

MIT OpenCourseWare
<http://ocw.mit.edu>

11.220 Quantitative Reasoning & Statistical Methods for Planners I
Spring 2009

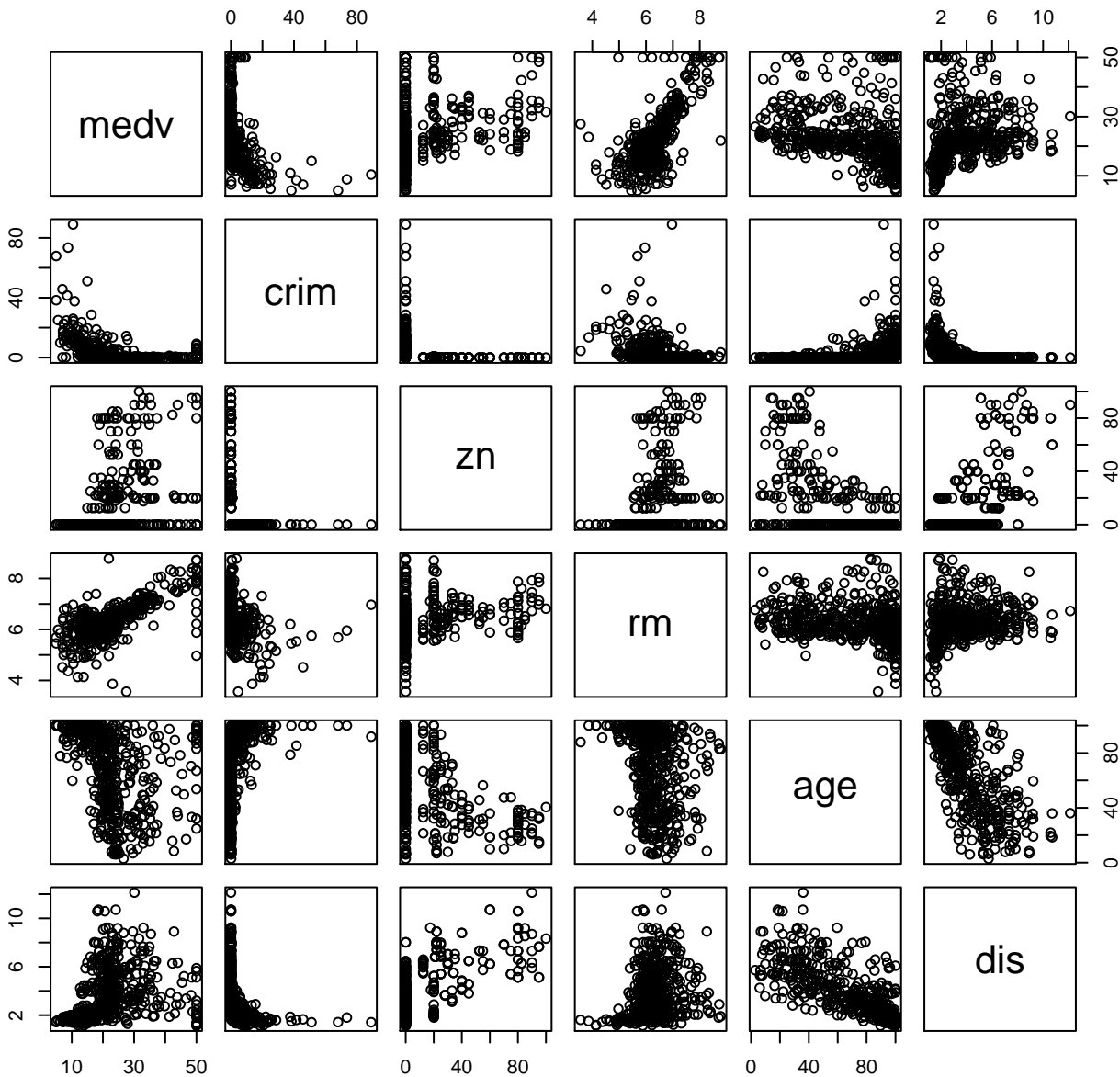
For information about citing these materials or our Terms of Use, visit: <http://ocw.mit.edu/terms>.

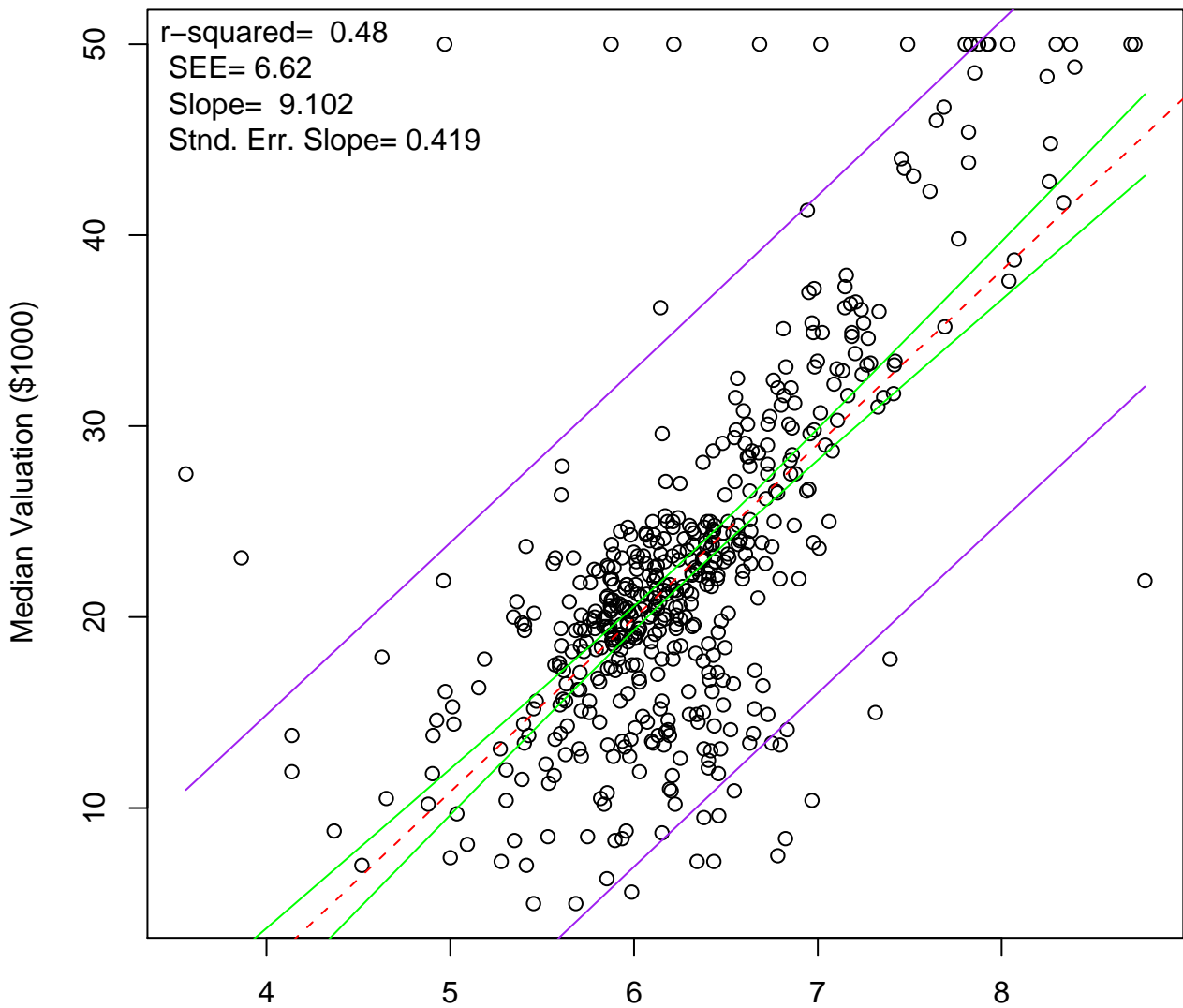
Quantitative Reasoning and Statistical Methods

Ezra Glenn

April 24, 2009

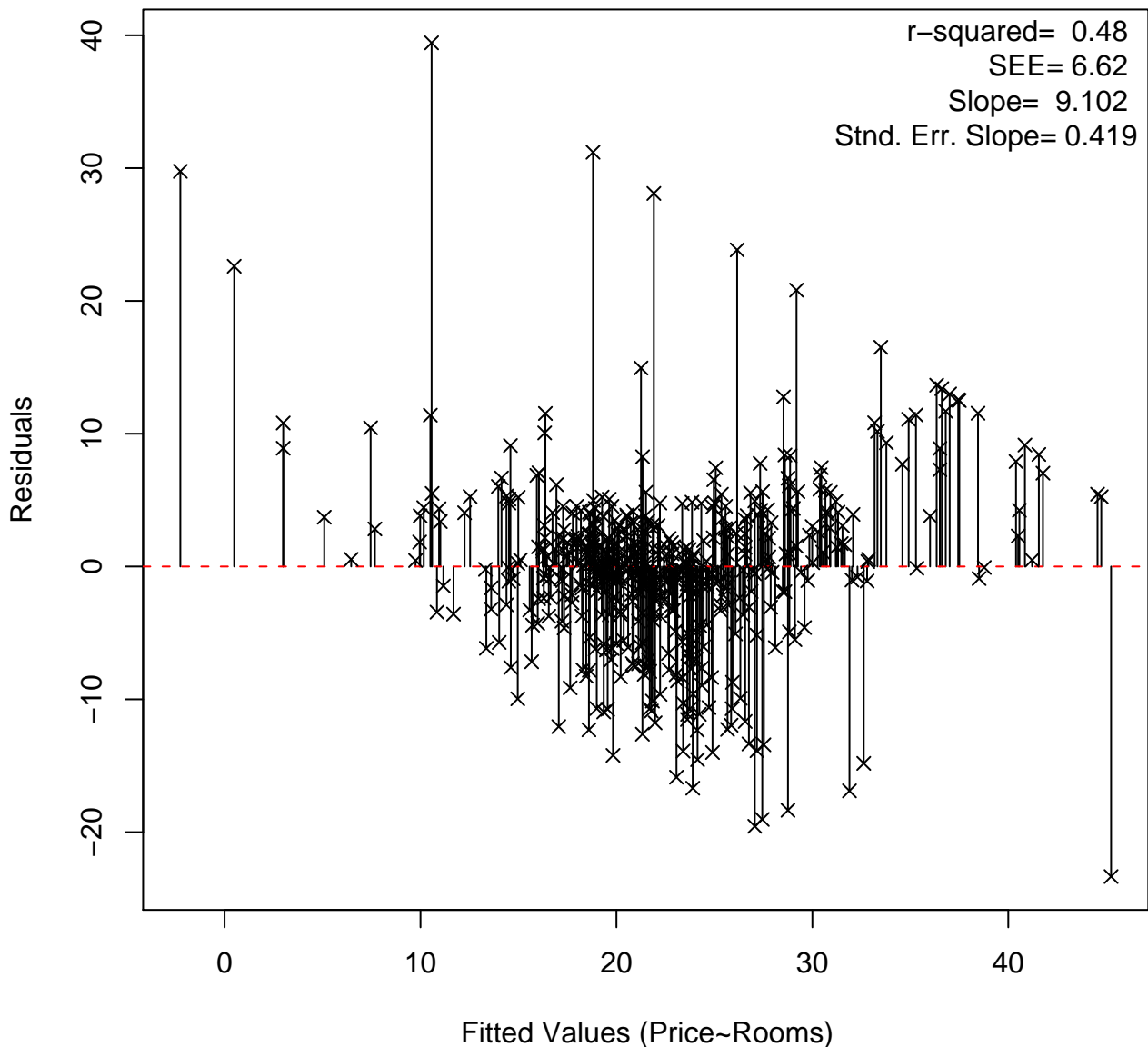
Scatterplot Matrix of Boston Home Data





Number of Rooms

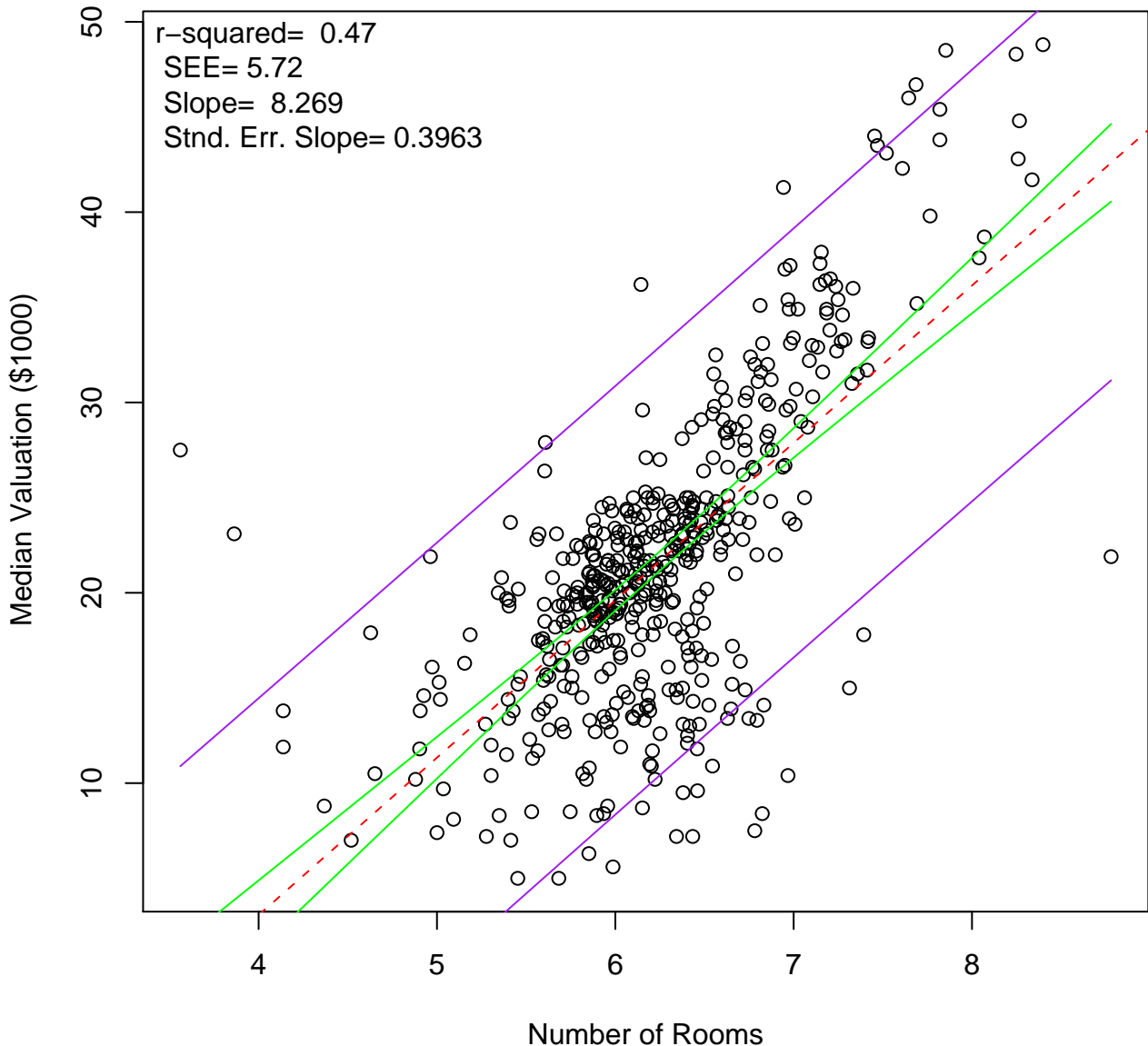
Harrison, D. and Rubinfeld, D.L. (1978) Hedonic prices and the demand for clean air.



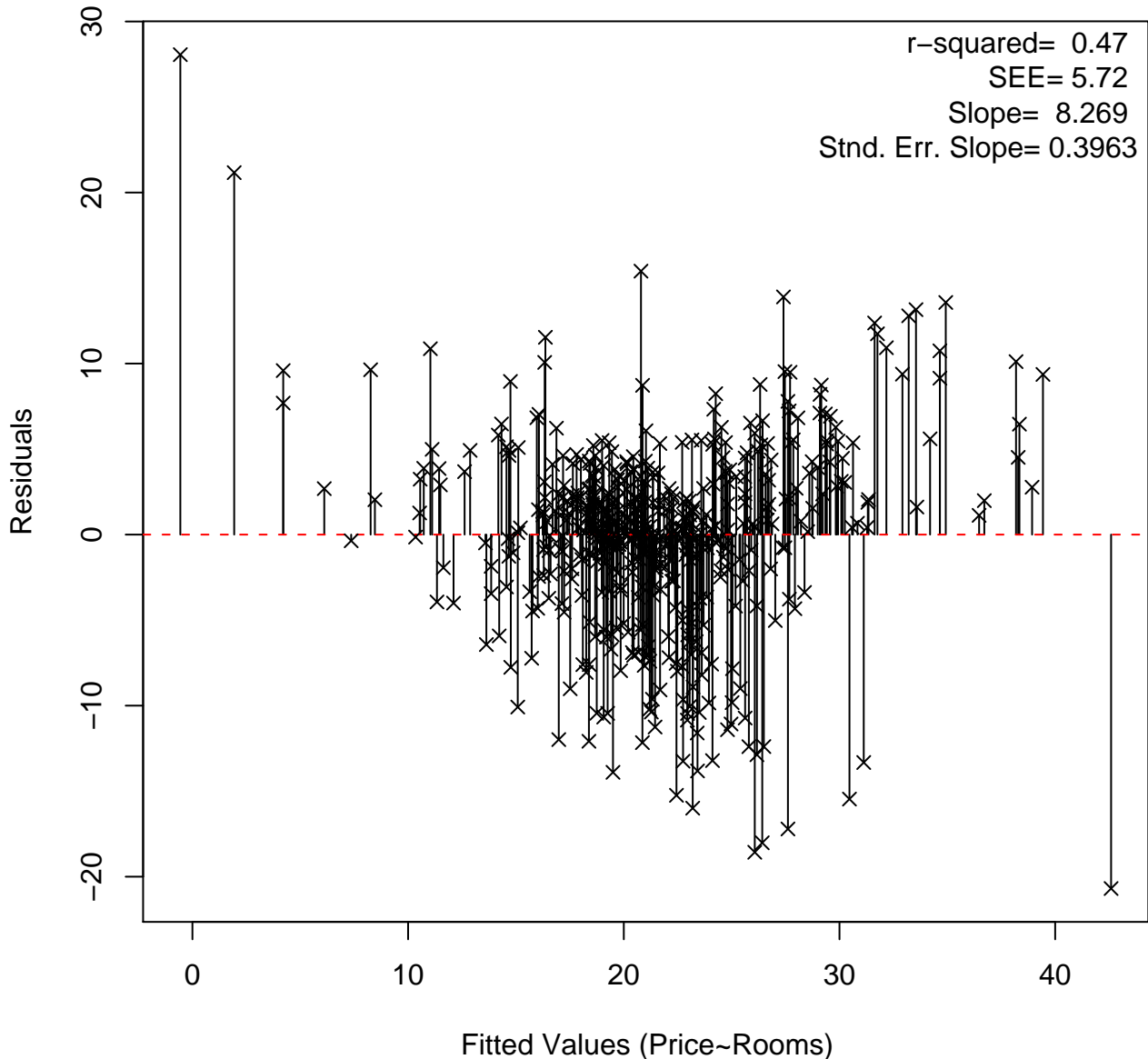
Harrison, D. and Rubinfeld, D.L. (1978) Hedonic prices and the demand for clean air.

formula = medv ~ rm

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-34.6706	2.6498	-13.08	0.0000
rm	9.1021	0.4190	21.72	0.0000



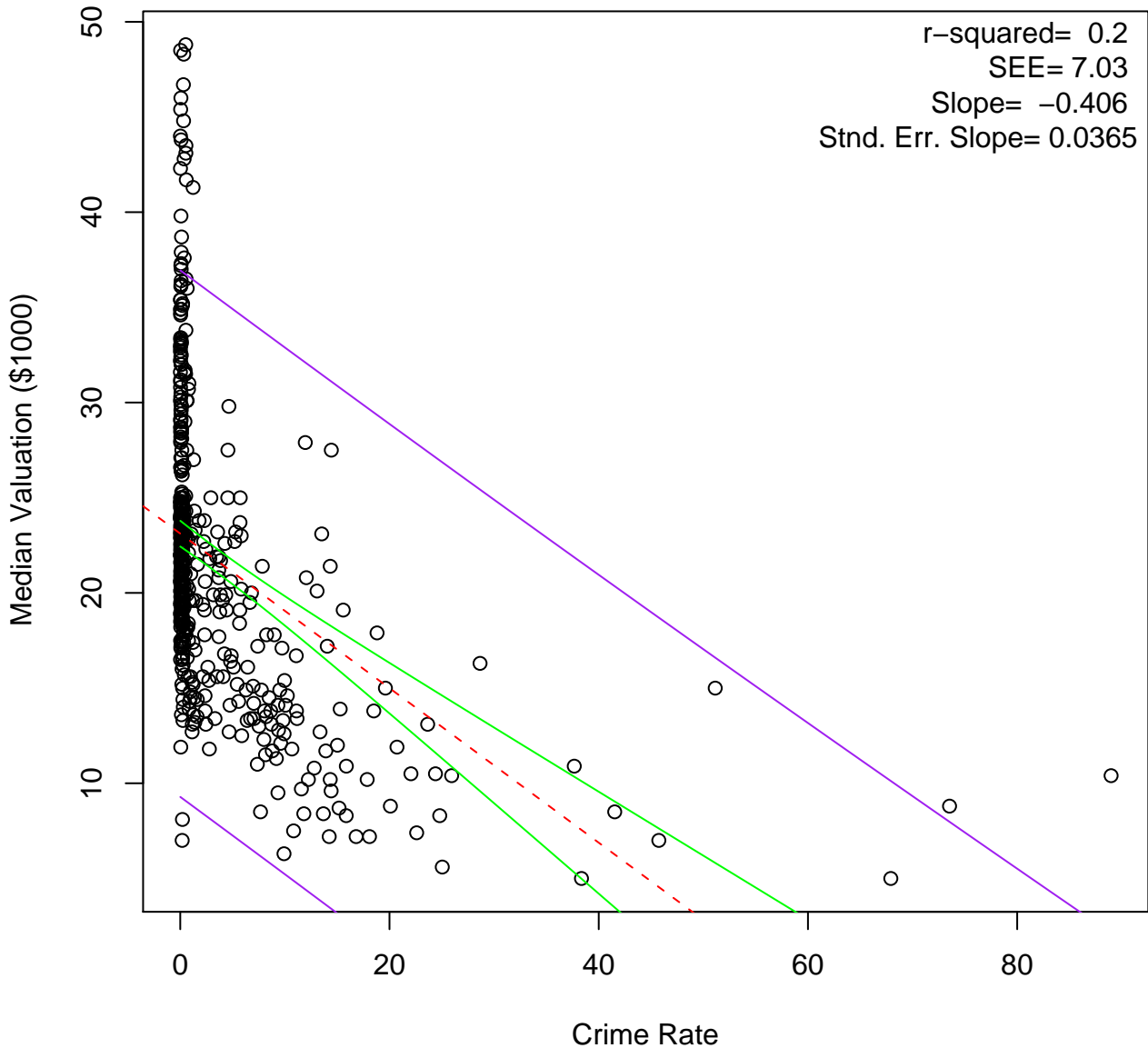
Harrison, D. and Rubinfeld, D.L. (1978) Hedonic prices and the demand for clean air.



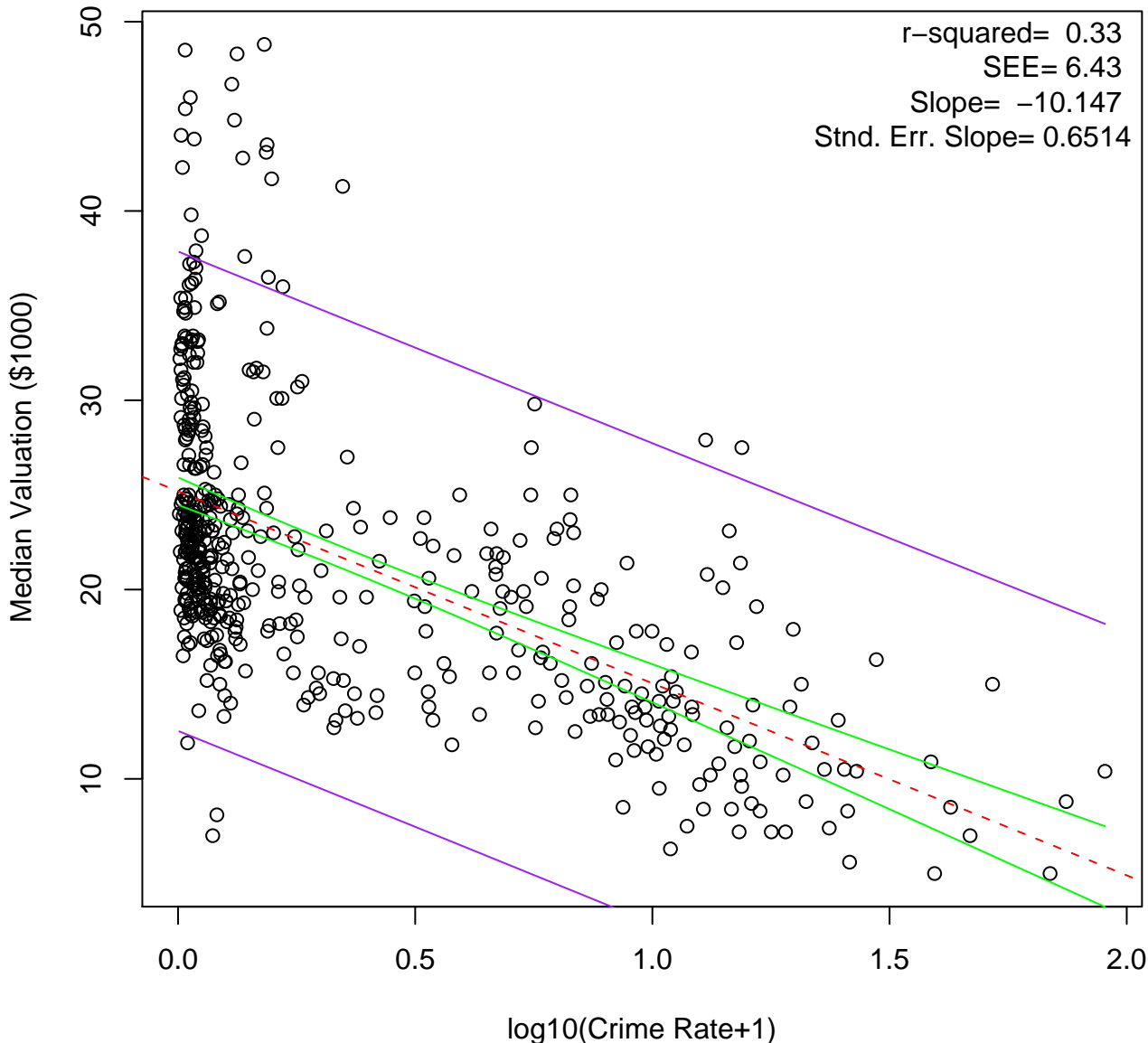
Harrison, D. and Rubinfeld, D.L. (1978) Hedonic prices and the demand for clean air.

formula = medv ~ rm

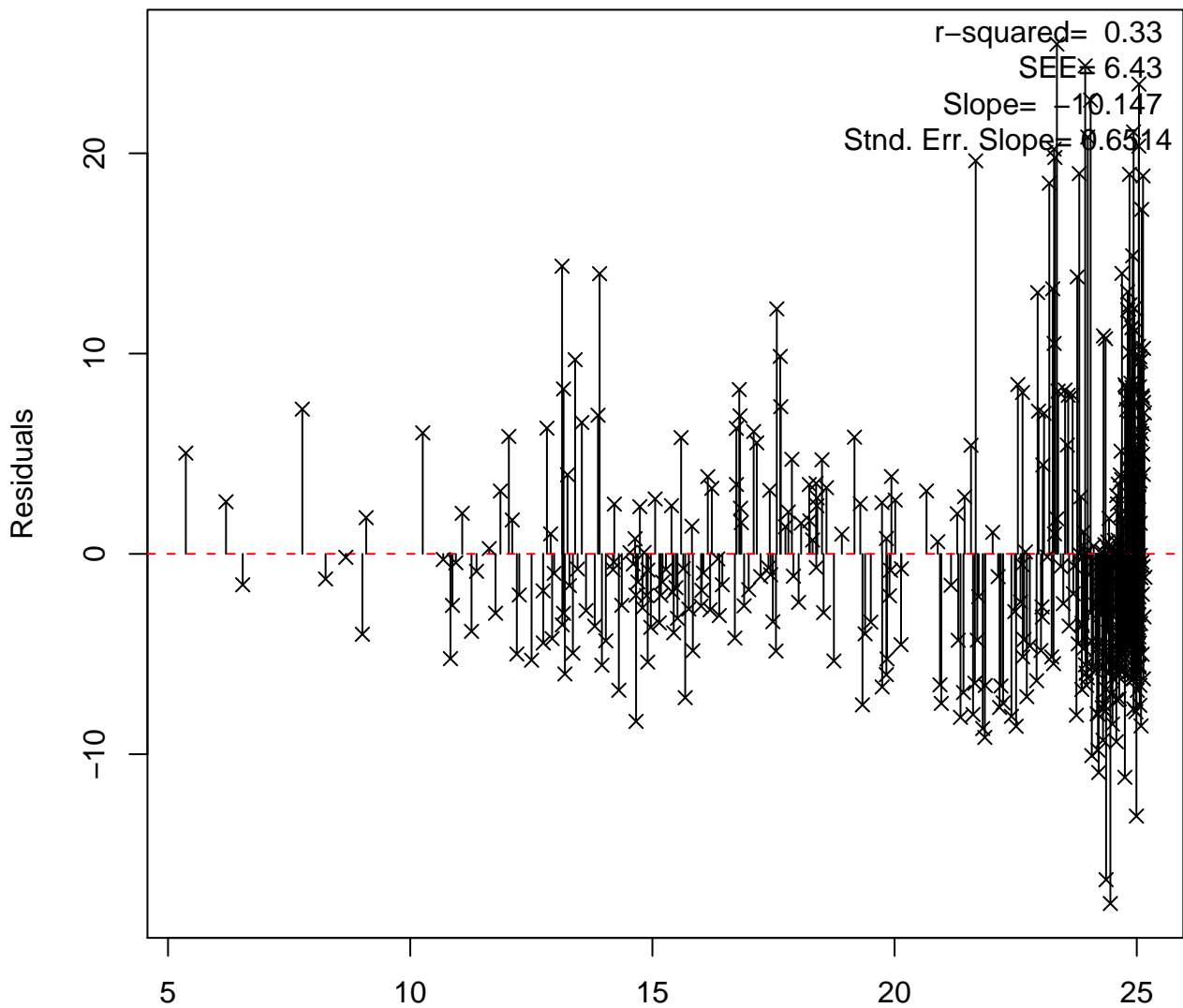
	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-30.0051	2.4886	-12.06	0.0000
rm	8.2686	0.3963	20.86	0.0000



Harrison, D. and Rubinfeld, D.L. (1978) Hedonic prices and the demand for clean air.



Harrison, D. and Rubinfeld, D.L. (1978) Hedonic prices and the demand for clean air.

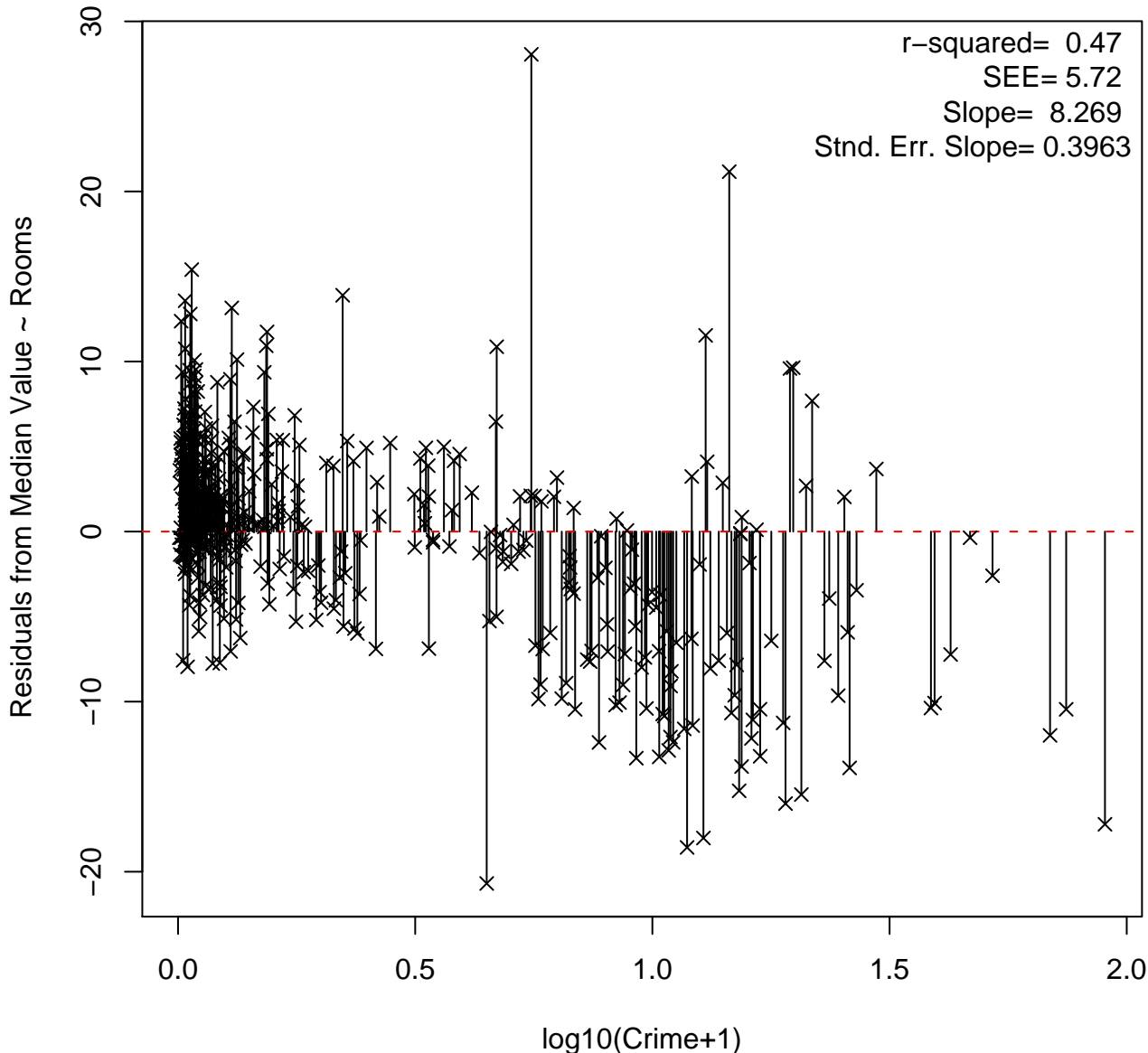


Fitted Values (Price~log10(Crime+1))

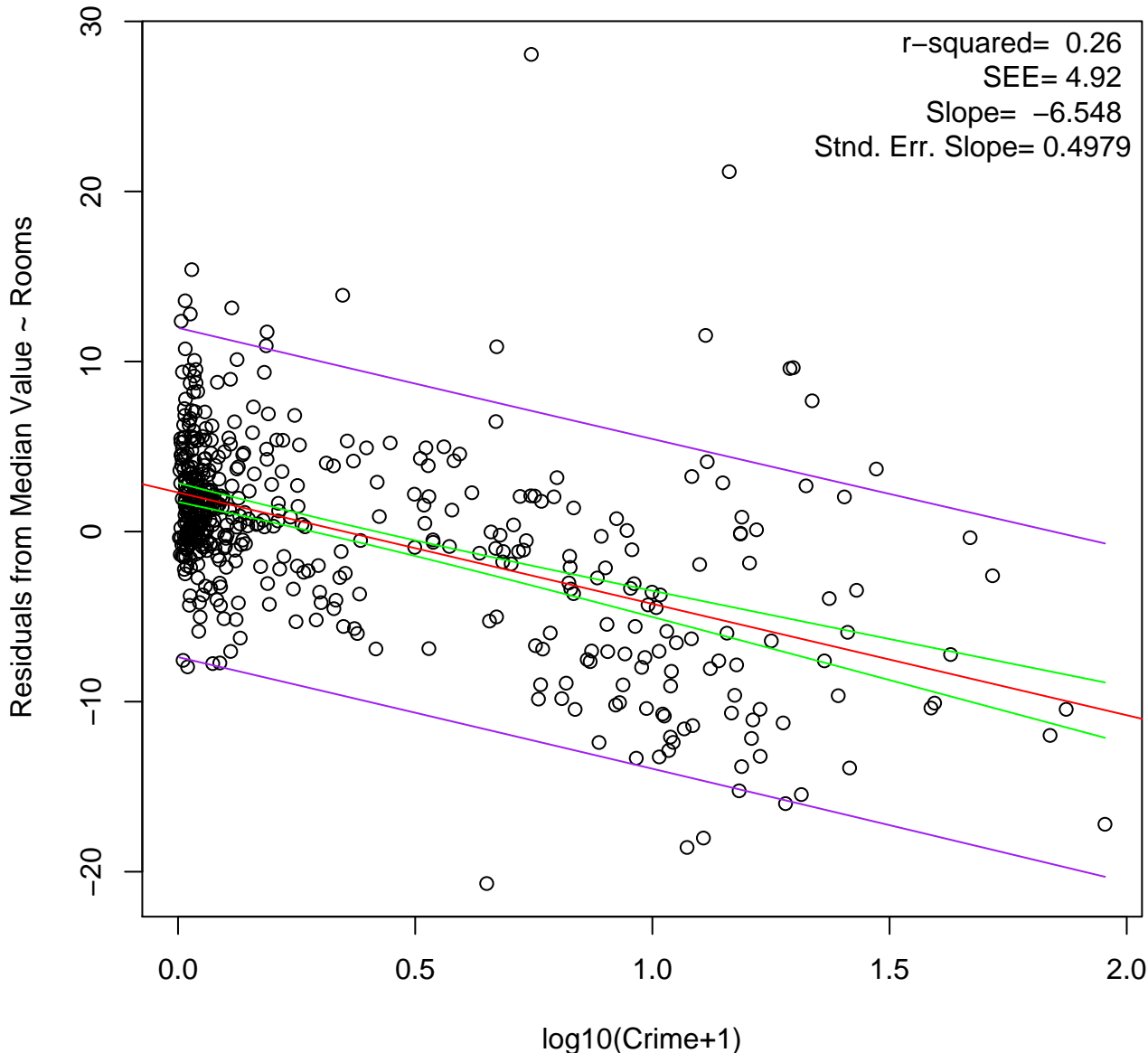
Harrison, D. and Rubinfeld, D.L. (1978) Hedonic prices and the demand for clean air.

formula = medv ~ log10(crim + 1)

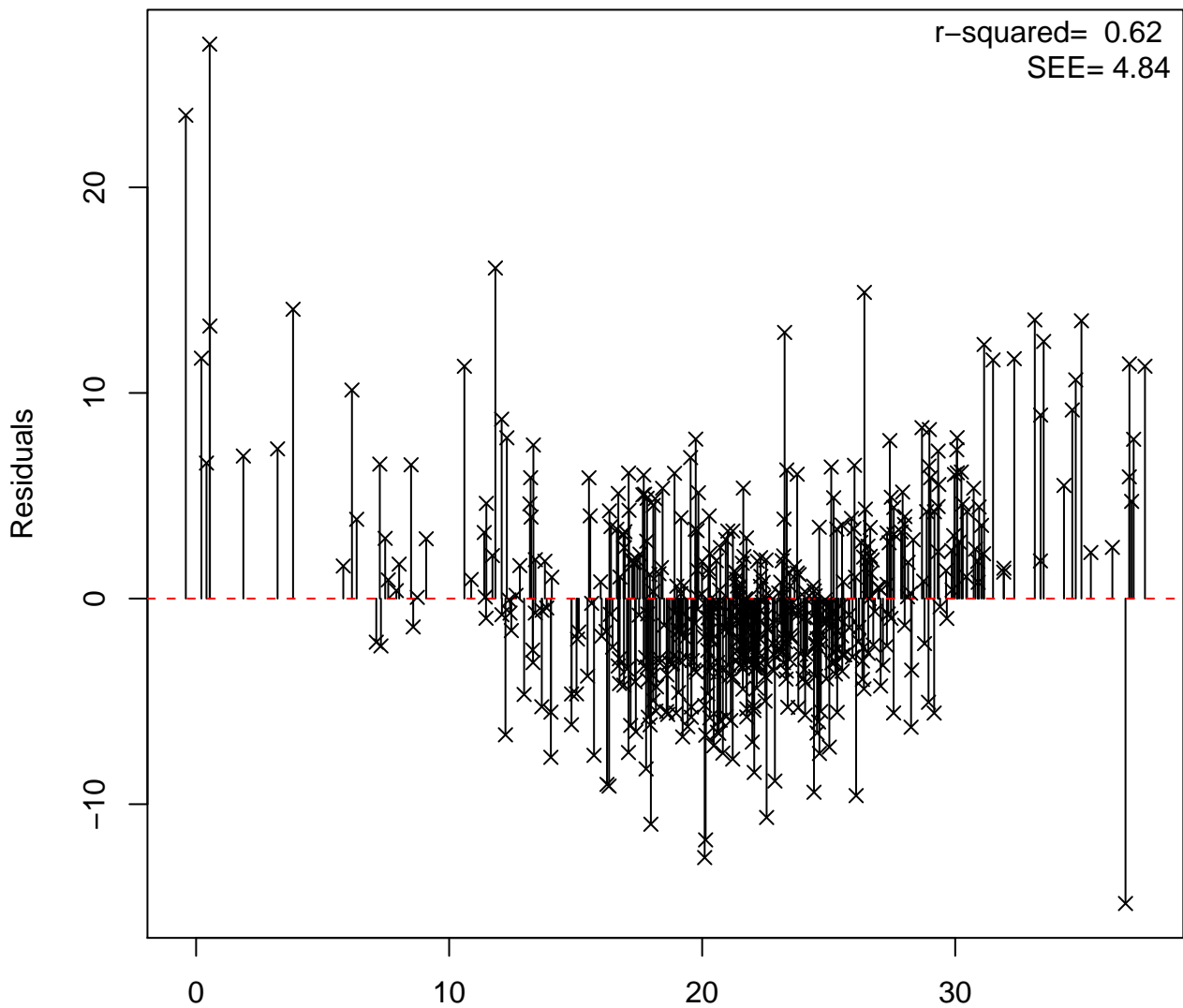
	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	25.1967	0.3698	68.14	0.0000
log10(crim + 1)	-10.1473	0.6514	-15.58	0.0000



Harrison, D. and Rubinfeld, D.L. (1978) Hedonic prices and the demand for clean air.



Harrison, D. and Rubinfeld, D.L. (1978) Hedonic prices and the demand for clean air.



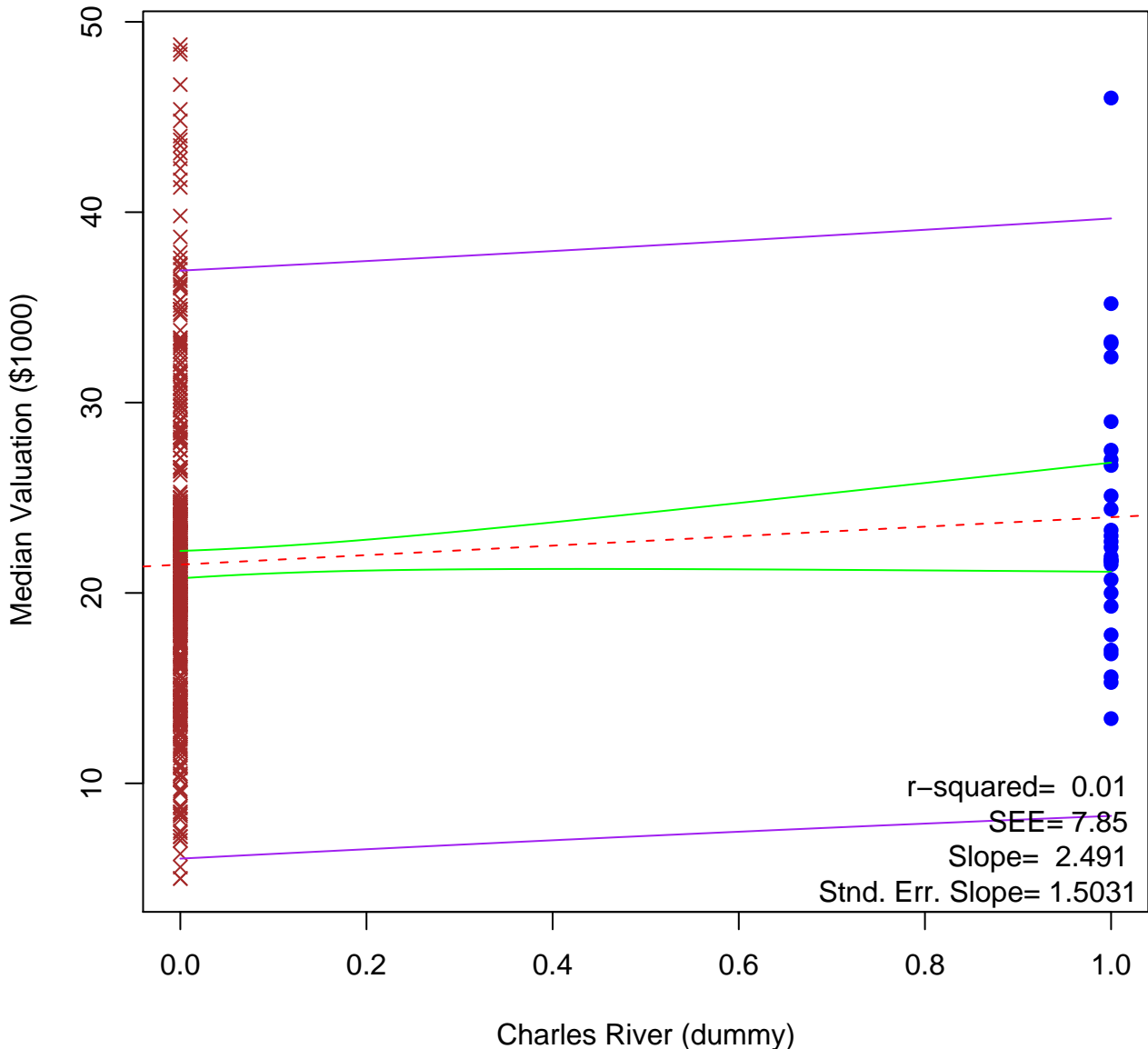
r-squared= 0.62
SEE= 4.84

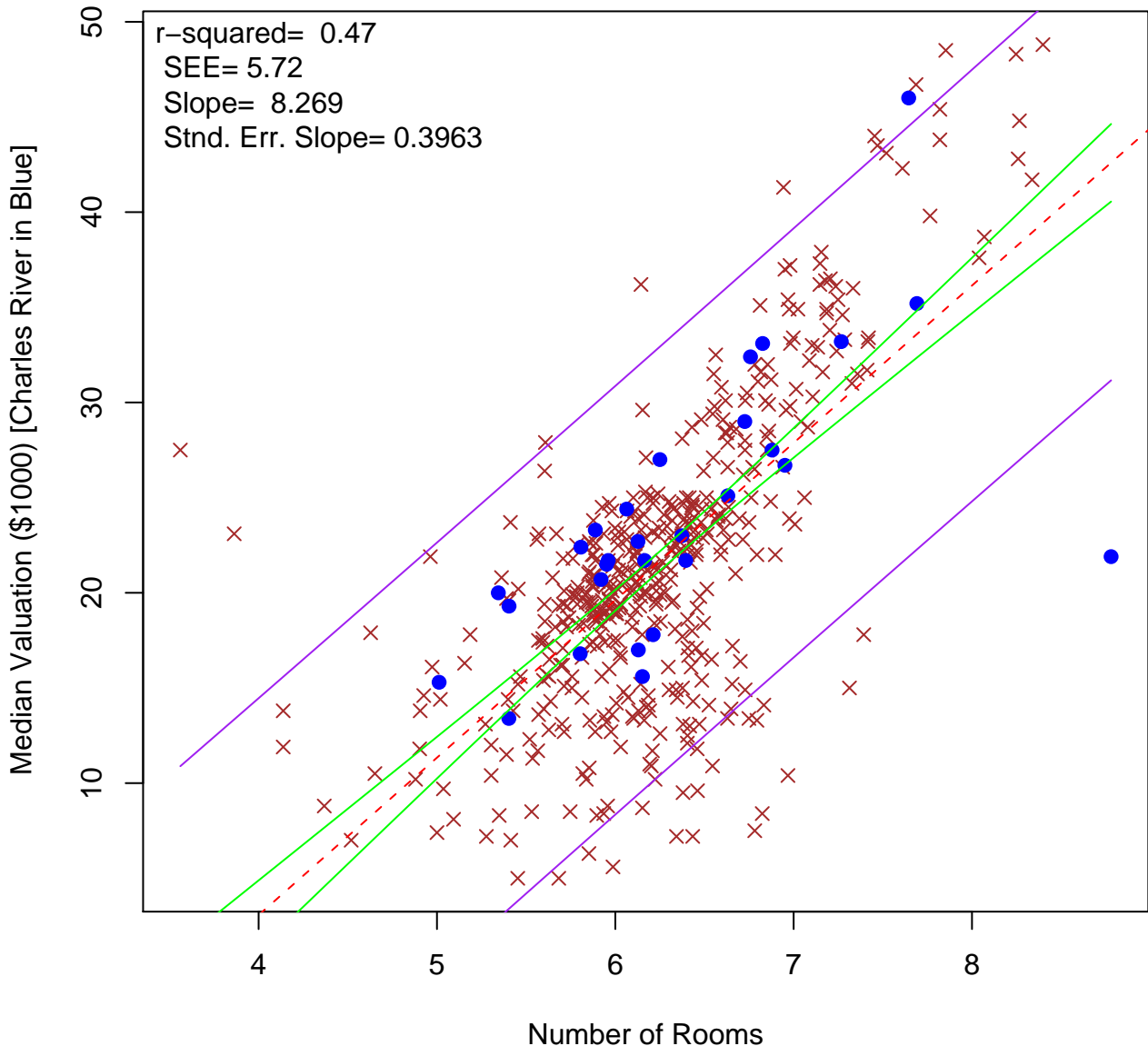
Fitted Values (Price~Rooms+log10(Crime))

Harrison, D. and Rubinfeld, D.L. (1978) Hedonic prices and the demand for clean air.

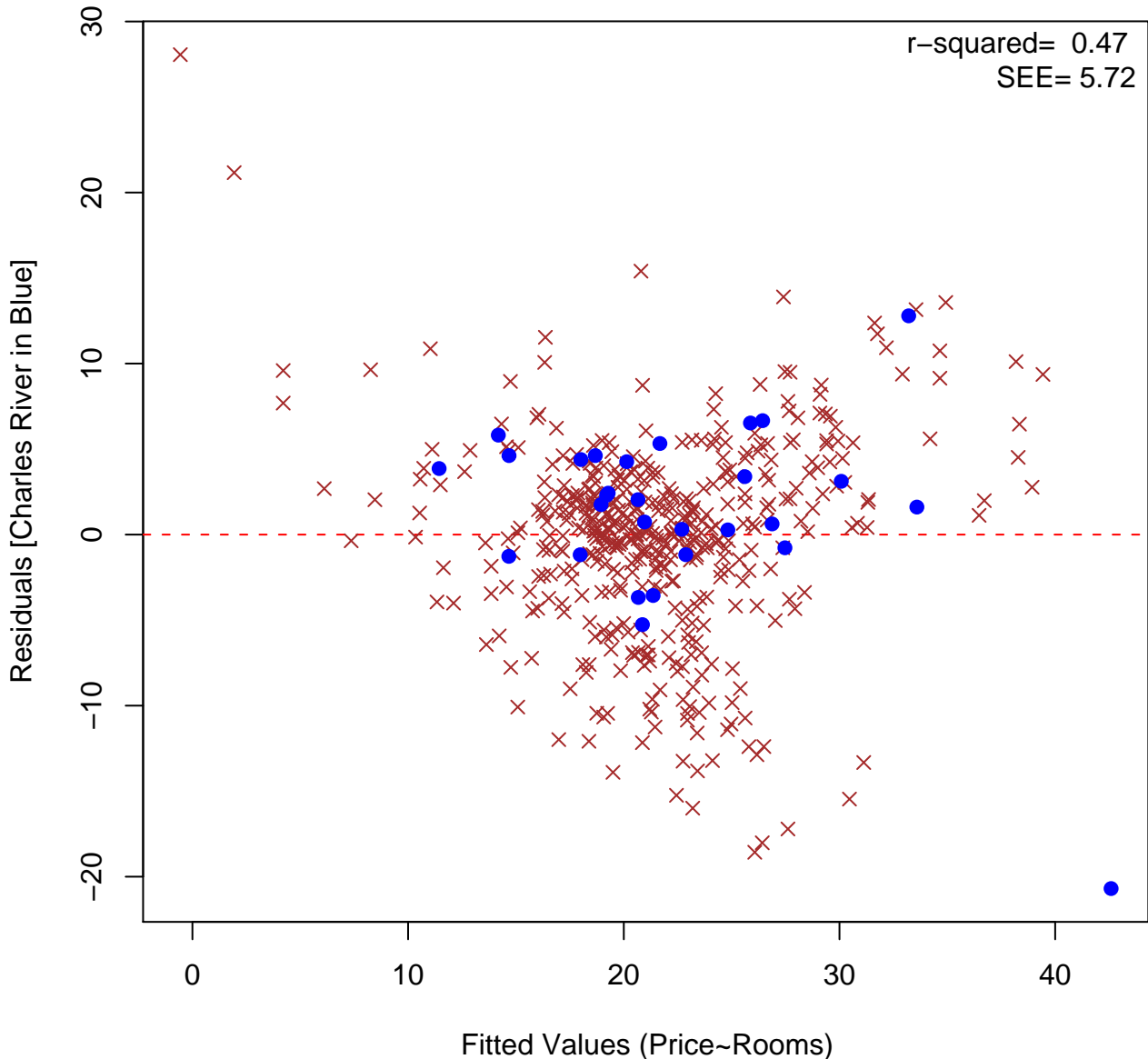
formula = medv ~ rm + log10(crim + 1)

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-18.3475	2.2620	-8.11	0.0000
rm	6.8057	0.3509	19.40	0.0000
log10(crim + 1)	-7.1849	0.5130	-14.01	0.0000

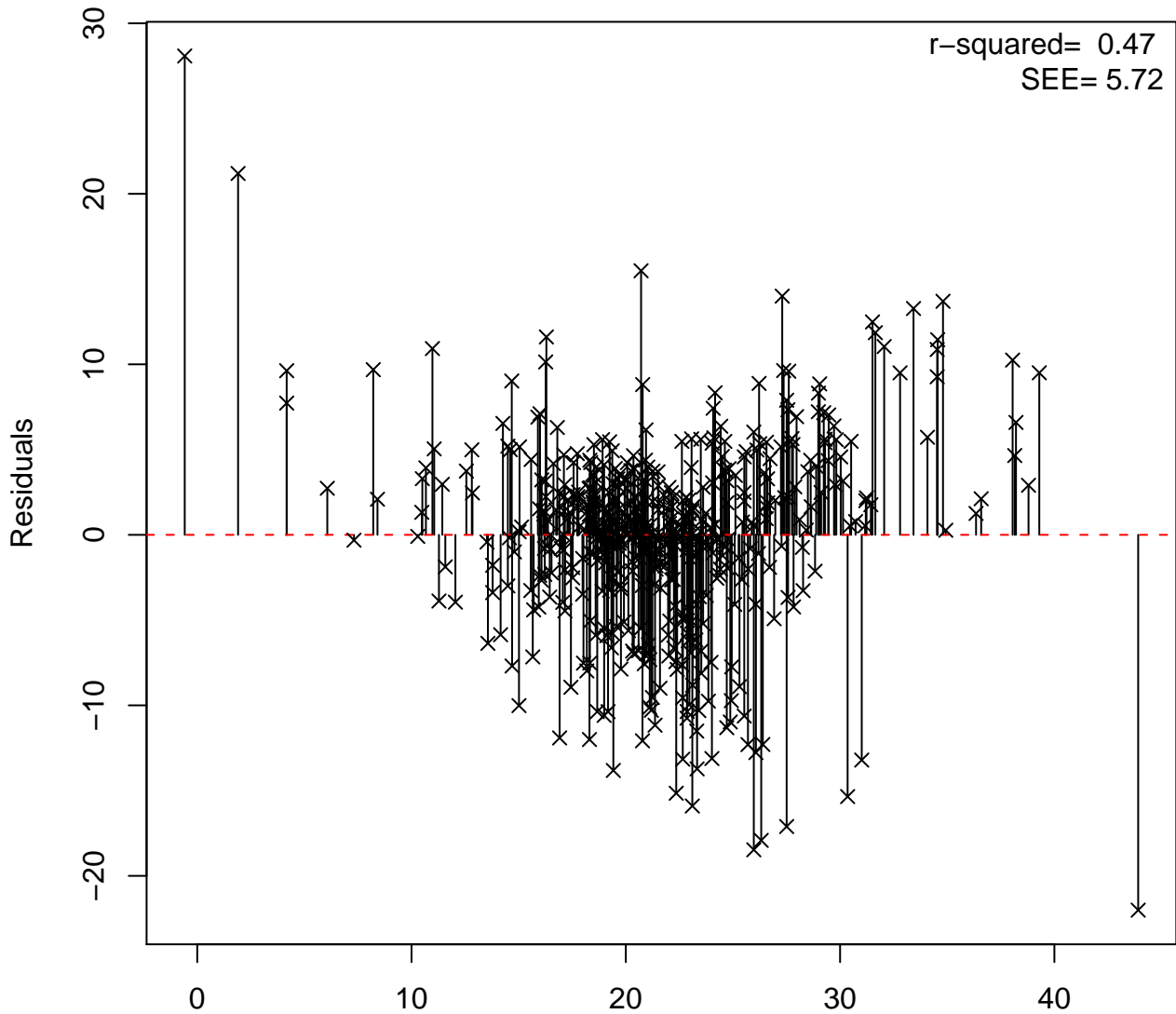




Harrison, D. and Rubinfeld, D.L. (1978) Hedonic prices and the demand for clean air.



Harrison, D. and Rubinfeld, D.L. (1978) Hedonic prices and the demand for clean air.

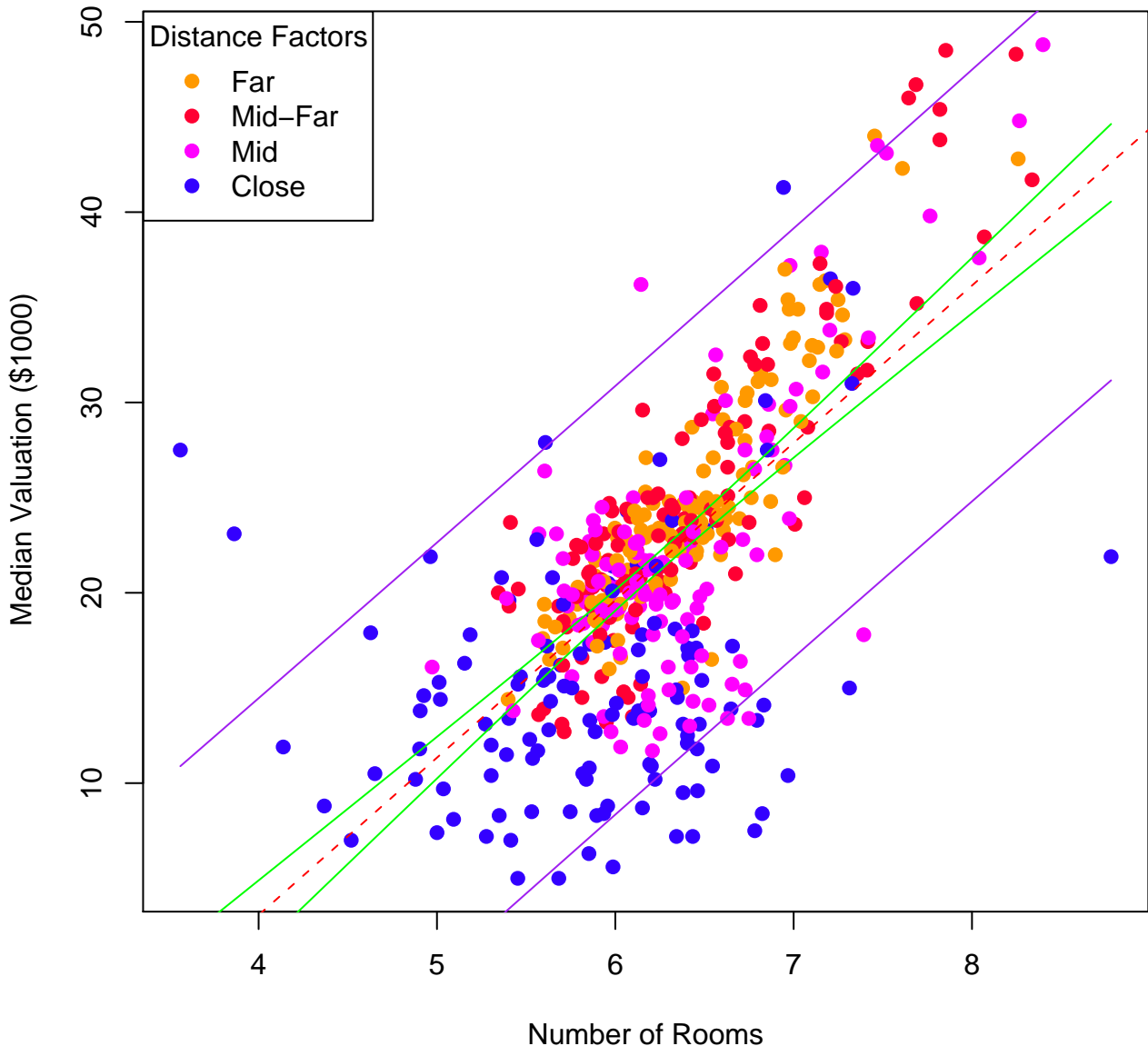


Fitted Values (Price~Rooms+Charles)

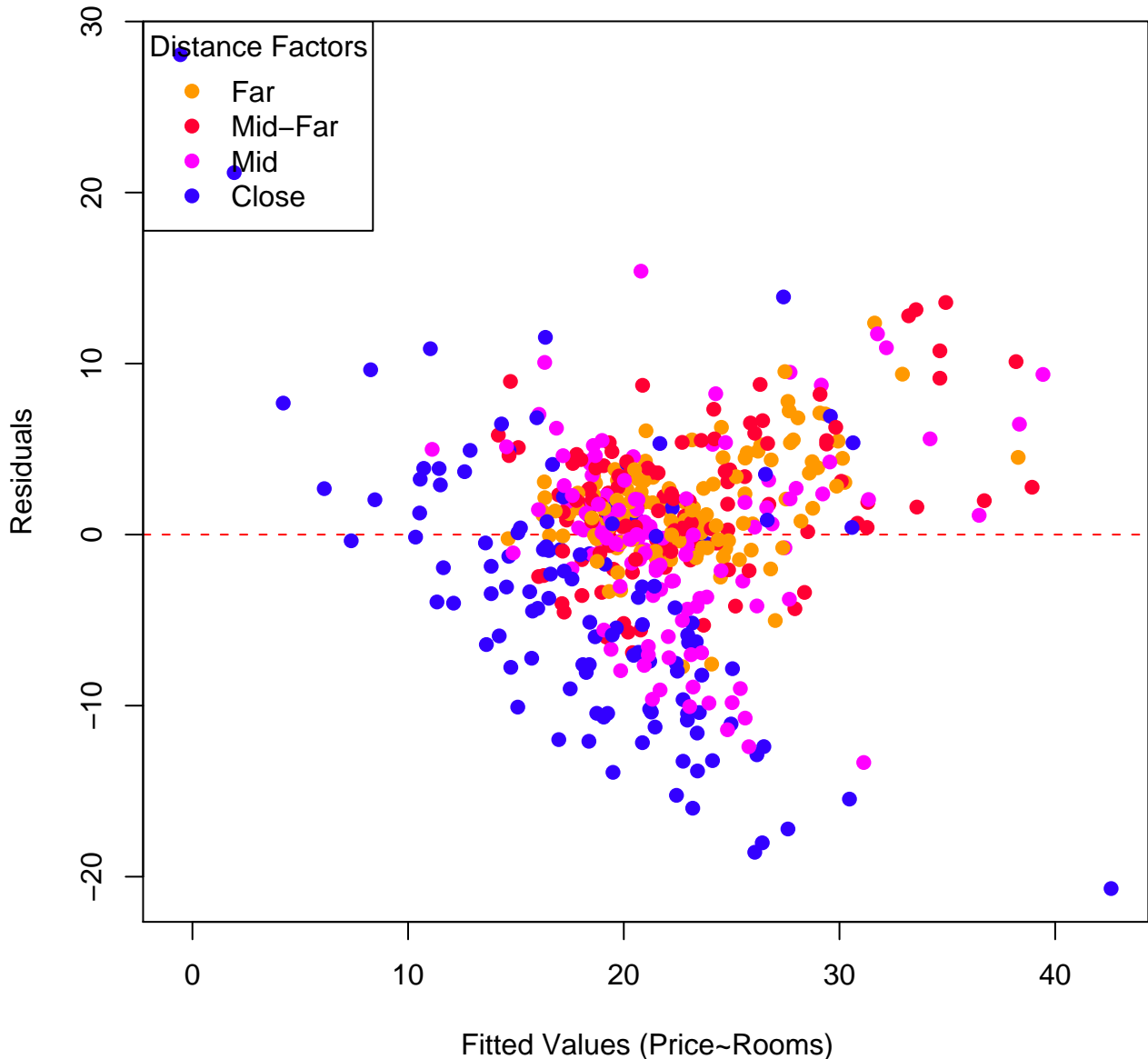
Harrison, D. and Rubinfeld, D.L. (1978) Hedonic prices and the demand for clean air.

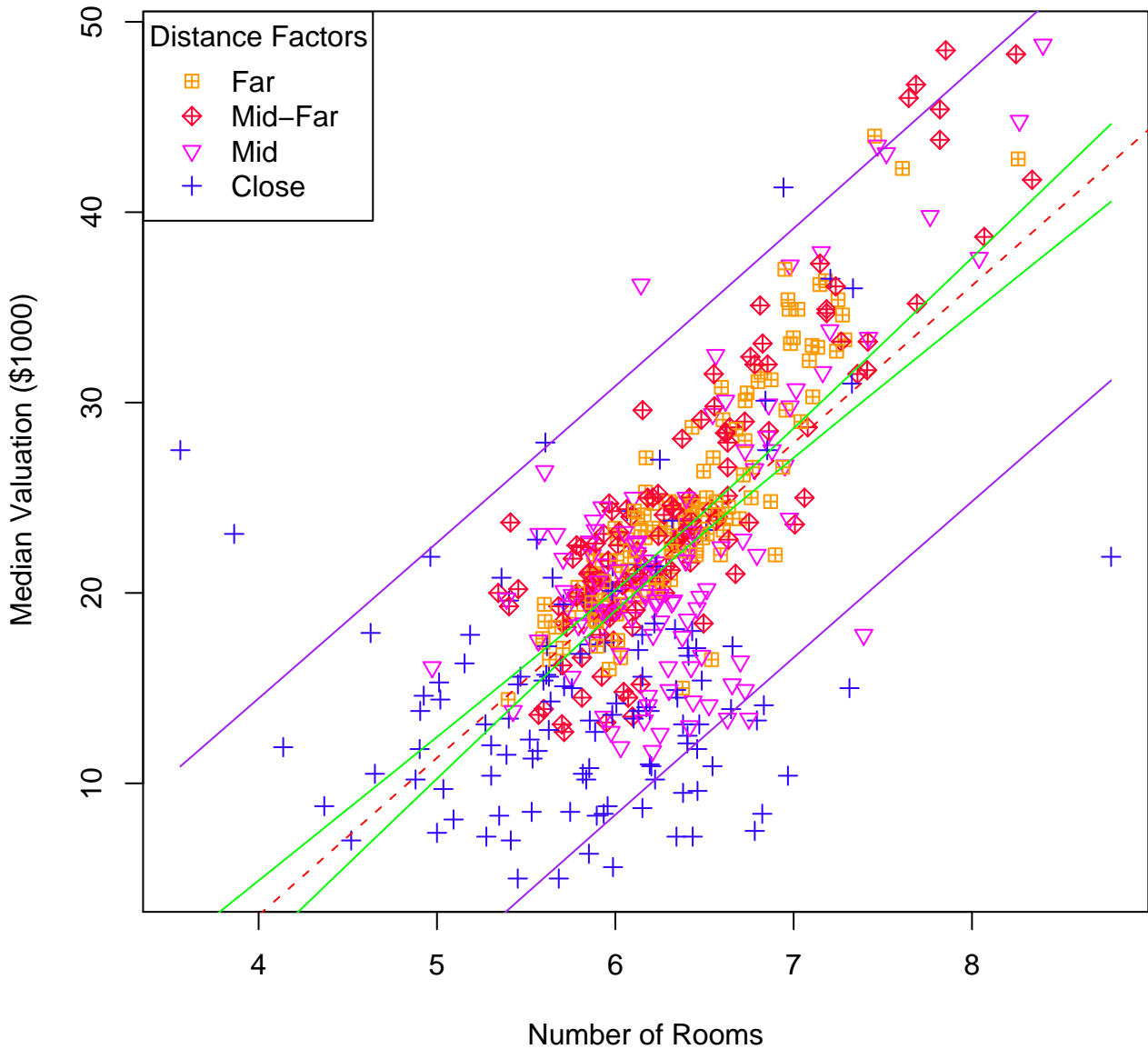
formula = medv ~ rm + chas

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-29.9430	2.4870	-12.04	0.0000
rm	8.2447	0.3964	20.80	0.0000
chas	1.4654	1.0961	1.34	0.1819

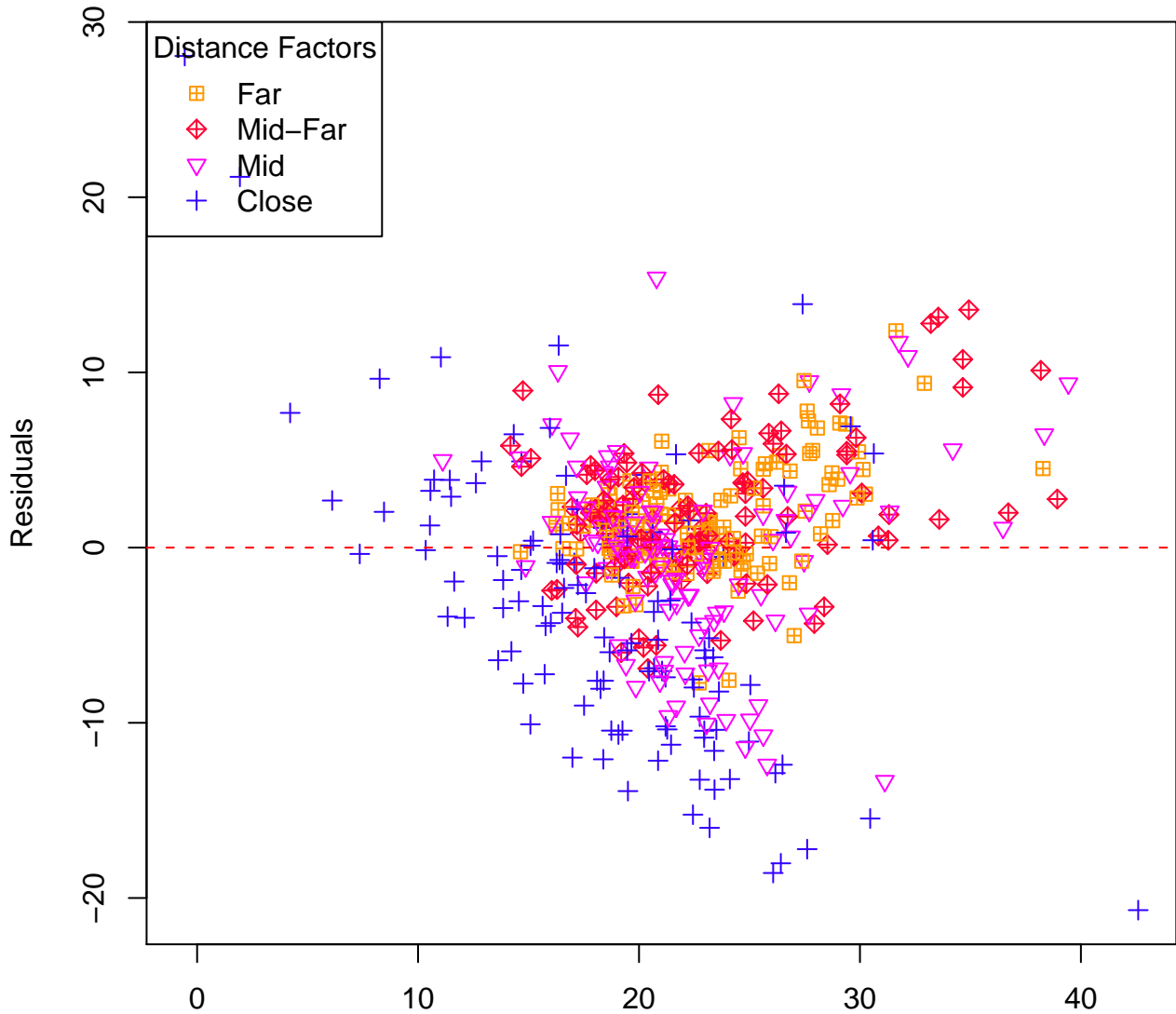


Harrison, D. and Rubinfeld, D.L. (1978) Hedonic prices and the demand for clean air.



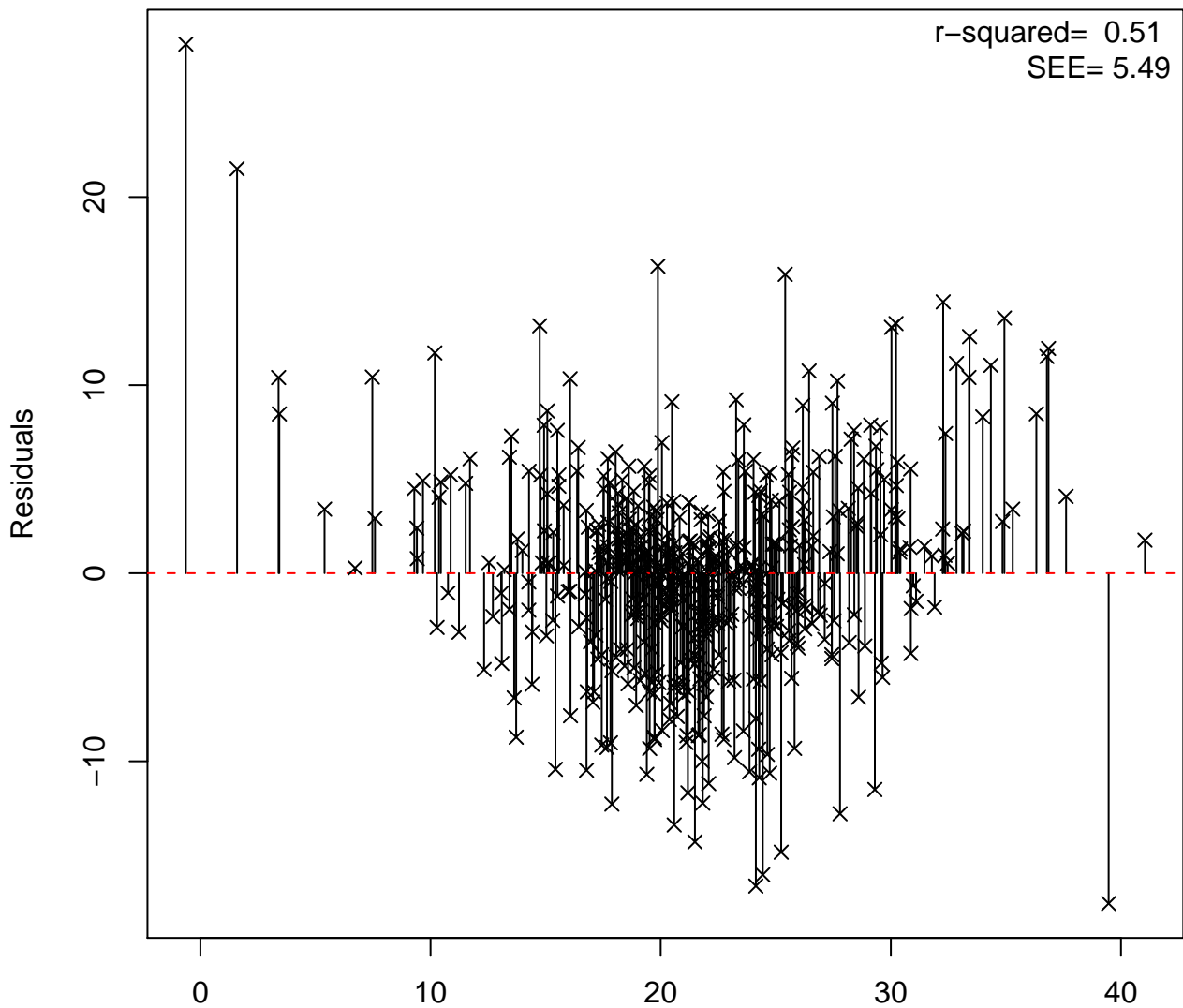


Harrison, D. and Rubinfeld, D.L. (1978) Hedonic prices and the demand for clean air.



Fitted Values (Price~Rooms)

Harrison, D. and Rubinfeld, D.L. (1978) Hedonic prices and the demand for clean air.



Fitted Values (Price~Rooms+Distance to Centers)

Harrison, D. and Rubinfeld, D.L. (1978) Hedonic prices and the demand for clean air.

formula = medv ~ rm + dis

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-29.1127	2.3926	-12.17	0.0000
rm	7.6384	0.3924	19.46	0.0000
dis	0.7937	0.1215	6.53	0.0000