

# HUMAN CAPITAL: THEORY AND PRACTICE

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# HUMAN CAPITAL: THEORY AND PRACTICE

The Concept of Human Capital

Is Human Capital Important?

Measuring Human Capital

Investment in Human Capital

Human Capital and Nonmarket Accounting

# THE CONCEPT OF HUMAN CAPITAL

Investment in Physical Capital vs.  
Investment in Human Beings

Human Wealth vs. Nonhuman Wealth

Market and Nonmarket Labor Incomes

Lifetime Labor Incomes and Asset Values

# IS HUMAN CAPITAL IMPORTANT?

Nonmarket Compensation Includes Leisure Time, Household Production, Investment in Education and Investment in Child-Rearing

Nonmarket Labor Compensation is Four Times the Value of Market Compensation

The Value of Human Investment Is Four Times the Value of Nonhuman Investment

Human Wealth is Ten Times the Value of Nonhuman Wealth

Source: Jorgenson and Fraumeni (1989, 1992)

# RELATIONSHIPS TO THE LITERATURE

Measuring Capital: Schreyer (2008) and  
Canberra II.

A New Architecture for the National Accounts:  
Jorgenson, Landefeld, and Nordhaus (2006)

Investment in Health: Cutler and Richardson (1997),  
Cutler, Rosen, and Vijan (2006)

Investment in Intangibles: Corrado, Hulten,  
and Sichel (2005)

The Pioneers: Machlup (1962), Nordhaus and  
Tobin (1972), Schultz (1961), and Kendrick (1976)



National  
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and  
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# A New Architecture for the U.S. National Accounts

Edited by  
Dale W. Jorgenson,  
J. Steven Landefeld, and  
William D. Nordhaus

# MEASURING HUMAN CAPITAL

The Starting Point: Population

Market Labor Data Base: Employment,  
Hours, and Market Compensation

Nonmarket Labor Data Base: Population,  
Hours, and Imputed Compensation

Time Use Surveys

Separation into Quantity (Hours) and  
Price (Wages Plus Fringe Payments) Components

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# Productivity

V O L U M E 3

*Information Technology  
and the American Growth  
Resurgence*

Dale W. Jorgenson, Mun S. Ho,  
and Kevin J. Stiroh



# LIFETIME LABOR INCOMES

## Three Stages of Life:

Working and out of School

Working and in School

Not Working and in School

# LIFETIME LABOR INCOMES FOR WORKERS NOT IN SCHOOL

Expected Incomes in the Future

Growth of Real Incomes

Survival Probabilities

Discount Rates

# LIFETIME LABOR INCOMES FOR WORKERS IN SCHOOL

Investment in Education:  
Increment in Lifetime Income for an  
Additional Year of Education

Example: An Individual with  
Sixteen Years of Education

Total Labor Compensation:  
Time Spent in Formal School Plus  
Labor Compensation for Market and  
Nonmarket Labor Time

# LIFETIME LABOR INCOMES FOR STUDENTS IN SCHOOL

Value of Labor Compensation:  
Increment in Lifetime Incomes

Individuals Not Enrolled in School  
Have Lifetime Incomes But No  
Labor Compensation

Human Wealth Is the Value of  
Lifetime Incomes for the Population

This Can Be Separated Into Quantity  
(Number of Individuals) and Price  
(Lifetime Income) Components

# INVESTMENT IN HUMAN CAPITAL

Lifetime Incomes for All Individuals  
Born in That Year Plus:

Lifetime Incomes for All Immigrants Plus:

Labor Compensation for Formal Schooling  
(Investment in Education)

Each of These Can Be Separated Into  
Quantity (Number of Individuals) and  
Price Components

# HUMAN CAPITAL AND NONMARKET ACCOUNTING

Why Nonmarket?

Nonmarket Labor Compensation:  
Leisure Time, Household Production,  
Investment in Education, and  
Investment in Child-Rearing

The Value of Additions to the Population:  
Newborns and Immigrants.

The Value of Investment in  
Formal Schooling

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# Productivity

V O L U M E I

*Postwar U.S. Economic Growth*

Dale W. Jorgenson