Household and business/establishment data collection instruments differ fundamentally on two critical labor market outcomes: employment and compensation. Both concepts are measured with respect to the person in household instruments and with respect to the job or occupation in a business/establishment instrument. Whether the data collection modality is a census, survey or administrative records these differences persist. Attempts to reconcile the employment concepts have occurred in the past but there is still no good explanation for the difference in employment trends produced by the premier household instrument (Current Population Survey) and the leading short-run establishment instrument (Current Employment Statistics). A similar unexplained disparity exists between the compensation measures in household surveys like the CPS and establishment surveys like the National Compensation Survey. The disparity in compensation measures occurs for two reasons. First, individuals are rarely asked about their complete compensation packages, and when they are the questionnaire usually measures the incidence of non-salary compensation and not the parameters required to estimate its cost, whereas employers are usually asked about its cost but not enough incidence and parameter details to relate these costs to individual compensation packages. Second, household surveys ask about an individual’s primary employer whereas business/establishment surveys ask about standardized occupations.

Compensation and employment are so basic to our understanding of the labor market that it is surprising that so little reconciliation of these differences has occurred. This proposal concerns the construction of total compensation measures for representative samples of individuals, rather than occupations, because that is the employment concept that most economists use to study these outcomes. Most estimates of the average amount of non-salary compensation put the figure at about 30% of total compensation. Is there any good reason to trust this figure? We think it must be suspect. The two largest components of non-salary compensation, besides pay for time not worked, are retirement savings and health care. Both receive favorable tax treatment (deductible for the employer and not taxable, or deferred taxation for the employee). But health care is almost certainly not proportional to salary income, and retirement income may or may not be proportional depending upon the plan. A direct consequence of failure of proportionality is that most micro-economic studies of wage determination using individual data must display systematic biases depending upon whether or not the individual has either of these benefits and his/her age and family characteristics. On the business side of the analysis, certain occupational compensation packages will vary enormously in employer cost depending upon the characteristics of the individuals who occupy them.

So, what do we propose? If new data are collected an effort should be made to collect the components of the compensation package by direct interview of both incumbent individual and human resource officer who manages that person’s compensation. Such a design poses
significant implementation problems. As the Canadian Workplace and Employee Survey demonstrates, the design of the sample is extremely complex if one is interested in capturing all of the important effects. We could live with a more modest design—construction of the frame from standard household frames and securing permission of the respondent to interview the employer. A longitudinal dimension could wait.
Wages versus Total Compensation

John M. Abowd and Kevin F. Hallock
Cornell University

February 2007

Wages versus Total Compensation

1. Who Cares?
2. What are the Facts and Current Sources?
3. What do we Propose?
4. What are some Possible Applications?
5. Comments and Suggestions
These detailed total compensation data are typically only available from surveys of employers about occupations. Most work in labor economics uses data collected from individuals about their jobs. But the most of these data are missing the 30% of total compensation that is not wages or salaries. Clearly it is costly to collect these data. But should we punt and define all non-wage and salary to be zero?

Example Sources where respondent is individual discussing a job:
- CPS, Census, PSID, NLSY, SIPP

Example Sources where respondent is manager in firm discussing an occupation (or industry):
- Occupational Employment Statistics Survey (OES)
- National Compensation Survey (Employment Cost Index, Occupational Compensation Survey Project, Employee Benefits Survey)

Census defines income as follows:
- Wages, salary, commissions, bonuses or tips from all
- Self employment income
- Interest, dividends, rental, royalty, trusts
- Social security or railroad retirement
- SSI
- Public assistance from state or local
- Retirement, survivor or disability pensions (not SS)
- Other (VA, unemployment, child support, alimony)
- TOTAL
What are the Facts and Current Sources?

CPS in March asks about income details – but not much about non-wage and salary labor income:

- Wage and salary
- Self employment
- Farm
- Unemployment
- Worker’s comp
- Social security
- Public assistance

- Veteran benefit
- Survivor’s income
- Other disability
- Other income
- Interest
- Dividends
- Rent

What are the Facts and Current Sources?

CPS in March asks about non-cash benefits as well but these are almost entirely indicators:

- Medicare?
- Medicaid?
- CHAMPUS, VA?
- Private health?
- In own name?
- Through employer/Union?
- Did employer pay all, part, none?
- Non-SS pension?

What are the Facts and Current Sources?

CPS Employee Benefits Supplements – May 83, 88, Feb 90, April 93: Lots of employee benefit binary questions:

- Pension or retirement
- Type of plan
- Stock or profit plan
- Most important plan
- Lump sum if leave
- What fraction of pay contrib.
- How much employer contrib.
- How much sick leave

What are the Facts and Current Sources?

NLS 97 asks about certain interesting benefits but only as binary variables:

- Flexible work schedule
- Medical insurance
- Life insurance
- Dental benefits
- Paid maternity/paternity leave
- Unpaid maternity/paternity
- Non-SS retirement plan

What are the Facts and Current Sources?

PSID also asks about certain interesting benefits but also lacks detail:

- Income and mix
- Pensions
- Anyone in the family covered by health insurance? Who?

What are the Facts and Current Sources?

Example Sources where respondent is manager in firm discussing an occupation (or industry):

- Occupational Employment Statistics Survey (OES)
  - pros – tons of occupations and geographic areas.
  - If you want to know the inter-quartile of wages for plumbers in Champaign Illinois, go here.
  - cons – asked of manager about occupations and can’t be linked to individuals or jobs – also only wages and salaries so this is even worse than many of the individual datasets
What are the Facts and Current Sources?

Example Sources where respondent is manager in firm discussing an occupation (or industry):

National Compensation Survey (Employment Cost Index, Occupational Compensation Survey Project, Employee Benefits Survey)

Pros – extraordinary detail on total compensation
Cons – asked of manager about occupations (or industries) and can’t be linked to individuals or jobs

© 2007, John Abowd & Kevin Hallock

What are the Facts and Current Sources?

The National Compensation Survey from the U.S. Department of Labor Bureau of Labor Statistics:

38 page document estimated to take 180 minutes to complete the form > 2000 respondents

some example of the survey follow:

© 2007, John Abowd & Kevin Hallock
What are the Facts and Current Sources?

<table>
<thead>
<tr>
<th>Premises</th>
<th>Category (E)</th>
<th>Employee (E)</th>
<th>Education (E)</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMP + Spouse</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMP + Child</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMP + EMP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMP + E.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMP + A.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMP + B.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Participation Plan (E) (Est % of eligible employees, not determinable, not applicable)

<table>
<thead>
<tr>
<th>Category (E)</th>
<th>Employee (E)</th>
<th>Education (E)</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMP + Spouse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMP + Child</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMP + EMP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMP + E.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMP + A.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMP + B.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What do we Propose?

We propose to collect data on total compensation along with detailed demographic data.

There is no question that this will be difficult. But the returns could be very large.

It is possible that new data could have an impact in several areas in labor economics.

What are some Possible Applications?

Wages versus Total Compensation

What are the Facts and Current Sources?

Emerging Benefits

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Annual Values</th>
<th>Group Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dental</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vision</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For more information, contact John Abowd & Kevin Hallock.
What are some Possible Applications?

Potential applications include (re-)estimating the distribution of:

(a) The rate of return to schooling
(b) The rate of return to experience
(c) The effects of job loss on compensation
(d) The male-female compensation gap
(e) The black-white wage gap

Comments and Suggestions

Many literatures use available data but not necessarily the best data.
This could help to explain several issues in labor economics.
It is hard to collect these data but is it better to use a noisy or expensive measure or count all non-wage and salary benefits as zero?
Can ask employers and individuals and see differences in responses.
Many potential applications.