Research Proposal

Stand still or Flee away?
Evidence from the Educated-female Occupational Choice

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1 Literature review and Research question:

Numerous research has been conducted to account for the persistent gender pay gap. Traditional factors emphasize human capital, the family division of labor, compensating wage differentials, while recent new field focuses on the impact of norms, psychological attributes and non-cognitive skills. Blau and Kahn (2017) documents that the role of occupation remains pronounced in explaining the gender wage gap. Specifically, occupational differences account for over 20 percent gender wage gap and are currently at the top of observed factors. However, it is found that male continue to choose male-dominated occupations while female prefer entering predominantly female occupations in the past three decades (Bettio and Verashchagina 2009). In sum, understanding occupation choices plays a significant role in understanding the gender wage gap.

Past researchers mostly focus on work-related preferences(flexibility and competition), work-related skills(interactional skills, cognitive skills and physical skills) and workplace "culture" in explaining the persistent gender gap in occupational choices (Cortes Pan, 2017). However, small numbers of papers examine how the work hours affect gender difference in occupational choices. In fact, the rising work time demands in the US should not be ignored. The prevalence of overwork is particularly large for well-educated individuals (Aguiar and Hurst, 2007). It is not difficult to understand why work hours effect occupational choice, in particular for female since women tend to shoulder larger family responsibilities than men. "As women typically have greater household responsibilities,

they tend to place a higher value than men on work hours flexibility(Cortes and Pan, 2017)". Cortes and Pan (2017) use data from 2005 International Social Survey Programme (ISSP) and demonstrate that over 50 percent of female "prefer working fewer hours and earning less money" than "working more hours and earning more money" or "working the same of hours and earning the same of money" while only 20 percent of male do.

This paper will complement past papers by studying the relationship between work hours and female's occupational choice. Specifically, I will focus on the educated-female group for several reasons: Firstly, it seems that educated-female are more "affordable" for potential wage loss when "fleeing" from long working-hours occupations. Secondly, over 30 percent of educated-female who leave STEM field report that they cannot stand demanding work hours (Jaimovich the al., 2017). Work-Family balance is a significant factor for female when considering occupation. Thirdly, focusing on this narrow group helps me to compare their occupational choices with individuals who share partial similar characteristics. Specifically, the following research questions will be tested:

1. *How the overwork affect the female's occupational choice?*
2. *Does the effect of overwork is largest in the group of married educated-female with children?*
3. *Are there different occupational patterns exist given a demographic group?*

2 Data, theory and computational tools:

In this paper, I will primarily use the Census and American Community Survey (ACS) dataset. ACS dataset is collected by U.S. Census Bureau yearly over 3.5 million households in the United States. Specifically, I will focus on educated-individuals and divide them into several demographic groups: females age 25-44 with children, females age 45-57 with children, females age 25-44 without children, females age 45-57 without children, males age 25-44 with children, males age 45-57 with children. The main outcome of this paper would be the occupational pattern given a demographic group, which is measured by the share of population in specific occupation.

For main analysis, I plan to examine the relationship between changes in the prevalence of overwork and the female occupational distribution based on following baseline

regression:

$$\frac{female\_gr_{it}}{female\_gr_t} = \alpha + \beta * share\_male\_overworkk_{it} + \gamma * \frac{control\_gr_{it}}{control\_gr_t} + \delta * X_{it} + \pi_i + \pi_t + \epsilon_{ict}$$

where i refers to an occupation and t refers to each decade. $female_{gr}$ is the female demographic group of interest; $control_{gr}$ means another demographic group in the same age range but facing relatively lower costs of working long hours. For example, female age 25-44 without children may have lower cost than female who is at the same age but have children controlling other factors.

Further, I will add control variables to explore how much the coefficients of interests are affected. There is a wide range of potential control variables such as household income level, education level, number of children, municipality of residence, ethnicity, age, access to computer, metropolitan area, food stamp recipient, multigenerational household, race, Hispanic status, speaking English at home, etc. It is hard to figure out the significance among these variables. *I plan to use feature selection by Lasso to choose the several most important control variables.*

Due to the incompleteness of this paper, I could not give a specific theory to explain results now. However, the Social Norm may be a good explanation for it.

References

Aguiar, Mark and Erik Hurst. 2007. ìMeasuring Trends in Leisure: The Allocation of Time Over Five Decades." Quarterly Journal of Economics. Vol. 122(3): 969-1006

Pan, Jessica, 2015. "Gender segregation in occupations: the role of tipping and social interactions", J Labor Econ 33(2):365–408

Goldin C. A Pollution Theory of Discrimination: Male and Female Occupations and Earnings. 2002.

Cortes, Patricia Pan, Jessica, 2017. "Occupation and Gender," IZA Discussion Papers 10672, Institute for the Study of Labor (IZA).

Francine D. Blau Lawrence M. Kahn, 2017. "The Gender Wage Gap: Extent, Trends, and Explanations," Journal of Economic Literature, vol 55(3), pages 789-865.

Nir Jaimovich Henry Siu Guido Matias Cortes, 2017. "The End of Men and Rise of Women in the High-Skilled Labor Market," 2017 Meeting Papers 809, Society for Economic Dynamics.