

Continued
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Gender Economics (EE364)

Chapter 5

Supply and demand factors determining gender-related differences in occupation and income, and gender roles switching in occupation



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Labor demand factor

Discrimination



Discrimination in the labor market

- Discrimination in the labor market is possible. Despite having the same work efficiency, some are treated differently based on demographic characteristics.
- There are many forms of discrimination
 - In employment (Employment discrimination)
 - In wages (Wage discrimination)
- Labor market discrimination thus explains the effects of wage differences on the labor market.
- Labor market discrimination can be categorized into three types.

1) Discrimination based on bias







- Becker (1971) presented the economics theory of discrimination based on prejudice and taste for discrimination.
- Personal bias - **Employers, colleagues, and customers who dislike certain groups of people.**

- Clients' discrimination - a patient may require a female nurse to provide care.
- Employees' discrimination - an employee may not want to work for a specific group (a man does not want to work under a woman).

2) Discrimination by market power

- 🍯 Jacobsen (1998) describes discrimination by market power in a monopoly or sole buyers in the labor market (monopolistic market).
- 🍯 In a monopolistic market, **workers have lower wages and less employment** in competitive markets because the labor market has only one employer.
- 🍯 Labor has no choice because only one employer has bargaining power in the market.

3) Discrimination for statistical reasons (or incomplete information)

-  Differences in employees' wages may be due to the employer having incomplete information at the beginning of the hiring process (e.g., work, ability, attitude, loyalty).
-  Employers are required to make pre-employment wage decisions.
-  The wages for labor are therefore averages taken from a wide range of demographic groups with diverse characteristics.
-  Wages are less than the productivity a person can achieve for the company.

Labor market segregation



The economic theory of discrimination can lead to labor market segregation

Case of a colleague



- ⬡ Male colleagues may not like working with women.
 - This group calls for increased wages or a reduction in women's wages.
- ⬡ Employers, therefore, have two options.
 - (1) If only male workers are employed, they do not have to pay additional wages to this group of workers.

Case of a colleague

(2) workplace with only female workers and women pays them as usual, reducing costs.

 If this happens in the labor market, “labor market segregation” occurs.

Occupational segregation should be suitable for women and for men in accordance with the attitude of each society.

Note that - wage discrimination may occur, in which employers pay different rates for different population groups despite the same performance.

Case of a colleague



Occupational discrimination occurs when a certain demographic group dominates an occupation.

For example, there are many men in engineering and many females in nursing.

Social values may contribute to occupational discrimination, or individual jobs may be tailored to a particular demographic group.



Customer's case



- ⬡ If customers are biased toward female workers, the customer may feel the products they buy from women are expensive.
 - In this case, women will sell fewer products than men.

Customer satisfaction may thus limit employment opportunities to a specific group.

- A patient may require that a female nurse provides care.

Customer's case



- ⬡ Car salesman - Some customers feel a male salesperson will be able to give more advice and have more knowledge of cars.
 - Therefore, they choose to buy cars from men, making women sell less.

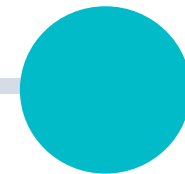
This customer bias may incentivize employers to pay women less or to hire only hire men in in these specific industries.

Gender segregation in labor market

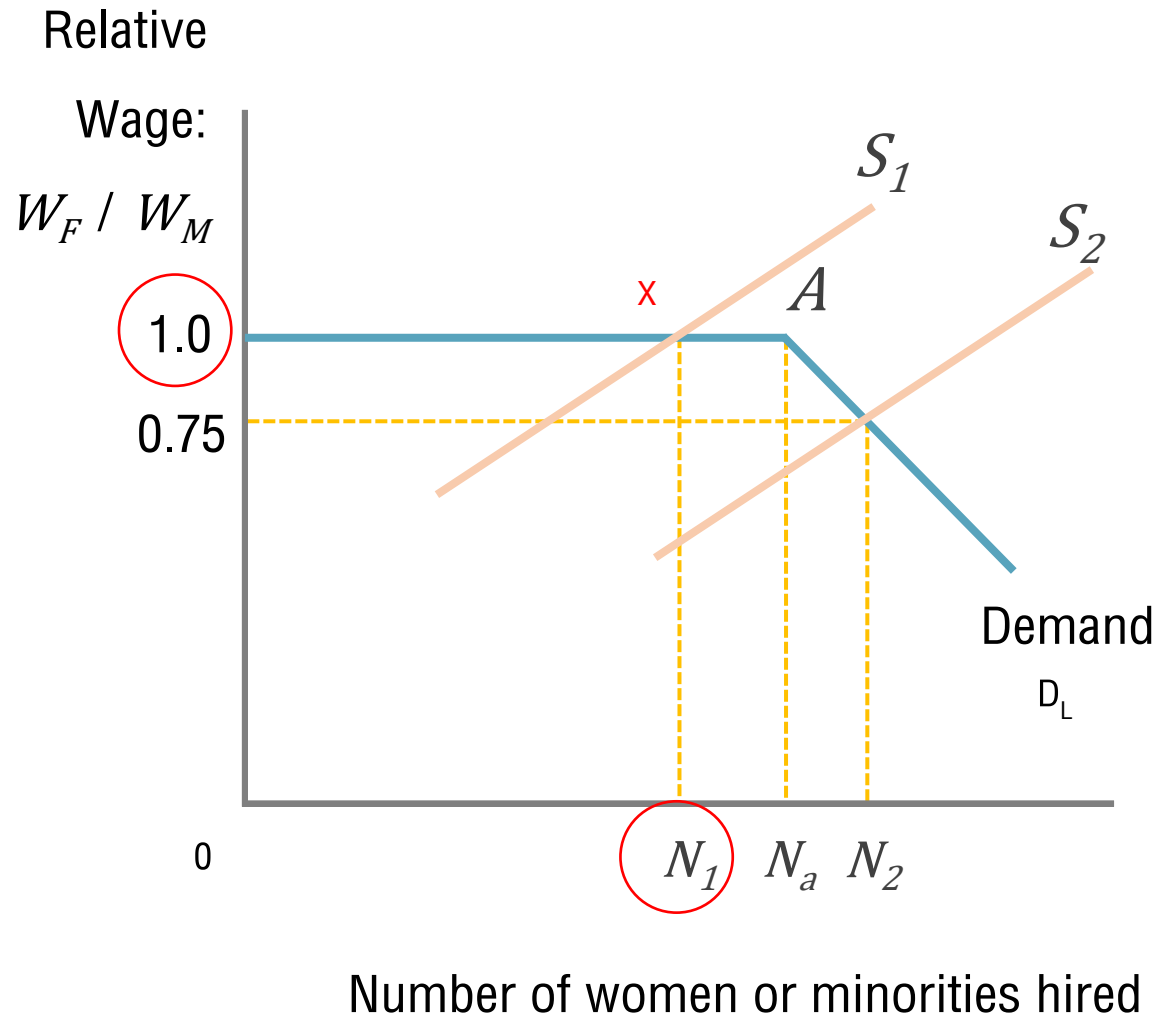


Model of prejudice and discrimination

- 🏠 Discrimination in employers' views
- 🏠 Personal preferences - Do not want to employ certain demographic groups
- 🏠 However, they still want to make high profit.

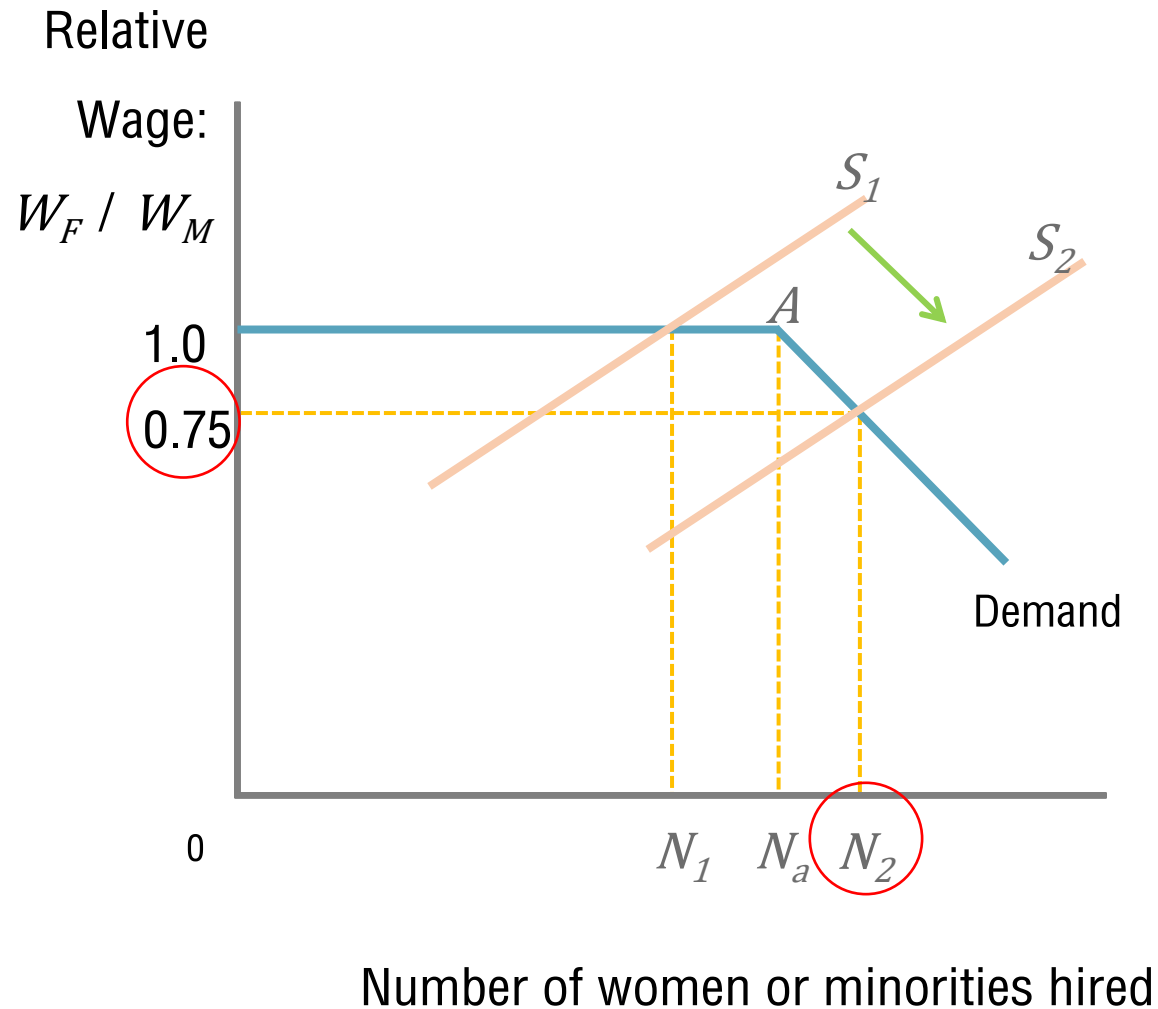


Market with discriminatory employers



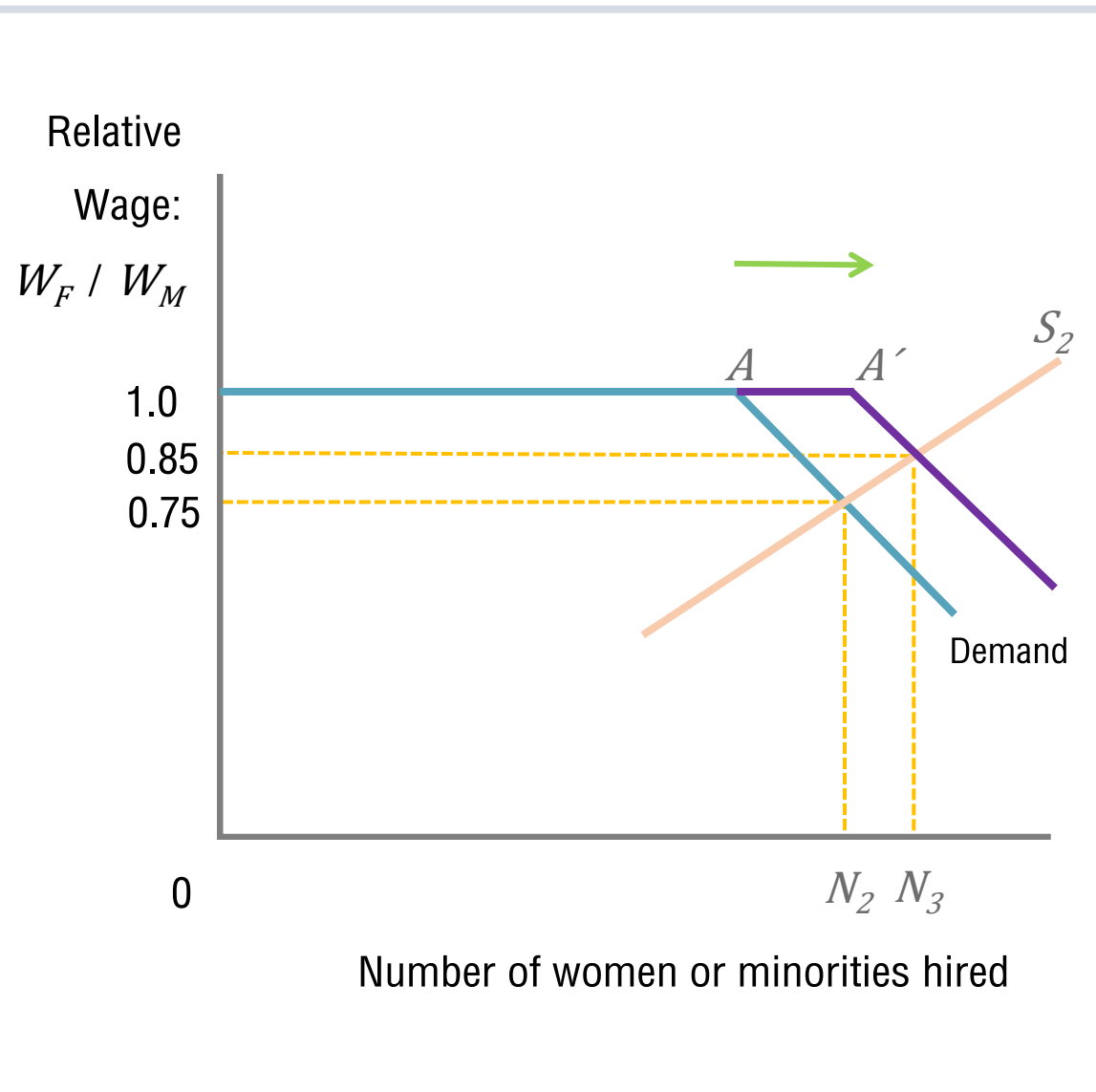
- Initially, all female employees are matched to employers without discrimination and are paid the same as men.
- At the initial equilibrium point
- X is the point where S_1 intersects the D_L line, where N_1 is employed.
- There is no difference in wages (women were paid equal to men) (or comparative wage $W_F/W_M = 1$)

Market with discriminatory employers



- If there is an increase in the supply of female workers in the market, some women will not be able to find unbiased employers.
-> These women need to accept low-paying jobs and are paid less than men.
- The supply curve of female labor shift from line S_1 to line S_2
- As a result, some women are unable to find unbiased employers. Therefore, they have to accept low-paying jobs and earn less than men.
- The new equilibrium will have the number of women employed N_2 and women were paid less than men) (relative wage $W_F/W_M = 0.75$).

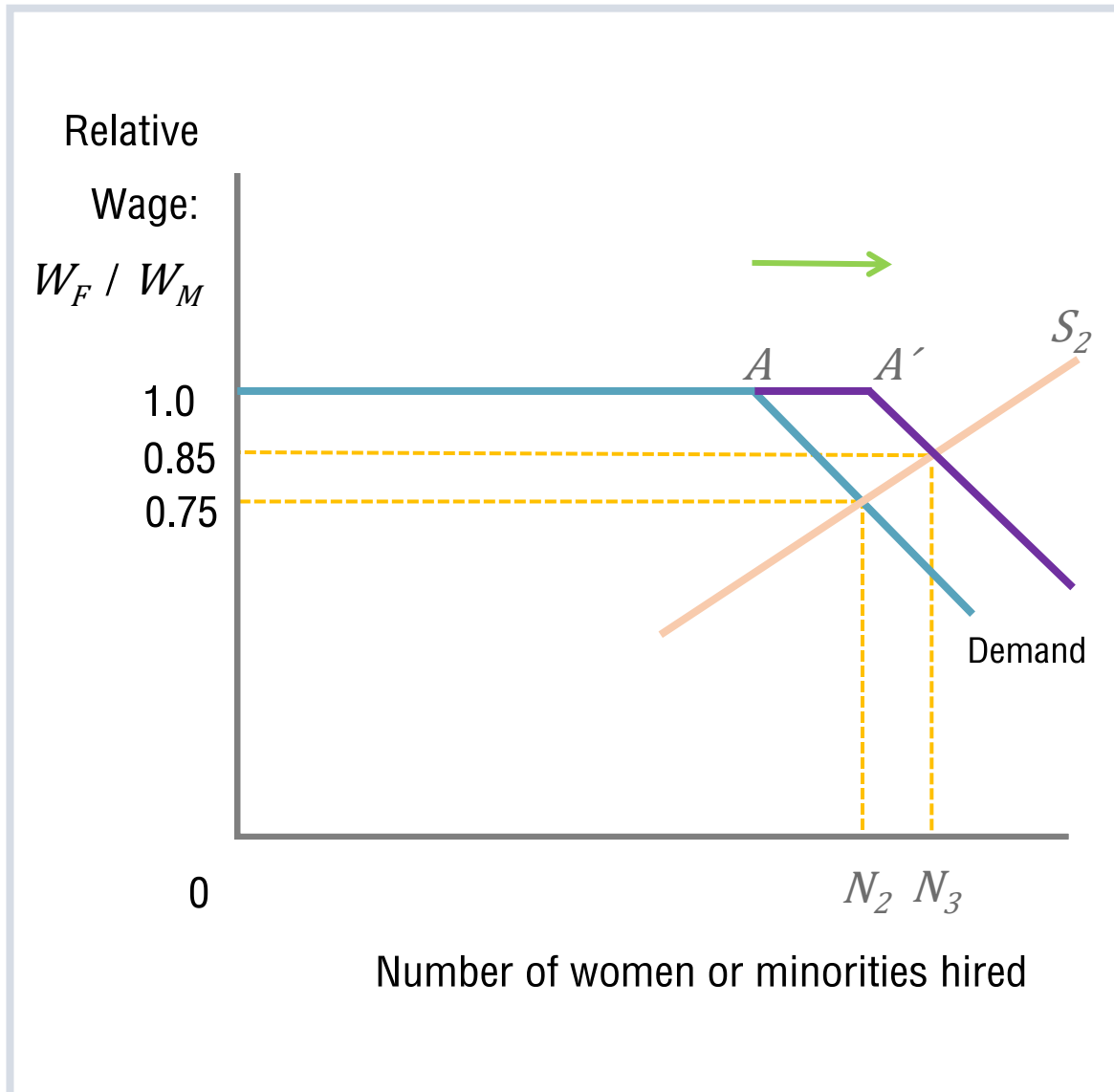
An increase in the number of employers who do not discriminate against women



The wage difference between men and women can be improved (or the wage gap can be narrowed) as follows:

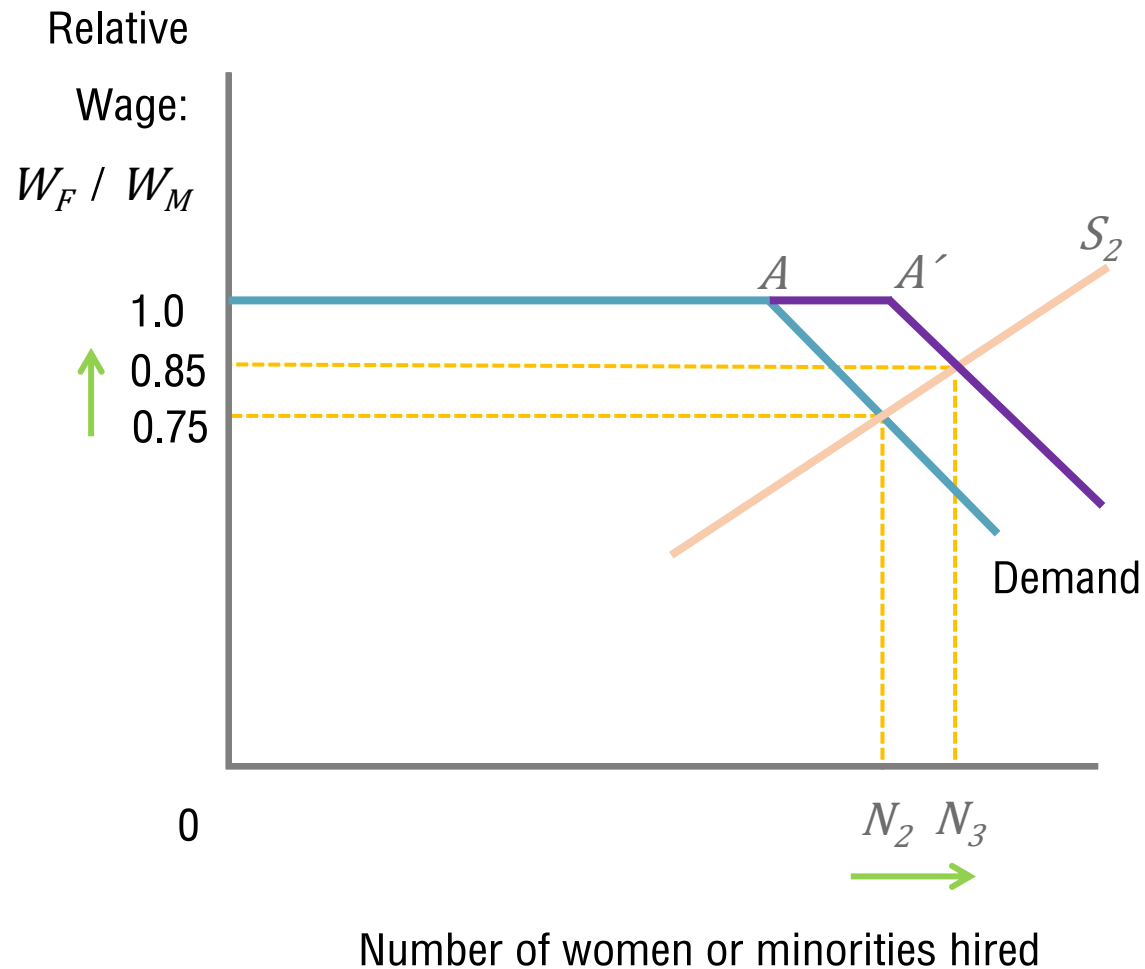
- An increase in the number of employers who do not discriminate against women
-> Demand curve will shift to the right.

An increase in the number of employers who do not discriminate against women



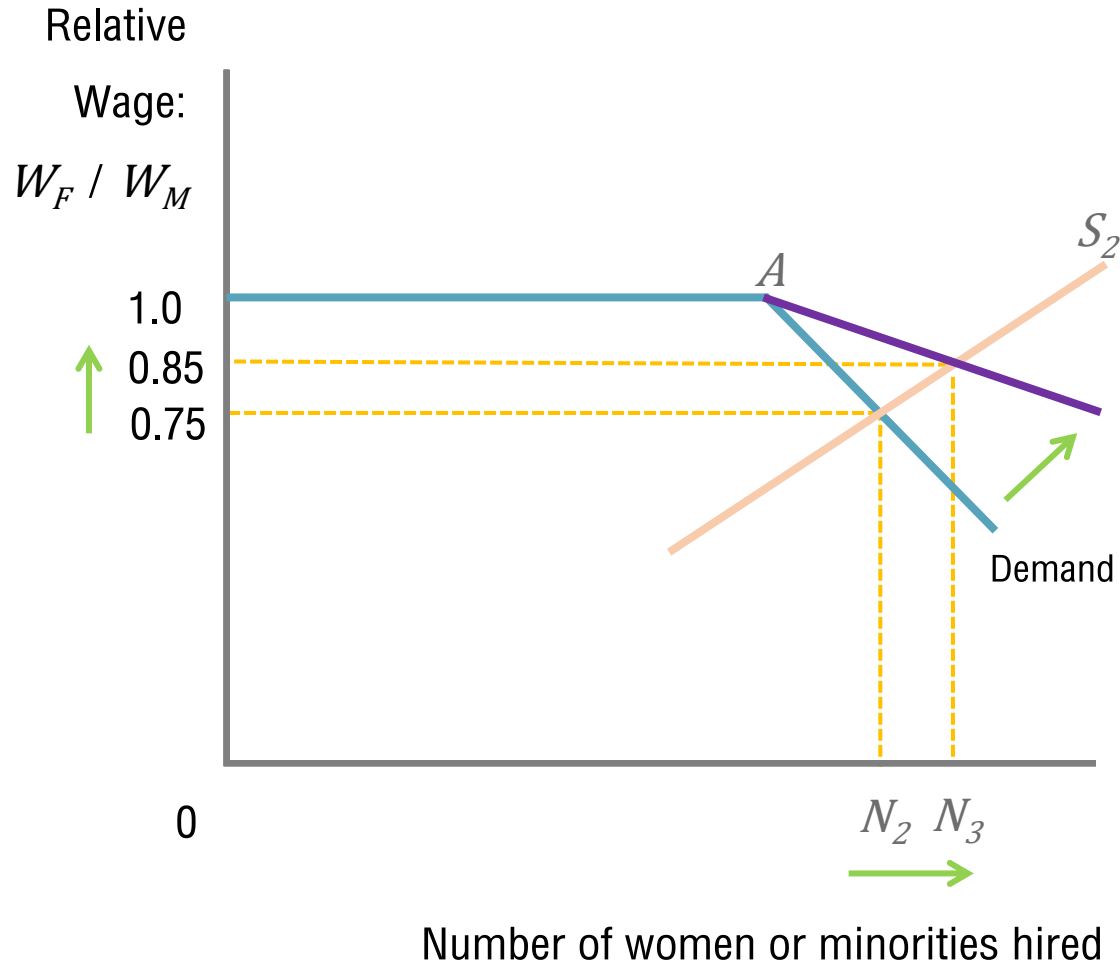
- The demand curve (D) extends from A to A' (some discriminatory employers cause the demand curve to shift parallel to the right)
- New equilibrium point has been reached.
-> This is the intersection between S_2 and the new D_L (purple)-> women can find work with employers without discrimination.
- The difference in wages for men and women is reduced.

An increase in the number of employers who do not discriminate against women



- N_3 is the number of employed women.
- The wage difference between men and women is reduced (relative wage $W_F/W_M = 0.85$)
- The wage difference between men and women is reduced, causing more women to enter the labor market.

Employers' attitudes toward women workers change



- Demand changes -> The demand curve (D) fan out from blue line to be purple line
- Decrease in wage differences between men and women (relative wage $W_F/W_M = 0.85$) -> attracts more women (N_3) to work in the labor market

An illustration of a warehouse interior. In the background, there are high ceilings with blue structural beams and overhead power lines. Several black metal shelving units are filled with stacks of cardboard boxes in various colors (orange, yellow, red). A woman with dark hair, wearing a blue top and green pants, is walking towards the left. In the center, a man in a blue shirt and green pants is leaning over a hand truck, moving a stack of boxes. To the right, a woman with long black hair, wearing a yellow top and green pants, is smiling and holding a black folder, gesturing with her right hand. A large, semi-transparent pink banner is overlaid on the left side of the image, containing the text 'Wage inequality' in white.

Wage inequality

How to measure the gender wage gap??

- Gender wage gap is difference between the average male wage and the average female wage
- Gender wage gap is expressed as either a percentage or a ratio of difference between average gross hourly or annual earnings of male and female employees (as % of male gross earnings).

Example - men earn 100 baht per hour; women earn 75 baht per hour.

$$\text{Gender wage gap} = \frac{100 - 75}{100} = 25\%.$$

- Bias and discrimination remain an important and redundant problem in measuring the gender wage gap.

On average, women are paid less than men - > Gender wage gap about 20%

Explanation of the gender wage gap

- 🏠 Overall, women still earn less than men on average.
- 🏠 The gender wage gap can be explained by three main factors:

1. Human capital

- Usually, women have a lower educational background or low level of education, short working period, and more career interruptions than men.

Explanation of the gender wage gap

2. Gender segregation by occupation

- Men and women work with gender-segregated agencies or positions through organizational processes such as hiring and promotion.
- Predominantly female jobs are lower paid than predominantly male jobs

3. Discrimination by employers against women

- In addition to all personal characteristics, human capital, and other factors related to performance, employer discrimination against women could explain the gap

Example - Explanation of the gender wage gap

- 🏠 In developing countries, up to 95% of women's employment is informal and involves jobs without labor law protection and a lack of social protection, such as in South Asian countries.
- 🏠 On average, women are paid around 24% less than men, and the wage gap tends to be higher when they have children.

For example, in South Asia, the wage gap for women with children is 35% and for women without children is 14%.

Oaxaca- Blinder Decomposition

- Hexagon Oaxaca (1973) and Blinder (1973) began to study the factors determining wage differences between male and female workers.
- Hexagon Studies have shown that wage differences between male and female workers can be divided into two parts:

1

Explained part - arising from differences in individual qualifications or human capital (Endowments or Human capital)

2

Unexplained part - caused by discrimination.

Studies of Oaxaca (1973) and Blinder (1973) were developed to study the differences, or gender wage gap in many countries, such as US (Blau and Kahn (2016))

Oaxaca-Blinder Decomposition

The technique used to measure the factors that determine the wage differences.

- Equations (1) and (2) are equations for studying the relationship between wages and personal characteristics, divided into male (m) and female (f).

The first step will be to estimate the coefficients (B) using the Ordinary Least Squares (OLS) method for individual i .

$$Y_m = X_m B_m + u_m \quad (1)$$

$$Y_f = X_f B_f + u_f \quad (2)$$

Y is the log of wages, and X is a factor related to personal characteristics such as education and experience. Control variables can be included in the equation, such as differences in residential area, urban area, rural area, being a trade union member or not.

B is the coefficient. u is the error term.

Oaxaca-Blinder Decomposition Concept

- The coefficients from the OLS estimation are b_m and b_f , which are the estimated coefficients of B_m and B_f .
- Then, applying the decomposition method, we further get the main equation below:

$$\bar{Y}_m - \bar{Y}_f = b_m \bar{X}_m - b_f \bar{X}_f = b_m(\bar{X}_m - \bar{X}_f) + \bar{X}_f(b_m - b_f)$$

$b_m(\bar{X}_m - \bar{X}_f)$ is the impact of gender differences in the explanatory variables evaluated using the male coefficients.

$\bar{X}_f(b_m - b_f)$ is the unexplained differential and corresponds to the average female residual from the male wage equation.

Oaxaca- Blinder Decomposition Estimation Example

Estimated Result

$$\text{Male: } W_m = -1.34 + 0.78 ED_m + 0.27 EXP_m + 3.76 UNION_m$$

$$\text{Female: } W_f = -1.80 + 0.70 ED_f + 0.21 EXP_f + 4.62 UNION_f$$

Average:	Male	Female
Wage	14.7	11.7 (difference = 3)
School year	14.2	14.6
Experience year	13.9	9.3
Share of people in union	0.32	0.28

Oaxaca- Blinder Decomposition Estimation Example

Decomposition:

$$W_m - W_f = b_m(ED_m - ED_f) + c_m(EXP_m - EXP_f) + f_m(UNION_m - UNION_f) + (a_m - a_f) + (b_m - b_f)ED_f + (c_m - c_f)EXP_f + (f_m - f_f)UNION_f$$

$$3 = [0.78 * (14.2 - 14.6)] + [0.27 * (13.9 - 9.3)] + [3.76 * (0.3 - 0.3)] \\ + [-1.34 + 1.80] + [(0.78 - 0.70) * 14.6] + [(0.27 - 0.21) * 9.3] + [(3.76 - 4.62) * 0.3]$$

$$3 = 1.05 + 1.95$$

Wage Difference = Explained part + Unexplained part

Oaxaca- Blinder Decomposition Estimation Example



Wage Difference = Explained part + Unexplained part

- **Explained part** - Interpretation $(1.05/3)=35\%$ of the wage difference, which could be explained by differences in education, experiences, and union.

- **Unexplained part** - Interpretation $(1.95/3)=65\%$ of the wage difference could not be explained, which is generally interpreted as gender discrimination.

The gender wage gap in the labor market is largely driven by gender discrimination or gender bias (65% > 35%).

Examples of research on the gender wage gap



- Blau and Kahn (2016) tried to explain factors that could explain the difference in wages for men and women in the United States.
- O'Neill (2003) found that the factors that could explain 22% of wage differences were experience, occupation, and exclusion in the labor market regarding career and preference
- Badgett (1995) found that wage differences were due to sexual discrimination. In the United States, gay men (gay) have lower wages than heterosexual men. Gays are paid 10-32% less than heterosexual men.

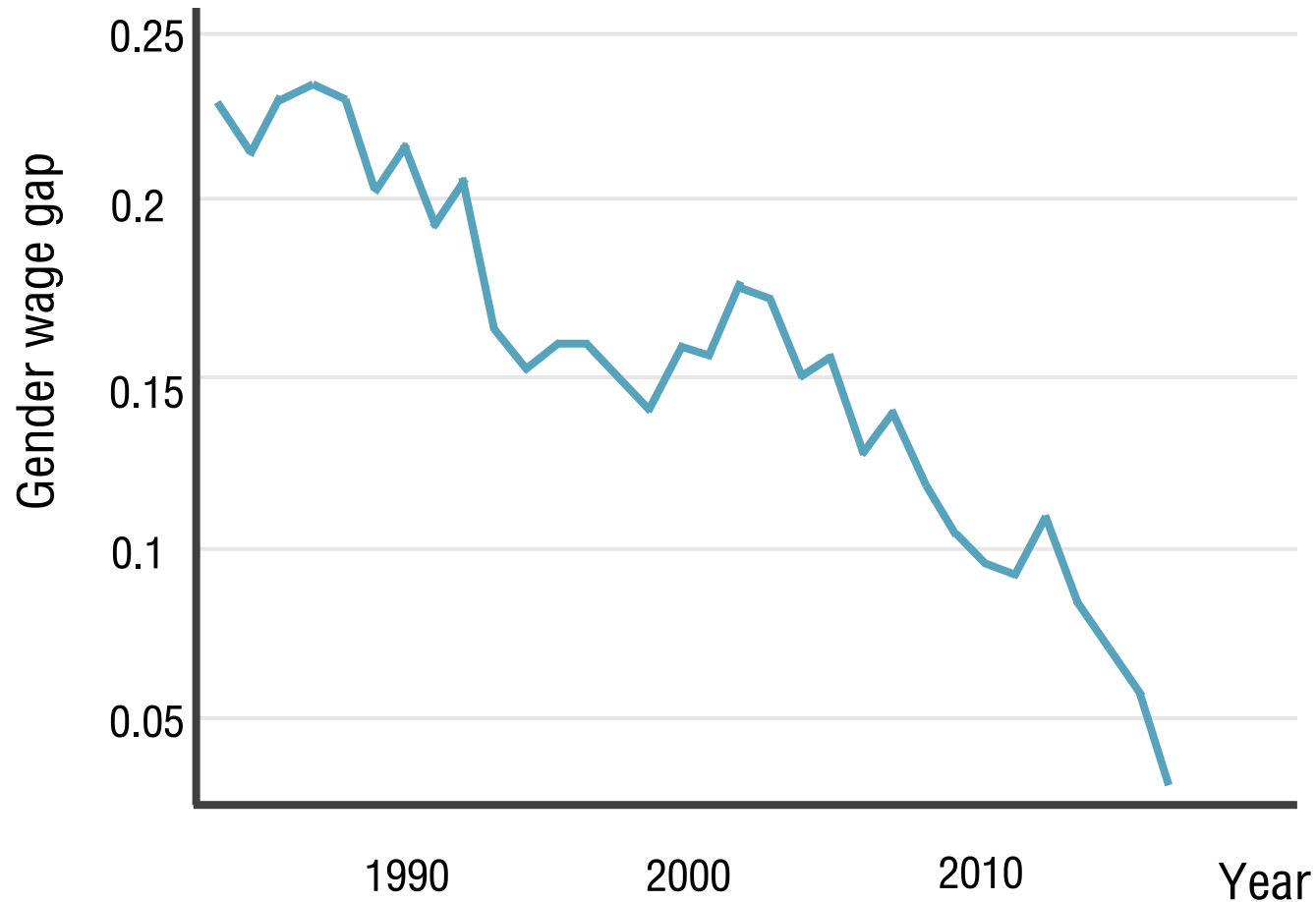
This phenomenon is known as the Gay Men Wage Gap.

Examples of research on gender wage gap

- 🏠 Paweenawat and Liao (2022) - Parenthood Penalty and Gender Wage Gap: Recent Evidence from Thailand.
- 🏠 Trend of change in average wage differences between men and women over the past 30 years (1985–2017).
- 🏠 Using LFS data from the National Statistical Office

Source - Paweenawat, S.W. and Liao, L. 2022. Parenthood Penalty and Gender Wage Gap: Recent Evidence from Thailand, *Journal of Asian Economics*, Volume 78, February 2022, 101435

Trend of wage differences between male and female workers in Thailand



- Gender wage gap –
The average wage difference between men and women compared to the average male wage has been declining steadily since 1985.

What factors explain the trend of declining wage differences?

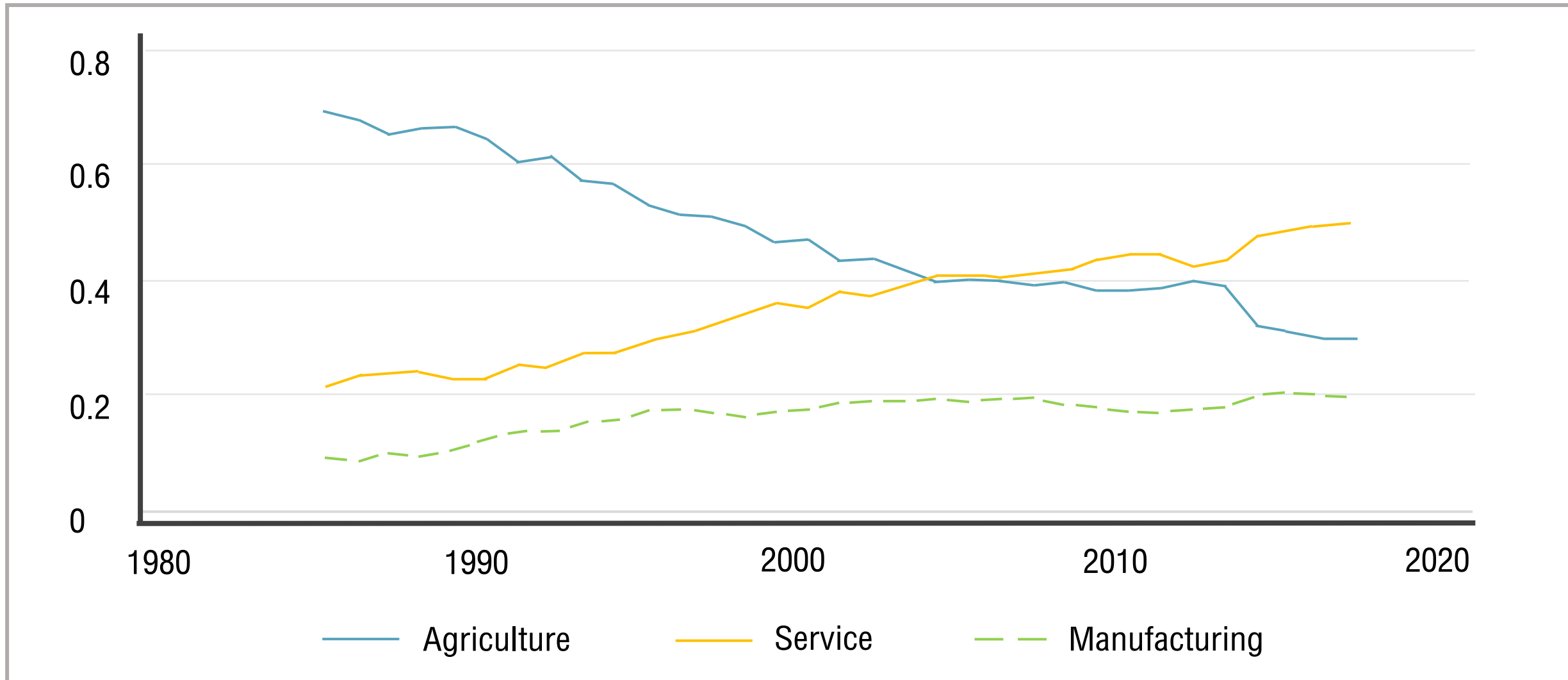
🏠 The research divided the factors affecting the wage differences between men and women into two parts:

(1) Factors that can be explained - characteristics of female workers that are different from male workers.

- Education level is the most important factor.
 - Increased women's education increases income.
 - Wage differences between men and women in Thailand has decreased.
- Women move from agricultural labor work to manufacturing service sectors) & work in more professional career and related sectors.

Trend of the percentage of female workers in manufacturing sectors in Thailand ³⁹

Source – Paweenawat and Liao (2022)



What factors explain the trend of declining wage differences?




(2) Unexplained Factors - These factors could not be explained by the different attributes of male and female workers

- gender discrimination or bias towards women workers in the labor market. In Thailand
- unexplained factors tend to decline continuously, declining gender exclusion in the Thai labor market and more opportunities for Thai women.

Parenthood Wage Gap in Thailand (Paweenawat and Liao, 2022)

- 🏠 The Parenthood Wage Gap between women and men has continued to increase over the past 30 years.
 - Having children has a negative impact on the wages of Thai women workers
 - Women with children are on average lower wages than women without children (Motherhood Wage Penalty).
 - The findings are consistent with previous studies on negative effects on mothers (Becker 1981, 1985; Waldfogel 1997; Glauber 2008; Juhn and McCue 2017).
 - Also found in male workers, men with children are on average lower wages than those without children (Fatherhood Wage Penalty).

Parenthood Wage Gap in Thailand (Paweenawat and Liao, 2022)

-  Having children negatively affects the wages of Thai male workers. This is different from the “Fatherhood Wage Bonus” found in developed countries.
-  Male workers with children have a higher average wage than those without children.
-  The behavior can explain this - After having children, men tend to work more because, in most societies, men are the breadwinner in the family, while women tend to be secondary earners.