

QuakesAndWells

Intro

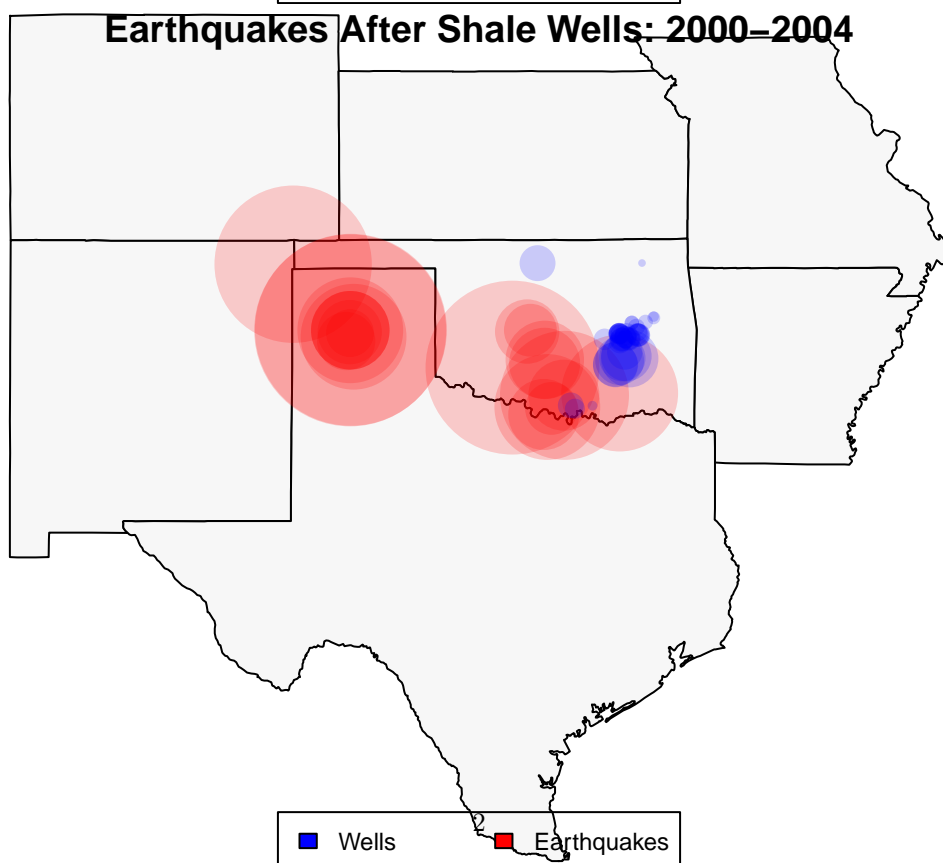
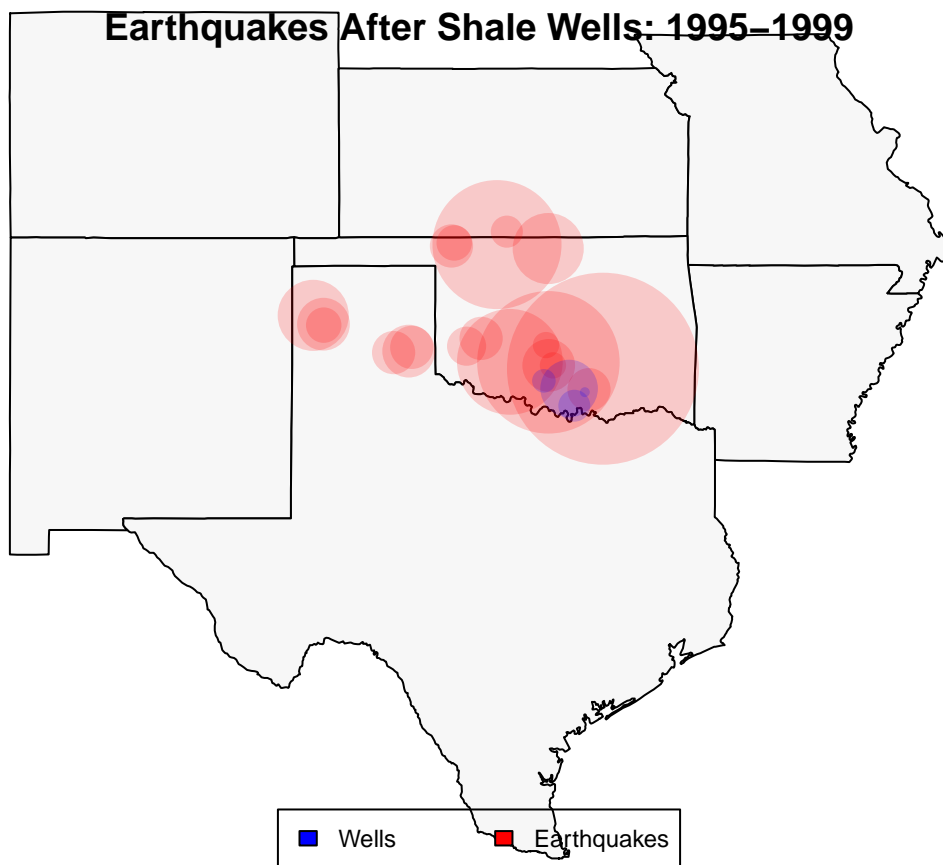
```
##This dataset examines fracking locations across Oklahoma, Kansas, Texas, Arkansa, New  
##Mexico, Missouri and Colorado, as well as earthquakes in those same states.
```

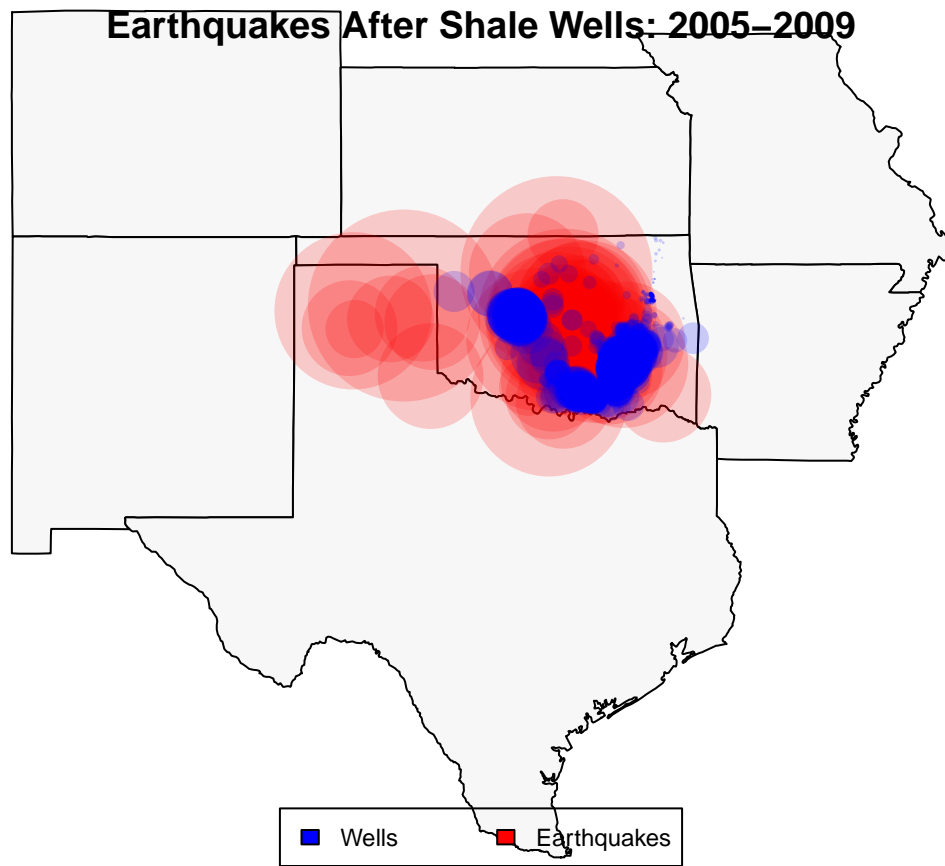
Data Manipulation

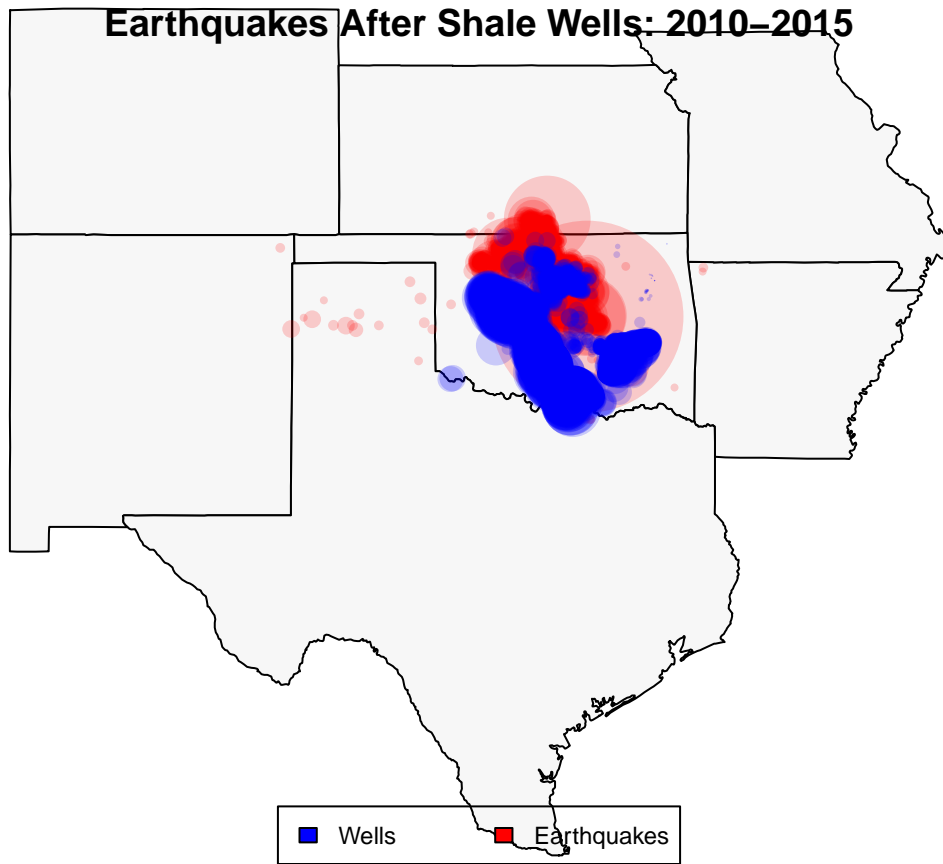
```
quakes <- read.csv("Quakes.csv")  
wells <- read.csv("Wells.csv")  
quakes1 <- subset(quakes, year==1995|year==1996|year==1997|year==1998|year==1999)  
quakes2 <- subset(quakes, year==2000|year==2001|year==2002|year==2003|year==2004)  
quakes3 <- subset(quakes, year==2005|year==2006|year==2007|year==2008|year==2009)  
quakes4 <- subset(quakes, year==2010|year==2011|year==2012|year==2013|year==2014|year==2015)  
wells1 <- subset(wells, Year==1995|Year==1996|Year==1997|Year==1998|Year==1999)  
wells2 <- subset(wells, Year==2000|Year==2001|Year==2002|Year==2003|Year==2004)  
wells3 <- subset(wells, Year==2005|Year==2006|Year==2007|Year==2008|Year==2009)  
wells4 <- subset(wells, Year==2010|Year==2011|Year==2012|Year==2013|Year==2014|Year==2015)  
  
##Subsetting data into 5-6 year chunks for modeling purposes.
```

Visualization

Multiple States

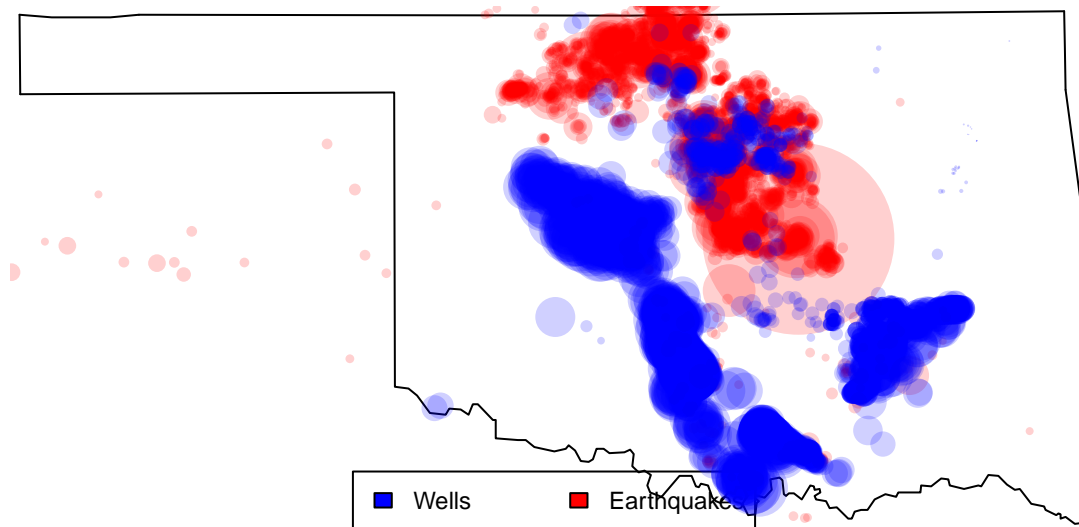






OK Only

Earthquakes After Shale Wells in OK: 2010–2015



Other Figures

```
## [1] "Number of Wells Dug 1995 - 1999:"  
## [1] 4  
## [1] "Number of Earthquakes 1995 - 1999:"  
## [1] 20  
## [1] "Average Quake Magnitude:"  
## [1] 3.225  
## [1] "Highest Quake Reported"  
## [1] 4.5  
## [1] "Number of Wells Dug 2000 - 2004:"  
## [1] 47  
## [1] "Number of Earthquakes 2000 - 2004:"  
## [1] 22  
## [1] "Average Quake Magnitude:"  
## [1] 3.127273
```

```
## [1] "Highest Quake Reported"
## [1] 3.9
## [1] "Number of Wells Dug 2005 - 2009:"
## [1] 1423
## [1] "Number of Earthquakes 2005 - 2009:"
## [1] 67
## [1] "Average Quake Magnitude:"
## [1] 2.953731
## [1] "Highest Quake Reported"
## [1] 3.7
## [1] "Number of Wells Dug 2010 - 2015:"
## [1] 2883
## [1] "Number of Earthquakes 2010 - 2015:"
## [1] 5645
## [1] "Average Quake Magnitude:"
## [1] 2.858078
## [1] "Highest Quake Reported"
## [1] 5.7
```