1 Data Loading and Summary Statistics

county	price	year built	sq. feet	bath	bed	rooms	stories
Los Angeles	311463.93	1952.02	1602.58	1.99	3.09	7.93	1.13
	184235.51	15.51	623.01	0.80	0.83	2.07	0.35
Orange	296527.63	1981.45	1541.97	2.15	2.59	6.10	1.59
	175936.36	7.82	763.17	0.67	0.91	1.52	0.52
Riverside	181315.32	1973.89	1623.62	2.20	3.12	6.13	1.20
	105192.13	14.58	574.24	0.67	0.80	1.37	0.40
San Bernardino	188940.43	1979.34	1679.67	2.15	3.24	6.51	1.36
	110151.44	18.15	624.28	0.62	0.84	1.63	0.49
Ventura	332179.35	1978.35	1825.55	2.34	3.34	6.64	1.49
	172623.00	16.18	750.35	0.72	0.90	1.63	0.51

county	violent crime	property crime	year sale
Los Angeles	618.81	1976.52	1999.92
	277.87	602.79	4.20
Orange	314.47	1414.16	1999.94
	137.58	454.10	3.93
Riverside	616.38	2436.70	1999.83
	278.70	825.46	4.23
San Bernardino	567.67	2216.86	2000.40
	247.89	607.31	4.16
Ventura	335.66	1241.45	2000.05
	153.63	336.07	4.13

Figure 1: summary statistics by county for Los Angeles. Standard errors in parenthesis.

county	price	year built	sq. feet	bath	bed	rooms	stories
Alameda	398873.12	1962.17	1672.36	2.03	3.17	6.51	1.43
	(203825.86)	(26.42)	(661.81)	(0.76)	(0.88)	(1.57)	(0.51)
Contra Costa	374582.36	1976.76	1833.15	2.25	3.30	8.01	1.43
	215780.05	19.49	750.57	0.71	0.91	2.07	0.50
San Francisco	501817.09	1945.13	1497.93	1.73	2.62	5.87	1.34
	256164.63	31.10	604.25	0.81	1.01	1.87	0.56
San Mateo	503715.01	1967.17	1587.40	2.04	2.74	5.93	1.36
	270714.95	21.51	682.83	0.75	0.99	1.91	0.50
Santa Clara	464685.42	1971.46	1662.79	2.16	3.21	6.85	1.40
	236499.24	18.63	640.84	0.66	0.94	1.87	0.52

county	viol. crime	prop. crime	year sale
Alameda	441.50	1971.13	2000.35
	199.81	609.14	4.22
Contra Costa	415.78	1898.75	2000.56
	277.93	599.84	4.14
San Francisco	586.16	2141.65	1999.95
	208.76	349.55	4.28
San Mateo	349.08	1713.20	2000.26
	206.92	1211.79	4.23
Santa Clara	322.56	1358.68	2000.24
	131.83	283.70	4.23

Figure 2: summary statistics by county for San Francisco. Standard errors in parenthesis.

2 Bootstrapped Hedonic Price Function

all for la

variables coefficients bootstrapped SE intercept 1990918.84 1488943.67 year built -894.40 1518.16 sq feet 148.26 2.43 bath 18648.53 510.92 bed -24932.01 350.35 rooms -3354.01 746.01 stories -823.54 536.50 violent crime -202.27 3.07 property crime 3.72 1.51 prop crime sq 0.00 0.00 year built sq -0.03 0.39 sq feet sq -0.00 0.00 rooms sq 552.16 45.05 violent crime sq 0.07 0.00 orange -12397.88 1157.58 riverside -106479.98 789.33 sbernardino -111110.97 686.70 ventura -8710.83 808.16 1993 25673.18 944.77 1994 7701.96 989.44 1995 -6538.			
year built -894.40 1518.16 sq feet 148.26 2.43 bath 18648.53 510.92 bed -24932.01 350.35 rooms -3354.01 746.01 stories -823.54 536.50 violent crime -202.27 3.07 property crime 3.72 1.51 prop crime sq 0.00 0.00 year built sq -0.03 0.39 sq feet sq -0.00 0.00 rooms sq 552.16 45.05 violent crime sq 0.07 0.00 orange -12397.88 1157.58 riverside -106479.98 789.33 sbernardino -111110.97 686.70 ventura -8710.83 808.16 1993 25673.18 944.77 1994 7701.96 989.44 1995 -6538.97 994.44 1996 -13647.49 861.54 1997 -14647.40 889.26 1998 -5470.47 752.06 2000 10791.70 838.22 2001 24638.86 795.53 2002 48895.05 857.54 2003 88477.68 935.52 2004 149860.21 1034.25 2005 201644.40 1087.40 2006 221171.07 1121.52 2007 206244.15 1392.85	variables	coefficients	bootstrapped SE
sq feet 148.26 2.43 bath 18648.53 510.92 bed -24932.01 350.35 rooms -3354.01 746.01 stories -823.54 536.50 violent crime -202.27 3.07 property crime 3.72 1.51 prop crime sq 0.00 0.00 year built sq -0.03 0.39 sq feet sq -0.00 0.00 rooms sq 552.16 45.05 violent crime sq 0.07 0.00 orange -12397.88 1157.58 riverside -106479.98 789.33 sbernardino -111110.97 686.70 ventura -8710.83 808.16 1993 25673.18 944.77 1994 7701.96 989.44 1995 -6538.97 994.44 1996 -13647.49 861.54 1997 -14647.40 889.26 1998 -5470.47 752.06 2000 10791.70 838.22 2001	intercept	1990918.84	1488943.67
bath 18648.53 510.92 bed -24932.01 350.35 rooms -3354.01 746.01 stories -823.54 536.50 violent crime -202.27 3.07 property crime 3.72 1.51 prop crime sq 0.00 0.00 year built sq -0.03 0.39 sq feet sq -0.00 0.00 rooms sq 552.16 45.05 violent crime sq 0.07 0.00 orange -12397.88 1157.58 riverside -106479.98 789.33 sbernardino -111110.97 686.70 ventura -8710.83 808.16 1993 25673.18 944.77 1994 7701.96 989.44 1995 -6538.97 994.44 1996 -13647.49 861.54 1997 -14647.40 889.26 1998 -5470.47 752.06 2000 10791.70 838.22 2001 24638.86 795.53 2002 48895.05 857.54 2003 88477.68 935.52 2004 149860.21 1034.25 2005 201644.40 1087.40 2006 221171.07 1121.52 2007 206244.15 1392.85	year built	-894.40	1518.16
bed -24932.01 350.35 rooms -3354.01 746.01 stories -823.54 536.50 violent crime -202.27 3.07 property crime 3.72 1.51 prop crime sq 0.00 0.00 year built sq -0.03 0.39 sq feet sq -0.00 0.00 rooms sq 552.16 45.05 violent crime sq 0.07 0.00 orange -12397.88 1157.58 riverside -106479.98 789.33 sbernardino -111110.97 686.70 ventura -8710.83 808.16 1993 25673.18 944.77 1994 7701.96 989.44 1995 -6538.97 994.44 1996 -13647.49 861.54 1997 -14647.40 889.26 1998 -5470.47 752.06 2000 10791.70 838.22 2001 24638.86 795.53 2002 48895.05 857.54 2003 88477.68 935.52 2004 149860.21 1034.25 2005 201644.40 1087.40 2006 221171.07 1121.52 2007 206244.15 1392.85	sq feet	148.26	2.43
rooms	bath	18648.53	510.92
stories -823.54 536.50 violent crime -202.27 3.07 property crime 3.72 1.51 prop crime sq 0.00 0.00 year built sq -0.03 0.39 sq feet sq -0.00 0.00 rooms sq 552.16 45.05 violent crime sq 0.07 0.00 orange -12397.88 1157.58 riverside -106479.98 789.33 sbernardino -111110.97 686.70 ventura -8710.83 808.16 1993 25673.18 944.77 1994 7701.96 989.44 1995 -6538.97 994.44 1996 -13647.49 861.54 1997 -14647.40 889.26 1998 -5470.47 752.06 2000 10791.70 838.22 2001 24638.86 795.53 2002 48895.05 857.54 2003 88477.68 935.52 2004 149860.21 1034.25 2005 <td>bed</td> <td>-24932.01</td> <td>350.35</td>	bed	-24932.01	350.35
violent crime -202.27 3.07 property crime 3.72 1.51 prop crime sq 0.00 0.00 year built sq -0.03 0.39 sq feet sq -0.00 0.00 rooms sq 552.16 45.05 violent crime sq 0.07 0.00 orange -12397.88 1157.58 riverside -106479.98 789.33 sbernardino -11110.97 686.70 ventura -8710.83 808.16 1993 25673.18 944.77 1994 7701.96 989.44 1995 -6538.97 994.44 1996 -13647.49 861.54 1997 -14647.40 889.26 1998 -5470.47 752.06 2000 10791.70 838.22 2001 24638.86 795.53 2002 48895.05 857.54 2003 88477.68 935.52 2004 149860.21 1034.25 2005 201644.40 1087.40 2006 <td>rooms</td> <td>-3354.01</td> <td>746.01</td>	rooms	-3354.01	746.01
property crime	stories	-823.54	536.50
prop crime sq 0.00 0.00 year built sq -0.03 0.39 sq feet sq -0.00 0.00 rooms sq 552.16 45.05 violent crime sq 0.07 0.00 orange -12397.88 1157.58 riverside -106479.98 789.33 sbernardino -11110.97 686.70 ventura -8710.83 808.16 1993 25673.18 944.77 1994 7701.96 989.44 1995 -6538.97 994.44 1996 -13647.49 861.54 1997 -14647.40 889.26 1998 -5470.47 752.06 2000 10791.70 838.22 2001 24638.86 795.53 2002 48895.05 857.54 2003 88477.68 935.52 2004 149860.21 1034.25 2005 201644.40 1087.40 2006 221171.07 1121.52 2007 206244.15 1392.85	violent crime	-202.27	3.07
year built sq	property crime	3.72	1.51
sq feet sq -0.00 0.00 rooms sq 552.16 45.05 violent crime sq 0.07 0.00 orange -12397.88 1157.58 riverside -106479.98 789.33 sbernardino -111110.97 686.70 ventura -8710.83 808.16 1993 25673.18 944.77 1994 7701.96 989.44 1995 -6538.97 994.44 1996 -13647.49 861.54 1998 -5470.47 752.06 2000 10791.70 838.22 2001 24638.86 795.53 2002 48895.05 857.54 2003 88477.68 935.52 2004 149860.21 1034.25 2005 201644.40 1087.40 2006 221171.07 1121.52 2007 206244.15 1392.85	prop crime sq	0.00	0.00
rooms sq 552.16 45.05 violent crime sq 0.07 0.00 orange -12397.88 1157.58 riverside -106479.98 789.33 sbernardino -111110.97 686.70 ventura -8710.83 808.16 1993 25673.18 944.77 1994 7701.96 989.44 1995 -6538.97 994.44 1996 -13647.49 861.54 1997 -14647.40 889.26 1998 -5470.47 752.06 2000 10791.70 838.22 2001 24638.86 795.53 2002 48895.05 857.54 2003 88477.68 935.52 2004 149860.21 1034.25 2005 201644.40 1087.40 2006 221171.07 1121.52 2007 206244.15 1392.85	year built sq	-0.03	0.39
violent crime sq 0.07 0.00 orange -12397.88 1157.58 riverside -106479.98 789.33 sbernardino -111110.97 686.70 ventura -8710.83 808.16 1993 25673.18 944.77 1994 7701.96 989.44 1995 -6538.97 994.44 1996 -13647.49 861.54 1998 -5470.47 752.06 2000 10791.70 838.22 2001 24638.86 795.53 2002 48895.05 857.54 2003 88477.68 935.52 2004 149860.21 1034.25 2005 201644.40 1087.40 2006 221171.07 1121.52 2007 206244.15 1392.85	sq feet sq	-0.00	0.00
orange -12397.88 1157.58 riverside -106479.98 789.33 sbernardino -111110.97 686.70 ventura -8710.83 808.16 1993 25673.18 944.77 1994 7701.96 989.44 1995 -6538.97 994.44 1996 -13647.49 861.54 1997 -14647.40 889.26 1998 -5470.47 752.06 2000 10791.70 838.22 2001 24638.86 795.53 2002 48895.05 857.54 2003 88477.68 935.52 2004 149860.21 1034.25 2006 221171.07 1121.52 2007 206244.15 1392.85	rooms sq	552.16	45.05
riverside -106479.98 789.33 sbernardino -111110.97 686.70 ventura -8710.83 808.16 1993 25673.18 944.77 1994 7701.96 989.44 1995 -6538.97 994.44 1996 -13647.49 861.54 1997 -14647.40 889.26 1998 -5470.47 752.06 2000 10791.70 838.22 2001 24638.86 795.53 2002 48895.05 857.54 2003 88477.68 935.52 2004 149860.21 1034.25 2005 201644.40 1087.40 2006 221171.07 1121.52 2007 206244.15 1392.85	violent crime sq	0.07	0.00
sbernardino -111110.97 686.70 ventura -8710.83 808.16 1993 25673.18 944.77 1994 7701.96 989.44 1995 -6538.97 994.44 1996 -13647.49 861.54 1997 -14647.40 889.26 1998 -5470.47 752.06 2000 10791.70 838.22 2001 24638.86 795.53 2002 48895.05 857.54 2003 88477.68 935.52 2004 149860.21 1034.25 2005 201644.40 1087.40 2006 221171.07 1121.52 2007 206244.15 1392.85	orange	-12397.88	1157.58
ventura -8710.83 808.16 1993 25673.18 944.77 1994 7701.96 989.44 1995 -6538.97 994.44 1996 -13647.49 861.54 1997 -14647.40 889.26 1998 -5470.47 752.06 2000 10791.70 838.22 2001 24638.86 795.53 2002 48895.05 857.54 2003 88477.68 935.52 2004 149860.21 1034.25 2005 201644.40 1087.40 2006 221171.07 1121.52 2007 206244.15 1392.85	riverside	-106479.98	789.33
1993 25673.18 944.77 1994 7701.96 989.44 1995 -6538.97 994.44 1996 -13647.49 861.54 1997 -14647.40 889.26 1998 -5470.47 752.06 2000 10791.70 838.22 2001 24638.86 795.53 2002 48895.05 857.54 2003 88477.68 935.52 2004 149860.21 1034.25 2005 201644.40 1087.40 2006 221171.07 1121.52 2007 206244.15 1392.85	sbernardino	-111110.97	686.70
1994 7701.96 989.44 1995 -6538.97 994.44 1996 -13647.49 861.54 1997 -14647.40 889.26 1998 -5470.47 752.06 2000 10791.70 838.22 2001 24638.86 795.53 2002 48895.05 857.54 2003 88477.68 935.52 2004 149860.21 1034.25 2005 201644.40 1087.40 2006 221171.07 1121.52 2007 206244.15 1392.85	ventura	-8710.83	808.16
1995 -6538.97 994.44 1996 -13647.49 861.54 1997 -14647.40 889.26 1998 -5470.47 752.06 2000 10791.70 838.22 2001 24638.86 795.53 2002 48895.05 857.54 2003 88477.68 935.52 2004 149860.21 1034.25 2005 201644.40 1087.40 2006 221171.07 1121.52 2007 206244.15 1392.85	1993	25673.18	944.77
1996 -13647.49 861.54 1997 -14647.40 889.26 1998 -5470.47 752.06 2000 10791.70 838.22 2001 24638.86 795.53 2002 48895.05 857.54 2003 88477.68 935.52 2004 149860.21 1034.25 2005 201644.40 1087.40 2006 221171.07 1121.52 2007 206244.15 1392.85	1994	7701.96	989.44
1997 -14647.40 889.26 1998 -5470.47 752.06 2000 10791.70 838.22 2001 24638.86 795.53 2002 48895.05 857.54 2003 88477.68 935.52 2004 149860.21 1034.25 2005 201644.40 1087.40 2006 221171.07 1121.52 2007 206244.15 1392.85	1995	-6538.97	994.44
1998 -5470.47 752.06 2000 10791.70 838.22 2001 24638.86 795.53 2002 48895.05 857.54 2003 88477.68 935.52 2004 149860.21 1034.25 2005 201644.40 1087.40 2006 221171.07 1121.52 2007 206244.15 1392.85	1996	-13647.49	861.54
2000 10791.70 838.22 2001 24638.86 795.53 2002 48895.05 857.54 2003 88477.68 935.52 2004 149860.21 1034.25 2005 201644.40 1087.40 2006 221171.07 1121.52 2007 206244.15 1392.85	1997	-14647.40	889.26
2001 24638.86 795.53 2002 48895.05 857.54 2003 88477.68 935.52 2004 149860.21 1034.25 2005 201644.40 1087.40 2006 221171.07 1121.52 2007 206244.15 1392.85	1998	-5470.47	752.06
2002 48895.05 857.54 2003 88477.68 935.52 2004 149860.21 1034.25 2005 201644.40 1087.40 2006 221171.07 1121.52 2007 206244.15 1392.85	2000	10791.70	838.22
2003 88477.68 935.52 2004 149860.21 1034.25 2005 201644.40 1087.40 2006 221171.07 1121.52 2007 206244.15 1392.85	2001	24638.86	795.53
2004 149860.21 1034.25 2005 201644.40 1087.40 2006 221171.07 1121.52 2007 206244.15 1392.85	2002	48895.05	857.54
2005 201644.40 1087.40 2006 221171.07 1121.52 2007 206244.15 1392.85	2003	88477.68	935.52
2006 221171.07 1121.52 2007 206244.15 1392.85	2004	149860.21	1034.25
2007 206244.15 1392.85	2005	201644.40	1087.40
	2006	221171.07	1121.52
2008 77968.59 1276.59	2007	206244.15	1392.85
	2008	77968.59	1276.59

Results for San Francisco

variables	coefficients	bootstrapped SE
intercept	1990918.84	1488943.67
year built	23074.63	1600.97
sq feet	234.74	3.14
bath	21681.81	685.41
bed	-19333.49	451.57
rooms	30724.66	1190.00
stories	-28404.72	580.80
violent crime	-225.17	4.04
property crime	-82.04	1.83
prop crime sq	0.0093	0.0003
year built sq	-6.27	0.41
sq feet sq	-0.001	0.0007
rooms sq	-1905.39	81.40
violent crime sq	0.11	0.00
contra costa	-58350.23	598.72
san Francisco	154457.08	1711.49
san Mateo	92095.40	1045.20
santa clara	35950.65	560.07
1993	-46035.24	1060.24
1994	-17405.89	1150.96
1995	-32501.51	1147.55
1996	-43951.30	1050.19
1997	-22901.13	1029.56
1998	-6639.55	1028.54
2000	65691.15	1181.33
2001	80782.58	1148.72
2002	90073.65	1106.85
2003	108304.83	1146.75
2004	166159.28	1186.18
2005	255537.35	1203.30
2006	260548.51	1331.91
2007	240559.32	1555.04
2008	111878.35	1786.87

3 Rosen Estimates

	coefficients	bootstrapped SE
const	-203.0529	2.9811
violent crime	0.1695	0.0025
income	-0.0000	0.0000
LA	-10.0324	3.1447
asian	-0.1516	0.0221
black	-0.4901	0.0602
hispanic	-0.8726	0.0610

4 Kernel

Figure 1: Gaussian Kernels for $\chi=2000$

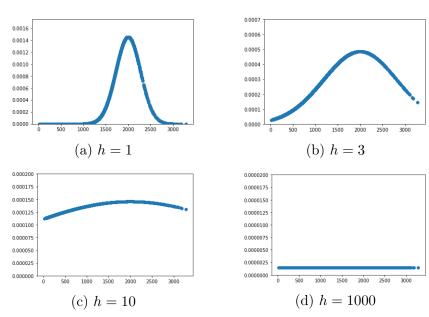


Figure 2: Hedonic gradients

