

PART II: PROPERTY SALES ANALYSIS

Philadelphia Property Sales

Data for residential property sales in Philadelphia was obtained from Custom Data Solutions, which tracks recorded property sales from the Recorder’s office of Philadelphia. The database contains all property sales from 1995 through the second quarter 2002 and all previous sales dating back to 1980 of properties that sold after 1995. Table 2-1 displays the Number of Property Sales, Average Price of Property Sales and the Appreciation Rate of properties that sold from the one year to the next for Philadelphia. Table 2-2 display the same information for Fishtown and Table 2-3 displays the Average Price Difference between Fishtown and Philadelphia and the Percentage of the average sale price of a home in Fishtown compared to the average price of a home sold in Philadelphia.

Table 2-1

Year	Philadelphia		
	Property Sales	Average Price	Appreciation
1995	14,496	50,688	
1996	15,077	51,887	2.37%
1997	16,559	51,450	-0.84%
1998	17,827	56,636	10.08%
1999	19,533	60,284	6.44%
2000	17,869	63,193	4.83%
2001	10,788	88,311	39.75%
2002	4,731	93,237	5.58%

Table 2-2

Year	Fishtown		
	Property Sales	Average Price	Appreciation
1995	298	27,754	
1996	288	27,583	-0.61%
1997	317	27,116	-1.70%
1998	325	29,651	9.35%
1999	381	31,275	5.48%
2000	327	33,401	6.80%
2001	193	47,976	43.64%
2002	90	52,647	9.74%

Table 2-3

Year	Average Price Difference	Price Percentage
1995	22,934	45.25%
1996	24,304	46.84%
1997	24,334	47.30%
1998	26,985	47.65%
1999	29,009	48.12%
2000	29,793	47.15%
2001	40,335	45.67%
2002	40,590	43.53%

Figure 2-1 displays the Average Property Sale Price per year for the City of Philadelphia and Fishtown. The average sale price reflects only properties that were sold in a given year. The average property sale price of a property in Philadelphia is slightly less than twice as much as the average sale price in Fishtown. The two property markets do tend to move in conjunction as the bars exhibit similar fluctuations in price.

Figure 2-2 computes the appreciation rate of the average sale price on a year to year basis. The City of Philadelphia and Fishtown exhibit nearly exact appreciation rates on a year to year basis. The property appreciation rate rose dramatically in 2001, but have since fallen with the properties that have sold in 2002.

Figure 203 and Figure 2-4 displays the number of property sales in Fishtown and the City of Philadelphia. The two charts once again appear to move in similar directions with an increasing number of sales in each year from 1995 to 1999, except 1996 for Fishtown, and then beginning to decline starting in 2000.

Repeat Sales Indices

The Wharton GIS Lab has developed a repeat property sales indices using qualified residential property sales in Philadelphia between the first quarter of 1980 through the second quarter of 2002. The house price indices are generated by a hedonic regression specification that uses the population of all qualified residential home sales in Philadelphia from 1980 to 2002. Each transaction is initially geocoded to assign it to a unique latitude and longitude. The estimation procedure involves regressing the sales price of each property on a vector of its attributes (square footage, number of stories, exterior type, etc.), a vector of census tract variables to measure the pricing of location amenities, and finally, a vector of dummy variables denoting what year and quarter the property transacted.

From the regression coefficients on this last vector of variables, the average return on Philadelphia homes against the baseline of 1980 Q1 is estimated. Using these coefficients, we set the level of the index in 1980 Q1 to 100 and apply the coefficients to generate the entire index through 2002 Q2. For example, a property worth \$1 in 1980 would be worth \$2 in 1990 if the index was 200 in 1990.

Figure 2-5 displays a comparison of the repeat sales indices between Philadelphia and the United States as a whole. The graph shows that Philadelphia actually had a higher index of appreciation rates that outpaced the US until about 1990, when the Philadelphia market appears to have stagnated for several years while the US continued to steadily appreciate. The Philadelphia market crashed in the 1990's due to the city's fiscal crisis and a general collapse of real estate prices nationwide associated with the economic recession. Philadelphia has seen a dramatic rise in appreciation rates that began in the first quarter of 2001 and lasted throughout that year. Property appreciation rates in Philadelphia have not continued at the same pace as 2001 for the first two quarters of 2002.

The repeat property sales index for Fishtown was computed using all property sales in the 19125 zip code. The zip code completely contains Census tracts 143, 158, 159, 160, 161 along with portions of the area between Front Street and Frankford Avenue. This zip code also includes an

area of Census Tract 163 which lies between Front Street, Kensington Avenue and Lehigh Avenue. (See Figure 2-6 for a map of zip code 19125)

Figure 2-7 compares the repeat sales indices for the Fishtown area and the city of Philadelphia as a whole. As can be seen in the graph, the Fishtown section of the city has a higher appreciation index than the city as a whole, but the Fishtown index tends to move in conjunction with the index of the city.

Lastly, Figure 2-8 displays the index of Fishtown with indices developed for different sections of the city. These sections include: Center City, West Philadelphia, South Philadelphia, Northwest, North Philadelphia, Northeast and University City. As can be seen in Figure 2-4, Fishtown continues to have a higher repeat sales index than all the other sections of the city on the graph. The general pattern of the indices remains the same with high appreciation rates throughout the 1980's followed by appreciation rates declining around 1990 and slowly increasing throughout the 1990's and then beginning to rise dramatically starting in 2001. The submarkets exhibit more volatility in the index as a whole because of the selection bias inherent in only using the properties that sold within a given quarter. The index also suffers from additional bias built in because of the seasonality of property sale (people don't like to move in the winter), and tends to have a down-tick in the index during the fourth quarter each year.

Figure 2-6: 19125 Zip Code Boundary and Fishtown

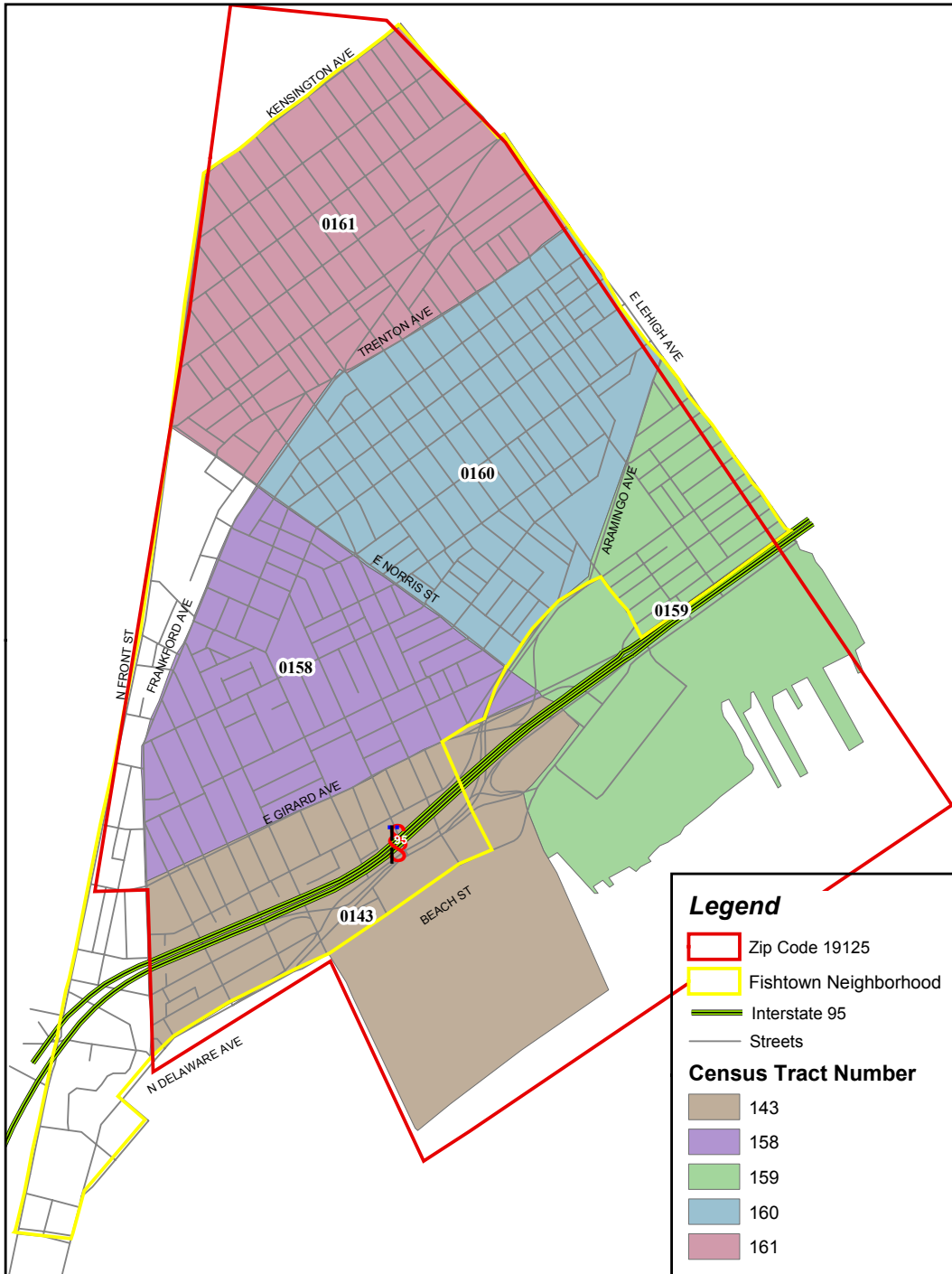


Figure 2-1: Average Property Transaction Price in Philadelphia and Kensington

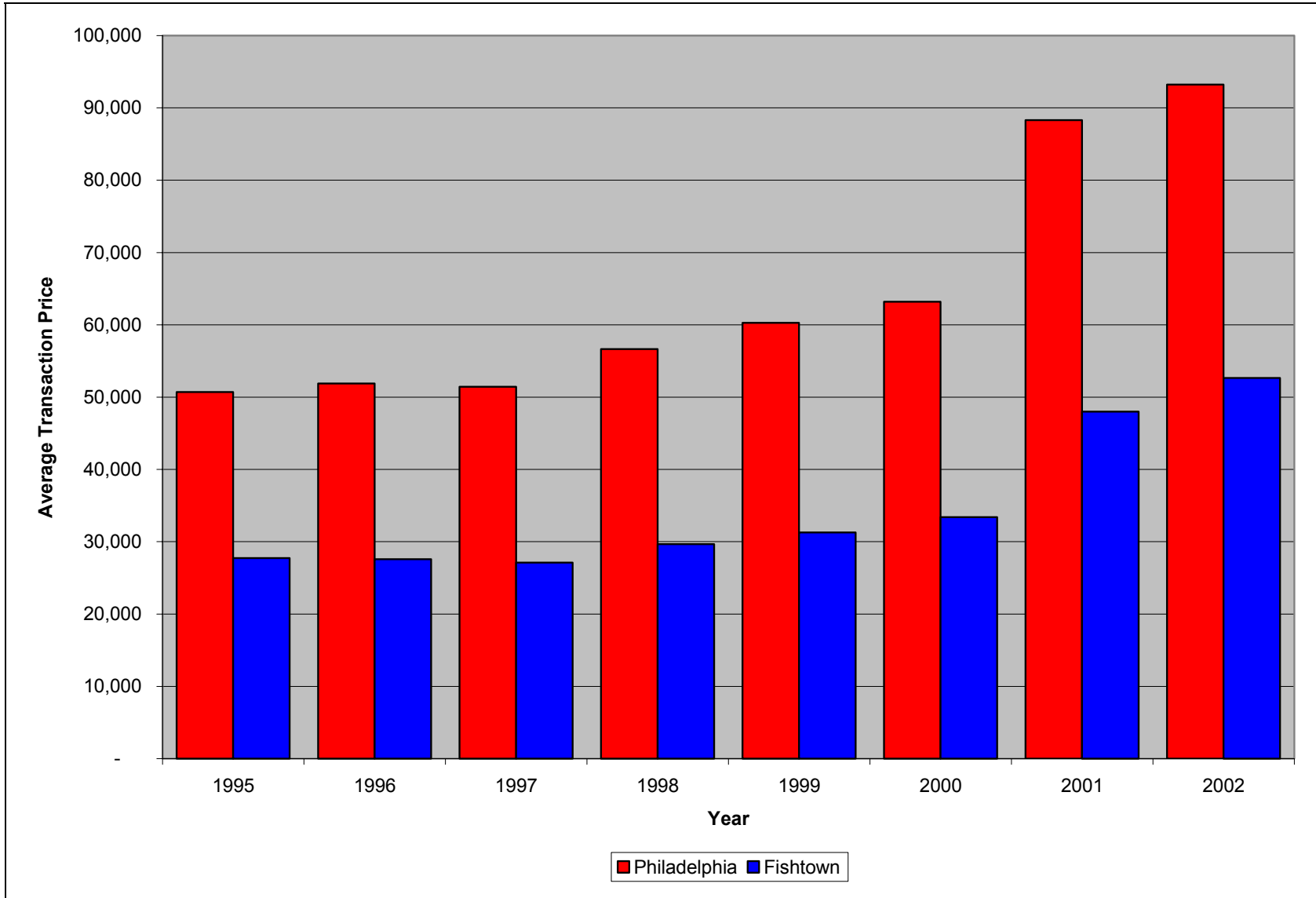


Figure 2-2: Average Annual Appreciation Rate in Philadelphia and Fishtown

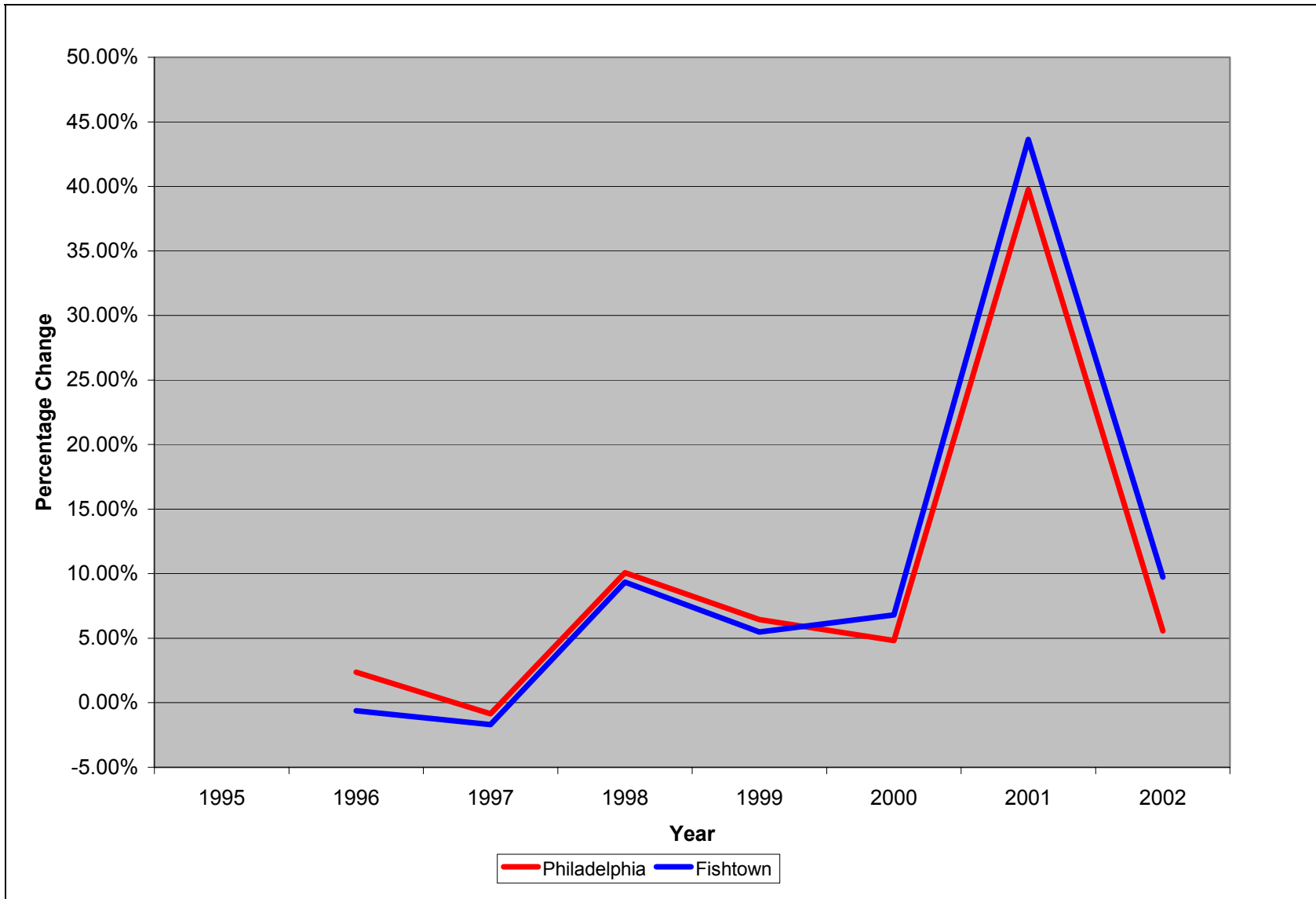


Figure 2-3: Number of Property Sales in Philadelphia

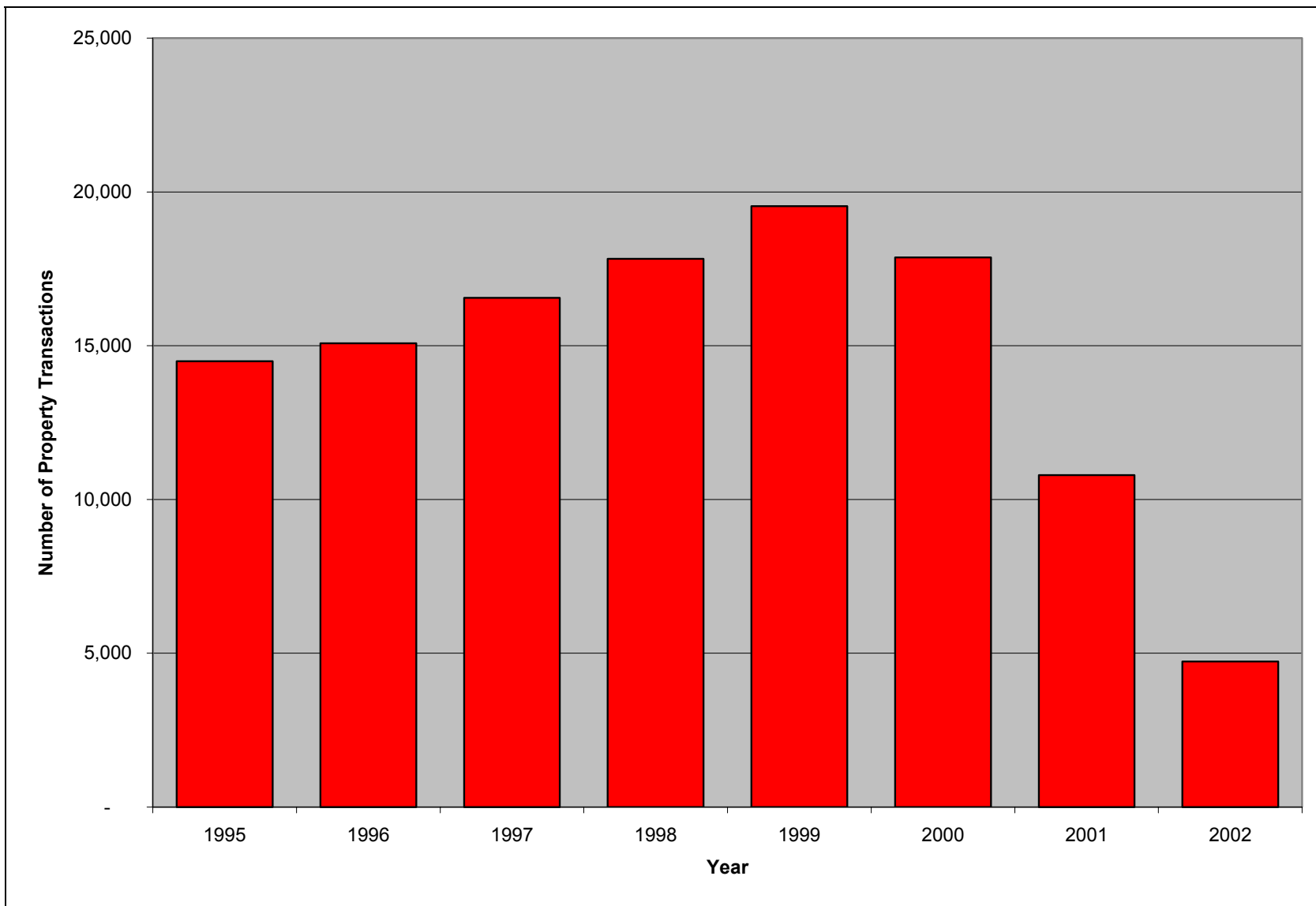


Figure 2-4: Number of Property Sales in Fishtown

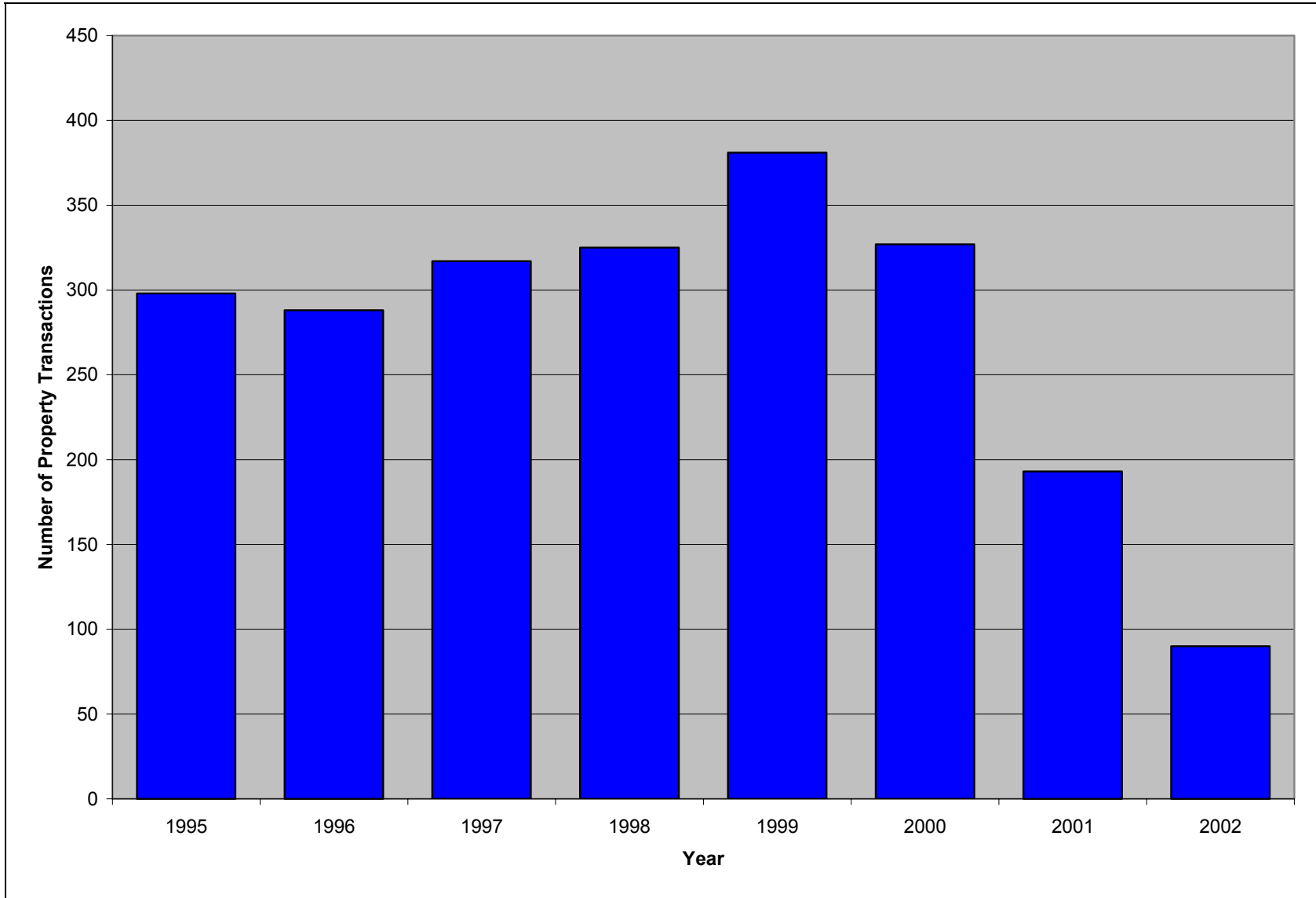


Figure 2-5: Repeat Sales Indices for Philadelphia

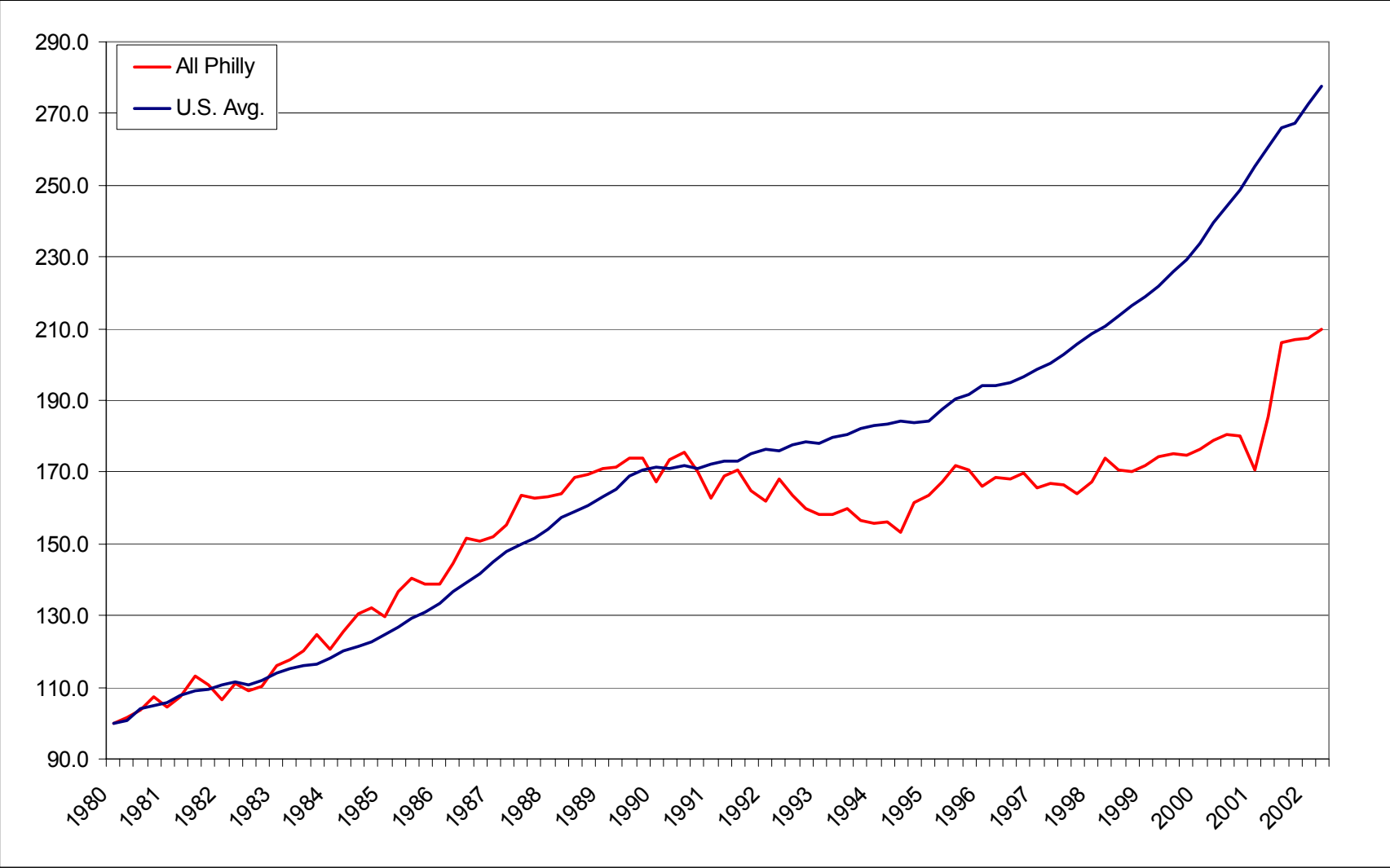


Figure 2-7: Repeat Sales Indices for Fishtown and Philadelphia, 1980-2002

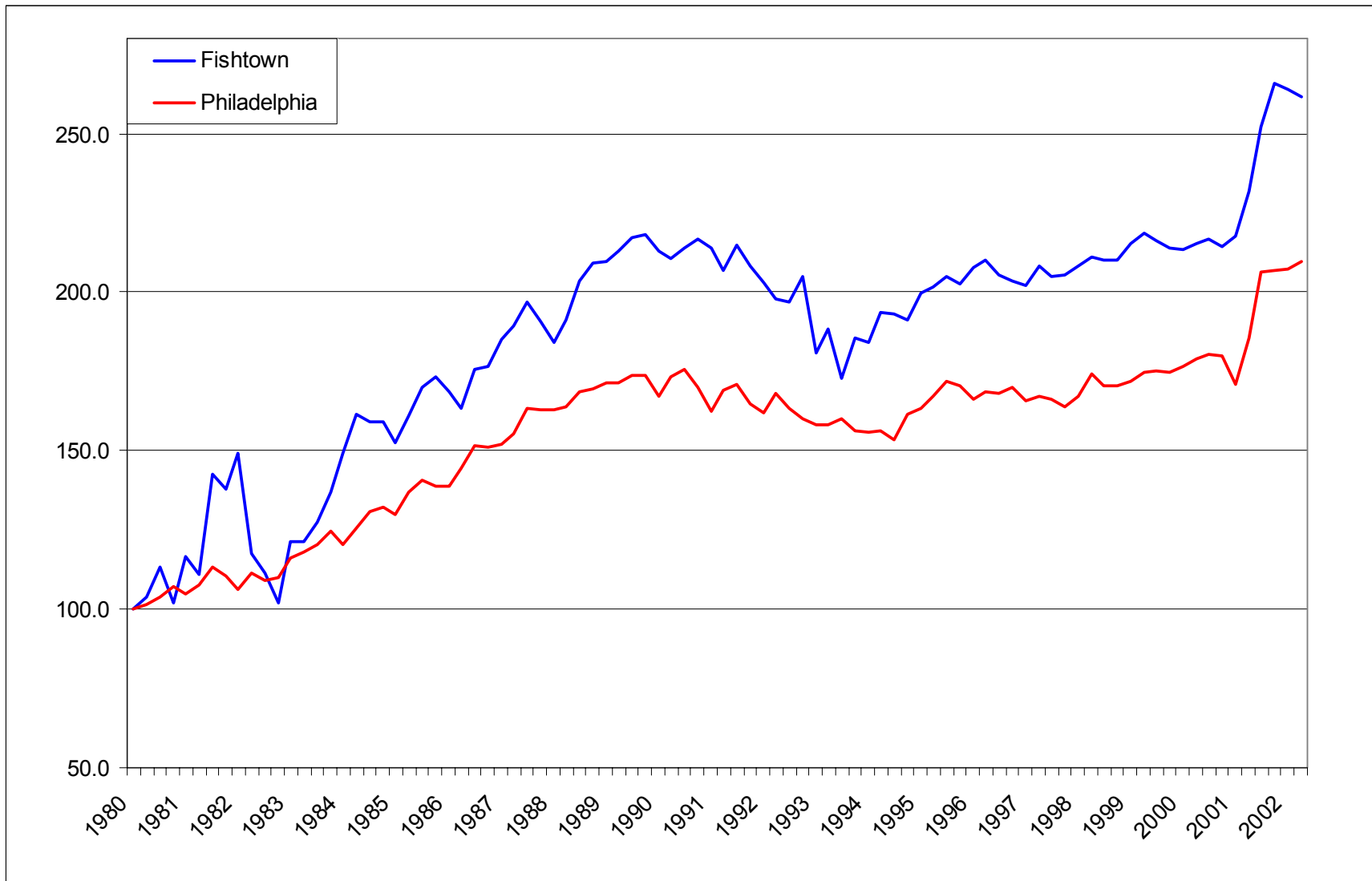


Figure 2-8: Repeat Sales Indices for Fishtown and Several Philadelphia Submarkets, 1980-2002

