

Value of Construction Put in Place

July

1999

Issued September 1999

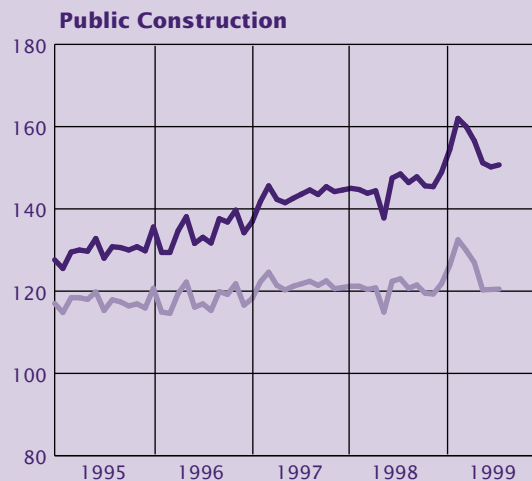
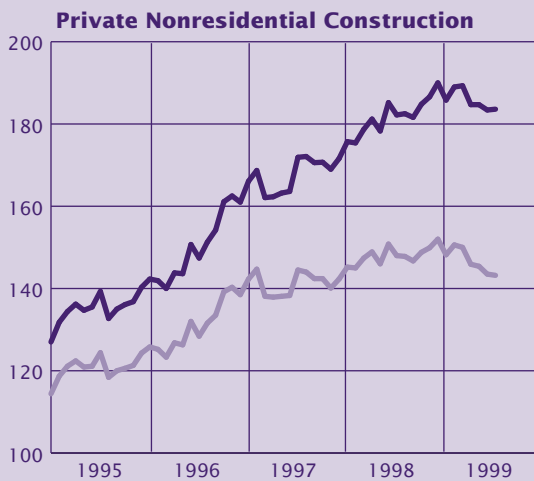
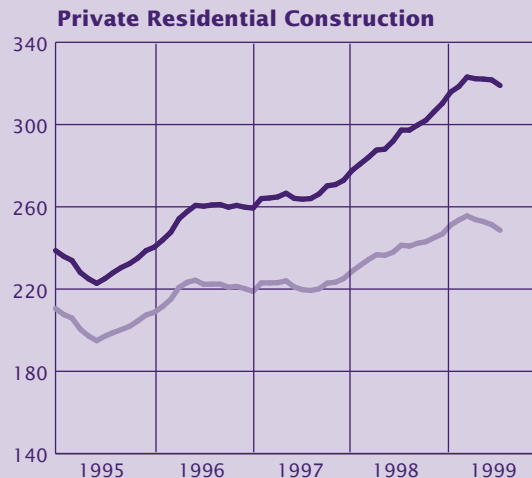
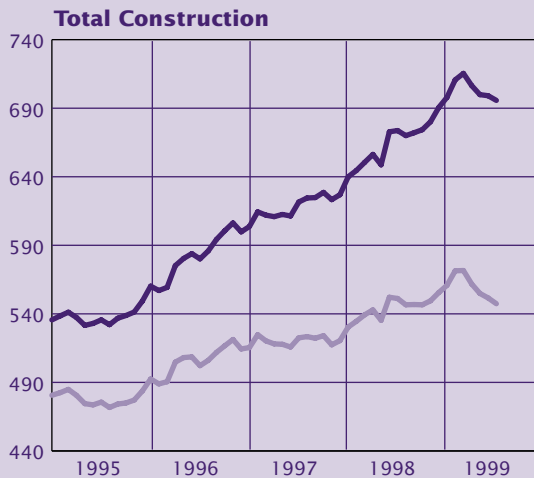
C30/99-7

**Current
Construction
Reports**

Monthly Value of Construction Put in Place

Seasonally adjusted annual rate in billions of dollars

— Current dollars
— 1992 dollars



Source: U.S. Census Bureau, Value of Construction Put in Place.

Questions regarding these data may be directed to **George A. Roff**, Construction Expenditures Branch, Manufacturing and Construction Division, telephone: 301-457-1605.

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VALUE OF CONSTRUCTION PUT IN PLACE

Construction put in place during July 1999 was estimated at a seasonally adjusted annual rate of \$695.7 billion, nearly the same (± 5 percent) as the revised June estimate of \$699.1 billion. The July figure represents a 3 (± 5) percent increase over July 1998.

During the first 7 months of this year \$390.0 billion of construction was put in place, 7 percent above the \$364.1 billion for the same period in 1998.

In constant (1992) dollars, the July annual rate was \$547.4 billion, 1 (± 5) percent below the revised estimate of \$551.6 billion for June.

Spending on new residential housing units was at a seasonally adjusted annual rate of \$237.8 billion in July, 1 (± 2) percent below the revised June estimate of \$239.4 billion. Nonresidential building construction was at a rate of \$183.6 billion, nearly the same (± 3 percent) as the revised June estimate of \$183.4 billion.

In July, the estimated seasonally adjusted annual rate of public construction put in place was \$150.7 billion, nearly the same (± 5 percent) as the revised June estimate of \$150.2 billion.

The "value of construction put in place" is a measure of the value of construction installed or erected at the site during a given period. For an individual project, this includes—

1. Cost of materials installed or erected.
2. Cost of labor (both by contractors and force account) and a proportionate share of the cost of construction equipment rental.
3. Contractor's profit.
4. Project owner's overhead and office costs.
5. Cost of architectural and engineering work.
6. Miscellaneous costs chargeable to the project on the owner's books.
7. Interest and taxes paid during construction.

The total value-in-place for a given period is the sum of the value of work done on all projects underway during this period, regardless of when work on each individual project was started or when payment was made to the contractors. For some categories, estimates are derived by distributing the total construction cost of the project by means of historic construction progress patterns.

ADDITIONAL DATA

Additional data related to the value of construction put in place can be found in the following publications:

- Current Construction Reports, *Value of Construction Put in Place: May 1999*, C30/99-5, U.S. Department of Commerce, U.S. Census Bureau, Washington, DC, 1999; contains annual data for 1994 to 1998 and monthly data for 1996 to 1998.
- Current Construction Reports, *Value of Construction Put in Place: June 1999*, C30/99-6, U.S. Department of Commerce, U.S. Census Bureau, Washington, DC, 1999; contains annual value of construction put in place for private nonresidential buildings by geographic area and detailed types of construction for 1994 to 1998.
- Current Construction Reports, *Value of New Construction Put in Place: October 1992*, C30/92-10,

U.S. Department of Commerce, U.S. Census Bureau, Washington, DC, 1992; contains total time and monthly progress from start to completion for private nonresidential buildings and for state and local construction.

- Current Construction Reports, *Value of New Construction Put in Place in the United States, 1964 to 1980*, C30-80 supplement, U.S. Department of Commerce, U.S. Census Bureau, Washington, DC, 1981; contains annual data for 1915 to 1963.
- Current Construction Reports Special Study, *Expenditures for Nonresidential Improvements and Repairs: 1992*, U.S. Department of Commerce, U.S. Census Bureau, Washington, DC, 1994.

Table 1. Annual Value of Construction Put in Place: 1994-1998

[Millions of dollars]

| Type of construction | Current dollars | | | | | Constant (1992) dollars | | | | |
|---|-----------------|----------------|----------------|----------------|----------------|-------------------------|----------------|----------------|----------------|----------------|
| | 1994 | 1995 | 1996 | 1997 | 1998 | 1994 | 1995 | 1996 | 1997 | 1998 |
| Total construction | 519,539 | 537,409 | 583,445 | 618,225 | 665,446 | 480,620 | 477,386 | 506,485 | 520,123 | 544,729 |
| Private construction | 399,346 | 407,477 | 448,969 | 475,123 | 520,073 | 367,247 | 360,040 | 388,324 | 398,699 | 424,345 |
| Residential buildings | 238,874 | 230,688 | 256,460 | 265,863 | 294,326 | 218,005 | 201,677 | 220,017 | 221,756 | 239,201 |
| New housing units | 167,919 | 162,898 | 179,448 | 187,328 | 213,909 | 153,250 | 142,413 | 153,966 | 156,248 | 173,828 |
| 1 unit | 153,838 | 145,009 | 159,124 | 164,444 | 189,453 | 140,416 | 126,773 | 136,516 | 137,156 | 153,937 |
| 2 units or more | 14,081 | 17,889 | 20,324 | 22,883 | 24,457 | 12,833 | 15,640 | 17,450 | 19,092 | 19,891 |
| Improvements | 70,955 | 67,790 | 77,012 | 78,535 | 80,417 | 64,755 | 59,264 | 66,052 | 65,509 | 65,372 |
| Nonresidential buildings | 120,285 | 135,022 | 150,350 | 167,610 | 181,915 | 111,416 | 120,627 | 131,188 | 141,129 | 148,017 |
| Industrial | 28,947 | 32,505 | 32,657 | 31,359 | 32,270 | 26,803 | 29,043 | 28,503 | 26,405 | 26,269 |
| Office | 22,178 | 25,613 | 27,886 | 34,305 | 41,541 | 20,553 | 22,891 | 24,329 | 28,876 | 33,803 |
| Hotels, motels | 4,648 | 7,112 | 10,912 | 12,898 | 14,904 | 4,308 | 6,351 | 9,521 | 10,864 | 12,121 |
| Other commercial | 37,551 | 42,654 | 48,188 | 51,809 | 53,783 | 34,756 | 38,098 | 42,042 | 43,628 | 43,749 |
| Religious | 3,869 | 4,326 | 4,534 | 5,777 | 6,729 | 3,584 | 3,864 | 3,955 | 4,861 | 5,472 |
| Educational | 4,822 | 5,493 | 6,742 | 8,693 | 9,629 | 4,471 | 4,908 | 5,880 | 7,316 | 7,840 |
| Hospital and institutional | 12,268 | 11,248 | 11,780 | 13,546 | 13,663 | 11,377 | 10,051 | 10,280 | 11,413 | 11,121 |
| Miscellaneous ¹ | 6,002 | 6,071 | 7,650 | 9,223 | 9,395 | 5,565 | 5,421 | 6,677 | 7,767 | 7,643 |
| Farm nonresidential | 3,226 | 3,014 | 3,658 | 3,815 | 3,891 | 2,990 | 2,692 | 3,192 | 3,210 | 3,165 |
| Public utilities | 34,071 | 35,859 | 36,070 | 35,544 | 37,267 | 32,074 | 32,401 | 31,771 | 30,644 | 31,705 |
| Telecommunications | 10,121 | 11,093 | 11,772 | 11,698 | 12,441 | 9,785 | 10,073 | 10,245 | 9,985 | 10,612 |
| Other public utilities | 23,950 | 24,766 | 24,298 | 23,846 | 24,826 | 22,289 | 22,328 | 21,525 | 20,659 | 21,093 |
| Railroads | 3,340 | 3,509 | 4,398 | 4,922 | 5,320 | 3,186 | 3,201 | 3,894 | 4,204 | 4,489 |
| Electric light and power | 14,918 | 14,049 | 11,211 | 11,260 | 11,574 | 13,877 | 12,656 | 9,914 | 9,783 | 9,827 |
| Gas | 4,694 | 6,279 | 7,674 | 6,695 | 6,667 | 4,308 | 5,637 | 6,814 | 5,828 | 5,697 |
| Petroleum pipelines | 998 | 929 | 1,015 | 969 | 1,265 | 918 | 834 | 903 | 843 | 1,080 |
| All other private ² | 2,890 | 2,893 | 2,431 | 2,292 | 2,674 | 2,763 | 2,643 | 2,156 | 1,960 | 2,256 |
| Public construction | 120,193 | 129,933 | 134,476 | 143,102 | 145,373 | 113,373 | 117,346 | 118,161 | 121,424 | 120,384 |
| Buildings | 49,446 | 57,754 | 60,047 | 63,489 | 66,137 | 45,728 | 51,506 | 52,348 | 53,424 | 53,810 |
| Housing and redevelopment .. | 3,835 | 4,698 | 4,113 | 3,795 | 4,047 | 3,495 | 4,108 | 3,532 | 3,165 | 3,291 |
| Industrial | 1,465 | 1,508 | 1,389 | 999 | 1,012 | 1,358 | 1,348 | 1,214 | 843 | 824 |
| Educational | 20,361 | 25,783 | 27,148 | 28,915 | 29,916 | 18,838 | 23,027 | 23,693 | 24,340 | 24,336 |
| Hospital | 3,951 | 4,236 | 4,472 | 4,934 | 3,978 | 3,663 | 3,785 | 3,905 | 4,157 | 3,239 |
| Other ³ | 19,834 | 21,528 | 22,924 | 24,846 | 27,183 | 18,373 | 19,238 | 20,004 | 20,919 | 22,119 |
| Highways and streets | 37,419 | 37,616 | 39,860 | 44,292 | 44,792 | 36,219 | 34,501 | 35,258 | 37,833 | 37,525 |
| Military facilities | 2,318 | 3,011 | 2,591 | 2,556 | 2,578 | 2,196 | 2,728 | 2,280 | 2,169 | 2,131 |
| Conservation and development .. | 6,363 | 6,308 | 5,910 | 5,612 | 5,511 | 5,996 | 5,724 | 5,245 | 4,801 | 4,681 |
| Sewer systems | 8,700 | 8,420 | 9,142 | 9,166 | 8,707 | 8,199 | 7,640 | 8,110 | 7,842 | 7,398 |
| Water supply facilities | 4,647 | 4,709 | 5,234 | 5,662 | 5,871 | 4,237 | 4,186 | 4,550 | 4,817 | 4,903 |
| Miscellaneous public ⁴ | 11,301 | 12,116 | 11,691 | 12,325 | 11,777 | 10,799 | 11,060 | 10,370 | 10,537 | 9,936 |

¹Includes amusement and recreational buildings, bus and airline terminals, animal hospitals and shelters, etc.

²Includes privately owned streets and bridges, parking areas, sewer and water facilities, parks and playgrounds, golf courses, airfields, etc.

³Includes general administrative buildings, prisons, police and fire stations, courthouses, civic centers, passenger terminals, space facilities, postal facilities, etc.

⁴Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc.

Table 2. Annual Value of Public Construction Put in Place: 1994-1998

[Millions of dollars]

| Type of construction | Current dollars | | | | | Constant (1992) dollars | | | | |
|--|-----------------|----------------|----------------|----------------|----------------|-------------------------|----------------|----------------|----------------|----------------|
| | 1994 | 1995 | 1996 | 1997 | 1998 | 1994 | 1995 | 1996 | 1997 | 1998 |
| Total public construction | 120,193 | 129,933 | 134,476 | 143,102 | 145,373 | 113,373 | 117,346 | 118,161 | 121,424 | 120,384 |
| State and local construction | 105,753 | 114,181 | 119,151 | 129,009 | 130,950 | 99,804 | 103,132 | 104,680 | 109,475 | 108,422 |
| Total buildings | 44,303 | 51,711 | 53,817 | 57,382 | 60,109 | 40,972 | 46,117 | 46,917 | 48,287 | 48,904 |
| Housing and redevelopment | 3,389 | 4,122 | 3,432 | 3,118 | 3,504 | 3,089 | 3,605 | 2,947 | 2,600 | 2,849 |
| Educational | 20,335 | 25,757 | 27,135 | 28,895 | 29,901 | 18,814 | 23,003 | 23,683 | 24,324 | 24,324 |
| Hospital | 3,099 | 3,195 | 3,313 | 3,683 | 2,968 | 2,875 | 2,854 | 2,892 | 3,103 | 2,417 |
| Other ¹ | 17,480 | 18,638 | 19,936 | 21,685 | 23,736 | 16,195 | 16,654 | 17,395 | 18,260 | 19,313 |
| Highways and streets | 36,991 | 37,308 | 39,492 | 44,031 | 44,440 | 35,805 | 34,218 | 34,933 | 37,610 | 37,230 |
| Conservation and development .. | 1,988 | 2,140 | 2,066 | 2,244 | 1,939 | 1,872 | 1,943 | 1,833 | 1,919 | 1,648 |
| Sewer systems | 8,700 | 8,420 | 9,142 | 9,166 | 8,707 | 8,199 | 7,640 | 8,110 | 7,842 | 7,398 |
| Water supply facilities | 4,647 | 4,709 | 5,234 | 5,662 | 5,871 | 4,237 | 4,186 | 4,550 | 4,817 | 4,903 |
| Miscellaneous nonbuilding ² | 9,125 | 9,893 | 9,401 | 10,525 | 9,884 | 8,719 | 9,029 | 8,336 | 8,999 | 8,339 |
| Federal construction | 14,440 | 15,751 | 15,325 | 14,093 | 14,423 | 13,569 | 14,214 | 13,482 | 11,949 | 11,962 |
| Total buildings | 5,142 | 6,043 | 6,230 | 6,107 | 6,028 | 4,755 | 5,390 | 5,430 | 5,137 | 4,906 |
| Housing | 446 | 576 | 681 | 677 | 543 | 406 | 503 | 585 | 565 | 442 |
| Industrial | 1,465 | 1,508 | 1,389 | 999 | 1,012 | 1,358 | 1,348 | 1,214 | 843 | 824 |
| Educational | 26 | 27 | 12 | 19 | 15 | 24 | 24 | 11 | 16 | 12 |
| Hospital | 851 | 1,041 | 1,159 | 1,251 | 1,010 | 789 | 931 | 1,013 | 1,053 | 823 |
| Other ³ | 2,354 | 2,891 | 2,989 | 3,161 | 3,448 | 2,178 | 2,584 | 2,608 | 2,659 | 2,806 |
| Highways and streets | 428 | 308 | 368 | 261 | 352 | 414 | 283 | 326 | 223 | 295 |
| Military facilities | 2,318 | 3,011 | 2,591 | 2,556 | 2,578 | 2,196 | 2,728 | 2,280 | 2,169 | 2,131 |
| Conservation and development .. | 4,376 | 4,167 | 3,845 | 3,368 | 3,572 | 4,124 | 3,781 | 3,412 | 2,882 | 3,034 |
| Miscellaneous public ⁴ | 2,176 | 2,223 | 2,291 | 1,800 | 1,893 | 2,080 | 2,032 | 2,034 | 1,538 | 1,596 |

¹Includes general administrative buildings, prisons, police and fire stations, courthouses, passenger terminals, civic centers, etc.

²Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc.

³Includes Federal office buildings, prisons, courthouses, space facilities, postal facilities, etc.

⁴Includes Federal airport facilities, fish and wildlife preservation facilities, VA cemeteries, etc.

Table 3. Monthly Value of Construction Put in Place—Not Seasonally Adjusted in Current Dollars

[Millions of dollars]

| Period | Total construction | Private construction | | | | | | | | | | | | | | | All other private ⁵ | |
|-----------------------------|--------------------|----------------------|-----------------------|-------------------|---------|-----------------|---------|--------------------------|--------|----------------|------------------|-----------|-------------|----------------------------|----------------------------|-------------------------------|--------------------------------|--------------------|
| | | Total ¹ | Residential buildings | | | | | Nonresidential buildings | | | | | | | | Public utilities ⁴ | | |
| | | | Total ² | New housing units | | | Total | Industrial | Office | Hotels, motels | Other commercial | Religious | Educational | Hospital and institutional | Miscellaneous ³ | Total | | Telecommunications |
| | | | | Total | 1 unit | 2 units or more | | | | | | | | | | | | |
| YEAR TO DATE | | | | | | | | | | | | | | | | | | |
| July 1998 | 364,086 | 286,250 | 160,241 | 115,373 | 101,350 | 14,023 | 101,377 | 18,398 | 23,366 | 7,962 | 29,476 | 3,500 | 5,678 | 7,782 | 5,215 | (NA) | 6,980 | 1,455 |
| July 1999 | 390,031 | 306,992 | 178,893 | 133,431 | 117,429 | 16,003 | 104,888 | 15,139 | 26,914 | 9,405 | 31,306 | 4,009 | 5,166 | 7,150 | 5,800 | (NA) | (NA) | 1,672 |
| Percent change | 7 | 7 | 12 | 16 | 16 | 14 | 3 | -18 | 15 | 18 | 6 | 15 | -9 | -8 | 11 | (NA) | (NA) | 15 |
| MONTHLY DATA | | | | | | | | | | | | | | | | | | |
| 1997: July | 58,189 | 44,113 | 25,066 | 17,226 | 15,337 | 1,888 | 14,858 | 2,746 | 3,018 | 1,163 | 4,738 | 469 | 874 | 1,060 | 791 | (NA) | 1,078 | 208 |
| August | 60,106 | 45,251 | 25,538 | 17,668 | 15,646 | 2,022 | 15,273 | 2,787 | 3,079 | 1,121 | 4,917 | 493 | 898 | 1,176 | 803 | (NA) | 1,000 | 231 |
| September | 59,580 | 44,720 | 24,938 | 17,760 | 15,762 | 1,998 | 15,410 | 2,870 | 3,124 | 1,086 | 4,870 | 562 | 848 | 1,221 | 830 | (NA) | 1,095 | 221 |
| October | 58,238 | 44,217 | 24,925 | 17,678 | 15,506 | 2,173 | 15,217 | 2,843 | 3,254 | 1,115 | 4,675 | 583 | 789 | 1,164 | 794 | (NA) | 1,128 | 256 |
| November | 53,292 | 41,187 | 23,506 | 16,857 | 14,889 | 1,968 | 14,456 | 2,664 | 3,171 | 1,050 | 4,321 | 574 | 748 | 1,153 | 775 | (NA) | 967 | 222 |
| December | 47,493 | 36,966 | 20,070 | 14,533 | 12,606 | 1,926 | 13,983 | 2,782 | 3,098 | 1,062 | 3,965 | 537 | 694 | 1,073 | 772 | (NA) | 1,060 | 170 |
| 1998: January | 42,730 | 33,872 | 18,300 | 13,531 | 11,694 | 1,838 | 12,944 | 2,404 | 3,109 | 1,002 | 3,572 | 485 | 679 | 1,040 | 653 | (NA) | 804 | 183 |
| February | 41,735 | 32,988 | 17,496 | 13,037 | 11,188 | 1,848 | 12,988 | 2,425 | 3,053 | 989 | 3,587 | 491 | 726 | 1,059 | 658 | (NA) | 889 | 173 |
| March | 47,319 | 37,790 | 20,886 | 15,521 | 13,553 | 1,968 | 14,042 | 2,806 | 3,147 | 1,073 | 3,959 | 489 | 783 | 1,108 | 678 | (NA) | 1,105 | 192 |
| April | 52,069 | 41,205 | 23,129 | 16,629 | 14,573 | 2,056 | 14,780 | 2,691 | 3,374 | 1,158 | 4,211 | 497 | 848 | 1,177 | 824 | (NA) | 1,001 | 195 |
| May | 55,171 | 43,601 | 25,110 | 17,564 | 15,513 | 2,051 | 14,857 | 2,651 | 3,481 | 1,105 | 4,392 | 466 | 876 | 1,135 | 751 | (NA) | 1,031 | 210 |
| June | 61,912 | 48,111 | 27,123 | 18,965 | 16,864 | 2,101 | 16,074 | 2,792 | 3,704 | 1,336 | 4,841 | 525 | 908 | 1,147 | 821 | (NA) | 1,100 | 276 |
| July | 63,150 | 48,683 | 28,197 | 20,126 | 17,965 | 2,162 | 15,692 | 2,630 | 3,498 | 1,299 | 4,915 | 546 | 857 | 1,116 | 830 | (NA) | 1,050 | 227 |
| August | 64,367 | 49,363 | 28,703 | 20,449 | 18,376 | 2,073 | 16,232 | 2,881 | 3,455 | 1,371 | 4,976 | 615 | 903 | 1,188 | 844 | (NA) | 1,059 | 246 |
| September | 63,973 | 48,479 | 28,062 | 20,575 | 18,443 | 2,132 | 16,291 | 2,907 | 3,555 | 1,416 | 4,950 | 633 | 822 | 1,186 | 822 | (NA) | 1,085 | 246 |
| October | 62,127 | 48,132 | 27,865 | 20,408 | 18,213 | 2,196 | 16,441 | 2,766 | 3,761 | 1,466 | 5,034 | 659 | 745 | 1,159 | 852 | (NA) | 1,186 | 246 |
| November | 58,458 | 46,219 | 26,609 | 19,855 | 17,784 | 2,071 | 16,070 | 2,666 | 3,746 | 1,362 | 4,886 | 678 | 741 | 1,163 | 829 | (NA) | 1,046 | 252 |
| December | 52,435 | 41,630 | 22,846 | 17,249 | 15,287 | 1,962 | 15,504 | 2,654 | 3,658 | 1,328 | 4,463 | 645 | 740 | 1,184 | 833 | (NA) | 1,085 | 229 |
| 1999: January | 46,432 | 37,053 | 20,871 | 16,050 | 14,125 | 1,925 | 13,643 | 2,242 | 3,489 | 1,238 | 3,802 | 560 | 592 | 952 | 768 | (NA) | 877 | 178 |
| February | 46,034 | 36,329 | 19,899 | 15,447 | 13,391 | 2,056 | 14,069 | 2,199 | 3,638 | 1,307 | 3,916 | 537 | 632 | 1,045 | 796 | (NA) | 873 | 182 |
| March | 52,392 | 41,734 | 23,941 | 18,480 | 16,161 | 2,319 | 14,950 | 2,281 | 3,772 | 1,426 | 4,297 | 553 | 684 | 1,055 | 882 | (NA) | 1,187 | 231 |
| April | 56,011 | 44,179 | 25,875 | 19,306 | 16,945 | 2,361 | 15,080 | 2,130 | 3,840 | 1,409 | 4,442 | 575 | 772 | 1,023 | 890 | (NA) | 1,104 | 263 |
| May ^f | 59,684 | 46,935 | 28,114 | 20,430 | 18,034 | 2,396 | 15,461 | 2,069 | 3,964 | 1,383 | 4,797 | 573 | 770 | 1,037 | 868 | (NA) | 973 | 271 |
| June ^f | 64,486 | 50,279 | 29,939 | 21,598 | 19,098 | 2,500 | 15,865 | 2,167 | 4,094 | 1,322 | 5,010 | 598 | 871 | 1,017 | 786 | (NA) | 1,108 | 281 |
| July ^p | 64,991 | 50,483 | 30,253 | 22,121 | 19,675 | 2,446 | 15,820 | 2,052 | 4,117 | 1,319 | 5,041 | 613 | 847 | 1,022 | 810 | (NA) | (NA) | 266 |
| PERCENT CHANGE | | | | | | | | | | | | | | | | | | |
| June 1999- | | | | | | | | | | | | | | | | | | |
| July 1999 | 1 | (Z) | 1 | 2 | 3 | -2 | (Z) | -5 | 1 | (Z) | 1 | 3 | -3 | (Z) | 3 | (NA) | (NA) | -5 |

See footnotes at end of table.

Table 3. **Monthly Value of Construction Put in Place—Not Seasonally Adjusted in Current Dollars—Con.**

[Millions of dollars]

| Period | Public construction | | | | | | | | | | | | |
|------------------------------|---------------------|-----------|---------------------------|------------|-------------|----------|-------------------------------------|----------------------|---------------------|------------------------------|---------------|-------------------------|-----------------------------------|
| | Total | Buildings | | | | | | Highways and streets | Military facilities | Conservation and development | Sewer systems | Water supply facilities | Miscellaneous public ⁷ |
| | | Total | Housing and redevelopment | Industrial | Educational | Hospital | Other public buildings ⁶ | | | | | | |
| YEAR TO DATE | | | | | | | | | | | | | |
| July 1998..... | 77,836 | 37,035 | 2,336 | 586 | 16,658 | 2,299 | 15,156 | 22,332 | 1,557 | 2,959 | 4,547 | 3,109 | 6,296 |
| July 1999..... | 83,040 | 38,204 | 2,142 | 540 | 18,172 | 2,283 | 15,068 | 24,426 | 1,285 | 3,207 | 5,237 | 3,574 | 7,106 |
| Percent change..... | 7 | 3 | -8 | -8 | 9 | -1 | -1 | 9 | -17 | 8 | 15 | 15 | 13 |
| MONTHLY DATA | | | | | | | | | | | | | |
| 1997: July..... | 14,075 | 5,842 | 325 | 92 | 2,901 | 423 | 2,102 | 4,996 | 236 | 470 | 831 | 504 | 1,195 |
| August..... | 14,855 | 6,016 | 316 | 80 | 3,066 | 403 | 2,152 | 5,386 | 245 | 523 | 831 | 488 | 1,366 |
| September..... | 14,859 | 6,093 | 360 | 98 | 2,736 | 510 | 2,389 | 5,060 | 273 | 765 | 879 | 518 | 1,271 |
| October..... | 14,021 | 5,880 | 417 | 56 | 2,642 | 458 | 2,308 | 4,876 | 196 | 400 | 843 | 546 | 1,279 |
| November..... | 12,105 | 5,288 | 344 | 66 | 2,264 | 408 | 2,206 | 3,910 | 230 | 414 | 741 | 505 | 1,017 |
| December..... | 10,528 | 5,011 | 304 | 71 | 2,213 | 354 | 2,069 | 2,809 | 191 | 477 | 636 | 429 | 974 |
| 1998: January..... | 8,858 | 4,646 | 292 | 76 | 2,009 | 326 | 1,943 | 1,943 | 188 | 345 | 567 | 376 | 793 |
| February..... | 8,747 | 4,617 | 293 | 79 | 1,970 | 306 | 1,969 | 1,904 | 196 | 419 | 541 | 384 | 685 |
| March..... | 9,529 | 4,813 | 314 | 95 | 2,000 | 372 | 2,033 | 2,317 | 237 | 411 | 603 | 392 | 756 |
| April..... | 10,864 | 5,175 | 338 | 84 | 2,255 | 299 | 2,199 | 3,113 | 216 | 387 | 640 | 464 | 867 |
| May..... | 11,570 | 5,327 | 324 | 81 | 2,384 | 337 | 2,201 | 3,549 | 215 | 421 | 647 | 488 | 922 |
| June..... | 13,801 | 6,067 | 368 | 78 | 2,910 | 338 | 2,374 | 4,633 | 225 | 498 | 759 | 476 | 1,143 |
| July..... | 14,467 | 6,390 | 406 | 93 | 3,130 | 322 | 2,439 | 4,872 | 279 | 478 | 790 | 529 | 1,130 |
| August..... | 15,004 | 6,386 | 341 | 88 | 3,161 | 312 | 2,484 | 5,342 | 241 | 501 | 819 | 523 | 1,192 |
| September..... | 15,494 | 6,323 | 350 | 108 | 2,886 | 400 | 2,579 | 5,411 | 225 | 771 | 859 | 562 | 1,342 |
| October..... | 13,995 | 5,721 | 338 | 58 | 2,548 | 345 | 2,433 | 5,228 | 162 | 379 | 889 | 600 | 1,017 |
| November..... | 12,239 | 5,426 | 346 | 92 | 2,325 | 310 | 2,353 | 3,734 | 194 | 467 | 847 | 565 | 1,006 |
| December..... | 10,805 | 5,246 | 336 | 80 | 2,339 | 312 | 2,179 | 2,746 | 199 | 433 | 746 | 512 | 923 |
| 1999: January..... | 9,379 | 4,751 | 278 | 64 | 2,162 | 310 | 1,936 | 2,161 | 147 | 400 | 652 | 431 | 839 |
| February..... | 9,705 | 4,889 | 273 | 70 | 2,166 | 363 | 2,018 | 2,282 | 182 | 436 | 607 | 447 | 862 |
| March..... | 10,658 | 5,185 | 286 | 85 | 2,299 | 327 | 2,187 | 2,735 | 187 | 472 | 723 | 475 | 882 |
| April..... | 11,833 | 5,435 | 327 | 76 | 2,548 | 293 | 2,192 | 3,453 | 181 | 475 | 732 | 510 | 1,047 |
| May ^f | 12,749 | 5,511 | 328 | 83 | 2,616 | 316 | 2,168 | 4,167 | 181 | 419 | 812 | 542 | 1,117 |
| June ^f | 14,208 | 6,185 | 316 | 72 | 3,196 | 341 | 2,259 | 4,741 | 188 | 510 | 843 | 573 | 1,168 |
| July ^p | 14,508 | 6,248 | 333 | 89 | 3,185 | 333 | 2,307 | 4,889 | 219 | 497 | 868 | 596 | 1,192 |
| PERCENT CHANGE | | | | | | | | | | | | | |
| June 1999- July 1999..... | 2 | 1 | 5 | 24 | (Z) | -2 | 2 | 3 | 16 | -3 | 3 | 4 | 2 |

NA Not available, but estimates are included in totals. ^pPreliminary. ^rRevised. Z Less than 0.5 percent.

¹Includes farm nonresidential and other private categories, not shown separately. ²Includes residential improvements, not shown separately. ³Includes amusement and recreational buildings, bus and airline terminals, animal hospitals and shelters, etc. ⁴Includes gas, electric, railroad, and petroleum pipelines, not shown separately. ⁵Includes privately owned streets and bridges, parking areas, sewer and water facilities, parks and playgrounds, golf courses, airfields, etc. ⁶Includes general administrative buildings, prisons, police and fire stations, courthouses, civic centers, passenger terminals, space facilities, postal facilities, etc. ⁷Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc.

Table 4. Monthly Value of Construction Put in Place—Seasonally Adjusted Annual Rate in Current Dollars

[Millions of dollars]

| Period | Total construction | Private construction | | | | | | | | | | | | | | | | All other private ⁵ | |
|-----------------------------------|--------------------|----------------------|-----------------------|-------------------|---------|-----------------|---------|--------------------------|--------|----------------|------------------|-----------|-------------|----------------------------|----------------------------|-------|-------------------------------|--------------------------------|--|
| | | Total ¹ | Residential buildings | | | | | Nonresidential buildings | | | | | | | | | Public utilities ⁴ | | |
| | | | Total ² | New housing units | | | Total | Industrial | Office | Hotels, motels | Other commercial | Religious | Educational | Hospital and institutional | Miscellaneous ³ | Total | Telecommunications | | |
| | | | | Total | 1 unit | 2 units or more | | | | | | | | | | | | | |
| 1997: July | 621,624 | 478,046 | 263,659 | 185,324 | 163,598 | 21,727 | 171,943 | 32,886 | 35,294 | 13,827 | 53,339 | 5,562 | 8,693 | 13,063 | 9,280 | (NA) | 12,276 | 2,272 | |
| August | 624,453 | 479,891 | 264,013 | 186,540 | 164,120 | 22,420 | 172,079 | 32,101 | 35,873 | 13,793 | 52,771 | 5,664 | 8,943 | 13,616 | 9,318 | (NA) | 11,454 | 2,446 | |
| September | 624,773 | 481,280 | 266,156 | 188,695 | 165,774 | 22,922 | 170,618 | 32,068 | 36,006 | 12,426 | 51,131 | 5,929 | 9,450 | 14,164 | 9,444 | (NA) | 12,426 | 2,395 | |
| October | 628,610 | 483,233 | 270,199 | 192,135 | 167,330 | 24,805 | 170,729 | 31,827 | 37,440 | 13,398 | 50,088 | 6,231 | 9,537 | 13,323 | 8,885 | (NA) | 11,986 | 2,629 | |
| November | 623,266 | 479,115 | 270,817 | 191,897 | 168,394 | 23,503 | 168,967 | 30,888 | 37,676 | 12,807 | 49,667 | 6,265 | 9,422 | 13,303 | 8,938 | (NA) | 11,683 | 2,541 | |
| December | 626,907 | 482,318 | 272,869 | 194,330 | 169,971 | 24,359 | 171,616 | 31,708 | 38,084 | 12,676 | 50,622 | 6,257 | 9,709 | 13,001 | 9,558 | (NA) | 11,828 | 2,080 | |
| 1998: January | 639,962 | 494,992 | 277,551 | 197,735 | 172,389 | 25,346 | 175,724 | 32,302 | 40,909 | 13,032 | 51,027 | 6,430 | 9,879 | 13,246 | 8,899 | (NA) | 11,680 | 2,561 | |
| February | 644,643 | 499,944 | 280,843 | 200,621 | 175,503 | 25,118 | 175,430 | 32,260 | 39,387 | 12,712 | 51,489 | 6,826 | 10,365 | 13,477 | 8,913 | (NA) | 12,819 | 2,584 | |
| March | 650,509 | 506,741 | 284,013 | 203,838 | 179,113 | 24,725 | 178,700 | 35,976 | 38,688 | 12,429 | 53,016 | 6,371 | 10,368 | 13,511 | 8,342 | (NA) | 13,670 | 2,559 | |
| April | 656,271 | 511,838 | 287,556 | 207,391 | 182,540 | 24,851 | 181,214 | 33,182 | 40,370 | 13,294 | 53,639 | 6,229 | 10,748 | 14,196 | 9,555 | (NA) | 12,185 | 2,510 | |
| May | 648,673 | 510,851 | 287,972 | 207,482 | 184,134 | 23,348 | 178,315 | 31,967 | 40,955 | 13,669 | 52,860 | 5,971 | 10,317 | 13,540 | 9,036 | (NA) | 12,780 | 2,614 | |
| June | 672,757 | 525,287 | 291,887 | 211,247 | 187,730 | 23,518 | 185,215 | 32,814 | 43,366 | 14,980 | 55,014 | 6,492 | 9,326 | 13,673 | 9,550 | (NA) | 12,201 | 3,298 | |
| July | 673,703 | 525,240 | 297,318 | 216,810 | 191,965 | 24,845 | 182,172 | 31,495 | 40,835 | 15,764 | 55,275 | 6,774 | 8,567 | 13,746 | 9,717 | (NA) | 12,000 | 2,506 | |
| August | 670,007 | 523,652 | 297,314 | 216,194 | 193,095 | 23,099 | 182,487 | 33,177 | 40,450 | 16,219 | 53,315 | 6,809 | 8,979 | 13,764 | 9,774 | (NA) | 12,334 | 2,568 | |
| September | 672,053 | 524,270 | 299,752 | 218,957 | 194,476 | 24,481 | 181,554 | 32,423 | 41,138 | 16,827 | 52,148 | 6,749 | 9,131 | 13,755 | 9,382 | (NA) | 12,252 | 2,677 | |
| October | 674,253 | 528,694 | 302,056 | 221,585 | 196,539 | 25,046 | 184,778 | 30,928 | 43,775 | 17,396 | 53,930 | 6,977 | 9,005 | 13,247 | 9,520 | (NA) | 12,928 | 2,509 | |
| November | 680,117 | 534,743 | 306,299 | 226,053 | 201,327 | 24,726 | 186,605 | 30,845 | 43,730 | 16,185 | 56,101 | 7,364 | 9,333 | 13,440 | 9,607 | (NA) | 12,327 | 2,877 | |
| December | 690,462 | 541,591 | 310,261 | 230,494 | 205,655 | 24,839 | 190,044 | 30,327 | 44,697 | 15,758 | 56,908 | 7,357 | 10,345 | 14,353 | 10,299 | (NA) | 12,090 | 2,786 | |
| 1999: January | 697,858 | 543,471 | 315,828 | 235,142 | 208,739 | 26,403 | 185,816 | 29,895 | 45,658 | 16,923 | 54,506 | 7,702 | 8,538 | 12,131 | 10,462 | (NA) | 13,326 | 2,509 | |
| February | 710,657 | 548,682 | 318,483 | 238,146 | 210,328 | 27,818 | 189,040 | 28,967 | 46,788 | 16,822 | 56,014 | 7,466 | 8,962 | 13,307 | 10,714 | (NA) | 12,539 | 2,727 | |
| March | 715,396 | 555,362 | 323,133 | 241,524 | 212,412 | 29,113 | 189,297 | 29,052 | 46,430 | 16,422 | 57,553 | 7,210 | 8,985 | 12,835 | 10,810 | (NA) | 14,158 | 3,073 | |
| April | 705,492 | 549,005 | 322,297 | 241,278 | 212,924 | 28,354 | 184,689 | 26,298 | 46,028 | 16,356 | 56,290 | 7,422 | 9,664 | 12,381 | 10,251 | (NA) | 13,131 | 3,390 | |
| May ^f | 699,498 | 548,249 | 322,090 | 240,197 | 212,791 | 27,407 | 184,673 | 25,102 | 46,959 | 16,323 | 57,393 | 7,107 | 9,022 | 12,393 | 10,373 | (NA) | 12,358 | 3,291 | |
| June ^f | 699,149 | 548,925 | 321,718 | 239,399 | 211,415 | 27,984 | 183,433 | 25,389 | 47,980 | 15,392 | 56,878 | 7,448 | 8,954 | 12,206 | 9,186 | (NA) | 12,369 | 3,308 | |
| July ^p | 695,678 | 545,008 | 318,971 | 237,846 | 209,681 | 28,164 | 183,610 | 24,571 | 48,724 | 15,668 | 56,482 | 7,514 | 8,552 | 12,589 | 9,511 | (NA) | (NA) | 2,952 | |
| PERCENT CHANGE | | | | | | | | | | | | | | | | | | | |
| June 1999- July 1999 | (Z) | -1 | -1 | -1 | -1 | 1 | (Z) | -3 | 2 | 2 | -1 | 1 | -4 | 3 | 4 | (NA) | (NA) | -11 | |

See footnotes at end of table.

∞ Table 4. **Monthly Value of Construction Put in Place—Seasonally Adjusted Annual Rate in Current Dollars—Con.**

[Millions of dollars]

| Period | | Public construction | | | | | | | | | | | | |
|-----------------------|-----------------------------|---------------------|-----------|---------------------------|------------|-------------|----------|-------------------------------------|----------------------|---------------------|------------------------------|---------------|-------------------------|-----------------------------------|
| | | Total | Buildings | | | | | | Highways and streets | Military facilities | Conservation and development | Sewer systems | Water supply facilities | Miscellaneous public ⁷ |
| | | | Total | Housing and redevelopment | Industrial | Educational | Hospital | Other public buildings ⁶ | | | | | | |
| 1997: | July | 143,578 | 63,298 | 3,838 | 1,105 | 28,723 | 5,023 | 24,610 | 44,643 | 2,740 | 5,240 | 9,425 | 5,518 | 12,714 |
| | August | 144,563 | 63,393 | 3,927 | 1,015 | 28,862 | 5,064 | 24,526 | 45,135 | 2,804 | 5,652 | 8,695 | 5,342 | 13,541 |
| | September | 143,493 | 64,563 | 3,876 | 862 | 28,841 | 5,161 | 25,823 | 43,461 | 2,552 | 6,005 | 8,979 | 5,670 | 12,262 |
| | October | 145,377 | 67,031 | 4,694 | 740 | 30,483 | 5,295 | 25,819 | 42,126 | 2,915 | 5,197 | 8,664 | 5,435 | 14,008 |
| | November | 144,151 | 64,394 | 4,080 | 814 | 28,957 | 4,983 | 25,559 | 46,044 | 2,737 | 5,015 | 8,337 | 5,587 | 12,036 |
| | December | 144,589 | 64,650 | 3,705 | 808 | 30,236 | 4,149 | 25,752 | 45,066 | 2,209 | 5,955 | 8,253 | 5,439 | 13,017 |
| 1998: | January | 144,971 | 64,799 | 3,763 | 1,001 | 29,403 | 4,262 | 26,371 | 46,084 | 2,423 | 5,234 | 8,391 | 5,579 | 12,460 |
| | February | 144,699 | 64,777 | 3,906 | 1,033 | 29,152 | 4,020 | 26,665 | 46,162 | 2,845 | 6,121 | 8,264 | 5,770 | 10,759 |
| | March | 143,768 | 63,841 | 4,027 | 1,170 | 27,740 | 4,540 | 26,363 | 46,497 | 2,820 | 5,640 | 8,241 | 5,583 | 11,145 |
| | April | 144,433 | 65,250 | 4,094 | 1,042 | 29,480 | 3,628 | 27,006 | 46,527 | 2,725 | 4,898 | 8,277 | 5,834 | 10,922 |
| | May | 137,822 | 64,081 | 3,864 | 1,007 | 29,310 | 4,177 | 25,723 | 41,588 | 2,530 | 5,129 | 7,820 | 5,711 | 10,962 |
| | June | 147,470 | 67,247 | 4,197 | 899 | 31,038 | 3,891 | 27,221 | 45,346 | 2,610 | 5,710 | 8,505 | 5,448 | 12,603 |
| | July | 148,463 | 69,109 | 4,778 | 1,104 | 30,913 | 3,812 | 28,501 | 44,026 | 3,231 | 5,358 | 8,932 | 5,809 | 12,000 |
| | August | 146,355 | 67,191 | 4,203 | 1,106 | 29,760 | 3,886 | 28,236 | 44,700 | 2,760 | 5,470 | 8,623 | 5,732 | 11,880 |
| | September | 147,783 | 67,080 | 3,784 | 947 | 30,342 | 4,051 | 27,957 | 45,057 | 2,103 | 5,920 | 8,822 | 6,158 | 12,643 |
| | October | 145,559 | 65,405 | 3,802 | 799 | 29,366 | 4,029 | 27,409 | 46,301 | 2,407 | 5,321 | 9,121 | 5,989 | 11,015 |
| | November | 145,374 | 65,831 | 4,034 | 1,114 | 29,650 | 3,763 | 27,271 | 43,929 | 2,296 | 5,639 | 9,537 | 6,236 | 11,905 |
| | December | 148,871 | 67,875 | 4,093 | 920 | 32,002 | 3,674 | 27,185 | 44,583 | 2,306 | 5,406 | 9,770 | 6,532 | 12,398 |
| 1999: | January | 154,387 | 66,634 | 3,666 | 886 | 31,445 | 4,099 | 26,539 | 50,538 | 1,881 | 6,018 | 9,658 | 6,465 | 13,192 |
| | February | 161,975 | 68,570 | 3,650 | 919 | 32,001 | 4,772 | 27,227 | 54,880 | 2,636 | 6,271 | 9,394 | 6,739 | 13,486 |
| | March | 160,033 | 68,786 | 3,623 | 1,012 | 32,080 | 3,982 | 28,089 | 53,099 | 2,223 | 6,194 | 10,017 | 6,767 | 12,947 |
| | April | 156,487 | 68,367 | 3,932 | 925 | 33,087 | 3,656 | 26,767 | 50,586 | 2,290 | 6,020 | 9,522 | 6,446 | 13,256 |
| | May ^f | 151,249 | 66,328 | 3,908 | 1,062 | 32,101 | 3,865 | 25,392 | 48,354 | 2,170 | 5,129 | 9,735 | 6,354 | 13,177 |
| | June ^f | 150,224 | 68,202 | 3,672 | 842 | 33,766 | 3,874 | 26,048 | 45,077 | 2,189 | 5,839 | 9,543 | 6,561 | 12,813 |
| | July ^p | 150,671 | 67,423 | 3,934 | 1,061 | 31,619 | 3,958 | 26,852 | 46,085 | 2,520 | 5,689 | 9,730 | 6,529 | 12,694 |
| PERCENT CHANGE | | | | | | | | | | | | | | |
| June 1999- | | | | | | | | | | | | | | |
| July 1999 | | (Z) | -1 | 7 | 26 | -6 | 2 | 3 | 2 | 15 | -3 | 2 | (Z) | -1 |

NA Not available, but estimates are included in totals. ^pPreliminary. ^rRevised. Z Less than 0.5 percent.

¹Includes farm nonresidential and other private categories, not shown separately. ²Includes residential improvements, not shown separately. ³Includes amusement and recreational buildings, bus and airline terminals, animal hospitals and shelters, etc. ⁴Includes gas, electric, railroad, and petroleum pipelines, not shown separately. ⁵Includes privately owned streets and bridges, parking areas, sewer and water facilities, parks and playgrounds, golf courses, airfields, etc. ⁶Includes general administrative buildings, prisons, police and fire stations, courthouses, civic centers, passenger terminals, space facilities, postal facilities, etc. ⁷Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc.

Table 5. Monthly Value of Construction Put in Place—Seasonally Adjusted Annual Rate in 1992 Dollars

[Millions of dollars]

| Period | Total construction | Private construction | | | | | | | | | | | | | | | | All other private ⁵ | |
|-----------------------------------|--------------------|----------------------|-----------------------|-------------------|---------|-----------------|---------|--------------------------|--------|----------------|------------------|-----------|-------------|----------------------------|----------------------------|-------|-------------------------------|--------------------------------|--|
| | | Total ¹ | Residential buildings | | | | | Nonresidential buildings | | | | | | | | | Public utilities ⁴ | | |
| | | | Total ² | New housing units | | | Total | Industrial | Office | Hotels, motels | Other commercial | Religious | Educational | Hospital and institutional | Miscellaneous ³ | Total | Telecommunications | | |
| | | | | Total | 1 unit | 2 units or more | | | | | | | | | | | | | |
| 1997: July | 522,495 | 400,689 | 219,716 | 154,437 | 136,332 | 18,105 | 144,490 | 27,635 | 29,658 | 11,619 | 44,823 | 4,674 | 7,305 | 10,978 | 7,798 | (NA) | 10,474 | 1,944 | |
| August | 523,381 | 400,953 | 219,280 | 154,933 | 136,312 | 18,621 | 143,999 | 26,862 | 30,019 | 11,542 | 44,160 | 4,740 | 7,483 | 11,394 | 7,797 | (NA) | 9,781 | 2,092 | |
| September | 522,226 | 400,852 | 220,145 | 156,075 | 137,116 | 18,959 | 142,419 | 26,768 | 30,055 | 10,372 | 42,680 | 4,949 | 7,888 | 11,823 | 7,883 | (NA) | 10,620 | 2,048 | |
| October | 524,084 | 401,585 | 222,937 | 158,527 | 138,061 | 20,466 | 142,393 | 26,545 | 31,226 | 11,174 | 41,775 | 5,197 | 7,954 | 11,111 | 7,410 | (NA) | 10,218 | 2,239 | |
| November | 517,441 | 396,820 | 223,262 | 158,200 | 138,824 | 19,376 | 140,105 | 25,612 | 31,241 | 10,620 | 41,183 | 5,195 | 7,813 | 11,030 | 7,411 | (NA) | 9,893 | 2,149 | |
| December | 520,524 | 399,593 | 225,140 | 160,339 | 140,240 | 20,098 | 142,302 | 26,292 | 31,579 | 10,511 | 41,975 | 5,189 | 8,051 | 10,780 | 7,925 | (NA) | 10,007 | 1,760 | |
| 1998: January | 530,358 | 409,157 | 228,625 | 162,879 | 142,001 | 20,878 | 145,226 | 26,696 | 33,809 | 10,770 | 42,171 | 5,314 | 8,165 | 10,947 | 7,354 | (NA) | 9,824 | 2,169 | |
| February | 534,648 | 413,458 | 231,528 | 165,393 | 144,685 | 20,708 | 144,984 | 26,661 | 32,551 | 10,506 | 42,553 | 5,641 | 8,566 | 11,138 | 7,366 | (NA) | 10,763 | 2,195 | |
| March | 539,315 | 418,962 | 234,334 | 168,183 | 147,783 | 20,400 | 147,442 | 29,683 | 31,921 | 10,255 | 43,742 | 5,257 | 8,555 | 11,148 | 6,883 | (NA) | 11,459 | 2,174 | |
| April | 542,912 | 422,142 | 236,671 | 170,692 | 150,239 | 20,453 | 148,902 | 27,265 | 33,172 | 10,924 | 44,075 | 5,119 | 8,832 | 11,665 | 7,851 | (NA) | 10,335 | 2,134 | |
| May | 535,326 | 420,387 | 236,431 | 170,346 | 151,177 | 19,169 | 146,040 | 26,181 | 33,542 | 11,195 | 43,293 | 4,890 | 8,450 | 11,089 | 7,400 | (NA) | 10,923 | 2,219 | |
| June | 552,098 | 429,648 | 237,886 | 172,166 | 152,999 | 19,167 | 150,826 | 26,721 | 35,315 | 12,199 | 44,799 | 5,287 | 7,594 | 11,134 | 7,777 | (NA) | 10,473 | 2,787 | |
| July | 551,246 | 428,270 | 241,330 | 175,982 | 155,816 | 20,166 | 147,987 | 25,585 | 33,172 | 12,806 | 44,903 | 5,502 | 6,959 | 11,166 | 7,894 | (NA) | 10,345 | 2,116 | |
| August | 546,564 | 425,881 | 240,935 | 175,197 | 156,479 | 18,718 | 147,763 | 26,864 | 32,753 | 13,133 | 43,170 | 5,513 | 7,270 | 11,145 | 7,914 | (NA) | 10,615 | 2,158 | |
| September | 546,822 | 425,302 | 242,322 | 177,007 | 157,216 | 19,791 | 146,651 | 26,190 | 33,229 | 13,592 | 42,123 | 5,451 | 7,376 | 11,111 | 7,578 | (NA) | 10,526 | 2,242 | |
| October | 546,608 | 427,133 | 243,006 | 178,266 | 158,117 | 20,150 | 148,775 | 24,902 | 35,246 | 14,006 | 43,422 | 5,617 | 7,251 | 10,666 | 7,665 | (NA) | 11,078 | 2,103 | |
| November | 549,530 | 430,245 | 245,039 | 180,843 | 161,062 | 19,781 | 149,884 | 24,775 | 35,124 | 13,000 | 45,061 | 5,915 | 7,496 | 10,796 | 7,716 | (NA) | 10,563 | 2,418 | |
| December | 555,484 | 433,652 | 246,827 | 183,368 | 163,608 | 19,761 | 152,035 | 24,261 | 35,758 | 12,606 | 45,526 | 5,886 | 8,276 | 11,482 | 8,240 | (NA) | 10,334 | 2,341 | |
| 1999: January | 560,780 | 434,508 | 251,056 | 186,917 | 165,930 | 20,988 | 148,178 | 23,839 | 36,410 | 13,495 | 43,466 | 6,142 | 6,809 | 9,674 | 8,343 | (NA) | 11,400 | 2,108 | |
| February | 571,380 | 438,922 | 253,569 | 189,607 | 167,459 | 22,148 | 150,629 | 23,082 | 37,282 | 13,404 | 44,633 | 5,949 | 7,141 | 10,603 | 8,537 | (NA) | 10,735 | 2,292 | |
| March | 571,609 | 441,683 | 255,643 | 191,079 | 168,047 | 23,032 | 149,998 | 23,021 | 36,790 | 13,013 | 45,605 | 5,713 | 7,120 | 10,170 | 8,566 | (NA) | 12,070 | 2,555 | |
| April | 561,804 | 434,925 | 253,778 | 189,983 | 167,657 | 22,326 | 145,884 | 20,772 | 36,357 | 12,919 | 44,463 | 5,863 | 7,633 | 9,780 | 8,097 | (NA) | 11,204 | 2,818 | |
| May ^f | 554,924 | 432,855 | 252,818 | 188,538 | 167,026 | 21,512 | 145,412 | 19,765 | 36,975 | 12,853 | 45,191 | 5,596 | 7,104 | 9,758 | 8,168 | (NA) | 10,482 | 2,722 | |
| June ^f | 551,568 | 431,131 | 251,342 | 187,030 | 165,168 | 21,862 | 143,532 | 19,866 | 37,543 | 12,044 | 44,505 | 5,828 | 7,006 | 9,551 | 7,188 | (NA) | 10,430 | 2,718 | |
| July ^p | 547,443 | 426,952 | 248,613 | 185,382 | 163,431 | 21,952 | 143,222 | 19,166 | 38,006 | 12,221 | 44,058 | 5,861 | 6,670 | 9,820 | 7,419 | (NA) | (NA) | 2,420 | |
| PERCENT CHANGE | | | | | | | | | | | | | | | | | | | |
| June 1999- July 1999 | -1 | -1 | -1 | -1 | -1 | (Z) | (Z) | -4 | 1 | 1 | -1 | 1 | -5 | 3 | 3 | (NA) | (NA) | -11 | |

See footnotes at end of table.

Table 5. **Monthly Value of Construction Put in Place—Seasonally Adjusted Annual Rate in 1992 Dollars—Con.**

[Millions of dollars]

| Period | | Public construction | | | | | | | | | | | | |
|-----------------------|-----------------------------|---------------------|-----------|---------------------------|------------|-------------|----------|-------------------------------------|----------------------|---------------------|------------------------------|---------------|-------------------------|-----------------------------------|
| | | Total | Buildings | | | | | | Highways and streets | Military facilities | Conservation and development | Sewer systems | Water supply facilities | Miscellaneous public ⁷ |
| | | | Total | Housing and redevelopment | Industrial | Educational | Hospital | Other public buildings ⁶ | | | | | | |
| 1997: | July | 121,806 | 53,165 | 3,198 | 929 | 24,137 | 4,221 | 20,681 | 38,222 | 2,324 | 4,475 | 8,049 | 4,696 | 10,876 |
| | August | 122,427 | 53,024 | 3,262 | 849 | 24,152 | 4,237 | 20,524 | 38,643 | 2,374 | 4,827 | 7,425 | 4,551 | 11,583 |
| | September | 121,374 | 53,863 | 3,206 | 720 | 24,074 | 4,308 | 21,555 | 37,242 | 2,157 | 5,124 | 7,661 | 4,838 | 10,489 |
| | October | 122,499 | 55,864 | 3,873 | 618 | 25,423 | 4,416 | 21,534 | 35,761 | 2,452 | 4,446 | 7,411 | 4,634 | 11,932 |
| | November | 120,621 | 53,375 | 3,363 | 675 | 24,011 | 4,132 | 21,194 | 38,660 | 2,285 | 4,276 | 7,107 | 4,735 | 10,183 |
| | December | 120,932 | 53,592 | 3,057 | 670 | 25,071 | 3,440 | 21,353 | 37,744 | 1,841 | 5,086 | 7,048 | 4,609 | 11,012 |
| 1998: | January | 121,201 | 53,543 | 3,099 | 827 | 24,300 | 3,522 | 21,794 | 38,758 | 2,019 | 4,466 | 7,160 | 4,704 | 10,551 |
| | February | 121,189 | 53,527 | 3,220 | 854 | 24,093 | 3,323 | 22,037 | 38,989 | 2,377 | 5,232 | 7,063 | 4,861 | 9,141 |
| | March | 120,354 | 52,674 | 3,323 | 966 | 22,887 | 3,746 | 21,752 | 39,304 | 2,356 | 4,817 | 7,038 | 4,695 | 9,469 |
| | April | 120,769 | 53,621 | 3,370 | 856 | 24,224 | 2,981 | 22,191 | 39,429 | 2,275 | 4,179 | 7,062 | 4,915 | 9,288 |
| | May | 114,939 | 52,490 | 3,172 | 825 | 24,005 | 3,421 | 21,067 | 35,214 | 2,107 | 4,362 | 6,650 | 4,811 | 9,306 |
| | June | 122,450 | 54,764 | 3,420 | 732 | 25,276 | 3,169 | 22,167 | 38,267 | 2,164 | 4,831 | 7,196 | 4,574 | 10,654 |
| | July | 122,977 | 56,137 | 3,879 | 897 | 25,112 | 3,097 | 23,153 | 37,028 | 2,670 | 4,548 | 7,582 | 4,877 | 10,135 |
| | August | 120,682 | 54,408 | 3,406 | 896 | 24,097 | 3,146 | 22,863 | 37,312 | 2,268 | 4,627 | 7,295 | 4,788 | 9,983 |
| | September | 121,520 | 54,187 | 3,059 | 765 | 24,509 | 3,272 | 22,582 | 37,454 | 1,722 | 4,996 | 7,445 | 5,127 | 10,589 |
| | October | 119,475 | 52,659 | 3,059 | 643 | 23,644 | 3,244 | 22,068 | 38,424 | 1,967 | 4,509 | 7,729 | 4,954 | 9,233 |
| | November | 119,285 | 52,863 | 3,227 | 895 | 23,815 | 3,022 | 21,904 | 36,486 | 1,874 | 4,799 | 8,117 | 5,141 | 10,004 |
| | December | 121,832 | 54,282 | 3,256 | 736 | 25,602 | 2,939 | 21,748 | 36,968 | 1,878 | 4,605 | 8,322 | 5,359 | 10,418 |
| 1999: | January | 126,272 | 53,128 | 2,914 | 707 | 25,076 | 3,268 | 21,163 | 41,871 | 1,528 | 5,131 | 8,233 | 5,295 | 11,086 |
| | February | 132,457 | 54,635 | 2,906 | 732 | 25,499 | 3,803 | 21,695 | 45,468 | 2,141 | 5,351 | 8,015 | 5,514 | 11,332 |
| | March | 129,926 | 54,501 | 2,866 | 802 | 25,420 | 3,155 | 22,258 | 43,775 | 1,796 | 5,187 | 8,390 | 5,515 | 10,762 |
| | April | 126,879 | 53,993 | 3,096 | 731 | 26,135 | 2,888 | 21,143 | 41,738 | 1,848 | 5,046 | 7,982 | 5,253 | 11,020 |
| | May ^f | 122,069 | 52,217 | 3,067 | 836 | 25,276 | 3,043 | 19,994 | 39,667 | 1,745 | 4,274 | 8,113 | 5,153 | 10,899 |
| | June ^f | 120,437 | 53,361 | 2,869 | 659 | 26,421 | 3,031 | 20,382 | 36,768 | 1,748 | 4,838 | 7,907 | 5,287 | 10,528 |
| | July ^p | 120,491 | 52,590 | 3,066 | 828 | 24,664 | 3,087 | 20,945 | 37,498 | 2,006 | 4,701 | 8,041 | 5,249 | 10,405 |
| PERCENT CHANGE | | | | | | | | | | | | | | |
| June 1999- | | | | | | | | | | | | | | |
| July 1999 | | (Z) | -1 | 7 | 26 | -7 | 2 | 3 | 2 | 15 | -3 | 2 | -1 | -1 |

NA Not available, but estimates are included in totals. ^pPreliminary. ^rRevised. Z Less than 0.5 percent.

¹Includes farm nonresidential and other private categories, not shown separately. ²Includes residential improvements, not shown separately. ³Includes amusement and recreational buildings, bus and airline terminals, animal hospitals and shelters, etc. ⁴Includes gas, electric, railroad, and petroleum pipelines, not shown separately. ⁵Includes privately owned streets and bridges, parking areas, sewer and water facilities, parks and playgrounds, golf courses, airfields, etc. ⁶Includes general administrative buildings, prisons, police and fire stations, courthouses, civic centers, passenger terminals, space facilities, postal facilities, etc. ⁷Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc.

Table 6. Monthly Value of Construction Put in Place—Not Seasonally Adjusted in 1992 Dollars

[Millions of dollars]

| Period | Total construction | Private construction | | | | | | | | | | | | | | | | All other private ⁵ | |
|-----------------------------|--------------------|----------------------|-----------------------|-------------------|--------|-----------------|--------|--------------------------|------------|--------|----------------|------------------|-----------|-------------|----------------------------|----------------------------|-------------------------------|--------------------------------|--------------------|
| | | Total ¹ | Residential buildings | | | | | Nonresidential buildings | | | | | | | | | Public utilities ⁴ | | |
| | | | Total ² | New housing units | | | | Total | Industrial | Office | Hotels, motels | Other commercial | Religious | Educational | Hospital and institutional | Miscellaneous ³ | Total | | Telecommunications |
| | | | | Total | 1 unit | 2 units or more | | | | | | | | | | | | | |
| YEAR TO DATE | | | | | | | | | | | | | | | | | | | |
| July 1998. | 300,308 | 235,445 | 131,373 | 94,599 | 83,095 | 11,505 | 83,168 | 15,098 | 19,171 | 6,530 | 24,175 | 2,872 | 4,658 | 6,385 | 4,278 | (NA) | 5,927 | 1,233 | |
| July 1999. | 310,036 | 242,953 | 140,787 | 105,028 | 92,429 | 12,601 | 82,776 | 11,954 | 21,240 | 7,424 | 24,696 | 3,164 | 4,073 | 5,644 | 4,579 | (NA) | (NA) | 1,386 | |
| Percent change | 3 | 3 | 7 | 11 | 11 | 10 | (Z) | -21 | 11 | 14 | 2 | 10 | -13 | -12 | 7 | (NA) | (NA) | 12 | |
| MONTHLY DATA | | | | | | | | | | | | | | | | | | | |
| 1997: July. | 48,926 | 36,978 | 20,888 | 14,355 | 12,781 | 1,574 | 12,486 | 2,308 | 2,536 | 977 | 3,982 | 394 | 734 | 891 | 665 | (NA) | 920 | 178 | |
| August. | 50,406 | 37,815 | 21,211 | 14,674 | 12,995 | 1,679 | 12,781 | 2,333 | 2,577 | 938 | 4,114 | 412 | 751 | 984 | 672 | (NA) | 854 | 198 | |
| September. | 49,836 | 37,254 | 20,627 | 14,690 | 13,037 | 1,653 | 12,863 | 2,396 | 2,607 | 907 | 4,065 | 469 | 708 | 1,019 | 692 | (NA) | 935 | 189 | |
| October. | 48,572 | 36,749 | 20,566 | 14,586 | 12,794 | 1,792 | 12,692 | 2,371 | 2,714 | 930 | 3,899 | 486 | 658 | 970 | 662 | (NA) | 961 | 218 | |
| November. | 44,237 | 34,105 | 19,379 | 13,897 | 12,274 | 1,623 | 11,987 | 2,209 | 2,629 | 871 | 3,583 | 476 | 620 | 956 | 642 | (NA) | 819 | 188 | |
| December. | 39,430 | 30,626 | 16,559 | 11,991 | 10,401 | 1,589 | 11,594 | 2,307 | 2,568 | 880 | 3,288 | 445 | 576 | 889 | 640 | (NA) | 896 | 144 | |
| 1998: January. | 35,390 | 27,994 | 15,074 | 11,146 | 9,632 | 1,514 | 10,698 | 1,987 | 2,570 | 828 | 2,952 | 401 | 561 | 859 | 540 | (NA) | 676 | 155 | |
| February. | 34,587 | 27,273 | 14,423 | 10,747 | 9,224 | 1,524 | 10,734 | 2,004 | 2,523 | 818 | 2,965 | 406 | 600 | 875 | 544 | (NA) | 746 | 147 | |
| March. | 39,198 | 31,232 | 17,232 | 12,806 | 11,182 | 1,624 | 11,586 | 2,315 | 2,596 | 885 | 3,266 | 403 | 646 | 914 | 559 | (NA) | 926 | 163 | |
| April. | 43,056 | 33,979 | 19,036 | 13,687 | 11,994 | 1,693 | 12,145 | 2,211 | 2,773 | 951 | 3,460 | 409 | 697 | 967 | 677 | (NA) | 849 | 165 | |
| May. | 45,526 | 35,876 | 20,616 | 14,420 | 12,737 | 1,684 | 12,168 | 2,171 | 2,851 | 905 | 3,597 | 382 | 718 | 930 | 615 | (NA) | 881 | 178 | |
| June. | 50,840 | 39,373 | 22,105 | 15,457 | 13,744 | 1,712 | 13,090 | 2,274 | 3,016 | 1,088 | 3,942 | 427 | 739 | 934 | 669 | (NA) | 944 | 233 | |
| July. | 51,711 | 39,718 | 22,887 | 16,336 | 14,582 | 1,754 | 12,747 | 2,136 | 2,842 | 1,055 | 3,993 | 444 | 697 | 906 | 674 | (NA) | 905 | 192 | |
| August. | 52,541 | 40,157 | 23,260 | 16,572 | 14,892 | 1,680 | 13,144 | 2,333 | 2,798 | 1,110 | 4,029 | 498 | 731 | 962 | 683 | (NA) | 911 | 207 | |
| September. | 52,091 | 39,333 | 22,685 | 16,633 | 14,909 | 1,723 | 13,159 | 2,348 | 2,872 | 1,144 | 3,998 | 511 | 664 | 958 | 664 | (NA) | 932 | 206 | |
| October. | 50,384 | 38,885 | 22,418 | 16,419 | 14,652 | 1,766 | 13,238 | 2,227 | 3,028 | 1,180 | 4,053 | 531 | 600 | 933 | 686 | (NA) | 1,016 | 206 | |
| November. | 47,229 | 37,182 | 21,287 | 15,884 | 14,227 | 1,657 | 12,908 | 2,141 | 3,009 | 1,094 | 3,924 | 545 | 595 | 934 | 666 | (NA) | 896 | 212 | |
| December. | 42,177 | 33,343 | 18,175 | 13,723 | 12,161 | 1,561 | 12,403 | 2,123 | 2,926 | 1,062 | 3,570 | 516 | 592 | 947 | 667 | (NA) | 927 | 192 | |
| 1999: January. | 37,261 | 29,610 | 16,591 | 12,758 | 11,228 | 1,530 | 10,880 | 1,788 | 2,782 | 987 | 3,032 | 446 | 472 | 759 | 613 | (NA) | 750 | 149 | |
| February. | 36,959 | 29,046 | 15,843 | 12,299 | 10,662 | 1,637 | 11,210 | 1,752 | 2,899 | 1,041 | 3,121 | 428 | 503 | 832 | 634 | (NA) | 747 | 153 | |
| March. | 41,809 | 33,174 | 18,941 | 14,620 | 12,786 | 1,835 | 11,846 | 1,807 | 2,989 | 1,130 | 3,405 | 439 | 542 | 836 | 699 | (NA) | 1,012 | 192 | |
| April. | 44,577 | 34,992 | 20,374 | 15,201 | 13,343 | 1,859 | 11,912 | 1,683 | 3,033 | 1,113 | 3,509 | 454 | 609 | 808 | 703 | (NA) | 942 | 219 | |
| May ^f | 47,336 | 37,045 | 22,068 | 16,036 | 14,155 | 1,881 | 12,174 | 1,629 | 3,121 | 1,089 | 3,777 | 451 | 606 | 816 | 683 | (NA) | 825 | 224 | |
| June ^f | 50,913 | 39,514 | 23,390 | 16,873 | 14,920 | 1,953 | 12,414 | 1,695 | 3,204 | 1,035 | 3,920 | 468 | 681 | 796 | 615 | (NA) | 934 | 231 | |
| July ^p | 51,181 | 39,572 | 23,580 | 17,241 | 15,335 | 1,906 | 12,340 | 1,600 | 3,212 | 1,029 | 3,932 | 478 | 660 | 797 | 632 | (NA) | (NA) | 218 | |
| PERCENT CHANGE | | | | | | | | | | | | | | | | | | | |
| June 1999- | | | | | | | | | | | | | | | | | | | |
| July 1999. | 1 | (Z) | 1 | 2 | 3 | -2 | -1 | -6 | (Z) | -1 | (Z) | 2 | -3 | (Z) | 3 | (NA) | (NA) | -6 | |

See footnotes at end of table.

Table 6. Monthly Value of Construction Put in Place—Not Seasonally Adjusted in 1992 Dollars—Con.

[Millions of dollars]

| Period | Public construction | | | | | | | | | | | | |
|------------------------------|---------------------|-----------|---------------------------|------------|-------------|----------|-------------------------------------|----------------------|---------------------|------------------------------|---------------|-------------------------|-----------------------------------|
| | Total | Buildings | | | | | | Highways and streets | Military facilities | Conservation and development | Sewer systems | Water supply facilities | Miscellaneous public ⁷ |
| | | Total | Housing and redevelopment | Industrial | Educational | Hospital | Other public buildings ⁶ | | | | | | |
| YEAR TO DATE | | | | | | | | | | | | | |
| July 1998..... | 64,863 | 30,373 | 1,916 | 480 | 13,654 | 1,888 | 12,431 | 18,852 | 1,296 | 2,519 | 3,870 | 2,616 | 5,336 |
| July 1999..... | 67,084 | 30,137 | 1,687 | 427 | 14,328 | 1,802 | 11,891 | 20,047 | 1,034 | 2,689 | 4,385 | 2,902 | 5,894 |
| Percent change..... | 3 | -1 | -12 | -11 | 5 | -5 | -4 | 6 | -20 | 7 | 13 | 11 | 10 |
| MONTHLY DATA | | | | | | | | | | | | | |
| 1997: July..... | 11,948 | 4,907 | 270 | 77 | 2,438 | 355 | 1,767 | 4,278 | 200 | 402 | 710 | 429 | 1,022 |
| August..... | 12,591 | 5,032 | 262 | 67 | 2,566 | 337 | 1,800 | 4,611 | 208 | 447 | 710 | 415 | 1,169 |
| September..... | 12,582 | 5,083 | 298 | 82 | 2,283 | 426 | 1,994 | 4,336 | 231 | 653 | 750 | 442 | 1,087 |
| October..... | 11,823 | 4,901 | 344 | 47 | 2,203 | 382 | 1,925 | 4,139 | 165 | 342 | 721 | 465 | 1,089 |
| November..... | 10,131 | 4,383 | 284 | 54 | 1,877 | 338 | 1,830 | 3,283 | 192 | 353 | 632 | 428 | 861 |
| December..... | 8,804 | 4,154 | 251 | 59 | 1,835 | 294 | 1,716 | 2,353 | 159 | 407 | 543 | 364 | 824 |
| 1998: January..... | 7,396 | 3,839 | 241 | 62 | 1,660 | 270 | 1,605 | 1,634 | 157 | 294 | 484 | 317 | 671 |
| February..... | 7,314 | 3,815 | 242 | 65 | 1,628 | 253 | 1,627 | 1,608 | 164 | 358 | 463 | 324 | 582 |
| March..... | 7,966 | 3,971 | 259 | 78 | 1,650 | 307 | 1,677 | 1,959 | 198 | 351 | 515 | 330 | 642 |
| April..... | 9,077 | 4,253 | 279 | 69 | 1,853 | 246 | 1,806 | 2,638 | 181 | 330 | 546 | 391 | 737 |
| May..... | 9,650 | 4,364 | 266 | 66 | 1,952 | 276 | 1,802 | 3,005 | 179 | 358 | 550 | 411 | 783 |
| June..... | 11,467 | 4,941 | 300 | 64 | 2,369 | 275 | 1,933 | 3,910 | 187 | 422 | 642 | 399 | 966 |
| July..... | 11,993 | 5,190 | 329 | 76 | 2,542 | 261 | 1,981 | 4,098 | 230 | 406 | 670 | 444 | 955 |
| August..... | 12,383 | 5,171 | 276 | 71 | 2,560 | 252 | 2,011 | 4,459 | 198 | 424 | 693 | 437 | 1,002 |
| September..... | 12,758 | 5,108 | 283 | 87 | 2,331 | 323 | 2,083 | 4,498 | 184 | 651 | 725 | 468 | 1,124 |
| October..... | 11,500 | 4,606 | 272 | 47 | 2,051 | 278 | 1,959 | 4,339 | 132 | 321 | 753 | 496 | 852 |
| November..... | 10,047 | 4,357 | 277 | 74 | 1,868 | 249 | 1,890 | 3,101 | 158 | 398 | 721 | 466 | 846 |
| December..... | 8,834 | 4,196 | 268 | 64 | 1,871 | 250 | 1,743 | 2,277 | 162 | 369 | 635 | 420 | 776 |
| 1999: January..... | 7,651 | 3,788 | 221 | 51 | 1,724 | 247 | 1,544 | 1,790 | 119 | 341 | 556 | 353 | 705 |
| February..... | 7,914 | 3,896 | 218 | 56 | 1,725 | 289 | 1,608 | 1,891 | 148 | 372 | 518 | 366 | 724 |
| March..... | 8,634 | 4,108 | 227 | 68 | 1,822 | 259 | 1,733 | 2,254 | 151 | 395 | 605 | 387 | 733 |
| April..... | 9,585 | 4,292 | 257 | 60 | 2,012 | 231 | 1,731 | 2,849 | 146 | 398 | 614 | 416 | 871 |
| May ^f | 10,292 | 4,339 | 257 | 66 | 2,060 | 249 | 1,707 | 3,418 | 146 | 349 | 677 | 439 | 924 |
| June ^f | 11,399 | 4,840 | 247 | 56 | 2,501 | 267 | 1,768 | 3,867 | 150 | 423 | 698 | 462 | 960 |
| July ^p | 11,609 | 4,874 | 260 | 70 | 2,484 | 260 | 1,800 | 3,978 | 174 | 411 | 717 | 479 | 977 |
| PERCENT CHANGE | | | | | | | | | | | | | |
| June 1999- July 1999..... | 2 | 1 | 5 | 25 | -1 | -3 | 2 | 3 | 16 | -3 | 3 | 4 | 2 |

NA Not available, but estimates are included in totals. ^pPreliminary. ^rRevised. Z Less than 0.5 percent.

¹Includes farm nonresidential and other private categories, not shown separately. ²Includes residential improvements, not shown separately. ³Includes amusement and recreational buildings, bus and airline terminals, animal hospitals and shelters, etc. ⁴Includes gas, electric, railroad, and petroleum pipelines, not shown separately. ⁵Includes privately owned streets and bridges, parking areas, sewer and water facilities, parks and playgrounds, golf courses, airfields, etc. ⁶Includes general administrative buildings, prisons, police and fire stations, courthouses, civic centers, passenger terminals, space facilities, postal facilities, etc. ⁷Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc.

Table 7. Monthly Value of Public Construction Put in Place—Not Seasonally Adjusted in Current Dollars

[Millions of dollars]

| Period | | State and locally owned public construction | | | | | | | | | | |
|--------|-------------------|---|-----------|---------------------------|-------------|-------------|------------------------------|----------------------|------------------------------|------------------------------|---|---|
| | | Total state and local | Buildings | | | | | Highways and streets | Conservation and development | Sewer systems | Water supply facilities | Miscellaneous construction ² |
| | | | Total | Housing and redevelopment | Educational | Hospital | Other buildings ¹ | | | | | |
| 1997: | July | 12,912 | 5,366 | 270 | 2,899 | 352 | 1,845 | 4,968 | 198 | 831 | 504 | 1,044 |
| | August | 13,673 | 5,538 | 258 | 3,064 | 323 | 1,893 | 5,355 | 226 | 831 | 488 | 1,235 |
| | September | 13,117 | 5,384 | 305 | 2,733 | 336 | 2,010 | 5,029 | 218 | 879 | 518 | 1,088 |
| | October | 13,041 | 5,418 | 346 | 2,642 | 342 | 2,088 | 4,846 | 245 | 843 | 546 | 1,143 |
| | November | 10,860 | 4,721 | 285 | 2,263 | 278 | 1,894 | 3,888 | 200 | 741 | 505 | 805 |
| | December | 9,241 | 4,457 | 265 | 2,210 | 254 | 1,729 | 2,791 | 165 | 636 | 429 | 763 |
| 1998: | January | 7,849 | 4,216 | 253 | 2,009 | 255 | 1,700 | 1,930 | 154 | 567 | 376 | 605 |
| | February | 7,699 | 4,169 | 244 | 1,970 | 240 | 1,716 | 1,891 | 139 | 541 | 384 | 574 |
| | March | 8,391 | 4,309 | 282 | 1,999 | 267 | 1,761 | 2,301 | 152 | 603 | 392 | 634 |
| | April | 9,777 | 4,687 | 300 | 2,254 | 236 | 1,897 | 3,091 | 141 | 640 | 464 | 752 |
| | May | 10,463 | 4,844 | 282 | 2,383 | 248 | 1,932 | 3,520 | 165 | 647 | 488 | 799 |
| | June | 12,598 | 5,579 | 324 | 2,908 | 256 | 2,091 | 4,597 | 202 | 759 | 476 | 985 |
| | July | 13,107 | 5,810 | 345 | 3,128 | 226 | 2,111 | 4,833 | 163 | 790 | 529 | 983 |
| | August | 13,755 | 5,880 | 284 | 3,159 | 225 | 2,213 | 5,298 | 182 | 819 | 523 | 1,053 |
| | September | 13,655 | 5,633 | 294 | 2,883 | 253 | 2,204 | 5,367 | 177 | 859 | 562 | 1,057 |
| | October | 13,068 | 5,288 | 304 | 2,547 | 257 | 2,180 | 5,186 | 183 | 889 | 600 | 923 |
| | November | 11,012 | 4,948 | 298 | 2,325 | 247 | 2,078 | 3,703 | 148 | 847 | 565 | 801 |
| | December | 9,577 | 4,745 | 296 | 2,338 | 258 | 1,854 | 2,723 | 134 | 746 | 512 | 718 |
| 1999: | January | 8,394 | 4,345 | 252 | 2,159 | 223 | 1,712 | 2,145 | 150 | 652 | 431 | 672 |
| | February | 8,577 | 4,419 | 247 | 2,165 | 236 | 1,770 | 2,266 | 136 | 607 | 447 | 703 |
| | March | 9,519 | 4,716 | 249 | 2,298 | 242 | 1,927 | 2,716 | 134 | 723 | 475 | 755 |
| | April | 10,696 | 5,004 | 284 | 2,547 | 230 | 1,943 | 3,427 | 178 | 732 | 510 | 846 |
| | May ^f | 11,715 | 5,091 | 295 | 2,616 | 248 | 1,932 | 4,134 | 143 | 812 | 542 | 994 |
| | June ^f | 13,030 | 5,733 | 277 | 3,195 | 271 | 1,990 | 4,701 | 167 | 843 | 573 | 1,014 |
| | July ^p | 13,278 | 5,770 | 295 | 3,183 | 248 | 2,045 | 4,846 | 159 | 868 | 596 | 1,040 |
| | | Federally owned public construction | | | | | | | | | | |
| | | Total Federal | Buildings | | | | | Highways and streets | Military facilities | Conservation and development | Miscellaneous construction ⁴ | |
| | | | Total | Housing | Industrial | Educational | Hospital | | | | | Other buildings ³ |
| 1997: | July | 1,163 | 476 | 55 | 92 | 1 | 70 | 257 | (NA) | 236 | 272 | 151 |
| | August | 1,181 | 478 | 58 | 80 | 2 | 80 | 258 | (NA) | 245 | 297 | 131 |
| | September | 1,743 | 709 | 55 | 98 | 3 | 174 | 379 | (NA) | 273 | 547 | 182 |
| | October | 980 | 462 | 71 | 56 | - | 116 | 220 | (NA) | 196 | 155 | 136 |
| | November | 1,246 | 567 | 60 | 66 | 1 | 129 | 312 | (NA) | 230 | 214 | 213 |
| | December | 1,286 | 554 | 39 | 71 | 3 | 101 | 340 | (NA) | 191 | 312 | 212 |
| 1998: | January | 1,009 | 429 | 40 | 76 | - | 71 | 243 | (NA) | 188 | 191 | 188 |
| | February | 1,047 | 447 | 50 | 79 | 1 | 66 | 253 | (NA) | 196 | 280 | 111 |
| | March | 1,138 | 504 | 32 | 95 | - | 105 | 272 | (NA) | 237 | 259 | 122 |
| | April | 1,087 | 488 | 39 | 84 | 1 | 63 | 301 | (NA) | 216 | 246 | 115 |
| | May | 1,107 | 483 | 42 | 81 | 1 | 90 | 269 | (NA) | 215 | 256 | 123 |
| | June | 1,204 | 488 | 44 | 78 | 2 | 82 | 283 | (NA) | 225 | 297 | 158 |
| | July | 1,360 | 580 | 61 | 93 | 2 | 95 | 329 | (NA) | 279 | 315 | 148 |
| | August | 1,249 | 506 | 57 | 88 | 3 | 87 | 271 | (NA) | 241 | 319 | 139 |
| | September | 1,839 | 690 | 57 | 108 | 3 | 148 | 375 | (NA) | 225 | 595 | 285 |
| | October | 927 | 433 | 34 | 58 | - | 88 | 253 | (NA) | 162 | 196 | 94 |
| | November | 1,228 | 478 | 48 | 92 | 1 | 63 | 275 | (NA) | 194 | 320 | 206 |
| | December | 1,228 | 501 | 41 | 80 | 1 | 55 | 325 | (NA) | 199 | 299 | 205 |
| 1999: | January | 985 | 406 | 27 | 64 | 3 | 87 | 225 | (NA) | 147 | 249 | 167 |
| | February | 1,127 | 471 | 26 | 70 | 1 | 127 | 247 | (NA) | 182 | 300 | 159 |
| | March | 1,140 | 468 | 37 | 85 | 1 | 85 | 260 | (NA) | 187 | 338 | 127 |
| | April | 1,136 | 431 | 42 | 76 | 1 | 64 | 249 | (NA) | 181 | 297 | 201 |
| | May ^f | 1,034 | 420 | 32 | 83 | 1 | 67 | 237 | (NA) | 181 | 277 | 123 |
| | June ^f | 1,178 | 453 | 39 | 72 | 1 | 71 | 270 | (NA) | 188 | 343 | 155 |
| | July ^p | 1,229 | 478 | 39 | 89 | 3 | 85 | 263 | (NA) | 219 | 338 | 151 |

- Less than \$0.5 million. NA Not available, but estimates are included in totals. ^pPreliminary. ^fRevised.

¹Includes general administrative buildings, prisons, police and fire stations, courthouses, passenger terminals, civic centers, etc. ²Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc. ³Includes Federal office buildings, prisons, courthouses, space facilities, postal facilities, etc. ⁴Includes Federal airport facilities, fish and wildlife preservation facilities, VA cemeteries, etc.

Table 8. Monthly Value of Public Construction Put in Place—Seasonally Adjusted Annual Rate in Current Dollars

[Millions of dollars]

| Period | | State and locally owned public construction | | | | | | | | | | |
|--------|-------------------|---|-----------|---------------------------|-------------|-------------|------------------------------|----------------------|------------------------------|------------------------------|---|---|
| | | Total state and local | Buildings | | | | | Highways and streets | Conservation and development | Sewer systems | Water supply facilities | Miscellaneous construction ² |
| | | | Total | Housing and redevelopment | Educational | Hospital | Other buildings ¹ | | | | | |
| 1997: | July | 129,958 | 57,578 | 3,179 | 28,707 | 4,177 | 21,515 | 44,393 | 2,080 | 9,425 | 5,518 | 10,964 |
| | August | 130,440 | 57,304 | 3,187 | 28,839 | 4,045 | 21,233 | 44,875 | 2,203 | 8,695 | 5,342 | 12,020 |
| | September | 129,383 | 58,340 | 3,393 | 28,814 | 3,635 | 22,499 | 43,195 | 2,205 | 8,979 | 5,670 | 10,994 |
| | October | 131,009 | 60,909 | 3,757 | 30,480 | 3,765 | 22,906 | 41,867 | 2,495 | 8,664 | 5,435 | 11,639 |
| | November | 128,771 | 57,366 | 3,342 | 28,951 | 3,381 | 21,692 | 45,785 | 2,331 | 8,337 | 5,587 | 9,365 |
| | December | 129,580 | 58,322 | 3,259 | 30,204 | 2,997 | 21,862 | 44,777 | 2,270 | 8,253 | 5,439 | 10,519 |
| 1998: | January | 131,093 | 59,104 | 3,236 | 29,400 | 3,315 | 23,153 | 45,775 | 2,489 | 8,391 | 5,579 | 9,755 |
| | February | 130,245 | 58,904 | 3,255 | 29,142 | 3,161 | 23,347 | 45,847 | 2,239 | 8,264 | 5,770 | 9,219 |
| | March | 129,501 | 57,635 | 3,630 | 27,736 | 3,253 | 23,017 | 46,176 | 2,297 | 8,241 | 5,583 | 9,568 |
| | April | 130,760 | 59,213 | 3,617 | 29,463 | 2,853 | 23,281 | 46,198 | 1,775 | 8,277 | 5,834 | 9,463 |
| | May | 124,220 | 58,066 | 3,337 | 29,293 | 3,060 | 22,376 | 41,248 | 1,942 | 7,820 | 5,711 | 9,432 |
| | June | 133,510 | 61,629 | 3,693 | 31,018 | 2,952 | 23,967 | 44,994 | 2,197 | 8,505 | 5,448 | 10,736 |
| | July | 132,659 | 62,246 | 4,056 | 30,894 | 2,683 | 24,612 | 43,673 | 1,709 | 8,932 | 5,809 | 10,290 |
| | August | 131,590 | 60,855 | 3,488 | 29,729 | 2,800 | 24,839 | 44,331 | 1,775 | 8,623 | 5,732 | 10,274 |
| | September | 133,139 | 61,029 | 3,288 | 30,317 | 2,758 | 24,667 | 44,691 | 1,781 | 8,822 | 6,158 | 10,659 |
| | October | 131,696 | 59,449 | 3,337 | 29,364 | 2,820 | 23,929 | 45,929 | 1,852 | 9,121 | 5,989 | 9,357 |
| | November | 130,493 | 60,031 | 3,453 | 29,643 | 3,000 | 23,936 | 43,565 | 1,734 | 9,537 | 6,236 | 9,390 |
| | December | 134,430 | 62,101 | 3,623 | 31,988 | 3,046 | 23,444 | 44,210 | 1,853 | 9,770 | 6,532 | 9,963 |
| 1999: | January | 140,524 | 61,050 | 3,301 | 31,405 | 2,896 | 23,448 | 50,164 | 2,410 | 9,658 | 6,465 | 10,778 |
| | February | 146,523 | 62,381 | 3,304 | 31,992 | 3,107 | 23,977 | 54,495 | 2,187 | 9,394 | 6,739 | 11,327 |
| | March | 146,132 | 63,221 | 3,180 | 32,071 | 2,972 | 24,999 | 52,730 | 2,020 | 10,017 | 6,767 | 11,376 |
| | April | 142,236 | 63,121 | 3,417 | 33,074 | 2,884 | 23,746 | 50,205 | 2,244 | 9,522 | 6,446 | 10,698 |
| | May ^f | 138,339 | 60,969 | 3,495 | 32,092 | 3,007 | 22,376 | 47,971 | 1,669 | 9,735 | 6,354 | 11,639 |
| | June ^e | 136,518 | 62,907 | 3,214 | 33,753 | 3,049 | 22,891 | 44,697 | 1,811 | 9,543 | 6,561 | 10,999 |
| | July ^p | 136,239 | 61,740 | 3,476 | 31,588 | 2,947 | 23,730 | 45,680 | 1,665 | 9,730 | 6,529 | 10,894 |
| | | Federally owned public construction | | | | | | | | | | |
| | | Total Federal | Buildings | | | | | Highways and streets | Military facilities | Conservation and development | Miscellaneous construction ⁴ | |
| | | | Total | Housing | Industrial | Educational | Hospital | | | | | Other buildings ³ |
| 1997: | July | 13,620 | 5,720 | 659 | 1,105 | 16 | 845 | 3,095 | (NA) | 2,740 | 3,160 | 1,750 |
| | August | 14,122 | 6,089 | 740 | 1,015 | 23 | 1,019 | 3,293 | (NA) | 2,804 | 3,449 | 1,521 |
| | September | 14,110 | 6,223 | 482 | 862 | 27 | 1,526 | 3,325 | (NA) | 2,552 | 3,800 | 1,268 |
| | October | 14,368 | 6,122 | 936 | 740 | 3 | 1,530 | 2,913 | (NA) | 2,915 | 2,703 | 2,369 |
| | November | 15,380 | 7,028 | 738 | 814 | 6 | 1,602 | 3,868 | (NA) | 2,737 | 2,684 | 2,671 |
| | December | 15,009 | 6,328 | 446 | 808 | 32 | 1,152 | 3,890 | (NA) | 2,209 | 3,685 | 2,498 |
| 1998: | January | 13,878 | 5,695 | 526 | 1,001 | 3 | 947 | 3,218 | (NA) | 2,423 | 2,746 | 2,705 |
| | February | 14,454 | 5,873 | 651 | 1,033 | 11 | 860 | 3,318 | (NA) | 2,845 | 3,882 | 1,540 |
| | March | 14,267 | 6,206 | 398 | 1,170 | 4 | 1,287 | 3,346 | (NA) | 2,820 | 3,343 | 1,577 |
| | April | 13,673 | 6,037 | 478 | 1,042 | 17 | 776 | 3,725 | (NA) | 2,725 | 3,123 | 1,459 |
| | May | 13,602 | 6,015 | 527 | 1,007 | 17 | 1,117 | 3,347 | (NA) | 2,530 | 3,187 | 1,530 |
| | June | 13,960 | 5,618 | 503 | 899 | 21 | 940 | 3,255 | (NA) | 2,610 | 3,512 | 1,867 |
| | July | 15,804 | 6,863 | 722 | 1,104 | 19 | 1,129 | 3,889 | (NA) | 3,231 | 3,649 | 1,710 |
| | August | 14,765 | 6,336 | 715 | 1,106 | 31 | 1,086 | 3,397 | (NA) | 2,760 | 3,695 | 1,606 |
| | September | 14,644 | 6,051 | 496 | 947 | 25 | 1,293 | 3,290 | (NA) | 2,103 | 4,139 | 1,984 |
| | October | 13,863 | 5,956 | 465 | 799 | 3 | 1,210 | 3,480 | (NA) | 2,407 | 3,469 | 1,658 |
| | November | 14,880 | 5,800 | 581 | 1,114 | 7 | 763 | 3,335 | (NA) | 2,296 | 3,905 | 2,515 |
| | December | 14,441 | 5,774 | 470 | 920 | 14 | 629 | 3,742 | (NA) | 2,306 | 3,553 | 2,434 |
| 1999: | January | 13,863 | 5,584 | 365 | 886 | 40 | 1,203 | 3,091 | (NA) | 1,881 | 3,609 | 2,414 |
| | February | 15,452 | 6,189 | 346 | 919 | 9 | 1,665 | 3,250 | (NA) | 2,636 | 4,084 | 2,159 |
| | March | 13,901 | 5,565 | 443 | 1,012 | 10 | 1,010 | 3,090 | (NA) | 2,223 | 4,173 | 1,571 |
| | April | 14,251 | 5,246 | 514 | 925 | 13 | 772 | 3,021 | (NA) | 2,290 | 3,775 | 2,559 |
| | May ^f | 12,910 | 5,359 | 413 | 1,062 | 9 | 858 | 3,016 | (NA) | 2,170 | 3,460 | 1,538 |
| | June ^e | 13,706 | 5,295 | 458 | 842 | 13 | 825 | 3,157 | (NA) | 2,189 | 4,029 | 1,814 |
| | July ^p | 14,432 | 5,683 | 457 | 1,061 | 31 | 1,011 | 3,122 | (NA) | 2,520 | 4,024 | 1,800 |

NA Not available, but estimates are included in totals. ^pPreliminary. ^rRevised.

¹Includes general administrative buildings, prisons, police and fire stations, courthouses, passenger terminals, civic centers, etc. ²Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc. ³Includes Federal office buildings, prisons, courthouses, space facilities, postal facilities, etc. ⁴Includes Federal airport facilities, fish and wildlife preservation facilities, VA cemeteries, etc.

Table 9. Monthly Value of Public Construction Put in Place—Seasonally Adjusted Annual Rate in 1992 Dollars

[Millions of dollars]

| Period | | State and locally owned public construction | | | | | | | | | | |
|--------|-------------------|---|-----------|---------------------------|-------------|-------------|------------------------------|----------------------|------------------------------|------------------------------|---|---|
| | | Total state and local | Buildings | | | | | Highways and streets | Conservation and development | Sewer systems | Water supply facilities | Miscellaneous construction ² |
| | | | Total | Housing and redevelopment | Educational | Hospital | Other buildings ¹ | | | | | |
| 1997: | July | 110,270 | 48,363 | 2,649 | 24,123 | 3,510 | 18,080 | 38,008 | 1,776 | 8,049 | 4,696 | 9,379 |
| | August | 110,494 | 47,933 | 2,647 | 24,133 | 3,385 | 17,768 | 38,420 | 1,882 | 7,425 | 4,551 | 10,283 |
| | September | 109,471 | 48,672 | 2,807 | 24,052 | 3,034 | 18,780 | 37,014 | 1,881 | 7,661 | 4,838 | 9,405 |
| | October | 110,400 | 50,766 | 3,100 | 25,421 | 3,140 | 19,105 | 35,541 | 2,134 | 7,411 | 4,634 | 9,914 |
| | November | 107,746 | 47,551 | 2,755 | 24,006 | 2,804 | 17,986 | 38,442 | 1,987 | 7,107 | 4,735 | 7,923 |
| | December | 108,343 | 48,346 | 2,689 | 25,044 | 2,485 | 18,127 | 37,502 | 1,939 | 7,048 | 4,609 | 8,899 |
| 1998: | January | 109,583 | 48,837 | 2,666 | 24,298 | 2,740 | 19,135 | 38,499 | 2,123 | 7,160 | 4,704 | 8,260 |
| | February | 109,068 | 48,675 | 2,684 | 24,084 | 2,612 | 19,295 | 38,722 | 1,914 | 7,063 | 4,861 | 7,833 |
| | March | 108,412 | 47,554 | 2,995 | 22,884 | 2,684 | 18,991 | 39,033 | 1,962 | 7,038 | 4,695 | 8,129 |
| | April | 109,349 | 48,660 | 2,977 | 24,209 | 2,344 | 19,130 | 39,151 | 1,514 | 7,062 | 4,915 | 8,047 |
| | May | 103,609 | 47,563 | 2,740 | 23,991 | 2,506 | 18,326 | 34,926 | 1,652 | 6,650 | 4,811 | 8,007 |
| | June | 110,863 | 50,189 | 3,010 | 25,259 | 2,404 | 19,517 | 37,970 | 1,859 | 7,196 | 4,574 | 9,075 |
| | July | 109,895 | 50,563 | 3,293 | 25,097 | 2,180 | 19,994 | 36,731 | 1,451 | 7,582 | 4,877 | 8,691 |
| | August | 108,501 | 49,278 | 2,827 | 24,072 | 2,267 | 20,112 | 37,004 | 1,501 | 7,295 | 4,788 | 8,634 |
| | September | 109,450 | 49,299 | 2,658 | 24,488 | 2,228 | 19,925 | 37,149 | 1,503 | 7,445 | 5,127 | 8,927 |
| | October | 108,074 | 47,864 | 2,685 | 23,642 | 2,270 | 19,266 | 38,115 | 1,569 | 7,729 | 4,954 | 7,843 |
| | November | 107,014 | 48,207 | 2,762 | 23,810 | 2,410 | 19,225 | 36,183 | 1,476 | 8,117 | 5,141 | 7,891 |
| | December | 109,955 | 49,664 | 2,882 | 25,591 | 2,436 | 18,755 | 36,658 | 1,579 | 8,322 | 5,359 | 8,373 |
| 1999: | January | 114,876 | 48,676 | 2,624 | 25,044 | 2,309 | 18,699 | 41,561 | 2,054 | 8,233 | 5,295 | 9,057 |
| | February | 119,767 | 49,704 | 2,631 | 25,492 | 2,476 | 19,105 | 45,149 | 1,866 | 8,015 | 5,514 | 9,518 |
| | March | 118,616 | 50,092 | 2,516 | 25,413 | 2,355 | 19,809 | 43,471 | 1,692 | 8,390 | 5,515 | 9,456 |
| | April | 115,282 | 49,850 | 2,691 | 26,125 | 2,278 | 18,757 | 41,423 | 1,881 | 7,982 | 5,253 | 8,892 |
| | May ^r | 111,636 | 47,999 | 2,743 | 25,269 | 2,367 | 17,619 | 39,353 | 1,391 | 8,113 | 5,153 | 9,627 |
| | June ^f | 109,408 | 49,219 | 2,511 | 26,411 | 2,386 | 17,911 | 36,457 | 1,500 | 7,907 | 5,287 | 9,037 |
| | July ^p | 108,922 | 48,157 | 2,709 | 24,640 | 2,298 | 18,510 | 37,169 | 1,376 | 8,041 | 5,249 | 8,930 |
| | | Federally owned public construction | | | | | | | | | | |
| | | Total Federal | Buildings | | | | | Highways and streets | Military facilities | Conservation and development | Miscellaneous construction ⁴ | |
| | | | Total | Housing | Industrial | Educational | Hospital | | | | | Other buildings ³ |
| 1997: | July | 11,536 | 4,802 | 549 | 929 | 13 | 710 | 2,601 | (NA) | 2,324 | 2,699 | 1,497 |
| | August | 11,934 | 5,091 | 614 | 849 | 19 | 853 | 2,755 | (NA) | 2,374 | 2,945 | 1,301 |
| | September | 11,904 | 5,191 | 399 | 720 | 23 | 1,274 | 2,775 | (NA) | 2,157 | 3,243 | 1,085 |
| | October | 12,099 | 5,097 | 773 | 618 | 2 | 1,276 | 2,429 | (NA) | 2,452 | 2,312 | 2,018 |
| | November | 12,874 | 5,824 | 608 | 675 | 5 | 1,328 | 3,207 | (NA) | 2,285 | 2,288 | 2,260 |
| | December | 12,589 | 5,245 | 368 | 670 | 27 | 955 | 3,226 | (NA) | 1,841 | 3,147 | 2,113 |
| 1998: | January | 11,617 | 4,705 | 434 | 827 | 2 | 782 | 2,660 | (NA) | 2,019 | 2,343 | 2,291 |
| | February | 12,121 | 4,852 | 537 | 854 | 9 | 711 | 2,742 | (NA) | 2,377 | 3,318 | 1,308 |
| | March | 11,942 | 5,120 | 328 | 966 | 3 | 1,062 | 2,761 | (NA) | 2,356 | 2,855 | 1,340 |
| | April | 11,420 | 4,961 | 393 | 856 | 14 | 637 | 3,061 | (NA) | 2,275 | 2,665 | 1,241 |
| | May | 11,331 | 4,927 | 432 | 825 | 14 | 914 | 2,741 | (NA) | 2,107 | 2,710 | 1,298 |
| | June | 11,587 | 4,575 | 410 | 732 | 17 | 765 | 2,650 | (NA) | 2,164 | 2,972 | 1,579 |
| | July | 13,082 | 5,574 | 586 | 897 | 15 | 917 | 3,159 | (NA) | 2,670 | 3,097 | 1,444 |
| | August | 12,181 | 5,131 | 580 | 896 | 25 | 879 | 2,751 | (NA) | 2,268 | 3,126 | 1,350 |
| | September | 12,070 | 4,888 | 401 | 765 | 21 | 1,044 | 2,657 | (NA) | 1,722 | 3,493 | 1,662 |
| | October | 11,401 | 4,795 | 374 | 643 | 2 | 974 | 2,802 | (NA) | 1,967 | 2,940 | 1,390 |
| | November | 12,271 | 4,656 | 464 | 895 | 6 | 613 | 2,679 | (NA) | 1,874 | 3,324 | 2,113 |
| | December | 11,877 | 4,617 | 374 | 736 | 11 | 503 | 2,993 | (NA) | 1,878 | 3,026 | 2,046 |
| 1999: | January | 11,396 | 4,452 | 290 | 707 | 32 | 959 | 2,465 | (NA) | 1,528 | 3,076 | 2,029 |
| | February | 12,690 | 4,931 | 275 | 732 | 7 | 1,327 | 2,590 | (NA) | 2,141 | 3,484 | 1,814 |
| | March | 11,310 | 4,409 | 351 | 802 | 8 | 800 | 2,449 | (NA) | 1,796 | 3,495 | 1,306 |
| | April | 11,597 | 4,143 | 405 | 731 | 11 | 610 | 2,386 | (NA) | 1,848 | 3,165 | 2,127 |
| | May ^r | 10,432 | 4,218 | 324 | 836 | 7 | 676 | 2,375 | (NA) | 1,745 | 2,883 | 1,272 |
| | June ^f | 11,029 | 4,142 | 358 | 659 | 10 | 645 | 2,470 | (NA) | 1,748 | 3,338 | 1,491 |
| | July ^p | 11,569 | 4,432 | 357 | 828 | 24 | 789 | 2,436 | (NA) | 2,006 | 3,325 | 1,475 |

NA Not available, but estimates are included in totals. ^rPreliminary. ^fRevised.

¹Includes general administrative buildings, prisons, police and fire stations, courthouses, passenger terminals, civic centers, etc. ²Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc. ³Includes Federal office buildings, prisons, courthouses, space facilities, postal facilities, etc. ⁴Includes Federal airport facilities, fish and wildlife preservation facilities, VA cemeteries, etc.

Table 10. Monthly Value of Public Construction Put in Place—Not Seasonally Adjusted in 1992 Dollars

[Millions of dollars]

| Period | | State and locally owned public construction | | | | | | | | | | |
|--------|-------------------|---|-----------|---------------------------|-------------|-------------|------------------------------|----------------------|------------------------------|------------------------------|---|---|
| | | Total state and local | Buildings | | | | | Highways and streets | Conservation and development | Sewer systems | Water supply facilities | Miscellaneous construction ² |
| | | | Total | Housing and redevelopment | Educational | Hospital | Other buildings ¹ | | | | | |
| 1997: | July | 10,963 | 4,508 | 225 | 2,436 | 296 | 1,550 | 4,254 | 169 | 710 | 429 | 893 |
| | August | 11,593 | 4,633 | 214 | 2,564 | 270 | 1,584 | 4,585 | 193 | 710 | 415 | 1,057 |
| | September | 11,110 | 4,492 | 252 | 2,281 | 281 | 1,678 | 4,309 | 186 | 750 | 442 | 931 |
| | October | 10,999 | 4,516 | 286 | 2,203 | 285 | 1,742 | 4,114 | 209 | 721 | 465 | 973 |
| | November | 9,089 | 3,913 | 235 | 1,876 | 231 | 1,571 | 3,264 | 171 | 632 | 428 | 681 |
| | December | 7,725 | 3,695 | 219 | 1,832 | 210 | 1,434 | 2,338 | 141 | 543 | 364 | 645 |
| 1998: | January | 6,552 | 3,484 | 208 | 1,660 | 210 | 1,405 | 1,623 | 132 | 484 | 317 | 512 |
| | February | 6,436 | 3,445 | 201 | 1,628 | 199 | 1,418 | 1,597 | 119 | 463 | 324 | 488 |
| | March | 7,014 | 3,555 | 232 | 1,650 | 220 | 1,453 | 1,945 | 130 | 515 | 330 | 539 |
| | April | 8,169 | 3,852 | 247 | 1,852 | 194 | 1,559 | 2,620 | 120 | 546 | 391 | 640 |
| | May | 8,728 | 3,968 | 232 | 1,951 | 203 | 1,582 | 2,980 | 140 | 550 | 411 | 679 |
| | June | 10,468 | 4,544 | 264 | 2,368 | 209 | 1,703 | 3,879 | 171 | 642 | 399 | 833 |
| | July | 10,867 | 4,719 | 280 | 2,541 | 184 | 1,714 | 4,065 | 139 | 670 | 444 | 830 |
| | August | 11,352 | 4,762 | 230 | 2,558 | 182 | 1,792 | 4,422 | 154 | 693 | 437 | 885 |
| | September | 11,239 | 4,550 | 237 | 2,328 | 204 | 1,780 | 4,461 | 149 | 725 | 468 | 885 |
| | October | 10,739 | 4,257 | 244 | 2,051 | 207 | 1,755 | 4,304 | 155 | 753 | 496 | 774 |
| | November | 9,034 | 3,974 | 239 | 1,867 | 198 | 1,669 | 3,076 | 126 | 721 | 466 | 673 |
| | December | 7,825 | 3,795 | 235 | 1,870 | 206 | 1,483 | 2,258 | 114 | 635 | 420 | 604 |
| 1999: | January | 6,842 | 3,464 | 200 | 1,722 | 177 | 1,365 | 1,777 | 128 | 556 | 353 | 565 |
| | February | 6,988 | 3,521 | 197 | 1,725 | 188 | 1,411 | 1,877 | 116 | 518 | 366 | 591 |
| | March | 7,708 | 3,737 | 197 | 1,821 | 192 | 1,527 | 2,239 | 112 | 605 | 387 | 627 |
| | April | 8,661 | 3,952 | 224 | 2,012 | 181 | 1,535 | 2,827 | 149 | 614 | 416 | 703 |
| | May ^f | 9,456 | 4,008 | 232 | 2,059 | 196 | 1,521 | 3,391 | 119 | 677 | 439 | 822 |
| | June ^e | 10,451 | 4,485 | 217 | 2,500 | 212 | 1,557 | 3,834 | 138 | 698 | 462 | 833 |
| | July ^p | 10,624 | 4,500 | 230 | 2,482 | 193 | 1,595 | 3,943 | 131 | 717 | 479 | 853 |
| | | Federally owned public construction | | | | | | | | | | |
| | | Total Federal | Buildings | | | | | Highways and streets | Military facilities | Conservation and development | Miscellaneous construction ⁴ | |
| | | | Total | Housing | Industrial | Educational | Hospital | | | | | Other buildings ³ |
| 1997: | July | 985 | 399 | 46 | 77 | 1 | 59 | 216 | (NA) | 200 | 233 | 129 |
| | August | 999 | 399 | 48 | 67 | 2 | 67 | 216 | (NA) | 208 | 254 | 112 |
| | September | 1,472 | 592 | 45 | 82 | 3 | 145 | 316 | (NA) | 231 | 466 | 156 |
| | October | 824 | 385 | 58 | 47 | - | 96 | 183 | (NA) | 165 | 133 | 116 |
| | November | 1,043 | 470 | 49 | 54 | - | 107 | 259 | (NA) | 192 | 182 | 180 |
| | December | 1,079 | 459 | 32 | 59 | 2 | 84 | 282 | (NA) | 159 | 266 | 179 |
| 1998: | January | 844 | 355 | 33 | 62 | - | 59 | 201 | (NA) | 157 | 163 | 159 |
| | February | 878 | 370 | 41 | 65 | 1 | 54 | 209 | (NA) | 164 | 239 | 94 |
| | March | 952 | 416 | 27 | 78 | - | 86 | 224 | (NA) | 198 | 221 | 104 |
| | April | 908 | 401 | 32 | 69 | 1 | 52 | 247 | (NA) | 181 | 210 | 98 |
| | May | 922 | 396 | 35 | 66 | 1 | 73 | 220 | (NA) | 179 | 218 | 104 |
| | June | 999 | 397 | 36 | 64 | 1 | 66 | 230 | (NA) | 187 | 251 | 133 |
| | July | 1,126 | 471 | 50 | 76 | 1 | 77 | 267 | (NA) | 230 | 267 | 125 |
| | August | 1,031 | 410 | 46 | 71 | 2 | 70 | 220 | (NA) | 198 | 270 | 117 |
| | September | 1,519 | 558 | 46 | 87 | 2 | 119 | 303 | (NA) | 184 | 502 | 239 |
| | October | 761 | 349 | 27 | 47 | - | 71 | 204 | (NA) | 132 | 166 | 79 |
| | November | 1,012 | 383 | 38 | 74 | - | 50 | 221 | (NA) | 158 | 272 | 173 |
| | December | 1,009 | 401 | 32 | 64 | 1 | 44 | 260 | (NA) | 162 | 255 | 172 |
| 1999: | January | 809 | 324 | 21 | 51 | 2 | 70 | 179 | (NA) | 119 | 213 | 140 |
| | February | 926 | 375 | 21 | 56 | 1 | 101 | 197 | (NA) | 148 | 256 | 133 |
| | March | 927 | 371 | 30 | 68 | 1 | 67 | 206 | (NA) | 151 | 283 | 106 |
| | April | 924 | 341 | 33 | 60 | 1 | 50 | 196 | (NA) | 146 | 249 | 167 |
| | May ^f | 836 | 331 | 25 | 66 | 1 | 53 | 186 | (NA) | 146 | 230 | 102 |
| | June ^e | 948 | 354 | 31 | 56 | 1 | 55 | 211 | (NA) | 150 | 284 | 127 |
| | July ^p | 986 | 373 | 30 | 70 | 2 | 66 | 205 | (NA) | 174 | 279 | 124 |

- Less than \$0.5 million. NA Not available, but estimates are included in totals. ^pPreliminary. ^fRevised.

¹Includes general administrative buildings, prisons, police and fire stations, courthouses, passenger terminals, civic centers, etc. ²Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc. ³Includes Federal office buildings, prisons, courthouses, space facilities, postal facilities, etc. ⁴Includes Federal airport facilities, fish and wildlife preservation facilities, VA cemeteries, etc.

Table 11. **Indexes Used in Deriving Estimates of the Value of Construction Put in Place in Constant Dollars**

[1992 = 100]

| Period | U.S. Census Bureau | | Engineering News-Record | | U.S. Census Bureau Houses Under Construction | | Federal Highway Administration composite | Bureau of Reclamation | Turner Construction Company | Handy-Whitman public utility | | | | C.A. Turner telephone plant |
|--------------------|--------------------------|-------------------------|-------------------------|--------------|--|--------------------|--|-----------------------|-----------------------------|------------------------------|----------|-----|-------|-----------------------------|
| | Composite fixed-weighted | Implicit price deflator | Buildings | Construction | Fixed-weighted | Price deflator | | | | Buildings | Electric | Gas | Water | |
| | Annual indexes | | | | | | | | | | | | | |
| 1994..... | 108.0 | 108.1 | 109.8 | 108.5 | 109.7 | 109.5 | 106 | 105 | 112 | 107 | 109 | 109 | 103 | |
| 1995..... | 112.5 | 112.6 | 109.8 | 109.8 | 114.4 | 114.3 | 115.9 | 110 | 109 | 115 | 111 | 111 | 110 | |
| 1996..... | 115.0 | 115.2 | 113.0 | 112.8 | 116.4 | 116.5 | 116.1 | 112 | 112 | 118 | 112 | 112 | 115 | |
| 1997..... | 118.7 | 118.9 | 118.7 | 116.9 | 119.9 | 119.9 | 124.7 | 116 | 117 | 122 | 115 | 115 | 117 | |
| 1998..... | 122.0 | 122.2 | 119.7 | 118.8 | 123.3 | 123.0 | 122.2 | 118 | 122 | 123 | 117 | 117 | 120 | |
| | Monthly indexes | | | | | | Quarterly indexes | | | Semiannual indexes | | | | |
| 1998: January..... | 120.9 | 120.7 | 118.7 | 117.4 | 122.0 | 121.4 | | | | | | | | |
| February..... | 120.5 | 120.7 | 119.0 | 117.8 | 121.5 | 121.3 | 113.8 | 118 | 120 | | | | | |
| March..... | 120.5 | 120.7 | 118.9 | 117.9 | 121.3 | 121.2 | | | | 122 | 116 | 116 | 118 | |
| April..... | 120.9 | 120.9 | 119.1 | 118.0 | 121.9 | 121.5 | | | | | | | | |
| May..... | 121.1 | 121.2 | 119.1 | 118.0 | 122.0 | 121.8 | 119.5 | 118 | 121 | | | | | |
| June..... | 121.8 | 121.8 | 119.2 | 118.3 | 123.0 | 122.7 | | | | | | | | |
| July..... | 122.2 | 122.1 | 119.4 | 118.8 | 123.7 | 123.2 | | | | | | | | |
| August..... | 122.6 | 122.5 | 119.7 | 118.9 | 123.9 | 123.4 | 130.2 | 118 | 123 | | | | | |
| September..... | 122.8 | 122.8 | 120.5 | 119.6 | 124.0 | 123.7 | | | | 124 | 117 | 117 | 119 | |
| October..... | 123.1 | 123.3 | 120.8 | 120.1 | 124.3 | 124.3 | | | | | | | | |
| November..... | 123.4 | 123.8 | 120.8 | 120.3 | 125.0 | 125.0 | 125.0 | 119 | 124 | | | | | |
| December..... | 124.1 | 124.3 | 120.7 | 120.2 | 126.0 | 125.7 | | | | | | | | |
| 1999: January..... | 124.5 | 124.6 | 120.9 | 120.4 | 126.4 | 125.8 | | | | | | | | |
| February..... | 124.8 | 124.6 | 120.6 | 120.2 | 126.8 | 125.6 | 124.4 | 118 | 125 | | | | | |
| March..... | 125.7 | 125.3 | 120.4 | 120.1 | 127.8 | 126.4 | | | | 125 | 118 | 118 | 122 | |
| April..... | 125.5 | 125.7 | 120.7 | 120.5 | 127.6 | 127.0 | | | | | | | | |
| May..... | ^r 125.8 | ^r 126.1 | 120.8 | 120.5 | ^r 127.6 | ^r 127.4 | (NA) | 119 | 126 | | | | | |
| June..... | ^r 126.7 | ^r 126.7 | 121.1 | 121.2 | ^r 128.6 | ^r 128.0 | | | | | | | | |
| July..... | ^p 127.1 | ^p 127.0 | 122.1 | 121.9 | ^p 129.0 | ^p 128.3 | | | | | | | | |
| August..... | | | 122.6 | 122.2 | | | (NA) | (NA) | (NA) | | | | | |

NA Not available. ^pPreliminary. ^rRevised.

Table 12. **Factors Used to Seasonally Adjust Estimates of the Value of Construction Put in Place**
 [Percent]

| Type of construction | July 1999 ^P | June 1999 ^f | May 1999 ^f | Apr. 1999 | Mar. 1999 | Feb. 1999 | Jan. 1999 | Dec. 1998 | Nov. 1998 | Oct. 1998 | Sep. 1998 | July 1998 |
|------------------------------------|------------------------|------------------------|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| PRIVATE CONSTRUCTION | | | | | | | | | | | | |
| Residential buildings: | | | | | | | | | | | | |
| New housing units: | | | | | | | | | | | | |
| 1 unit | 112.6 | 108.4 | 101.7 | 95.5 | 91.3 | 76.4 | 81.2 | 89.2 | 106.0 | 111.2 | 113.8 | 112.3 |
| 2 units or more | 104.2 | 107.2 | 104.9 | 99.9 | 95.6 | 88.7 | 87.5 | 94.8 | 100.5 | 105.2 | 104.5 | 104.4 |
| Nonresidential buildings: | | | | | | | | | | | | |
| Industrial | 100.2 | 102.4 | 98.9 | 97.2 | 94.2 | 91.1 | 90.0 | 105.0 | 103.7 | 107.3 | 107.6 | 100.2 |
| Office | 101.4 | 102.4 | 101.3 | 100.1 | 97.5 | 93.3 | 91.7 | 98.2 | 102.8 | 103.1 | 103.7 | 102.8 |
| Hotels, motels | 101.0 | 103.1 | 101.7 | 103.4 | 104.2 | 93.2 | 87.8 | 101.1 | 101.0 | 101.1 | 101.0 | 98.9 |
| Other commercial | 107.1 | 105.7 | 100.3 | 94.7 | 89.6 | 83.9 | 83.7 | 94.1 | 104.5 | 112.0 | 113.9 | 106.7 |
| Religious | 97.9 | 96.3 | 96.8 | 93.0 | 92.1 | 86.3 | 87.2 | 105.2 | 110.5 | 113.4 | 112.5 | 96.8 |
| Educational | 118.8 | 116.7 | 102.4 | 95.8 | 91.3 | 84.6 | 83.2 | 85.8 | 95.3 | 99.3 | 108.0 | 120.1 |
| Hospital and institutional | 97.4 | 100.0 | 100.4 | 99.1 | 98.6 | 94.2 | 94.2 | 99.0 | 103.8 | 105.0 | 103.5 | 97.4 |
| Miscellaneous nonresidential | 102.2 | 102.7 | 100.4 | 104.2 | 97.9 | 89.1 | 88.1 | 97.1 | 103.5 | 107.4 | 105.1 | 102.5 |
| Telecommunications | 102.3 | 107.5 | 94.5 | 100.9 | 100.6 | 83.5 | 79.0 | 107.7 | 101.8 | 110.1 | 106.3 | 105.0 |
| All other private | 108.0 | 101.8 | 98.9 | 93.2 | 90.2 | 80.0 | 85.1 | 98.6 | 105.1 | 117.5 | 110.2 | 108.8 |
| PUBLIC CONSTRUCTION | | | | | | | | | | | | |
| State and Local | | | | | | | | | | | | |
| Buildings: | | | | | | | | | | | | |
| Housing and redevelopment | 101.7 | 103.5 | 101.4 | 99.8 | 94.0 | 89.7 | 91.5 | 97.9 | 103.7 | 109.2 | 107.2 | 102.0 |
| Educational | 120.9 | 113.6 | 97.8 | 92.4 | 86.0 | 81.2 | 82.5 | 87.7 | 94.1 | 104.1 | 114.1 | 121.5 |
| Hospital | 101.0 | 106.5 | 99.1 | 95.5 | 97.6 | 91.3 | 92.2 | 101.5 | 98.8 | 109.5 | 110.0 | 101.2 |
| Other buildings | 103.4 | 104.3 | 103.6 | 98.2 | 92.5 | 88.6 | 87.6 | 94.9 | 104.2 | 109.3 | 107.2 | 102.9 |
| Highways and streets | 127.3 | 126.2 | 103.4 | 81.9 | 61.8 | 49.9 | 51.3 | 73.9 | 102.0 | 135.5 | 144.1 | 132.8 |
| Conservation and development | 114.6 | 110.6 | 102.5 | 94.9 | 79.6 | 74.5 | 74.8 | 86.5 | 102.3 | 118.4 | 119.0 | 114.6 |
| Sewer systems | 107.0 | 106.0 | 100.1 | 92.3 | 86.6 | 77.5 | 81.0 | 91.6 | 106.6 | 116.9 | 116.9 | 106.1 |
| Water supply facilities | 109.5 | 104.8 | 102.3 | 95.0 | 84.3 | 79.6 | 80.0 | 94.0 | 108.7 | 120.2 | 109.6 | 109.2 |
| Miscellaneous construction | 114.6 | 110.6 | 102.5 | 94.9 | 79.6 | 74.5 | 74.8 | 86.5 | 102.3 | 118.4 | 119.0 | 114.6 |
| Federal | | | | | | | | | | | | |
| Buildings: | | | | | | | | | | | | |
| Housing and redevelopment | 101.0 | 102.6 | 94.1 | 98.7 | 101.0 | 91.3 | 87.2 | 104.2 | 98.8 | 87.3 | 136.9 | 101.4 |
| Industrial | 101.0 | 102.6 | 94.1 | 98.7 | 101.0 | 91.3 | 87.2 | 104.2 | 98.8 | 87.3 | 136.9 | 101.4 |
| Educational | 101.0 | 102.6 | 94.1 | 98.7 | 101.0 | 91.3 | 87.2 | 104.2 | 98.8 | 87.3 | 136.9 | 101.4 |
| Hospital | 101.0 | 102.6 | 94.1 | 98.7 | 101.0 | 91.3 | 87.2 | 104.2 | 98.8 | 87.3 | 136.9 | 101.4 |
| Other buildings | 101.0 | 102.6 | 94.1 | 98.7 | 101.0 | 91.3 | 87.2 | 104.2 | 98.8 | 87.3 | 136.9 | 101.4 |
| Military | 104.2 | 102.8 | 100.3 | 94.7 | 101.1 | 83.0 | 93.7 | 103.6 | 101.3 | 80.7 | 128.5 | 103.6 |
| Conservation and development | 100.8 | 102.2 | 95.9 | 94.4 | 97.1 | 88.1 | 82.9 | 101.1 | 98.2 | 67.8 | 172.4 | 103.6 |
| Miscellaneous construction | 100.8 | 102.2 | 95.9 | 94.4 | 97.1 | 88.1 | 82.9 | 101.1 | 98.2 | 67.8 | 172.4 | 103.6 |

^PPreliminary. ^fRevised.

Appendix.

Reliability of the Estimates

The statistics on the value of construction put in place result from direct measurement and indirect estimation. A series results from direct measurement when it is based on reports of the actual value of construction progress or construction expenditures obtained from a complete census or sample survey. All other series are developed by indirect estimation using related construction statistics.

On an annual basis, the estimates for series directly measured monthly, quarterly, or annually accounted for about 71 percent of total construction in 1998 (private multifamily residential, private residential improvements, private nonresidential buildings, farm nonresidential construction, public utility construction, all other private construction, and virtually all of public construction). On a monthly basis, directly measured data are available for about 55 percent of the value-in-place estimates.

Some of the directly measured monthly construction value-in-place estimates are based on samples. Estimates from these samples may differ from statistics which would have been obtained from a complete census using the same schedules 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 effects of these errors.

MEASURE OF SAMPLING ERRORS

Sampling error reflects the fact that only a particular sample was surveyed rather than the entire population. Each sample selected for the monthly value-in-place 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 one another. 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 the standard errors for the monthly, year-to-date and annual estimates were computed from the sample data for selected statistics in this report.

They are presented in the form of relative standard errors in the following table. 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, suppose Table 3 of this report showed that the monthly VIP estimate for “total private nonresidential buildings” was \$10.0 billion in a particular month. According to the following table, the relative standard error of this estimate is 2 percent. Multiplying \$10.0 billion by 0.02, we obtain \$200 million as the standard error. To obtain a 90-percent confidence interval, multiply \$200 million by 1.6 and add and subtract the result from \$10.0 billion, yielding limits of \$9.68 billion and \$10.32 billion. The average value of the monthly VIP estimate for “total private nonresidential buildings” may or may not be contained in this computed interval, but one can say that the average is included in the constructed interval with a specified confidence of 90 percent.

The following table also presents coefficients necessary to compute standard errors for the month-to-month and year-to-date changes. To derive a specific standard error of a change, look up an appropriate coefficient (k1 or k2) for the change and apply the following formula:

$$\text{Standard error of a change} = k (100 + \text{\% change shown in Tables 3 through 6})$$

Once the standard error is available, one can construct a 90-percent confidence interval of the change by multiplying the standard error by 1.6.

No standard errors are shown for farm nonresidential or public utilities because the estimates are based on a complete enumeration.

NONSAMPLING ERRORS

As calculated for this report, the coefficient of variation estimates sampling variation but does not measure all nonsampling error in the data. Nonsampling error consists of both a variance component and a bias component. Bias is the difference, averaged over all possible samples of the same size and design, between the estimate and the true value being estimated. Nonsampling errors are usually attributed to many possible sources: (1) coverage error—failure to accurately represent all population units in the sample, (2) inability to obtain information about all sample cases, (3) response errors, possibly due to definitional difficulties or misreporting, (4) mistakes in recording or coding the data obtained, and (5) other errors of coverage, collection and nonresponse, response, processing, or imputing for missing or inconsistent data. These nonsampling errors also occur in complete censuses. Although no direct measures of these errors have been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data to minimize their influence.

A major source of nonsampling error in the published estimates is due to the need to impute data for nonrespondents and for late and inconsistent reports. For preliminary value-in-place estimates, the average imputation rates for major components are as follows: private nonresidential construction, 41 percent; state and locally owned public construction, 31 percent; private residential construction of 2 units or more, 42 percent; and private residential improvements, 13 percent. Each of these imputation rates is not an explicit indication of the potential error in statistics, but the degree of uncertainty regarding the accuracy of the statistics increases as the percentage of imputation increases.

Other potential sources of bias are the upward adjustment of 28 percent made to the private nonresidential construction and the adjustment of the state and local owned public construction to the construction outlays from the Annual Survey of Government Finances in order to account for construction projects not included in their respective sampling frames. The adjustment for the nonresidential construction results from a coverage evaluation sample; hence, the estimated percentage adjustment is subject to sampling error and nonsampling errors associated with the evaluation study. In addition, the percentage was estimated from data collected during a limited time period; therefore, these adjustments do not reflect any recent changes in the proportion of projects not included in the frame.

For state and locally owned construction, construction outlays from the Survey of Government Finances are available only through fiscal year 1996. (Outlays are included if a government agency's fiscal year ending date falls within July 1995 to June 1996 inclusive, and for three state agencies with fiscal years ending in August or September 1996.) As a result, the adjustment to the construction outlay levels of this survey must be projected ahead for 4 years from 1996 through April 2000. The relationship between the state and locally owned value-in-place and the capital outlays estimate changes from year to year so that revisions of 4 to 5 percent are expected in state and local construction and substantially larger revisions can be expected in the individual types of construction. In addition, because of the definition of fiscal year for the Survey of Government Finances, the reported capital outlays do not correspond to any 12 month period but result from capital outlays made over a 26 month period. There are also definitional and timing differences between the concepts of capital outlays and value put in place.

Consequently, even though the private nonresidential and state and local owned construction adjustments are designed to reduce the bias due to the failure to include projects in the sampling frames, for the above stated reasons, these adjustment procedures, themselves, may introduce a bias in the current estimates of value-in-place.

Furthermore, additional nonsampling errors may be introduced into the estimates because the procedures such as phasing, extrapolating, and forecasting used to develop the indirectly measured series are subject to the validity of the underlying assumptions made and mathematical models used. No explicit measures of the effect of these procedures are available.

MONTHLY REVISIONS TO ESTIMATES

Statistics for the current month are preliminary estimates. These estimates are released to provide government and private data users with early measures of construction activity. A necessary part of the process of issuing these early data involves the issuance of subsequent revisions. The revisions to monthly construction put in place estimates are primarily the result of the replacement of imputed data with data which are reported in subsequent months.

For total construction, the range of the difference between the last 12 preliminary and second revision estimates for the same months was from -1.3 percent to 1.6 percent with a median of 0.5 percent. The range of the difference between first revision and second revision was from -0.8 to 1.0 percent, with a median of 0.3 percent.

Relative Standard Errors and Coefficients for Standard Errors of Changes

| Type of construction | Relative standard error (percent) | | | Coefficient for changes | |
|------------------------------------|-----------------------------------|-----------------------|-----------------|----------------------------|--------------------------|
| | Monthly estimate | Year-to-date estimate | Annual estimate | Month-to-month change (k1) | Year-to-date change (k2) |
| Total construction | 2 | 1 | 1 | .03 | .02 |
| Private construction | 3 | 2 | 1 | .04 | .02 |
| Residential buildings | 5 | 3 | 2 | .06 | .04 |
| New housing units | 2 | 2 | 1 | .01 | .02 |
| 1 unit structures | 2 | 2 | 2 | .01 | .01 |
| 2 units or more | 4 | 4 | 3 | .03 | .04 |
| Nonresidential buildings | 2 | 1 | 1 | .02 | .01 |
| Industrial | 3 | 2 | 2 | .04 | .03 |
| Office | 4 | 2 | 2 | .05 | .03 |
| Hotels, motels | 7 | 6 | 5 | .09 | .08 |
| Other commercial | 5 | 3 | 2 | .06 | .04 |
| Religious | 9 | 7 | 5 | .12 | .10 |
| Educational | 7 | 5 | 5 | .10 | .07 |
| Hospital and institutional | 6 | 5 | 5 | .07 | .07 |
| Miscellaneous buildings | 7 | 5 | 4 | .09 | .07 |
| Public construction | 2 | 1 | 1 | .03 | .01 |
| Housing and redevelopment | 8 | 5 | 4 | .11 | .07 |
| Industrial | (NA) | (NA) | (NA) | (NA) | (NA) |
| Educational | 3 | 2 | 2 | .04 | .03 |
| Hospital | 6 | 5 | 4 | .08 | .07 |
| Other public buildings | 3 | 2 | 2 | .04 | .03 |
| Highways and streets | 4 | 2 | 2 | .05 | .03 |
| Military facilities | (NA) | (NA) | (NA) | (NA) | (NA) |
| Conservation and development | 4 | 2 | 2 | .06 | .03 |
| Sewer systems | 6 | 3 | 3 | .08 | .04 |
| Water supply facilities | 8 | 4 | 3 | .11 | .06 |
| Miscellaneous public | 8 | 5 | 4 | .11 | .07 |
| State and local construction | 2 | 1 | 1 | .03 | .01 |
| Housing and redevelopment | 8 | 5 | 5 | .11 | .07 |
| Educational | 3 | 2 | 2 | .04 | .03 |
| Hospital | 8 | 6 | 5 | .11 | .09 |
| Other public buildings | 4 | 3 | 2 | .05 | .04 |
| Highways and streets | 4 | 2 | 2 | .05 | .03 |
| Conservation and development | 16 | 9 | 9 | .23 | .13 |
| Sewer systems | 6 | 3 | 3 | .08 | .04 |
| Water supply facilities | 8 | 4 | 3 | .11 | .06 |
| Miscellaneous public | 9 | 5 | 4 | .12 | .07 |
| Federal construction | (NA) | (NA) | (NA) | (NA) | (NA) |

NA Not available.

Note: All statistics are based upon 1998 data. The coefficient (k1) for the month-to-month change is applicable to change from the previous month and change from the same month a year ago.