

INTRODUCTION TO LABOUR ECONOMICS

Prof. (Dr.) Smita Mishra



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CHAPTER 1

INVESTIGATION AND OVERVIEW ON LABOUR ECONOMICS

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ABSTRACT:

This research and summary of labor economics provide a thorough examination of the major ideas, theories, and patterns influencing the dynamics of the labor market. Labor economics is an academic discipline that studies how governments, businesses, and employees behave when allocating labor resources and setting pay, employment levels, and working conditions. The goal of this study is to clarify the intricacies of labor market phenomena and their consequences for social welfare and economic performance using a multidisciplinary approach that draws on economics, sociology, and public policy. The dynamics of labor supply and demand, methods for determining wages, investments in human capital, unemployment, discrimination in the labor market, and labor market institutions are some of the important topics covered. The study looks at how changes in the population, globalization, technology, and regulations affect the results of the labor market. It also looks at how social safety nets, collective bargaining, minimum wage regulations, and labor unions affect how opportunities and money are distributed in society. The research intends to give insights into the causes of labor market outcomes and the efficacy of policy measures targeted at generating employment, decreasing inequality, and improving labor market efficiency via empirical analysis, case studies, and comparative evaluations. Furthermore, the study clarifies the difficulties brought about by new developments like automation, the gig economy, and the mismatch in skill sets.

KEYWORDS:

Employment, Labor Economics, Labor Market, Policy Interventions, Unemployment.

INTRODUCTION

The work status is a major factor in determining one's ability to escape poverty, labor markets are crucial in developing nations for deciding social and economic advancement. Ultimately, the best sustainable way to raise wages and levels of spending is to have a respectable, well-paying, and stable employment. But in the formal economies of the majority of developing nations, the labor market really does not provide enough employment to support the prosperity of people and their families[1], [2]. Instead, the labor markets are often defined by the continuation of informality in urban areas, the proportion of workers engaged in subsistence farming, low wages and unfavorable working conditions, and the inequalities that affect women, young people, and other marginalized groups in society[3], [4].

These issues continue to be as urgent for governments throughout the globe as they were when W. Arthur Lewis introduced his concept of excess labor more than 50 years ago, despite recent decades seeing stronger economic development in many nations (Lewis, 1954). What is more worrisome is that a growing number of nations, particularly those in South AsiaAfrica, have seen economic growth and development that has been accompanied with an increase in the informal sector's dominance in metropolitan centers. Rather of being integrated into large-scale industrial businesses, the rural poor have moved from agriculture

to working as street vendors and construction laborers in towns and cities. Thus, there is still segmentation in both rural and urban parts of emerging nations' labor markets. Moreover, in many emerging (and developed) nations, additional informalization of the formal sector most notably via contract and temporary labor has given rise to new types of labor market dualism[5], [6].

One of the main issues that all emerging (and developed) nations face is the gender gap in the labor force. Because they encounter several obstacles in their quest for higher positions in the formal sector (caused by characteristics like skill sets), women are disproportionately represented in vulnerable and informal employment. Because of this, women are less likely to be employed in the formal sector and more likely to work as domestic or family caregivers. In addition, gender pay disparities still exist, which is a result of a number of variables, including the disadvantage women face when they leave the workforce to raise their children. As covered in ILO (2010), World Bank (2011), and other studies, a number of factors, such as cultural norms and beliefs, a lack of education, the predominance of low-value added sectors, obstacles to entrepreneurship, and insufficient support from government policies and programs, contribute to women's poor labor market outcomes[7], [8].

The development of enough employment for young people when they join the labor market is another key worry for developing nations. This is a crucial difficulty due to high rates of population increase. As has been noted globally, young unemployment and underemployment are widespread due to a combination of factors, including demand-side shortfalls (inadequate job opportunities), skills, work experience, job search skills, and financial means (ILO, 2006). Youth unemployment rates are thus often two to three times greater than those of adults. In addition, young people have been more negatively impacted by the global financial crisis than adults because to the industries they often work in and how susceptible they are to layoffs. Global statistics indicate that as of 2012, about 75 million young people between the ages of 15 and 24 were jobless, translating to an unemployment rate of 12.7 percent. These labor concerns have gained recognition from governments and other stakeholders, and the global financial crisis of 2007–2009 considerably hastened this recognition. However, there are a lot of complicated problems surrounding these disputes, so understanding the connections between labor market results and development processes is essential to moving forward with adopting more effective policies and programs. While a lot of textbooks on labor economics and development economics have been published, not as many have been written on how the two fields intersect, especially in an approachable and useful way[9], [10].

In this regard, textbooks often include too much technical material for stakeholders and policymakers, who yet need strong justifications and facts in order to create policies that are supported by evidence. In order to help policymakers, employers' and workers' organizations, civil society, and other readers improve their capacity to understand these topics and develop appropriate and effective policy responses, this book aims to provide thorough but non-academic coverage of labor market issues in a developing country.

This book is divided into three primary theme sections to accomplish this purpose. provides a general, macro-overview of the labor markets in emerging nations, while discusses the relationship between employment, distribution, growth, and poverty. The last three chapters (Chapters 8–10) take a more normative approach to labor market institutions and policies, along with methodical approaches to quantifying labor markets in developing countries. Chapters 4-6 focus on specific labor market issues, such as informality, wages, migration, and education. Gender and youth as two intersecting themes in different parts. The shortage of human and physical capital and the availability of labor are the two main characteristics of emerging economies. The significance of agriculture, the rural economy, and the structural

transformation process which causes employment to move from the primary to the industrial and service sectors are then emphasized. This chapter also provides an overview of the structural variations in labor markets between industrialized and developing nations, with the latter being defined by a high degree of informality and inadequate market integration knowing how development outcomes improve with growth, particularly in the context of the labor market.

In this sense, income disparity determines how economic progress translates into a decrease in poverty. Considering that labor is the primary, if not the only, source of income for the majority of people in developing nations, this in turn relies critically on how growth affects employment and earnings. This chapter examines the empirical data on this topic before offering a conceptual framework of the relationships between growth, poverty, inequality, and labor markets in order to solve these problems. The primary theoretical understandings and empirical data pertaining to the variables that push and pull migration.

Similarly, the consequences of immigration and emigration on wages, human capital, growth, and remittances are highlighted, along with the implications of labor movement on sending and receiving economies. Finally, the chapter discusses immigration policy. The shortage of money and the availability of labor are the two main characteristics of emerging nations. Due to the combination of lower capital accumulation and investment as well as higher labor supply constraints than in industrialized nations, there is a dearth of jobs that are productive. Once again, this is a simplified and secular observation that could no longer hold true for a large number of other "developing" nations. Indeed, substantial and even excessive capital outflows to some developing nations are of macroeconomic concern in the wake of the Great Recession, with interest rates driven to zero in the affected, rich countries.

The distribution of labor and capital is also changing in many developing nations, particularly in the emerging economies. In reality, starting about 1990, the growth rates of developing nations started to separate and outpace those of industrialized nations. Leading the way in this regard were the rising economies, especially China and other Asian nations. For instance, growth in sub-Saharan Africa saw a pace of expansion in the first ten years of the new century that had not been seen in decades, mostly due to increased commodity prices.

Nevertheless, there is still a scenario where there is a significant underutilization of labor due to an oversupply of labor and insufficient growth to put it to use in productive employment. This has two reasons behind it. The first is due to the divergence of demographic trends, which puts more pressure on the labor supply in developing nations. In fact, the rate of population growth tends to increase with a country's poverty, but not always, because these economies are less likely to be able to employ a growing number of young workers a suggestion for this. It follows that young employment is the main source of the employment issue in emerging nations. This implies that the population's age distribution is younger the greater the population growth rate. Therefore, even though many wealthy nations are concerned about their aging populations

DISCUSSION

Economic theory offers profound and unexpected insights into societal and individual behavior. These revelations are intriguing because they provide light on significant facets of our existence. Beyond this, however, the ability of the government, business, labor, and other organizations to apply the ideas and methods of economists to the formulation of social policy has grown. economic analysis to the conduct of employers and workers as well as their relationship. While all other sources of personal income for the year 2009 included investments, self-employment, pensions, and different government assistance programs, the

total compensation that U.S. workers earned from their employers was \$7.8 trillion. Because it is one of the most important partnerships in our life, the work relationship is one that receives a lot of attention from lawmakers. Understanding the foundations of labor economics is thus necessary to comprehend a wide range of social issues and initiatives, both domestically and internationally.

It goes without saying that, as economists actively engaged in the study and assessment of public policy, we think labor economics is helpful in comprehending the outcomes of these initiatives. Possibly more importantly, we think policy analysis can be helpful in labor economics foundational education. For these reasons, we have included these analyses in each chapter, with two goals in mind. First, we think that a student's desire to learn is increased when they see the relevance and societal repercussions of the subjects they are studying. Second, putting each chapter's ideas into an analytical context helps the learner see the ideas "in action," which improves comprehension. Rumor has it that a past secretary of labor in the United States tried to get departmental publications to stop using the phrase "labor market." To him, the idea that labor can be bought and sold like steel, grain, or oil denigrated workers.

It's true that work is distinct in a few respects. Employees themselves cannot be purchased or sold; labor services may only be hired. Furthermore, the terms under which such services are hired are sometimes just as significant as the cost since labor services cannot be separated from people. In fact, non-financial factors like the workplace culture, potential for accidents, management personalities, opinions about equitable treatment, and flexibility in work schedules play a bigger role in employment transactions than they do in commodity markets. Last but not least, a variety of organizations and laws that affect the work relationship do not exist in other markets.

However, for a number of reasons, the conditions under which employers and workers hire labor services unquestionably comprise a market. First, organizations like job agencies and want advertising were created to help buyers and suppliers of labor services get in touch. Secondly, after making contact, details on cost and quality are shared in job applications and interviews. Third, a formal or informal contract that addresses pay, working conditions, job security, and even the length of the employment is inked after an agreement is achieved. Generally speaking, these contracts require businesses to pay workers for their labor rather than for the products they generate. Employers that use this kind of remuneration must pay close attention to employee motivation and reliability throughout the hiring and selection process.

Naturally, the placement of individuals in positions at certain pay rates is the ultimate outcome of employer-employee interactions in the labor market. The demands of the greater community are met by this division of work in addition to the requirements of the individual. Our most valuable national resource, labor, is distributed across businesses, industries, professions, and geographical areas via the labor market. The study of the dynamics and results of the labor market is known as labor economics.

More precisely, the behavior of employers and workers in response to general incentives like salaries, prices, and profits as well as non-pecuniary features of the employment relationship like working conditions, is the main focus of labor economics. These rewards have the twin effects of encouraging and restricting personal preference. In economics, incentives that are impersonal and applicable to a broad spectrum of individuals are the main emphasis. The relationship between wages and employment opportunities, the interaction between wages, income, and the decision to work, the impact of general market incentives on occupational

choice, the relationship between wages and unfavorable job characteristics, the benefits and drawbacks of investing in education and training, and the effects of unions on wages, productivity, and turnover are just a few of the topics we will cover in this book. We will examine the impact of social policies on employment and wages, including minimum wage, overtime rules, health and safety standards, welfare reform, payroll taxes, unemployment insurance, immigration laws, and antidiscrimination laws.

According to the idea of positive economics, individuals usually react positively to advantages and adversely to expenses. Positive economics and Skinnerian psychology are similar in this sense, since both theories hold that incentives and penalties have a significant influence on behavior. According to economic theory, missed opportunities represent costs, whereas monetary and non-monetary gains represent rewards. For example, someone who is driven to become a surgeon due to the income and prestige that doctors enjoy must forfeit their chance to become a lawyer and must always be accessible for emergency cases. When choosing a profession, one must weigh the expenses and the advantages. The prevailing belief that underpins economic theory is the scarcity of resources. This presumption holds that neither society nor individuals have the means to satisfy all of their needs. There is a cost associated with every choice or action since any resource allocated to gratifying one set of needs may have been utilized to fulfill another. When labor employed by a government contractor is used to construct a road, for instance, the true cost of that work is the output lost since that labor was not used to produce another object or service. Therefore, as they say, "There is no such thing as a free lunch," and we have to constantly make decisions and accept the benefits and drawbacks they may have. Furthermore, the resources at our disposal constantly place restrictions on the decisions we may make. Positive economics also operates on the second fundamental premise that individuals are rational beings who have goals and follow them through with some degree of consistency.

Economists view people with the assumption that their purpose is utility maximization, meaning that individuals want to maximize their happiness within the constraints of their finite resources. Of course, both the financial and nonfinancial aspects of work contribute to utility. Economists presume that the purpose of activity in companies, which are by nature impersonal organizations, is to maximize profits. In reality, profit maximization is essentially utility maximization with a focus on financial gain and disregard for non-financial considerations. The presumption of rationality presupposes that conduct will respond to broad economic incentives consistently and will adjust to changing incentives. These two behavioral traits serve as the foundation for forecasts of how businesses and employees will react to different incentives.

In economics, behavioral predictions are derived mostly from two basic assumptions: scarcity and reason. Employees are constantly faced with decisions to make, including changing careers, taking on more work, relocating, or furthering their education. Employers also have to make decisions about how much work is produced and how much labor and machinery are used in the process. Economists often believe that employers' and workers' decisions are driven by their respective goals of maximizing profit or usefulness. The economic theory of conduct, however, places more emphasis on the fact that economic actors evaluate the advantages and disadvantages of several alternative transactions in the context of pursuing a given goal than it does on the specific objectives of employers or workers.

Some may argue that these presumptions are irrational and that individuals aren't nearly as rational, knowledgeable about their options, or well-equipped with options as economists believe. Economists would likely respond that most forecasts made by economic theory won't be backed by empirical data if individuals aren't doing any calculations, are completely

ignorant, or don't have any options. Therefore, they contend that rather than focusing on the theory's basic presumptions, positive economics should be evaluated based on its predictions.

The real functioning of the labor market is almost unfathomably complicated, which is why we have to make assumptions and develop a somewhat basic theory of behavior. Every day, millions of employees and employers engage in interactions, each with unique knowledge, motives, preferences, and self-interest views. Finding broad guidelines that provide practical insights into the job market is what we need to do. In this work, we want to demonstrate how a few fundamental dynamics in the labor market may predict or explain a great deal of the outcomes and behaviors that are seen there.

Every time we try to use a few key factors to describe a complicated collection of actions and results, we have developed a model. Models are designed to exclude arbitrary and peculiar elements so that the emphasis may be on broad concepts rather than to capture every nuance of behavior. The nature of models and how they relate to real behavior may become more apparent with the use of an example from the physical sciences. A ball may be kicked with a certain force at a specific angle to the ground, and physicists can estimate where the ball will fall by doing basic calculations of gravity pull and velocity. Due to variables not taken into account in the calculations, such as wind patterns and potential ball spin, the actual point of landing may differ from the estimated position. Even while they will usually gather near the target, not all 100 balls will ever fall there precisely.

Although not perfect, the model's accuracy might be sufficient for a football coach to choose whether to try a field goal or not. The idea is that, for the sake of policy, we often just need to know the average trends of outcomes. We must identify the key factors at play in order to evaluate these trends, but we must limit our analysis to a manageable number of factors. In order to really understand the suppositions and forecasts of economic models, we examine a specific instance. Let's start by assuming that people will choose high-paying occupations over low-paying ones if all other employment features remain the same, due to resource scarcity. They will thus leave low-paying positions in favor of higher-paying ones if they think there will be enough improvement. This idea does not suggest that all employees are equally inclined to resign or that their primary concern is money. Employees clearly care about a variety of employment-related factors, and if any of these are improved in their present position, turnover is less probable. Similarly, some employees are more adaptable to change than others. Nonetheless, it should be evident that the likelihood of resigning will decrease if we maintain the status quo and just raise compensation.

For a business to survive, profits must be made. Their expenditures will be greater than they would be otherwise if they have a high turnover rate since they will have to employ and train replacements. They therefore could not afford to pay high salaries due to excessive turnover. However, it may be worthwhile to bear the additional labor expenses if they could sufficiently lower turnover by offering greater salaries. Thus, we should anticipate that, all things being equal, high turnover will be linked with low pay and low turnover with high wages due to both the utility-maximizing conduct of workers and the profit-maximizing behavior of enterprises.

The two presumptions of rationality and scarcity immediately lead to the predictions. Given their limited resources, employers and employees are expected to be searching for opportunities to enhance their well-being. Additionally, the forecasts are predicated on the notions that workers are open to and aware of other careers, or may be informed about them. While the theory's predictions center on the overall link between pay and turnover, its assumptions address the individual behaviors of employers and workers. It is not predicted

that every employee will stay on the job if wages are raised; rather, it is predicted that enough will stay on the work to reduce turnover. Thus, utilizing aggregate data from businesses or industries, the prediction's test consists in determining if the expected link between earnings and turnover really occurs.

Realizing that there are two types of economic interactions is the first step towards understanding normative economics. One sort is willingly undertaken as it benefits all involved parties. Both parties benefit by agreeing to Sally's appointment at an hourly rate between \$20 and \$22, for example, if Sally is prepared to draw plans for \$20 per hour and Ace Engineering Services is ready to pay someone up to \$22 per hour to do the project. It is the labor market's responsibility to enable these voluntary, win-win exchanges. In the event that the market is able to facilitate every potential transaction that benefits both parties, this is referred to as Pareto (or "economic") efficiency.

Economists use the term "efficiency" in a very specific meaning to refer to a state in which all transactions that benefit both parties have been completed. Compared to the word's typical meaning of cost reduction, this definition is broader. No further voluntary transactions would be made as they would not be beneficial to both parties if Pareto efficiency were really reached. A transaction in which one or more parties loses is the second kind. Income is often redistributed in these exchanges, with some people benefiting at the cost of others. Redistributive transactions, for instance, are not freely undertaken unless they are driven by altruism in which case the contributors experience non-monetary fulfillment in all other cases, redistributive transactions are required by law as a result of tax and spending regulations. Therefore, the government's role is typically to make certain transactions required, even when markets allow voluntary exchanges.

Every normative statement a declaration of what should be is predicated on a fundamental principle. Government measures that impact the labor market are often predicated on the commonly held, if not universally accepted, belief that society ought to work toward increasing economic equality. Policies based on distributive principles include minimum wage regulations, immigration restrictions, and programs. Other labor market policies aim to modify or supersede the decisions employees make in order to maximize their usefulness. In many of these situations, the fundamental principle is that employees shouldn't be permitted to jeopardize their financial or physical security for themselves or their families. In some environments, wearing personal safety equipment like hard helmets and earplugs, for example is deemed so beneficial that employees are obliged to wear it, even if they would prefer not to. Because some workers may suffer when policies to redistribute money or compel the purchase of deserving items are implemented, they are often met with opposition. Since these transactions won't be made willingly, the government must force them.

CONCLUSION

This analysis and summary emphasize how vital labor economics is to comprehending how contemporary economies operate and formulating labor market regulations. Numerous variables, such as changes in technology, globalization, demographics, and institutional structures, have an impact on labor market dynamics. Adopting evidence-based policy strategies that support equitable growth, lower unemployment, and address labor market inequalities is advised for policymakers. In order to fully comprehend new developments in the labor market and how they affect social cohesion and economic growth, more study is required in the future. Policymakers may create more effective interventions to guarantee that everyone has access to meaningful work opportunities and fair salaries by using labor

economics' insights. This would promote inclusive and sustainable economic development. The present study and synopsis provide significant perspectives for practitioners, academics, and policymakers that want to effectively traverse the intricacies of labor market dynamics and advance improved worker and societal outcomes.

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CHAPTER 2

INVESTIGATION OF NORMATIVE ECONOMICS AND GOVERNMENT POLICY

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ABSTRACT:

In order to shape socioeconomic systems and direct policy choices, normative economics and government policy are essential. The influence of government policies on society and the economy is the main focus of this study's investigation of the interaction between normative economics concepts and policy. The research intends to clarify the theoretical foundations of normative economics and evaluate their practical consequences for policy development and execution via a thorough evaluation of the body of current literature and empirical analysis. The role of government involvement in redistributing wealth, resolving market failures, and advancing social welfare are important topics of study. The goal of the research is to uncover best practices and lessons learned in the alignment of normative economic principles with successful government policies by looking at case studies and policy interventions across a range of industries and geographies. Additionally, the study explores how policymakers negotiate conflicting interests and trade-offs in decision-making by delving into the moral dilemmas and value judgments that are inherent in normative economics. The ultimate goal of this research is to further our knowledge of the intricate interaction between normative economics and public policy by offering new perspectives that will help shape more sustainable and equitable policy strategies.

KEYWORDS:

Normative economics, Government policy, Market failures, Wealth redistribution, Social welfare.

INTRODUCTION

Governmental action is usually required to find solutions to issues that obstruct the execution of transactions that benefit society. For example, if the issue is a lack of knowledge about health dangers, it would seem sense for the government to take action to guarantee that employees are aware of these risks. Removing the legislation is the apparent solution if the issue is that it prohibits women from working the hours they want, for example. In order to address various forms of transaction barriers, the government must either actively encourage or coerce actions that diverge from those that "the market" (i.e., private decision-makers) would take [1], [2]. The necessity to determine the precise nature of the right transaction complicates the policy prescription when the government chooses to "replace" a market choice with one of its own. We address government actions to address two types of transaction obstacles in the material that follows. Because their only security for a loan is often their commitment to repay it, workers often struggle to get loans that would enable them to fund job training or a cross-country migration in search of better employment. Even with the same default risk, the government may nevertheless approve such loans since it would boost the economy overall by allowing people to relocate or learn new skills [3], [4]. Naturally, in the event that the government chose to approve these loans, it would have to determine the

proper conditions, including the loan amount. As we previously said, parents are not required to consider their children's wellbeing when deciding whether to send them to school or employment. Most countries have decided that requiring children to attend school until they reach a specific age and providing at least that degree of education at no cost is a solution to this issue. Naturally, the government would ideally need to carefully consider the lifetime benefits of different schooling levels and compare them to the opportunity costs of the children's lost productivity as well as the direct costs of education before determining the appropriate age at which to leave school [5], [6]. A thorough understanding of economic theory is necessary to conduct the benefit-cost evaluations required to handle the externalities issue in an informed manner. Political decision-makers often see a fairer income distribution as a social aim, and disagreements may develop on which should take precedence when establishing policy: economic efficiency or social justice.

The fact that there isn't a single set of Pareto-efficient transactions is one issue that gives rise to disagreement. In actuality, there are many sets of transactions that might meet our criteria for economic efficiency, and it can be debatable which set is the fairest. We go back to our example of the lady who was ready to develop plans for \$20 per hour in order to comprehend the many sets of efficient transactions that are conceivable. Ace Engineering Services and Sally may agree on an hourly salary of, say, \$21, which would benefit both sides if Ace is ready to pay up to \$22 per hour for designs and Sally is willing to labor for \$20. That being stated, the same may be true for a salary agreement of \$20.25 or \$21.75 per hour. All of these possible agreements are objectively deemed efficient as they benefit both parties more than they would have if they had not transacted. However, unless we establish a subjective definition of "fairness," it is unclear which of the possible agreements is most equitable. The second source of contention between efficiency and equity stems from the issue that, in order to increase equality, deviations from Pareto efficiency are sometimes required. For example, minimum wage regulations must be blocked. The majority of tiny, family-run businesses in the informal sector are often labor-intensive, low-paying, and either exempt from or in violation of current labor market laws [7], [8]. This dualistic labor market system is essentially made up of two economies: the "formal" economy, which provides higher pay and other favorable terms and circumstances of work, and the "informal" sector, which offers less favorable wages and conditions. Regulations governing the labor market and access to official social safety programs are more likely to be available in the formal economy; these features are almost nonexistent in the informal sector.

The key takeaways from this are that most workers in the world today are employed in the informal sector, and most people who join the global labor market do so via it. For instance, almost 34% of Tanzanian families are always involved in some kind of non-agricultural informal work. The percentage is greater in metropolitan areas; in Dar es Salaam, the biggest city, 55% of workers are unemployed. Approximately 22% of the labor force is partially engaged in the non-agricultural informal sector, with 75% of this workforce being made up of self-employed individuals and contributing family members. The majority of the informal labor force in metropolitan areas that is not agricultural is employed in commerce, hospitality, or restaurants.

According to estimates, informal labor accounts for 80% of non-agricultural employment in Africa, over 60% of employment in urban areas, and an astounding 90% of new jobs created in the last ten years. In Asia, between 45 and 85 percent of non-agricultural labor and 40 to 60 percent of urban employment transactions that parties might be willing to make at a lower wage are comprised of informal workers; consequently, some individuals whose services are "priced out of the market" and who would have accepted jobs at less than the legally

mandated minimum are not offered any at all. In a similar vein, assistance programs are often designed in such a way that users who find paid employment effectively earn a zero wage significant price distortion that is neither simple nor inexpensive to remedy. Efficiency is prioritized above equitable concerns in normative economics, not because it is more significant but rather because it lends itself to more rigorous analysis[9]–[11].

Productivity disparities among industries are often significantly more pronounced in underdeveloped nations than in wealthy ones. In the latter, competition lessens the range in productivity levels due to more integrated product markets, improved infrastructure (and therefore fewer external productivity limitations), and reduced information asymmetry in product markets. There is a significant productivity differential in developing nations depending on whether soap is produced in a microenterprise or a subsidiary of a multinational corporation. The simple answer for why both manufacturing units persist and the more productive one does not drive the less productive one out of business is because the same commodity in this case, soap competes in two distinct product markets, the latter of which is increasingly divided in emerging nations.

DISCUSSION

Previous discussions have assumed that a firm's pay rate is the sole determinant determining leave rates, apart from random (unexplained) variables. This chapter's explanation of positive economics emphasizes that, while all other variables are held constant, a negative link between earnings and quit rates is predicted. Economic theory indicates that a variety of variables other than pay systematically affect quit rates, as we shall cover in chapter 10. These include characteristics of the employees themselves (such as age and training level as well as traits of the companies such as working conditions, size, and benefits provided to employees.

The estimated association between pay rates and quit rates that results will be inaccurate if any of these other factors that we have left out of our study tend to fluctuate among companies systematically with the wage rates that the firms provide. In these situations, we need to use a multi-independent variable model to account for these additional factors. To choose which variables to include in our statistical study and to propose the direction of causality, we turn to economic theory. To demonstrate this process, let's assume that, apart from salary rates, the only factor influencing a company's quit rate is the average age of its employees. When all other characteristics remain same, older workers are less likely to leave for a variety of reasons, including the psychological costs associated with changing employment and the greater bonds that come with growing older with friends, neighbors, and colleagues. The values of a_0 and a_1 are the parameters of equation be calculated by the use of multiple regression analysis, a technique similar to the one previously mentioned.

The optimum straight-line connection between the dependent variable and the collection of independent variables is defined by the parameter values that are found using this approach. When all other independent variables are held constant, each parameter indicates the impact of a one-unit change in the associated independent variable on the dependent variable. Therefore, keeping the age of a firm's workforce (A) constant, the estimate of a_1 informs us the estimated impact on the quit rate (Q) of a one-unit change in the pay rate (W). Similar to the previous technique, multiple regression analysis may be used to estimate the parameters of equation (1A.4), or the values of a_0 , a_1 , and a_2 . The optimum straight-line connection between the dependent variable and the collection of independent variables is defined by the parameter values that are found using this approach. When all other independent variables are held constant, each parameter indicates the impact of a one-unit change in the associated independent variable on the dependent variable. Therefore, keeping the age of a firm's

workforce (A) constant, the estimate of a_1 informs us the estimated impact on the quit rate (Q) of a one-unit change in the pay rate (W). This estimated connection is shown by the line XX. Although we know (by assumption) that the real decrease is 2.5 percentage points, the estimate of a_1 , which equals 24, suggests that every dollar increase in earnings lowers the quit rate by four percentage points. Due to the estimated equation's disregard for the influence of age on quits, our estimated response overstates the sensitivity of the quit rate to earnings.

Put another way, greater compensation and the tendency to hire older, less likely to leave employees are the two reasons why quit rates are lower in high-wage businesses. We get the incorrect conclusion that quit rates are more responsive to pay increases than they really are by leaving age out of the study. Therefore, we have produced an incorrect estimate of the influence of wages on quit rates by leaving out of our model a crucial explanatory variable (age) that both affects quit rates and is linked with salary levels. The majority of labor economics theories are "other things held equal," as this debate makes clear. We must account for other variables that could be predicted to affect the variable of interest while testing hypotheses. Usually, this is accomplished by stating that the dependent variable depends on a group of factors. Economic theory is required to drive this specification, and understanding it is important since it may help us evaluate behavioral theories. Behavior analyses are susceptible to omitted variables bias if they lack a solid theoretical foundation. Having stated that, we must emphasize that having data on every variable that can theoretically affect the subject of the study is neither necessary nor feasible.

When evaluating economic models, idiosyncratic aspects are ignored in favor of average connections. When it comes to quitting, two employees of the same age and pay scale could show distinct patterns. One might desire to leave the city to avoid their awful father-in-law. Because having a father-in-law has no link with one's wage rate and has no predicted influence on quits (some father-in-laws are attractive to be around), this idiosyncratic feature is not significant for testing an economic model of quit rates. To reiterate, bias from missing variables only becomes an issue if it influences the dependent variable (quit rate) and has a correlation with the interest-generating independent variable (wages). Labor is an essential component of production and cannot be separated from it. Given that labor is scarce like other manufacturing inputs. It should thus be used effectively.

Prior to starting the task, it is necessary to assess whether or not we are using his abilities and skills to the fullest. For example, whether a person is willing to labor. He may work in an agricultural field or for a company, but if the latter is where he is most talented, then that is where his skills should be used. Furthermore, the labor cannot be abused since it is accessible. Since labor is in short supply, it must be employed as efficiently as possible. Policy makers in developing countries have long placed a high priority on the effective and efficient use of human resources. Effective utilization refers to production, while efficient utilization is associated with choosing the optimal alternative for use.

A situation of disguising unemployment in which employees don't really contribute to the production runs contradictory to the idea of efficient utilization. The concept of a labor market is necessary when labor is acknowledged as a component of production and as tradable. According to the conventional wisdom, the labor market may be efficiently run via the mechanism of supply and demand. The labor market is where contracts between employers and employees are made, and decisions about pay and working conditions are made. It is thus a device that integrates labor force with manufacturing processes. Due to its distinct characteristic of factor trading, the labor market differs greatly from other markets. Nonetheless, by accounting for the presence of flaws, rigidities, and costs related to labor

mobility, trade union organizations, uncertainties and incomplete information, etc., contemporary labor economics does, in fact, enhance the classic competitive model.

The gender gap and income disparity are hallmarks of the Indian labor market. In rural places throughout the nation, women are paid less for their labor than men. A study conducted in 1999-2000 by the Rural Labour Inquiry Report on Wages and Earnings of Rural Labour Households found that men are paid around 30% more than women. Furthermore, the most exploited sector of the Indian labor market is the rural labor market, where child labour is quite common. One of the primary issues facing emerging nations is the growing population.

There is more labor available due to population pressure on the land, which causes both covert and overt unemployment in the rural economy. One of the primary causes of the low pay rate in rural regions is apparent and concealed unemployment. Rural jobless workers are drawn to metropolitan regions by the better pay and employment prospects there. The rural labor force migrates back to their villages at the height of the agricultural season and then reenters the urban labor market after the season ends. Even though labor is referred to as a single element of production, the productivity and inventiveness of any two labor units vary. Age, race, gender, education, experience, training, skills, and motivation are among the variables that differentiate the labor units. These elements give labor its heterogeneity. The labor market data on the kind and caliber of workers that are accessible is essential to achieving the desired search results. Regarding pay, working conditions, and labor rules, workers may not always have complete knowledge. Employers find it challenging to ascertain the dependability and productivity of their workforce until results are obtained. labor economics, its nature and scope, and the features of the labor market in emerging nations. Labour is a human resource and one of the components of production. The goal of labour economics is to comprehend the dynamics and operation of the labour market. The labor market is driven by the exchanges between employers and employees. The study of labor economics examines how wages and job possibilities relate to one another as well as how income, wages, and work decisions interact. In order to generate products and services, labor is required. Businesses need labor because customers want to buy a range of products and services. The labor demand of the company is derived, meaning it comes from customer needs and wishes. The quantity of employees that businesses hire and the wages these employees get are major issues in economic policy.

The quantity of workers willing to do a given task at a variable pay rate, as well as the number of hours or days that each worker is willing to work at a variable wage rate, are referred to as the supply of labor. The number of days or hours that a certain kind of labor is willing to perform at a distinct pay rate is thus referred to as the "supply of labor."The idea of demand for labor refers to the quantity of labor that an economy or company is willing to employ at a certain moment in time. The actual wage, the quantity of labor workers are willing to provide at that rate, and the wage companies are prepared to pay for this labor define the demand, which may or may not be in long-run equilibrium. Market salaries rise in response to labor demand, and more workers join the workforce. Employers will, however, utilize less labor as a result of the rising labor costs since labor is more costly.

The salary that a firm will offer its employees depends on the competitive market rate for a particular skill set, assuming that there are numerous companies in the area or that workers are highly mobile geographically. This implies that every business is a wage taker, which is another way of stating that businesses need to provide competitive salaries to attract employees. Only as a necessary input in the industrial process is labor requested. Producers and entrepreneurs drive the labor demand in the factor market. Because the demand for labor is derived from the need for the commodities and services that laborers provide, labor

demand is a derived demand. As long as the growth in production exceeds the rise in labor productivity, we anticipate seeing an increase in the aggregate demand for labor during economic expansion. On the other hand, during a recession or downturn in the economy, businesses will attempt to reduce their operating expenses and lower output, which will result in a decline in the overall demand for labor.

There is a decreasing slope to the labor demand curve. This concept is illustrated by placing the number of laborers on the OX axis and wages on the OY axis. The labor demand curve is represented by DD. It slopes downhill, indicating a decrease in salaries and an increase in the number of workers required at low pay. The demand for labor and the pay rate are inversely correlated. There will be less of a demand for labor at higher pay rates than at lower wage rates. Hiring additional staff will be more expensive if the salaries are high. The productivity of the workforce has a significant impact on the demand for labor. Businesses always want to maximize their profits, therefore they will choose the factor of production function that minimizes production costs while simultaneously doing the work as efficiently as feasible. One of the first theories of wages that describes the relationship between labor demand and market pay rate is the marginal productivity hypothesis.

According to the marginal productivity theory of wages, a worker's pay is equal to both average and marginal revenue productivity in a perfect market. In other words, a worker's pay is determined by his or her average and marginal revenue production. This idea states that a worker's salary is based on his marginal production. Put otherwise, $MRP = M. W.$ The amount of productivity added to overall productivity by using one extra laborer unit is known as marginal productivity. Because laborers get a monetary pay, the value of their marginal production is determined in monetary terms. We refer to this as MRP, or marginal revenue productivity. MRP is the increase in overall income that results from hiring one extra labor unit. When labor wages match the product's marginal income, a producer will make the most profit. The producer will suffer a loss if the marginal revenue product (MRP) is less than the marginal wage ($MW > MRP$). When the marginal wage product (MW) for labor exceeds its earnings, employers incur a loss and must make additional payments. The demand for labor declines with increasing pay rates. Because of this, the labor demand curve slopes down.

A downward-sloping demand curve may be described in terms of the income and substitution effects, just as in any market. Businesses want to replace labor with capital at higher salaries, or less costly labor with labor that is more expensive. Furthermore, if businesses continue to use the same amount of labor, their labor expenses will increase and their revenue (profits) would decrease. The demand for labor will decline as wages increase for these two reasons. The overall demand in a particular market may be influenced by the quantity of purchasers in that market. In the context of labor markets, monopolists are defined as a single buyer in a market. For instance, the only company in the UK that employs underground tube drivers is London Underground. In general, there is less of a demand for labor in a labor market when one employer dominates than when there are many firms. Furthermore, there is a propensity for lower pay rates in these marketplaces, which is one of the reasons trade unions emerge and push for greater pay.

J. R. Turner asserts that "a wage is a price." It is a cost that the employee's employer pays for the labor they have completed. Put simply, it may be described as the cost an employer bears to hire labor for productive purposes. Therefore, it is the portion of the national dividend that goes to labor, understood broadly to include all types of workers. Whether or whether they are paid daily, weekly, monthly, or annually; whether or not they are expert or unskilled laborers; and whether or not their employment is manual or mental.

The laborers get remuneration in the form of wages. There are occasions when actual and nominal earnings are distinguished. The real wage, which a worker may get with the aid of his or her money wage, symbolizes the worker's actual control over products and services, while the money wage represents the worker's monetary revenue. In addition, benefits like health insurance and government-subsidized housing are included in the real pay. Here, exposing the factors that influence pay rate is our primary goal. The theory of wage determination is only a particular application of the general theory of value since wage is a price paid for the services of labor. The market supply and demand for labor and wages determine their price, just as other prices do. However, labor has several unique characteristics that set it apart from other commodities and production variables. Therefore, a distinct theory of wages that determines the value of labor is needed.

CONCLUSION

The examination of government policy and normative economics highlights the complex interplay between economic theories and policy choices. As the research progresses, it becomes clear that normative economics offers policymakers the moral foundation and guiding ideas they need to confront social issues and produce desired results. Translating these normative concepts into actionable actions is mostly the responsibility of government policies, which often include regulatory frameworks, budgetary initiatives, and social programs. Policymakers may work to build more sustainable and inclusive economies by correcting market flaws, encouraging fair resource allocation, and supporting social welfare. But managing the intricacies of government policy and normative economics calls for careful evaluation of stakeholder interests, value judgments, and trade-offs. There may be conflicting goals and moral conundrums, which calls for open decision-making procedures and accountability frameworks. It is essential that policymakers persist in using normative economics ideas in order to build policy frameworks that sustain society ideals, advance fairness, and augment general well-being.

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CHAPTER 3

INVESTIGATION AND OVERVIEW ON LABOR MARKET

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ABSTRACT:

Any economy must have the labor market since it is the hub where the supply and demand for labor meet. The dynamics of the labor market are explored in this analysis and review, which looks at things like employment patterns, earnings, labor force participation, and the influence of technology improvements. This research clarifies the nuances of labor market dynamics, such as problems with unemployment, underemployment, and labor market segmentation, using empirical analysis and theoretical frameworks. Additionally, the study looks at how institutional elements, labor market laws, and government policies affect the results of the labor market. This research advances our knowledge of the factors influencing labor market behavior and how they affect social welfare, economic growth, and income distribution by offering a thorough analysis of the labor.

KEYWORDS:

Employment, Labor force participation, Labor Market Regulations, Technological advancements, Unemployment.

INTRODUCTION

Every civilization has to make fundamental choices, regardless of its level of income, kind of governance, or economic structure. It must choose what to make, how much to produce, how to distribute the finished product, and how to generate it. These decisions involve determining where to produce, what workers' skills and preferences are, what the needs and desires of consumers are, and coordinating all of these factors so that, for example, the millions of people in New York City and the few isolated people in an Alaskan fishing village can each purchase the desired products from the grocery store, such as milk, bread, meat, vanilla extract, mosquito repellent, and brown shoe polish[1], [2]. Creating incentives ensures that the appropriate quantity of capital and labor will be used at the appropriate location at the appropriate time as part of the coordinating process.

It goes without saying that managers working for a centralized bureaucracy may make these choices. It is simply astounding how much data this bureaucracy has to gather and analyze in order to make the millions of informed choices that are required, as well as how many incentives it needs to provide in order to guarantee that these decisions are coordinated. The decentralized marketplace presents a significant alternative to centralized decision-making, which is even more mind-boggling. Millions of businesses looking to turn a profit watch what millions of customers are prepared to pay for goods and what millions of workers are willing to take as remuneration for their labor. By merging these bits of information with data on other technologies, they are able to choose where, what, who, and how much to generate[3], [4]. Nobody is in control, yet millions of individuals find employment that allow them to buy the things they want every year, despite the fact that market flaws obstruct efforts to allocate resources as efficiently as possible. Price signals that emerge from the market are what drive and coordinate choices about employment, output, and

consumption. The labor market is the mechanism through which workers are assigned to jobs and employment choices are coordinated. The United States has around 8 million companies and 150 million workers, meaning that millions of choices regarding technology, hiring, firing, and career choice must be made and coordinated on a daily basis. An overview of the labor market's functions since we think it's critical for students to grasp the "big picture" right away. In the labor market, employers are the buyers and workers are the sellers, just as in any other market. While thousands of businesses and workers will be "in the market" attempting to trade on any given day, some of these players may not be actively looking for new hires or employment at any one time. We would refer to the market as a nationwide labor market if buyers and sellers are looking for each other throughout the whole country, as in the case of physicians or mechanical engineers. The labor market is local if buyers and sellers only look locally, as in the case of data entry clerks or car mechanics[5], [6].

When we refer to a certain "labor market," such as the one for taxi drivers, we are referring to both the individuals looking for work as cab drivers and the businesses looking to recruit drivers. The market for taxi drivers is made up of these labor buyers and sellers' attempts to do business and build a working relationship. Nonetheless, neither the drivers nor the employers are limited to this market; they may concurrently operate in other marketplaces. A business owner with \$100,000 to invest may choose running a car wash or a taxi service, based on the expected expenses and earnings of each. A person looking for a career as a taxi driver may simultaneously be looking for acting jobs. Because of this, there is some degree of interdependence across all the many labor markets that we may identify based on factors like industry, profession, location, transaction norms, or job type. For the purpose of simplicity, we refer to these tightly circumscribed labor markets.

Certain labor markets, especially those where unions represent labor sellers, have highly structured regulations that partially control buyer-seller interactions. Employers are required to choose candidates at the union hiring hall from a list of qualified union members in the unionized building trades, for instance. In other unionized markets, the company retains hiring discretion, but is limited by a union-management agreement on issues like promotions, the sequence in which workers may be let go, and the handling of employee grievances. The markets for government employment and occupations with large nonunion businesses also often follow regulations that limit managerial power and guarantee equitable treatment for workers. An internal labor market is considered to exist when a structured set of guidelines and procedures governs and limits the employment relationship inside a company. The unemployment rate is the proportion of the jobless to the work force[7], [8]. This rate is the most often used indicator of labor market conditions, despite its crudeness and several flaws.

The labor market is said to be tight when the unemployment rate in the US is around 5%. This suggests that jobs are generally numerous and challenging for companies to fill, and that the majority of jobless people will find new employment fast. The labor market is said to be loose when the unemployment rate is higher. However, a loose labor market does not mean that there are never shortages; a tight labor market can still indicate that there are more people looking for work than there are positions available at the going rate in some industries or locations. The labor market is the means by which employers and employees are matched. Certain employment types have increased in number while others have decreased within the last 50 years. Due to signals supplied by the labor market, both employers and employees have had to adjust to these developments. Significant labor-market shifts are taking place in a dynamic economy; for instance, in the middle of 2007.

Although the proportion of Americans employed in factories has decreased, there are now more employment possibilities with private companies in the wholesale and retail trade,

healthcare and education, professional and business services, finance, information services, and leisure and hospitality industries. Over the time, the percentage of the total that is employed by the government has varied within a rather small range. Workers now need to learn new skills and take on new roles due to changes in the industrial distribution of occupations as well as changes in the manufacturing technologies within each industry.

For instance, since 1983, the percentage of American workers in managerial and professional positions increased from 23 to 37 percent; the percentage in lower-level service positions increased from 14 to nearly 18 percent; and the percentage in sales, manufacturing, and administrative-support positions decreased from 63 to 46 percent. Different types of labor are allocated and prices are established by the activities of buyers and sellers in the labor market. From a societal standpoint, these prices serve as cues or rewards in the allocation process, which is mostly based on free will choices made by individuals[9], [10].

From the perspective of the workers, income and, therefore, buying power are significantly influenced by the cost of labor. The cost of labor for each working hour is known as the wage rate. When comparing the pay of different workers at a certain period, nominal wages are most helpful since they represent what employees are paid per hour in current dollars. How much can be bought with workers' nominal earnings is shown by real wages, which are calculated by dividing nominal wages by a price index.

For instance, we can say that a worker makes the equivalent of two pairs of shoes per day if they make \$64 per day and a pair of shoes costs \$32. Real wage calculations are particularly helpful when comparing the purchasing power of workers' earnings over time when nominal wages and product prices are fluctuating. Let's say, for instance, that our goal was to ascertain the actual salary trends of American nonsupervisory workers from 1980 to 2009. Table 2.2 shows that these workers' average hourly wages in the private sector were \$6.85 in 1980, \$10.20 in 1990, and \$18.60 in 2009.

It is evident that nominal pay rates increased over this time. Real earnings, however, had to take price inflation into account since throughout this time the prices these workers had to pay for the goods they purchased also increased.

The Consumer Price Index (CPI) is the most often used metric for comparing costs that consumers encounter over a period of time. Generally speaking, the calculation of this index involves figuring out the annual cost of a certain bundle of consumer goods and services, such as clothes, food, housing, transportation, healthcare, and entertainment. The index numbers for each of the subsequent years are then set in a manner that is proportional to the cost of this bundle during the base period, which is set to equal 100. For instance, if the base is the average cost of the bundle during the 1982–1984 period (the average value of the index during this time is set to 100), then the index for 2009 would be set to 200 if the bundle were to cost twice as much in 2009. With a 1982–1984 basis, the CPI was 82.4 in 1980 and 214.5 in 2009, as shown by the second line in Table 2.2. This suggests that prices had more than doubled ($214.5/82.4 = 2.60$) during that time. Stated differently, it seems like a dollar from 1980 buys less than half as much as a \$1 from 2009.

Real earnings may be determined in a number of different ways using the data in Table 2.2's first two rows. The easiest method is to multiply the nominal pay by 100 after dividing it by the annual CPI. By doing this, the nominal pay for each year is converted into dollars for 1982–1984. As a result, workers who paid \$6.85 in 1980 might have purchased \$8.31 worth of products and services in 1982–1984. As an alternative, we might utilize the data in the table to determine the average Real earnings for nonsupervisory workers in the United States were only marginally higher in 2009 compared to 1980 (and actually decreased throughout

the 1980s), according to our findings in Table 2.2. The question of whether real-wage estimates based on the CPI are reliable measures of shifts in the average American worker's hourly salary is a topic of intense discussion.

The challenges, which are technical and beyond the purview of this article, are centered around two issues with comparing pricing from year to year using a fixed bundle of products and services. One issue is that, in part due to price fluctuations, customers alter the actual mix of products and services they purchase over time. Customers could eat more chicken if the price of beef increases, for example. Pricing a stable bundle may thus underestimate the buying power of current dollars as it expects that customers will continue to buy the previous amounts of beef. Because of this, the bundles that are used to determine prices are changed on a regular basis. The problem with products and services quality is more complex. Let's say that throughout a five-year period, hospital expenses increase by 50%, but new surgical and diagnostic methods are also developed at the same time. Therefore, rather than reflecting declines in the buying power of a dollar, part of the higher cost of hospitalization is due to the availability of new services or increases in the quality of already given ones. The issue is that we still don't have a workable strategy for realistically isolating the impacts of quality improvements.

Some analysts conclude that the CPI has inflated inflation by as much as one percentage point annually after taking these issues into account. Six Even while not everyone believes that inflation is exaggerated to this extent, it is useful to recalculate actual pay changes on the assumption that it is. From 1990 to 2009, the CPI indicated 2.6 percent annual inflation. Based on this, we predicted in Table 2.2 that \$16.74 would be needed in 2009 to buy the same item that \$10.20 might have 19 years earlier. By comparing \$16.74 to the actual amount received in 2009 (\$18.60), we may determine that between 1990 and 2009, real earnings increased by 11%. Had the real decrease in buying power over that time merely been 1.6% annually, a pay of \$13.79 in 2009 would have been necessary to equal the purchasing power of \$10.20 in 1990. Assuming that genuine inflation was one percentage point lower than that reported by the CPI and that workers were paid \$18.50 in 2009, it may be concluded that real wages increased by 35 percent, not just 11 percent, during that time.

When we apply a comparable wage adjustment to payments made to employees who receive salaried pay such as monthly payments instead of hourly compensation. For the most part, this is only a convenient use of the phrase that has no bearing. It is important to differentiate between wages, earnings, and income. While earnings refer to earnings multiplied by the amount of time units (usually hours) worked, wages refers to the payment for a unit of time. As a result, income is determined by an employee's duration of service as much as their compensation. Wages and earnings are often quantified and described in terms of upfront monetary payments to workers (before employee-paid taxes). Conversely, total compensation is made up of wages plus perks paid to employees, which might be delayed or in the form of payments in kind. Health insurance and medical care supplied by the employer, when the employee gets a service or an insurance policy in lieu of cash, are examples of compensation in kind. This also includes paid vacation time, as workers get days off rather than cash.

One of the three marketplaces in which businesses must thrive to live is the labor market; the other two are the capital and product markets. The main marketplaces where businesses buy their inputs are the labor and capital markets; the output is sold on the product market. Naturally, a company may operate concurrently in a variety of labor, capital, or product markets.

An examination of the supply and demand for labor is the basis and conclusion of any study of the labor market. Employers are on the demand side of the labor market, and their hiring choices are impacted by circumstances in each of the three markets. Workers and prospective workers make up the supply side of the labor market. When making choices about where (and if) to work, they must consider their other alternatives for how to spend their time.

It is helpful to keep in mind that the two main factors affecting the labor market results are the terms of employment (pay, benefits, and working conditions) and the employment levels. It is often necessary to identify distinctions between the diverse skill, demographic, and occupational groupings that comprise the labor market as a whole when examining both of these outcomes. Demand and supply dynamics always have an impact on labor market outcomes, although to varying degrees. Economist Alfred Marshall once said, "Just as it takes both blades of a scissors to cut cloth, so too does demand and supply determine economic outcomes."

The most fundamental economic model of the labor market and its widest ramifications are presented in this chapter. We will add some complexity to this fundamental model and provide a more thorough explanation of the assumptions and consequences in following chapters. Nonetheless, the straightforward supply and demand model that is provided here provides some insights into the behavior of the labor market that may be extremely helpful in the development of social policy. Businesses use a variety of production inputs, mostly labor and capital, to create products and services that are offered for sale in a market. Three factors determine their overall productivity and how they mix labor and capital: the demand for their products, the quantity of labor and capital they can get at a given price, and the range of technologies at their disposal. We are interested in learning how changes in one or more of these three dynamics impact the quantity of workers employed by a company or group of enterprises when we analyze the demand for labor. We will examine one change at a time while keeping other factors constant in order to simplify the topic. Greater expenses and, often, greater product prices are implied by higher earnings.

Employers would typically cut down on production and employment as a result of customers responding to price increases by purchasing fewer goods (all things being equal). The term "scale effect" refers to this decrease in employment, which is the result of a reduced production scale's impact on intended employment. Second, firms have an incentive to reduce costs by using technology that depends less on labor and more on capital when wages rise (assuming, at least initially, that the price of capital does not change).

As manufacturing shifted toward a more capital-intensive mode, desired employment would decline. This subsequent the labor demand curve has a tendency to move due to the previously described predicted changes in capital supply and product demand. Differentiating between movement along a curve and a change in a demand curve is crucial. The labor demanded as a function of pay rate is represented graphically by a labor demand curve. One goes along the curve while other factors remain constant and the pay varies. The labor demand curve, however, varies when one of the other drivers changes. These factors are not explicitly shown when the labor demand curve is constructed, in contrast to wages. As a result, when they alter, the connection between salaries and desired employment changes, causing the demand curve to shift.

a growth in the number of persons aspiring to become paralegals if the pay and salary of other professions remain same and the paralegal wage increases. Let's take an example where everyone of the 100 graduates of a high school has the choice between becoming a paralegal or an insurance agent. Even though paralegals make more money, some of these 100

individuals would rather work as insurance agents because they like the social aspect and challenge of selling. Even with relatively low salary, some people would still choose to work as paralegals because they detest the pressure to sell. Many, on the other hand, could picture themselves working in either field; for them, the pay in both would play a significant role in their choice.

Therefore, assuming other salaries remain constant, there exists a positive correlation between the labor supply and the prevailing pay rate in a given market. That is, more individuals will wish to become paralegals due to the relative gain in remuneration if insurance agent earnings remain same and the paralegal salary increases. But after deciding to become a paralegal, the next step would be to choose an employer from a range of options where the employment criteria were almost identical.

As a result, the decision could only be based on compensation. A company would lose all of its candidates if it dropped its salary offerings below those of competing companies. Therefore, supply choices made among alternatives that are exact duplicates of one another are reflected in the horizontal supply curve. Employers that want to recruit paralegals have to pay the market rate or risk losing all candidates.

Despite its seeming impossibility, this is a good notion from which to begin our investigation. A company may be able to draw in a few excellent candidates if it provides employment that are equivalent to those given by other companies but pay less since some applicants may not be aware of remuneration offered by other companies. But eventually word would get out about the company's low salary, and the company would be forced to hire only less competent workers to fill open positions. Only if it provided noncomparable positions (longer paid vacations, nicer working conditions, etc.) could it attract excellent workers at below average salary. We'll talk about this labor supply. For the time being, we'll assume that individual businesses operate similarly to wage takers, meaning that in order to remain competitive in the labor market, the salaries that they pay their employees must be somewhat close to the going rate. It is not feasible for businesses or individual employees to set wages significantly below the prevailing rate and expect to do business.

CONCLUSION

The labor market is still a dynamic, complex field with many facets that are impacted by many circumstances. The significance of comprehending labor force dynamics, employment trends, and the effects of technological innovation on labor market outcomes has been emphasized by this inquiry. Furthermore, it is impossible to overestimate the influence of laws and government initiatives on labor market dynamics. Policymakers must continue to be alert in tackling issues like unemployment, underemployment, and labor market disparities as economies continue to change and adapt to technology breakthroughs and globalization. Moreover, inclusive economic growth and social cohesion depend on initiatives to improve labor market flexibility, support skill development, and provide equal access to work opportunities. Going ahead, handling the labor market's intricacies and advancing sustainable development and prosperity for everyone will need multidisciplinary research and evidence-based legislation.

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CHAPTER 4

INVESTIGATION AND DETERMINATION OF INTERNATIONAL DIFFERENCES IN UNEMPLOYMENT

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ABSTRACT:

In order to comprehend and ascertain the differences in unemployment rates across other nations, this inquiry explores the topic of unemployment from an international viewpoint. This research investigates the fundamental reasons for regional variations in unemployment via a comparative examination of labor market statistics, financial circumstances, and institutional elements. Regulations pertaining to the labor market, the mismatch between education and skills, demographics, economic growth rates, and the effects of globalization are some of the important aspects that were looked at. This study aims to shed light on the structural and cyclical causes of unemployment and the consequences for policy changes and labor market reforms by analyzing data from various countries.

KEYWORDS:

Demographic Characteristics, Economic Growth, Globalization, Labor Market Regulations, Skills Mismatch.

INTRODUCTION

Nonmarket influences that maintain salaries above market-clearing levels often have an impact on labor markets. These nonmarket factors usually differ in strength across nations since they frequently take the shape of policies, regulations, conventions, or organizations (labor unions, for example). will be higher than the quantity of open positions). Furthermore, unemployment will increase to even greater levels if wages are retained above market-clearing levels and the labor demand curve changes to the left (you should be able to illustrate this by producing a graph with a stable pay rate, an unchanging supply curve, and a leftward-shifting demand curve)[1], [2]. Furthermore, salaries that are "stuck" above market-clearing levels discourage the creation of new jobs, which means that those who experience unemployment may be themselves unemployed for an extended period of time. Therefore, one may occasionally utilize metrics of unemployment incidence and duration which are thankfully defined and evaluated similarly in numerous modern economies to infer the relative intensity of nonmarket causes across nations. Think at what occurred to the unemployment rates in North America and Europe throughout the 1980s and 1990s, for instance[3], [4].

Accelerating technological development in the world's leading economies, mostly related to computerization, was one of the phenomena that defined the 1980s. The need for less educated, less trained, and lower paid workers decreased as a result of these adjustments. Throughout the 1980s, low-skilled workers' real wages fell in both Canada and the US due to a decline in the demand for their services; however, during that decade, the unemployment rate for those with less education increased, rising from 6.3% to 9.3% in Canada and from 7.2% to 8.5% in the US. However, in the two European nations for which we have data on salaries and unemployment by skill level, low-paid workers' real wages increased over the course of the decade, leading to considerably more noticeable rises in unemployment for

those with less education. Over the course of a decade, the real salaries of the lowest-paid workers in France climbed by 1% annually, but their unemployment rate jumped from 4.6% to 10.7%[5], [6].

The unemployment rate for low-wage workers increased from 4.4 percent to 13.5 percent in Germany, when their salary increased by an average of 5% annually. In the sense that employees are employed based on their ability to contribute to the production of a thing or service that will be sold, the demand for labor is derived. However, the government has some degree of control over the salaries that workers earn, the employee benefits they are eligible for, and even their working conditions. Rules governing minimum wages, pension plans, hiring prohibitions, safety standards, immigration rules, and government-funded unemployment and pension benefits funded by payroll taxes from employers are all in place. One thing unites all of these rules and regulations: they raise the cost of employing employees for firms.

The scale and substitution effects that follow a pay shift indicate that the labor demand curve slopes downward as a function of the wage rate. If this seemingly straightforward claim is accurate, laws that require employers to raise labor expenses will have the unfavorable side effect of decreasing job prospects for their constituents. Any assistance the laws may have given workers might be completely undone if there is a significant enough decline in employment prospects.

Labor demand theory is predicated on the basic tenet that businesses, or the employers of labor, want to maximize profits. Businesses are presumed to do this while continuously asking, "Can we make changes that will improve profits?" It is important to recognize two aspects of this ongoing pursuit of increased profitability. Initially, a company can only alter factors that are within its control. Because the prices at which a company may sell its goods and the prices at which it must pay for its inputs are mostly set by third parties (the "market"), a firm's choices to maximize profits mostly concern whether and how to grow or reduce production[7], [8].

Second, our theory has to account for the little ("marginal") adjustments that need to be made almost every day since it is anticipated that the company is always looking for ways to increase profits. Significant choices like starting a new plant or product line, for example, are not often made; once they are, the employer must approach profit maximization gradually by making modest, trial-and-error adjustments. Thus, we must comprehend the rationale behind these incremental choices, paying close attention to the point at which an employer ceases adjusting production targets or the composition of its inputs.

In terms of input employment, it's critical to understand that examining marginal changes necessitates taking into account a little alteration in one input while maintaining constant employment of the other inputs. As a result, we will base our analysis on the assumption that capital is maintained constant while examining the impacts of, say, changing the labor input by one unit. Similarly, provided that the labor input remains constant, marginal changes in capital will be taken into account. The profit-maximizing company will prefer to increase production by one unit when determining its ideal level of output gradually if the additional income from selling that unit outweighs the additional expense of producing it. The company will keep increasing production as long as the marginal income from each additional unit of output surpasses its marginal cost. Similarly, if the marginal cost of manufacturing is higher than the marginal income, the company would wish to reduce output. When production is such that marginal revenue equals marginal cost, profits are maximized and the business ceases making modifications).

Naturally, the only way for a company to change its output is by changing how it uses its inputs. We shall assume, for the sake of this discussion, that a business uses two different kinds of inputs, or elements of production, to create its output: labor and capital. In light of this, the previously mentioned guidelines for determining whether to marginally increase or decrease output have significant ramifications for the use of labor and capital: an additional unit of either resource brings in more money for the company due to the increased output that is produced and sold. In a similar vein, a company's revenue flow decreases when labor or capital are employed less since there is less production available for sale [9], [10]. Therefore, the change in physical output created (also known as the input's marginal product) and the MR generated per unit of physical output are multiplied to get the marginal income associated with a unit of input. Thus, the marginal income generated by a unit of input will be referred to as the input's marginal revenue product.

For instance, the marginal income generated by a tennis player is equal to her marginal product (20,000 fans) times the marginal revenue of \$25 per fan if her presence boosts attendance at a tournament by 20,000 spectators and the organizers get \$25 from each extra fan. Naturally, altering the amount of capital or labor used will increase or decrease the overall expenses of the company. The level of labor market rivalry has an impact on the marginal expenditure of labor (MEL) that results from adding additional workers. MEL is simply equal to the market wage if the company is a "wage taker" operating in a competitive labor market with no control over the wages that must be paid. Stated differently, labor supply curves in competitive labor markets are horizontal at the going wage a firm's expenses rise by the wage rate, W , for each extra hour of labor hired.

DISCUSSION

The marginal cost of adding a unit of capital, denoted as C in the analysis that follows, is equivalent to the cost of renting a unit of capital for a single time. We don't need to worry with the exact computation of C at this time, but it is evident that it is dependent on a number of factors, including the capital asset's purchase price, estimated useful life, interest rate on borrowed money, and even any unique capital-related tax laws. The easiest method to comprehend how a firm's profit-maximizing actions produce a labor demand curve is to examine the firm's actions during a brief time span during which it is unable to adjust its capital stock. This time frame is referred to as the "short run," and it will naturally differ from company to company. For example, an accounting service might be able to order and install a new computer system for tax return preparation in three months, but an oil refinery might need five years to install a new production process. The short term is made simpler by the fact that, when capital is fixed, a firm's choices about employment and production levels are essentially the same one. To put it another way, the firm's sole decision in the near term will be whether to change its production level; the question of how to raise or lower output is unaffected since only labor employment may be changed. Labor demand curves may often be more easily understood as functions of money salaries that slope downward. In this section, we examine the demand for department store detectives in an effort to provide as much detail as feasible in the study.

One day, a department store CEO was bragging at a business conference about how his company had lowered theft to 1 percent of overall sales. I believe that's too-low, a coworker shook her head. It should, in my opinion, account for around 2% of revenues. In what way is more shoplifting preferable than less? Reducing theft is expensive in and of itself, which is the basis for the solution. If the additional expenses involved in reducing shoplifting outweigh the benefits that result from taking such action, a profit-maximizing company will not want to do them.

Occasionally, the labor demand hypothesis presented in this section is contested in two ways. Firstly, very few employers are ever heard saying "marginal revenue product of labor," and secondly, the idea relies on a level of expertise that most employers do not possess. It is also stated that employers are often unable to assess individual workers' production effectively.

Here is how these first concerns might be addressed: To thrive in a cutthroat market, employers must at the very least understand the profit-maximizing circumstances, regardless of whether they can quantify the MRPL or articulate them. Employers who are not profitable will be "weeded out" by competition, much as pool players who are not knowledgeable about the nuances of how spin, speed, and angles effect body motion through space will be eliminated by competition. Still, it would be difficult to find many people in American pool rooms who could recite Newton's laws of motion! Employers are capable of understanding things even if they are unable to express them verbally. In highly competitive marketplaces, companies with poor profit maximization skills will not survive for very long.

The second criticism stems from the observation that, in many situations, increasing labor while maintaining capital levels would not seem to increase production at all. When one secretary and one computer are combined, for instance, output may be produced. However, if you add a second secretary without changing the number of computers, there would be no further output since the second secretary would not have a machine to operate on. This second criticism may be addressed by suggesting that the two secretaries alternate who uses the computer, preventing one from becoming too tired to make errors or type more slowly. In addition, the second secretary may speed up work in different ways and answer the phone. Labor will thus typically have a marginal product larger than zero if capital is maintained constant, even with technologies that seem to need one machine per worker. From an economic perspective, the company will ultimately choose to replace labor with capital if it continues to be more expensive to create an additional unit of output via labor than through capital. When capital is substituted for labor, the business would create its output at a higher capital intensity, hence reducing its profit-maximizing level of production which is clearly lower given the increase in W .

Ultimately, the company will lower its target employment level due to the rise in W for two reasons. The scale effect is shown by the subsequent decrease in the amount of labor and capital needed, which results in a decline in the firm's profit-maximizing level of production. As a result of the increase in W , the company also substitutes capital for labor in order to resume producing at the lowest possible cost; one example of this substitution impact is when labor and capital are mixed differently throughout the manufacturing process. A wage increase's substitution and scale impacts will both work to lower the demand for labor, but they will have differing consequences on the firm's intended stock of capital. The key to comprehending how the firm's demand for labor is impacted by its capacity to modify capital is T equation (3.8c). Examine the equation (3.8c) on the left-hand side. The cost of a unit of work is the numerator, and the additional output that results from adding a unit of labor is the denominator. The additional cost of creating an additional unit of output while using labor to achieve the increase in production is thus determined by the ratio W/MPL .⁶ The marginal cost of employing capital to produce an additional unit of output is shown, analogously, on the right-hand side. The business must modify its labor and capital inputs such that the marginal cost of generating an additional unit of output using labor is equal to the marginal cost of creating an additional unit of output using capital in order to maximize profits, according to equation (3.8c).

In order to optimize earnings, a company has to produce its selected level of production using the least amount of resources. The company cannot be producing in the least expensive method if it can increase production more affordably by employing one input than the other, according to logic. The company might maintain output while reducing its manufacturing costs, for instance, if the marginal cost of increasing output by one unit using labor was \$10 and the marginal cost using capital was \$12! In what way? It might decrease capital by the amount necessary to lower production by one unit, saving \$12, and then increase labor to recover the one-unit reduction, which would cost \$10. The same amount would be produced, but expenses would have decreased by \$2. The company must thus be operating at a position where additional marginal adjustments in labor and capital will neither reduce costs nor increase profits in order for it to be maximizing earnings.

What long-term effects would a hike in the pay rate (W) faced a profit-maximizing corporation have on the labor demand, keeping in mind equations (3.8a) through (3.8c)? Initially, as was covered in the section on "The Short-Run Demand for Labor," the company will wish to reduce its use of labor even before it can adjust capital when both the labor and product markets are competitive, as shown by the increase in W , which upsets the equality in equation (3.8a). Reduced employment is expected to increase the MPL, hence any labor cost reductions will. Second, the MPK declines and upsets the equality in equation (3.8b) as each unit of capital now has fewer laborers working with it. This latter disparity will in and of itself lead the company to want to lower its capital stock.

The phenomenon of wage subsidies and employer payroll taxes using the labor demand theory. Governments often use levies, which force companies to submit payments based on their overall payroll expenses, to fund certain social initiatives. We'll see that additional or higher payroll taxes imposed on the employer drive up the cost of employing workers, and as a result, one may anticipate a decline in the labor market. On the other hand, it may be claimed that if the government subsidized the salaries that firms paid, there would be a greater demand for labor; in fact, wage subsidies are occasionally suggested as a means of increasing employment for certain disadvantaged groups in society. We shall examine the consequences of payroll taxes and subsidies in this section. Long speculated by economists, monopolies in some product markets offer salaries that are more than what businesses in competition would pay.

Government regulations often target monopolies to stop them from abusing their position and making monopolistic profits, but they are permitted to transfer their manufacturing expenses to customers. The managers of a monopoly may thus increase their utility by paying high salaries and passing the expenses along to customers in the form of higher prices, even if they are unable to maximize profits. A manager's life is made more enjoyable by being able to recruit individuals who possess qualities that managers find appealing, such as being more beautiful or personable. This is made feasible by the capacity to pay high compensation. However, the data on monopoly salaries is still unclear. According to some research, companies in sectors with comparatively few sellers do pay their employees more than rival companies do for employees with the same training and expertise. However, inconsistent findings have been found in other research on regulated monopolies on the question of whether salaries in these businesses tend to be higher for similar individuals.

The phenomenon of wage subsidies and employer payroll taxes using the supply and demand theory. Governments often use taxes to fund certain social programs, requiring firms to submit contributions depending on the entire cost of their employment. We'll see that additional or higher payroll taxes imposed on the employer drive up the cost of employing workers, and as a result, one may anticipate a decline in the labor market. On the other hand,

it may be claimed that if the government subsidized the salaries that firms paid, there would be a greater demand for labor; in fact, wage subsidies are occasionally suggested as a means of increasing employment for certain disadvantaged groups in society. We shall examine the impacts of payroll taxes and subsidies in this section. Payroll taxes mandate that employers contribute a certain proportion of their workers' wages to the government, usually up to a set limit. Notable examples include Medicare, Social Security retirement, disability, and unemployment insurance. Is there a financial burden that workers would otherwise bear as a result of employers paying taxes to fund these programs?

Suppose that the tax is a set amount (X) per work hour rather than a percentage of payroll and that only the employer is obligated to make payments. The market demand curve D_0 , which is plotted against the pay that workers get in order to represent desired employment. The wages businesses pay and workers get were equal before the tax was imposed. Therefore, the typical interpretation of D_0 , if it were the demand curve before the tax's imposition, would be that it would show the amount of labor that businesses would be prepared to recruit at a certain salary. But when the tax was imposed, the employer's wage expenditures would exceed what the workers got by X . Employers would now incur fees of X if workers earned W_0 . They would want E_2 workers instead of E_0 workers since that was where their expenses were. Point A, or the intersection of W_0 and E_2 , would be on a new market demand curve that was created when the tax caused demand to move downward (keep in mind that the salary shown on Figure 3.4's vertical axis represents what workers get, not what employers pay). Businesses would only wish to hire E_0 workers if employee salaries dropped to $W_0 - X$, as employer expenses would then be the same as they were before the tax.

As a result, point B would also be on the modified demand curve. Observe that the new demand curve (D_1) is parallel to the previous one with a tax of X , and that there is X vertical distance between them. It is now implied that there would be an excess supply of labor at the former equilibrium wage of W_0 due to the tax-related change in the market demand curve to D_1 . The employee wage would be under pressure to decline as a result of this labor surplus, and this pressure would not let up until the employee pay dropped to W_1 , the point at which the amount of labor provided and required was almost equal. Employment would have transferred to E_1 at this time as well.

As a result, workers are burdened with decreased employment and salary rates. The message is evident: workers are not excused from financial responsibility. It should be noted, however, that employment levels will decrease to the extent that employee earnings do not. When employee salaries do not decrease much in response to an increase in employer payroll taxes, employer labor expenses rise, which lowers the amount of labor that companies need. Numerous empirical studies have attempted to determine the real percentage of payroll-tax expenses that companies pass on to their workers in the form of decreased wages (or decreased wage increases). Despite the relatively confusing nature of the data, a thorough analysis of these research produced at least a tentative.

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CONCLUSION

The intricate and varied nature of regional variations in unemployment has been clarified by this inquiry. Unemployment rates are significantly shaped by a number of variables, including labor market rules and skills mismatch; however, the picture is further complicated by the interaction of demographic features, economic development patterns, and globalization. More flexible labor market laws are associated with lower unemployment rates; on the other hand, chronic skills mismatches may make it difficult for countries to cut unemployment even in the face of strong economic development. Furthermore, demographic shifts like the aging of the population or the youth bulge may have a big impact on the dynamics of the labor market and cause differences in unemployment rates across nations. Targeted initiatives that support inclusive growth, labor market flexibility, and the improvement of education and skill development are essential as policymakers work to solve

issues related to unemployment. Through the implementation of evidence-based policies and addressing the underlying causes of unemployment, nations may endeavor to create labor markets that are more inclusive and robust in the global economy.

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CHAPTER 5

INVESTIGATION OF LABOR DEMAND ELASTICITIES

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ABSTRACT:

The idea of labor demand elasticities, which gauge how sensitive labor demand is to changes in wages or other variables, is examined in this study. A key idea in labor economics is labor demand elasticity, which explains how hiring choices are modified by companies in reaction to shifts in the economy. The present research investigates several forms of labor demand flexibility, including own-wage pliability, cross-wage elasticity, and elasticity of earnings, and their consequences for the results of the labor market. This study attempts to improve our knowledge of job demand dynamics and their consequences for policy interventions and financial decision-making by examining empirical data and theoretical frameworks.

KEYWORDS:

Economic Conditions, Labor Demand Elasticities, Labor economics, Policy interventions, Wage elasticity.

INTRODUCTION

The labor demand elasticity is larger or less than one in absolute terms is one that labor economists often concentrate on. An elastic demand curve is present when it is bigger than 1, meaning that a 1% rise in wages will result in a greater than 1% drop in employment. On the other hand, the demand curve is considered inelastic if the absolute value is less than 1, meaning that a 1% rise in wages would result in a correspondingly smaller loss in employment. When the wage rate rises, the aggregate earnings of those in the category which are calculated by multiplying the pay rate by the employment level will decrease if the demand is elastic because employment is falling more quickly than wages are rising [1], [2]. On the other hand, when the wage rate is raised, total earnings will rise if demand is inelastic. The demand curve is considered unitary elastic when the elasticity is just equal to -1, meaning that a rise in wages will not affect aggregate earnings. Growing older raises manufacturing expenses, which often leads to higher product prices. The percentage reduction in production associated with a given percentage rise in price increases with the price elasticity of demand for the end product being higher. Similarly, the percentage loss in employment increases with the percentage decline in output (other things being equal). As a result, the elasticity of labor demand increases with the elasticity of demand for the product [3], [4].

According to this first rule, the demand for labor at the company level will be more elastic than the demand for labor at the industry or market level, other things being equal. For example, since business X's carpet is a very near replacement for company Y's carpet, the product demand curves confronting individual carpet manufacturing firms are very elastic. However, price rises at the industry level won't have as much of an impact on demand as price increases at the firm level since the closest alternatives to carpeting are hardwood, ceramic, or some kind of vinyl floor covering; none of these are really similar to carpeting. The labor demand curve of a monopolist is less elastic than that of an individual business

operating in a competitive industry, for the same reasons. As the only sellers in a given market, monopolists must contend with market demand curves for their goods [5], [6].

This first rule also implies that pay elasticities will be larger over the long term than they are in the short term. This is because long-term price elasticities of demand in product marketplaces are larger. In the near term, customers could be forced to stick with the consumer durables they now own or there might not be any suitable alternatives available. But eventually, replacement items could be released, and customers will start swapping out their worn-out durables for new ones. Businesses are compelled to look for alternative, comparatively less expensive inputs for a given labor category as the pay rate of that category rises. Assume, however, if there was no way to substitute labor; in this case, one unit of output would require the usage of a certain number of units of the labor type [7], [8]. The substitution impact does not result in a decrease in employment in this instance. On the other hand, in cases when replacement opportunities do arise, the substitution impact will result in a decrease in employment, which will be accompanied by any reductions brought about by the scale effect. The higher the wage elasticity of labor demand, therefore, the simpler it is to replace other elements of production. This may be achieved by giving employees' contracts specified work regulations (e.g., minimum crew size for railroad locomotives). As an alternative, the government may enact laws imposing minimum employment requirements for security concerns.

The labor demand is less elastic as a result of these limitations, but over longer timespans, substitute options that are not now viable may very well become viable. For instance, if railroad workers' pay increased, businesses could afford to purchase more potent locomotives and run more trains with fewer engines. Similarly, localities may construct more but fewer swimming pools if lifeguard pay increased. Another reason why the labor demand is more elastic in the long run than it is in the short run is because these changes would only take place in the long run. As the pay rate rose and companies tried to replace labor with other components of production, let's say that the cost of these other things grew. This might happen, for instance, if we tried to replace workers with capital equipment. Capital equipment manufacturers would only accept new orders if they could charge a higher price for their equipment if they were already running their plants close to capacity and taking on new orders would result in significant cost increases for them due to the need to pay overtime and overtime wages for their employees. A price rise of this kind would reduce businesses' "appetites" for capital, so limiting the amount of capital that can be substituted for labor [9], [10].

Consider a situation where a rise in the pay of unskilled workers prompted employers to try to replace unskilled workers with competent ones. Employers would bid up skilled workers' pay if there were only a limited number of them in a given location. Similar to the previous case, there would be less of an incentive to replace other variables, and the substitution effect would result in a lesser decline in unskilled employment. On the other hand, the substitution effect—and hence the pay elasticity of labor demand would be greater if, all things being equal, the prices of other inputs did not rise as employers tried to expand their usage. Remind yourself that the likelihood of other input prices rising over time is lower than it is for the immediate term. Over time, new manufacturers may join the market and current capital equipment producers can increase their capacity. Likewise, it is possible to train more skilled people in the long term. This finding adds to the evidence that labor demand will eventually become more elastic.

Ultimately, the amount that the labor category contributes to overall expenses determines how elastic labor demand is. All other things being equal, a 10% rise in the pay rate would

result in a 2% increase in overall expenses if the category's beginning contribution was 20%. On the other hand, if its beginning share was 80 percent, then a 10 percent rise in the pay rate would result in an 8 percent increase in overall expenses. In the latter scenario, production and employment would decline further as firms would have to raise their product prices. Thus, the wage elasticity of demand increases with the category's percentage of total expenses. The findings of research estimating own-wage demand elasticities for labor as a generic input, or labor without regard to skill level differentiation. The estimations we go over are based on research that use employment, production, and salary data from businesses or specific industries. As a result, the employment responses that are being estimated roughly correspond to what would be predicted in a company that had to increase salaries in order to stay competitive in the labor market. Naturally, these figures are not representative of what would occur with any specific business; rather, they are suggestive of what would be a "typical" reaction.

DISCUSSION

Employers' labor demand reactions to a pay shift may be divided into two categories, as our work has shown: a scaling effect and a substitution impact. The total of these two effects which may each be described as an elasticity is the own-wage labor demand elasticity. The scale effect, also known as an elasticity, is the employment response that takes place in the absence of a substitution impact. It is defined as the percentage change in employment associated with a certain percentage change in the pay, keeping production technology constant. Since there are more opportunities for product market substitutes in the long run, the scale impact is likely to be larger in the long run than it is in the short run. Nevertheless, by definition, the short-run labor demand elasticity only takes the scale effect into account. As a result, if product market substitutes happen quickly, estimates of the short-run labor demand elasticities will be equivalent to the short-run scale effect, which may resemble the long-run scale effect. Since empirical estimates of demand elasticities that may be needed for specific decision-making are usually absent, it is frequently essential to predict what these elasticities are expected to be. This research uses data from British manu. We may use the principles of derived demand to at least forecast relative magnitudes for different forms of labor when generating these estimates. First, let's examine the need for unionized garment workers in New York City.

Unions are complicated organizations, so it's not always easy to pinpoint their objectives. However, it is evident that the majority of unions place a high importance on members' access to work prospects and wages. This finding leads to the straightforward conclusion that the more elastic the labor demand, the less the pay increase that a union will be able to get for its members, all things being equal. This forecast is based on the idea that for any given percentage rise in wages, there will be a bigger percentage drop in employment the more elastic the demand curve is. The price elasticity of demand for apparel made by garment workers in New York City is quite high due to overseas competition.

Moreover, businesses have little trouble finding alternative laborers to replace these workers—that is, lower-paid nonunion garment workers in the South or abroad. Based on these data, it can be predicted that there is a strong pay elasticity of demand for unionized garment workers in New York City. As a result, union salary demands have generally been reasonable. The union has also fought for higher federal minimum wages to lessen businesses' incentives to relocate their operations to the South and supported measures that lessen international competition in an effort to lessen the elasticity of product demand. (or another example of how an elastic product demand prevents union salary hikes.)

Next, think about the pay elasticity of demand for American unionized pilots. Pilot wages are paid out of a tiny portion of the operational expenses of big aircraft; fuel and capital expenditures are much more than pilot salary. Additionally, there aren't many opportunities for substitution; unskilled labor cannot be easily replaced by expert labor, while airlines may swap capital for labor by expanding the size of their aircraft while decreasing the number of flights they provide. Furthermore, prior to the airline industry's deregulation in 1978, a large number of airlines had no competition on a large number of their routes or were not allowed to lower their rates in order to compete with other airlines operating the same routes. All of these indicators point to a relatively low (inelastic) salary elasticity of demand for airline pilots. Because companies may utilize many categories of labor and capital, price changes in one category might have an impact on the demand for that category, as would be expected, pilots' pay were also rather high. For instance, if carpenters' pay increased, more people would choose to construct brick houses, which would raise the need for masons. However, a decline in the amount of new homes built in the economy as a whole may result in a drop in the need for plumbers if carpenters' pay rose. Lastly, changes in the cost of capital might influence the demand for laborers in each of the three trades.

An analysis of the elasticity of demand for inputs relative to the pricing of other inputs may provide an overview of the direction and amount of the aforementioned impacts. The percentage change in demand for input j brought about by a 1% change in the price of input k is known as the elasticity of demand for input j with regard to the price of input k . In the event when both inputs are labor types It is important to emphasize that the relative magnitude of the scale and substitution effects determine whether two inputs are gross complements or gross substitutes. Assume for the sake of illustration that adults and teens are replacements in the manufacturing process. Thus, a reduction in the adolescent wage will have conflicting impacts on employment among adults. One impact is the substitution effect, wherein companies will now be incentivized to replace adult workers with teenagers for a given level of productivity, hence reducing the number of adult jobs. However, there is a scale effect at play here. Employers are incentivized to expand employment of all inputs, including adults, as a lower adolescent wage lowers expenses.

Adult employment and adolescent salaries will move in the same direction if the scale impact is less than the substitution effect, making the two groups gross substitutes. On the other hand, adult employment and adolescent earnings will move in opposite directions and the two groups will be gross complements if the scale impact is greater than the substitution effect. Therefore, it is not enough to know that two groups are substitutes in production to determine whether they are gross complements or gross replacements. The main policy questions regarding cross-wage elasticities of demand relate to the issue of their sign, i.e., we often want to know whether a particular cross-elasticity is positive or negative. This is because economic theory cannot predict in advance whether two given inputs will be gross complements or substitutes. We examine the underlying factors that impact the indications of cross-elasticities before moving on to an analysis of the actual results.

Businesses will be compelled to change their manufacturing methods to make more use of teens if adolescent salaries decline. A technical question are adults and adolescents complementing or replacing each other in production determines whether the increased usage of teenagers results in a rise in adult employment or a decrease in it. If adults and adolescents are production complements, then altering productive practices for adults would undoubtedly boost adult employment and amplify the scale impact (meaning, of course, that adults and teenagers would be gross complements). However, if they are substitutes in production, employing a larger ratio of teens to adults is required to change productive processes. The

issue then arises as to how big or little this replacement impact is in relation to the scale effect. In relation to the scale impact, this substitution effect might be either great or minor.

A direct result of the second Hicks-Marshall law that was previously described, technology has a role in the extent of the substitution effect. Specifically, the substitution impact increases when the labor category whose price has increased is readily replaced with other elements of production. It is clear from examining the impacts of a fall in adolescent pay on adult employment that there will be a bigger substitution effect (and thus a higher likelihood of gross substitutability between the two categories of labor) when teens are more readily replaced for adults.

The adult labor supply curve is a further factor affecting the magnitude of the substitution impact linked to a decrease in the teenage wage. The demand curve for adults would move to the left and adult salaries would tend to decline as teens replaced adults if the adult labor supply curve were upward-sloping and somewhat steep. The substitution impact would be mitigated by this decline as hiring adults would also become more affordable. On the other hand, adult salaries would be less impacted by decreased demand and the substitution effect would be less muted if the adult labor supply curve were relatively flat. For many public policy concerns, at least the sign of cross-wage labor demand elasticities is helpful. How can lowering the minimum wage for teenagers, for instance, impact the need for adult labor? What impact will subsidies on capital have on labor demand? Alternatively, to take up a topic that has been much discussed lately (and which we will revisit in chapter 10), what are the expected consequences for the demand for different classes of native labor when labor from immigrants becomes more affordable and accessible? Naturally, the true question behind these questions is whether the input pairings that are emphasized in each line are gross complements or gross replacements.

Although determining whether two inputs are gross complements or gross substitutes is of primary policy relevance, getting reliable estimates is difficult (due to the difficulty of estimating scale effects). Since two variables might be complements or replacements in production, this has been the main focus of the majority of cross-wage empirical research conducted to far. These studies, which maintain output constant, calculate the employment response for a particular labor category to a change in wages or prices elsewhere. The first significant piece of protective labor law to be enacted nationally in the United States was the Fair Labor Standards Act of 1938. Its features included prohibiting the employment of child labor, setting a minimum wage below which hourly rates could not be lowered, and providing overtime compensation to employees who put in lengthy workweeks. When it was first implemented, the minimum wage was set at \$0.25 per hour, which accounted for around 43% of all nonsupervisory pay and salary workers. These workers were mostly employed by bigger companies that were engaged in interstate trade, such as those in the manufacturing, mining, and construction industries. Over time, the minimum wage's fundamental amount as well as its scope of application have grown. In fact, the minimum wage was fixed at \$7.25 per hour in 2009, and its rules applied to almost 90% of all nonsupervisory jobs.

It's crucial to stress that the minimum pay rate is stated nominally rather than in relation to another wage or price index. The nominal pay rate has often only been increased once every several years, as seen in Figure 4.3. Up until the early 1980s, the minimum wage that was recently enacted was usually at least 45 percent of the average hourly salary in the manufacturing industry.

Productivity growth and inflation drove manufacturing wages higher in the years between laws, which is why the minimum wage sometimes dropped by ten or more percentage points

in relation to manufacturing earnings before rising once again. Even the recently enacted minimums fell short of forty percent of the typical industrial salary throughout the last twenty years. In accordance with a 2007 legislation enacted by Congress, which established the minimum wage at \$5.85 and mandated that it increase to \$7.25 over the course of two years, the minimum pay was around 40% of the average manufacturing salary in 2009. There has been worry about the minimum wage since it was originally enacted that it may decrease employment, particularly among the populations it is meant to assist. The least skilled or most experienced workers may anticipate fewer job prospects when faced with downward-sloping labor demand curves and policies forcing businesses to boost salaries given to all low-wage workers. Furthermore, if the demand curve for low-paid workers is elastic and the percentage loss of employment among these individuals is larger than the percentage gain in their salaries, then raising the minimum wage may reduce the overall earnings of these people.

It is important to remember that sound theory must inform research when assessing the results of studies on how minimum wages affect employment. In addition to offering a roadmap for our investigations into the actual world, theory raises a number of points that every study on the minimum wage must take into consideration. Congress has only seldom changed the minimum wage levels in the United States, which are established in nominal terms. As a consequence, throughout the years between legislative action, general price inflation steadily reduces the real minimum salary; hence, what seems to be a stable minimum wage really has continuously shifting employment incentives. Furthermore, the federal minimum wage in the United States is applied consistently across a large nation with regional pricing disparities. We discover that, in Alaska, where prices and salaries are quite high, the actual minimum wage is lower than it is in Mississippi when accounting for regional variations in earnings or prices.

A universally implemented minimum wage rule is expected to have the greatest negative employment consequences in areas with the lowest cost of living, given the geographical variations in the actual minimum wage. Higher minimum salaries are predicted to result in employment losses while keeping other factors constant. Specifically, the prediction stems from the projected employment behavior along a fixed labor demand curve as one goes left and up. The effects of the shift on employment and those of the new minimum may be confused if the labor demand curve were to change simultaneously with the implementation of the new minimum.

For illustration purposes, we have removed the labor supply curve from Figure 4.4 and concentrated only on the demand side of the market. Let D_0 represent the low-skilled labor demand curve in year 0, where the employment level is E_0 and the real pay is W_0/P_0 . Additionally, suppose that in the event that the minimum wage remained unchanged, the money salary and the price level would both rise by the same proportion during the next year. This would result in the real wage in year 1 (W_1/P_1) being equal to year 0's.

Assume for the moment that two events occur in year 1. Initially, the actual pay rises to W_2/P_1 by increasing the minimum wage rate to W_2 , which is higher than W_1 . Second, when the economy grows, there is a shift in demand for low-skilled workers to D_1 . Employment rises from E_0 to E_1 as a consequence of these two modifications. Like many other government rules, there is an unaddressed sector related to the federal minimum wage statute. The legislation still does not apply to some nonsupervisory workers (mostly those employed by small businesses in the retail and service sectors), despite the fact that coverage has grown over time. Furthermore, a different kind of noncoverage may result from widespread disobedience with the legislation due to the millions of companies and the government's

inadequate resources. Twelve The presence of untapped industries has a substantial impact on how a rise in the minimum wage would affect low-wage employment generally which shows the labor market for low-skilled, unskilled workers. Two sectors comprise the market. In the uncovered sector, salaries are allowed to fluctuate in accordance with market circumstances, while in the other, companies are required to provide wages that are at least equivalent to the W1 minimum wage. Although the overall labor supply for both markets is set at ET (i.e., the labor supply curve is vertical), employees are free to move between sectors in search of better employment opportunities.

Without minimum wage laws, free mobility between industries implies that wages will be the same across all industries. Scale and substitution effects combine to produce the employment impacts of a pay adjustment. Changes in the way that enterprises choose to produce are the source of substitution effects, while customer adaptations to changes in product pricing are the basis for scale effects. Remember that when faced with a given increase in the minimum wage, for example, businesses will typically incur higher costs when the proportion of low-wage labor in total costs is higher. As a result, different segments of the covered sector may experience quite different effects on product prices from the same increase in the minimum wage. Additionally, it's likely that the scale effects of the wage rise will help to raise employment among certain companies in the covered sector if these subsectors compete with one another for clients.

Assume, for instance, that low-skilled employees at convenience shops and supermarkets both get higher pay due to minimum wage laws, and that convenience stores offer goods that supermarkets also carry. Under all other circumstances, the minimum wage legislation would result in a bigger proportion of cost increases in convenience shops if low-skilled labor expenses represent a larger portion of overall expenditures in such establishments than in supermarkets. Customers prefer to move part of their purchases from convenience shops to supermarkets since the cost of goods are rising faster there than in supermarkets. The rise in the minimum wage may thus have a mixed impact on jobs in supermarkets. One may argue that higher wages for unskilled laborers in supermarkets would lead to a decrease in employment via scale and substitution effects. However, supermarkets could have a scale effect that raises their need for labor, since they might attract customers who used to shop at convenience shops.

CONCLUSION

The significance of labor demand elasticities in influencing labor market outcomes and guiding policy choices has been brought to light by this work. Understanding how labor demand reacts to changes in wages, input costs, and economic circumstances may be gained by analyzing several forms of elasticities, such as own-wage elasticity and cross-wage elasticity. In order to predict how different economic policies and outside shocks will affect employment levels and pay determination, policymakers and employers must have a thorough understanding of these elasticities. Furthermore, this study adds to the body of knowledge on labor economics by analyzing theoretical models and empirical data, laying the groundwork for future investigations in this area. Going ahead, while developing labor market interventions and economic policies meant to encourage employment growth, lessen inequality, and promote sustainable economic development, policymakers should take into account the complex link between labor demand elasticities and labor market outcomes.

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CHAPTER 6

INVESTIGATION OF EMPLOYMENT EFFECTS IN LABOUR ECONOMICS

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ABSTRACT:

The labor economics study of employment impacts, with the goal of comprehending the variables affecting employment patterns and levels. The research looks at a number of factors that affect employment, such as pay rates, labor market circumstances, technology improvements, and governmental regulations, by analyzing empirical data and theoretical frameworks. It investigates how variations in these variables affect labor force participation, job stability, and unemployment rates, among other employment outcomes. This study adds to our knowledge of how the labor market functions by illuminating the intricacies of employment dynamics and offering guidance to people, companies, and policymakers navigating the labor market.

KEYWORDS:

Employment Effects, Labor Economics, Labor Force Participation, Technological Advancements, Unemployment Rates.

INTRODUCTION

Although the early impacts of the United States' minimum wage adoption on employment were easily seen the effects of subsequent increases are less clear and need to be investigated using advanced statistical methods. Teenagers, a population known for being underpaid, make up the demographic group for whom the impacts of minimum wages are most likely to be felt, yet research on how required salary hikes have impacted their employment has shown conflicting results. Research on employment changes in the fast food business, for instance, has been extensively examined and repeated [1], [2]. However, there is disagreement about whether the early 1990s minimum wage rises had any effect on employment. However, adverse impacts on employment were discovered by research that reexamined and revised previous estimates of how general youth employment has reacted to rises in the minimum wage.

The results of this second research suggest that the elasticity of demand for teens is in the range of -0.4 to -1.9 if the degree to which minimum wage rises increased the average salary of teenagers is taken into consideration. A new analysis of the impact of raising the minimum wage on employment for low-wage workers in general, rather than simply teens, indicates a much smaller own-wage labor demand elasticity. This research examined the job situation of those making the minimum wage or close to it just before it rose and then examined that same population's situation a year later. The labor demand curve that these workers are confronting has an own-wage elasticity of around -0.15, according to the predicted reduction in the likelihood of employment. Two additional factors, in addition to the possible negative impact on low-paid workers' job prospects, imply that the minimum wage is a rather ineffectual tool for reducing poverty [3], [4]. First off, a large number of people who are impoverished are exempt from the minimum wage since they either don't work or make salaries that are already higher than the minimum.

For instance, a 1990–1991 research on minimum wage rises separated family income distribution into ten deciles, or similarly sized groupings. Considering the size of their families, eighty percent of the adults in the lowest decile were living below the poverty line, but only around twenty-five percent of them were employed, and of those who were, fewer than thirty-three percent made less than the new minimum wage. Thus, fewer than 10 percent of people in the lowest income decile stood to gain from the 1990–1991 hikes in the minimum wage even in the absence of any loss of work possibilities[5], [6].

Second, teenagers who may not come from low-income families are among the group of people most impacted by the minimum wage. According to the previously mentioned research, families with incomes below the poverty line received just 19% of the predicted earnings gains brought about by the increased minimum wage, while households with incomes at least twice the poverty line received almost 50% of the increases. In the United States, around 100 communities, counties, and school districts have passed "living wage" laws, perhaps as a result of the comparatively low federal minimum wage and the frequency of its changes. These laws impose pay ceilings on a subset of firms within their jurisdictions that are more than the minimum wages imposed by the federal or state governments. Employers under contract with the local government are often the ones impacted by these rules, however sometimes they may apply to companies who get business support from the county or city. The federal poverty criteria, which in the continental United States in 2007 were \$17,170 for a family of three and \$20,650 for a family of four (wage earnings of \$8.50 to \$10 per hour to meet these poverty lines), are often used to determine living wage levels. Living wage regulations established standard pay levels in 2007 that fell between \$8 and \$12 per hour[7], [8].

Ordinances requiring living wages to be paid to low-wage workers have a limited potential benefit since they only apply to a restricted number of firms. Naturally, the advantages are also diminished if these rules force the impacted firms to cut staff or relocate their operations to areas without living wage legislation. However, since the two sets of cities may have essentially different employment or pay patterns, estimating the employment consequences of enacting living wage legislation needs more than just comparing employment changes in areas with and without such restrictions.

For example, compared to towns with stable or falling job prospects, communities with quickly rising employment opportunities may decide differently when it comes to enacting a living wage ordinance. There is also disagreement about the appropriate method to assess the employment implications of these relatively new legislation, therefore it is unclear how living wage ordinances will influence employment. Technological change is sometimes seen as both a gift and a curse. It might include the introduction of new goods and manufacturing processes as well as developments in technology that help to lower the cost of capital (for example, advancements in computer speed). The two components of technological progress that have an impact on labor demand are mentioned by those who have a favorable outlook. Demand for the product is one.

Product demand curve shifts will typically induce labor demand curves to move in the same direction, and changes in product demand elasticity relative to product price will typically result in changes in the own-wage elasticity of labor demand that are qualitatively comparable. When new items, like personal computers, replace outdated ones, like typewriters, the labor demand curve in the older industry tends to move to the left, which results in job losses in that sector. The introduction of new goods may enhance the elasticity of labor demand as well as product demand if these innovations also generate increased opportunities for product substitution. This lessens the ability of unions to win significant pay

increases in the elder sector and raises the amount of job loss linked to collectively negotiated wage increases. Although the introduction of new goods benefits customers and creates employment in the new sectors, it does force some difficult adjustments in current businesses as companies, unions, and workers must all adapt to a new environment[9], [10].

Automation, or the replacement of capital with capital, is often linked to a second facet of technological transformation. To analyze the impact of this second technical development on labor demand, one should see it as a reduction in the cost of capital. In some instances, the widespread manufacturing of personal computers being one such instance a decline in capital prices really takes place. In some instances of technical change the shrinking of computer components, for instance, which has enabled new methods of production an innovation opens the door to whole new technological possibilities. The availability of a new technology is comparable to seeing a drop in its price to some finite number since anything that is inaccessible may be conceived of as having an infinite price it is not available at any price. In either scenario, capital tends to replace labor in the manufacturing process as its cost decreases.

DISCUSSION

Depending on whether capital and the labor category are gross complements or gross substitutes, the cross-elasticity of demand for a particular category of labor in response to a decline in the price of capital would have a different sign. Automation lowers demand for workers in a given category of labor if automation results in capital and labor being gross substitutes in production, and if the scale impact of the lower capital price is relatively small. However, the scale impact could predominate for labor categories that are not near equivalents for the new technology, and the two might even be a gross complement. As a result, automation may have a positive or negative impact on the need for certain types of work.

It relies on a number of variables, many of which are very unique to certain industries and production processes, whether capital and a certain kind of labor are gross substitutes. The best that can be stated generally is probably that skilled labor and capital, which some studies have identified as complements in production, are less likely to be replacements in production than unskilled labor and capital. Because complementary elements of production have to be gross complements, the demand for skilled labor is more likely to rise in response to technological advancement than the need for unskilled labor. However, there are three elements to consider before drawing the conclusion that the unskilled are at risk from technological development. First, if scale effects are strong enough, even production replacements may be gross complements.

Second, replacing labor with capital may lead to the loss of certain employment but also the creation of others due to scale effects, sometimes even within the same industry. although the percentage of unskilled laborers among all workers has decreased over the last century, this decrease does not provide strong proof of the gross substitutability of unskilled labor and capital. The terms "elasticity" and "cross-elasticity" describe how, under all other conditions, changes in capital prices or wages might affect labor demand. Put another way, labor demand elasticities are concerned with the labor demand curve at a certain moment in time.

Behaviors of workers' labor supply over time also affect actual employment outcomes. Therefore, it is difficult to infer anything about own-wage demand elasticities or the magnitudes or indications of cross-elasticities of labor demand from basic observations of employment levels over time. It is evident from the preceding research that technological advancements have an impact on labor demand via both substitution and scaling effects. But

in many public debates about technological progress, the substitution effect sometimes expressed in graphic terms takes center stage, while scale effects are ignored. For instance, in 1979, the authors of *The Collapse of Work* urged for legislation to address the "ever-increasing unemployment" and described technological development as causing a "jobs holocaust."²⁰ We must stop and apply economic analysis to determine if technology progress does more damage than benefit for a society as a whole because of the anxieties that come with it.

Thankfully, there is little evidence to support the concern that technological advancement would lead to a "jobs holocaust." For instance, sixty percent of American adults were employed at the time *The Collapse of Work* was released, and of those who However, some people do incur expenses as a result of technological progress; these individuals must pay for employment changes since there is less demand for their services.

These expenses might include lost wages, short-term unemployment, or the cost of investing in skill acquisition. But given that technical innovation also raises the need for more labor and lowers prices or increases customer choice in products, it makes sense to wonder whether it is possible to determine whether the total net consequences of technological development are good or bad.

The exact composition of food and clothes produced in complex, contemporary cultures may be determined by the market, the government, or a mixture of the two. The amount of food and clothes that is produced may be decided by a centralized government bureaucracy at one extreme, or it could be determined by market forces including producers and customers (supply and demand). Of course, the government might still affect the mix of food and clothes produced in a market system by enacting laws, levies, or subsidies that change the price or processes involved in producing food and/or clothing.

A society would prefer to choose a combination of clothes and food that is on the production possibilities curve rather than one that is below the curve, regardless of the decision-making process. Consider a scenario where a community decides to adopt the food and clothing options shown at point M in and someone creates a sewing machine that doubles the pace of the process, allowing for the production of twice as much garments at any input level. Therefore, this new gadget would allow for the manufacturing of 200 million pieces of clothing (point Z) if all resources were allocated to the production of clothes a significant increase over the previous level of 100 million units in production. Still, this civilization could only create 200 million food units if all resources were directed toward food production, since the new gadget did nothing to improve food production. It is clear that this new technical innovation increases the opportunities for consumption for members of this society.

They may decide to maintain a 50/50 split between the manufacturing of clothing and food, in which case they would consume 100 million more articles of apparel in addition to the same amount of food. As an alternative, they may decide to focus 75% of their inputs on food production, which would grow it from 100 to 150 million units, and maintain clothing consumption at 50 million units, which would now only take 25% of society's resources to manufacture thanks to the new technology. Choosing a site other than B obviously necessitates redistributing capital and labor between the apparel and food sectors. Though the new sewing technology may alter the occupational requirements in the apparel sector, forcing workers to acquire new skills or accept alternative job circumstances, society can still allocate half of its resources to each industry. The movement from the original position on XY to a new point on ZY happens more quickly the quicker and more seamlessly these changes occur

both within and across industries. Therefore, institutions or policies that encourage (or at least enable) the mobility of capital and labor are necessary for a society to really achieve the higher productivity made possible by technological advancement.

Thus far, our examination of the consequences of technical advancements has shown that these advancements enable society to acquire more commodities and services from its finite resources, possibly leading to an increase in the average annual consumption per person.²² Though it is not entirely accurate, economic theory leads us to conclude that society has improved when technological advancement raises average consumption per capita. Would higher average consumption levels be sufficient to achieve this?

Examine a hypothetical scenario, undoubtedly extreme, in which the wealthiest individual in society benefits solely from technology advancements, earning \$100 billion year, while one million low-wage workers, earning just \$16,000 annually, bear the financial burden. If the wealthy individual benefits \$5 billion from technical advancement, and the one million low-wage workers incur expenses of \$4 billion apiece (for a total of \$4 billion in costs), society as a whole win \$1 billion in total consumption. Nevertheless, as elucidated subsequently, this \$1 billion profit may be linked to a decline in the general benefit of society. Although this is not quite accurate, economic theory leads us to conclude that society has improved when technical advancements raise average consumption per capita.

Examine a hypothetical scenario, undoubtedly extreme, in which the wealthiest individual in society benefits solely from technology advancements, earning \$100 billion year, while one million low-wage workers, earning just \$16,000 annually, bear the financial burden. If the wealthy individual benefits \$5 billion from technical advancement, and the one million low-wage workers incur expenses of \$4 billion apiece (for a total of \$4 billion in costs), society as a whole win \$1 billion in total consumption. But, as will be shown below, this \$1 billion gain may be linked to a decrease of the affluent person's total social usefulness. In this situation, requiring the winner to make up for all of the losers is the only way to guarantee that society as a whole benefit (in terms of utility). The gainer would still be ahead due to the \$1 billion they get to retain, and the workers would not be worse off if the gainer was forced to give \$4 billion of the earnings to those who paid for the changes. A normative condition proposed in chapter 1 would thus hold once losers are compensated: some would profit from technological advancement, and no one would lose.

To reiterate the normative tenet presented in chapter 1, we can be certain that society benefits from any economic transaction in this example, a technical advancement—only if everyone who loses out is fairly rewarded. Since millions of businesses in the market make the majority of the choices that lead to technological advancement, a wide range of social insurance programs that may support displaced workers are required to make up for individuals who lose their employment as a consequence of these decisions. For example, workers may get assistance from unemployment insurance while they look for new employment, and salary supplements can help them make up some of the money they lose if they have to accept a lower-paying position; training initiatives may help people learn new skills; Government employment centers and internet job banks may assist job seekers in finding available positions. Public wage subsidies are available to businesses that hire new employees, and in some nations, the government takes on the role of the "employer of last resort.

We have viewed the cost of labor to employers as having two features up to this point in our labor market study. First, we have assumed that the market determines the wage rate that businesses must pay; in other words, we have assumed that the labor supply curve for a

company is horizontal (at the market wage). Employers are not allowed to pay less than the going rate because if they did, their employees would quickly leave and work for companies that did. Paying more would just increase its expenses and lessen its capacity to compete in the product market, as it can also get all the labor it needs at the market wage (as mentioned in chapter 3, only businesses with product-market monopolies could pay more than they had to and still survive). Thus, in markets for competing products, individual employers have been seen as pay takers rather than wage producers, and their labor market choices have primarily concerned the amount of capital and labor to employ.

Secondly, we have regarded all labor expenses as variable, meaning that they are directly related to the duration of the employee's job. Every period, variable labor expenses, such the hourly pay rate, are incurred; naturally, they may be decreased by reducing the number of hours worked.

In effect, we have assumed that companies may instantly adapt their labor input and related costs when market circumstances change by assuming that all labor expenses are variable. Because higher change costs would often result in workers and companies exhibiting more reluctance to change, economists refer to these costs as creating labor market "frictions," drawing somewhat from the language of physics. We shall examine the effects of labor market frictions in this chapter. In other words, we'll look at the ramifications of presuming that it costs companies money to recruit or dismiss employees and that it costs workers money to switch jobs.

The labor market implications of employee costs when switching companies are examined in the first part, which focuses on market frictions from the perspective of the employee. It will become evident that hiring choices made by businesses deviate from the assumptions of the competitive model when the expenses associated with workers switching jobs increase particularly when government-mandated salaries are involved.

All employment changes come with non-monetary costs as well. These include the time spent on applications and interviews, the loss of valuable nonwage benefits from one's current job (flexible scheduling, specific job duties, employer location, opportunities to socialize with colleagues), and the stress of leaving the "known" for a new place of employment. Some of these mobility costs are financial in nature (printing resumes, buying clothes for interviews, hiring movers). It's crucial to remember that employees' assessments of these non-financial expenses are probably going to vary, so some may view relocation to be more annoying or expensive than others.

Theoretically, assuming that worker movement is expensive has significant ramifications that are based on how the labor supply curve looks to certain companies. When employee mobility is considered to be expensive, the supply of labor curve to enterprises becomes upward sloping rather than horizontal, as previously thought. Think about the connection that Figure 5.1's solid line illustrates.

The number of people wanting to work for Firm A might rise from E_0 to E_H if it chooses to boost its wage from, say, \$9.25 to \$9.50 per hour. The higher pay would draw in workers from other companies whose relocation expenses are lower, and it would lessen the likelihood that any of its current workforce would leave. Nevertheless, not all workers in the market would be drawn in by this wage increase, as some would find it too expensive to switch jobs in exchange for this little pay boost. Similarly, if Firm A were to lower its pay to \$9.00, it is possible that it would lose some of its present employees, but it is doubtful (because of mobility costs) that it would lose them all. As a result, the number of workers it can recruit from E_L may decrease.

CONCLUSION

This study demonstrates how employment impacts in labor economics are complex. The research shows that a wide range of variables, such as pay dynamics, labor market circumstances, technology advancements, and government interventions, have an impact on employment outcomes. For policymakers to create labor market policies and interventions that work, they must have a thorough understanding of these variables and how they interact. Employers may also utilize knowledge from labor economics to guide their choices about hiring practices and staff management. In order to navigate their careers and adjust to the shifting dynamics of the labor market, individuals may also profit from knowing the drivers of employment. In the future, more studies are required to examine how employment impacts change in response to globalization, demographic changes, and technology improvements. This will help to ensure that labor market policies are still applicable and useful in tackling today's employment issues.

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CHAPTER 7

EXPLORATION OF TRAINING DECISION BY EMPLOYERS

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ABSTRACT:

In order to comprehend the elements that influence and the consequences of employer-sponsored training programs, this investigation looks at the aspects that companies consider when making training choices. This study examines various factors, such as firm size, industry characteristics, labor market conditions, technological advancements, and government policies, that influence employer decisions regarding training investments. It does this by drawing on empirical research and theoretical frameworks from the fields of labor economics and human resource management. The study clarifies the reasons for training provision and its effects on business success, employee productivity, and workforce skill development by examining the incentives and limitations encountered by businesses. The investigation's findings deepen our knowledge of the dynamics of employer-sponsored training and provide guidance for developing employees' lifelong learning and skill sets.

KEYWORDS:

Employer decisions, Human Resource Management, Labor economics, Training programs, Workforce Skill Development.

INTRODUCTION

The amount of labor required without distinguishing between the average workweek duration of a company's workers and the total number of people employed by it. On the other hand, a company may achieve a certain level of production by varying the number of people it hires and the number of hours they work each week, all other things being equal. Generally speaking, shorter workweeks will be possible with more staff employed, whereas longer workweeks will allow for fewer employees[1], [2]. The marginal product of labor (MPL), is the change in output that results from adding a unit of labor while keeping capital constant. After separating the number of employees employed (represented by M) from the average number of hours each employee works (represented by H), we need to consider two marginal products of labor. Keeping capital and average hours per worker unchanged, MPM is the additional production corresponding to an additional worker. MPH is the additional production produced while maintaining a fixed capital and workforce size by raising the average hours per worker. In contrast, if MEM increases more than MAH, the employer will prefer to use a higher worker-to-average-hours-per-worker ratio in order to achieve its profit-maximizing level of production[3], [4].

The link between and hours of work showing that, all things being equal, hours of labor per employee tend to climb when MEM rises relative to MEH. Employers that routinely plan overtime do so because it is less expensive than bearing the quasi-fixed expenses of hiring more staff, given the "time-and-half" premium that is required for extra labor. Indeed, the industrial workers with greater recruiting and training expenses are also the ones most likely to put in long hours on a regular basis. As an example, whereas more than 20% of male craft workers have schedules longer than 44 hours per week, just 12% of male unskilled workers

typically work more than 44 hours. Nineteen Fall 2004 saw the introduction of many contentious changes to federal overtime laws by the U.S. Department of Labor, which reinterpreted the definition of which occupations are excluded from coverage. Generally speaking, an employee must have executive, professional, or administrative activities and be paid on a salaried basis (rather than by the hour) in order for their employment to be excluded from the requirements of overtime compensation.

The 2004 laws eliminated exclusions for low-paid salaried positions (earning less than \$455 per week), regardless of the nature of the work; as a result, an estimated 1.3 million workers now have overtime coverage [5], [6]. The definitions of "administrative," "professional," and "executive" activities were altered by the new laws, which also expanded the list of employment exempt from overtime requirements to include numerous computer and outside sales positions. Jobs with annual total compensation of more than \$100,000 were also excluded. It is sometimes maintained that the time-and-half rule for overtime protects employees by "spreading the word" (generating more employment opportunities) by limiting the amount of overtime used.

The fact that applying the overtime premium raises the average cost of labor even in cases when a company decides not to utilize overtime in the past gives us cause for caution when anticipating that greater coverage would lead to the creation of more jobs.

Employers that had previously used overtime might have cut down on it earlier by recruiting additional people; the fact that they chose not to do so implies that the quasi-fixed costs of hiring rendered that a more expensive course of action. Their labor expenses are going to go up if they stop paying overtime and recruit additional people at the same base pay rate. The size of production will typically decrease as labor prices rise, and companies will be more inclined to substitute capital for labor, which will lower the overall number of work hours that the impacted enterprises need. Therefore, even in the unlikely event that base wages remain unchanged, it is unlikely that all of the fewer overtime hours will be made up for by hiring more employees. Instead, since overtime hours are regularly scheduled, it is possible that both employers and employees will mutually agree (at least informally) on a "package" of weekly hours and total compensation. If such is the case, companies that plan overtime may react to a law requiring more coverage by lowering the straight-time pay in a manner that, after accounting for the newly mandated overtime payments, would not affect the overall compensation per employee [7], [8].

The long-term consequences of overtime limits on workers' overall wages may also not be as significant as advocates suggest for employees who lose coverage under such laws. The average hourly earnings after accounting for overtime compensation were found to be reasonably similar among enterprises in specified sectors in a recent analysis of salaries in Great Britain, a country without a national overtime pay policy. In short, straight-time (base) pay was below average in companies that paid above-average overtime premiums, whereas below-average overtime premiums were paid by companies that paid above-average base wages. Legislated expansions of overtime coverage have had no measurable impact on the number of overtime hours worked, according to a study on the effects of overtime premiums in the United States. Evidence also suggests that base wages adjust to mandated changes in these premiums in a way that suggests employers and employees view hours and pay as a package. Think of a company that has just brought on a new worker.

Should the company choose to pay for this employee's training, it will be responsible for the previously mentioned explicit and implicit training expenses, which naturally include the worker's lost productivity throughout the training process [9], [10]. Because of this, the

employer's training expenses for this new employee are probably going to exceed the employee's marginal revenue product at that time. In what circumstances would an employer be open to making this type of investment?

Like any investment, an employer would only cover net expenditures during the training period if it thought it would get a return on its investment after training. Offering training to employees is driven by the possibility of higher production, but the company can only recoup its costs if it retains a portion of the additional post-training income rather than offering the employee a pay raise. In short, there are two requirements that must be satisfied for a company to spend money on training. Employee training must, first and foremost, boost their productivity and marginal income more than it does their pay. In order for the employer to earn the necessary returns, the workers must, secondly, remain with the company for a sufficient amount of time. Obviously, the longer the employees remain with the company, other things being equal, the more lucrative. The Investing in general training may be a dangerous endeavor for employers, since skilled individuals may go if salary rises after training fall short of gains in marginal revenue productivity.

DISCUSSION

General Training increases productivity for other businesses as well, employees with training have an incentive to seek out greater salary offers from companies that don't have to pay for their own training. Employers will thus be discouraged from making general training investments if employee mobility costs are not extremely high. Because the predicted duration of the trained workers' employment with the enterprises may not be long enough, or because the difference between the marginal revenue product and the post-training salary may not be large enough, the possibility of recovering their needed returns is low. Businesses that have low worker-mobility costs will either not give training or make workers' pay for it by paying them very little or, in the case of certain interns, nothing at all during the training time. According to our idea, companies would only spend money on general training if high mobility costs prevented workers from leaving. The labor market is thought to be characterized by monopolistic circumstances, despite the fact that recent research indicates that companies often do spend in general training for their employees.

Imagine a scenario where the costs of worker mobility are minimal and the company is willing to cover all training expenses. The company would not be able to significantly increase salaries after training and still have an incentive to spend due to recouping investment expenditures. Since it is well known that higher pay lowers the likelihood of employee attrition, the business would be jeopardizing its investment if it did not raise compensation significantly after training. When faced with a minor provocation, such as a boss's unhappiness or being asked to work overtime for a while, skilled workers may choose to leave. As a result, the company would be hesitant to invest in training, which it would have to pay for entirely.

On the other hand, if workers at a company paid for their own training by accepting a lower salary during the training period than they might earn elsewhere, they would need the advantages of a much higher post-training income to make working for the company appealing. However, an employer who finds it relatively cheap to hire and fire workers would have little to lose by firing them at the slightest provocation and if they get fired, their investment is destroyed if they were to receive all of their improved marginal revenue product in the form of a wage increase. Thus, sharing the costs and benefits of the investment between companies and workers is the ideal strategy to encourage on-the-job training if labor market frictions are otherwise minimal. Employers' training costs must be recouped by not

raising the post-training wage much, but this condition helps protect workers' investments by making it attractive for firms to retain them unless the provocation is major (we discuss the issue of layoffs in more detail later in this chapter). If employees pay part of these costs, the post-training wage can be increased more than if employers bear all the training costs and the increased post-training wage protects firms' investments by reducing the chances trained workers will quit. Stated differently, if employers and workers split the expenses and benefits of training, they stand to lose if the employment relationship ends during the post-training phase.

Employers will only be motivated to invest in worker training when the post-training marginal revenue productivity is anticipated to be high enough to justify the investment returns, according to empirical studies analyzing the wage profiles associated with on-the-job training in the United States. Let's say a company invests, but later discovers that an economic slump (a "recession") has caused its employees' marginal revenue output to fall short of expectations. Shall the company wish to fire its skilled employees if it is unable to reduce salaries for whatever reason.

As long as employees are generating more money than they are being paid, employers generally do not want to fire their employees. Once training expenses are spent, they are "sunk," even if the difference between marginal revenue productivity and pay is insufficient to provide an enticing return on the company's investment in training. The company's only option after investing in training is to maximize its profits, even if it may have wished it had not. The employer's incentives are to keep any worker whose marginal revenue productivity exceeds their salary, since laid-off workers obviously bring in no returns. Of course, businesses have an incentive to fire skilled workers if the downturn results in marginal revenue productivity that is still below the wage rate that is, unless they think the downturn will be brief and don't want to assume the risk that the fired employees will look for other work.

The Existence of employer-funded training provides an explanation for two labor market occurrences. Generally speaking, the most talented employees and those with the longest employment tenures are the ones who are least likely to be laid off during recessions. Because they are more likely to have been the recipients of prior employer training efforts, older and more skilled workers often experience recessions with wider pay and marginal revenue product differences. These differences absorb any decline in marginal revenue output and provide their employers more motivation to retain them on staff during the recession. When a worker's marginal revenue product falls below their salary during a recession, employers may find it more advantageous to fire them.

Average Labor Productivity Output per work hour drops, and early in a recovery, it increases. Businesses that have made worker training investments react to declining demand and production by keeping their trained employees on staff, even as their marginal productivity declines. Output per worker declines as a result of this "labor hoarding." Naturally, since they have effectively maintained an inventory of skilled workers, businesses are able to grow production without having to increase employment in line with demand. In the latter case, productivity per worker increases. The first is choosing whether to work at all and, if so, for how long. It is covered in this chapter and the one after that. Whether to enter the labor field, whether to look for part-time or full-time employment, and how long to work from home for compensation are among the questions that need to be addressed. The questions that must be answered by someone who has chosen to work for pay are covered in the second category of decisions, these questions include which occupation or general class of occupations to look for offers in and which geographic area to look for offers.

Data on labor force participation are a reasonably clean indicator of labor supply since they include both employed people and those who want to work but do not already have a job. On the other hand, it is often believed that the demand side of the market alone determines the number of hours worked weekly or annually by the average employee. Employers do, after all, determine the anticipated work hours for their staff members in response to the considerations covered of course, but over the long term, employee choices on the supply side of the market also have an impact on the number of hours worked.

Employees may express their choices for work hours even when employers determine the schedules by choosing to work full-time or part-time, working several jobs, or choosing certain vocations and employers for instance, full-time female managers put in an average of more hours per week of labor than do full-time secretaries, while full-time male salespeople put in more hours per week than their full-time counterparts in skilled craft occupations. Additionally, many businesses have varying regulations regarding paid holidays and vacation time, as well as varying requirements for weekly work schedules and combinations of full- and part-time employment.

The goal of an employer's salary and hour offers is to increase profits, but they also have to cater to the needs of both present and potential workers. An enterprising employer (possibly one with relatively lower quasi-fixed costs) would eventually capitalize on the dissatisfaction of employees receiving an hourly wage of $\$X$ for 40 hours per week if the employees really wanted to work only 30 hours at $\$X$ per hour. This would result in a more contented and productive workforce. While long-term labor supply preferences of workers must be met, the majority of short-term shifts in work hours seem to come from the demand side of the market.³ Over the course of an economic cycle, workweeks may change; for instance, during times of strong demand, workers may put in longer hours. Therefore, it is important to clearly discern between the factors of supply and demand when examining changes in labor hours.

During moments of high economic activity in the early 1900s, workers in American manufacturing companies would often put in 55 hours a week; but, in the last two decades, the average workweek for American manufacturing workers has been less than 40 hours. During the period of around 5.5 percent and declining unemployment in 1988, 1995, and 2004, manufacturing production workers worked 38.4, 39.3, and 38.6 hours per week on average. Generally speaking, the reduction in weekly hours of Can the labor supply theory aid in our comprehension of the long-term patterns in work hours and labor force participation mentioned above? Given that labor is the most plentiful element of production, it is reasonable to argue that a nation's long-term prosperity greatly relies on the desire of its citizens to work. While leisure and non-paid activities play a significant role in creating well-being, the production of goods and services for market transactions remains a vital component of any economy. Understanding the impact of increased incomes and salaries, various taxation types, and various income maintenance program types on labor incentives is crucial.

In the end, choosing to work is a choice about how to spend your time. Engaging in enjoyable leisure activities is one way we might make use of the time we have available. Working is one of the main ways that individuals utilize their time. We may conduct household tasks like childrearing, sewing, constructing, or even gardening while working around the house. Alternatively, we may work for income and pay for clothes, food, housing, and child care with the money we make. The amount of heating oil used will vary depending on its price; unless one of the other two parameters changes, consumption of heating oil tends to decline as its price increases. People often want bigger, warmer homes as their income increases, which clearly requires more oil to heat. The demand for energy may increase even if the cost

of energy and the amount of personal wealth remained same if a bigger percentage of the population became older and desired warmer housing as a consequence of a declining birthrate and longer life expectancy. The population's changing preferences for warmer homes as a whole result of this shift in demographics affects the demand for heating oil.

Naturally, a family's bank accounts, investments, and tangible possessions are all considered parts of their wealth. Since employees' abilities may be effectively rented out to employers for a fee, they can also be seen as assets.

The worth of one's human assets increases with pay potential. Sadly, it is often impossible to gauge someone's wealth immediately. Because government surveys provide easily accessible statistics on overall income, measuring the returns from that wealth is considerably simpler. Because total income and total wealth are conceptually so similar, economists often use total income as a measure of total wealth. Although the aforementioned examples show instances in which either the income effect or the substitution effect is present on its own, both effects are often present and frequently act in opposition to one another. Predicting the total labor supply reaction is often ambiguous when both impacts are present and operating in opposing directions. Let us examine the scenario of an individual who obtains a pay raise.

A straightforward pay rise will have an impact on the labor supply via both an income effect and a substitution effect. The worker's increased wealth (or prospective income) after the rise is what causes the income impact. Because they get paid more for every hour they work, they have more control over resources than they had previously, even at the same level of effort. Because the salary rise increases the opportunity costs of leisure, there is a substitution impact. We simply cannot forecast the reaction in advance since theory does not indicate which impact is larger; the real labor supply response is the total of the income and substitution effects.

A person will reduce their labor supply in response to a salary rise if the income impact is more pronounced. Because of the substitution effect, which works as a moderating factor, this drop will be less than if the same rise in wealth were the result of a gain in nonlabor wealth. Nevertheless, as Example 6.2 illustrates, the substitution impact is insufficient to stop the labor supply from falling when the income effect predominates. Naturally, there is a good chance that the substitution effect will prevail. If this is the case, increasing the labor supply will be the real reaction to pay increases.

The person's labor supply curve, which connects, for example, his or her preferred hours of work to earnings, will be favorably sloped if the substitution effect is dominant. In other words, if wages rise, so will the labor supply. However, the person's labor supply curve will be negatively sloped if the income impact is dominant. Economic theory is unable to predict which impact would predominate; in reality, individual labor supply curves may slope negatively in some salary ranges and favorably in others.

Everyone wants to maximize their utility, which is best achieved by making the most use of every free hour of leisure time and earning the most amount of money possible. Sadly, there are only so many resources at anyone's disposal. So, the only thing that can be done with the resources at hand is to do one's hardest.

In order to visualize these resource restrictions, one must overlay constraints on their collection of indifference curves in order to determine which combinations of leisure and money are accessible and which are not. The impact of changing the pay rate on the labor supply while maintaining the same level of wealth is known as the substitution effect. It is shown as the difference between the individual's actual location on the indifference curve U_2

(tangency at N2) and their expected location with a pure income impact (tangency at N3). Holding wealth constant may be approximated graphically by comparing tangency points on the same indifference curve. As a result of the salary adjustment, the individual is now at point N2, where they work 11 hours a day. In the absence of the pay increase, the individual would have decided to work seven days a week (point N3). Work hours increased by four per day as a result of the salary rise alone, maintaining utility (or real wealth) unchanged. The positive substitution impact is seen by this rise.

CONCLUSION

The importance of employer-made training choices in influencing employee skill development and business success is highlighted by this study. The study shows that a variety of internal and external variables, such as firm-specific traits, industry dynamics, labor market circumstances, technology improvements, and regulatory settings, have an impact on employer-sponsored training programs. Companies make choices on training expenditures based on their aim to retain talent, increase worker productivity, and adjust to the changing demands of the labor market. Additionally, employer-sponsored training is essential for promoting workers' lifelong learning and skill development, which advances their careers individually and boosts the economy as a whole. In order to meet changing skill shortages and advance inclusive workforce development, governments, employers, and other stakeholders must work together to provide favorable conditions and financial incentives.

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CHAPTER 8

INVESTIGATION OF THE PROCESS OF LABOR SUPPLY

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ABSTRACT:

The labor supply process, with the goal of comprehending the dynamics and factors that affect people's choices to enter the workforce. This study examines the major variables influencing labor supply behavior, including wage levels, non-wage variables like education and family responsibilities, demographics, labor market conditions, and governmental initiatives like social welfare and taxation. It does this by drawing on economic theories and empirical research. The research aims to provide insights into the factors that influence labor force participation, the dynamics of the labor market, and the consequences for economic outcomes including employment rates, pay levels, and income inequality by examining the interactions between these variables.

KEYWORDS:

Demographic Characteristics, Government Policies, Labor Force Participation, Labor Market Conditions, Wage Levels.

INTRODUCTION

Theory of labor supply concentrated on the straightforward scenario where people choose how to divide their time between work and play. Three topics are considered in this chapter as it expands on the basic labor supply model. First, rather than being spent leisurely, a large portion of time at home is dedicated to work-related tasks (including childcare and cooking). Second, choices about paid labor, domestic chores, and leisure are often made with consideration for other household members' incomes and activities while living with partners[1], [2]. Third, time spent working for pay at one stage of the life cycle is interchangeable with time at a subsequent stage, just as time spent working for pay is interchangeable with time spent at home. Though they do not change the basic ideas or predictions of labor supply theory, these improvements to our basic model do provide it some much-needed depth. a labor supply model based on the straightforward premise that individuals can only spend their time either working for paid or having fun[3], [4].

Naturally, the options are more complicated in real life, since a large portion of time is spent on tasks like cleaning, childcare, and cooking at home that are more akin to labor than leisure. three family groups depending on the existence and ages of children (paid job, home work, leisure, and personal care). The table's averages imply that, compared to women with older children, mothers of small children spend more time taking care of the home and less time working for pay or the "market." In all three types of homes, women work longer hours in the home and work less hours in paid employment than men do. However, when children become older and leave the house, these differences in hours tend to close.

Men and women currently have almost equal amounts of leisure time, but as children become older, so does leisure time for both genders. Time spent on personal care differs slightly across groups. The model developed in chapter 6 does not need to be significantly altered in order to include household activities other than leisure. However, we must replace the category of "leisure time" with one we will call "household production time" (or household

time, for short). Time spent on housework or leisure activities that require leaving the house, such shopping or going to the movies, is also included in the total amount of time spent on domestic output[5], [6].

In order to demonstrate the significant impacts of including domestic tasks beyond leisure time into our model, let us examine a hypothetical home consisting of a single decision-maker, Sally, who is an unmarried mother of little children. This leaves her with sixteen hours per day that she might use for paid labor, recreation, or maximizing her usefulness. She may either spend domestic time making these commodities herself or earn money that enables her to purchase things or services from others in order to obtain the commodities that increase her utility, such as a clean home, delicious meals, contented children, and leisure activities. When combined, the two axes household time on the horizontal axis and wealth on the vertical axis reflect the two input sources that Sally may employ to generate benefit.

Sally's options regarding how to spend her time depend on her preferences, her income, and her pay rate. The parts that follow go over these effects. She finds usefulness in nutritious meals, for instance, and she can cultivate her own food and cook her meals in full at home. Other choices, such as purchasing packaged foods to be cooked at home or dining out, might result in meals of equivalent usefulness while combining more bought products or services with less time spent preparing meals at home. As mentioned in chapter 6, relaxation also produces utility. Therefore, we assume that if Sally tried to substitute more and more purchased goods for her time in the production of child care, for example, she would find it more and more difficult to do so and maintain her utility constant. Relaxation generating equal utility could involve time, but not much in the way of purchased goods curves. Naturally, Sally's decisions regarding how to spend her time must take her income and wage rate into account, and the financial constraints she encounters place restrictions on her options. Assuming Sally can work for \$10 an hour and has \$20 in unearned income per day if she doesn't work for pay, the constraint ABC lies between the two axes. The limitation indicates how much money she can spend at the bottom right if she works for no pay and devotes all of her free time to domestic production (\$20); at the top left, it indicates how much money she could spend if she devotes all 16 hours to working for pay[7]–[9].

It is not unexpected that the labor-leisure model and the home production model examined here have the same underlying labor supply implications given the similar shapes of budget restrictions and indifference curves. Specifically, the household model predicts that Sally would spend less time at paid job and more time in family production (consuming more commodities that bring her utility) if we assume that her income increases and her wage rate the opportunity cost of household time remains constant. Similarly, if her pay rate increased but her income remained the same, she would work more hours for pay since remaining at home would have become more expensive, even if her wealth had not. In summary, if we apply the income and substitution effects to family production instead of leisure, our labor supply model functions in the same way. Although shifting the emphasis from leisure time to the more general category of family production time does not fundamentally change our labor supply model, it does raise other areas for study that will be covered in this and the sections that follow.

The following is a clear yet crucial first insight: choices about the availability of labor and the methods of producing the goods The difficulty Sally has substituting her domestic time with things or services she has acquired is reflected in the slopes of these curves. Her indifference curves will be steeply drawn if she is exceptionally talented as a mother, if she is doing labor that is hard to replace by buying goods or services, or if she finds great joy in household production. This means that if she were to cut back on her time at home, her utility would

need to increase significantly in order to maintain. Naturally, tangency points with the budget restriction that are farther to the right are produced by steeper indifference curves. As Sally's kids become older, she could discover that it gets simpler to replace her time spent at home with bought products or services; for example, it might be simpler to obtain acceptable child care or that her daycare demands will decrease once the kids start school. Her likelihood of entering the workforce and, if employed for compensation, of working full-time would increase if her indifference curves were to flatten [10], [11].

DISCUSSION

Therefore, the household model predicts that hours of paid employment and labor force participation rates would climb as time spent at home becomes less required or simpler to substitute with products and services that can be bought. Women have historically been the major producers in the home, and the ease with which bought items might be substituted for domestic labor was made possible by the advent of appliances like automatic dishwashers, microwaves, washing machines, and dryers, as well as internet shopping and electronic banking. Evidence supporting the claim that moms' rates of labor force involvement increase as their children become older. After a kid is under two, married women's labor force participation rate drops to 56%, but it averages 65% after the child reaches two years old. The rise in the labor force participation rate for single moms is much more pronounced: as children grow from infancy to age two, the average participation rate rises from 58 percent to 71 percent. As their children become older up to the age of two the proportion of working women who work full-time also increases, although very marginally. The household production model sheds light on the choices that multi-decision-maker families must make, in addition to the consequences for a single household decision-maker in a particular year. The home production model also offers guidance for choosing how to spend time throughout the course of a lifetime as opposed to just a single year.

However, if a person lives with a partner, they need to decide together on who gets to do what around the home and how much time each person should spend on it. The spouses' emotional ties to one another complicate this process, and tradition also has a big impact on their judgments concerning market and domestic chores. However, economic theory might be able to shed light on at least some of the factors influencing the choices that every family has to make. An alternative approach to simulating the process of decision-making among partners is to consider that they participate in mutual bargaining. Each party's strength in the negotiating process is seen as a function of how well they would fare if their relationship ended due to inability to settle disagreement. According to this paradigm, spouses who have more access to resources have more influence over decisions made inside the family. The unfortunate truth that women with less financial resources of their own are more likely to become victims of domestic violence when conflicts emerge is only one of the many pieces of evidence supporting the bargaining paradigm. It is often advantageous for partners to have some degree of specialization in the tasks that must be completed, both in the home and in the market. When it comes to organizing meals, grocery shopping, housekeeping, and childrearing, one spouse will often do these duties primarily.

When both spouses are paid, it's also possible that one of them may be more willing to put in extra hours, travel for business, or end a workday early in the event of a family emergency. When selecting who should raise the children more at home, a married couple should weigh the benefits and drawbacks of each spouse taking on this role. This might be the husband or the wife. Remaining at home has costs associated with each person's market pay, while benefits are based on how well they enjoy and are able to raise their children. Since enjoying the parenting process makes parenting more useful, we may identify higher satisfaction and

skill levels as markers of increased "productivity" in raising children. For reasons that will be covered in subsequent chapters, women's wage rates have historically lagged behind men's. It's also possible that ladies have traditionally raised children more effectively than husbands due to socialization. If a woman earns less than her husband and is more effective at raising children, the family will benefit more from raising children if the wife has main duty in this area and will forfeit less in market goods.

It is beneficial for family labor supply choices to take each partner's market and domestic productivities into account. However, modeling the combined choice is fairly hard since the labor supply of one spouse to the market affects the productivity of the other partner at home. Married women who choose to work longer hours outside the house may find that their spouse is more productive at home as he will be taking up the tasks that she used to do. As a result, according to previously stated theories, a wife's increasing hours of paid labor may cause her husband's indifference curves to steepen, leading him to work less hours overall and more at home. However, if both spouses value their time together, a husband's value of his time at home may decrease if his wife spends less time there. This might flatten his indifference curves and encourage him to work more hours for pay. There is no unanimity in empirical research on this issue, and theory is unable to predict whether one couple would have flatter or steeper indifference curves if the other partner spends less time at home.

There is a temporary decrease in the husband's market productivity. Given that his output in the market is lower than his productivity at home, which is unaffected by the recession, it is more probable that the family will see his involvement in domestic production as advantageous. In the event that his wife's wage from paid employment remains unaffected, the family may determine that, in order to preserve the family's previous standard of living (which may be influenced by levels of savings and consumption she should look for market employment and he should take up her role in domestic production for the duration of the recession. He may continue to be an unemployed worker who is waiting to be called back, and she would join the labor field when she starts looking for employment. Family members may seek out market employment in greater numbers as a result of declining household income. Similar to the income effect, this possible response occurs when a family's income declines and they consume fewer goods. This decrease in consumption is accompanied by an increase in the number of hours they wish to work for pay, where W represents the wage rate of employed individuals and is the likelihood of finding employment if unemployed. The opportunity cost of remaining at home for someone without a job is $E(W)$. For two reasons, the anticipated salary of individuals without work falls dramatically as the unemployment rate rises because there are fewer jobs available. First, during recessions, an excess of labor supply relative to demand tends to drive down real wages (for those with employment). Second, during a recession, employment prospects decrease. $E(W)$ decreases as a result of both W and falling during a recession.

Some have contended that, because of the substitution effect that results from a declining anticipated salary, individuals who may otherwise have been seeking for employment become discouraged during a recession and choose to stay out of the labor market. They determine that spending time at home is more productive than searching for employment since they anticipate such a little return from job searching. Just as the substitution effect opposes the added-worker impact, the contraction of the labor force brought on by disgruntled workers during a recession. Naturally, because the groups of persons who are "added" and "discouraged" workers would vary, it is feasible for both the added-worker and discouraged-worker impacts to coexist. But the crucial issue is which group prevails. The stated unemployment rate will rise in tandem with an increase in the labor force due to the

increased number of job seekers brought about by the new workers during a recession. The unemployment rate will decrease if workers give up and leave the labor force after experiencing unemployment due to a decrease in job seekers.

To properly interpret the official unemployment rate and draw conclusions about the true status of the labor market, one must understand which effect prevails. The added-worker impact will also likely to diminish and become more limited to minors as more and more women find regular paid jobs used by the availability of unemployment insurance benefits. While the substitution impact is very high for married women, the decline in projected real income happens in almost every family, therefore it is not unexpected that studies have consistently shown the discouraged-worker effect to be People who would want to work but think jobs are so scarce that seeking for employment is pointless are known as the hidden jobless, and they are created by the prevalence of the discouraged-worker effect. In official statistics, they are not included as jobless since they are not seeking employment.

An estimate of the extent of hidden unemployment may be obtained by concentrating on the years 2007–2009, during which the official unemployment rate increased from 4.6 percent to 9.3 percent overall. A total of 7.1 million individuals, or 4.6% of the work force, were classified as jobless in 2007. Furthermore, out of the adult population that is not in the labor force, 369,000 individuals said that they desired employment but were not actively pursuing it because they thought jobs were out of reach for them.

By incorporating life-cycle considerations into labor supply theory, it is predicted that workers will spend more time in paid work activities during their middle years, which are associated with relatively high wages, and that these time profiles will resemble those displayed in panel In a similar vein, lifecycle considerations indicate that engaging in highly time-consuming leisure activities will mostly take place in one's early and late years. Because the timing of retirement affects annual retirement benefits, predicted lifetime benefits, and lifetime earnings, a multiyear perspective is also necessary to better accurately estimate workers' retirement choices. Retirees get annual retirement benefits in the form of pension payments, which are often paid in monthly installments.

The amount of these benefits is based, in part, on the number of years the retiree worked and their prior yearly earnings. What we mean by "expected lifetime benefits" is the entire amount of these promised annual payments divided by the retiree's anticipated remaining life expectancy. Although the retiree's age and expected life expectancy have a clear impact on this value, calculating the value entails more than just adding up the annual payouts. Annual benefits must be totaled over a number of subsequent years, accounting for the fact that current amounts might increase "automatically" over time due to interest. The upbringing and supervision of children is a vital component of what we have termed home production in many households. The majority of parents are worried about giving their kids high-quality care, regardless of whether such care is mostly provided at home or is largely obtained outside the family. The quality-of-care parents provide their kids matters to society as a whole as well.

Government subsidies for day care, school meals, and health care are just a few of the various shapes these programs take. Another is tax credits for working parents who buy child care services. This section aims to examine the effects of child care assistance programs on the job market. Child care expenditures account for around 45% of the income of American households with children under the age of five; however, for those earning less than \$36,000 annually, the percentage approaches 20%. Although the cost of childcare increases with the number of hours provided, some of these expenses seem to be fixed. According to one

research, women who worked less than 10 hours per week had child-care expenditures per hour that were three times higher than those of those who worked more. Eighteen However, over the last ten years, government expenditure on child care subsidies has quadrupled. This section examines the impact of these increased subsidies on the labor supply of parents.

Most kids from low-income families have at least one parent who is not present. The federal government has implemented a number of measures to guarantee that welfare-eligible families have sufficient parental involvement in their children's development. The inability of some absent parents to provide financial support, the willful disobedience of others, and the fact that many more divorce cases result in no court-mandated child support responsibilities limit the efficacy of increased attempts to collect child support payments. Some people have suggested developing child support assurance programs as a way to improve the resources available to single-parent households. These systems' primary component is a guaranteed child support benefit, which the government would provide to the custodial parent in the event that the absent parent fails to pay. The government would pay the remaining amount if the absent parent only pays a fraction of the needed support.

How such a scheme would impact the labor supply of custodial parents is an important topic to consider. The response that economic theory offers is not quite clear-cut. Think about a single woman who has two ways to provide for her kids and herself. Working outside the house without assistance from the welfare system or the father who isn't there is one alternative., with a slope that corresponds to her pay rate. The mother also has the option to apply for social payments, which would presumably ensure that she receives AC on a regular basis. Remember from chapter 6 that the usual method for calculating welfare benefits is to deduct real income from other sources, such as wages, from a family's "needed" amount of income (AC). The welfare constraint is thus ACDB, and segment CD is clearly indicative of a take-home wage rate of zero. Assume that AE's support payments to the mother are guaranteed by a child support assurance scheme, which is implemented regardless of the mother's income. The new program would increase her wages by the amount AE (= BF) if she is successful. Her welfare payments are decreased by AE if she doesn't work and stays on welfare; as a result, her child support benefits plus her welfare benefits still equal AC. Her budget limitation is ACGF individuals who previously worked for pay and were thus along segment DB; when the child support assurance program is established, the new program generates a pure income impact. These moms will still be paid for their employment, but because their utility is now maximized along GF, it is reasonable to assume that they will work fewer hours outside the house than they had previously planned.

It is thus reasonable to anticipate that the hypothetical child support guarantee scheme previously outlined would both decrease the desirable number of hours of paid work among those who accept employment and raise the labor force participation rate among single moms (thereby lowering the number on welfare). Research examining the impact of child support payments (from absent dads) on the labor market has shown that single moms' labor supply responses align with theoretical predictions. One of the major functions of the labor market is to provide the signals and the mechanisms by which workers seeking to maximize their utility can be matched to employers trying to maximize profits.

Matching is a formidable task because workers have varying skills and preferences and because employers offer jobs that differ in requirements and working environment. The process of finding the worker employer pairings that are best for each is truly one of trial and error, and whether the process is woefully deficient or reasonably satisfactory is an important policy issue that can be analyzed using economic theory in its normative mode. The assumption that workers are attempting to maximize utility implies that they are interested in

both the pecuniary and the nonpecuniary aspects of their jobs. On the one hand, we expect that higher compensation levels in a job (holding job tasks constant) would attract more workers to it. On the other hand, it is clear that pay is not all that matters; occupational tasks and how workers' preferences mesh with those tasks are critical elements in the matching process. Selecting the job with the greatest salary would be the only consideration for a person deciding where to look for employment if every job in the labor market was identical and situated in the same location. Worker migration from low-paying to high-paying companies would result from any disparities in the compensation packages provided by employers. In the absence of impediments, as explored in the market would compel all employers to make offers that are equal.

CONCLUSION

The examination of labor supply sheds light on the complex reasons behind people's choices to work. The research emphasizes the importance of a number of variables in influencing labor supply behavior, including non-economic factors like family obligations and demographics and economic incentives like salary levels. Furthermore, factors pertaining to the labor market, such as the availability of jobs and the dynamics of the sector, are significant determinants of the employment choices made by people.

The dynamics of the labor supply are also influenced by government policies, such as taxes, social welfare programs, and labor market rules, which change the incentives and limitations that employees confront. Policymakers and employers must comprehend the intricate interactions among these elements in order to create labor market policies and workforce development plans that effectively advance full employment, economic expansion, and social welfare. Future studies are required to examine how labor supply behavior is changing in response to demographic shifts, technology improvements, and changes in the dynamics of the labor market.

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CHAPTER 9

ANALYSIS AND INVESTIGATION OF WORKER MOBILITY

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ABSTRACT:

The present research delves into the topic of worker mobility, emphasizing the variables that impact people's choices to shift careers, sectors, or regions. The study examines important elements that influence worker mobility, such as salary differences, job characteristics, possibilities for career progression, labor market circumstances, and individual factors including talents and preferences, via a thorough examination of economic theories and empirical data. The research intends to provide light on the patterns, trends, and consequences of worker mobility for labor markets, economic development, and human well-being by investigating the interactions between these variables.

KEYWORDS:

Career Advancement Opportunities, Job characteristics, Labor market conditions, Personal factors, Wage differentials.

INTRODUCTION

Each indifference curve exhibits convexity, as seen from below, which is consistent with the standard assumption of declining marginal rates of substitution. The individual earns a comparatively high income and is exposed to a high degree of risk at point K on curve U₂. Because risk levels are high enough to put one in immediate danger and because wages are already being used to purchase a high level of commodities, he or she will be prepared to forgo a significant portion of their earnings in order to attain a given decrease in risk [1], [2]. But as wages and risk levels decline (to, say, point J), people are less ready to forgo earnings in exchange for the risk being reduced since there is less immediate danger and less consumption of other products.

Naturally, people's aversion to the possibility of harm varies. For any rise in risk, those who are very sensitive to it will need to see significant salary increases; conversely, those who are less sensitive would need lower wage increases to maintain utility levels. At any given risk level, the indifference curves of the more sensitive workers will be steeper, as i. Point C has a greater slope than Point D at risk level R₁. Point D is located on the less sensitive worker B's indifference curve, whereas Point C is located on the highly sensitive worker A's indifference curve. Of all, everyone has a unique set of indifference curves. It must be expensive to lower the possibility of employee injuries. Workers must be provided with protective apparel, safety equipment must be installed on machinery, and production time must be given up for safety training sessions, and so on. Second, it is likely that many businesses will be forced by competitive forces to run at zero profit, which is the point at which all expenses are paid and the rate of return on capital is about the same as it is for comparable investments [3], [4]. Thirteenth, every other work need is probably predetermined or supplied. These three presumptions have the effect of forcing a company to lower pay in order to stay competitive when it implements a program to lower the risk of damage.

Thus, leaving other factors constant, pressures on the employer side of the market tend to link low risk with low wages and high risk with high pay. These "other things" might be perks offered to employees or other aspects of the work; providing they exist won't change the validity of our research, despite the fact that it would first seem improbable. The important takeaway is that a company cannot stay competitive if it spends more on safety and less on other areas. In our theoretical analysis, pay may thus be seen as a shorthand for "terms of employment." Employees want to get as much usefulness out of their work choice as feasible. They will choose the less hazardous employment if they are presented with two offers at the same salary. They will choose the offer with the higher salary rate if they get two offers with comparable degrees of risk. Generally speaking, they'll choose the offer that is closest to the northwest, or highest, indifference curve[5], [6].

Employees are limited in their job search by the offers they get from businesses. Employers are also impacted by two factors. On the one hand, they can't offer ridiculously high prices since lower-cost competitors would push them out of business. However, if they provide very poor conditions of employment, they won't be able to draw in workers, who will instead opt to work for other companies. Businesses in competitive marketplaces are forced by these two pressures to run on their zero-profit isoprofit curves. At low levels of risk, it can pay greater salaries and yet be competitive since it can deliver safety more cheaply. Employees will choose proposals along segment XR' over those along YR' because larger earnings are provided for a given amount of risk.

Business Y may outbid firm X for workers at greater risk levels. Because risk reduction is so inexpensive, Firm X does not save much money if it allows the risk level to increase over R. Firm Y is ready to pay relatively high salaries at high risk levels since it saves a lot of money by operating at risk levels above R. Employees with high-risk occupations will work for Y because offers along $R'Y'$ will be preferred by them above those along $R'X'$. It is possible to determine which employees choose which offers by graphing the employer profit curves and worker indifference curves together. The zero-profit curves for two employers (X and Y) and the indifference curves for two workers (A and B) Working for employer X at pay W_{AX} and risk level R_{AX} allows employee A to maximize utility (along with A_2), while employee B does the same for employer Y at wage W_{BY} and risk level R_{BY} .

Examining A's decision in more detail, we see that the degree of utility attained would be A_1 , which is lower than A_2 , if A accepted the offer B accepted W_{BY} and R_{BY} . Person A places a great importance on safety, and W_{BY} 's pay just does not make up for the high degree of danger. The offer of W_{BY} and R_{BY} on curve B_2 is seen better by Person B, whose indifference curves are flatter (indicating he or she is less averse to risk), than the one A takes. Simply put, Person B is unwilling to accept a wage reduction from W_{AX} in order to shift the risk from R_{BY} to R_{AX} , since doing so would put them on curve B_1 .

The decrease in risk Workers like B, who are not very sensitive to risk and recognize that increased risk entails higher compensation, are penalized in a market where workers are paid for the risks they take. Of course, the crucial question is whether or not employees possess the information and discretion required to create salary differentials that are compensatory. Many individuals think that employees chose dangerous occupations because of ignorance or because they are sedentary and cannot understand various risk levels. Should this idea be true, workers could benefit from government regulation. In fact, there are several instances where issues are clearly present, even if the evidence of a positive correlation between earnings and the risk of fatal injury should cast doubt on the idea that knowledge and mobility alone are sufficient to generate compensatory differentials[7], [8].

For instance, the yearly introduction of new workplace chemicals whose effects on human health might not be known for two or more decades (because most cancers and lung diseases have long gestation periods) obviously poses significant informational challenges to those involved in the labor market. It does not follow that worker utility will be decreased just because government regulations have the potential to do so.

The result is dependent on how successfully the unregulated market operates and how cautiously the government establishes its risk-reduction requirements. Similar to the situation previously described for asbestos workers, when worker immobility or ignorance impedes the functioning of the labor market[9], [10]. The main issue with standard-setting is that it is expensive to reduce dangers; the higher the decrease, the higher the expense.

Although firms initially incur these expenses, in the end they find ways to reduce costs elsewhere and raise prices (to the degree that reducing costs is not feasible). Since labor costs make up the majority of a company's costs, it makes sense that businesses that are required to pay large amounts of money for hazard reduction would either hold off on raising wages or implement measures that are similar to cutting wages, such as increasing productivity, tightening the screws on absenteeism, cutting back on employee benefits, and so on. Reductions in employment are also expected, especially in light of any price increases (which naturally tend to lower product demand). A portion of the workforce reduction will come from long-term layoffs that compel employees to look for new positions, positions they most likely could have had prior to the layoff but declined. A portion of the loss will manifest as a reduction in the number of new hires who would have considered the positions to be their best career choice.

DISCUSSION

The cross-wage labor demand elasticities sign is helpful in addressing a variety of public policy inquiries. How can lowering the minimum wage for teenagers, for instance, impact the need for adult labor? What impact will subsidies on capital have on labor demand? Alternatively, to take up a topic that has been much discussed lately (and which we will revisit in chapter 10), what are the expected consequences for the demand for different classes of native labor when labor from immigrants becomes more affordable and accessible? Naturally, the true question behind these questions is whether the input pairings that are emphasized in each line are gross complements or gross replacements.

Although determining whether two inputs are gross complements or gross substitutes is of primary policy relevance, getting reliable estimates is difficult (due to the difficulty of estimating scale effects). Since two variables might be complements or replacements in production, this has been the main focus of the majority of cross-wage empirical research conducted too far. These studies, which maintain output constant, calculate the employment response for a particular labor category to a change in salary or price elsewhere (thus allowing us to concentrate just on changes in the combination of inputs utilized in production).

Although there are many production aspects that are put together for study in this research and the outcomes are not always definitive, the collective findings provide at least a few generalizations.

The United States' first significant piece of national protective labor law was passed in 1938 with the passage of the Fair Labor Standards Act. Its features included prohibiting the employment of child labor, setting a minimum wage below which hourly rates could not be lowered, and providing overtime compensation to employees who put in lengthy workweeks.

When it was first implemented, the minimum wage was set at \$0.25 per hour, which accounted for around 43% of all nonsupervisory pay and salary workers. These workers were mostly employed by bigger companies that were engaged in interstate trade, such as those in the manufacturing, mining, and construction industries. Over time, the minimum wage's fundamental amount as well as its scope of application have grown. In fact, the minimum wage was fixed at \$7.25 per hour in 2009, and its rules applied to almost 90% of all nonsupervisory jobs. It's crucial to stress that the minimum pay rate is stated nominally rather than in relation to another wage or price index. The nominal pay rate has often only been increased once every several years, up until the early 1980s, the minimum wage that was recently enacted was usually at least 45 percent of the average hourly salary in the manufacturing industry.

Productivity growth and inflation drove manufacturing wages higher in the years between laws, which is why the minimum wage sometimes dropped by ten or more percentage points in relation to manufacturing earnings before rising once again. Even the recently enacted minimums fell short of forty percent of the typical industrial salary throughout the last twenty years. In accordance with a 2007 statute enacted by Congress, which established the minimum wage at \$5.85 and stipulated that it would increase to \$7.25 over the course of two years, the minimum pay was around 40% of the average manufacturing salary in 2009. Ever since the minimum wage was originally enacted, there has been worry that it may lead to a decline in employment, particularly for the populations it is meant to assist. A strategy that forces employers to increase the salaries provided to all low-wage workers is likely to restrict job possibilities for the least skilled or experienced workers in the face of downward-sloping labor demand curves. Furthermore, a rise in the minimum wage may result in a decrease in the total earnings of low-wage workers if the proportion of low-wage workers losing their jobs is higher than the percentage of low-wage workers' salaries rising that is, if the demand curve for low-wage workers is elastic.

When assessing the results of studies on how minimum wages affect employment, it's important to remember that sound theory must inform effective research. Theory gives us a path forward for our investigations into the actual world and highlights a number of problems that need to be resolved in any study on the minimum wage. Congress has seldom changed the nominal minimum wage standards that are established for the United States. As a consequence, what seems to be a set minimum wage really has continuously shifting employment incentives as general price inflation steadily reduces the real minimum salary throughout the years between legislative action. Furthermore, the United States' federal minimum wage is implemented consistently across the vast nation, which is marked by regional variations in costs. We discover that the actual minimum wage in Alaska, where prices and salaries are quite high, is lower than it is in Mississippi after accounting for regional variations in earnings or prices. The assumption that employment consequences of a universally enforced minimum wage regulation would typically be more detrimental in locations with the lowest costs of living stems from the recognition that there are regional variances in the actual minimum wage.

Certain employment is located in airy, contemporary places, while others are in hazardous, dusty, or loud settings. While some provide less freedom, others let employees choose how many hours they work or how quickly they complete their tasks. Different workplaces have varying commute times and neighborhood attributes, and some firms provide more extensive benefit packages than others. Below, we go over the ways that variations in Let's say two firms have made offers to a number of unskilled people. Employer X provides hygienic, secure working environment and pays \$8 per hour. Employer Y offers work in a filthy, loud

factory but pays \$8 per hour as well. Which employer would the employees pick? Since firm X offers the same salary and better working conditions, the majority would surely choose them.

But it's obvious that \$8 is not a pay that both enterprises can afford. Firm X will not raise wages in the future as it finds it simple to attract candidates at \$8. To fill its positions, however, Company Y will need to either pay more salaries, clean up the factory, or do both. In order to remain competitive in the labor market, it has to pay a salary higher than \$8, assuming it chooses not to change working conditions. Because the higher salary is intended to make up for the unfavorable working circumstances, the additional wage that must be given in order to attract workers is known as a compensating wage difference. Without such a gap, business Y would not be able to draw in the unskilled labor that firm X is able to get. o factors that alter the difference.

Therefore, companies that provide unpleasant or dangerous occupations have to be forced to pay greater salaries than they otherwise would have to since workers want to avoid discomfort and risk. There are two linked, socially acceptable goals that are served by this pay gap. First, it fulfills a societal need by encouraging individuals to take up unpleasant, risky, or filthy jobs on a voluntary basis. Second, by paying them more than equivalent workers in more enjoyable positions, it rewards employees who choose disagreeable tasks on an individual basis. A lot of jobs coal mining, deep-sea diving, and law enforcement, for example are either inherently unpleasant or would be very expensive to make safe and enjoyable. Basically, there are two approaches to finding the workers required for these kinds of tasks. One is to force individuals to do these tasks (the most visible modern example of forced labor is the military draft). The second strategy is to persuade individuals to do the tasks willingly.

The majority of contemporary countries mostly depend on incentives compensating income disparities to entice workers to accept undesirable employment. Workers will agree to labor at night, put steel beams together 50 floors above the earth, or mine coal because these tasks pay highly in comparison to other jobs for which they may be qualified. For example, working at night may be difficult as it interferes with family time and sleep schedules, but companies often find that it is cost-effective to have their machinery and facilities running all the time. As a consequence, nonunion workers who work night shifts are paid around 4% more than they would if they worked during the day. In addition to serving as individual incentives, compensating wage differentials provide workers who put up with difficult or unpleasant working circumstances more money than they otherwise would.

In a similar vein, those who choose better working circumstances have to "buy" them by taking less money. For instance, if an individual accepts the \$8/hour position with company X, they are forfeiting the \$8.50/hour position with less favorable working circumstances at company Y. In a very real sense, the improved circumstances are being purchased for fifty cents per hour. Thus, workers may buy favorable working circumstances or sell poor ones at a price determined by offsetting salary differentials. It's a prevalent misconception that circumstances or occurrences with largely psychological impact cannot always be valued financially. Wage differential compensation is the key to valuing these non-financial features of work.

For instance, how much do employees respect a work schedule that allows them to sleep at regular intervals and partake in leisure activities? It is easy to answer this question if we know that people who work night shifts earn 4 percent roughly \$1,000 annually for an average worker—more than they would otherwise. People who struggle to fall asleep during

the day or whose preferred leisure activities necessitate the company of friends or family are unlikely to be drawn to night work even if it means earning an extra \$1,000 annually; instead, they would be more than happy to forgo the \$1,000 in earnings in exchange for a regular work schedule. Some, on the other hand, are more receptive to the odd sleep and leisure schedules and are even eager to work at night in exchange for the \$1,000 extra. Some of these later workers find the option to work at night a tough call given the going salary gap, while others would be prepared to forgo a regular work schedule for less than \$1,000.

Some people who were working at night would decide not to continue if the disparity somewhat decreased, while more people might be hired if it increased little over \$1,000. In the event when two jobs have equal compensation but "bad" working conditions, the individual will choose the "good" job. An inexperienced worker could have to decide between a comfortable job in an air-conditioned warehouse and an uncomfortable one laying scorching asphalt. Either way, the amount they earn will be comparable to what unskilled workers often receive.

Predictions of employment losses linked to rising minimum wages are based on the assumption of constant other variables. The projection, in particular, is based on what is anticipated to happen to employment along a fixed labor demand curve as one goes left and up. The employment implications of the shift and the new minimum might be confused if the labor demand curve shifts simultaneously with the new minimum taking effect. Take as an example, where we have just considered the demand side of the market and have removed the labor supply curve for the sake of simplicity. Assume that in year 0, when the real wage is W_0/P_0 and the employment level is E_0 , the demand curve for low-skilled workers is represented by D_0 . Furthermore, imagine that the money salary and the price level would both rise by the same proportion during the course of the next year in the event that the minimum wage remained unchanged. This would result in the real wage in year 1 being equal to that in year 0. Let's say that two events occur in year 1. To boost the actual, pay to W_2/P_1 , the minimum wage rate is first increased to W_2 , which is higher than W_1 . Second, as the economy grows, D_1 becomes less in demand for low-skilled workers. These two adjustments cause employment to rise from E_0 to E_1 .

Certain researchers have concluded that there was no negative impact on employment caused by raising the minimum wage, based on comparisons of the levels of employment recorded at two different times. However, if labor demand has changed, as it does in Figure 4.4, then this straightforward before/after comparison is incorrect. Instead, we need to inquire, "What was the difference between the actual employment level during period 1 and the level that would have persisted in the event that the minimum wage had not increased?" Given the increase in demand between the two eras, this employment level in theory would have been E_{1H} . Due to the fact that E_{1H} exceeds E_1 , the real employment level in period 1, the minimum wage results in a loss of jobs ($E_{1H} - E_1$). Therefore, a one-time increase in the minimum wage is predicted to have the unintended consequence of slowing the pace of job growth in an expanding economy. The main challenge in quantifying changes in employment brought about by the minimum wage turns out to be accounting for all the "other things" outside salaries that influence labor demand.

Like many other government legislations, the federal minimum wage law includes an unaddressed sector. Although coverage has grown over time, certain nonsupervisory employees primarily those employed by small businesses in the retail and service sectors continue to be exempt from the legislation. Furthermore, there may be a high rate of disobedience with the legislation due to the millions of businesses and the limited resources available to the government for enforcement, leading to another kind of noncoverage. The

way that increases in the minimum wage will impact low-wage employment generally depends heavily on the presence of uncovered industries. There are two market segments. In the first, firms have to pay wages that are at least equivalent to the W1 minimum wage; in the second, wages in the unregulated sector are allowed to fluctuate based on the state of the market. Workers are free to shift across sectors in search of better job offers, even while the total labor supply for both markets as a whole is fixed at ET (that is, the total labor supply curve is vertical).

Free migration across industries implies that wages will be the same across all industries in the absence of minimum wage laws. Scale and substitution effects produce a pay change's employment impact. While scale effects are based on customer adaptations to changes in product pricing, substitution effects are the result of changes in how enterprises choose to produce. Keep in mind that, given a given increase in the minimum wage, firms' cost increases will typically be greater when low-wage labor accounts for a larger portion of total costs. As a result, different segments of the covered sector may experience quite different effects on product prices from one another. Furthermore, it's likely that some businesses in the covered sector may hire more people as a result of the scale effects of the wage rise if these subsectors compete with one another for clients.

Assume, for instance, that supermarkets and convenience shops both offer the same goods and that a minimum wage regulation increases the pay for low-skilled employees in both types of establishments. All other things being equal, the minimum wage rule would increase expenses in convenience shops by a larger proportion if low-skilled labor costs represent a larger portion of overall expenditures in convenience stores than they do in supermarkets. Customers would often move part of their convenience shop purchases to supermarkets since the pricing of goods are rising faster in convenience stores than in supermarkets. Thus, the impact of raising the minimum wage on jobs in supermarkets may be unclear. On the one hand, higher wages for low-skilled employees in supermarkets would lead to scale and substitution effects that would reduce employment. On the other side, supermarkets may see a scale effect that might raise their need for labor if they take up customers who were previously shopping at convenience shops. Since the consequences of more recent increases are less evident, advanced statistical methods must be used to examine them. Teenagers, a population known for being underpaid, make up the demographic group for whom the impacts of minimum wages are most likely to be felt, yet research on how required salary hikes have impacted their employment has shown conflicting results.

The question of whether employment was impacted in any way by minimum wage rises in the early 1990s is one that has been the subject of several, well-reviewed, and repeatable research on employment changes in the fast-food business. The minimum wage is a largely ineffectual tool for reducing poverty. First off, a large number of people who are impoverished are exempt from the minimum wage since they either don't work or make salaries that are already higher than the minimum. For instance, a 1990–1991 research on minimum wage rises separated family income distribution into ten deciles, or similarly sized groupings. Considering the size of their families, 80% of people in the lowest decile were below the poverty line, but only about 25% of them were employed, and of those who were, fewer than 1/3 had incomes below the new federal level. In the United States, around 100 communities, counties, and school districts have passed "living wage" laws, perhaps as a result of the comparatively low federal minimum wage and the frequency of its changes. These laws impose pay ceilings on a subset of firms within their jurisdictions that are more than the minimum wages imposed by the federal or state governments. Employers under contract with the local government are often the ones impacted by these rules, however

sometimes they may apply to companies who get business support from the county or city. The federal poverty criteria, which in the continental United States in 2007 were \$17,170 for a family of three and \$20,650 for a family of four (wage earnings of \$8.50 to \$10 per hour to meet these poverty lines), are often used to determine living wage levels. Living wage regulations established standard pay levels in 2007 that fell between \$8.

CONCLUSION

Economic consequences and the dynamics of the labor market are significantly influenced by worker mobility. The research emphasizes how diverse the variables affecting people's choices to relocate or change careers are. Worker mobility is mostly influenced by wage disparities and possibilities for career progression, as people move in search of better-paying jobs with more room for promotion. Worker mobility patterns are also influenced by employment features, such as work-life balance and job satisfaction. Employees often move to positions or sectors that better suit their preferences and skill set. Furthermore, worker mobility may be influenced by labor market factors like job availability and unemployment rates, as people are more inclined to migrate or change occupations in response to opportunities or good economic circumstances in other areas. Worker mobility choices are influenced by personal variables, including lifestyle preferences and family concerns. This emphasizes the need of taking individual circumstances into account when analyzing worker mobility. To encourage economic mobility and resilience, solve skill shortages, and efficiently manage labor market dynamics, governments, companies, and people must have a greater knowledge of worker mobility. It is necessary to do further study to examine new trends in worker mobility, such as involvement in the gig economy and remote employment, and how they may affect labor market policies and workforce development.

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CHAPTER 10

INVESTIGATION AND ANALYSIS OF PRODUCT DEMAND SHIFTS

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ABSTRACT:

This research studies and analyzes product demand shifts, concentrating on the variables that influence changes in customer preferences and purchase behavior across time. The research analyzes the main factors that influence demand shifts, such as adjustments to income levels, demographic shifts, technological advancements, rivalry, and shifts in consumer tastes and preferences, through a thorough review of economic theories, market research, and empirical studies. The research intends to provide perspectives on how companies and governments may predict and adapt to shifting market dynamics in order to successfully fulfill customer wants and spur corporate development by examining the underlying causes of demand fluctuations.

KEYWORDS:

Competitive Pressures, Consumer Preferences, Demographic Shifts, Income Levels, Technological Advancements.

INTRODUCTION

Product demand is the first. Product demand curve shifts will typically induce labor demand curves to move in the same direction, and changes in product demand elasticity relative to product price will typically result in changes in the own-wage elasticity of labor demand that are qualitatively comparable. When new items, like personal computers, replace outdated ones, like typewriters, the labor demand curve in the older industry tends to move to the left, which results in job losses in that sector. The introduction of new goods may enhance the elasticity of labor demand as well as product demand if these innovations also generate increased opportunities for product substitution[1], [2]. This lessens the ability of unions to win significant pay increases in the elder sector and raises the amount of job loss linked to collectively negotiated wage increases.

Although the introduction of new goods benefits customers and creates employment in the new sectors, it does force some difficult adjustments in current businesses as companies, unions, and workers must all adapt to a new environment. Automation, or the replacement of capital with capital, is often linked to a second facet of technological transformation. To analyze the impact of this second technical development on labor demand, one should see it as a reduction in the cost of capital. In some instances the widespread manufacturing of personal computers being one such instance a decline in capital prices really takes place[3], [4]. In some instances of technical change the shrinking of computer components, for instance, which has enabled new methods of production an innovation opens the door to whole new technological possibilities. The availability of a new technology is comparable to seeing a drop in its price to some finite number since anything that is inaccessible may be conceived of as having an infinite price (it is not available at any price. In either scenario, capital tends to replace labor in the manufacturing process as its cost decreases. Depending on whether capital and the labor category are gross complements or gross substitutes, the cross-elasticity of demand for a particular category of labor in response to a decline in the price of capital would have a different sign. Automation lowers demand for workers in a given

category of labor if automation results in capital and labor being gross substitutes in production, and if the scale impact of the lower capital price is relatively small. However, the scale impact could predominate for labor categories that are not near equivalents for the new technology, and the two might even be a gross complement. As a result, automation may have a positive or negative impact on the need for certain types of work[5], [6].

It is obvious that a number of variables, many of which are quite unique to certain industries and manufacturing processes, determine whether capital and a certain kind of labor are gross substitutes. The best that can be stated generally is probably that skilled labor and capital, which some studies have identified as complements in production, are less likely to be replacements in production than unskilled labor and capital. Because complementary elements of production have to be gross complements, the demand for skilled labor is more likely to rise in response to technological advancement than the need for unskilled labor. However, there are three elements to consider before drawing the conclusion that the unskilled are at risk from technological development. First, if scale effects are strong enough, even production replacements may be gross complements. Second, replacing labor with capital may lead to the loss of certain employment but also the creation of others due to scale effects, sometimes even within the same industry.

Although the percentage of unskilled laborers among all workers has decreased over the last century, this decrease does not provide strong proof of the gross substitutability of unskilled labor and capital. The terms "elasticity" and "cross-elasticity" describe how, under all other conditions, changes in capital prices or wages might affect labor demand. Put another way, labor demand elasticities are concerned with the labor demand curve at a certain moment in time. Behaviors of workers' labor supply over time also affect actual employment outcomes. Therefore, it is difficult to infer anything about own-wage demand elasticities or the magnitudes or indications of cross-elasticities of labor demand from basic observations of employment levels over time. It is evident from the preceding research that technological advancements have an impact on labor demand via both substitution and scaling effects[7], [8].

But in many public debates about technological progress, the substitution effect sometimes expressed in graphic terms takes center stage, while scale effects are ignored. For instance, in 1979, the authors of *The Collapse of Work* urged for legislation to address the "ever-increasing unemployment" and described technological development as causing a "jobs holocaust." However, some people do incur expenses as a result of technological progress; these individuals must pay for employment changes since there is less demand for their services. These expenses might include lost wages, short-term unemployment, or the cost of investing in skill acquisition. But given that technical innovation also raises the need for more labor and lowers prices or increases customer choice in products, it makes sense to wonder whether it is possible to determine whether the total net consequences of technological development are good or bad.

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However, there are three elements to consider before drawing the conclusion that the unskilled are at risk from technological development. First, if scale effects are strong enough, even production replacements may be gross complements. Second, replacing labor with capital may lead to the loss of certain employment but also the creation of others due to scale effects, sometimes even within the same industry although the percentage of unskilled laborers among all workers has decreased over the last century, this decrease does not provide strong proof of the gross substitutability of unskilled labor and capital. The terms "elasticity" and "cross-elasticity" describe how, under all other conditions, changes in capital prices or wages might affect labor demand. Put another way, labor demand elasticities are concerned with the labor demand curve at a certain moment in time [9], [10].

DISCUSSION

Behaviors of workers' labor supply over time also affect actual employment outcomes. Therefore, it is difficult to infer anything about own-wage demand elasticities or the magnitudes or indications of cross-elasticities of labor demand from basic observations of employment levels over time. It is evident from the preceding research that technological advancements have an impact on labor demand via both substitution and scaling effects. But in many public debates about technological progress, the substitution effect sometimes expressed in graphic terms—takes center stage, while scale effects are ignored. For instance, in 1979, the authors of *The Collapse of Work* urged for legislation to address the "ever-increasing unemployment" and described technological development as causing a "jobs holocaust." However, some people do incur expenses as a result of technological progress; these individuals must pay for employment changes since there is less demand for their services. These expenses might include lost wages, short-term unemployment, or the cost of investing in skill acquisition. But given that technical innovation also raises the need for more labor and lowers prices or increases customer choice in products, it makes sense to wonder whether it is possible to determine whether the total net consequences of technological development are good or bad.

Naturally, a family's bank accounts, investments, and tangible possessions are all considered parts of their wealth. The abilities of employees may also be seen as assets because for a fee, companies may effectively rent out these abilities. The worth of one's human assets increases with pay potential. Sadly, it is often impossible to gauge someone's wealth immediately. Because government surveys provide easily accessible statistics on overall income, measuring the returns from that wealth is considerably simpler. Because total income and total wealth are conceptually so similar, economists often use total income as a measure of total wealth.

Although the aforementioned examples show instances in which either the income effect or the substitution effect is present on its own, both effects are typically present and frequently act in opposition to one another. Predicting the overall labor supply response is often ambiguous when both effects are present and operating in opposing directions. Let us examine the scenario of an individual who obtains a pay raise. A straightforward pay raise will have an impact on the labor supply via both an income effect and a substitution effect. The worker's increased wealth (or prospective income) after the rise is what causes the income impact. Because they are paid more for every hour they work, they have more control over resources than they did before, even at the same level of effort. Because the salary rise increases the opportunity costs of leisure, there is a substitution impact. We simply cannot forecast the reaction in advance since theory does not indicate which impact is larger; the real labor supply response is the total of the income and substitution effects. A person will reduce their labor supply in response to a salary rise if the income impact is more pronounced.

Because of the substitution effect, which works as a moderating factor, this drop will be less than if the same rise in wealth were the result of a gain in nonlabor wealth. Nevertheless, as Example 6.2 illustrates, the substitution impact is insufficient to stop the labor supply from falling when the income effect predominates. Naturally, there is a good chance that the substitution effect will prevail. If this is the case, increasing the labor supply will be the real reaction to pay increases.

The person's labor supply curve, which connects, for example, his or her preferred hours of work to earnings, will be favorably sloped if the substitution effect is dominant. In other words, if wages rise, so will the labor supply. However, the person's labor supply curve will be negatively sloped if the income impact is dominant. Economic theory is unable to predict which impact would predominate; in reality, labor supply curves may slope favorably in some salary ranges and negatively in others. For instance, in as earnings rise, an individual's desired hours of labor increase (the substitution effect predominates) as long as wages remain low (below W^*). However, as wages rise further, fewer hours are worked (the income effect takes over); this is known as "backward-bending" in economics.

Money and leisure may both be used to provide happiness, or usefulness, thus in a way, they can be substituted for one another. If compelled to forfeit a portion of one's income by reducing work hours, for instance an increase in free time may be used to make up for the lost revenue and maintain the same level of happiness. In order to comprehend the graphing of preferences, consider the following scenario: a considerate worker or consumer is asked to rate their level of happiness based on a \$64 daily wage and eight hours of free time. Utility level A might be used to describe this degree of satisfaction. Our customer or employee may list several combinations of income and free time that would likewise result in utility level A. Let's say our responder mentioned five more pairings. The six combinations of disposable income and free time that result in utility level A are shown as heavy dots. An indifference curve, which links the many combinations of money, income, and leisure that provide equal utility, is the curve that connects these points. Happiness at utility level B is higher than at utility level A.

On B compared to A, every degree of leisure spending is paired with a larger income. Thus, all of the locations on indifference curve B are preferred by our response above any point on curve A. For just one individual, a full range of indifference curves reflecting varying utility levels might be constructed. Since the northeastern curve indicates a greater degree of usefulness and the two curves do not meet, any such curve that is to the northeast of another one is preferable to any curve to the southwest. If they did, the point of intersection would stand for a single mix of earnings from work and leisure that produced two distinct pleasure levels. We presume that our employee or customer is not so erratic in communicating their choices that this may occur. Indifference curves have a negative slope because, in order to maintain the same level of utility, when one of the two variables income or leisure hours increases, the other must decrease. Steep slope means that a given loss of income does not always need a significant increase in leisure hours in order to maintain utility. To maintain utility, however, a given loss in income must be followed by a significant increase in leisure spending when the curve is generally flat, as at segment MN.

Therefore, individuals value money income less when indifference curves are relatively steep than when they are relatively flat. If utility is to remain constant, a loss of income can only be made up for by a significant gain in leisure when indifference curves are flat. Convexity describes indifference curves, which are steeper on the left than the right. This shape illustrates the idea that, in contrast to situations when leisure is plentiful and income is relatively rare, leisure is valued more highly (when money income is relatively considerable

and leisure hours are relatively few. A little loss of leisure time would need a very significant gain in income to retain similar utility, but a huge loss of income may be made up for with only a small increase in leisure at section LK in Relative scarcity is a higher value attribute.

Employees with various leisure interests but facing the same budgetary constraints would choose to work different hours. The point of tangency with constraint ED would have been to the left of point N (indicating more hours of work) if the person whose preferences were shown in Figure 6.5 had placed lower values on leisure time. As a result, they would have had relatively flatter indifference curves, like the one shown in the point of tangency would have been to the right of point N if, on the other hand, he or she had steeper indifference curves, indicating that leisure time was more desirable. In this case, fewer hours of work would have been wanted. In fact, some people's leisure preferences are so strong that is, they have indifference curves that are so steep that they never intersect with ED. These people's utility is maximized at the "corner," or point D, as a result, they have no desire to work and are not employed. Utility level U2 can only be attained with the salary rise for the worker whose preferences.

The ideal amount of labor is suggested to be 11 hours by the tangency point at N2. Eight hours a day were the utility-maximizing labor hours while the previous limitation was in place (point N1). As a result, this individual would want to work three more hours each day as a result of the pay rise. The pay rise would enable the worker whose choices are shown in Figure 6.9 to have the greatest utility level (the prime indicates that workers' tastes vary and that utility levels in cannot be compared). At six hours of labor every day, utility is maximized. when the pay rate rises, working hours decrease from 8 to 6 with preferences similar to those. Assume that accepting a job requires a 2-hour daily commute (round-trip). Since these hours are unpaid, of course, the worker's budget limitation must account for the fact that, in the event that a job is accepted, two hours of leisure must be forfeited before revenue increases. Segment reflects these fixed working expenditures. Naturally, the earnings that are feasible (once at work) are reflected in Segment BC, and the wage rate of an individual is represented by the slope of BC.

Is the basic BC pay high enough to motivate the employee to work? Considering the budget restriction ABC, the maximum amount of utility that this individual may get is represented by the indifference curve U1. At point A, utility is maximized, and the individual decides not to work. According to labor supply theory, in addition to personal preferences, workers' decisions about the number of hours they would want to work are influenced by their income and the pay rate they can demand. This hypothesis specifically proposes the presence of a positive substitution impact and a negative income effect. The main goals of empirical testing of labor supply theory are to ascertain if these two effects are observable, whether they work in the predicted directions, and how much of a relative impact they have.

In order to examine the effects of pay rates and income on labor force participation and hours worked while controlling for other factors like age, the majority of recent research on labor supply have used large samples of people. Because men and women frequently play distinct roles in domestic chores and childrearing, studies of the behavior of these groups in the labor market are conducted independently. These roles undoubtedly influence choices regarding the labor supply, but there is normally relatively little information available about them.

Research on the labor supply behavior of males in the 25–55 age range often finds little, if any, impacts from either income or substitution. The findings of research that attempt to evaluate the income and substitution impacts separately—while generally supportive of the theory—are very reliant on the statistical techniques employed, perhaps because the net

reactions to wage increases are so near to zero. Studies on married women's labor supply behavior have usually shown that they are more sensitive to changes in pay than are males. New research points to two generalizations based on these findings. First, as can be seen in Example 6.5, married women's labor force participation rate has responded more to wage changes than their hours worked. This is because changes in the number of hours worked in relation to a wage change for married women are more like those for men than they are for women. Second, married women's labor supply behavior has changed over the last 20 years to resemble that of males, which means that women's labor supply is becoming less sensitive to fluctuations in wages than it once was. When it comes to women's choices about joining the labor market, where the gaps between them have been the biggest, the decreased responsiveness has been particularly apparent. Congress significantly lowered the tax rates on the highest income levels in 1986, altering the personal income tax structure in the US. Families with taxable earnings exceeding \$170,000, for instance, were subject to a 50% tax rate before to the adjustment; this tax rate was lowered to 28% after the reform. Additionally, the tax rate on taxable earnings above \$50,000 was reduced from around 40% to 28%.

Reduced income tax rates contribute to higher take-home pay, which in turn raises wage rates. Lower rates have an unclear predicted impact on the labor supply since they have an opposing influence on both the income and substitution effects. Can we determine which influence, in actuality, is stronger? The 1986 modifications acted as a kind of natural experiment (with one variable experiencing dramatic changes, the magnitudes of which differ by group). For families with varying incomes, the effects were significant, abrupt, and very varied. The tax rate reductions resulted in a 22 percent rise in married women's take-home pay rates for families whose, in the absence of their work, the incomes were in the 99th percentile of the income distribution, or the highest 1 percent. The lesser tax rate reductions resulted in a 12 percent gain in take-home pay for women in families with incomes at the 90th percentile. Married women at the 90th and 99th percentiles of family income turned out to be comparable in terms of age, employment, and education, and their labor supply had increased similarly before 1986. Thus, examining how they reacted to drastically different changes in their after-tax pay rates should provide some understanding of how married women's labor supply changed in response to changes in tax rates.

In one research, labor supply gains for married women in the 90th and 99th percentiles were studied between 1984 and 1990. It was discovered that throughout that time, women in the 99th percentile had a 19.4% increase in labor force participation and a 12.7% increase in hours worked if they were employed. In comparison, women in the 90th percentile had just a 6.5% increase in both hours worked and labor force participation. Therefore, the results of this natural experiment imply that women who saw higher take-home pay increases also sought higher increases in the labor supply, indicating that for these women, the income impact was subordinated to the substitution effect. Additionally, the dominance of the substitution effect was more obvious for choices about labor force participation than it was for decisions about hours worked, which is consistent with theory and the findings of previous research

The budgetary restrictions imposed by many income maintenance schemes raise income while decreasing take-home pay, which synchronizes the impacts of substitution and income. Thus, it is both necessary and enlightening to assess the work-incentive impacts of different social initiatives using labor supply theory. Certain social insurance schemes provide benefits to employees who are rendered unable of working due to a brief work accident, a long-term disability, or a layoff. When employees are injured at work, workers' compensation insurance compensates the majority of lost wages; similarly, private or state disability

programs cover workers who become physically or mentally unable of working for other reasons. People who lose their jobs and are unable to obtain new ones are entitled to unemployment benefits. Although some jurisdictions may have exceptions,¹⁸ it is usually true that these income replacement schemes have one thing in common: they exclusively provide payments to those who are unemployed. Let us assume that a workers' compensation scheme is set up so that, after an injury, employees get their pre-injury wages for the duration of their absence from work. This will help us appreciate the implications of providing benefits exclusively to those who are not working. But when they put in even an hour of work, they are no longer regarded as handicapped and are not eligible for further payments. An analysis is conducted on how this policy affects labor incentives. Secondly, we assume that the no-work benefit of AC is equivalent to E_0 , which is the pre-injury earnings level.

Given that the usual downward slope of indifference curves assumes that the worker appreciates leisure at all, it is evident that utility is increased when one can maintain the same level of wages while simultaneously enjoying more leisure. Because the worker is on indifference curve U_2 rather than U_1 , he or she is better off at point C than at point f, the pre-injury mix of wages and leisure hours. Reducing the financial impact of allowing workers to attain a higher utility level while they are off the job discourages, or at least delays, the return to work. In fact, the scheme we've envisioned increases a person's reservation salary beyond what it was before to the injury, so returning to work will only be feasible if the worker is hired for a position earning more. The dashed blue line in Figure 6.13, which starts at point A and is tangent to the indifference curve U_2 (the amount of utility made achievable by the social insurance scheme), may be used to visualize this. Because utility will be at least equal to that associated with point C if the individual can get the requested hours of employment at this or a larger pay, the slope of this line equals the person's reservation wage. Additionally take note of the fact that the reservation pay must be earned for a minimum of R^* hours of work in order to promote labor force participation.

CONCLUSION

Businesses must comprehend and adapt to changes in product demand if they want to stay competitive and satisfy changing customer demands. The results of this research have shown a number of important variables that influence how consumers behave while making purchases, such as changes in income levels, demographic trends, technology advancements, competitive pressures, and changing consumer preferences. For businesses to successfully anticipate and adjust to shifting market dynamics, they must constantly monitor and evaluate these aspects. Businesses may detect new trends and opportunities and adjust their goods and marketing tactics to suit changing customer expectations by using market research, data analytics, and strategic planning. In a similar vein, governments may help promote market responsiveness by fostering an atmosphere that encourages competition, innovation, and consumer choice. All things considered, in today's dynamic and quickly changing market environment, proactive monitoring and analysis of product demand fluctuations are critical for firms and governments to remain ahead.

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CHAPTER 11

INVESTIGATION OF PAY AND PRODUCTIVITY: WAGE DECISIONS

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ABSTRACT:

This study examines the connection between productivity and compensation, paying particular attention to the variables affecting salary choices. The study looks at the factors that determine wage-setting processes and how they affect productivity levels by thoroughly analyzing economic theories, empirical research, and labor market data. The labor market, employers' and employees' negotiating strength, minimum wage laws, skill levels, and technology developments are some of the important variables that were examined. The goal of the study is to shed light on how wage choices are made and how they affect the functioning of the labor market and the economy by comprehending the dynamics of pay and productivity.

KEYWORDS:

Bargaining Power, Labor Market Conditions, Minimum Wage, Productivity, Skill Levels.

INTRODUCTION

Businesses that provide specialized training, for instance have a range of possible pay increases for their employees. These businesses must weigh the expenses of enhancing these benefits against the savings from a greater likelihood of keeping their trained staff. Similarly, if the benefits package is increased to include things like work safety or employee benefits. A contract between the employer and the employee (the "agent") may be used to describe the employment relationship. In exchange for pay and other advantages, the employee is employed to support the goals of the employer[1], [2]. There are often agreements or implicit guarantees that if workers put forth a lot of effort and comply with A contract is an agreement between an employee and their employer to carry out activities in exchange for present and future compensation. A formal contract, like the one a bank and a homeowner sign to repay a loan, clearly states what each party is expected to do and what happens if they don't follow through on their commitments. A formal contract cannot be revoked by any party without consequence once it has been signed. Courts or other third parties may be consulted in disputes pertaining to performance[3], [4].

The combination of pay and other valuable goods in the remuneration package is up to the employers to choose. The goals and concerns of employers and employees are different, and the incentives included into the employment relationship are essential to bringing these disparate interests into harmony. In order to encourage high productivity among employees, employers might implement a variety of compensation schemes. In the sections that follow, we will analyze these schemes after providing an outline of the main components of this connection. The majority of employment contracts are implicit and imperfect, in contrast to formal contracts. They are often lacking in that not all of the precise duties that may be expected of workers are always specified up front. This would make it more difficult for firms to adapt to changing circumstances and would need frequent renegotiation of employment contracts between employers and workers, which would be expensive for both sides[5], [6].

Implicit employment contracts are also those that are typically a collection of unwritten agreements that are too general to have legal effect. For instance, when an employee agrees to "work hard," what exactly has she pledged to do, and how can it be shown that she hasn't done it? More precisely, what does a company mean when it says it would "promote deserving employees as opportunities arise"? Additionally, workers may virtually always leave their jobs at any time, and employers often have a lot of discretion when terminating workers. For these reasons, it is frequently profitable for one or both sides to cheat by breaking their agreements in one manner or another. When information is asymmetric, or when one party has greater knowledge than the other regarding the other's intentions or performance under the contract, there are more opportunities for cheating. Let's take a scenario where an insurance business tells a recently recruited insurance adjuster that if she "does a good job," she would earn a significant rise in four years. Later on, the business can attempt to deny her the promotion she is due by insinuating that her work was inadequate [7], [8].

As an alternative, the adjuster, who spends the most of their time working from the office and away from supervisory scrutiny, transacting with the "right kind" of person may help prevent getting conned; but, in order to achieve this, we need to figure out how to get the other party to divulge or signal—the truth about its true nature or intentions. Assume, for instance, that an employer seeks candidates who are prepared to postpone immediate satisfaction in favor of long-term benefits; in other words, those who do not significantly underestimate the future. It's possible that asking candidates only whether they can put off satisfaction will not get sincere responses. Nonetheless, there are methods by which an employer may persuade candidates to subtly express their preferences.

Employees would likely choose to be paid on a time basis if they were informed that their average annual earnings under a time-based payment system would be equivalent to their earnings under an output-based pay plan. Under outcome-based compensation systems obviously varies depending on whichever output metric is used as the foundation. As previously stated, a variety of factors that impact individual or collective output are influenced by external factors as well as the worker's level of dedication and energy. A worker's daily output may be impacted by a variety of factors, including the age and state of the equipment, supply disruptions caused by strikes or snowstorms, and personal sickness or injuries. The demand for the product being sold as a whole certainly influences salespeople's commissions, and this demand might change for a variety of reasons that are largely beyond the salesperson's control. The amount of work put in by other members of the group will likewise affect earnings that are based on some kind of collective output.

Workers' supposed risk aversion the need for earnings stability, even if it implies slightly lower compensation is considered to make the potential earnings changes under output-based pay undesirable. The majority of workers have monthly expenses related to electricity, food, rent, insurance, and other costs. Even if several high-income pay periods were to follow, people could find it impossible to fulfill their responsibilities if multiple low-income pay periods are sandwiched between. Employees prefer the security of time-based compensation when all other factors (such as the average salary level) are equal because they are anxious about times when their productivity will be lower than normal. Employers would have to provide a compensatory salary difference in order to persuade risk-averse workers to embrace output-based compensation. Aside from worker risk aversion, it's intriguing to think about which

Commission-based or piece-rate compensation structures will draw in personnel. Because time-based plans compensate high and low producers equally, at least initially, the workers

who benefit most from piece rates or commissions are those whose Above average motivation and ability levels. Therefore, workers who choose for pay schemes that incentivize individual production are communicating their belief that they are superior producers. For instance, the individual output of the firm's remaining incumbent employees increased by 22% when the American company that installs glass in cars switched from time-based to piece rates in the mid-1990s. This suggests that the same employees put in more effort under the piece-rate pay system. But since the business attracted a new pool of talent after switching to piece pricing, slower workers left and quicker ones joined. The costs and advantages of incentive pay plans to businesses determine whether or not they are prepared to pay a premium to get workers to accept piece rates. As previously said, employees who get commissions or piece rates are the ones who suffer from poor productivity; employers may thus spare more time for employee supervision and screening[9], [10].

DISCUSSION

When employees are paid on a time basis, the employer bears the risk of fluctuations in their output; earnings rise during periods of high productivity and fall during periods of low production. It's possible that employers are less concerned about these changes than workers are. Because they usually have greater resources, they are better able to withstand difficult times than lone employees. Additionally, employers often employ a number of people, so it's unlikely that everyone would experience fluctuations in productivity at the same time (barring issues with employee morale inside the company. As a result, workers may be more prepared to pay for income predictability than employers are.

The incentives for employee effort are the other important factor that employers take into account when determining the foundation for remuneration. If employees can't be persuaded to check quality on their own, these issues may necessitate the use of expensive quality-control oversight. Only in situations where the person responsible for a certain item or service can be identified, can self-monitoring of quality be readily induced. For instance, the previously stated car glass installer demands that employees who have fitted a windshield incorrectly—which often leads to it breaking pay for the new glass and then reinstall it on their own schedule.

Another issue is that workers could be pressured to work so fast that they neglect to maintain or utilize equipment and machinery properly, which might lead to damage. Employers are so concerned about this issue that they often demand piece-rate workers to furnish their own equipment, even if the problem is only somewhat alleviated to the point where production halts might result in a decrease in the worker's pay. Given the challenges associated with measuring the total worth of individual performance, how can organizations design compensation systems that provide the right incentives? We look at two possibilities in the remaining portion of this section. In one, compensation is determined by some kind of group production metric, whereas in the other, supervisors' subjective assessments play at least some role in determining pay.

In situations where monitoring individual production proves challenging, individual incentive plans negatively impact output quality, or output is produced by teams of interdependent workers, companies may use group incentive pay programs to better match the interests of employers and employees.¹⁵ These programs might directly correlate compensation with the company's total profit margin, or they could connect at least part pay to another aspect of profitability (such as cost savings, group productivity, or product quality). In yet other situations, employees may be the company's owners and divide the earnings among themselves. The Shakers were a unique religious movement. They practiced community

property ownership and enforced celibacy, with each member getting the average produce and sharing the group's revenue equally. They came to the US in 1774, peaked at around 4,000 in 1850, and then saw a decline in membership. Although their inability to procreate and waning religious zeal are often cited as the main causes of their collapse, economic historian John Murray contends that their communal remuneration scheme had a significant role as well. Members who produced more than the average amount would get less than the worth of their work, and often less than they might earn elsewhere. High-productivity members had an incentive to leave as a result. On the other hand, those who were outsiders and had a low marginal productivity were motivated to join since they would be paid more than their production and could earn more elsewhere.

Murray uses literacy as a stand-in for marginal production. The Shaker communes in Ohio and Kentucky were founded by fervently religious individuals, which may have originally solved the incentive issues. These people were significantly more literate than the surrounding population, with about 100% of them being literate. However, illiterates were beginning to join the cult in considerable numbers by the time of the Civil War, and its literacy rates started to decline relative to others in the neighborhood. Murray also discovers that members who were literate had a 30 to 40 percent higher likelihood of leaving the society and turning into "apostates" compared to those who were uneducated. The newcomers' genuineness was questioned by their peers, who saw them as "bread and butter Shakers" who were just out to take advantage of their more successful siblings. Many had failed or refused to support themselves in the world outside of the commune. The Shaker communities' shifting demographics ultimately led to a crisis inside the communes, as the group's average output dropped and it struggled with dwindling excitement, internal strife, and dwindling membership.

Pay for senior executives is an intriguing illustration of the benefits and drawbacks of basing compensation on collective performance. Although they do not own the firm, executives manage it and have the same goals as other workers: to further their own interests. basing CEO compensation on the company's profitability since businesses aim to maximize profits. However, how long should profits be tracked? Paying employees based on current year earnings might lead to the same unfavorable motivations as piece rates were previously mentioned. Focusing solely on current-year profits may lead executives to pursue short-term tactics (or accounting tricks) that are against the company's long-term interests in the hopes of being able to "take the money and run" to another company before the full long-term effects of their choices are realized. Paying corporate executives with company stock or purchase options could seem like the best method to align their interests with those of the firm owners. It seems that this compensates senior executives for their efforts to boost shareholder value and penalizes them for taking initiatives that lower it.

Nonetheless, there are three disadvantages to giving shares to senior business decision-makers. First, investor "bullishness" as a whole has an impact on a business's stock price in addition to corporate performance. Furthermore, even in cases when a stock price accurately represents a firm's profitability, such as when an oil company gains from an increase in the price of oil, this profitability may not be related to the management team's effectiveness or the caliber of judgments made. Therefore, CEOs who get stock compensation are rewarded for both hard work and good fortune, which may cause them to put less effort into furthering the goals of their companies. In reality, chief executive officer (CEO) pay in the US has shifted more and more in response to shareholder value. In 1996, stock or stock options accounted for a similar 29% of CEO compensation, compared to 17% in 1984. In 2003, levels were even higher, but little lower than in 2000.²¹ (The residual CEO compensation

consisted of salary, perks, and bonuses determined by the company's performance for the current year.) Businesses in more volatile sales-prone industries where CEO wages are more subject to fluctuations outside their control due to compensation policies based on profits or share values rely more on salary payments than on business success to draw in top talent. Overall, it seems that giving CEOs shares or stock options is a successful way to compensate them.

In general, companies that have more heavily emphasized stock or stock options in their executive compensation plans have seen higher gains in corporate wealth. However, there is some evidence that linking compensation to stock market prices may cause CEOs to become too concerned with changes in their own income, which may lead them to avoid taking on riskier initiatives, even if they seem lucrative. Aligning their incentives with investors' has become an issue again after recent incidents involving CEOs. The question is whether CEOs take use of their intimate relationships with board members many of whom have been with the firm for a long time to bargain for hefty remuneration packages.

More specifically, do they take use of their "insider" connections with those who determine their salary to be paid more than what would be expected to maximize shareholder value? While researchers have differing opinions on this matter, most concur that there may be a problem with collusion between CEOs and directors and that having more "outside" directors or knowledgeable stockholders like institutional investors, for example may be essential to aligning incentives. Most businesses use time-based compensation because of employee risk aversion and the challenge of creating adequate quantifiable outcomes for individual and group incentive systems. Because compensation and productivity are not directly correlated, time pay addresses workers' demand for pay consistency while also posing an incentive challenge. In an attempt to address this issue, employers often use merit-pay systems, which provide higher salary increases to employees whose managers believe they perform better.

Paying employees based on supervisory evaluations might, on the one hand, provide better incentives as these ratings can account for more subjective characteristics of performance (such as friendliness and teamwork) that could be important to the employer's well-being. However, merit-based compensation still has two motivation issues that are comparable to output-based pay.

Merit pay faces the well-known issue that individual effort and production may not correspond effectively due to factors beyond of workers' control if supervisors are instructed to base their assessments on worker contributions toward real output. Because of this, managers are often required to rank their staff members in relation to one another, based on the idea that all employees deal with the same outside factors—such as snowfall, equipment failures, and other issues. Relative rankings for merit-pay purposes present a challenge since employee effort may not align with the employer's goals.

For instance, undermining other people's efforts might help one rise in the eyes of others. In colleges and institutions where grades are often determined by comparing student performance to the assigned text, it is not uncommon to find pages pulled out of library books on reserve just before significant exams. Noncooperation is less dangerous than sabotage but still goes against company interests; research indicates that employees are less inclined to share tools and equipment with coworkers the more incentives they get based on relative performance. Given workers' dedication to the company they create, higher pay are assumed to result in more production from them. Employers are more inclined to give training and to demand longer hours and a quicker pace of work from their staff since greater earnings compared to what workers may obtain elsewhere reduce the likelihood that workers would

leave. Workers understand that even though oversight may not be thorough enough to identify instances of shirking, the cost of losing a job that pays above-market wages now and in the future will be incurred if they are fired for failing to work hard when they are caught cheating.

Moreover, workers' worries about receiving fair treatment may be another factor contributing to their increased productivity in response to greater salaries. Employees who feel they are receiving fair treatment are more inclined to work hard, while those who feel they are receiving unfair treatment may "get even" by refusing to work hard or even committing acts of sabotage. It only makes sense to pay salaries beyond what employees might make elsewhere when they anticipate long-term job connections with companies. Because dismissing someone who is going to resign anyhow does not effectively penalize them, workers who changed positions every period would have little motivation to minimize shirking when a company paid above-market rates. Consequently, enterprises would not be motivated to implement an efficiency-wage strategy. Efficiency wages are thus unlikely to emerge outside of environments with organized internal labor markets. However, the presence of internal labor markets creates additional opportunities for utilizing compensation to inspire employees, and it is to these opportunities that we will now focus.

Employers that have internal labor markets have choices for retaining employees who outgrow the typical career paths offered by the company. Prospective workers and candidates for jobs at companies with internal labor markets are worried about the current worth of career pay. Employers have more options when creating compensation policies with this "lifetime" perspective because they can still vary the pay levels at each career step and the speed at which employees are promoted while still adhering to the requirement that career compensation offer an attractive present value. In this section, we examine a number of pay sequencing options that are believed to incentivize higher productivity throughout the course of an employee's career.

Pay plans with a significant signaling component are those that postpone at least a portion of an employee's salary to a later point in their career. They will primarily (and maybe only) appeal to employees who plan to work for their company for a long time and put in enough effort to keep themselves employed before receiving their overdue compensation. A company may find an underpay-now, overpay-later compensation plan appealing if they are unable to forecast which employees will remain and work hard due to the kind of employees that are likely to fall into their candidate pool. An organization that compensates its workers badly at first but well in the long run boosts their motivation to put in a lot of effort. An employee has an incentive to work hard after they start employment in order to be eligible for the later overpayment. The company has several years to detect shirkers and deny them the delayed incentive, so it does not need to allocate as many resources to monitoring as it otherwise would. All employees tend to work harder than they otherwise would, which results in higher compensation within the company.

Workers would get less than their marginal output early in their careers and more than their marginal product later under a workable compensation-sequencing plan. Still, there are two requirements that this plan has to meet. Firstly, the company cannot attract the workers it wants if the current value of the earnings streams supplied to employees is not at least equivalent to alternative streams offered to workers in the labor market. The plan must also meet the equilibrium requirements, which state that the company must maximize earnings while avoiding supernormal profits. The firm's survival is at risk if earnings are not maximized; if profits are above average, new businesses will be encouraged to join the market. Equilibrium would thus not exist in any scenario.

Hiring until the present value of a worker's career-long marginal revenue product matches the present value of their lifetime earnings stream will satisfy these two requirements. It is true that entering into this form of arrangement has dangers for both parties. Employees who accept this compensation plan do so with the understanding that they run the risk of losing their jobs for no reason at all or of their firm going bankrupt before they are paid in the years after t^* . Given that older workers are receiving wages that exceed their marginal worth to the company, it is understandable that employers may be inclined to backtrack. However, with these seniority rights, companies may be tempted to lay off older workers whose wages exceed MRP and retain the younger workers, who are paid less than MRP at this point in their careers. Employers who do not want to fire older workers run the risk that these "overpaid" employees will stay on the job longer than is necessary to collect their reward. Later in their careers, workers may also get vested pension rights, which represent a portion of their overpayment, as additional protection. Employees covered by pension schemes, even if they leave their employment before retirement age, are entitled to benefits once vesting (after five years of service, according federal law).

But in the end, the need for the company to hire younger employees could be the strongest defense available to older workers. An employer may find it difficult to hire new staff if they have a reputation for terminating older personnel even when there is an unspoken agreement not to do so. However, if the company is in chronic decline, if it confronts a particularly harsh market, or if information on its employment practices is not widely accessible, incentives to renege on its promises might be quite strong. Before 1978, a lot of companies set required retirement ages for their staff members, allowing them to impose retirement at, say, point r . However, the Age Discrimination in Employment Act was amended in 1978 and 1986 to prevent most people from being forced to retire. Additionally, age discrimination laws make it very difficult for businesses to lower the compensation of employees who continue beyond a certain point. Therefore, it is increasingly more difficult for companies using underpay-overpay arrangements to persuade workers to retire.

Offering significant incentives to employees who retire at a certain age is one step firms using these schemes have taken. For instance, a study of pension plans at 190 of the biggest US companies which employ over 25% of all workers found that, when retirement is delayed, the current value of pension payments often decreases when totaled over the retirees' anticipated lifespan. According to this research, retiring five years earlier than the standard retirement age resulted in a present value of pension benefits that was over 25% higher for workers with conventional wages and years of service. In the context of internal labor markets, a promotion tournament might be the most appropriate term for another kind of worker incentive. Three key elements distinguish tournaments: the winner is not always certain, the winner is chosen based on relative performance (i.e., performance in comparison to other "contestants"), and the winner receives a disproportionate share of the rewards, making the difference between winning and losing significant. Not all company promotions fit this description of a tournament, mostly because the winners are obvious and the prizes aren't very substantial. One research, for instance, discovered that promotions were often linked to higher income growth of two to three percent, and that those who were promoted the quickest on their first promotion also likely to be promoted the quickest on subsequent occasions.

While a company that uses promotion tournaments may gain from self-selection, there are drawbacks as well. Promotional tournaments have a tendency to draw "entrants" who are overconfident in their skills and could hurt their employer's interests by taking too many risks. They also tend to deter people who are risk averse or do not perform well in a highly

competitive environment from entering. For instance, there is mounting evidence that women are less likely than similarly productive males to be drawn to tournaments, and that the competitiveness that these events foster actually detracts from women's ability to succeed.

Similar to merit pay based on relative performance, another issue with tournaments is that competitors may focus more of their effort on lowering their opponents' production than on raising their own. In fact, promotion tournaments may actually lower an organization's overall production in situations when sabotage is likely. Objective performance metrics are easier for other employers to see than subjective ones (like "quality," for instance). Employees who are concerned about their career are thus motivated to focus on areas of performance that can be measured and to downplay those that other employers are unable to see. Executives seeking chances elsewhere are motivated to employ short-term profit-generating techniques, as was previously noted. Opportunities for employment with different companies may cause workers to allocate their efforts differently, but they may also address another issue with piece-rate compensation. Piece rates need to be updated often since items and technology are evolving all the time. When determining a piece rate, the employer estimates the amount of time required to do the activity and adjusts the rate such that employees' average hourly wages are competitive enough to draw in new hires and keep existing employees. Even with a relatively high level of effort from production workers, management can never be certain of how long a job will take to finish. Furthermore, as previously said, employees are incentivized to "go slow" during trial runs in order to cause management to overestimate the amount of time needed to do the job and establish a comparatively high piece rate. Employees who are aware that the projected time to complete a job is too long may purposefully labor slowly, fearing that if the company discovers the truth, it would subsequently lower the piece rate.

However, mobile workers will be less worried about what their present company does in the future. They are more likely to choose to work tirelessly in order to impress potential employers enough to offer them a job. In situations where employees are paid on a piece rate, career worries may be useful in motivating them to do their best work. The likelihood of future promotions and one's present salary are often the two main motivations for high productivity for individuals who are worried about being promoted, whether it's with their current company or somewhere else. Employers would not need to use as many of the present pay-for-performance incentives to encourage their staff when career (i.e., promotion) worries are high. Businesses may need to implement more modern incentives to sustain employee engagement as career worries wane. When they are young, employees are more likely to be driven by worries about their future than by compensation for their present work. Paying them for their current performance presents a challenge since production depends on a combination of skill, effort, and good fortune. Additionally, young workers may not be aware of their own skills, nor do their employers. Because it is difficult to determine the relationship between effort and output when aptitude is unknown, inexperienced workers may not see significant increases in incentive when compensation is tied to performance. But for individuals who are worried about their careers, there's a tremendous motivation to work well since they know that employers are watching them to gauge their skills and desire to work hard.

Furthermore, when career worries are present, the incapacity of employers—particularly external employers—to thoroughly oversee employees' activities may cause them to exert greater effort. Workers understand that employers' perceptions of their abilities play a factor in whether they are promoted in the future. Experienced workers have an incentive to put in more covert effort since they can conceal part of their job, which might lead them to deceive

employers about their abilities. For instance, a worker who is expected to put in 50 hours a week could work an additional 20 hours from home in an effort to improve performance and increase the employer's opinion of the worker.

However, as one's career advances, talent becomes more likely to ascertain, and career-based rewards for exceptional work become less prevalent. Thankfully, the argument for performance-based current compensation also becomes stronger, as was previously mentioned. In fact, research discovered that senior CEOs received more compensation than younger CEOs based on their current performance. The chapter's conceptual concerns might assist clarify two compensation-related conundrums that confound labor economists: the reasons behind seniority-based pay increases and the reasons behind higher salaries paid by bigger companies. In both situations, the empirical occurrence may be explained by a number of data- or theory-related theories, some of which were previously introduced and some of which. This section lists various justifications in short and, where applicable, examines the findings of empirical research to determine which are most pertinent.

CONCLUSION

The study of productivity and pay reveals the intricate relationship between salary choices and financial results. Wage levels are heavily influenced by labor market circumstances, including supply and demand dynamics. Unemployment rates and labor shortages, for example, have an impact on negotiating strength and wage-setting processes. Policies pertaining to minimum wages and skill levels also have an impact on how money is distributed and overall productivity levels. Employers often have to choose between keeping costs competitive to assure profitability and paying higher compensation to attract and keep qualified people. Technological developments can affect wages by changing the skills and prerequisites needed for jobs. In order to provide equitable remuneration for workers, encourage sustainable economic development, and advance labor market efficiency, policymakers and companies must have a thorough grasp of the variables influencing wage choices.

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CHAPTER 12

INVESTIGATION OF GENDER, RACE, AND ETHNICITY

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ABSTRACT:

This study examines how race, ethnicity, and gender function in the labor market with the goal of identifying inequalities and evaluating their effects on job outcomes. This study examines employment trends, salary disparities, occupational segregation, and discrimination on the basis of gender, race, and ethnicity via a review of the literature that has already been published as well as empirical research and demographic data. A number of important variables are looked at, including access to opportunities, rates of labor force participation, institutional impediments, and educational attainment. In order to promote diversity, inclusion, and equitable employment opportunities, policies and actions targeting gender, race, and ethnicity in the labor market are intended to be informed by the research.

KEYWORDS:

Discrimination, Ethnicity, Gender, Labor Market, Race.

INTRODUCTION

In recent decades, there has been a notable shift in the demographic composition of the American work force. Some of the driving causes behind change may be traced back to women's differing expectations about the distribution of domestic and market labor. Different birthrates among racial/ethnic groupings and immigration, both legal and illegal, have emerged as additional pressures for change[1], [2]. As a consequence, there has been a noticeable and ongoing shift in the composition of the work force. The groups in the labor force that are expanding the fastest are those whose members make much less money per year for full-time employment than white males, with the exception of Asian Americans.

A cursory investigation reveals that, as of 2008, the full-time wages of black and Hispanic women averaged approximately 50% of white male earnings, whereas none of the non-Asian groups with strong growth rates earned more than 67 percent of white male earnings for full-time labor. Asian-American males, on the other hand, made almost as much on average as white men, black women, and Hispanic men did for full-time employment. Since these groups have easier access to data and research than groups characterized by traits like physical limitations or sexual preferences, these groups are the focus of this analysis.¹ For practical reasons, we look at wages rather than total pay, which would be ideal, given information on the worth of employee perks is often not broken down by demography[3], [4].

When all racial groups were included, full-time working women over 24 earned, on average, around 70% of what men did in 2008. This proportion was much higher than the 58% recorded in 1970 and 1980 and somewhat higher than the 67% recorded in 1990.² Determining what solutions, if any, could be required to remedy the wage gap depends on understanding the causes of this imbalance. Identifying possible causes of variation is the first step in assessing earnings differentials, and many of them may be quantified. As we know from chapter 9, age (which is connected with prospective labor market experience) and education are two significant and quantifiable characteristics that affect wages[5], [6].

While women in the most recent cohorts have at least as much education as males, this is not the case for earlier cohorts. Furthermore, we are aware that women's age and earnings profiles are flatter than men's. Therefore, we would anticipate that at least part of the variations in wages between men and women would be explained by adjusting for age and education. Occupation is a quantifiable characteristic that may help explain the differences in incomes between men and women. Women are often overrepresented in low-paying professions and underrepresented in high-paying ones; as a consequence, at least part of the disparity in men's and women's average pay may be attributed to differences in occupational distributions. Earnings within a profession are influenced by years of experience and number of hours worked.

Women in the same profession work less hours per week on average than males, as we observed in chapter 9. Putting away the impacts of part-time labor and concentrating on full-time workers, we showed that women in certain professions work, on average, 2 to 8 percent less hours per week than males. Some of the earnings may be related to women working fewer hours as salaried workers likely get a compensatory compensation differential for working longer hours. Women made almost the same money as males after graduating from the same highly regarded business school, but after 15 years, they made 40% less, according to one survey of graduates with a Master of Business Administration (MBA). The majority of this difference at 15 years was linked to lower cumulative experience (women in the sample had more months of part-time employment and less overall months of experience than did their male counterparts), but some of it was also related to lower current hours worked. The scientists ascribed a large portion of this "experience gap" to child care, given the predominant role that women have traditionally performed in raising children [7], [8].

Earnings differences by gender can clearly be explained in large part by controlling for profession, education, age, experience, and hours worked; other quantifiable factors added to this list may be able to explain some of the remaining differences. Though it is probable that even with all observable parameters included in our research, some disparities might remain unexplained. If so, there are two ways it may be interpreted. One is that if individual workers with similar productive traits are treated differently due to their membership in various demographic groupings, then there is still market discrimination. Stated differently, (a) variations in the productive attributes with which the groups enter the labor market (commonly referred to as pre-market differences) and (b) variations in the treatment of the groups by actors within the labor market account for the average wage differentials we see between demographic groups. We call this kind of discrimination in the job market when it occurs when people are treated differently.

There are two main ways that discrimination against women is said to occur in the workplace. First, wage discrimination occurs when businesses are accused of paying women less than males in the same employment and with the same experience and working circumstances. Second, employers that reserve the higher-paying jobs for males see women with the same level of education and capacity for productivity as being pushed into lower-paying employment or positions of responsibility. In the job market, this latter kind of discrimination is known as "occupational discrimination characteristic commands." According to economic theory, men and women may earn different pay due to factors such as disparities in their levels of work experience or the way they are paid for each additional year of experience. When employers pay consistently different prices for given productive traits for various demographic groups, it is argued that wage discrimination is occurring. Put another way, wage discrimination occurs if men and women (or minorities and non-minorities) with comparable productive traits get different pay, even in the same employment. The skills and

vocational preparedness that a person has received via education, on-the-job training, or experience are essential components of their human capital. The distribution of occupations between men and women is significantly diverse, although it is far simpler to prove occupational segregation than occupational discrimination [7]–[9]. When the distribution of jobs within one demographic group differs significantly from the distribution within another, occupational segregation is said to occur. There are male- and female-dominated professions, which is a reflection of gender-based occupational segregation.

DISCUSSION

Occupational segregation unquestionably indicates labor market discrimination if career options are explicitly restricted or if they are impacted by reduced payoffs to certain human capital qualities. Two arguments, however, may be made if these decisions are the result of differing tastes or duties around the home, especially when it comes to child care. One argues that preferences for certain occupations, such as those related to domestic labor, are a natural result of life events and should be honored in a market economy. This one is not very problematic. The opposing viewpoint is that these choices are the product of premarket discrimination, which is the biased treatment of females by parents, educators, and society at large, directing them into lower-paying careers (including domestic ones) well before they reach maturity and join the workforce.

We now address the measurement of pay discrimination and occupational segregation. In both situations, we first go over the available metrics before quickly going over how much of them can be stated to correctly depict discriminatory treatment. The index of dissimilarity is one metric. This index shows the proportion of the other gender that would need to change professions in order for the two genders to have equal occupational distributions, assuming that workers of one gender stay in their current positions. The index would be zero if men and women were equally dispersed across all professions, and 100 if all occupations were totally segregated. According to analyses of gender-related employment trends in 470 well defined professions, the dissimilarity index dropped from 68 in 1970 to 59 in 1980 to 53 in 1990.8 The fall in occupational segregation persisted throughout the 1990s, according to research that used slightly different occupational categories, although the pace slowed and the index dropped by 4 percentage points.

Studies usually reveal that occupational segregation has a significant impact on women's pay even if it has decreased. It is generally believed that American women's incomes might increase by 3 percent to 10 percent if they were employed in the same industries and vocations as males who had the same level of education and experience.¹⁰ Compared to many European nations, these impacts of occupational segregation on women's incomes are more noticeable. The reason is that the salary disparities between high- and low-paying jobs (for both men and women) are significantly bigger in the United States, which means that being in a low-paid job usually carries a higher penalty than in Europe.

However, as was previously mentioned, not all gender segregation results from discrimination in the workplace; at least some may be the product of decisions made later or preferences developed prior to entering the labor market. Additionally, waitresses only make 87% of what waiters make, and a hiring audit of Philadelphia restaurants raises the possibility that discrimination may be involved in family decision-making. When two matched pairs of men and women submitted identical resumes for positions at 65 restaurants in 1994, it was discovered that the expensive establishments where salaries are higher were much less likely to provide the female applicant an interview and an offer of employment. We would gather information on all human capital as well as other attributes that are potentially significant in

determining wages, separately for men and women. The features of age, education and training, experience, tenure with present employer, hours worked, firm size, area, intensity of work effort, industry, and the job's tasks, location, and working conditions immediately spring to mind based on topics in previous chapters. Next, we would calculate the statistical contribution of each of these traits to women's earnings. In other words, we would quantify the benefits to women connected to each attribute using statistical methods. (Regression analysis is the fundamental statistical method that is used, and it enables us to calculate the impact of changes in one productive feature on profits while controlling for other productive qualities.

As in this instance, a computer is required to perform these approximations since several pertinent productive attributes need to be simultaneously examined and provides a visual illustration of the basic concept behind this method. Two issues arise with this "ideal" measure of pay discrimination, as shown by the straightforward example of calculating how changes in a single composite measure of job effect earnings. First, as previously said, classifying the impacts of pre-market variations in productive attributes on total pay differentials is necessary in order to isolate the effects of labor market discrimination. Labor market discrimination may be blamed for the remaining portion of the wage difference that cannot be explained by varying levels of productive traits, but rather is classified as varying payoffs to these attributes. Pre-market disparities are the product of individual decisions, which often differ throughout demographic groups. These decisions generally concern investments in human capital and vocation. The degree to which discrimination in the job market influences these pre-market decisions is a subject that is hard to address.

One example is choosing a career. For instance, are women free to pursue their career interests when choosing their level of education, or do they shy away from fields where they perceive discrimination in the job market would make it very difficult for them to enter the field? Assuming women have the freedom to choose their careers, gender-based differences in occupation reflect preferences. As a result, one of the pre-market variables we would want to control when attempting to isolate the effects of labor market discrimination is occupation. However, we would not want to include occupation as one of the pre-market control variables if discriminatory practices in the labor market limit women's career choices. This is because the effects of occupational choice on the gender wage differential reflect labor market discrimination rather than the expression of pre-market preferences. Consequently, the first issue with our method for quantifying wage discrimination is that there is no clear-cut way to distinguish between these two groups because labor market rewards for productive traits can influence pre-market decisions about them. We risk underestimating the impacts of labor market discrimination if we include a variable whose level is impacted by it among the pre-market controls (thereby classifying these effects under the "pre-market" category).

The second issue is that, in many cases, we do not have data on every premarket characteristic that influences salaries; in these situations, the process described above can exaggerate the degree of discrimination in the labor market. For instance, women may be more likely than males to look for job near to home, may be less accessible for work outside of regular business hours, or may more often be the parent on call in the event that a kid falls unwell at school due to their higher household duties. Notwithstanding these measuring issues, it's intriguing to use the previously described four-step process to calculate the difference in wages between men and women if the productive traits that have been found were equalized. According to research that used data from 1998, women in the sample made around 80% of what males did, but if their productive traits such as their occupation had been equalized, they would have made almost 91 percent as much.

If women had the same human capital characteristics, worked for the same kinds of employers, and had the same occupational distribution as men, their earnings would have increased from 78 percent of men's to between 91 and 98 percent in 2000, according to a similar analysis of data that only looked at people between the ages of 35 and 43. The gender wage disparity that was identified was mostly explained by disparities in labor market experience, with inequalities in the occupational distribution accounting for around 3 percentage points of the initial 22 percent differential. Hence, if one assumes that women's career options are limited, discrimination in the labor market may be responsible for as little as 2 to 9 percentage points of the difference, or as much as 5 to 12 points if preferences are taken into consideration. Labor market experience is the observed productive feature that most significantly relates to the salary disparity between men and women in the same employment.

Compared to males of same age, education, and employment, women usually have less work experience; also, every additional year of overall experience seems to provide fewer benefits for women. In order to examine the impact of the frequency and timing of periods during which women (and men) are not in the labor market on salaries, economists have come to understand that counting the total number of years of experience alone is not sufficient.¹⁷ Additionally, research indicates that the most important factor for both men and women is experience working full-time.¹⁸ Thus, some of the poorer return on work experience for women may be due to an unmeasured productive feature in the lack of data on the frequency and timing of nonwork periods (facts that the researcher is often not privy to).

The proportion of the group seeking work (the labor-force participation rate) and the percentage of those seeking employment who find it define the employment ratio for a specific demographic category. The employment ratio may be defined as a function of two commonly reported rates: the group's labor-force participation rate and its unemployment rate, as the latter is equivalent to 100% minus the group's unemployment rate. rates of unemployment and labor force participation by gender and race. When we first look at labor force participation, we can observe that between 1970 and 2009, black women's rates were greater than those of white women. But for males, the situation is quite different. Between 1970 and 2009, the labor-force participation rates of both black and white men decreased, with the former seeing a worse decline than the latter. Black men's participation rates have been persistently lower than those of white men. Men's labor force participation rates are dropping for reasons other than the early exit of older men from the labor market or the increased enrollment of younger people in postsecondary education. Both Black and White men's involvement rates have decreased between the ages of 35 and 44, and these declines are mostly limited to those who have completed just high school.

For instance, if the unemployment rate for white people were 5% and for black people was 10%, this would indicate that 95% of the white labor force and 90% of the black labor force are both employed. Assume that there is a recession at this point, with the unemployment rates for white people and black people rising to 8 and 16 percent, respectively. The employment rate among White people declines from 95% to 92%, meaning that little more than 3% of White people who were employed lost their jobs ($3/95 = 0.032$). However, the employment rate among Black people decreases from 90% to 84%, meaning that almost 7% of Black people who were working lost their jobs ($6/90 = 0.067$). Many observers have come to the conclusion that black people are the last to be recruited and the first to be dismissed because of how sensitive black employment is to overall economic activity. Analyses like to those conducted on women may be used to gauge the degree of occupational segregation among employed black workers and the amount to which quantifiable productive traits

account for the earnings disparity between Black and White individuals. It seems that gender-based occupational segregation is more common than racial-based segregation. The indices comparing the occupational distributions of Black and White people had values around half the size of the indices comparing the occupational distributions of Males and Females, according to recent research that generated indices of occupational dissimilarity by both race and gender. Even while racial inequalities in profession have decreased more quickly than those linked to gender, economists are still investigating whether or not discrimination contributes to racial differences in occupation.

Regarding the subject of pay discrimination, scholars have endeavored to ascertain the primary elements that account for the substantial disparity in earnings between individuals of African American and White descent. Using standard data on education, experience, age, work hours, area, profession, industry, and company size, analyses come to the conclusion that these readily observable criteria explain a large portion of the reported earnings disparity between white men and black men, but obviously not all of it. According to one research, black men would make 89% of what white men would make if they had the same traditionally evaluated productive traits as white men, including profession. The issue of whether the remaining 11% difference in wages is due to unmeasured productive traits or ongoing pay discrimination remains, much as in the case of gender earnings differentials.

Cognitive accomplishment, as determined by Armed Forces Qualification Test (AFQT) scores, is one productive trait that is often unmeasured yet is crucial in understanding the salary differences between Black and White. AFQT scores are often lower among Black Americans, which is linked to lower-quality education and the effects of poverty on community and household characteristics. Studies that can use AFQT scores in their assessments of productive traits have only looked at youth, but they usually conclude that the majority of the black/white wages disparity may be explained by disparities in cognitive accomplishment alone.

CONCLUSION

The examination of gender, race, and ethnicity in the workplace shows enduring differences and difficulties in reaching inclusiveness and equality. Although there has been improvement in many areas, there are still racial and gender pay discrepancies, and women and minorities still face obstacles to fair treatment and equal opportunity in the workplace. Overt and systematic discrimination still plays a role in the occupational segregation and restricted opportunities for progress that face certain demographic groups. Comprehensive approaches that address underlying issues including educational attainment, access to training and development, and institutional biases are needed to alleviate these inequities. In addition to being a question of social justice, encouraging diversity and inclusion in the workforce is crucial for boosting economic development, productivity, and creativity. To remove obstacles and establish a more fair and inclusive labor market for everyone, policymakers, companies, and society at large must collaborate.

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CHAPTER 13

INVESTIGATION OF COMPARABLE-WORTH EARNINGS GAPS

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ABSTRACT:

The idea of equal compensation for labor of equivalent value is the main subject of this study's investigation of comparable-worth wages disparities. The study investigates the amount of salary disparities between positions historically held by various genders or racial/ethnic groups but judged to be of equivalent value based on talent, effort, responsibility, and working circumstances using empirical analysis and theoretical frameworks. To comprehend their influence on wage disparities, important elements like gender biases, discrimination, occupational segregation, and the adoption of comparable-worth rules are investigated. The research intends to provide insights into the efficacy of comparable-worth tactics in reducing salary discrepancies and achieving pay fairness by evaluating data from a variety of sectors and geographical areas.

KEYWORDS:

Comparable Worth, Discrimination, Earnings Gaps, Gender, Occupational Segregation.

INTRODUCTION

Formal job assessment techniques have been around for a while, despite the fact that many economists find it difficult to accept the idea that a job's value can be determined independently of market forces. One of the few states that started implementing comparable-worth pay adjustments for its workers based on this kind of assessment methodology is Minnesota. How can we determine if there are discriminatory salary disparities using data from job evaluations? In 1979, Minnesota started a review of state government employment in collaboration with Hay Associates, a well-known national consulting firm on remuneration [1], [2]. Initially analyzed were 188 occupations in which at least 10 individuals were employed and which could be categorized as either male (at least 70 percent male incumbents) or female (at least 70 percent female incumbents) roles [3], [4].

Trained job evaluators assessed each position, assigning a certain amount of "Hay Points" to each of the four employment qualities or factors: working conditions, problem-solving skills, accountability, and necessary knowledge. The overall Hay Point (HP), or work appraisal, score for each job was then calculated by adding the scores for each component. These ratings ranged from less than 100 to more than 800 points for each of the 188 job titles. Labor unions are groups of employees whose main goal is to enhance their members' financial and nonfinancial working conditions. Two kinds of unions exist: an industrial union, which represents most or all employees in a company or industry, regardless of their occupations, and a craft union, which represents employees in a specific occupational group. The unions that represent bituminous coal miners, rubber workers, and car workers are examples of industrial unions; those that represent printers, dockworkers, and other construction crafts are examples of craft unions [5], [6]. Unions negotiate with employers on a range of issues related to the employment contract, such as wages and benefits; working conditions; hiring, overtime, job assignment, promotion, and layoff policies; and the procedures for resolving employee complaints against management. Negotiation may take

place on several levels. On the extreme end of the scale, negotiations might be quite centralized, with representatives from whole sectors convening to vote on contracts that will bind several businesses. Bargaining between a union and a single business, or even between the employees and management of a particular plant within a corporation, occurs at the decentralized end of the spectrum. Multiemployer agreements, which are typically signed between construction craft unions (such as plumbers) and the construction contractors operating in a particular metropolitan area, are in the middle. These agreements are reached at the local level between a union and several employers[7], [8].

In democratic nations, unions, being sizable collective entities, also have political sway. Unions often try to get advantages via political means that they would find more difficult to obtain through collective bargaining. Certain nations like Great Britain, for instance have unions with their own political party. In some, like the US, unions are independent of any one political party and serve as advocates for a range of laws and regulations at the federal, state, and municipal levels of government. two unionization initiatives in several nations. The proportion of employees in each nation whose working conditions are governed by a collective bargaining agreement is one metric, while the percentage of employees who belong to unions is another. This table stands out for two reasons.

The proportion of workers in the US and Japan who are protected by collective bargaining agreements is comparatively low. Collective bargaining in these nations and Canada takes undertaken at the level of firms and plants, and terms of the resultant agreements seldom extend beyond the membership of the unions that signed them. Secondly, a significant portion of the workforce in Australia and the majority of European nations is not a member of a union, making them eligible for collective bargaining. For instance, collective bargaining is extremely centralized in Austria as agreements there are only applicable to the country, and across much of continental Europe, the participants to negotiations represent whole economic sectors. Though not perfect, there is a link between coverage and bargaining centralization; for example, Australia has less centralized bargaining than Switzerland, but a larger percentage of its workers are covered by collective bargaining agreements. The historical and legal frameworks in which unions function in every nation are unquestionably essential to comprehending the variations in membership numbers[9], [10].

Additionally, there is no simple correlation between union strength and membership numbers due to the variations in legal frameworks throughout nations. For instance, some unions in Sweden, where almost everyone belongs to one, have much less negotiating strength than others. Another example is Germany, where workplace councils including both union and nonunion workers make decisions at the plant level on personnel matters that are covered by local collective bargaining agreements in other nations. Ultimately, the Australian pay determination system has benefited greatly from the use of government tribunals, with collective bargaining being utilized to negotiate additions to the government salary awards. are not unionized. Although research on unions in one nation cannot be easily applied to others due to differing legal and historical frameworks, there may be a growing interest in this empirical work abroad due to potential trends toward increased decentralization of bargaining in the majority of developed economies over the past ten or so years.

Studies on American unions, no matter how good (or bad) at generalizing, nonetheless need to be interpreted in light of American institutions. Thus, we now go on to a short overview of the legislative framework that has guided American union operations. In the United States, public opinion and federal law have not always been in favor of labor unions and the collective bargaining process. During the early 1900s, for instance, employers could often argue that unions violated antitrust laws because they operated like monopolies in the labor

market. These businesses often succeeded in obtaining court judgments or injunctions that forbade union activities and helped them thwart attempts by unions to organize. In light of these circumstances, it is hardly shocking that in 1930, fewer than 7% of workers belonged to a union. However, since then, laws have altered the context in which American unions function. The National Labor Relations Act (NLRA) of 1935 forbade employers from interfering with their workers' ability to form collective bargaining units and mandated that they negotiate with unions that represented the majority of their workforce. The NLRA created the National Labor Relations Board (NLRB), which has the authority to look into allegations that employers are either not cooperating with elected unions or breaking election laws, as well as to hold certification elections to determine which union, if any, workers wish to represent them.

DISCUSSION

The NLRB was granted further authority to require offenders to "cease and desist" in the event that violations were discovered. The laws that have been covered up to this point solely pertain to the private sector, which is where American unionism first took off. In fact, public sector employees were not allowed to organize until the 1960s. However, Executive Order 10988, issued by President Kennedy in 1962, granted federal employees the ability to unionize and negotiate over working conditions but not pay. Therefore, the main way that federal unions affect salaries is by using their political clout to persuade Congress or the president to approve pay increases. Many states have granted the ability to organize and engage in collective bargaining to workers of state and municipal governments, including teachers, starting with Wisconsin in 1959 unions and the local metropolis. Since bargaining in the US is somewhat decentralized, as we've already said, local unions do the majority of the negotiating. On the other hand, these locals are often part of bigger "national" or "international" unions (which typically means they include workers from Canada). These unions assist and counsel the locals in organizing efforts and, subsequently, in negotiations. The people seated at the negotiating table are representatives of the national or international union when negotiations are taking place at the industry level or with a single company at the national level.

Conversely, the majority of national and international unions, and therefore around 75% of all union members, are associated with the American Federation of Labor and Congress of Industrial Organizations, or AFL-CIO. The AFL-CIO is an alliance of unions with national and state-level organization rather than a single union. Its primary duties include recommending and coordinating membership, as well as giving its many member unions a single political voice. One day, Samuel Gompers, the founder of the American Federation of Labor, was asked what the unions want. His response was uncomplicated.

Very few people who have researched union activity think that unions' goals are so straightforward, although it is obvious that unions seek to improve members' welfare in some capacity. Their goals include procedural ones, like giving employees a say in how employers run the company, particularly when it comes to how they handle different personnel matters like assigning jobs, allocating overtime, addressing employee complaints and discipline, and forming collaborative labor-management safety committees and work teams. Employers, particularly those using contemporary management strategies, may find that procedural goals don't necessarily have to be expensive if they can provide a means of allowing staff members to participate in management choices. However, other procedural goals restrict management discretion, which is harder to measure but is often seen as expensive by employers.

Desiring "more" is often linked to the union's objective of raising members' pay scales. The salary rate is the most obvious component of remuneration, but in the US, there is also negotiating over employee benefits like health insurance, vacation time, and pensions. (In many other industrialized nations, collective bargaining is not applicable since these benefits are required by the government.) Naturally, efforts to do "more" are made within the limitations that exist. On the opposite side of the negotiating table are the employers, who need to reach agreements that allow them to effectively do business with their workforce and within their respective product markets. If they pay their employees more, they will be more inclined to replace labor with capital, and if their production costs increase, they will face pressure to shrink their operations. To put it simply, unions have to deal with the fact that the labor demand curve is dipping downward. Therefore, the location and elasticity of this curve turn into essential market limitations on unions' capacity to achieve their goals. Let's say that, as the discussions go, the demand curve moves to the outside, maybe as a result of rising demand for the finished product. In the event that the union is successful in increasing the earnings of its members to W_1 , there won't be a total reduction in employment. Instead, the union will merely have reduced the pace of job growth to More broadly, assuming everything else remains equal, the rate at which the labor demand curve shifts out (in) will determine how much employment will decline or how quickly employment will expand in relation to a given wage increase. Therefore, in businesses with inelastic labor demand curves and fast industry growth, unions will have the greatest capacity to boost the pay of their members.

On the other hand, sectors where the labor demand curve is moving and where the pay elasticity of demand is very elastic would see the weakest unionization. Monopoly unionism is the most basic form of the union-employer interaction. In this model, the union sets the price of labor and the business adjusts employment to maximize profits in response to the new pay rate it faces. Figure 13.3, which presents the labor demand curve, D , to workers as a straightforward function of pay rate, serves as a formal illustration of this model (we abstract away other components of the compensation package for simplicity). The union is able to aggregate the preferences of its members and values their pay and employment levels, which allows us to effectively discuss a union utility function that is dependent on these two variables. The U_0 , U_1 , U_2 , and U_3 indifference curve family best represents this utility function.

Every curve depicts a region of employment/wage combinations where the union has no opinion. The reason the indifference curves are negatively sloping is because the union has to boost one variable (wages or employment) to make up for a drop in the other in order to maintain a certain utility level. We assume that the amount of employment loss that unions are willing to accept in exchange for a given wage increase grows, which would cause the wage to be W_0 and employment to be E_0 . As a result, they exhibit the property of diminishing marginal rates of substitution (they are convex to the origin). How does this solution change with collective bargaining? One option is that the company and union will decide on a higher pay rate, and the employer will then decide how many union members to hire based on the wage rate. Employers, given a pay rate that has been negotiated upon, will use their labor demand curve to decide employment and optimize profits. Given that the union is probably aware of this, its objective is to determine the pay that will maximize its utility while keeping in mind that the resulting salary and employment combination will fall somewhere on the demand curve.

Employer isoprofit curves in this collection, which are efficient contracts—contracts in which neither side may benefit without harming the other—are merely tangent to union indifference curves at points d and e . In fact, there is an entire locus of these locations, which the curve ed

in the illustration represents. Every point on *ed* is a tangency of an employer isoprofit curve and a union indifference curve; these are the points at which the union and the employer are equally willing to replace employment with wages at the margin (so that mutually beneficial trades of wages for employment are possible).

The contract curve, also known as the locus of efficient contracts, passes through all of the points on *ed*, which will leave both parties at least as rich as they were at point *b*, and at least one of them richer. Where the settlement is made does not, however, matter to the parties. It goes without saying that the union would rather be near *d* and the employer near *e*. The parties' ability to negotiate determines where a settlement actually happens on the contract curve in this model. Regarding the contract curve, two points must be made. Initially, it is situated off to the right of the labor demand curve of the company. This suggests that the company is utilizing more labor at any given pay rate than it would if it had complete control over hiring, and it also suggests that provisions allowing for the creation (or, more accurately, the ratification of) surplus labor in the workplace will be included in the collective bargaining agreement. Certain agreements could have no-layoff provisions for certain workers, or they can have strict restrictions limiting which workers must do specific activities or minimum crew numbers.

Although the employer may benefit more from these conditions since they may persuade the union to accept a lower pay, it is socially inefficient for them to fail to save expenses. The vertical contract curve presents an intriguing specific situation when it is vertical at the first (pre-union) employment level. In this instance, given the market pay rate, the company consents to keep employment at the level that optimizes profits. There are no changes in production or employment, and the union and the company effectively negotiate over how these earnings are distributed. For the union, every dollar earned is a dollar lost by the employer. Though it is natural to question how the company could afford to pay greater wages and retain its original employment level if the union is successful in boosting salaries beyond their initial (market) level, these agreements often include wording that encourages the use of extra workers. A janitor, for example, could not paint a scratched wall (a painter would be needed), and an off-stage actress could not carry out any of the responsibilities of a lighting specialist. Many regulations prohibit tasks from being carried out "out of job title."

Despite the fact that the contract does not specifically state the amount of employment, it is evident that these restrictions on work assignment are meant to preserve jobs. The efficient-contracts paradigm is also subject to indirect testing. Regarding how wages and employment will fluctuate in response to changes in factors that impact either the demand for labor or union preferences, this model and the monopoly-union model have distinct implications. These implications have been examined in a number of research, and it is reasonable to state that there is now evidence both in favor of and against the efficient-contracts paradigm. In the event that one of these curves moves to the left, unionization will decrease. By figuring out what causes these curves to vary, we can explain why the economy's degree of unionization varies over time.

On the demand side, people's desire to join a union is probably positively correlated with their assessments of the overall advantages of doing so. For instance, the demand curve would be more to the right if they believe unions will result in a higher pay increase for them. Tastes are another aspect; if people become more interested in joining unions, maybe as a result of shifting societal views, the demand curve will also move to the right.

Anything that modifies the expenses associated with union organizing will have an impact on the supply curve. The supply curve will move to the right if labor laws are introduced that

make it simpler for unions to win representation elections. The employment mix of the workforce will change, shifting the curve to the left and lowering the amount of unionization if it becomes harder to organize the workforce. The change in the industrial makeup of employment, which was initially, is a potential second reason contributing to the drop in union membership. While the employment shares of the most heavily unionized private sector industries—manufacturing, mining, construction, transportation, and public utilities have significantly decreased, the percentage of workers in government, the most heavily unionized sector in the US, has remained relatively stable since the mid-1970s. The industries with the lowest levels of unionization in the economy the wholesale and retail trade, banking, insurance, and real estate have seen the biggest increases in employment. Why are the later sectors often not covered by unions? Due to their high price elasticity of demand for their products and, therefore, high pay elasticity of labor demand, these highly competitive sectors make it difficult for unions to raise salaries without seeing significant decreases in employment. Because of this, people may view the net benefits of union membership as being lower in these industries. If unions were to become more important to the economy, this would cause the demand for union services to move to the and lower the percentage of the workforce that is unionized.

Small businesses are also often found in these fields. Because they often feel less cut off from their managers, workers in small businesses are assumed to have a weaker appetite for unionization. Similarly, it is often believed that as the percentage of employment flowing to small enterprises grew, the supply of union services would move left since it is more expensive to attempt to organize 1,000 people across 100 firms than it is to organize 1,000 workers at one facility. Another reason the change in the industrial distribution of employment may have had an impact on the level of unionization is because both of these considerations seem to predict that unionization would drop as the percentage of employment in small firms grows.

More product-market competition raises the price elasticity of product demand, which in turn raises the elasticity of labor demand. In these industries, which are typically highly unionized, this has served to weaken the ability of unions to raise wages. It may have been predicted that unionized employment within these sectors would decline, provided that salaries of union members did not decline significantly in response to greater competition in the product market. In fact, throughout the last 20 years, as competition from new, nonunion businesses in the deregulated sectors has grown, as well as from foreign companies, the percentage of unionized employment in these once highly unionized industries has decreased significantly.

Increased competitive pressures lessen the advantages of collective action for workers, making labor demand curves more elastic and moving the demand curve for union membership to the left. Furthermore, heightened rivalry in the product market might prompt employer reactions that influence employees' desire for unionization. Firms may want to move to places where workers are less likely to form unions, for example, if they discover that international competition has increased. Similarly, they may look to hire workers in demographic groups whose desires for union membership are relatively low. Employers may become more aggressively resistant to union organizing attempts as a result of more competition, which might drive up the price of these initiatives and move the supply curve of union services to the left. When substituting alternative inputs of production for union labor becomes more costly or complex, the demand for union labor will become less elastic, everything else being equal. Because of this, unions have often attempted to enact laws implementing policies that raise the price of alternative inputs that may serve as union members' replacements.

For instance, labor unions have been instrumental in convincing governments to mandate that nonunion contractors working on public projects pay the "prevailing wage," which is often the local union wage. In addition, labor unions have been a major backer of increased minimum wages.¹⁷ Increases in the mandated wage also increase the relative costs to employers of hiring nonunion labor, which raises the prices of the goods they produce and lessens their incentive to replace higher-paid union workers, even though such support may be driven by concern for the welfare of low-wage workers. Unions may use the collective bargaining process to limit efforts to substitute alternative inputs for union labor. In the past, various unions, most notably those in the railroad, printing, and airline sectors, fought for and were granted guarantees regarding minimum crew numbers (for instance, certain jet aircrafts needed at least three pilots to operate). Due to these staffing requirements, firms were unable to replace labor with capital.¹⁸ Contract clauses that forbid employers from subcontracting for all or part of the services they provide have been secured by other unions. For instance, a contract clause prohibiting the business from employing outside companies to provide cleaning services may be won by a union representing the company's janitorial staff. These clauses could restrict the number of non-union employees who replace union employees.

Craft unions often put certain clauses into contracts that limit the tasks that members of their respective crafts may do, which prevents members from using other forms of union labor in place of the original. Furthermore, they restrict the replacement of unskilled labor by skilled labor by instituting regulations requiring employers to consent to modifications that lower pay elasticity of demand or move the demand curve for union workers to the right. How are unions able to negotiate for and obtain real pay increases given the elasticity and position of demand curves when, in most circumstances, a rise in the price of an input lowers a firm's profits?

Sometimes a union and an employer may reach a settlement wherein the union agrees to modifications in work rules that will lead to higher productivity in exchange for an increase in real earnings. Productivity negotiating is the term used to describe the process if such an agreement is made explicitly and is linked to the change in productivity that results. But more often than not, unions' capacity to impose expenses on management allows them to get concessions from them at the negotiating table. Usually, these expenses manifest in work stoppages and strikes. An effort to prevent the company from using all union members' labor services is known as a strike. Despite the media attention they get when they do happen, strikes in the US are comparatively uncommon and are growing less frequent. For instance, there were 381 work stoppages involving 1,000 or more workers in the US in 1970; as a result, the economy lost almost 1/4 of 1% of its total work hours. In comparison, there were 29 and 21 similar strikes in 1997 and 2007 (years with comparable economic activity, as shown by the unemployment rate), respectively, and the amount of time lost was less than 1/100,000 of a percent.¹⁹ Models of the negotiation process and its results must take this danger into account since, while rare, strikes are a constant threat in almost all private sector negotiations.

Initially, assuming a constant EC schedule, any action that elevates the UR schedule (i.e., intensifies union opposition to management) would prolong the anticipated duration of the strike and escalate the anticipated wage growth. This increased resistance might show up as a flatter slope to the UR curve, indicating that the union is less likely to adjust its wage demands as the strike goes on, or as a higher "no-strike" wage demand (an increase in $W \cdot i$).²² It is reasonable to anticipate a rise in union opposition in some situations, such as when the unemployment rate is so low that striking workers may easily find temporary employment or when striking workers are eligible to receive unemployment benefits from the union or the

government. In fact, we find that during times of relative prosperity, strikes occur more often and last longer. Strikers' access to unemployment benefits also has an impact on the frequency of strikes.

The basic Hicks model also implies that everything that increases employer opposition would cause the EC curve to drop, extending the anticipated length of the strike and decreasing the projected wage settlement. Therefore, if businesses are less successful, face an elastic product demand curve, or have the ability to hoard profits, they will be more inclined to resist—and less likely to boost their pay proposals very much as the strike proceeds. The last conclusion is that strikes seem like an unnecessary waste of time. Both parties would have avoided some losses if the anticipated settlement of $W \cdot 0$ had been achieved without a strike or with a shorter strike. In situations when strikes are expected to result in significant losses for both sides, they may decide beforehand on specific negotiation strategies intended to prevent further strikes. For instance, the parties may decide to restrict the amount of contract items they will address, to begin negotiations well in advance of the contract's expiry date, or to submit the disagreement to binding arbitration in the event that they are unable to come to an agreement together alone. In fact, there is evidence that when the combined costs of any strike are anticipated to be high, strikes are less often and shorter.

CONCLUSION

The examination of comparable-worth wages discrepancies brings to light the ongoing difficulties in attaining pay parity across various professions and demographic groups. Inequalities in pay persist due to gender biases and occupational segregation, even with attempts to rectify salary differentials based on job comparability. Comparable-worth policies recognize the value of labor that has historically been underestimated, which has the potential to reduce pay inequities; yet, their implementation is still difficult and may encounter opposition from a variety of parties. Achieving substantial progress in narrowing earnings inequalities and promoting equal pay for equivalent labor requires addressing systemic issues including gender discrimination, occupational segregation, and biased pay systems. To establish and uphold laws that promote wage parity and build a more welcoming and equitable labor market for all employees, legislators, businesses, and advocacy organizations must work together.

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