Pretty\_SFR

### Import Packages + Read in Data

library(tidyverse)

## ── Attaching packages ───────────────────────────────────────────────── tidyverse 1.3.0 ──

## ✓ ggplot2 3.3.0 ✓ purrr 0.3.3  
## ✓ tibble 3.0.0 ✓ dplyr 0.8.5  
## ✓ tidyr 1.0.0 ✓ stringr 1.4.0  
## ✓ readr 1.3.1 ✓ forcats 0.4.0

## ── Conflicts ──────────────────────────────────────────────────── tidyverse\_conflicts() ──  
## x dplyr::filter() masks stats::filter()  
## x dplyr::lag() masks stats::lag()

library(magrittr)

##   
## Attaching package: 'magrittr'

## The following object is masked from 'package:purrr':  
##   
## set\_names

## The following object is masked from 'package:tidyr':  
##   
## extract

library(here)

## here() starts at /Users/salmahuque/Desktop/BigThesis/ThesisR

library(data.table)

##   
## Attaching package: 'data.table'

## The following objects are masked from 'package:dplyr':  
##   
## between, first, last

## The following object is masked from 'package:purrr':  
##   
## transpose

library(MASS)

##   
## Attaching package: 'MASS'

## The following object is masked from 'package:dplyr':  
##   
## select

library(xtable)  
library(knitr)  
library(stargazer)

##   
## Please cite as:

## Hlavac, Marek (2018). stargazer: Well-Formatted Regression and Summary Statistics Tables.

## R package version 5.2.2. https://CRAN.R-project.org/package=stargazer

library(pander)  
library(kableExtra)

##   
## Attaching package: 'kableExtra'

## The following object is masked from 'package:dplyr':  
##   
## group\_rows

library(lubridate)

##   
## Attaching package: 'lubridate'

## The following objects are masked from 'package:data.table':  
##   
## hour, isoweek, mday, minute, month, quarter, second, wday, week,  
## yday, year

## The following object is masked from 'package:here':  
##   
## here

## The following object is masked from 'package:base':  
##   
## date

# read in csv  
thesis\_data <- read\_csv(here::here("DATA","thesis-data.csv"))

## Warning: Missing column names filled in: 'X1' [1]

## Parsed with column specification:  
## cols(  
## .default = col\_double(),  
## STATE\_ID = col\_character(),  
## RNO = col\_character(),  
## OWNER1 = col\_character(),  
## OWNER2 = col\_logical(),  
## OWNER3 = col\_logical(),  
## OWNERADDR = col\_character(),  
## OWNERCITY = col\_character(),  
## OWNERSTATE = col\_character(),  
## OWNERZIP = col\_character(),  
## SITEADDR = col\_character(),  
## SITECITY = col\_character(),  
## SITE\_STATE = col\_character(),  
## LEGAL\_DESC = col\_character(),  
## PROP\_CODE = col\_character(),  
## PRPCD\_DESC = col\_character(),  
## LANDUSE = col\_character(),  
## BEDROOMS = col\_logical(),  
## MKTVALYR3 = col\_character(),  
## SALEDATE = col\_character(),  
## ACC\_STATUS = col\_character()  
## # ... with 37 more columns  
## )

## See spec(...) for full column specifications.

## Warning: 19 parsing failures.  
## row col expected actual file  
## 8747 SHARED 1/0/T/F/TRUE/FALSE Y '/Users/salmahuque/Desktop/BigThesis/ThesisR/DATA/thesis-data.csv'  
## 20798 SHARED 1/0/T/F/TRUE/FALSE Y '/Users/salmahuque/Desktop/BigThesis/ThesisR/DATA/thesis-data.csv'  
## 20986 SHARED 1/0/T/F/TRUE/FALSE Y '/Users/salmahuque/Desktop/BigThesis/ThesisR/DATA/thesis-data.csv'  
## 21094 SHARED 1/0/T/F/TRUE/FALSE Y '/Users/salmahuque/Desktop/BigThesis/ThesisR/DATA/thesis-data.csv'  
## 21096 SHARED 1/0/T/F/TRUE/FALSE Y '/Users/salmahuque/Desktop/BigThesis/ThesisR/DATA/thesis-data.csv'  
## ..... ...... .................. ...... ..................................................................  
## See problems(...) for more details.

# Split Data  
SFR <- thesis\_data %>%  
 filter(PRPCD\_DESC == "RESIDENTIAL IMPROVED", prop\_type == "Single-family")  
  
# Clean SFR Dataframe  
test1 <- SFR %>%  
 dplyr::select(-c(OWNER2, OWNER3, OWNERZIP,   
 MKTVALYR1, MKTVALYR2,  
 BLDGVAL1, BLDGVAL2,  
 LANDVAL1, LANDVAL2,   
 TOTALVAL1, TOTALVAL2,  
 MS\_GRADE, ES\_GRADE,  
 LEGAL\_DESC, TAXCODE, PROP\_CODE, LANDUSE, BEDROOMS, ACC\_STATUS, NAME, COMMPLAN, SHARED, COALIT, HORZ\_VERT, AUDIT\_NBRH, MIDDLE\_SCH, Category, SOURCE, FRONTAGE, COUNTY, YEARBUILT, bldgtype)) %>%  
 mutate(top\_1 = SALEPRICE > quantile(SALEPRICE, .99),  
 MKTVALYR3 = case\_when(MKTVALYR3 != 2018 ~ 2017,   
 TRUE ~ 2018),  
 price\_diff = SALEPRICE - LANDVAL3,   
 price\_ratio = SALEPRICE/LANDVAL3 \* 100,  
 vacant\_dummy = PRPCD\_DESC == "VACANT LAND",  
 llc\_flag = grepl("LLC", OWNER1),  
 proud\_flag = grepl("PROUD", OWNER1),  
 trust\_flag = grepl("TRUST", OWNER1) & !grepl("FAMILY", OWNER1) & !grepl("LIVING", OWNER1)) %>%  
 mutate(arms\_length = price\_ratio > 20,  
 na\_if(yearbuilt, 0))  
  
# switch the NAs in the constraints to 0s  
to0 <- function(x){ifelse(is.na(x), 0, x)}  
  
# Make a string of constraints and percent canopy names called "con\_names"  
clean <- SFR %>%  
 dplyr::select(contains("con"), contains("pct")) %>%  
 dplyr::select(-c("CONCRETE", "FIN SECOND", "PAVING/CONCRETE ONLY", "UNF SECOND", "conFldway", "pct\_conFldway"))   
clean\_names <- names(clean)  
con\_names <- paste(clean\_names, collapse = " + ")  
  
# removing observations   
dat1 <- test1 %>% #25,266  
 mutate\_at(vars(clean\_names), to0) %>%  
 filter(top\_1 == FALSE, #25,013, #253  
 arms\_length == TRUE, #24,495 #472  
 vacant\_dummy == FALSE, #24,495 #0  
 proud\_flag == FALSE, #24,480 #15  
 llc\_flag == FALSE, #24,128 #413  
 trust\_flag == FALSE #24,081 #52  
 )

## Note: Using an external vector in selections is ambiguous.  
## ℹ Use `all\_of(clean\_names)` instead of `clean\_names` to silence this message.  
## ℹ See <https://tidyselect.r-lib.org/reference/faq-external-vector.html>.  
## This message is displayed once per session.

#garage sqft  
gar\_sqft\_sum <- dat1 %>%  
 dplyr::select(matches("gar")) %>%  
 rowSums()  
  
# attic sqft  
attic\_sqft\_sum <- dat1 %>%  
 dplyr::select(matches("attic")) %>%  
 rowSums()  
  
# basement sqft  
bsmt\_sqft\_sum <- dat1 %>%  
 dplyr::select(matches("bsmt")) %>%  
 dplyr::select(-c("BSMT PARKING","BSMT GAR")) %>%  
 rowSums()  
   
dat1 %<>%  
 mutate(garage\_sqft = gar\_sqft\_sum,  
 garage\_dum = garage\_sqft > 0,  
 attic\_sqft = attic\_sqft\_sum,  
 attic\_dum = attic\_sqft > 0,  
 bsmt\_sqft = bsmt\_sqft\_sum,  
 bsmt\_dum = bsmt\_sqft > 0,  
 saledate = mdy(saledate),   
 year\_sold = year(saledate)) %>%  
 filter(between(totalsqft, 1, 7500),   
 yearbuilt > 1500)

### Exploration

# A Look at the Dataset-------------------------------------------------  
  
salma <- summary(dat1) # notes in thesis notebook  
  
controls <- dat1 %>%  
 dplyr::select(price\_diff, pct\_canopy\_cov, taxlot\_area, yearbuilt, totalsqft, dist\_ugb, dist\_cityhall, percent\_vacant, CN\_score,   
 SALEPRICE)  
nm <- names(controls)  
  
# Correlation-------------------------------------------------  
  
correlation <- cor(controls, use = "pairwise.complete.obs")  
#takes only obs for which both vars are not NA  
  
# Scatterplots-------------------------------------------------  
  
for (i in seq\_along(nm)) {  
 print(names(controls[i]))  
 print(ggplot(controls, aes\_string(y = nm[length(nm)], x = nm[i])) +   
 geom\_point(alpha = 0.1) +  
 geom\_smooth())  
}  
  
ggplot(dat1, aes(y = SALEPRICE, x = TOTALVAL3)) +   
 geom\_point(alpha = 0.1)  
  
ggplot(dat1, aes(y = log(SALEPRICE), x = taxlot\_area)) +   
 geom\_point(alpha = 0.1)  
  
# Outliers -- Box Plots-------------------------------------------------  
  
# best for discrete x  
  
for (i in seq\_along(nm)) {  
 print(names(controls[i]))  
 print(ggplot(controls, aes\_string(y = nm[length(nm)], x = nm[i])) +   
 geom\_boxplot(alpha = 0.1))  
}  
  
# Distribution -- Density Plots---------------------------------  
  
# Now to check the linearity of the variables it is a good practice to plot distribution graph and look for skewness of features. Kernel density estimate (kde) is a quite useful tool for plotting the shape of a distribution.  
  
for (i in seq\_along(nm)) {  
 print(names(controls[i]))  
 print(ggplot(controls, aes\_string(x = nm[i])) +   
 geom\_histogram(bins = 50))  
}

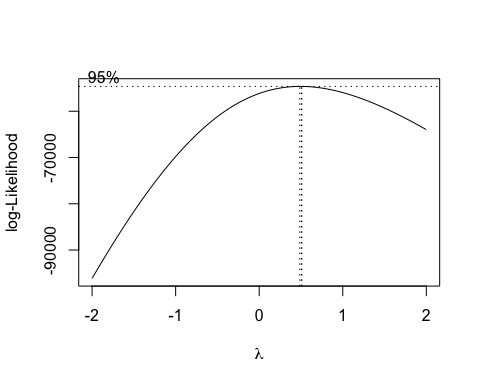
### Regressions

# LINEAR REGRESSION-----------------------------------------  
  
# formula: only dummies, no percent except for percent canopy cover  
sfr\_lin = formula(paste0("SALEPRICE ~   
 CN\_score + percent\_vacant + dist\_cityhall + dist\_ugb + totalsqft + yearbuilt + f\_baths + h\_baths + n\_fireplaces + ADUdummy + pct\_canopy\_cov + taxlot\_area + garage\_dum + attic\_dum + bsmt\_dum + year\_sold + MapLabel + HIGH\_SCH + ", con\_names))  
  
# reg  
sfr\_lin\_mod <- lm(sfr\_lin, dat1)  
summary(sfr\_lin\_mod)

##   
## Call:  
## lm(formula = sfr\_lin, data = dat1)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -659207 -49654 1771 49929 648721   
##   
## Coefficients: (6 not defined because of singularities)  
## Estimate Std. Error  
## (Intercept) -5.488e+07 1.418e+06  
## CN\_score -3.266e+02 1.058e+02  
## percent\_vacant 1.577e+02 3.277e+03  
## dist\_cityhall -5.649e+00 4.095e-01  
## dist\_ugb -1.235e+00 5.077e-01  
## totalsqft 6.042e+01 1.339e+00  
## yearbuilt -4.210e+02 4.311e+01  
## f\_baths 6.134e+04 1.382e+03  
## h\_baths 4.399e+04 1.746e+03  
## n\_fireplaces -5.666e+03 4.249e+03  
## ADUdummy -3.565e+04 7.083e+03  
## pct\_canopy\_cov -1.389e+04 4.830e+03  
## taxlot\_area 1.754e+00 1.230e-01  
## garage\_dumTRUE 1.264e+04 2.294e+03  
## attic\_dumTRUE -5.226e+03 2.097e+03  
## bsmt\_dumTRUE -8.739e+03 2.175e+03  
## year\_sold 2.788e+04 7.009e+02  
## MapLabelArbor Lodge -1.676e+04 2.202e+04  
## MapLabelArdenwald-Johnson Creek -1.337e+05 2.500e+04  
## MapLabelArgay Terrace -1.944e+05 2.087e+04  
## MapLabelArlington Heights -3.196e+04 3.007e+04  
## MapLabelArnold Creek -1.220e+05 1.946e+04  
## MapLabelAshcreek -1.599e+05 1.890e+04  
## MapLabelBeaumont-Wilshire -1.055e+04 9.858e+03  
## MapLabelBoise -1.848e+04 3.079e+04  
## MapLabelBrentwood-Darlington -1.643e+05 1.570e+04  
## MapLabelBridlemile -1.783e+05 2.528e+04  
## MapLabelBrooklyn Action Corps -1.338e+05 1.854e+04  
## MapLabelBuckman Community Association -5.134e+04 2.172e+04  
## MapLabelCathedral Park 1.545e+04 2.852e+04  
## MapLabelCentennial Community Association -1.661e+05 1.920e+04  
## MapLabelCollins View -1.605e+05 2.016e+04  
## MapLabelConcordia -3.793e+04 1.303e+04  
## MapLabelCreston-Kenilworth -1.152e+05 1.572e+04  
## MapLabelCrestwood -1.804e+05 1.988e+04  
## MapLabelCully Association of Neighbors -1.165e+05 1.225e+04  
## MapLabelEast Columbia -1.628e+05 2.684e+04  
## MapLabelEastmoreland 7.211e+04 1.622e+04  
## MapLabelEliot -1.547e+05 4.740e+04  
## MapLabelFar Southwest -1.264e+05 2.058e+04  
## MapLabelForest Park -6.744e+04 2.800e+04  
## MapLabelFoster-Powell -1.174e+05 1.610e+04  
## MapLabelGlenfair -1.772e+05 2.499e+04  
## MapLabelGoose Hollow Foothills League -8.679e+04 3.414e+04  
## MapLabelGrant Park 4.908e+04 1.136e+04  
## MapLabelHayden Island Neighborhood Network 5.063e+04 3.602e+04  
## MapLabelHayhurst -1.664e+05 1.892e+04  
## MapLabelHazelwood -1.622e+05 1.645e+04  
## MapLabelHealy Heights -7.397e+03 4.050e+04  
## MapLabelHillsdale -1.412e+05 1.905e+04  
## MapLabelHillside -3.943e+04 2.810e+04  
## MapLabelHollywood 3.777e+04 2.416e+04  
## MapLabelHomestead -2.133e+05 3.315e+04  
## MapLabelHosford-Abernethy Neighborhood District Assn. -2.634e+04 1.586e+04  
## MapLabelHumboldt -1.489e+04 2.190e+04  
## MapLabelIrvington Community Association 2.725e+04 1.185e+04  
## MapLabelKenton -3.885e+04 2.472e+04  
## MapLabelKerns -2.876e+04 2.692e+04  
## MapLabelKing -8.181e+04 1.740e+04  
## MapLabelLaurelhurst 4.035e+04 1.009e+04  
## MapLabelLents -1.639e+05 1.518e+04  
## MapLabelLinnton -1.812e+05 3.228e+04  
## MapLabelMadison South -1.197e+05 1.311e+04  
## MapLabelMaplewood -1.355e+05 1.979e+04  
## MapLabelMarkham -1.907e+05 1.946e+04  
## MapLabelMarshall Park -1.451e+05 2.106e+04  
## MapLabelMC Unclaimed #13 -1.428e+05 9.326e+04  
## MapLabelMill Park -1.683e+05 1.722e+04  
## MapLabelMontavilla -9.357e+04 1.255e+04  
## MapLabelMt. Scott-Arleta -1.126e+05 1.602e+04  
## MapLabelMt. Tabor 1.261e+04 1.358e+04  
## MapLabelMultnomah -1.445e+05 1.894e+04  
## MapLabelNorth Tabor -6.668e+04 1.442e+04  
## MapLabelNorthwest District Association 7.639e+04 2.924e+04  
## MapLabelNorthwest Heights -4.392e+04 2.592e+04  
## MapLabelOverlook 3.727e+03 2.274e+04  
## MapLabelParkrose -1.974e+05 2.131e+04  
## MapLabelParkrose Heights Association of Neighbors -1.934e+05 2.064e+04  
## MapLabelPiedmont -3.993e+04 2.165e+04  
## MapLabelPleasant Valley -1.509e+05 1.834e+04  
## MapLabelPortsmouth -3.694e+04 2.596e+04  
## MapLabelPowellhurst-Gilbert -1.613e+05 1.756e+04  
## MapLabelReed -6.923e+04 1.810e+04  
## MapLabelRichmond -2.771e+04 1.418e+04  
## MapLabelRose City Park -4.419e+04 9.576e+03  
## MapLabelRoseway -7.216e+04 1.216e+04  
## MapLabelRussell -1.724e+05 2.078e+04  
## MapLabelSabin Community Association -8.659e+03 1.080e+04  
## MapLabelSellwood-Moreland Improvement League -2.197e+04 1.541e+04  
## MapLabelSouth Burlingame -1.626e+05 2.025e+04  
## MapLabelSouth Portland -7.141e+04 2.218e+04  
## MapLabelSouth Tabor -7.214e+04 1.503e+04  
## MapLabelSouthwest Hills Residential League -5.751e+04 2.535e+04  
## MapLabelSt. Johns -2.569e+04 2.600e+04  
## MapLabelSullivan's Gulch -1.070e+05 2.314e+04  
## MapLabelSumner Association of Neighbors -1.870e+05 2.399e+04  
## MapLabelSunderland Association of Neighbors -1.420e+05 6.142e+04  
## MapLabelSunnyside -1.677e+04 1.598e+04  
## MapLabelSylvan-Highlands -1.484e+05 2.833e+04  
## MapLabelUniversity Park -1.635e+03 2.603e+04  
## MapLabelVernon -4.451e+03 1.918e+04  
## MapLabelWest Portland Park -1.794e+05 1.936e+04  
## MapLabelWilkes Community Group -1.801e+05 2.183e+04  
## MapLabelWoodland Park -1.869e+05 2.867e+04  
## MapLabelWoodlawn -4.536e+04 1.974e+04  
## MapLabelWoodstock -7.450e+04 1.627e+04  
## HIGH\_SCHCLEVELAND HS -4.179e+04 1.493e+04  
## HIGH\_SCHDAVID DOUGLAS HS -3.906e+04 9.155e+03  
## HIGH\_SCHFRANKLIN HS -4.744e+04 1.354e+04  
## HIGH\_SCHGRANT HS -1.107e+04 1.597e+04  
## HIGH\_SCHGRANT-JEFF -7.740e+04 2.373e+04  
## HIGH\_SCHLINCOLN HS 7.010e+04 1.687e+04  
## HIGH\_SCHMADISON HS -8.511e+04 1.477e+04  
## HIGH\_SCHMADISON-JEFF -9.257e+04 1.762e+04  
## HIGH\_SCHPARKROSE HS -2.820e+04 1.385e+04  
## HIGH\_SCHREYNOLDS HS -1.431e+04 1.366e+04  
## HIGH\_SCHRIVERDALE HS 4.306e+05 7.139e+04  
## HIGH\_SCHROOS-JEFF -1.223e+05 2.424e+04  
## HIGH\_SCHROOSEVELT CAMPUS -1.343e+05 2.757e+04  
## HIGH\_SCHSUNSET HS 7.930e+04 3.313e+04  
## HIGH\_SCHWILSON HS NA NA  
## conECSI 9.076e+04 1.000e+05  
## conLUST -4.625e+04 7.172e+04  
## conHist 3.315e+04 6.568e+03  
## conHistLdm 2.155e+04 3.067e+04  
## conNatAm NA NA  
## conAirHgt 1.743e+04 4.247e+03  
## conHeliprt NA NA  
## conNoise -2.359e+03 9.408e+03  
## conGW 4.677e+04 5.339e+04  
## conLSHA 1.114e+04 4.037e+03  
## conSLIDO -1.874e+04 5.978e+03  
## conSlp25 1.047e+04 4.101e+03  
## conInstit NA NA  
## conPrvCom 2.754e+05 1.008e+05  
## conPubOwn -1.241e+04 4.084e+04  
## conSewer 1.234e+04 1.301e+04  
## conStorm -3.228e+03 3.177e+03  
## conTranCap -6.411e+03 3.448e+03  
## conTranInt -1.031e+04 3.705e+03  
## conTranSub -9.918e+03 2.174e+03  
## conWater -7.123e+03 4.155e+03  
## conView NA NA  
## conCovrly -2.129e+03 4.518e+03  
## conPovrly -2.643e+04 6.268e+03  
## conWetland -6.517e+04 2.420e+04  
## conFld100 -1.304e+04 1.244e+04  
## pct\_conFld100 1.876e+04 1.952e+04  
## pct\_conPovrly 1.750e+04 1.012e+05  
## pct\_conCovrly 2.937e+04 8.734e+03  
## pct\_conWetland NA NA  
## t value Pr(>|t|)   
## (Intercept) -38.708 < 2e-16 \*\*\*  
## CN\_score -3.086 0.002033 \*\*   
## percent\_vacant 0.048 0.961626   
## dist\_cityhall -13.793 < 2e-16 \*\*\*  
## dist\_ugb -2.432 0.015032 \*   
## totalsqft 45.128 < 2e-16 \*\*\*  
## yearbuilt -9.765 < 2e-16 \*\*\*  
## f\_baths 44.385 < 2e-16 \*\*\*  
## h\_baths 25.193 < 2e-16 \*\*\*  
## n\_fireplaces -1.334 0.182331   
## ADUdummy -5.033 4.89e-07 \*\*\*  
## pct\_canopy\_cov -2.875 0.004046 \*\*   
## taxlot\_area 14.260 < 2e-16 \*\*\*  
## garage\_dumTRUE 5.511 3.62e-08 \*\*\*  
## attic\_dumTRUE -2.493 0.012690 \*   
## bsmt\_dumTRUE -4.018 5.90e-05 \*\*\*  
## year\_sold 39.784 < 2e-16 \*\*\*  
## MapLabelArbor Lodge -0.761 0.446371   
## MapLabelArdenwald-Johnson Creek -5.350 8.91e-08 \*\*\*  
## MapLabelArgay Terrace -9.312 < 2e-16 \*\*\*  
## MapLabelArlington Heights -1.063 0.287940   
## MapLabelArnold Creek -6.267 3.76e-10 \*\*\*  
## MapLabelAshcreek -8.460 < 2e-16 \*\*\*  
## MapLabelBeaumont-Wilshire -1.070 0.284693   
## MapLabelBoise -0.600 0.548356   
## MapLabelBrentwood-Darlington -10.463 < 2e-16 \*\*\*  
## MapLabelBridlemile -7.055 1.80e-12 \*\*\*  
## MapLabelBrooklyn Action Corps -7.214 5.67e-13 \*\*\*  
## MapLabelBuckman Community Association -2.364 0.018101 \*   
## MapLabelCathedral Park 0.542 0.588163   
## MapLabelCentennial Community Association -8.653 < 2e-16 \*\*\*  
## MapLabelCollins View -7.962 1.80e-15 \*\*\*  
## MapLabelConcordia -2.911 0.003612 \*\*   
## MapLabelCreston-Kenilworth -7.330 2.41e-13 \*\*\*  
## MapLabelCrestwood -9.071 < 2e-16 \*\*\*  
## MapLabelCully Association of Neighbors -9.510 < 2e-16 \*\*\*  
## MapLabelEast Columbia -6.067 1.34e-09 \*\*\*  
## MapLabelEastmoreland 4.445 8.85e-06 \*\*\*  
## MapLabelEliot -3.264 0.001100 \*\*   
## MapLabelFar Southwest -6.144 8.24e-10 \*\*\*  
## MapLabelForest Park -2.409 0.016022 \*   
## MapLabelFoster-Powell -7.290 3.25e-13 \*\*\*  
## MapLabelGlenfair -7.092 1.37e-12 \*\*\*  
## MapLabelGoose Hollow Foothills League -2.542 0.011035 \*   
## MapLabelGrant Park 4.322 1.56e-05 \*\*\*  
## MapLabelHayden Island Neighborhood Network 1.406 0.159845   
## MapLabelHayhurst -8.795 < 2e-16 \*\*\*  
## MapLabelHazelwood -9.860 < 2e-16 \*\*\*  
## MapLabelHealy Heights -0.183 0.855083   
## MapLabelHillsdale -7.412 1.31e-13 \*\*\*  
## MapLabelHillside -1.403 0.160617   
## MapLabelHollywood 1.563 0.118049   
## MapLabelHomestead -6.434 1.28e-10 \*\*\*  
## MapLabelHosford-Abernethy Neighborhood District Assn. -1.662 0.096632 .   
## MapLabelHumboldt -0.680 0.496472   
## MapLabelIrvington Community Association 2.300 0.021482 \*   
## MapLabelKenton -1.572 0.115974   
## MapLabelKerns -1.068 0.285508   
## MapLabelKing -4.701 2.62e-06 \*\*\*  
## MapLabelLaurelhurst 3.998 6.42e-05 \*\*\*  
## MapLabelLents -10.803 < 2e-16 \*\*\*  
## MapLabelLinnton -5.612 2.03e-08 \*\*\*  
## MapLabelMadison South -9.128 < 2e-16 \*\*\*  
## MapLabelMaplewood -6.846 7.86e-12 \*\*\*  
## MapLabelMarkham -9.801 < 2e-16 \*\*\*  
## MapLabelMarshall Park -6.891 5.74e-12 \*\*\*  
## MapLabelMC Unclaimed #13 -1.531 0.125792   
## MapLabelMill Park -9.774 < 2e-16 \*\*\*  
## MapLabelMontavilla -7.457 9.27e-14 \*\*\*  
## MapLabelMt. Scott-Arleta -7.029 2.16e-12 \*\*\*  
## MapLabelMt. Tabor 0.929 0.353136   
## MapLabelMultnomah -7.628 2.52e-14 \*\*\*  
## MapLabelNorth Tabor -4.624 3.79e-06 \*\*\*  
## MapLabelNorthwest District Association 2.613 0.008988 \*\*   
## MapLabelNorthwest Heights -1.694 0.090230 .   
## MapLabelOverlook 0.164 0.869790   
## MapLabelParkrose -9.260 < 2e-16 \*\*\*  
## MapLabelParkrose Heights Association of Neighbors -9.373 < 2e-16 \*\*\*  
## MapLabelPiedmont -1.845 0.065104 .   
## MapLabelPleasant Valley -8.230 < 2e-16 \*\*\*  
## MapLabelPortsmouth -1.423 0.154791   
## MapLabelPowellhurst-Gilbert -9.184 < 2e-16 \*\*\*  
## MapLabelReed -3.825 0.000131 \*\*\*  
## MapLabelRichmond -1.955 0.050656 .   
## MapLabelRose City Park -4.615 3.96e-06 \*\*\*  
## MapLabelRoseway -5.935 3.00e-09 \*\*\*  
## MapLabelRussell -8.292 < 2e-16 \*\*\*  
## MapLabelSabin Community Association -0.802 0.422749   
## MapLabelSellwood-Moreland Improvement League -1.426 0.153888   
## MapLabelSouth Burlingame -8.027 1.07e-15 \*\*\*  
## MapLabelSouth Portland -3.219 0.001287 \*\*   
## MapLabelSouth Tabor -4.800 1.60e-06 \*\*\*  
## MapLabelSouthwest Hills Residential League -2.268 0.023328 \*   
## MapLabelSt. Johns -0.988 0.323243   
## MapLabelSullivan's Gulch -4.623 3.81e-06 \*\*\*  
## MapLabelSumner Association of Neighbors -7.796 6.79e-15 \*\*\*  
## MapLabelSunderland Association of Neighbors -2.312 0.020766 \*   
## MapLabelSunnyside -1.050 0.293901   
## MapLabelSylvan-Highlands -5.239 1.63e-07 \*\*\*  
## MapLabelUniversity Park -0.063 0.949933   
## MapLabelVernon -0.232 0.816489   
## MapLabelWest Portland Park -9.264 < 2e-16 \*\*\*  
## MapLabelWilkes Community Group -8.251 < 2e-16 \*\*\*  
## MapLabelWoodland Park -6.519 7.31e-11 \*\*\*  
## MapLabelWoodlawn -2.298 0.021603 \*   
## MapLabelWoodstock -4.578 4.73e-06 \*\*\*  
## HIGH\_SCHCLEVELAND HS -2.799 0.005126 \*\*   
## HIGH\_SCHDAVID DOUGLAS HS -4.267 1.99e-05 \*\*\*  
## HIGH\_SCHFRANKLIN HS -3.504 0.000460 \*\*\*  
## HIGH\_SCHGRANT HS -0.693 0.488442   
## HIGH\_SCHGRANT-JEFF -3.261 0.001112 \*\*   
## HIGH\_SCHLINCOLN HS 4.155 3.27e-05 \*\*\*  
## HIGH\_SCHMADISON HS -5.764 8.39e-09 \*\*\*  
## HIGH\_SCHMADISON-JEFF -5.252 1.52e-07 \*\*\*  
## HIGH\_SCHPARKROSE HS -2.036 0.041741 \*   
## HIGH\_SCHREYNOLDS HS -1.048 0.294866   
## HIGH\_SCHRIVERDALE HS 6.031 1.66e-09 \*\*\*  
## HIGH\_SCHROOS-JEFF -5.046 4.56e-07 \*\*\*  
## HIGH\_SCHROOSEVELT CAMPUS -4.869 1.13e-06 \*\*\*  
## HIGH\_SCHSUNSET HS 2.394 0.016677 \*   
## HIGH\_SCHWILSON HS NA NA   
## conECSI 0.907 0.364208   
## conLUST -0.645 0.519000   
## conHist 5.048 4.52e-07 \*\*\*  
## conHistLdm 0.703 0.482252   
## conNatAm NA NA   
## conAirHgt 4.104 4.08e-05 \*\*\*  
## conHeliprt NA NA   
## conNoise -0.251 0.802048   
## conGW 0.876 0.381100   
## conLSHA 2.759 0.005807 \*\*   
## conSLIDO -3.134 0.001725 \*\*   
## conSlp25 2.552 0.010710 \*   
## conInstit NA NA   
## conPrvCom 2.733 0.006288 \*\*   
## conPubOwn -0.304 0.761312   
## conSewer 0.948 0.342941   
## conStorm -1.016 0.309687   
## conTranCap -1.859 0.063019 .   
## conTranInt -2.782 0.005413 \*\*   
## conTranSub -4.561 5.12e-06 \*\*\*  
## conWater -1.714 0.086468 .   
## conView NA NA   
## conCovrly -0.471 0.637452   
## conPovrly -4.217 2.48e-05 \*\*\*  
## conWetland -2.693 0.007097 \*\*   
## conFld100 -1.049 0.294256   
## pct\_conFld100 0.961 0.336493   
## pct\_conPovrly 0.173 0.862766   
## pct\_conCovrly 3.363 0.000772 \*\*\*  
## pct\_conWetland NA NA   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 99780 on 16383 degrees of freedom  
## (6539 observations deleted due to missingness)  
## Multiple R-squared: 0.7585, Adjusted R-squared: 0.7563   
## F-statistic: 357.3 on 144 and 16383 DF, p-value: < 2.2e-16

#plot(sfr\_lin\_mod)  
  
  
  
# BOX-COX (LINEAR) REGRESSION--------------------------------------------  
  
bc = boxcox(sfr\_lin\_mod, lamba = seq(-3, 3, 1))

## Warning: In lm.fit(x, y, offset = offset, singular.ok = singular.ok, ...) :  
## extra argument 'lamba' will be disregarded



best\_lam = bc$x[which(bc$y == max(bc$y))]  
dat1 %<>%   
 mutate(SALEPRICEbc = SALEPRICE^best\_lam)  
  
# pre-analysis formula  
sfr\_bc = formula(paste0("SALEPRICEbc ~   
 CN\_score + percent\_vacant + dist\_cityhall + dist\_ugb + totalsqft + yearbuilt + f\_baths + h\_baths + n\_fireplaces + ADUdummy + pct\_canopy\_cov + taxlot\_area + garage\_dum + attic\_dum + bsmt\_dum + year\_sold + MapLabel + HIGH\_SCH + ", con\_names))  
  
# regression  
sfr\_mod\_bc <- lm(sfr\_bc, dat1)  
summary(sfr\_mod\_bc)

##   
## Call:  
## lm(formula = sfr\_bc, data = dat1)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -624.99 -35.17 4.82 41.47 366.67   
##   
## Coefficients: (6 not defined because of singularities)  
## Estimate Std. Error  
## (Intercept) -4.566e+04 1.073e+03  
## CN\_score -2.691e-01 8.009e-02  
## percent\_vacant 1.228e+00 2.480e+00  
## dist\_cityhall -4.254e-03 3.099e-04  
## dist\_ugb -1.108e-03 3.841e-04  
## totalsqft 4.242e-02 1.013e-03  
## yearbuilt -2.229e-01 3.262e-02  
## f\_baths 4.548e+01 1.046e+00  
## h\_baths 3.212e+01 1.321e+00  
## n\_fireplaces -3.118e+00 3.215e+00  
## ADUdummy -2.648e+01 5.360e+00  
## pct\_canopy\_cov -9.646e+00 3.655e+00  
## taxlot\_area 1.161e-03 9.308e-05  
## garage\_dumTRUE 1.100e+01 1.736e+00  
## attic\_dumTRUE -7.605e-02 1.586e+00  
## bsmt\_dumTRUE -5.838e-01 1.646e+00  
## year\_sold 2.325e+01 5.304e-01  
## MapLabelArbor Lodge -4.298e+00 1.666e+01  
## MapLabelArdenwald-Johnson Creek -9.670e+01 1.891e+01  
## MapLabelArgay Terrace -1.539e+02 1.579e+01  
## MapLabelArlington Heights -5.429e+01 2.276e+01  
## MapLabelArnold Creek -1.009e+02 1.472e+01  
## MapLabelAshcreek -1.268e+02 1.430e+01  
## MapLabelBeaumont-Wilshire -8.994e+00 7.459e+00  
## MapLabelBoise 6.177e+00 2.330e+01  
## MapLabelBrentwood-Darlington -1.291e+02 1.188e+01  
## MapLabelBridlemile -1.391e+02 1.913e+01  
## MapLabelBrooklyn Action Corps -9.097e+01 1.403e+01  
## MapLabelBuckman Community Association -3.049e+01 1.643e+01  
## MapLabelCathedral Park 2.263e+01 2.158e+01  
## MapLabelCentennial Community Association -1.521e+02 1.453e+01  
## MapLabelCollins View -1.281e+02 1.526e+01  
## MapLabelConcordia -2.588e+01 9.860e+00  
## MapLabelCreston-Kenilworth -8.197e+01 1.189e+01  
## MapLabelCrestwood -1.441e+02 1.504e+01  
## MapLabelCully Association of Neighbors -8.770e+01 9.271e+00  
## MapLabelEast Columbia -1.267e+02 2.031e+01  
## MapLabelEastmoreland 5.055e+01 1.228e+01  
## MapLabelEliot -9.494e+01 3.586e+01  
## MapLabelFar Southwest -9.995e+01 1.557e+01  
## MapLabelForest Park -7.103e+01 2.119e+01  
## MapLabelFoster-Powell -8.539e+01 1.218e+01  
## MapLabelGlenfair -1.511e+02 1.891e+01  
## MapLabelGoose Hollow Foothills League -9.009e+01 2.584e+01  
## MapLabelGrant Park 3.418e+01 8.593e+00  
## MapLabelHayden Island Neighborhood Network 4.854e+01 2.726e+01  
## MapLabelHayhurst -1.312e+02 1.432e+01  
## MapLabelHazelwood -1.344e+02 1.244e+01  
## MapLabelHealy Heights -4.531e+01 3.064e+01  
## MapLabelHillsdale -1.164e+02 1.442e+01  
## MapLabelHillside -6.281e+01 2.126e+01  
## MapLabelHollywood 3.287e+01 1.828e+01  
## MapLabelHomestead -1.684e+02 2.508e+01  
## MapLabelHosford-Abernethy Neighborhood District Assn. -1.747e+01 1.200e+01  
## MapLabelHumboldt -3.869e+00 1.657e+01  
## MapLabelIrvington Community Association 1.199e+01 8.965e+00  
## MapLabelKenton -2.079e+01 1.870e+01  
## MapLabelKerns -1.819e+01 2.037e+01  
## MapLabelKing -5.333e+01 1.317e+01  
## MapLabelLaurelhurst 3.027e+01 7.637e+00  
## MapLabelLents -1.368e+02 1.148e+01  
## MapLabelLinnton -1.381e+02 2.443e+01  
## MapLabelMadison South -9.536e+01 9.920e+00  
## MapLabelMaplewood -1.062e+02 1.498e+01  
## MapLabelMarkham -1.496e+02 1.472e+01  
## MapLabelMarshall Park -1.153e+02 1.594e+01  
## MapLabelMC Unclaimed #13 -1.250e+02 7.056e+01  
## MapLabelMill Park -1.432e+02 1.303e+01  
## MapLabelMontavilla -7.137e+01 9.494e+00  
## MapLabelMt. Scott-Arleta -8.079e+01 1.212e+01  
## MapLabelMt. Tabor 1.464e+01 1.028e+01  
## MapLabelMultnomah -1.152e+02 1.433e+01  
## MapLabelNorth Tabor -4.313e+01 1.091e+01  
## MapLabelNorthwest District Association 1.629e+01 2.212e+01  
## MapLabelNorthwest Heights -5.587e+01 1.962e+01  
## MapLabelOverlook 1.027e+01 1.721e+01  
## MapLabelParkrose -1.666e+02 1.613e+01  
## MapLabelParkrose Heights Association of Neighbors -1.620e+02 1.562e+01  
## MapLabelPiedmont -2.270e+01 1.638e+01  
## MapLabelPleasant Valley -1.179e+02 1.387e+01  
## MapLabelPortsmouth -2.119e+01 1.964e+01  
## MapLabelPowellhurst-Gilbert -1.402e+02 1.329e+01  
## MapLabelReed -4.096e+01 1.370e+01  
## MapLabelRichmond -1.319e+01 1.073e+01  
## MapLabelRose City Park -2.292e+01 7.246e+00  
## MapLabelRoseway -4.998e+01 9.200e+00  
## MapLabelRussell -1.426e+02 1.573e+01  
## MapLabelSabin Community Association -5.684e+00 8.173e+00  
## MapLabelSellwood-Moreland Improvement League -1.022e+01 1.166e+01  
## MapLabelSouth Burlingame -1.297e+02 1.533e+01  
## MapLabelSouth Portland -6.655e+01 1.679e+01  
## MapLabelSouth Tabor -4.492e+01 1.137e+01  
## MapLabelSouthwest Hills Residential League -7.143e+01 1.918e+01  
## MapLabelSt. Johns -1.581e+01 1.967e+01  
## MapLabelSullivan's Gulch -6.369e+01 1.751e+01  
## MapLabelSumner Association of Neighbors -1.596e+02 1.815e+01  
## MapLabelSunderland Association of Neighbors -1.316e+02 4.647e+01  
## MapLabelSunnyside -2.681e+00 1.209e+01  
## MapLabelSylvan-Highlands -1.219e+02 2.144e+01  
## MapLabelUniversity Park 1.116e+01 1.970e+01  
## MapLabelVernon -8.856e-01 1.451e+01  
## MapLabelWest Portland Park -1.437e+02 1.465e+01  
## MapLabelWilkes Community Group -1.454e+02 1.652e+01  
## MapLabelWoodland Park -1.639e+02 2.169e+01  
## MapLabelWoodlawn -2.810e+01 1.494e+01  
## MapLabelWoodstock -4.820e+01 1.231e+01  
## HIGH\_SCHCLEVELAND HS -4.322e+01 1.130e+01  
## HIGH\_SCHDAVID DOUGLAS HS -3.667e+01 6.927e+00  
## HIGH\_SCHFRANKLIN HS -4.724e+01 1.024e+01  
## HIGH\_SCHGRANT HS -2.323e+01 1.209e+01  
## HIGH\_SCHGRANT-JEFF -7.567e+01 1.796e+01  
## HIGH\_SCHLINCOLN HS 4.389e+01 1.277e+01  
## HIGH\_SCHMADISON HS -7.691e+01 1.117e+01  
## HIGH\_SCHMADISON-JEFF -7.745e+01 1.334e+01  
## HIGH\_SCHPARKROSE HS -2.617e+01 1.048e+01  
## HIGH\_SCHREYNOLDS HS -1.650e+01 1.034e+01  
## HIGH\_SCHRIVERDALE HS 2.483e+02 5.402e+01  
## HIGH\_SCHROOS-JEFF -1.053e+02 1.834e+01  
## HIGH\_SCHROOSEVELT CAMPUS -1.195e+02 2.086e+01  
## HIGH\_SCHSUNSET HS 4.709e+01 2.507e+01  
## HIGH\_SCHWILSON HS NA NA  
## conECSI 6.525e+01 7.569e+01  
## conLUST -2.702e+01 5.427e+01  
## conHist 2.327e+01 4.970e+00  
## conHistLdm 3.145e+00 2.321e+01  
## conNatAm NA NA  
## conAirHgt 1.334e+01 3.213e+00  
## conHeliprt NA NA  
## conNoise -2.288e+00 7.119e+00  
## conGW 4.154e+01 4.040e+01  
## conLSHA 1.112e+01 3.055e+00  
## conSLIDO -1.043e+01 4.524e+00  
## conSlp25 4.974e+00 3.103e+00  
## conInstit NA NA  
## conPrvCom 1.338e+02 7.626e+01  
## conPubOwn -2.648e+01 3.090e+01  
## conSewer 1.059e+01 9.847e+00  
## conStorm -7.636e-01 2.404e+00  
## conTranCap -5.001e+00 2.609e+00  
## conTranInt -9.466e+00 2.803e+00  
## conTranSub -7.727e+00 1.645e+00  
## conWater -8.233e+00 3.144e+00  
## conView NA NA  
## conCovrly 3.324e-01 3.419e+00  
## conPovrly -1.478e+01 4.743e+00  
## conWetland -4.194e+01 1.831e+01  
## conFld100 -8.352e+00 9.410e+00  
## pct\_conFld100 1.099e+01 1.477e+01  
## pct\_conPovrly 1.395e+01 7.659e+01  
## pct\_conCovrly 2.685e+01 6.609e+00  
## pct\_conWetland NA NA  
## t value Pr(>|t|)   
## (Intercept) -42.567 < 2e-16 \*\*\*  
## CN\_score -3.360 0.000780 \*\*\*  
## percent\_vacant 0.495 0.620417   
## dist\_cityhall -13.728 < 2e-16 \*\*\*  
## dist\_ugb -2.885 0.003921 \*\*   
## totalsqft 41.873 < 2e-16 \*\*\*  
## yearbuilt -6.834 8.57e-12 \*\*\*  
## f\_baths 43.493 < 2e-16 \*\*\*  
## h\_baths 24.312 < 2e-16 \*\*\*  
## n\_fireplaces -0.970 0.332192   
## ADUdummy -4.940 7.87e-07 \*\*\*  
## pct\_canopy\_cov -2.639 0.008315 \*\*   
## taxlot\_area 12.473 < 2e-16 \*\*\*  
## garage\_dumTRUE 6.335 2.43e-10 \*\*\*  
## attic\_dumTRUE -0.048 0.961767   
## bsmt\_dumTRUE -0.355 0.722821   
## year\_sold 43.835 < 2e-16 \*\*\*  
## MapLabelArbor Lodge -0.258 0.796401   
## MapLabelArdenwald-Johnson Creek -5.113 3.21e-07 \*\*\*  
## MapLabelArgay Terrace -9.744 < 2e-16 \*\*\*  
## MapLabelArlington Heights -2.386 0.017058 \*   
## MapLabelArnold Creek -6.851 7.57e-12 \*\*\*  
## MapLabelAshcreek -8.870 < 2e-16 \*\*\*  
## MapLabelBeaumont-Wilshire -1.206 0.227931   
## MapLabelBoise 0.265 0.790918   
## MapLabelBrentwood-Darlington -10.866 < 2e-16 \*\*\*  
## MapLabelBridlemile -7.273 3.67e-13 \*\*\*  
## MapLabelBrooklyn Action Corps -6.484 9.19e-11 \*\*\*  
## MapLabelBuckman Community Association -1.855 0.063592 .   
## MapLabelCathedral Park 1.048 0.294444   
## MapLabelCentennial Community Association -10.467 < 2e-16 \*\*\*  
## MapLabelCollins View -8.393 < 2e-16 \*\*\*  
## MapLabelConcordia -2.624 0.008686 \*\*   
## MapLabelCreston-Kenilworth -6.894 5.64e-12 \*\*\*  
## MapLabelCrestwood -9.579 < 2e-16 \*\*\*  
## MapLabelCully Association of Neighbors -9.459 < 2e-16 \*\*\*  
## MapLabelEast Columbia -6.238 4.56e-10 \*\*\*  
## MapLabelEastmoreland 4.118 3.84e-05 \*\*\*  
## MapLabelEliot -2.647 0.008125 \*\*   
## MapLabelFar Southwest -6.418 1.41e-10 \*\*\*  
## MapLabelForest Park -3.353 0.000803 \*\*\*  
## MapLabelFoster-Powell -7.010 2.48e-12 \*\*\*  
## MapLabelGlenfair -7.992 1.41e-15 \*\*\*  
## MapLabelGoose Hollow Foothills League -3.487 0.000490 \*\*\*  
## MapLabelGrant Park 3.978 6.99e-05 \*\*\*  
## MapLabelHayden Island Neighborhood Network 1.781 0.074913 .   
## MapLabelHayhurst -9.165 < 2e-16 \*\*\*  
## MapLabelHazelwood -10.799 < 2e-16 \*\*\*  
## MapLabelHealy Heights -1.479 0.139258   
## MapLabelHillsdale -8.072 7.40e-16 \*\*\*  
## MapLabelHillside -2.954 0.003143 \*\*   
## MapLabelHollywood 1.797 0.072292 .   
## MapLabelHomestead -6.716 1.93e-11 \*\*\*  
## MapLabelHosford-Abernethy Neighborhood District Assn. -1.456 0.145488   
## MapLabelHumboldt -0.233 0.815415   
## MapLabelIrvington Community Association 1.337 0.181250   
## MapLabelKenton -1.112 0.266290   
## MapLabelKerns -0.893 0.371984   
## MapLabelKing -4.050 5.15e-05 \*\*\*  
## MapLabelLaurelhurst 3.964 7.40e-05 \*\*\*  
## MapLabelLents -11.917 < 2e-16 \*\*\*  
## MapLabelLinnton -5.653 1.60e-08 \*\*\*  
## MapLabelMadison South -9.613 < 2e-16 \*\*\*  
## MapLabelMaplewood -7.089 1.41e-12 \*\*\*  
## MapLabelMarkham -10.160 < 2e-16 \*\*\*  
## MapLabelMarshall Park -7.236 4.81e-13 \*\*\*  
## MapLabelMC Unclaimed #13 -1.771 0.076616 .   
## MapLabelMill Park -10.989 < 2e-16 \*\*\*  
## MapLabelMontavilla -7.518 5.86e-14 \*\*\*  
## MapLabelMt. Scott-Arleta -6.663 2.77e-11 \*\*\*  
## MapLabelMt. Tabor 1.425 0.154279   
## MapLabelMultnomah -8.041 9.51e-16 \*\*\*  
## MapLabelNorth Tabor -3.953 7.75e-05 \*\*\*  
## MapLabelNorthwest District Association 0.736 0.461503   
## MapLabelNorthwest Heights -2.848 0.004402 \*\*   
## MapLabelOverlook 0.597 0.550764   
## MapLabelParkrose -10.332 < 2e-16 \*\*\*  
## MapLabelParkrose Heights Association of Neighbors -10.372 < 2e-16 \*\*\*  
## MapLabelPiedmont -1.386 0.165773   
## MapLabelPleasant Valley -8.496 < 2e-16 \*\*\*  
## MapLabelPortsmouth -1.079 0.280669   
## MapLabelPowellhurst-Gilbert -10.549 < 2e-16 \*\*\*  
## MapLabelReed -2.991 0.002789 \*\*   
## MapLabelRichmond -1.229 0.218928   
## MapLabelRose City Park -3.163 0.001566 \*\*   
## MapLabelRoseway -5.433 5.62e-08 \*\*\*  
## MapLabelRussell -9.067 < 2e-16 \*\*\*  
## MapLabelSabin Community Association -0.695 0.486762   
## MapLabelSellwood-Moreland Improvement League -0.877 0.380585   
## MapLabelSouth Burlingame -8.461 < 2e-16 \*\*\*  
## MapLabelSouth Portland -3.965 7.38e-05 \*\*\*  
## MapLabelSouth Tabor -3.950 7.84e-05 \*\*\*  
## MapLabelSouthwest Hills Residential League -3.723 0.000197 \*\*\*  
## MapLabelSt. Johns -0.803 0.421703   
## MapLabelSullivan's Gulch -3.637 0.000277 \*\*\*  
## MapLabelSumner Association of Neighbors -8.791 < 2e-16 \*\*\*  
## MapLabelSunderland Association of Neighbors -2.833 0.004620 \*\*   
## MapLabelSunnyside -0.222 0.824520   
## MapLabelSylvan-Highlands -5.687 1.31e-08 \*\*\*  
## MapLabelUniversity Park 0.566 0.571190   
## MapLabelVernon -0.061 0.951340   
## MapLabelWest Portland Park -9.809 < 2e-16 \*\*\*  
## MapLabelWilkes Community Group -8.803 < 2e-16 \*\*\*  
## MapLabelWoodland Park -7.555 4.41e-14 \*\*\*  
## MapLabelWoodlawn -1.881 0.059983 .   
## MapLabelWoodstock -3.914 9.11e-05 \*\*\*  
## HIGH\_SCHCLEVELAND HS -3.826 0.000131 \*\*\*  
## HIGH\_SCHDAVID DOUGLAS HS -5.293 1.22e-07 \*\*\*  
## HIGH\_SCHFRANKLIN HS -4.611 4.04e-06 \*\*\*  
## HIGH\_SCHGRANT HS -1.922 0.054653 .   
## HIGH\_SCHGRANT-JEFF -4.214 2.53e-05 \*\*\*  
## HIGH\_SCHLINCOLN HS 3.438 0.000588 \*\*\*  
## HIGH\_SCHMADISON HS -6.883 6.06e-12 \*\*\*  
## HIGH\_SCHMADISON-JEFF -5.808 6.44e-09 \*\*\*  
## HIGH\_SCHPARKROSE HS -2.497 0.012526 \*   
## HIGH\_SCHREYNOLDS HS -1.597 0.110375   
## HIGH\_SCHRIVERDALE HS 4.596 4.35e-06 \*\*\*  
## HIGH\_SCHROOS-JEFF -5.740 9.65e-09 \*\*\*  
## HIGH\_SCHROOSEVELT CAMPUS -5.730 1.02e-08 \*\*\*  
## HIGH\_SCHSUNSET HS 1.879 0.060323 .   
## HIGH\_SCHWILSON HS NA NA   
## conECSI 0.862 0.388673   
## conLUST -0.498 0.618569   
## conHist 4.683 2.86e-06 \*\*\*  
## conHistLdm 0.136 0.892202   
## conNatAm NA NA   
## conAirHgt 4.152 3.31e-05 \*\*\*  
## conHeliprt NA NA   
## conNoise -0.321 0.747945   
## conGW 1.028 0.303921   
## conLSHA 3.639 0.000275 \*\*\*  
## conSLIDO -2.306 0.021148 \*   
## conSlp25 1.603 0.109022   
## conInstit NA NA   
## conPrvCom 1.755 0.079284 .   
## conPubOwn -0.857 0.391572   
## conSewer 1.076 0.282024   
## conStorm -0.318 0.750782   
## conTranCap -1.917 0.055291 .   
## conTranInt -3.377 0.000735 \*\*\*  
## conTranSub -4.696 2.67e-06 \*\*\*  
## conWater -2.619 0.008838 \*\*   
## conView NA NA   
## conCovrly 0.097 0.922544   
## conPovrly -3.117 0.001829 \*\*   
## conWetland -2.290 0.022026 \*   
## conFld100 -0.888 0.374807   
## pct\_conFld100 0.744 0.456608   
## pct\_conPovrly 0.182 0.855426   
## pct\_conCovrly 4.063 4.87e-05 \*\*\*  
## pct\_conWetland NA NA   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 75.5 on 16383 degrees of freedom  
## (6539 observations deleted due to missingness)  
## Multiple R-squared: 0.7555, Adjusted R-squared: 0.7533   
## F-statistic: 351.5 on 144 and 16383 DF, p-value: < 2.2e-16

#plot(sfr\_mod\_bc)  
  
  
  
# SEMI-LOG REGRESSION-------------------------------------------  
  
dat1 %<>%   
 mutate(SALEPRICElog = log(SALEPRICE))  
  
#pre-analysis formula  
sfr\_log = formula(paste0("SALEPRICElog ~   
 CN\_score + percent\_vacant + dist\_cityhall + dist\_ugb + totalsqft + yearbuilt + f\_baths + h\_baths + n\_fireplaces + ADUdummy + pct\_canopy\_cov + taxlot\_area + garage\_dum + attic\_dum + bsmt\_dum + year\_sold + MapLabel + HIGH\_SCH + ", con\_names))  
  
# regression  
sfr\_mod\_log <- lm(sfr\_log, dat1)  
summary(sfr\_mod\_log)

##   
## Call:  
## lm(formula = sfr\_log, data = dat1)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -2.47705 -0.08731 0.02666 0.12546 0.77759   
##   
## Coefficients: (6 not defined because of singularities)  
## Estimate Std. Error  
## (Intercept) -1.254e+02 3.319e+00  
## CN\_score -7.969e-04 2.478e-04  
## percent\_vacant 5.863e-03 7.671e-03  
## dist\_cityhall -1.137e-05 9.586e-07  
## dist\_ugb -3.702e-06 1.188e-06  
## totalsqft 1.048e-04 3.134e-06  
## yearbuilt -3.543e-04 1.009e-04  
## f\_baths 1.212e-01 3.235e-03  
## h\_baths 8.450e-02 4.087e-03  
## n\_fireplaces -5.609e-03 9.945e-03  
## ADUdummy -7.559e-02 1.658e-02  
## pct\_canopy\_cov -2.555e-02 1.131e-02  
## taxlot\_area 2.747e-06 2.879e-07  
## garage\_dumTRUE 3.539e-02 5.370e-03  
## attic\_dumTRUE 9.272e-03 4.908e-03  
## bsmt\_dumTRUE 1.465e-02 5.092e-03  
## year\_sold 6.908e-02 1.641e-03  
## MapLabelArbor Lodge 1.928e-02 5.153e-02  
## MapLabelArdenwald-Johnson Creek -2.367e-01 5.851e-02  
## MapLabelArgay Terrace -4.322e-01 4.886e-02  
## MapLabelArlington Heights -2.307e-01 7.040e-02  
## MapLabelArnold Creek -3.060e-01 4.555e-02  
## MapLabelAshcreek -3.585e-01 4.424e-02  
## MapLabelBeaumont-Wilshire -2.664e-02 2.308e-02  
## MapLabelBoise 7.900e-02 7.207e-02  
## MapLabelBrentwood-Darlington -3.523e-01 3.675e-02  
## MapLabelBridlemile -3.940e-01 5.918e-02  
## MapLabelBrooklyn Action Corps -2.110e-01 4.340e-02  
## MapLabelBuckman Community Association -5.669e-02 5.084e-02  
## MapLabelCathedral Park 1.017e-01 6.676e-02  
## MapLabelCentennial Community Association -4.867e-01 4.494e-02  
## MapLabelCollins View -3.639e-01 4.720e-02  
## MapLabelConcordia -6.237e-02 3.050e-02  
## MapLabelCreston-Kenilworth -2.048e-01 3.679e-02  
## MapLabelCrestwood -4.126e-01 4.654e-02  
## MapLabelCully Association of Neighbors -2.338e-01 2.868e-02  
## MapLabelEast Columbia -3.530e-01 6.282e-02  
## MapLabelEastmoreland 1.275e-01 3.797e-02  
## MapLabelEliot -1.893e-01 1.109e-01  
## MapLabelFar Southwest -2.809e-01 4.817e-02  
## MapLabelForest Park -2.562e-01 6.554e-02  
## MapLabelFoster-Powell -2.124e-01 3.769e-02  
## MapLabelGlenfair -4.528e-01 5.849e-02  
## MapLabelGoose Hollow Foothills League -3.089e-01 7.992e-02  
## MapLabelGrant Park 8.785e-02 2.658e-02  
## MapLabelHayden Island Neighborhood Network 1.546e-01 8.431e-02  
## MapLabelHayhurst -3.701e-01 4.429e-02  
## MapLabelHazelwood -3.955e-01 3.850e-02  
## MapLabelHealy Heights -2.247e-01 9.479e-02  
## MapLabelHillsdale -3.441e-01 4.460e-02  
## MapLabelHillside -2.596e-01 6.578e-02  
## MapLabelHollywood 1.023e-01 5.656e-02  
## MapLabelHomestead -4.850e-01 7.759e-02  
## MapLabelHosford-Abernethy Neighborhood District Assn. -3.771e-02 3.711e-02  
## MapLabelHumboldt 7.268e-03 5.126e-02  
## MapLabelIrvington Community Association 1.201e-02 2.773e-02  
## MapLabelKenton -1.995e-02 5.785e-02  
## MapLabelKerns -3.930e-02 6.302e-02  
## MapLabelKing -1.212e-01 4.074e-02  
## MapLabelLaurelhurst 8.312e-02 2.362e-02  
## MapLabelLents -4.031e-01 3.552e-02  
## MapLabelLinnton -3.802e-01 7.556e-02  
## MapLabelMadison South -2.670e-01 3.069e-02  
## MapLabelMaplewood -2.975e-01 4.633e-02  
## MapLabelMarkham -4.153e-01 4.554e-02  
## MapLabelMarshall Park -3.280e-01 4.930e-02  
## MapLabelMC Unclaimed #13 -3.750e-01 2.183e-01  
## MapLabelMill Park -4.330e-01 4.030e-02  
## MapLabelMontavilla -1.914e-01 2.937e-02  
## MapLabelMt. Scott-Arleta -1.934e-01 3.751e-02  
## MapLabelMt. Tabor 5.752e-02 3.179e-02  
## MapLabelMultnomah -3.284e-01 4.433e-02  
## MapLabelNorth Tabor -9.117e-02 3.375e-02  
## MapLabelNorthwest District Association -6.776e-02 6.843e-02  
## MapLabelNorthwest Heights -2.226e-01 6.068e-02  
## MapLabelOverlook 4.996e-02 5.322e-02  
## MapLabelParkrose -4.941e-01 4.989e-02  
## MapLabelParkrose Heights Association of Neighbors -4.791e-01 4.831e-02  
## MapLabelPiedmont -3.428e-02 5.067e-02  
## MapLabelPleasant Valley -3.270e-01 4.292e-02  
## MapLabelPortsmouth -2.372e-02 6.076e-02  
## MapLabelPowellhurst-Gilbert -4.329e-01 4.111e-02  
## MapLabelReed -7.192e-02 4.237e-02  
## MapLabelRichmond -1.109e-02 3.319e-02  
## MapLabelRose City Park -3.172e-02 2.242e-02  
## MapLabelRoseway -1.188e-01 2.846e-02  
## MapLabelRussell -4.165e-01 4.865e-02  
## MapLabelSabin Community Association -1.248e-02 2.528e-02  
## MapLabelSellwood-Moreland Improvement League -5.515e-03 3.606e-02  
## MapLabelSouth Burlingame -3.698e-01 4.741e-02  
## MapLabelSouth Portland -2.151e-01 5.192e-02  
## MapLabelSouth Tabor -8.281e-02 3.518e-02  
## MapLabelSouthwest Hills Residential League -2.696e-01 5.935e-02  
## MapLabelSt. Johns -1.955e-02 6.086e-02  
## MapLabelSullivan's Gulch -1.238e-01 5.417e-02  
## MapLabelSumner Association of Neighbors -4.798e-01 5.615e-02  
## MapLabelSunderland Association of Neighbors -4.204e-01 1.438e-01  
## MapLabelSunnyside 2.491e-02 3.741e-02  
## MapLabelSylvan-Highlands -3.618e-01 6.631e-02  
## MapLabelUniversity Park 7.573e-02 6.094e-02  
## MapLabelVernon 5.002e-03 4.489e-02  
## MapLabelWest Portland Park -4.070e-01 4.533e-02  
## MapLabelWilkes Community Group -4.148e-01 5.110e-02  
## MapLabelWoodland Park -5.002e-01 6.711e-02  
## MapLabelWoodlawn -5.467e-02 4.621e-02  
## MapLabelWoodstock -9.898e-02 3.809e-02  
## HIGH\_SCHCLEVELAND HS -1.545e-01 3.494e-02  
## HIGH\_SCHDAVID DOUGLAS HS -1.178e-01 2.143e-02  
## HIGH\_SCHFRANKLIN HS -1.647e-01 3.169e-02  
## HIGH\_SCHGRANT HS -1.083e-01 3.739e-02  
## HIGH\_SCHGRANT-JEFF -2.626e-01 5.555e-02  
## HIGH\_SCHLINCOLN HS 9.654e-02 3.949e-02  
## HIGH\_SCHMADISON HS -2.472e-01 3.457e-02  
## HIGH\_SCHMADISON-JEFF -2.337e-01 4.125e-02  
## HIGH\_SCHPARKROSE HS -8.796e-02 3.241e-02  
## HIGH\_SCHREYNOLDS HS -6.328e-02 3.198e-02  
## HIGH\_SCHRIVERDALE HS 4.861e-01 1.671e-01  
## HIGH\_SCHROOS-JEFF -3.278e-01 5.675e-02  
## HIGH\_SCHROOSEVELT CAMPUS -3.835e-01 6.454e-02  
## HIGH\_SCHSUNSET HS 9.837e-02 7.754e-02  
## HIGH\_SCHWILSON HS NA NA  
## conECSI 1.680e-01 2.341e-01  
## conLUST -6.043e-02 1.679e-01  
## conHist 5.722e-02 1.537e-02  
## conHistLdm -2.440e-02 7.180e-02  
## conNatAm NA NA  
## conAirHgt 3.794e-02 9.940e-03  
## conHeliprt NA NA  
## conNoise -7.907e-03 2.202e-02  
## conGW 1.316e-01 1.250e-01  
## conLSHA 3.781e-02 9.450e-03  
## conSLIDO -1.985e-02 1.399e-02  
## conSlp25 4.516e-03 9.600e-03  
## conInstit NA NA  
## conPrvCom 1.934e-01 2.359e-01  
## conPubOwn -1.205e-01 9.560e-02  
## conSewer 2.967e-02 3.046e-02  
## conStorm 1.916e-03 7.437e-03  
## conTranCap -1.228e-02 8.071e-03  
## conTranInt -3.018e-02 8.672e-03  
## conTranSub -2.291e-02 5.090e-03  
## conWater -3.010e-02 9.726e-03  
## conView NA NA  
## conCovrly 7.756e-03 1.058e-02  
## conPovrly -2.697e-02 1.467e-02  
## conWetland -9.292e-02 5.666e-02  
## conFld100 -1.682e-02 2.911e-02  
## pct\_conFld100 1.601e-02 4.568e-02  
## pct\_conPovrly 3.941e-02 2.369e-01  
## pct\_conCovrly 8.464e-02 2.044e-02  
## pct\_conWetland NA NA  
## t value Pr(>|t|)   
## (Intercept) -37.790 < 2e-16 \*\*\*  
## CN\_score -3.217 0.001300 \*\*   
## percent\_vacant 0.764 0.444712   
## dist\_cityhall -11.861 < 2e-16 \*\*\*  
## dist\_ugb -3.116 0.001838 \*\*   
## totalsqft 33.450 < 2e-16 \*\*\*  
## yearbuilt -3.511 0.000448 \*\*\*  
## f\_baths 37.481 < 2e-16 \*\*\*  
## h\_baths 20.677 < 2e-16 \*\*\*  
## n\_fireplaces -0.564 0.572729   
## ADUdummy -4.559 5.18e-06 \*\*\*  
## pct\_canopy\_cov -2.260 0.023817 \*   
## taxlot\_area 9.539 < 2e-16 \*\*\*  
## garage\_dumTRUE 6.591 4.51e-11 \*\*\*  
## attic\_dumTRUE 1.889 0.058877 .   
## bsmt\_dumTRUE 2.878 0.004011 \*\*   
## year\_sold 42.105 < 2e-16 \*\*\*  
## MapLabelArbor Lodge 0.374 0.708267   
## MapLabelArdenwald-Johnson Creek -4.045 5.25e-05 \*\*\*  
## MapLabelArgay Terrace -8.847 < 2e-16 \*\*\*  
## MapLabelArlington Heights -3.277 0.001050 \*\*   
## MapLabelArnold Creek -6.718 1.90e-11 \*\*\*  
## MapLabelAshcreek -8.104 5.67e-16 \*\*\*  
## MapLabelBeaumont-Wilshire -1.155 0.248249   
## MapLabelBoise 1.096 0.273073   
## MapLabelBrentwood-Darlington -9.587 < 2e-16 \*\*\*  
## MapLabelBridlemile -6.658 2.86e-11 \*\*\*  
## MapLabelBrooklyn Action Corps -4.863 1.17e-06 \*\*\*  
## MapLabelBuckman Community Association -1.115 0.264827   
## MapLabelCathedral Park 1.523 0.127804   
## MapLabelCentennial Community Association -10.829 < 2e-16 \*\*\*  
## MapLabelCollins View -7.710 1.33e-14 \*\*\*  
## MapLabelConcordia -2.045 0.040901 \*   
## MapLabelCreston-Kenilworth -5.567 2.63e-08 \*\*\*  
## MapLabelCrestwood -8.866 < 2e-16 \*\*\*  
## MapLabelCully Association of Neighbors -8.152 3.84e-16 \*\*\*  
## MapLabelEast Columbia -5.620 1.94e-08 \*\*\*  
## MapLabelEastmoreland 3.357 0.000789 \*\*\*  
## MapLabelEliot -1.706 0.088004 .   
## MapLabelFar Southwest -5.832 5.57e-09 \*\*\*  
## MapLabelForest Park -3.910 9.28e-05 \*\*\*  
## MapLabelFoster-Powell -5.635 1.78e-08 \*\*\*  
## MapLabelGlenfair -7.742 1.04e-14 \*\*\*  
## MapLabelGoose Hollow Foothills League -3.865 0.000112 \*\*\*  
## MapLabelGrant Park 3.305 0.000952 \*\*\*  
## MapLabelHayden Island Neighborhood Network 1.833 0.066750 .   
## MapLabelHayhurst -8.356 < 2e-16 \*\*\*  
## MapLabelHazelwood -10.275 < 2e-16 \*\*\*  
## MapLabelHealy Heights -2.371 0.017763 \*   
## MapLabelHillsdale -7.717 1.26e-14 \*\*\*  
## MapLabelHillside -3.946 7.97e-05 \*\*\*  
## MapLabelHollywood 1.808 0.070549 .   
## MapLabelHomestead -6.250 4.20e-10 \*\*\*  
## MapLabelHosford-Abernethy Neighborhood District Assn. -1.016 0.309666   
## MapLabelHumboldt 0.142 0.887255   
## MapLabelIrvington Community Association 0.433 0.664941   
## MapLabelKenton -0.345 0.730165   
## MapLabelKerns -0.624 0.532911   
## MapLabelKing -2.975 0.002932 \*\*   
## MapLabelLaurelhurst 3.519 0.000435 \*\*\*  
## MapLabelLents -11.348 < 2e-16 \*\*\*  
## MapLabelLinnton -5.031 4.92e-07 \*\*\*  
## MapLabelMadison South -8.701 < 2e-16 \*\*\*  
## MapLabelMaplewood -6.420 1.40e-10 \*\*\*  
## MapLabelMarkham -9.119 < 2e-16 \*\*\*  
## MapLabelMarshall Park -6.654 2.95e-11 \*\*\*  
## MapLabelMC Unclaimed #13 -1.718 0.085819 .   
## MapLabelMill Park -10.744 < 2e-16 \*\*\*  
## MapLabelMontavilla -6.517 7.37e-11 \*\*\*  
## MapLabelMt. Scott-Arleta -5.157 2.54e-07 \*\*\*  
## MapLabelMt. Tabor 1.809 0.070437 .   
## MapLabelMultnomah -7.408 1.35e-13 \*\*\*  
## MapLabelNorth Tabor -2.701 0.006917 \*\*   
## MapLabelNorthwest District Association -0.990 0.322109   
## MapLabelNorthwest Heights -3.668 0.000246 \*\*\*  
## MapLabelOverlook 0.939 0.347933   
## MapLabelParkrose -9.904 < 2e-16 \*\*\*  
## MapLabelParkrose Heights Association of Neighbors -9.917 < 2e-16 \*\*\*  
## MapLabelPiedmont -0.677 0.498702   
## MapLabelPleasant Valley -7.620 2.67e-14 \*\*\*  
## MapLabelPortsmouth -0.390 0.696292   
## MapLabelPowellhurst-Gilbert -10.531 < 2e-16 \*\*\*  
## MapLabelReed -1.697 0.089629 .   
## MapLabelRichmond -0.334 0.738253   
## MapLabelRose City Park -1.415 0.157018   
## MapLabelRoseway -4.175 3.00e-05 \*\*\*  
## MapLabelRussell -8.562 < 2e-16 \*\*\*  
## MapLabelSabin Community Association -0.493 0.621675   
## MapLabelSellwood-Moreland Improvement League -0.153 0.878461   
## MapLabelSouth Burlingame -7.801 6.52e-15 \*\*\*  
## MapLabelSouth Portland -4.142 3.46e-05 \*\*\*  
## MapLabelSouth Tabor -2.354 0.018579 \*   
## MapLabelSouthwest Hills Residential League -4.543 5.58e-06 \*\*\*  
## MapLabelSt. Johns -0.321 0.748051   
## MapLabelSullivan's Gulch -2.284 0.022360 \*   
## MapLabelSumner Association of Neighbors -8.545 < 2e-16 \*\*\*  
## MapLabelSunderland Association of Neighbors -2.924 0.003458 \*\*   
## MapLabelSunnyside 0.666 0.505551   
## MapLabelSylvan-Highlands -5.456 4.95e-08 \*\*\*  
## MapLabelUniversity Park 1.243 0.213982   
## MapLabelVernon 0.111 0.911271   
## MapLabelWest Portland Park -8.978 < 2e-16 \*\*\*  
## MapLabelWilkes Community Group -8.118 5.09e-16 \*\*\*  
## MapLabelWoodland Park -7.453 9.55e-14 \*\*\*  
## MapLabelWoodlawn -1.183 0.236817   
## MapLabelWoodstock -2.598 0.009375 \*\*   
## HIGH\_SCHCLEVELAND HS -4.422 9.83e-06 \*\*\*  
## HIGH\_SCHDAVID DOUGLAS HS -5.498 3.90e-08 \*\*\*  
## HIGH\_SCHFRANKLIN HS -5.197 2.05e-07 \*\*\*  
## HIGH\_SCHGRANT HS -2.896 0.003781 \*\*   
## HIGH\_SCHGRANT-JEFF -4.728 2.29e-06 \*\*\*  
## HIGH\_SCHLINCOLN HS 2.444 0.014521 \*   
## HIGH\_SCHMADISON HS -7.152 8.93e-13 \*\*\*  
## HIGH\_SCHMADISON-JEFF -5.665 1.49e-08 \*\*\*  
## HIGH\_SCHPARKROSE HS -2.714 0.006659 \*\*   
## HIGH\_SCHREYNOLDS HS -1.979 0.047846 \*   
## HIGH\_SCHRIVERDALE HS 2.909 0.003632 \*\*   
## HIGH\_SCHROOS-JEFF -5.777 7.76e-09 \*\*\*  
## HIGH\_SCHROOSEVELT CAMPUS -5.942 2.87e-09 \*\*\*  
## HIGH\_SCHSUNSET HS 1.269 0.204578   
## HIGH\_SCHWILSON HS NA NA   
## conECSI 0.717 0.473121   
## conLUST -0.360 0.718850   
## conHist 3.722 0.000198 \*\*\*  
## conHistLdm -0.340 0.734035   
## conNatAm NA NA   
## conAirHgt 3.817 0.000135 \*\*\*  
## conHeliprt NA NA   
## conNoise -0.359 0.719566   
## conGW 1.053 0.292436   
## conLSHA 4.001 6.35e-05 \*\*\*  
## conSLIDO -1.419 0.156052   
## conSlp25 0.470 0.638051   
## conInstit NA NA   
## conPrvCom 0.820 0.412395   
## conPubOwn -1.260 0.207535   
## conSewer 0.974 0.330117   
## conStorm 0.258 0.796662   
## conTranCap -1.522 0.128105   
## conTranInt -3.480 0.000502 \*\*\*  
## conTranSub -4.501 6.83e-06 \*\*\*  
## conWater -3.095 0.001970 \*\*   
## conView NA NA   
## conCovrly 0.733 0.463346   
## conPovrly -1.839 0.065994 .   
## conWetland -1.640 0.100997   
## conFld100 -0.578 0.563443   
## pct\_conFld100 0.351 0.725928   
## pct\_conPovrly 0.166 0.867889   
## pct\_conCovrly 4.140 3.49e-05 \*\*\*  
## pct\_conWetland NA NA   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.2336 on 16383 degrees of freedom  
## (6539 observations deleted due to missingness)  
## Multiple R-squared: 0.7007, Adjusted R-squared: 0.698   
## F-statistic: 266.3 on 144 and 16383 DF, p-value: < 2.2e-16

#plot(sfr\_mod\_log)  
  
  
#--------------------------------------------------  
stargazer(sfr\_lin\_mod, sfr\_mod\_log, sfr\_mod\_bc, type="html", out="models.htm")

##   
## <table style="text-align:center"><tr><td colspan="4" style="border-bottom: 1px solid black"></td></tr><tr><td style="text-align:left"></td><td colspan="3"><em>Dependent variable:</em></td></tr>  
## <tr><td></td><td colspan="3" style="border-bottom: 1px solid black"></td></tr>  
## <tr><td style="text-align:left"></td><td>SALEPRICE</td><td>SALEPRICElog</td><td>SALEPRICEbc</td></tr>  
## <tr><td style="text-align:left"></td><td>(1)</td><td>(2)</td><td>(3)</td></tr>  
## <tr><td colspan="4" style="border-bottom: 1px solid black"></td></tr><tr><td style="text-align:left">CN\_score</td><td>-326.634<sup>\*\*\*</sup></td><td>-0.001<sup>\*\*\*</sup></td><td>-0.269<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(105.848)</td><td>(0.0002)</td><td>(0.080)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">percent\_vacant</td><td>157.677</td><td>0.006</td><td>1.228</td></tr>  
## <tr><td style="text-align:left"></td><td>(3,277.157)</td><td>(0.008)</td><td>(2.480)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">dist\_cityhall</td><td>-5.649<sup>\*\*\*</sup></td><td>-0.00001<sup>\*\*\*</sup></td><td>-0.004<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(0.410)</td><td>(0.00000)</td><td>(0.0003)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">dist\_ugb</td><td>-1.235<sup>\*\*</sup></td><td>-0.00000<sup>\*\*\*</sup></td><td>-0.001<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(0.508)</td><td>(0.00000)</td><td>(0.0004)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">totalsqft</td><td>60.417<sup>\*\*\*</sup></td><td>0.0001<sup>\*\*\*</sup></td><td>0.042<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(1.339)</td><td>(0.00000)</td><td>(0.001)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">yearbuilt</td><td>-420.980<sup>\*\*\*</sup></td><td>-0.0004<sup>\*\*\*</sup></td><td>-0.223<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(43.113)</td><td>(0.0001)</td><td>(0.033)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">f\_baths</td><td>61,341.740<sup>\*\*\*</sup></td><td>0.121<sup>\*\*\*</sup></td><td>45.483<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(1,382.026)</td><td>(0.003)</td><td>(1.046)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">h\_baths</td><td>43,986.550<sup>\*\*\*</sup></td><td>0.085<sup>\*\*\*</sup></td><td>32.119<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(1,746.002)</td><td>(0.004)</td><td>(1.321)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">n\_fireplaces</td><td>-5,666.343</td><td>-0.006</td><td>-3.118</td></tr>  
## <tr><td style="text-align:left"></td><td>(4,248.693)</td><td>(0.010)</td><td>(3.215)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">ADUdummy</td><td>-35,647.480<sup>\*\*\*</sup></td><td>-0.076<sup>\*\*\*</sup></td><td>-26.479<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(7,083.089)</td><td>(0.017)</td><td>(5.360)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">pct\_canopy\_cov</td><td>-13,885.650<sup>\*\*\*</sup></td><td>-0.026<sup>\*\*</sup></td><td>-9.646<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(4,829.851)</td><td>(0.011)</td><td>(3.655)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">taxlot\_area</td><td>1.754<sup>\*\*\*</sup></td><td>0.00000<sup>\*\*\*</sup></td><td>0.001<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(0.123)</td><td>(0.00000)</td><td>(0.0001)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">garage\_dum</td><td>12,643.760<sup>\*\*\*</sup></td><td>0.035<sup>\*\*\*</sup></td><td>10.998<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(2,294.286)</td><td>(0.005)</td><td>(1.736)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">attic\_dum</td><td>-5,226.094<sup>\*\*</sup></td><td>0.009<sup>\*</sup></td><td>-0.076</td></tr>  
## <tr><td style="text-align:left"></td><td>(2,096.614)</td><td>(0.005)</td><td>(1.586)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">bsmt\_dum</td><td>-8,739.469<sup>\*\*\*</sup></td><td>0.015<sup>\*\*\*</sup></td><td>-0.584</td></tr>  
## <tr><td style="text-align:left"></td><td>(2,175.229)</td><td>(0.005)</td><td>(1.646)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">year\_sold</td><td>27,884.330<sup>\*\*\*</sup></td><td>0.069<sup>\*\*\*</sup></td><td>23.248<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(700.898)</td><td>(0.002)</td><td>(0.530)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelArbor Lodge</td><td>-16,764.570</td><td>0.019</td><td>-4.298</td></tr>  
## <tr><td style="text-align:left"></td><td>(22,015.280)</td><td>(0.052)</td><td>(16.658)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelArdenwald-Johnson Creek</td><td>-133,727.700<sup>\*\*\*</sup></td><td>-0.237<sup>\*\*\*</sup></td><td>-96.699<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(24,995.950)</td><td>(0.059)</td><td>(18.914)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelArgay Terrace</td><td>-194,366.400<sup>\*\*\*</sup></td><td>-0.432<sup>\*\*\*</sup></td><td>-153.892<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(20,873.180)</td><td>(0.049)</td><td>(15.794)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelArlington Heights</td><td>-31,960.250</td><td>-0.231<sup>\*\*\*</sup></td><td>-54.291<sup>\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(30,074.950)</td><td>(0.070)</td><td>(22.757)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelArnold Creek</td><td>-121,960.500<sup>\*\*\*</sup></td><td>-0.306<sup>\*\*\*</sup></td><td>-100.884<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(19,459.310)</td><td>(0.046)</td><td>(14.724)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelAshcreek</td><td>-159,884.900<sup>\*\*\*</sup></td><td>-0.359<sup>\*\*\*</sup></td><td>-126.846<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(18,898.680)</td><td>(0.044)</td><td>(14.300)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelBeaumont-Wilshire</td><td>-10,546.900</td><td>-0.027</td><td>-8.994</td></tr>  
## <tr><td style="text-align:left"></td><td>(9,858.105)</td><td>(0.023)</td><td>(7.459)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelBoise</td><td>-18,481.920</td><td>0.079</td><td>6.177</td></tr>  
## <tr><td style="text-align:left"></td><td>(30,790.950)</td><td>(0.072)</td><td>(23.299)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelBrentwood-Darlington</td><td>-164,267.500<sup>\*\*\*</sup></td><td>-0.352<sup>\*\*\*</sup></td><td>-129.079<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(15,699.130)</td><td>(0.037)</td><td>(11.879)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelBridlemile</td><td>-178,343.500<sup>\*\*\*</sup></td><td>-0.394<sup>\*\*\*</sup></td><td>-139.134<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(25,280.690)</td><td>(0.059)</td><td>(19.129)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelBrooklyn Action Corps</td><td>-133,753.900<sup>\*\*\*</sup></td><td>-0.211<sup>\*\*\*</sup></td><td>-90.967<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(18,540.880)</td><td>(0.043)</td><td>(14.029)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelBuckman Community Association</td><td>-51,339.010<sup>\*\*</sup></td><td>-0.057</td><td>-30.488<sup>\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(21,719.080)</td><td>(0.051)</td><td>(16.434)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelCathedral Park</td><td>15,445.270</td><td>0.102</td><td>22.628</td></tr>  
## <tr><td style="text-align:left"></td><td>(28,522.580)</td><td>(0.067)</td><td>(21.582)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelCentennial Community Association</td><td>-166,126.700<sup>\*\*\*</sup></td><td>-0.487<sup>\*\*\*</sup></td><td>-152.053<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(19,199.140)</td><td>(0.045)</td><td>(14.528)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelCollins View</td><td>-160,541.200<sup>\*\*\*</sup></td><td>-0.364<sup>\*\*\*</sup></td><td>-128.056<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(20,163.710)</td><td>(0.047)</td><td>(15.257)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelConcordia</td><td>-37,928.020<sup>\*\*\*</sup></td><td>-0.062<sup>\*\*</sup></td><td>-25.878<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(13,030.880)</td><td>(0.031)</td><td>(9.860)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelCreston-Kenilworth</td><td>-115,197.000<sup>\*\*\*</sup></td><td>-0.205<sup>\*\*\*</sup></td><td>-81.974<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(15,715.410)</td><td>(0.037)</td><td>(11.891)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelCrestwood</td><td>-180,350.700<sup>\*\*\*</sup></td><td>-0.413<sup>\*\*\*</sup></td><td>-144.121<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(19,882.820)</td><td>(0.047)</td><td>(15.045)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelCully Association of Neighbors</td><td>-116,518.200<sup>\*\*\*</sup></td><td>-0.234<sup>\*\*\*</sup></td><td>-87.697<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(12,252.100)</td><td>(0.029)</td><td>(9.271)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelEast Columbia</td><td>-162,808.900<sup>\*\*\*</sup></td><td>-0.353<sup>\*\*\*</sup></td><td>-126.666<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(26,837.290)</td><td>(0.063)</td><td>(20.307)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelEastmoreland</td><td>72,107.040<sup>\*\*\*</sup></td><td>0.127<sup>\*\*\*</sup></td><td>50.549<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(16,222.720)</td><td>(0.038)</td><td>(12.275)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelEliot</td><td>-154,713.200<sup>\*\*\*</sup></td><td>-0.189<sup>\*</sup></td><td>-94.935<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(47,395.660)</td><td>(0.111)</td><td>(35.863)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelFar Southwest</td><td>-126,434.000<sup>\*\*\*</sup></td><td>-0.281<sup>\*\*\*</sup></td><td>-99.945<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(20,578.830)</td><td>(0.048)</td><td>(15.572)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelForest Park</td><td>-67,443.730<sup>\*\*</sup></td><td>-0.256<sup>\*\*\*</sup></td><td>-71.030<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(28,000.390)</td><td>(0.066)</td><td>(21.187)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelFoster-Powell</td><td>-117,365.000<sup>\*\*\*</sup></td><td>-0.212<sup>\*\*\*</sup></td><td>-85.394<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(16,099.950)</td><td>(0.038)</td><td>(12.182)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelGlenfair</td><td>-177,226.600<sup>\*\*\*</sup></td><td>-0.453<sup>\*\*\*</sup></td><td>-151.122<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(24,989.110)</td><td>(0.058)</td><td>(18.909)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelGoose Hollow Foothills League</td><td>-86,790.660<sup>\*\*</sup></td><td>-0.309<sup>\*\*\*</sup></td><td>-90.086<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(34,144.280)</td><td>(0.080)</td><td>(25.836)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelGrant Park</td><td>49,076.310<sup>\*\*\*</sup></td><td>0.088<sup>\*\*\*</sup></td><td>34.179<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(11,355.580)</td><td>(0.027)</td><td>(8.593)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelHayden Island Neighborhood Network</td><td>50,631.110</td><td>0.155<sup>\*</sup></td><td>48.544<sup>\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(36,019.500)</td><td>(0.084)</td><td>(27.255)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelHayhurst</td><td>-166,406.900<sup>\*\*\*</sup></td><td>-0.370<sup>\*\*\*</sup></td><td>-131.220<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(18,920.670)</td><td>(0.044)</td><td>(14.317)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelHazelwood</td><td>-162,153.000<sup>\*\*\*</sup></td><td>-0.396<sup>\*\*\*</sup></td><td>-134.388<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(16,445.770)</td><td>(0.038)</td><td>(12.444)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelHealy Heights</td><td>-7,396.506</td><td>-0.225<sup>\*\*</sup></td><td>-45.311</td></tr>  
## <tr><td style="text-align:left"></td><td>(40,497.790)</td><td>(0.095)</td><td>(30.644)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelHillsdale</td><td>-141,207.400<sup>\*\*\*</sup></td><td>-0.344<sup>\*\*\*</sup></td><td>-116.365<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(19,052.100)</td><td>(0.045)</td><td>(14.416)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelHillside</td><td>-39,427.070</td><td>-0.260<sup>\*\*\*</sup></td><td>-62.807<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(28,100.740)</td><td>(0.066)</td><td>(21.263)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelHollywood</td><td>37,772.070</td><td>0.102<sup>\*</sup></td><td>32.865<sup>\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(24,164.860)</td><td>(0.057)</td><td>(18.285)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelHomestead</td><td>-213,267.200<sup>\*\*\*</sup></td><td>-0.485<sup>\*\*\*</sup></td><td>-168.448<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(33,148.940)</td><td>(0.078)</td><td>(25.083)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelHosford-Abernethy Neighborhood District Assn.</td><td>-26,344.980<sup>\*</sup></td><td>-0.038</td><td>-17.466</td></tr>  
## <tr><td style="text-align:left"></td><td>(15,856.120)</td><td>(0.037)</td><td>(11.998)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelHumboldt</td><td>-14,894.310</td><td>0.007</td><td>-3.869</td></tr>  
## <tr><td style="text-align:left"></td><td>(21,901.230)</td><td>(0.051)</td><td>(16.572)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelIrvington Community Association</td><td>27,245.900<sup>\*\*</sup></td><td>0.012</td><td>11.986</td></tr>  
## <tr><td style="text-align:left"></td><td>(11,847.980)</td><td>(0.028)</td><td>(8.965)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelKenton</td><td>-38,853.730</td><td>-0.020</td><td>-20.791</td></tr>  
## <tr><td style="text-align:left"></td><td>(24,716.390)</td><td>(0.058)</td><td>(18.702)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelKerns</td><td>-28,755.030</td><td>-0.039</td><td>-18.188</td></tr>  
## <tr><td style="text-align:left"></td><td>(26,922.600)</td><td>(0.063)</td><td>(20.372)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelKing</td><td>-81,811.910<sup>\*\*\*</sup></td><td>-0.121<sup>\*\*\*</sup></td><td>-53.335<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(17,404.550)</td><td>(0.041)</td><td>(13.170)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelLaurelhurst</td><td>40,347.170<sup>\*\*\*</sup></td><td>0.083<sup>\*\*\*</sup></td><td>30.272<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(10,092.410)</td><td>(0.024)</td><td>(7.637)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelLents</td><td>-163,945.900<sup>\*\*\*</sup></td><td>-0.403<sup>\*\*\*</sup></td><td>-136.847<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(15,176.010)</td><td>(0.036)</td><td>(11.483)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelLinnton</td><td>-181,173.700<sup>\*\*\*</sup></td><td>-0.380<sup>\*\*\*</sup></td><td>-138.088<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(32,281.390)</td><td>(0.076)</td><td>(24.427)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelMadison South</td><td>-119,663.500<sup>\*\*\*</sup></td><td>-0.267<sup>\*\*\*</sup></td><td>-95.361<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(13,110.110)</td><td>(0.031)</td><td>(9.920)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelMaplewood</td><td>-135,515.600<sup>\*\*\*</sup></td><td>-0.297<sup>\*\*\*</sup></td><td>-106.177<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(19,794.900)</td><td>(0.046)</td><td>(14.978)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelMarkham</td><td>-190,700.300<sup>\*\*\*</sup></td><td>-0.415<sup>\*\*\*</sup></td><td>-149.587<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(19,457.480)</td><td>(0.046)</td><td>(14.723)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelMarshall Park</td><td>-145,140.800<sup>\*\*\*</sup></td><td>-0.328<sup>\*\*\*</sup></td><td>-115.331<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(21,062.380)</td><td>(0.049)</td><td>(15.937)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelMC Unclaimed</td><td>-142,772.700</td><td>-0.375<sup>\*</sup></td><td>-124.953<sup>\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(93,255.250)</td><td>(0.218)</td><td>(70.564)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelMill Park</td><td>-168,293.600<sup>\*\*\*</sup></td><td>-0.433<sup>\*\*\*</sup></td><td>-143.164<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(17,217.820)</td><td>(0.040)</td><td>(13.028)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelMontavilla</td><td>-93,566.880<sup>\*\*\*</sup></td><td>-0.191<sup>\*\*\*</sup></td><td>-71.373<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(12,546.910)</td><td>(0.029)</td><td>(9.494)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelMt. Scott-Arleta</td><td>-112,631.800<sup>\*\*\*</sup></td><td>-0.193<sup>\*\*\*</sup></td><td>-80.785<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(16,023.690)</td><td>(0.038)</td><td>(12.125)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelMt. Tabor</td><td>12,612.040</td><td>0.058<sup>\*</sup></td><td>14.642</td></tr>  
## <tr><td style="text-align:left"></td><td>(13,582.510)</td><td>(0.032)</td><td>(10.278)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelMultnomah</td><td>-144,473.100<sup>\*\*\*</sup></td><td>-0.328<sup>\*\*\*</sup></td><td>-115.239<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(18,939.960)</td><td>(0.044)</td><td>(14.331)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelNorth Tabor</td><td>-66,678.040<sup>\*\*\*</sup></td><td>-0.091<sup>\*\*\*</sup></td><td>-43.132<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(14,419.540)</td><td>(0.034)</td><td>(10.911)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelNorthwest District Association</td><td>76,386.840<sup>\*\*\*</sup></td><td>-0.068</td><td>16.290</td></tr>  
## <tr><td style="text-align:left"></td><td>(29,235.280)</td><td>(0.068)</td><td>(22.122)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelNorthwest Heights</td><td>-43,922.410<sup>\*</sup></td><td>-0.223<sup>\*\*\*</sup></td><td>-55.870<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(25,923.850)</td><td>(0.061)</td><td>(19.616)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelOverlook</td><td>3,727.348</td><td>0.050</td><td>10.265</td></tr>  
## <tr><td style="text-align:left"></td><td>(22,737.700)</td><td>(0.053)</td><td>(17.205)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelParkrose</td><td>-197,363.800<sup>\*\*\*</sup></td><td>-0.494<sup>\*\*\*</sup></td><td>-166.628<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(21,313.920)</td><td>(0.050)</td><td>(16.128)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelParkrose Heights Association of Neighbors</td><td>-193,427.100<sup>\*\*\*</sup></td><td>-0.479<sup>\*\*\*</sup></td><td>-161.972<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(20,637.080)</td><td>(0.048)</td><td>(15.616)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelPiedmont</td><td>-39,930.780<sup>\*</sup></td><td>-0.034</td><td>-22.702</td></tr>  
## <tr><td style="text-align:left"></td><td>(21,646.600)</td><td>(0.051)</td><td>(16.379)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelPleasant Valley</td><td>-150,908.000<sup>\*\*\*</sup></td><td>-0.327<sup>\*\*\*</sup></td><td>-117.878<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(18,335.800)</td><td>(0.043)</td><td>(13.874)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelPortsmouth</td><td>-36,937.430</td><td>-0.024</td><td>-21.192</td></tr>  
## <tr><td style="text-align:left"></td><td>(25,959.660)</td><td>(0.061)</td><td>(19.643)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelPowellhurst-Gilbert</td><td>-161,288.600<sup>\*\*\*</sup></td><td>-0.433<sup>\*\*\*</sup></td><td>-140.169<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(17,561.050)</td><td>(0.041)</td><td>(13.288)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelReed</td><td>-69,227.730<sup>\*\*\*</sup></td><td>-0.072<sup>\*</sup></td><td>-40.958<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(18,100.240)</td><td>(0.042)</td><td>(13.696)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelRichmond</td><td>-27,709.840<sup>\*</sup></td><td>-0.011</td><td>-13.189</td></tr>  
## <tr><td style="text-align:left"></td><td>(14,177.290)</td><td>(0.033)</td><td>(10.728)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelRose City Park</td><td>-44,193.890<sup>\*\*\*</sup></td><td>-0.032</td><td>-22.917<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(9,576.258)</td><td>(0.022)</td><td>(7.246)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelRoseway</td><td>-72,156.590<sup>\*\*\*</sup></td><td>-0.119<sup>\*\*\*</sup></td><td>-49.981<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(12,158.150)</td><td>(0.028)</td><td>(9.200)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelRussell</td><td>-172,350.900<sup>\*\*\*</sup></td><td>-0.417<sup>\*\*\*</sup></td><td>-142.599<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(20,784.890)</td><td>(0.049)</td><td>(15.727)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelSabin Community Association</td><td>-8,658.893</td><td>-0.012</td><td>-5.684</td></tr>  
## <tr><td style="text-align:left"></td><td>(10,800.920)</td><td>(0.025)</td><td>(8.173)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelSellwood-Moreland Improvement League</td><td>-21,968.870</td><td>-0.006</td><td>-10.222</td></tr>  
## <tr><td style="text-align:left"></td><td>(15,405.950)</td><td>(0.036)</td><td>(11.657)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelSouth Burlingame</td><td>-162,577.200<sup>\*\*\*</sup></td><td>-0.370<sup>\*\*\*</sup></td><td>-129.677<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(20,253.920)</td><td>(0.047)</td><td>(15.326)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelSouth Portland</td><td>-71,414.240<sup>\*\*\*</sup></td><td>-0.215<sup>\*\*\*</sup></td><td>-66.548<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(22,182.740)</td><td>(0.052)</td><td>(16.785)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelSouth Tabor</td><td>-72,139.610<sup>\*\*\*</sup></td><td>-0.083<sup>\*\*</sup></td><td>-44.922<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(15,028.560)</td><td>(0.035)</td><td>(11.372)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelSouthwest Hills Residential League</td><td>-57,509.150<sup>\*\*</sup></td><td>-0.270<sup>\*\*\*</sup></td><td>-71.432<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(25,354.220)</td><td>(0.059)</td><td>(19.185)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelSt. Johns</td><td>-25,685.170</td><td>-0.020</td><td>-15.808</td></tr>  
## <tr><td style="text-align:left"></td><td>(26,001.210)</td><td>(0.061)</td><td>(19.675)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelSullivan's Gulch</td><td>-106,992.600<sup>\*\*\*</sup></td><td>-0.124<sup>\*\*</sup></td><td>-63.692<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(23,143.750)</td><td>(0.054)</td><td>(17.512)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelSumner Association of Neighbors</td><td>-186,990.900<sup>\*\*\*</sup></td><td>-0.480<sup>\*\*\*</sup></td><td>-159.562<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(23,986.460)</td><td>(0.056)</td><td>(18.150)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelSunderland Association of Neighbors</td><td>-142,021.800<sup>\*\*</sup></td><td>-0.420<sup>\*\*\*</sup></td><td>-131.646<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(61,416.740)</td><td>(0.144)</td><td>(46.473)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelSunnyside</td><td>-16,774.620</td><td>0.025</td><td>-2.681</td></tr>  
## <tr><td style="text-align:left"></td><td>(15,981.380)</td><td>(0.037)</td><td>(12.093)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelSylvan-Highlands</td><td>-148,422.700<sup>\*\*\*</sup></td><td>-0.362<sup>\*\*\*</sup></td><td>-121.913<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(28,329.780)</td><td>(0.066)</td><td>(21.436)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelUniversity Park</td><td>-1,634.681</td><td>0.076</td><td>11.156</td></tr>  
## <tr><td style="text-align:left"></td><td>(26,033.420)</td><td>(0.061)</td><td>(19.699)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelVernon</td><td>-4,450.563</td><td>0.005</td><td>-0.886</td></tr>  
## <tr><td style="text-align:left"></td><td>(19,177.950)</td><td>(0.045)</td><td>(14.512)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelWest Portland Park</td><td>-179,388.600<sup>\*\*\*</sup></td><td>-0.407<sup>\*\*\*</sup></td><td>-143.737<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(19,364.850)</td><td>(0.045)</td><td>(14.653)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelWilkes Community Group</td><td>-180,145.000<sup>\*\*\*</sup></td><td>-0.415<sup>\*\*\*</sup></td><td>-145.426<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(21,831.970)</td><td>(0.051)</td><td>(16.520)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelWoodland Park</td><td>-186,887.400<sup>\*\*\*</sup></td><td>-0.500<sup>\*\*\*</sup></td><td>-163.897<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(28,670.200)</td><td>(0.067)</td><td>(21.694)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelWoodlawn</td><td>-45,360.250<sup>\*\*</sup></td><td>-0.055</td><td>-28.101<sup>\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(19,743.260)</td><td>(0.046)</td><td>(14.939)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">MapLabelWoodstock</td><td>-74,500.240<sup>\*\*\*</sup></td><td>-0.099<sup>\*\*\*</sup></td><td>-48.197<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(16,273.220)</td><td>(0.038)</td><td>(12.314)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">HIGH\_SCHCLEVELAND HS</td><td>-41,788.390<sup>\*\*\*</sup></td><td>-0.155<sup>\*\*\*</sup></td><td>-43.218<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(14,927.750)</td><td>(0.035)</td><td>(11.295)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">HIGH\_SCHDAVID DOUGLAS HS</td><td>-39,064.950<sup>\*\*\*</sup></td><td>-0.118<sup>\*\*\*</sup></td><td>-36.669<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(9,155.129)</td><td>(0.021)</td><td>(6.927)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">HIGH\_SCHFRANKLIN HS</td><td>-47,439.140<sup>\*\*\*</sup></td><td>-0.165<sup>\*\*\*</sup></td><td>-47.236<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(13,538.480)</td><td>(0.032)</td><td>(10.244)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">HIGH\_SCHGRANT HS</td><td>-11,066.460</td><td>-0.108<sup>\*\*\*</sup></td><td>-23.228<sup>\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(15,973.430)</td><td>(0.037)</td><td>(12.087)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">HIGH\_SCHGRANT-JEFF</td><td>-77,399.460<sup>\*\*\*</sup></td><td>-0.263<sup>\*\*\*</sup></td><td>-75.673<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(23,734.010)</td><td>(0.056)</td><td>(17.959)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">HIGH\_SCHLINCOLN HS</td><td>70,099.570<sup>\*\*\*</sup></td><td>0.097<sup>\*\*</sup></td><td>43.889<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(16,872.100)</td><td>(0.039)</td><td>(12.767)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">HIGH\_SCHMADISON HS</td><td>-85,109.550<sup>\*\*\*</sup></td><td>-0.247<sup>\*\*\*</sup></td><td>-76.914<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(14,766.960)</td><td>(0.035)</td><td>(11.174)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">HIGH\_SCHMADISON-JEFF</td><td>-92,568.480<sup>\*\*\*</sup></td><td>-0.234<sup>\*\*\*</sup></td><td>-77.455<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(17,624.680)</td><td>(0.041)</td><td>(13.336)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">HIGH\_SCHPARKROSE HS</td><td>-28,197.190<sup>\*\*</sup></td><td>-0.088<sup>\*\*\*</sup></td><td>-26.166<sup>\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(13,847.610)</td><td>(0.032)</td><td>(10.478)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">HIGH\_SCHREYNOLDS HS</td><td>-14,310.990</td><td>-0.063<sup>\*\*</sup></td><td>-16.505</td></tr>  
## <tr><td style="text-align:left"></td><td>(13,661.520)</td><td>(0.032)</td><td>(10.337)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">HIGH\_SCHRIVERDALE HS</td><td>430,576.900<sup>\*\*\*</sup></td><td>0.486<sup>\*\*\*</sup></td><td>248.267<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(71,394.230)</td><td>(0.167)</td><td>(54.022)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">HIGH\_SCHROOS-JEFF</td><td>-122,332.300<sup>\*\*\*</sup></td><td>-0.328<sup>\*\*\*</sup></td><td>-105.287<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(24,242.500)</td><td>(0.057)</td><td>(18.344)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">HIGH\_SCHROOSEVELT CAMPUS</td><td>-134,262.100<sup>\*\*\*</sup></td><td>-0.384<sup>\*\*\*</sup></td><td>-119.549<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(27,572.830)</td><td>(0.065)</td><td>(20.864)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">HIGH\_SCHSUNSET HS</td><td>79,304.380<sup>\*\*</sup></td><td>0.098</td><td>47.088<sup>\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(33,126.240)</td><td>(0.078)</td><td>(25.066)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">HIGH\_SCHWILSON HS</td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conECSI</td><td>90,763.870</td><td>0.168</td><td>65.246</td></tr>  
## <tr><td style="text-align:left"></td><td>(100,026.100)</td><td>(0.234)</td><td>(75.687)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conLUST</td><td>-46,249.190</td><td>-0.060</td><td>-27.018</td></tr>  
## <tr><td style="text-align:left"></td><td>(71,715.060)</td><td>(0.168)</td><td>(54.265)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conHist</td><td>33,150.380<sup>\*\*\*</sup></td><td>0.057<sup>\*\*\*</sup></td><td>23.270<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(6,567.587)</td><td>(0.015)</td><td>(4.970)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conHistLdm</td><td>21,554.860</td><td>-0.024</td><td>3.145</td></tr>  
## <tr><td style="text-align:left"></td><td>(30,674.280)</td><td>(0.072)</td><td>(23.211)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conNatAm</td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conAirHgt</td><td>17,427.370<sup>\*\*\*</sup></td><td>0.038<sup>\*\*\*</sup></td><td>13.342<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(4,246.640)</td><td>(0.010)</td><td>(3.213)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conHeliprt</td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conNoise</td><td>-2,358.722</td><td>-0.008</td><td>-2.288</td></tr>  
## <tr><td style="text-align:left"></td><td>(9,408.498)</td><td>(0.022)</td><td>(7.119)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conGW</td><td>46,767.090</td><td>0.132</td><td>41.537</td></tr>  
## <tr><td style="text-align:left"></td><td>(53,393.450)</td><td>(0.125)</td><td>(40.402)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conLSHA</td><td>11,138.210<sup>\*\*\*</sup></td><td>0.038<sup>\*\*\*</sup></td><td>11.116<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(4,037.258)</td><td>(0.009)</td><td>(3.055)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conSLIDO</td><td>-18,738.010<sup>\*\*\*</sup></td><td>-0.020</td><td>-10.429<sup>\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(5,978.146)</td><td>(0.014)</td><td>(4.524)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conSlp25</td><td>10,467.410<sup>\*\*</sup></td><td>0.005</td><td>4.974</td></tr>  
## <tr><td style="text-align:left"></td><td>(4,101.139)</td><td>(0.010)</td><td>(3.103)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conInstit</td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conPrvCom</td><td>275,398.000<sup>\*\*\*</sup></td><td>0.193</td><td>133.828<sup>\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(100,778.500)</td><td>(0.236)</td><td>(76.257)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conPubOwn</td><td>-12,405.890</td><td>-0.120</td><td>-26.478</td></tr>  
## <tr><td style="text-align:left"></td><td>(40,840.670)</td><td>(0.096)</td><td>(30.903)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conSewer</td><td>12,341.970</td><td>0.030</td><td>10.594</td></tr>  
## <tr><td style="text-align:left"></td><td>(13,013.490)</td><td>(0.030)</td><td>(9.847)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conStorm</td><td>-3,227.774</td><td>0.002</td><td>-0.764</td></tr>  
## <tr><td style="text-align:left"></td><td>(3,177.221)</td><td>(0.007)</td><td>(2.404)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conTranCap</td><td>-6,410.871<sup>\*</sup></td><td>-0.012</td><td>-5.001<sup>\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(3,448.220)</td><td>(0.008)</td><td>(2.609)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conTranInt</td><td>-10,306.110<sup>\*\*\*</sup></td><td>-0.030<sup>\*\*\*</sup></td><td>-9.466<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(3,704.880)</td><td>(0.009)</td><td>(2.803)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conTranSub</td><td>-9,917.592<sup>\*\*\*</sup></td><td>-0.023<sup>\*\*\*</sup></td><td>-7.727<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(2,174.332)</td><td>(0.005)</td><td>(1.645)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conWater</td><td>-7,123.303<sup>\*</sup></td><td>-0.030<sup>\*\*\*</sup></td><td>-8.233<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(4,154.905)</td><td>(0.010)</td><td>(3.144)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conView</td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conCovrly</td><td>-2,129.192</td><td>0.008</td><td>0.332</td></tr>  
## <tr><td style="text-align:left"></td><td>(4,517.954)</td><td>(0.011)</td><td>(3.419)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conPovrly</td><td>-26,434.520<sup>\*\*\*</sup></td><td>-0.027<sup>\*</sup></td><td>-14.784<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(6,267.871)</td><td>(0.015)</td><td>(4.743)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conWetland</td><td>-65,171.270<sup>\*\*\*</sup></td><td>-0.093</td><td>-41.943<sup>\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(24,204.060)</td><td>(0.057)</td><td>(18.315)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">conFld100</td><td>-13,044.220</td><td>-0.017</td><td>-8.352</td></tr>  
## <tr><td style="text-align:left"></td><td>(12,436.520)</td><td>(0.029)</td><td>(9.410)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">pct\_conFld100</td><td>18,758.170</td><td>0.016</td><td>10.994</td></tr>  
## <tr><td style="text-align:left"></td><td>(19,516.460)</td><td>(0.046)</td><td>(14.768)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">pct\_conPovrly</td><td>17,495.980</td><td>0.039</td><td>13.954</td></tr>  
## <tr><td style="text-align:left"></td><td>(101,216.100)</td><td>(0.237)</td><td>(76.588)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">pct\_conCovrly</td><td>29,374.960<sup>\*\*\*</sup></td><td>0.085<sup>\*\*\*</sup></td><td>26.849<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(8,734.042)</td><td>(0.020)</td><td>(6.609)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">pct\_conWetland</td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td style="text-align:left">Constant</td><td>-54,877,024.000<sup>\*\*\*</sup></td><td>-125.407<sup>\*\*\*</sup></td><td>-45,664.920<sup>\*\*\*</sup></td></tr>  
## <tr><td style="text-align:left"></td><td>(1,417,733.000)</td><td>(3.319)</td><td>(1,072.766)</td></tr>  
## <tr><td style="text-align:left"></td><td></td><td></td><td></td></tr>  
## <tr><td colspan="4" style="border-bottom: 1px solid black"></td></tr><tr><td style="text-align:left">Observations</td><td>16,528</td><td>16,528</td><td>16,528</td></tr>  
## <tr><td style="text-align:left">R<sup>2</sup></td><td>0.758</td><td>0.701</td><td>0.755</td></tr>  
## <tr><td style="text-align:left">Adjusted R<sup>2</sup></td><td>0.756</td><td>0.698</td><td>0.753</td></tr>  
## <tr><td style="text-align:left">Residual Std. Error (df = 16383)</td><td>99,779.700</td><td>0.234</td><td>75.501</td></tr>  
## <tr><td style="text-align:left">F Statistic (df = 144; 16383)</td><td>357.265<sup>\*\*\*</sup></td><td>266.325<sup>\*\*\*</sup></td><td>351.491<sup>\*\*\*</sup></td></tr>  
## <tr><td colspan="4" style="border-bottom: 1px solid black"></td></tr><tr><td style="text-align:left"><em>Note:</em></td><td colspan="3" style="text-align:right"><sup>\*</sup>p<0.1; <sup>\*\*</sup>p<0.05; <sup>\*\*\*</sup>p<0.01</td></tr>  
## </table>