Untitled

intrade08 <- read.csv("/Users/clayparham/Documents/Bush631-/Assignment 7/intrade08.csv")  
pres08 <- read.csv("/Users/clayparham/Documents/Bush631-/Assignment 7/pres08.csv")  
polls08 <- read.csv("/Users/clayparham/Documents/Bush631-/Assignment 7/polls08.csv")  
pres12 <- read.csv("/Users/clayparham/Documents/Bush631-/Assignment 7/pres12.csv")  
intrade12 <- read.csv("/Users/clayparham/Documents/Bush631-/Assignment 7/intrade12.csv")

## Question 5

What is the relationship between the price margins of the Intrade market and the actual margin of victory?

Using only the market data from the day before the election in 2008, regress Obama’s actual margin of victory in each state on Obama’s price margin from the Intrade markets.

Similarly, in a separate analysis, regress Obama’s actual margin of victory on the Obama’s predicted margin from the latest polls within each state.

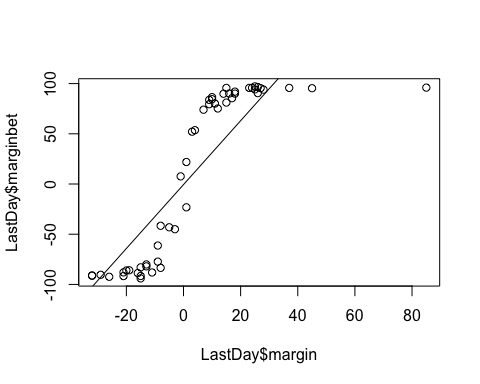
Interpret the results of these regressions.

I think it is fairly clear that the betting markets align closely with the results of the election, although it seems that they betting markets are fairly skewed towards the margins, creating a pattern that isn’t exactly linear. That makes me question the usefulness of the regression without a normalizing function.

intresults08 <- merge(intrade08, pres08, by = "state")  
LastDay <-subset(intresults08, subset = (day == "2008-11-03"))  
for (i in 1:51){  
 LastDay$margin[i] <- LastDay$Obama[i] - LastDay$McCain[i]  
 LastDay$marginbet[i] <- LastDay$PriceD[i] - LastDay$PriceR[i]  
}  
  
lm(marginbet ~ margin, data = LastDay)

##   
## Call:  
## lm(formula = marginbet ~ margin, data = LastDay)  
##   
## Coefficients:  
## (Intercept) margin   
## -0.5835 3.1821

plot(LastDay$margin, LastDay$marginbet, abline(lm(LastDay$marginbet ~ LastDay$margin)))

 Do the 2008 predictions of polls and Intrade accurately predict each state’s 2012 elections results? Using the fitted regressions from the previous question, forecast Obama’s actual margin of victory for the 2012 election in two ways. First, use the 2012 Intrade price margins from the day before the election as the predictor in each state. Recall that the 2012 Intrade data do not contain market prices for all states. Ignore states without data. Second, use the 2012 poll predicted margins from the latest polls in each state as the predictor, found in polls12.csv.

## Question 6

We see that there is a very strong correlation between the betting markets in 2012 and the results in 2012. This shows me that there is a high degree of correlation between what the market believes and what the results show. That means that one can probably safely use the betting markets as a predictor.

intresults12<- merge(intrade12, pres12, by = "state")  
LastDay.12 <-subset(intresults12, subset = (day == "2012-11-05"))  
LastDay.12

## state day statename PriceD VolumeD PriceR VolumeR Obama  
## 524 AK 2012-11-05 Alaska 10.0 0 94.0 0 41  
## 737 AL 2012-11-05 Alabama NA 0 97.5 0 38  
## 1620 AR 2012-11-05 Arkansas NA 0 97.5 0 37  
## 2236 AZ 2012-11-05 Arizona 5.5 16 94.1 2 45  
## 2921 CA 2012-11-05 California 95.0 50 6.8 1124 60  
## 3446 CO 2012-11-05 Colorado 60.4 3463 49.0 3169 51  
## 4295 CT 2012-11-05 Connecticut 99.0 0 4.0 0 58  
## 4907 DE 2012-11-05 Delaware 96.0 0 NA 0 59  
## 5433 FL 2012-11-05 Florida 33.8 6306 71.4 3224 50  
## 6204 GA 2012-11-05 Georgia 3.0 15 98.7 0 45  
## 6975 HI 2012-11-05 Hawaii 97.5 0 10.0 0 71  
## 7327 IA 2012-11-05 Iowa 69.0 576 32.0 567 52  
## 8194 ID 2012-11-05 Idaho NA 0 93.5 0 33  
## 8764 IL 2012-11-05 Illinois 98.9 1 7.0 133 58  
## 9452 IN 2012-11-05 Indiana 2.0 99 97.5 99 44  
## 9826 KS 2012-11-05 Kansas NA 0 96.4 0 38  
## 10665 KY 2012-11-05 Kentucky 0.1 0 96.0 1 38  
## 11313 LA 2012-11-05 Louisiana NA 0 75.5 0 41  
## 11953 MA 2012-11-05 Massachusetts 99.5 0 3.0 6 61  
## 12856 MD 2012-11-05 Maryland 94.0 0 NA 0 62  
## 13594 ME 2012-11-05 Maine 93.0 1 20.0 1 56  
## 13758 MI 2012-11-05 Michigan 84.0 344 10.8 826 54  
## 14515 MN 2012-11-05 Minnesota 90.0 221 15.6 546 53  
## 15365 MO 2012-11-05 Missouri 3.5 107 95.0 264 44  
## 15858 MS 2012-11-05 Mississippi 4.9 0 82.5 0 44  
## 16965 MT 2012-11-05 Montana 5.0 10 98.9 6 42  
## 17542 NC 2012-11-05 North Carolina 22.4 1284 79.5 1233 48  
## 17847 ND 2012-11-05 North Dakota 0.4 13 99.0 0 39  
## 18804 NE 2012-11-05 Nebraska NA 0 82.9 0 38  
## 19406 NH 2012-11-05 New Hampshire 67.2 619 33.0 762 52  
## 20094 NJ 2012-11-05 New Jersey 97.9 0 6.1 0 58  
## 20418 NM 2012-11-05 New Mexico 86.0 9 4.5 14 53  
## 21504 NV 2012-11-05 Nevada 80.8 341 12.1 423 52  
## 21800 NY 2012-11-05 New York 95.0 0 NA 0 63  
## 22333 OH 2012-11-05 Ohio 68.5 1502 31.6 925 51  
## 22914 OK 2012-11-05 Oklahoma 0.1 0 97.0 0 33  
## 23591 OR 2012-11-05 Oregon 95.9 1 9.8 18 54  
## 24198 PA 2012-11-05 Pennsylvania 85.0 1759 15.2 2720 52  
## 24845 RI 2012-11-05 Rhode Island 95.0 0 NA 0 63  
## 25496 SC 2012-11-05 South Carolina 4.0 40 98.0 0 44  
## 26265 SD 2012-11-05 South Dakota 5.0 0 94.0 0 40  
## 26845 TN 2012-11-05 Tennessee 2.0 0 90.0 0 39  
## 27727 TX 2012-11-05 Texas 2.0 0 99.5 0 41  
## 28134 UT 2012-11-05 Utah 4.5 0 91.5 0 25  
## 29143 VA 2012-11-05 Virginia 55.7 2697 46.9 3056 51  
## 29476 VT 2012-11-05 Vermont 98.0 1 0.5 0 67  
## 30161 WA 2012-11-05 Washington 97.5 0 5.0 10 56  
## 31089 WI 2012-11-05 Wisconsin 79.9 875 23.0 1400 53  
## 31706 WV 2012-11-05 West Virginia 2.0 0 93.0 0 36  
## 32620 WY 2012-11-05 Wyoming 0.2 0 85.0 0 28  
## Romney EV  
## 524 55 3  
## 737 61 9  
## 1620 61 6  
## 2236 54 11  
## 2921 37 55  
## 3446 46 9  
## 4295 41 7  
## 4907 40 3  
## 5433 49 29  
## 6204 53 16  
## 6975 28 4  
## 7327 46 6  
## 8194 65 4  
## 8764 41 20  
## 9452 54 11  
## 9826 60 6  
## 10665 60 8  
## 11313 58 8  
## 11953 38 11  
## 12856 36 10  
## 13594 41 4  
## 13758 45 16  
## 14515 45 10  
## 15365 54 10  
## 15858 55 6  
## 16965 55 3  
## 17542 50 15  
## 17847 58 3  
## 18804 60 5  
## 19406 46 4  
## 20094 41 14  
## 20418 43 5  
## 21504 46 6  
## 21800 35 29  
## 22333 48 18  
## 22914 67 7  
## 23591 42 7  
## 24198 47 20  
## 24845 35 4  
## 25496 55 9  
## 26265 58 3  
## 26845 59 11  
## 27727 57 38  
## 28134 73 6  
## 29143 47 13  
## 29476 31 3  
## 30161 41 12  
## 31089 46 10  
## 31706 62 5  
## 32620 69 3

for (i in 1:50){  
 LastDay.12$margin[i] <- LastDay.12$Obama[i] - LastDay.12$Romney[i]  
 LastDay.12$marginbet[i] <- LastDay.12$PriceD[i] - LastDay.12$PriceR[i]  
  
}  
lm(marginbet~margin, data = LastDay.12)

##   
## Call:  
## lm(formula = marginbet ~ margin, data = LastDay.12)  
##   
## Coefficients:  
## (Intercept) margin   
## -0.7842 3.6371

plot(LastDay.12$margin, LastDay.12$marginbet, abline(lm(LastDay.12$marginbet ~ LastDay.12$margin)))

