

# PUBLIC SECTOR EXPENDITURE ON HUMAN CAPITAL INVESTMENT AND ITS EFFECT ON THE PHILIPPINE ECONOMIC GROWTH

A Thesis
Submitted to the Faculty of the
College of Business Administration
De La Salle University – Dasmariñas
Dasmariñas, Cavite

In Partial Fulfillment
of the Requirements for the Degree of
Bachelor of Science in Business Administration
(Major in Economics)

SHERRIE RHOSE M. MATEL

September 2007



#### **ABSTRACT**

MATEL, S. R. M., Public Sector Expenditure on Human Capital Investment and Its Effect on the Philippine Economic Growth. Bachelor of Science in Business Administration Major in Economics, De La Salle University – Dasmariñas, Cavite, March 2008. Adviser: Dr. Alice T. Valerio.

The study aimed to determine the public sector expenditure on human capital investment and its effect on the Philippine economic growth. Specifically, it aimed to (a) discuss the state of Philippine health and education; (b) determine the government investment on human capital; and (c) analyze how public sector expenditure on health and education affect the Philippine economic growth.

The data from 1981-2006 for the school enrollment as percentage of schooling age population, number of public schools, number of public health professionals, number of public hospitals, public expenditures on education and health, and the real gross domestic product were presented. Data on student enrollment and number of public schools were gathered from the Department of Education and the Commission on Higher Education; the schooling age population were from the National Statistics Office; the number of public health professionals and hospitals were both from the Department of Health; public expenditure on education and health were obtained from the Department of Budget and Management; while the real gross domestic product was from the International Monetary Fund database.

To illustrate the movement of the variables trend analysis and descriptive method were utilized. Multiple regression analysis was used to generally analyze the

## De La Salle University – Dasmariñas

effect of public sector expenditure on human capital investments and on the economic growth of the country.

Enrollment as percentage of schooling age population in the elementary level was decreasing since SY 1999-2000. Secondary enrollment and tertiary enrollment were also falling during SY 2003-2004 and SY 2002-2006. This means that large number of students dropped out from school. The fall in the percentage of enrollment would hinder the growth of the country. There are many public schools that exist to accommodate everyone especially the poor. It suggests a better productivity of the educated workforce.

Figures on midwives and dentists in the Philippines are increasing for the period 1981-2006. On the contrary, number of nurses and doctors has a downward trend after 1992 and 1989 respectively. This threatens the quality of the Philippine health system. It also leaves only an insufficient professionals looking after the needs of its large population. This even forced the closure of hospitals. With the hospitals being closed now, there would be no place for the people to go.

The annual public sector expenditure on education as percentage of total expenditures has an increasing trend until 1997 then decreasing from 1997 to 2006. On the other hand, expenditure on health as percentage of total has been decreasing since 1981. The increased expenditure was just a very small part of the total expenditures of the government and it is allocated to other expenditures, including debt service and on the subsidy to local government units.

### De La Salle University – Dasmariñas

The result of the regression showed that public expenditures on education and health as percentage of total public sector expenditure significantly affect the Philippine economic growth. Share of education expenditure positively affects real GDP. Thus, as share of education expenditure increases, real GDP will also increase. However, it appeared that share of health expenditures negatively affects real GDP. As health expenditure increases real GDP will decrease.

The study recommends the increase in the share of education expenditure to total public expenditure to promote the general welfare of the people. Expenditure cuts on nonhuman capital investment items in the public sector budget can be used as an approach to public sector financing of investment on human capital. Improvements in tax collection and introduction of new tax measures are also ways in generating income for public use. Property and business taxes can be a useful source of added income to support the objective of better quality public education. Excise taxes can also be imposed and raised over time for liquor, cigarettes, and motor vehicles.



### TABLE OF CONTENTS

	Page
TITLE PAGE	i
APPROVAL SHEET	
BIOGRAPHICAL SKETCH	
ACKNOWLEDGMENT	iv
ABSTRACT	
TABLE OF CONTENTS	ix
LIST OF TABLES	xii
LIST OF FIGURES	
LIST OF APPENDIXES	
INTRODUCTION	1
Statement of the Problem	3
Objectives of the Study	4
Hypotheses of the Study	4
Significance of the Study	5
Scope and Limitations of the Study	5
Operational Definition of Terms	7
REVIEW OF RELATED LITERATURE	9
CONCEPTUAL FRAMEWORK	20



METHODOLOGY		
Research Design	24	
Sources of Data	24	
Methods of Data Analysis	25	
RESULTS AND DISCUSSION		
Overview of the Philippine Education and Health System		
Education	28	
Student enrollment as percentage of schooling-age population	31	
Number of public schools	38	
Health	43	
Number of public health professionals	44	
Number of public hospitals	53	
Government Investment on Human Capital	61	
Education	62	
Health	72	
Effect of Public Sector Expenditure on Education and Health on the Philippine Economic Growth	83	
Trend of real gross domestic product	83	
Effect of public sector expenditure on Philippine economic growth	87	
SUMMARY, CONCLUSION, AND RECOMMENDATIONS	90	
Summary	90	



Conclusion	92
Recommendations	93
BIBLIOGRAPHY	96
APPENDIXES	105





### LIST OF TABLES

Table		Page
1	Student Enrollment as Percentage of the Schooling Age Population in the Public Sector by Educational Level, SY 1980-1981 to SY 2005-2006	32
2	Number of Public Schools by Educational level, SY 1980-1981 to SY 2005-2006	39
3	Number of Public Health Professionals, 1981-2006	45
4	Deployment of Filipino Nurses, 1994-2004	49
5	Number of Public Hospitals, 1981-2006	55
6	Annual Public Sector Expenditures on Education (at constant 1985 prices), 1981-2006	63
7	Annual Public Sector Expenditures on Health (at constant 1985 prices), 1981-2006	73
8	Annual Gross Domestic Product at Constant 1985 Prices, 1981-2006.	84
9	Summary Output of Regression Analysis Showing the Effect of Public Sector Expenditures on Education and Health on GDP.	88



#### LIST OF FIGURES

Figure		Page
1	Conceptual framework showing the interrelationship of public sector expenditures on human capital investment (education and health) and economic growth	22
2	Student enrollment as percentage of the schooling age population in the public sector by educational level SY 1980-1981 to SY 2005-2006	35
3	Number of public schools by educational level from SY 1980-1981 to SY 2005-2006	40
4	Number of public health professionals from 1981-2004	46
5	Number of public hospitals from 1981-2004	56
6	Public sector expenditures on education (in billion pesos), 1981-2006	64
7	Education expenditures as percentage of GDP constant and as percentage of total expenditure, 1981-2006	65
8	Public sector expenditures on health (in billion pesos), 1981-2006	74
9	Health expenditures as percentage of GDP constant and as percentage of total expenditure, 1981-2006	75
10	Annual gross domestic product at constant 1985 prices, 1981-2006	85



#### LIST OF APPENDIXES

Appendix		Page
1	Philippine Education Structure	106
2	Historical Distribution of Higher Education Institutions by Sector and Institutional Type, SY 1990-1991 to SY 2005-2006	107
3	Number of Public Hospitals by Region, 1981-2006	109
4	Public Expenditure by Subsector at Current Prices (in billion pesos), 1981-2006	110
5	Public Expenditure by Subsector at Constant 1985 Prices (in billion pesos), 1981-2006	113
6	Percentage Distribution of Subsector Expenditure to Total Public Expenditure (in percent), 1981-2006	116