Personnel summary statistics

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Summary statistics -

What this document does:

1. Create new variables: length_of_tenure, age_at_appointment

2. Presents the distributions of key variables: Administration_appointee, party_affiliation, Education, Type of previous position, generalized_previous_experience, following_position, generalized_following_exp, appointment_age

3. Compares previous and following positions

4. Check for missing data

Set up

Load and clean data

Create new variable: time_period, length of tenure, appointment age

Basic summary statistics

```
##   Job_title          Confirmed          Year_started    Year_ended
## Length:133         Length:133         Min.   :1915   Min.   :   0
## Class :character   Class :character   1st Qu.:1948   1st Qu.:1949
## Mode  :character   Mode  :character   Median :1972   Median :1973
##                                       Mean   :1969   Mean   :1913
##                                       3rd Qu.:1994   3rd Qu.:1996
##                                       Max.   :2018   Max.   :2021
##
## Administration_appointee Party_affiliation    Employer
## Length:133               Length:133         Length:133
## Class :character         Class :character   Class :character
## Mode  :character         Mode  :character   Mode  :character
##
##
##
##
## Education_law      Education_LLB      Education_JD       Education_econ
## Min.   :0.0000   Min.   :0.000    Min.   :0.0000   Min.   :0.00000
## 1st Qu.:1.0000   1st Qu.:0.000    1st Qu.:0.0000   1st Qu.:0.00000
## Median :1.0000   Median :0.000    Median :0.0000   Median :0.00000
## Mean   :0.8797   Mean   :0.188    Mean   :0.3684   Mean   :0.06767
## 3rd Qu.:1.0000   3rd Qu.:0.000    3rd Qu.:1.0000   3rd Qu.:0.00000
```

```
##   Max.   :1.0000   Max.   :1.000   Max.   :1.0000   Max.   :1.00000
##
##  Education_Phd     Education_other   Type_of_previous_position
##  Min.   :0.00000   Min.   :0.0000   Length:133
##  1st Qu.:0.00000   1st Qu.:0.0000   Class :character
##  Median :0.00000   Median :0.0000   Mode  :character
##  Mean   :0.03759   Mean   :0.1654
##  3rd Qu.:0.00000   3rd Qu.:0.0000
##  Max.   :1.00000   Max.   :1.0000
##
##   Prev_exp_pol     Prev_exp_civil   Prev_exp_elect   Prev_exp_law_firm
##  Min.   :0.0000   Min.   :0.000   Min.   :0.0000   Min.   :0.0000
##  1st Qu.:0.0000   1st Qu.:0.000   1st Qu.:0.0000   1st Qu.:0.0000
##  Median :1.0000   Median :0.000   Median :0.0000   Median :0.0000
##  Mean   :0.6165   Mean   :0.218   Mean   :0.1203   Mean   :0.3233
##  3rd Qu.:1.0000   3rd Qu.:0.000   3rd Qu.:0.0000   3rd Qu.:1.0000
##  Max.   :1.0000   Max.   :1.000   Max.   :1.0000   Max.   :1.0000
##
##  Prev_exp_private_practice Prev_exp_industry Prev_exp_academia
##  Min.   :0.00000           Min.   :0.00000   Min.   :0.0000
##  1st Qu.:0.00000           1st Qu.:0.00000   1st Qu.:0.0000
##  Median :0.00000           Median :0.00000   Median :0.0000
##  Mean   :0.08271           Mean   :0.09023   Mean   :0.1053
##  3rd Qu.:0.00000           3rd Qu.:0.00000   3rd Qu.:0.0000
##  Max.   :1.00000           Max.   :1.00000   Max.   :1.0000
##
##  Prev_exp_unclear  Type_of_following_position Follow_exp_pol
##  Min.   :0.00000   Length:133                 Min.   :0.0000
##  1st Qu.:0.00000   Class :character           1st Qu.:0.0000
##  Median :0.00000   Mode  :character           Median :0.0000
##  Mean   :0.01504                              Mean   :0.1654
##  3rd Qu.:0.00000                              3rd Qu.:0.0000
##  Max.   :1.00000                              Max.   :1.0000
##
##  Follow_exp_civil Follow_exp_elect  Follow_exp_law_firm
##  Min.   :0         Min.   :0.00000   Min.   :0.0000
##  1st Qu.:0         1st Qu.:0.00000   1st Qu.:0.0000
##  Median :0         Median :0.00000   Median :0.0000
##  Mean   :0         Mean   :0.03759   Mean   :0.4436
##  3rd Qu.:0         3rd Qu.:0.00000   3rd Qu.:1.0000
##  Max.   :0         Max.   :1.00000   Max.   :1.0000
##
##  Follow_exp_private_practice Follow_exp_academia Follow_exp_industry
##  Min.   :0.00000             Min.   :0.0000      Min.   :0.000
##  1st Qu.:0.00000             1st Qu.:0.0000      1st Qu.:0.000
##  Median :0.00000             Median :0.0000      Median :0.000
##  Mean   :0.05263             Mean   :0.1053      Mean   :0.188
##  3rd Qu.:0.00000             3rd Qu.:0.0000      3rd Qu.:0.000
##  Max.   :1.00000             Max.   :1.0000      Max.   :1.000
##
##  Follow_exp_unclear Follow_exp_died_or_retired Following_law_firms
##  Min.   :0.00000    Min.   :0.00000            Length:133
##  1st Qu.:0.00000    1st Qu.:0.00000            Class :character
##  Median :0.00000    Median :0.00000            Mode  :character
```

```
##   Mean   :0.09023    Mean   :0.08271
##   3rd Qu.:0.00000    3rd Qu.:0.00000
##   Max.   :1.00000    Max.   :1.00000
##
##    Birth_year    time_period       length_of_tenure age_at_appoint
##   Min.   :   0   Length:133        Min.   : 1.000   Min.   :30.00
##   1st Qu.:1892   Class :character  1st Qu.: 2.000   1st Qu.:40.00
##   Median :1927   Mode  :character  Median : 3.000   Median :47.00
##   Mean   :1864                     Mean   : 4.584   Mean   :46.92
##   3rd Qu.:1947                     3rd Qu.: 6.000   3rd Qu.:52.00
##   Max.   :1982                     Max.   :22.000   Max.   :67.00
##                                    NA's   :8        NA's   :4
```

Summary graphics and tables

Year started, Year ended, admin appointee, party affiliation

Start year of appointees over time

End year of term over time
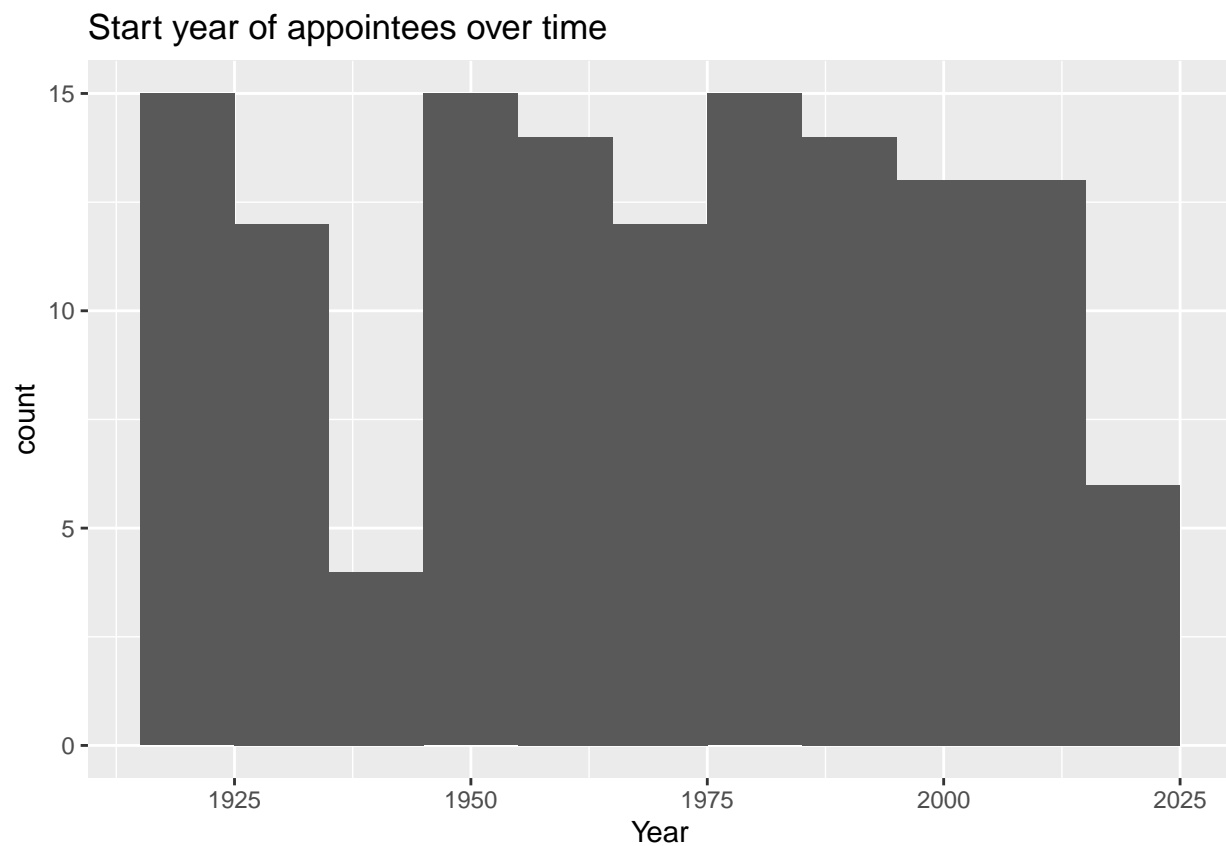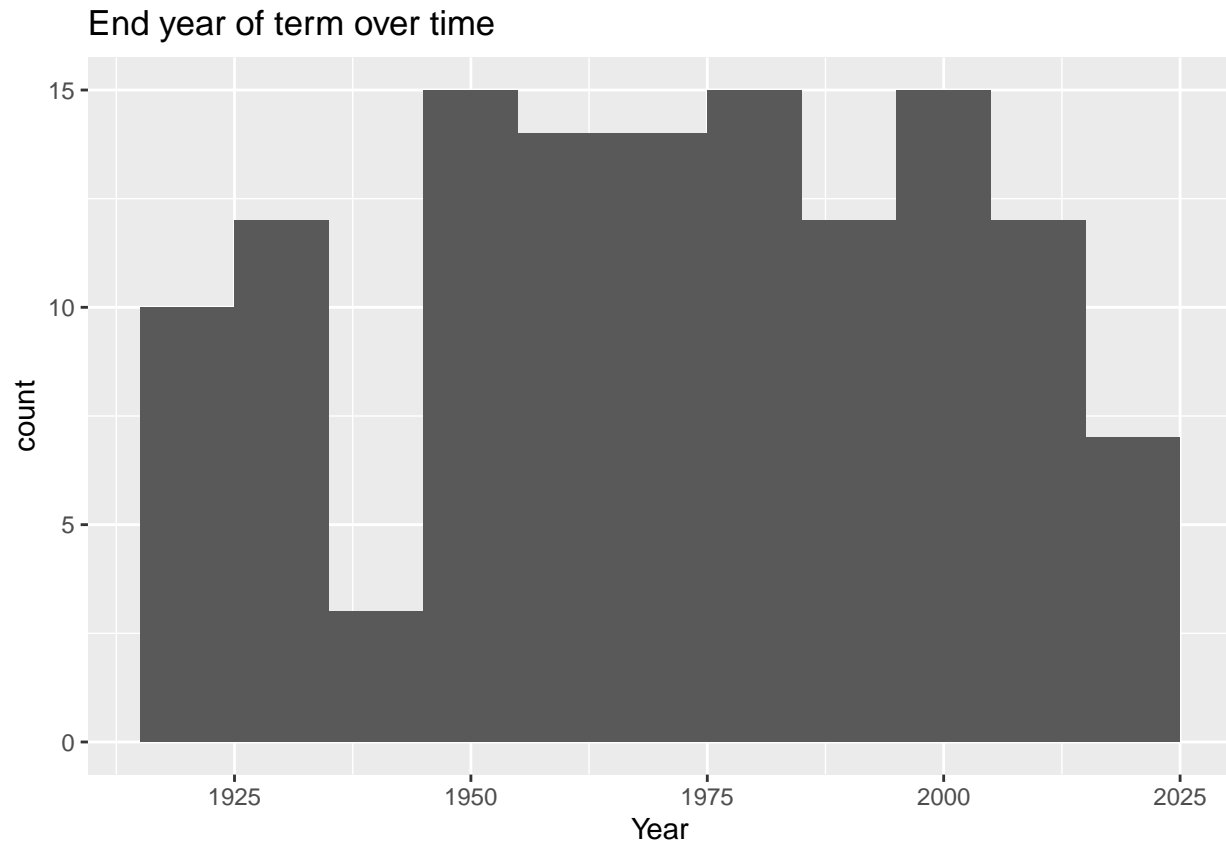

```
## 
##              acting      Carter      Clinton    Coolidge Eisenhower
##       86          9           2            2           1          3
##      FDR       Ford        GHWB          GWB      Hoover        JFK
##        3          1           2            3           1          2
##      LBJ      Nixon       Obama       Reagan      Truman      Trump
##        2          2           2            4           4          4
## 
##          0              D Independent Progressive              R
##         43             38           5           3             44
## 
##          0              D Independent Progressive              R
##         20             24           3           3             22
## 
##          0              D Independent              R
##         23             14           2             22
## 
##          0              D Independent Progressive              R
##  0.32330827     0.28571429  0.03759398  0.02255639     0.33082707
```

Summary graphics continued: age, length of tenure, law firms mentioned

```
## Warning: Removed 4 rows containing non-finite values (stat_bin).
```

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Distribution of officials' age at time of appointment


```
## Warning: Removed 1 rows containing non-finite values (stat_bin).
```

Distribution of officials' age at time of appointment
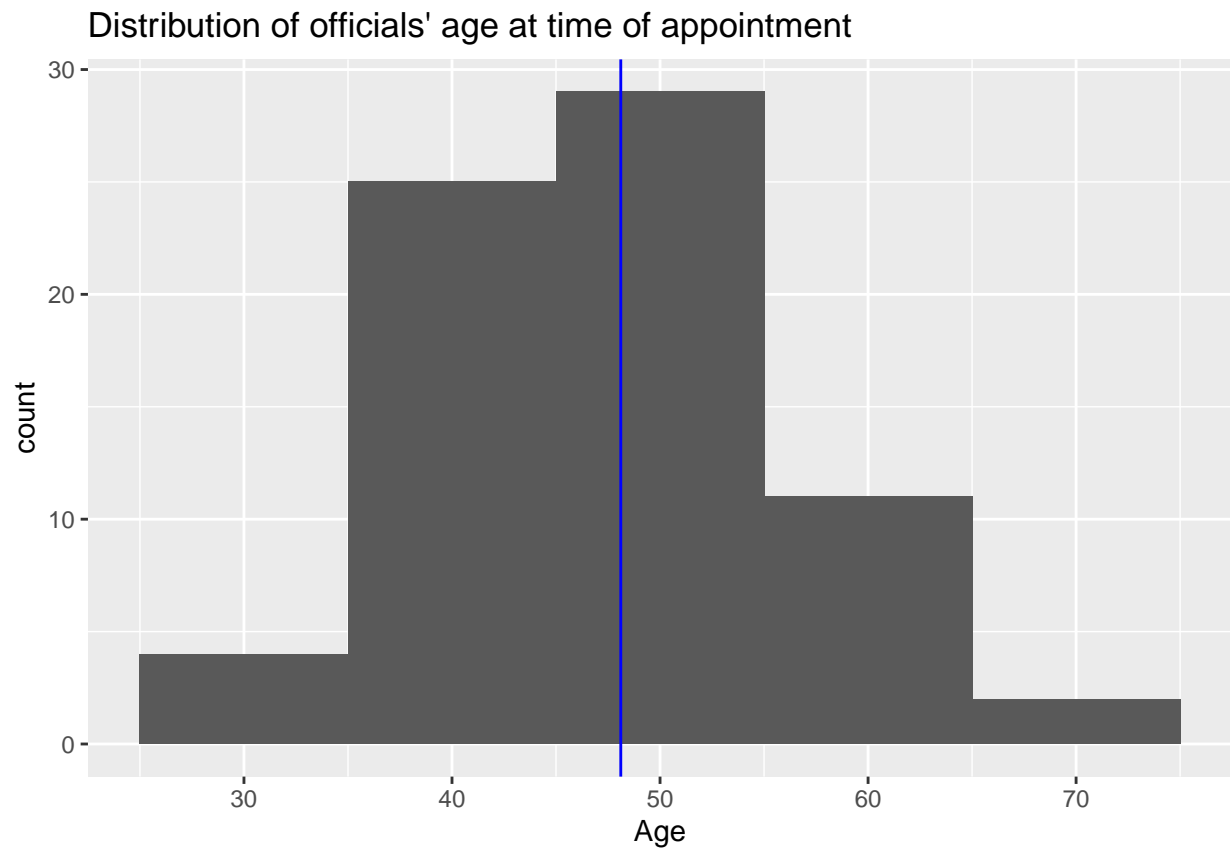

```
## Warning: Removed 3 rows containing non-finite values (stat_bin).
```

Distribution of officials' age at time of appointment

Warning: Removed 4 rows containing non-finite values (stat_bin).

Distribution of officials' age at time of appointment (not adjusted)
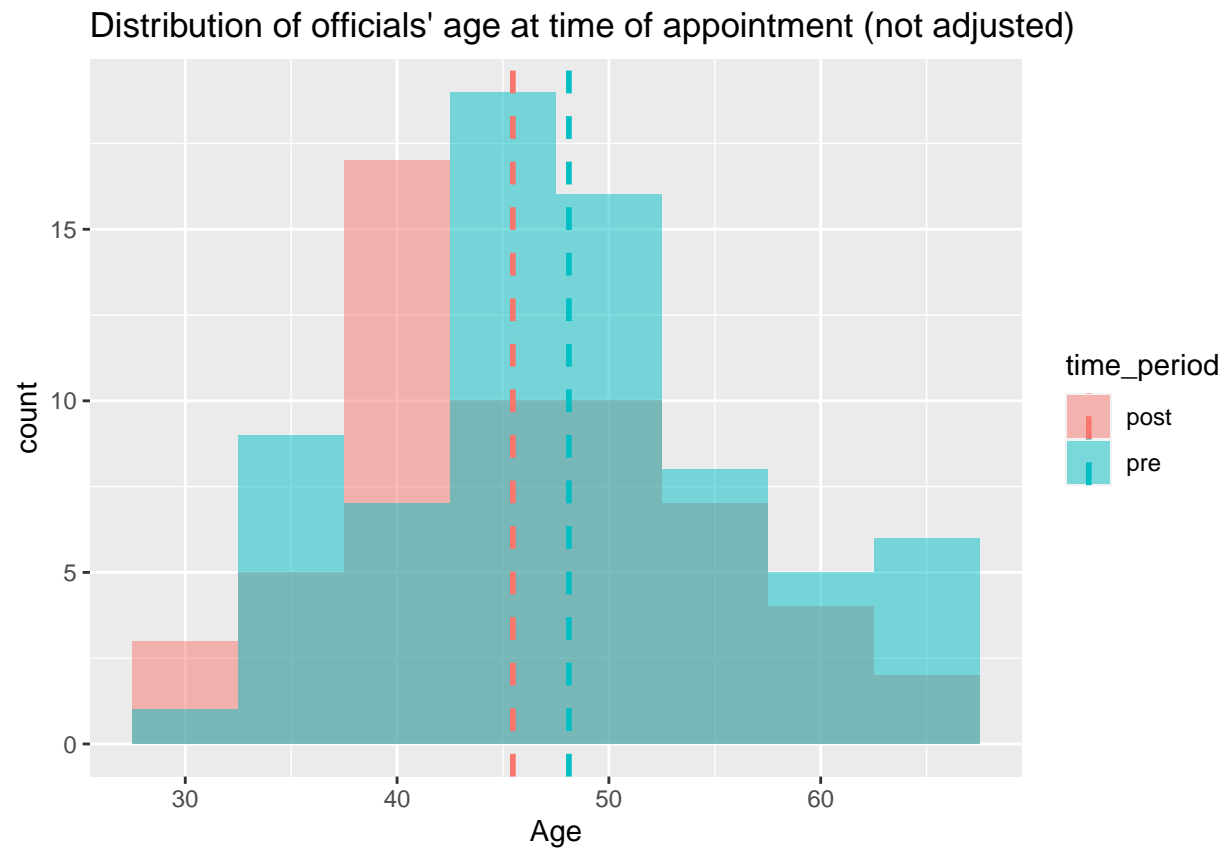
```
## Warning: Removed 4 rows containing non-finite values (stat_density).
```

Distribution of officials' age at time of appointment (adjusted)
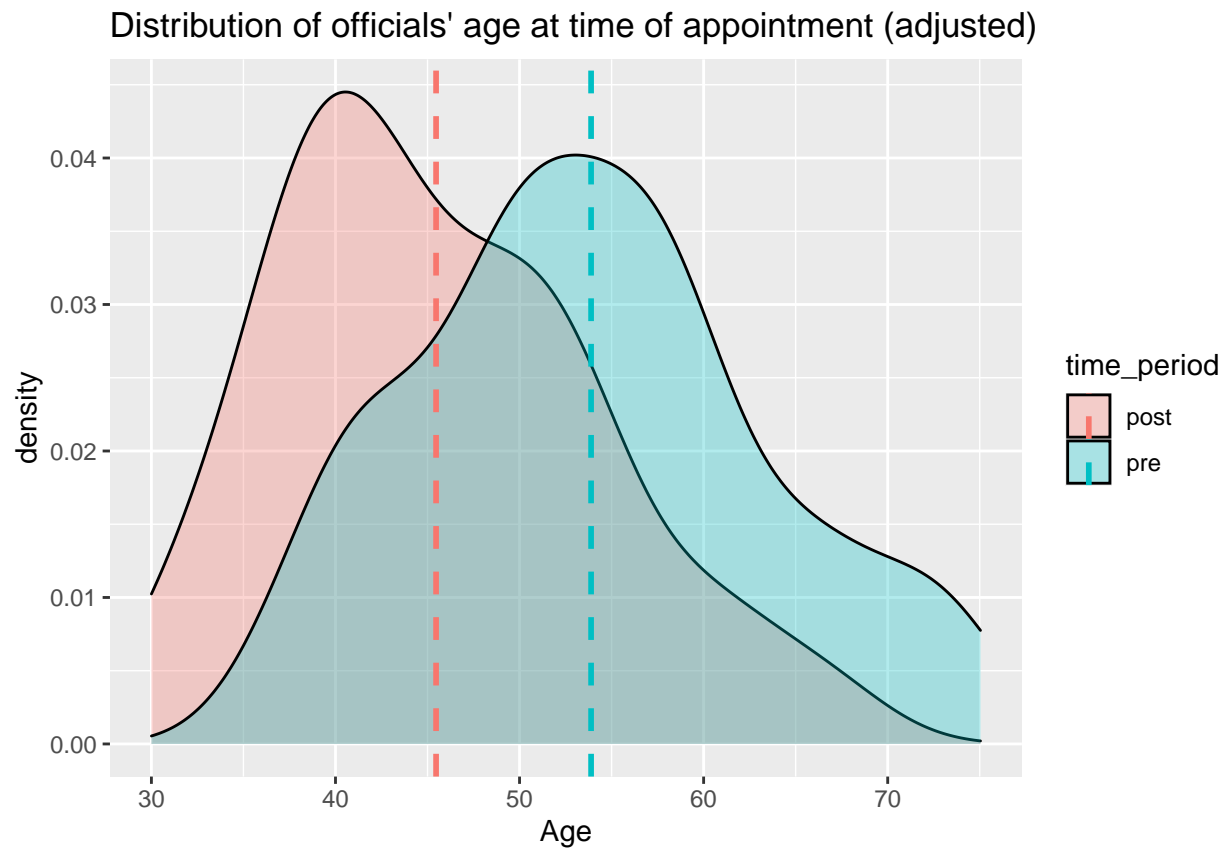
```
## [1] 46.92248

## [1] 2.647159

## Warning: Removed 8 rows containing non-finite values (stat_bin).
```

Distribution of officials' length of tenure

Warning: Removed 8 rows containing non-finite values (stat_bin).

Distribution of officials' length of tenure


```
##
##
##                                                               74
##                                                  Arnold & Porter
##                                                                1
##                                                          Unclear
##                                                                1
##                           Arent Fox Kintner Plotkin & Kahn
##                                                                1
##                                                  Arnold & Porter
##                                                                3
##                                                      Baker Botts
##                                                                1
##                                                    Baker McKenzie
##                                                                1
##                     Cahill Gordon Sonnett Reindel & Ohl
##                                                                1
##   Collier Shannon Rill & Scott, Howery, Baker Botts
##                                                                1
##                                              Covington & Burling
##                                                                6
##         Covington Burling, Fried Frank, Paul Weiss
##                                                                1
##                                                          Cravath
##                                                                1
##                                      Davis Pollack & Wardwell
##                                                                1
```

```
##                                         Fox Bennett & Turner
##                                                            1
##                       Fulbright & Jaworski, Baker Hostetler
##                                                            1
##                             Heller Ehrman, Baker & McKenzie
##                                                            1
##                                   Hogan & Hartson, Cravath
##                                                            1
##                                                 Hogan Lovells
##                                                            3
##                                                       Howrey
##                                                            1
##                                               Howrey & Simon
##                                                            1
##                                       Howrey Husch Blackwell
##                                                            1
##                                            Hunton & Williams
##                                                            2
##                                                    Jones Day
##                                                            1
## Kirkland Ellis, Chaffetz & Masters, Hughes Hubbard
##                                                            1
##                            Landis, Feldman, Reily & Akers
##                                                            1
##                                              Latham Watkins
##                                                            1
##                                          McKean & McIntyre
##                                                            1
##                               Mintz Levin Cohn & Glovsky
##                                                            1
##                                    Morgan Lewis & Bockius
##                                                            1
##                                    Morgan Lewis & Brockius
##                                                            1
##                                            Nugent & O'Hara
##                                                            1
##           O'Melveny, Kirkland & Ellis, Sidley Austin
##                                                            1
##                                                  Paul Weiss
##                                                            1
##               Pierson, Ball & Dowd, Winston & Strawn
##                                                            1
##            Pillsbury, Freshfields Bruckhaus Deringer
##                                                            1
##                                  Shaw Pittman, White & Case
##                                                            1
##                                   Squire Sanders & Dempsey
##                                                            1
##                                          Sullivan & Cromwell
##                                                            2
##                                                      unclear
##                                                            1
##                                                      Unclear
##                                                            5
```

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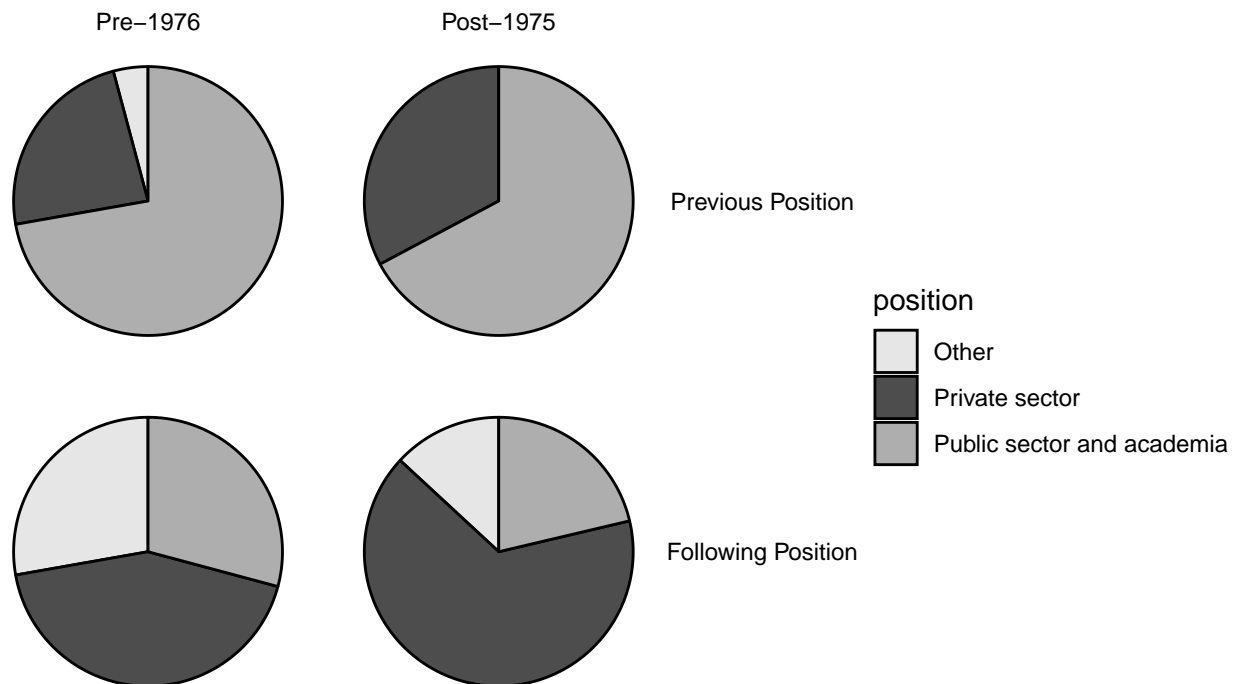```
Unknown
1
Wald Harkrader & Ross
1
Whitman Breed Abbott & Morgan
1
WilmerHale
1
Wilson Sonsini Goodrich and Rosati
1
```

## Comparing previous and following positions

**Calculations: altering datasets to simplifying groupings, calculating counts/percents per group, comboing and cleaning**

```
Warning: `data_frame()` is deprecated, use `tibble()`.
This warning is displayed once per session.
```

**Graphical representations**



Pre–1976      Post–1975

Previous Position

position
- Other
- Private sector
- Public sector and academia

Following Position

## Comparing the composition of officials' prior position
Initial position before joining government post

Pre–1976

Post–1975



Type of position

- Private sector
- Public sector and academia
- Other
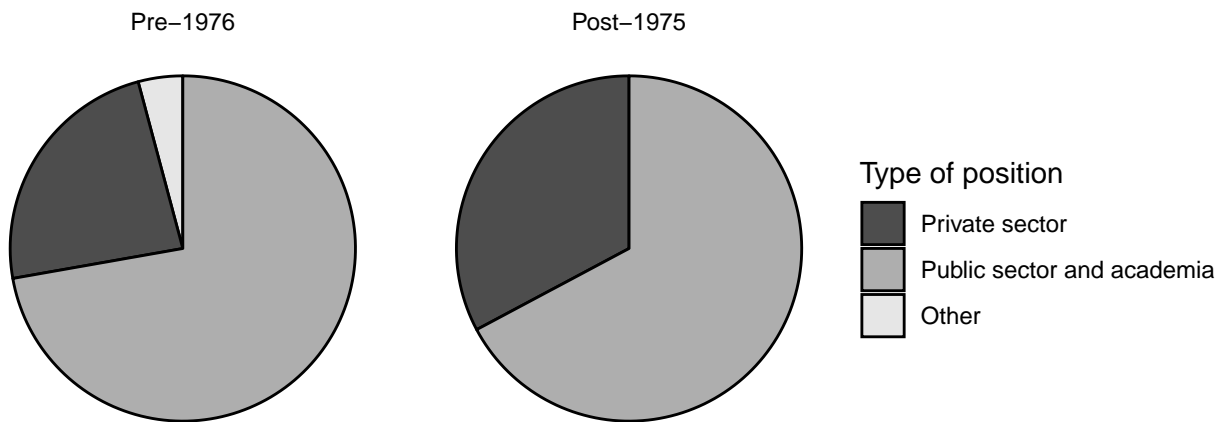
Based on data from: Wikipedia, Congress.gov, and alternate sources

## Comparing the composition of officials' following position
Initial position after leaving government post

Pre–1976

Post–1975



Type of position

- Private sector
- Public sector and academia
- Other
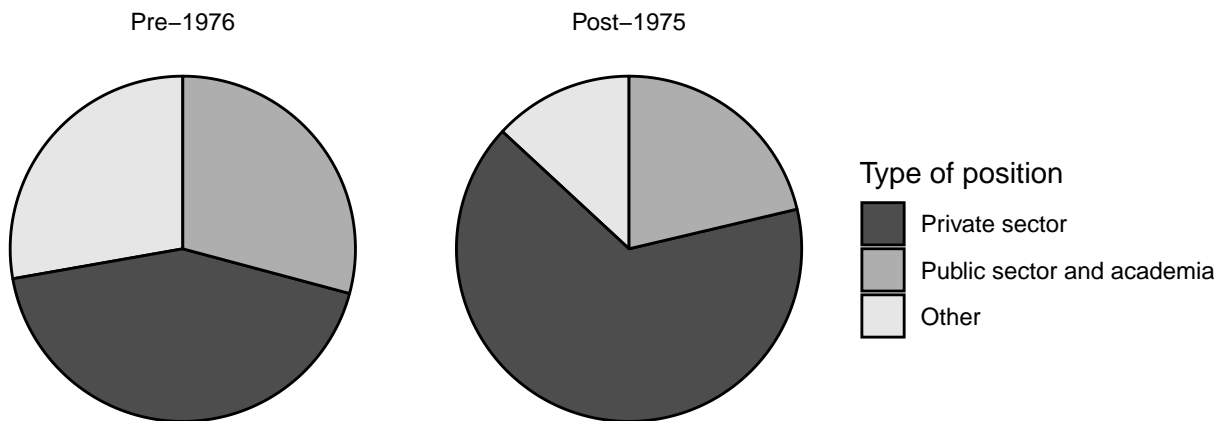
Based on data from: Wikipedia, Congress.gov, and alternate sources

**Missing data**

## Missing values map