health of democratic institutions.

A substantial body of research examines the conditions under which bipartisan collaboration occurs. In an era when congressional majorities are often held by only a few seats, minority-party votes can be pivotal, making cross-party coalition-building a practical requirement for effective lawmaking (3; 14). Candidates who campaign on bipartisan appeals tend to follow through once in office (15), and competitive environments can make cross-party cooperation more attractive when neither party can reliably govern alone (16). At the same time, collaboration carries political risks. Primary voters may punish legislators perceived as too willing to compromise, leading some lawmakers to reject agreements that would otherwise move policy outcomes closer to their preferences (17). Legislative experience further conditions cross-party cooperation: political amateurs, who may resist or undervalue the compromises required for lawmaking, can intensify partisan divisions and reduce bipartisan collaboration (18). Bipartisanship also has important legislative consequences. Broad coalitions can reduce resistance from pivotal actors, facilitate committee progress (19), predict floor consideration (20), and help legislators advance a greater share of their sponsored bills into law (6; 7).

Despite this rich body of work, a critical data gap limits what scholars can observe and measure. No publicly available dataset provides member-level bipartisanship scores across the modern Congress and across policy issue areas. Existing measures further collapse cross-party cosponsorship into a single indicator of cooperation, obscuring important differences in how legislators engage across party lines. A legislator who regularly attracts out-party cosponsors to their own bills is engaging in a different form of bipartisan behavior than a legislator who regularly cosponsors bills introduced by out-party members. Similarly, early cross-party support at the moment of bill introduction may capture coalition-building and agenda formation

in ways that later cosponsorship cannot; later cosponsorship may instead reflect different strategic, symbolic, or electoral incentives. By distinguishing between attracting and offering out-party support, and by focusing on original cosponsorship, our measures capture dimensions of bipartisanship that are often conflated in existing work.

This article introduces an open-source collection of congressional bipartisanship scores covering all members of the U.S. House and Senate from 1983 to 2024. Our datasets afford four key features. First, scores are constructed from more than 2.4 million cosponsorship decisions on 147,669 bills, providing near-complete coverage of the modern Congress across 20 congressional terms. Second, we provide two conceptually distinct member-term measures: one capturing the out-party support legislators receive on the bills they sponsor and another capturing the out-party support they extend to bills sponsored by others, allowing researchers to distinguish between different forms of bipartisan behavior. Third, the datasets include issue-specific scores across 34 Congressional Research Service (CRS) policy areas, enabling researchers to examine whether bipartisanship varies across domains such as health, taxation, education, immigration, transportation, and national security. Fourth, the datasets cover 2,056 unique legislators and 11,549 legislator-term observations and include multiple member-level identifier crosswalks to facilitate merging with other congressional datasets. We validate the underlying data by hand-coding 5,000 randomly sampled cosponsor-bill pairs and assess external validity by comparing our scores to the Lugar Center’s Bipartisan Index (21). We make the data, replication code, and documentation publicly available through Harvard Dataverse and an R package, `biparty`. Together, these resources provide standardized, open, and replicable measures of aggregate and issue-specific bipartisanship, enabling new research on the patterns, causes, and consequences of bipartisanship in Congress.

Our article proceeds as follows. We first detail the process by which we scraped, processed, and cleaned the data. Second, we discuss our construction of the bipartisanship scores, walking through each step of the data pipeline from cosponsorship decisions to precision-weighted member-term measures. We then provide a descriptive overview of aggregate attract and offer bipartisanship scores by party across four decades of congressional history, as well as issue-specific trends across policy areas. Next, we validate our data and scores using human coders and compare our scores with the Lugar Center’s Bipartisan Index (21). We close by describing the structure of both datasets and illustrating the visualization capabilities of the `biparty` R package.

## Methods

We construct a dataset with measures of bipartisanship for all members of the U.S. House of Representatives and Senate from 1983 through 2024, spanning 20 congressional terms from the 98th through the 118th Congress. For each legislator in a congressional term, the dataset includes both aggregate bipartisanship scores and issue-specific bipartisanship scores. In total, the dataset contains 2,056 unique legislators and 11,549 legislator-term observations. We detail the four steps involved in constructing the scores below: 1) collecting bill, sponsor, cosponsor, and policy issue area data; 2) calculating aggregate bipartisanship measures; 3) calculating issue-specific bipartisanship measures; and 4) weighting the measures.

### Collecting Bill, Sponsor, Cosponsor, and Policy Issue Area Data

First, we scraped bill, sponsor, cosponsor, and policy issue area data from the `congress.gov` Application Programming Interface (API), the official public congressional record maintained by the Library of Congress, for the 98th through the 118th Congress (1983–2024). We collected these data between December 2025 and February 2026 using the following `congress.gov` API endpoints: `/bill/congress/billType/billNumber/text`, `/member/bioguideId/sponsored-legislation`, `/member/bioguideId/cosponsored-legislation`, and `/bill/congress/billType/billNumber/policy area`. We organize these data into four core data frames: `bills`, `sponsors`, `cosponsors`, and `policy issue areas`.

The first data frame, `bills`, is organized at the bill-term level. We collect only House and Senate bills—that is, bills with the `H.R.` and `S.` designations—and exclude resolutions, joint resolutions, and concurrent resolutions. We exclude these measures because the content of resolutions are not substantive. We also exclude bills with no cosponsors, as our bipartisanship measures require at least one cosponsor. For each bill, we retain the bill number, title, URL, and total number of cosponsors. The resulting `bills` data frame contains 147,669 observations.

The second data frame, `sponsors`, is organized at the bill-sponsor-term level. It includes sponsor-level attributes for the legislator who introduced each bill, most notably the sponsor’s unique identifier, demographic characteristics, party identification, and the date the legislator introduced the bill. Because each bill has a single sponsor, the `sponsors` data frame also contains

147,669 observations.

The third data frame, *cosponsors*, is organized at the cosponsor-bill-term level. It includes information on every cosponsor attached to every bill, including each cosponsor’s unique identifier, demographic characteristics, party identification, and the date the bill was cosponsored. This data frame is substantially larger because bills often attract multiple cosponsors. In total, the *cosponsors* data frame contains 2,486,089 observations.

The fourth data frame, *policy issue areas*, is organized at the bill-term level. The Congressional Research Service (CRS) classifies each bill into one of 34 policy areas, and `congress.gov` links these classifications to individual bills. The *policy issue areas* data frame contains 147,669 observations, matching the number of observations in the *bills* and *sponsors* data frames. When scraping the `congress.gov` API, 63 bills lacked an assigned policy area. We manually searched each of these bills on `congress.gov` to determine whether a policy area was listed on the website itself. For 41 bills, we identified a policy area and updated the data accordingly. For the remaining 22 bills, no policy area was available on `congress.gov`, so we code their policy areas as NA and retain them in the data. Over our time series, the number of available policy issue areas decreased from 34 to 32, as the CRS no longer assigns bills to the categories “Commemorations” (ended after the 110th Congress) or “Private Legislation” (ended after the 113th Congress). We retain these bills in our dataset.

We then merge these data frames in two stages. First, we merge the three data frames that share the same number of observations: *bills*, *sponsors*, and *policy issue areas*. We merge *sponsors* into *bills* using term, bill number, and sponsor as unique identifiers, producing a bill-sponsor-term dataset with 147,669 observations. We then merge *policy issue areas* into this data frame using bill number and term as unique identifiers. As expected, the number of observations remains 147,669 after this merge. Next, we merge in cosponsor information. Specifically, we merge the bill-sponsor-policy issue area data frame into *cosponsors* using a one-to-many join, so the unit of analysis becomes the cosponsor-bill-term. The resulting merged dataset contains 2,486,089 observations.

Lastly, in the final merged data frame, we recode legislators who are not formally identified as Democrats or Republicans—such as Independents or Libertarians—to the major party with which they caucus. For example, Bernie Sanders (VT-I) and Angus King (ME-I), both of whom are formally Independents but caucus with Democrats, are recoded as Democrats. In total, we recode the party identification of 10 legislators. This step ensures that party-based measures of bipartisanship reflect legislators’ functional partisan alignment within Congress rather than only their formal ballot label.

## Calculating Aggregate Bipartisanship Measures

We calculate aggregate bipartisanship measures in three steps. First, we create an indicator of an out-party relationship, coded 1 when a bill sponsor and cosponsor do not share the same party identification and 0 otherwise. This indicator allows us to distinguish cross-party from same-party cosponsorship ties.

Second, we define bipartisanship using *original* out-party cosponsorship. Specifically, we code a cosponsorship as original if the cosponsorship date matches the bill introduction date. We create a dichotomous variable coded 1 when the cosponsor date matches the sponsor date and 0 otherwise. This approach captures whether a legislator joined a bill at the moment it entered the chamber, which we treat as the clearest signal of initial bipartisan support.

Third, we construct two aggregate member-term measures of bipartisanship: *attracting* out-party cosponsorship to a legislator’s own bills and *offering* cosponsorship to bills sponsored by out-party members. The first measure, *attract*, captures the extent to which a legislator’s sponsored bills attract cross-party support at introduction. For each bill, we divide the number of original out-party cosponsors by the total number of original cosponsors. We then average this bill-level proportion across all bills sponsored by a legislator in a given term. Formally,

$$A_{it} = \frac{1}{N_{it}} \sum_{b \in \mathcal{B}_{it}} \left( \frac{\text{number of original out-party cosponsors on bill}}{\text{total number of original cosponsors on bill}} \right) \quad (1)$$

where:

- $A_{it}$  = proportion of out-party original cosponsors attracted by legislator  $i$  in term  $t$
- $\mathcal{B}_{it}$  = set of bills sponsored by legislator  $i$  in term  $t$
- $N_{it}$  = number of bills sponsored by legislator  $i$  in term  $t$
- $b$  = bill

The second measure, offer, captures the extent to which a legislator directs their own original cosponsorship activity toward out-party-sponsored bills. For each legislator-term, we divide the total number of original out-party cosponsorships by the total number of original cosponsorships for bills sponsored by legislators of either party. Formally,

$$O_{it} = \frac{\text{out-party original cosponsorships offered}_{it}}{\text{total original cosponsorships offered}_{it}} \quad (2)$$

where:

- $O_{it}$  = proportion of original cosponsorships offered by legislator  $i$  in term  $t$  that are offered to out-party-sponsored bills
- Out-Party Original Cosponsorships Offered <sub>$it$</sub>  = number of original cosponsorships legislator  $i$  offers to out-party-sponsored bills in term  $t$
- Total Original Cosponsorships Offered <sub>$it$</sub>  = total number of original cosponsorships legislator  $i$  offers in term  $t$

Together, these measures capture two distinct dimensions of aggregate bipartisanship at the member-term level: the extent to which legislators *attract* cross-party support for their own sponsored legislation and the extent to which they *offer* cross-party support for bills sponsored by others. Legislators who did not introduce a bill in a term, or whose sponsored bills did not attract at least one original cosponsor, receive an NA attract score (656 legislator-term observations, 5.7%). Likewise, legislators receive an NA offer score if they did not offer any original cosponsorship in a term (31 legislator-term observations, 0.27%). Therefore, the resulting dataset includes an attract score for 10,893 legislator-term observations and an offer score for 11,518 legislator-term observations.

### Calculating Issue-Specific Bipartisanship Measures

Given that users may be interested not only in aggregate bipartisanship, but also in whether legislators work across the aisle in specific issue areas (e.g., education, health, or transportation), we also construct attract and offer bipartisanship scores for each legislator-term across 34 policy issue areas. Table 1 reports the name of each policy issue area, the number of bills in that issue area, the percentage of all bills in that issue area, and an example bill. The CRS assigns each introduced bill a single policy topic based on the legislation's substantive content. This policy issue area captures the primary focus or predominant subject matter of each measure. To calculate within-issue-area attract and offer scores, we use the same formulas described above, but limit the cosponsorship and sponsorship decisions to bills within a given policy issue area. For example, health-specific attract scores measure out-party original cosponsorship on a legislator's health bills, while health-specific offer scores measure a legislator's original cosponsorship of out-party health bills. As with the aggregate scores, if a legislator did not sponsor or cosponsor bills within a particular policy issue area in a term, they receive an NA value. The dataset includes broader policy issue area coverage for bipartisanship offered because legislators are more likely to cosponsor other legislators' bills than to sponsor bills themselves. The average legislator in the dataset has an offer score for more than half of the policy issue areas, but an attraction score for approximately 15% of policy issue areas.

**Table 1.** Policy Issue Area Coverage, Frequency, and Examples

Policy Issue Area	# of Bills	% of Total Bills	Example Bill (Congress)
<b>Agriculture and Food</b>	4,430	3.00%	H. R. 6413: A bill to direct the Secretary of Agriculture to carry out an acreage limitation program and a land diversion program for the 1985 crop of feed grains. (98th)
<b>Animals</b>	826	0.56%	S. 1368: A bill to end shipment of padded-jaw or steel-jaw leghold traps. (99th)
<b>Armed Forces and National Security</b>	10,926	7.40%	H. R. 4654: A bill to authorize the establishment of a National Guard in and for American Samoa. (100th)
<b>Arts, Culture, Religion</b>	429	0.29%	S. 2636: A bill to authorize the Board of Regents of the Smithsonian Institution to plan and design an extension of the National Air and Space Museum at Washington Dulles International Airport, and for other purposes. (101st)
<b>Civil Rights and Liberties, Minority Issues</b>	1,024	0.69%	H. R. 3583: To extend the statute of limitation applicable to the filing of administrative complaints by Federal employees who allege employment discrimination in violation of title VII of the Civil Rights Act of 1964. (102nd)
<b>Commemorations</b>	1,670	1.13%	S. 2200: A bill to amend Public Law 90-498 to provide for the designation of National Hispanic Heritage Month. (100th)
<b>Commerce</b>	4,328	2.93%	H. R. 4173: To amend the Small Business Act to provide for expanded participation in the microloan demonstration program. (103rd)
<b>Congress</b>	1,448	0.98%	S. 1039: A bill to require Congress to specify the source of authority under the United States Constitution for the enactment of laws, and for other purposes. (104th)
<b>Crime and Law Enforcement</b>	8,074	5.47%	H. R. 4443: To provide for the automatic revocation of the license of any licensed firearms dealer who willfully sells a firearm to a minor. (105th)
<b>Economics and Public Finance</b>	2,240	1.52%	S. 1097: A bill to offset the spending contained in the fiscal year 1999 emergency supplemental appropriations bill in order to protect the surpluses of the social security trust funds. (106th)
<b>Education</b>	6,225	4.21%	H. R. 2982: To provide grants to States and local educational agencies to recruit, train, and hire 100,000 school-based resource staff to help students deal with personal state of mind problems. (106th)
<b>Emergency Management</b>	1,657	1.12%	S. 1631: A bill to amend the Robert T. Stafford Disaster Relief and Emergency Assistance Act to direct the Director of the Federal Emergency Management Agency to conduct a study to determine the resources that are needed for development of an effective nationwide communications system for emergency response personnel. (107th)
<b>Energy</b>	4,046	2.74%	H. R. 1874: To allow any business or individual in any State experiencing a power emergency to operate any type of power generation available to ensure their economic stability, and for other purposes. (107th)
<b>Environmental Protection</b>	4,621	3.13%	S. 1716: A bill to amend the Federal Water Pollution Control Act to authorize the use of funds made available for nonpoint source management programs for projects and activities relating to the development and implementation of phase II of the storm water program of the Environmental Protection Agency. (108th)
<b>Families</b>	1,101	0.75%	H. R. 4347: International Assistance to Missing and Exploited Children Act of 2004. (108th)
<b>Finance and Financial Sector</b>	5,011	3.39%	S. 4116: A bill to amend the Federal Deposit Insurance Act, to clarify the scope of provisions relating to applicable rates of interest and other charge limitations. (109th)
<b>Foreign Trade and International Finance</b>	4,116	2.79%	H. R. 466: To amend the Trade Act of 1974 to delegate to the Under Secretary of Commerce for International Trade the functions relating to trade adjustment assistance for firms, and for other purposes. (109th)
<b>Government Operations and Politics</b>	10,610	7.18%	S. 3665: A bill to amend chapter 63 of title 5, United States Code, to modify the rate of accrual of annual leave for administrative law judges, contract appeals board members, and immigration judges. (110th)
<b>Health</b>	16,767	11.35%	H. R. 7139: To amend titles XVIII and XIX of the Social Security Act with respect to the qualification of the director of food services of a Medicare skilled nursing facility or a Medicaid nursing facility. (110th)
<b>Housing and Community Development</b>	2,035	1.38%	S. 3700: A bill to increase the maximum mortgage amount limitations under the Federal Housing Administration mortgage insurance programs for multi-family housing projects with elevators and for extremely high-cost areas. (111th)
<b>Immigration</b>	3,683	2.49%	H. R. 6080: Making emergency supplemental appropriations for border security for the fiscal year ending September 30, 2010, and for other purposes. (111th)
<b>International Affairs</b>	6,096	4.13%	S. 3366: A bill to designate the Haqqani network as a foreign terrorist organization. (112th)
<b>Labor and Employment</b>	4,396	2.98%	H. R. 5981: To amend title IV of the Employee Retirement Income Security Act of 1974 to provide for a guarantee by the Pension Benefit Guaranty Corporation for qualified preretirement survivor annuities under insolvent or terminated multiemployer pension plans. (112th)
<b>Law</b>	1,997	1.35%	S. 1207: Cameras in the Courtroom Act. (113th)
<b>Native Americans</b>	1,993	1.35%	H. R. 4694: To amend the Claims Resolution Act of 2010 to authorize the Secretary of the Interior to contract with eligible Indian tribes to manage land buy-back programs, to require that certain amounts be deposited into interest bearing accounts, and for other purposes. (113th)
<b>Private Legislation</b>	288	0.19%	S. 2474: A bill for the relief of Meriam Yahya Ibrahim, Martin Wani, and Maya Wani. (113th)
<b>Public Lands and Natural Resources</b>	7,950	5.38%	H. R. 5771: Conserving Our Reefs and Livelihoods Act of 2016 (114th)
<b>Science, Technology, Communications</b>	3,168	2.14%	S. 572: A bill to require the Secretary of Commerce to study the coverage gaps of the Next Generation Weather Radar of the National Weather Service and to develop a plan for improving radar coverage and hazardous weather detection and forecasting, and for other purposes. (115th)
<b>Social Sciences and History</b>	68	0.05%	H. R. 1088: African Burial Ground International Memorial Museum and Educational Center Act. (115th)
<b>Social Welfare</b>	3,203	2.17%	S. 4091: Emergency Aid for Returning Americans Affected by Coronavirus Act. (116th)
<b>Sports and Recreation</b>	297	0.20%	H. R. 6931: Professional Boxing Safety Enhancement Act of 2020. (116th)
<b>Taxation</b>	15,082	10.21%	S. 5262: A bill to amend the Internal Revenue Code of 1986 to extend the time during which a qualified disaster may have occurred for purposes of the special rules for personal casualty losses. (117th)
<b>Transportation and Public Works</b>	6,048	4.10%	H. R. 9648: Light Rail Transit Act. (117th)
<b>Water Resources Development</b>	1,794	1.21%	S. 1233: A bill to amend the Consolidated Farm and Rural Development Act to modify provisions relating to rural decentralized water systems grants. (118th)
<b>NA</b>	22	0.01%	H. R. 9547: To designate the facility of the United States Postal Service located at 120 Doty Street in Kaukauna, Wisconsin, as the "Sgt. Nickolas Mueller Post Office Building". (117th)
<b>Total</b>	<b>147,669</b>	<b>100%</b>	

## Precision Weighting of Aggregate and Issue-Specific Bipartisanship Measures

One concern with our member-level bipartisanship measures is that they may be disproportionately influenced by very small numbers of bills or cosponsorship decisions. For example, a legislator who sponsors only one bill in a term and attracts bipartisan support on that bill would appear highly bipartisan under the raw measure, even though that score is based on only one bill. In contrast, a legislator who sponsors 100 bills and attracts bipartisan support on 40 is more bipartisan, despite receiving a lower raw proportion. The same concern applies to issue-specific scores, where the number of relevant bills or cosponsorships within a given policy area may be especially small. In short, raw bipartisanship scores are noisier when estimated from fewer observations and more precise when estimated from more observations.

To address this concern, we use a Bayesian shrinkage estimator to compute and apply weights to both the aggregate and issue-specific bipartisanship measures. This approach balances estimating parameters for groups (legislators) against a global population mean (all legislator scores in a given chamber-term) (22). The intuition is straightforward: if a legislator’s score is based on only a few bills or cosponsorships, that score is less reliable and should be adjusted more heavily toward the average bipartisanship score for legislators in the same congressional term and chamber. If the score is based on many observations, it is more precise and should receive little to no adjustment.

For the aggregate attraction and offer scores, we define the prior target  $\mu$  as the mean bipartisanship level within the same term and chamber. We then compute a precision weight,  $w = n/(n+k)$ , where  $n$  is the number of bills sponsored (cosponsored) by the legislator in that term and chamber and  $k$  is a fixed hyperparameter that determines how strongly the score is pulled toward the prior mean. The shrunk estimate  $\hat{\theta}$  is:

$$\hat{\theta} = w \cdot \theta_{\text{obs}} + (1 - w) \cdot \mu \quad (3)$$

where  $\theta_{\text{obs}}$  is the legislator’s observed score and  $\mu$  is the Congress  $\times$  chamber prior mean. We set  $k = 10$ , treating the prior as equivalent to 10 bills’ worth of information. This decision reflects a substantive judgment that a legislator requires approximately 10 sponsored bills before their observed score is considered more informative than the chamber-term mean. This choice is consistent with the broader empirical literature; the hyperparameter is fixed at a value that reflects the minimum number of observations needed to trust a raw proportion over a prior (23; 24). In the U.S. Congress, 10 bills represent a modest threshold: most legislators sponsor well in excess of this number in a given term, meaning the prior exerts meaningful influence only for the least active members, which aligns with our primary measurement concern. Moreover, our results are not driven by our assigned hyperparameter value (10); measures are consistent when we recalculate weighted scores with the hyperparameter set to  $k = 5$  and  $k = 15$ . As a result, legislators with many sponsored or cosponsored bills receive weights close to 1 and retain scores close to their observed values. In contrast, legislators with fewer bills receive smaller weights and are pulled more strongly toward the Congress- and chamber-specific baseline.

We extend this same procedure to the issue-specific bipartisanship measures. In this case, the prior target is defined more narrowly as the mean bipartisanship level within the same Congress, chamber, and policy topic. This ensures that legislators are shrunk toward an issue-specific benchmark rather than the overall chamber mean. For topic-specific attraction scores, the precision term is the number of bills the legislator sponsored within that topic. For topic-specific offer scores, it is the number of bills the legislator cosponsored within that topic. Because the number of observations is naturally smaller within individual policy areas, we use a smaller hyperparameter and treat the prior as equivalent to two bills’ worth of information.

We include both raw and precision-weighted attract and offer scores for all legislator-term observations. The correlation between the raw and weighted scores is quite high (Attract Correlation Coefficient = 0.90, Offer Correlation Coefficient = 0.99). This suggests that most legislators in the dataset sponsor and cosponsor close to the average number of bills. Therefore, the precision weighting addresses an important but relatively limited source of measurement error. We include both versions in the dataset because users may prefer one over the other depending on their research goals. Users may prefer the unweighted scores when they want the closest possible measure of observed bipartisan behavior in a given legislator-term, without any adjustment toward a chamber-specific prior mean. This may be especially useful when researchers want to apply their own weighting scheme, impose a different prior information threshold, or directly model the consequences of sparse legislative activity. In contrast, users may prefer weighted scores when they want measures that are less sensitive to instability arising from very small numbers of sponsored or cosponsored bills, especially when using our issue-specific scores, which are often based on fewer sponsor and cosponsorship decisions.

## Data Record

The data are accessible through two platforms: Harvard Dataverse and an R package, `biparty`. Each of these platforms includes two datasets: an aggregate bipartisanship scores data frame and a policy issue area bipartisanship scores data frame. Each dataset includes several unique legislator identifiers to facilitate merging with other relevant covariates. The data are available as comma-separated values (`.csv`) files and in R Data Serialization (`.rds`) format to facilitate use among Stata, R, and Python users.

**Aggregate Bipartisanship Scores:** Each observation in this dataset is a legislator-term. Legislators appear multiple times in the dataset if they served across multiple Congresses. The main variables of interest are bipartisanship attract and bipartisanship offer. The dataset includes both raw and precision-weighted versions of each measure. The dataset also includes legislator name, chamber, Congress, and party identification. We also include legislator-specific crosswalks with multiple unique legislator identifiers (e.g., `govtrack_id`) to facilitate merging with other congressional data sources. Table 2 displays variable names, descriptions, percent missing, and a sample observation from the aggregate bipartisanship scores dataset.

**Table 2.** Variables from Aggregate Dataset

Variable	Description	% Missing	Example
<code>congress</code>	Congressional term in which the legislator served	0%	117
<code>chamber</code>	Chamber in which the legislator served	0%	SENATE
<code>name</code>	Legislator's name	0%	ROBERT PORTMAN
<code>party</code>	Legislator's party identification	0%	R
<code>state</code>	State represented by the legislator	0%	OH
<code>district</code>	Congressional district represented by the legislator (voting lower house members only)	0%	No Congressional District (Senate)
<code>bioguide_id</code>	Unique legislator identifier from the Biographical Directory of the U.S. Congress	0%	P000449
<code>govtrack_id</code>	Unique legislator identifier from GovTrack	0%	400325
<code>thomas_id</code>	Legacy legislator identifier from the Library of Congress THOMAS system	0%	Unavailable
<code>opensecrets_id</code>	Unique legislator identifier from OpenSecrets, used for campaign finance data	3%	N00003682
<code>icpsr_id</code>	Standardized legislator identifier from ICPSR	0%	29386
<code>fec_id</code>	Federal Election Commission candidate identifier for campaign finance records	3%	S00H00133
<code>wikipedia_id</code>	Unique identifier for the legislator's Wikipedia page	0%	Rob Portman
<code>wikidata_id</code>	Unique identifier for the legislator in Wikidata	0%	Q59676310
<code>attract_aggregate_weighted</code>	Precision-weighted aggregate bipartisanship attract score	0%	0.779
<code>offer_aggregate_weighted</code>	Precision-weighted aggregate bipartisanship offer score	0%	0.676
<code>attract_aggregate_unweighted</code>	Raw aggregate bipartisanship attract score	0%	0.829
<code>offer_aggregate_unweighted</code>	Raw aggregate bipartisanship offer score	0%	0.695

**Policy Issue Area Bipartisanship Scores:** Each observation in this dataset is a legislator-term. Therefore, legislators appear multiple times within a given Congress. The main variables of interest are issue-specific bipartisanship scores measuring the extent to which legislators attract and offer original out-party cosponsorships within each of the 34 policy issue areas. The dataset includes raw and precision-weighted versions of each issue-specific measure. Like the aggregate bipartisanship scores dataset, this dataset also includes unique legislator identifiers, chamber, Congress, and party identification. Table 3 displays variable names, descriptions, percent missing, and a sample observation from the policy issue area bipartisanship scores dataset.

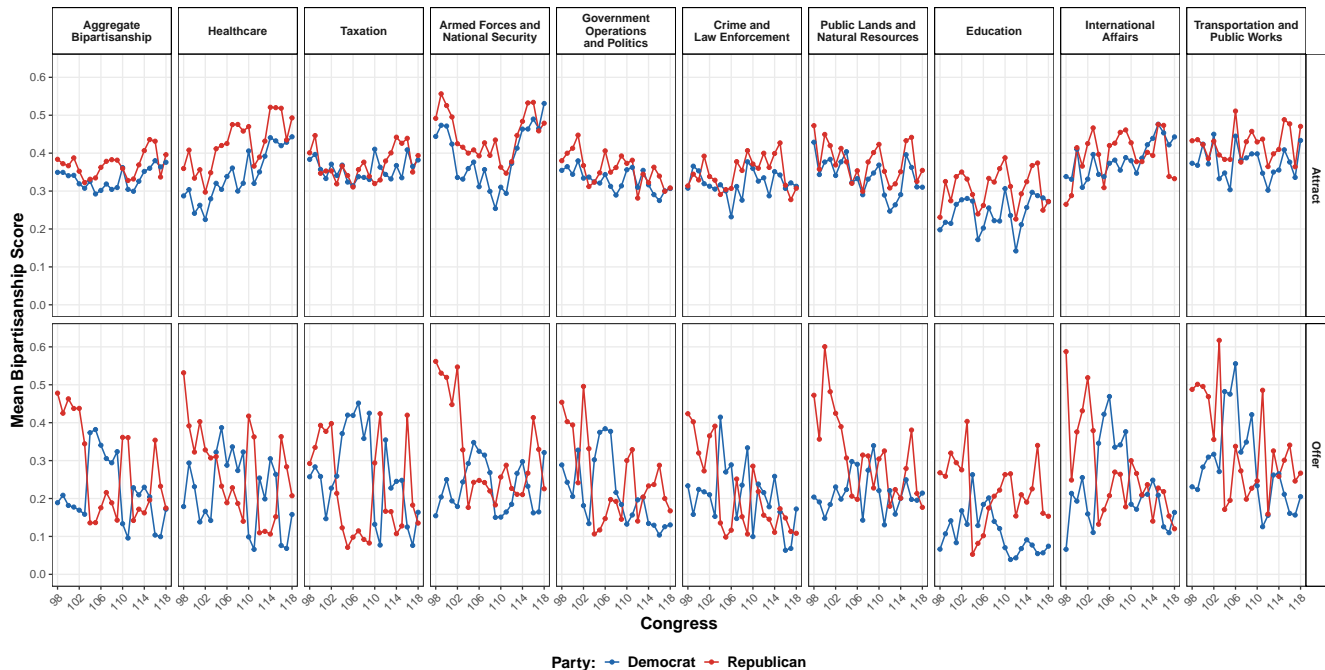
**Table 3.** Variables from Policy Issue Area Dataset

Variable	Description	% Missing	Example
<code>congress</code>	Congressional term in which the legislator served	0%	117
<code>chamber</code>	Chamber in which the legislator served	0%	HOUSE
<code>name</code>	Legislator's name	0%	ELISSA SLOTKIN
<code>party</code>	Legislator's party identification	0%	D
<code>state</code>	State represented by the legislator	0%	MI
<code>district</code>	Congressional district represented by the legislator	0%	8
<code>bioguide_id</code>	Unique legislator identifier from the Biographical Directory of the U.S. Congress	0%	S001208
<code>govtrack_id</code>	Unique legislator identifier from GovTrack	0%	412784
<code>thomas_id</code>	Legacy legislator identifier from the Library of Congress THOMAS system	0%	11082
<code>opensecrets_id</code>	Unique legislator identifier from OpenSecrets, used for campaign finance data	3%	N00041357
<code>icpsr_id</code>	Standardized legislator identifier from ICPSR	0%	21965
<code>fec_id</code>	Federal Election Commission candidate identifier for campaign finance records	3%	H8M108102
<code>wikipedia_id</code>	Unique identifier for the legislator's Wikipedia page	0%	Elissa Slotkin
<code>wikidata_id</code>	Unique identifier for the legislator in Wikidata	0%	Q30323721
<code>attract_issuearea_weighted (n = 34)</code>	Precision-weighted issue area bipartisanship attract score	0%	0.399
<code>offer_issuearea_weighted (n = 34)</code>	Precision-weighted issue area bipartisanship offer score	0%	0.0342
<code>attract_issuearea_unweighted (n = 34)</code>	Raw issue area bipartisanship attract score	0%	0.6
<code>offer_issuearea_unweighted (n = 34)</code>	Raw issue area bipartisanship offer score	0%	0

## Data Overview

To illustrate how these scores can be used, Figure 1 plots average bipartisanship scores for both attract and offer measures (right facet), by party (line color), across the full time series (1983 – 2024). Across all panels, the y-axis represents the mean bipartisanship score, and the x-axis denotes the congressional term. The figure includes aggregate scores as well as scores for nine selected policy issue areas. Several descriptive patterns emerge. First, aggregate bipartisanship attraction remains relatively stable across the time series, generally ranging from 30% to 40% of a legislator’s bills attracting out-party support. Republicans are slightly more likely than Democrats to attract out-party cosponsors. Bipartisanship offered, in contrast, is more volatile. Republicans were more likely to offer out-party cosponsorship to Democrats early in the time series, particularly from the 98th through the 102nd Congresses. This pattern reverses beginning in the 105th Congress and continues to fluctuate across subsequent terms, likely reflecting changes in majority party control. The policy issue area scores reveal additional variation. Unlike the aggregate scores, which are relatively stable over time, the issue area scores exhibit greater over-time variation. Some issue areas have consistently higher average bipartisanship scores across both dimensions, such as International Affairs, whereas others, such as Education, have lower average scores. Across issue areas, Republicans appear slightly more likely to attract out-party cosponsors, while patterns of offering out-party cosponsorship vary more substantially across congressional terms. Figure 1 provides a descriptive overview of the data and illustrates one of many ways researchers may use these scores in future applications.

**Figure 1.** Attract and Offer Bipartisanship Scores by Party and Issue Area



## Technical Validation

### Internal Validation

To validate the accuracy of the data scraped from `congress.gov`'s API, we employed a team of research assistants to hand-code 5,000 randomly sampled cosponsor-bill pairs. We expected to find few, if any, errors because the data were scraped from `congress.gov` rather than manually labeled or entered. However, we viewed this validation step as necessary because incorrect information across these variables would affect our final scores.

Each row in the validation set includes the bill sponsor's name and the name of a single cosponsor, drawn from the full list of cosponsors for that bill. As a result, each research assistant validated one cosponsor-bill pairing rather than the complete set of cosponsors for a given bill. The validation protocol required research assistants to verify five variables: (1) total cosponsor

volume, (2) bill sponsorship date, (3) cosponsorship date, (4) sponsor party, and (5) cosponsor party. These are the five variables integral to the creation of the scores. For each observation, research assistants independently navigated to the corresponding bill page on `congress.gov`, recorded the values they observed, and submitted their responses for evaluation against the scraped data. Research assistants were trained to code the validation set during a one-hour meeting. They then completed a training set of 50 observations, which the project PIs reviewed before providing feedback. Upon successful completion of the training set, research assistants received the full validation set.

Overall, as expected, the validation process shows that information scraped from the `congress.gov` API is highly consistent with information available locally on `congress.gov`. We report five validation statistics assessing alignment between the scraped API data and the local `congress.gov` records: Cohen’s kappa correlation coefficient, average error rate, precision, recall, and F1 score. For all five variables, Cohen’s kappa is at or above 0.998, indicating a high level of agreement between the two data sources. Precision, recall, and F1 scores are similarly high. The highest average error rate is 0.002, indicating that very few observations were misaligned across the two sources. Collectively, these results suggest that the `congress.gov` API is a reliable and accurate source for collecting bill-level and cosponsor-level data from `congress.gov`.

One important exception, however, was an inconsistency between `congress.gov`’s original cosponsor designation—a logical indicator returned by the congressional API (e.g., TRUE/FALSE)—and the underlying sponsorship and cosponsorship dates returned by the same API. The original cosponsor designation from `congress.gov` should be coded as TRUE only when the cosponsorship date matches the sponsorship date. In several cases, however, the original cosponsorship designation was coded as TRUE even when the cosponsorship and sponsorship dates did not match. This discrepancy is consequential for score creation because the original cosponsor designation provided by `congress.gov` is commonly used to identify original cosponsorship. To address this issue, we construct our own date-based original cosponsorship indicator directly from the sponsorship and cosponsorship date fields, coded as 1 when the dates match and 0 otherwise.

The `congress.gov` original-cosponsor designation identifies 920,281 cosponsorship decisions as original, compared to 891,521 identified by our date-based measure. Across 2,486,089 total cosponsorship decisions, `congress.gov` incorrectly classifies 28,760 cosponsorships as original even though the underlying date fields indicate that they occurred after the bill’s sponsorship date. Although modest in percentage terms (1.16%), this error is systematic: because our dataset spans decades and hundreds of thousands of bills, even small misclassification rates compound into meaningful measurement error at scale. We also identified a small number of anomalous cases in which the cosponsorship date preceded the sponsorship date: 18 bills and 389 cosponsorship decisions, or 0.0156% of all cosponsorship decisions. Because a cosponsor cannot join a bill before it has been introduced, we drop these cosponsorship decisions from the data.

**Table 4.** Variables and Validation Statistics from Cosponsorship Dataset

Measure	Description	# Cosponsors	Sponsor Party	Sponsorship Date	Cosponsor Party	Cosponsorship Date
<b>Cohen’s Kappa Coefficient</b>	Measures agreement between human coders and the <code>congress.gov</code> API after adjusting for chance agreement.	0.999	0.999	0.999	0.999	0.998
<b>Average Error Rate</b>	Measures the share of compared observations that were miscoded by human coders relative to the <code>congress.gov</code> API.	0.001	0.000	0.001	0.000	0.002
<b>Precision</b>	Measures the average one-vs-rest precision across observed values, indicating how often human-coded values matched the corresponding <code>congress.gov</code> API values (i.e., minimizing false positive).	0.992	1.000	0.998	1.000	0.997
<b>Recall</b>	Measures the average one-vs-rest recall across observed values, indicating how completely human coders recovered the corresponding <code>congress.gov</code> API values (i.e., minimizing false negative).	1.000	1.000	0.998	1.000	0.998
<b>F1 Score</b>	Measures the average one-vs-rest harmonic mean of precision and recall, summarizing agreement between human coders and the <code>congress.gov</code> API.	0.998	1.000	0.999	1.000	0.999

## External Validation

To assess the construct validity of our bipartisanship scores, we validate them against the Lugar Center’s Bipartisan Index (21). The Lugar Center’s index is among the most widely cited measures of bipartisanship in Congress, making it a natural benchmark against which to evaluate our scores. Because the Lugar Center publishes its scores as PDFs rather than in a machine-readable format, we manually collected the scores. Lugar Center scores are available for the Senate beginning with the 103rd Congress (1993–1995) and for the House beginning with the 113th Congress (2013–2015). We normalize these scores before comparison to place both measures on a common scale (0–1). Importantly, the Lugar Center excludes members who served fewer than 10 months in a given Congress as well as chamber leaders.

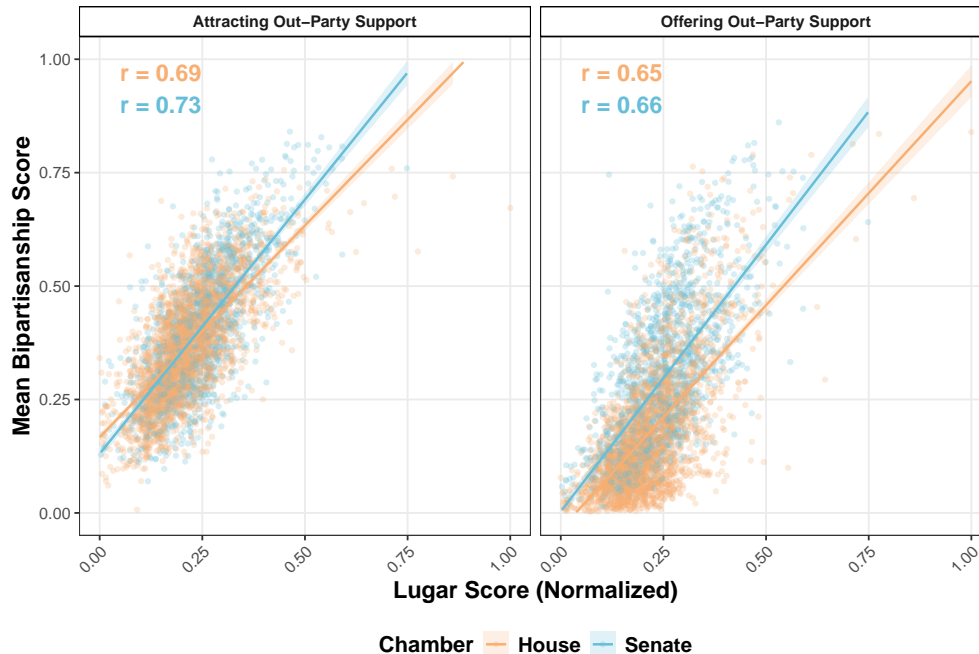
The Lugar Center’s Bipartisan Index differs from our scores in four important ways: it has more limited time-series coverage, does not distinguish between attracting and offering out-party support, is not sensitive to cosponsorship timing, and does not weight scores by a member’s overall sponsorship and cosponsorship activity within a congressional term. In contrast, our scores cover the 98th through 118th Congresses and provide two distinct measures of bipartisanship—*attract* and *offer*—based only on original out-party cosponsorship. Because the Lugar Center’s Bipartisan Index is not calculated by policy issue area, we compare only our aggregate measures to their index. We expect our measures to be correlated with the Lugar Center’s scores because both capture bipartisan behavior. However, given the measurement differences described above, we do not expect the correlations to be perfect. Table 5 reports the term-level correlations between the Lugar Center scores and our aggregate *attract* and *offer* measures.

**Table 5.** Correlation Between Offer and Attract Bipartisanship Scores and Lugar Score by Congress

Congress	Lugar & Attracting Out-Party Support	Lugar & Offering Out-Party Support
103	0.475	0.566
104	0.657	0.723
105	0.677	0.721
106	0.455	0.675
107	0.539	0.351
108	0.727	0.591
109	0.679	0.549
110	0.808	0.657
111	0.746	0.721
112	0.828	0.773
113	0.687	0.686
114	0.666	0.730
115	0.729	0.780
116	0.705	0.522
117	0.762	0.647
118	0.768	0.818

The average correlation across terms is 0.711 for attraction and 0.656 for offer. The highest correlation occurs between the Lugar scores and our attraction measure in the 112th Congress (0.828), while the lowest correlation occurs between the Lugar scores and our offer measure in the 107th Congress (0.351). Figure 2 plots the correlations between the Lugar scores and our attraction and offer measures separately by chamber. Our measures are slightly more highly correlated with the Lugar Center’s Senate scores, though the cross-chamber differences are modest. Collectively, these results suggest that our measures capture the same latent concept as the Lugar Center’s index, bipartisanship, while also reflecting meaningful differences in measurement strategy.

**Figure 2.** Correlation Between Offer and Attract Bipartisanship Measures and the Lugar Center Bipartisanship Measure by Chamber



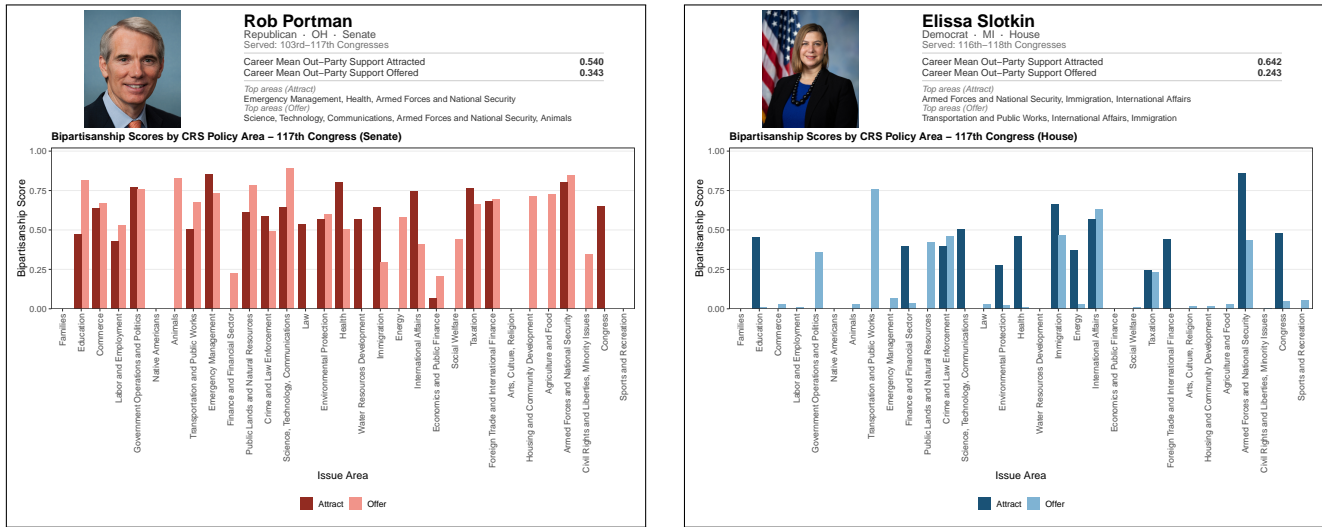
## Usage Notes

The unit of analysis in both the aggregate and policy issue area datasets is the legislator-term. We do not merge these datasets because users may prefer to use them independently. However, because both datasets share the same unit of analysis, users can merge them if desired. To facilitate merging the two datasets, as well as linking our data to other congressional covariates, we include a crosswalk with several unique legislator identifiers: `bioguide`, `govtrack`, `THOMAS`, `OpenSecrets`, `ICPSR`, and `FEC`. We encourage users to rely primarily on `bioguide` and `govtrack` when possible. Other identifiers have important limitations. `ICPSR` excludes legislators who served only a partial term and non-voting delegates. The `THOMAS` identifier is available only for House members. As reported in Tables 2 and 3, the `OpenSecrets` and `FEC` identifiers also contain some missingness (3%). In addition, `FEC` identifiers are defined at the legislator-chamber level, so legislators who served in both the House and Senate have two unique `FEC` identifiers. We include all of these identifiers because few datasets aggregate them into a single crosswalk, and users may need to rely on a specific identifier depending on the structure of the data they are merging with ours.

To facilitate broad use among researchers, journalists, legislators, and the public, we host the data on both Harvard Dataverse and also through an R package, `biparty`. Scores will be updated in both locations at the end of each congressional term. The R package is designed for users who regularly work with large datasets. The package loads both datasets and includes functions that allow users to retrieve and compare member scores, analyze bipartisanship by legislator, issue area, state, term, and chamber, and merge the data with other relevant covariates. Individual member data can be accessed through several lookup functions: users can retrieve a single legislator's attract and offer scores (`get_member()`), return scores across all Congresses in which they served (`get_member_trend()`), produce side-by-side comparisons for a user-specified set of members (`compare_members()`), or retrieve scores for all members from a given state (`get_state_delegation()`). Aggregate summaries are available at the congressional and party level via `get_congress_summary()` and `get_party_summary()`, with optional breakdowns by party and issue area.

Issue-area analyses are supported by functions that return all legislators' scores for a given policy area in a specified Congress (`get_issue_scores()`), track how mean bipartisanship across the attract and offer dimensions has changed over time (`get_issue_trend()`), and enumerate all 34 CRS policy area labels with their corresponding full-length names as a crosswalk for use across package functions (`list_issues()`). The package also includes a suite of visualization tools: users can generate a violin plot of score distributions across issue areas (`plot_bipartisanship()`), render a time-series line chart for one or more members or parties (`plot_trend()`), and generate a member profile card combining a legislator photograph with career-level scores, top issue areas, and an issue-area bar chart for a specified Congress (`plot_member_profile()`). Figure 3 provides two example profile cards from the 117th Congress (2021 - 2023): Senator Rob Portman (R - OH) and Representative Elissa Slotkin (D - MI).

**Figure 3.** Example Member Profile Cards from `biparty`



**(a)** Sen. Rob Portman's Bipartisanship Profile (117th)

**(b)** Rep. Elissa Slotkin's Bipartisanship Profile (117th)

## Data & Code Availability

The replication code used to scrape, clean, and construct the bipartisanship scores, along with the two datasets, is publicly available through Harvard Dataverse. **INSERT ANON DATA LINK HERE BEFORE SUBMISSION.** We also include a README file to help users navigate the code and datasets. The datasets are also available through the R package, `biparty` (25). The scraping, cleaning, and data transformation were performed using R (v4.5.1) (26) on a Mac Studio with an Apple M4 Max chip (14-core CPU: 10 performance and 4 efficiency cores) and 36 GB of memory, running macOS Tahoe 26.2 (aarch64-apple-darwin20). Issue area labels were scraped using Python (v3.12.11) (27) in the Spyder IDE (v6.1.2) (28).

## Author Contributions Statement

MRD and JML scraped the data, created the measures, validated the scores, developed the R package, and wrote the manuscript.

## Competing Interest

The authors declare no competing interests.

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## Additional information

Correspondence and requests for materials should be addressed to MRD.

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