Author's response to reviews

Title: Medical Expenditures Associated with Nonfatal Occupational Injuries among Immigrant and U.S.-born Workers

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Author's response to reviews: see over
Response to Reviewers:

Title: Medical Expenditures Associated with Nonfatal Occupational Injuries among Immigrant and U.S.-born Workers

Please see below for a point by point description of the changes. We thank the reviewers for their thoughtful commentary and suggestions.

Version: 2 Date: 21 March 2012
Reviewer: John D Meyer
Reviewer's report:
The authors have made considerable efforts in revising the manuscript according to the earlier critiques. The article is much clearer now in both its objectives and its findings. In particular, the main criticism made earlier, that the original article reflected only contrasts between injured workers without considering the populations from which they were drawn, has been addressed by the inclusion of denominator data on the US- and foreign-born populations. This has improved the comparability of the injury cost data and reduced concerns about bias and non-comparability of the data on the two sets of injured workers.

I have only a couple of concerns, in areas that were introduced into the new manuscript, that I would like the authors to address before publication:

Major Compulsory Revisions:

1. The inclusion of injury data suggests that many of the subjects (9-12%) sustained more than one injury during the period of study. Since repeat injury would differentially affect treatment, and treatment costs, I might suggest (if the authors have not already done) analyses for Tables 2 and 4 that consider injuries as nested within individuals, so that repeat injuries to the same subject are not treated as independent. This would entail use of generalized estimating equations (GEE), accounting for repeat injury in individual subjects, and can be easily done in SAS. The results may not differ much from the present ones, but results from GEE or other programs that analyze potentially correlated intra-individual outcomes would be more defensible.

We considered the dependency problem of repeat injury. To respond to this issue, the analyses for Table 2 and Table 4 were on the person level not on the injury level. Since SAS has not developed (generalized linear modeling) GLM procedures that allow us to include survey weights, we did not have appropriate statistical tools to use GLM.

2. A finding that the authors should comment upon is the marked difference in payment by “Other Sources” evident in Table 3. This difference is roughly equivalent to the gap between US-born and immigrant workers in payment by workers’ comp + private
insurance. Since the gap in out-of-pocket expense is by comparison quite small, this implies that governmental sources (federal, state, or local) are picking up nearly one-quarter of the bill for injured immigrant workers. If accurate, this represents a major cost-shift to public sources. Although the reasons for this probably cannot be deduced from the data, it would be useful to see comment and a brief review of this phenomenon. Potential explanations may include lack of insurance, lack of WC coverage by companies employing immigrants, or contested claims – whatever the reasons, it is striking in its suggestion of an increased cost burden to governmental payers for injured immigrant workers.

Thank you for asking us to comment further on these results. We chose to look at the “Other Sources” category in greater detail.

### Health care expenditures for occupational injuries

<table>
<thead>
<tr>
<th>Other sources *</th>
<th>U.S. -born</th>
<th>Immigrant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>%</td>
</tr>
<tr>
<td>VETERANS</td>
<td>278,833,944</td>
<td>1.51</td>
</tr>
<tr>
<td>TRICARE</td>
<td>10,312,336</td>
<td>0.06</td>
</tr>
<tr>
<td>OTHER FEDERAL</td>
<td>12,601,239</td>
<td>0.07</td>
</tr>
<tr>
<td>STATE &amp; LOCAL GOV</td>
<td>22,136,463</td>
<td>0.12</td>
</tr>
<tr>
<td>OTHER PRIVATE</td>
<td>279,692,842</td>
<td>1.52</td>
</tr>
<tr>
<td>OTHER PUBLIC</td>
<td>13,585,083</td>
<td>0.07</td>
</tr>
<tr>
<td>OTHER INSURANCE</td>
<td>193,591,168</td>
<td>1.05</td>
</tr>
</tbody>
</table>

4.4 22.3

**Other State and Local Gov.** includes community and neighborhood clinics, state and local health departments, and state programs other than Medicaid.  **Other Private** includes any type of private insurance payments reported for persons private insurance payments reported for persons not reported to have any private health insurance coverage.  **Other Public** includes Medicaid payments reported for persons who were not reported to be enrolled in the Medicaid program at any time during the year.  **Other Insurance** includes sources such as automobile, homeowner’s, liability, and other miscellaneous or unknown sources.

We added to our Results the following text:

“Other sources of payment were a larger proportion for immigrant workers (22.3%) than for U.S.-born workers (4.4%). Further analysis of this category revealed that for immigrant workers, over 80% of the Other category was other types of private insurance including automobile, homeowner’s, liability, other miscellaneous/unknown sources, and private insurance payments reported for persons not reported to have any private health insurance coverage (data not shown).”

We added to the Discussion:

“Unlike a previous study that reported a significantly higher proportion of out-of-pocket payments in Hispanic construction workers than in Non-Hispanic White construction
workers [38], our study did not find evidence of shifting medical expenditures to out-of-pocket payments. However, we did find evidence of immigrants’ greater use of other sources payment including automobile, homeowner’s, liability, and unknown sources of private insurance.”

3. In the Tables, numbers in the millions, billions and trillions could be usefully truncated, and commas added for ease of reading -- for example, instead of “N: 129077536” the Table might read: “N (1000’s): 129,077”

We made this change to Tables 1 and 3. Large numbers are now expressed as millions in both tables.

Version: 2 Date: 4 April 2012
Reviewer: Leigh Wilson
Reviewer's report:
Minor Essential Revisions--edits:

Thank you for the careful review of our manuscript. We made changes in response to all the minor essential revisions.

1. page 2 -" 2year MEPS" need a space between 2 and MEPS
   We have added that change.

2. page 4 -"foreign born" this is hyphenated elsewhere in the article -foreignborn labor force.
   We added that change.

3. [8] --move reference inside the '.'
   We have added that change.

4. page 5 -"It’s", consider changing to "its" which is the contraction of "it is"
   We changed to “It is” to be clear.

5. page 6 -"1) to confirm the previous findings that immigrant workers have a lower rate of nonfatal occupational injuries than U.S.-born workers; 2) to investigate whether immigrant workers are less likely than U.S.-born workers to seek professional medical treatment after occupational injuries, and 3) to" –fix punctuation--secolons or commas for the list
   We corrected this by using commas.

6. page 8 -"characteristics (gender, age, education level, family poverty level, and having no medical insurance between respondents with birthplace and those without birthplace information." this sentence has no end parentheses
   We made that correction.

7. -"Some workers did not finish all five rounds interview"--consider changing to "Some workers did not finish all five interviews"
We changed this to “Some workers did not finish all five rounds”

8. page 10 -"or other State"--does state need to be capitalized here?  
   No, we changed this to lower case.

9. page 10-"We first identified total number of workers"--consider adding the word 'the'  
   We added “the.”

10. page 11-"2-year" is hyphenated here and it was not hyphenated in the abstract  
    We made this change.
11. -"Results regarding the sources of payment will allow us"--if this is already done,  
    consider changing to past tense  
    We made this change.

12. page 16 -"the 2year MEPS reference" needs a space  
    We made this change.

13. page 18 -"worker’s compensation"-- the rest of the document has the apostrophe  
    after the s in "workers"  
    We made this change.