Why the Gibson – Gamboa Tables Don't Work

The use of the Gibson – Gamboa worklife tables for the disabled is a controversial matter. In this short note, I will try and explain in simple terms the problems with the tables and why those problems cannot be overcome.

There are four basic problems with the tables. These relate to either the data used (Current Population Survey or American Community Survey) or the manipulation of the data. These problems exist whether the tables themselves are used or if data from the sources are used directly. The four problems are:

1) Bad Data
2) Heterogeneity
3) Transition Problem; and,
4) Lack of Peer Acceptance.

The bad data problem is the result of the construction of the surveys themselves. The disability defining question is along the lines of, "were you unable to work in the last year because of a disability?" If the response is positive, questions regarding the disability are poised.

This survey construction leads to two types of errors. The first is that those who meet a medical or vocational definition of disability but are working would answer the screening question in the negative. This causes the ratio of disabled working to the disabled population to be understated. The second problem with construction is that people who are not disabled but use the excuse of disability to justify their failure to work will answer the question positively – the well-known "justification hypothesis". The combination of these effects is to understate the percentage of the medically-defined "disabled" that is working.

If, on the other hand, the survey first screened on disability by asking if the person taking the survey had a "medical condition ….." and then asked about work status, these biases would be reduced though not eliminated. There are data sets available that use this screening procedure.

Heterogeneity is a big word with a pretty simple explanation – it is the opposite of homogeneity. The heterogeneity problem in using the CPS and ACS is that it lumps together people with very different types of disabilities. For example, a quadriplegic would be in the same group as an amputee, a person with a very low IQ would be in the same category as someone with bipolar syndrome and so on. Therefore, one cannot use these data to reach a conclusion regarding the effects of a particular disability on worklife, earnings or any other economic metric.

The transition problem, stated simply, is that survey takers do not always stay in the disabled or not disabled categories. For example, a person disabled by a back injury may undergo surgery or physical rehabilitation and "be cured" and find employment. Similarly, a person with a chronic physical condition may find work. In both of these instances, they will answer the screening question in the negative and no longer be counted as disabled. Conversely, a person can be injured and move from the not disabled to the disabled category. By construction, the Gamboa – Gibson approach does not allow for these

eventualities. Research has shown that a large percentage of the disabled move to the non-disabled category each year.

The final problem with the Gamboa – Gibson approach is that it is not peer accepted. First, the government agencies that collect and disseminate these data have repeatedly cautioned that they cannot be used in the way that Gamboa and Gibson use them. Perhaps more seriously, the overwhelming majority (80%) of Forensic Economists, according to survey results of the relevant academic community published in the *Journal of Forensic Economics,* do not consider the Gamboa – Gibson tables to be reliable. Gamboa has asserted that these economists are out to get him but surely there cannot be so large a proportion of the relevant academic community involved in a plot of this sort.

It is worth noting that the tables and the direct use of the data also do not produce error rates, have never been favorably peer reviewed nor do they meet any of the other criteria of the *Daubert* or *Frye-Reed* standards or any standard related to acceptance in the academic community.

In the final analysis, the Gamboa – Gibson approach is bad science.

Chris Pflaum