

# JTBC 1702

## Problem

JTBC 뉴스룸에서는 다음과 같은 도표의 후보지지도 여론조사 결과를 보도.



JTBC 뉴스룸 2017. 2월

막대의 높이에 의구심을 표한 시청자들의 항의에 직면함.

제대로 된 막대그래프를 그리면서 R Base plot과 ggplot에 대하여 학습.

## Data Setup

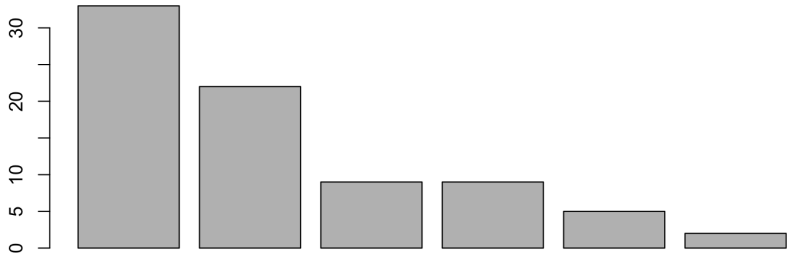
```
candidates <- c("문재인", "안희정", "황교안", "안철수", "이재명", "유승민")
rates <- c(33, 22, 9, 9, 5, 2)
party <- c("더불어민주당", "자유한국당", "국민의당", "바른정당")
colour_party <- c("skyblue", "lightgrey", "darkgreen", "darkblue")
candidates_party <- c("더불어민주당", "더불어민주당", "자유한국당", "국민의당", "더불어민주당", "바른정당")
match(candidates_party, party)

## [1] 1 1 2 3 1 4

candidates_colour <- colour_party[match(candidates_party, party)]
```

## Barplot (R Base)

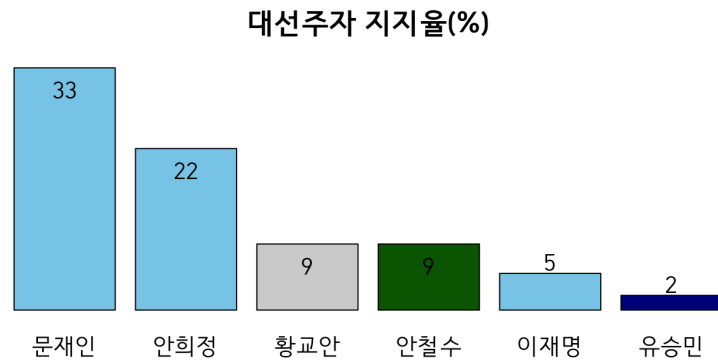
```
barplot(rates)
```



```

par(family = "HCR Dotum LVT")
b1 <- barplot(rates,
  axes = FALSE,
  col = candidates_colour,
  names.arg = candidates,
  cex.names = 1.2)
text(x = b1, y = rates + c(rep(-3, 4), rep(1.5, 2)),
  labels = rates,
  cex = 1.2)
main_title <- "대선주자 지지율(%)"
title(main = main_title,
  cex.main = 1.5)

```

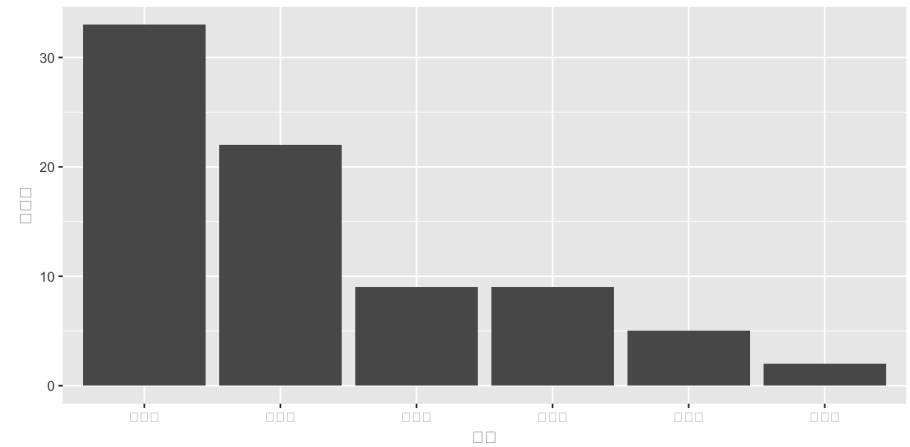


## ggplot

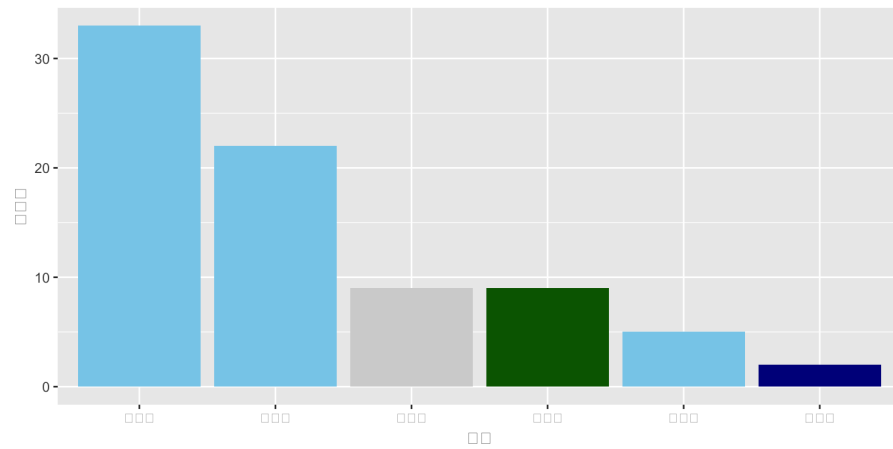
```

library(ggplot2)
candidates_f <- factor(candidates,
  levels = candidates)
rates_df <- data.frame(후보 = candidates_f,
  정당 = candidates_party,
  색깔 = candidates_colour,
  지지도 = rates)
g0 <- ggplot(data = rates_df,
  mapping = aes(x = 후보,
    y = 지지도))
(g1 <- g0 +
  geom_bar(stat = "identity"))

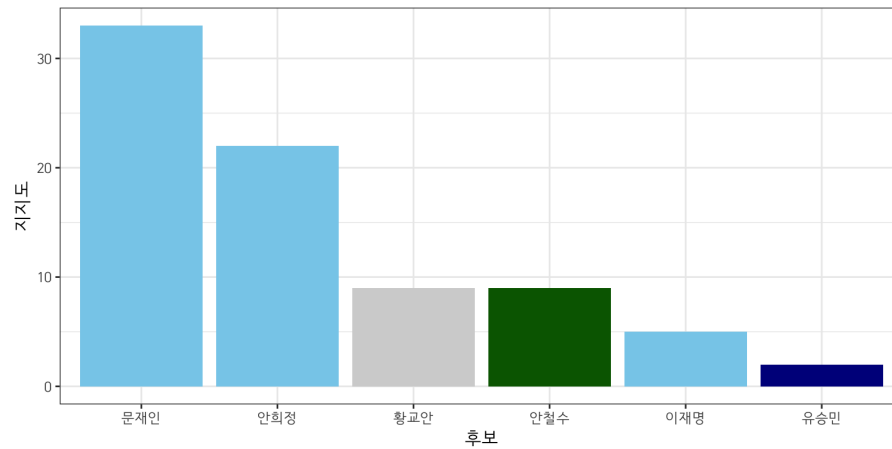
```



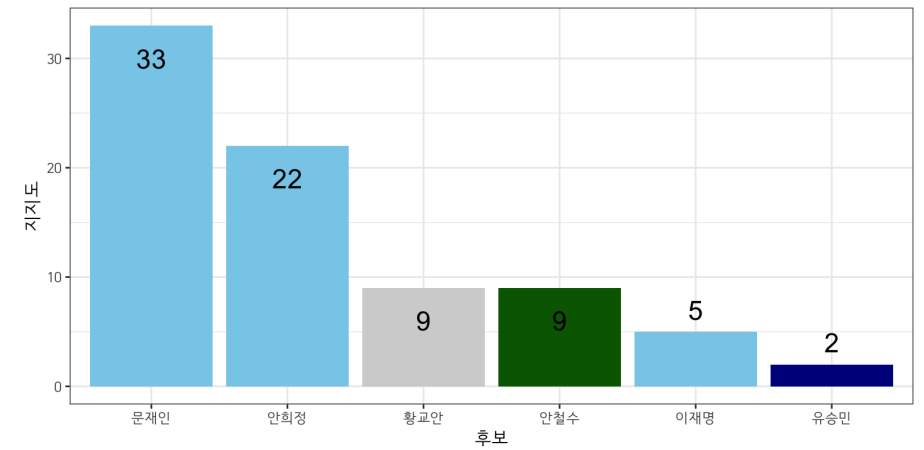
```
(g1 <- g0 +
  geom_bar(stat = "identity",
    fill = candidates_colour))
```



```
(g2 <- g1 +
  theme_bw(base_family = "HCR Dotum LVT"))
```

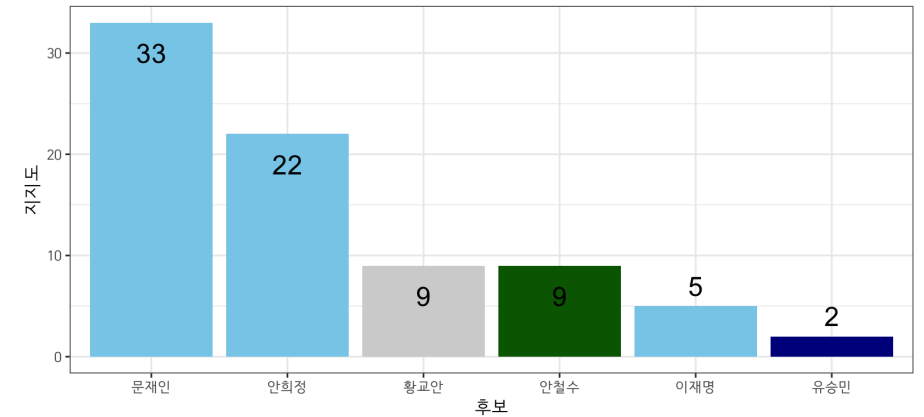


```
(g3 <- g2 +
  geom_text(mapping = aes(x = 후보,
    y = 지지도 + c(rep(-3, 4), rep(2, 2)),
    label = 지지도),
    size = 6))
```

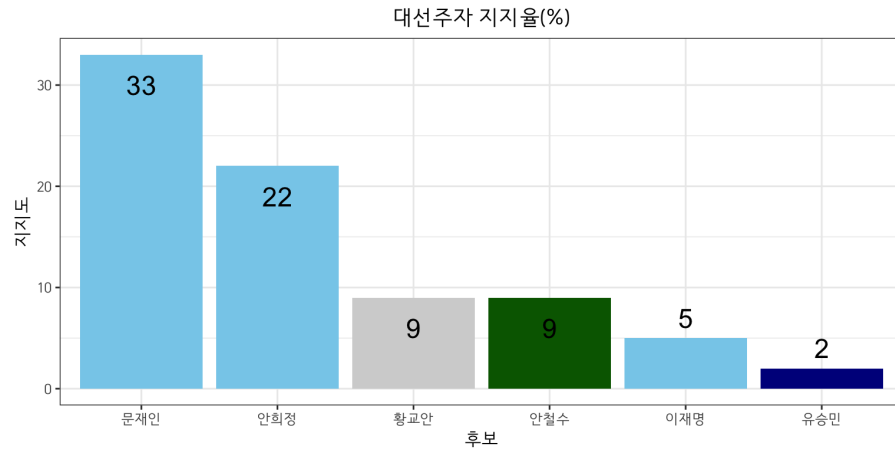


```
(g4 <- g3 +
  labs(title = main_title))
```

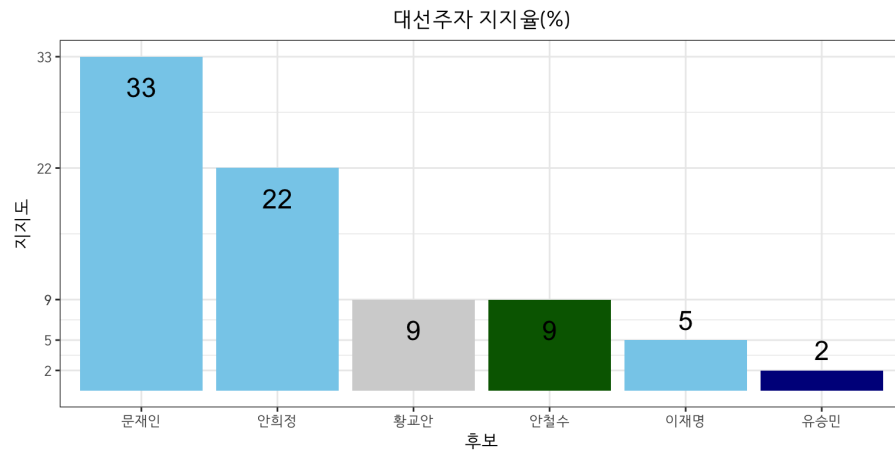
대선주자 지지율(%)



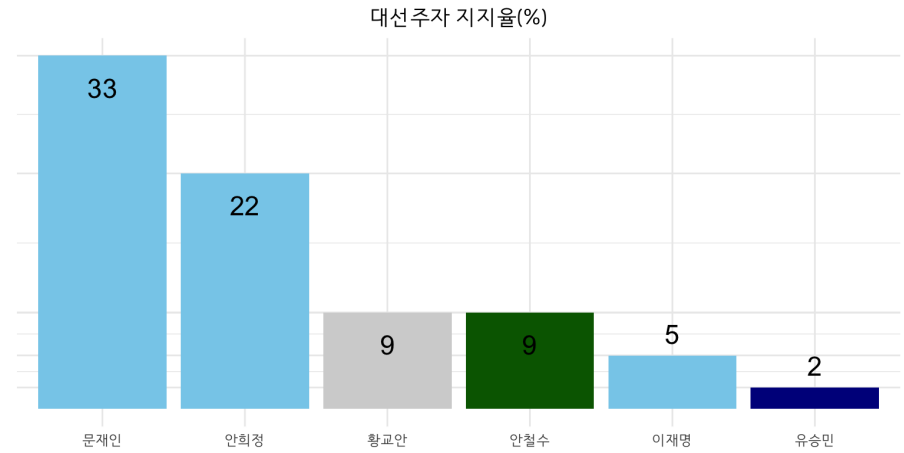
```
(g5 <- g4 +
  theme(plot.title = element_text(hjust = 0.5)))
```



```
(g6 <- g5 +
  scale_y_continuous(breaks = rates, labels = rates))
```



```
(g7 <- g6 +
  theme(panel.border = element_blank(),
    axis.title.x = element_blank(),
    axis.title.y = element_blank(),
    axis.text.x = element_text(vjust = 0),
    axis.ticks = element_blank(),
    axis.text.y = element_blank()))
```



```
(g8 <- g7 +  
  ggtitle("") +  
  annotate("text",  
    x = mean(b1),  
    y = Inf,  
    label = main_title,  
    vjust = 1.5,  
    size = 6,  
    family = "HCR Dotum LVT"))
```

