Separations: Quit and Retired

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11/22/2017

This analysis looks at the number of people who quit or retired between January and June (the most recent figures available) for both President Trump and President Obama in their first six months in office.

It was part of the story: How the Trump era is changing federal bureaucracy (https://www.washingtonpost.com/politics/how-the-trump-era-is-changing-the-federal-bureaucracy/2017/12/30/8d5149c6-daa7-11e7-b859-fb0995360725_story.html).

Other data and analysis scripts can be found in the **wpinvestigative (https://github.com/wpinvestigative/federal_employees_trump_2017)** Github repo.

This story's analysis was based on raw data from the U.S. Office of Personnel Managament Employment Cubes (https://www.opm.gov/Data/) and aggregated data exported from the Fedscope explorer (https://www.fedscope.opm.gov) (Because raw data is only available annually).

This analysis only counts permanent employees (excluding seasonal and appointed positions) and also excludes separations categorized as transfers, terminations, deaths, reduction in force, and other reasons for separation to limit the employees.

```
# Loading libraries
library(tidyverse)
library(DT)

# We need to bring in total employment figures under Obama when he started so we have a starting point for compa
ring separations


# Downloading Obama's December raw data (12/2008)

if (!file.exists("data/employment/2008-12/FACTDATA_Dec2008.TXT")) {
  obama_dec_dir <- "data/employment/2008-12"
  dir.create(obama_dec_dir, showWarnings = F)
  temp <- tempfile()
  download.file("https://web.archive.org/web/20150610051705/www.opm.gov/Data/Files/35/53fbe0c4-7d12-4ebe-8035-bd
1e3507fe27.zip",temp)
  unzip(temp, exdir=obama_dec_dir, overwrite=T)
  unlink(temp)
}

# Importing the data
dec_08 <- read_fwf(
  file="data/employment/2008-12/FACTDATA_Dec2008.TXT",
  fwf_widths(c(4,2,4,1,5,2,1,1,2,1,1,1,1,7,5)))

colnames(dec_08) <- c("AGYSUB", "LOC", "OCC", "PATCO", "PPGRD", "GSEGRD", "SALLVL", "WORKSCH", "TOA", "GENDER",
"AGELVL", "LOSLVL", "EMPLOYMENT", "SALARY", "LOS")

# Permanent: 10, 15, 30, 32, 35, 36, 38, 50, 55, **
dec_08$type <- ifelse(dec_08$TOA=="**" |
                      dec_08$TOA=="10" |
                      dec_08$TOA=="15" |
                      dec_08$TOA=="30" |
                      dec_08$TOA=="32" |
                      dec_08$TOA=="35" |
                        dec_08$TOA=="36" |
                        dec_08$TOA=="38" |
                        dec_08$TOA=="50" |
                        dec_08$TOA=="55", "Permanent", "Nope")

dtagy_dec_08 <- read_fwf(
  file="data/employment/2008-12/Tagysub.txt",
  fwf_widths(c(2,2, 4,1,NA)))

colnames(dtagy_dec_08) <- c("AGY", "Number", "AGYSUB", "Extra", "AGYSUBT")

dtagy_dec_08$Extra <- NULL

dec_08 <- left_join(dec_08, dtagy_dec_08)

# Going through the motions of importing Obama's September 2009 total employment figures
# Why? Because we need the department data to join with the December 2008 data (It's missing)
# We'll discard the overall data but keep a dataframe of the department names and abbreviations


# Downloading Obama's September raw data (9/2009)

if (!file.exists("data/employment/2009-9/FACTDATA_SEP2009.TXT")) {
  obama_sep_dir <- "data/employment/2009-9"
  dir.create(obama_sep_dir, showWarnings = F)
  temp <- tempfile()
  download.file("https://www.opm.gov/Data/Files/26/f0a8eef6-a0b5-4015-a2f4-6597f1ca3ae7.zip",temp)
  unzip(temp, exdir=obama_sep_dir, overwrite=T)
  unlink(temp)
}
```

```
# Importing data
sep_09 <- read.table("data/employment/2009-9/FACTDATA_SEP2009.txt", header= TRUE, sep = ",", quote = "\"")
dtagy_sep_09 <- read.table("data/employment/2009-9/DTagy.txt", header= TRUE, sep = ",", quote = "\"") #agency in
fo table
wkstat_sep_09 <- read.table("data/employment/2009-9/DTwkstat.txt", header= TRUE, sep = ",", quote = "\"")

sep_09 <- left_join(sep_09, dtagy_sep_09)
sep_09 <- left_join(sep_09, wkstat_sep_09)

sep_09$two <- substr(sep_09$AGYT, 0, 2)
sep_09$AGYT <- gsub(".*-", "", sep_09$AGYT)
sep_09$AGYSUBT <- gsub(".*-", "", sep_09$AGYSUBT)

sep_09_filtered <- sep_09 %>%
  filter(TOA=="**" |
         TOA=="10" |
         TOA=="15" |
         TOA=="30" |
         TOA=="32" |
         TOA=="35" |
         TOA=="36" |
         TOA=="38" |
         TOA=="50" |
         TOA=="55") %>%
  select(AGYSUB, LOC, OCC, PATCO, PPGRD, GSEGRD, SALLVL, WORKSCH, TOA,  AGELVL, LOSLVL, EMPLOYMENT,
         LOS, AGYSUBT, AGYT, two) %>%
  mutate(Date="September",President="Obama" )

sep_09_raw <- sep_09 %>%
  select(AGYSUB, LOC, OCC, PATCO, PPGRD, GSEGRD, SALLVL, WORKSCH, TOA,  AGELVL, LOSLVL, EMPLOYMENT,
         LOS, AGYSUBT, AGYT, two) %>%
  mutate(Date="September",President="Obama" )

# Alright, we went through all that trouble for these lines below
obama_agencies <- select(sep_09, AGYSUB, AGY, AGYT, AGYSUBT) %>%
  unique()

# Going back to the December 2008 data and joining it to the obama_agencies dataframe
dec_08 <- left_join(dec_08, obama_agencies)
dec_08$two <- dec_08$AGY

# Filtering out the non-permanent employees
dec_08_filtered <- subset(dec_08, type!="Nope")
dec_08_filtered <- dec_08_filtered %>%
  select(AGYSUB, LOC, OCC, PATCO, PPGRD, GSEGRD, SALLVL, WORKSCH, TOA,  AGELVL, LOSLVL, EMPLOYMENT,
         LOS, AGYSUBT, AGYT, two) %>%
  mutate(Date="December",President="Obama" )


# Gotta clean up the department names a bit
dec_08_filtered_not_na <-  subset(dec_08_filtered, !is.na(AGYT))

dec_08_filtered_na <- subset(dec_08_filtered, is.na(AGYT))

dec_08_filtered_na$AGYT <- NULL
obama_agencies_selected <- select(obama_agencies, two=AGY, AGYT)  %>%
  unique()

dec_08_filtered_na <- left_join(dec_08_filtered_na, obama_agencies_selected) %>%
  select(AGYSUB, LOC, OCC, PATCO, PPGRD, GSEGRD, SALLVL, WORKSCH, TOA, AGELVL, LOSLVL, EMPLOYMENT, LOS, AGYSUBT,
AGYT, two, Date, President)

dec_08_filtered <- rbind(dec_08_filtered_na, dec_08_filtered_not_na)
```

```
# Counting up the employees and relabeling things so we know these are Obama figures
dec_08_aggregated_sub <- dec_08_filtered %>%
  group_by(AGYSUB, AGYSUBT, AGYT) %>%
  summarize(Obama_Total=n()) %>%
  select(AGYSUB, Obama_Total)

dec_08_aggregated_sub <- data.frame(dec_08_aggregated_sub)
dec_08_aggregated_sub$AGYSUBT <- NULL

dec_08_aggregated <- dec_08_filtered %>%
  group_by(two) %>%
  summarize(Obama_Total=n()) %>%
  select(two, Obama_Total)

# Downloading Obama Separations in 2009 data

# Downloading Obama's September raw data (9/2009)

if (!file.exists("data/separations/2009/SEPDATA_FY2009.TXT")) {
  obama_sep_dir <- "data/separations/2009"
  dir.create(obama_sep_dir, showWarnings = F)
  temp <- tempfile()
  download.file("https://web.archive.org/web/20161209105315/www.opm.gov/Data/Files/80/74d87a22-c1d8-48ea-8d93-11
604be750e6.zip",temp)
  unzip(temp, exdir=obama_sep_dir, overwrite=T)
  unlink(temp)
}

# Bringing in Obama separations data
Y2009 <- read.table("data/separations/2009/SEPDATA_FY2009.txt", header= TRUE, sep = ",", quote = "\"")

# Bringing in additional tables that identify agencies and categorization of separations
DTagy <- read.table("data/separations/2009/DTagy.txt", header= TRUE, sep = ",", quote = "\"") #agency info table
DTsep <- read.table("data/separations/2009/DTsep.txt", header= TRUE, sep = ",", quote = "\"")
# Bringing in additional table that identify work schedule
DTwrksch <- read.table("data/separations/2009/DTwrksch.txt", header= TRUE, sep = ",", quote ="\"")

# Combining the original data with the additional tables
Y2009 <- left_join(Y2009, DTagy)
Y2009 <- left_join(Y2009, DTsep)
Y2009 <- left_join(Y2009, DTwrksch)

# Creating some new tables so it'll be easier to group up departments down the line
Y2009$agency_name <- substr(Y2009$AGYT, 4, nchar(as.character(Y2009$AGYT)))

Y2009$agency_sub <- substr(Y2009$AGYSUBT, 6, nchar(as.character(Y2009$AGYSUBT)))
Y2009$two <- substr(Y2009$AGYSUB, 1, 2)

# Reformating some columns for easier filtering later on
Y2009$SEPT <- as.character(Y2009$SEPT)
Y2009$WORKSCHT <- as.character(Y2009$WORKSCHT)

# Cleaning up some categories so it'll be easier to aggregate when joined with future data
Y2009$separation <- ifelse(grepl("Retirement", Y2009$SEPT), "Retirement", Y2009$SEPT)
Y2009$separation <- ifelse(grepl("Termination", Y2009$separation), "Termination or Removal", Y2009$separation)

# Because the Obama separations data is for the entire year, we have to filter it so it matches with the data we
pull for Trump
# While we're at it, let's also filter out non-permanent employees

Y2009_half <- filter(Y2009,
                  EFDATE==200812 |
                  EFDATE==200901 |
                  EFDATE==200902 |
                  EFDATE==200903 |
                  EFDATE==200904 |
```

```
                  EFDATE==200905 |
                  EFDATE==200906) %>%
              filter(TOA=="**" |
                           TOA=="10" |
                           TOA=="15" |
                           TOA=="30" |
                           TOA=="32" |
                           TOA=="35" |
                           TOA=="36" |
                           TOA=="38" |
                           TOA=="50" |
                           TOA=="55")


# Grouping analysis time
Y2009_agency <- Y2009_half %>%
  group_by(agency_name, EFDATE, separation) %>%
  count() %>%
  group_by(agency_name, separation) %>%
  spread(EFDATE, n)

Y2009_agency_total <- Y2009_half %>%
  group_by(two,agency_name, separation) %>%
  summarize(Obama_Separations=n()) %>%
  left_join(dec_08_aggregated) %>%
  mutate(Obama_Percent=round(Obama_Separations/Obama_Total*100,2)) %>%
  filter(Obama_Total >= Obama_Separations)

Y2009_agency_sub <- Y2009_half %>%
  group_by(AGYSUB, agency_name, agency_sub, EFDATE, separation)  %>%
  summarize(Obama_Separations=n()) %>%
  left_join(dec_08_aggregated_sub)

# Repeating the process above but for Trump

# Bringing in December employment Trump data

dec_16 <- read.table("data/employment/2016-12/FACTDATA_DEC2016.txt", header= TRUE, sep = ",", quote = "\"")
dtagy_dec_16 <- read.table("data/employment/2016-12/DTagy.txt", header= TRUE, sep = ",", quote = "\"") #agency i
nfo table
wkstat_dec_16 <- read.table("data/employment/2016-12/DTwkstat.txt", header= TRUE, sep = ",", quote = "\"")

dec_16 <- left_join(dec_16, dtagy_dec_16)
dec_16 <- left_join(dec_16, wkstat_dec_16)

dec_16$two <- substr(dec_16$AGYT, 0, 2)
dec_16$AGYT <- gsub(".*-", "", dec_16$AGYT)
dec_16$AGYSUBT <- gsub(".*-", "", dec_16$AGYSUBT)

# Filtering out non-permanent employees
dec_16_filtered <- dec_16 %>%
              filter(TOA=="**" |
                 TOA=="10" |
                 TOA=="15" |
                 TOA=="30" |
                 TOA=="32" |
                 TOA=="35" |
                 TOA=="36" |
                 TOA=="38" |
                 TOA=="50" |
                 TOA=="55") %>%
  select(AGYSUB, LOC, OCC, PATCO, PPGRD, GSEGRD, SALLVL, WORKSCH, TOA,  AGELVL, LOSLVL, EMPLOYMENT,
         LOS, AGYSUBT, AGYT, two) %>%
  mutate(Date="December",President="Trump" )
```

```
dec_16_aggregated_sub <- dec_16_filtered %>%
  group_by(AGYSUB, AGYSUBT, AGYT) %>%
  summarize(Trump_Total=n()) %>%
  select(AGYSUB, Trump_Total)

dec_16_aggregated_sub <- data.frame(dec_16_aggregated_sub)
dec_16_aggregated_sub$AGYSUBT <- NULL

dec_16_aggregated <- dec_16_filtered %>%
  group_by(two) %>%
  summarize(Trump_Total=n()) %>%
  select(two, Trump_Total)

# Bringing in January - June separations Trump data exported from Fedscope summaries

trump <- read_csv("data/separations/trump_separations_thru_june.csv")
trump$two <- substr(trump$agency_name, 1,2)

trump_aggregated <- group_by(trump, two, separation) %>%
  summarize(Trump_Separations=sum(Trump_Separations))  %>%
  left_join(dec_16_aggregated) %>%
  mutate(Trump_Percent=round(Trump_Separations/Trump_Total*100,2))

# Joining the Trump data with the Obama data
presidents <- full_join(trump_aggregated, Y2009_agency_total) %>%
  select(two, agency_name, separation, Trump_Separations, Obama_Separations, Trump_Total, Obama_Total, Trump_Per
cent, Obama_Percent) %>%
  filter(separation=="Quit" | separation=="Retirement") %>%
  group_by(two, agency_name) %>%
  summarize(Trump_Separations=sum(Trump_Separations, na.rm=T), Obama_Separations=sum(Obama_Separations, na.rm=
T),
            Trump_Total=mean(Trump_Total, na.rm=T), Obama_Total=mean(Obama_Total, na.rm=T)) %>%
  mutate(Trump_Percent = round(Trump_Separations/ Trump_Total*100,2), Obama_Percent=round(Obama_Separations/Obam
a_Total*100,2))
```

Comparing Trump to Obama

More than 70,000 federal employees quit or retired during President Trump's first six months in office compared to 50,000 under President Obama. However, Trump started out with more employees compared to Obama.

Still, that's a higher rate of separations (3.6 percent) compared to Obama (2.8 percent).

```
president_summary <- presidents %>%
  ungroup() %>%
  select(Trump_Separations, Obama_Separations, Trump_Total, Obama_Total, -two) %>%
  summarize(`Trump quits and retires`=sum(Trump_Separations, na.rm=T), `Obama quits and retires`=sum(Obama_Separ
ations, na.rm=T), `Trump total employees`=sum(Trump_Total, na.rm=T), `Obama total employees`=sum(Obama_Total, n
a.rm=T)) %>%
  mutate(`Trump percent of workforce quit or retired`=round(`Trump quits and retires`/`Trump total employees`*10
0,2), `Obama percent of workforce quit or retired`=round(`Obama quits and retires`/`Obama total employees`*100,
2))

datatable(president_summary)
```

Show 10 entries Search:

	Trump quits and retires	Obama quits and retires	Trump total employees	Obama total employees	Trump percent of workforce quit or retired	Obama percent of workforce quit or retired
1	71285	49866	1964322	1774648	3.63	2.81

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Drilling down into Departments

So 71,000 is a small percent of the workforce, but if we look at specific agencies, then we can see how those numbers leaving can have a significant effect.

More than 50 employees quit or retired from the Office of Management and Budget while Trump was in office— that's more than 10 percent of their workforce. In comparison, only eight employees (2 percent) left under Obama.

Twice the percent of the workforce in the Department of Energy and the Department of Education quit or retired under Trump compared to Obama.

```
drill_down <- presidents %>%
  filter(!is.na(Obama_Separations) & !is.na(Trump_Separations) & !is.na(Trump_Total) & !is.na(Obama_Total) & Tru
mp_Percent<=100) %>%
  select(-Trump_Total, -Obama_Total, -two)  %>%
  arrange(-Trump_Percent)

datatable(drill_down, filter='top')
```

Show 10 entries Search:

	two	agency_name	Trump_Separations	Obama_Separations	Trump_Percent	Obama_Percent
	,	All	All	All	All	All
1	EQ	COUNCIL ON ENVIRONMENTAL QUALITY/OFFICE OF ENVIRONMENTAL QUALITY	2	1	40	16.67
2	TS	OFFICE OF SCIENCE AND TECHNOLOGY POLICY	2	3	14.29	18.75
3	BO	OFFICE OF MANAGEMENT AND BUDGET	51	8	10.56	1.79
4	QQ	OFFICE OF NATIONAL DRUG CONTROL POLICY	6	6	9.68	7.59
5	TN	OFFICE OF THE U.S. TRADE REPRESENTATIVE	19	8	9.31	3.88
6	EW	TRADE AND DEVELOPMENT AGENCY	4	1	8.89	2.38
7	SS	SELECTIVE SERVICE SYSTEM	10	9	8	7.69
8	CC	COMMISSION ON CIVIL RIGHTS	2	1	7.69	2.7
9	RE	OFFICE OF NAVAJO AND HOPI INDIAN RELOCATION	2	2	5.88	4.55

	two	agency_name	Trump_Separations	Obama_Separations	Trump_Percent	Obama_Percent
10	FL	FARM CREDIT ADMINISTRATION	17	6	5.74	2.34

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Quit and retired as a percent of total separations

This table aggregates the percent of workers by department who quit or retired out of all separations.

For example, 89 percent of the workers in the Office of Management and Budget who separated from that department were categorized as quit or retired under Trump. Under Obama, that figure was 62 percent.

Some notable agencies from this analysis include:

- Securities and Exchange Commission (91 percent quit or retired under Trump compared to the 71 percent under Obama)
- The Department of Veterans Affairs (90 percent quit or retired under Trump compared to the 75 percent under Obama)
- Homeland Security (85 percent quit or retired under Trump compared to the 68 percent under Obama)

```
presidents_percent <- full_join(trump_aggregated, Y2009_agency_total) %>%
  select(two, agency_name, separation, Trump_Separations, Obama_Separations, -Trump_Total, -Obama_Total, -Trump_
Percent, -Obama_Percent)

presidents_percent$separation <- ifelse(presidents_percent$separation=="Quit" | presidents_percent$separation=="
Retirement", "Quit or Retired", "Other")

presidents_percent_sum <- presidents_percent %>%
  group_by(separation) %>%
  summarize(Trump_Separations=sum(Trump_Separations, na.rm=T), Obama_Separations=sum(Obama_Separations, na.rm=
T)) %>%
  mutate(Trump_Percent=Trump_Separations/sum(Trump_Separations)*100, Obama_Percent=Obama_Separations/sum(Obama_S
eparations)*100)

  presidents_percent <- presidents_percent %>%
    group_by(agency_name, separation) %>%
  summarize(trump_separations=sum(Trump_Separations, na.rm=T), obama_separations=sum(Obama_Separations, na.rm=
T)) %>%
  mutate(trump_percent=round(trump_separations/sum(trump_separations)*100,2), obama_percent=round(obama_separati
ons/sum(obama_separations)*100,2)) %>%
    filter(separation=="Quit or Retired") %>%
    filter(!is.na(trump_percent)) %>%
    arrange(-trump_separations, -trump_percent) %>%
    mutate(diff=trump_percent-obama_percent) %>%
    select(-separation)

  datatable(presidents_percent, filter='top')
```

Show 10 entries Search:

	agency_name	trump_separations	obama_separations	trump_percent	obama_percent	diff
	All	All	All	All	All	All
1	DEPARTMENT OF VETERANS AFFAIRS	13068	7656	90.35	74.63	15.72
2	DEPARTMENT OF THE ARMY	8798	7169	79.17	71.13	8.04000000000001

	agency_name	trump_separations	obama_separations	trump_percent	obama_percent	diff
3	DEPARTMENT OF THE NAVY	6908	3544	80.82	65.34	15.48
4	DEPARTMENT OF HOMELAND SECURITY	6176	4099	84.94	67.61	17.33
5	DEPARTMENT OF THE AIR FORCE	5314	4020	82.32	70.53	11.79
6	DEPARTMENT OF THE TREASURY	4996	5280	90.95	85.56	5.39
7	DEPARTMENT OF DEFENSE	4159	2506	75.98	59.85	16.13
8	DEPARTMENT OF JUSTICE	3638	2010	87.28	75.22	12.06
9	DEPARTMENT OF AGRICULTURE	3079	2438	83.9	74.88	9.02000000000001
10	DEPARTMENT OF HEALTH AND HUMAN SERVICES	2339	1389	84.26	73.65	10.61

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