

# Bar Charts to Pie Charts: Another Look

Andy Grogan-Kaylor

2020-02-18

## Contents

1	<a href="#">Background</a>	1
2	<a href="#">Get Data</a>	1
3	<a href="#">Call ggplot</a>	2
4	<a href="#">One Dimension of Data (program)</a>	2
4.1	<a href="#">Bar Chart</a>	2
4.2	<a href="#">Stacked Bar Chart</a>	2
4.3	<a href="#">Pie Chart</a>	2
5	<a href="#">Two Dimensions of Data (program X gender)</a>	2
5.1	<a href="#">Stacked Bar Chart</a>	2
5.2	<a href="#">Unstack the Bars</a>	3
5.3	<a href="#">Pie Chart</a>	3

## 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](https://agrogan1.github.io/myposts/bar_charts_in_ggplot2.html)

## 2 Get Data

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

age	program	gender
26.79	Program B	Male
24.86	Program B	Male
24.47	Program C	Male
23.53	Program C	Female
18.71	Program C	Male
29.95	Program C	Other Identity

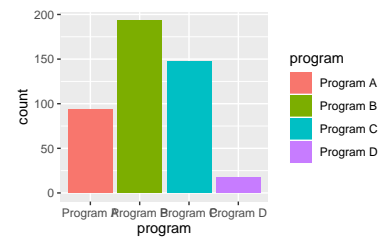
### 3 Call ggplot

```
library(ggplot2)
```

## 4 One Dimension of Data (program)

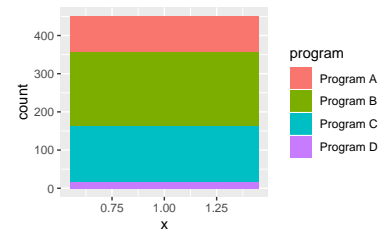
### 4.1 Bar Chart

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



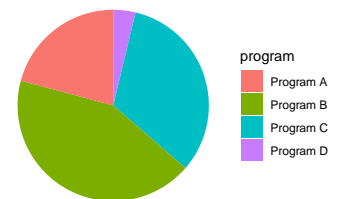
### 4.2 Stacked Bar Chart

```
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

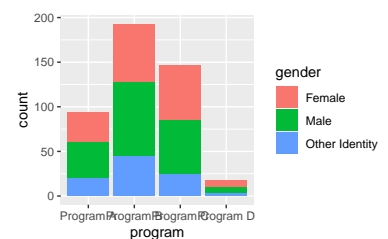
```
ggplot(clients, # data I am using
  aes(x = 1, # x is now 1 for everyone
    fill = program)) + # fill is program
  geom_bar() + # use bars
  coord_polar(theta = "y") + # use polar coordinates
  theme_void() # blank theme for pie charts
```



## 5 Two Dimensions of Data (program X gender)

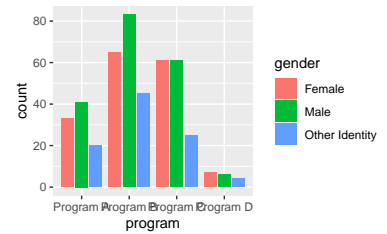
### 5.1 Stacked Bar Chart

```
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
```

