# Issues in Labor Statistics 

U.S. Department of Labor U.S. Bureau of Labor Statistics

## The role of younger and older business establishments in the U.S. labor market

The American economy is characterized by dynamic change and a constant churning of workers and businesses. Workers enter and exit the labor force and change jobs, while new businesses are formed and less successful ones fail. New businesses as well as existing businesses that are expanding create jobs and introduce innovative practices to the marketplace. The long-standing debate about the role and impact of small versus large businesses has expanded in recent years to consider the contributions of younger versus older businesses. New data from the BLS Business Employment Dynamics (BED) program that measure employment and business survival rates by the age of the establishment can help shed light on the behavior and contributions of new and young businesses compared with their older and more wellestablished counterparts. These new data are tabulated at the establishment level. An establishment is an economic unit that produces goods or services, usually at a single physical location, and engages in one or predominantly one activity, whereas a firm can comprise one or more establishments under common ownership by a corporate parent.

## Age of business establishments

In March 2009, about half of all private sector business establishments were 10 years or older, 24 percent were 4 to 9 years old, and 27 percent were less than 4
years old. (See chart 1.) The older establishmentsthose more than 10 years old-employed 71 percent of total private sector jobs, while establishments 4 to 10 years old accounted for 18 percent of employment, and establishments less than 4 years old accounted for 11 percent of employment. (See chart 2.) These new data, which show the number of establishments and employment by age of the establishment, can be used to follow a cohort of establishments over time. A cohort is defined in this report as those establishments that opened during a given year.

## Survival of opening establishments

Chart 3 shows survival rates for the cohort of establishments that opened in March 1994. The bars in the chart labeled "Establishments" indicate what portion of all openings in March 1994 survived to a given year. The bars in the chart labeled "Employment" show employment of the surviving establishments as a percent of the cohort's initial employment. The data in chart 3 show that 26 percent of the establishments that opened in March 1994 were still in business in 2009, employing 62 percent of the cohort's initial employment.

## Age and survival matrix

Table 1 shows the number of establishments by age of the establishment for the 1994-2009 period, and table 2 shows total private sector employment by age of the establishment for the same period. The columns in table 1 show the distribution of establishments by the age of the establishment for a specific year. Among the 5.5 million

Chart 1. Percent of U.S. total private establishments, by establishment age, March 2009


Chart 2. Percent of U.S. total private employment, by establishment age, March 2009


Chart 3. Survival rates of March 1994 annual openings

active establishments in March 1994, for example, 4.9 million were born before March 1993 and 550,308 were less than a year old, having opened after March 1993 and before March 1994. In March 2009, the number of establishments born before March 1993 was 2.3 million, while the number of surviving establishments that opened after March 1993 (and having an age of 15 years or less) totaled 4.5 million. In March 2009, about two-thirds ( 66.4 percent) of all active establishments had opened after March 1993. The columns in table 2 show the employment distribution by age of establishments. In March 1994, the establishments that had been born before March 1993 employed 87.2 million ( 95.5 percent) of the total 91.3 million jobs, whereas in March 2009 the establishments that had been born before 1993 employed 57.8 million
(54.4 percent) of the total 106.2 million jobs.

The rows in table 1 show a time series of the number of establishments for a given age. For example, the first row shows the number of establishments that are less than a year old-establishments that opened during the previous year. The number of establishment openings during the period from March 2008 to March 2009 is a record low for both the lowest number of openings and the lowest number of jobs gained from openings since the data series began in March 1994. The number of establishment openings fell from 626,845 in March 2008 to 549,377 in March 2009, representing 77,468 fewer openings. In March 2008, opening establishments accounted for 3.3 million jobs, which fell to 2.8 million jobs in March 2009, a decrease of half a million jobs. The largest number of openings
occurred in March 2006, when 667,341 establishments opened representing 3.6 million jobs. The largest number of jobs attributable to openings occurred in March 1999, when 609,569 establishments opened with 4.7 million jobs. (See tables 1 and 2.) Since then, the number of jobs from establishment openings has been on a downward trend, falling sharply in the 2001 recession and then again in 2009 during the recent economic downturn.

The diagonals in table 1 can be used to determine the number of establishment deaths for different cohorts. For the cohort of 550,308 establishments that opened in March 1994, for example, 439,281 had survived for 1 year and thus 111,027 had gone out of business. After 15 years (March 2009), 143,308 establishments (26.0 percent) of the 550,308 establishments that opened in March 1994 were still in business. The statistics on the diagonals of table 2 show the employment levels of surviving establishments. The 550,308 establishments that opened in March 1994 opened with about 4.1 million jobs. The 439,281 establishments that survived for 1 year had 4.1 million jobs in March 1995, and the 143,308 establishments that survived for 15 years had employment of 2.6 million in March 2009, or 61.9 percent of the cohort's initial employment.

The trend line in chart 3 labeled "Average size of survivors" is calculated by dividing the employment levels in table 2 by the number of establishments in table 1. This line shows that for the cohort of establishments that opened in March 1994, the average size of surviving establishments is increasing over time: from 7.5 employees per establishment in 1994 to 17.8 employees per establishment in 2009. There are at least two possible
reasons that the average size of surviving establishments increases over time. First, the employment levels at the surviving establishments are likely to grow from their initial levels. Second, if smaller establishments are more likely to die and larger establishments are more likely to survive, the composition effect of a declining number of smaller establishments and a growing number of larger establishments will increase the average size of surviving establishments.

This Issues paper was prepared by economists Carol Leming, Akbar Sadeghi, James R. Spletzer, and David M. Talan of the Office of Employment and Unemployment Statistics, Bureau of Labor Statistics. The data in this report are from the Business Employment Dynamics (BED) program at the Bureau of Labor Statistics. The data by age of establishment highlighted in this report are annual (not quarterly), with a reference date of March, and are created by comparing employment and the number of establishments from March in the reference year to March in the previous year. The age of establishments is defined using the first quarter in which an establishment reports positive employment in the Quarterly Census of Employment and Wages (QCEW). The BED data series starts in the second quarter of 1992, and thus the first measurable annual (March to March) comparison is March 1993 to March 1994. For more information, contact Akbar Sadeghi. Email: Sadeghi.akbar@bls.gov; Telephone: (202) 691-5094. Information in this report will be made available to sensory-impaired individuals upon request. Voice phone: (202) 691-5200. Federal Relay Service: 1-800-877-8339. This report is in the public domain and may be reproduced without permission.

| Age class | March $1994$ | March 1995 | March 1996 | March 1997 | March <br> 1998 | March 1999 | $\begin{gathered} \text { March } \\ 2000 \end{gathered}$ | March 2001 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New openings |  |  |  |  |  |  |  |  |
| Less than 1 year old | 550,308 | 584,184 | 588,326 | 614,966 | 609,584 | 609,569 | 634,276 | 630,875 |
| Surviving establishments |  |  |  |  |  |  |  |  |
| 1 year |  | 439,281 | 462,440 | 464,613 | 484,847 | 491,318 | 485,427 | 500,436 |
| 2 years |  |  | 376,955 | 400,420 | 397,930 | 422,260 | 421,058 | 412,144 |
| 3 years |  |  |  | 336,753 | 353,160 | 355,231 | 372,473 | 367,167 |
| 4 years |  |  |  |  | 301,872 | 319,643 | 318,382 | 329,015 |
| 5 years |  |  |  |  |  | 276,271 | 289,156 | 287,106 |
| 6 years |  |  |  |  |  |  | 252,261 | 263,137 |
| 7 years |  |  |  |  |  |  |  | 231,645 |
| 8 years |  |  |  |  |  |  |  |  |
| 9 years |  |  |  |  |  |  |  |  |
| 10 years |  |  |  |  |  |  |  |  |
| 11 years |  |  |  |  |  |  |  |  |
| 12 years |  |  |  |  |  |  |  |  |
| 13 years |  |  |  |  |  |  |  |  |
| 14 years |  |  |  |  |  |  |  |  |
| 15 years |  |  |  |  |  |  |  |  |
| Born before March 1993 | 4,929,617 | 4,594,292 | 4,288,218 | 4,036,175 | 3,787,248 | 3,585,936 | 3,383,450 | 3,198,075 |
| Total | 5,479,925 | 5,617,757 | 5,715,939 | 5,852,927 | 5,934,641 | 6,060,228 | 6,156,483 | 6,219,600 |

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| Age class | March 2002 | $\begin{gathered} \text { March } \\ 2003 \end{gathered}$ | March 2004 | $\begin{aligned} & \text { March } \\ & 2005 \end{aligned}$ | $\begin{aligned} & \text { March } \\ & 2006 \end{aligned}$ | March 2007 | March 2008 | March 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New openings |  |  |  |  |  |  |  |  |
| Less than one year old | 612,069 | 609,378 | 602,667 | 632,510 | 667,341 | 656,107 | 626,845 | 549,377 |
| Surviving establishments |  |  |  |  |  |  |  |  |
| 1 year | 476,603 | 480,147 | 482,456 | 476,970 | 505,825 | 522,402 | 506,611 | 466,388 |
| 2 years | 420,217 | 407,194 | 413,127 | 417,061 | 416,725 | 434,755 | 441,487 | 415,846 |
| 3 years | 359,735 | 370,872 | 362,695 | 368,526 | 374,177 | 369,646 | 380,100 | 374,366 |
| 4 years | 326,578 | 324,227 | 336,672 | 330,536 | 336,474 | 337,285 | 329,503 | 329,953 |
| 5 years | 295,624 | 296,814 | 297,045 | 308,498 | 303,956 | 308,761 | 305,318 | 290,769 |
| 6 years | 261,977 | 271,612 | 274,497 | 274,316 | 286,307 | 280,488 | 283,457 | 272,627 |
| 7 years | 241,818 | 242,268 | 252,155 | 255,544 | 256,621 | 266,809 | 259,839 | 256,966 |
| 8 years | 214,308 | 225,660 | 226,438 | 234,907 | 240,228 | 239,862 | 248,303 | 236,939 |
| 9 years |  | 200,055 | 212,037 | 212,058 | 222,482 | 225,603 | 224,308 | 228,026 |
| 10 years |  |  | 188,375 | 198,987 | 200,103 | 209,328 | 212,103 | 206,452 |
| 11 years |  |  |  | 178,224 | 188,367 | 189,026 | 197,478 | 196,550 |
| 12 years |  |  |  |  | 170,401 | 178,396 | 178,765 | 183,526 |
| 13 years |  |  |  |  |  | 161,338 | 169,327 | 167,999 |
| 14 years |  |  |  |  |  |  | 153,018 | 158,579 |
| 15 years |  |  |  |  |  |  |  | 143,308 |
| Born before March 1993 | 3,031,547 | 2,894,237 | 2,771,252 | 2,654,487 | 2,557,451 | 2,459,019 | 2,365,639 | 2,261,431 |
| Total | 6,240,476 | 6,322,464 | 6,419,416 | 6,542,624 | 6,726,458 | 6,838,825 | 6,882,101 | 6,739,102 |


| Age class | $\begin{gathered} \text { March } \\ 1994 \end{gathered}$ | $\begin{gathered} \text { March } \\ 1995 \end{gathered}$ | $\begin{gathered} \text { March } \\ 1996 \end{gathered}$ | $\begin{gathered} \text { March } \\ 1997 \end{gathered}$ | $\begin{gathered} \text { March } \\ 1998 \end{gathered}$ | $\begin{gathered} \text { March } \\ 1999 \end{gathered}$ | $\begin{aligned} & \text { March } \\ & 2000 \end{aligned}$ | $\begin{aligned} & \text { March } \\ & 2001 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New openings |  |  |  |  |  |  |  |  |
| Less than one year old | 4,124,589 | 4,356,753 | 4,358,117 | 4,631,669 | 4,698,777 | 4,702,798 | 4,648,531 | 4,279,589 |
| Surviving estab-lishments |  |  |  |  |  |  |  |  |
| 1 year |  | 4,140,247 | 4,310,177 | 4,320,141 | 4,688,205 | 4,703,529 | 4,745,334 | 4,640,059 |
| 2 years |  |  | 4,015,342 | 4,264,561 | 4,243,438 | 4,606,320 | 4,706,632 | 4,565,297 |
| 3 years |  |  |  | 3,953,116 | 4,178,140 | 4,172,895 | 4,560,353 | 4,505,182 |
| 4 years |  |  |  |  | 3,872,507 | 4,078,687 | 4,116,944 | 4,337,230 |
| 5 years |  |  |  |  |  | 3,741,091 | 4,012,095 | 3,943,158 |
| 6 years |  |  |  |  |  |  | 3,677,756 | 3,845,425 |
| 7 years |  |  |  |  |  |  |  | 3,531,829 |
| 8 years |  |  |  |  |  |  |  |  |
| 9 years |  |  |  |  |  |  |  |  |
| 10 years |  |  |  |  |  |  |  |  |
| 11 years |  |  |  |  |  |  |  |  |
| 12 years |  |  |  |  |  |  |  |  |
| 13 years |  |  |  |  |  |  |  |  |
| 14 years |  |  |  |  |  |  |  |  |
| 15 years |  |  |  |  |  |  |  |  |
| Born before March 1993 | 87,161,030 | 86,090,920 | 83,851,788 | 82,239,976 | 80,544,590 | 78,675,066 | 77,189,256 | 74,855,770 |
| Total | 91,285,619 | 94,587,920 | 96,535,424 | 99,409,463 | 102,225,657 | 104,680,386 | 107,656,901 | 108,503,539 |


| Age class | $\begin{gathered} \text { March } \\ 2002 \end{gathered}$ | $\begin{gathered} \text { March } \\ 2003 \end{gathered}$ | $\begin{gathered} \text { March } \\ 2004 \end{gathered}$ | $\begin{gathered} \text { March } \\ 2005 \end{gathered}$ | $\begin{gathered} \text { March } \\ 2006 \end{gathered}$ | $\begin{gathered} \text { March } \\ 2007 \end{gathered}$ | $\begin{gathered} \text { March } \\ 2008 \end{gathered}$ | $\begin{gathered} \text { March } \\ 2009 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New openings |  |  |  |  |  |  |  |  |
| Less than one year old | 4,163,828 | 3,842,243 | 3,595,392 | 3,579,940 | 3,567,959 | 3,469,671 | 3,287,287 | 2,795,992 |
| Surviving estab-lishments |  |  |  |  |  |  |  |  |
| 1 year | 3,977,966 | 3,952,078 | 3,769,430 | 3,567,784 | 3,625,577 | 3,524,413 | 3,359,194 | 2,954,637 |
| 2 years | 4,242,325 | 3,802,166 | 3,851,857 | 3,725,214 | 3,567,546 | 3,549,678 | 3,355,107 | 3,029,566 |
| 3 years | 4,207,021 | 4,058,894 | 3,739,230 | 3,819,766 | 3,697,327 | 3,478,056 | 3,393,578 | 3,011,326 |
| 4 years | 4,136,490 | 3,976,764 | 3,951,418 | 3,689,933 | 3,815,787 | 3,626,492 | 3,317,487 | 3,049,427 |
| 5 years | 3,962,604 | 3,899,287 | 3,863,841 | 3,871,419 | 3,657,766 | 3,722,550 | 3,475,703 | 3,008,940 |
| 6 years | 3,637,556 | 3,712,108 | 3,794,035 | 3,777,403 | 3,863,535 | 3,565,983 | 3,557,047 | 3,162,011 |
| 7 years | 3,548,383 | 3,457,995 | 3,608,769 | 3,738,457 | 3,749,411 | 3,796,101 | 3,421,207 | 3,241,096 |
| 8 years | 3,299,941 | 3,367,056 | 3,370,907 | 3,540,254 | 3,709,830 | 3,672,686 | 3,662,837 | 3,111,469 |
| 9 years |  | 3,140,189 | 3,280,932 | 3,323,313 | 3,504,922 | 3,646,190 | 3,551,148 | 3,358,694 |
| 10 years |  |  | 3,047,333 | 3,206,286 | 3,291,677 | 3,431,074 | 3,524,875 | 3,256,010 |
| 11 years |  |  |  | 2,984,942 | 3,172,414 | 3,219,552 | 3,317,874 | 3,242,990 |
| 12 years |  |  |  |  | 2,936,957 | 3,093,552 | 3,122,788 | 3,010,094 |
| 13 years |  |  |  |  |  | 2,880,427 | 3,001,040 | 2,847,083 |
| 14 years |  |  |  |  |  |  | 2,795,367 | 2,746,340 |
| 15 years |  |  |  |  |  |  |  | 2,553,476 |
| Born before March 1993 | 70,597,646 | 67,833,688 | 66,047,694 | 65,088,487 | 64,333,072 | 63,317,590 | 61,945,835 | 57,827,400 |
| Total | 105,773,760 | 105,042,468 | 105,920,838 | 107,913,198 | 110,493,780 | 111,994,015 | 112,088,374 | 106,206,551 |

