JTBC 1702

MYUNG BIN KWAK

2020-04-15

Problem

JTBC 뉴스룸에서는 다음과 같은 도표의 후보지지도 여론조사 결과를 보도.

```
knitr::include_graphics("../pics/poll_2017_JTBC.jpg")
```

막대의 높이에 의구심을 표한 시청자들의 항의에 직면함.

제대로 된 막대그래프를 그리면서 R Base plot과 ggplot에 대하여 학습.

Data Setup

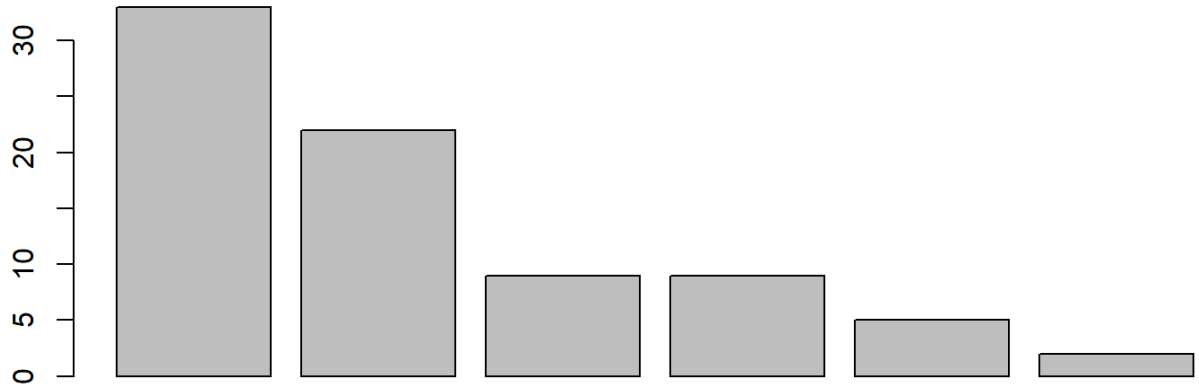
```
candidates <- c("문재인", "안희정", "황교안", "안철수", "이재명", "유승민")
rates <- c(33, 22, 9, 9, 5, 2)
party <- c("더불어민주당", "자유한국당", "국민의당", "바른정당")
colour_party <- c("skyblue", "lightgrey", "darkgreen", "darkblue")
candidates_party <-  c("더불어민주당", "더불어민주당", "자유한국당",
                       "국민의당", "더불어민주당", "바른정당")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

```
## [1] 1 1 2 3 1 4
```

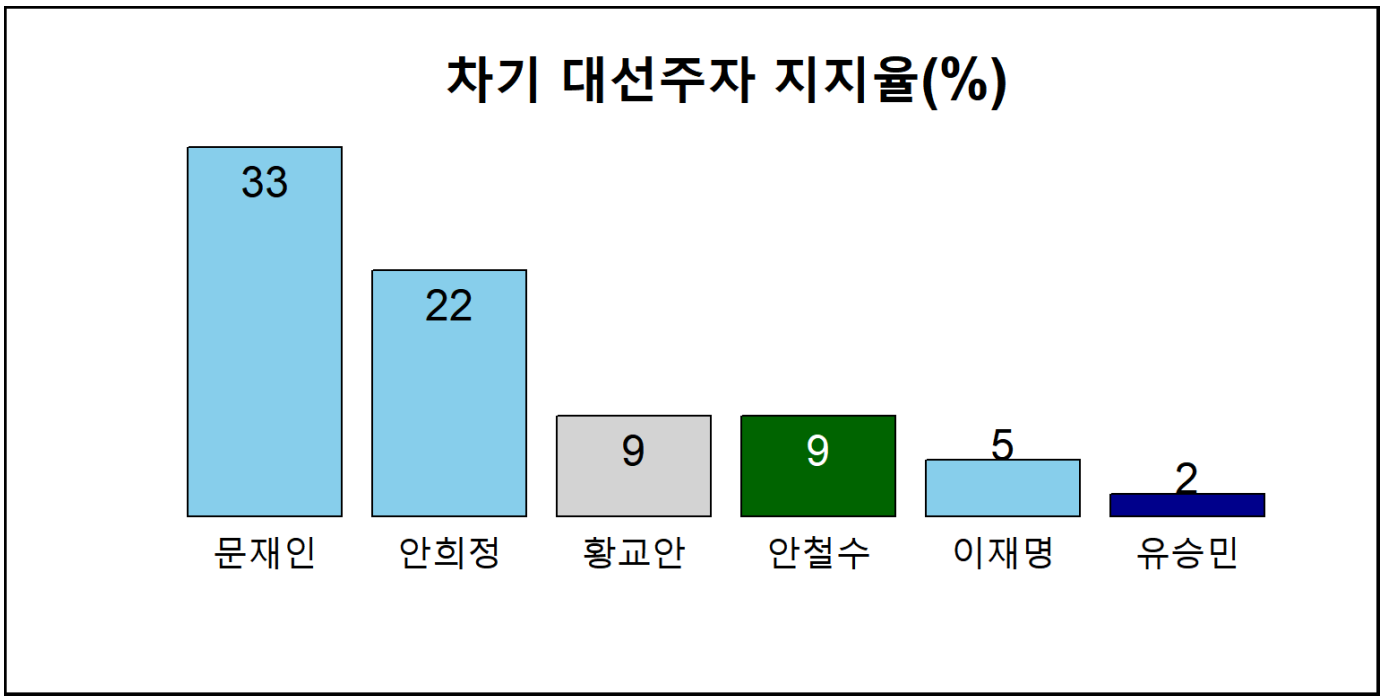
```
candidates_colour <- colour_party[match(candidates_party, party)]
```

Barplot (R Base)

```
barplot(rates)
```



```
par(family = "")
b1 <- barplot(rates,
              axes = FALSE,
              col = candidates_colour,
              names.arg = NULL,
              cex.names = 1.5)
mtext(side = 1, at = b1, line = 0.5, text = candidates, cex = 1.5)
text(x = b1, y = rates + c(rep(-3, 4), rep(1.5, 2)),
     labels = rates,
     col = c("black", "black", "black", "white", "black", "black"),
     cex = 1.5)
main_title <- "차기 대선주자 지지율(%)"
title(main = main_title,
      cex.main = 2)
box(which = "figure", lwd = 3)
```




```
dev.copy(png, "../pics/jtbc1702.png", width = 640, height = 320)
```

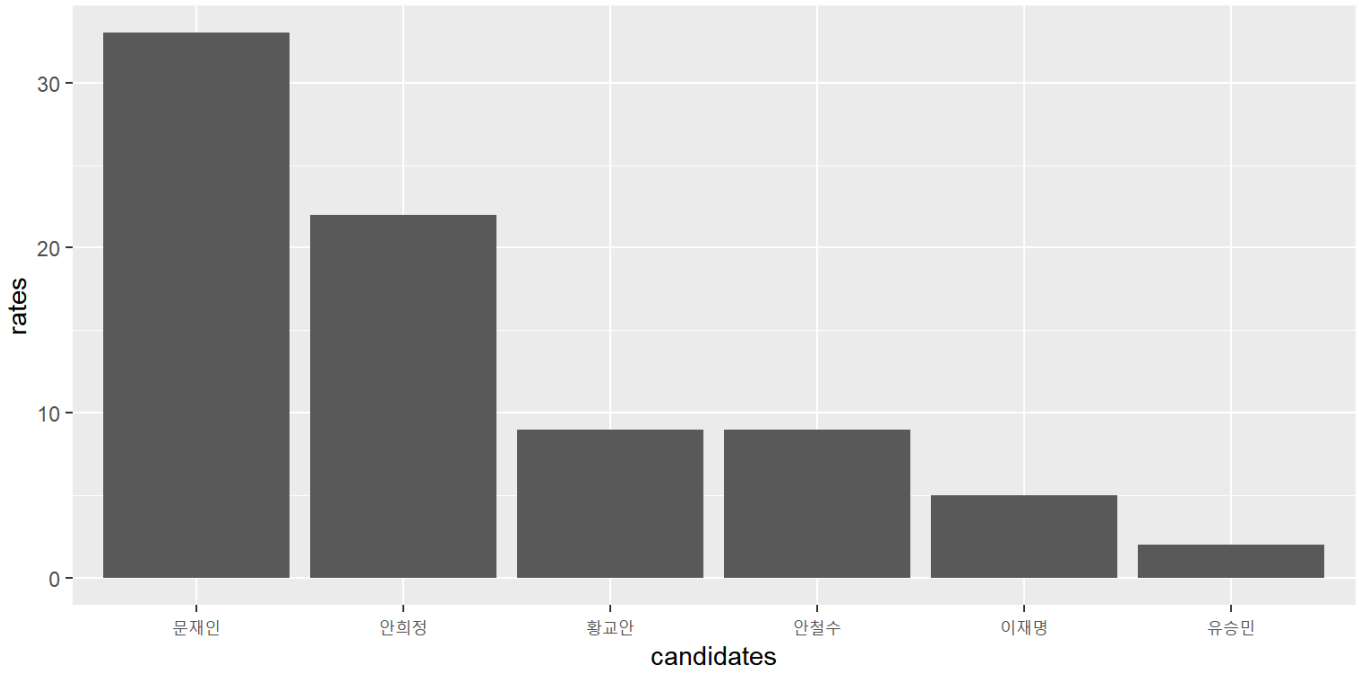
```
## png
##   3
```

```
dev.off()
```

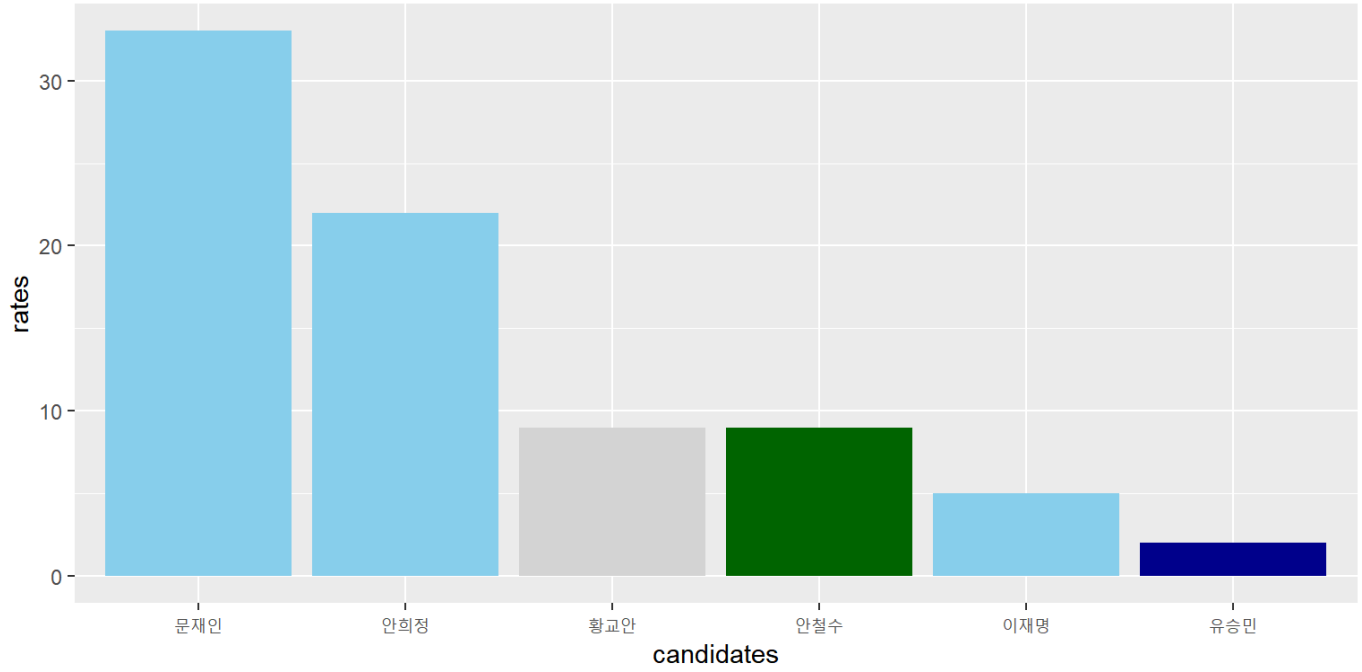
```
## png
##   2
```

ggplot

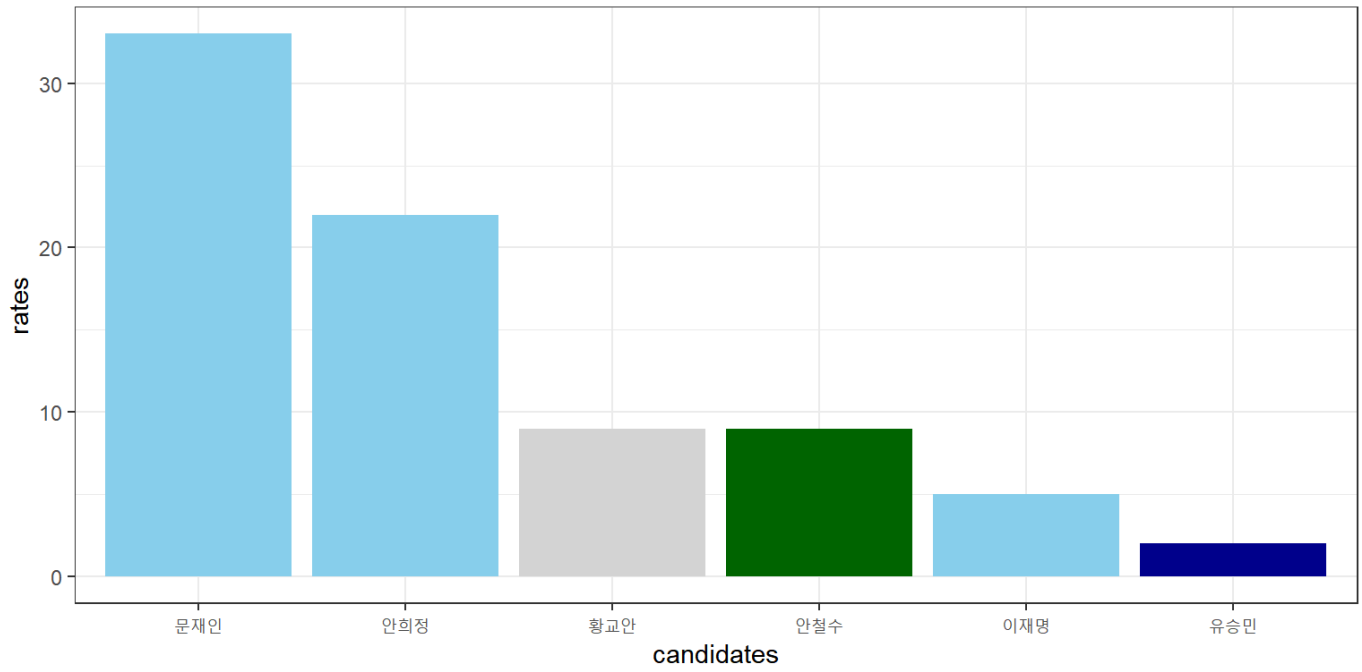
```
library(ggplot2)
candidates <- factor(candidates, levels = candidates)
rates_df <- data.frame(candidates,
                       candidates_party,
                       candidates_colour,
                       rates)
g0 <- ggplot(data = rates_df,
             mapping = aes(x = candidates,
    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



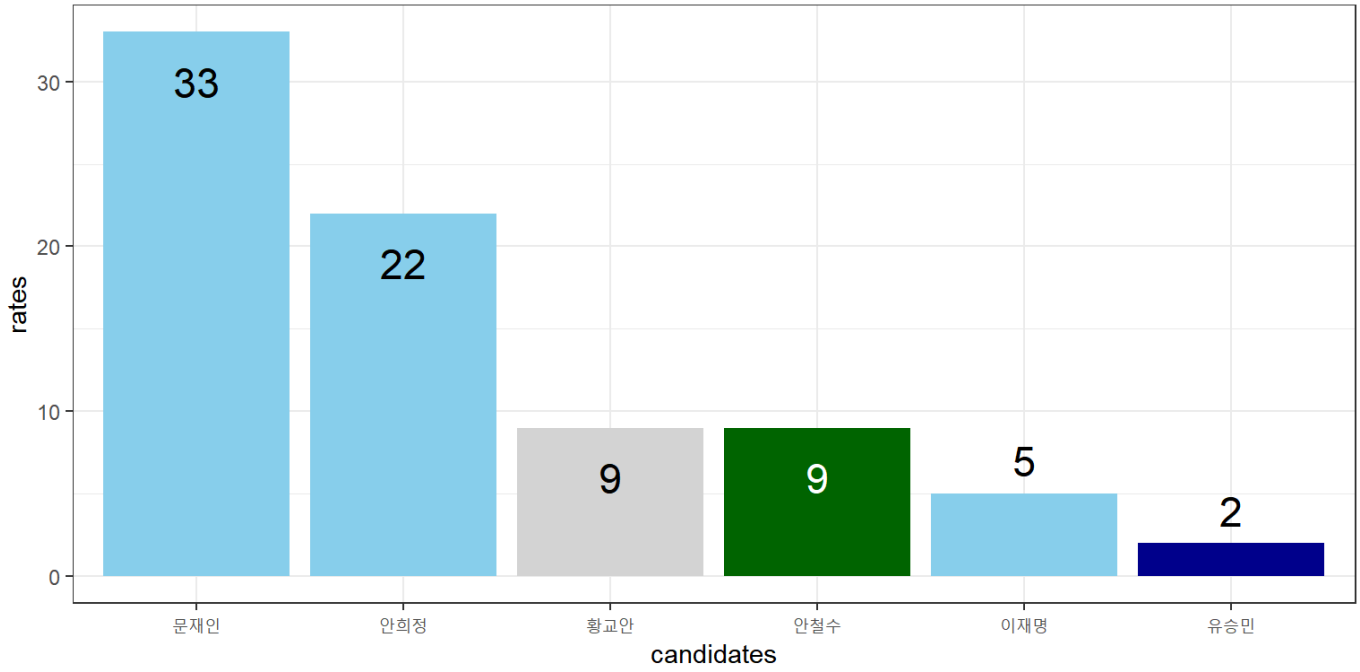
```
(g2 <- g0 +
  geom_bar(stat = "identity",
           fill = candidates_colour))
```



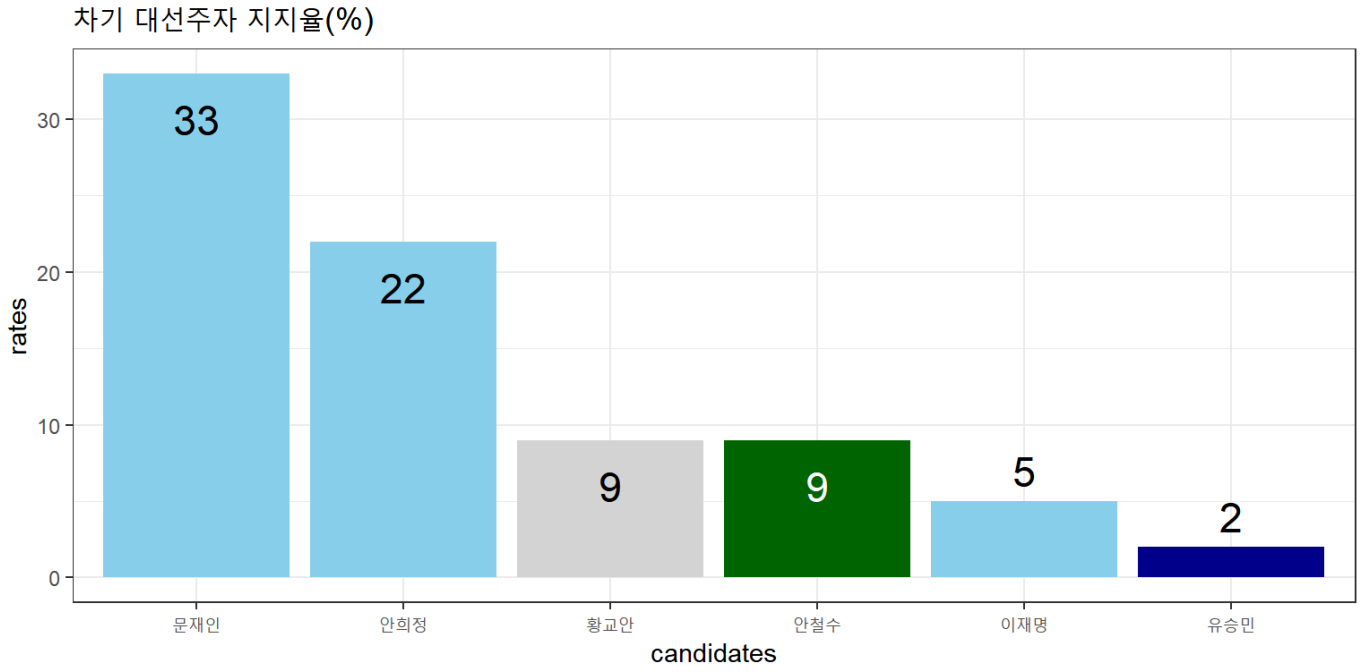

```
(g3 <- g2 +
  theme_bw(base_family = ""))
```



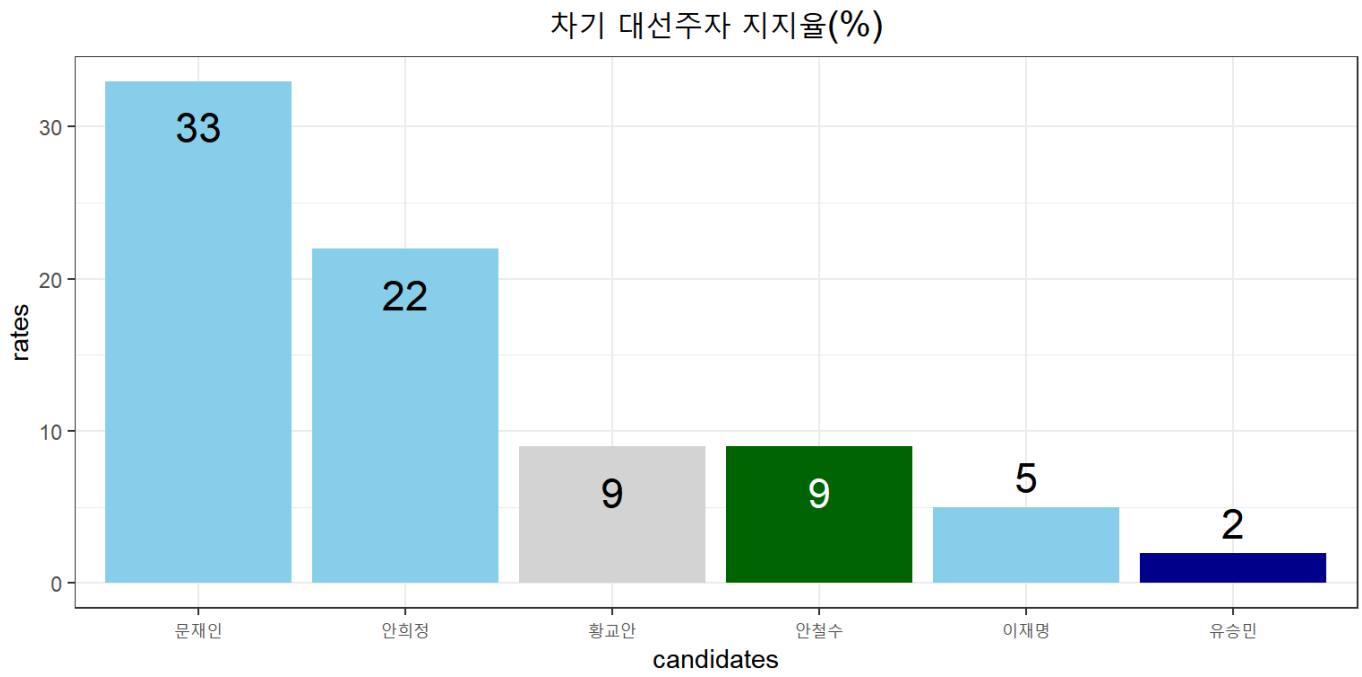

```
(g4 <- g3 +
  geom_text(mapping = aes(x = candidates,
                          y = rates + c(rep(-3, 4), rep(2, 2)),
                          label = rates),
            colour = c(rep("black", 3), "white", rep("black", 2)),
            size = 6))
```



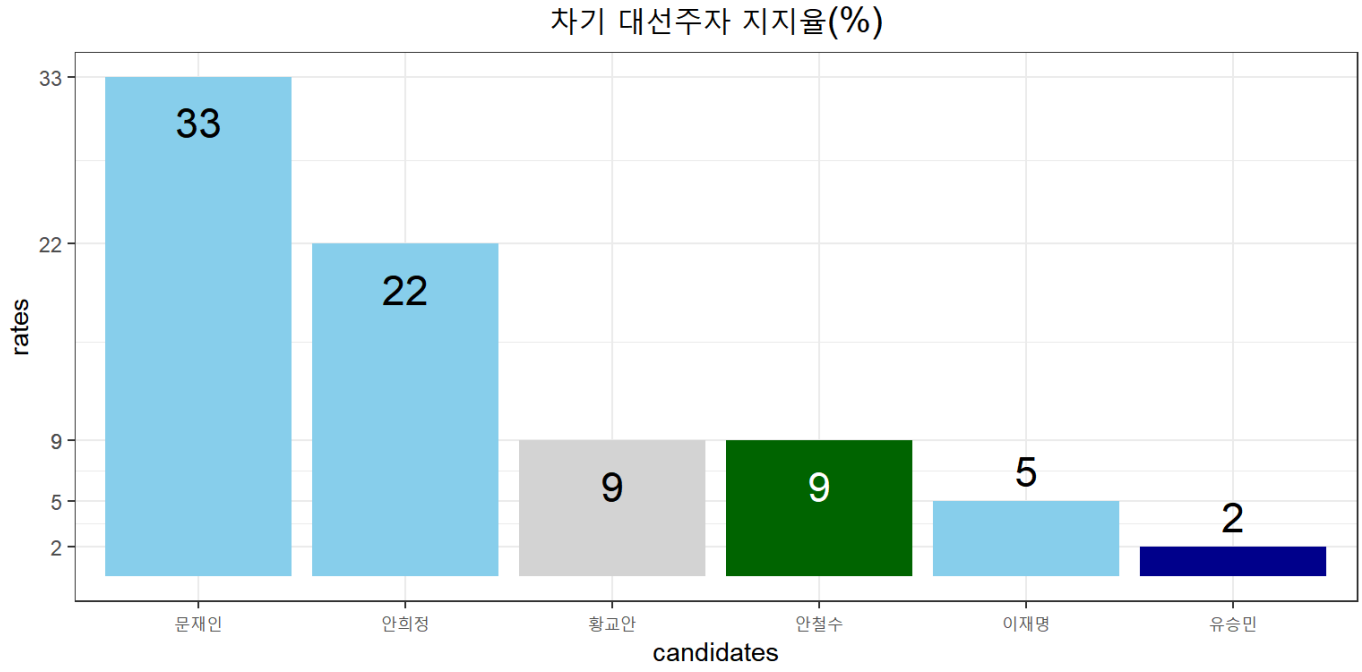

```
(g5 <- g4 +
  labs(title = main_title))
```



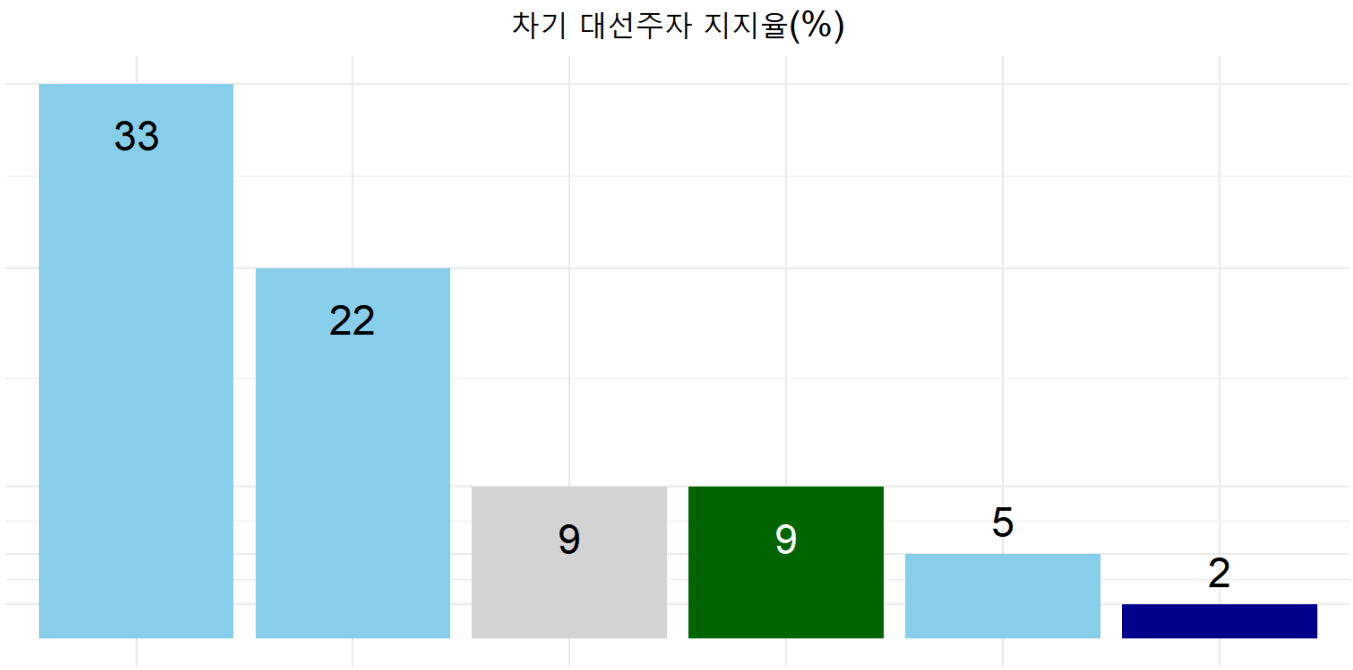
```
(g6 <- g5 +
  theme(plot.title = element_text(family = "",
                                  size = 15,
                                  hjust = 0.5)))
```



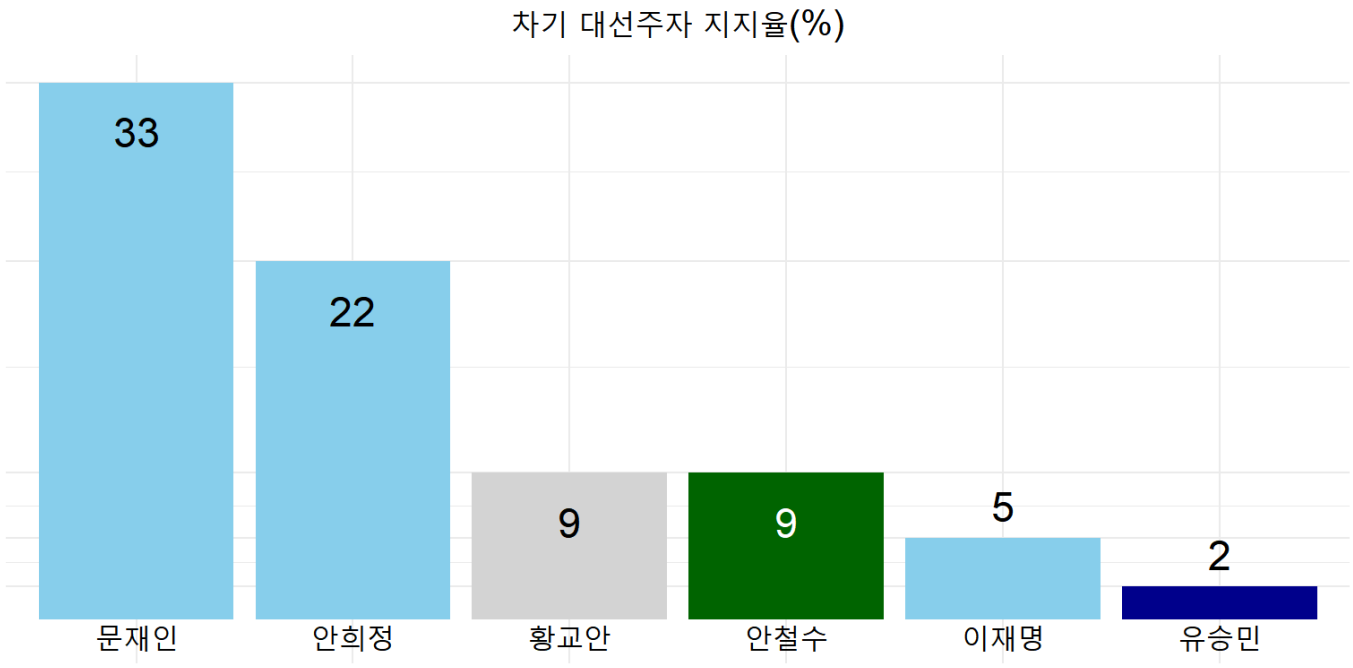

```
(g7 <- g6 +
  scale_y_continuous(breaks = rates, labels = rates))
```



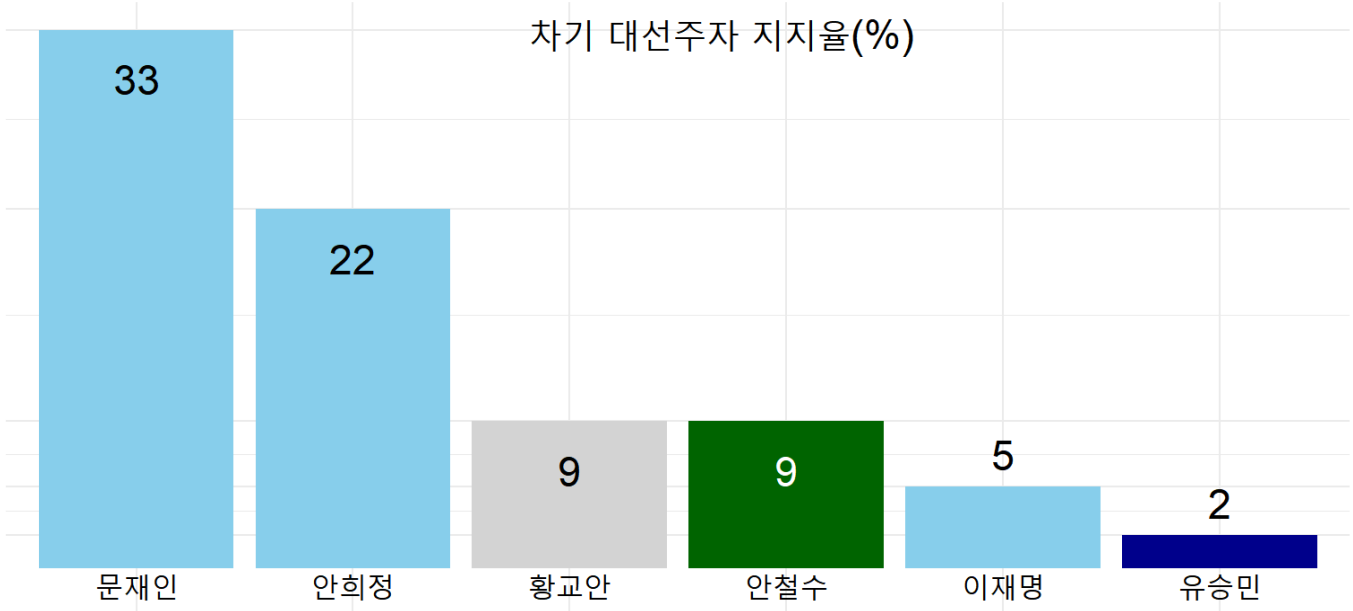
```
(g8 <- g7 +
  theme(panel.border = element_blank(),
        axis.title.x = element_blank(),
        axis.title.y = element_blank(),
        axis.text.x = element_blank(),
        axis.ticks = element_blank(),
        axis.text.y = element_blank()))
```



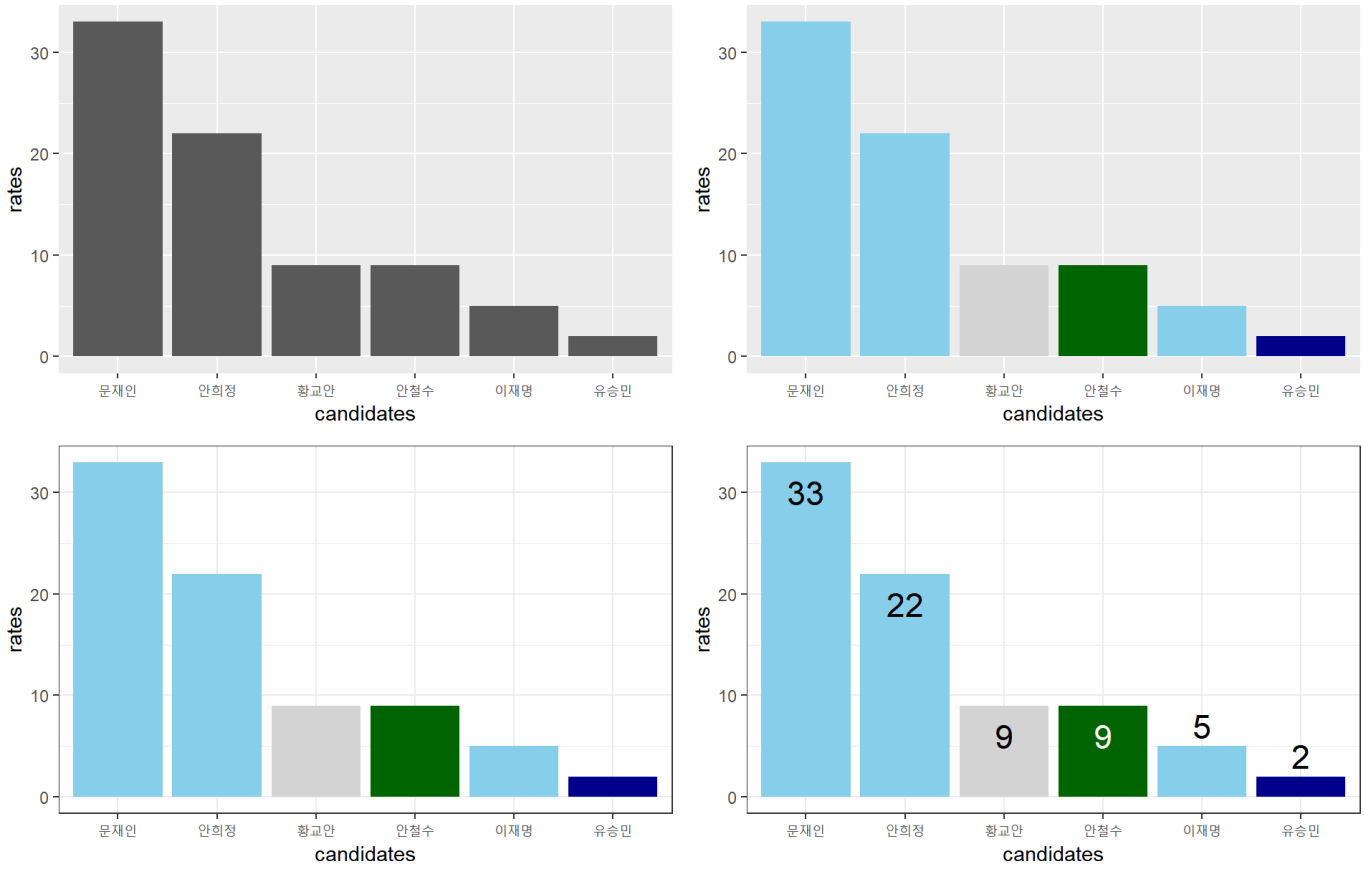

```
(g9 <- g8 +
    geom_text(mapping = aes(x = candidates,
                            y = -1,
                            label = candidates),
              size = 5,
              family = ""))
```

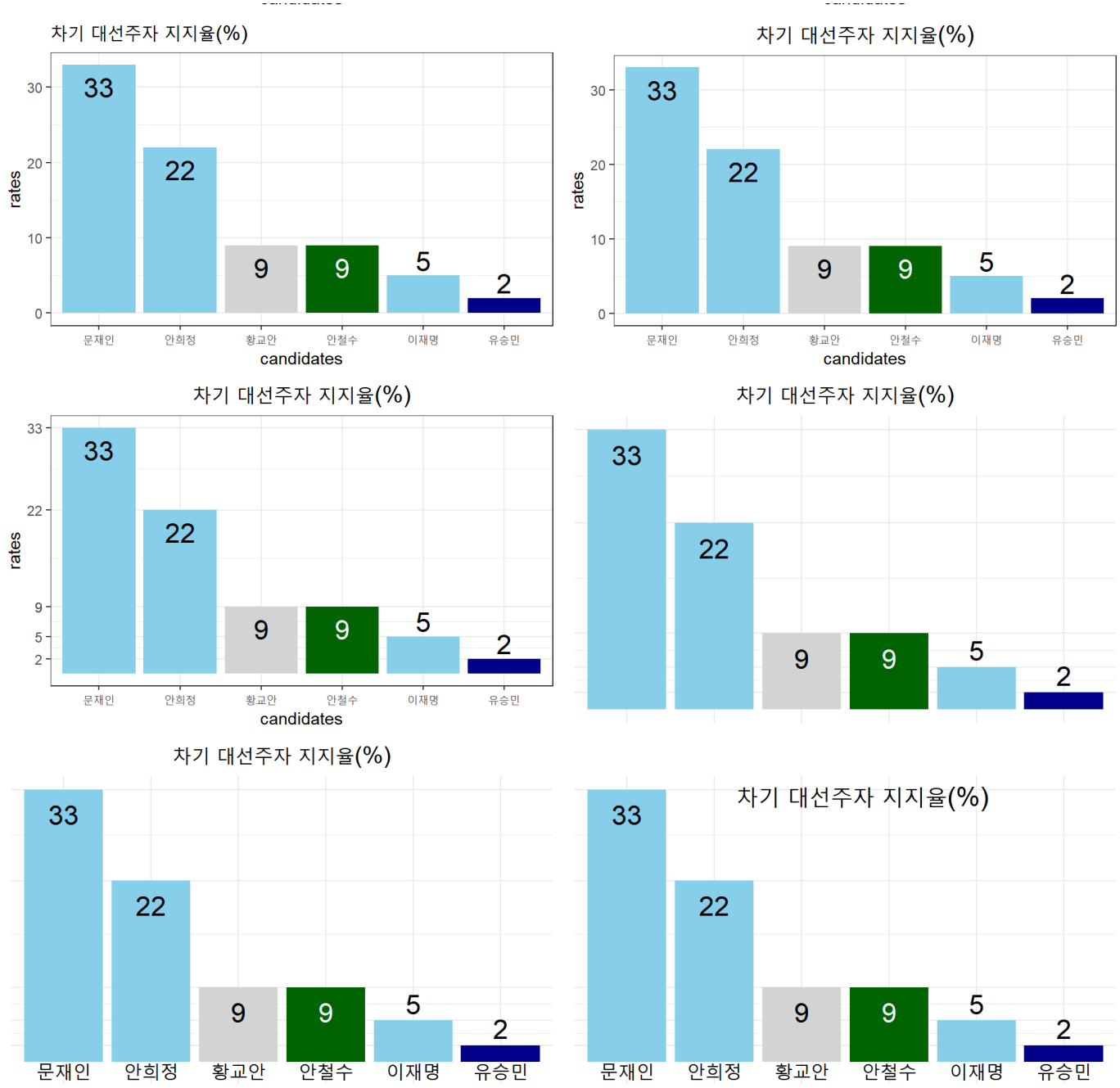


```
(g10 <- g9 +
    ggtitle("") +
    annotate("text",
             x = mean(b1),
             y = Inf,
             label = main_title,
             vjust = 1.5,
             size = 6,
             family = ""))
```




```
library(gridExtra)
g_all <- grid.arrange(g1, g2, g3, g4, g5, g6, g7, g8, g9, g10, nrow = 5)
```






```
ggsave(g10, file = "../pics/poll_JTBC_1702.png", width = 8, height = 4)
ggsave(g_all, file = "../pics/poll_JTBC_1702_plots.png", width = 10, height = 16)
```

COMMENTS

이번 수업에는 원이아닌 막대그래프를 그리는법을 배울 수 있었습니다. 확실히 원과는 달리 높이만 설정 하면 되서 더 편하게 작업 한것같이 느꼈습니다. 막대에 색을 넣고 이름과 타이틀을 넣는 과정에서 R에대해 더 많이 알아간다는 생각에 더 재미있게 느껴졌습니다. 언론에 나와있는 잘못된 사진을 보고 제가 수정할 수있는것에 대해 알고, 수정 할 수있다는 것에 대해 이번강의는 좀더 보람차게 느껴졌습니다. 하나하나 식을 바꿔갈때마다 표가 좀더 정교하고 사람들이 보기에 직관적으로 만들 수 있게 되었습니다. 좋은 강의 감사합니다.