

Bar Charts to Pie Charts: Another Look

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1 Background

A quick look at moving from bar charts to pie charts.

A longer explanation of some issues is here: https://agrogan1.github.io/myposts/bar_charts_in_ggplot2.html

2 Get Data

```
load("social_service_agency.RData")
```

```
##      age  program      gender
## 1 26.79480 Program B      Male
## 2 24.86283 Program B      Male
## 3 24.47185 Program C      Male
## 4 23.53132 Program C    Female
## 5 18.71005 Program C      Male
## 6 29.95334 Program C Other Identity
```

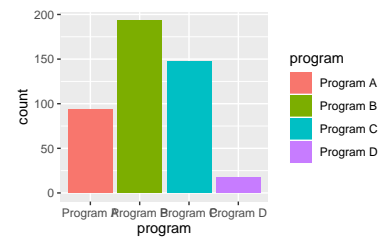
3 Call ggplot

```
library(ggplot2)
```

4 One Dimension of Data (program)

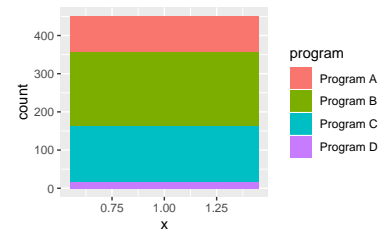
4.1 Bar Chart

```
ggplot(clients, # data I am using
  aes(x = program, # x is program
    fill = program)) + # fill is also program
  geom_bar() # use bars
```



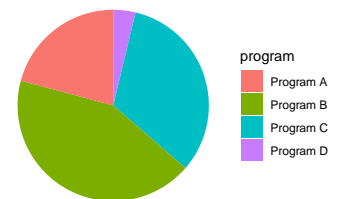
4.2 Stacked Bar Chart

```
ggplot(clients, # data I am using
  aes(x = 1, # x is now 1 for everyone
    fill = program)) + # fill is program
  geom_bar() # use bars
```



4.3 Pie Chart

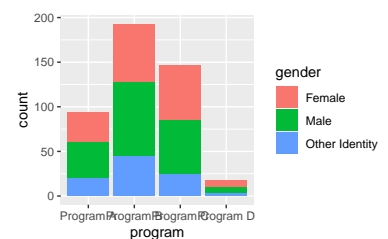
```
ggplot(clients, # data I am using
  aes(x = 1, # x is now 1 for everyone
    fill = program)) + # fill is program
  geom_bar() + # use bars
  coord_polar(theta = "y") + # use polar coordinates
  theme_void() # blank theme for pie charts
```



5 Two Dimensions of Data (program X gender)

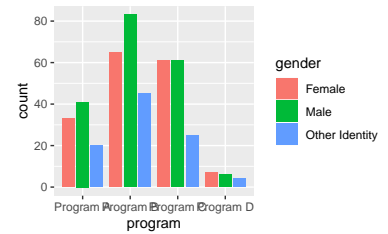
5.1 Stacked Bar Chart

```
ggplot(clients, # data I am using
  aes(x = program, # x is back to program
    fill = gender)) + # fill is gender
  geom_bar() # use bars
```



5.2 Unstack the Bars

```
ggplot(clients, # data I am using
       aes(x = program, # x is back to program
           fill = gender)) + # fill is gender
  geom_bar(position = "dodge2") # unstack ('dodge') the bars
```



5.3 Pie Chart

One approach ...

```
# position = position_fill() makes the slices
# fill the pie in each facet

ggplot(clients, # data I am using
       aes(x = 1, # x is back to 1
           fill = gender)) + # fill is gender
  geom_bar(position = position_fill()) + # use bars
  coord_polar(theta = "y") + # polar coordinates
  facet_wrap(~program) + # facet wrap on program
  theme_void() # blank theme for pie charts
```

