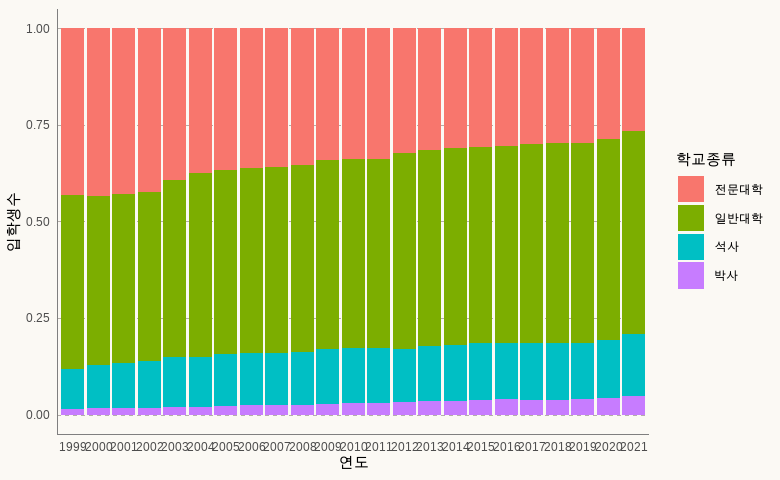
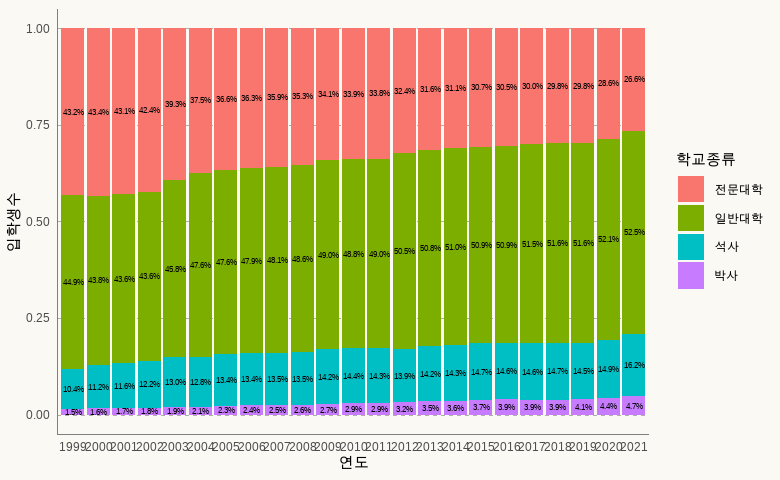
1. 구성(Composition)의 시각화

## 가로형 막대 그래프

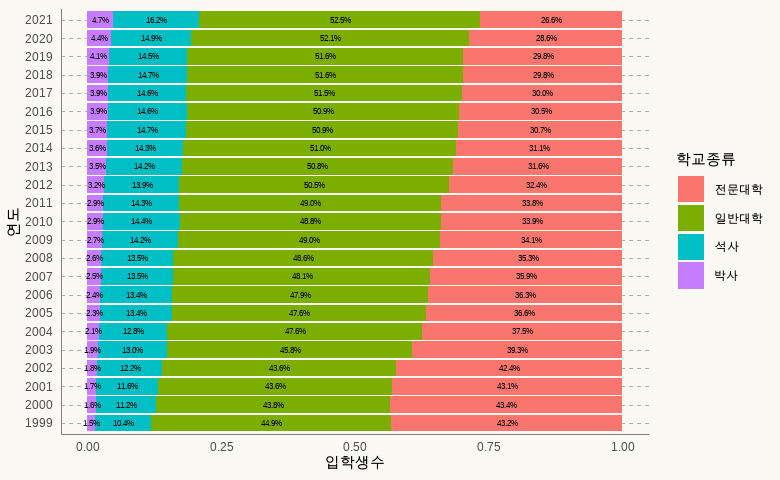
p\_col\_hor <- df\_입학자\_long |>  
 filter(학교종류 %in% c('전문대학', '일반대학', '석사', '박사'), 지역 == '전체') |>  
 mutate(학교종류 = fct\_relevel(학교종류, '전문대학', '일반대학', '석사', '박사')) |>  
 ggplot()  
  
p\_col\_hor1 <- p\_col\_hor +  
 geom\_col(aes(x = 연도, y = 입학생수, fill = 학교종류), position = 'fill')  
  
p\_col\_hor1



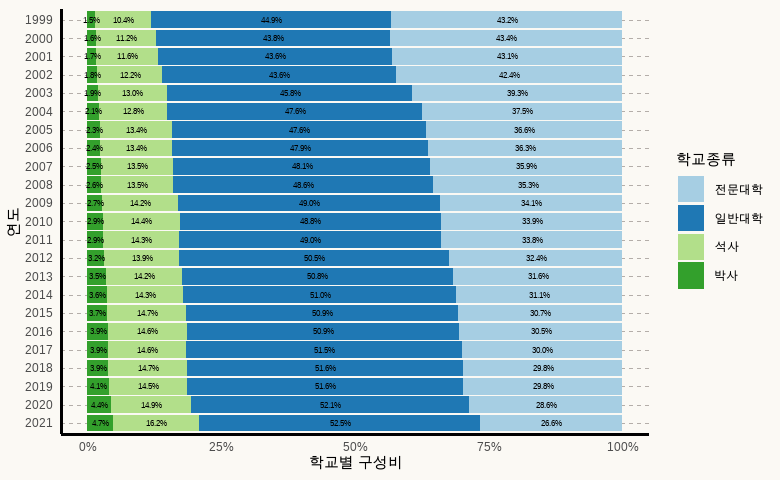
p\_col\_hor2 <- p\_col\_hor1 +   
 geom\_text(data = (df\_입학자\_long |>  
 filter(학교종류 %in% c('전문대학', '일반대학', '석사', '박사'), 지역 == '전체') |>  
 mutate(학교종류 = fct\_relevel(학교종류, '전문대학', '일반대학', '석사', '박사')) |>  
 group\_by(연도) |>  
 mutate(비율 = 입학생수 / sum(입학생수)) |>  
 ungroup()),   
 aes(x = 연도, y = 비율, label = scales::percent(비율, accuracy = 0.1), fill = 학교종류), position = position\_stack(vjust = 0.5), size = 2)  
  
p\_col\_hor2



p\_col\_hor3 <- p\_col\_hor2 +   
 coord\_flip()  
  
p\_col\_hor3



p\_col\_hor3 +   
 scale\_y\_continuous(labels = scales::percent\_format(suffix = "%", prefix = "")) +  
 scale\_x\_discrete(limits=rev) +  
 # scale\_y\_discrete(labels = scales::percent\_format()) +  
 labs(y="학교별 구성비") +  
 theme(axis.line = element\_line(size=1, colour = "black"),  
 panel.grid.major = element\_blank(), panel.grid.minor = element\_blank(),  
 panel.border = element\_blank(), panel.background = element\_blank()) + scale\_fill\_brewer(palette="Paired")



p\_col\_hor1 +   
 geom\_text(data = (df\_입학자\_long |>  
 filter(학교종류 %in% c('전문대학', '일반대학', '석사', '박사'), 지역 == '전체') |>  
 mutate(학교종류 = fct\_relevel(학교종류, '전문대학', '일반대학', '석사', '박사')) |>  
 group\_by(연도) |>  
 mutate(비율 = 입학생수 / sum(입학생수)) |>  
 ungroup()),   
 aes(x = 연도, y = 비율, label = ifelse(비율 > 0.04, paste0(round(비율, 3) \* 100,"%"), ''), fill = 학교종류), position = position\_stack(vjust = 0.5), size = 2) +   
 coord\_flip() +   
 scale\_y\_continuous(labels = scales::percent\_format(suffix = "%", prefix = "")) +  
 scale\_x\_discrete(limits=rev) +  
 # scale\_y\_discrete(labels = scales::percent\_format()) +  
 labs(y="학교별 구성비") +  
 theme(axis.line = element\_line(size=1, colour = "black"),  
 panel.grid.major = element\_blank(), panel.grid.minor = element\_blank(),  
 panel.border = element\_blank(), panel.background = element\_blank()) + scale\_fill\_brewer(palette="Paired")

