Blinder oaxaca threefold decomposition economics essay

Extended Essay

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Section 1 Introduction

Since the year 1990s, nearly half a million of legal immigrants migrated to the United Kingdom and this has been recorded in the UK Labour Force Survey (LFS). The net immigration records a relatively high increase in the 1990s' decades compared to the early decade of 2000. Hatton(2002) states that Britain has gone from being a country of net emigration to being a country of net immigration, after 1970s, with an increasing trend of more than 100, 000 per year. The data in the UK LFS in Figure 1 shows that the increasing immigration of the non-UK born has been a dominating trend over the outflow of UK workers from the country, especially in the years of 2000s.

Figure shows the migration flow in the UK since 1991. + sign indicates an inflow, - sign indicates an outflow.

Source: Britain Labour Force SurveyWith the fact given, this paper is motivated to research on the field of the UK native-immigrants wage differentials. Immigrants in this paper refer to those who were born in foreign countries and migrated into the UK despite of their current citizenship, while natives are those who are born in the UK. To start off, I first summarize past literatures in order to give an overview on how this paper will contribute to the body of the literature. This is done by providing an overview of how Chiswick's(1978) assimilation hypothesis is, and furthered on by providing more recent literatures that rejects the hypothesis (de Coulon, 2002;

Blackaby et. al, 1999, Alideshev, 2012). I will also critically comment on the literature methods and findings and then suggest how it could be improved. Departing from the analysis by Priscillia (2006), I attempt to analyse the native-immigrant wage gap with a better specified wage equation and show how Blinder-Oaxaca decomposition may not give precise explanations for the gaps across wage distribution. Going further on, this paper describes the data used for the research and the model and methodology in approaching the subject. The data used is obtain from the Britain Labour Force Survey (LFS), and using STATA software, we will see the result of three Ordinary Least Square (OLS) regressions on wage equations for pooled sample, natives and immigrants, and then also regressions with quantiles. Blinder-Oaxaca decomposition will then be used in order to examine on the wage gaps exists. Analysis will be made on these results and it is this analysis that will answer the question of this essay. Finally, I will give some concluding remarks on my findings in this paper, and how it may be improvise and contribute in future researches. The structure of this paper is therefore as followings: Section 2 gives an overview of previous literature on the subject. Section 3 discuss on the main data sources, British LFS, while section 4 presents the wage regressions done by via OLS and Quantile regression, and discuss on the decomposition methodology used. Section 5 discuss on its empirical results. The final section, section 6, draws a conclusion to the analysis of this study.

Section 2 Literature Review

Ever since the light of Chiswick(1978), studies of immigrants' assimilation as well as native-immigrant wage gap has been conducted by many

researchers across countries, up until today. Chiswick(1978) has found that immigrants would take up to 15 years to assimilate in the host country, the United States, and have their earning on par with the natives. It is assumed that after migration, immigrants would gradually be familiar with the nature of the domestic labour market, customs, and language commands. They are also to be expected to invest in education that is relevant to the job. With such investment and assimilation, immigrants in the United States showed that the initial lower 10 percent earnings' differential they received initially would tend to converge and be on par after 13 years of migration and may rise to a 6 percent higher earnings for the next 7 years, given that the immigrants are of higher innate ability and motivation than the natives. However, this has not been the case for immigrants in Germany who have long migrated into the country and some may have been naturalized (Aldashev, Alisher; 2012). Evidence in the UK also challenges Chiswick's hypothesis, where the second generation of the immigrant i. e. those who have immigration background but were born in the host country, still suffer from lower earnings (but just slightly better than their parents) and this have not improved since 1970s (Blackaby et. al.). Aldashev, Alisher (2012) showed that immigrants and naturalized immigrants earnings differentials do not differ much when compared with the German natives. The authors looked into the naturalized immigrants because they assumed that the decision to be naturalized correlates with higher degree of assimilation for an individual. Nevertheless, taking a closer look into the paper reveals that foreigners (those that are still with foreign citizenship in that particular year, 2005) actually resided longer in German than the naturalized immigrants. This is

quite the opposite of what the authors have assumed earlier. From their results, it is seemed to be insignificant to separate the foreign group into two, which also inevitably makes the representative for each group smaller and so, in this paper, we pooled the immigrants into a group, despite of their current citizenship hence, will look into only two main groups, according to whether they were born in the UK i. e. UK natives, or were born in non-UK. The term, immigrants, refers to those who were born outside the UK. This paper also finds it arguable to how Aldashev, Alisher (2012) defined the high-skilled individuals. They stated that those not having professional education are of low-skilled workers, those with professional training are medium-skilled workers and those who hold a degree are of high-skilled workers. It is quite ambiguous to say that high possession of skills depends on the achievement in higher education level - in this case, a degree- because hands-on skills and experience required for a working area are fairly different to knowledge gained from studying a degree. Trainings and professional/work-related qualification are more related to skills as they are more practical to apply in a job. Findings by de Coulon(2001) point that there also exists wage differentials among natives and immigrants, with immigrants from Western European countries at an advantage of 11 percent, while those from traditional countries (Spain, Italy, Portugal, Turkey and ex-Yugoslavia) at a disadvantage of 31 percent, 4 percent lower than immigrants from other countries. However, this paper finds that these results could be overly valued by the fact that the paper has included all samples that are of wage-earners, self-employed, unemployed and even those out of labour force. Western Europeans are considered as elite immigrants by the

authors because they are more likely to be employed due to higher returns in their home education. This implies that the large wage gap by immigrants from both traditional and other countries could be attributed from those who are unemployed and out of labour force. Self-employed workers, usually, are less likely to report or under report their earnings and some earnings also includes the returns to capital (Michael, Stelios; 2012). Looking into this, it suggests that having samples as close to homogeneity as possible is essential for a precise analysis and hence this paper restricts the samples to only male workers age 16-64 that are currently in employment. It has come to realise that the common approach in above literatures is that they all use single OLS regression to identify how wages in each group are affected before looking into Blinder-Oaxaca decomposition to explain on the differentials. This seems rather imprecise since the entire wage distribution should be considered (Butcher and DiNardo; 2004). Priscillia (2008) attempted to investigate on the UK natives and immigrants wage differentials across distributions using quantile regressions and extended Blinder-Oaxaca decomposition proposed by Albrecht et. al. (2003), and found that discrimination is asymmetric throughout the distribution in which those at the bottom is more discriminated than the top counterparts. Despite the relevant and precise approach, this paper argues that the variables included in the wage equations are inadequate. Job tenure, being a union member or not, and working in either private or public sector do influence wages. Moreover, Priscillia (2006) believed that a more robust result could be gain by using cross-sections data from 1993 to 2005 compared to a single cross-section by Chiswick et. al.(2006). Though the author draws 100 samples for

500 times randomly with replacement and sort out according to the earnings, we find that the year range is quite too large to have a homogeneous economic condition. It might be that due to economic development, workers are more concentrated in services in the early 2000s compared to early 1990s. Individuals may also have migrated inter-regional throughout the years due to job expansion in the urban areas and may eventually cause them to have higher probability to be drawn out from the sample. Therefore, despite having a precise look on differentials across wage distribution, we might end up with biased averaged wage gaps across years' distribution. Hence, using only a single cross section data like in Chiswick et. al. (2006) may be a better approach. It is from these literatures, that we realise that there may not be full assimilation of immigrants in the host country and hence this paper aims to re-consider to what extent does the current wage differential still exists among natives and immigrants in the UK and how much it varies across the earnings distribution given a more detailed human capital specification in the wage equation.

Section 3 Data Description

The dataset used is from the British Labour Force Survey (LFS) which have been carried out by Social Survey Division (SSD) and Office for National Statistics (ONS) since the year 1973. Starting 1983, the survey changed its form from being biennial to annual survey until today. The survey is held towards a sample of 60, 000 randomly selected households in every calendar quarter approximating, 0. 5% of the population. Prior to the year 2006, seasonal quarter was used. The samples were interviewed for five successive quarters having the first being held face to face, and the followings by phone

surveys. For every quarter, about 59, 000 households are interviewed with nearly 138, 000 as respondents. The data collected from the survey covers households' information in labour market such as the status of whether being employed or unemployed, the length of contracts, job tenure and other related information such as their country of births, religion, years they first came to UK (if related), and marital status. The information is sufficient and allows us to derive other information that is closely related to ones provided. For example, experience (X), (quantified in years) is derived from age minus the years of schooling (S), and five years, assuming that one works directly after finish schooling. While the years of schooling is derived by subtracting the age one finishes his continuous full-time education (EDAGE) with 5, taking on average that people starts schooling at 5. Though not all individuals have continuous schooling and starts schooling at 5, taking such assumptions may not cause bias as they are not significant causes of parameter bias as suggested by Angrist and Alan (1991). In this paper, variable HIQUL11D is used to identify the highest level of schooling the respondents take. They are categorized by having a degree, A-level, further study, GCSE level, no qualification or other qualification. Other qualification of an individual could either be of those qualifications that may be obtained from their origin country, but not recognised in the UK or any work-related or professional-related qualifications (be it gained in or outside the UK). Work-related or professional-related qualifications are expected to give a positive effect to the wage paid since they represent better skills attained by the worker while qualifications that are not recognised in the UK are expected to affect wage negatively because employers may perceive that the worker is

not sufficiently educated and so, is the same as having no qualifications. Because this paper has limited access on the information, we could not identify to which the qualification the ' other qualification' variable refers to for each individual, and hence will just look at its net effect on the wage. The immigrants group has double the percentage (16. 86%) of holding other qualifications as compared to the natives (8. 82%) which might suggest the former effect. Several other relevant dummy variables as suggested by the literatures on wage specification are also adopted to capture the effect of (i) either an individual works in private sector or not, (ii) the position of an individual in the firm's hierarchy, (iii) highest educational level, (iv) ethnicity, (v) region an individual living in, (vi) occupational, (vii) either an individual a union member or not, (viii) either an individual was born in or out of the UK, (ix) health status, and (x) job tenure. In order to avoid the interaction of gender discrimination with immigrant discrimination, the sample is restricted to only males of age 16-64 years old. LFS considers this as a range of age for wage-earners in labour market, because legal work age in the UK starts at age 16 and the average retirement age is 64. Thus, this has reduced the sample from 106, 643 to 31, 036 individuals. This is then furthered to limit the sample to those who are only in employment and remove the missing data and the extreme hour pay; those of below minimum wage, GBP2. 50, leaving us an observation of 5, 326 individuals in the sample of which consists of 4, 652 UK-born and 674 foreign-born. These restrictions are applied to ensure the observations being as homogenous as it could possibly be. Table 1 and 2 show the summary statistics for the variables for UK-born and non UK-born workers, respectively, that are used for my regressions and

analysis. The definition for each of these variables could be found in the Appendix section. The last 5 variables, with C_ , means that each is a control group for their own respective categories. A dummy variable of FOREIGNBORN is created in order to capture and hence, separate the effect of the native-born and immigrant workers, with natives as a control group. On average, the standard deviations for each UK-born variable are often slightly higher than that of the non-UK born variables, implying that the mean values for non-UK born are more reliable but still comparable to those of UK-born regressors except for ethnicity i. e. MIXED, BLACKS, ASIAN, C_WHITE, INDIAN and PAKISTANI. The mean and standard deviation for ethnicities, PRIVATE, WESTMIDLANS, C_LONDON, and several industrial sectors show that there's a relatively dense distribution of foreign workers in these areas. More than a third of immigrants and natives work in private sectors with immigrants slightly higher (80. 6%) than the natives (79. 5%). Moreover, immigrants seem to be densely populated in the London (25. 3%), and South-East (15. 2%) area compared to natives which lives mainly and quite evenly in South-East (13. 9%), North-West (10. 4%), Yorkshire and Herefordshire (10. 2%) and Eastern (10. 4%) of the UK. However, it is good to note that the survey covers a small size samples for analyzing certain specific cohorts in the population, for example, when the relatively small size of immigrants are breakdown into several smaller group samples such as gender, ethnics, education, being a union member or other characteristics that they possess. It is because there are only a fraction of 12. 1 percent foreign-born employed workers in the LFS 2011q4 dataset, with an unequal geographical distribution across the UK as stated above.

Section 4 Model and Methodology

4. 1 Wage Specification

This paper attempts to estimate the single wage equation via Ordinary Least Squares (OLS). According to De Coulon, Augustin (2001), the specification of human capital function by Chiswick (1974) and Mincer (1974), which includes position in firm's hierarchy, marital status, occupation, firm's size, schooling years and labour market experience could be interpreted as the exogenous variables for earning functions. Blinder (1973) has also specified its model to include dummies for occupation, job tenure, vocational trainings, education, being union member, and veteran, and also to include family-background variables and other exogenous variables. Therefore, the model for the wage equation in this paper will be:

$$=$$

where i= 1, 2, 3..... n and i = n(natives), m(immigrants)where Ys is the wage, βs is the coefficients, Xs are vectors containing the explanatory variables which includes variables as in Table 1 (and similarly, Table 2) except for ethnicities, and e is the error term due to residuals. The subscript i is denoted for each individual drawn in the random sample of each group j. Ethnic variables are not included as they make up the immigrants group that we are researching in this paper. They are expected to have high correlations to the FOREIGNBORN variable, since workers of non-white ethnics backgrounds are mostly of foreign-born individuals (TABLE IN APPENDIX). It is expected that the second generation of immigrants (immigrants' children that are born in the UK) has tone down the correlation by some percentage level. From the F-statistics, ethnics' variables are also

jointly insignificant and hence should not be kept in the equation. Wald test also suggests that all other categorical variables are jointly significant to each other, though some individual t statistics are insignificant like PRIVATE, ENERGYnWATER, CONSTRUCTION, TRANSPORTnCOMMUNICATION, BANKINGnFINANCE and OTHERQUAL, and so should keep the variables in the equation. In general, the coefficients of the explanatory variables are significant and display expected signs as suggested by past literatures. The adjusted R-squared is quite high, 0. 5028, meaning that the regression has a measure of goodness fit while small variances of the coefficients show that they are consistent. Consistency is vital for coefficients to be able to estimate its true value, especially in large samples like the one used in this paper. The dependant variable, lnWage is derived from variable, HOURPAY, via logarithmic transformation; lnWage = ln(HOUPAY). This is to ensure that the variance for the error terms is homoskedastic and hence not violating the OLS assumption of requiring homoskedasticity. It is important for the model to be well specified for discrimination is defined as a residual hence its size depends on the measurement error (Jones, 1983). Besides OLS, this paper also looks at the Quantile Regression (QR) (Buchinsky (1998), Koenker and Bassett (1978)) of the wage equation to identify wage's function across the distribution. Both the QR and OLS minimize error terms, but the former applies to the sum of weighted absolute mean-squared errors while the latter applies to the sum of squared errors. With OLS, it averages out the effects of explanatory variables on wage across sample. Therefore, OLS may not be a good representative of the whole society especially when the group in the lower quantiles have equalling but opposite effect with those of higher

quantiles. Hence, QR will be used to analyse the function more accurately by closely capturing the wage functions on each percentile; in this paper, of 20th, 40th, 50th, 60th, and 80th percentile.

4. 2 Blinder-Oaxaca threefold decomposition

Blinder (1973) and Oaxaca (1973) both published their work independently on wage discrimination analysis in the same year, each taking gender-wage and race-wage age examples. The authors identified the gap by comparing two wage groups; a high wage group and a low wage group. Blinder (1973) had presented a clearer notation by using H (male for gender analysis and whites for race analysis) to indicate the high wage group and L as the low wage group (female for gender analysis and non-whites for race analysis). Hence the regression equations could be written as:

$=+$

for low wage group, and

$=+$

for high wage group, where L superscript indicates the possession by lower paid group, and H superscript indicates the possession for higher paid group, j is the index for k explanatory variables, x. Other notations follow the same as the one stated in the previous section. Blinder (1973) then takes the average of the variables, in order to decompose their differentials giving us the equation: lnWL= lnWH= From here, by subtracting the mean equations and re-arranging them gives us Blinder's two-fold decomposition:

_ = +

Raw difference Explained Effect Unexplained effectThe raw difference is simply the difference in the observed log-wage which can be explained by the difference in the endowments of the two groups taking high-paid as the reference group (explained effect) and by the difference in the market value of the two groups, with low-paid as the reference group (unexplained effect). However, Jones (1983) argued that the selection of the reference group for dummy variables influences the explained and unexplained magnitudes and may result in a rather confusing and ambiguous interpretation. Jones (1983) and Daymont and Andrisani (1984), independently, then came up with a new re-arrangement of the mean log-wage equations and presented a three-fold decomposition as follows:

_ =+

Raw difference Endowment effect Coefficient effect Interaction effectWith this three-fold decomposition, we can now use only one reference group for the two most essential components; the endowment and coefficient components. The interaction term does require any reference group since it captures the simultaneous effect of endowments and coefficients components. Like explained effect, endowment effect captures the difference in the observed characteristics of the two groups, for example, a £20 difference of a pay in immigrants is due to the average lower working hours they work compare to the natives. And so, if they work the same hours as the natives then, they will enjoy an increase of £20 in the wage level. The coefficient effect has similar intuition as to the unexplained effect, in which it is the differences of the coefficients given the two groups have exactly the

same endowments. Given a specified wage equation, this is translated as the discrimination in the low-paid groups. Considering the innovation made by Jones (1983), this paper will use the three-fold Blinder-Oaxaca decomposition for further analysis, by taking immigrants as the lower-paid groups and natives as the higher-paid groups.

Section 5 Results

5. 1 Wage Regressions analysis

Table 1 shows the results of estimating wage equations on pooled sample, natives, and foreign-born workers. It showed that, experience has a positive significant effect on wage for both compared groups, with natives at an advantage of relative higher increment of 2. 2 percent more wage than the immigrants for a given additional year of experience, while schooling seems to have a positive significant affect only for the immigrant group. From the quantile regressions, both experience and schooling affect wage at the higher percentiles of wage levels. This is parallel to the Mincerian hypothesis that education and experience expect to give a positive return to earning, due to higher value of human capital. The returns to experience and schooling show a considerably flat and small concavity to natives and immigrants, respectively. Since experience is related to age, it means that natives wage decreases, but not sharply, after a certain amount of age due to lower productivity, and as for immigrants they are expected to invest more in schooling until a certain optimal years of schooling. Over-schooling may cause a negative effect to wages due to lesser time for on job training than an earlier graduated worker. Separation of experience gained by immigrants before and after their migration may improve the results on the

returns for experience. This paper has assumed that experience in home and host countries are perfectly substitutes and hence equal rate of returns. Friedberg (2000) had proved that the pre-schooling and experience gain before migration is significantly different from those attained in the host country. The limitation of access to the data have restrict us in separating the before and after migration effects. In the results shown, immigrants' wages differ according whether he works in private or public sector, and in what industrial sector he's in. Being in a private sector gives immigrants a lower wage by 17. 3 percent rather a high negative effect, as compared to working in public sector. Industries like agriculture, and services in hotels and restaurants, have significantly lower wage than the manufacturing sector for both natives and immigrants. Interacting these dummy variables i. e. one working in a private agriculture or private hotels and restaurants give us the results[1]that these people experience significantly lower wage than being in other public, industrial sectors. Dummy interactions do not distort the data by causing multicollinearity due to its characteristic of orthogonality. It is usually the continuous variables that may cause such overlapping and collinearity. Whether the difference is due to productivity of workers in different industries or due to discrimination by private employers still remains ambiguous here and will be explained via Blinder-Oaxaca decomposition. The table also suggest that having higher positions in a firm's hierarchy would ensure higher return. As for immigrants this is true only if he is a supervisor or a manager. Other than that, his position does not guarantee higher wage. However, immigrant that works as managers tend to have higher wage than the native's at every quantile, suggesting that there

may be wage competition among firms, domestically or internationally, in attracting professionals or high-skilled immigrants to work and contribute in managing and/or advising the firm. Results also show that immigrants that work more than 20 years for the current job are subject to higher pay. In other words, immigrants are expected to be highly rewarded for their experience and skills gain in the host country only after 20 years or more working in the same area. These mean that given other factors equal, their abilities are only recognised after they really have mastered the job very well for some period of time. In labour markets, unions tend to bargain for higher wages and lower unemployment. The results present that UK-born workers are able to enjoy high bargaining power by becoming union members, especially those amongst the lower paid ones. As wage increases, becoming a union member has lesser significant effect on earnings. Immigrants only of the first quartile have such advantage. Furthermore, securing a higher qualification would ensure higher pay, with approximately 10 percent difference for each subsequent level of education, i. e. with a GCSE one earn 10 percent higher wage, with an A-level he'll earn another 10 percent more, up till a degree where the wage will be 40 percent higher than those of no qualifications. As for immigrants, only their degree would ensure a better pay, while other qualifications like A-levels, contribute positively only when they are in lower paid groups. According to Spence (1973), education plays its role in signalling for the employers because they could hardly indicate an individual's true ability in a job interviewing process. Regional dummies also present different effects on wages as compared to the control group, London, across data. Natives' wages vary across regions while for

immigrants there seem to be no dummy group effect taking place. Considering the difference in the cost of living between regions, immigrants may suffer from real wage discrimination. Having paid equally across regions, imply that those earn in London would enjoy lower real income and afford less than those in countryside which tend to experience lower cost of livings. However, there are no available official statistics for the varying living costs across regions in the UK (Blackaby et. al., 2002) that allows this paper to make an equivalent comparison. Though Blackaby et. al.(2002), have used the data by Reward Regional Surveys Ltd. (1997) in their paper for real wage comparisons, this paper is not motivated to do so because of its ambiguous methodology which takes expenditures of family with two adults and two adolescents, aged 10 and 13, as their representatives of the whole society. Realising that this does not represent the actual spending of every society in the UK, and hence still may cause biased estimates, this paper chose to neglect any corrections to be made to the wage levels. Marital status also affects earnings significantly on both groups, while health status affects only natives' pay.

Table : Wage regressions on pooled sample, native born, and foreign born

Table : Quantile regressions for native born workers.

Table : Quantile regressions for non UK-born workers

5. 2 Decomposition analysis

With the regression analysis, we now turn to the three-fold Blinder-Oaxaca decomposition, to analyze and explain more on wage gaps between natives and immigrants, and show that this decomposition may not capture the

effects across wage distribution. Table 4 presents the result of Blinder-Oaxaca three-fold decomposition. A positive sign means that natives are at an advantage, and so immigrants are at disadvantage of the wage gap, and vice versa for the negative signs. It reveals that immigrants experience an 8. 1 percent lesser wages than natives. About 26 percent[2]of it is explained by the inferior endowments of immigrants while a large portion of 169 percent[3]is explained by coefficients and -95. 2 percent from their interactions[4].

Table 4: Three-fold Blinder-Oaxaca decomposition[5]

The endowment effect shows that given immigrants were able to possess same characteristics as natives, they will advantage higher wage by 2. 1 percent, rather a small percentage. Taking a closer look on the factors affecting this effect, we can see that the small percentage is due to the fact that the relatively large coefficients for factors on endowments cancel out each other by having similar percentage of attribution but of opposite signs. On average, immigrants are least awarded from job tenure by 3. 81 percent despite from the regressions, we saw that immigrants actually do have larger returns than the natives at the larger quantiles if they acquire more than 20 years of experience for the current job they're currently working in. Such effect in this variable was not captured in the Blinder-Oaxaca decomposition because other job tenure effects tend to even out when they are combined together and being categorized under one category, job tenure. This shows that evaluating causes of gaps using such version of Blinder-Oaxaca decomposition may lead to biased analysis that tends to generalize all samples in the group as though they all are having the same

effect, and hence this paper suggests that policy explanations and applications via this decomposition i. e. paper by Orhan Kara (2006) and Pedace, Roberto (2012) may overly help to increase some groups' earnings which in reality was not facing any disadvantages. As for natives, as long as they are still being employed, they will still earn higher wage rates by time for that particular job. This inference is well supported by the difference in experience endowment between the two groups. At the discriminatory rate, natives are valued to have 3 percent more experience than immigrants given other things equal. The next largest factor attributing to a lower endowment for immigrants is their role in the firms. If immigrants were to have the same position as the natives, then they would have an increase in their wage by about 2. 4 percent. Nonetheless, the decomposition also showed that immigrant workers do have better endowments than the natives on certain aspects. One of them is their educational attainments. ****Blinder (1973) also finds that findings. The table shows that not only the immigrants are at educational advantage, but they are also at an advantage for the returns to schooling, at about 4 percent more than natives. This suggests that securing education in the host country is an efficient strategy for immigrants to earn a better pay. Looking at the quantile regressions, higher paid jobs value academic qualification more than the lower paid ones especially for immigrants compared to natives. However, the highest percentile showed that education has relatively lesser effect on wage suggesting that employers may be looking for other professional and more advanced skills and qualifications i. e. a postgraduate (Masters, or PhDs) education. From table 5 we can see that almost half of the immigrants have

at least a degree qualification and 15 percent of them with A-levels. They may have come to UK to purposely find a job with their qualified education or study and then only work. These intentions may sort of create relatively higher innate motivation which contributes to higher productivity for firms, ceteris paribus. Regional distribution attributes negatively to endowment differentials. Based on the mean values in table 1, we saw that immigrants are densely populated in London, in which the nominal wages there are more likely to be higher than the rural, thus may explain subtly on the advantage that immigrants seem to enjoy from the regions they choose to stay. However, this index may well be better calculated if it were to include the regional cost of livings (Blackaby, 1983). Therefore it may be, in this sense, being over-valued due to the unequal distribution of immigrants and natives. There could also be a selection bias, in which one prefer and choose to stay at a region though knowing that he'll earn lesser than being in other region because maybe wanting to be in their own cluster group (usually of immigrants) making a particular region highly populated by immigrants i. e. London and West Midlands. Position or responsibility, region as well as job tenure significantly attribute to endowments difference. Now, we turn to coefficients difference. Assuming that the wage equation used is a specified one, coefficients difference could be translated to the amount of discrimination that the immigrants face. It is found the wage gap is also due to 14 percent discrimination faced immigrants in which they are being less awarded though if they acquired better characteristics than the natives. This is the gap that policymakers should look into if they were to eliminate existing discrimination occurred due to unobserved characteristics between

the two groups. Table 6 explains further that, it is the private sectors that significantly attribute to discrimination, for almost 12. 4 percent. They are being discriminated on their work experience for a large percentage of about 38. 7. The discrimination on natives' wages showed by region variable may have been due to the high proportion of immigrants working in cities of high cost of living, i. e. London. As for the interaction term, it is to say that about 7. 7 percent endowment effect interacts simultaneously negatively with discrimination effect. It is the amount that immigrant will eventually get as a consequence of acquiring higher endowments up till the point where they were to have the same endowments as native. However, Jones (1978) noted that it is not by any chance a way of allocating it to either rates-of-return or endowments, and hence suggests that this effect could hardly be interpreted.

Section 6 Conclusion

The findings from this paper have shown that there still exist wage differential between the natives and immigrants in the UK and that the differential is due to discrimination is significantly higher than that of endowments difference. This is quite similar to what the literatures have found in their respective countries. However, it is confusing to observe that each paper claims that the returns of education from their own country give a higher return than those of foreign countries. If this is the case, then we might see an overlapping of claims on the returns to education across countries. To avoid this, I have pooled the education gain outside and inside of the UK and set up the model and decomposition. We depart then by looking into the factors causing the differential, and saw that some factors

does not apply for certain groups of samples in the distribution. Considering this generalization that the past literature have done in explaining the factors of differentials, this paper attempts to suggest that the findings of the literature should be interpret with caution and closer look on the wage gap in each quantile. This can be done by adapting Machado and Mata (2005) counterfactual decomposition which extends Blinder-Oaxaca decomposition into that of percentiles based. Further work in the future hence should be focus more on this extended version, implying more precise policies could be held in eliminating the differences in earnings.

References

Aldashev, A., Gernandt, J. & Thomsen, S. L. 2012, " The Immigrant-Native Wage Gap in Germany", Jahrbucher fur Nationalokonomie und Statistik, vol. 232, no. 5, pp. 490-517. Arrow, K. J. 1998, " What Has Economics to Say about Racial Discrimination?", Journal of Economic Perspectives, vol. 12, no. 2, pp. 91-100. Blackaby, D. H. _. 2002, " White/Ethnic Minority Earnings and Employment Differentials in Britain: Evidence from the LFS", Oxford Economic Papers, vol. 54, no. 2, pp. 270-297. Blinder, A. S. 1973, " Wage Discrimination: Reduced Form and Structural Estimates", Journal of Human Resources, vol. 8, no. 4, pp. 436-455. Buchinsky, M. 1998, " The Dynamics of Changes in the Female Wage Distribution in the USA: A Quantile Regression Approach", Journal of Applied Econometrics, vol. 13, no. 1, pp. 1-30. Canal-Dominguez, J. & Rodriguez-Gutierrez, C. 2008, " Analysis of Wage Differences between Native and Immigrant Workers in Spain", Spanish Economic Review, vol. 10, no. 2, pp. 109-134. Chiswick, B. R. 1978, " The Effect of Americanization on the Earnings of Foreign-born Men", Journal of Political

Economy, vol. 86, no. 5, pp. 897-921. Daymont, T. N. & Andrisani, P. J. 1984, " Job Preferences, College Major, and the Gender Gap in Earnings", Journal of Human Resources, vol. 19, no. 3, pp. 408-428. de Coulon, A. 2001, " Wage Differentials between Ethnic Groups in Switzerland", Labour, vol. 15, no. 1, pp. 111-132. Jones, F. L. 1983, " On Decomposing the Wage Gap: A Critical Comment on Blinder's Method [Wage Discrimination: Reduced Form and Structural Estimates]", Journal of Human Resources, vol. 18, no. 1, pp. 126-130. Kara, O. 2006, " Occupational Gender Wage Discrimination in Turkey", Journal of Economic Studies, vol. 33, no. 2, pp. 130-143. Koenker, R. & Bassett, G., Jr. 1978, " Regression Quantiles", Econometrica, vol. 46, no. 1, pp. 33-50. Koenker, R. & Hallock, K. F. 2001, " Quantile Regression", Journal of Economic Perspectives, vol. 15, no. 4, pp. 143-156. Oaxaca, R. 1973, " Male-Female Wage Differentials in Urban Labor Markets", International Economic Review, vol. 14, no. 3, pp. 693-709. Pedace, R. & DuBois, C. 2012, " Immigration Policy and Employment Assimilation in the United States", Applied Economics, vol. 44, no. 34-36, pp. 4721-4730. Reimers, C. W. 1983, " Labor Market Discrimination against Hispanic and Black Men", Review of Economics and Statistics, vol. 65, no. 4, pp. 570-579. Saleheen, J. & Shadforth, C. 2006, " The economic characteristics of immigrants and their impact on supply", Bank of England Quarterly Bulletin, vol. 46, no. 4, pp. 373-385. Silber, J. & Weber, M. 1999, " Labour Market Discrimination: Are there Significant Differences between the Various Decomposition Procedures?", Applied Economics, vol. 31, no. 3, pp. 359-365.