News and Views from the Dismal Science

Dr. Econ's commentary on global economic and other affairs

______________________June 2009__________________________

GDP, the standard of living, and hours worked

© Jurgen Brauer, Professor of Economics,
James M. Hull College of Business,
Augusta State University
Augusta, GA 30904, U.S.A.

Time and again, it is said that the United States is "the richest" country on earth. That is certainly true in absolute terms. In 2007, for example, the United States' gross domestic product or GDP — the dollar value of all goods and services produced within the U.S. — came to US$13.742 trillion, larger than the corresponding number for any other country in the world. Because GDP measures the dollar-value of economic production, and people are paid for doing productive work, GDP is essentially the same thing as income earned. This income is distributed to workers, business proprietors, corporate shareholders, and so on, that is, to all those who have made some contribution to the production process.

In contrast, Norway's GDP was only about US$0.252 trillion (converted from the Norwegian currency to U.S. dollars at the average 2007 exchange rate). That U.S. GDP was about 54 times as large as that of Norway does not surprise as Norway has a much smaller population than does the United States. Thus, to determine just how rich the U.S. is relative to Norway, one must adjust for population size or, better yet, for the size of the employed labor force.

Let's run the numbers (all for 2007): U.S. GDP was US$13.741 trillion; its population was 301.621 million people; and its employed labor force was 153.775 million people. The ratio of workers to the overall population was 51 percent. (That is, each employed person supported, on average, about one nonworking person, such as a child.) Average income per person was US$45,557, and per worker it was US$89,358. For Norway, GDP was US$0.252 trillion; its population was 4.709 million people; its number of workers was 2.538 million people. The worker-to-population ratio was 53.9 percent. Average GDP per person was US$53,515 and average GDP per worker was US$99,291.

Comparing the numbers, the average Norwegian generated 17.5 percent more GDP than did the average U.S. American. As for the workers, the average Norwegian worker helped produce 11.1 percent more than his/her U.S. American counterpart. Even if the United States is the richest country in absolute terms, it is not so in per person or per worker terms.

Yet this is not the whole of the story. As it turns out, the average U.S. worker put in 1,705 annual work hours whereas the average Norwegian worker put in only 1,417 hours. Adjusted for hours worked, the average Norwegian out-performed the average U.S. American by 33 percent. On this score, even much looked-down upon Belgium and France do better than the United States.

Europeans, in particular, are relatively efficient producers during work hours, but otherwise they do like to take plenty of (paid) holidays and vacation days. Here are some numbers (from

OECD statistics for 2007): South Koreans put in enormous numbers of annual hours of work, averaging 2,316, or 44.5 hours per week per worker (hww). U.S. Americans put in 32.8 hww; the Brits 32.1; the Germans a very low 27.6; and the Dutch even less at 26.8 hww. These numbers are distorted by the different vacation structures across countries. For example, for the United States, the average annual work hours of 1,705 should not be divided by 52 weeks but by 50 weeks to account for the general convention of 2 weeks paid vacation. The average work load then is 34.1 hww. For Germany — where 6 weeks paid vacations is standard — one would arrive at 32.1 hww actually worked. Thus, the number of hours worked per week does not differ overly much among countries. What varies much more is the number of paid holidays and vacation days.

The moral of the story thus far is that U.S. Americans generate a relatively large amount of GDP in exchange for relatively long hours of work, whereas Europeans, in contrast, tend to trade off GDP generated against leisure time so as to more fully enjoy the income they have. Even so, people in some states, such as Norway, both work less *and* generate more GDP than do their counterparts in the United States.

But let's be sure to remember that GDP *generated* is not the same as income *retained* by workers! Ultimately one will also have to examine how the GDP that workers help generate is distributed among workers, businesses, and the state (via taxes), and how the state, in turn, disburses the taxes, for instance as business tax breaks or to finance community amenities. But that is a topic for another column.

Jurgen Brauer's next book is *War and Nature: The Environmental Consequences of War in a Globalized World* (forthcoming in late 2009 with AltaMira Press).

Jurgen Brauer is Professor of Economics at the James M. Hull College of Business, Augusta State University, Augusta, GA, USA. He may best be reached via his web site at www.aug.edu/~sbajmb.