

Comments on Dworak-Fisher, Ruser, Bishow Proposal

Improving Estimates of Employer
Contributions by State and Industry

The Problem Stated

» Contributions/Cash Wages

- | • State | I1 | I2 | I3 | I4 | |
|---------|-----|-----|-----|-----|-------|
| • AK | .05 | .10 | .15 | | |
| • | | | | | |
| • AL | .05 | .10 | | .06 | |
| • AR | .05 | .10 | .15 | .06 | |
- a total of 4335 state by industry cells for which employer contributions are estimated.

How to Improve Present Practice

- National Compensation Survey collects worker data by industry, state, cash wages and employee contributions, providing a sample of over 50,000 from 1999-2002.
 - Can we use the means (appropriately weighted to fill in cells?) No, too few.
 - Can we average for each state to get their contribution rate. Yes, but how to distribute by industry?

Dummy Variable Approach

- To identify cell ratios, contributions to cash wages regressed against industry and state dummy variables.
 - Because dependent variable is limited, use tobit regression form, rather than OLS.
 - Also find that interaction of state with one digit industry improves relationship
 - And find that union membership can also reduce noise.

Results

- Authors look at differences in state estimates compared to present practice and note:
 - Most states under 1% (34), 12 from 1-2% and 5 over 2%. Hurrah? Can we say anything from the state coefficients in the tobit?
 - Because BEA provides industry-state estimates of contributions, some of these differences are much larger and on a future agenda for research.

Some Conclusions

- ***Responses to BEA questions***
- 1. Is the approach of the authors an improvement.? My answer is yes, it must be in the right direction for most cells.
- 2. Is this model appropriate? Again my answer is Yes. Are there other models that might be usefully tried? Yes, I offer two suggestions below.
- 3. The estimates of state-industry cells must show more variance compared to present practice. Should BEA be concerned with this wider range of industry earnings by state? If they are true, clearly not. Suggestion is look at alternative methods as one check on the new findings.

Alternative I

- National contributions by industry are known, call those column totals.
- The NCS provides estimates of contribution to cash wage ratios by state without regard to industry composition.
- If these ratios were multiplied by the industry contributions they would of course yield a national total differing from truth.
- Use of Richard Stone's *row by column* iterative method would provide an alternative set of cell estimates by state and industry that could be compared with those of the authors.

Alternative II

- The authors state that cell means from the NCS are sometimes unavailable or based upon too few observations to be used.
- The paper reports that the interaction of single digit industry and state is important to take into account.
- Suppose we compute from the NCS the 1 digit average contribution to cash ratio by state. This permits constructing at least two other sets of estimates.

Alternative II Continued

- II.1 Use the separate 1 digit industry ratios by state to distribute the national total at the 3 digit level. Normalize as necessary and compare.
- II.2 Regress the 1 digit industry ratios by state against unionization, and other variables, perhaps, and use the estimated values as in II.1. This might be done by OLS at least initially.

Concluding Remarks

- The suggested alternatives are meant to provide checks on what the authors have done, particularly for some state-industry cells that set off alarms.
- **On the direction the authors are moving I will let Keynes have the last word,**
- ***"The real difficulty in changing any enterprise lies not in developing new ideas, but in escaping from the old ones."***