Wages and Education of Young Males

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Abstract. Against the backdrop of the continuous development of the labor market and the increasing popularity of education, the impact of education on individual wage income has become a core research topic in the field of labor economics. The correlation mechanism, influencing factors, and heterogeneity characteristics between the education level and wage income of young men, as the new main body of the labor market, have important research value. This article takes the classic Mincer income equation as the core analytical framework, systematically reviews relevant research results at home and abroad, and conducts a review from the dimensions of theoretical basis, core variable influence mechanism, empirical research status, research controversies, and limitations. It integrates the effects of education years, work experience, individual characteristics, and market factors on young men's wages, summarizes the achievements and shortcomings of existing research, and looks forward to future research directions. The research aims to clarify the internal logic of the return on education for young men, and provide theoretical references for the career development of the young labor force, optimization of education policies, and allocation of labor market resources.

Keywords: young male, Wage income, Educational returns, Mincer equation.

1. Introduction

With the continuous transformation and upgrading of the social economy and the popularization of higher education, education has become the core endowment for individuals to participate in labor market competition and obtain income returns. As the core new force in the labor market, the employment quality and income level of young men are not only related to their personal career development, but also affect the optimization of the social labor force structure, residents' income distribution, and long-term economic development. Compared to the middle-aged and elderly labor force and young women, young men are in the initial stage of their careers, with weak work experience accumulation and strong flexibility in career choices. Their wage formation mechanism is more susceptible to the comprehensive influence of factors such as education level, individual characteristics, and market environment, and has unique research value.

At present, the labor market is characterized by a prominent education premium, differentiated employment structure, and upgraded skill demand. The young male labor force is facing real problems such as intensified employment competition and income gap differentiation. Systematically reviewing the relevant research on the relationship between young men's wages and education, clarifying the impact mechanism of factors such as education, work experience, and individual traits on their wages, and analyzing the controversies and shortcomings of existing research, can not only enrich the micro subject research system of labor economics, but also provide theoretical support for young men to plan education investment and career development paths reasonably, as well as optimize the allocation of education resources and improve labor market regulation policies by the government. Based on this, this article provides a systematic review of the research on the correlation between young men's wages and education levels. Clarifying the intrinsic relationship between young men's education and wage income is of great practical significance and academic value for solving the income differentiation of young labor force, assisting young people in high-quality employment, and promoting fair distribution of social income.

2. Core Theoretical Basis

The research on the correlation between education and wage income for young men mainly relies on two core theories: human capital theory and signal theory, which together constitute the theoretical system of educational wage returns.

The theory of human capital is the cornerstone of research on educational returns, proposed by scholars such as Becker and Mincer. This theory holds that education is an important investment in human capital, and individuals accumulate knowledge, enhance professional skills, and optimize thinking and cognition through education, thereby improving their labor productivity. In the labor market, workers with higher production efficiency can create more value for enterprises and therefore receive higher wages and compensation. For young men, education investment during adolescence and youth is the core stage of their human capital accumulation. Increasing the length of education and improving the quality of education can directly enhance their vocational competitiveness and form a stable wage premium effect. The core viewpoint of this theory is that the role of education in increasing wages is substantial and stems from the real improvement of individual labor ability[1].

The signal theory provides a supplementary explanation of the wage return mechanism of education from the perspective of market information asymmetry. This theory holds that there is an information gap between companies and job seekers in the labor market, and companies cannot directly and accurately judge the labor ability and comprehensive quality of job seekers. Education-related indicators, such as educational background and years of education, can help companies screen high-quality labor. Young men lack sufficient work experience and professional background endorsement, and their education level has become an important reference for recruitment and salary determination in enterprises. The highly educated group is often assumed to have stronger learning abilities, self-discipline, and comprehensive qualities, making it easier to obtain high-paying positions and creating an education wage premium. Unlike human capital theory, signal theory emphasizes the screening value of education rather than simply the value of enhancing abilities[2].

In addition, the theory of labor market segmentation has further improved the relevant research system. This theory points out that there is primary and secondary segmentation in the labor market, and there are differences in wage pricing mechanisms for different industries and positions. The impact of education on young men's wages is constrained by market structure. In the high-end labor market, the return effect of education is more significant, while in the low-end labor market, the education premium is relatively weak[3].

The core empirical model summarized in this article is the Mincer income equation, which is a classic paradigm in academia for measuring individual education returns and analyzing factors affecting wages. It is also the mainstream model for studying the income of the young labor force both domestically and internationally. The original Mincer equation takes salary as the dependent variable and education years and work experience as the core explanatory variables. Subsequent research continuously expands the variable system based on the research scenario, forming the extended model relied on in this study

$$\ln(\text{wage}) = \beta_0 + \beta_1 \text{school} + \beta_2 \text{exper} + \beta_3 \text{exper}^2 + \beta_4 \text{ethn} + \beta_5 \text{married} + \beta_6 \text{union} + \varepsilon \quad (1)$$

The core advantage of this model lies in balancing core influencing factors and control variables, focusing on core human capital variables such as education and work experience, as well as external variables such as individual traits and market systems. It can comprehensively explain the sources of wage income differences between young men and has become a standard framework for academic research.

3. The Relationship between Young Men's Wages and Education

3.1. The Core Positive Impact of Education Level on Young Men's Wages

Most empirical studies have confirmed a significant positive correlation between education level and young men's wage income. An increase in years of education and educational level can significantly improve the wage level of young men, indicating a stable education premium effect. Many scholars have calculated, based on urban labor force survey data, that the overall education return rate in China's labor market is at a relatively high level. For every year of education, individual wage income can achieve a certain proportion of growth, with the education return characteristics of young men being particularly prominent. Research data show that the average education return rate for the Chinese male population can reach 13.1%, fully confirming the role of education in increasing male labor wages [4].

From the perspective of educational heterogeneity, there are significant differences in the return effects of education at different levels, showing a characteristic of increasing marginal returns. Basic education at the compulsory education stage can ensure that young men have basic labor abilities, but the effect on wage increases is relatively limited; high school and vocational education can enhance individual specialized labor skills, adapt to mid-range employment positions, and significantly increase wage premiums; the return on investment of higher education is the most prominent, and young men with a bachelor's degree or above have significant advantages in employment choices, job levels, and salary levels. With the upgrading of industries and technological progress, the demand for highly skilled and highly educated labor in the market continues to increase, and the wage return effect of higher education shows a steady upward trend. However, the employment positions of less-educated young men are mostly concentrated in labor-intensive industries, with narrow wage growth space and a gradually widening income gap [5].

A study based on UK cohort data shows that, compared to males who dropped out of school at the age of 16 without a degree, males who completed intermediate, advanced, and university degrees had 18%, 24%, and 48% higher wages in middle age, respectively. This clearly reflects the positive correlation between education level and wage level, and this return effect continues to manifest from the early stages of youth employment. For young men in the early stages of their careers, lacking long-term work experience accumulation, education becomes the core basis for determining salaries in enterprises, and the premium effect of education is more intuitive and significant compared to the middle-aged and elderly labor force [6].

3.2. Nonlinear Effect of Work Experience on Young Men's Wages

Under the framework of the Mincer equation, work experience and its squared term are important variables in explaining wage changes in young men, and it has been widely confirmed in academia that the impact of work experience on wages exhibits significant inverted U-shaped nonlinear characteristics [7]. Young men are in the initial stage of their careers, accumulating work experience in the early stages. Their labor proficiency, job suitability, and practical ability improve rapidly with their years of work, and their production efficiency continues to increase. As a result, their salary levels steadily rise. At this point, the marginal return on work experience is positive and growing rapidly [8].

With the increase of work experience, individual job skills gradually mature, the speed of ability improvement slows down, the marginal return of work experience gradually decreases, and the salary growth rate continues to decline. After accumulating work experience to a certain threshold, the salary level tends to stabilize due to factors such as age growth and lagging skill iteration. In some traditional industries, there is even a slight decline in salary, which perfectly fits the negative constraint characteristics of the experience square term in the Mincer equation. Compared to middle-aged and elderly workers, the work experience of young men has a stronger marginal effect on wage increase. The accumulation of experience in the early stages of their careers can quickly amplify the wage return of education, forming a dual income-increasing effect of "education empowerment+experience

accumulation". Meanwhile, relevant studies have shown that work experience can interact with educational level, with highly educated young men having higher efficiency in accumulating experience and significantly faster wage growth than those with lower education [9].

3.3. Auxiliary effects of individual and market-controlled variables

In the study of expanding the Mincer equation, control variables such as race, marital status, and union identity have significant auxiliary effects on the wage levels of young men and are important variables for improving research on educational returns and avoiding empirical bias.

Racial factors are mainly applied in foreign labor market research. Due to differences in educational resource endowments, social recognition, and employment discrimination levels among different races, racial differences directly affect the employment wages of young men. Most foreign studies have confirmed that the average wage level of young men from advantaged races is significantly higher than that of minority races. Even with consistent education and work experience, the racial wage gap still exists, reflecting structural differences and discriminatory effects in the labor market. Although there is no racial variable in China's research, it extends to similar control variables such as registered residence and region, and confirms that differences in urban and rural resources and regional resources will affect young men's educational returns and wage levels [10].

The marital status has a significant premium effect on the wages of young men, with the average wage of married young men generally higher than that of unmarried groups. The academic explanation for this phenomenon can be mainly divided into two categories: one is the responsibility effect, where married men have stronger job stability, higher job engagement, more stable labor output, and are more willing to be paid high salaries by companies; the second is the screening effect, where young men with higher salary levels and more stable career development are more likely to enter into marriage, forming a positive correlation between marriage and salary. After controlling for educational and experiential variables, the marriage premium still exists significantly and is an important source of the wage gap between young men.

Trade union identity has a positive guarantee effect on the wages of young men. Trade unions can enhance workers' bargaining power and ensure the stability of job salary standards through mechanisms such as collective bargaining and rights protection. Research has shown that membership in trade unions can significantly increase the average wage level of young men, while reducing the risk of wage fluctuations, especially in industries with a high degree of marketization, where the wage increase effect of trade unions is more pronounced. For young men who start their careers and have weaker bargaining power, the protective role of trade unions can effectively compensate for individual bargaining weaknesses and narrow the salary gap.

4. Existing Disputes and Limitations

The core controversy in the current academic community regarding the return on education wages for young men focuses on whether the mechanism for increasing education income is based on capacity enhancement or signal screening. Some studies support the theory of human capital, which suggests that education can effectively improve the labor productivity of young men by enhancing their professional skills, learning abilities, and comprehensive qualities, thereby achieving wage growth. The return on education is a substantial ability premium. Empirical studies have shown that after controlling for individual innate ability variables, the positive return effect of education remains significant, confirming the core role of human capital accumulation.

Some studies focus on the explanatory power of signal theory, believing that in the early stages of young men's employment, practical skills and work experience have not yet been formed, and companies cannot accurately judge the true abilities of workers. Education is only used as a screening tool, and the wage premium brought by high education is more of a signal value rather than an absolute ability advantage. Some young men with low educational backgrounds have strong practical abilities, but are limited by educational signals and find it difficult to obtain high paying positions,

which indirectly confirms the existence of signal screening. Existing research indicates that the wage return of young men to education is the result of the combined effect of human capital accumulation and signal screening, which complement each other. The signal effect is more prominent in the early stages of the career, and as work experience accumulates, the true ability effect of human capital gradually takes the leading position.

In addition, most existing studies focus on the labor force of all ages and genders as research samples, and there are relatively few specialized studies on the segmentation of young male groups. Young men have unique characteristics such as starting their careers, weak experience, and flexible employment choices. Their education return mechanism is significantly different from that of middle-aged and elderly men and young women. General research conclusions cannot fully adapt to this subgroup, and the targeted research system is not yet perfect.

5. Future Prospects

Based on the existing research findings and limitations, future research on the correlation between young men's wages and education levels can be further deepened and improved.

On the one hand, research can focus on the unique characteristics of the young male labor force, avoid the generality of full-sample research, focus on the 18–35 age group of young males, deeply analyze the unique mechanism of their education return, compare and analyze the education wage differences between young males and females, middle-aged and elderly males, improve the labor economics research system of segmented groups, and enhance the accuracy and adaptability of research conclusions.

On the other hand, future research can combine dimensions such as region, industry, professional type, and family background to conduct multidimensional heterogeneity analysis and clarify the differences in educational returns for young men in different scenarios. At the same time, dynamic research is conducted using tracking data to analyze the dynamic impact of education, experience, and individual characteristics on wages in the early stages of career development for young men, and to depict the evolutionary trend of income levels.

6. Conclusion

This article is based on the core framework of the Mincer income equation and relies on basic theories such as human capital theory and signal theory to systematically review domestic and foreign research on the correlation between young men's wage levels and education levels. The existing research results fully indicate that education level is the core factor affecting the wage income of young men, and an increase in education years and educational level can form a significant wage premium; work experience has a non-linear inverted U-shaped effect on the wages of young men, and can interact with education to increase income; variables such as race, marital status, and union identity can supplement and explain the wage gap between young men at the individual and market levels.

At the same time, there are still obvious controversies and limitations in current research. The mechanism of educational returns has not been fully unified, the problem of endogenous bias has not been thoroughly resolved, and there are problems such as vague research perspectives, insufficient heterogeneity analysis, and lack of dynamic research. As a new core group in the labor market, young men have unique research value and practical significance in the relationship mechanism between education and wages. Future research needs to further focus on segmented groups, deepen multidimensional heterogeneity and dynamic research, optimize econometric methods, and accurately reveal the inherent laws of educational returns for young men.

From a practical perspective, continuously improving the education level of young men, optimizing the education structure, and strengthening vocational skills training can effectively enhance their labor income level and optimize the quality of employment. At the same time,

improving the labor market mechanism, weakening the structural differences in the market, and improving the protection system for workers' rights and interests can fully unleash the value of education in increasing income, help young labor find high-quality employment, and promote the optimal allocation of labor market resources.

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