

## **Mitchell's Musings 5-9-11: Data Driven**

The U.S. Bureau of Labor Statistics (BLS) issued its monthly release on "The Employment Situation" for April on May 6. Some seeming anomalies were contained in the release. The unemployment rate rose from 8.8% in March to 9.0% although the nonfarm payroll survey showed a gain of 244,000 jobs, March to April. So jobs were up but so was unemployment. The unemployment figure comes from a survey of households while the nonfarm jobs figure comes from a different survey of employing establishments. If you looked at the employment figure from the household survey, it indicated jobs had declined by 190,000.

Each month, BLS puts out a similar release and such anomalies appear. So BLS includes in each release a lengthy explanation. The household survey and the establishment survey are different, it explains. For example, they cover different parts of the workforce, e.g., the household survey includes self-employed workers while the establishment survey doesn't (unless they appear on a payroll). The establishment survey double-counts people who hold more than one payroll job while the household survey doesn't. Seasonal adjustment (all the data cited above are seasonally-adjusted) actually only corrects for normal seasonality so that particularly harsh weather, for example, will still affect the numbers. The release goes on to explain the noise factor inherent in sample surveys. Etc., Etc.

After BLS is done, private analysts further offer explanations of the anomalies. It is true, for example, that household survey employment declined by 190,000. But if you look only at nonagricultural wage and salary workers in the household survey, thereby coming closer to the coverage of the establishment survey, there was actually an increase in employment of 40,000.

So here is an interesting question. Much of the explanatory information is meant to illuminate why seeming trends over a one-month interval can just be noise. So why do we release the data on a monthly basis?

All data release and collection intervals are somewhat arbitrary. Annual data, however, at least are linked to the solar cycle. We evolved out of an agrarian society in which knowing when to plant and when to harvest was important. The solar cycle determines the seasons. So calendars evolved around the solar cycle. Ancient monuments such as Stonehenge and Machu Picchu seem to be designed to track that cycle. Months, on the other hand, have something to do with the lunar cycle but don't correspond to that cycle very well (because the lunar cycle and the solar cycle are not matched).

Some data are released in short intervals linked to administrative issues. For example, since we allocate unemployment benefits by weeks, data on new claims for unemployment benefits come out weekly. The short interval makes them quite noisy but they appear as a byproduct of the cycle within an ongoing program that wasn't intended as a data collection exercise. Of course, some of the most volatile data that appear come


from financial markets on a continuous basis. Financial data are often produced privately and are commonly the byproducts of needed internal tracking of transactions.

At the other extreme, we have the decennial *Census of Population* that is at the intersection of the solar cycle and the number of human fingers. Its origins were not for economic policy but rather to allocate political representation. Apart from the administrative cost and difficulty of collecting the *Census* – think about what was entailed in 1790! – the instability that would result in frequent reallocation of legislative power is obvious.


We have been tracking the labor market on a monthly basis for decades. The household survey, for example, began in 1940. So everyone assumes that monthly data on, say, the unemployment rate is part of the natural order of things and is somehow critical to economic policy. Financial markets assume that the labor-market data in the monthly release will affect policy, such as Federal Reserve policy on interest rates, and so great care is taken by BLS to ensure secrecy until the official release date and time. But no one asks if it is a Good Thing that economic policy is being made on noisy data.

So I will ask. Might we benefit from having a less frequent collection of labor-market data with the cost savings that result put into, say, a larger sample? A larger sample would allow more detailed and accurate geographic or demographic divisions of the data.

We manage to get along with GDP figures that are released quarterly rather than monthly. (And those data have to be revised several times because the seeming need to have quick quarterly information means that not all components of the GDP are completely available early on.) Why is the unemployment rate fundamentally so different from the GDP that it cannot be released quarterly? Would economic policy in fact be harmed by less frequent information, particularly if the survey output was more detailed? Is policy being driven by minor perturbations and anomalies that result from semi-lunar data collection?

 **BLS**  
BUREAU OF LABOR STATISTICS  
U.S. DEPARTMENT OF LABOR

**NEWS RELEASE**



Transmission of material in this release is embargoed until  
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**THE EMPLOYMENT SITUATION—APRIL 2011**

Headline payroll employment rose by 244,000 in April, and the unemployment rate edged up to 9.0 percent. The U.S. Bureau of Labor Statistics reported today. Job gains occurred in several sectors—providing information, manufacturing, and mining.

Chart 1: Unemployment rate, seasonally adjusted, April 1967–April 2011


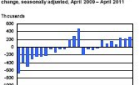


Chart 2: Net change in payroll employment over the month (thousands), seasonally adjusted, April 1967–April 2011



**Household Survey Data**

The number of unemployed persons, at 12.7 million, changed little in April. The unemployment rate edged up from 8.9 to 9.0 percent over the month but was 0.1 percentage point lower than in February. The labor force also was little changed in April. (See table A-1.)

Among the major worker groups, the unemployment rate for adult men (8.7 percent), which remains (7.9 percent), increased (0.2 percentage points) in April. The jobless rate for women (11.3 percent) showed little change in April. The jobless rate for Asians was 6.4 percent, not seasonally adjusted. (See tables A-1, A-2, and A-3.)

The number of persons unemployed for less than 5 weeks increased by 243,000 in April. The number of long-term unemployed (those jobless for 27 weeks and over) declined by 203,000 to 3.8 million; their share of unemployment declined to 31.4 percent. (See table A-12.)