**Modeling assignment**

Mengfan Cheng

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The model is about the relationship between congressmen’s speeches and their ideologies. We are trying to parse and analyze the ngrams of congressmen’s speeches to see the top 100 bigrams and trigrams for both Republicans and Democrats. Also, a model is to be built approaching the relationship between words and ideology. Here are the exact steps:

Steps:

1. Download the data of the most recent Congress via Sunlight Foundation API

(credits to Dr. Gaurav Sood <https://gist.github.com/soodoku/85d79275c5880f67b4cf>)

1. Clean the speeches in the downloaded dataset: remove stop words, stem the words, remove special characters, numbers, capitalization etc

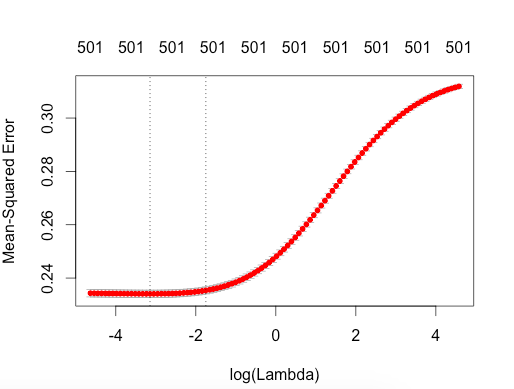
(credits to Dr. Gaurav Sood https://github.com/soodoku/Text-as-Data)

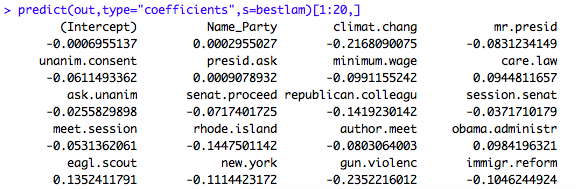
1. Download ideology data from voteview.com (DW-Nominate, 1st dimension)
2. Merge the two datasets by ID#
3. Produce a list of all possible 'bigrams' and 'trigrams' in the data.
4. Produce a list of the top 100 bigrams and trigrams for both Republicans and Democrats
5. Build a ridge model about the relationship between people’s words and their ideology.

Results:

1. Top 500 bigrams and trigrams as listed in the Appendix Top Bigrams and Top Trigrams
2. Top 100 bigrams and trigrams for both Republicans and Democrats as listed in Appendix Top Bigrams of Republicans, Top Trigrams of Republicans, Top Bigrams of Democrats and Top Trigrams of Democrats.
3. Ridge Model:

As is shown in the last part of R script, top bigrams are checked in each person’s speech to see whether they have involved certain topic in their speeches. Based on this, a ridge model is created where the dependent variable is the ideology score and the independent variables are whether people’s speeches include the top 500 bigrams. And cross-validation is adopted to tune the model. In cross validation, it is found that the best . To further expand the model, top 500 trigrams and other n-grams may also be adopted.



**Appendix Top Bigrams**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | X | bigram | bigram\_d\_freq | bigram\_r\_freq | chisq() |
| 84688 | 84688 | climat chang | 2095 | 256 | 7.87E-05 |
| 287967 | 287967 | mr presid | 9043 | 4758 | 7.28E-05 |
| 372713 | 372713 | unanim consent | 6633 | 3186 | 6.62E-05 |
| 313121 | 313121 | presid ask | 4198 | 1560 | 6.61E-05 |
| 285218 | 285218 | minimum wage | 1822 | 264 | 6.37E-05 |
| 69090 | 69090 | care law | 157 | 1530 | 6.11E-05 |
| 36441 | 36441 | ask unanim | 6011 | 2903 | 5.93E-05 |
| 341982 | 341982 | senat proceed | 1263 | 162 | 4.65E-05 |
| 329692 | 329692 | republican colleagu | 1018 | 78 | 4.41E-05 |
| 344487 | 344487 | session senat | 1144 | 157 | 4.10E-05 |
| 282638 | 282638 | meet session | 1075 | 137 | 3.97E-05 |
| 333274 | 333274 | rhode island | 998 | 116 | 3.82E-05 |
| 40413 | 40413 | author meet | 1035 | 134 | 3.80E-05 |
| 295470 | 295470 | obama administr | 285 | 1350 | 3.80E-05 |
| 146896 | 146896 | eagl scout | 15 | 710 | 3.64E-05 |
| 292709 | 292709 | new york | 3155 | 1464 | 3.39E-05 |
| 215612 | 215612 | gun violenc | 624 | 15 | 3.18E-05 |
| 234998 | 234998 | immigr reform | 1457 | 417 | 3.16E-05 |
| 101901 | 101901 | consent member | 9 | 573 | 2.99E-05 |
| 341908 | 341908 | senat offic | 755 | 81 | 2.97E-05 |
| 356406 | 356406 | student loan | 1476 | 465 | 2.88E-05 |
| 6177 | 6177 | action debat | 652 | 55 | 2.76E-05 |
| 249237 | 249237 | interven action | 647 | 54 | 2.74E-05 |
| 101972 | 101972 | consent senat | 955 | 196 | 2.74E-05 |
| 101813 | 101813 | consent committe | 833 | 143 | 2.67E-05 |
| 82628 | 82628 | civil right | 1111 | 291 | 2.62E-05 |
| 383893 | 383893 | white hous | 609 | 1633 | 2.56E-05 |
| 12660 | 12660 | afford care | 2646 | 1292 | 2.55E-05 |
| 323232 | 323232 | read titl | 3 | 469 | 2.52E-05 |
| 26272 | 26272 | american peopl | 3357 | 5351 | 2.50E-05 |
| 296724 | 296724 | offic build | 764 | 131 | 2.45E-05 |
| 68462 | 68462 | carbon pollut | 484 | 15 | 2.41E-05 |
| 123218 | 123218 | day revis | 8 | 463 | 2.40E-05 |
| 13355 | 13355 | african american | 797 | 154 | 2.38E-05 |
| 138852 | 138852 | dirksen senat | 547 | 43 | 2.36E-05 |
| 84578 | 84578 | clerk read | 24 | 498 | 2.35E-05 |
| 275961 | 275961 | major leader | 995 | 2140 | 2.29E-05 |
| 287240 | 287240 | motion reconsid | 680 | 108 | 2.27E-05 |
| 68618 | 68618 | care act | 2689 | 1395 | 2.24E-05 |
| 313394 | 313394 | presid health | 11 | 439 | 2.23E-05 |
| 360066 | 360066 | tabl interven | 510 | 38 | 2.22E-05 |
| 265810 | 265810 | legisl day | 85 | 614 | 2.19E-05 |
| 373284 | 373284 | unemploy insur | 801 | 176 | 2.19E-05 |
| 233932 | 233932 | illeg immigr | 90 | 624 | 2.18E-05 |
| 96778 | 96778 | comprehens immigr | 639 | 98 | 2.17E-05 |
| 280455 | 280455 | may legisl | 6 | 413 | 2.16E-05 |
| 350361 | 350361 | speaker move | 50 | 521 | 2.13E-05 |
| 28195 | 28195 | announc senat | 395 | 3 | 2.11E-05 |
| 168835 | 168835 | execut session | 417 | 11 | 2.11E-05 |
| 334873 | 334873 | rollcal vote | 1045 | 324 | 2.08E-05 |
| 283097 | 283097 | member may | 20 | 433 | 2.06E-05 |
| 154683 | 154683 | employ mandat | 22 | 438 | 2.06E-05 |
| 391862 | 391862 | youth award | 385 | 3 | 2.06E-05 |
| 322084 | 322084 | rais minimum | 493 | 46 | 2.03E-05 |
| 220060 | 220060 | hear entitl | 569 | 79 | 2.03E-05 |
| 374485 | 374485 | upon tabl | 593 | 94 | 1.98E-05 |
| 274814 | 274814 | madam presid | 2928 | 1644 | 1.97E-05 |
| 288033 | 288033 | mr speaker | 15319 | 18811 | 1.96E-05 |
| 288768 | 288768 | muslim brotherhood | 3 | 361 | 1.93E-05 |
| 260574 | 260574 | laid upon | 586 | 97 | 1.92E-05 |
| 336987 | 336987 | san francisco | 511 | 65 | 1.89E-05 |
| 328081 | 328081 | remark includ | 4 | 355 | 1.88E-05 |
| 238751 | 238751 | includ extran | 6 | 360 | 1.87E-05 |
| 248396 | 248396 | interest rate | 945 | 296 | 1.86E-05 |
| 313569 | 313569 | presid offic | 930 | 289 | 1.84E-05 |
| 1216 | 1216 | absent senat | 6 | 354 | 1.84E-05 |
| 58917 | 58917 | boy scout | 77 | 528 | 1.84E-05 |
| 287018 | 287018 | morn busi | 808 | 221 | 1.83E-05 |
| 361939 | 361939 | tea parti | 612 | 119 | 1.82E-05 |
| 350112 | 350112 | speaker boehner | 515 | 73 | 1.82E-05 |
| 371079 | 371079 | trillion debt | 38 | 433 | 1.81E-05 |
| 307484 | 307484 | period morn | 444 | 43 | 1.81E-05 |
| 361483 | 361483 | tax break | 394 | 23 | 1.81E-05 |
| 329669 | 329669 | republican budget | 549 | 90 | 1.80E-05 |
| 320305 | 320305 | public health | 757 | 197 | 1.80E-05 |
| 315651 | 315651 | proceed execut | 352 | 8 | 1.80E-05 |
| 345841 | 345841 | shut govern | 766 | 203 | 1.79E-05 |
| 329789 | 329789 | republican leadership | 457 | 50 | 1.79E-05 |
| 382072 | 382072 | web site | 255 | 857 | 1.78E-05 |
| 367280 | 367280 | titl bill | 40 | 432 | 1.78E-05 |
| 361341 | 361341 | tar sand | 336 | 4 | 1.77E-05 |
| 372145 | 372145 | two leader | 475 | 60 | 1.76E-05 |
| 87172 | 87172 | colleagu join | 1677 | 792 | 1.74E-05 |
| 98519 | 98519 | conduct hear | 486 | 72 | 1.68E-05 |
| 313564 | 313564 | presid obama | 1721 | 2905 | 1.66E-05 |
| 161482 | 161482 | equal pay | 359 | 21 | 1.64E-05 |
| 284058 | 284058 | middl class | 1403 | 625 | 1.63E-05 |
| 379089 | 379089 | vote right | 470 | 71 | 1.61E-05 |
| 339081 | 339081 | sea level | 308 | 6 | 1.59E-05 |
| 172501 | 172501 | extran materi | 65 | 452 | 1.58E-05 |
| 342061 | 342061 | senat resum | 377 | 34 | 1.57E-05 |
| 299177 | 299177 | open govern | 400 | 44 | 1.56E-05 |
| 287486 | 287486 | move proceed | 338 | 19 | 1.56E-05 |
| 329788 | 329788 | republican leader | 629 | 156 | 1.56E-05 |
| 386500 | 386500 | work hard | 1221 | 518 | 1.55E-05 |
| 219200 | 219200 | head start | 518 | 102 | 1.53E-05 |
| 178005 | 178005 | farm bill | 1632 | 807 | 1.53E-05 |
| 175679 | 175679 | fair shot | 342 | 23 | 1.53E-05 |
| 321947 | 321947 | radic islam | 4 | 290 | 1.52E-05 |
| 128234 | 128234 | deepest congratul | 281 | 1 | 1.52E-05 |
| 314309 | 314309 | previou order | 382 | 41 | 1.50E-05 |
| 35952 | 35952 | ask colleagu | 1445 | 683 | 1.49E-05 |
| 339026 | 339026 | scout america | 48 | 396 | 1.49E-05 |
| 344462 | 344462 | session consid | 291 | 7 | 1.48E-05 |
| 266254 | 266254 | legisl session | 318 | 17 | 1.48E-05 |
| 161417 | 161417 | equal divid | 522 | 110 | 1.47E-05 |
| 256252 | 256252 | join recogn | 511 | 105 | 1.46E-05 |
| 289568 | 289568 | nation debt | 146 | 587 | 1.45E-05 |
| 209937 | 209937 | govern shutdown | 1054 | 431 | 1.43E-05 |
| 102703 | 102703 | consid made | 393 | 52 | 1.43E-05 |
| 233867 | 233867 | illeg alien | 3 | 269 | 1.42E-05 |
| 275083 | 275083 | made laid | 422 | 66 | 1.42E-05 |
| 325452 | 325452 | reconsid consid | 390 | 53 | 1.40E-05 |
| 131476 | 131476 | democrat republican | 869 | 318 | 1.40E-05 |
| 17974 | 17974 | al qaeda | 124 | 529 | 1.37E-05 |
| 342051 | 342051 | senat republican | 600 | 163 | 1.37E-05 |
| 305824 | 305824 | peopl disabl | 307 | 21 | 1.36E-05 |
| 271547 | 271547 | loan debt | 341 | 37 | 1.34E-05 |
| 157146 | 157146 | energi effici | 635 | 189 | 1.32E-05 |
| 329746 | 329746 | republican friend | 291 | 18 | 1.32E-05 |
| 44641 | 44641 | balanc time | 2197 | 3353 | 1.32E-05 |
| 328557 | 328557 | repeal afford | 286 | 17 | 1.31E-05 |
| 175745 | 175745 | fairfax counti | 256 | 6 | 1.30E-05 |
| 387061 | 387061 | work togeth | 1825 | 1004 | 1.30E-05 |
| 386405 | 386405 | work famili | 609 | 180 | 1.28E-05 |
| 267152 | 267152 | let us | 835 | 317 | 1.27E-05 |
| 205133 | 205133 | go confer | 629 | 192 | 1.27E-05 |
| 157673 | 157673 | enforc law | 129 | 512 | 1.25E-05 |
| 304798 | 304798 | pay bill | 594 | 176 | 1.24E-05 |
| 335240 | 335240 | rule law | 222 | 669 | 1.23E-05 |
| 53612 | 53612 | bill hr | 148 | 540 | 1.22E-05 |
| 188970 | 188970 | follow leader | 283 | 22 | 1.22E-05 |
| 385484 | 385484 | women health | 283 | 22 | 1.22E-05 |
| 368807 | 368807 | took offic | 59 | 365 | 1.21E-05 |
| 69252 | 69252 | care plan | 94 | 436 | 1.21E-05 |
| 198235 | 198235 | futur accomplish | 223 | 1 | 1.20E-05 |
| 263699 | 263699 | leader remark | 286 | 26 | 1.19E-05 |
| 219379 | 219379 | health center | 263 | 17 | 1.18E-05 |
| 307639 | 307639 | permit speak | 339 | 50 | 1.17E-05 |
| 313631 | 313631 | presid promis | 5 | 228 | 1.17E-05 |
| 230152 | 230152 | hous republican | 992 | 440 | 1.16E-05 |
| 341511 | 341511 | senat democrat | 190 | 600 | 1.16E-05 |
| 7914 | 7914 | ad debt | 6 | 230 | 1.16E-05 |
| 169189 | 169189 | exhibit dedic | 221 | 3 | 1.16E-05 |
| 341951 | 341951 | senat permit | 326 | 46 | 1.15E-05 |
| 361594 | 361594 | tax increas | 77 | 390 | 1.15E-05 |
| 373259 | 373259 | unemploy benefit | 538 | 158 | 1.13E-05 |
| 315697 | 315697 | proceed vote | 329 | 49 | 1.13E-05 |
| 350484 | 350484 | speaker rise | 4017 | 2828 | 1.13E-05 |
| 330773 | 330773 | reserv balanc | 963 | 1701 | 1.12E-05 |
| 44016 | 44016 | background check | 589 | 190 | 1.12E-05 |
| 156321 | 156321 | end hunger | 218 | 5 | 1.11E-05 |
| 356307 | 356307 | student debt | 237 | 12 | 1.11E-05 |
| 64317 | 64317 | busi senat | 346 | 60 | 1.10E-05 |
| 284730 | 284730 | million american | 1701 | 970 | 1.09E-05 |
| 15822 | 15822 | agre motion | 305 | 42 | 1.09E-05 |
| 322132 | 322132 | rais tax | 84 | 392 | 1.09E-05 |
| 64253 | 64253 | busi record | 7 | 219 | 1.09E-05 |
| 304759 | 304759 | paus recogn | 3 | 207 | 1.08E-05 |
| 312658 | 312658 | preexist condit | 498 | 142 | 1.08E-05 |
| 339032 | 339032 | scout earn | 2 | 203 | 1.08E-05 |
| 149620 | 149620 | educ develop | 217 | 8 | 1.06E-05 |
| 101958 | 101958 | consent request | 450 | 118 | 1.06E-05 |
| 369957 | 369957 | train wreck | 10 | 222 | 1.06E-05 |
| 329895 | 329895 | republican senat | 508 | 151 | 1.06E-05 |
| 276867 | 276867 | make sure | 3272 | 2242 | 1.05E-05 |
| 303806 | 303806 | pass clean | 218 | 9 | 1.05E-05 |
| 321948 | 321948 | radic islamist | 4 | 204 | 1.05E-05 |
| 127718 | 127718 | dedic demonstr | 195 | 1 | 1.05E-05 |
| 349663 | 349663 | south carolina | 265 | 694 | 1.05E-05 |
| 313839 | 313839 | presid unit | 337 | 805 | 1.05E-05 |
| 189132 | 189132 | follow senat | 80 | 374 | 1.04E-05 |
| 38983 | 38983 | attain hard | 192 | 1 | 1.03E-05 |
| 258308 | 258308 | kill american | 24 | 252 | 1.03E-05 |
| 361623 | 361623 | tax loophol | 227 | 14 | 1.03E-05 |
| 301802 | 301802 | overcom advers | 197 | 3 | 1.03E-05 |
| 276397 | 276397 | make educ | 208 | 7 | 1.03E-05 |
| 263412 | 263412 | leader designe | 251 | 24 | 1.03E-05 |
| 319278 | 319278 | proudli ask | 3 | 196 | 1.02E-05 |
| 376954 | 376954 | ve ad | 3 | 196 | 1.02E-05 |
| 223438 | 223438 | higher educ | 694 | 270 | 1.02E-05 |
| 83722 | 83722 | clean energi | 280 | 37 | 1.02E-05 |
| 270908 | 270908 | live extend | 192 | 2 | 1.02E-05 |
| 267615 | 267615 | level rise | 189 | 1 | 1.02E-05 |
| 62259 | 62259 | build conduct | 299 | 46 | 1.01E-05 |
| 219376 | 219376 | health care | 4640 | 6047 | 1.01E-05 |
| 128454 | 128454 | defeat previou | 191 | 2 | 1.01E-05 |
| 135090 | 135090 | determin hard | 196 | 4 | 1.01E-05 |
| 305147 | 305147 | paycheck fair | 233 | 18 | 1.01E-05 |
| 172013 | 172013 | extend deepest | 335 | 64 | 1.01E-05 |
| 183907 | 183907 | finest qualiti | 1 | 187 | 1.01E-05 |
| 4546 | 4546 | across countri | 2001 | 1230 | 1.01E-05 |
| 333379 | 333379 | right act | 410 | 103 | 1.01E-05 |
| 147444 | 147444 | earn prestigi | 3 | 192 | 1.00E-05 |
| 148626 | 148626 | economi children | 3 | 192 | 1.00E-05 |
| 282029 | 282029 | medic devic | 67 | 338 | 9.92E-06 |
| 61403 | 61403 | budget amend | 25 | 247 | 9.91E-06 |
| 391808 | 391808 | young peopl | 960 | 454 | 9.91E-06 |
| 177110 | 177110 | famili peer | 1 | 183 | 9.85E-06 |
| 332192 | 332192 | rest live | 221 | 15 | 9.84E-06 |
| 314560 | 314560 | princ william | 199 | 7 | 9.79E-06 |
| 287669 | 287669 | mr chairman | 2045 | 2992 | 9.74E-06 |
| 94001 | 94001 | commun notabl | 2 | 184 | 9.74E-06 |
| 93568 | 93568 | commun eagl | 1 | 181 | 9.74E-06 |
| 223596 | 223596 | highest distinct | 1 | 181 | 9.74E-06 |
| 93248 | 93248 | commun across | 328 | 64 | 9.73E-06 |
| 315648 | 315648 | proceed consider | 297 | 49 | 9.72E-06 |
| 386079 | 386079 | work allow | 216 | 14 | 9.70E-06 |
| 287234 | 287234 | motion order | 189 | 4 | 9.70E-06 |
| 333216 | 333216 | revis extend | 219 | 600 | 9.70E-06 |
| 350773 | 350773 | special young | 3 | 186 | 9.69E-06 |
| 371194 | 371194 | troop earn | 2 | 183 | 9.69E-06 |
| 254206 | 254206 | januari day | 6 | 194 | 9.67E-06 |
| 172148 | 172148 | extend remark | 219 | 599 | 9.66E-06 |
| 224892 | 224892 | histori month | 242 | 25 | 9.65E-06 |
| 143348 | 143348 | domest violenc | 563 | 197 | 9.64E-06 |
| 7135 | 7135 | activ troop | 3 | 185 | 9.64E-06 |
| 325887 | 325887 | reduc deficit | 446 | 128 | 9.64E-06 |
| 136132 | 136132 | develop work | 211 | 13 | 9.57E-06 |
| 355887 | 355887 | strive make | 208 | 12 | 9.55E-06 |
| 125723 | 125723 | debt nation | 14 | 213 | 9.54E-06 |
| 327810 | 327810 | religi freedom | 102 | 396 | 9.49E-06 |
| 271490 | 271490 | lo angel | 448 | 131 | 9.49E-06 |
| 320414 | 320414 | public servic | 951 | 459 | 9.39E-06 |
| 172756 | 172756 | extrem weather | 231 | 23 | 9.32E-06 |
| 303326 | 303326 | particip mani | 10 | 198 | 9.30E-06 |
| 257526 | 257526 | keep doctor | 6 | 187 | 9.29E-06 |
| 189485 | 189485 | food tabl | 294 | 52 | 9.26E-06 |
| 359267 | 359267 | suspend rule | 106 | 398 | 9.25E-06 |
| 368023 | 368023 | today ve | 11 | 199 | 9.21E-06 |
| 348184 | 348184 | snap benefit | 219 | 19 | 9.19E-06 |
| 25289 | 25289 | america troop | 5 | 182 | 9.16E-06 |
| 36125 | 36125 | ask immedi | 30 | 244 | 9.14E-06 |
| 335794 | 335794 | ryan budget | 253 | 34 | 9.14E-06 |
| 349947 | 349947 | speak minut | 360 | 87 | 9.12E-06 |
| 312884 | 312884 | prescript drug | 348 | 81 | 9.09E-06 |
| 391097 | 391097 | year trillion | 27 | 236 | 9.09E-06 |
| 44463 | 44463 | balanc budget | 281 | 680 | 9.06E-06 |
| 172185 | 172185 | extend unemploy | 323 | 69 | 9.00E-06 |
| 24560 | 24560 | america effort | 5 | 179 | 9.00E-06 |
| 125866 | 125866 | debt today | 17 | 210 | 8.98E-06 |
| 6985 | 6985 | activ part | 12 | 197 | 8.96E-06 |
| 264225 | 264225 | leadership take | 10 | 191 | 8.92E-06 |
| 314311 | 314311 | previou question | 455 | 143 | 8.91E-06 |
| 350296 | 350296 | speaker januari | 14 | 201 | 8.90E-06 |
| 55880 | 55880 | black caucu | 193 | 11 | 8.88E-06 |
| 292506 | 292506 | new mexico | 402 | 113 | 8.87E-06 |
| 120416 | 120416 | cut snap | 168 | 2 | 8.87E-06 |
| 360163 | 360163 | take activ | 12 | 195 | 8.85E-06 |
| 157279 | 157279 | energi natur | 302 | 60 | 8.85E-06 |
| 60690 | 60690 | broken immigr | 336 | 78 | 8.80E-06 |
| 315682 | 315682 | proceed period | 199 | 14 | 8.79E-06 |
| 101782 | 101782 | consent adjourn | 172 | 4 | 8.77E-06 |
| 230156 | 230156 | hous resolut | 51 | 280 | 8.67E-06 |
| 328519 | 328519 | reopen govern | 323 | 73 | 8.63E-06 |
| 246190 | 246190 | institut health | 366 | 96 | 8.63E-06 |
| 145714 | 145714 | drone strike | 11 | 188 | 8.61E-06 |
| 25586 | 25586 | american citizen | 221 | 573 | 8.54E-06 |
| 338705 | 338705 | school receiv | 223 | 26 | 8.53E-06 |
| 309923 | 309923 | pm senat | 204 | 18 | 8.52E-06 |
| 260193 | 260193 | koch brother | 181 | 9 | 8.52E-06 |
| 331487 | 331487 | respect famili | 11 | 186 | 8.50E-06 |
| 332607 | 332607 | resum legisl | 167 | 4 | 8.50E-06 |
| 335436 | 335436 | rule xxii | 201 | 17 | 8.50E-06 |
| 320636 | 320636 | purpos debat | 3 | 164 | 8.49E-06 |
| 386783 | 386783 | work persever | 198 | 16 | 8.47E-06 |
| 315643 | 315643 | proceed calendar | 160 | 2 | 8.43E-06 |
| 3969 | 3969 | achiev highest | 12 | 187 | 8.42E-06 |
| 222776 | 222776 | heritag month | 168 | 5 | 8.40E-06 |
| 361521 | 361521 | tax credit | 834 | 399 | 8.40E-06 |
| 6942 | 6942 | activ mani | 14 | 191 | 8.36E-06 |
| 317042 | 317042 | program help | 413 | 126 | 8.36E-06 |
| 226683 | 226683 | homeland secur | 1952 | 1253 | 8.34E-06 |
| 309758 | 309758 | pleas contact | 172 | 7 | 8.32E-06 |
| 328123 | 328123 | remark senat | 329 | 80 | 8.29E-06 |
| 361523 | 361523 | tax cut | 274 | 52 | 8.27E-06 |
| 294016 | 294016 | notifi senat | 168 | 6 | 8.25E-06 |
| 325455 | 325455 | reconsid laid | 231 | 32 | 8.24E-06 |
| 314710 | 314710 | prior vote | 196 | 17 | 8.23E-06 |
| 101093 | 101093 | congression black | 178 | 10 | 8.21E-06 |
| 147421 | 147421 | earn numer | 10 | 178 | 8.21E-06 |
| 125905 | 125905 | debt year | 12 | 183 | 8.20E-06 |
| 89967 | 89967 | come togeth | 995 | 519 | 8.19E-06 |
| 313989 | 313989 | prestigi award | 46 | 260 | 8.19E-06 |
| 295643 | 295643 | obama took | 36 | 238 | 8.15E-06 |
| 21986 | 21986 | also respect | 17 | 194 | 8.12E-06 |
| 289779 | 289779 | nation institut | 419 | 133 | 8.11E-06 |
| 15881 | 15881 | agre preambl | 228 | 32 | 8.08E-06 |
| 329904 | 329904 | republican shutdown | 162 | 5 | 8.07E-06 |
| 313539 | 313539 | presid move | 282 | 58 | 8.07E-06 |
| 122010 | 122010 | date time | 221 | 30 | 7.95E-06 |
| 249896 | 249896 | invest infrastructur | 188 | 16 | 7.93E-06 |
| 324987 | 324987 | recogn applaud | 285 | 61 | 7.93E-06 |
| 332606 | 332606 | resum consider | 211 | 26 | 7.90E-06 |
| 111892 | 111892 | counti receiv | 152 | 3 | 7.84E-06 |
| 341752 | 341752 | senat juli | 149 | 2 | 7.83E-06 |
| 335294 | 335294 | rule pass | 109 | 370 | 7.78E-06 |
| 391652 | 391652 | york citi | 394 | 123 | 7.77E-06 |
| 262701 | 262701 | law school | 436 | 148 | 7.77E-06 |
| 367637 | 367637 | today honor | 1202 | 685 | 7.75E-06 |
| 309922 | 309922 | pm room | 172 | 11 | 7.75E-06 |
| 330961 | 330961 | resolut agre | 271 | 56 | 7.73E-06 |
| 165640 | 165640 | everi day | 1439 | 868 | 7.73E-06 |
| 145462 | 145462 | drink water | 288 | 65 | 7.71E-06 |
| 229410 | 229410 | hous adjourn | 44 | 246 | 7.70E-06 |
| 101961 | 101961 | consent resolut | 216 | 30 | 7.69E-06 |
| 25776 | 25776 | american energi | 52 | 261 | 7.63E-06 |
| 285427 | 285427 | minut gentlewoman | 340 | 94 | 7.63E-06 |
| 312580 | 312580 | preambl agre | 219 | 32 | 7.62E-06 |
| 234580 | 234580 | immedi notifi | 164 | 9 | 7.60E-06 |
| 315638 | 315638 | proceed approv | 207 | 27 | 7.57E-06 |
| 330840 | 330840 | reserv use | 209 | 28 | 7.56E-06 |
| 344944 | 344944 | sexual orient | 197 | 23 | 7.53E-06 |
| 256465 | 256465 | journal proceed | 206 | 27 | 7.52E-06 |
| 312568 | 312568 | prayer pledg | 208 | 28 | 7.51E-06 |
| 389676 | 389676 | xxii waiv | 143 | 2 | 7.50E-06 |
| 25725 | 25725 | american disabl | 172 | 13 | 7.48E-06 |
| 138867 | 138867 | disabl act | 156 | 7 | 7.45E-06 |
| 283071 | 283071 | member legisl | 14 | 174 | 7.45E-06 |
| 36148 | 36148 | ask join | 51 | 255 | 7.44E-06 |
| 276206 | 276206 | make america | 369 | 113 | 7.44E-06 |
| 263707 | 263707 | leader reserv | 204 | 27 | 7.42E-06 |
| 107343 | 107343 | control two | 147 | 4 | 7.41E-06 |
| 293704 | 293704 | northern virginia | 173 | 14 | 7.40E-06 |
| 380513 | 380513 | war terror | 46 | 244 | 7.40E-06 |
| 240373 | 240373 | increas minimum | 225 | 37 | 7.38E-06 |
| 284061 | 284061 | middl east | 347 | 727 | 7.36E-06 |
| 190638 | 190638 | foreign relat | 384 | 123 | 7.35E-06 |
| 313706 | 313706 | presid said | 185 | 485 | 7.35E-06 |
| 45132 | 45132 | baptist church | 448 | 162 | 7.34E-06 |
| 78611 | 78611 | child care | 306 | 79 | 7.32E-06 |
| 341441 | 341441 | senat complet | 213 | 32 | 7.31E-06 |
| 125171 | 125171 | debat motion | 156 | 8 | 7.31E-06 |
| 32388 | 32388 | approv date | 204 | 28 | 7.30E-06 |
| 207201 | 207201 | goe say | 45 | 240 | 7.30E-06 |
| 110132 | 110132 | could avoid | 29 | 206 | 7.29E-06 |
| 329877 | 329877 | republican refus | 142 | 3 | 7.29E-06 |
| 234899 | 234899 | immigr law | 136 | 404 | 7.28E-06 |
| 304859 | 304859 | pay equal | 150 | 6 | 7.27E-06 |
| 12114 | 12114 | affair author | 201 | 27 | 7.26E-06 |
| 154228 | 154228 | emerg unemploy | 218 | 35 | 7.24E-06 |
| 132275 | 132275 | depart homeland | 1003 | 550 | 7.23E-06 |
| 295702 | 295702 | obamacar exchang | 2 | 138 | 7.23E-06 |
| 366419 | 366419 | time equal | 172 | 15 | 7.21E-06 |
| 286850 | 286850 | month recogn | 143 | 4 | 7.19E-06 |
| 189066 | 189066 | follow prayer | 208 | 31 | 7.17E-06 |
| 211991 | 211991 | great lake | 324 | 91 | 7.16E-06 |
| 161547 | 161547 | equal work | 153 | 8 | 7.14E-06 |
| 376055 | 376055 | use later | 205 | 30 | 7.13E-06 |
| 254508 | 254508 | jefferson counti | 163 | 12 | 7.13E-06 |
| 313711 | 313711 | presid say | 58 | 262 | 7.11E-06 |
| 284766 | 284766 | million children | 246 | 50 | 7.10E-06 |
| 122762 | 122762 | day follow | 213 | 34 | 7.10E-06 |
| 297637 | 297637 | oil compani | 193 | 25 | 7.08E-06 |
| 95970 | 95970 | complet busi | 204 | 30 | 7.08E-06 |
| 353008 | 353008 | state congress | 147 | 417 | 7.07E-06 |
| 341321 | 341321 | senat april | 135 | 2 | 7.06E-06 |
| 341276 | 341276 | senat action | 181 | 20 | 7.05E-06 |
| 390683 | 390683 | year old | 703 | 337 | 7.05E-06 |
| 209672 | 209672 | govern open | 393 | 133 | 7.03E-06 |
| 337094 | 337094 | sandi hook | 194 | 26 | 7.02E-06 |
| 93750 | 93750 | commun health | 187 | 23 | 7.01E-06 |
| 320962 | 320962 | put food | 242 | 49 | 7.00E-06 |
| 36832 | 36832 | assault weapon | 153 | 9 | 7.00E-06 |
| 333809 | 333809 | right movement | 211 | 34 | 7.00E-06 |
| 242100 | 242100 | individu mandat | 88 | 315 | 6.99E-06 |
| 168720 | 168720 | execut branch | 211 | 515 | 6.96E-06 |
| 123132 | 123132 | day presid | 45 | 233 | 6.95E-06 |
| 65242 | 65242 | california ms | 172 | 17 | 6.95E-06 |
| 258107 | 258107 | keyston xl | 197 | 493 | 6.95E-06 |
| 131278 | 131278 | democrat friend | 4 | 138 | 6.92E-06 |
| 26732 | 26732 | american women | 196 | 28 | 6.89E-06 |
| 265601 | 265601 | legal statu | 74 | 287 | 6.88E-06 |
| 128115 | 128115 | deem expir | 193 | 27 | 6.85E-06 |
| 355994 | 355994 | strong opposit | 210 | 35 | 6.84E-06 |
| 341854 | 341854 | senat mikulski | 273 | 67 | 6.83E-06 |
| 79040 | 79040 | children could | 31 | 201 | 6.81E-06 |
| 231960 | 231960 | hunger america | 133 | 3 | 6.80E-06 |
| 63699 | 63699 | busi come | 217 | 39 | 6.77E-06 |
| 9657 | 9657 | adjourn previou | 186 | 25 | 6.72E-06 |
| 171250 | 171250 | expir journal | 190 | 27 | 6.70E-06 |
| 229073 | 229073 | hour deem | 190 | 27 | 6.70E-06 |
| 389669 | 389669 | xl pipelin | 158 | 425 | 6.69E-06 |
| 334240 | 334240 | rise today | 3829 | 2921 | 6.68E-06 |
| 287392 | 287392 | move forward | 1511 | 962 | 6.67E-06 |
| 151613 | 151613 | effort put | 32 | 200 | 6.66E-06 |
| 309876 | 309876 | pledg morn | 189 | 27 | 6.65E-06 |
| 52629 | 52629 | big govern | 11 | 151 | 6.62E-06 |
| 257581 | 257581 | keep health | 27 | 188 | 6.60E-06 |
| 341949 | 341949 | senat period | 188 | 27 | 6.60E-06 |
| 60720 | 60720 | broken promis | 12 | 153 | 6.59E-06 |
| 200235 | 200235 | gender ident | 126 | 2 | 6.57E-06 |
| 3676 | 3676 | account work | 145 | 9 | 6.57E-06 |
| 83712 | 83712 | clean continu | 142 | 8 | 6.55E-06 |
| 61491 | 61491 | budget confer | 187 | 27 | 6.54E-06 |
| 106009 | 106009 | continu resolut | 944 | 525 | 6.54E-06 |
| 148265 | 148265 | econom develop | 524 | 225 | 6.53E-06 |
| 189477 | 189477 | food stamp | 716 | 358 | 6.53E-06 |
| 380336 | 380336 | war coal | 9 | 144 | 6.52E-06 |
| 282091 | 282091 | medic research | 279 | 74 | 6.51E-06 |
| 64623 | 64623 | buy gun | 133 | 5 | 6.49E-06 |
| 141814 | 141814 | district texa | 14 | 156 | 6.49E-06 |
| 283553 | 283553 | mental health | 595 | 274 | 6.49E-06 |
| 344934 | 344934 | sexual assault | 954 | 534 | 6.49E-06 |
| 142037 | 142037 | divid control | 211 | 39 | 6.47E-06 |
| 201361 | 201361 | gentleman pennsylvania | 49 | 231 | 6.47E-06 |
| 363839 | 363839 | therein minut | 192 | 30 | 6.47E-06 |
| 385455 | 385455 | women famili | 183 | 26 | 6.45E-06 |
| 341937 | 341937 | senat pass | 514 | 220 | 6.44E-06 |
| 270588 | 270588 | littl guy | 19 | 167 | 6.44E-06 |
| 157333 | 157333 | energi product | 68 | 266 | 6.42E-06 |
| 314244 | 314244 | prevent servic | 157 | 15 | 6.41E-06 |
| 101899 | 101899 | consent mandatori | 134 | 6 | 6.40E-06 |
| 350424 | 350424 | speaker presid | 19 | 166 | 6.39E-06 |
| 53202 | 53202 | bill consider | 28 | 186 | 6.38E-06 |
| 339287 | 339287 | second read | 156 | 15 | 6.36E-06 |
| 350012 | 350012 | speak therein | 192 | 31 | 6.36E-06 |
| 28095 | 28095 | announc committe | 119 | 1 | 6.35E-06 |
| 46737 | 46737 | bay area | 172 | 22 | 6.34E-06 |
| 313347 | 313347 | presid follow | 176 | 24 | 6.32E-06 |
| 277633 | 277633 | mandatori quorum | 140 | 9 | 6.30E-06 |
| 205107 | 205107 | go colleg | 276 | 75 | 6.30E-06 |
| 296998 | 296998 | offic nation | 41 | 211 | 6.27E-06 |
| 378948 | 378948 | vote motion | 286 | 81 | 6.26E-06 |
| 367117 | 367117 | time two | 242 | 57 | 6.26E-06 |
| 383534 | 383534 | western new | 144 | 11 | 6.24E-06 |
| 303812 | 303812 | pass comprehens | 163 | 19 | 6.23E-06 |
| 292660 | 292660 | new tax | 47 | 222 | 6.23E-06 |
| 269065 | 269065 | like health | 15 | 153 | 6.20E-06 |
| 378697 | 378697 | vote clean | 130 | 6 | 6.18E-06 |
| 378441 | 378441 | vladimir putin | 37 | 201 | 6.18E-06 |
| 87823 | 87823 | colleg afford | 145 | 12 | 6.16E-06 |
| 248940 | 248940 | intern revenu | 77 | 276 | 6.14E-06 |
| 224338 | 224338 | hispan heritag | 161 | 19 | 6.13E-06 |
| 307585 | 307585 | permiss revis | 172 | 24 | 6.11E-06 |
| 320505 | 320505 | puerto rico | 233 | 54 | 6.11E-06 |
| 374700 | 374700 | us attorney | 355 | 124 | 6.09E-06 |
| 361587 | 361587 | tax hike | 13 | 146 | 6.09E-06 |
| 232123 | 232123 | hurrican sandi | 205 | 40 | 6.08E-06 |
| 292592 | 292592 | new regul | 20 | 162 | 6.06E-06 |
| 175845 | 175845 | faith credit | 166 | 22 | 6.03E-06 |
| 235954 | 235954 | implement obamacar | 9 | 135 | 6.03E-06 |
| 157382 | 157382 | energi secur | 87 | 291 | 6.02E-06 |
| 83702 | 83702 | clean bill | 152 | 16 | 6.02E-06 |
| 175867 | 175867 | faith execut | 10 | 137 | 6.00E-06 |
| 189271 | 189271 | food assist | 172 | 25 | 6.00E-06 |
| 201469 | 201469 | gentlewoman california | 213 | 45 | 5.98E-06 |
| 268758 | 268758 | like announc | 118 | 3 | 5.98E-06 |
| 64426 | 64426 | busi today | 232 | 55 | 5.97E-06 |
| 136201 | 136201 | devic tax | 31 | 184 | 5.96E-06 |
| 328482 | 328482 | renew energi | 361 | 130 | 5.95E-06 |
| 204781 | 204781 | global war | 26 | 173 | 5.94E-06 |
| 240580 | 240580 | increas spend | 26 | 173 | 5.94E-06 |
| 179788 | 179788 | feder govern | 2065 | 2791 | 5.94E-06 |
| 292422 | 292422 | new haven | 133 | 9 | 5.92E-06 |
| 317978 | 317978 | promis american | 11 | 138 | 5.92E-06 |
| 71672 | 71672 | caucu meet | 114 | 2 | 5.92E-06 |
| 381050 | 381050 | water infrastructur | 159 | 20 | 5.90E-06 |
| 315666 | 315666 | proceed legisl | 130 | 8 | 5.90E-06 |
| 58192 | 58192 | border secur | 389 | 737 | 5.88E-06 |
| 265529 | 265529 | legal immigr | 67 | 252 | 5.87E-06 |
| 218695 | 218695 | harri reid | 96 | 302 | 5.83E-06 |
| 204368 | 204368 | given permiss | 173 | 27 | 5.83E-06 |
| 297751 | 297751 | oklahoma mr | 18 | 153 | 5.83E-06 |
| 181306 | 181306 | fifth amend | 7 | 126 | 5.82E-06 |
| 131185 | 131185 | democrat colleagu | 67 | 251 | 5.82E-06 |
| 732 | 732 | abl keep | 50 | 219 | 5.81E-06 |
| 287238 | 287238 | motion proceed | 351 | 126 | 5.81E-06 |
| 279816 | 279816 | mateo counti | 109 | 1 | 5.80E-06 |
| 206866 | 206866 | god bless | 106 | 318 | 5.80E-06 |
| 257572 | 257572 | keep govern | 449 | 189 | 5.80E-06 |
| 140394 | 140394 | diseas control | 189 | 35 | 5.79E-06 |
| 348282 | 348282 | social justic | 138 | 12 | 5.79E-06 |
| 36088 | 36088 | ask given | 176 | 29 | 5.77E-06 |
| 350102 | 350102 | speaker behalf | 29 | 176 | 5.77E-06 |
| 325606 | 325606 | record presid | 130 | 9 | 5.76E-06 |
| 378716 | 378716 | vote confirm | 244 | 64 | 5.75E-06 |
| 123485 | 123485 | day within | 2 | 111 | 5.75E-06 |
| 355600 | 355600 | straw purchas | 149 | 17 | 5.74E-06 |
| 274812 | 274812 | madam chairman | 98 | 303 | 5.73E-06 |
| 196476 | 196476 | full particip | 116 | 4 | 5.72E-06 |
| 321843 | 321843 | quorum rule | 110 | 2 | 5.70E-06 |
| 318999 | 318999 | protect public | 189 | 36 | 5.69E-06 |
| 314665 | 314665 | print record | 628 | 315 | 5.68E-06 |
| 42876 | 42876 | b outlay | 288 | 90 | 5.67E-06 |
| 215278 | 215278 | guest worker | 15 | 143 | 5.67E-06 |
| 341432 | 341432 | senat collin | 218 | 51 | 5.67E-06 |
| 292370 | 292370 | new england | 216 | 50 | 5.67E-06 |
| 257405 | 257405 | kansa mr | 3 | 112 | 5.65E-06 |
| 179834 | 179834 | feder land | 170 | 416 | 5.65E-06 |
| 141513 | 141513 | district georgia | 186 | 35 | 5.64E-06 |
| 123741 | 123741 | de moin | 42 | 200 | 5.64E-06 |
| 389773 | 389773 | ye rollcal | 167 | 26 | 5.64E-06 |
| 243925 | 243925 | infrastructur invest | 117 | 5 | 5.62E-06 |
| 4512 | 4512 | across america | 468 | 205 | 5.62E-06 |
| 357811 | 357811 | superstorm sandi | 171 | 28 | 5.62E-06 |
| 271805 | 271805 | local economi | 250 | 69 | 5.62E-06 |
| 40090 | 40090 | author b | 288 | 91 | 5.60E-06 |
| 226537 | 226537 | home state | 1018 | 610 | 5.59E-06 |
| 321840 | 321840 | quorum call | 1101 | 675 | 5.59E-06 |

**Appendix Top 100 Bigrams of Republicans**

|  |  |
| --- | --- |
| mr speaker | 18811 |
| unit state | 9670 |
| health care | 6047 |
| american peopl | 5351 |
| mr presid | 4758 |
| balanc time | 3353 |
| unanim consent | 3186 |
| ca nt | 3111 |
| mr chairman | 2992 |
| rise today | 2921 |
| presid obama | 2905 |
| ask unanim | 2903 |
| would like | 2831 |
| speaker rise | 2828 |
| feder govern | 2791 |
| last year | 2330 |
| make sure | 2242 |
| major leader | 2140 |
| madam speaker | 1941 |
| speaker yield | 1842 |
| year ago | 1818 |
| small busi | 1765 |
| high school | 1749 |
| reserv balanc | 1701 |
| yield back | 1673 |
| side aisl | 1671 |
| madam presid | 1644 |
| white hous | 1633 |
| hous repres | 1621 |
| yield floor | 1599 |
| men women | 1579 |
| urg colleagu | 1571 |
| presid ask | 1560 |
| yield minut | 1548 |
| care law | 1530 |
| back balanc | 1481 |
| new york | 1464 |
| health insur | 1426 |
| care act | 1395 |
| obama administr | 1350 |
| nation secur | 1320 |
| afford care | 1292 |
| nt want | 1277 |
| homeland secur | 1253 |
| law enforc | 1246 |
| nt know | 1245 |
| last week | 1234 |
| yield time | 1231 |
| across countri | 1230 |
| time may | 1186 |
| air forc | 1165 |
| wo nt | 1163 |
| may consum | 1160 |
| act chair | 1150 |
| minut gentleman | 1149 |
| fiscal year | 1123 |
| suprem court | 1091 |
| next year | 1064 |
| world war | 1059 |
| rank member | 1056 |
| pass bill | 1042 |
| thank gentleman | 1039 |
| hard work | 1032 |
| bill would | 1021 |
| want thank | 1015 |
| member congress | 1008 |
| work togeth | 1004 |
| speaker ask | 988 |
| natur ga | 982 |
| social secur | 977 |
| million american | 970 |
| move forward | 962 |
| creat job | 958 |
| million peopl | 942 |
| piec legisl | 939 |
| look forward | 922 |
| colleagu support | 910 |
| amend would | 904 |
| even though | 885 |
| one thing | 870 |
| everi day | 868 |
| war ii | 866 |
| web site | 857 |
| would say | 848 |
| would vote | 846 |
| nt get | 823 |
| nt think | 818 |
| would nt | 810 |
| around world | 809 |
| farm bill | 807 |
| presid unit | 805 |
| today recogn | 798 |
| colleagu join | 792 |
| mani year | 774 |
| mani peopl | 773 |
| washington dc | 771 |
| offer amend | 770 |
| congression district | 761 |
| come floor | 760 |
| re go | 755 |
|  |  |

**Appendix Top 100 Trigrams of Republicans**

|  |  |
| --- | --- |
| ask unanim consent | 2900 |
| mr speaker rise | 2691 |
| speaker rise today | 2286 |
| reserv balanc time | 1688 |
| mr speaker yield | 1551 |
| yield back balanc | 1467 |
| back balanc time | 1466 |
| health care law | 1451 |
| presid ask unanim | 1342 |
| afford care act | 1254 |
| time may consum | 1157 |
| mr presid ask | 1114 |
| yield minut gentleman | 1079 |
| yield time may | 1032 |
| mr speaker ask | 882 |
| world war ii | 849 |
| presid unit state | 800 |
| speaker ask unanim | 764 |
| unit state america | 725 |
| urg colleagu support | 673 |
| speaker yield time | 662 |
| unanim consent order | 652 |
| quorum call rescind | 645 |
| rise today recogn | 637 |
| order quorum call | 633 |
| consent order quorum | 632 |
| suggest absenc quorum | 599 |
| revis extend remark | 597 |
| speaker yield minut | 592 |
| unanim consent member | 573 |
| rise today honor | 566 |
| congression budget offic | 552 |
| depart homeland secur | 549 |
| mr chairman yield | 495 |
| mr speaker move | 469 |
| present would vote | 468 |
| clerk read titl | 467 |
| legisl day revis | 463 |
| day revis extend | 461 |
| health care plan | 425 |
| presid health care | 424 |
| keyston xl pipelin | 418 |
| may legisl day | 411 |
| member may legisl | 411 |
| consent member may | 410 |
| mr speaker proudli | 409 |
| colleagu side aisl | 402 |
| unit state congress | 398 |
| boy scout america | 394 |
| read titl bill | 393 |
| speaker reserv balanc | 373 |
| ask colleagu join | 372 |
| mr speaker would | 369 |
| includ extran materi | 360 |
| suspend rule pass | 356 |
| remark includ extran | 355 |
| extend remark includ | 353 |
| madam presid ask | 353 |
| move suspend rule | 353 |
| speaker move suspend | 351 |
| health human servic | 350 |
| follow senat necessarili | 349 |
| necessarili absent senat | 349 |
| senat necessarili absent | 349 |
| mr speaker today | 346 |
| floor suggest absenc | 344 |
| yield floor suggest | 343 |
| mr speaker reserv | 337 |
| health care system | 331 |
| arm servic committe | 327 |
| act chair gentleman | 318 |
| rule pass bill | 318 |
| new york time | 315 |
| speaker yield back | 315 |
| mr speaker thank | 314 |
| would like thank | 312 |
| amend offer gentleman | 310 |
| mr presid rise | 305 |
| may consum mr | 298 |
| wall street journal | 296 |
| rise today support | 294 |
| pass bill hr | 290 |
| presid yield floor | 287 |
| thank gentleman yield | 286 |
| mr speaker want | 283 |
| rise today congratul | 281 |
| mr chairman rise | 280 |
| madam speaker yield | 279 |
| unit state armi | 276 |
| chair question amend | 275 |
| question amend offer | 271 |
| time act chair | 268 |
| men women uniform | 267 |
| health care cost | 259 |
| balanc time act | 256 |
| consum mr speaker | 253 |
| budget control act | 249 |
| mr speaker pleas | 248 |
| look forward work | 243 |
| mr chairman amend | 241 |

**Appendix Top 100 Bigrams of Democrats**

|  |  |
| --- | --- |
| mr speaker | 15319 |
| mr presid | 9043 |
| unit state | 8402 |
| unanim consent | 6633 |
| ask unanim | 6011 |
| health care | 4640 |
| presid ask | 4198 |
| speaker rise | 4017 |
| rise today | 3829 |
| american peopl | 3357 |
| make sure | 3272 |
| new york | 3155 |
| ca nt | 2955 |
| madam presid | 2928 |
| last year | 2754 |
| care act | 2689 |
| afford care | 2646 |
| would like | 2451 |
| high school | 2336 |
| year ago | 2265 |
| balanc time | 2197 |
| climat chang | 2095 |
| urg colleagu | 2085 |
| feder govern | 2065 |
| mr chairman | 2045 |
| across countri | 2001 |
| homeland secur | 1952 |
| hous repres | 1920 |
| yield floor | 1911 |
| side aisl | 1875 |
| work togeth | 1825 |
| minimum wage | 1822 |
| men women | 1777 |
| small busi | 1759 |
| presid obama | 1721 |
| health insur | 1714 |
| million american | 1701 |
| colleagu join | 1677 |
| speaker yield | 1662 |
| farm bill | 1632 |
| law enforc | 1559 |
| rank member | 1557 |
| move forward | 1511 |
| yield back | 1507 |
| yield minut | 1479 |
| student loan | 1476 |
| immigr reform | 1457 |
| ask colleagu | 1445 |
| bill would | 1440 |
| everi day | 1439 |
| fiscal year | 1410 |
| middl class | 1403 |
| hard work | 1373 |
| nation secur | 1373 |
| madam speaker | 1363 |
| social secur | 1336 |
| suprem court | 1332 |
| senat proceed | 1263 |
| million peopl | 1247 |
| work hard | 1221 |
| last week | 1204 |
| today honor | 1202 |
| session senat | 1144 |
| look forward | 1142 |
| civil right | 1111 |
| creat job | 1104 |
| quorum call | 1101 |
| back balanc | 1090 |
| nt know | 1087 |
| meet session | 1075 |
| govern shutdown | 1054 |
| rollcal vote | 1045 |
| new jersey | 1036 |
| author meet | 1035 |
| today recogn | 1023 |
| call rescind | 1018 |
| home state | 1018 |
| republican colleagu | 1018 |
| consent order | 1016 |
| absenc quorum | 1015 |
| speaker ask | 1011 |
| order quorum | 1008 |
| yield time | 1005 |
| want thank | 1004 |
| depart homeland | 1003 |
| rhode island | 998 |
| would vote | 997 |
| come floor | 996 |
| come togeth | 995 |
| major leader | 995 |
| act chair | 992 |
| hous republican | 992 |
| judiciari committe | 977 |
| nt want | 975 |
| wo nt | 975 |
| reserv balanc | 963 |
| young peopl | 960 |
| consent senat | 955 |
| sexual assault | 954 |
| around world | 951 |

**Appendix Top 100 Trigrams of Democrats**

|  |  |
| --- | --- |
| ask unanim consent | 6009 |
| presid ask unanim | 3968 |
| mr speaker rise | 3867 |
| mr presid ask | 3305 |
| speaker rise today | 3103 |
| afford care act | 2586 |
| mr speaker yield | 1410 |
| rise today honor | 1092 |
| back balanc time | 1086 |
| yield back balanc | 1086 |
| meet session senat | 1075 |
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