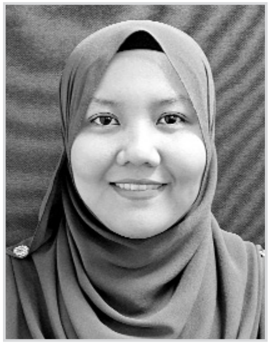
Rahmah Ismail
PhD (Economics),
National University of Malaysia
(University Kebangsaan Malaysia),
Bangi, Selangor, 43600, Malaysia
rahis@ukm.edu.my

Hazrul Izuan Shahiri
PhD (Economics),
National University of Malaysia
(University Kebangsaan Malaysia)
Bangi Selangor, 43600, Malaysia
hazrul@ukm.edu.my



Ferayuliani Yuliyusman
MEc (Economics),
MKIC International College,
Jalan Sultan Sulaiman,
Bandar Al-Muktafi Billah Shah,
Dungun, Terengganu, 23400, Malaysia
ferafyy@gmail.com

Occupational selectivity bias and gender wage gap in Malaysian manufacturing sector

Abstract. This paper aims to investigate gender occupational segregation and wage differentials in Malaysian manufacturing sector using 812 sample of working households collected in 2010–2011. They consist of 545 males and 267 females. The wage decomposition model is used to examine determinants of gender wage differentials. Most studies on gender wage differentials in Malaysia do not take into account the occupational selectivity bias. But in this study, we measure the selectivity bias using gender occupational segregation and incorporate it in the gender wage models. The results show that the sample selection bias is a crucial contribution to gender wage gap and it reduces the contribution of the explained variables. The results demonstrate that the role of discrimination is still pertinent in the Malaysian labour market that substantially affect the gender wage differentials.
Keywords: Occupational Segregation; Gender Wage Gap; Wage Decomposition; Discrimination; Malaysia
JEL Classification: J16; J24
Acknowledgement. *Financial support from the National University of Malaysia (University Kebangsaan Malaysia) via project code UKM-AP-CMNB-20-2009-4 is gratefully acknowledged.*

Рахмах Ісмаіл
Ph.D. (екон. науки), Національний Університет Малайзії, Бангі, Малайзія
Хазрул Ізуан Шахірі
Ph.D. (екон. науки), Національний Університет Малайзії, Бангі, Малайзія
Фераюліані Юліюсман
викладач, МАРА Кетенгах міжнародний коледж, Бандар Ал-Муктафі Біллах Шах, Малайзія
Професійна упередженість і гендерні відмінності в заробітній платі у виробничому секторі Малайзії
Анотація. Представлена стаття є дослідженням професійної сегрегації та гендерних розходжень у заробітній платі у виробничому секторі малайзійської економіки. Дані були зібрані у 2010–2011 рр. шляхом опитування 812 працівників, зайнятих у цій галузі, серед яких 545 чоловіків і 267 жінок. Для вивчення детермінант гендерної диференціації заробітної плати, авторами використана модель зрушень в оплаті праці. Більшість досліджень у цій сфері в Малайзії помилково не беруть до уваги професійну складову селективності. Натомість ми розглядаємо причини подібної сегрегації за двома векторами – гендерним та професійним, включаючи професійну упередженість у модель гендерної заробітної плати. Дані дослідження вказують на більш вагомий внесок гендерного фактору в розрив по заробітній платі та зменшення ролі інших змінних. Отримані нами результати свідчать про те, що роль дискримінації, як і раніше, актуальна на ринку праці в Малайзії, що суттєво впливає на різницю в заробітній платі чоловіків і жінок.
Ключові слова: професійна сегрегація; гендерний розрив у зарплаті; зрушення в оплаті праці; дискримінація; Малайзія.

Рахмах Исмаил
PhD (экон. науки), Национальный Университет Малайзии, Банги, Малайзия
Хазрул Изуан Шахири
PhD (экон. науки), Национальный Университет Малайзии, Банги, Малайзия
Фераюлиани Юлиюсман
преподаватель, МАРА Кетенгах международный колледж, Бандар Ал-Муктафи Биллах Шах, Малайзия
Профессиональная предвзятость и гендерные различия в заработной плате в производственном секторе Малайзии
Аннотация. Эта статья является исследованием профессиональной сегрегации и гендерных различий в заработной плате в малазийском секторе обрабатывающей промышленности. Данные были собраны в 2010–2011 гг. путем опроса 812 работников, занятых в этой отрасли, из которых 545 мужчин и 267 женщин. Для изучения детерминант гендерной дифференциации заработной платы, авторами использована модель сдвигов в оплате труда. Большинство исследований в данной области в Малайзии ошибочно не принимают во внимание профессиональную составляющую селективности. Мы рассматриваем причины подобной сегрегации по двум векторам – гендерному и профессиональному, включая профессиональную предвзятость в модель гендерной заработной платы. Данные исследования указывают на более весомый вклад гендерного фактора в разрыв по заработной плате и уменьшение роли других переменных. Полученные нами результаты свидетельствуют о том, что роль дискриминации по-прежнему актуальна на рынке труда в Малайзии, что существенно влияет на разницу в заработной плате мужчин и женщин.
Ключевые слова: профессиональная сегрегация; гендерный разрыв зарплаты; сдвиги в оплате труда; дискриминация; Малайзия.

Introduction. Gender wage differentials by job category are important indicators for wages paid. This is based on a strong positive relationship between human capital attainment and job category. As stipulated by the screening theory, employers use human capital or education attainment as a screening device when hiring workers according to job category, where the higher the job ranks the higher the level of education needed (Spence, 1973) [1]. The wage gap would not exist if workers were paid according to job category or if it was perceived that they had the same level of productivity. As female workers often work in certain sectors, they may paid lower wage because of crowding out of many female supply (Groshen, 1991 [2]; Petterson & Morgan, 1995 [3]).

However, even after controlling for gender occupational segregation, same occupation may have different pay for males and females, where females receive lower wages (Miller, 1987 [4]; Dolton & Kidd [5], 1994; Kidd, 1993 [6]; Liu et al., 2004 [7]). This phenomenon is due to employers' discrimination against women.

Apart from individuals' characteristics and discrimination, gender wage differentials in the Malaysian manufacturing sector may be due to job segregation between males and females. Males tend to hold a more organized and systematic jobs, while females may not end up with job according to their priority. Therefore, to what extent occupational segregation contribute to gender wage differentials remains unresolved and need to be studied. Failure to include occupational selectivity bias may result in bias estimation. In Malaysia, most studies on gender wage differentials do not estimate the wage models according to occupational categories and gender but rather include occupational characteristics in the independent variables (Chua, 1984 [8]; Chapman & Harding, 1985 [9]; Latifah, 1998 [10]; Rahmah & Idris, 2012 [11]; Rahmah et al., 2012 [12]). The present study will estimate the wage models using pooled sample, male sample and female sample and include the selectivity bias in the model beside other wage determinants variables.

This paper is organized into five sections. Section II is the literature review followed by the methodology in Section III. Section IV examines the results of the regression estimates and the decomposition of the wage differentials, while Section V is the summary and conclusion.

Literature Review. Polachek (1975 [13]; 1981 [14]) identifies that the biggest part of gender wage differentials could be explained by differences in human capital stock. It has also been widely shown that the experience related variables (years of working experience, years of job tenure) have a significant effect on male-female earnings differentials (Mincer & Polachek, 1974 [15]; Polachek, 1981 [14]; Mincer & Ofek, 1981 [16]; O'Neill, 1985 [17]; Bergmann, 1989 [18]). Lerman (1997) [19] found that between 1984 and 1995, wage growth rate among the more educated workers was higher than that of the less educated workers, especially for females. Consequently, this reduces the male-female wage gap at all educational levels and the total wage gap decreased by 44% or 13 percentage points. Sicilian and Grossberg (2001) [20] found that nearly 40% of the gender wage gap in the United States is unexplained. Training plays a minor role in the wage gap but other human capital variables, including occupation and industry characteristics, are important determinants.

A study by Meng (1998) [21] and Meng and Miller (1995) [22] in China showed that females receive 20% less wage than males. The highest percentage of gender wage differentials is attributed to discrimination and makes up about 84% to 102% of the differentials using female weighted and male weighted, respectively. When an Occupation dummy is included in the wage model, the contribution of discrimination reduced to about 78% to 91%. Neuman and Weisberg (1998) [23] demonstrated similar findings in Israel, where over 70% of the gender wage differences stemmed from discrimination and only 30% from gender difference characteristics.

Luzzi (1998) [24] studied gender differences in wages in Switzerland and found that unexplained variables play a greater role than differences in human capital characteristics, which implies that discrimination is an important element of gender differences in wage. Further, this study found that the percentage contribution of human capital variables to gender wage gap increased slightly from 47% in 1991 to 49% in 1995. A study by Fishclova (2002) [25], using Czech and European Union data, shows that about 52% of the gender wage gap is due to discrimination. Using a sample of college graduates in the United States, Graham and Smith (2002) [26] found that the female graduates received 20% less wages than their male counterparts. Further, this study found that job characteristics explain 60% of gender wage differentials.

A study by Dong and Zhang (2008) [27], using data of 1,500 firms in China, showed that females received significantly lower wages than males due to differences in their productivity, but not through any discriminatory practice by the employers. Further, the same study found that gender wage differentials in China are more prevalent among the unskilled workers. In contrast, a study by Jones and Tanaka (2008) [28], using a three country data set, i.e. Japan, Russia and the United States, found a huge percentage of male advantage and female disadvantage that was attributed to gender wage differentials. The characteristic variables contribute less than 30% of gender wage differentials in Japan and their contribution is barely 5% in Russia and 11.6% in the United States. This indicates that discriminatory practice plays a major role in determining gender wage differentials in these countries. Solberg (2004) [29] introduced a different dimension when estimating gender wage differentials. He argued that occupational choice plays an important role in determining gender wage differentials. When this variable was incorporated into the model, he found that part of the gender wage gap was due to gender occupational preferences that lie between 15.6% and 18.4%.

Occupational segregation may not be on the voluntary basis, but females involuntarily engange in the less attractive jobs because of employers' choice. By taking care of the occupational segregation between males and females, Demoussis et al. (2010) [30] estimate the separate occupational wage function and decomposed gender wage gap into two components, within occupational and between occupational differentials. They found that the contribution of explained variables to total differentials was slightly higher then the unexplained and within occupational differentials was higher then between occupational differentials. The explained variables constitue the large percentage of within occupational differentials, but between occupational differentials was largely due to unexplained variables.

Chapman and Harding (1985) [9] found that the most important determinants of average wage differences are the differences in the occupational distribution of men and women, whereby women tend to be in low paying occupations. Furthermore, they found that females only earn about 71% of the males' earnings. Latifah (1998) [10] found that about 87.5% to 93.9% of gender earnings differentials in Malaysia are attributed to the unexplained variables. The explained variables contribute to less than 10% of earnings differentials. This reflects the fact that the discriminatory practice is quite serious in the Malaysian labour market.

In more recent studies, Rahmah and Idris (2012) [11] showed that unexplained variables contribute about 76.3% of the male-female wage differentials. Rahmah et al. (2012) [12] found quite similar results. In this study, the unexplained variables contribute about 79.62% of the gender wage differentials. The only study in Malaysia that includes occupational selectivity bias is by Goy and Jones (2012) [31]. They estimated a separate wage model for different job categories and found that within occupational factor is the main cause of gender wage gap accounted for more than 80%. Gender earnings gap on rewards to characteristics or differences in coefficients constitutes a large percentage of within occupational differentials and selectivity bias played a significant role in determining gender wage differentials.

Methodology. In most recent studies (Demoussis et al., 2010 [30]; Goy & Johnes, 2012 [31]), there is an argument on the estimated probabilities of occupational distribution. As noted by Goy and Johnes (2012), gender differences in characteristics cannot sufficiently explain the female's concentration in low-paid occupations. In other words, the differences among the females estimated occupational distribution $\hat{P}_j^f$ and their actual values P_j^f might be originated from the selectivity bias in the allocation of females into each occupation. Therefore, this study applies a methodology that accounts for sample selection bias in the estimation of wage regressions (equation 1) for males and females. For this purpose, first we estimate the multinomial logit model (equation 3) for the sample of males and females, separately. Second, the inverse Mills ratio[1] ($\hat{\lambda}_{ij}$) is calculated utilizing the information provided from the multinomial logit estimations. In the final step, the calculated mills ratios are used as independent variables in the estimation of the wage regressions.

It is well documented that the occupational choice generally approaches through a reduced form multinomial logit model (Brown et al., 1980 [32]; Constant & Zimmerman, 2003 [33]; Liu et al., 2004 [7]). Therefore, applying the reduced form of the multinomial logit model, we can calculate the probability that an individual, with known characteristics, will choose one occupation among a set of alternative occupations. Accordingly, the probability of the i_{th} individual for being in the j_{th} occupation as a function of individual characteristics X_i is as follows.

In the present study we categorized all jobs to four groups by merging some occupational groups. The reason is that some occupations in the sample are reported by a very small number of males or females, therefore we have combined some of the existing occupational categories, which seem to be perfect or very close substitutes. These four occupational categories facilitate the estimation of wage regressions and ensure the distinction of available alternative choices (Constant & Zimmerman, 2003 [33]). The rearrangement of the job categories based on Demoussis et al. (2010) [30] is presented in table (1).

$$P_{ij} = P_r(y_i = Occupation\ j) = \exp(\alpha_j X_i) / \sum_{i=0}^{n} \exp(\alpha_h X_i) \qquad (1)$$

$i = 1,2,2,\ldots n;\ j = 1,2,3,4$

where α_i is a vector of parameters to be estimated and X_i is a matrix of individual characteristics that determine human capital attributes, corresponding to the j_{th} occupation. Since in this method one occupation is considered as the reference occupation, the vector of the estimated coefficients of that job category is assumed to be zero following other studies (Mendes, 2009 [34]; Demoussis et al., 2010 [30]; Goy & Johnes, 2012 [31]). In order to calculate the predicted distribution of females, we first estimate the model using the multinomial logit method for the male sub-sample and then substitute the female characteristics into the estimated male multinomial equations. The final step is to sum up the predicted probabilities over observations to obtain the predicted female occupational distribution, $\hat{P}_j^f$ (Demoussis et al., 2010) [30].

$$lnw_i^m = X_i^m \beta_j^m + \delta_i^m \theta_j^m + u_i^m; \qquad (2)$$

$$lnw_i^f = X_i^f \beta_j^f + \delta_i^f \theta_j^f + u_i^f, \qquad (3)$$

were lnw indicates natural logarithm of the hourly wage rate and X_i is a matrix of individual characteristics that determine human capital attributes consist of years of education, worker experience and its square term, marital status, being a full time employee and working in governmental, service or manufacturing sector. β is the matrix of parameters to be estimated and u_i is the error term. Subscripts i and j show i_{th} worker and the j_{th} explanatory variables. δ_i indicates the calculated inverse Mills ratios and θ_j are parameters to be estimated. Now everything seems to be provided to decompose the gender wage differentials after controlling for the sample selectivity bias occurred from the non-random distribution of the occupational choice.

The mean log monthly earnings differential sum with the selectivity bias is expressed as:

$$\overline{lnw_m} - \overline{lnw_f} = \sum(\bar{X}m - \bar{X}f)\hat{\beta}* + \sum\bar{X}m(\hat{\beta}_m - \hat{\beta}*) + \sum\bar{X}f(\hat{\beta}* - \hat{\beta}_f) + \sum(P_j^m \theta_j^m - P_j^f \theta_j^f). \qquad (4)$$

where the first term on the right hand side of the equation (4) indicates the explain portion of the gender wage gap and the second and third terms are the unexplained portion. The rest of the terms on the right hand side are the differences that due to selectivity bias. The unexplained part is interpreted as wage discrimination. The analysis is based on the data collected from the field survey in 2010. The survey covers 812 heads of households working in the manufacturing sector were selected for the analysis. They comprise of 545 males and 267 females.

Results. Table 1 presents the descriptive statistics of the independent variables and the dependent variables. The dependent variable, the mean value of natural logarithm of hourly wage, is 2.3771 or RM13.3562 overall, but 2.4329 (RM13.4857) for males and 2.2632 (RM13.092) for females. The mean years of schooling and working experience are slightly higher for males as compared to females. The majority of males and females are Malays, which comprise of more than half of the respective total sample. Approximately 13% of male heads of household and 8% of female heads of household are employed as professional workers. The percentage of heads of household working in the private sector and in full-time employment is higher for males than for females. However, the percentage of females involved as technical workers is higher compared to males.

Tab. 1: **Descriptive Statistics for Overall Sample, Female Workers and Male Workers**

Variable	Obs.	Mean	Std. Dev.
Total			
Hours wages	812	13.3562	9.7642
logarithm wage rate	812	2.3771	0.6495
Years of schooling	812	11.5012	3.0699
Experience	812	12.9126	9.587
Experience squared	812	258.5317	336.5685
Malay	812	0.6404	0.4903
Chinese	812	0.3596	0.4802
Full time	812	0.7845	0.4114
Marital status	812	0.5554	0.4972
Professional dummy	812	0.117	0.3216
Technical dummy	812	0.1244	0.3302
Male			
Hours wages	545	13.4857	8.1738
Ln wage	545	2.4329	0.591
Years of schooling	545	11.5845	3.1203
Experience	545	14.1334	10.0792
Experience squared	545	301.1567	369.4468
Malay	545	0.5908	0.5069
Chinese	545	0.3977	0.4888
Full time	545	0.789	0.4084
Marital status	545	0.545	0.4984
Professional dummy	545	0.1321	0.3389
Technical dummy	545	0.1229	0.3287
Female			
Hours wages	267	13.092	12.4071
Ln wage	267	2.2632	0.7434
Years of schooling	267	11.3333	2.963
Experience	267	10.4206	7.9482
Experience squared	267	171.5257	234.3305
Malay	267	0.618	0.4868
Chinese	267	0.2921	0.456
Full time	267	0.7753	0.4181
Marital status	267	0.5768	0.495
Professional dummy	267	0.0861	0.2811
Technical dummy	267	0.1273	0.334

Source: Field Survey, 2010

[1] The inverse Mills ratio is the ratio of the probability density function over the cumulative distribution function of a distribution. In the present study, it is calculated applying STATA/SE 11.2 (Data Analysis and Statistical Software), where $\hat{\lambda}_i = (\varphi[\tau(\hat{\alpha}_i X_i)])/(F(\hat{\alpha}_i X_i))$, $\varphi[.]$ is the standard normal density function $\tau(.) = \phi^{-1}(F)$, ϕ is the standard normal distribution function of multinomial logit probabilities (Demoussis et al., 2010).

Estimation Results of Wage Model. Table 2 presents the results of regression estimate for overall sample, male sample and female sample with sample selectivity bias. The inclusion of inverse mills ratio in the regression increase the R^2 but most of the coefficient of IMR are not statistically significant especially for the female sample. The estimation results for the overall sample and male sample are quite similar with the previous results (without IMR), but most of the coefficient for the female sample are not statistically significant.

Tab. 2: **Estimated wage equation regression for overall Sample, Male Workers and Female Workers with Sample Selectivity Bias**

ln (Hourly Wages)	Overall Sample	Male Workers	Female Workers
Years of schooling	-0.0475 (0.0111)***	-2.6695 (0.7597)***	-1.0088 (1.0936)
Experience	0.0230 (0.0058)***	-0.5127 (0.1608)***	0.2553 (0.3852)
Experience squared	-0.0008 (0.0002)***	0.0038 (0.0013)***	-0.0059 (0.0154)
Malay	0.1775 (0.0478)***	-2.2655 (4.3191)	-1.9399 (1.7912)
Chinese	0.1928 (0.0498)***	-5.9291 (4.3995)	-2.3056 (3.9937)
Full time	0.1246 (0.0708)*	-5.6471 (5.0337)	3.6078 (4.8844)
Marital status	0.0556 (0.0442)	-3.6914 (1.3013)***	-9.6175 (10.6915)
Professional dummy	0.2816 (0.0591)***	0.0538 (0.0727)	0.8530 (0.0929)***
Technical dummy	0.0480 (0.0561)	0.0788 (0.0702)	-0.0223 (0.0738)
IMR1	0.0684 (0.0068)***	2.1568 (0.5555)***	0.7420 (0.8227)
IMR2	0.0171 (0.0132)	-1.2891 (1.2660)	0.7507 (1.3322)
IMR3	-0.0949 (0.0213)***	-0.7200 (1.2108)	-1.4367 (1.5751)
Constant	2.8317 (0.2129)***	52.8122 (13.3893)***	24.7418 (24.1302)***
Number of observation	812	545	267
R-squared	0.3997	0.2545	0.7611
F-test	44.33 (0.000)***	15.14 (0.000)***	67.43 (0.000)***

Notes: Dependent variable is the logarithm of hourly wages
Inverse mills ratio is the occupational selectivity term as described in the text
Figures in parentheses refer to standards errors
***, **, * denote statistical significant at 1, 5 and 10% levels

Source: Estimated from field survey data collected in 2010

Wage Gap Decomposition. Table 3 presents the male female wage decomposition with the selectivity bias. When the selectivity bias is considered in computing the wage gap, it reduces the role of the explained part to only 20.3%. The role of the unexplained portion increase to 63.4% and the selectivity bias contributes 16.3% of the wage gap. Therefore, the unexplained portion of gender wage gap still plays an important role regardless of the selectivity bias or not. This shown the degree of discriminatory practice in the Malaysian-manufacturing sector is still at large.

Tab. 3: **Wage gap decomposition with selectivity bias**

Variable	Decomposition
Explained (% of total differentials)	0.040 (20.3)
Male Advantage (% of total differentials)	0.057 (28.9)
Female Disadvantage (% of total differentials)	0.068 (34.5)
Total Treatment Effect (% of total differentials)	0.125 (63.4)
Selectivity Bias	0.032 (16.3)
Total Differential	0.197 (100.0)

Source: Computed from the estimation results in Table 2

Conclusion. The study examines the determinants of the gender wage level and wage gap by taking into account the occupational selectivity bias. The study finds that the employers' discriminatory practice as indicated by the unexplained factors is quite pertinent in the Malaysian labour market. This give a signal, to the government to form labour market policy that can curb discrimination from occurs in the labour market. The occupational selectivity bias also contributes to the gender wage gap. This partly may come from gender choice. The females may choose to work in a sector with low pay but ample time to be spent with their families. Having said that, we cannot denied the difficulties facing by the females in securing good jobs because they have to compare with the male and the same time to attract the employers who are basically prefer the males to be employed in their organizations. Again, the appropriate screening devices will lessen the biasness among the employers in selecting their employees. Without this, employers tend to guess and perceive that the males are more productive than the females.

References

1. Spence, M. A. (1973). Job Market Signalling. Quarterly Journal of Economics, 87(3), 355-374.
2. Groshen, E. L. (1991). The Structure of Female / Male Wage Differentials: Is It Who You Are, What You Do or Where You Work? Journal of Human Resources, 26(2), 455-472.
3. Petersen, T., & Morgan, L. A. (1995). Separate and Unequal: Occupation-Establishment Sex Segregation and The Gender Wage Gap. American Journal of Sociology, 101(2), 329-365.
4. Miller, P. W. (1987). The Wage Effect of The Occupational Segregation of Women in Britain. The Economic Journal, 97(388), 885–896. Retrieved from http://www.jstor.org/stable/2233078
5. Dolton, P. J., & Kidd, M. P. (1994). Occupational Access and Wage Discrimination. Oxford Bulletin of Economics and Statistics, 56(4), 457-474.
6. Kidd, M. P. (1993). Sex Discrimination and Occupational Segregation in the Australian Labour Market. Economic Record, 6(204), 44-55.
7. Liu, P. W., Zhang, J., &. Chong, S. C. (2004). Occupational Segregation and Wage Differentials between Natives and Immigrants: Evidence from Hong Kong. Journal of Development Economics, 73(1), 395-413.
8. Chua, Y. Y. (1984). Wage Differentials in Peninsular Malaysia (PhD Dissertation). University of California, Santa Barbara.
9. Chapman, B. J., & Harding, J. R. (1985). Sex Differences in Earnings: An Analysis of Malaysian Wage Data. Journal of Development Studies, 21(3), 362-376.
10. Latifah, Mohd. Nor. (1998). An Overview of Gender Earnings Differentials in Peninsular Malaysia. Journal of Economics and Management, 6(1), 23-49.
11. Rahmah, I., & Idris, J. (2012). Gender Wage Differentials and Discrimination in Malaysian Labour Market. World Applied Science Journal, 19(5), 719-728.
12. Rahmah, I., Zulkifly, O., & Shazwani, A. M. (2012). Gender Wage Differentials in the Information and Communication Technology Sector in Malaysia. Technology Journal (Jurnal Teknologi), 63(1), 41-50.
13. Polachek, S. W. (1975). Differences in Post School Investment as a Determinant of Market Wage Differentials. International Economic Review, 16(2), 451-471.
14. Polachek, S. W. (1981). Occupational Sex Selection: A Human Capital Approach to Sex Differences in Occupational Structure. Review of Economics and Statistics, 63(1), 60-69.
15. Mincer, J., & Polachek, S. W. (1974). Family Investment in Human Capital: Earnings of Women. Journal of Political Economy, 82(2), 76-108.
16. Mincer, J., & Ofek, H. (1981). Interrupted Work Careers: Depreciation and Restoration of Human Capital. The Journal of Human Resources, XVII(1), 3-24.
17. O'Neill, J. (1985). The Trend in the Male-Female Wage Gap in The U.S. Journal of Labor Economics, Supplement, 3(1), 91-116.
18. Bergmann, B. (1989). Does the Market for Women's Need Fixing? Journal of Economic Perspectives, 3(1), 43-60.
19. Lerman, R. I. (1997). Meritocracy without Rising Inequality? Wage rate differences are widening by education and narrowing by gender and race. Washington, DC: Urban Institute.
20. Sicilian, P., & Grossberg, A. J. (2001). Investment in Human Capital and Gender Wage Differences: Evidence From The NLSY. Applied Economics, 33(4), 123-139.
21. Meng, X. (1988). Male-Female Wage Discrimination and Gender Wage Discrimination in China's Rural Industrial Sector. Labour Economics, 5, 67-88.
22. Meng, X., & Miller, P. (1995). Occupational Segregation and Its Impact on Gender Wage Discrimination in China's Rural Industrial Sector. Oxford Economic Papers, New Series, 47(1), 136-155. Retrieved from http://www.jstor.org/stable/2663669
23. Neuman, S., & Weisberg, J. (1998). Gender Wage Differentials and Discrimination among Israeli Mangers. International Journal of Manpower, 19(3), 161-170.
24. Luzzi, G. F. (1998). On Gender Differences in Wages in Switzerland. International Journal of Manpower, 10(7), 475-485.
25. Fishclova, D. (2002). Analysis of Differences in the Wages of Men and Women Proposal of a Model Procedure in Determining the Proportion of Discrimination. Retrieved from http://www.ILO.org
26. Graham, W. J., & Smith, S. A. (2002, October). Gender Differences in Employment and Earnings in Science and Engineering in US. Economics of Education Review, p. 1-14.
27. Dong, X. Y., & Zhang, L. (2008). Economic Transition and Gender Differences in Wages and Productivity: Evidence from Chinese Enterprises. Journal of Development Economics, 37(1), 1-11.
28. Jones, G., & Tanaka, Y. (2008). Changes in Gender Wage Discrimination in the 1990s: A Tale of Three Very Different Economies. Japan and the World Economy, 20, 97-113.
29. Solberg, E. J. (2004). Occupational Assignment, Hiring Discrimination and the Gender Pay Gap. Atlantic Economic Journal, 32(1), 11-27.
30. Demoussis, M., Giannakopoulos, N., & Zografakis, S. (2010). Native-immigrant Wage Differentials and Occupational Segregation in the Greek Labour Market. Applied Economics, 42(8), 1015-1027.
31. Goy, S., & Johnes, G. (2012), Revisiting the Impact of Occupational Segregation on the Gender Earnings Gap in Malaysia. Malaysian Economic Journal (Jurnal Ekonomi Malaysia), 46(1), 13-25.
32. Brown, R. S., Moon, M., & Zoloth, B. (1980). Incorporating Occupational Attainment in Studies of Male-female Earnings Differentials. Journal of Human Resources, 15(1), 3-18.
33. Constant, A. F., & Zimmermann, K. F. (2003). Occupational Choice across Generations. Applied Economics Quarterly, 49(4), 299-317.
34. Mendes, R. V. (2009). Gender Wage Differentials and Occupational Distribution. Economics Notes (Notas Economicas), 29, 26-40.

Received 2.02.2015