

Description of the error in Eibich & Zai (2024)

In section 4.2 of the article, we present confidence intervals that are robust to certain violations of the IV validity assumption using the “unions of confidence intervals” approach suggested by Conley et al. (2012). Figures 6, 7 and 8 plot the size of these confidence intervals against the sensitivity parameter δ , and **the article states that these confidence intervals are robust to direct effects of the instrument that fall within the interval $[0, 2\delta]$. This is not correct.** The support of the direct effect of the instrument for these figures should be the interval $[0, \delta]$. We apologize sincerely for this mistake on our end.

Consequences of the error

The mistake described above only affects section 4.2 of the paper. The following parts of section 4.2 are not correct:

- Figs. 6-8: The caption of the figures states that the confidence interval shown in the figure is robust to violations of the exclusion restriction that do not exceed 2δ . This is not correct, instead of 2δ it should read δ .
- The caption of the figures further state that the vertical line corresponds to a direct effect of the instrument γ that is equivalent to the size of the standard error in Table 3. This is not correct, the vertical line marks a value of γ that is equivalent to half of the size of the standard error in Table 3.
- The text in section 4.2 also states in several instances that the maximum permissible direct effect of the instrument is 2δ . As noted above, the correct size is δ .
- The second paragraph in section 4.2 discusses the interpretation of these figures using an example value of $\delta = 0.02$. Because this discussion is based on the assumption that the results are robust to violations of the size 2δ , the text is also not correct. Most notably, our results are not robust to direct effects of the instrument that exceed one standard deviation of the reduced form estimate on our working sample.

The correct figures (included below) show that our results are robust to direct effects of the instrument that do not exceed 66.6%, 68% and 78% of the reduced form estimate for our working sample for ADLs, IADLs and subjective health, respectively. These are very substantial effects and we therefore maintain our conclusion that the results presented in the article are robust to moderate violations of the exclusion restriction.

Corrected figures

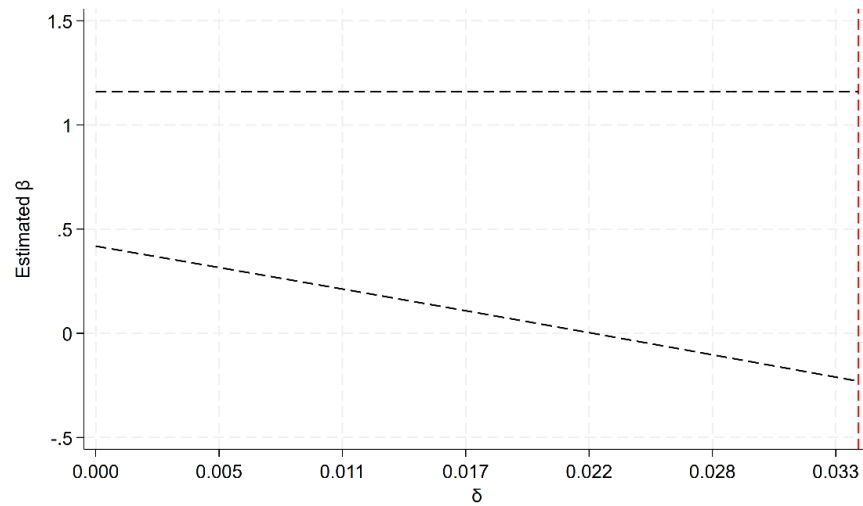


Figure 6: 95% interval estimates on ADL

Notes: The data used are from the HRS 1996 to 2014 of individuals who are ages 50 to 80. This figure presents 95% confidence intervals for the effect of grandchild care provision on the ADL outcome for violations of the exclusion restriction that do not exceed δ . The intervals were constructed using the “union of confidence intervals” by Conley et al. (2012) from Eqs. 3–4. The vertical line corresponds to a value of γ equivalent to the size of the standard errors in Table 3.

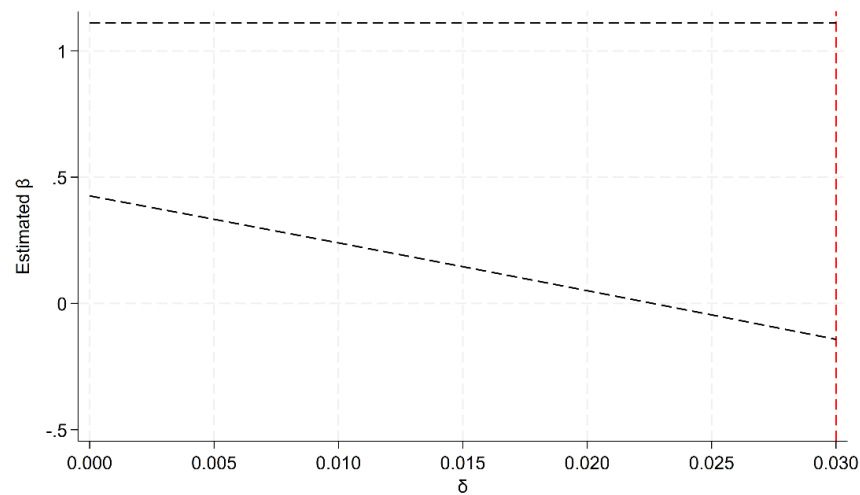


Figure 7: 95% interval estimates on IADL

Notes: The data used are from the HRS 1996 to 2014 of individuals who are ages 50 to 80. This figure presents 95% confidence intervals for the effect of grandchild care provision on the IADL outcome for violations of the exclusion restriction that do not exceed δ . The intervals were constructed using the “union of confidence intervals” by Conley et al. (2012) from Eqs. 3–4. The vertical line corresponds to a value of γ equivalent to the size of the standard errors in Table 3.

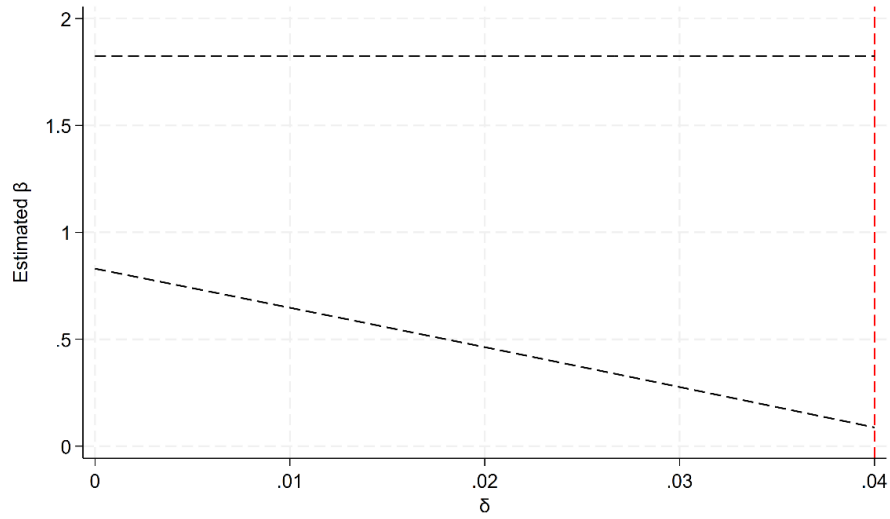


Figure 8: 95% interval estimates on self-reported health

Notes: The data used are from the HRS 1996 to 2014 of individuals who are ages 50 to 80. This figure presents 95% confidence intervals for the effect of grandchild care provision on the self-reported health outcome for violations of the exclusion restriction that do not exceed δ . The intervals were constructed using the “union of confidence intervals” by Conley et al. (2012) from Eqs. 3–4. The vertical line corresponds to a value of γ equivalent to the size of the standard errors in Table 3.