

DESCRIPTIVE STATISTICS

	HINCP_log	YRBUILT	...	bachelors	grad_school
count	64141.000000	64141.000000	...	64141.000000	64141.000000
mean	9.198244	1971.299387	...	0.031618	0.124164
std	4.009192	26.975987	...	0.174982	0.329771
min	0.000000	1919.000000	...	0.000000	0.000000
25%	9.392662	1950.000000	...	0.000000	0.000000
50%	10.728978	1970.000000	...	0.000000	0.000000
75%	11.512925	1990.000000	...	0.000000	0.000000
max	15.342436	2021.000000	...	1.000000	1.000000

[8 rows x 24 columns]

OLS Regression Results

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Dep. Variable:	HINCP_log	R-squared:	0.803
Model:	OLS	Adj. R-squared:	0.803

Method: Least Squares F-statistic: 1.185e+04
Date: Sun, 18 Feb 2024 Prob (F-statistic): 0.00
Time: 22:50:04 Log-Likelihood: -1.2804e+05
No. Observations: 64141 AIC: 2.561e+05
Df Residuals: 64118 BIC: 2.563e+05
Df Model: 22
Covariance Type: nonrobust

	coef	std err	t	P> t	[0.025	0.975]
const	-1.0175	0.530	-1.919	0.055	-2.057	0.022
YRBUILT	0.0008	0.000	3.046	0.002	0.000	0.001
BEDROOMS	-0.0288	0.015	-1.974	0.048	-0.057	-0.000
HHMOVE	0.0045	3.62e-05	123.373	0.000	0.004	0.005
TOTROOMS	0.1383	0.009	15.695	0.000	0.121	0.156
NUMPEOPLE	0.2347	0.006	37.811	0.000	0.223	0.247

HHAGE	-0.0068	0.000	-14.420	0.000	-0.008	-0.006
SOLAR	0.1849	0.039	4.751	0.000	0.109	0.261
ADEQUACY	0.1478	0.028	5.217	0.000	0.092	0.203
ROOFSAG	0.0394	0.063	0.622	0.534	-0.085	0.164
ROOFHOLE	-0.3688	0.070	-5.247	0.000	-0.507	-0.231
NHQ SCHOOL	0.0203	0.019	1.057	0.291	-0.017	0.058
NHQ PC CRIME	-0.0446	0.022	-1.999	0.046	-0.088	-0.001
NHQ SC CRIME	-0.3392	0.032	-10.440	0.000	-0.403	-0.276
FS	-1.0965	0.023	-47.679	0.000	-1.142	-1.051
detached	0.2147	0.020	10.912	0.000	0.176	0.253
trailer	-0.0928	0.036	-2.572	0.010	-0.164	-0.022
white	0.0504	0.013	3.852	0.000	0.025	0.076
black	-0.4345	0.031	-14.110	0.000	-0.495	-0.374
asian	0.0504	0.013	3.852	0.000	0.025	0.076
hispanic	-0.3340	0.021	-15.587	0.000	-0.376	-0.292
hs_grad	-0.2361	0.018	-12.794	0.000	-0.272	-0.200

bachelors	0.2097	0.042	4.935	0.000	0.126	0.293
grad_school	0.5426	0.023	23.771	0.000	0.498	0.587

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Omnibus:                54030.961   Durbin-Watson:                1.967
Prob(Omnibus):           0.000   Jarque-Bera (JB):           1320398.605
Skew:                    -4.098   Prob(JB):                   0.00
Kurtosis:                23.661   Cond. No.                   7.31e+19
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Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

[2] The smallest eigenvalue is 8.6e-29. This might indicate that there are strong multicollinearity problems or that the design matrix is singular.

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['YRBUILT', 'BEDROOMS', 'HHMOVE', 'TOTROOMS', 'NUMPEOPLE', 'HHAGE', 'SOLAR', 'ADEQUACY', 'ROOFSAG',
'ROOFHOLE', 'NHQSCHOOL', 'NHQPCRIME', 'NHQSCRIME', 'FS', 'detached', 'trailer', 'white', 'black',
'asian', 'hispanic', 'hs_grad', 'bachelors', 'grad_school']
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RIDGE MODEL SUMMARY

Model Coefficients:

YRBUILT: 0.0008212883929231274

BEDROOMS: -0.028756309148136396

HHMOVE: 0.004470907412096396

TOTROOMS: 0.13828114744469008

NUMPEOPLE: 0.23467853985048476

HHAGE: -0.0067935095204552185

SOLAR: 0.18491748803627056

ADEQUACY: 0.14781459760943053

ROOFSAG: 0.03941888852651858

ROOFHOLE: -0.3687542193410441

NHQSCHOOL: 0.020346502340639134

NHQPCRIME: -0.044632573928442776

NHQSCRIME: -0.3392216050089597

FS: -1.0965344297914268

detached: 0.21470691632864156

trailer: -0.09279149430825571
white: 0.050354531737273306
black: -0.4344708373570033
asian: 0.050358461587388735
hispanic: -0.3339591105519947
hs_grad: -0.2360889059063547
bachelors: 0.20967182489872507
grad_school: 0.542617571589071
Intercept: -1.0175072988591136
Mean Squared Error (MSE): 3.1727134400557477
Root Mean Squared Error (RMSE): 1.7812112283656163
R-squared: 0.8026105532492601
Best Lambda (alpha): 1e-07