

Expenditures for Residential Improvements and Repairs

4th Quarter

1999

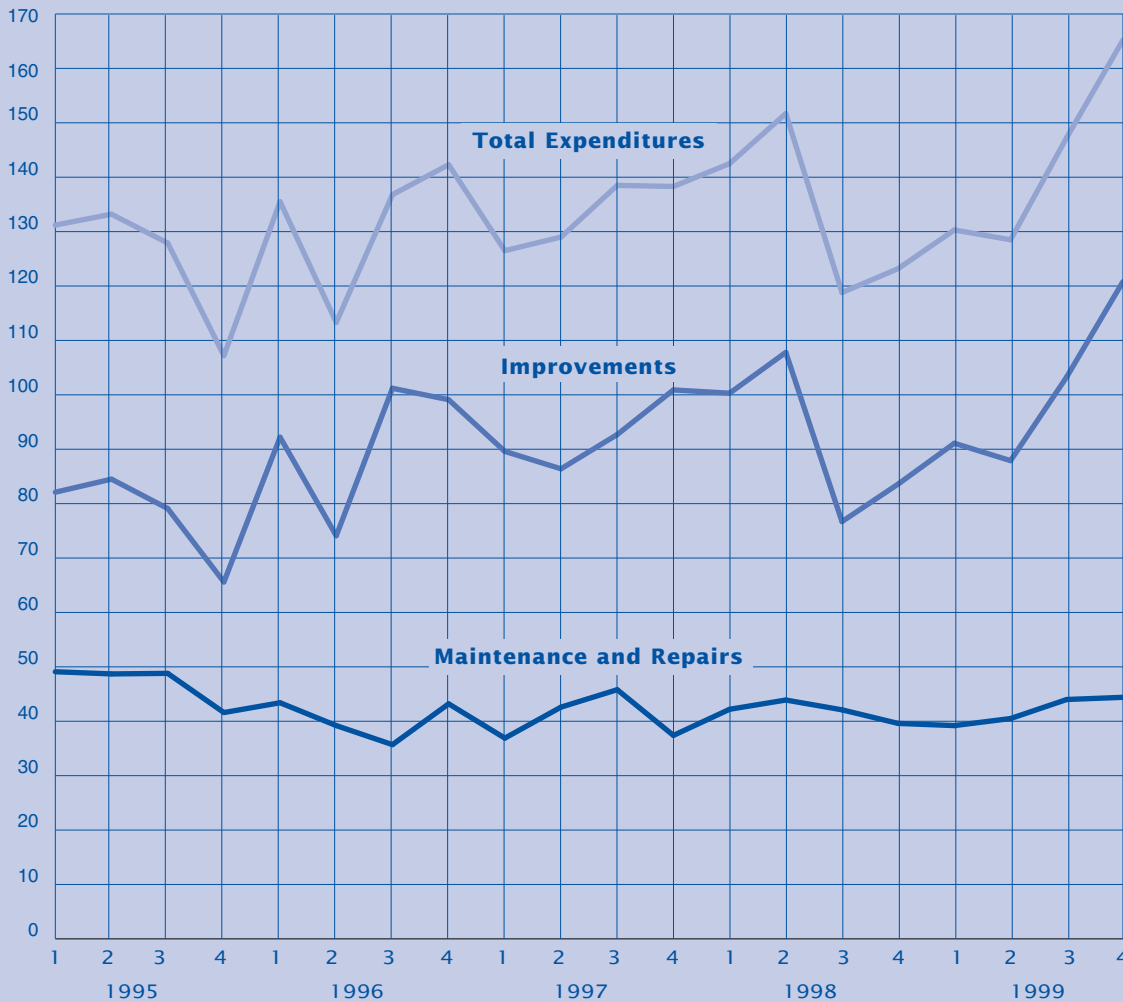
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**Current
Construction
Reports**

Quarterly Expenditures for Residential Improvements and Repairs

Seasonally adjusted annual rate in billions of dollars



Source: U.S. Census Bureau, Expenditures for Residential Improvements and Repairs.

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INTRODUCTION

This report provides estimates of expenditures by property owners for construction improvements (additions, alterations, and major replacements) and maintenance and repairs to residential properties.

Table 1 presents quarterly expenditures for all properties at a seasonally adjusted annual rate in current dollars for 1992 to 1999. Table 2 shows actual (not seasonally adjusted) quarterly estimates separately by type of property (all owner-occupied, owner-occupied one-unit, and rental) for 1996 to 1999. Tables 3, 4, and 5 present actual quarterly expenditures for owner-occupied one-unit properties by region (Table 3), year structure was built (Table 4), and for payment to contractors or for materials purchased (Table 5) for 1998 and 1999. Please note that all dollar values shown in this report are in current dollars.

Data for this report were collected by direct interview and by mail from a sample of owners of residential properties. General information about the survey

including definitions, survey methodology, and reliability of the data appears in Appendixes A and B. Appendix C includes a description of the adjustments for seasonal variation.

SUMMARY

Expenditures made by residential property owners for construction improvements and repairs during the fourth quarter 1999 were estimated at a seasonally adjusted annual rate of \$165.2 billion. Spending on improvements was at a seasonally adjusted rate of \$120.8 billion during the fourth quarter and expenditures for repairs amounted to \$44.4 billion.

Actual expenditures for improvements and repairs to all properties amounted to an estimated \$41.4 billion during the fourth quarter 1999. Of this amount, owners of all owner-occupied properties spent \$27.1 billion and owners of rental, vacant, and seasonal properties spent \$14.3 billion.

Table 1. Expenditures for Residential Properties: Quarterly 1992 to 1999

Seasonally Adjusted Annual Rate

[Millions of dollars. Components may not add to totals because of rounding]

Year and quarter	Total expenditures	Maintenance and repairs	Improvements		
			Total	Additions and alterations	Major replacements
1992					
1st quarter	107,700	47,800	59,900	41,100	18,800
2nd quarter	128,200	60,200	68,000	43,900	24,200
3rd quarter	106,000	47,600	58,400	40,700	17,700
4th quarter	120,000	47,400	72,600	50,700	21,900
1993					
1st quarter	120,000	49,300	70,700	48,200	22,500
2nd quarter	118,700	43,400	75,300	46,700	28,600
3rd quarter	120,700	44,000	76,700	57,500	19,200
4th quarter	129,500	47,000	82,500	61,300	21,200
1994					
1st quarter	126,300	45,100	81,300	61,100	20,100
2nd quarter	138,700	49,600	89,100	65,300	23,900
3rd quarter	123,300	43,800	79,500	51,800	27,700
4th quarter	130,400	49,800	80,600	49,000	31,600
1995					
1st quarter	131,200	49,100	82,100	55,300	26,800
2nd quarter	133,200	48,700	84,500	56,200	28,300
3rd quarter	127,900	48,800	79,100	48,300	30,900
4th quarter	107,200	41,600	65,600	44,300	21,200
1996					
1st quarter	135,500	43,400	92,200	60,900	31,200
2nd quarter	113,300	39,200	74,100	52,400	21,700
3rd quarter	136,800	35,700	101,200	70,400	30,700
4th quarter	142,300	43,200	99,100	75,100	24,100
1997					
1st quarter	126,500	36,900	89,600	62,500	27,200
2nd quarter	129,000	42,600	86,400	62,000	24,400
3rd quarter	138,500	45,800	92,700	66,000	26,700
4th quarter	138,300	37,400	100,900	70,300	30,600
1998					
1st quarter	142,500	42,200	100,300	72,300	28,000
2nd quarter	151,700	43,900	107,800	77,400	30,300
3rd quarter	118,800	42,100	76,700	49,700	27,000
4th quarter	123,200	39,600	83,600	53,500	30,100
1999					
1st quarter	130,300	39,200	91,100	60,300	30,700
2nd quarter	128,500	40,500	87,900	59,400	28,600
3rd quarter	147,300	44,000	103,300	80,200	23,000
4th quarter	165,200	44,400	120,800	86,900	33,900

Table 2. Expenditures for Residential Properties by Property Type: Quarterly 1996 to 1999

Not Seasonally Adjusted

[Millions of dollars. Components may not add to totals because of rounding]

Property type, year, and quarter	Total expenditures	Maintenance and repairs	Improvements						Major replacements
			Total	Additions and alterations				To property outside of structures	
				Total	To structures		To property outside of structures		
					Additions	Alterations			
ALL PROPERTIES									
Annual									
1996.....	131,362	40,108	91,253	64,513	17,388	32,889	14,235	26,738	
1997.....	133,577	41,145	92,432	65,222	14,575	37,126	13,523	27,210	
1998.....	133,693	41,980	91,712	62,971	11,897	38,787	12,287	28,741	
1999.....	142,900	42,352	100,549	72,056	16,164	42,058	13,833	28,493	
Relative standard error of annual estimates.....(percent)	4	5	6	7	16	11	10	8	
Quarterly									
1996: 1st quarter.....	24,857	8,056	16,801	11,788	2,923	7,639	1,227	5,012	
2nd quarter.....	30,884	10,385	20,499	15,111	3,435	9,077	2,598	5,387	
3rd quarter.....	39,892	10,273	29,619	19,571	6,469	8,579	4,522	10,049	
4th quarter.....	35,729	11,395	24,335	18,043	4,561	7,594	5,887	6,291	
1997: 1st quarter.....	23,218	6,627	16,592	12,045	2,063	8,654	1,328	4,547	
2nd quarter.....	35,246	11,378	23,868	17,903	5,084	7,882	4,938	5,964	
3rd quarter.....	40,361	13,297	27,064	18,346	4,890	9,438	4,018	8,718	
4th quarter.....	34,752	9,843	24,909	16,928	2,538	11,152	3,238	7,981	
1998: 1st quarter.....	26,163	7,462	18,701	13,914	2,392	9,225	2,296	4,787	
2nd quarter.....	41,397	11,773	29,623	22,329	4,480	14,461	3,389	7,294	
3rd quarter.....	35,066	12,353	22,713	13,848	2,078	7,209	4,560	8,865	
4th quarter.....	31,067	10,392	20,675	12,880	2,947	7,892	2,042	7,794	
1999: 1st quarter.....	23,780	6,848	16,932	11,591	1,622	8,081	1,887	5,341	
2nd quarter.....	34,798	10,896	23,902	17,081	3,961	9,558	3,562	6,821	
3rd quarter.....	42,934	12,990	29,944	22,400	5,813	11,420	5,167	7,544	
4th quarter.....	41,388	11,618	29,770	20,984	4,768	12,998	3,217	8,786	
Relative standard error of current quarter estimates.....(percent)	8	11	10	13	26	18	20	14	
ALL OWNER-OCCUPIED PROPERTIES									
Annual									
1996.....	88,532	22,150	66,381	47,565	13,964	23,386	10,215	18,816	
1997.....	93,962	27,328	66,634	48,428	12,057	26,566	9,805	18,206	
1998.....	99,400	27,040	72,360	50,096	10,175	29,868	10,053	22,264	
1999.....	99,281	24,250	75,031	55,802	10,773	33,678	11,351	19,229	
Relative standard error of annual estimates.....(percent)	6	7	8	10	18	13	13	8	
Quarterly									
1996: 1st quarter.....	16,245	3,289	12,956	9,358	2,767	5,615	976	3,598	
2nd quarter.....	23,016	6,421	16,595	12,301	3,177	7,157	1,967	4,293	
3rd quarter.....	26,961	6,743	20,218	13,244	4,212	5,990	3,042	6,975	
4th quarter.....	22,310	5,698	16,613	12,662	3,808	4,624	4,229	3,951	
1997: 1st quarter.....	16,570	3,852	12,719	9,584	2,027	6,522	1,035	3,135	
2nd quarter.....	25,194	7,590	17,604	13,092	3,779	5,420	3,893	4,511	
3rd quarter.....	29,493	9,708	19,785	13,492	4,462	6,696	2,333	6,293	
4th quarter.....	22,705	6,178	16,527	12,260	1,789	7,928	2,543	4,267	
1998: 1st quarter.....	18,324	4,606	13,718	10,680	2,200	6,426	2,054	3,038	
2nd quarter.....	31,241	7,646	23,595	17,843	3,797	11,386	2,660	5,752	
3rd quarter.....	26,716	8,437	18,279	11,252	1,661	5,756	3,834	7,027	
4th quarter.....	23,119	6,351	16,768	10,321	2,517	6,300	1,505	6,446	
1999: 1st quarter.....	17,363	4,478	12,884	8,982	1,177	6,234	1,570	3,902	
2nd quarter.....	26,251	6,790	19,461	14,064	2,586	8,204	3,274	5,397	
3rd quarter.....	28,565	7,059	21,506	16,798	3,635	9,050	4,113	4,708	
4th quarter.....	27,102	5,923	21,179	15,958	3,375	10,189	2,394	5,221	
Relative standard error of current quarter estimates.....(percent)	10	12	12	14	25	22	20	14	

See footnotes at end of table.

Table 2. **Expenditures for Residential Properties by Property Type: Quarterly 1996 to 1999—Con.**

Not Seasonally Adjusted

[Millions of dollars. Components may not add to totals because of rounding]

Property type, year, and quarter	Total expenditures	Maintenance and repairs	Improvements						Major replacements
			Total	Additions and alterations				To property outside of structures	
				Total	To structures		To property outside of structures		
					Additions	Alterations			
OWNER-OCCUPIED ONE-UNIT PROPERTIES									
Annual									
1996.....	84,462	20,620	63,843	46,047	13,922	22,162	9,963	17,796	
1997.....	90,677	26,210	64,467	46,659	11,467	25,517	9,674	17,808	
1998.....	96,159	26,110	70,049	48,515	10,154	28,427	9,934	21,535	
1999.....	95,778	23,137	72,641	54,441	10,738	32,489	11,214	18,200	
Relative standard error of annual estimates.....(percent)	6	7	8	10	18	19	13	8	
Quarterly									
1996: 1st quarter.....	15,890	3,135	12,756	9,208	2,767	5,485	957	3,547	
2nd quarter.....	21,654	6,065	15,589	11,510	3,144	6,536	1,830	4,079	
3rd quarter.....	25,570	6,076	19,494	12,896	4,203	5,717	2,976	6,598	
4th quarter.....	21,348	5,344	16,004	12,432	3,808	4,424	4,200	3,571	
1997: 1st quarter.....	15,881	3,640	12,241	9,163	2,027	6,136	1,000	3,078	
2nd quarter.....	24,269	7,263	17,007	12,514	3,612	5,032	3,870	4,493	
3rd quarter.....	28,559	9,448	19,111	12,927	4,040	6,597	2,289	6,185	
4th quarter.....	21,967	5,859	16,108	12,054	1,789	7,752	2,514	4,053	
1998: 1st quarter.....	17,875	4,437	13,438	10,525	2,200	6,298	2,027	2,913	
2nd quarter.....	30,153	7,444	22,710	17,052	3,797	10,640	2,616	5,657	
3rd quarter.....	25,949	8,196	17,753	10,980	1,661	5,487	3,832	6,773	
4th quarter.....	22,182	6,034	16,149	9,957	2,495	6,002	1,460	6,192	
1999: 1st quarter.....	16,607	4,272	12,334	8,601	1,157	5,873	1,570	3,734	
2nd quarter.....	25,127	6,518	18,608	13,637	2,586	7,900	3,151	4,972	
3rd quarter.....	27,554	6,610	20,945	16,523	3,628	8,795	4,100	4,421	
4th quarter.....	26,491	5,737	20,753	15,680	3,367	9,921	2,392	5,073	
Relative standard error of current quarter estimates.....(percent)	10	12	12	14	26	22	20	14	
RENTAL PROPERTIES¹									
Annual									
1996.....	42,830	17,958	24,872	16,948	3,424	9,503	4,020	7,922	
1997.....	39,615	13,817	25,798	16,794	2,518	10,560	3,718	9,004	
1998.....	34,293	14,940	19,352	12,875	1,722	8,919	2,234	6,477	
1999.....	43,619	18,102	25,518	16,254	5,391	8,380	2,482	9,264	
Relative standard error of annual estimates.....(percent)	8	8	13	15	33	20	28	20	
Quarterly									
1996: 1st quarter.....	8,612	4,767	3,845	2,430	*156	*2,024	*251	1,414	
2nd quarter.....	7,868	3,964	3,904	2,810	*258	*1,920	*631	1,094	
3rd quarter.....	12,931	3,530	9,401	6,327	*2,257	*2,589	*1,480	3,074	
4th quarter.....	13,419	5,697	7,722	5,381	*753	*2,970	*1,658	2,340	
1997: 1st quarter.....	6,648	2,775	3,873	2,461	*36	*2,132	*293	1,412	
2nd quarter.....	10,052	3,788	6,264	4,811	*1,305	*2,462	*1,045	1,453	
3rd quarter.....	10,868	3,589	7,279	4,854	*428	*2,742	*1,685	2,425	
4th quarter.....	12,047	3,665	8,382	4,668	*749	*3,224	*695	3,714	
1998: 1st quarter.....	7,839	2,856	4,983	3,234	*192	*2,799	*242	1,749	
2nd quarter.....	10,156	4,127	6,028	4,486	*683	*3,075	*729	1,542	
3rd quarter.....	8,350	3,916	4,434	2,596	*417	*1,453	*726	1,838	
4th quarter.....	7,948	4,041	3,907	2,559	*430	*1,592	*537	1,348	
1999: 1st quarter.....	6,417	2,370	4,048	2,609	*445	*1,847	*317	1,439	
2nd quarter.....	8,547	4,106	4,441	3,017	*1,375	*1,354	*288	1,424	
3rd quarter.....	14,369	5,931	8,438	5,602	*2,178	*2,370	*1,054	2,836	
4th quarter.....	14,286	5,695	8,591	5,026	*1,393	*2,809	*823	3,565	
Relative standard error of current quarter estimates.....(percent)	18	18	24	28	46	30	52	34	

*These estimates are subject to high sampling errors. Caution should be used in estimating quarterly differences.

¹Includes rental, vacant, and seasonal properties.

Note: Quarterly relative standard errors are derived from an average of the most recent 4 quarters. Annual standard errors are derived from an average of the most recent 3 years.

Table 3. **Expenditures for Owner-Occupied One-Unit Properties by Region: Quarterly 1998 to 1999**

Not Seasonally Adjusted

[Millions of dollars. Components may not add to totals because of rounding]

Year and quarter	United States	Region			
		Northeast	Midwest	South	West
TOTAL EXPENDITURES					
1998: Total	96,159	23,902	25,017	25,062	22,178
1st quarter	17,875	2,957	3,367	6,316	5,235
2nd quarter	30,153	8,918	8,126	6,970	6,139
3rd quarter	25,949	6,782	7,453	6,929	4,785
4th quarter	22,182	5,245	6,071	4,847	6,019
1999: Total	95,778	17,725	23,696	24,755	29,600
1st quarter	16,607	2,711	3,966	4,789	5,139
2nd quarter	25,127	4,611	6,630	7,006	6,879
3rd quarter	27,554	5,619	6,707	6,483	8,745
4th quarter	26,491	4,784	6,393	6,477	8,837
Relative standard error estimates (percent):					
Annual	6	14	10	9	15
Quarter	11	20	16	17	24
MAINTENANCE AND REPAIRS					
1998: Total	26,110	5,698	6,459	7,707	6,245
1st quarter	4,437	833	823	1,859	921
2nd quarter	7,444	1,494	2,089	2,054	1,807
3rd quarter	8,196	1,831	2,129	2,276	1,960
4th quarter	6,034	1,540	1,418	1,518	1,558
1999: Total	23,137	3,788	5,286	5,987	8,073
1st quarter	4,272	808	850	938	1,673
2nd quarter	6,518	897	1,722	1,860	2,039
3rd quarter	6,610	1,149	1,614	1,414	2,432
4th quarter	5,737	934	1,100	1,775	1,929
Relative standard error estimates (percent):					
Annual	7	10	13	11	14
Quarter	13	14	19	16	30
TOTAL IMPROVEMENTS					
1998: Total	70,049	18,204	18,558	17,356	15,932
1st quarter	13,438	2,123	2,544	4,457	4,314
2nd quarter	22,710	7,424	6,037	4,917	4,332
3rd quarter	17,753	4,951	5,323	4,653	2,825
4th quarter	16,149	3,705	4,654	3,329	4,461
1999: Total	72,641	13,935	18,410	18,767	21,526
1st quarter	12,334	1,902	3,115	3,850	3,465
2nd quarter	18,608	3,713	4,908	5,146	4,841
3rd quarter	20,945	4,470	5,093	5,069	6,312
4th quarter	20,753	3,850	5,294	4,702	6,908
Relative standard error estimates (percent):					
Annual	8	18	12	11	18
Quarter	12	25	18	20	28

Note: Quarterly relative standard errors are derived from an average of the most recent 4 quarters. Annual standard errors are derived from an average of the most recent 3 years.

Table 4. **Expenditures for Owner-Occupied One-Unit Properties by Year Built: Quarterly 1998 to 1999**

Not Seasonally Adjusted

[Millions of dollars. Components may not add to totals because of rounding]

Year and quarter	All years	Year built					
		1990 to 1999	1980 to 1989	1970 to 1979	1960 to 1969	Before 1960	Not reported
TOTAL EXPENDITURES							
1998: Total	96,159	10,833	13,830	17,857	14,457	33,703	5,479
1st quarter.....	17,875	1,400	3,578	2,994	3,770	4,936	1,197
2nd quarter.....	30,153	4,130	3,826	6,658	4,028	9,867	1,644
3rd quarter.....	25,949	3,322	3,653	4,055	2,900	10,621	1,398
4th quarter.....	22,182	1,981	2,773	4,150	3,759	8,279	1,241
1999: Total	95,778	11,376	12,778	12,731	10,290	36,754	11,848
1st quarter.....	16,607	1,809	1,911	2,359	1,820	7,257	1,450
2nd quarter.....	25,127	2,787	4,706	3,295	2,390	9,929	2,019
3rd quarter.....	27,554	2,943	3,577	4,058	3,304	9,592	4,080
4th quarter.....	26,491	3,837	2,584	3,019	2,776	9,976	4,299
Relative standard error estimates (percent):							
Annual.....	6	14	12	12	13	10	27
Quarter.....	11	19	19	15	22	16	43
MAINTENANCE AND REPAIRS							
1998: Total	26,110	2,948	3,896	4,160	3,450	10,342	1,313
1st quarter.....	4,437	271	675	1,069	673	1,444	305
2nd quarter.....	7,444	1,115	1,389	752	936	2,901	351
3rd quarter.....	8,196	1,054	1,118	1,028	797	3,773	426
4th quarter.....	6,034	508	714	1,310	1,045	2,224	232
1999: Total	23,137	2,284	3,391	3,293	2,464	9,756	1,948
1st quarter.....	4,272	565	661	628	433	1,752	234
2nd quarter.....	6,518	496	1,000	609	717	2,726	970
3rd quarter.....	6,610	581	879	1,412	611	2,861	265
4th quarter.....	5,737	642	851	644	703	2,417	479
Relative standard error estimates (percent):							
Annual.....	7	13	15	12	16	12	21
Quarter.....	13	26	23	21	20	24	31
TOTAL IMPROVEMENTS							
1998: Total	70,049	7,885	9,934	13,697	11,007	23,361	4,166
1st quarter.....	13,438	1,129	2,903	1,925	3,097	3,492	892
2nd quarter.....	22,710	3,015	2,437	5,906	3,093	6,965	1,293
3rd quarter.....	17,753	2,268	2,534	3,027	2,103	6,848	972
4th quarter.....	16,149	1,473	2,059	2,840	2,714	6,055	1,009
1999: Total	72,641	9,092	9,387	9,439	7,827	26,998	9,899
1st quarter.....	12,334	1,244	1,250	1,732	1,387	5,506	1,216
2nd quarter.....	18,608	2,291	3,706	2,686	1,674	7,203	1,048
3rd quarter.....	20,945	2,362	2,698	2,646	2,693	6,731	3,815
4th quarter.....	20,753	3,195	1,733	2,375	2,073	7,558	3,820
Relative standard error estimates (percent):							
Annual.....	8	17	16	15	15	11	33
Quarter.....	12	22	25	17	28	19	49

Note: Quarterly relative standard errors are derived from an average of the most recent 4 quarters. Annual standard errors are derived from an average of the most recent 3 years.

Table 5. Expenditures for Owner-Occupied One-Unit Properties by Payments to Contractors or Materials Purchased by Owner: Quarterly 1998 to 1999

Not Seasonally Adjusted

[Millions of dollars. Components may not add to totals because of rounding]

Year and quarter	All payments	Total payments to contractors or hired labor ¹	Payments for building materials purchased by owner—		
			Total	For jobs done by owner ²	For jobs done under contract
TOTAL EXPENDITURES					
1998: Total	96,159	76,030	20,129	16,039	4,090
1st quarter	17,875	14,017	3,858	2,973	885
2nd quarter	30,153	23,626	6,528	5,481	1,047
3rd quarter	25,949	20,728	5,221	4,048	1,173
4th quarter	22,182	17,659	4,523	3,539	984
1999: Total	95,778	79,941	15,838	12,539	3,299
1st quarter	16,607	13,119	3,489	3,026	463
2nd quarter	25,127	20,427	4,699	3,519	1,180
3rd quarter	27,554	23,192	4,362	3,526	836
4th quarter	26,491	23,203	3,288	2,468	820
Relative standard error estimates (percent):					
Annual	6	7	7	7	15
Quarter	11	12	23	12	11
MAINTENANCE AND REPAIRS					
1998: Total	26,110	18,837	7,273	6,439	833
1st quarter	4,437	3,091	1,346	1,241	105
2nd quarter	7,444	5,285	2,159	1,888	271
3rd quarter	8,196	6,282	1,914	1,790	124
4th quarter	6,034	4,180	1,854	1,520	334
1999: Total	23,137	19,269	3,868	3,161	707
1st quarter	4,272	3,180	1,091	1,015	76
2nd quarter	6,518	5,635	883	699	184
3rd quarter	6,610	5,584	1,027	798	229
4th quarter	5,737	4,870	867	649	218
Relative standard error estimates (percent):					
Annual	7	8	9	10	19
Quarter	13	15	28	14	13
TOTAL IMPROVEMENTS					
1998: Total	70,049	57,193	12,857	9,600	3,256
1st quarter	13,438	10,927	2,512	1,732	780
2nd quarter	22,710	18,341	4,369	3,592	776
3rd quarter	17,753	14,446	3,307	2,257	1,050
4th quarter	16,149	13,479	2,669	2,019	651
1999: Total	72,641	60,673	11,969	9,377	2,592
1st quarter	12,334	9,938	2,397	2,010	387
2nd quarter	18,608	14,792	3,817	2,821	996
3rd quarter	20,945	17,609	3,336	2,728	608
4th quarter	20,753	18,334	2,419	1,818	601
Relative standard error estimates (percent):					
Annual	8	9	8	8	16
Quarter	12	15	27	15	13

¹Includes building materials supplied by the contractor or hired labor.

²Includes building materials purchased to have on hand.

Note: Quarterly relative standard errors are derived from an average of the most recent 4 quarters. Annual standard errors are derived from an average of the most recent 3 years.

Appendix A.

Definitions and Explanations

PROPERTIES INCLUDED IN THIS REPORT

This report presents improvement and repair expenditures by property owners for residential properties in the 50 states and the District of Columbia with the exceptions noted below. These data cover single and multiunit structures, publicly and privately owned structures, nonfarm and farm properties, and residential properties that are occupied by owners or renters or are vacant.

Information on properties classified as primarily nonresidential is excluded even though such properties may contain some residential space. Residential properties are defined as those having half or more of the enclosed space devoted to nontransient residential use. Also excluded are residential structures on the grounds of institutions, schools, convents, Armed Forces installations, etc.; hotels, motels, tourist cabins, manufactured homes, and boarding houses; and unusual living quarters, such as tents, boats, etc.

Expenditures made by renters are not included in this report. A study of renters' expenditures in 1989 showed that they accounted for less than 1 percent of all expenditures for improvements and repairs.

EXPENDITURES INCLUDED IN THIS REPORT

The expenditures covered in this report are those connected with construction activity intended to maintain or improve the property. The expenditures involve expenses for maintenance and repairs, additions, alterations, and major replacements, which are made on the property by the owners. Included are all costs, for both the inside and outside of the house, whether on the main dwelling, on other structures on the property incidental to the residential use of the main dwellings, or for the grounds on which the structures are erected.

As a general principle, expenses connected with items not permanently attached or firmly affixed to some part of the house or property are not included in the report. Thus, expenses connected with the repair or replacement of household appliances, such as stoves, refrigerators, television sets, room air-conditioners, etc., are excluded, as are costs connected with house furnishings such as furniture, rugs, and draperies. While the cost of appliances is excluded, the construction cost of building-in such appliances (e.g., the cost of building-in a wall oven) is included in the scope of this report. Everyday household and housekeeping expenses such as waxing floors and furniture, cleaning

walls and windows, etc., are not within the scope of this report. Expenditures for grading, draining, fencing, and paving are included, but costs of landscaping (i.e., planting of flowers, trees, shrubs, etc.) are not included in this report.

Kinds of Expenditures

Expenditures included in this report cover work done under contract or by hired labor, materials purchased by owners, and the cost of purchasing or renting tools and equipment for purposes of carrying on jobs that fall within the scope of the report. However, no attempt is made to estimate or include the value of labor in do-it-yourself jobs.

Timing of Expenditures

For one-to-four-housing-unit properties with one unit owner-occupied and owner-occupied condominiums, expenditures are reported in the month of payment for labor and materials regardless of when the work was done.

For one-to-four-housing-unit properties with no unit owner occupied and all properties with five housing units or more, expenditures appear in the quarter in which they are found in the owners' or managers' records.

PROPERTY CHARACTERISTICS

Residential Property

A property consists of the land in one ownership unit, all residential structures on this land, and any facilities attached to the land. It includes the house and additional residential structures on the land, and auxiliary nonresidential structures, such as a garage or a workshop. For the nonresident owners and owners of properties with five housing units or more, property identification is generally determined by bookkeeping practices. Groups of buildings owned by one person or organization can be classified as one or more properties depending on whether separate expenditure data are kept by the owner.

Housing Unit

In general, a housing unit is a group of rooms or a single room occupied as separate living quarters by a family, a group of unrelated persons living together, or by a person living alone. Vacant living quarters that are intended for occupancy as separate quarters are also housing units. Separate living quarters are defined as

having either (1) direct access from the outside or through a common hall, or (2) a kitchen or cooking equipment for the exclusive use of the occupants.

REGIONS

The standard census geographic regions are used in the tables of this report. States contained in each region are as follows: **Northeast**—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, Pennsylvania, and New Jersey;

Midwest—Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, Kansas, Nebraska, North Dakota, and South Dakota; **South**—Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Tennessee, Kentucky, Arkansas, Louisiana, Oklahoma, and Texas; **West**—Montana, Wyoming, Colorado, New Mexico, Arizona, Utah, Idaho, Alaska, Washington, Oregon, Nevada, California, and Hawaii.

TYPES OF EXPENDITURES

Expenditures are classified broadly as either maintenance and repairs or construction improvements. Improvements are further classified as additions to residential structures, alterations within residential structures, additions and alterations on property outside residential structures, and major replacements.

In general, when a maintenance or repair job is undertaken as part of a more extensive alteration or construction improvement, the cost of it is reported with the alteration or improvement of which it is a part. For example, repair of a floor as part of remodeling a room is reported with the alteration.

Maintenance and Repairs

Expenditures represent current costs for incidental maintenance and repairs that keep a property in ordinary working condition, rather than additional investment in the property.

Maintenance includes expenses for painting, papering, floor sanding, furnace cleaning or adjustment, etc. Repairs include many kinds of expenditures for plumbing, heating, electrical work, and other kinds of activity involved in the upkeep of residential properties. Repairs also include replacements of parts and of whole units, except for a select list specified below as major replacement expenditures. For example, roof repairs (including replacement of shingles, gutters, etc.) are classified under maintenance and repairs, but a complete reroofing is classified as a major replacement. Plumbing repairs may include extensive replacement of water pipes, but if the entire piping system is removed and a new one put in, the expenditures for the work are classified as major replacements.

Maintenance and repairs do not include expenses for trash and snow removal, lawn maintenance and landscaping, or cleaning and janitorial services.

Construction Improvements

Expenditures for construction improvements are capital expenditures that add to the value or useful life of a property. Since the classification is based on the concept of additions, alterations, and major replacements rather than dollar value, some very small expenditures that may not be considered capital investments are included among the improvements, such as installing a new electrical socket or garbage disposal. Construction improvements, as noted above, cover additions to residential structures, alterations within residential structures, additions and alterations on properties outside residential structures, and major replacements.

Additions to residential structures. These refer to the actual enlargement of the structure either by adding a wing, room, porch, attached garage, shed, or a carport, or by raising the roof, or digging a basement.

Alterations within residential structures. These include changes or improvements made within or on the structure. The changes or improvements range from a complete restructuring, which involves removal of the entire interior of the structure and remodeling it, to the installation of a new electric service outlet, wall switch, or new shelves.

Additions and alterations on property outside residential structures. These include laying or improving walks or driveways; building walls or fences; creating or improving recreational facilities such as swimming pools, tennis courts, barbecue fireplaces; constructing detached garages, sheds, patios, green houses, or the improvement of these by the installation of electricity, drains or new storage facilities. Grading and filling are included, but not landscaping.

Major replacements. The following is a list of relatively expensive items that, when replaced, are considered to be construction improvements as opposed to repairs:

Complete furnace or boiler	Plumbing fixtures
Entire roof	All water pipes
Central air-conditioner	Windows
All siding	Septic tank or cesspool
Water heater	Sink or laundry tub
Entire electrical wiring	Complete walks or drive ways
Doors	Garbage disposal unit

In general, the distinction between major replacements and additions and alterations is that major replacements are not innovations. Installation of a bathtub, where there had not been one, before is an alteration, but the substitution of a new bathtub for an old one is a major replacement.

Appendix B.

Survey Methods and Reliability of Data

INTRODUCTION

This appendix describes the data sources, sample design, and estimation procedures used to develop quarterly estimates of expenditures for the improvement and repairs to residential properties. This description refers to the revised survey methods effective with fourth quarter 1984 data. A description of the earlier methods appears in Construction Reports C50-84-A, issued April 1985.

SOURCES OF DATA

The data presented in this report are compiled from two sources:

1. Household survey of a sample of consumer units, and
2. Mail survey of owners of a sample of rental or vacant properties.

Household Survey

Description of survey. Data based on personal interviews are obtained from household members as part of the Consumer Expenditure (CE) Surveys conducted by the Census Bureau for the Bureau of Labor Statistics (BLS). The CE surveys are designed to collect data on major items of consumer expense, household characteristics, and income. The expenditures covered by the survey are those that respondents can be expected to recall fairly accurately for 3 months or longer, including expenditures for maintenance and repairs and improvement of properties. Each sample household is interviewed once per quarter for five consecutive quarters.

For the initial interview, information is collected on demographic and family characteristics and on the inventory of major durable goods of each consumer unit. Construction expenditure information is also collected in this interview, using a 1-month recall, and is used solely for bounding purposes: that is, to prevent the reporting of expenditures outside the reference period in subsequent interviews.

The second through fifth interviews use uniform questionnaires to collect expenditures for the previous months and the current month to date. Six months of data collection are required to account for all the expenditures for a quarter.

Households which move from their sample address between interviews are dropped from the survey. New households that move into the sample address are screened for eligibility and included in the survey if found qualified.

Sample design. The sample for the CE survey is a national probability sample of households designed to be representative of the urban U.S. civilian population. The eligible population is composed of all civilian non-institutional persons.

The second step in sampling was the selection of primary sampling units (PSUs) that consist of counties (or parts thereof), groups of counties, or independent cities. The set of sample PSUs used for the survey is composed of 105 areas. The PSUs, in this part of the design, are classified according to the following four categories: "A" PSUs, that comprise 31 self-representing areas, and are large metropolitan statistical areas with non-farm population greater than 1.2 million plus the Anchorage and Honolulu MSAs; 46 "B" PSUs defined as non-self-representing metropolitan areas; 10 "C" PSUs defined as urban nonmetropolitan areas; and 18 "D" PSUs defined as rural nonmetropolitan areas. The "B," "C," and "D" PSUs were selected using a controlled selection procedure to insure a distribution across states and other stratifying characteristics.

The sampling frame (the list from which housing units were chosen) for this survey was generated from the 1990 census 100-percent detail file, augmented by a new construction permits frame, and an area sample frame to represent all areas that do not have good 1990 census addresses, which are in nonpermit areas, or that have permit office problems.

The sample design is a rotating panel survey. Each rotation comprises one-fourth of a sample and is interviewed for five consecutive quarters. In each quarter, the housing units in five rotations are interviewed but the rotation that is being interviewed for the second time is used solely to bound the data to be collected in the four subsequent quarters. Allowing for the bounding interviews and for nonresponse (including vacancies), the number of interviews per quarter is targeted at 5,000.

Estimation and data adjustment procedures. Estimates of expenditures for improvements and repairs are tabulated from responses to the CE questionnaire (CE- 302), Section 5, "Construction Repairs, Alterations,

and Maintenance of Property,” and Section 7, “ Household Equipment Repairs, Service Contracts and Furniture Repair and Reupholstering” by owner occupants of one- to four-unit properties and condominiums. Each sample household included in the survey represents a given number of households in the United States. The sum of the weighted sample households is the estimate of total households in the United States or the universe. The translation of sample households into the universe of households is known as weighting.

There are five basic steps in determining the weight for each interviewed household:

1. The basic weight assigned to a household is the PSU weight multiplied by the within PSU sampling interval. The PSU weight is the inverse of the PSUs probability of selection.
2. A subsampling factor adjusts for sampling that is done in the field.
3. A new permit factor is an adjustment made to the new permit sample that is introduced in that month for the other panels.
4. A noninterview adjustment factor adjusts for interviews that could not be collected from occupied housing units because of refusals or because no one was home. The adjustment is performed as a function of region, tenure, family size, and race.
5. A second stage adjustment factor adjusts the sample estimates of the population to independently derive census population estimates.

Mail Survey

Description of the survey. Nonresident owners of rental or vacant properties with one to four housing units and owners of rental or vacant properties containing five housing units or more, as identified in the CE household survey, are mailed a questionnaire to report detailed maintenance and repairs and improvement expenditures for their entire property. Approximately 3,000 owners are queried each quarter.

All mail questionnaires, including those from the initial mailing, are used in the tabulation of data for this report. This is based on an assumption that owners of rental properties keep detailed records of their expenditures for improvements and repairs and that the reports would be based on such records rather than on memory alone.

Sample design. The mail survey consists of owners of the properties identified in the household survey as being one to four unit properties with no resident owner and all properties (excluding owner occupied

condominiums) with five housing units or more. The probability of selection of a property is proportional to the number of housing units in the property.

Estimation and data adjustment procedures. The data collected on form SORAR-705 are adjusted for unreturned or unusable forms by region and MSA status. The weights are adjusted so that sample counts of renter occupied and vacant housing units agree with independently derived controls from the Current Population Survey.

RELIABILITY OF DATA

The statistics in this report are based on sample surveys and may differ from statistics that would have been obtained from a complete census using the same forms and procedures. An estimate based on a sample survey is subject to both sampling error and nonsampling error. The accuracy of a survey result is determined by the joint effect of these errors.

Measures of sampling errors. Sampling error reflects the fact that only a particular sample was surveyed rather than the entire population. The sample selected for the CE survey is one of a large number of similar probability samples that, by chance, might have been selected under the same specifications. Estimates derived from the different samples would differ from each other. The standard error, or sampling error, of a survey estimate is a measure of the variation among the estimates from all possible samples and, thus, is a measure of the precision with which an estimate from a particular sample approximates the average from all possible samples.

Estimates of standard errors have been computed from the sample data for statistics in this report. They are presented in the tables in the form of relative standard errors. The relative standard error equals the standard error divided by the estimated value to which it refers.

The sample estimate and an estimate of its standard error allow us to construct interval estimates with prescribed confidence that the interval includes the average result of all possible samples with the same size and design. A 90-percent confidence interval is defined to be from 1.6 standard errors below the estimate to 1.6 standard errors above the estimate. If all possible samples were selected and surveyed under essentially the same conditions and all the respective 90-percent confidence intervals were generated, then approximately 90-percent of the intervals would include the average value of all sample estimates and approximately 10-percent would not include this estimate. For example, this report shows that residential property owners spent \$41.4 billion for improvements and repairs in the fourth quarter 1999 and that the average

relative standard error of this estimate is 8 percent. Multiplying \$41.4 billion by .08, we obtain \$3.31 billion as the standard error. To obtain a 90-percent confidence interval, multiply \$3.31 billion by 1.6, yielding limits of \$36.1 billion and \$46.7 billion (\$41.4 billion plus or minus \$5.3 billion). The average estimate for the specified quarter may or may not be contained in this computed interval, but one can say that the average estimate from all possible samples is included in the constructed interval with a specified confidence of 90 percent.

The sampling errors of some estimates are too great to allow meaningful comparisons among these estimates. The sampling errors should be regarded as orders of magnitude rather than absolute measurements.

Nonsampling errors and other limitations. As calculated for this report, the estimated relative standard errors measure certain nonsampling errors, but do not measure any systematic biases in the data. Bias is the difference, averaged over all possible samples with the same size and design, between the estimates and the true value being estimated. Nonsampling errors can be attributed to many sources: inability to obtain information about all cases in the sample; definitional difficulties; differences in interpretation of questions; inability or unwillingness of respondents to provide correct information; and errors made in processing the data.

These nonsampling errors also occur in complete censuses. Although no direct measurements of the biases have been obtained, it is believed that most of the important response and operational errors were detected in the course of reviewing the data for reasonableness and consistency.

Six potential sources of bias are:

1. Nonresponse to the survey as a result of selecting housing units from the permit frame for which addresses are no longer available at the permit office.
2. Nonresponse resulting from interview refusal or because no one was home.
3. Undercoverage in the sampling frame with respect to demographic and family characteristics of sample consumer units.
4. Memory failure, including failure to remember exact values, and the reporting of information for an earlier or later time period than when it actually occurred (telescoping).
5. Problems in classifying the types of jobs performed.
6. Adjustment for extreme values ("outliers") where an unusually large weighted value or more is contributed by a single job.

Appendix C.

Adjustments for Seasonal Variations

ADJUSTMENTS FOR SEASONAL VARIATIONS

Quarterly estimates of expenditures for improvements and repairs are adjusted to eliminate the effect of changes that normally occur about the same time and in about the same magnitude each year. The seasonally adjusted estimates are converted to annual rates by multiplying by 4. Estimates for expenditures at seasonally adjusted annual rates are shown in Table 1.

The factors used for making the adjustment were developed using the X-12-ARIMA, an enhanced version of the X-11 variant of the Census Method II seasonal adjustment program. A description of the X-12-ARIMA program appears in "New Capabilities and Methods of the X-12-ARIMA Seasonal Adjustment Program," by David F. Findley et al. of the U.S. Census Bureau.

Table C. Factors Used to Seasonally Adjust Expenditures for Residential Properties

Year and quarter	Total expenditures	Maintenance and repairs	Improvements		
			Total	Additions and alterations	Major replacements
1995					
1st quarter	73.7	76.5	72.1	77.5	60.8
2nd quarter	108.5	105.0	110.5	115.7	100.2
3rd quarter	117.2	113.9	119.2	111.0	131.9
4th quarter	101.5	105.5	99.0	96.0	105.4
1996					
1st quarter	73.4	74.3	72.9	77.4	64.2
2nd quarter	109.0	105.9	110.7	115.5	99.2
3rd quarter	116.6	115.2	117.1	111.2	130.8
4th quarter	100.4	105.6	98.2	96.2	104.5
1997					
1st quarter	73.4	71.9	74.1	77.1	67.0
2nd quarter	109.3	106.9	110.5	115.6	97.7
3rd quarter	116.6	116.3	116.8	111.1	130.6
4th quarter	100.5	105.4	98.7	96.4	104.2
1998					
1st quarter	73.4	70.7	74.6	77.0	68.4
2nd quarter	109.2	107.2	109.9	115.3	96.2
3rd quarter	118.1	117.4	118.5	111.5	131.3
4th quarter	100.9	105.0	98.9	96.3	103.6
1999					
1st quarter	73.0	69.8	74.3	76.9	69.5
2nd quarter	108.3	107.5	108.8	115.1	95.6
3rd quarter	116.6	118.0	115.9	111.7	131.0
4th quarter	100.2	104.6	98.6	96.6	103.7

Supplement.

Expenditures by Job Category, Region, and Selected Property and Household Characteristics

INTRODUCTION

This supplement presents detailed annual statistics on expenditures made by property owners for improvements and repairs of residential properties in the United States.

Table S1 shows annual expenditures by specific type of job for owner-occupied and rental housing. Please note that many of the type of job expenditures shown are subject to high sampling errors, and should not be considered as precise estimates.

Comparisons of the data presented in Table S1 with previous years can be made for the major category totals — additions, alterations, outside additions and alterations, major replacements, and maintenance and repairs. However, those specific job types within major categories that existed in years prior to 1993 are no longer comparable with data for recent years.

Table S2 presents annual expenditures by region, property type, and size for 1997 to 1999.

Table S3 presents annual expenditures for owner-occupied one-unit properties by selected property and household characteristics (value of property, year householder acquired unit, income of household, and age of householder) for 1997 to 1999.

Data for this report were collected by personal interview and by mail from a sample of owners of residential properties. General information about the survey including definitions, methodology, and reliability of the data appears in Appendixes A and B of this report. Detailed 2000 statistics will be presented in a supplement to the fourth quarter 2000 report.

ADDITIONAL TYPE OF JOB DEFINITIONS

Please refer to the “Type of Expenditures” section of Appendix A for definitions of major categories. The following are additional definitions for categories specific to Table S1 only:

1. “HVAC” includes heating, ventilation, and central air-conditioning systems.
2. “Flooring” does not include carpeting.
3. “Attached garages” also includes attached carports, greenhouses, sheds, and breezeways.
4. “Detached buildings” includes detached garages, carports, sheds, greenhouses, and storm cellars.
5. “Rooms” includes any and all rooms in the residence such as kitchens, bathrooms, family rooms, bedrooms, or sunrooms that are added to increase the floor space of an existing building.
6. If both the kitchen and bathroom were remodeled and the costs could not be separated, the expenditures are reported in the “Kitchen and bathroom remodeling” category, else they are reported separately under the “Kitchen remodeling” and “Bathroom remodeling” categories.
7. “Interior restructuring” includes the creation of a new room or kinds of space within the confines of the original house.
8. “Materials to have on hand” includes expenditures for materials and supplies that are to be used in a future home improvement or repair job.

Table S1. Expenditures by Type of Job and Property Type: 1997 to 1999

[Millions of dollars. Components may not add to totals because of rounding]

Type of job ¹	Property type						Average relative standard error	
	Owner Occupied			Rental ²			Owner Occupied	Rental ²
	1997	1998	1999	1997	1998	1999		
Total	93,962	99,400	99,281	39,615	34,293	43,619	6	8
Additions	12,057	10,175	10,773	2,518	1,722	5,391	18	33
Decks and porches	2,911	1,704	2,407	1,374	410	1,688	22	62
Attached garages	472	1,775	544	173	53	253	31	59
Rooms	8,674	6,697	7,822	972	1,258	3,450	22	29
Alterations	26,566	29,868	33,678	10,560	8,919	8,380	13	20
Plumbing	1,587	667	1,297	1,355	853	1,433	22	22
HVAC	1,952	1,730	2,127	1,146	763	688	18	40
Electrical	556	487	628	705	729	1,380	22	48
Flooring	2,573	3,303	2,999	1,219	1,726	899	14	30
Kitchen remodeling	5,064	7,720	4,823	#	#	#	32	(NA)
Bathroom remodeling	3,281	2,708	2,498	#	#	#	22	(NA)
Kitchen and bathroom remodeling	171	953	180	1,625	1,982	1,165	47	29
Finishing space	1,216	1,066	1,284	\$	\$	\$	33	(NA)
Interior restructuring	3,639	4,428	3,151	1,429	200	196	32	51
Siding	1,164	692	1,328	\$	\$	\$	40	(NA)
Windows and doors	620	486	756	797	417	733	32	42
Other alterations	4,741	5,629	12,606	2,282	2,250	1,887	25	25
Outside additions and alterations	9,805	10,053	11,351	3,718	2,234	2,482	13	28
Detached buildings	3,235	2,843	1,464	703	661	89	32	53
Patios and terraces	1,357	687	794	\$	\$	\$	30	(NA)
Driveways and walkways	1,240	1,350	1,292	\$	\$	\$	29	(NA)
Fences	1,564	1,629	2,079	310	183	819	14	38
Other outside additions and alterations	2,409	3,544	5,723	2,705	1,390	1,573	20	36
Major replacements	18,206	22,264	19,229	9,004	6,477	9,264	8	20
Plumbing	1,555	1,159	1,334	1,563	1,406	1,774	14	30
HVAC	4,603	4,140	3,120	1,489	936	1,057	14	28
Siding	1,105	1,599	1,972	\$	\$	\$	31	(NA)
Roofing	5,450	6,664	5,375	2,635	1,879	2,760	16	34
Driveways and walkways	551	1,170	990	\$	\$	\$	29	(NA)
Windows	2,959	4,117	3,291	1,301	1,119	827	20	50
Doors	1,008	1,097	1,188	374	116	77	19	36
Other major replacements	975	2,318	1,958	1,640	1,022	2,770	20	26
Maintenance and repairs	27,328	27,040	24,250	13,817	14,940	18,102	7	8
Painting and papering	7,958	9,094	6,788	4,090	4,459	5,002	10	9
Plumbing	2,687	2,302	2,548	1,676	1,233	2,219	10	21
HVAC	1,411	1,897	1,400	722	633	1,247	12	22
Electrical	516	508	524	593	395	600	17	25
Siding	725	307	1,003	463	824	619	44	51
Roofing	2,735	2,361	2,650	2,701	1,396	1,695	16	31
Flooring	1,681	849	1,520	776	2,094	1,327	18	24
Windows and doors	875	820	537	584	625	588	26	20
Materials to have on hand	2,796	3,324	362	287	592	569	21	32
Other maintenance and repairs	5,943	5,578	6,918	1,925	2,689	4,236	15	15

NA Not applicable.

Expenditures included in the "Kitchen and bathroom remodeling" category

\$ Expenditures included in the "Other" category

¹The expenditures given for each specified type of job consist of those outlays that have been identified as being primarily of the specified type. Thus, expenditures for one type of job done incidental to another type are included under the latter classification. For example, the relatively minor cost of painting done in conjunction with a roofing job is included in the roofing category.

²Includes rental, vacant, and seasonal properties.

Table S2. Expenditures by Region and Property Type: 1997 to 1999

[Millions of dollars. Components may not add to totals because of rounding]

Structural purpose, year and region	All residential properties	Owner-occupied		Rental		
		1 unit	2 units or more ¹	1 unit	2 to 4 units	5 units or more
TOTAL EXPENDITURES						
1997						
All regions	133,577	90,677	3,285	21,761	4,113	13,741
Northeast	33,202	16,903	1,512	8,782	1,938	4,068
Midwest	33,295	24,881	961	4,341	662	2,450
South	38,657	26,883	418	5,842	543	4,970
West	28,423	22,010	395	2,796	970	2,253
1998						
All regions	133,693	96,159	3,241	17,109	5,188	11,994
Northeast	32,301	23,902	964	2,268	1,935	3,232
Midwest	33,419	25,017	572	3,911	1,043	2,875
South	33,841	25,062	485	5,155	803	2,335
West	34,132	22,178	1,220	5,775	1,407	3,552
1999						
All regions	142,900	95,778	3,503	21,991	5,616	16,013
Northeast	31,847	17,725	1,212	5,992	4,198	2,720
Midwest	30,416	23,696	996	2,647	393	2,682
South	41,798	24,755	536	9,152	473	6,882
West	38,840	29,600	759	4,200	552	3,729
Relative standard error of annual estimates						
All regions	4	6	23	14	22	10
Northeast	10	14	34	30	35	20
Midwest	7	10	44	33	40	10
South	7	9	38	28	46	18
West	13	15	33	33	42	38
MAINTENANCE AND REPAIRS						
1997						
All regions	41,145	26,210	1,118	5,530	1,913	6,374
Northeast	8,591	4,959	564	916	729	1,423
Midwest	9,073	6,556	88	672	393	1,364
South	13,597	8,238	301	2,680	272	2,106
West	9,883	6,457	165	1,262	519	1,481
1998						
All regions	41,980	26,110	930	6,781	1,908	6,250
Northeast	8,941	5,698	321	279	833	1,809
Midwest	9,773	6,459	280	1,600	323	1,110
South	11,874	7,707	145	2,393	296	1,332
West	11,392	6,245	183	2,509	456	1,999
1999						
All regions	42,352	23,137	1,113	8,264	1,535	8,303
Northeast	7,770	3,788	508	1,467	691	1,314
Midwest	8,806	5,286	277	1,639	202	1,402
South	13,778	5,987	155	3,846	301	3,488
West	11,997	8,073	172	1,312	341	2,099
Relative standard error of annual estimates						
All regions	5	7	21	19	20	10
Northeast	8	10	38	32	31	26
Midwest	10	13	33	26	28	22
South	9	11	42	41	39	14
West	12	14	38	34	60	22

Table S2. **Expenditures by Region and Property Type: 1997 to 1999**—Con.

[Millions of dollars. Components may not add to totals because of rounding]

Structural purpose, year and region	All residential properties	Owner-occupied		Rental		
		1 unit	2 units or more ¹	1 unit	2 to 4 units	5 units or more
TOTAL IMPROVEMENTS						
1997						
All regions	92,432	64,467	2,168	16,231	2,200	7,366
Northeast	24,611	11,944	948	7,865	1,209	2,645
Midwest	24,222	18,325	873	3,669	269	1,086
South	25,060	18,645	117	3,163	271	2,863
West	18,540	15,553	230	1,534	451	772
1998						
All regions	91,712	70,049	2,311	10,327	3,281	5,744
Northeast	23,360	18,204	643	1,989	1,102	1,423
Midwest	23,645	18,558	292	2,311	720	1,765
South	21,967	17,356	340	2,761	507	1,003
West	22,740	15,932	1,037	3,266	952	1,553
1999						
All regions	100,549	72,641	2,390	13,726	4,081	7,710
Northeast	24,076	13,936	704	4,524	3,507	1,405
Midwest	21,610	18,410	719	1,008	191	1,281
South	28,019	18,767	381	5,306	172	3,393
West	26,843	21,526	587	2,888	211	1,631
Relative standard error of annual estimates	6	8	29	26	31	15
Northeast	12	18	39	29	45	26
Midwest	9	12	54	40	43	29
South	10	11	45	33	53	28
West	17	18	45	51	56	17

¹Includes 2- to 4-unit properties with 1 unit owner-occupied and owner-occupied condominiums on properties with 5 units or more.

Table S3. Expenditures for Owner-Occupied One-Unit Properties by Selected Characteristics: 1997 to 1999

[Millions of dollars. Components may not add to totals because of rounding]

Characteristics	Total expenditures				Maintenance and repairs				Improvements			
	1997	1998	1999	Average RSE	1997	1998	1999	Average RSE	1997	1998	1999	Average RSE
Total	90,677	96,159	95,778	6	26,210	26,110	23,137	7	64,467	70,049	72,641	8
Value of Property												
Less than \$50,000	5,889	8,145	4,482	17	1,592	2,298	1,080	20	4,297	5,847	3,402	20
\$50,000 to 99,999	20,755	18,674	15,608	9	6,345	5,198	4,273	13	14,410	13,476	11,334	10
\$100,000 to 149,999	18,091	19,446	16,746	12	5,189	4,820	3,265	13	12,902	14,626	13,481	15
\$150,000 to 199,999	15,766	17,730	13,052	12	3,167	4,534	2,799	12	12,598	13,196	10,254	15
\$200,000 to 249,999	7,428	5,845	8,767	17	2,151	1,527	2,564	20	5,277	4,318	6,204	20
\$250,000 or more	14,991	17,629	23,025	15	5,246	5,242	6,475	18	9,745	12,387	16,550	19
Not Reported	7,757	8,691	14,098	21	2,520	2,492	2,683	15	5,237	6,200	11,416	26
Year Household Acquired Unit												
1990 to 1998	42,986	45,525	47,350	10	11,564	11,796	11,136	11	31,421	33,730	36,214	11
1980 to 1989	17,740	21,354	19,575	10	5,524	5,129	4,759	11	12,216	16,225	14,816	12
1970 to 1979	12,082	13,785	11,208	12	3,972	4,241	2,776	15	8,109	9,544	8,433	15
1960 to 1969	9,106	7,882	6,139	18	2,224	2,411	1,898	18	6,882	5,470	4,241	22
Before 1960	5,908	4,761	3,536	17	2,123	1,615	1,530	23	3,785	3,146	2,006	22
Not Reported	2,855	2,852	7,970	38	802	919	1,039	30	2,053	1,934	6,931	46
Income of Household												
Less than \$20,000	5,610	4,464	4,624	12	2,285	1,582	1,467	16	3,326	2,881	3,157	15
\$20,000 to 34,999	11,267	11,220	9,463	11	3,066	3,750	3,066	17	8,201	7,470	6,398	13
\$35,000 to 49,999	12,765	11,789	11,034	11	3,831	2,929	2,463	13	8,934	8,860	8,571	13
\$50,000 to 74,999	19,976	24,819	14,166	11	4,894	5,875	3,231	13	15,082	18,944	10,935	12
\$75,000 or more	29,658	33,606	40,494	11	8,922	8,957	9,640	14	20,736	24,649	30,854	14
Not Reported	11,401	10,262	15,997	22	3,213	3,017	3,271	17	8,188	7,244	12,726	28
Age of Householder												
Under 30 years	3,129	3,610	3,121	17	780	807	1,048	30	2,348	2,803	2,073	19
30 to 34	7,415	6,746	6,426	16	2,201	1,437	1,589	21	5,214	5,309	4,837	17
35 to 44	23,891	30,350	25,310	12	6,480	6,621	6,388	16	17,411	23,728	18,922	13
45 to 54	20,198	23,510	28,163	13	6,294	6,340	5,850	11	13,904	17,170	22,314	16
55 to 64	15,792	11,701	16,977	15	4,202	3,528	3,221	15	11,589	8,173	13,757	19
65 to 74	12,953	13,350	9,639	12	3,444	4,571	3,312	14	9,509	8,779	6,327	15
75 years and over	7,300	6,892	6,142	16	2,809	2,805	1,730	14	4,491	4,087	4,412	21

RSE Relative Standard Error.