Marital Status and Gender Wage Differentials among Thai Workers in Recent Years

Evidence from the Thai LFS Q3 2010 – 2014

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Introduction

- Study of marital status effect (marriage "premium") among Thai males and Females.
- Contribution to knowledge about gender equality in Thai labor market.
- Why is gender equality important?
  - Fairness
  - Economic Efficiency—incentives, loss of productivity
- Results
  - Within an education level, married males get a marriage premium of about 10%
  - Married females get a marriage premium of about at most 1.3%
    - Gender role inequality in marriage—females become less attached to LF while males become more attached
    - Is this what we want? Do females become less attached by choice or poor incentives?

Outline

- Background, Research Question
  - Marriage and the Thai society
  - Females and the labor market
  - Does marital status affect males and females differently in the labor market?
- Related Studies
  - Earlier work, non-Thai studies
  - Thai data—patterns and trends
- Data—set, description, sample selection
- Basic Pattern of Male and Female Wages
  - Overall wage comparison, distribution
  - Age-earnings profile (controlling for education level and year effects)
  - Oaxaca Decomposition—Human capital controls, year effects, region, occupation, industry, hours worked
- Empirical Investigation of the Marriage Premium
  - Estimate the marriage effect among males and females—Basic regression
  - Explore various explanations
- Results/Conclusion/Discussion/Future Work

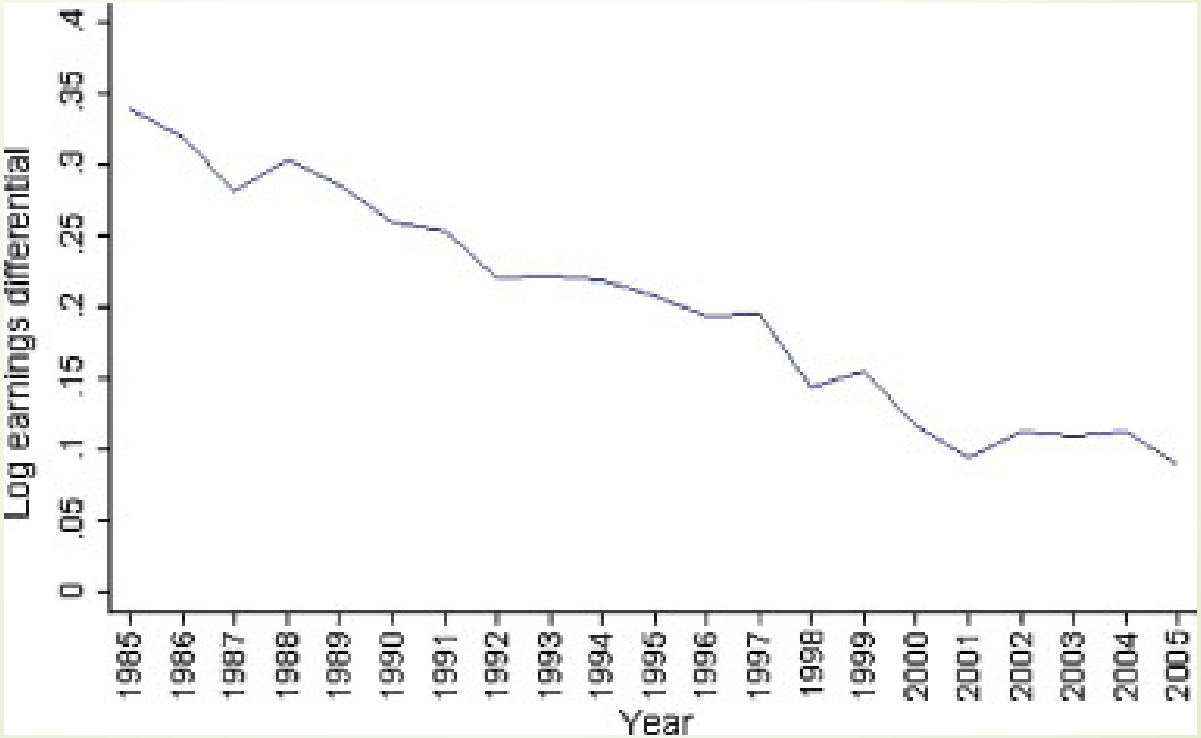
Background and Research Question

- Marriage and the Thai society
  - Marriage rates—falling with higher levels of education, especially among women
  - Gender roles
- Females and the labor market
  - Employer perception
  - Workplace attachment—hours worked
- Research question: Does marital status affect males and females in the labor market differently?
  - Why we might expect a marital status premium?
    - Selection and/or Productivity (via happiness or household specialization)
  - Why we might expect the premium to be different?
  - Empirical Question

Related Studies

- Human Capital and wages—Mincer (1958)
- Labor market discrimination, gender wage gap
  - Earlier work—Becker (1957), Blinder (1973), Cain (1986, Handbook of Labor Econ), Ashenfelter & Hannan (1986) and recent applications of ideas and concepts to different settings
  - Cross-countries comparison—Meng (1996)
  - Thai data—Nakavachara (2010, Journal of Asian Econ.); Khorpetch & Kulkolkarn, K. (2011, Applied Econ. Journal); Bui & Permpoonpiwat (2015, Intl Journal of Bahav. Sci.)
    - All use the Labor Force Survey, various years, latest is 2013 in Bui & Permpoonwiwat (2015)
    - Unexplained wage differentials remain, does not seem to reflect female concentration in various industries
- Unable to find work on marriage premium in Thailand so far.

Patterns and Trends in Thailand's Gender Wage Gap—Nakavachara (2010)

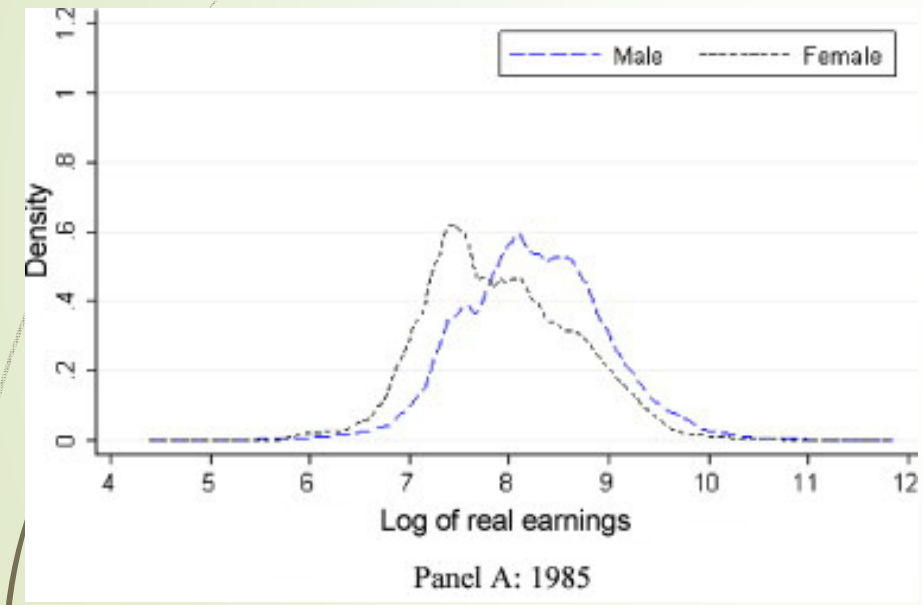


Where does Thailand stand?—Nakavachara (2010)

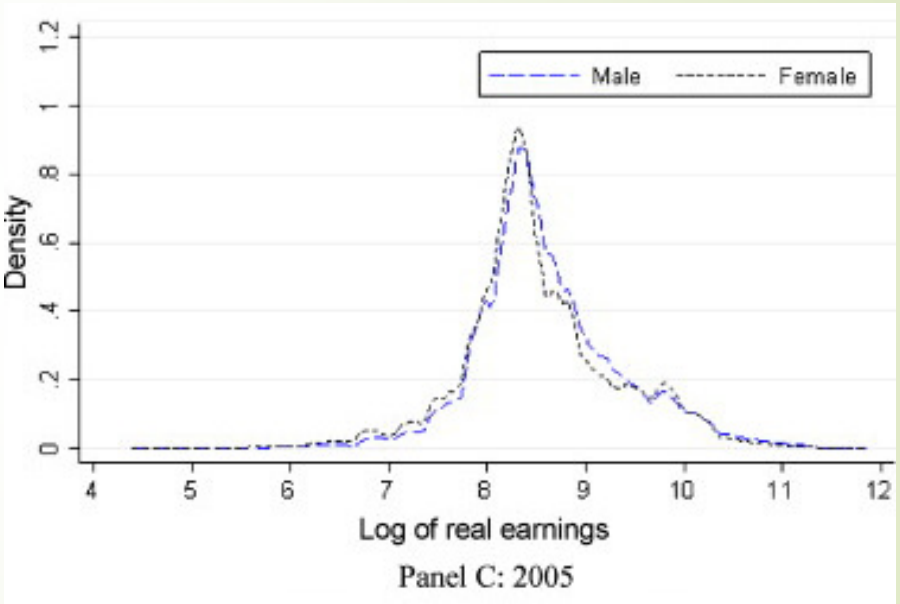
- World Bank Data most recent observation reported (from 1991 – 2003)

Country	Female/Male Earnings Ratio
Sweden	0.81
USA	0.62
Thailand	0.59
Japan	0.44
Saudi Arabia	0.15

Evolution of Wage Gap—Nakavachara (2010) density plots



Panel A: 1985



Panel C: 2005

Data—set, description, sample selection, final sample

- Thai Labor Force Survey Q3 2010-2014 (available from Thailand National Statistical Office)
  - Socioeconomic variables including marital status and work variables, among others
- If earnings is between 2nd and 98th percentile to eliminate outliers
- Age 25 – 60
- Not in school
- Either never married or currently married (no divorcees or widows)
- Reported working the week before the survey
- Resulting sample size = 179,713
- Only wage workers are included in the final sample without deliberate exclusion (public, public enterprise, private)

Basic Pattern of Wages

- Income comparison (Real, base year = 2014)

Year	Mean Monthly Income (THB)	
	Male	Female
2010	11,126	11,078
2011	11,401	11,390
2012	12,208	12,106
2013	15,152	15,359
2014	14,739	15,044

Basic Pattern of Wages

- Log income comparison (*** and ** denote 1% and 5 % significance level, respectively)

Year	log income difference (Male - Female)	p-value
2010	0.041***	0.002
2011	0.021**	0.042
2012	0.02**	0.028
2013	0.005	0.629
2014	-0.004	0.693

Basic Pattern of Wages

- Wage comparison (Real, base year = 2014)

Year	Mean Monthly Wage (THB)	
	Male	Female
2010	10,191	10,172
2011	10,508	10,521
2012	11,174	11,137
2013	12,115	12,246
2014	12,862	13,286

Basic Pattern of Wages

- Log wage comparison (***, **, * denote 1%, 5%, and 10% significance level, respectively)

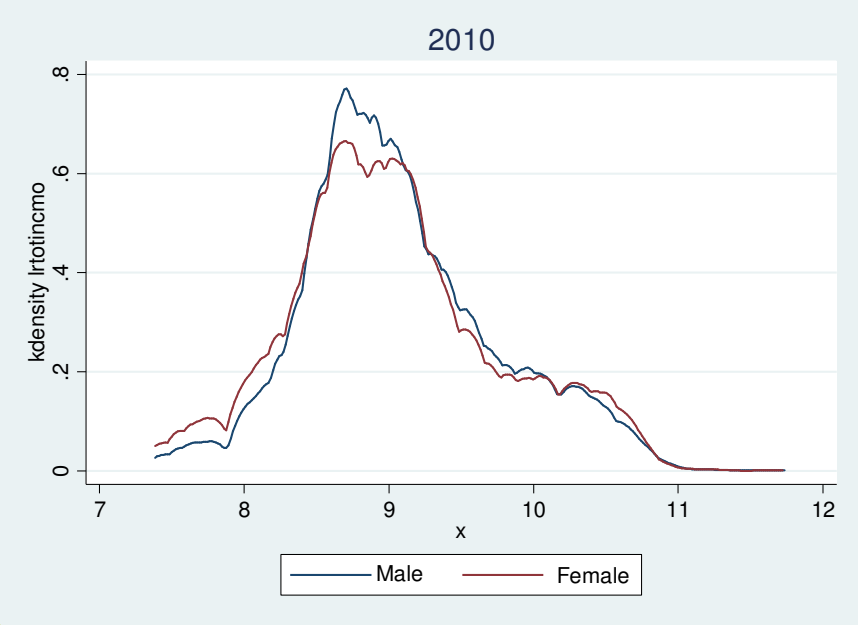
Year	log wage difference (Male - Female)	p-value
2010	0.043***	0.001
2011	0.022**	0.028
2012	0.018**	0.036
2013	0.003	0.744
2014	-0.014*	0.090

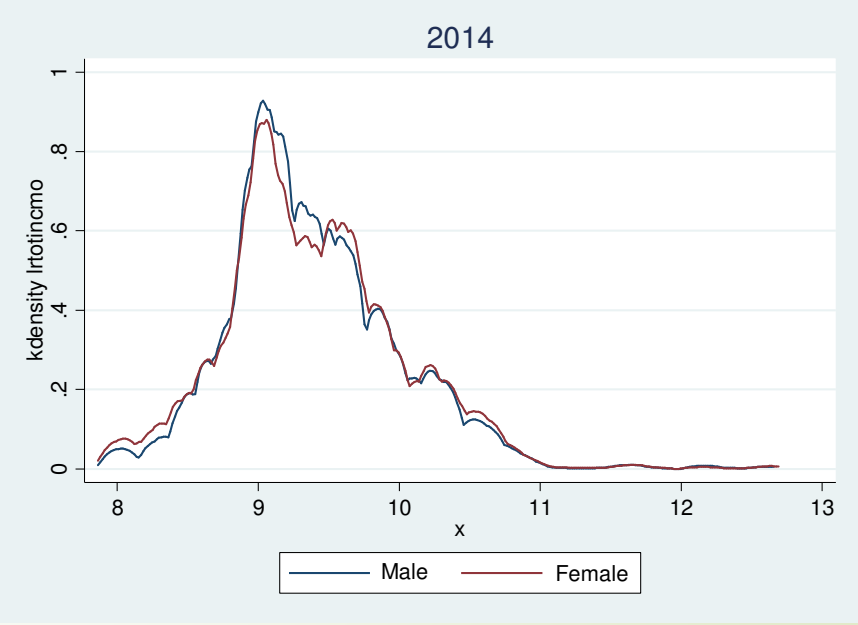
Wage or Earnings?

- Earnings include bonus, overtime, and other money
  - Bonus and overtime make up most of the difference from raw wage
- Similar pattern for both, will focus on total earnings
  - Potentially interesting behavioral/discriminatory variation

Density Plots—Female and Male Earnings

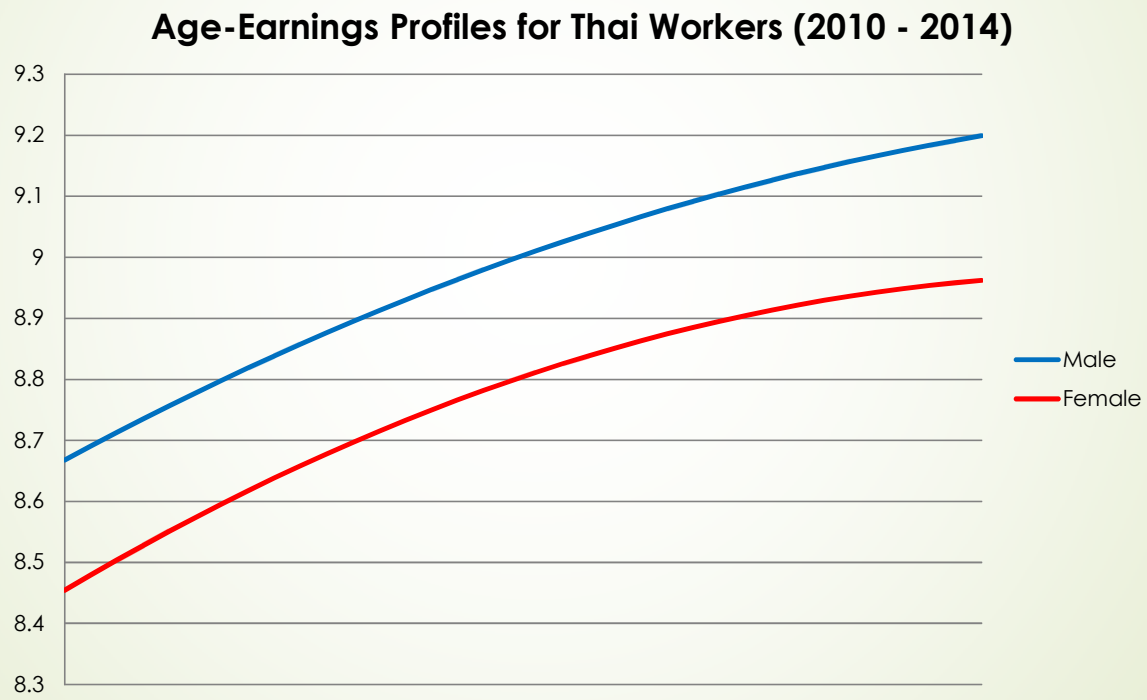
(using analytic weights, restricted sample)





Age-earnings profile

(adjusted for education level, year, region)—Full sample



Oaxaca-Blinder Decomposition

- Description—method to separate wage differentials between two groups into the explained and the unexplained portion.
- Let w1 = wage of group 1, w2 = wage of group 2, x1 = characteristic of group1, x2 = characteristic of group 2
- Let B1 and B2 be regression coefficients from the wage equation estimated for group 1 and 2, respectively.
  - w1 – w2 = B1x1 – B2x2, and can be written as
    - B1(x1 – x2) + x1(B1 – B2) + (x1 – x2)(B1 – B2), from the perspective of group 1, or
    - **B2(x1 – x2) + x2(B1 – B2) + (x1 – x2)(B1 – B2), from the perspective of group 2**
  - X1 and x2 are values of the covariates for group 1 and group 2, respectively
  - The first term is "explained", difference due to endowment, the remainder is the "unexplained" part which might be interpreted as discrimination
  - Notice that the decomposition can be done from the perspective of either group, and they will generally not give the same results.
- Human capital controls, year effects, region, hours worked are control variables for the wage regression (occupation, industry controls for future work).

Oaxaca-Blinder Decomposition Results

Male - Female Log Income Difference	Explained Difference	Unexplained Difference	Interaction
0.005	-0.129***	0.127***	0.007***

- *** denote 1% significance level
- Raw earnings difference is not significantly different between males and females.
- Explained difference: If returns to human capital were the same (coefficients at female level), females would earn about 12.9% MORE than males.
- Unexplained difference: If human capital were the same, males would earn about 12.7% MORE than females due to higher returns to human capital (and other unobserved factors included in the intercept).

Discussion

- Female wages have increased relative to male in recent years…
  - Females now earn higher wages than males on average.
- …, but disadvantages remain.
  - Lower and flatter earnings profile
  - Females continue to earn significantly less than observably similar males.

Empirical Investigation of Marriage Premium

- Estimate Marriage Effects on monthly earningsfor Thai Males and Females
  - Basic regression
  - Further controls to explore various explanations

Empirical Analysis

- Wage equation—basic controls are education, age, labor market "experience" or exp, exp^2, region, year
  - Male marriage premium
  - Female marriage premium
- Wage equation—add hours worked, industry, occupation, as controls
  - Male marriage premium
  - Female marriage premium

Results

- Basic Estimates
- 10% marriage premium among males, no such pattern for females.

Dependent Variable = log real monthly earnings	Male		Female	
	Coeff	p-value	Coeff	p-value
Married	**0.103**	0.000	0.006	0.125
Junior High School	0.256	0.000	0.275	0.000
High School	0.469	0.000	0.434	0.000
Vocational Degree	0.733	0.000	0.656	0.000
Bachelors	1.127	0.000	1.078	0.000
Masters or more	1.478	0.000	1.412	0.000
exp	0.033	0.000	0.031	0.000
expsq	-0.001	0.000	-0.001	0.000
age	0.006	0.142	0.018	0.000
Central	-0.108	0.000	-0.098	0.000
North	-0.390	0.000	-0.368	0.000
Northeast	-0.395	0.000	-0.324	0.000
South	-0.289	0.000	-0.293	0.000
2011	0.033	0.000	0.029	0.000
2012	0.105	0.000	0.100	0.000
2013	0.211	0.000	0.220	0.000
2014	0.236	0.000	0.245	0.000
_cons	8.185	0.000	7.865	0.000

Results 2—adding hours worked

- Adding hours worked
  - Male marriage premium falls slightly, to 9.8% above unmarried males
    - Suggests a positive correlation between marital status and hours worked
    - Males become MORE ATTACHED to the labor market when married
  - Female marriage premium **doubles** to about 1.3% and is now significant, but remains small.
    - Suggests negative correlation between marital status and hours worked
    - Females become LESS ATTACHED to the market when married
  - Regression estimates
    - married males work about 1.4% more hours per week when married
    - females work 2.4% FEWER hours per week when married

Results 3—adding occupation and industry controls

- Adding occupation lowers male marriage premium slightly to about 9%
  - does nothing to female marriage premium
- Adding industry control does not affect male marriage premium further
  - Lowers female marriage premium to about 1%

Discussion of Results

- So far we find a much larger marital status premium among males than females
  - >9% for males and no more than 1.3% for females
  - Khorpetch, C., & Kulkolkarn, K. (2011) find a marriage "penalty" among women, though their sample included much younger workers.
- Further investigation suggest the role of differential labor market attachment after marriage
  - Males become more attached, while females become less attached.

Conclusion and Remaining Issues

- Selection bias in wage estimation
- Mechanics of marriage premium—Employer perceptions, market power, etc.
- Differential marriage premiums across markets
- Non-wage population, which makes up more than half of the Thai workforce.
- Informal sector, dare I?

Thank you for listening!

- Comments and questions

Brief References

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