

Bhasin-S-hw1-2

2023-01-25

R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see <http://rmarkdown.rstudio.com>.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
summary(cars)
```

```
##      speed      dist
##  Min.   : 4.0    Min.   :  2.00
##  1st Qu.:12.0    1st Qu.: 26.00
##  Median :15.0    Median : 36.00
##  Mean   :15.4    Mean    : 42.98
##  3rd Qu.:19.0    3rd Qu.: 56.00
##  Max.   :25.0    Max.    :120.00
```

Including Plots

You can also embed plots, for example:



Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.

Read in enrollment data for january of each year

```
install.packages("usethis") install.packages("tidyverse") library(tidyverse) install.packages("dplyr") li-
brary(dplyr) install.packages("magrittr") library(magrittr)
```

```
#Enrollment Data
```

```
#1.
```

```
tot.obs <- as.numeric(count(full.ma.data %>% ungroup()))
```

```
#There are 19,126,783 observations in my current data set.
```

```
#2 There are 27 different plan_type in the data
```

```
plan.type.table <- full.ma.data %>% group_by(plan_type) %>% count() %>% arrange(-n)
```

```
#3
```

```
plan.type.year1 <- full.ma.data %>% group_by(plan_type, year) %>% count() %>% arrange(year,-n)
%>% filter(plan_type, NA) plan.type.year1 <- pivot_wider(plan.type.year1, names_from = "year", val-
ues_from = "n", names_prefix = "Count_")
```

```
final.data <- final.plans %>% inner_join(contract.service.area %>% select(contractid, fips, year),
by=c("contractid", "fips", "year")) %>% filter(!is.na(avg_enrollment))
```

```
#4
```

```

final.plans <- full.ma.data %>% filter(snp= 'No' & eghp == "No" & (planid < 800 | planid >= 900))
final.data <- final.plans %>% inner_join(contract.service.area %>% select(contractid, fips, year),
by=c("contractid", "fips", "year")) %>% filter(!is.na(avg_enrollment))

final.data.pen <- final.data %>% left_join (ma.penetration.data %>% ungroup()) %>% rename(state_long=state,
country_long)

plan.type.year2 <- final.plans %>% group_by(plan_type, year) %>% count() %>% arrange(year,-n) %>%
filter(plan_type, NA) plan.type.year2 <- pivot_wider(plan.type.year2, names_from = "year", values_from
= "n", names_prefix = "Count_")

#5

final.data <- final.plans %>% inner_join(contract.service.area %>% select(contractid, fips, year),
by=c("contractid", "fips", "year")) %>% filter(!is.na(avg_enrollment))

#enrollment figure

fig.avg.enrollment <- final.data %>% group_by(fips, year) %>% select(fips, year, avg_enrollment)
%>% summarize(all_enroll=sum(avg_enrollment)) %>% ggplot2(aes(x=as.factor(year), y=all_enroll))
+ stat_summary(fun.y="mean", geom = "bar") + labs( x= "Year", y= "People", title ="" ) +
scale_y_continuous(labels=comma) + theme_bw()

rm(list =c("full.ma.data,"contract.info)) # basically drop everything in environment except fig.avg. enroll +
plan.type,table + year1

#7 I think we need to use the ggplot2 function to create this graph. Before I do this, I need to eliminate
the errors I am getting in the previous codes.

#8 I think we dropped it since there were replicates when we merged the dataset

#9 The beneficiary is not making a profit since they are charging the expected value of the cost.

#10 It has been very challenging to work with this data. I think getting the tables was a learning experience
since you had to make sure R knew exactly what data to put where. Also, it was aggravating when the
errors would come, then I would try to fix them and they would keep occurring.

```