House Price Presentation

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November 30, 2022

1 Initial Model

Table 1:

	Dependent variable:
	AdjSalePrice
BldgGrade	112,748.800***
	(2,467.120)
SqFtTotLiving	182.260***
	(3.184)
Constant	−680,074.400***
	(14,597.660)
Observations	20,340
R^2	0.532
Adjusted R^2	0.532
Residual Std. Error	264,989.900 (df = 20337)
F Statistic	11,549.010*** (df = 2; 20337)
Note:	*p<0.1; **p<0.05; ***p<0.01

2 Adding Zip Group

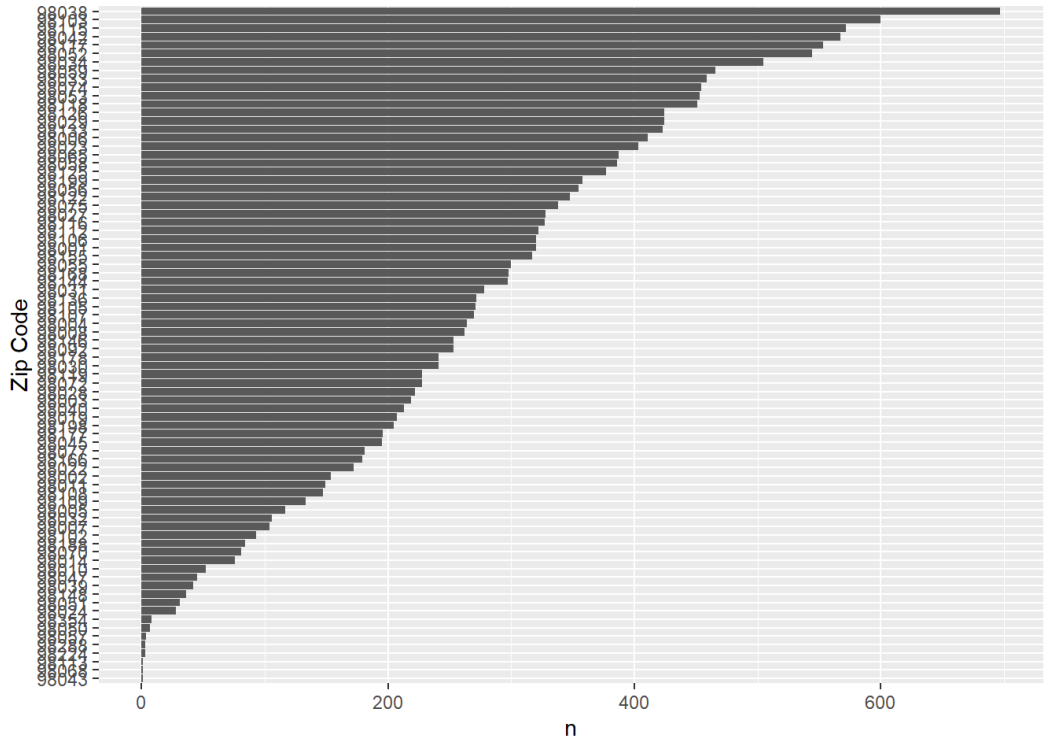

Figure 1: *Zip codes arranged by price.*

Table 2:

	Dependent variable:	
	AdjSalePrice	AdjSalePrice
	(1)	(2)
BldgGrade	112,748.800***	
	(2,467.120)	
SqFtTotLiving	182.260***	
	(3.184)	
SqFtTotLiving		187.401***
		(3.171)
BldgGrade		115,248.000***
		(2,450.739)
ZipGroup		26,362.780***
		(1,435.057)
Constant	−680,074.400***	−790,502.900***
	(14,597.660)	(15,676.660)
Observations	20,340	20,340
R^2	0.532	0.539
Adjusted R^2	0.532	0.539
Residual Std. Error	264,989.900 (df = 20337)	262,824.600 (df = 20336)
F Statistic	11,549.010*** (df = 2; 20337)	7,939.216*** (df = 3; 20336)
Note:		*p<0.1; **p<0.05; ***p<0.01

3 Transformations

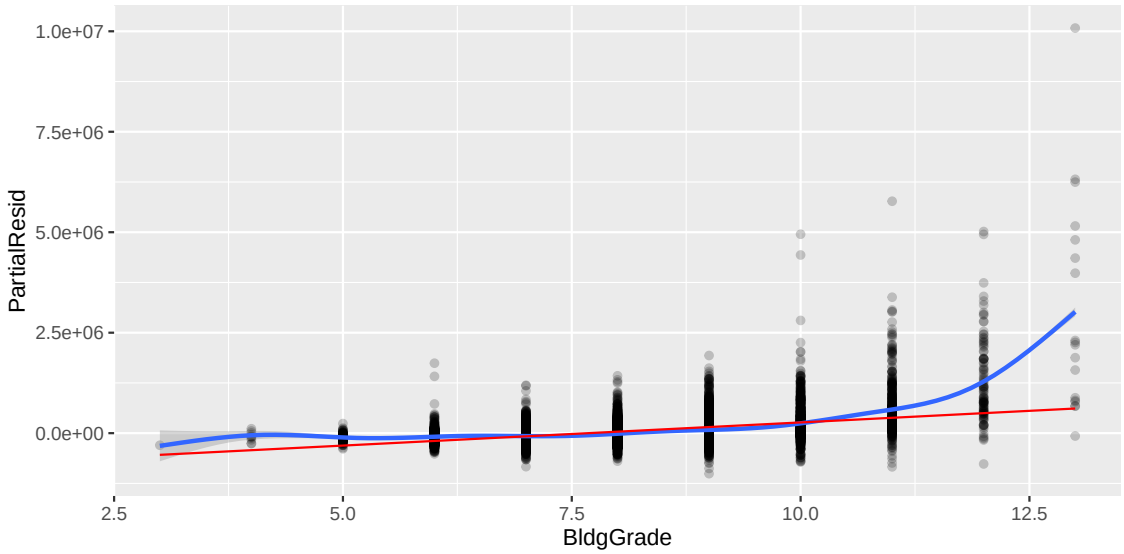

Figure 2: *Partial residual plot for building grade.*

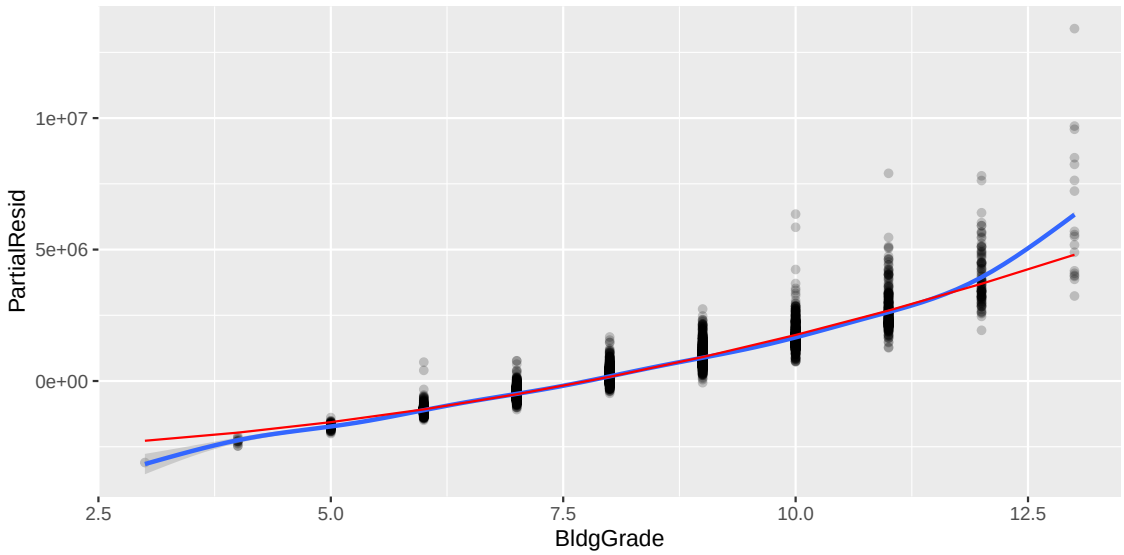

Figure 3: *Partial residual plot for building grade squared.*

Transformations

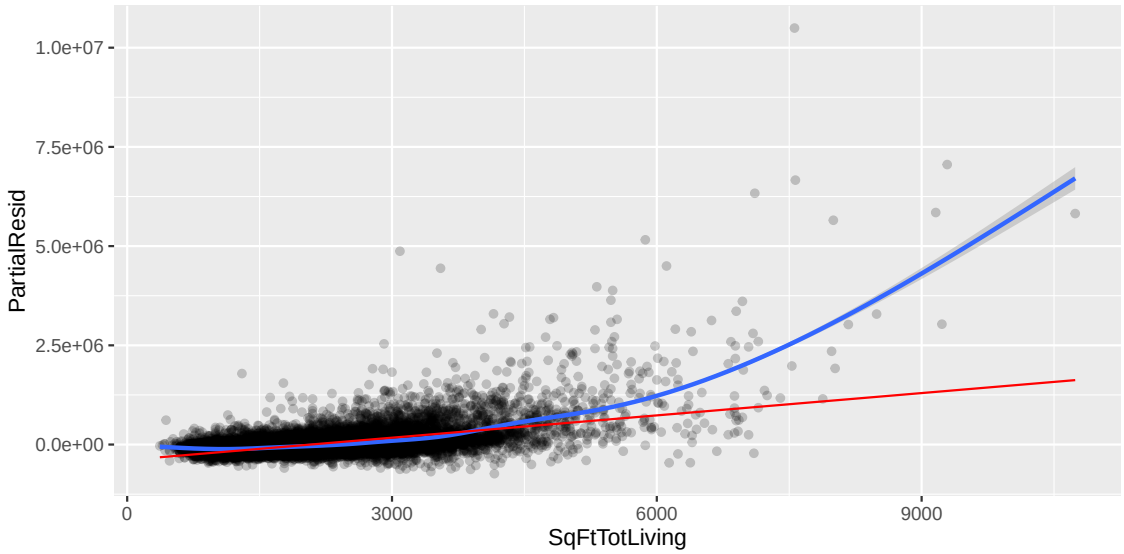

Figure 4: *Partial residual for square foot to living.*

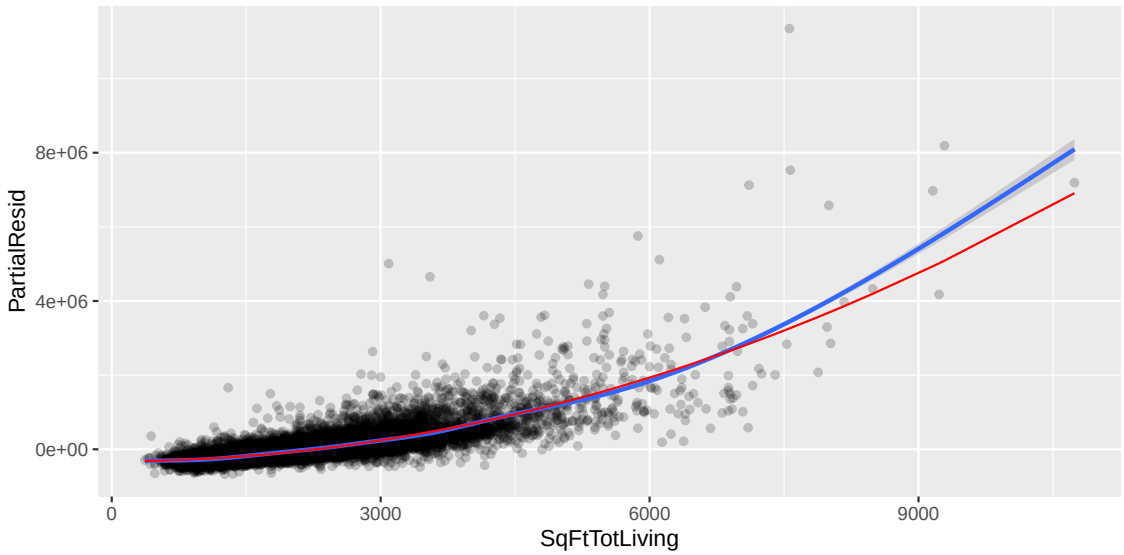

Figure 5: *Partial residual for square foot to living squared.*

Final Model

Table 3:

	Dependent variable:		
	AdjSalePrice	AdjSalePrice	
	(1)	(2)	(3)
BldgGrade	112,748.800***		
	(2,467.120)		
SqFtTotLiving	182.260***		
	(3.184)		
I(SqFtTotLivingˆ2)			0.045***
			(0.001)
SqFtTotLiving		187.401***	−84.272***
		(3.171)	(7.004)
BldgGrade		115,248.000***	−271,926.800***
		(2,450.739)	(15,224.020)
I(BldgGradeˆ2)			24,630.760***
			(939.220)
ZipGroup		26,362.780***	21,096.620***
		(1,435.057)	(1,298.708)
Constant	−680,074.400***	−790,502.900***	1,044,462.000***
	(14,597.660)	(15,676.660)	(58,097.830)
Observations	20,340	20,340	20,340
R^2	0.532	0.539	0.625
Adjusted R^2	0.532	0.539	0.625
Residual Std. Error	264,989.900 (df = 20337)	262,824.600 (df = 20336)	237,271.500 (df = 20334)
F Statistic	11,549.010*** (df = 2; 20337)	7,939.216*** (df = 3; 20336)	6,768.416*** (df = 5; 20334)
Note:			*p<0.1; **p<0.05; ***p<0.01