Responses to Anonymous Referee Report 1

We thank very much to the anonymous referee for his/her valuable comments and suggestions.

Review of "Male-Female Labor Market Participation and the Extent of Gender-Based Wage Discrimination in Turkey"

It is significant that the authors used 2003 and 2010 Household Budget Surveys (HBS) to demonstrate the gender wage gap in Turkey. However, there are the following problems with the paper.

1. The title of the paper is too long. **We will shorten the title of the paper. The new title will emphasize only the gender wage discrimination in Turkey.**

2. "The female labor force participation rates and female-to-male earnings ratios have substantially increased in many countries over the last **century**" Instead of century, decade would be more suitable since the paper uses data from 2003 and 2009. **That sentence is given at the very beginning of the paper and just points out historical facts about labor force participation rates and earnings ratios in the world. It is not meant to be specifically related to Turkey or to data used in the paper.**

3. The paper would be more focused if the emphasis would be more on gender differential in labor market indicators rather than overall labor market indicators. To me, the first 4 rows under Total heading in Table 3 does not fit into the concept of the paper. **We will remove the "Total" section of Table 3.**

4. "Numerous studies have attempted to measure the extent of gender wage discrimination in several countries across the world. Most research to date show that there exists a substantial amount of wage differential after adjusting for sex differences in productivity, which is frequently interpreted as evidence of pay discrimination against women." It would be better if you mention some of those studies and also mention the context/country the study is measuring. **We will mention some related studies as well as the focus of our paper in the introduction.**

5. Reference is missing for the 2006 EU progress report which is mentioned in the introduction 3rd paragraph. **We will add it to our references.**

6. 5th paragraph of the introduction mentions the literature on the gender wage gap in Turkey being scant but do not provide any reference nor the details (findings) of those studies. **These studies are given in the section on literature survey but they will be briefly mentioned in the introduction of the paper.**

7. 3rd section can be titled as literature review following the general structure in many other papers. **We will modify it as suggested by the referee or in a similar way.**

8. After mentioning the previous studies in 3rd section, would not it be better if you summarize the gap in the literature and link it with your rationale for using JMP technique with the following sentence. "Our study is relatively more comprehensive and detailed considering its time span and methodologies covered. To our knowledge, this is the first study to employ Juhn-Murphy-Pierce wage decomposition technique in the Turkish labor market contex". **We will modify the 3rd section by following the refreree's suggestion.**

9. The findings of the study can be briefly included in the introduction. **We will briefly mention the findings of the study in the introduction.**

10. Table 1 includes # of people in labor force and in employment (1st and 2nd row of Table 1) which adds very little information given that labor force participation rate, unemployment rate is already given. Similarly, employment rate row is not that necessary since unemployment rate and labor force participation rate is already given. Similar comment is also valid for Table 2 and 3. **In all three tables, we will keep only the figures in terms of "rates".**

11. For Table 1, 2 and 3 the link ((http://www.tuik.gov.tr/VeriBilgi.do?tb_id=25&ust_id=8) does not work. **We will provide a working link for these tables.**

12. The figures in Table 2 are percentages I guess, but it is not written in the table. **We will add an explanation that the figures are percentages.**

13. Descriptive statistics can be better explained. For instance, from Table 3, UR for university graduate males has declined from 2003 to 2010 whereas that of females has increased. This suggests that females are less favored in the labor market than males. **We will discuss descriptive statistics in more detail.**

14. I would not call all the factors mentioned in World Bank report (2009) as "research" since they did not cite any scientific paper for making those remarks. **We will use a more appropriate term for it such as "report" or "study" instead of "research".**

15. In section 4.2, endowment effect, renumaration effect are first used. But, these terms are explained in section 4.3. Would not it be better to explain the terms when they are first used? **We will explain them where they are first used.**

16. I think there is a typo in equation 20. You probably wanted to write ε_{mit} firstly and then explain it? **Yes, we will first write ε_{mit} in the equation and then explain it.**

17. For section 5, one needs to know which explanatory variables are used in estimation. But, it is too long. You can briefly mention the explanatory variables and put explanation of independent variables into the appendix. You may also put into explanation for the rationale for including those explanatory variables in analysis in web appendix and mention it as a footnote in the main text. **We will provide detailed definitions of independent variables in the appendix. We might also consider the discussion on the rationale for including independent variables moving into the appendix to the extent possible.**

18. Why do you report descriptive statistics for all individuals although in your analysis you use only regular employees? **We will update and present the table only for regular employees.**

Especially, the focus of the paper being on gender wage gap for employees, I would prefer to see the difference between females and males working for a salary. For descriptive statistics, if you report % of females working for a salary in the sample, % of males working for a salary in the sample, it would be better to get a grasp of the data. **We will report the percentage of females and males working for a salary in the sample.**

I do not think min and max columns are necessary. You could report standard deviation instead of min and max. **We will report standard deviation instead of min and max.**

19. You mentioned that on average females working for a wage has higher education than males working for a wage, but then you also attribute informal employment being more prevalent among females to their low skills. Is not this contradiction? **We say "...educational attainment of working women is significantly high in Turkey despite women's exceptionally low levels of participation". That is, what we say is true only for "working women".**

20. "Share of having a union membership has to fallen to 9% among male workers and only 6% among female workers seems to contradict with the figures in the table 4 because % in Table 4 are for all individuals. But, you should either report those figures you discuss in the text or discuss what you report in the table 4. **We will correct the sentence mentioned by the referee (the one starting with "Share of having a union") in accordance with the table. Figures for the union variable in Table 4 includes only working individuals. (The referee might think that all the figures in this table are "for all individuals". However, this is not the case, and it is explained on the page before the table: "The variables listed before AGE cover only wage workers, whereas the remaining variables (AGE, MARRIED, CHYOUNG, STUDENT, OTHERINC, HHSIZE and HEAD) comprise all individuals in the sample between 15-64 age.")**

21. I do not think you need to discuss each and every control variable in Table 5. Even Table 5 can be put into appendix. The important part about participation equation is only the variables that are not included in wage equation and the inverse mill's ratio. **We will move Table 5 to the appendix, and there will not be two separate subsections under Section 7. First one or two paragraphs of Section 7 will summarize the results for the participation equation.**

22. In page 19, Wald ist should be Wald stat. I guess. You talk about Wald statistic having such value. It easier to have an idea if you report p values for Wald test. For education, it is only significant at 10% level. **We will correct "Wald ist." as "Wald stat.". For the Wald statistic, we will either use only p-values or asterisks for the significance level. The smallest t-value for Education in different estimations is 4.82, and this corresponds to significance at the 1 percent level.**

23. Calling results in Table 6 as OLS estimates is a bit confusing since you use inverse mills ratio for sample selection correction. You may call the results Heckit estimates and also report OLS results without sample selection correction. **Estimations will be called "Heckit estimates" both in the table title and in the text. However, we believe that reporting OLS estimates will further expand this already long paper.**

Also, generally female wages are thought to be not representative since only a certain fraction of females participate into labor market. As you mentioned, only a very low percentage of females participate into labor market in Turkey. Therefore, we would expect sample selection to be more of an issue for females in Turkey. Why then inverse mills ratio for females is not statistically insignificant? Does not it contradict with your arguments in section 8 "women suffer from serious barriers to employment"? **Yes, it seems like a puzzle to us too. This could be the case if, for example, the first stage model captures female workers' choice of labor force participation.**

24. For table 7, if you would report each control variable, one could see the contribution of each control variable for the explaining endowment effect. **We will present Table 7 as suggested by the referee.**

25. In paragraph 3 of page 23, you discuss underestimating wage discrimination with extended models. However, you did not discuss the possibility of overestimating wage discrimination with models having only human capital variables at least in a footnote. **We will mention such possibility in a footnote.**

26. Are the results that you report in Table 8 based on only human capital control variables or an extended set of controls? **The results in Table 8 are also based on the extended set of control variables.**

27. Overall, I think you use the term "discrimination" very easily without even mentioning what is called remuneration effect (unexplained part of the gap) may still consist of unobserved differences in human capital characteristics. **Somewhere in the text or in a footnote we will include a caveat about the possibility mentioned by the referee, and also we will use the term discrimination more carefully.**

28. "The JMP decompositions, on the other hand, reveal that pay discrimination is more evident among the upper income groups." I think instead of upper income groups, you can use "upper end of wage distribution" something like that. **We will follow the the referee's suggestion on this.** Do you have any explanation why remuneration effect is higher in the upper end of wage distribution? **One possibility might be that the variation in wages and other variables may be greater in the upper end of wage distribution. We will think more about this.**

29. Your policy recommendations does not fit with your findings from the JMP method since you found the "discrimination" is more severe for the higher wage earner females. But, you recommend to increase schooling rates for girls in all education levels. As you already mentioned, endowment effect (capturing the effect of schooling etc.) is already negative suggesting that increasing female education does not necessarily reduce "discrimination". You may want to explain why (from which result in your study) you suggest creating job opportunities for first-time job-seekers or establishing decent

child-care facilities. **Male-female wage differential decreases with education though a larger portion of the smaller wage gap becomes attributable to wage discrimination. Also, education is more important factor affecting the probability of females' labor force participation than it is for men. But anyway, the referee is right; we will link our policy implications more closely to our estimation results.**

30. Language needs editing. The sentences are too long to follow. **The language of the paper will be edited.**

(Note that following the suggestion of an anonymous reader, we will reestimate all models for each year between 2004 and 2014 by using a different data source, the Labor Force Survey.)