CSCI 385 - Second Deliverable

Jamie Van Winckel

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Introduction

In this portfolio deliverable I plan to look into presidential election data from 1992-2016 (per county), look into how many people that voted for a House of Representative candidate voted for which Presidential candidate from 2008-2016 (per congressional district), as well as compare voter turnout to voter laws in different states.

Data Play

```
head(presElection1992)
```

```
##   County CountyName  bush clinton other perot totalvotes      dPct      rPct
## 1   1001    Autauga  8715    4819   135  1916      15585 0.3092076 0.5591915
## 2   1003    Baldwin 26270   12195   355  7656      46476 0.2623935 0.5652380
## 3   1005    Barbour  4475    4836   100  1020      10431 0.4636181 0.4290097
## 4   1007       Bibb  3124    2900    10   686       6720 0.4315476 0.4648810
## 5   1009     Blount  8882    5433   241  1949      16505 0.3291730 0.5381400
## 6   1011    Bullock  1253    3259    38   266       4816 0.6767027 0.2601744
##        otherPct     dDRPct    rDRPct     leanD     leanR
## 1 0.008662175 0.3560662 0.6439338 0.5529547 1.8084665
## 2 0.007638351 0.3170415 0.6829585 0.4642177 2.1541615
## 3 0.009586809 0.5193857 0.4806143 1.0806704 0.9253515
## 4 0.001488095 0.4814077 0.5185923 0.9282971 1.0772414
## 5 0.014601636 0.3795320 0.6204680 0.6116866 1.6348242
## 6 0.007890365 0.7222961 0.2777039 2.6009577 0.3844738
```

```
head(presElection1996)
```

```
##   County CountyName clinton  dole other perot totalvotes      dPct      rPct
## 1   1001    Autauga    5015  9509    85   813      15422 0.3251848 0.6165867
## 2   1003    Baldwin   12776 29487   336  4520      47119 0.2711433 0.6257985
## 3   1005    Barbour    4787  3627    24   515       8953 0.5346811 0.4051156
## 4   1007       Bibb    2775  3037    34   455       6301 0.4404063 0.4819870
## 5   1009     Blount    5061  9056   225   985      15327 0.3302016 0.5908527
## 6   1011    Bullock    3078  1154    41   111       4384 0.7020985 0.2632299
##        otherPct     dDRPct    rDRPct     leanD     leanR
## 1 0.005511607 0.3452906 0.6547094 0.5273951 1.8961117
```

```
## 2 0.007130881 0.3022975 0.6977025 0.4332757 2.3079994
## 3 0.002680666 0.5689327 0.4310673 1.3198235 0.7576770
## 4 0.005395969 0.4774604 0.5225396 0.9137307 1.0944144
## 5 0.014679977 0.3585039 0.6414961 0.5588560 1.7893697
## 6 0.009352190 0.7273157 0.2726843 2.6672444 0.3749188
```

head(presElection2000)

```
##    County  bush   gore nader browne other totalvotes       CountyName StateName
## 1  01001 11993   4942   160     51     5      17146 Autauga County    Alabama
## 2  01003 40872  13997  1033    226     5      56128 Baldwin County    Alabama
## 3  01005  5096   5188    46     27     5      10357 Barbour County    Alabama
## 4  01007  4273   2710    52     20     5       7055    Bibb County    Alabama
## 5  01009 12667   4977   154     51     5      17849  Blount County    Alabama
## 6  01011  1433   3395    24     34     5       4886 Bullock County    Alabama
##    StateAbbr      dPct      rPct     leanD     leanR      otherPct    dDRPct
## 1         AL 0.2882305 0.6994634 0.4120737 2.4267503 0.0002916132 0.2918217
## 2         AL 0.2493764 0.7281927 0.3424594 2.9200543 0.0000890821 0.2550985
## 3         AL 0.5009173 0.4920344 1.0180534 0.9822668 0.0004827653 0.5044730
## 4         AL 0.3841247 0.6056697 0.6342148 1.5767528 0.0007087172 0.3880854
## 5         AL 0.2788392 0.7096756 0.3929107 2.5451075 0.0002801277 0.2820789
## 6         AL 0.6948424 0.2932869 2.3691556 0.4220913 0.0010233320 0.7031897
##       rDRPct
## 1 0.7081783
## 2 0.7449015
## 3 0.4955270
## 4 0.6119146
## 5 0.7179211
## 6 0.2968103
```

head(presElection2004)

```
##    County StateAbbr       CountyName  bush kerry other totalvotes       dPct
## 1  01001        AL Autauga County 15196  4758   127      20081 0.2369404
## 2  01003        AL Baldwin County 52971 15599   750      69320 0.2250289
## 3  01005        AL Barbour County  5899  4832    46      10777 0.4483623
## 4  01007        AL    Bibb County  5472  2089    39       7600 0.2748684
## 5  01009        AL  Blount County 17386  3938   180      21504 0.1831287
## 6  01011        AL Bullock County  1494  3210    13       4717 0.6805173
##         rPct     otherPct    dDRPct      rDRPct     leanD      leanR StateName
## 1 0.7567352 0.006324386 0.2384484 0.7615516 0.3131087 3.1937789    Alabama
## 2 0.7641518 0.010819388 0.2274902 0.7725098 0.2944819 3.3957946    Alabama
## 3 0.5473694 0.004268349 0.4502842 0.5497158 0.8191219 1.2208195    Alabama
## 4 0.7200000 0.005131579 0.2762862 0.7237138 0.3817617 2.6194351    Alabama
## 5 0.8085007 0.008370536 0.1846745 0.8153255 0.2265041 4.4149314    Alabama
## 6 0.3167267 0.002755989 0.6823980 0.3176020 2.1485944 0.4654206    Alabama
```

head(presElection2008)

```
##    County StateAbbr       CountyName mccain obama other totalvotes       dPct
## 1  01001        AL Autauga County  17403  6093   145      23641 0.2577302
## 2  01003        AL Baldwin County  61271 19386   756      81413 0.2381192
```

```
## 3  01005        AL Barbour County   5866  5697    67        11630 0.4898538
## 4  01007        AL    Bibb County   6262  2299    83         8644 0.2659648
## 5  01009        AL  Blount County  20389  3522   356        24267 0.1451354
## 6  01011        AL Bullock County   1391  4011    13         5415 0.7407202
##         rPct     otherPct     dDRPct     rDRPct     leanD     leanR StateName
## 1 0.7361364 0.006133412 0.2593207 0.7406793 0.3501120 2.8562285   Alabama
## 2 0.7525948 0.009285986 0.2403511 0.7596489 0.3163976 3.1605798   Alabama
## 3 0.5043852 0.005760963 0.4926922 0.5073078 0.9711899 1.0296647   Alabama
## 4 0.7244331 0.009602036 0.2685434 0.7314566 0.3671351 2.7237930   Alabama
## 5 0.8401945 0.014670128 0.1472962 0.8527038 0.1727402 5.7890403   Alabama
## 6 0.2568790 0.002400739 0.7425028 0.2574972 2.8835370 0.3467963   Alabama
```

head(presElection2012)

```
##   County obama romney johnson stein other totalvotes CountyName StateName
## 1     13   180    214       9     4     5        412       None    Alaska
## 2     16   593    308      19     3     6        929       None    Alaska
## 3     20 35447  45075    1981   611   755      83869       None    Alaska
## 4     50  2719    804     117    50    20       3710       None    Alaska
## 5     60   125    189      13     6     3        336       None    Alaska
## 6     68   309    340      14    16     3        682       None    Alaska
##   StateAbbr      dPct      rPct     leanD     leanR    otherPct    dDRPct
## 1        AK 0.4368932 0.5194175 0.8411215 1.1888889 0.012135922 0.4568528
## 2        AK 0.6383208 0.3315393 1.9253247 0.5193929 0.006458558 0.6581576
## 3        AK 0.4226472 0.5374453 0.7864004 1.2716168 0.009002134 0.4402151
## 4        AK 0.7328841 0.2167116 3.3818408 0.2956969 0.005390836 0.7717854
## 5        AK 0.3720238 0.5625000 0.6613757 1.5120000 0.008928571 0.3980892
## 6        AK 0.4530792 0.4985337 0.9088235 1.1003236 0.004398827 0.4761171
##      rDRPct
## 1 0.5431472
## 2 0.3418424
## 3 0.5597849
## 4 0.2282146
## 5 0.6019108
## 6 0.5238829
```

head(presElection2016)

```
##   County clinton trump johnson stein other totalvotes CountyName StateName
## 1   1001    5936 18172     546   105   214      24973    Autauga   Alabama
## 2   1003   18458 72883    2464   456   954      95215    Baldwin   Alabama
## 3   1005    4871  5454      93    18    33      10469    Barbour   Alabama
## 4   1007    1874  6738     124    17    66       8819       Bibb   Alabama
## 5   1009    2156 22859     338    89   146      25588     Blount   Alabama
## 6   1011    3530  1140      22    10     8       4710     Bullock   Alabama
##   StateAbbr       dPct      rPct      leanD      leanR     otherPct     dDRPct
## 1        AL 0.23769671 0.7276659 0.32665639  3.0613208 0.008569255 0.24622532
## 2        AL 0.19385601 0.7654571 0.25325522  3.9485860 0.010019430 0.20207793
## 3        AL 0.46527844 0.5209667 0.89310598  1.1196879 0.003152164 0.47176755
## 4        AL 0.21249575 0.7640322 0.27812407  3.5955176 0.007483842 0.21760334
## 5        AL 0.08425825 0.8933484 0.09431734 10.6025046 0.005705800 0.08618829
## 6        AL 0.74946921 0.2420382 3.09649123  0.3229462 0.001698514 0.75588865
##      rDRPct State
```

```
## 1 0.7537747       1
## 2 0.7979221       1
## 3 0.5282324       1
## 4 0.7823967       1
## 5 0.9138117       1
## 6 0.2441113       1
```

```
head(countyChar)
```

```
##   County MedianHouseholdIncome TotalPopulation  Male Female Age0_4 Age5_9
## 1   1001                 51281           55221 26745  28476   3242   3890
## 2   1003                 50254          195121 95314  99807  10494  12787
## 3   1005                 32964           26932 14497  12435   1476   1752
## 4   1007                 38678           22604 12073  10531   1133   1458
## 5   1009                 45813           57710 28512  29198   3545   3773
## 6   1011                 31938           10678  5660   5018    675    660
##   Age10_14 Age15_19 Age20_24 Age25_34 Age35_44 Age45_54 Age55_59 Age60_64
## 1     4314     4034     3422     6724     7716     8173     3530     2698
## 2    12868    11793    10178    22740    24627    27202    13043    14013
## 3     1570     1493     1833     3870     3360     3783     1848     1622
## 4     1420     1603     1361     3086     3445     3131     1351     1361
## 5     3921     3923     3140     6768     7445     8246     3740     3697
## 6      575      456      874     1321     1686     1421      593      859
##   Age65_74 Age75_84 Age85 MedianAge WhiteAlone BlackAlone
## 1     4560     2311   607      37.7      42741      10315
## 2    21054    10422  3900      42.2     168646      18735
## 3     2616     1291   418      38.8      12756      12595
## 4     1986      997   272      38.9      17327       4846
## 5     5804     2869   839      40.7      54881        884
## 6      944      437   177      39.3       2845       7550
##   AmericanIndianAlaskaNativeAlone AsianAlone NativeHawaiianPacificIslanderAlone
## 1                             230        534                                 24
## 2                            1166       1307                                  0
## 3                              52        244                                  0
## 4                              93         21                                  0
## 5                             326         83                                  0
## 6                             124         22                                  0
##   OtherRaceAlone WhiteBlack WhiteAmericanIndianAlaskaNative WhiteAsian
## 1            511        263                             224        163
## 2           1870        847                            1346        362
## 3            928         91                              99         44
## 4              7        227                              58          0
## 5            555        331                             480        110
## 6              0          0                             117          0
##   BlackAmericanIndianAlaskaNative  White Black AmericanIndianAlaskaNative Asian
## 1                              15  43492 10593                        489   777
## 2                              36 171423 19682                       2573  2244
## 3                              48  13055 12809                        264   293
## 4                              11  17612  5098                        162    35
## 5                               0  55836  1231                        810   231
## 6                              20   2962  7570                        261    22
##   NativeHawaiianPacificIslander OtherRace Hispanic SimpsonDiversityIndex
## 1                           151       585     1440             0.3626408
## 2                            24      2627     8776             0.2444624
```
```
4
```

```
## 3                              0    933   1241            0.5515758
## 4                              0      7    502            0.3596824
## 5                             26    577   4980            0.0947972
## 6                              0      0    473            0.4344685
##   Population25Plus EdK8 Ed9_12  EdHS EdCollNoDegree EdAssocDegree
## 1            36319 1394   3262 12182           8203          2841
## 2           137001 4385   9975 39431          31080         12420
## 3            18808 1732   3289  6490           3593          1350
## 4            15629 1086   1938  6574           3413           954
## 5            39408 2745   5727 13179           8827          3850
## 6             7438  882   1732  2478           1083           232
##   EdBachelorDegree EdGraduateDegree MedianHousingCosts Married Widowed Divorced
## 1             4897             3540                881   23989    2539     5472
## 2            26388            13322                879   85527   11764    20348
## 3             1412              942                556    9186    1793     3077
## 4              946              718                617    9111    1506     2287
## 5             3396             1684                641   27418    3718     5298
## 6              484              547                543    2534     728     1017
##   Separated NeverMarried Uninsured ForeignBorn NonCitizen Disability MfgEmp1970
## 1       832        10944      5508         861        474       9400       1607
## 2      3656        37676     24987        6864       4088      26550       3291
## 3       708         7371      3732         683        454       5526       2044
## 4       502         5187      2007         220        167       3008       1696
## 5       790         9248      6659        2393       1802       9291       1563
## 6       614         3867      1828         573        387       1885        861
##   MfgEmp1980 MfgEmp1990 MfgEmp2001 MfgEmp2015 TotalEmp1970 TotalEmp1980
## 1       2763       2343       2078       1536         6853        11255
## 2       4019       5571       5725       4606        19749        27777
## 3       2465       3679       4809       2253         9448         9724
## 4       1564       1703        599        394         3965         4262
## 5       1840       2532       2549       1329         7587         9467
## 6       1052       1023         NA         NA         4281         4084
##   TotalEmp1990 TotalEmp2001 TotalEmp2015 WoodardAmericanNation LandAreaSqMiles
## 1        11400        16215        17182            Deep South        594.4464
## 2        40545        70659       103690            Deep South       1589.8081
## 3        12099        15239        12074            Deep South        884.8761
## 4         5531         5736         6383            Deep South        622.5826
## 5        11751        14971        14519     Greater Appalachia        644.8068
## 6         4088         4204         4101            Deep South        622.8056
##   Employment LaborForce Unemployment TotalSSI AgedSSI BlindDisabledSSI OASDI
## 1      24762      26177         1415     1497      71             1426   529
## 2      85594      90591         4997     3510     196             3314  1295
## 3       7839       8572          733     1507     110             1397   606
## 4       8161       8747          586     1002      34              968   423
## 5      23871      25262         1391     1333      65             1268   517
## 6       4665       5058          393      600      35              565   193
##   SSIPayments       NCHS_UrbanRural2013              NCHS_UrbanRural2006
## 1      825000             Medium metro                     Medium metro
## 2     1870000              Small metro Micropolitan (nonmetropolitan)
## 3      787000 Noncore (nonmetropolitan) Micropolitan (nonmetropolitan)
## 4      509000         Large fringe metro               Large fringe metro
## 5      687000         Large fringe metro               Large fringe metro
## 6      336000 Noncore (nonmetropolitan)     Noncore (nonmetropolitan)
##                       NCHS_UrbanRural1990 TotalReligiousAdherents
```

```
## 1                                     Medium metro                        36938
## 2                                     Medium metro                        96918
## 3   With a city of 10,000 or more (nonmetropolitan)                       15101
## 4 Without a city of 10,00 or more (nonmetropolitan)                       11430
## 5                                     Medium metro                        37352
## 6 Without a city of 10,00 or more (nonmetropolitan)                        6300
##   EvangelicalAdherents CatholicAdherents MormonAdherents State FoundryCounty
## 1                27503              1766             820     1         FALSE
## 2                57986             14009            1022     1         FALSE
## 3                 8793               575             265     1         FALSE
## 4                10159                NA              NA     1         FALSE
## 5                29223              4744             291     1         FALSE
## 6                 2152                49              NA     1         FALSE
##   MexicanBorderCounty
## 1               FALSE
## 2               FALSE
## 3               FALSE
## 4               FALSE
## 5               FALSE
## 6               FALSE
```

```r
head(stateInfo)
```

```
##   State  StateName StateAbbr ElectoralVotes AllowsPartyRegistration VoterIDLaw
## 1     1    Alabama        AL              9                   FALSE          3
## 2     2     Alaska        AK              3                    TRUE          2
## 3     4    Arizona        AZ             11                   FALSE          4
## 4     5   Arkansas        AR              6                   FALSE          2
## 5     6 California        CA             55                    TRUE          1
## 6     8   Colorado        CO              9                    TRUE          2
##        VoterIDLawVerbose ClosedPrimary
## 1     Non-strict photo ID         FALSE
## 2 Non-strict non-photo ID         FALSE
## 3     Strict non-photo ID         FALSE
## 4 Non-strict non-photo ID         FALSE
## 5       No ID requirement         FALSE
## 6 Non-strict non-photo ID         FALSE
```

```r
head(housePresInfo)
```

```
##       CD        Incumbent Party Clinton.2016 Trump.2016 Obama.2012 Romney.2012
## 1 AK-AL      Young, Don   (R)         37.6       52.8       41.2        55.3
## 2 AL-01  Byrne, Bradley   (R)         34.1       63.5       37.4        61.8
## 3 AL-02    Roby, Martha   (R)         33.0       64.9       36.4        62.9
## 4 AL-03 Rogers, Mike D.   (R)         32.3       65.3       36.8        62.3
## 5 AL-04    Aderholt, Rob   (R)         17.4       80.4       24.0        74.8
## 6 AL-05      Brooks, Mo   (R)         31.3       64.7       34.9        63.9
##   Obama.2008 McCain.2008
## 1       38.1        59.7
## 2       38.5        60.9
## 3       35.0        64.5
## 4       36.6        62.6
## 5       25.5        73.3
## 6       36.3        62.6
```