Author’s reply to referee Report for: “Offshoring, job satisfaction and job insecurity”.

I think that this is an interesting paper and properly motivated and implemented. However, I have some concerns specially related to the data used, model specification.

We thank the referee for his/her insightful comments and remarks, and for giving us the opportunity to address them in a revised version of the paper.

The authors claim in page 9 that the sample includes male full-time employees, but then Table 1 presents a dummy variable for Woman. Clarify this point.

We would like to thank the referee for the remarks and comments. This sentence is clearly our mistake and was borrowed from a previous version of the paper. The sample used in the paper includes both men and women. The reference to “male” employees has been deleted from the sentence on page 9.

What is Y in equation (1)? What is the sub-index i in equation (1)? These issues need to be clarified.

We used letter Y to generically refer to either JS or JI. Following the referee’s comment, in the current version of the paper we refer directly to JS (Eq. 1) and JI (Eq. 2) on page 11 and state explicitly the meaning of sub-indexes \( i \) and \( t \). For instance, now we present Eq (1) by referring that:

“Job satisfaction is assumed to be a function of individual and job characteristics,

\[ JS_{it} = f(Y^*(X_{it}, O_{it-1}, \epsilon_{it} )) \] \hspace{1cm} (1)

where \( JS_{it} \) denotes job satisfaction of individual \( i \) at time \( t \).”

And proceed likewise with Eq (2) for job insecurity.

The authors should also define how pay/income is defined.

This variable is monthly labour income. It is defined in gross terms, i.e., before taxes and social security contributions are deducted. To account for inflation, we transform the variable into real terms by using the yearly consumer price index contained in the GSOEP. We have added an explanation immediately after Eq (1) on page 11 in the current version of the paper, which reads:

“Vector \( X \) includes monthly labour income in gross terms, i.e., before taxes and social security contributions are deducted and, to account for inflation, transformed into real terms buy using the yearly consumer price index included in the GSOEP”.

In page 15, when results of Model 1b on Table 2 are commented, the authors said that offshoring is not significant but this is not true according to what is presented in Table 2 (-0.036**).
The asterisks are misleading. We apologize for this typo. The t-statistic is 1.22 and the coefficient is not significant. We edited the tables manually and during the process we pasted those asterisks in the wrong place. We have doubled checked that the asterisks on the tables in the current version of the paper are correct and consistent with the t-statistics of the model.

More explanation about the non-significance of offshoring (and interactions) on Job insecurity is needed. I find the justification quite poor.

We have added additional explanations on page 16 and a couple of footnotes with encompassing calculations in order to support them. These read as follows in the current version of the paper:

“The offshoring coefficient is significant in Model 1a, suggesting that JI rises with offshoring intensity, but turns to non-significant once we add the industry controls in Model 1b. This result suggests that offshoring tends to be higher in industries with higher job insecurity. ¹ Several explanations may account for the non-significant relation between JI and offshoring. Firstly, one plausible explanation is that adjustments following macroeconomic and offshoring shocks lead to fewer hirings but not to job separations, especially in a country with strict dismissal protection regulations such as Germany. For instance, using German data, Baumgarten (2015) evidences that offshoring is not, on average, associated with significantly higher transition rates from employment to non-employment. Also based on German data and objective employment transitions, Bachmann and Braun (2011) point out only a modest relationship between offshoring and employment, even if in their case the coefficient is statistically significant in some specifications. Using subjective appraisals of job insecurity and GSOEP data, Savsin and Akay (2020) obtain that offshoring is not statistically significant on perceptions of job security. Moreover, they test the robustness of their result by controlling for potential confounding macroeconomic factors related to technological development, labour market wages, employment and productivity. The underlying assumption is that these “globalization” measures might confound the relationship between offshoring, well-being and job insecurity if they correlate with offshoring within each industry. However, the inclusion of these variables hardly affects the magnitude and significance of their baseline model, thus supporting the notion that well-being and JI depend importantly on the industry’s idiosyncratic factors.

Secondly, workers performing offshorable tasks may suffer from wage cuts instead of job separations. If most of the adjustment occurs through wages, workers may not perceive increased offshoring as a signal of increased job risk. ² Thirdly, there might be industry characteristics that correlate simultaneously with offshoring and JI. The industry dummies included in the specifications can potentially soak up the effect of the offshoring variable if changes in offshoring intensity are correlated with industry-level factors that have a direct impact on perceived JI, such as average turnover and dismissal rates, union density and hiring conditions.

¹ This is confirmed by the raw data. When going from the bottom 25% to the top 25% of the offshoring intensity distribution, the proportion of insecure workers goes from 11.3% to 16.8%.
² To shed light on this issue, we estimated a set of wage regressions including the same explanatory variables as in the benchmark model, the underlying hypothesis being that offshoring intensity negatively affects wages. We found a negative relationship, with the wage effects of a 1% increase in offshoring intensity ranging from -0.28% to -0.34%. However, in all cases the coefficient failed to be significant at conventional levels.
In Models 2a and 2b, we allow for a differential effect of offshoring across categories of workers. The interaction terms fail to be statistically significant. As far as JI is concerned, offshoring intensity at the industry level would affect in the same manner all the categories of workers (high skilled white collar, low skilled white collar, high skilled blue collar and low skilled blue collar). However, since offshoring has no significant effect on JI on average, we consider that JI is more related with characteristics of the industries. For instance, Geishecker (2008) reports that the effect of offshoring on employment transitions depends on the duration of the employment spell, but is not related with the worker’s skill group. Moreover, Görg and Görlich (2015) suggest that the link between offshoring and unemployment may differ and may even exhibit opposite signs across industries. For instance, they show that services offshoring may lead to productivity improvements, which imply higher job security, while materials offshoring is largely innocuous in terms of job risk. Therefore, to the extent that the various skills groups of workers are distributed among all industries, coefficients estimated as an average across industries may fail to be statistically significant.”

I also miss in the conclusions some managerial implications of the results and whether conclusions just apply to the German case or can be extrapolated to other, for instance, European countries.

Following the referee’s comments, we have added a paragraph framing our results and briefly discussing to what extent the results can be extrapolated to other countries. These lines read:

“Whether our results can be safely extrapolated to other countries depends on various considerations. It seems clear that the functioning of the labour market in European countries is clearly different from the US (Liu and Trefler, 2011, Baumgarten, 2015). Notwithstanding, other comparisons seem accurate. For instance, Savsin and Akay (2020) explicitly compare the effects of offshoring on well-being measures for Germany with the ones obtained for similar time periods for the UK and Australia, and find similar results. According to TIVA (2016), the magnitude of offshoring among Germany and other European countries is comparable: Foreign value added in exports represented in 2000 and in 2011 respectively, 20.1% and 25.6% in Germany, 23.2% and 27.6% in EU-15 and 23.6 and 28.4 in EU-28. Under the light of Crinó’s (2009) survey, national studies should be compare with cautious due to different methodologies in the relevant measures but, overall, the effects reported in Europe tend to go in the same direction even if the magnitude of the effects differs by country.”