

# **Expenditures for Residential Improvements and Repairs**

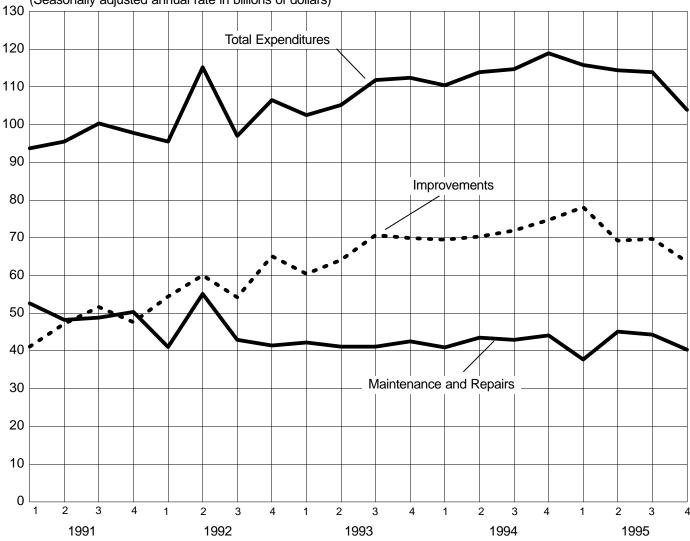
**FOURTH QUARTER 1995** 

C50/95-Q4 Issued September 1996

This issue includes the supplemental tables showing detailed data by job category and region, and a new table showing data by selected property and household characteristics.

#### **Quarterly Expenditures for Residential Improvements and Repairs**

(Seasonally adjusted annual rate in billions of dollars)



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



U.S. Department of Commerce Economics and Statistics Administration BUREAU OF THE CENSUS Questions regarding these data may be directed to George A. Roff, Jr., Manufacturing and Construction Division, Telephone 301-457-1605.

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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 1988 to 1995. Table 2 shows actual (not seasonally adjusted) quarterly estimates separately by type of property (all owner-occupied, owner-occupied one-unit, and rental) for 1992 to 1995. 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 1994 and 1995. 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 1995 were estimated at a seasonally adjusted annual rate of \$103.9 billion. Spending on improvements was at a seasonally adjusted rate of \$63.6 billion during the fourth quarter and expenditures for repairs amounted to \$40.3 billion.

Actual expenditures for improvements and repairs to all properties amounted to an estimated \$26.7 billion during the fourth quarter 1995. Of this amount, owners of all owner-occupied properties spent \$18.5 billion and owners of rental, vacant, and seasonal properties spent \$8.2 billion.

Table 1. Expenditures for Residential Properties: Quarterly 1988 to 1995

Seasonally Adjusted Annual Rate

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

			Improvements			
Year and quarter	Total expenditures	Maintenance and repairs	Total	Additions and alterations	Major replacements	
1988						
1st quarter	92,000 111,800 102,100 95,900	42,700 42,600 42,300 35,900	49,300 69,200 59,800 60,000	33,700 49,400 44,100 43,300	15,600 19,900 15,700 16,700	
1989						
1st quarter	96,800 97,000 104,000 104,500	38,200 39,100 45,500 46,600	58,600 58,000 58,500 57,900	42,100 38,700 39,800 39,200	16,500 19,300 18,700 18,700	
1990						
1st quarter	110,400 107,600 103,600 107,100	48,200 52,400 50,400 53,700	62,200 55,300 53,200 53,400	41,000 37,100 36,200 35,900	21,300 18,100 17,000 17,400	
1991						
1st quarter	93,700 95,500 100,300 97,800	52,600 48,200 48,800 50,300	41,100 47,200 51,600 47,600	24,700 35,500 31,600 30,000	16,400 11,700 20,000 17,600	
1992						
1st quarter	95,500 115,200 97,000 106,500	41,000 55,100 42,900 41,400	54,400 60,000 54,200 65,100	38,100 40,000 36,900 46,000	16,400 20,000 17,300 19,100	
1993						
1st quarter	102,500 105,200 111,800 112,400	42,200 41,100 41,100 42,500	60,400 64,100 70,700 69,900	40,100 41,200 50,600 50,200	20,200 22,900 20,100 19,600	
1994						
1st quarter	110,400 113,900 114,700 118,900	40,900 43,500 42,900 44,100	69,500 70,300 71,900 74,700	51,500 50,400 47,400 46,400	18,000 20,000 24,400 28,300	
1995						
1st quarter	115,800 114,400 113,900 103,900	37,700 45,100 44,300 40,300	78,100 69,200 69,700 63,600	52,200 46,400 41,500 40,300	25,900 22,800 28,100 23,200	

rRevised.

Table 2. Expenditures for Residential Properties by Property Type: Quarterly 1992 to 1995 Not Seasonally Adjusted

					Impro	vements		
					Additions a	nd alterations		
Property type, year, and quarter	Total expendi-	Mainte- nance and			To stru	ıctures	To prop- erty out- side of	Major replace-
	tures	repairs	Total	Total	Additions	Alterations	structures	ments
ALL PROPERTIES								
Annual								
1992	103,734	45,154	58,580	40,186	6,783	22,700	10,704	18,393
1993	108,304	41,699	66,606	45,797	12,757	24,782	8,259	20,809
1994	115,030 111,683	42,953 42,047	72,077 69,636	48,828 44,726	9,647 7,936	28,673 26,893	10,509 9,897	23,248 24,910
Relative standard error of annual estimates (percent)	3	2	4	5	13	7	12	8
Quarterly								
1992: 1st quarter	18,658	8,674	9,986	7,324	1,652	4,843	828	2,661
2nd quarter	30,436	13,583	16,853	11,474	1,646	5,867	3,960	5,379
3rd quarter	27,587	11,970	15,615	10,423	2,143	4,780	3,501	5,192
4th quarter	27,055	10,928	16,127	10,966	1,342	7,210	2,414	5,162
1993: 1st quarter	19,709	8,840	10,869	7,719	1,277	5,510	931	3,150
2nd quarter	28,422	10,193	18,229	11,863	3,848	5,248	2,767	6,366
3rd quarter	31,528 28,645	11,412 11,253	20,115 17,392	14,167 12,048	3,972 3,659	7,036 6,987	3,158 1,402	5,948 5,344
·	·							
1994: 1st quarter	21,191	8,564	12,627	9,900	2,725	5,554	1,621	2,727
2nd quarter	30,988 32,297	10,811 11,890	20,177 20,407	14,518 13,240	3,158 2,344	7,350 7,946	4,009 2,949	5,659 7,167
4th quarter	30,553	11,688	18,866	11,171	1,419	7,823	1,929	7,107
	·		13,900					
1995: 1st quarter	21,777 31,139	7,877 11,213	19,927	10,032 13,399	1,049 3,223	7,435 7,621	1,549 2,554	3,868 6,528
3rd quarter	32,054	12,269	19,784	11,576	2,644	5,853	3,078	8,208
4th quarter <sup>r</sup>	26,713	10,688	16,025	9,719	1,020	5,983	2,716	6,306
Relative standard error of current quarter estimates(percent)	4	8	8	10	29	12	22	14
ALL OWNER-OCCUPIED PROPERTIES								
Annual								
1992	69,859	24,921	44,937	34,827	6,226	19,753	8,848	10,110
1993	72,882	22,133	50,749	36,549	11,519	18,514	6,516	14,200
1994	81,737	25,175	56,562	40,693	8,793	22,996	8,904	15,869
1995	78,583	26,262	52,321	33,972	6,576	19,176	8,221	18,348
Relative standard error of annual estimates (percent)	5	6	6	7	16	8	13	9
Quarterly								
1992: 1st quarter	12,678	4,629	8,050	6,526	1,492	4,238	796	1,523
2nd quarter	21,816	7,888	13,928	10,566	1,625	5,429	3,512	3,362
3rd quarter	18,369 16,998	7,467 4,939	10,900 12,059	8,289 9,446	1,829 1,281	3,965 6,121	2,496 2,044	2,611 2,614
1993: 1st quarter	12,197	3,430	8,767	6,412	1,191	4,422	799	2,355
2nd quarter	19,330 22,140	5,841 6,915	13,489 15,225	9,446 11,403	3,040 3,796	4,072 5,203	2,334 2,404	4,043 3,822
4th quarter	19,216	5,948	13,268	9,288	3,492	4,817	979	3,980
1994: 1st quarter	14.262	4,326	9,936	8,142	2,437	4,277	1,429	1,794
2nd quarter	23,342	6,553	16,789	12,878	2,962	6,472	3,444	3,912
3rd quarter	22,809	7,380	15,429	10,629	2,206	5,923	2,500	4,800
4th quarter	21,323	6,915	14,408	9,045	1,189	6,325	1,531	5,363
1995: 1st quarter	14,657	4,600	10,057	6,848	517	5,149	1,183	3,208
2nd quarter	23,799	7,932	15,867	10,573	2,904	5,521	2,148	5,295
3rd quarter	21,597	6,768	14,829	9,292	2,325	4,120	2,847	5,537
4th quarter <sup>r</sup>	18,530	6,962	11,568	7,259	829	4,387	2,043	4,309
Relative standard error of current quarter estimates(percent)	8	10	10	12	30	16	26	16
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See footnotes at end of table.

Table 2. Expenditures for Residential Properties by Property Type: Quarterly 1992 to 1995—Con. Not Seasonally Adjusted

					Impro	vements		
					Additions a	nd alterations		
Property type, year, and quarter	Total expendi-	Mainte- nance and			To stru	uctures	To property outside of	Major replace-
	tures	repairs	Total	Total	Additions	Alterations	structures	ments
OWNER-OCCUPIED ONE-UNIT PROPERTIES								
Annual								
1992	67,316	23,802	43,514	33,783	6,220	18,866	8,696	9,731
1993	70,746	21,175	49,571	35,798	11,501	17,828	6,469	13,773
1994	77,270	24,241	53,030	37,946	8,360	21,527	8,059	15,084
1995	75,362	25,076	50,286	32,538	6,507	17,934	8,097	17,748
Relative standard error of annual estimates $\ldots\ldots$ .(percent).	5	6	6	7	15	9	13	9
Quarterly								
1992: 1st quarter	12,018	4,372	7,646	6,287	1,492	4,047	748	1,359
2nd quarter	21,084	7,475	13,610	10,304	1,619	5,245	3,440	3,306
3rd quarter	17,718	7,220	10,498	8,011	1,829	3,693	2,490	2,487
4th quarter	16,496	4,735	11,760	9,181	1,281	5,881	2,019	2,580
1993: 1st quarter	11,912	3,287	8,625	6,298	1,191	4,308	799	2,327
2nd quarter	18,803	5,595	13,208	9,298	3,029	3,966	2,303	3,910
3rd quarter	21,555	6,664	14,892	11,126	3,789	4,944	2,393	3,765
4th quarter	18,476	5,629	12,847	9,076	3,492	4,610	974	3,771
1994: 1st quarter	13,693	4,138	9,555	7,778	2,321	4,086	1,371	1,777
2nd quarter	21,212	6,240	14,973	11,237	2,648	5,816	2,772	3,736
3rd quarter	21,690	7,109	14,582	10,118	2,206	5,462	2,450	4,464
4th quarter	20,675	6,755	13,920	8,814	1,184	6,164	1,466	5,106
1995: 1st quarter	14,110	4,524	9,585	6,684	517	5,062	1,105	2,901
2nd quarter	23,046	7,580	15,466	10,313	2,869	5,311	2,132	5,154
3rd quarter	20,393	6,499	13,894	8,446	2,291	3,317	2,837	5,448
4th quarter <sup>r</sup>	17,814	6,474	11,340	7,095	829	4,243	2,023	4,245
Relative standard error of current quarter estimates(percent)	8	10	10	12	30	16	26	17
RENTAL PROPERTIES <sup>1</sup>								
Annual								
1992	33,875	20,233	13,643	5,359	557	2,947	1,856	8,283
1993	35,423	19,566	15,857	9,248	1,238	6,268	1,742	6,609
1994	33,293	17,778	15,515	8,135	854	5,676	1,605	7,380
1995	33,100	15,785	17,315	10,754	1,361	7,717	1,676	6,562
Relative standard error of annual estimates (percent)	4	5	6	11	28	16	24	14
Quarterly								
1992: 1st quarter	5,980	4,045	1,936	798	*160	*605	*32	1,138
2nd quarter	8,620	5,695	2,925	908	*21	*438	*448	2,017
3rd quarter	9,218 10,057	4,503 5,989	4,715 4,068	2,134 1,520	*314 *61	*815 *1,089	*1,005 *370	2,581 2,548
·						· '		,
1993: 1st quarter	7,512	5,410	2,102	1,307	*86	*1,088	*132	795
2nd quarter	9,093 9,388	4,352 4,498	4,740 4,890	2,418 2,764	*808 *177	*1,176 *1,833	*433 *754	2,323 2,127
4th quarter	9,430	5,306	4,124	2,760	*167	*2,170	*423	1,364
•	6,929	4,238	2,691	1,758	*289	*1,277	*193	933
1994: 1st quarter	7,646	4,258	3,388	1,736	*197	*879	*565	1,748
3rd quarter	9,489	4,230	4,979	2,611	*139	*2,023	*449	2,368
4th quarter	9,230	4,772	4,458	2,126	*230	*1,498	*398	2,332
1995: 1st quarter	7,120	3,277	3,844	3,184	*532	*2,286	*366	659
2nd guarter	7,120	3,281	4,059	2,826	*319	*2,101	*407	1,233
3rd quarter	10,457	5,502	4,955	2,020	*319	*1,733	*231	2,671
4th quarter	8,183	3,726	4,457	2,459	*191	*1,596	*673	1,998
Relative standard error of current quarter estimates(percent)	13	16	20	28	53	33	45	29
(percent)	13	'0	20	20	55	33	73	29

<sup>&</sup>lt;sup>1</sup>Includes 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 1994 to 1995 Not Seasonally Adjusted

Versional superior			Re	gion	
Year and quarter	United States	Northeast	Midwest	South	West
TOTAL EXPENDITURES					
1994: Total  1st quarter 2nd quarter 3rd quarter 4th quarter	77,270 13,693 21,212 21,690 20,675	<b>16,958</b> 2,515 4,311 4,963 5,169	<b>20,804</b> 3,420 5,650 6,492 5,243	<b>22,292</b> 4,740 6,688 5,425 5,439	<b>17,216</b> 3,017 4,565 4,811 4,823
1995: Total  1st quarter  2nd quarter  3rd quarter  4th quarter	<b>75,362</b> 14,110 23,046 20,393 17,814	<b>15,319</b> 2,815 4,367 5,310 2,827	<b>20,769</b> 3,052 6,778 5,793 5,146	<b>24,135</b> 5,424 7,515 5,501 5,695	<b>15,139</b> 2,819 4,387 3,788 4,145
Relative standard error estimates (percent): Annual	5 8	8 11	8 15	11 15	12 19
MAINTENANCE AND REPAIRS					
1994: Total  1st quarter  2nd quarter  3rd quarter  4th quarter  1995: Total	<b>24,241</b> 4,138 6,240 7,109 6,755	<b>5,851</b> 719 1,805 1,713 1,614	<b>5,304</b> 912 1,432 1,724 1,236	<b>7,810</b> 1,470 1,725 2,088 2,527	<b>5,277</b> 1,037 1,278 1,583 1,378
1st quarter 2nd quarter 3rd quarter 4th quarter	<b>25,076</b> 4,524 7,580 6,499 6,474	5,021 482 1,635 1,389 1,515	<b>5,536</b> 991 1,496 1,566 1,483	9,275 2,102 3,092 2,028 2,054	<b>5,245</b> 950 1,358 1,516 1,422
Relative standard error estimates (percent): Annual	6 10	13 20	12 18	12 18	10 18
TOTAL IMPROVEMENTS					
1994: Total  1st quarter  2nd quarter  3rd quarter  4th quarter	<b>53,030</b> 9,555 14,973 14,582 13,920	<b>11,107</b> 1,797 2,505 3,249 3,555	<b>15,501</b> 2,508 4,218 4,767 4,007	<b>14,483</b> 3,270 4,963 3,338 2,912	11,939 1,980 3,287 3,227 3,445
1995: Total  1st quarter 2nd quarter 3rd quarter 4th quarter	<b>50,286</b> 9,585 15,466 13,894 11,340	<b>10,298</b> 2,333 2,732 3,921 1,312	<b>15,233</b> 2,061 5,282 4,227 3,663	<b>14,860</b> 3,322 4,423 3,473 3,642	9,895 1,869 3,029 2,273 2,724
Relative standard error estimates (percent): Annual	6 10	9 16	10 19	13 20	14 24

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 1994 to 1995 Not Seasonally Adjusted

				Year	built		
Year and quarter		1990	1980	1970	1960		
•	AII	to	to	to	to	Before	Not
	years	1995	1989	1979	1969	1960	reported
TOTAL EXPENDITURES							
1994: Total	77,270	3,786	9,963	14,291	13,942	29,676	5,611
1st quarter	13,693	884	2,206	2,839	1,938	5,110	716
2nd quarter	21,212	1,149	3,105	3,709	3,101	8,387	1,762
3rd quarter	21,690	804	2,848	3,864	4,146	8,432	1,597
4th quarter	20,675	949	1,806	3,879	4,757	7,748	1,536
1995: Total	75,362	5,077	10,225	15,637	10,759	27,796	5,868
1st quarter.	14,110	1,047	2,749	3,547	2,190	3,954	623
2nd quarter	23,046	1,814	2,505	4,428	3,399	8,427	2,472
3rd quarter	20,393 17,814	1,298 918	2,634	4,240	2,569	8,589	1,063 1,710
4th quarter	17,614	910	2,337	3,421	2,601	6,826	1,710
Relative standard error estimates (percent):	_					_	
Annual	5	16	11	12	14	7	14
Quarter	8	20	20	16	24	14	31
MAINTENANCE AND REPAIRS							
1994: Total	24,241	702	3,301	3,928	4,502	10,096	1,711
1st quarter	4,138	143	609	740	656	1,693	297
2nd quarter	6,240	111	875	981	874	2,935	464
3rd quarter	7,109	147	1,223	1,078	1,092	2,989	580
4th quarter	6,755	303	593	1,129	1,880	2,479	370
1995: Total	25,076	1,740	3,973	4,379	3,984	9,469	1,532
1st quarter	4,524	450	788	934	1,033	1,051	268
2nd quarter	7,580	627	964	986	968	3,303	732
3rd quarter	6,499 6,474	186 477	1,084 1,137	1,035 1,425	961 1,023	3,016 2,098	217 314
4th quarter	0,474	477	1,137	1,425	1,023	2,090	314
Relative standard error estimates (percent):	6	23	14	14	16	9	21
Annual	10	36	25	22	27	16	38
TOTAL IMPROVEMENTS	10	00	20				00
	<b>5</b> 0.000	2 22 4		40.000		40.504	
1994: Total	<b>53,030</b> 9,555	<b>3,084</b> 742	6,663	<b>10,363</b> 2.099	9,440	19,581	<b>3,900</b> 418
1st quarter	14,973	1,038	1,596 2,230	2,099	1,282 2,227	3,417 5,452	1,298
3rd quarter	14,573	657	1.624	2,726	3.053	5,432	1,298
4th quarter	13,920	646	1,212	2,750	2,877	5,269	1,166
1995: Total	50,286	3,338	6.252	11,258	6,775	18,327	4.336
1st quarter	9,585	597	1,961	2.613	1.157	2,903	355
2nd quarter	15,466	1,188	1,541	3,443	2,431	5,124	1,740
3rd quarter	13,894	1,112	1,550	3,206	1,609	5,572	846
4th quarter	11,340	441	1,200	1,997	1,578	4,728	1,396
Relative standard error estimates (percent):							
Annual	6	20	15	14	17	9	18
Quarter	10	30	26	21	33	18	37

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 1994 to 1995

Not Seasonally Adjusted

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

		Total		Payments for building materials purchased by owner—			
Year and quarter	All payments	payments to contractors or hired labor <sup>1</sup>	Total	For jobs done by owner <sup>2</sup>	For jobs done under contract		
TOTAL EXPENDITURES	1.7						
1994: Total	<b>77,270</b> 13,693 21,212 21,690 20,675	<b>60,211</b> 10,319 17,013 16,386 16,492	17,060 3,373 4,199 5,304 4,183	<b>14,224</b> 3,065 3,630 4,589 2,941	<b>2,835</b> 308 569 716 1,242		
1995: Total  1st quarter 2nd quarter 3rd quarter 4th quarter	<b>75,362</b> 14,110 23,046 20,393 17,814	<b>59,676</b> 11,006 17,877 16,096 14,697	<b>15,687</b> 3,104 5,170 4,297 3,117	<b>12,270</b> 2,547 3,939 3,128 2,657	<b>3,417</b> 557 1,231 1,169 460		
Relative standard error estimates (percent): Annual Quarter	5 8	6 9	7 11	8 13	20 28		
MAINTENANCE AND REPAIRS							
1994: Total	<b>24,241</b> 4,138 6,240 7,109 6,755	<b>17,922</b> 2,930 4,657 4,862 5,473	<b>6,318</b> 1,208 1,583 2,246 1,281	<b>5,499</b> 1,089 1,412 1,888 1,110	<b>820</b> 119 171 358 171		
1995: Total  1st quarter 2nd quarter 3rd quarter 4th quarter	<b>25,076</b> 4,524 7,580 6,499 6,474	<b>19,228</b> 3,485 5,686 4,889 5,167	<b>5,848</b> 1,039 1,893 1,609 1,306	<b>5,353</b> 966 1,815 1,475 1,097	<b>496</b> 73 79 135 209		
Relative standard error estimates (percent): Annual	6 10	7 12	10 15	10 16	25 38		
TOTAL IMPROVEMENTS							
1994: Total	<b>53,030</b> 9,555 14,973 14,582 13,920	<b>42,288</b> 7,389 12,357 11,524 11,019	10,741 2,166 2,616 3,058 2,901	<b>8,726</b> 1,977 2,218 2,700 1,830	<b>2,015</b> 189 398 357 1,071		
1995: Total  1st quarter 2nd quarter 3rd quarter 4th quarter	<b>50,286</b> 9,585 15,466 13,894 11,340	<b>40,446</b> 7,520 12,190 11,207 9,529	9,839 2,065 3,276 2,687 1,811	<b>6,918</b> 1,581 2,124 1,653 1,559	<b>2,921</b> 484 1,152 1,034 251		
Relative standard error estimates (percent): Annual	6 10	7 38	9 15	9 16	24 35		

<sup>&</sup>lt;sup>1</sup>Includes building materials supplied by the contractor or hired labor.

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.

<sup>&</sup>lt;sup>2</sup>Includes building materials purchased to have on hand.

## 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 which 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, mobile 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 which 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 which 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 which 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 which 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 which 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 All water pipes Entire roof Windows

Central air-conditioner Septic tank or cesspool Sink or laundry tub All siding Water heater Complete walks or driveways Entire electrical wiring

Doors Plumbing fixtures 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 first 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:

- 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 Bureau of the Census for the Bureau of Labor Statistics (BLS). The CE survey is designed to collect data on major items of consumer expense, household characteristics, and income. The expenditures covered by the survey are those which 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 which 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 first step in sampling was the selection of primary sampling units (PSU's) which consist of counties (or parts thereof), groups of counties, or independent cities. The set of sample PSU's used for the survey is composed of 101 areas. The PSU's in this part of the design represent only the metropolitan and urban nonmetropolitan parts of the United States and are classified according to the following four categories: "A" PSU's, which comprise 29 self-representing areas, are large metropolitan statistical areas with nonfarm population greater than 1.2 million plus the Anchorage and Honolulu MSA's; 20 "L" PSU's defined as medium-size metropolitan areas; 24 "M" PSU's defined as small metropolitan areas; and 12 "R" PSU's defined as urban places in nonmetropolitan areas. The population break between "L" and "M" PSU's is different in each of the regions and varies from 330,000 in the West to 500,000 in the Northeast. Since these PSU's do not represent the nonmetropolitan rural population, it was necessary to supplement this design with 16 additional PSU's, denoted as "T" PSU's, to represent this population. The "L," "M," and "R" PSU's 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 1980 census 100-percent detail file, augmented by new construction permits, and an area sample frame to represent all areas which do not have good 1980 census addresses, which are in nonpermit areas, and which 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 which is being interviewed for the first 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 usable interviews per quarter is targeted at 3.700.

Two sample reductions were implemented in 1988. In January, the number of sample households was reduced by 16 percent in 84 PSU's and subsequently in April 8 PSU's were dropped from the survey. Seven of the 8 PSU's were from the 84 PSU's and 1 from the remaining 25 PSU's.

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, "Service Contracts," 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 six basic steps in determining the weight for each interviewed household:

- The basic weight assigned to a household is the inverse of the probability of selection of the housing unit containing the household.
- 2. A weight control factor is given to each household for which subsampling was performed in the field.
- 3. A noninterview adjustment is made for housing units selected from the permit frame for which the addresses were no longer available at the permit office.
- 4. A noninterview adjustment is made for interviews which could not be collected from occupied housing units because of refusals or because no one was home (type A). The adjustment is performed as a function of region, tenure, family size, and race.
- 5. A ratio adjustment is made at the national level to adjust the age, sex, and race levels from the survey to independently derived controls.
- 6. A final weight adjustment is made to account for the composition of the households.

#### **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 2,000 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. A result of this method of sampling is that the probability of selection of a property is proportionate 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 which 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 nine-tenths of the intervals would include the average value of all sample estimates and approximately one-tenth would not include this estimate. For example, this report shows that residential property owners spent \$26.7 billion for improvements and repairs in the fourth quarter 1995 and that the average relative standard error of this estimate is 4 percent. Multiplying \$26.7 billion by .04, we obtain \$1.1 billion as the standard error. To obtain a 90-percent confidence interval, multiply \$1.1 billion by 1.6, yielding limits of \$24.9 billion and \$28.5 billion (\$26.7 billion plus or minus \$1.8 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:

- 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.
- 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.
- Memory failure, including failure to remember exact values, and the reporting of information for an earlier or later time period than it actually occurred (telescoping).
- 5. Problems in classifying the types of jobs performed.
- 6. Adjustment for extreme values where a weighted value of \$300 million 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-11 ARIMA version of the Census Method II seasonal adjustment program. A description of the X-11 ARIMA program appears in "The X-11 ARIMA Seasonal Adjustment Method," by Estela Bee Dagum, Statistics Canada.

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

				Improvements	
Year and quarter	Total expenditures	Maintenance and repairs	Total	Additions and alterations	Major replacements
1991					
1st quarter	80.5 104.4 115.0 101.9	85.5 97.9 112.4 104.3	74.1 111.0 117.4 99.4	77.3 114.1 114.0 94.8	69.3 101.5 122.9 107.2
1992					
1st quarter	78.2 105.7 113.7 101.6	84.5 98.6 111.7 105.6	73.4 112.3 115.3 99.1	77.0 114.6 113.1 95.3	65.0 107.6 120.1 108.2
1993					
1st quarter	76.9 108.1 112.8 102.0	83.9 99.2 111.0 105.9	72.0 113.7 113.9 99.6	76.9 115.2 112.1 95.9	62.2 111.0 118.4 108.8
1994					
1st quarter	76.8 108.9 112.6 102.8	83.7 99.4 111.0 106.0	72.6 114.8 113.6 101.0	76.9 115.3 111.7 96.3	60.6 113.4 117.3 108.7
1995					
1st quarter	75.2 108.9 112.6 102.9	83.7 99.4 110.9 106.0	71.2 115.1 113.6 100.9	76.8 115.4 111.5 96.4	59.7 114.6 116.7 108.6

### 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. Because of recent changes in the way jobs are classified, more job types are now available for publication. 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 1993 through 1995 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 which existed in previous years are no longer comparable with data for recent years.

Table S2 presents annual expenditures by region, property type, and size for 1992 to 1995.

Table S3 presents annual expenditures for owneroccupied one-unit properties by selected property and household characteristics (value of property, year householder acquired unit, income of household, and age of householder) for 1993 to 1995.

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 1996 statistics will be presented in a supplement to the fourth guarter 1996 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.
- "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.
- "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: 1993 to 1995

			Property	y type			Average standare	
Type of job <sup>1</sup>	Ow	ner occupied	t		Rental <sup>2</sup>		Owner	
	1993	1994	1995	1993	1994	1995	occupied	Rental <sup>2</sup>
Total	72,882	81,737	78,583	35,423	33,293	33,100	5	5
Additions	11,519	8,793	6,576	1,238	854	1,361	16	26
Decks and porches	1,856	1,618	2,419	607	104	264	23	49
Attached garages	2,290	1,618	1,688	222	156	307	33	81
Rooms	7,372	5,556	2,468	409	594	789	24	30
Alterations	18,514	22,996	19,176	6,268	5,676	7,717	8	17
Plumbing	877	658	1,050	329	835	1,304	28	25
HVAC	955	1,591	1,232	304	469	640	26	43
Electrical	528	796	485	158	274	399	23	36
Flooring	1,791	2,202	2,000	853	592	937	21	32
Kitchen remodeling	1,564	1,379	1,716	#	#	#	24	(NA)
Bathroom remodeling	2,246	3,643	2,501	#	#	#	24	(NA)
Kitchen and bathroom remodeling	630	1,470	608	792	537	1,549	39	36
Finishing space	967	709	1,146	\$	\$	1,045	41	(NA)
Interior restructuring	1,275	2,855	2,249	1,595	358	1,143	28	48
Siding	977	1,245	550	\$	\$	.,	47	(NA)
Windows and doors	848	703	359	758	769	518	30	38
Other alterations	5,858	5,746	5,280	1,477	1,842	1,226	13	30
Outside additions and alterations	6,516	8,904	8,221	1,742	1,605	1,676	13	26
Detached buildings	577	1,895	1,271	276	418	253	34	50
Patios and terraces	520	775	484	\$	\$	\$	36	(NA)
Driveways and walkways	818	468	814	\$	\$	\$	40	(NA)
Fences	1,176	1,280	1,447	364	151	140	27	36
Other outside additions and alterations	3,427	4,486	4,204	1,102	1,036	1,283	18	32
Major replacements	14,200	15,869	18,348	6,609	7,380	6,562	9	18
Plumbing	1,655	1,811	1,997	1,335	1,024	1,056	16	23
HVAC	3,331	2,815	5,014	709	1,089	625	18	26
Siding	1,169	978	1,056	\$	\$	\$	37	(NA)
Roofing	3,006	4,030	4,176	1,815	2,978	2,104	17	31
Driveways and walkways	760	875	438	\$	\$	\$	32	(NA)
Windows	1,838	2,487	2,435	955	910	820	20	43
Doors	958	1,157	1,020	216	288	201	19	37
Other major replacements	1,484	1,716	2,213	1,578	1,089	1,756	23	35
Maintenance and repairs	22,133	25,175	26,262	19,566	17,778	15,785	6	5
Painting and papering	6,833	6,669	6,660	5,732	4,777	4,250	9	9
Plumbing	2,002	2,945	2,281	2,111	1,483	1,801	11	16
HVAC	1,680	1,687	1,692	939	931	948	15	27
Electrical	483	551	615	446	242	740	27	22
Siding	584	497	587	613	763	775	53	51
Roofing	2,707	2,439	2,902	1,415	1,959	1,233	19	27
Flooring	774	1,490	1,417	892	1,050	1,010	30	24
Windows and doors	351	855	726	309	652	651	30	20
Materials to have on hand	1,965	2,270	1,990	222	556	330	15	30
Other maintenance and repairs	4,752	5,771	7,392	6,885	5,366	4,047	13	12

NA Not applicable.

<sup>#</sup> Expenditures included in the "Kitchen and bathroom remodeling" category. \$ Expenditures included in the "Other" category.

<sup>&</sup>lt;sup>1</sup>The expenditures given for each specified type of job consist of those outlays which 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.

<sup>&</sup>lt;sup>2</sup>Includes rental, vacant, and seasonal properties.

Table S2. Expenditures by Region and Property Type: 1992 to 1995

Structural purpose, year,	AII –	Owner-o	ccupied	Rental			
and region	residential properties	1 unit	2 units or more <sup>1</sup>	1 unit	2 to 4 units	5 units or more	
TOTAL EXPENDITURES							
1995							
All regions	111,683	75,362	3,221	12,872	5,898	14,330	
Northeast. Midwest South West.	25,611 28,536 32,307 25,229	15,319 20,769 24,135 15,139	1,087 1,327 616 191	1,482 3,423 3,394 4,573	2,796 1,590 392 1,120	4,92 1,42 3,769 4,200	
Relative standard error of annual estimates(percent).	3	5	21	13	18		
Northeast         .(percent).           Midwest         .(percent).           South         .(percent).           West         .(percent).	6 7 7 9	8 8 11 12	35 30 46 37	31 34 23 32	32 30 37 27	20 23 20 20	
1994							
All regions	115,030	77,270	4,466	14,823	6,823	11,648	
Northeast. Midwest South West.	27,029 27,545 35,700 24,755	16,958 20,804 22,292 17,216	1,270 861 1,800 536	1,208 3,070 7,554 2,992	3,679 574 1,037 1,532	3,915 2,237 3,017 2,479	
1993							
All regions	108,304	70,746	2,136	17,943	6,692	10,787	
Northeast	27,381 25,433 32,956 22,533	16,746 17,091 21,370 15,539	668 801 423 244	4,789 3,639 6,798 2,717	2,403 1,959 1,235 1,095	2,775 1,944 3,130 2,938	
1992							
All regions	103,734	67,316	2,542	17,196	5,112	11,567	
Northeast	21,727 27,709 28,632 25,666	14,541 18,661 18,790 15,323	1,254 806 171 312	1,749 3,824 5,430 6,193	1,376 708 1,399 1,629	2,807 3,710 2,842 2,209	
MAINTENANCE AND REPAIRS							
1995							
All regions	42,047	25,076	1,186	5,563	2,899	7,323	
Northeast. Midwest. South. West.	10,113 8,432 13,120 10,382	5,021 5,536 9,275 5,245	611 376 118 81	867 862 2,011 1,823	1,163 1,010 196 530	2,451 649 1,519 2,704	
Relative standard error of annual estimates(percent)	2	6	23	18	21	6	
Northeast         (percent)           Midwest         (percent)           South         (percent)           West         (percent)	9 8 8 7	13 12 12 10	41 37 30 39	35 34 31 42	34 40 36 32	18 18 20 18	
1994							
All regions	42,953	24,241	934	8,061	3,489	6,228	
Northeast. Midwest South West	10,366 8,703 14,884 9,000	5,851 5,304 7,810 5,277	419 232 133 150	964 1,614 4,385 1,099	1,677 460 381 972	1,455 1,094 2,176 1,503	
1993	44.000	04 475	057	10.447	0.400	0.00	
All regions	41,699 11,363 8,331 14,509 7,496	21,175 5,167 4,636 7,739 3,634	957 292 260 261 144	10,147 2,909 1,189 4,255 1,795	3,192 931 1,207 513 541	6,227 2,065 1,039 1,742 1,382	

See footnotes at end of table.

Table S2. Expenditures by Region and Property Type: 1992 to 1995—Con.

Christianal autorian una	All	Owner-o	occupied		Rental	
Structural purpose, year, and region	All residential properties	1 unit	2 units or more <sup>1</sup>	1 unit	2 to 4 units	5 units or more
1992						
All regions	45,154	23,802	1,120	9,468	3,247	7,518
Northeast. Midwest. South. West.	9,257 10,072 13,644 12,180	5,314 5,188 7,494 5,806	507 459 85 69	871 1,755 3,020 3,821	859 501 1,069 818	1,706 2,169 1,976 1,666
TOTAL IMPROVEMENTS						
1995						
All regions	69,636	50,286	2,035	7,309	2,999	7,007
Northeast. Midwest. South. West.	15,499 20,103 19,188 14,847	10,298 15,233 14,860 9,895	476 950 498 110	616 2,561 1,384 2,749	1,633 581 196 590	2,476 778 2,251 1,503
Relative standard error of annual estimates $\dots$ (percent)	4	6	26	18	30	15
Northeast         (percent)           Midwest         (percent)           South         (percent)           West         (percent)	8 11 10 12	9 10 13 14	41 35 57 46	45 41 32 39	50 53 57 37	30 40 28 32
1994						
All regions	72,077	53,030	3,532	6,761	3,334	5,420
Northeast. Midwest. South. West.	16,663 18,843 20,816 15,754	11,107 15,501 14,483 11,939	851 629 1,666 386	244 1,456 3,169 1,891	2,002 115 657 560	2,460 1,142 841 976
1993						
All regions	66,606	49,571	1,178	7,797	3,501	4,560
Northeast. Midwest. South West.	16,018 17,102 18,448 15,038	11,579 12,455 13,632 11,905	376 540 162 100	1,881 2,450 2,543 922	1,473 752 722 554	710 905 1,389 1,556
1992						
All regions	58,580	43,514	1,423	7,729	1,865	4,049
Northeast. Midwest. South West.	12,471 17,637 14,988 13,485	9,228 13,474 11,296 9,517	748 347 86 242	878 2,069 2,410 2,372	517 206 330 811	1,100 1,541 866 543

<sup>&</sup>lt;sup>1</sup>Includes 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: 1993 to 1995 [Millions of dollars. Components may not add to totals because of rounding]

	-	Total expenditures Maintenance and repairs Improvements					ements					
Characteristics	1993	1994	1995	Aver- age RSE	1993	1994	1995	Aver- age RSE	1993	1994	1995	Aver- age RSE
Total VALUE OF PROPERTY	70,746	77,270	75,362	5	21,175	24,241	25,076	6	49,571	53,030	50,286	6
Less than \$50,000	7,858 18,980 9,792 7,678 4,896 12,641 8,901	8,330 19,181 14,765 11,601 4,223 10,979 8,192	6,772 21,055 12,990 8,933 5,070 11,798 8,745	16 11 11 12 20 17 15	2,013 6,046 3,318 2,340 1,414 3,381 2,663	2,932 5,756 3,574 4,539 1,117 3,751 2,571	2,056 5,913 3,577 3,719 1,623 4,791 3,397	17 12 12 15 21 15	5,845 12,934 6,474 5,337 3,482 9,260 6,238		4,715 15,142 9,413 5,214 3,447 7,007 5,348	19 13 14 15 25 20 18
UNIT <sup>1 2</sup> 1990 to 1995		24,094 22,516 13,715 9,667 5,402 1,877	23,210 21,157 12,232 6,440 9,998 2,327	9 8 11 15 14 31	4,636 6,359 4,750 2,495 2,580 355	7,536 6,373 4,698 2,929 2,244 461	6,952 6,362 4,207 2,326 4,628 601	11 11 11 17 17 35	12,059 17,360 9,602 5,971 3,566 1,013		16,257 14,794 8,026 4,114 5,369 1,725	11 10 13 19 18 37
Less than \$20,000	6,383 9,589 10,618 11,164 16,296 16,696	6,244 8,747 10,289 14,027 13,985 23,979	6,533 11,576 12,239 14,889 16,758 13,368	16 10 13 11 12	2,375 3,289 3,324 2,959 3,993 5,235	2,451 3,326 2,863 3,850 4,192 7,560	2,589 3,917 3,241 4,583 5,843 4,904	15 16 17 11 15	4,007 6,301 7,295 8,205 12,303 11,460	3,794 5,421 7,426 10,177 9,793 16,419	3,944 7,660 8,998 10,305 10,915 8,464	22 12 15 13 15
Under 30 years	3,453 4,919 18,654 16,664 11,203 9,794 6,057	3,697 7,104 20,930 17,210 11,231 9,233 7,864	2,496 7,791 19,058 19,156 11,129 10,668 5,065	19 13 10 11 12 13	1,158 1,501 4,497 3,910 3,437 3,722 2,951	750 1,877 5,877 6,009 3,052 4,014 2,662	543 1,842 5,839 5,512 4,243 4,548 2,549	27 16 12 12 15 18 13	2,296 3,419 14,158 12,754 7,766 6,072 3,107	2,947 5,227 15,054 11,201 8,179 5,220 5,203	1,952 5,949 13,219 13,645 6,886 6,120 2,515	23 16 11 13 14 15 21

RSE Relative standard error.

<sup>&</sup>lt;sup>1</sup>The householder is the first household member listed who is an owner of the sample unit.

<sup>&</sup>lt;sup>2</sup>Year acquired is the year during which the contract for the property was closed or settled.