Comments on Nicole Maestas  
(w/ Mullen, Powell, von Wachter, Wenger)

The Value of Working Conditions in the United States and Implications for the Structure of Wages

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Contributions:
1. Maestas et al. use the newly available *2015 American Working Conditions Survey*. Much of the existing literature measures occupation level measures of skill requirements, working conditions, and other various job attributes (e.g., DOT and O*NET).

2. The AWCS has the advantage of measuring worker-specific attributes, self-reported by workers rather than assigned by job analysts (but there are also disadvantages).

3. The authors use data in innovative way. Surveyed workers’ state preferences through paired job choices & their willingness-to-pay for job attributes. Preferences differed across demographic groups and with pay level.

4. Results are novel, interesting, and believable.
General points on compensating differentials:

1. Compensating wage differentials is core topic in economics. Distinguished pedigree going back to Adam Smith (1776). Compensating differentials provide a bit of a puzzle in undergrad labor students. “Contrary” to theory, jobs with unpleasant characteristics are typically low paid, and vice versa. Was Adam Smith wrong?

2. Standard explanations for the weak evidence (and often wrong signs) for compensating wage gaps.
   a) Differences in preferences and selection typically mitigate wage gaps.
   b) These small wage differentials for working conditions are dwarfed by the large differentials for skill.
   c) Low skill workers are more likely to face employment risk, injury risk, extreme temperatures, demanding physical conditions, etc.

3. “Was Adam Smith Right After All?” (Duncan & Holmund), JOLE, V. 1, 1983. The literature has tried to account for worker specific skills in several ways, most typically based on job switchers (difference equations or person FE).
Job attribute data:

1. Standard data sets are DOT (ending in 1991) and O*NET (began 1998). Provide measures at occupation level.

2. Serious downside of occupation measures is that they are averaged across all workers within a given occupation. Measures do not take account of how required skills and working conditions differ across establishments, employer size, industry, location, etc. or by worker education, experience/seniority, and demographics such as age, gender, race, ethnicity, or foreign born.

3. Attributes measured at occupation (rather than individual job) level are too broad. Job attributes differ for window washers of residential homes versus window washers for urban skyscrapers.

4. Standard log wage equations with O*NET (DOT) attributes for occupational skills and working conditions yield highly positive coefficients on skill variables and often (incorrect) negative coefficients on physical working conditions. These models are informative, but one cannot interpret these as true market prices. Wage change (or FE) equations provide more reasonable estimates.
In defense of O*NET (DOT) – such studies can be informative

Many papers account for occupational skills and working conditions. Doing so can decrease or increase wage gap estimates. Examples include:

1. **Wage penalties** for occupations with respect to gender composition (%Fem) and racial composition (%Black) are mitigated by occupational variables.

2. **Part-time wage penalties** are mitigated when one accounts for occupational skill measures and, to a lesser extent, working conditions.

3. **Age structure of occupations.** Occupations with large shares of older workers have systematically different attributes than those with large shares of young and prime-age workers.

4. **“Caring jobs”** are heavily female and pay less. We define “caring” using selected O*NET attributes. We find wage penalties much smaller than found by sociologists; they account for little of the gender wage gap. Healthcare jobs show apparent premiums rather than penalties.

5. Estimates of **Postal worker wage premiums** much higher after accounting for DOT (or O*NET) occupation skills & working condition measures.
Maestas et al. go well beyond the existing literature:

1. Few studies provide compelling measures of compensating wage differentials.

2. Maestas et al. address head-on some of the issues crippling past studies.

3. A concern is that underlying data from the AWCS is provided by a relatively small sample. That said, results are plausible and interesting. We might hope for more, but should be thankful for what the authors have provided.

4. Valuation of job attributes. Authors rely on the stated preferences of workers, which provides useful information. It is not clear to me how this translates into *market wage gaps*. Market differentials are determined not only by worker valuations (affecting labor supply and reservation wages), but also by labor demand for occupational tasks (e.g., working in extreme temperatures) Wages are determined at the margin. Most individuals in the sample will be inframarginal and earning occupational rents. A goal of the paper is to understand the role of job characteristics on wage differentials. How is this done if the individuals surveyed are mostly inframarginal workers?
Two final thoughts:

1. **Valuations change over time** – a little or a lot? To what extent do values of compensating differentials change over time? Preferences are relatively stable over time. But market valuations may sharply change over time. Example: When I worked on occupational attributes and gender differences in the early 1990s, June O’Neal corresponded with us regarding DOT and other occupational measures we had constructed. June commented that the one attribute she would like to measure was if a worker was free to use a phone during the day. Doing so would allow mothers (and fathers) to monitor and coordinate child activities from work. I thought that made sense, and I still do. But the change in technology (smart phones), most workers can now monitor and coordinate with their children via voice or text. In short, valuation of a given attribute may change quite a bit over time absent a change in preferences.
2. I wish they had asked .... The authors asked workers how they value job attributes. I wish they had explored individuals’ preference for job training opportunities and/or wage growth; e.g., how much less would you take as a starting salary in exchange for faster wage growth? Central tenet of HC theory is early investment in on-the-job human capital is high, but declines over time. Hence the standard quadratic or quartic-like lifetime earnings profile. We assume workers implicitly make these decisions through job choices. But do we know whether workers really perceive these implicit choices? I don’t believe the AWCS has a question regarding training opportunities and/or wage growth.