REPORT
ON
THE IMPACT OF THE CERRO GRANDE FIRE ON HOUSING VALUES IN LOS ALAMOS, NEW MEXICO

AUGUST 2002

PREPARED FOR:

THE FEDERAL EMERGENCY MANAGEMENT AGENCY

Submitted by:

Applied Real Estate Analysis, Inc.
Chicago, Illinois

TABLE OF CONTENTS

		Page
CHAPTER I.	INTRODUCTION	1
	Nature of the Assignment	1
	Approach	1
	Conclusions	1
CHAPTER II.	CHARACTERISTICS OF LOS ALAMOS COUNTY	3
	Introduction	3
	Demographics	3
	Workforce	5
	Economic Base	6
	Potentially Comparable Communities	8
	Resident Surveys	10
CHAPTER III.	ANALYSIS OF HOUSING VALUES	13
	Determinants of Housing Value	13
	Analysis of Residential Property Sales Data	14
	Conclusions	28

CHAPTER I
INTRODUCTION

NATURE OF THE ASSIGNMENT

The Federal Emergency Management Agency (FEMA) retained Applied Real Estate Analysis (AREA), Inc. to determine whether there has been a permanent diminution in the value of residential property in Los Alamos, New Mexico as a result of the Cerro Grande fire that occurred in May 2000.

APPROACH

AREA reviewed and analyzed data on residential sales from the multiple listing service and demographic data from the U.S. Census Bureau and the New Mexico Department of Labor and Industry. Interviews were conducted with bankers, appraisers, and brokers familiar with the Los Alamos market, and with representatives of Los Alamos National Laboratory and Los Alamos County government agencies. AREA also conducted two focus groups composed of property owners and solicited additional information on residents' attitudes about their community through a telephone survey of 55 residents, randomly selected from the phone book.

The Cerro Grande fire was a traumatic event that caused a severe disruption in the community and the lives of its residents. Los Alamos, as it exists today, is in many ways a different community from the one that existed before the fire. In some cases, homes that were burned are being replaced with new houses that are more individualistic, and often larger, than neighboring homes. In other instances a single house may be replacing a structure that contained two or four units. In portions of the North Community, utility wires are being placed below ground and a new, more effective drainage system is being developed. Mountainsides above the town are no longer covered with majestic green trees, and throughout the community there is heightened awareness of the potential for future fires and renewed efforts to take preventive measures that will mitigate potential property damage.

The question AREA was asked to answer is: "Did these changes result in a permanent diminution of residential property values in Los Alamos?" The best way to assess this issue is to look at attitudes toward the "new" Los Alamos as reflected in the sales prices that persons now purchasing homes are willing to pay.

CONCLUSIONS

AREA's findings underscore the unique character of Los Alamos and its housing market—unusually desirable in many respects, yet constrained by physical barriers. There is no doubt that the fire caused a dramatic upheaval in the community and the lives of its residents and a disruption of its normal housing market. Actions taken by

government officials as a result of the fire have improved conditions in portions of the community and potentially enhanced the housing market. Some residents believe that changes to the landscape caused by the fire, as well as changes in the community that have occurred since the fire, have diminished the desirability of Los Alamos as a place to live. Also, it is apparent that since the fire some houses have sold for less than they might have prior to the fire. The fire's inevitable disruption of the market probably contributed to some of these individual instances of value diminution.

AREA's analysis investigates changes in the community and fire-related impacts on real estate over the past two years. What the research shows is that home prices escalated immediately after the fire and that the overall trend in prices has been upward since then. This leads to the conclusion that the unique characteristics of the community have not been altered enough by the fire to have a lasting effect on housing values. There is no indication that the Cerro Grande fire caused a permanent diminution of housing values in Los Alamos.

CHAPTER II
CHARACTERISTICS OF LOS ALAMOS COUNTY

INTRODUCTION

AREA's first step in analyzing the housing market of a community is to develop a demographic profile of the area. We then look at recent trends in that profile and analyze them to identify factors that could potentially affect the demand for housing.

DEMOGRAPHICS

Los Alamos County is one of two counties in the Santa Fe metropolitan statistical area (MSA). The 2000 decennial census counted 147,635 residents in the MSA, of which only 18,343 (12.4%) resided in Los Alamos County. Los Alamos is by far the smallest county in New Mexico in terms of land area, although other counties are less populous.

Population. In 1990, the Santa Fe MSA had only 117,043 residents, indicating a 26.1% growth rate over the decade of the 1990s. In contrast, the U.S. population's growth rate during the '90s was 13.1%.

As shown in Table 1, virtually all of the population growth in the Santa Fe MSA occurred in Santa Fe County. Los Alamos County accounted for only 1.3% of the MSA's increase in population.

Table 1
Population Growth in the Santa Fe MSA, 1990-2000

	1990	2000	% Change
Population			
Santa Fe MSA	117,043	147,635	26.1%
Santa Fe County	98,928	129,292	30.7%
Los Alamos County	18,115	18,343	1.3%
Households			
Santa Fe MSA	45,053	59,979	33.1%
Santa Fe County	37,840	52,482	38.7%
Los Alamos County	7,213	7,497	3.9%

Source: U.S. Census

Households. The number of households in the Santa Fe Metro Area increased by one-third during the 1990s, but as with the increase in population, the gain took place almost entirely within Santa Fe County. Los Alamos County accounted for only 284 of the 14,926 new households added to the MSA during the decade.

Income. The population of Los Alamos County is very affluent. In 1999, Santa Fe County had a median household income of $42,207 and the median for the United

States was $41,994. However, the median income of households in Los Alamos County in 1999 was $78,993—88% higher than the national median. In Los Alamos County, only 27.4% of the households reported having incomes of less than $50,000, while in Santa Fe County more than half (57.5%) of the households had incomes below that amount. More than one-third (34.1%) of Los Alamos' households reported incomes of $100,000 or more in 1999.

Age. In 2000, 12.1% of the population in Los Alamos County was age 65 or older. While slightly lower than the national average (12.4%), this percentage was significantly higher than the county's decade-earlier figure of 9.2%. Over the '90s the number of individuals aged 65 and older had increased by 33.1%, or 552 persons. In contrast, the number of children 19 or younger increased by only 27, and their percentage of the total population decreased from 27.9% to 27.6%. The number of households headed by a person 65 or over increased by 358 during the 1990s.

Housing Tenure. In Los Alamos County, 78.6% of households owned the unit in which they lived in 2000—up from 74.4% in 1990. The percentage of households owning their own home also increased nationally during the 1990s, but a third (33.8%) of the nation's households remained renters.

Table 2
Housing Tenure and Housing Stock
Los Alamos County, 1990-2000

	1990	2000	Change	%
Total units	7,565	7,937	372	4.9%
Occupied units	7,213	7,497	284	3.9%
Percentage	95.3%	94.5%		
Owner-occupied	5,367	5,894	527	9.8%
Percentage	74.4%	78.6%		
Renter-occupied	1,846	1,603	-243	-13.2%
Percentage	25.6%	21.4%		

Source: U.S. Census

The number of homeowners increased by 527 during the 1990s, while the number of households renting units decreased by 243. When the census count was made in the early part of 2000, Los Alamos had 7,937 housing units—an increase of 372 units over the 1990 total. During the same period, the number of occupied housing units increased by 284.

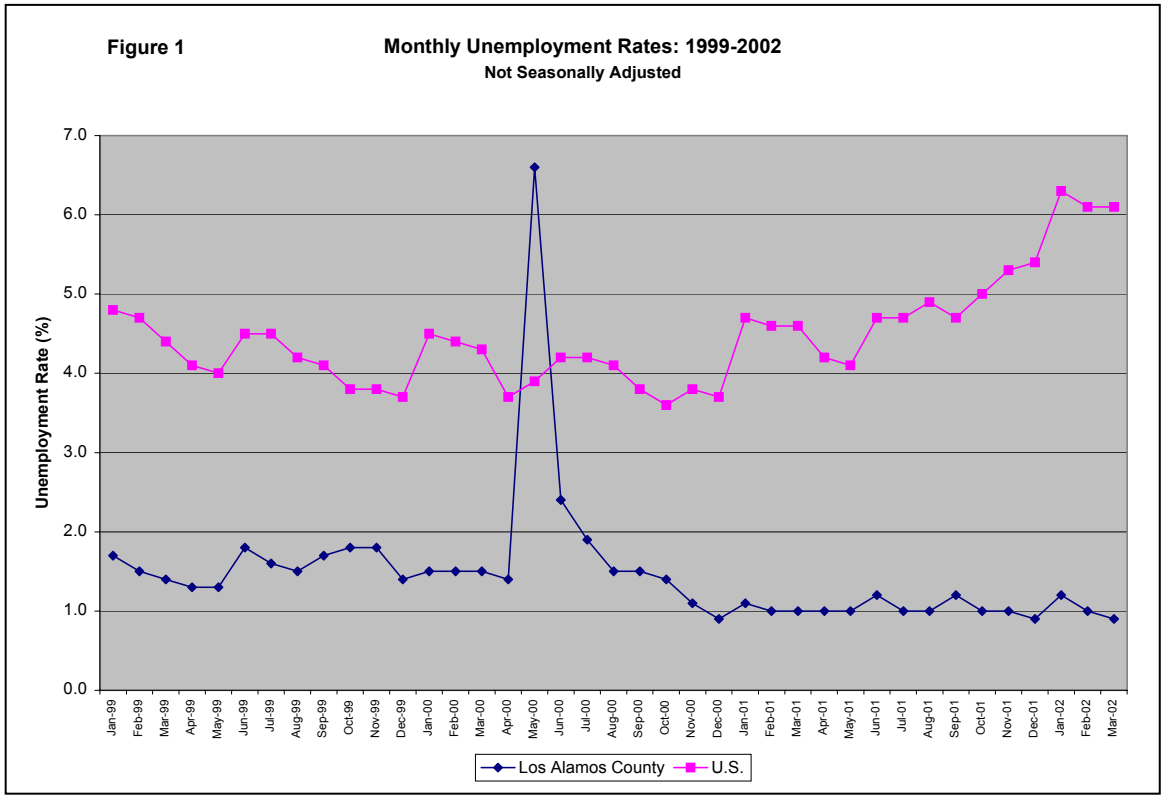
Even though Los Alamos is part of the Santa Fe region, it accounted for fewer than 400 of the more than 15,000 new residential units constructed in the two counties during the 1990s. The small number of new houses built in Los Alamos during the '90s, relative to production in the Santa Fe MSA, is a result of the community's unique geographic characteristics. Built on the tops of mesas and surrounded by lands that are either

unbuildable or controlled by the federal government, Los Alamos has an extremely limited supply of land available for the construction of new housing units. Thus, until growth pressures increase to the point that community sentiment changes to allow more vertical development, there will be significant constraints on expanding the community's housing stock.

WORKFORCE

Los Alamos County has an above-average labor force participation rate and a highly educated workforce. In 2000, more than 69% of residents age 16 and older were employed or looking for work. Over 60% of Los Alamos County adults age 25 and older held college degrees, compared to a national average of about 25%. More than two-thirds of working residents held management or professional jobs, compared with 33.6% in the U.S. as a whole.

Unemployment. Los Alamos County is a labor import area. Even though the Los Alamos resident workforce numbers only about 10,400, there are over 17,000 persons employed in the community. Therefore, the Los Alamos County unemployment rate is very low. It consistently falls far below the national average, and compares very favorably with rates for both the state of New Mexico and Santa Fe County. Los Alamos County's resident unemployment rate averaged a very low 1.7% during the 1990s. This contrasted with 5.8% nationally, 6.7% in New Mexico, and 3.9% in Santa Fe County. During the 1990s, the annual average unemployment rate in Los Alamos County exceeded 2% only in 1996. Trends in Los Alamos County unemployment are shown in Figure 1.



Los Alamos's strong employment picture persisted through the national economic downturn that began in the second half of 2000—despite the fire. Table 3 includes monthly unemployment rates that demonstrate how dramatically the fire disrupted the local economy and how quickly it recovered. In May 2000, the county's unemployment rate registered a sudden and sharp upward spike—to 6.6%—which reflected the immediate impact of the Cerro Grande fire. Fighting the blaze required closing buildings at the Lab and in the community at large, resulting in higher unemployment claims.

The June and July 2000 unemployment rates (2.4% and 1.9% respectively) were also higher than would have been expected had the fire not occurred. But in August the rate dropped to 1.5% and it continued to decline, reaching a low of just 0.9% in December.[1] The annual unemployment rate in the county averaged 2% in 2000 and just 1% in 2001, despite a national economic downturn that saw joblessness rise from 4% in 2000 to 4.8% in 2001.

In 1999, total employment in Los Alamos was up by almost 1,500 over the 1996 level and 300 of those new jobs were not held by employees of Los Alamos National Laboratory (LANL). Some of them were in local government and some were with private firms working on LANL contracts. But this employment surge had already tapered off in mid-1998 and the increases were small through most of 1999. Today, with LANL once more in a hiring mode, the number of persons employed in the community is again on the rise.

ECONOMIC BASE

Although the Santa Fe region is widely known as a tourist destination, the economy of Los Alamos County is focused on the Los Alamos National Laboratory. One of several research labs across the country that are funded by the U. S. Department of Energy, LANL is operated under contract with the University of California. In 2001, the lab's total workforce averaged 13,632, over 9,000 of which were lab employees; the remainder were consultants, contractors, and employees of affiliates, as well as guest researchers.

LANL occupies a 43-square-mile site with over 2,200 buildings. Salaries and benefits paid by LANL totaled nearly $822 million in 2001; the total economic impact on the state of New Mexico was calculated at $4.9 billion. Only about half the LANL workforce resides in Los Alamos County; in total, the county has more jobs than working-age residents.

Table 3 presents information on growth in total non-farm jobs and in state government jobs located in Los Alamos County from 1990 through 2000. More than half of the county's employees work for state government agencies—most of them are LANL workers paid by the University of California. (Even though the State of New Mexico does not employ these workers, they are technically classified by the New Mexico Department of Labor as "state government" employees because their employer is an

[1] Monthly unemployment rates for counties are not seasonally adjusted. Unemployment tends to be low in December because of holiday seasonal hiring.

arm of the State Government of California.) In today's diverse metropolitan economies, it is unusual for a suburban county in a metropolitan area to be so dominated by a single employer. In contrast, less than one in five workers in Santa Fe County (and only 8% in New Mexico) is a state employee. Tourism, trade, and services dominate the Santa Fe County economic base, with a high percentage of workers employed in public accommodations, food services, arts, entertainment, recreation, and retail trade. Los Alamos County residents do most of their shopping in Santa Fe County, and many people are said to travel to Albuquerque for specialty purchases.

Table 3
Non-Farm and State Government Employment Trends
Los Alamos county, 1990-2000

Year	Total Non-Farm Employment	State Government Employment	State Government as % of Total
1990	16,930	9,582	56.6
1991	16,975	9,516	56.1
1992	17,485	9,611	55.0
1993	17,526	9,562	54.4
1994	17,283	9,179	53.1
1995	17,126	9,042	52.8
1996	16,161	8,209	50.8
1997	16,806	8,481	50.5
1998	17,456	8,992	51.5
1999	17,660	9,341	52.9
2000	17,769	9,230	51.9

Source: New Mexico Department of Labor, Economic Research and Analysis

Total employment in Los Alamos averaged about 17,200 jobs each year between 1990 and 2000. However, in a market this small, a swing of a few hundred jobs up or down can be reflected in the housing market, especially if those jobs are at the National Laboratory. When the total employment dropped from a high of more than 17,500 in 1993 to about 16,100 in 1996, State Government employment dropped from over 9,500 to 8,200. Thus, the decline in total employment was almost completely due to "reductions in force" at LANL. The re-employment of some of those laid off began in 1997 and continued through 1998. However, some of those employees who left LANL during the early '90s were actually retirees who stayed in Los Alamos. When the hiring began again, some of these individuals were replaced by new hires, thus creating additional demand for housing. In addition, non-Lab employment grew during this period. By 1998, total employment was back up to almost 17,500.

Comparing monthly non-farm employment data for the U.S. and Los Alamos County shows that the fire had little effect on local job growth. Between January 1999 and April 2000, the number of jobs in Los Alamos County grew by an average of 0.1% per month, compared with 0.3% nationally. From May 2000 through September 2001 (the last month for which monthly employment details are available), Los Alamos County registered no change in the number of non-farm jobs. The same was true for the U.S. as whole.

POTENTIALLY COMPARABLE COMMUNITIES

Because of the unique aspects of the Los Alamos County economy, the consultants attempted to identify other communities with similar conditions, to which Los Alamos could be compared. A number of communities were considered potentially comparable to Los Alamos County. These included the locations of selected other National Laboratories (Oak Ridge outside Knoxville, TN; Lawrence Livermore at the eastern edge of metropolitan Oakland, CA; Pacific Northwest in Richland-Kennewick-Pasco, WA).[2] LANL employs more people than any of the other laboratories, and captures a much larger share of total jobs in the respective counties.

- As is the case with LANL, Lawrence Livermore is run by the University of California and its employees are state workers. Also in Livermore is a branch of the Sandia National Laboratory (with primary facilities in Albuquerque), which provides another 850 jobs on over 400 acres. Sandia is managed by an affiliate of the Lockheed Martin Corporation and its workers are private sector employees, many in professional scientific occupations.

- Pacific Northwest National Laboratory (PNNL) employs approximately 3,600 persons in Richland (Benton County), WA. It is run by Battelle, a private contractor. Also located near Richland is the Hanford nuclear waste disposal operation.

- Oak Ridge National Laboratory is located in Anderson County to the west of Knoxville, Tennessee. It has a staff of 3,800 and is also managed by Battelle.

We also examined other small metropolitan areas with major state government institutions. The latter group included State College, PA (home of Penn State University) and Ft. Collins, CO (Colorado State University and high-tech private sector jobs).

Selected demographic, housing, and economic characteristics of the metropolitan areas, counties, and municipalities are summarized in Appendix Table A. As the following points indicate, none of these areas “match” Los Alamos County very closely.

- In terms of size, Los Alamos County is far smaller than any of the other counties. It is also more geographically isolated.

[2] Other national laboratories (Argonne and Fermilab outside Chicago, Brookhaven on Long Island, and Berkeley outside San Francisco) are located at the fringe of large metropolitan areas; their economies are not comparable to those of the Santa Fe MSA or Los Alamos County.

- LANL dominates the Los Alamos County economic base to an extent that does not occur in Alameda, Anderson, or Benton counties.

- Residents of Los Alamos County are much better educated than those in any of the other counties. In part, this is due to the fact that the other counties are much larger and have more diverse economies. When looking at municipalities, only State College, PA shows a higher percentage of adults with college degrees, although Ft. Collins comes close. Despite the presence of the Oak Ridge National Laboratory, only 20.8% of adults in Anderson County, TN are college-educated. This is below the national average.

- While the original mission of the Hanford facility near Richland, WA was plutonium production and nuclear weapons research, its current focus is on the cleanup of decades of nuclear waste byproducts. Although Benton County, WA is home to many nuclear and chemical engineers working at PNNL, its overall workforce composition is far more "blue collar" than that of Los Alamos.

- Median household income in Los Alamos is much higher than in the other counties. Again, this is due to the distinct nature of Los Alamos' economy. While the other places may have a large number of high-skill jobs requiring advanced education, they also have many more low-wage retail, clerical, and service jobs than are found in Los Alamos.

- Los Alamos County has a much higher percentage of homeownership, again reflecting its relative affluence. While Oak Ridge/Anderson County, TN comes closest (72.5% owner-occupied housing versus 78.6% in Los Alamos County), Anderson's low median home value of $87,500 does not equate with Los Alamos' $228,300.

- State College (Centre County, PA) is very different from Los Alamos in terms of its mix of households and housing stock. It has a high percentage of non-family households (primarily students living in apartments or rented homes) and a large group-quarters population (primarily students in dormitories). Within the municipality of State College, only 22.8% of housing units are owner-occupied.

- Finally, none of the other communities share Los Alamos' constraints on the production of new housing. In their market areas, supply can expand to meet new demand and potential purchasers have an opportunity to negotiate lower prices with the sellers rather than being forced to bid against other purchasers.

Despite the dissimilarities described above, we also examined unemployment patterns in these communities during the months before and after the Cerro Grande fire and compared them with the data previously presented in Table 2. With the exception of Benton County, Washington, these counties registered unemployment rates below the national average prior to May 2000, and maintained that pattern through 2001 and

2002.[3] However, their unemployment rates were still between 2.5% and 4.0% during the period and were influenced more directly by trends in the national economy.

Conclusions. AREA was unable to identify another community with characteristics similar to those of Los Alamos. Home prices and housing demand in Los Alamos County are affected by a number of unique demographic and economic factors.

- Although the Santa Fe metropolitan area experienced strong growth in the 1990s, the increase in population and households was not felt in Los Alamos County.
- Few new housing units were built during the decade preceding the fire.
- Los Alamos County has a stable population, few rental units, and relatively low turnover of housing units.
- Demand for single-family homes is strengthened by the county's relative affluence and its highly educated, family-oriented households.
- Unemployment in Los Alamos County is extremely low, and it is resistant to downturns in the national economy.

The effects that these unique features are likely to have on the local housing market are discussed in the following chapter.

RESIDENT SURVEYS

In every area, there are aspects of the local real estate market—buyer motivation, for example—that are not reflected in the numbers. To obtain a better understanding of these nuances, we conducted two focus group discussions with homeowners and interviewed 55 residents by phone. All but four of the persons surveyed by phone were homeowners. We asked both groups essentially the same questions: What are the unique characteristics of Los Alamos? What are the community's most positive aspects? What are its negative aspects? What do you consider when buying a home? Why did you move to Los Alamos?

Focus Groups. When asked about unique characteristics, participants in both focus groups cited the dominance of the National Laboratory and the physical isolation of the town. They also mentioned the high number of PhDs relative to the total population.

In one group, discussion focused heavily on the fact that Los Alamos was a great place to live because of the schools and the low crime rate. Participants mentioned how much they disliked having to travel elsewhere to shop and find entertainment, but they emphasized that the close-knit character of the community and the quality of the schools were worth the inconvenience.

[3] While monthly data were not available for Benton County, WA, its unemployment rate averaged 6.7% during the 1990s and was 6.4% in 2000.

The second focus group cited the same positive features as the first; however, these residents also believed that the quality of life in Los Alamos had been negatively impacted by the fire. They emphasized not only the visual impact of the fire but also a heightened awareness that it could happen again. Although they did not specifically make the comparison, it seemed that they felt less secure after the fire in somewhat the same way that many Americans have felt less secure since the attack on the World Trade Center.

Telephone Survey. In response to the question on uniqueness, residents interviewed by telephone named the same characteristics as the focus group participants but also emphasized the physical setting of the community. The words "beautiful," "mountain setting," or "the views" occurred in 18 responses.

When asked to cite positive features of the community, 30 of the telephone survey respondents said "low crime" and 22 said "good schools." Again, the physical setting was deemed important, with 11 persons mentioning the area's beauty or the views, eight noting the opportunity for outdoor activities, and seven commenting on the good climate.

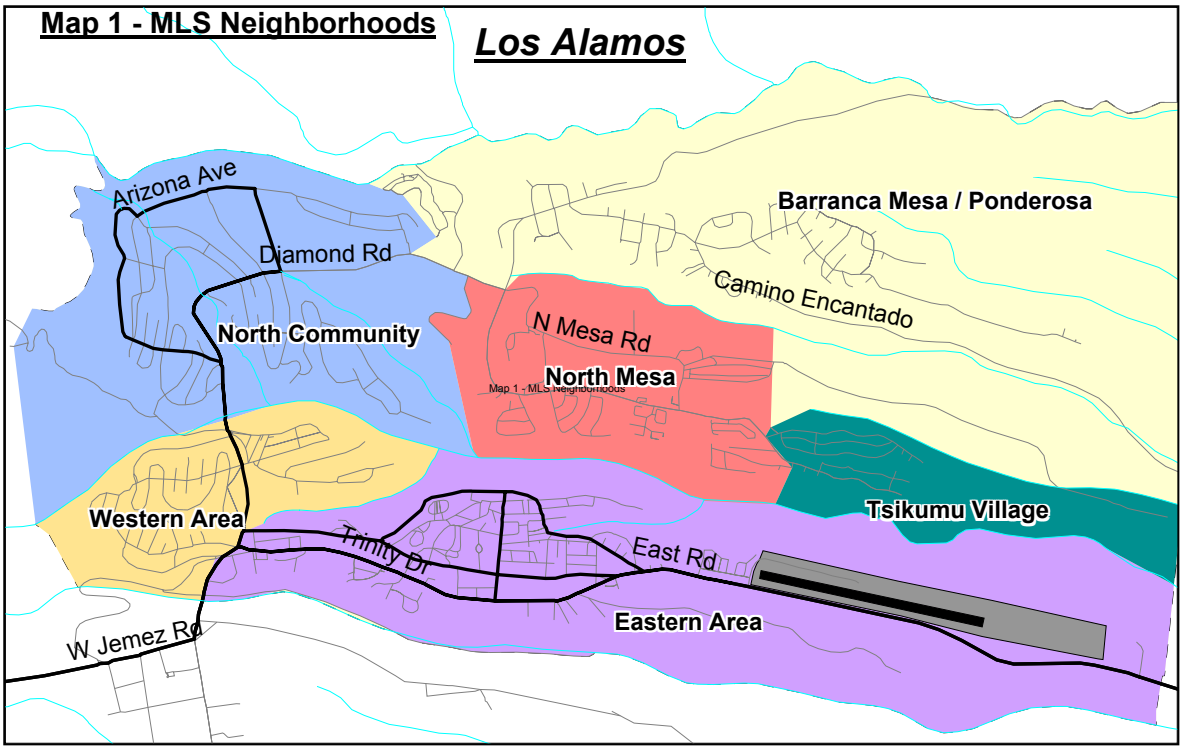
The lack of shopping was the most frequently mentioned negative (29), but 10 persons also lamented the lack of entertainment and seven stressed that there is little to entertain young people. Two persons mentioned the loss of views.

Price was cited most frequently (20 respondents) as the main consideration when buying a home, followed by location (10). Five persons said that size of the home was an important consideration, and two mentioned the views. Six persons said they considered the schools. In most markets, schools would influence decision-making for a greater number of buyers, but in Los Alamos the overall school system is excellent and the differences among individual schools are apparently not significant.

Illustrating the dominance of LANL, 46 respondents said they had come to town to take a job at the Lab. Three moved to be close to family, two had been raised in Los Alamos and decided to return, and two were attracted by the schools. One person moved to town to retire and another to start a non-Lab related business.

Responses to the telephone survey reinforced the tenor of the focus group discussions, enabling researchers to draw several general conclusions. Most Los Alamos residents came to town to take a job at LANL. In general, those who select Los Alamos as opposed to some other community in the area do so primarily because of the low crime rate and the quality of the schools. However, the responses also indicate that once people move to Los Alamos, they become enchanted by the mountain setting. The positive aspects of the community outweigh the inconvenience of having to travel for shopping and entertainment. Finally, for prospective Los Alamos residents as for homebuyers everywhere, price is an important criterion in narrowing the search for a house or condo, but location within the community can be a determining factor when more than one unit has been identified.

Finally, an understanding of the local housing market requires a knowledge of how the community is viewed as a collection of neighborhoods. The following map provides approximate boundaries of the neighborhood designations used by the Multiple Listing Service. These boundaries typically follow natural features within the community. The major burn areas were along the perimeter streets, especially Arizona, in the North Community and, to a lesser extent, on some of the perimeter streets in the Western Area.



Chapter III
ANALYSIS OF HOUSING VALUES

DETERMINANTS OF HOUSING VALUE

General Factors. Most of the general factors affecting housing prices (and values) are features obvious to every homeowner: the size of the residence, its age and condition, the quality of construction and attractiveness of finishing materials, the suitability of the floor plan for typical occupants (this includes the number bedrooms and bathrooms), the efficiency of the layout and traffic flow from room to room, and the quality and character of landscaping.

But the oft-quoted slogan that value is determined by "location, location, location" is also germane to residential real estate. In a general sense, location represents a variety of factors that are "beyond the lot line," in contrast to elements such as the size and age of the residence, which are clearly within the lot line.

Most factors contributing to the quality and appeal of any particular location are also fairly obvious. They include the quality of local schools, the character and attractiveness of other residences in that neighborhood, and convenience to shopping and employment centers. Social aspects of location include the general reputation of a neighborhood, and the level of concern regarding crime and personal safety. The physical setting of an area can also contribute to a property's value. For example, many people looking for homes in communities adjacent to oceans or lakes are willing to pay more for waterfront properties.

The impact of supply and demand is also widely recognized as an element of a property's value. For residential property, demand is largely a consequence of employment and household income levels. But in many metropolitan areas, it can also reflect population shifts within the area—for example, a movement of residents to outlying, developing suburbs in search of larger and newer residences. In such cases, employment and income levels within the broader community may be largely unchanged, but some residents are willing to trade shorter commuting trips for a larger house.

Demand for housing is also affected by shifts in mortgage interest rates. This element does not affect the number of homes demanded as much as the prices obtainable for those homes. A significant drop in mortgage interest rates allows home buyers to pay a higher price for a home without having a higher household income. Because the home mortgage market operates nationally, changes in mortgage interest rates affect homes across the entire country.

The supply side of the equation, or at least changes in supply, is mainly the result of new construction, and especially the rate of new construction relative to new household

formation. Fast-growing sunbelt cities with no significant physical barriers to new construction, such as Phoenix and Orlando, go through periodic cycles of an oversupply of new housing.

For the sake of comprehensiveness, we should note that some communities experience a reduction in the supply of existing housing due to vandalism, neglect, and a lack of continuing investment in the existing housing stock. Most large American cities, and especially the older cities, have had experience with this phenomenon.

In any particular transaction, the specific motivations of buyer and seller affect the terms of any agreement for sale. However, because of the number of transactions within a community or market area, it is possible to identify the overall pattern for that market. Occasionally sales occur that are inconsistent with this overall pattern. But most homeowners, both buyers and sellers, are highly attentive to price levels and trends within the market, and their decisions are well informed and consistent with rational self-interest. Indeed, it is the collective impact of this informed decision-making that produces the overall pattern for that particular market.

Los Alamos Factors. Los Alamos can be analyzed and understood as a single, highly coherent residential real estate market, composed of several distinct neighborhoods. By way of introduction to AREA's analysis of this market, it is useful to review how the general factors outlined above operate in Los Alamos.

Physical factors such as size, age, number of bedrooms, and garages or other provision for auto parking clearly affect home prices and values in Los Alamos just as they do in real estate markets across the nation. Similarly, more subjective (but important) elements such as quality of construction and attractiveness affect values here as elsewhere.

More to the point of this analysis are the factors that distinguish Los Alamos from to most residential markets. These elements are discussed in more detail in other sections of this report. At this point it is sufficient to summarize them.

Among the most important elements affecting home values in Los Alamos is the community's physical isolation and the extremely limited amount of land available for expansion of its housing stock. The consequence is an unusually harsh constraint on the provision of additional housing. At the same time, both employment and income levels create very strong demand for housing in Los Alamos. Over 7,000 workers commute into the community—often from a considerable distance—because they cannot be accommodated within the Los Alamos housing market. Commuting workers represent approximately 40% of the labor force within the community.

Because household incomes are high in Los Alamos, and the supply of housing relative to employment is very low, prices for homes are high relative to most other communities—but not necessarily high relative to the incomes of the residents. Furthermore, the base of workers employed in Los Alamos but living elsewhere creates

long-term support for high home prices. In other words, there is a substantial pent-up demand on the part of thousands of households currently residing outside of Los Alamos.

Another factor that increases demand within Los Alamos is the presence of residents formerly employed in Los Alamos but now retired. Many workers choose to remain in their home upon retirement, and the proportion of senior residents has been increasing over the past decade. When a new worker is hired to replace one of these retirees, the demand for housing has been increased by the presence of the new worker, but the retired worker's home does not become available on the market, thus creating additional imbalance between employment and housing availability.

As mentioned above, shifts in mortgage interest rates affect Los Alamos, just as they affect markets across the nation.

Other favorable elements that affect housing prices in Los Alamos (in addition to high employment, high incomes, and an unusually landlocked setting) include a well-regarded school system, a low crime rate, and a high sense of personal security. Negative elements affecting home prices are the community's limited supply of retailing and entertainment venues.

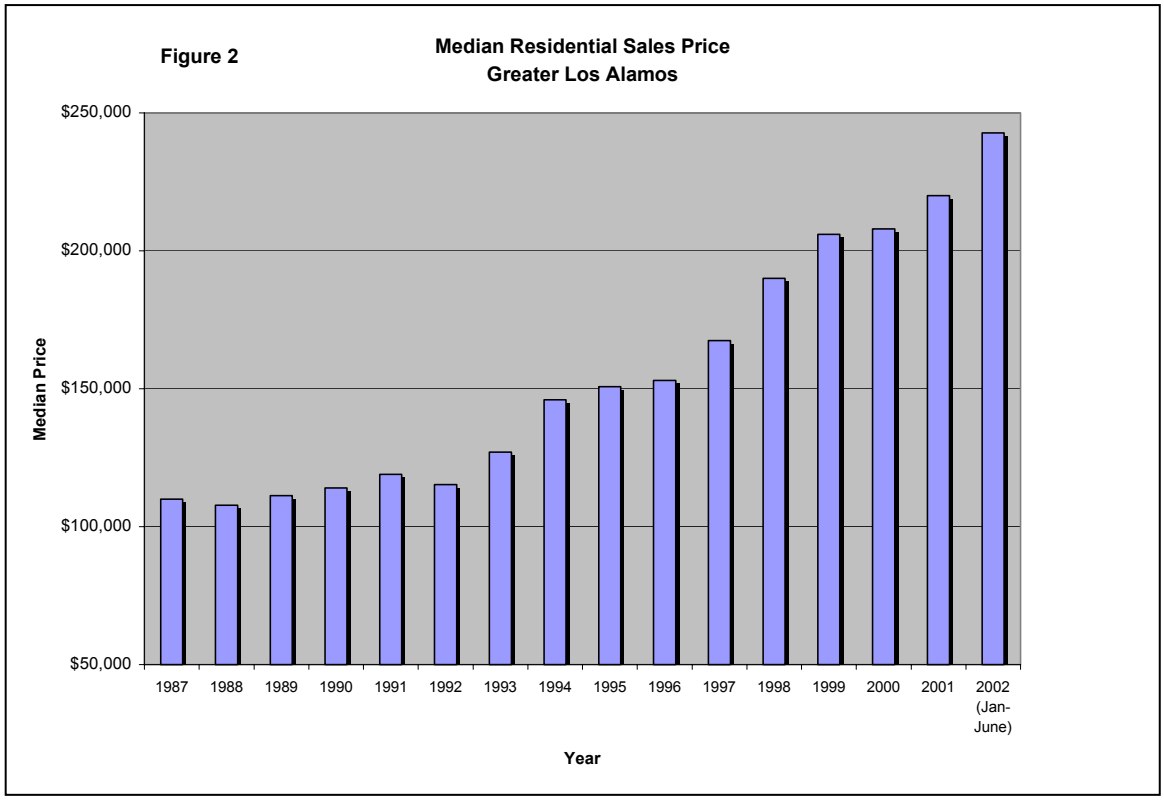
Factors that may be affected by the Cerro Grande fire include the community's attractive physical setting within the surrounding canyons, mesas, and mountains—and, related to this, the opportunities for outdoor activities. The fire's impact is clearly visible from many properties in this community. Some homes are directly adjacent to burned trees, while others have distant views of charred mountains. On the other hand, the fire reportedly opened up new vistas in some parts of the community, thus creating new "view lots." In addition, with the loss of over 400 housing units, Los Alamos is in the rare situation of experiencing a significant reduction in its supply of housing, which creates a pressure for price increases.

ANALYSIS OF RESIDENTIAL PROPERTY SALES DATA

Having developed an understanding of the defining characteristics of Los Alamos, AREA obtained data on current and historical residential sales activity in Los Alamos. As discussed in the previous paragraphs, housing prices typically respond to inflation, changes in interest rates, and other national economic conditions. Los Alamos is protected from many of the normal ups and downs of employment in national economic cycles, but its local economy is still influenced by trends in inflation and the cost of money. It is therefore important to understand how local housing prices have responded over a time period that involves several fluctuations in the national economy.

General Trends. Detailed sales data from the Multiple Listing Service was available in electronic format from July 1997 forward. Aggregate information was available back to 1987 from other local sources. Figure 2 shows the trend in the annual median sales

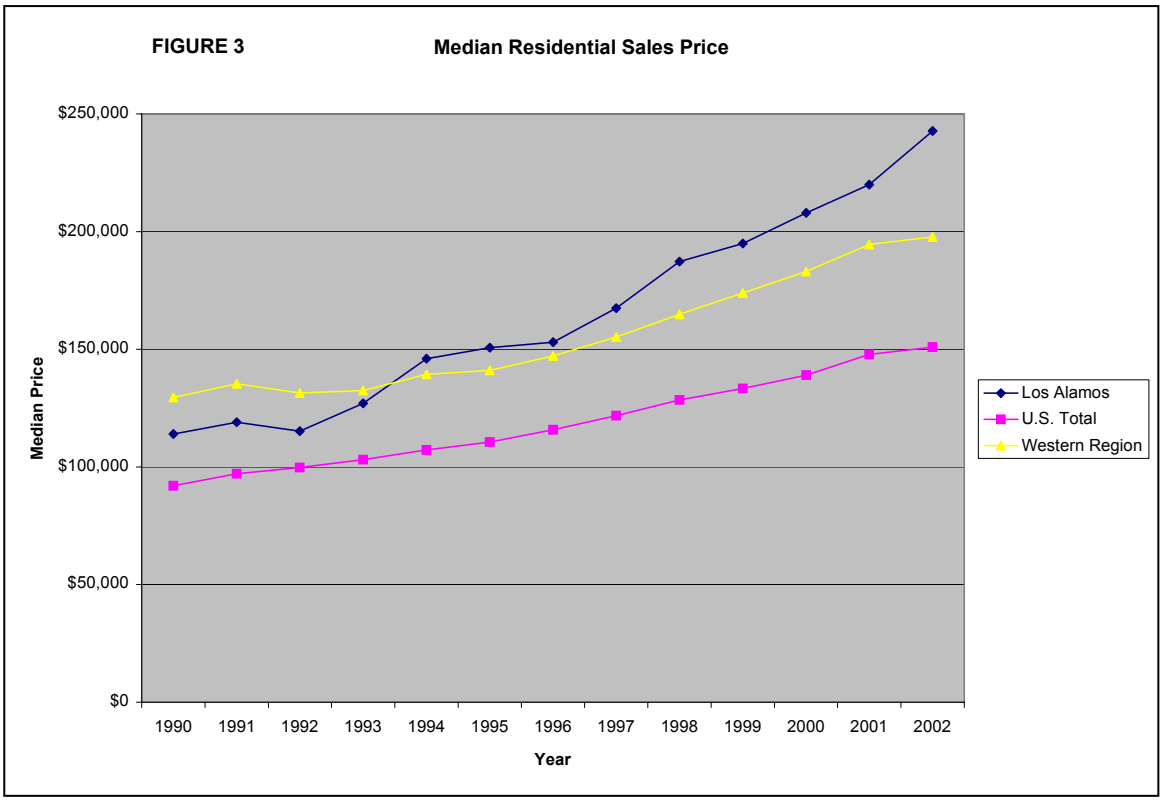
price of housing in the Greater Los Alamos market from 1987 through the first half of 2002. The average annual increase during that period was 8.3%.



Los Alamos home prices declined in only one of the above years—by 3.2% in 1992. This drop coincided with a national recession that was also reflected in a slight dip in the median sales price of houses throughout the western United States. Nationwide, however, the median price continued to inch up in 1992. Figure 3 shows the comparison between median sales prices in Los Alamos, the western portion of the United States, and the nation.

Sales prices in Los Alamos surged in 1993 and 1994 following an increase in employment of more than 500 persons that began during the last half of 1992. Employment leveled off in 1994 and 1995, dropped by almost 1,000 persons in 1996, and surged again in 1997 and 1998. Employment continued climbing, though more slowly, through1999. By the end of 1999, there were approximately 1,500 more persons employed in Los Alamos than there had been in 1996.

Sales prices of homes tend to lag changes in employment, as persons who have been laid off postpone moving decisions until they have searched for another job. After leveling off in 1995, the sale-price median continued steady through 1996. Apparently, the large dip in employment that year was too brief to have an impact on prices. The strong surge in employment from 1996 through 1999 caused housing prices to surge as well. Median home prices had leveled off by 2000 and then started on another upswing.



Employment levels in Los Alamos stabilized during 1999, prior to the Cerro Grande fire in May of 2000. There was a brief decline during the fire, but employment levels after the fire remained stable until after September 11, 2001. Now, with a renewed emphasis on national security, research programs are under way at the National Laboratory to develop methods of protecting the country from possible biological attacks. As a result, the LANL is recruiting new employees from around the country.

Sales Before and After the Fire. Having developed an overall understanding of the trends in residential sales prices and how they relate to economic cycles, such as they are, in Los Alamos, AREA began analyzing and comparing sales data for the period before and after the fire.

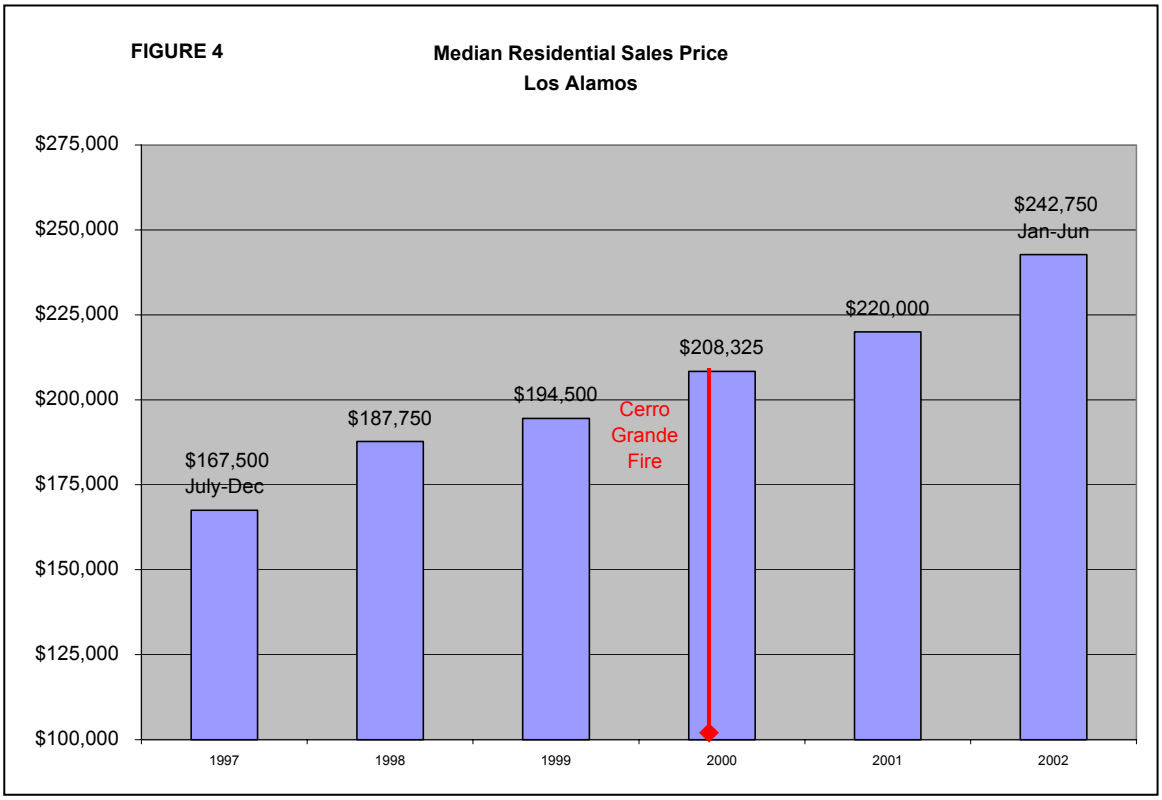
The information was grouped, regrouped, and sorted in numerous permutations. With each new configuration of the data, the consultants asked "What explains the results?"

The first analysis concerned the composition of the data. Were sales from the right areas included? The Los Alamos median sale-price trends discussed above include houses sold in Jemez, since most Los Alamos brokers work in Jemez too and thus include those figures in their general discussions of prices. However, because Jemez is not in Los Alamos County and, in fact, lies on the other side of the mountains from Los Alamos, we consider it a slightly different market. Therefore, the following discussion excludes sales from Jemez and focuses only on sales in Los Alamos and White Rock. We have also excluded the few sales reported from the La Senda neighborhood next to White Rock. These properties are more expensive and tend to sell less frequently than

houses in the rest of Los Alamos County; thus it appears to be a distinct submarket with different dynamics. Henceforth, all discussions of the Los Alamos market in this report will refer to the areas commonly known as Los Alamos and White Rock.

Figure 4 shows the median sales prices of houses in Los Alamos from the last half of 1997 through the first half of 2002. The median price of homes sold has continued to rise throughout this period. There was a large jump during 1998, a small increase in 1999 and a larger jump in 2000. This chart would indicate that there was no impact on housing prices related to the fire.

Median sales prices are affected by a variety of factors, including the number and type of houses that are on the market during a given time period, the needs of the individuals looking for houses, and the relative mix of more- and less-motivated buyers and sellers in the market. Some homeowners may decide that they would like a newer or larger house but have no particular timetable for moving. Thus, they put their house on the market, but if all offers are below their asking price they may decide to postpone their move. However, a person moving to a job in another community may accept a slightly lower offer in order to sell the house more quickly. These same factors apply to purchasers. A casual buyer may hold out for a lower price on the house they want, while a person relocating to the community may have to pay a higher price to get the house they want quickly.



The mix of the above factors fluctuates from quarter to quarter and even from year to year. Thus AREA also examined the median annual sales prices on a July-to-June basis as well as on a January-to-December basis. The results of this analysis are shown in Figure 5

When sales prices are grouped in a July-to-June format, the median prices are slightly different from those discussed above. This analysis indicates that prices rose only slightly during the first half of 1998, made a significant jump during the last half of '98 and the first half of '99, and then declined slightly. Because the fire occurred in the middle of the second quarter of 2000, near the end of the July 99-June 2000 period, any sales that closed during May and June of 2000 were likely to have been contracted before the fire. Thus the slight decline in the median sales price from the previous period may indicate that the market was leveling out prior to the fire. However, it may also be due to the fact that a few sales made during this quarter were discounted due to the fire.

If the fire did have a major impact on how prospective purchasers perceived living in Los Alamos and resulted in a discounting of housing prices, we would expect to see this effect reflected in a decrease in the median price of houses sold during the 12 months following the fire. However, there was a large jump in prices after the fire. AREA thus analyzed the sales information on a quarterly basis to assess how seasonal fluctuations in the market might have affected prices.

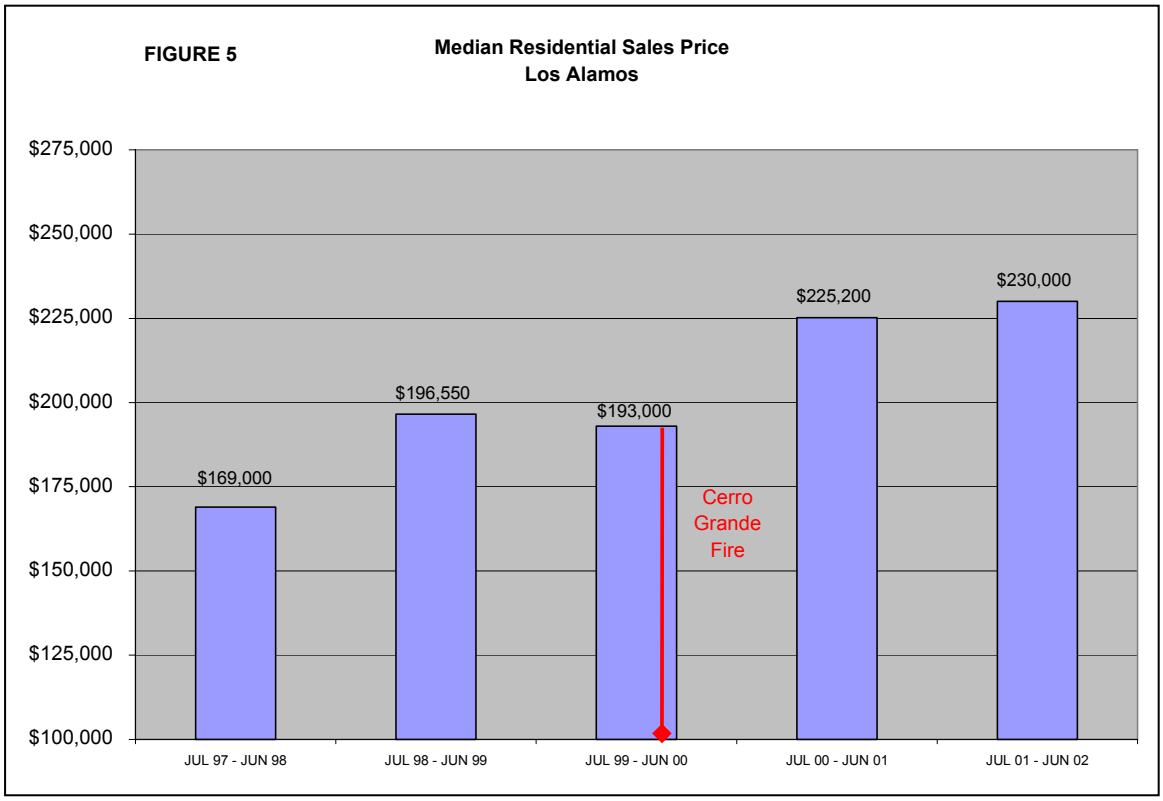
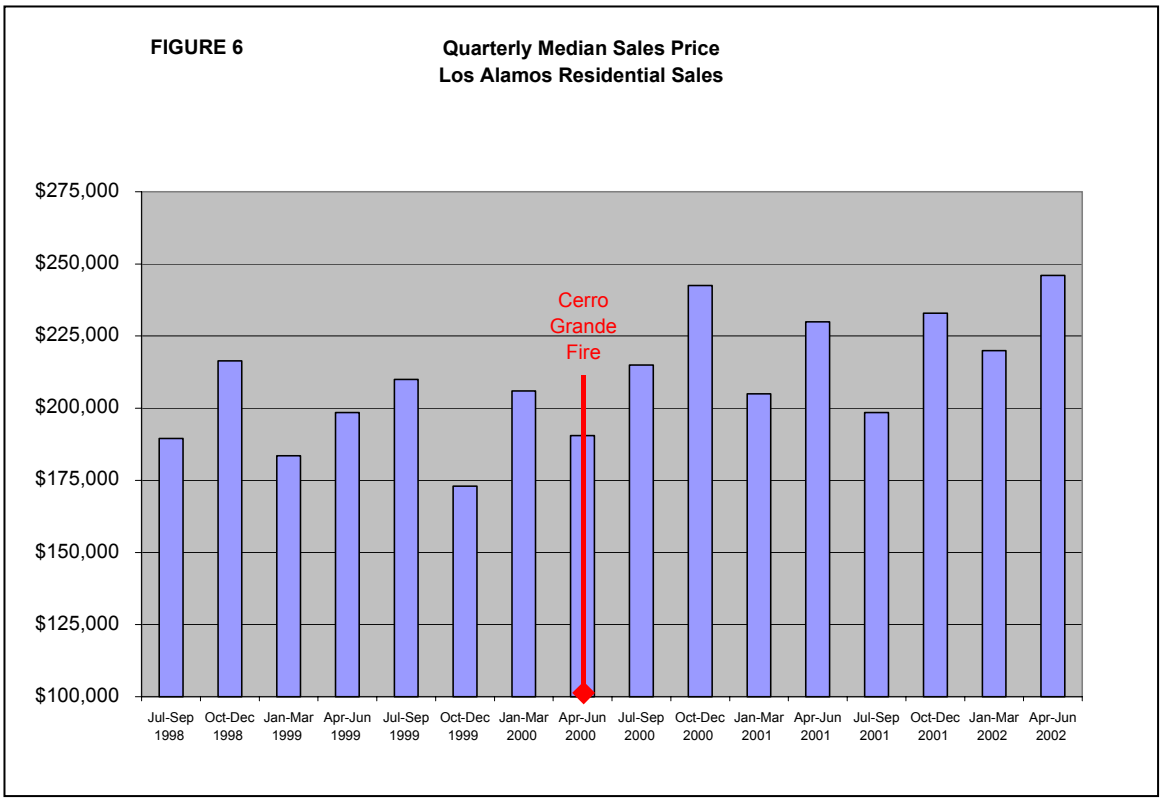


Figure 6 shows median sales prices by quarter from July 1998 through June 2002. In housing markets with well-defined winters and summers, the period from April through September shows stronger home-sales activity than the period from October through March. Fewer people look for houses over the holidays, and many prefer not to go house shopping on cold and snowy days. Thus, sellers sometimes accept less if they have a need to sell during this off-season. In Los Alamos, although there are typically fewer sales during the fall and winter months than during the spring and summer months, there is no consistent pattern in the way in which the changes in sales volume affect the median price of units sold.

However, as with the examination of prices on an annual basis, we would expect that a negative impact on housing values from the fire would be reflected most significantly in the months immediately after the fire and would then gradually diminish as time passed. However, in the quarter immediately following the fire the median sale price climbed to the highest level since the October-December 1998 quarter. And from October through December 2000, prices continued to rise, with the median reaching the highest level ever recorded. The median then continued to fluctuate quarterly, as it had before the fire, but at a generally higher level. This pattern would indicate that the fire had very little impact on housing values.

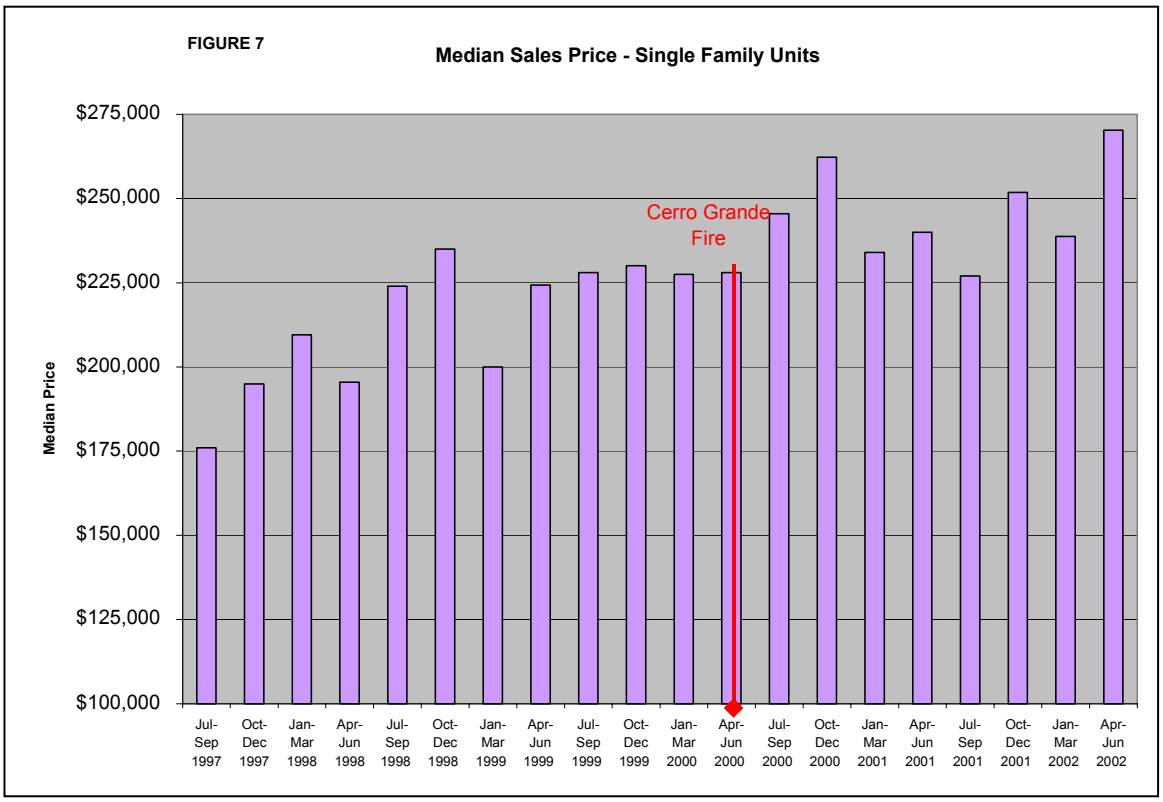


Sales By Building Type. Quarterly fluctuations in the sales-price median in the Los Alamos market suggest there may be factors at play that should be examined more closely. One concern related to the number of duplexes and quadraplexes in the mix of

sales within a given period. These two- and four-unit structures were built by the government and provided some of the smaller and more affordable housing in the community. Some of these units had been re-platted and sold as fee-simple individual units. Others were being sold as condominiums.

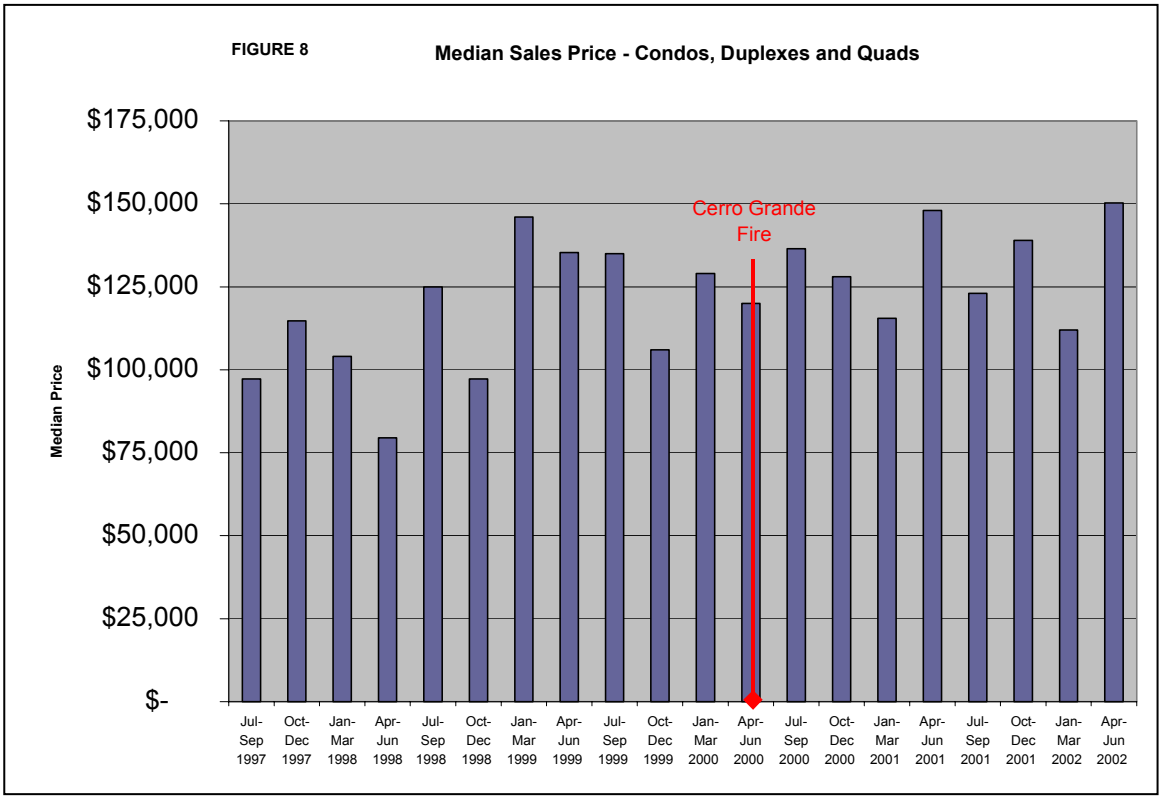
The duplexes and quads were heavily concentrated in the North Community and in the burn area. Thus, the argument went, if there were fewer of these lower-priced units in the mix, wouldn't that explain a rise in median sales prices after the fire? Analysis of this factor showed that the percentage of duplexes, quads, and condos sold in any particular quarter did tend to influence the median sales price. For example, in the third quarter of 1998, 29.2% of sales fell into this category. In the next quarter the mix included only 23.9% of duplexes, quads, and condos and median prices were up. When the mix rose to 30.3% in the first quarter of 1999, the median price declined. However, in the fourth quarter of 2001, the percentage was 21.2% and the median price declined in the following quarter when only 14.7% of the sales fell into these categories. In sum, even though there was not always a direct correlation between a change in the number of duplexes, quads, and condos in the sales mix and the rise or decline of the median sales price, there were generally smaller percentages of these units in the post-fire sales mixes than there had been before the fire.

AREA therefore calculated the median sales price of single-family units without including duplexes, quads and condos in the mix. The results of this analysis are shown in Figure 7. The conclusion was that, overall, the median prices of single-family houses were flat for almost a year prior to the fire, and that since the fire they have fluctuated at or above pre-fire levels.

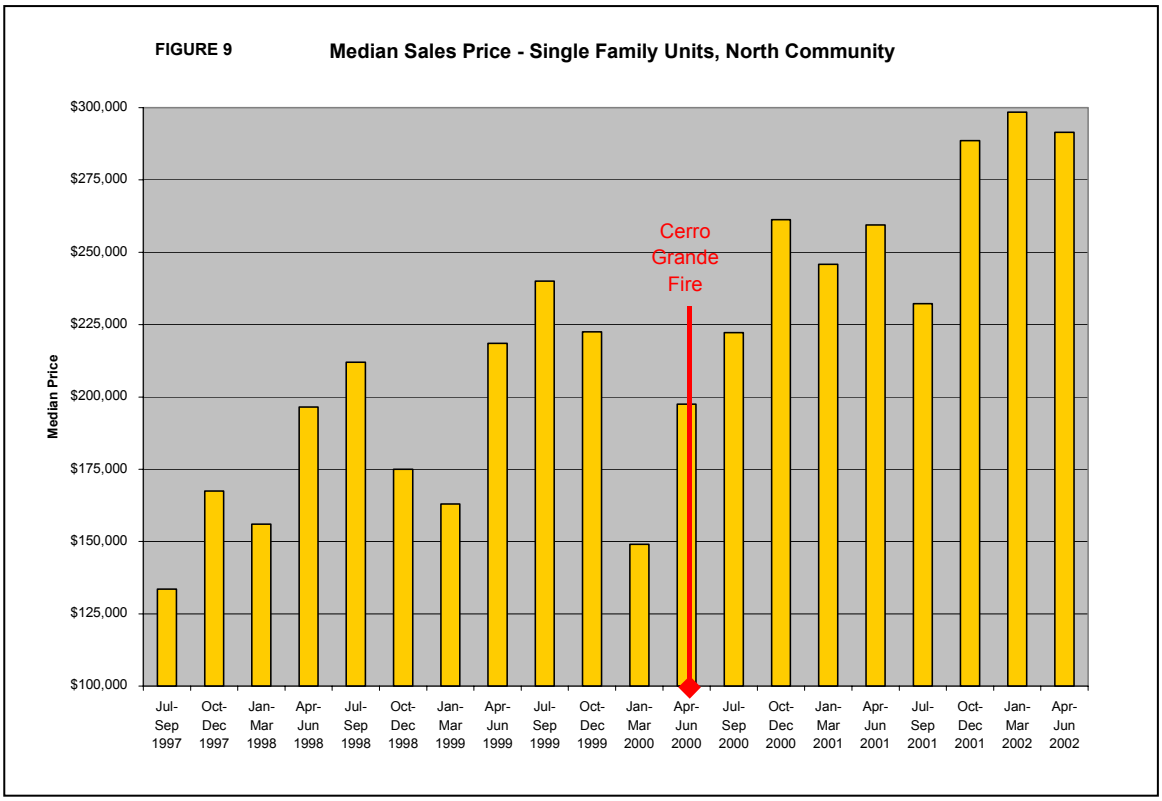


The median price of single-family homes reached a pre-fire peak in the fourth quarter of 1998, following a run-up in prices that coincided with a strong increase in employment. The sharp drop in the median for the first quarter of 1999 reflects a cooling in the market. The price rebounded the next quarter but then remained virtually unchanged through the second quarter of 2000 when the fire occurred. As with the overall median, one would expect any negative impacts from the fire to be reflected immediately afterward. But the anticipated drop in prices did not occur immediately following the fire. Instead the median rose in the third quarter and then continued up in the fourth quarter. Even when the market finally settled down during 2001, the median price for single-family homes was still above the pre-fire levels. Prices during the first half of 2002 indicate that a new trend of rising prices may be starting in response to increases in employment at LANL.

As for duplexes, quads, and condos, the median prices tended to fluctuate after the fire, though at a slightly higher level than before. These units seem to have enjoyed less post-fire appreciation than single-family homes; however, this may be explained by the fact that they appeared to be losing value (from their peak in January-March 1999) even before the fire, while the prices for single-family units had held steady. The quarterly fluctuations are shown in Figure 8.



Neighborhood Variations. Although the fire appeared to have had little impact on housing prices throughout the community, there was still the question of how it might have affected prices in the neighborhood where the burned buildings were located. AREA was especially concerned about how the fire might have affected prices in the North Community, where there was a large concentration of quads and duplexes. Overall, median prices in the North Community were virtually flat prior to the fire and then spiked after the fire. Again, we suspected that the increase might have resulted from a change in the mix of building types in the sales figures. However, as shown in Figure 9, the median sales prices of single-family homes in the north area follows a pattern similar to that of single-family homes overall—flat before the fire and higher afterward. The small number of sales compared to the total market makes the fluctuations in the North Community more dramatic, but the overall levels post-fire are still higher than those pre-fire.



It is possible that the effect of the fire on values in the North Community may be the reverse of the negative impact of an increased unease in living adjacent to the fire area that might be anticipated. In some ways the North Community may, in general, be considered a more desirable place to live now than before the fire. Apparently, the quads were not universally loved in Los Alamos. The replacement of many of these structures with new single-family homes may be seen by some as an improvement. In addition, the new homes being built in the area are generally larger and more contemporary in their appeal than the government-built structures that had predominated in the area. Thus, the overall North Community benefits and is likely to take on value in the estimation of many potential home buyers.

Asking Prices. While median sales prices are the most commonly used measure of a market's trend, several other measures can also be looked at and analyzed. One of these is the ratio of the sales price of a unit to the original asking price for the unit. On a quarterly basis, the ratio of actual sale price to original asking price in Los Alamos ranged from 96.4% to 100.0% between July 1997 and March 2000. This ratio dropped following the fire, registering 95.2% at the end of 2000. It stabilized in the 95% to 97% range during 2001 and has moved up significantly during 2002. The ratio of sales to asking price was 98.4% in the first quarter of the year, and 99.5% at mid-year.

In most markets, a 3% to 5% spread is normal. Thus, even when the spread was at its lowest, it was still indicative of relatively stable market. The current ratios, like those pre-fire, indicate a seller's market.

Marketing Time. Marketing time for residential properties is typically considered to be the time period between the date the property is offered for sale, either by a broker or privately by the owner, and the date a sale contract is signed. We understand that in Los Alamos, the MLS reports marketing time as of the date a sale is closed, which typically ranges from one to three months after the date of contract. For consistency, and because contract dates were not always available to us, we have followed the MLS method of reporting in our analysis.

The amount of time a home is on the market provides a good indication of housing demand, tempered by the fact that overpriced homes typically require a longer-than-normal marketing time and may ultimately achieve a lower-than-normal sale price. This is due to the loss of interest among brokers and potential buyers in showing and bidding on overpriced homes; the process often ends in a "reduced price" sale if the seller needs to relocate or obtain funds for the purchase of a new residence. MLS data shows that the average marketing time for a Los Alamos residence remained relatively stable between mid-1997 and the end of the third quarter of 2000. Except for some increases during mid-1998 and early 1999, when it increased to 110 days, the typical marketing period ranged from 73 to 94 days. Marketing times since the end of 2000 have increased, falling in a range of 118 to 152 days, although this has declined significantly this year, from 152 days at the end of 2001 to 119 days in the second quarter of this year. The lengthened period reflects not only the disruption in the market as a result of the fire, but also a willingness on the part of the seller to wait a littler longer to find just the right purchaser.

Sales Volume. The total number of sales in a given period is also a good indicator of the ability to market homes, assuming that the level of sales prices remains consistent with historical trends. A total of 310 homes were sold through the Los Alamos MLS in 1998, and 317 were sold in 1999. As might be expected from the disruptive effects of the fire, total sales declined to 258 homes in 2000, although the number of closings varied by only a few (four) units between the first and second halves of the year. Sales volume rebounded sharply to 334 closings in 2001, resulting in a 6.5% increase over the 1998-1999 average. Sales of 174 homes in the first half of this year indicate that a similar number of transactions are likely to take place in 2002.

The trends in sales volume, when viewed together with the time-on-market and the ratios of asking to sales price, indicate a very strong market. If the fire were having a negative impact on buyers' perceptions of Los Alamos' desirability as a place to live, one would expect volume to be down, sales-price-to-asking-price ratios to be decreasing, and days on market to be lengthening—in other words, the reverse of current conditions.

Private Sales. With respect to real estate transactions, New Mexico is still considered a "non-disclosure" state, despite legislative attempts to require disclosure of real estate sales prices. This means that, unlike the system in most states, real estate sales information provided to the County Recorder and Assessor is considered confidential, and is therefore not made available for public disclosure.

In the absence of public records, the only practical means of tracking the Los Alamos residential real estate market is by accessing data reported through the local multiple listing service (MLS). AREA is a member of the National Association of Realtors, the umbrella organization for the local real estate boards that make up the various multiple listing services serving the U.S. This membership allowed us to obtain affiliate status with the Los Alamos Board of Realtors, providing access to current listings, sales reports, and historical transaction data.

MLS information on individual home sales at Los Alamos was available electronically dating back to mid-1997. For earlier years, this information was obtained from a local Realtor's records, although only annual figures for all homes sold was available from this source. It is recognized that not all sales in any given community are sold through brokers affiliated with a multiple listing service, and this is true as well for Los Alamos. Typically, homes sold by owners without a broker are reported to account for between 10% and 15% of all sales in a particular market. This will vary depending on location, home price, and seller motivation. Higher-priced housing and homes located in affluent communities tend to be sold through brokers. For this category of seller, the ability of the broker to screen out unqualified buyers, as well as obtain the broadest market exposure at a reasonable market listing price, outweighs the cost of the commission. More moderately priced homes, where the seller may need all of the sales proceeds or is willing to assume the marketing and negotiating tasks, are more likely candidates for a private sale, particularly in a strong seller's market.

Most private sellers establish their asking prices by first obtaining value opinions from brokers, with the expectation that they will list the property if it can not be sold privately after a reasonable amount of time. These sellers anticipate obtaining a gross sales price close to what they would realize if a broker was involved, or there would be no motivation for eliminating the sales agent. Buyers however, believe that they will get a bargain, as they expect the seller to be more willing to negotiate on price and pass along some of the savings in commissions. In practice, our experience indicates that the parties usually meet somewhere in between these two points unless there are other motivations influencing the sale. Overall, there is little evidence to indicate that private

sales result in significantly different sales prices than those obtained through brokers, or that their exclusion from a database materially affects the latter's validity as an analytical tool.

Due to the absence of recorded public information, the number of private home sales in Los Alamos is not readily determinable. Local estimates indicate that total homes sold each year in the community includes an average amount of privately arranged transactions, but that the number is not of sufficient quantity to require modifying the market trends and sales activity patterns indicated by MLS data.

Statistical Analysis. After analyzing the sales data from several different perspectives, AREA conducted a simple statistical analysis of the data to test for possible differences in sales price trends before and after the fire. Fits were performed separately on both the average and the median prices. The data were grouped in bins of approximately thirty days, running from July 1997 to June 2002. Each bin had typically 27 data points; means, medians, and appropriate variances were computed for each bin. Simple linear fits of the form Price= P(0) + A*time were performed (a) over the full time period and (b) separately for the periods before and after the fire (May 2000). No statistically significant differences were found for the periods before and after the fire. For example, for the median fits, the difference in slopes ("A" above) between the periods after and before the fire was +0.42 standard deviations; for the average fits the difference was +0.35 standard deviations.

The fit chisquareds show no preference for the two-period fits as compared with the overall fit. The combined chisquared per degree of freedom was 60.2/50 for the two period median fit, compared with 60.5/52 for the overall median fit. For the fit to average prices, the two period fit gave combined chisquared/degree of freedom of 76.3/57, compared with 76.8/59 for the combined fit. From these comparisons we can conclude:

1. The full set of data are well described by a simple straight line fit, and no significant improvement is seen in fit quality when the fits are broken into two time periods.

2. The variation of prices with time follows a simple linear increase which is the same before and after the fire within statistical errors. The ~0.4 s.d. increase observed after the fire, while statistically insignificant, is roughly consistent with that expected for a compound fit.[4]

The curves are shown in Figures 10 and 11.

[4] For the medians, the bin uncertainties were taken to be sigma=variance/sqrt(N*2/pi), the limiting value for the error on the median for a Gaussian.

Figure 10

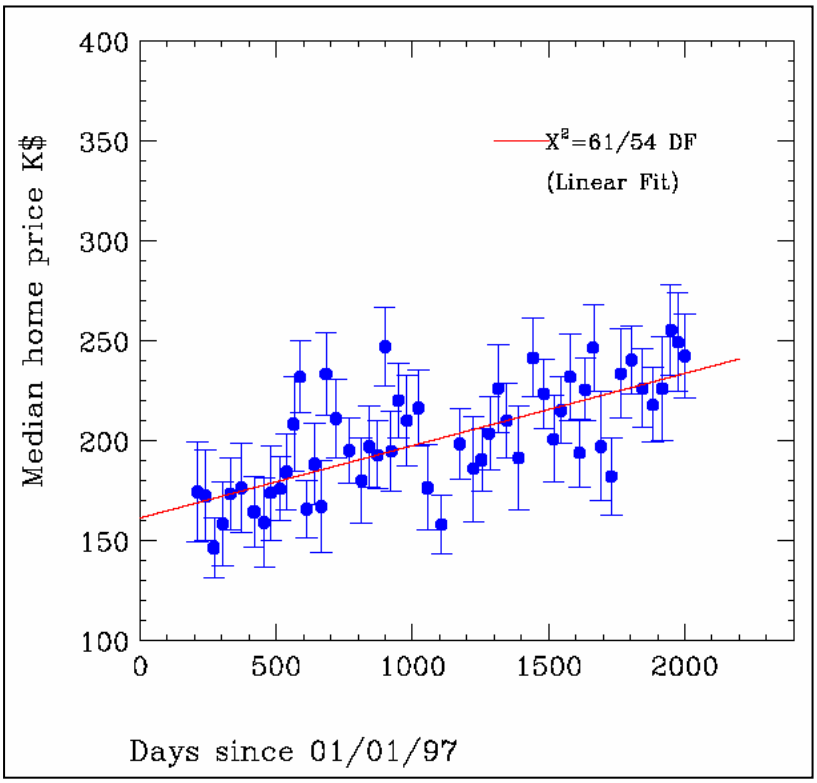
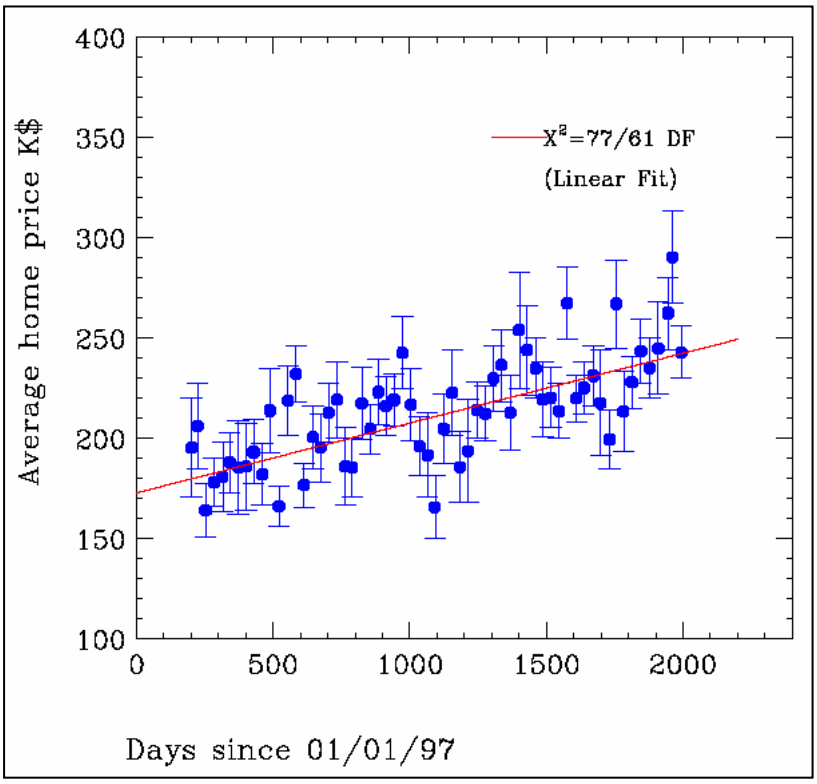


Figure 11



CONCLUSIONS

As AREA's analysis has emphasized, Los Alamos is a unique community with a unique housing market. The Cerro Grande fire of May 2000 caused not only a dramatic disruption in the community and the lives of its residents but also a sharp disruption of the housing market. At the same time, actions taken by government officials as a result of the fire have improved conditions in portions of the community and potentially enhanced the housing market. The research conducted for this assignment also indicated that there are some persons in Los Alamos who feel that the changes to the landscape caused by the fire and the changes in the community that have occurred since the fire have diminished the desirability of Los Alamos as a place to live. Further, it is apparent that after the fire some houses sold for less than they might have prior to the fire. The disruption in the market following the fire probably contributed to some of these individual diminutions in value.

Numerous homeowners have been compensated for realized loss on homes they have sold. A person needing to sell a house in order to relocate may not have been able to wait for the perfect buyer in the somewhat chaotic conditions following the fire and therefore sold at a lower price than anticipated. With fewer buyers in the market in the fire's aftermath, there may have been sellers who lowered their price to attract a buyer. Whatever the reason these individuals sustained a loss, they have had the opportunity to file a claim and be compensated.

In spite of a few individual situations in which a seller may have sustained a loss, AREA has been unable to demonstrate any permanent diminution of housing values in Los Alamos. In fact, repeated analysis of the data from various perspectives demonstrates that, on an overall basis, housing values in the community went up after the fire and are continuing to rise. This trend will not last indefinitely. Prices will eventually level off, just as they had prior to the fire.

But even in today's strong market some individual units will not do well. In any market certain houses will appreciate faster than others and some, due to neglect, will actually lose value. And while home trends do not change as quickly as clothing styles, a house that was fashionable when built may be "old fashioned" a decade later. This is particularly true of the interior finishes of homes. Thus if two very similar houses sell for the same price in one month and considerably different prices when resold two years later, the difference may be in the "updated" fixtures and color schemes that one owner added and the other one didn't. Whatever the reason an individual house does not sell, or sells for a lower price than others, it will be a result of normal market forces.

If the fire has so frightened people that they are choosing to live in another community, this should be reflected in the housing prices. Instead, people are still buying in Los Alamos. And they are buying, or building, homes among the trees—while taking sensible precautions to ward off damage from any future conflagration. Many are, in fact, rebuilding more expensive houses on the site of the burned units. While mourning

the temporary loss of green, residents know that fire is a natural phenomenon and that regeneration, though it will take more than a generation, will result in a healthier forest.

The characteristics of Los Alamos that drove prices before the fire continue to drive it today. People are attracted to the community by the well-paying jobs available at the Los Alamos National Laboratory. They decide to purchase here, rather than in Santa Fe or another community, because they like the schools and feel secure in a largely homogenous community with a low crime rate. They enjoy the area's many opportunities for outdoor activities. And in spite of the change in the physical landscape, many purchasers still value the town's dramatic setting on high mesas in a mountainous area. Finally, because of the likelihood that there will always be fewer dwelling units available in the community than there are people who want to buy them, prices are anticipated to continue to increase.

Many long-time residents of Los Alamos may have a strong sense of "loss." They believe the community they knew before the fire has changed—and for the worse. But there is no reflection of this sentiment in the prices of housing in Los Alamos. There is no indication that the Cerro Grande fire has caused a permanent diminution of housing values.

APPENDIX

APPENDIX

Demographic and Housing Indicators

Los Alamos and Comparable Communities

	Population Characteristics				Household Characteristics			Housing Characteristics			
	2000 Population	Percent in households	Percent age 25+ w/ College Degree	Percent Age 5+ Living in Same House in 1995	2000 Households	Percent Families	1999 Median Household Income	2000 Occupancy Rate	Percent of Units Built 1990 or Later	2000 Ownership Rate	2000 Median Home Value
MSA											
Santa Fe, NM	147,635	98.3%	39.9%	54.2%	59,979	63.6%	$45,822	91.4%	27.7%	69.8%	$196,300
Knoxville, TN	687,249	97.5%	23.4%	54.4%	281,472	67.4%	$36,874	89.8%	25.6%	70.5%	$98,700
Oakland, CA	2,392,557	98.4%	35.0%	51.7%	867,495	67.0%	$59,365	97.0%	11.8%	60.5%	$289,100
Richland-Pasco, WA	191,822	99.1%	23.3%	50.6%	67,706	73.4%	$44,886	94.0%	21.4%	68.1%	$116,200
State College, PA	135,758	89.1%	36.3%	46.9%	49,323	57.8%	$36,165	92.8%	17.1%	60.2%	$114,900
Fort Collins-Loveland, CO	251,494	97.2%	39.5%	41.5%	97,164	65.0%	$48,655	92.2%	29.5%	67.7%	$172,000
Lincoln, NE	250,291	95.1%	32.6%	46.6%	99,187	61.2%	$41,850	95.2%	20.4%	60.5%	$105,900
County											
Los Alamos, NM	18,343		60.5%	59.6%	7,497	71.2%	$78,993	94.5%		78.6%	$228,300
Anderson, TN	71,330	98.8%	20.8%	61.5%	29,780	68.9%	$35,483	91.8%	16.7%	72.5%	$87,500
Alameda, CA	1,443,741	98.1%	34.9%	50.8%	523,366	64.8%	$55,946	96.9%	9.7%	54.7%	$303,100
Centre, PA	135,758	89.1%	36.3%	46.9%	49,323	57.8%	$36,165	92.8%	17.1%	60.2%	$114,900
Larimer, CO	251,494	97.2%	39.5%	41.5%	97,164	65.0%	$48,655	92.2%	29.5%	67.7%	$172,000
Lancaster, NE	250,291	95.1%	32.6%	46.6%	99,187	61.2%	$41,850	95.2%	20.4%	60.5%	$105,900
Municipality											
Los Alamos, NM	11,909	99.3%	62.1%	53.9%	7,497	66.0%	$71,536	93.5%	9.9%	71.5%	$228,500
Oak Ridge, TN	27,387	98.5%	37.9%	58.7%	12,062	63.8%	$41,950	89.9%	8.3%	68.4%	$98,200
Livermore, CA	73,345	99.7%	31.6%	47.4%	26,123	74.7%	$75,322	98.2%	21.6%	72.2%	$314,600
State College, PA	38,420	72.1%	69.2%	18.4%	12,024	27.5%	$21,186	96.3%	8.2%	22.8%	$154,600
Fort Collins, CO	118,652	94.9%	48.4%	33.5%	45,882	56.1%	$44,459	96.1%	30.4%	57.0%	$169,600
Lincoln, NE	225,581	94.8%	33.3%	44.7%	90,485	59.2%	$40,605	95.0%	20.0%	58.0%	$104,100