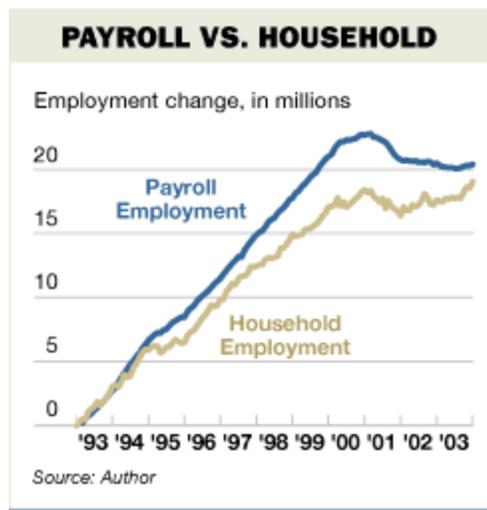# Go Figure

By **ROBERT BARRO**
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The meager expansion of payroll employment by 21,000 in February highlights the continuing sluggishness of the labor market. This slow employment growth is surprising given the many signs of expansion, including strength in gross domestic product and investment, and the moderate unemployment rate. A full explanation for the small jobs rise is unavailable, but there are some hints.

One point, based on the discrepancy between the payroll and household surveys, is that the payroll numbers may be underestimating the growth of employment. Since mid-2001, the household numbers have been far stronger. A recent report (March 1) by the Bureau of Labor Statistics clarifies our understanding of the discrepancies between the two surveys.

The graph nearby shows the cumulated changes in payroll employment (the upper curve) and household employment (lower curve) since January 1993. The household numbers were adjusted by the BLS to smooth out the occasionally large changes in population controls, such as those caused by the 2000 Census. The right-hand portions of the graphs show that household employment has risen by much more than payroll since 2001. From the end of the recession in November 2001 until January 2004, household increased by 2.2 million while payroll fell by 700,000. That is, household did better by 2.9 million jobs. Similarly, since the peak of payroll employment in March 2001, household employment has risen by 700,000, while payroll has fallen by 2.4 million, so that household did better by 3.1 million.

PAYROLL VS. HOUSEHOLD

Employment change, in millions

Payroll Employment

Household Employment

Source: Author

A less well-known fact, also shown in the graph, is that the two surveys diverged in the opposite direction in the 1990s. The discrepancy built up until July 2000, when payroll was 22.3 million and household 17.1 million above their respective levels in January 1993. Thus, payroll did better by 5 million jobs. If we gauge the labor market by household numbers, rather than payroll ones, the expansion of employment in the 1990s is much weaker (and the growth of labor productivity is correspondingly stronger).

Since the payroll and employment numbers eventually converged, the long-run

picture is similar. The payroll series says that employment in January 2004 exceeded that in January 1993 by 20.4 million, whereas the household series pegs the change at 19.1 million.

The BLS has tried to explain the divergences between the two employment series, notably the extra three million jobs in the household survey since 2001. The obvious place to look is conceptual differences -- self-employment, agricultural employment, multiple job holders and so on. One tempting hypothesis is that the household numbers look better because of a large expansion of the self-employed -- illustrated perhaps by the growth of full-time retailers on eBay.

However, this explanation is a non-starter, because the self-employment numbers in the household survey have not risen that much. In fact, the reported number of self-employed was smaller as a ratio to household employment at the start of 2004 than it was in the mid-1990s. In any event, when the BLS considers self-employment and other measurable differences between the two surveys, they explain only 200,000 to 400,000 of the extra three million jobs in the household survey.

Another hypothesis that does not work is that the payroll survey substantially undercounts the recent growth of employment in new firms. When the BLS used unemployment-insurance records through March 2003 to update the payroll survey for new-firm growth, this adjustment did not help to explain the mysterious gap between the household and payroll numbers.

Since the main differences between the two surveys cannot yet be explained and since the two series have different pluses and minuses, it seems best to weigh both when evaluating the recent performance of the labor market. For example, in considering the period since the end of the recession in November 2001, we can say that employment likely changed somewhere between the increase by 2.2 million in the household survey and the decrease by 700,000 in the payroll survey.

Looking ahead, I would not predict a particular pattern of divergence between payroll and household employment. I have focused on predicting the payroll numbers because the household survey is so volatile from month to month. I use a forecasting equation for payroll employment growth that considers the history of employment, GDP, and unemployment-insurance claims. By chance, this equation was pretty accurate for the latest reading, an increase by 21,000 jobs in February. My forecast was for a rise by 6,000 jobs. I attribute this accuracy to chance because a reasonable error range for the forecast was very broad: -152,000 to +165,000. (When I reported numbers like this in a previous column, I received an offer for computer software that could narrow the error range. However, I think the problem is the difficulty of month-to-month forecasts, not a weakness in my software.) At present, this equation predicts an increase by

20,000 jobs in March, with a range of (minus) -138,000 to +179,000.

More reliable forecasts can be generated for longer periods, such as yearly average payroll employment growth. In this case, unemployment-insurance claims lack predictive power but the history of GDP is more important. Frankly, I anticipated a more favorable outlook for year-ahead employment growth than for month-ahead growth. Instead, the results turned out to be less optimistic. The forecast for February 2004 to February 2005 is an employment growth rate of -1.1%, with a range of -1.6% to -0.7%. This growth forecast translates into a 12-month change in employment of -1.5 million, with a range of -2.1 to -0.9 million.

My employment forecasts emerge from a mechanical equation to which I cannot attach a clear economic interpretation. For example, I cannot say whether the results reflect a new era in productivity growth or in the outsourcing that many politicians regard as infamous. However, the equation does accord reasonably well with payroll employment data since 1967, including the rapid expansions from 1993-2000 and 1983-1990. I hope eventually to provide an economic explanation for why the labor market remains weak -- or, if my forecasts are wrong, to offer an apology.

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Erratum. The forecasts of employment growth were based on a statistical model that contained an error. This error mainly affected the 12-month-ahead forecast. The mistake has been corrected in the article "The Tea Leaves that Matter to the Fed," which appeared in Business Week, May 10, 2004.