Homework_3

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```
.chunkcolor {
background-color: MistyRose;
}
```

Introduction

The following data-set is the pre-merged version taken from AidData, a research lab at William & Mary. It observes China's government-financed development projects abroad between 2000-2014. This data-set includes 3,485 projects that are worth $273.6 billion in total financing and observes these projects over 20 different variables.

We will be using the two variables 'transactions_start_year' and 'total_commitments' to examine some descriptive statistics.

```
select(chinaprojects, transactions_start_year, total_commitments)%>%
head()%>%
kbl()%>%
kable_classic("striped", full_width = F)
```

transactions_start_year	total_commitments
2010	NA
2008	396886331
2001	1364094
2001	NA
2003	NA
2004	51378371

Descriptive Statistics

Below we will examine some descriptive statistics of the variable 'total_commitments' and 'transactions_start_year'.

```
summarize(chinaprojects, Mean = mean(total_commitments, na.rm = TRUE), Median = median(total_commitments, na.rm = TRUE), Standa
kbl(format.args = list(decimal.mark = '.', big.mark = ","))%>%
kable_classic(full_width = F)
```

Frequency of projects by year:

```
chinaprojects%>%
  count(transactions_start_year)%>%
```

Mean	Median	StandardDev	IQR
139,100,721	8,589,290	699,217,872	70,634,508

```
kbl()%>%
kable_classic(full_width = F)
```

transactions_start_year	n
2000	90
2001	107
2002	104
2003	150
2004	165
2005	218
2006	287
2007	289
2008	260
2009	341
2010	301
2011	337
2012	281
2013	284
2014	271

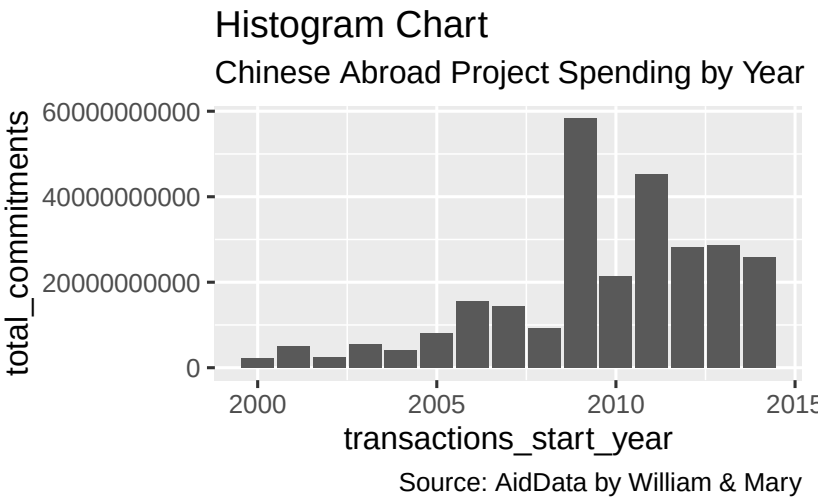
Percentage of spending by year

```
prop.table(xtabs(total_commitments ~ transactions_start_year, chinaprojects))*100
```

```
## transactions_start_year
##      2000      2001      2002      2003      2004      2005      2006
## 0.8084842 1.8109986 0.9502598 2.0127279 1.4701241 2.9098290 5.6916617
##      2007      2008      2009      2010      2011      2012      2013
## 5.2582691 3.3385898 21.3025586 7.7741797 16.5342920 10.2535012 10.4622808
##      2014
## 9.4222436
```

Graph showing total spending by year:

```
options(scipen=999)
chinaprojects %>%
 ggplot(aes(x = transactions_start_year,
        y = total_commitments)) +
 geom_histogram(stat='identity') +
 labs(title="Histogram Chart",
    subtitle="Chinese Abroad Project Spending by Year",
    caption="Source: AidData by William & Mary")
```



Sources

Original publication
Pre-merged data