

# **1997-99 SINGLE FAMILY HOMES SALES PRICE STUDY**

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#### **Introduction**

The attached Exhibits and Tables detail recent trends and patterns of single family home sales within the four-county region. The purposes of the Home Sales Price Study are to provide data for performance measures and to update the database used for the Residential Real Estate Model. The source data come from residential sales filed with the county recorders and listed in the county assessors' database. Metro Data Resource Center staff scrutinize each sale record to insure the sales transaction is an "arms length" market transaction representing end use demand (as contrasted to a sale to an intermediary such as a developer or sales agent). In addition, sales with missing price, lot size or building size data are omitted.

#### **Evaluation Framework**

We have arranged the data so as to provide information about both demand for and supply of single family housing within the four-county region. Traditional home price studies focus mainly on the characteristics of demand such as price in terms of housing size, location and neighborhood attributes. In this study, we extend the interpretation to provide information on how suppliers have responded to the characteristics of housing demand and changes in government regulation within the four-county region. For this reason, we partition the home sales data into two sets: newly constructed housing and existing (vintage) housing. Newly constructed housing allows us to evaluate how suppliers are responding to present home prices and building regulations. The existing housing data provide a more representative measure of housing demand prices. In rapidly growing areas, most price indices are biased upward by the disproportionate share of new housing in the sales data. In addition, vintage housing sales data provide insight into depreciation rates and the role of such abstract housing attributes as neighborhood and community design. Wherever possible, data depicted are medians rather than averages. Medians avoid the distortion created by a few extreme value observations typical of this type of socio-economic data.

#### **Data Results**

##### **A. Newly Constructed Homes**

Exhibit One displays newly constructed single family home sales price, home size and lot size trends for the period 1995-99. During this period, the regional population grew at a 1.8- percent average annual rate and Clark County implemented a Growth Management Area that limited the area available for urban development. Moreover, most jurisdictions within the four-county area changed zoning and planning regulations to allow greater flexibility with respect to housing types and lot sizes. From Exhibit One, we discern the following:

- The average annual rate of increase between 1995 and 1999 in the Metro region was 4.4 percent. This compares to 6.5 percent from 1995-96 to 1996-97 and 10.6 percent per year from 1989-95.

- The one-year rates of increase between 1997-98 and 1998-99 varied from slightly negative to slightly positive depending on the County. Overall, within the Metro region the one-year rate of increase in new home sales price amounted to less than 1 percent.
- Clark County new home prices continued significantly lower than the Metro region despite comparable home sizes and larger lots. In 1998-99, Clark County median home prices were 23 percent lower than Metro median home prices.
- Clackamas and Washington Counties continue to have the most expensive new homes with Multnomah occupying a middle position and Clark County having the least expensive homes.
- However, on a price per square foot basis Multnomah County is now slightly more expensive than Clackamas or Washington Counties.
- Beginning in 1998-99, it appears that the trend toward increasing home sizes reversed itself with a decline in median home size in the three Metro region counties. This trend is contrary to national data where home sizes continue to increase.<sup>1</sup>
- With the exception of Multnomah County lot sizes have consistently decreased. The average annual rate of lot size change for the Metro region for the period 1995-99 has been minus 4.0 percent per year. Washington County has recorded the largest and most consistent decreases. Clackamas County retains the largest median lot sizes, but sizes are decreasing there as well. Multnomah County single family production is fairly limited and has been highly influenced by single family development in northwest Portland where environmental restrictions require large lot development.

Overall the actual data continue to substantiate previous statistical analysis and microeconomic theory<sup>2</sup> – absent regulatory restrictions, increasing home prices result in decreasing lot sizes as suppliers change their mix of land and capital to maintain maximum profits.

## B. Existing Homes

Existing homes provide a better description of the prices of the region's housing stock since at any given time existing homes comprise 98-99 percent of the stock. By way of contrast, new homes may comprise 20-40 percent of the observed sales in many price indices. At the same time, existing home sales provide no information on impacts of regulatory changes or home price levels since the homes were constructed when zoning regulations and prices were different. However, the prices of existing homes built in established neighborhoods do inform us on current preferences for neighborhood quality and community design. In addition by comparing the median attributes of existing homes to the median attributes of new homes, we can make qualitative conclusions about how those attributes are changing over time.

Exhibit Two presents the following picture:

<sup>1</sup> *Housing Economics*, July 1999, page 12.

<sup>2</sup> S. Conder, K. Larson, *Residential Lot Values and the Capital-Land substitution Parameter- Some Recent Results from the Portland Metro Area*, Paper Presented at Pacific Northwest Economic Conference (May 1998). Also J. McDonald, *Capital-Land Substitution in Urban Housing: A Survey of Empirical Estimates*, **Journal of Urban Economics**: 16, pp. 1 – 12. (1984).

- Median existing home prices are 15 percent lower than new home prices with the least disparity being in Clark County (8 percent lower) and the largest in Multnomah County (23 percent lower). Overall the median existing home price for the four-county region is \$153,000. This compares to a third quarter MLS all home median sales price of \$161,000.<sup>3</sup>
- Average growth rates in price from 1997-98 to 1998-99 range from 2.6 percent to 3.2 percent.
- On a price per square foot basis, Multnomah County has the highest existing home prices at \$107 per square foot. Clark County has the lowest at \$91. Washington County comes in at \$99 and Clackamas County at \$97. The Multnomah County price difference is particularly significant in that the Multnomah County median house is twice as old and sits on a lot 30-45 percent smaller than surrounding counties.
- Median home sizes are smaller than newly constructed homes. With the exception of Multnomah County, lot sizes are considerably larger for existing homes. All existing median homes are smaller than newly constructed homes. For existing homes lot sizes in the suburban counties are 35-48 percent larger. In Multnomah County, the median lot size is 11 percent smaller than newly constructed homes.
- The contrast between the median attributes of existing housing and new housing reflects the extant economic and regulatory conditions when the median houses were constructed. The median Multnomah County house was constructed in a period prior to freeway building when urban housing capacity was limited and zoning did not restrict lot sizes. The median Multnomah County house was built in a central location and reflected a neighborhood and community design, we presently term "neotraditional." The median home in the surrounding jurisdictions was constructed immediately after the time of peak access increase resulting from freeway and auto investment and reflects a neighborhood and community design we term "suburban." In addition zoning restrictions in place at the time limited the minimum size of residential lots and segregated residential and nonresidential land uses more severely than previous practice.

### C. Other Data, Charts and Statistical Analyses

Exhibits Three through Six report average price, home size, lots size and sample size by jurisdiction and county for the period 1997-99. As in Exhibits One and Two, data are divided between newly constructed and existing homes. Unlike Exhibits One and Two the data are arithmetic averages; not medians. In practical terms, this difference means that prices, homes and lots are larger as a few very large sales disproportionately influence data averages. Also for many jurisdictions the number of sales recorded are quite low. Consequently, the data for specific jurisdictions in Exhibits Three through Six should be interpreted very cautiously.

Tables 1 through 6 provide useful data on single family housing affordability. The tables include data on all home sales by jurisdiction for the years 1997-99 in the tri-county Metro region. In these tables, the data are displayed by sales price distribution so as to provide information on the number and percentage of home sales that were above or below a specific level. For instance, Table 1 shows Clackamas County homes sales for 1998-99. For the County overall, we note that 12.6 percent of all home sales sold for \$125,000 or less while 48.5 percent of all homes sold for under \$175,000. However, there was a large disparity between jurisdictions with 80 percent of the homes selling for

<sup>3</sup> *Housing Economics*, December 1999, page 13.

less than \$175,000 in Estacada and Molalla but 20 percent to 30 percent selling for less than \$175,000 in Happy Valley, Lake Oswego and West Linn.

Table 2 provides the same data for Multnomah County. In Multnomah County in 1998-99, almost 40 percent of the home sales were under \$125,000. In Portland 40 percent of the home sales were for under \$125,000 but that figure drops to between 10 percent - 20 percent for Fairview, Gresham and Troutdale. Table 3 contains similar data for Washington County where roughly 14 percent of home sales were under \$125,000 in 1998-99 and 57 percent were under \$175,000. As in Clackamas and Multnomah Counties, Washington County has a considerable disparity between jurisdictions.

Charts 1 through 11 and Figures A through C contain the preliminary results of a statistical analysis of the 1997-99 home sales data. Though still preliminary, the results agree with statistical results for 1995-96 and 1996-97 home sales. In determining home price building attributes are the most important. Lot size continues to be relatively unimportant in the sense that beyond a threshold lot size, it costs developers more to provide larger lots than they receive in increased home sales revenue. For reasons elaborated below attached dwelling unit types in the three Oregon counties continue to command a slightly higher price but do not do so in Clark County.

Figures A through C display depreciation curves for the three Oregon counties. In this analysis we explain the present day sales price of an existing home as a function of its age after we account for the home's size, lot size and location. As measured for the year 1997-98, single family homes in all three counties retain 75-85 percent of their original value after 100 years with Multnomah County homes losing the least value. In more detailed statistical tests, we will examine the relationships between neighborhood and community design and home value over time. At present, county level data suggest single family homes in traditional neighborhoods and communities are commanding premium sales prices.

Preliminary statistical analysis reported in Charts 1 through 11 suggests the appearance of market segmentation effects particularly in Clark and Multnomah Counties. What we mean by market segmentation is that home buyers in one geographic location have significantly different preferences for lot sizes, home designs, housing types, access, neighborhood design, etc. than home buyers in other geographic locations. For instance, in the case of Clark County, attached units do not command a price premium whereas they do in the three Oregon counties. Another instance is that lot size in Clark County contributes twice as much to single family home price as it does in Multnomah County.

Both the Seattle Housing Preference Study<sup>4</sup> and the Metro 1994 Travel Survey housing preference study suggest roughly a three-way market segmentation – 1/3 of respondents prefer an urban location, 1/3 are indifferent depending on housing, access and ownership opportunities (price) and 1/3 strongly prefer suburban-rural settings. In this context, the statistical results to date suggest Multnomah County is selecting for an urban preference purchaser while Clark County is picking up primarily the suburban –

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<sup>4</sup> *Residential Preference Study*, City of Seattle Planning Department, 1994, pp 1- 15. Metro Data Resource Center, (Tabulation and Analysis of Residential Stated Preference Survey - unpublished), 1995, 12 pages.

rural preference market with Clackamas and Washington Counties occupying intermediate positions.

## **Conclusion**

The salient feature of the home price survey data is that the combination of market forces and increased regulatory flexibility have combined to consistently reduce lot sizes within the region. Moreover, the large home price increases of 10 percent or more per year evident earlier in the decade have greatly diminished; averaging now much closer to 3 percent to 4.5 percent per year. Finally, the single family stock throughout the region appears healthy and is holding value over time. This is particularly true for the central city area that has reversed a pattern of market decline established in the 1950's and now appears to be more an area of excess market demand rather than insufficient market demand.

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EXHIBIT ONE :NEW HOME SALES PRICE STUDY - SUMMARY DATA 95 - 99

COUNTY	MEDIAN SALES PRICE					MEDIAN HOME SIZE					MEDIAN LOT SIZE				
	95 - 96	96 - 97	97 - 98	98 - 99	A.A.R. % CHG.	95 - 96	96 - 97	97 - 98	98 - 99	A.A.R. % CHG.	95 - 96	96 - 97	97 - 98	98 - 99	A.A.R. % CHG.
CLARK	NA	\$ 136,824	NA	\$ 147,172	3.7%	NA	1,719	NA	1,863	4.1%	NA	6,894	NA	6,601	-2.1%
CLACKAMAS	\$ 173,438	\$ 185,119	\$ 198,000	\$ 204,902	5.7%	1,864	1,930	2,067	1,989	2.2%	8,041	7,439	7,385	7,285	-3.2%
MULTNOMAH	\$ 151,438	\$ 161,257	\$ 169,950	\$ 175,504	5.0%	1,634	1,674	1,714	1,639	0.1%	6,137	6,864	6,371	6,203	0.4%
WASHINGTON	\$ 171,977	\$ 182,754	\$ 195,000	\$ 190,000	3.4%	1,924	1,949	1,986	1,904	-0.3%	6,614	6,551	6,065	5,201	-7.7%
METRO REGION	\$ 168,568	\$ 179,444	\$ 191,127	\$ 191,671	4.4%	1,858	1,896	1,957	1,882	0.4%	6,738	6,698	6,481	5,966	-4.0%
SMSA	NA	\$ 167,171	NA	\$ 178,925	3.5%	NA	1,844	NA	1,876	0.9%	NA	6,763	NA	6,148	-4.7%

Source: County Assessor Data 1996, 1997,1998,1999, Metro RLIS 1996,1997,1998,1999.  
 Includes valid "arms Length" sales transactions of newly constructed owner occupied dwelling units for the years  
 95 - 96, 96 - 97, 97 - 98, 98 - 99. Clark County data include 97 - 99 for the years 98 - 99.

**EXHIBIT TWO: EXISTING HOME SALES PRICE STUDY: SUMMARY DATA 97 - 99**

COUNTY	MEDIAN SALES PRICE			MEDIAN HOME SIZE			MEDIAN LOT SIZE			MEDIAN AGE		
	97 - 98	98 - 99	A.A.R. % CHG.	97 - 98	98 - 99	A.A.R. % CHG.	97 - 98	98 - 99	A.A.R. % CHG.	97 - 98	98 - 99	A.A.R. % CHG.
<b>CLARK</b>	NA	\$ 135,000	NA	NA	1,486	NA	NA	9,092	NA	NA	22	NA
<b>CLACKAMAS</b>	\$ 170,000	\$ 174,345	2.6%	1,747	1,804	3.3%	9,942	9,868	-0.7%	25	26	4.0%
<b>MULTNOMAH</b>	\$ 131,000	\$ 135,000	3.1%	1,258	1,260	0.2%	5,513	5,524	0.2%	50	52	4.0%
<b>WASHINGTON</b>	\$ 157,470	\$ 162,500	3.2%	1,612	1,636	1.5%	7,957	7,864	-1.2%	20	21	5.0%
<b>METRO REGION</b>	\$ 149,499	\$ 157,547	NA	1,497	1,570	NA	7,423	7,731	NA	34	32	NA
<b>SMSA</b>	NA	\$ 152,787	NA	NA	1,552	NA	NA	8,018	NA	NA	30	NA

Source: County Assessor Data 1996, 1997,1998,1999, Metro RLIS 1996,1997,1998,1999.

Includes valid "arms Length" sales transactions of newly constructed owner occupied dwelling units for the years

95 - 96, 96 - 97, 97 - 98, 98 - 99. Clark County data include 97 - 99 for the years 98 - 99

**EXHIBIT THREE: NEWLY CONSTRUCTED HOMES SALES 98-99 -  
4 COUNTY AREA**

<b>CLARK 99</b>	<b>Average Sales Price</b>	<b>Average Lot Size</b>	<b>Average Bldg Size</b>	<b>Sales in Sample</b>
BATTLE GROUND	\$ 152,238	23,504	1,805	292
BRUSH PRAIRIE	\$ 357,982	66,632	3,064	45
CAMAS	\$ 214,937	10,307	2,369	279
RIDGEFIELD	\$ 243,116	32,530	2,543	47
VANCOUVER	\$ 155,051	7,928	1,812	1,678
WASHOUGAL	\$ 161,331	16,896	1,747	57
YACOLT	\$ 136,188	37,408	1,717	16
Total	\$ 167,726	12,438	1,915	2,414

<b>CLACKAMAS 99</b>	<b>Average Sales Price</b>	<b>Average Lot Size</b>	<b>Average Bldg Size</b>	<b>Sales in Sample</b>
CLACKAMAS	\$ 187,249	5,740	1,847	132
GLADSTONE	\$ 176,723	7,042	1,822	11
LAKE OSWEGO	\$ 360,013	8,452	2,673	78
MILWAUKIE	\$ 208,034	10,583	2,059	60
OREGON CITY	\$ 197,649	9,640	1,945	180
HAPPY VALLEY/PORTLAND	\$ 285,114	8,758	2,639	102
TUALATIN	\$ 271,899	12,200	2,666	23
WEST LINN	\$ 323,893	13,044	2,981	80
WILSONVILLE	\$ 216,178	5,327	2,013	36
Other Clackamas	\$ 161,542	11,206	1,645	148
Total	\$ 230,280	9,332	2,154	850

<b>MULTNOMAH 99</b>	<b>Average Sales Price</b>	<b>Average Lot Size</b>	<b>Average Bldg Size</b>	<b>Sales in Sample</b>
FAIRVIEW	\$ 192,700	10,021	1,835	33
GRESHAM	\$ 220,700	8,204	2,111	94
PORTLAND	\$ 200,735	5,589	1,765	350
TROUTDALE	\$ 173,460	7,946	1,765	55
WOOD VILLAGE	\$ 139,031	8,000	1,316	4
Other Multnomah	\$ 415,060	6,411	3,095	1
Total	\$ 200,882	6,580	1,829	537

<b>WASHINGTON 99</b>	<b>Average Sales Price</b>	<b>Average Lot Size</b>	<b>Average Bldg Size</b>	<b>Sales in Sample</b>
ALOHA	\$ 170,416	4,531	1,734	203
BEAVERTON	\$ 207,309	4,787	2,025	334
CORNELIUS	\$ 140,187	6,962	1,457	23
DURHAM	\$ -	-	-	-
FOREST GROVE	\$ 161,315	7,595	1,634	47
HILLSBORO	\$ 186,805	4,951	1,796	358
KING CITY	\$ -	-	-	-
ROCK CREEK/PORTLAND	\$ 254,519	5,587	2,241	299
SHERWOOD	\$ 194,650	5,934	1,923	140
TIGARD	\$ 237,973	6,688	2,314	235
TUALATIN	\$ 356,435	9,935	3,028	20
Other Washington	\$ 171,886	5,460	1,947	11
Total	\$ 209,469	5,473	2,004	1,670

Source: Metro RLIS, 1998,1999.

**EXHIBIT FOUR: NEWLY CONSTRUCTED HOMES SALES 98-99 -  
3 COUNTY AREA**

<b>CLACKAMAS 98</b>	<b>Average Sales Price</b>	<b>Average Lot Size</b>	<b>Average Bldg Size</b>	<b>Sales in Sample</b>
CLACKAMAS	\$ 187,096	5,842	1,941	329
GLADSTONE	\$ 246,161	10,341	2,695	7
LAKE OSWEGO	\$ 468,686	14,236	3,636	53
MILWAUKIE	\$ 181,389	8,533	1,734	79
OREGON CITY	\$ 189,358	11,712	1,895	221
HAPPY VALLEY/PORTLAND	\$ 276,984	8,947	2,633	218
TUALATIN	\$ 256,989	8,027	2,571	6
WEST LINN	\$ 320,348	9,552	2,924	156
WILSONVILLE	\$ 211,499	5,595	1,981	93
Other Clackamas	\$ 186,418	17,726	1,863	227
Total	\$ 229,072	10,111	2,202	1,389

<b>MULTNOMAH 98</b>	<b>Average Sales Price</b>	<b>Average Lot Size</b>	<b>Average Bldg Size</b>	<b>Sales in Sample</b>
FAIRVIEW	\$ 181,753	7,730	1,698	54
GRESHAM	\$ 234,931	8,342	2,184	187
PORTLAND	\$ 200,681	7,249	1,839	605
TROUTDALE	\$ 173,275	7,485	1,816	106
WOOD VILLAGE	\$ 199,199	7,979	1,347	4
Other Multnomah	\$ 303,796	12,777	2,781	11
Total	\$ 204,410	7,579	1,904	967

<b>WASHINGTON 98</b>	<b>Average Sales Price</b>	<b>Average Lot Size</b>	<b>Average Bldg Size</b>	<b>Sales in Sample</b>
ALOHA	\$ 161,411	5,374	1,648	111
BEAVERTON	\$ 220,890	6,632	2,231	428
CORNELIUS	\$ 154,100	5,726	1,782	71
DURHAM	\$ -	-	-	-
FOREST GROVE	\$ 148,726	7,654	1,538	97
HILLSBORO	\$ 187,318	6,114	1,878	514
KING CITY	\$ 221,620	9,133	1,871	2
ROCK CREEK/PORTLAND	\$ 245,564	6,548	2,332	872
SHERWOOD	\$ 183,049	6,509	1,838	335
TIGARD	\$ 243,888	7,696	2,371	269
TUALATIN	\$ 275,581	11,360	2,442	45
Other Washington	\$ 165,717	6,062	1,826	52
Total	\$ 213,386	6,628	2,101	2,796

Source: Metro RLIS, 1997, 1998, 1999.

**EXHIBIT FIVE: EXISTING HOMES SALES 98-99 -  
4 COUNTY AREA**

<b>CLARK 99</b>	<b>Average Sales Price</b>	<b>Average Lot Size</b>	<b>Average Bldg Size</b>	<b>Average Age</b>	<b>Sales in Sample</b>
BATTLE GROUND	\$ 159,882	48,031	1,659	20	429
BRUSH PRAIRIE	\$ 223,184	85,397	2,174	22	100
CAMAS	\$ 194,664	20,789	1,958	28	413
RIDGEFIELD	\$ 191,648	52,433	1,844	29	133
VANCOUVER	\$ 147,092	12,287	1,592	25	5,772
WASHOUGAL	\$ 138,867	21,139	1,442	34	240
YACOLT	\$ 140,877	67,766	1,500	32	63
Total	\$ 152,216	18,033	1,623	26	7,150

<b>CLACKAMAS 99</b>	<b>Average Sales Price</b>	<b>Average Lot Size</b>	<b>Average Bldg Size</b>	<b>Average Age</b>	<b>Sales in Sample</b>
CLACKAMAS	\$ 201,862	14,335	2,089	16	477
GLADSTONE	\$ 158,661	8,173	1,796	37	292
LAKE OSWEGO	\$ 272,653	11,784	2,266	30	1,327
MILWAUKIE	\$ 157,892	11,640	1,749	39	1,616
OREGON CITY	\$ 170,835	22,503	1,712	36	967
HAPPY VALLEY/PORTLAND	\$ 234,601	16,159	2,364	27	411
TUALATIN	\$ 286,243	20,417	2,591	15	80
WEST LINN	\$ 262,931	14,870	2,443	26	871
WILSONVILLE	\$ 234,088	12,093	2,046	15	335
Other Clackamas	\$ 173,022	32,348	1,703	32	1,392
Total	\$ 204,992	17,474	1,979	31	7,768

<b>MULTNOMAH 99</b>	<b>Average Sales Price</b>	<b>Average Lot Size</b>	<b>Average Bldg Size</b>	<b>Average Age</b>	<b>Sales in Sample</b>
FAIRVIEW	\$ 164,127	9,651	1,630	23	31
GRESHAM	\$ 152,216	10,841	1,511	25	720
PORTLAND	\$ 153,832	7,243	1,353	58	7,171
TROUTDALE	\$ 156,653	13,364	1,485	21	205
WOOD VILLAGE	\$ 128,996	7,452	1,546	35	14
Other Multnomah	\$ 190,429	36,413	1,672	56	91
Total	\$ 154,162	8,042	1,375	54	8,232

<b>WASHINGTON 99</b>	<b>Average Sales Price</b>	<b>Average Lot Size</b>	<b>Average Bldg Size</b>	<b>Average Age</b>	<b>Sales in Sample</b>
ALOHA	\$ 155,097	10,340	1,571	23	910
BEAVERTON	\$ 172,471	8,654	1,757	23	2,996
CORNELIUS	\$ 131,993	8,972	1,392	21	220
DURHAM	\$ 249,753	12,653	2,401	19	36
FOREST GROVE	\$ 144,431	10,752	1,565	36	334
HILLSBORO	\$ 158,550	10,498	1,648	23	1,620
KING CITY	\$ 126,031	3,772	1,204	29	126
ROCK CREEK/PORTLAND	\$ 221,922	11,230	2,123	25	2,166
SHERWOOD	\$ 168,963	10,267	1,648	12	418
TIGARD	\$ 184,398	9,440	1,827	19	1,627
TUALATIN	\$ 184,796	9,099	1,779	17	483
Other Washington	\$ 138,085	10,506	1,289	25	58
Total	\$ 178,775	9,807	1,785	23	10,994

Source: Metro RLIS, 1998,1999.

**EXHIBIT SIX: EXISTING HOMES SALES 97-98 -  
3 COUNTY AREA**

<b>CLACKAMAS 98</b>	<b>Average Sales Price</b>	<b>Average Lot Size</b>	<b>Average Bldg Size</b>	<b>Average Age</b>	<b>Sales in Sample</b>
CLACKAMAS	\$ 198,282	16,097	2,015	17	418
GLADSTONE	\$ 158,748	8,663	1,801	37	235
LAKE OSWEGO	\$ 273,885	10,788	2,249	27	1,308
MILWAUKIE	\$ 159,881	12,087	1,698	38	1,372
OREGON CITY	\$ 166,552	22,251	1,671	35	887
HAPPY VALLEY/PORTLAND	\$ 214,496	15,971	2,148	29	275
TUALATIN	\$ 328,048	23,795	2,772	16	71
WEST LINN	\$ 247,427	15,531	2,347	25	703
WILSONVILLE	\$ 224,542	11,959	1,983	15	273
Other Clackamas	\$ 171,252	34,673	1,671	31	1,324
Total	\$ 202,414	18,259	1,924	30	6,866

<b>MULTNOMAH 98</b>	<b>Average Sales Price</b>	<b>Average Lot Size</b>	<b>Average Bldg Size</b>	<b>Average Age</b>	<b>Sales in Sample</b>
FAIRVIEW	\$ 144,404	13,682	1,516	35	24
GRESHAM	\$ 149,471	10,271	1,526	23	986
PORTLAND	\$ 154,380	7,415	1,361	56	10,311
TROUTDALE	\$ 145,342	11,269	1,470	18	288
WOOD VILLAGE	\$ 132,344	7,817	1,369	33	17
Other Multnomah	\$ 178,862	21,258	1,468	35	127
Total	\$ 153,959	7,912	1,379	52	11,753

<b>WASHINGTON 98</b>	<b>Average Sales Price</b>	<b>Average Lot Size</b>	<b>Average Bldg Size</b>	<b>Average Age</b>	<b>Sales in Sample</b>
ALOHA	\$ 151,134	10,373	1,543	24	765
BEAVERTON	\$ 170,368	8,710	1,749	22	2,600
CORNELIUS	\$ 132,129	9,447	1,418	23	197
DURHAM	\$ 235,529	11,092	2,240	15	20
FOREST GROVE	\$ 139,640	11,639	1,534	35	296
HILLSBORO	\$ 152,300	10,679	1,597	23	1,355
KING CITY	\$ 120,551	3,983	1,227	27	95
ROCK CREEK/PORTLAND	\$ 214,502	11,701	2,092	24	1,857
SHERWOOD	\$ 161,496	10,323	1,635	12	262
TIGARD	\$ 180,653	10,191	1,821	19	1,383
TUALATIN	\$ 169,102	9,860	1,658	17	549
Other Washington	\$ 151,466	9,553	1,536	25	224
Total	\$ 173,458	10,105	1,757	22	9,603

Source: Metro RLIS, 1997,1998,1999.

**Table 1: Clackamas County 98 - 99 Homes Sales Prices - All Homes**

Sale Amount	Clackamas/Port.		Canby		Estacada		Gladstone		Happy Valley		Lake Oswego		Milwaukie		Molalla		Mulino		Oregon City		Sandy		Tualatin		West Linn		Wilsonville		Clackamas Total	
	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%
<b>35000 - 75000</b>	23	1.5%	9	2.1%	3	2.5%	3	1.0%	0	0.0%	3	0.2%	13	0.8%	9	3.6%	0	0.0%	13	1.1%	4	1.5%	0	0.0%	3	0.3%	0	0.0%	83	1.0%
<b>75000 - 100000</b>	45	4.3%	20	6.7%	8	9.3%	11	4.6%	0	0.0%	19	1.6%	75	5.2%	16	10.0%	1	2.9%	39	4.5%	11	5.5%	0	0.0%	14	1.8%	7	1.9%	265	4.0%
<b>100000 - 125000</b>	89	10.0%	40	16.0%	35	39.0%	48	20.5%	1	3.3%	29	3.6%	248	20.0%	50	30.0%	3	11.8%	128	15.6%	30	16.5%	0	0.0%	43	6.3%	3	2.7%	747	12.6%
<b>125000 - 150000</b>	192	22.3%	101	39.4%	23	58.5%	76	45.5%	4	16.7%	105	11.0%	493	49.3%	98	69.2%	11	44.1%	233	35.8%	87	48.4%	0	0.0%	91	15.7%	25	9.4%	1539	30.3%
<b>150000 - 175000</b>	251	38.3%	106	63.9%	24	78.8%	70	68.6%	1	20.0%	171	23.1%	433	75.1%	41	85.6%	3	52.9%	258	58.1%	61	70.7%	0	0.0%	112	27.4%	50	22.8%	1581	48.5%
<b>175000 - 200000</b>	256	54.7%	61	78.0%	10	87.3%	51	85.5%	9	50.0%	171	35.2%	204	87.2%	16	92.0%	5	67.6%	172	73.0%	29	81.3%	7	6.6%	74	35.1%	60	38.9%	1125	61.4%
<b>200000 - 225000</b>	171	65.6%	29	84.7%	4	90.7%	25	93.7%	5	66.7%	137	44.9%	85	92.3%	4	93.6%	3	76.5%	132	84.4%	18	87.9%	7	13.2%	84	43.9%	71	57.9%	775	70.3%
<b>225000 - 250000</b>	137	74.3%	29	91.4%	5	94.9%	10	97.0%	3	76.7%	147	55.3%	39	94.6%	5	95.6%	3	85.3%	82	91.5%	6	90.1%	16	28.3%	90	53.2%	44	69.7%	616	77.4%
<b>250000 - 275000</b>	110	81.4%	14	94.7%	3	97.5%	3	98.0%	2	83.3%	109	63.0%	27	96.2%	4	97.2%	2	91.2%	37	94.7%	15	95.6%	30	56.6%	82	61.8%	27	76.9%	465	82.8%
<b>275000 - 300000</b>	80	86.5%	8	96.5%	0	97.5%	2	98.7%	3	93.3%	81	68.7%	24	97.6%	3	98.4%	1	94.1%	23	96.7%	6	97.8%	27	82.1%	70	69.1%	23	83.1%	351	86.8%
<b>300000 Plus</b>	212	100.0%	15	100.0%	3	100.0%	4	100.0%	2	100.0%	443	100.0%	40	100.0%	4	100.0%	2	100.0%	38	100.0%	6	100.0%	19	100.0%	297	100.0%	63	100.0%	1148	100.0%
<b>Total</b>	1566		432		118		303		30		1415		1681		250		34		1155		273		106		960		373		8695	

Source: Assessor Files Clark, Clackamas, Multnomah and Washington Counties, 1997, 1998 & 1999. Metro RLIS, 1998 & 1999

**Table 2: Multnomah County 98 - 99 Homes Sales Prices - All Homes**

Sale Amount	Multnomah		Fairview		Gresham		Portland		Troutdale		Wood Village		Multnomah Total	
	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%
<b>35000 - 75000</b>	3	3.3%	0	0.0%	31	3.8%	314	4.2%	3	1.1%	1	5.6%	352	4.0%
<b>75000 - 100000</b>	14	18.5%	1	1.5%	36	8.2%	1041	18.0%	7	3.8%	4	27.8%	1103	16.6%
<b>100000 - 125000</b>	12	31.5%	5	9.2%	107	21.3%	1705	40.6%	29	14.9%	3	44.4%	1861	37.8%
<b>125000 - 150000</b>	9	41.3%	12	27.7%	235	50.2%	1637	62.4%	90	49.4%	5	72.2%	1988	60.4%
<b>150000 - 175000</b>	9	51.1%	14	49.2%	163	70.2%	978	75.3%	66	74.7%	1	77.8%	1231	74.4%
<b>175000 - 200000</b>	8	59.8%	12	67.7%	91	81.3%	579	83.0%	40	90.0%	2	88.9%	732	82.7%
<b>200000 - 225000</b>	8	68.5%	9	81.5%	52	87.7%	328	87.4%	12	94.6%	2	100.0%	411	87.4%
<b>225000 - 250000</b>	11	80.4%	5	89.2%	49	93.7%	256	90.8%	2	95.4%	0	100.0%	323	91.1%
<b>250000 - 275000</b>	7	88.0%	2	92.3%	24	96.7%	152	92.8%	2	96.2%	0	100.0%	187	93.2%
<b>275000 - 300000</b>	5	93.5%	5	100.0%	10	97.9%	123	94.4%	2	96.9%	0	100.0%	145	94.9%
<b>300000 Plus</b>	6	100.0%	0	100.0%	17	100.0%	420	100.0%	8	100.0%	0	100.0%	451	100.0%
<b>Total</b>	92		65		815		7533		261		18		8784	

Source: Assessor Files Clark, Clackamas, Multnomah and Washington Counties, 1997, 1998 & 1999. Metro RLIS, 1998 & 1999

**Table 3: Washington County 98 - 99 Homes Sales Prices - All Homes**

Sale Amount	Rockwood - Cornell		Aloha		Beaverton		Cornelius		Forest Grove		Hillsboro		King City		North Plains		Sherwood		Tigard		Tualatin		Washington Total	
	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%
<b>35000 - 75000</b>	39	1.5%	2	0.2%	141	4.2%	1	0.4%	5	1.3%	15	0.8%	14	11.1%	1	2.9%	13	2.3%	24	1.3%	2	0.4%	257	2.0%
<b>75000 - 100000</b>	58	3.8%	22	2.2%	95	7.1%	17	7.4%	25	7.9%	79	4.8%	11	19.8%	3	11.8%	5	3.2%	30	2.9%	35	7.4%	380	5.0%
<b>100000 - 125000</b>	101	7.8%	107	11.8%	314	16.5%	67	35.0%	80	28.9%	225	16.1%	38	50.0%	10	41.2%	21	7.0%	131	9.9%	13	9.9%	1107	13.8%
<b>125000 - 150000</b>	268	18.4%	442	51.5%	675	36.8%	126	86.8%	129	62.7%	564	44.6%	46	86.5%	9	67.6%	96	24.2%	267	24.3%	58	21.5%	2680	34.9%
<b>150000 - 175000</b>	394	33.9%	329	81.0%	769	59.9%	22	95.9%	73	81.9%	451	67.4%	8	92.9%	3	76.5%	177	55.9%	454	48.7%	168	54.9%	2848	57.4%
<b>175000 - 200000</b>	359	48.1%	119	91.7%	474	74.1%	3	97.1%	35	91.1%	290	82.1%	4	96.0%	5	91.2%	117	76.9%	356	67.8%	80	70.8%	1842	72.0%
<b>200000 - 225000</b>	291	59.5%	40	95.3%	292	82.9%	3	98.4%	15	95.0%	142	89.3%	1	96.8%	2	97.1%	63	88.2%	206	78.8%	47	80.1%	1102	80.7%
<b>225000 - 250000</b>	237	68.9%	15	96.7%	190	88.6%	1	98.8%	5	96.3%	108	94.7%	0	96.8%	0	97.1%	39	95.2%	120	85.3%	26	85.3%	741	86.5%
<b>250000 - 275000</b>	222	77.6%	12	97.8%	130	92.5%	0	98.8%	7	98.2%	57	97.6%	1	97.6%	0	97.1%	19	98.6%	73	89.2%	12	87.7%	533	90.7%
<b>275000 - 300000</b>	141	83.2%	3	98.0%	88	95.1%	2	99.6%	3	99.0%	24	98.8%	1	98.4%	1	100.0%	4	99.3%	63	92.6%	18	91.3%	348	93.5%
<b>300000 Plus</b>	426	100.0%	22	100.0%	162	100.0%	1	100.0%	4	100.0%	23	100.0%	2	100.0%	0	100.0%	4	100.0%	138	100.0%	44	100.0%	826	100.0%
<b>Total</b>	2536		1113		3330		243		381		1978		126		34		558		1862		503		12664	

Source: Assessor Files Clark, Clackamas, Multnomah and Washington Counties, 1997, 1998 & 1999. Metro RLIS, 1998 & 1999

**Table 4: Clackamas County 97 - 98 Homes Sales Prices - All Homes**

Sale Amount	Clackamas/Port.		Canby		Estacada		Gladstone		Happy Valley		Lake Oswego		Milwaukie		Molalla		Mulino		Oregon City		Sandy		Tualatin		West Linn		Wilsonville		Clackamas Total	
	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%
<b>35000 - 75000</b>	15	0.9%	6	1.4%	5	3.9%	2	0.8%	0	0.0%	4	0.3%	25	1.7%	7	2.4%	0	0.0%	7	0.6%	1	0.4%	0	0.0%	4	0.5%	0	0.0%	76	0.9%
<b>75000 - 100000</b>	53	4.1%	25	7.4%	10	11.8%	11	5.3%	1	3.4%	35	2.9%	80	7.2%	23	10.3%	2	7.7%	48	5.0%	11	5.0%	1	1.3%	17	2.4%	13	3.6%	330	4.9%
<b>100000 - 125000</b>	75	8.6%	49	19.1%	31	36.2%	38	21.0%	2	10.3%	87	9.3%	213	21.9%	77	36.6%	3	19.2%	129	16.6%	32	18.3%	0	1.3%	33	6.3%	4	4.6%	773	14.3%
<b>125000 - 150000</b>	197	20.4%	76	37.2%	28	58.3%	62	46.5%	2	17.2%	99	16.5%	439	52.1%	105	72.6%	6	42.3%	238	38.0%	55	41.3%	0	1.3%	92	17.0%	17	9.3%	1416	31.4%
<b>150000 - 175000</b>	289	37.7%	102	61.6%	16	70.9%	45	65.0%	1	20.7%	161	28.3%	322	74.3%	48	89.0%	8	73.1%	248	60.4%	52	62.9%	2	3.9%	93	27.8%	61	26.0%	1448	48.9%
<b>175000 - 200000</b>	334	57.8%	73	79.0%	19	85.8%	41	81.9%	2	27.6%	142	38.8%	174	86.3%	14	93.8%	3	84.6%	194	77.8%	33	76.7%	4	9.1%	70	35.9%	71	45.4%	1174	63.1%
<b>200000 - 225000</b>	177	68.4%	30	86.2%	9	92.9%	26	92.6%	3	37.9%	114	47.1%	76	91.5%	7	96.2%	1	88.5%	96	86.5%	18	84.2%	7	18.2%	76	44.8%	73	65.3%	713	71.7%
<b>225000 - 250000</b>	145	77.1%	20	90.9%	2	94.5%	9	96.3%	9	69.0%	102	54.6%	37	94.1%	4	97.6%	1	92.3%	68	92.6%	15	90.4%	9	29.9%	91	55.3%	43	77.0%	555	78.4%
<b>250000 - 275000</b>	105	83.4%	8	92.8%	2	96.1%	3	97.5%	3	79.3%	105	62.3%	27	95.9%	1	97.9%	1	96.2%	35	95.8%	9	94.2%	26	63.6%	72	63.7%	20	82.5%	417	83.5%
<b>275000 - 300000</b>	77	88.0%	10	95.2%	1	96.9%	1	97.9%	2	86.2%	89	68.9%	15	97.0%	3	99.0%	0	96.2%	14	97.0%	3	95.4%	11	77.9%	67	71.5%	16	86.9%	309	87.2%
<b>300000 Plus</b>	200	100.0%	20	100.0%	4	100.0%	5	100.0%	4	100.0%	424	100.0%	44	100.0%	3	100.0%	1	100.0%	33	100.0%	11	100.0%	17	100.0%	245	100.0%	48	100.0%	1059	100.0%
<b>Total</b>	<b>1667</b>		<b>419</b>		<b>127</b>		<b>243</b>		<b>29</b>		<b>1362</b>		<b>1452</b>		<b>292</b>		<b>26</b>		<b>1110</b>		<b>240</b>		<b>77</b>		<b>860</b>		<b>366</b>		<b>8270</b>	

Source: Assessor Files Clark, Clackamas, Multnomah and Washington Counties, 1997, 1998 & 1999. Metro RLIS, 1998 & 1999

**Table 5: Multnomah County 97 - 98 Homes Sales Prices - All Homes**

Sale Amount	Multnomah		Fairview		Gresham		Portland		Troutdale		Wood Village		Multnomah Total	
	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%
<b>35000 - 75000</b>	5	3.7%	2	2.6%	12	1.0%	364	3.3%	3	0.8%	1	4.8%	387	3.0%
<b>75000 - 100000</b>	27	23.9%	3	6.4%	73	7.3%	1630	18.3%	6	2.3%	8	42.9%	1747	16.8%
<b>100000 - 125000</b>	13	33.6%	5	12.8%	191	23.6%	2710	43.1%	59	17.3%	2	52.4%	2980	40.3%
<b>125000 - 150000</b>	11	41.8%	21	39.7%	307	49.8%	2309	64.3%	120	47.7%	5	76.2%	2773	62.1%
<b>150000 - 175000</b>	18	55.2%	15	59.0%	205	67.3%	1332	76.5%	137	82.5%	1	81.0%	1708	75.5%
<b>175000 - 200000</b>	8	61.2%	10	71.8%	153	80.4%	753	83.4%	46	94.2%	0	81.0%	970	83.2%
<b>200000 - 225000</b>	5	64.9%	9	83.3%	90	88.0%	422	87.3%	10	96.7%	2	90.5%	538	87.4%
<b>225000 - 250000</b>	11	73.1%	11	97.4%	54	92.7%	372	90.7%	4	97.7%	0	90.5%	452	90.9%
<b>250000 - 275000</b>	10	80.6%	2	100.0%	32	95.4%	205	92.6%	5	99.0%	0	90.5%	254	92.9%
<b>275000 - 300000</b>	6	85.1%	0	100.0%	11	96.3%	174	94.2%	3	99.7%	0	90.5%	194	94.5%
<b>300000 Plus</b>	20	100.0%	0	100.0%	43	100.0%	636	100.0%	1	100.0%	2	100.0%	702	100.0%
<b>Total</b>	134		78		1171		10907		394		21		12705	

Source: Assessor Files Clark, Clackamas, Multnomah and Washington Counties, 1997, 1998 & 1999. Metro RLIS, 1998 & 1999

**Table 6: Washington County 97 - 98 Homes Sales Prices - All Homes**

Sale Amount	Rockwood - Cornell		Aloha		Beaverton		Cornelius		Forest Grove		Hillsboro		King City		North Plains		Sherwood		Tigard		Tualatin		Washington Total	
	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%	N	Cum%
<b>35000 - 75000</b>	43	1.4%	0	0.0%	55	1.8%	3	1.1%	8	2.0%	9	0.5%	15	15.5%	0	0.0%	10	1.7%	30	1.8%	8	1.3%	181	1.5%
<b>75000 - 100000</b>	44	2.9%	21	2.4%	115	5.6%	8	4.1%	29	9.4%	64	3.9%	4	19.6%	3	7.7%	3	2.2%	41	4.3%	92	16.8%	424	4.9%
<b>100000 - 125000</b>	113	6.7%	121	16.2%	301	15.6%	75	32.1%	62	25.2%	261	17.9%	36	56.7%	7	25.6%	16	4.9%	109	10.9%	24	20.9%	1125	14.0%
<b>125000 - 150000</b>	393	19.9%	400	61.9%	653	37.1%	121	77.2%	168	67.9%	529	46.2%	26	83.5%	8	46.2%	144	29.0%	297	28.9%	81	34.5%	2820	36.7%
<b>150000 - 175000</b>	525	37.4%	220	87.0%	664	59.0%	36	90.7%	68	85.2%	424	68.9%	7	90.7%	7	64.1%	178	58.8%	369	51.2%	170	63.1%	2668	58.2%
<b>175000 - 200000</b>	410	51.2%	52	92.9%	429	73.2%	16	96.6%	34	93.9%	264	83.0%	5	95.9%	11	92.3%	116	78.2%	276	67.9%	73	75.4%	1686	71.8%
<b>200000 - 225000</b>	364	63.4%	14	94.5%	264	81.9%	2	97.4%	12	96.9%	146	90.8%	3	99.0%	2	97.4%	66	89.3%	131	75.8%	39	82.0%	1043	80.2%
<b>225000 - 250000</b>	271	72.4%	16	96.3%	197	88.4%	4	98.9%	5	98.2%	89	95.6%	0	99.0%	0	97.4%	37	95.5%	112	82.6%	32	87.4%	763	86.4%
<b>250000 - 275000</b>	193	78.9%	8	97.3%	126	92.6%	2	99.6%	6	99.7%	44	97.9%	1	100.0%	0	97.4%	15	98.0%	78	87.3%	18	90.4%	491	90.3%
<b>275000 - 300000</b>	165	84.4%	7	98.1%	70	94.9%	0	99.6%	0	99.7%	20	99.0%	0	100.0%	1	100.0%	9	99.5%	63	91.2%	11	92.3%	346	93.1%
<b>300000 Plus</b>	465	100.0%	17	100.0%	154	100.0%	1	100.0%	1	100.0%	19	100.0%	0	100.0%	0	100.0%	3	100.0%	146	100.0%	46	100.0%	852	100.0%
<b>Total</b>	2986		876		3028		268		393		1869		97		39		597		1652		594		12399	

Source: Assessor Files Clark, Clackamas, Multnomah and Washington Counties, 1997, 1998 & 1999. Metro RLIS, 1998 & 1999

**CHART 1: CLARK COUNTY 97 - 99 SALES OF EXISTING HOMES**

<i>Regression Statistics</i>	
Multiple R	0.850
R Square	0.723
Adjusted R Square	0.723
Standard Error	0.187
Observations	7243

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	7	657.7	94.0	2698.8	0.0
Residual	7235	251.9	0.0		
Total	7242	909.6			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	5.872	0.083	70.591	0.000	5.709	6.035	5.709	6.035
ln(lotsize)	0.107	0.003	36.066	0.000	0.102	0.113	0.102	0.113
ln(bldgsize)	0.656	0.007	96.343	0.000	0.643	0.670	0.643	0.670
ln(saleyr)	0.046	0.005	9.175	0.000	0.036	0.055	0.036	0.055
dutypeattchd	0.008	0.026	0.308	0.758	-0.042	0.058	-0.042	0.058
ln(age)	0.314	0.081	3.851	0.000	0.154	0.473	0.154	0.473
ln(age)^2	-0.132	0.029	-4.507	0.000	-0.189	-0.075	-0.189	-0.075
ln(age)^3	0.015	0.003	4.500	0.000	0.008	0.021	0.008	0.021

**CHART 2: CLARK COUNTY 97 - 99 SALES OF NEWLY CONSTRUCTED HOMES**

<i>Regression Statistics</i>	
Multiple R	0.868
R Square	0.753
Adjusted R Square	0.753
Standard Error	0.172
Observations	2475

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	4	221.629	55.407	1881.701	0.000
Residual	2470	72.730	0.029		
Total	2474	294.359			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	4.632	0.087	53.170	0.000	4.461	4.803	4.461	4.803
ln(lotsize)	0.119	0.006	21.230	0.000	0.108	0.130	0.108	0.130
ln(bldgsize)	0.830	0.013	66.205	0.000	0.806	0.855	0.806	0.855
ln(saleyr)	0.065	0.009	7.487	0.000	0.048	0.082	0.048	0.082
dutypeattchd	-0.011	0.020	-0.545	0.586	-0.051	0.029	-0.051	0.029

**CHART 3: CLACKAMAS COUNTY 98 - 99 SALES OF EXISTING HOMES**

<i>Regression Statistics</i>	
Multiple R	0.861
R Square	0.741
Adjusted R Square	0.740
Standard Error	0.217
Observations	7826

## ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	7	1046.88	149.55	3187.88	0.00
Residual	7818	366.77	0.05		
Total	7825	1413.65			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	5.582	0.075	74.582	0.000	5.435	5.729	5.435	5.729
ln(area)	0.088	0.003	26.910	0.000	0.082	0.095	0.082	0.095
ln(bldgsize)	0.729	0.006	112.842	0.000	0.717	0.742	0.717	0.742
ln(salemonth)	0.004	0.003	1.316	0.188	-0.002	0.011	-0.002	0.011
dutype	0.090	0.018	5.032	0.000	0.055	0.125	0.055	0.125
ln(age)	0.496	0.070	7.032	0.000	0.357	0.634	0.357	0.634
ln(age)^2	-0.188	0.026	-7.197	0.000	-0.240	-0.137	-0.240	-0.137
ln(age)^3	0.018	0.003	6.000	0.000	0.012	0.024	0.012	0.024

**CHART 4: CLACKAMAS COUNTY 98 - 99 SALES OF NEWLY CONSTRUCTED HOMES**

<i>Regression Statistics</i>	
Multiple R	0.884
R Square	0.782
Adjusted R Square	0.781
Standard Error	0.171
Observations	872

**ANOVA**

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	4	90.482	22.621	776.280	0.000
Residual	867	25.264	0.029		
Total	871	115.746			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	4.765	0.144	33.188	0.000	4.483	5.046	4.483	5.046
ln(area)	0.017	0.012	1.401	0.162	-0.007	0.042	-0.007	0.042
ln(bldgsize)	0.954	0.020	48.271	0.000	0.915	0.993	0.915	0.993
ln(salemonth)	0.051	0.008	6.759	0.000	0.036	0.066	0.036	0.066
dutype	0.156	0.031	5.119	0.000	0.096	0.216	0.096	0.216

**CHART 5: MULTNOMAH COUNTY 98 - 99 SALES OF EXISTING HOMES**

<i>Regression Statistics</i>	
Multiple R	0.781
R Square	0.611
Adjusted R Squ	0.610
Standard Error	0.258
Observations	8246

**ANOVA**

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	7	857.92	122.56	1844.91	0.00
Residual	8238	547.26	0.07		
Total	8245	1405.17			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	5.940	0.118	50.381	0.000	5.708	6.171	5.708	6.171
ln(area)	0.051	0.005	9.366	0.000	0.040	0.062	0.040	0.062
ln(bldgsize)	0.838	0.008	99.955	0.000	0.821	0.854	0.821	0.854
ln(salemonth)	-0.005	0.004	-1.088	0.276	-0.013	0.004	-0.013	0.004
dutype	0.106	0.019	5.635	0.000	0.069	0.143	0.069	0.143
ln(age)	-0.511	0.111	-4.606	0.000	-0.728	-0.293	-0.728	-0.293
ln(age)^2	0.167	0.038	4.350	0.000	0.092	0.242	0.092	0.242
ln(age)^3	-0.018	0.004	-4.308	0.000	-0.026	-0.010	-0.026	-0.010

**CHART 6: MULTNOMAH COUNTY 98 - 99 SALES OF NEWLY CONSTRUCTED HOMES**

<i>Regression Statistics</i>	
Multiple R	0.884
R Square	0.782
Adjusted R Square	0.780
Standard Error	0.173
Observations	540

## ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	4	57.468	14.367	478.807	0.000
Residual	535	16.053	0.030		
Total	539	73.522			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	4.370	0.193	22.651	0.000	3.991	4.749	3.991	4.749
ln(area)	-0.008	0.021	-0.372	0.710	-0.048	0.033	-0.048	0.033
ln(bldgsize)	1.049	0.028	37.365	0.000	0.994	1.104	0.994	1.104
ln(salemonth)	-0.004	0.011	-0.309	0.757	-0.026	0.019	-0.026	0.019
dutype	0.122	0.037	3.316	0.001	0.050	0.194	0.050	0.194

**CHART 7: WASHINGTON COUNTY 98 - 99 SALES OF EXISTING HOMES**

<i>Regression Statistics</i>	
Multiple R	0.918
R Square	0.842
Adjusted R Sq	0.842
Standard Error	0.143
Observations	10994

**ANOVA**

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	7	1203.66	171.95	8353.30	0.00
Residual	10986	226.15	0.02		
Total	10993	1429.81			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	5.913	0.045	132.862	0.000	5.826	6.000	5.826	6.000
ln(area)	0.121	0.003	39.380	0.000	0.115	0.127	0.115	0.127
ln(bldgsize)	0.681	0.005	147.643	0.000	0.672	0.690	0.672	0.690
ln(salemonth)	0.007	0.002	3.870	0.000	0.003	0.011	0.003	0.011
dutype	0.056	0.010	5.863	0.000	0.037	0.075	0.037	0.075
ln(age)	0.157	0.039	3.988	0.000	0.080	0.234	0.080	0.234
ln(age)^2	-0.083	0.015	-5.372	0.000	-0.113	-0.053	-0.113	-0.053
ln(age)^3	0.009	0.002	4.566	0.000	0.005	0.012	0.005	0.012

**CHART 8: WASHINGTON COUNTY 98 - 99 SALES OF NEWLY CONSTRUCTED HOMES**

<i>Regression Statistics</i>	
Multiple R	0.888
R Square	0.789
Adjusted R Square	0.788
Standard Error	0.144
Observations	1670

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	4	128.12	32.03	1551.91	0.00
Residual	1665	34.37	0.02		
Total	1669	162.49			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	5.002	0.101	49.494	0.000	4.804	5.200	4.804	5.200
ln(area)	0.058	0.010	5.743	0.000	0.038	0.078	0.038	0.078
ln(bldgsize)	0.887	0.015	58.314	0.000	0.857	0.917	0.857	0.917
ln(salemonth)	-0.001	0.005	-0.153	0.878	-0.012	0.010	-0.012	0.010
dutype	0.055	0.028	1.990	0.047	0.001	0.110	0.001	0.110

**CHART 9: CLACKAMAS COUNTY 97 - 98 SALES OF EXISTING HOMES**  
(CORRECTED FOR AUTOREGRESSIVE SPATIAL ERROR)

<i>Regression Statistics</i>	
Multiple R	0.891
R Square	0.795
Adjusted R Square	0.794
Standard Error	0.194
Observations	6866

## ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	7	998.71	142.67	3791.99	0.00
Residual	6858	258.03	0.04		
Total	6865	1256.74			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	5.414	0.073	74.348	0.000	5.271	5.556	5.271	5.556
ln(area)	0.116	0.003	37.682	0.000	0.110	0.122	0.110	0.122
ln(bldgsize)	0.717	0.006	115.494	0.000	0.705	0.730	0.705	0.730
ln(salemonth)	0.006	0.003	1.958	0.050	0.000	0.012	0.000	0.012
dutype?	0.135	0.014	9.452	0.000	0.107	0.163	0.107	0.163
ln(age)	0.535	0.069	7.748	0.000	0.400	0.671	0.400	0.671
ln(age)^2	-0.224	0.026	-8.731	0.000	-0.275	-0.174	-0.275	-0.174
ln(age)^3	0.025	0.003	8.338	0.000	0.019	0.031	0.019	0.031

**CHART 10: MULTNOMAH COUNTY 97 - 98 SALES OF EXISTING HOMES**  
(CORRECTED FOR AUTOREGRESSIVE SPATIAL ERROR)

<i>Regression Statistics</i>	
Multiple R	0.763
R Square	0.582
Adjusted R Squa	0.582
Standard Error	0.256
Observations	11748

## ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	7	1067.88	152.55	2332.95	0.00
Residual	11740	767.69	0.07		
Total	11747	1835.57			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	6.009	0.076	79.543	0.000	5.861	6.157	5.861	6.157
ln(area)	0.050	0.005	11.019	0.000	0.041	0.059	0.041	0.059
ln(bldgsz)	0.764	0.007	111.112	0.000	0.750	0.777	0.750	0.777
ln(age)	-0.113	0.062	-1.807	0.071	-0.235	0.010	-0.235	0.010
(ln(age)sq)	0.042	0.023	1.794	0.073	-0.004	0.087	-0.004	0.087
ln(age)xub)	-0.006	0.003	-2.204	0.028	-0.011	-0.001	-0.011	-0.001
ln(salemonth)	0.016	0.003	5.163	0.000	0.010	0.022	0.010	0.022
ln(dutype)	0.040	0.015	2.611	0.009	0.010	0.070	0.010	0.070

**CHART 11: WASHINGTON COUNTY 97 - 98 SALES OF EXISTING HOMES**  
(CORRECTED FOR AUTOREGRESSIVE SPATIAL ERROR)

<i>Regression Statistics</i>	
Multiple R	0.931
R Square	0.867
Adjusted R Squ	0.867
Standard Error	0.124
Observations	9603

## ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance</i>
					<i>F</i>
Regression	7	967.15	138.16	8913.88	0.00
Residual	9595	148.72	0.02		
Total	9602	1115.87			

	<i>Coefficients</i>	<i>Standard</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
		<i>Error</i>						
Intercept	6.372	0.034	185.361	0.000	6.305	6.439	6.305	6.439
ln(lotsize)	0.120	0.003	42.758	0.000	0.115	0.126	0.115	0.126
ln(bldgsize)	0.630	0.004	147.937	0.000	0.621	0.638	0.621	0.638
dutype	0.049	0.009	5.775	0.000	0.032	0.066	0.032	0.066
ln(salemonth)	0.003	0.002	1.727	0.084	0.000	0.006	0.000	0.006
ln(age)	0.083	0.023	3.655	0.000	0.038	0.127	0.038	0.127
ln(age)^2	-0.060	0.010	-6.131	0.000	-0.079	-0.041	-0.079	-0.041
ln(age)^3	0.006	0.001	4.662	0.000	0.003	0.009	0.003	0.009

Figure A: Multnomah County SFR Sales Price as Function of Age - 1997 - 98 Sales Study

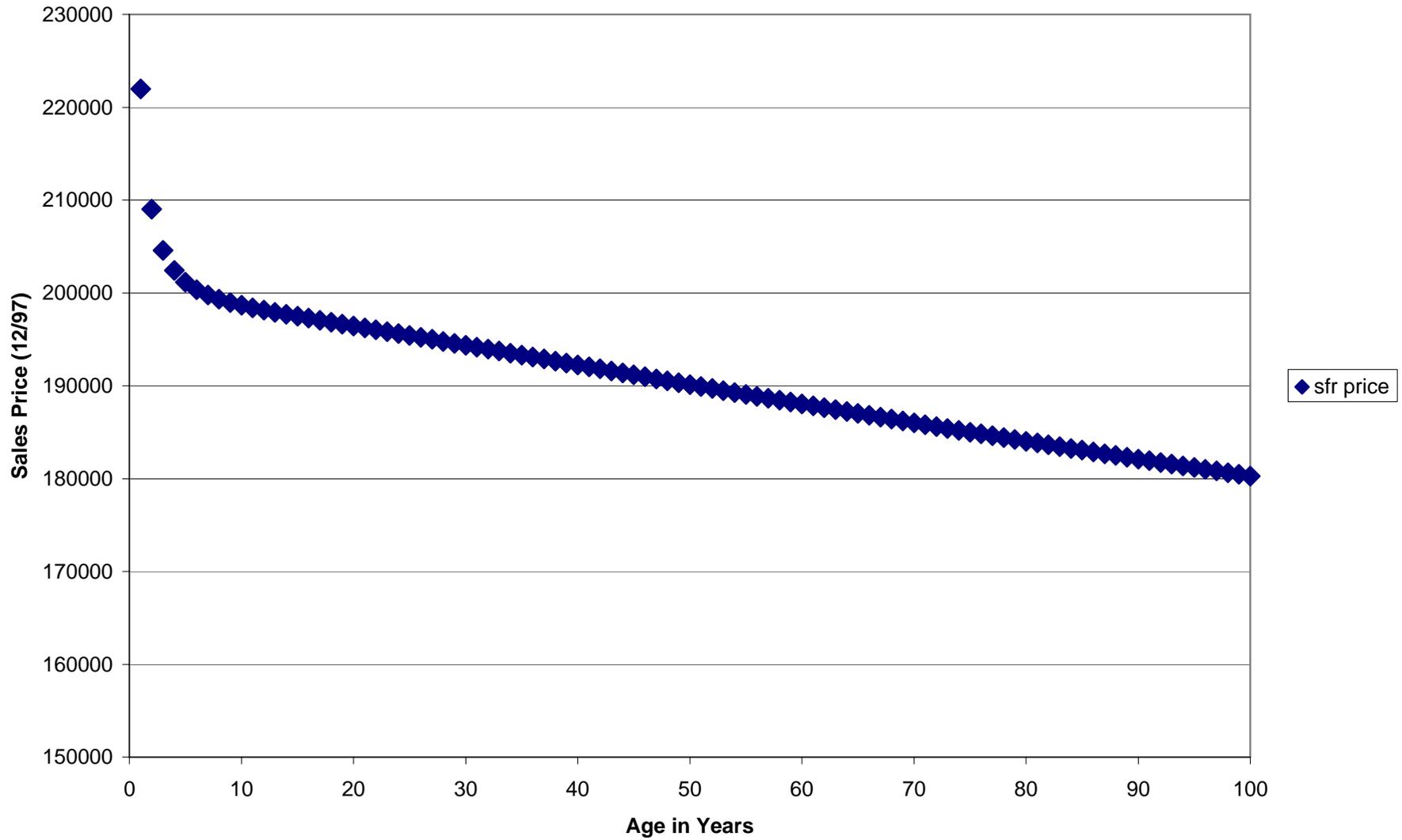


Figure B: Washington County 97 - 98 SFR Sales as Function of Age

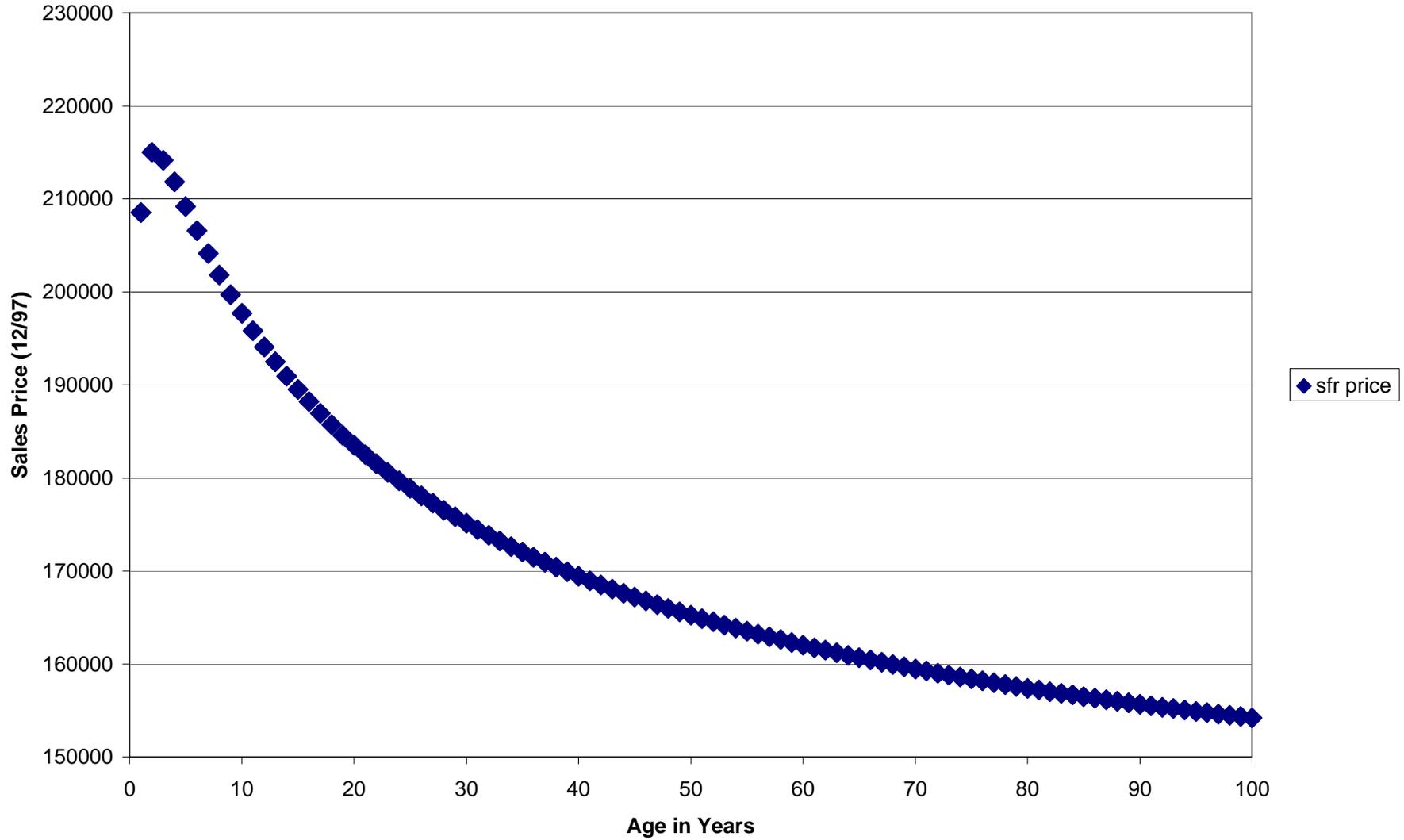


Figure C: Clackamas County 97 - 98 SFR Sales as Function of Age

