# U.S. Census Bureau News 

## U.S. Department of Commerce • Washington, D.C. 20233

FOR IMMEDIATE RELEASE
WEDNESDAY, MARCH 12, 2008 AT 10:00 A.M. EDT
Lisa Donaldson /Jessica Wellwood Service Sector Statistics Division (301) 763-2960

## U.S. Government Estimates of Quarterly Revenue for Selected Services 4th Quarter 2007

Special Notice: Quarterly services revenue estimates were revised based on the results of the Service Annual Survey. Annual benchmark tables showing revised data can be found on our website at http://www.census.gov/qss. All revised data were based on 2002 North American Industry Classification System (NAICS) definitions.

Information The U.S. Census Bureau announced today that the estimate of U.S. information sector revenue for the fourth calendar quarter of 2007, not adjusted for seasonal variation, holiday or trading-day differences, or price changes, was $\$ 292.4$ billion, an increase of 5.1 percent ( $\pm 0.7 \%$ ) from the third quarter of 2007 and up 4.5 percent ( $\pm 1.2 \%$ ) from the fourth quarter of 2006. The second to third quarter percent change was revised from 0.4 percent $( \pm 0.7 \%)^{*}$ to 0.0 percent $( \pm 0.7 \%)^{*}$.

Professional, scientific, and technical services (except landscape architectural services and veterinary services) The estimate of U.S. professional, scientific, and technical services (except landscape architectural services and veterinary services) revenue for the fourth quarter of 2007, not adjusted for seasonal variation, holiday or trading-day differences, or price changes, was $\$ 313.8$ billion, an increase of 6.6 percent ( $\pm 1.2 \%$ ) from the third quarter of 2007 and up 5.9 percent ( $\pm 1.8 \%$ ) from the fourth quarter of 2006. The second to third quarter percent change was revised from -2.5 percent ( $\pm 1.2 \%$ ) to -2.2 percent ( $\pm 1.2 \%$ ).

Administrative and support and waste management and remediation services (except landscape services) The estimate of U.S. administrative and support and waste management and remediation services (except landscape services) revenue for the fourth quarter of 2007, not adjusted for seasonal variation, holiday or trading-day differences, or price changes, was $\$ 133.3$ billion, an increase of 0.9 percent ( $\pm 1.5 \%$ )* from the third quarter of 2007 and up 1.4 percent $( \pm 3.1 \%)^{*}$ from the fourth quarter of 2006 . The second to third quarter percent change was revised from 1.6 percent ( $\pm 1.3 \%$ ) to 0.5 percent ( $\pm 1.5 \%$ ).

Hospitals and nursing and residential care facilities The estimate of U.S. hospitals and nursing and residential care facilities revenue for the fourth quarter of 2007, not adjusted for seasonal variation, holiday or trading-day differences, or price changes, was $\$ 220.9$ billion, an increase of 2.5 percent ( $\pm 0.8 \%$ ) from the third quarter of 2007 and up 7.9 percent ( $\pm 1.3 \%$ ) from the fourth quarter of 2006. The second to third quarter percent change was revised from -0.2 percent ( $\pm 1.0 \%$ )* to 0.5 percent ( $\pm 0.8 \%$ )*.

For survey description and an explanation of the measures of sampling variability included in this report, please see the last page of the publication.


First quarter 2008 revenue is scheduled to be released on June 11, 2008, at 10:00 a.m. EDT.
This report is available on the day of issue through the Department of Commerce's STAT-USA Website; for more information, call (202) 482-1986

[^0]Table 1. Selected Services - Estimated Quarterly Revenue for Employer Firms
[Estimates have not been adjusted for seasonal variation, holiday or trading-day differences, or price changes. Estimates are based on data from the Quarterly Services Survey and have been adjusted using results of the 2006 Service Annual Survey. All estimates are based on the 2002 North American Industry Classification System (NAICS). For additional information see www.census.gov/gss]

| $\begin{gathered} 2002 \\ \text { NAICS } \\ \text { code } \end{gathered}$ | Kind of business | Total revenue (millions of dollars) |  |  |  |  |  | Percent change |  |  |  | Year to date |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \hline 4 \mathrm{Q} \\ 2007 \\ (\mathbf{p}) \end{gathered}$ | $\begin{gathered} \hline 3 Q \\ 2007 \\ (r) \end{gathered}$ | $\begin{gathered} 2 \mathbf{2 Q} \\ 2007 \end{gathered}$ | $\begin{gathered} 10 \\ 2007 \end{gathered}$ | $\begin{gathered} 4 \mathrm{4Q} \\ 2006 \end{gathered}$ | $\begin{gathered} \hline 3 Q \\ 2006 \end{gathered}$ | $\begin{array}{\|c\|} \hline 4 Q 2007 \\ \text { from } \\ 3 Q 2007 \\ \text { (p) } \end{array}$ | $\begin{gathered} 3 Q 2007 \\ \text { from } \\ 2 Q 2007 \\ \text { (r) } \end{gathered}$ | $\begin{array}{\|c} 4 Q 2007 \\ \text { from } \\ 4 Q 2006 \\ (p) \end{array}$ | $\begin{gathered} 3 Q 2007 \\ \text { from } \\ 3 Q 2006 \\ (r) \end{gathered}$ | $\begin{gathered} 2007 \\ (\mathrm{p}) \end{gathered}$ | 2006 | 2007 from 2006 (p) |
| 51 | Information | 292,417 | 278,143 | 278,188 | 268,484 | 279,945 | 262,807 | 5.1 | Z | 4.5 | 5.8 | 1,117,232 | 1,056,045 | 5.8 |
| 511 | Publishing industries (except Internet) | 77,040 | 71,496 | 71,040 | 69,334 | 74,877 | 70,063 | 7.8 | 0.6 | 2.9 | 2.0 | 288,910 |  | X |
| 51111 | Newspaper publishers | 11,957 | 11,413 | 11,889 | 11,139 | 13,003 | 11,554 | 4.8 | . 0 | -8.0 | -1.2 | 46,398 | X | X |
| 51112 | Periodical publishers | 12,394 | 12,077 | 11,970 | 11,010 | 12,316 | 11,936 | 2.6 | 0.9 | 0.6 | 1.2 | 47,451 | x | x |
| 5111 pt | Book, directory and mailing list, and other publishers ${ }^{1}$ | 13,372 | 14,484 | 11,944 | 11,559 | 13,327 | 14,707 | .7 | 21.3 | 0.3 | . 5 | 51,359 | X | x |
| 5112 | Software publishers | 39,317 | 33,522 | 35,237 | 35,626 | 36,231 | 31,866 | 17.3 | -4.9 | 8.5 | 5.2 | 143,702 | 130,727 | 9.9 |
| 512 | Motion picture and sound recording industries | 27,571 | 24,569 | 26,328 | 24,663 | 27,086 | 22,102 | 12.2 | -6.7 | 1.8 | 11.2 | 103,131 | 94,400 | 9.2 |
| 515 | Broadcasting (except Internet) | 25,985 | 23,598 | 24,404 | 23,000 | 25,342 | 22,623 | 10.1 | -3.3 | 2.5 | 4.3 | 96,987 | X | X |
| 5151 | Radio and television broadcasting | 14,658 | 13,057 | 14,198 | 13,619 | 15,232 | 13,162 | 12.3 | -8.0 | -3.8 | -0.8 | 55,532 | 56,435 | -1.6 |
| 5152 | Cable and other subscription programming | 11,327 | 10,541 | 10,206 | 9,381 | 10,110 | 9,461 | 7.5 | 3.3 | 12.0 | 11.4 | 41,455 | X | X |
| $\left\lvert\, \begin{aligned} & 516, \\ & 5181, \end{aligned}\right.$ | Internet publishing and broadcasting, Internet service providers and web search portals, |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 519 | and other intormation services .. | 17,140 | 15,405 | 14,661 | 13,971 | 13,375 | 11,569 | 11.3 | 5.1 | 28.1 | 33.2 | 61,177 | x | x |
| 517 | Telecommunications | 126,388 | 124,969 | 123,138 | 120,082 | 120,974 | 118,703 | 1.1 | 1.5 | 4.5 | 5.3 | 494,577 | x | $x$ |
| 5171 | Wired telecommunications car | 47,241 | 48,124 | 48,081 | 47,818 | 49,808 | 50,031 | -1.8 | 0.1 | -5.2 | -3.8 | 191,264 | 199,933 | . 3 |
| 5172 | Wireless telecommunications carriers (except satellite) | 46,850 | 45,935 | 44,215 | 43,132 | 42,137 | 41,048 | 2.0 | 3.9 | 11.2 | 11.9 | 180,132 | 160,159 | 12.5 |
| 5175 | Cable and other program distribution | 26,487 | 25,248 | 25,267 | 23,710 | 23,607 | 22,320 | 4.9 | -0.1 | 12.2 | 13.1 | 100,712 | X | X |
| 517 pt | Other telecommunications ${ }^{2}$ | 5,810 | 5,662 | 5,575 | 5,422 | 5,422 | 5,304 | 2.6 | 1.6 | 7.2 | 6.7 | 22,469 | 20,769 | 8.2 |
| 5182 | Data processing, hosting, and related se | 18,293 | 18,106 | 18,617 | 17,434 | 18,291 | 17,747 | 1.0 | -2.7 | Z | 2.0 | 72,450 | 70,063 | 3.4 |
| 54 | Professional, scientific, and technical services | 320,066 | 300,703 | 307,559 | 297,840 | 302,049 | 282,677 | 6.4 | -2.2 | 6.0 | 6.4 | 1,226,168 | x | x |
| 54 pt | Professional, scientific, and technical services (except landscape architectural services and veterinary services) | 313,816 | 294,410 | 301,062 | 291,882 | 296,373 | 276,690 | 6.6 | -2.2 | 5.9 | 6.4 | 1,201,170 | 1,133,611 | 6.0 |
| 5411 | Legal services | 68,793 | 58,763 | 60,702 | 58,862 | 69,400 | 58,223 | 17.1 | -3.2 | -0.9 | 0.9 | 247,120 | X | x |
| 5412 | Accounting, tax preparation, bookkeeping, and payroll services . $\qquad$ | 24,005 | 21,837 | 26,891 | 30,343 | 23,387 | 21,657 | 9.9 | -18.8 | 2.6 | 0.8 | 103,076 | 105,146 | 2.0 |
| 5413 | Architectural, engineering, and related services | 64,964 | 62,931 | 60,405 | 58,838 | 58,032 | 56,618 | 3.2 | 4.2 | 11.9 | 11.2 | 247,138 | X | X |
| 5413 pt | Architectural and related services ${ }^{3}$ | 16,877 | 16,126 | 15,838 | 15,754 | 14,868 | 14,745 | 4.7 | 1.8 | 13.5 | 9.4 | 64,595 | X | x |
| 54133 | Engineering services | 48,087 | 46,805 | 44,567 | 43,084 | 43,164 | 41,873 | 2.7 | 5.0 | 11.4 | 11.8 | 182,543 | X | X |
| 5415 | Computer systems design and related services | 56,127 | 54,272 | 54,554 | 51,161 | 51,964 | 49,603 | 3.4 | -0.5 | 8.0 | 9.4 | 216,114 | 200,695 | 7.7 |
| 5416 | Management, scientific, and technical consulting services $\qquad$ | 40,931 | 40,030 | 41,003 | 38,325 | 37,130 | 36,983 | 2.3 | -2.4 | 10.2 | 8.2 | 160,289 | 149,347 | 7.3 |
| 5417 | Scientific research and development service | 25,950 | 25,147 | 24,844 | 24,145 |  |  | 2 | 1.2 | X | X | 100,086 | X | X |
| 5418 | Advertising and related services | 19,460 | 18,260 | 18,489 | 17,366 | 19,269 | 17,582 | 6.6 | -1.2 | 1.0 | 3.9 | 73,575 | 71,923 | 2.3 |
| 541 pt | Other professional, scientific, and technical services ${ }^{4}$ | 19,836 | 19,463 | 20,671 | 18,800 | X | x | 1.9 | -5.8 | X | X | 78,770 | X | x |
| 56 | Administrative and support and waste management and remediation services . | 145,592 | 145,327 | 145,041 | 137,168 | 143,367 | 141,664 | 0.2 | 0.2 | 1.6 | 2.6 | 573,12 | x | x |
| 56 pt | Administrative and support and waste management and remediation services (except landscape service | 133,274 | 132,037 | 131,431 | 127,041 | 131,448 | 129,533 | 0.9 | 0.5 | 1.4 | 1.9 | 523,783 | 516,013 | 1.5 |
| 561 | Administrative and support services | 126,066 | 125,897 | 126,269 | 119,429 | 125,081 | 123,538 | 0.1 | -0.3 | 0.8 | 1.9 | 497,661 | X | X |
| 5613 | Employment services | 46,681 | 44,071 | 43,819 | 42,464 | 44,616 | 42,221 | 5.9 | 0.6 | 4.6 | 4.4 | 177,035 | 170,316 | 3.9 |
| 5615 | Travel arrangement and reservation services | 8,012 | 8,287 | 8,804 | 8,282 | 7,897 | 7,863 | -3.3 | -5.9 | . 5 | 5.4 | 33,3 | 31,006 | 7.7 |
| 561 pt | Other administrative and support services ${ }^{5}$ | 71,373 | 73,539 | 73,646 | 68,683 | 72,568 | 73,454 | -2.9 | -0.1 | -1.6 | 0.1 | 287,241 | X | X |
| 562 | Waste management and remediation services | 19,526 | 19,430 | 18,772 | 17,739 | 18,286 | 18,126 | 0.5 | 3.5 | 6.8 | 7.2 | 75,467 | 70,621 | 6.9 |

Table 1. Selected Services - Estimated Quarterly Revenue for Employer Firms
[Estimates have not been adjusted for seasonal variation, holiday or trading-day differences, or price changes. Estimates are based on data from the Quarterly Services Survey and have been adjusted using results of the 2006 Service Annual Survey. All estimates are based on the 2002 North American Industry Classification System (NAICS). For additional information see www.census.gov/qss]

| 2002 <br> NAICS code | Kind of business | Total revenue (millions of dollars) |  |  |  |  |  | Percent change |  |  |  | Year to date |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \hline 4 Q \\ 2007 \\ (\mathbf{p}) \end{gathered}$ | $\begin{gathered} \hline 3 Q \\ 2007 \\ (\mathbf{r}) \end{gathered}$ | $\begin{gathered} \hline 2 Q \\ 2007 \end{gathered}$ | $\begin{gathered} \hline 1 Q \\ 2007 \end{gathered}$ | $\begin{gathered} \hline 4 Q \\ 2006 \end{gathered}$ | $\begin{gathered} \hline 3 Q \\ 2006 \end{gathered}$ | $\begin{gathered} 4 Q 2007 \\ \text { from } \\ 3 Q 2007 \\ \text { (p) } \end{gathered}$ | $\begin{gathered} 3 Q 2007 \\ \text { from } \\ 2 Q 2007 \\ (\mathbf{r}) \end{gathered}$ | $\begin{gathered} \hline \text { 4Q 2007 } \\ \text { from } \\ \text { 4Q 2006 } \end{gathered}$ <br> (p) | $\left.\begin{array}{\|c\|} \hline \text { 3Q } 2007 \\ \text { from } \\ 3 Q 2006 \end{array} \right\rvert\,$ <br> (r) | $\begin{gathered} 2007 \\ (p) \end{gathered}$ | 2006 | 2007 <br> from <br> 2006 <br> (p) |
| 62 pt | Selected health care services ${ }^{6}$. | 220,881 | 215,550 | 214,413 | 211,879 | 204,725 | 200,129 | 2.5 | 0.5 | 7.9 | 7.7 | 862,723 | 801,749 | 7.6 |
| 622 | Hospitals | 180,370 | 175,999 | 175,653 | 173,789 | 167,600 | 163,013 | 2.5 | 0.2 | 7.6 | 8.0 | 705,811 | 653,033 | 8.1 |
| 623 | Nursing and residential care facilities | 40,511 | 39,551 | 38,760 | 38,090 | 37,125 | 37,116 | 2.4 | 2.0 | 9.1 | 6.6 | 156,912 | 148,716 | 5.5 |

(p) Preliminary estimate. (r) Revised estimate. X Not applicable. Z Less than .05 percent.
(1) Includes NAICS 51113 (book publishers), 51114 (directory and mailing list publishers), and 51119 (other publishers).
(2) Includes NAICS 5173 (telecommunications resellers), 5174 (satellite telecommunications), and 5179 (other telecommunications).
(3) Includes all of NAICS 5413 (architectural, engineering, and related services) except 54133 (engineering services).
(4) Includes NAICS 5414 (specialized design services), and 5419 (other professional, scientific, and technical services).
(5) Includes NAICS 5611 (office administrative services), 5612 (facilities support services), 5614 (business support services), 5616 (investigation and security services), 5617 (services to buildings and dwellings), and 5619 (other support services).
(6) Includes NAICS 622 (hospitals) and 623 (nursing and residential care facilities).

Note: Sector totals and subsector totals may include data for kinds of business not shown. Table 2 provides estimated measures of sampling variability. Data users who create their own estimates using data from this report should cite the U.S. Census Bureau as the source of the original data only. Additional information on confidentiality protection, sampling error, nonsampling error, sample design, and definitions may be found at www.census.gov/svsd/www/qssreliability.html.

Table 2. Selected Services - Estimated Measures of Sampling Variability
[Estimates are shown as percents and are based on data from the Quarterly Services Survey]

| 2002 <br> NAICS code | Kind of business | $\begin{gathered} \text { Median coefficient }{ }^{1} \\ \text { of variation for } \\ \text { quarterly total } \\ \text { revenue } \end{gathered}$ | $\begin{aligned} & \text { Median standard error }{ }^{1} \\ & \text { for percent change } \end{aligned}$ |  | Coefficient of variation for year to date | Standard error for percent change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Ratio of two consecutive quarters | Current quarter to current quarter last year | 2007 | 2007 year to date from 2006 year to date |
| 51 | Information . | 0.8 | 0.4 | 0.7 | 0.8 | 0.5 |
| 511 | Publishing industries (except Internet) | 2.2 | 0.8 | 1.4 | 2.2 | X |
| 51111 | Newspaper publishers | 4.5 | 0.8 | 2.2 | 4.5 | X |
| 51112 | Periodical publishers . | 6.5 | 1.5 | 2.1 | 6.4 | X |
| 5111 pt | Book, directory and mailing list, and other publishers | 2.4 | 1.2 | 1.7 | 2.3 | X |
| 5112 | Software publishers ....................................... | 3.3 | 1.7 | 2.3 | 3.2 | 2.0 |
| 512 | Motion picture and sound recording industries | 2.8 | 1.6 | 3.1 | 2.4 | 2.1 |
| 515 | Broadcasting (except Internet) . | 2.4 | 0.5 | 1.1 | 2.4 | X |
| 5151 | Radio and television broadcasting | 3.3 | 0.8 | 1.6 | 3.1 | 0.8 |
| 5152 | Cable and other subscription programming | 1.6 | 0.4 | 1.1 | 1.6 | X |
| \|516, | Internet publishing and broadcasting, Internet |  |  |  |  |  |
| $\begin{aligned} & 5181, \\ & 519 \end{aligned}$ | service providers and web search portals, and other information services | 6.5 | 1.7 | 6.2 | 6.4 | X |
| 517 | Telecommunications ...... | 1.5 | 0.4 | 0.6 | 1.5 | X |
| 5171 | Wired telecommunications carriers | 3.7 | 0.8 | 0.7 | 3.6 | 1.2 |
| 5172 | Wireless telecommunications carriers (except satellite) | 1.1 | 0.4 | 1.2 | 1.1 | 0.9 |
| 5175 | Cable and other program distribution | 1.3 | 0.3 | 0.9 | 1.2 | X |
| 517 pt | Other telecommunications | 5.4 | 1.6 | 2.2 | 5.2 | 3.6 |
| 5182 | Data processing, hosting, and related services | 4.7 | 1.9 | 4.1 | 4.4 | 3.8 |
| 54 | Professional, scientific, and technical services | 2.5 | 0.7 | 1.1 | 2.4 | X |
| 54 pt | Professional, scientific, and technical services (except landscape architectural services and veterinary services) $\qquad$ | 2.3 | 0.7 | 1.1 | 2.3 | 1.0 |
| 5411 | Legal services | 5.6 | 2.3 | 3.3 | 5.5 | X |
| 5412 | Accounting, tax preparation, bookkeeping, and payroll services | 9.3 | 2.5 | 4.3 | 9.0 | 4.6 |
| 5413 | Architectural, engineering, and related services ............ | 3.9 | 1.7 | 2.5 | 3.6 | X |
| 5413 pt | Architectural and related services . | 6.0 | 3.1 | 4.2 | 6.0 | X |
| 54133 | Engineering services . | 4.0 | 1.6 | 3.0 | 3.8 | X |
| 5415 | Computer systems design and related services .............. | 3.8 | 1.8 | 2.4 | 3.6 | 2.0 |
| 5416 | Management, scientific, and technical consulting services | 4.8 | 1.6 | 3.9 | 4.8 | 3.5 |
| 5417 | Scientific research and development services .............. | 10.0 | 1.7 | X | 10.0 | X |
| 5418 | Advertising and related services | 3.9 | 1.5 | 2.9 | 3.8 | 1.6 |
| 541 pt | Other professional, scientific, and technical services | 4.0 | 1.8 | X | 3.9 | X |
| 56 | Administrative and support and waste management and remediation services | 2.7 | 0.9 | 1.8 | 2.6 | X |
| 56 pt | Administrative and support and waste management and remediation services (except landscape services) ...... | 3.1 | 0.9 | 1.9 | 3.0 | 0.8 |
| 561 | Administrative and support services ....... | 3.3 | 1.1 | 1.9 | 3.2 | X |
| 5613 | Employment services ................................... | 5.3 | 1.2 | 2.8 | 5.2 | 1.5 |
| 5615 | Travel arrangement and reservation services .............. | 5.4 | 2.4 | 6.1 | 5.3 | 4.0 |
| 561 pt | Other administrative and support services .................. | 3.9 | 1.3 | 2.7 | 3.8 | X |
| 562 | Waste management and remediation services .............. | 7.3 | 1.6 | 3.2 | 7.3 | 3.7 |

Table 2. Selected Services - Estimated Measures of Sampling Variability
[Estimates are shown as percents and are based on data from the Quarterly Services Survey]

| 2002 <br> NAICS <br> code | Kind of business | Median coefficient ${ }^{1}$ of variation for quarterly total revenue | $\begin{aligned} & \text { Median standard error }{ }^{1} \\ & \text { for percent change } \end{aligned}$ |  | Coefficient of variation for year to | Standard error for percent change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Ratio of two consecutive quarters | Current quarter to current quarter last year | 2007 | 2007 year to date from 2006 year to date |
| 62 pt | Selected health care services | 2.4 | 0.5 | 0.8 | 2.4 | 1.0 |
| 622 | Hospitals ........ | 3.1 | 0.6 | 0.8 | 3.1 | 1.1 |
| 623 | Nursing and residential care facilities | 5.3 | 0.7 | 1.7 | 5.2 | 2.2 |

X Not applicable.
(1) The medians are based on estimates for the most recent four quarters.

Note: Additional information on confidentiality protection, sampling error, nonsampling error, sample design, and definitions may be found at www.census.gov/svsd/www/qssreliability.html.

## Survey Description

The U.S. Census Bureau conducts the Quarterly Services Survey (QSS) to provide national estimates of quarterly revenue for employer firms located in the United States and classified in select service industries. The QSS sample includes firms classified in NAICS 51 (Information), NAICS 54 (Professional, scientific, and technical services), NAICS 56 (Administrative and support and waste management and remediation services), and NAICS 62 (Hospitals and nursing and residential care facilities). Each quarter, questionnaires are mailed to a probability sample of approximately 6,000 employer firms selected from the larger Service Annual Survey (SAS) sample. The QSS sample includes firms of all sizes and is updated on a quarterly basis to account for new service businesses, deaths, and other changes to the survey universe. Data for nonresponding firms are imputed based on data for similar-sized firms classified in the same kind of business. For NAICS 51 (Information sector), imputed revenue amounts to about 10 percent of the total revenue estimate; for NAICS 54 (Professional, scientific, and technical services except landscape architectural services and veterinary services) imputed revenue amounts to about 25 percent; for NAICS 56 (Administrative and support and waste management and remediation services except landscape services) imputed revenue amounts to about 33 percent, and for NAICS 62 (Hospitals and nursing and residential care facilities) imputed revenue amounts to about 20 percent. Quarterly revenue estimates are obtained by summing weighted data (either reported or imputed), where the weight for a particular unit is the reciprocal of its probability of being selected into the sample. The quarterly revenue estimates are adjusted using SAS results. Additional information on the QSS can be found on the Census Bureau website at:
http://www.census.gov/qss.

## Reliability of the Estimates

The estimates in this report may differ from the actual, but unknown, population values. For a particular estimate, statisticians define this difference as the total error of the estimate. When describing the accuracy of survey results, it is convenient to discuss total error as the sum of sampling error and nonsampling error.

Nonsampling error is the difference between the actual population parameter and the value that would be derived by surveying the entire set of units identified as the survey universe (the sampling frame). There are many potential contributors to nonsampling error - the inclusion of erroneous units in the survey (overcoverage), the exclusion of eligible units from the survey (undercoverage), nonresponse, misreporting, mistakes in recording and coding responses, misinterpretation of questions, and other errors of collection, response, coverage, or processing. Though nonsampling error is not measured directly, the Census Bureau employs quality control procedures throughout the process to minimize this type of error.

Sampling error is the average difference between the estimate and the result that would be obtained from a complete enumeration of the sampling frame conducted under the same survey conditions. This error occurs because only a subset of the entire sampling frame is measured in a sample survey. Common measures of sampling error are the sampling variance, the standard error, and the coefficient of variation (CV). The sampling variance is defined as the squared difference, averaged over all possible samples of the same size and design, between the estimator and its average value. The standard error is the square root of the sampling variance. The CV expresses the standard error as a percentage of the estimate to which it refers. For example, an estimate of 200 units that has an estimated standard error of 10 units has an estimated CV of 5 percent. The sampling variance, standard error, and CV of an estimate can be estimated from the selected sample because the sample was selected using probability sampling. Standard errors and coefficients of variation are given in Table 2 of this report.

The first page of this release gives statements about the change in revenue from a prior period. Each change estimate is accompanied by a number in parentheses, called the "margin of error." The margin of error can be used to construct a 90-percent confidence interval, which is interpreted as follows. If, for each possible sample, an estimate and its approximate standard error are obtained, then for approximately 90 percent of the possible samples, the interval from 1.65 standard errors below to 1.65 standard errors above the estimate would include the average of the estimates derived from all possible samples. If, for example, a particular change estimate is +1.2 percent and its associated margin of error is $\pm 1.5$ percentage points, then the 90 -percent confidence interval for the change estimate is -0.3 percent to +2.7 percent. If the interval contains 0 , then one does not have sufficient evidence to conclude at the 90 -percent confidence level that the actual change is different from zero. Each comparison stated in this report has undergone statistical testing and is significant at the 90 -percent confidence level, unless otherwise noted.

Data users should take into account the estimates of sampling error and the potential effects of nonsampling error when using the statistics in this publication.


[^0]:    * The 90 percent confidence interval includes zero. The Census Bureau does not have sufficient statistical evidence to conclude that the actual change is different from zero.

