

Unskilled Labor for Development

ITS ECONOMIC COST

Orville John McDiarmid

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UNSKILLED LABOR FOR DEVELOPMENT

Its Economic Cost

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Acknowledgments

This book uses empirical data to estimate the social costs, or, as I prefer to designate them, the economic costs to the economies of selected Far Eastern countries of using unskilled agricultural labor for purposes of economic development. Therefore my principal acknowledgments are to the authors who have formulated theoretical frameworks applicable to the economic appraisal of development projects. These authors are principally Ian M. D. Little and James A. Mirrlees who presented one approach and Partha Dasgupta, Amartya Sen, and Stephen Marglin who have viewed the problem in a related but formally distinct manner. Their works are cited in appropriate places. I am of course also indebted to the many other authors cited in the bibliography and text who have addressed problems related to the economic pricing of labor.

This study does not purport to be a manual for the economic analysis of projects. The recent publication by the World Bank of *Economic Analysis of Projects* by Lyn Squire and Herman G. van der Tak (Johns Hopkins University Press, 1975) deals with that broader problem. That book was not available when my own work was undertaken, but I have noted some of the main points of difference between the Squire–van der Tak approach and the one I have used. I am also indebted to Lyn Squire for helpful comments on an early draft of this book.

Although the field work I was able to devote to this study was limited, I received a great deal of assistance from the Ministry of Labor, the Census Bureau, and the Planning Board in each of the four countries I visited: Korea, the Republic of China (referred to in the text as Taiwan), the Philippines, and Indonesia. I also received assistance from officials of enterprises and institutions in the private sectors of those countries. My field survey was done in early 1973. Significant changes have occurred since then in the absolute values, but perhaps not in the relative values used in this book.

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Orville John McDiarmid

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Currency Equivalents

| | |
|--------------------------|---|
| | <i>Republic of China (Taiwan) new Taiwan dollar</i> |
| 1970: W316 = US\$1 | 1970: NT\$40.10 = US\$1 |
| June 1974: W339 = US\$1 | June 1974: NT\$38.10 = US\$1 |
| <i>Philippine peso</i> | <i>Indonesian rupiah (major export rate)</i> |
| 1967: P3.93 = US\$1 | 1967: Rp176 = US\$1 ¹ |
| 1970: P6.48 = US\$1 | 1970: Rp340 = US\$1 ² |
| June 1974: P6.78 = US\$1 | June 1974: Rp374 = US\$1 ² |

1. Major import rate about one-third lower in dollar terms. □
2. Major import rate about 11 percent lower in dollar terms. □

Unskilled Labor for Development

Introduction

THIS BOOK IS AN ATTEMPT to use empirical data, officially available or calculated by me, to estimate the shadow price (or, as I call it, the economic price) of unskilled agricultural labor in selected Far Eastern countries. It also explores certain other related problems and issues having to do with the labor markets in developing countries. The methodology used was suggested by the major works mentioned in the Acknowledgments above, but limited and modified by the data available. At the end of this introduction I summarize my findings and indicate the value which I place on this exercise.

What is the Economic Price of Labor?

The short but perhaps not too meaningful answer to this question is that the economic price of a particular worker is the total measurable impact on the economy, of which the worker is a part, of his employment in a particular occupation. This may but probably will not be accurately reflected in the money wage paid for his services. If his wage is not a true reflection of the cost to the economy of his employment, it is necessary to delve rather thoroughly into the circumstances surrounding his employment to arrive at a measure that will more accurately gauge his economic cost and therefore the way and the extent to which he and his fellows should be used in the development process. It may be that, as in this book, rather than measuring a worker's economic price in absolute terms, it is easier and more meaningful and accurate to determine the ratio between the economic price of the class of labor in question and other labor which is of similar skill but employed in a more competitive labor market. In such a market it may be concluded that the wage is a reasonably good reflection of the economic price.

Some broader applications of economic pricing as distinct from market pricing or valuation have been familiar in economic literature for quite

some time. For example, some of the staunchest free-market economists of the neoclassical school explicitly recognized that a particular economic activity could result in a significant difference between the increment to private welfare and the increment to public or social welfare. A. C. Pigou illustrated the idea clearly.¹ One of Pigou's simpler examples was the divergence between the gain to a manufacturer and the gain to society as a whole when his production process belches noxious fumes on the adjacent community. If no tax or other penalty is charged the manufacturer for this environmental contamination, the net gain to the producer would clearly be greater than the net gain to the economy as a whole from the output involved. In economic terms the marginal social net product is less than its private counterpart, a point that is the economic underpinning of so much ecological concern these days.

Cases that present the opposite side of the coin, namely, where social values are greater than private ones, are rather less readily visualized. For example, no one has yet devised a factory emitting rain-making smoke in an arid region. But the whole assemblage of social and economic by-products such as skills, unpatented technological advances, and economies of scale for satellite or ancillary industries—labeled by economists positive externalities—yield net social or economic benefits that exceed the private marginal product obtained by the primary or initial producer.

The distinction between social and private advantage, now well understood in the commodity field, applies in a selective and not identical fashion to the rewards and costs of the factors of production, notably unskilled labor and investment capital. The main difference is that commodities usually involve only one production process, whereas with a factor such as unskilled labor alternative ways of employment must be considered. The main purpose of this book is to try to estimate the ratio of economic (or social) wages to market (or private) wages for unskilled agricultural labor in two developing countries, Taiwan and the Philippines, and to discuss the general conditions in the labor markets in those countries as well as in Korea and Indonesia.² I hope, of course, that the methodology may have wider application. The worker, unlike Pigou's factory, does not emit noxious fumes (unless he smokes cigarettes and this annoys his abstemious fellows). If the labor market is functioning with reasonable efficiency, the worker's wage should approximate his worth (private marginal product) to his employer; but it will not necessarily reflect the worker's worth to the society to which he belongs when that worth is measured by the effect on social welfare of his withdrawal from his present employment.

1. A. C. Pigou, *Economics of Welfare* (London: MacMillan Co., 1960), p. 184.□

2. Throughout this book the Republic of China is referred to as Taiwan; the Republic of Korea, or in popular usage South Korea, is referred to as Korea.□

In determining the major factors in the economic price of labor, opportunity cost, however ascertained, is a principal component. Two other factors to be considered are the effect of fresh employment on consumption compared with savings and investment, and the general economic consequences of the redistribution of income resulting from increased employment. It will of course be appreciated that the consequences of income redistribution can occur only if rather large numbers of workers are employed at higher incomes than they previously received.

As a concept in respectable economic literature, the opportunity cost of goods and services has now reached its eightieth birthday. It is therefore appropriate that it receive attention in economic planning and project appraisal. In the 1935 edition of the *Encyclopaedia of Social Science* (vol. 4) Jacob Viner defined the opportunity cost of producing commodity A as the amount of commodity B that might have been produced with the same expenditure of resources.³ With respect to the factors of production, the opportunity cost of a particular type and grade of labor (applied to the production of some economic good or service) should be measured by what is forgone because it is not being applied to the best alternative use. But, having defined the concept (as it is still generally understood), Viner dismissed it rather summarily, stating that the usefulness of the idea in economic analysis depended on an assumption of homogeneity (in respect to marginal productivity) of the factors of production working in identical combinations in different industries. This condition is seldom encountered under real life conditions. Since the same assumption applies to any accurate comparison of the true productivity of factors, however valued, Viner's conclusion seems somewhat harsh. More to the point would be an observation that despite its conceptual clarity the quantification of the opportunity cost of a particular good or service must in large measure rely on subjective or nonmarket factors, and therefore different observers might come to widely differing conclusions.

The determination of the economic price of a particular good or service is to a great extent an art or at least a case for value judgment rather than precise statistical inference or calculation. At bottom it consists of taking observed market values or combinations of such values and adjusting them in the direction common sense indicates to reflect more nearly their significance to the economy rather than to the individual. It is not altogether surprising that these adjustments can be done in a number of different ways, using a number of different formulas to arrive at the same goal.

The other components of the economic price of labor will be discussed

3. The doctrine of opportunity cost appears to have been first given that name in an article by David I. Green, "Pain Cost and Opportunity Cost," *Quarterly Journal of Economics*, vol. 8 (1893-94), pp. 218-29.□

later in this introduction. At this point it is enough to say that the factors and circumstances that may make for differences between the private and public return from a particular production process apply in a similar but not identical manner to the difference between the private and public price of labor.

The Need for Economic Pricing of Labor

A generally acknowledged rule of economic development, irrespective of the socioeconomic system, is that the national objective should be to derive maximum economic welfare from the disposition of the scarce resources available. Unskilled agricultural labor is a most abundant resource in developing countries, and most development projects will draw upon this resource for both construction and operational purposes. Usually, however, the project designer has considerable leeway as to the proportions of labor, land, and capital to be used, and there is of course a wide range of choice among different projects serving the same economic objectives. In the presence of such choices it follows that the impact on the cost of using any factor of production can be measured either in straightforward financial terms by the prevailing wage or by the effect of such use on the economy as a whole. If the labor market is working efficiently, and particularly if labor is both fairly mobile and fully employed, the money wage is a preferable measure. The lack of these conditions, however, prompts the rather difficult task of estimating the economic wage. One of the main objectives in undertaking this study was to ascertain if there exists any compelling need to put an economic price on labor in Korea, Taiwan, and the Philippines.⁴ The prospects for a useful study of the question in Indonesia, the fourth Far Eastern country considered here, were less favorable for reasons that will become apparent in chapter 6.

This somewhat skeptical point of view reflects certain reservations regarding the accuracy possible in the socioeconomic pricing process. A closer examination of the facts in two of the countries studied led to the conclusion that it would be worthwhile to attempt to put an economic val-

4. The selection of the term "economic" rather than "accounting" or the much used "shadow" as the word for the social (as distinct from the market) price of labor is esthetic rather than substantive. I use the familiar letters SWR (shadow wage rate) for economic price of labor, largely because their meaning is widely recognized. In the title and text I have eschewed "accounting" and "shadow," since neither seems to express the essence of the matter, namely, the economic cost to society of a unit of a certain kind of factor of production. "Social" also seems to miss the mark.□