THE IMPACT OF STRUCTURAL ADJUSTMENT POLICIES ON THE EDUCATION SYSTEMS OF DEVELOPING COUNTRIES: A COMPARATIVE STUDY BETWEEN THAILAND AND MALAYSIA AFTER THE ASIAN FINANCIAL CRISIS

by

LESLIE D. TABLEMAN

A THESIS

Presented to the Department of Planning,
Public Policy and Management
and the Graduate School of the University of Oregon
in partial fulfillment of the requirements
for the degree of
Master of Public Administration

March 2009

"The Impact of Structural Adjustment Policies on the Education Systems of Developing Countries: A Comparative Study between Thailand and Malaysia after the Asian Financial Crisis," a thesis prepared by Leslie D. Tableman in partial fulfillment of the requirements for the Master of Public Administration degree in the Department of Planning, Public Policy and Management. This thesis has been approved and accepted by:

Dr. Jean Stockard, Chair of the Examining Committee

March 6, 2009
Date

Committee in Charge: Dr. Jean Stockard, Chair
Dr. Neil Bania
Dr. Surendra Subramani

Accepted by:

Dean of the Graduate School

An Abstract of the Thesis of

Leslie D. Tableman for the degree of Master of Public Administration

in the Department of Planning, Public Policy and Management

to be taken March 2009

Title: THE IMPACT OF STRUCTURAL ADJUSTMENT POLICIES ON THE EDUCATION SYSTEMS OF DEVELOPING COUNTRIES: A COMPARATIVE STUDY BETWEEN THAILAND AND MALAYSIA AFTER THE ASIAN FINANCIAL CRISIS

Approved: _____
Dr. Jean Stockard

Education is an important tool in supporting the infrastructure of a country, so having quality and reliable education systems is critical to the success of developing countries in a global economy. In the face of international recessions and financial crises, many countries depend on bailout packages provided by international financial institutions such as the International Monetary Fund (IMF) and World Bank. The bailouts typically contain conditions, known as structural adjustment policies or programs, which require certain policy reforms of the accepting country. The goal of this paper is to investigate whether those conditions have a noticeable relationship to the delivery of education in developing countries. Specifically, this study looks at descriptive statistics surrounding educational indicators for Thailand, a country that accepted a bailout, and Malaysia, a country that declined a bailout, after the Asian Financial Crisis.

CURRICULUM VITAE

NAME OF AUTHOR: Leslie D. Tableman

PLACE OF BIRTH: Lansing, Michigan

DATE OF BIRTH: August 7, 1985

GRADUATE AND UNDERGRADUATE SCHOOLS ATTENDED:

University of Oregon, Eugene
Hope College, Holland, Michigan

DEGREES AWARDED:

Master of Public Administration, 2009, University of Oregon
Bachelor of Arts, Political Science, 2007, Hope College

AREAS OF SPECIAL INTEREST:

Education Policy and Research

PROFESSIONAL EXPERIENCE:

Research Support Technician, Educational Policy Improvement Center, Eugene, Oregon, 2008

Membership Development Intern, International Society for Technology in Education, Eugene, Oregon, 2008

Data Analysis Associate, University of Oregon/ Oregon Criminal Justice Commission, Eugene, 2008

Teaching Assistant, Department of Planning, Public Policy and Management, University of Oregon, Eugene, 2007-2009

GRANTS, AWARDS AND HONORS:

Magna cum Laude, Hope College, Holland, Michigan, 2007

TABLE OF CONTENTS

LIST OF FIGURES

Figure Page

CHAPTER I
INTRODUCTION

Acknowledging education as an essential part of growth in developing countries is the first step to understanding what makes developed countries successful in the global economy. Having a citizen base that has the opportunity to advance in economic sectors besides service industries is vital to becoming competitive internationally. However to be able to provide stable and sustainable public social services and to help begin building the infrastructure needed to promote education and advance their economies, developing countries often look to the international community to provide financial assistance.

International Financial Institutions

The World Bank and the International Monetary Fund (IMF) are two international financial institutions that provide funds to countries globally. The World Bank was initially created after World War II as an international institution that would help countries finance rebuilding projects (World Bank, 2008). However, as their focus moved beyond western, industrialized nations, the World Bank quickly recognized that developing countries did not have the infrastructure in place to rebuild like most western countries and began focusing on education policy to develop the human capital of developing countries (Heyneman, 2003). Now the World Bank continues to work on reconstruction projects but has also taken on the responsibilities of poverty reduction and sustainable growth in the poorest regions of the world (World Bank, 2008).

The IMF, founded in 1945, was initially an institution that was responsible for helping maintain the stability of the fixed exchange rate system (Feldstein, 1998). According to the Articles of Agreement, under which the IMF was created, the Fund serves six purposes: (1) "to promote international monetary cooperation," (2) "to facilitate the expansion and balanced growth of international trade," (3) "to promote

exchange stability," (4) "to assist in the establishment of multilateral system of payments," (5) "to give confidence to members by making the general resources of the Fund temporarily available to them under adequate safeguards," and (6) "to shorten the duration and lessen the degree of disequilibrium in the international balance of payments of members" (International, 2008). The purposes, as described above, have remained the same over time but the way to achieve these purposes changed when the fixed exchange rate system collapsed in 1971 (Feldstein, 1998).

Both the World Bank and IMF began operating in more extensive ways than originally intended only a few decades after their creation. Once the concept of infrastructure changed for the World Bank the focus of the Bank's efforts turned to promoting education with the development of an education department. The goal of the assistance from the education department was to help increase the analytical aspects of curriculum (Heyneman, 2003). The IMF was not as directly involved in determining the policies of specific social services but it did negotiate reforms for developing countries that were struggling to repay their debt as conditions of restructuring their loan to be affordable (Feldstein, 1998). As the IMF and World Bank ventured into the world of policy-making the countries that relied on receiving monetary assistance at low interest rates were forced to accept the conditions and reforms that the institutions had attached to the loans.

Structural Adjustment Policies

The reforms that the IMF started to implement, now known as structural adjustment policies or programs (SAPs), first appeared in the 1980s as a result of the debt crisis in Latin America (Kapur, 1998). These policies include, but are not limited to: increasing exports, reducing domestic demand, placing constraints on government spending, and encouraging privatization (Carnoy, 1995). Another broad view of SAPs explains the policies as involving "a combination of short-run measures, aimed at stabilization, and long-run, structural reforms, aimed at transforming heavily controlled economies into market economies" (Collier, 1999).

Structural adjustment policies, although similar in most cases, do vary based on the country. For Mexico, in the 1980s, the reforms included reducing budget deficiencies, increasing foreign investment, and privatizing state-owned industries (Kapur, 1998). In many African countries, the conditions were: privatizing industries and credit control, raising real interest rates, decreasing or ending subsidizing, lowering tariffs, and increasing imports (Hodd, 1987). Although these conditions seem distantly related to education there has been much debate around the impact of SAPs on social services in developing countries. In fact as evidence that SAPs were having a negative impact on the delivery of education in developing countries became more known, the World Bank reacted by offering more loans to the education sector with sector investment loans and sector adjustment loans (Carnoy, 1995).

Some studies have looked at the impact of SAPs on the social services of countries that abide by the policies (Kakwani, 1990; Cornia, 1987). Most of the studies performed focus on Latin America, because it was the first region of the world that negotiated adjustment policies with the IMF to keep from defaulting on debt interest payments. Those countries are best for case studies as they are relatively stable nations, although some have studied Africa despite the instability and lack of sovereignty that many of those countries face (Cornia, 1987; Cornia, 1988). Only a few studies focus on Asia because, until the time of the Asian Financial Crisis, the Asian countries were thought to be developing much better than other parts of the world.

Asian Financial Crisis

The Asian Financial Crisis was a breakdown of the lending systems in many Asian countries due to the way the Asian banks had secured funds for their own lending. In the early 1990s, Asian banks secured short-term loans from foreign banks to finance local lending and were forced to default on those loans when the loans were not renewed (Meltzer, 1998). The mismanagement of money in the Southeast Asian countries is rooted in their attempts to keep a fixed exchange rate relative to the U.S. dollar, which meant that when one country in that region devalued their currency as part of restructuring their financial management the whole region was negatively affected

(Feldstein, 1998). However some have argued that the mismanagement of money in Asia stemmed from the moral hazard that the IMF has created through its bailout efforts in the midst of crises (Meltzer, 1998; Kapur, 1998).

The IMF did help by putting together bailout packages for the countries affected by the Asian Financial Crisis. Being one of the three hardest hit countries in Asia, Thailand accepted an IMF bailout in the aftermath of the Asian Financial Crisis (Radelet, 1998). IMF loans and the conditions attached were nothing new to Thailand as it had accepted an IMF loan of $298.6 million in 1982 under the conditions of continuing budgetary austerity (Punyaratabandhu, 1983). Ultimately, the IMF and developed countries offered the three hardest hit countries, Thailand, South Korea, and Indonesia, $117 billion in bailout loans; $17 billion being the portion offered to Thailand (Meltzer, 1998). Other countries that also felt the effect of the financial crisis were offered bailout packages, but not all countries accepted the help. Malaysia was one of the countries that, despite suffering similar circumstances as Thailand and Indonesia during the financial crisis, resisted calling on the IMF to bail them out (Feldstein, 1998).

The purpose of this study is to focus on the education sector in the aftermath of the Asian Financial Crisis. A comparison of educational and economic indicators for Thailand and Malaysia will be conducted. This comparison can provide information that can help to identify how each country rebounded from the crisis and what sort of trends were seen in the separate education systems during that process. The research question this study will address is: How have the education systems in Thailand and Malaysia progressed since Thailand accepted an IMF bailout and Malaysia did not?

Outline

This paper will provide a review of relevant literature in Chapter 2 and will provide a brief history for Thailand and Malaysia in Chapter 4 before discussing the methods, findings, and conclusions of this study in Chapters 3, 5, and 6, respectively. Chapter 2 will focus on the studies conducted after the Latin American financial crisis of the 1980s, specifically discussing the impact of international loans on social services in Brazil, Chile, Peru, and Mexico. Chapter 4 will discuss some of the similarities and

differences between Thailand and Malaysia, as well as providing some background on the political histories and education systems of both countries. Chapter 3 provides a detailed explanation of the methods used in this study, while Chapter 5 discusses the statistical findings. Finally, Chapter 6 provides the conclusions that were reached after interpreting the findings of this study and discusses avenues for future research.

CHAPTER II
LITERATURE REVIEW

This study will specifically look at Thailand and Malaysia after the Asian Financial Crisis, with a focus on their education systems. However, other case studies have been performed to evaluate the impact of SAPs on a variety of social issues in other countries (Cornia, 1987; Cornia, 1988), and examining their results helps put this study into a broader context. A number of these studies focused on countries in Latin America.

When researching social issues health, employment, education, and poverty indicators are often chosen as valid measures to study. In the late 1980s, after the initial crisis in Latin America, studies of Brazil, Chile, Peru, and Mexico were conducted to evaluate the progress those countries had made since accepting help from the IMF (Cornia, 1988). The initial financial crisis in Latin America stemmed from the first big oil crisis in 1973 and the following oil shortage in the late 1970s, although political unrest also played a role in the downturn of some of the economies (Cornia, 1988).

In the aftermath of the Latin American financial crisis concerns over the delivery of social services arose. Specifically, there were concerns for vulnerable populations in the Latin American countries, especially children (Cornia, 1988). All aspects of the social services can impact children and subsequently impact education. Often if governments in crises make adjustments to employment wages or healthcare, children feel the impact by their families not being able to afford the materials needed to attend the free schools or children struggle with illnesses that prevent them from attending the schools (Cornia, 1987).

The remaining sections of the chapter will discuss the adjustment policies that four Latin American countries agreed to accept, and identify what impacts those policies potentially had on children. Studies of Brazil, Chile, Peru, and Mexico will all be reviewed to identify a potential link between SAPs and education.

Brazil

Brazil was not the first Latin American country to call on the IMF. In fact it postponed receiving help and implementing adjustment programs until 1983 well after other countries, such as Mexico, had already begun to work with the IMF (Cornia, 1987). The main adjustment policy that Brazil adhered to was implementing import restraints, which observers suggest caused a recession in the country (Cornia, 1987; Macedo, 1988). The policies and subsequent recession had impacts on all social services in Brazil. For example, the percent of real expenditure on healthcare continued to decrease even after the IMF provided Brazil with assistance (Cornia, 1987; Macedo, 1988).

Healthcare, employment levels, and child welfare were all social aspects of Brazil that experienced negative trends in the aftermath of the Latin American financial crisis in the early 1980s. Brazil's Foundation for the Welfare of Minors saw increases in the number of children they were assisting rise from 28,433 in 1982 to 38,394 in 1985 (Macedo, 1988). School age children also saw decreases in achievement and graduation. In Sao Paulo, the dropout rate for students in grades 1 through 8 increased, while some grades saw decreases in achievement (Macedo, 1988). Additionally, the unemployment rate increased in the six major metropolitan areas between 1981 and 1984 (Cornia, 1987).

Chile

Chile is a unique case study, because, as the country experienced a recession due to the financial crisis in Latin America, the government remained committed to financing social policies around healthcare and education (Cornia, 1987). The conditions of the adjustment program attached to Chile's loan in the wake of the international recession in 1981 included cutting real wages by 40 percent (Geier, 2000). Despite a focus on social policies during the adjustment period Chile still saw increases in unemployment that trickled down to impacting child welfare and health, the very areas that the Chilean government was trying to minimize (Raczynski, 1988).

Peru

Like many Latin American countries, Peru already had an established relationship with the IMF by the time of the Latin American financial crisis, which included having signed four agreements over the course of six years to receive aid for their floundering economy (Figueroa, 1988). By the time of the crisis of the early 1980s, Peru had started implementing an adjustment loan that stressed budgetary austerity, and additional loans in 1982 and 1983 emphasized the same measures including cutting spending in the public sector and adding taxes (Cornia, 1987). The programs and policies associated with these loans through the IMF had significant impacts on social aspects of Peru. The unemployment rate rose from 6 percent in 1980 to nearly 11 percent in 1984 (Figueroa, 1988). Additionally, the poor economy increased the child malnutrition rates in parts of the country and greatly reduced the quality of education throughout the country (Cornia, 1987). Negative trends were experienced in most social aspects of the country in the aftermath of the financial crisis.

Mexico

Mexico was another Latin American country that accepted assistance from the IMF in the midst of the debt crisis in the 1980s. However, some have suggested that Mexico has become the cautionary tale of how SAPs can be more harmful to a developing country then helpful and do not diminish the probability of later financial crises. In the 1980s, Mexico "sharply reduced their budget deficits, privatized state-owned enterprises, and welcomed foreign investment," as a part of the adjustment policies the IMF had requested and found itself in the middle of another financial crisis in 1994 (Kapur, 1998). In fact, Mexico has experienced four financial crises spanning from the late 1970s through the mid-1990s (Cutler, 2002). The IMF provided Mexico with another bailout in 1995 of $40 billion to keep that crisis from spreading during the mid-1990s (Meltzer, 1998). Actually, Mexico had the highest usage of IMF credit most years from the end of the 1980s to mid-1990s (Figure 1).

Mexico is the case study that many have used to support the argument that IMF bailouts have created a moral hazard that allow developing countries to continue poor financial management and receive money when the mismanagement of the economy turns into a crisis. The poorly run economy has also impacted the health and well-being of the citizens of Mexico. It has been shown that the mortality of vulnerable populations is significantly higher in Mexico when the country is in an economic crisis (Cutler, 2002). Additionally, in the years following the international recession of 1981 Mexican unemployment increased and the average number of hours worked decreased (Mertens, 1987). Like Chile, the negative trend in these economic indicators had an impact on other social aspects of the country.

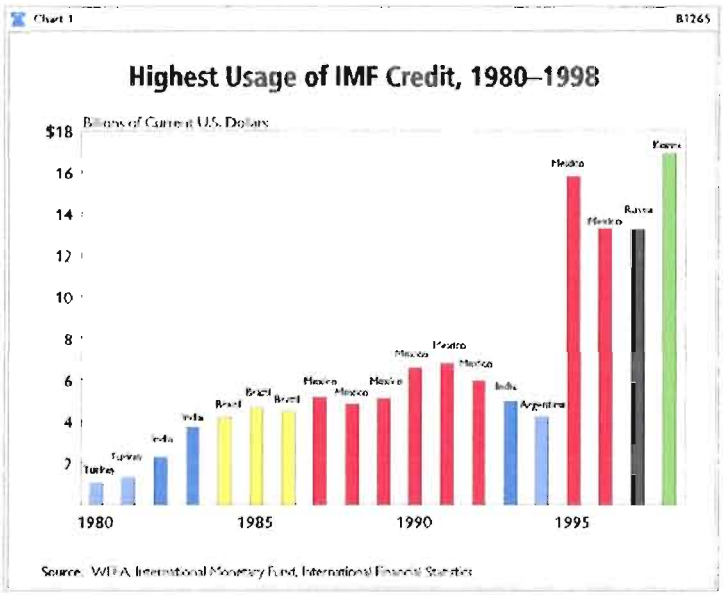


Figure 1. Highest Usage of IMF Credit from 1980 to 1998

Summary

The Latin American case studies have shown that the conditions attached to IMF bailouts can have a negative impact on the delivery of social services. The purpose of this study is to focus specifically on the education sector in the aftermath of the Asian Financial Crisis. The research question this study will address is: How have the education systems in Thailand and Malaysia progressed since Thailand accepted an IMF bailout and Malaysia did not?

CHAPTER III
METHODS

This study has two aspects. First, a historical review of political and social characteristics of both Thailand and Malaysia will be conducted. The purpose of this review will be to determine if enough similarities between the countries exist that comparing the trends in their education systems could produce reliable evidence on the impact that SAPs might have on the delivery of education in developing countries. It is also important to acknowledge the differences that exist between the two countries so as to be aware of the potential limitations of this study, and this historical review can help highlight these differences. Information for the historical review has been obtained from various sources, including journal articles, books regarding the two countries, and online materials from government and international organizations' websites.

The second aspect of the study is a more quantitative analysis of trends in social and economic statistics in both Thailand and Malaysia to compare the progress of their education systems. The remaining sections in this chapter describe the methods used to analyze these trends.

Data

The data will be secondary data received from the United Nations statistics division and IMF World Economic outlook database. The United Nations statistical division compiles data from numerous international databases so comparative analyses can be performed. The IMF maintains a database with economic measures to track the economic progress of each member country.

Educational data is most often compiled, or collected, by the United Nations Educational, Scientific and Cultural Organization (UNESCO). The majority of the data used in this analysis will be data from the UNESCO Institute for Statistics. The

UNESCO Institute of Statistic's website has a data center that allows users to custom build tables around the characteristics and countries of their interest. This study will target data collected for Thailand and Malaysia around issues of education and literacy after 1998, when Thailand accepted the IMF loan. Additionally, UNESCO publications will be used to supplement the data for some of the years that are missing in the internet database.

The United Nations common database holds statistics for all aspects of international concern, including economic indicators and educational indicators. The common database will be used as one of the sources from which information about the economic indicators will be gathered. The IMF's World Economic outlook database will be the primary source of economic indicators. This study will target the economic indicators that were included as conditions of Thailand's IMF bailout.

Although these databases are available for comparative studies the data is not always complete. In targeting the specific data that this study will use, a number of holes in the data were identified. For almost all of the indicators targeted for this study the data preceding the Asian Financial Crisis was not available. Additionally, the data following the crisis exhibited missing years which will make the comparison between the two countries a bit more difficult and is a limitation of this particular study.

Measures

The measures being used for this study are divided into three distinct categories: economic indicators, educational inputs, and educational outputs. The economic indicators include percentage of debt service, gross domestic product (GDP) per capita, current account balances, foreign exchange reserves, and inflation rates. Debt service will be measured as a percentage of the country's gross national income (GNI). This measure is a World Bank indicator that divides a countries debt service by its GNI. Gross domestic product per capita will be reported at current prices, based on the United States' dollar. This measure will be used to identify the wealth of each country and is reported in US dollars to help with comparisons between the two countries.

The other three economic indicators, current account balances, foreign exchange reserves, and inflation rates, are important to compare because the conditions of Thailand's bailout required specific action around these measures. Specifically, Thailand was required to reduce their current account deficit, reduce inflation, and increase their foreign exchange reserves (International, 2008). The current account balance will be presented as a percentage of the country's GDP. Current account balances report on the imports and exports of a country. Another way of interpreting current account balances is viewing the data as the savings and investments of a country.

The inflation rate was calculated using the average consumer prices index from the World Economic Outlook database, and was used because the data was easily accessible. The foreign exchange reserve measures the savings of gold and currency that countries have in their central banks. Although foreign reserves can be held in a number of difference currencies, this study looks at the foreign exchange reserves in US dollars as reported by the IMF and accessed through the United Nations' common database.

The educational inputs focus on different measurements of expenditure on education by each country. Educational expenditure will be measured as a percentage of GNI, a percentage of GDP, and a percentage of total government expenditure. Additionally, education expenditure per capita will be observed. This measure will be calculated using educational expenditure as percentage GDP multiplied by the monetary value of GDP in United States' dollars and then divided by the population of the country. All expenditure measures use data collected from the United Nations' Educational, Scientific, and Cultural Organization, which reports in its glossary definitions that the data includes expenditures by local, regional, and national governments.

The educational outputs that will be reviewed are literacy, school life expectancy, enrolment rates, and pupil-teacher ratios. Literacy will be measured in three different ways: as the percentage literate for the total youth population, youth male population, and youth female population. School life expectancy will have one measure that represents the combination of primary and secondary education. School life expectancy has been defined by UNESCO as "the total number of years of schooling which a child of a certain age can expect to receive in the future, assuming that the probability of his or her being

enrolled in school at any particular age is equal to the current enrolment ratio for that age" ("School"). It is calculated by the sum of the age specific enrolment rates divided by the overall population of the age for the levels of education specified, for this study that would be the combination of primary and secondary aged children.

Enrolment rates and ratios will be measured using gross enrolment ratio and net enrolment rate. Both these measures report on the percentage of the population enrolled in school, but use different numerators in the calculations. The gross enrolment ratio provides the total enrolment, which includes enrolment of under-aged or over-aged students, as a percentage of the age specific population of the level of education being observed. The net enrolment rate reports the enrolment of age appropriate students as a percentage of the age specific population for the level of education being observed. Pupil-teacher ratios will be observed for both primary and secondary levels of education.

A table of all these measures along with the definitions, or explanations, of the measures can be found in Appendix B.

Analytic Approach

We will use a descriptive approach in this study. The data provides us with means and frequencies for our measures for specific years. This study will focus on producing graphs of the data received from UNESCO, the UN common database, and the World Economic outlook database to visually depict the trends observed since the financial crisis.

Overall, this study is an exploratory study that seeks to identify how education in Thailand and Malaysia has progressed since the financial crisis. It will not be possible to establish causation, but we will explore evidence for one possible reason behind the differences, if there are any, in the progression of the education systems of Thailand and Malaysia. The following chapter will provide background information on Thailand and Malaysia, including a review of historical, political, and cultural aspects of both countries.

CHAPTER IV
HISTORICAL REVIEW

Thailand and Malaysia are both located in Southeast Asia. They are similar in terms of their climates, natural resources, and economies. Both countries have a tropical climate that helps to cultivate similar natural resources. Thailand and Malaysia have access to tin, rubber, and natural gas within their borders. Despite the natural resources, a large percentage of the labor force in Thailand and in Malaysia work in service industries, 51% in Malaysia and 37% in Thailand (CIA, 2008). The similarities in their economies can also partially be explained by the similarities in their education systems. Both Thailand and Malaysia have education systems based on western education systems.

Despite these similarities, there are many differences between Thailand and Malaysia. First, Thailand's population is nearly triple Malaysia's population, 65.5 million versus about 25 million (CIA, 2008). Although both countries have large service sectors of their economies, agriculture is the largest sector for Thailand's economy. Plus, the racial construction of the two countries is very different. Seventy-five percent of Thailand's population identifies as Thai, while only 50% of Malaysia's population identifies as Malay. About a quarter of Malaysia's population is Chinese and there is a noticeable Indian population in Malaysia as well, 7%.

The following sections of this chapter will review the political history and the history of the education systems in each country that will help to provide further details on the similarities between the countries and also the differences. The reviews will follow the history of each country starting in the 19th century through the end of the 20th century, focusing especially on their educational systems.

Thailand

Thailand came to be known by this name in 1939 as the Thai government attempted to establish nationalism. Many felt that Siam, Thailand's previous country name, was too closely connected with the royalist power that controlled the country prior to the 1930s (Baker, 2005). Thailand is a unique country in Southeast Asia as it was able to avoid colonization during the 19th century. The British and French, who were fierce rivals during the colonization period, used Thailand as a buffer between their colonies. Despite never being colonized, Thailand had to be cautious of its western neighbors. Although Thailand was not colonized, many interactions between Thailand and the west occurred, which caused King Momgkut, 1851-1868, to focus his reign on maintaining the independence of Thailand (Baker, 2005). Both Britain and France wanted to gain more control over Thailand, and secretly they agreed to a treaty where France would take control of eastern Thailand while the British would rule in the southern peninsula. However, the growing threat of Germany in the early part of the 20th century prevented that agreement from becoming reality (Baker, 2005).

Thailand was an absolute monarchy until 1932, when the monarchy was transformed into a constitutional monarchy (Fry, 2002). However, there have been many political struggles within Thailand since the creation of the constitutional monarchy. The political struggles include a period of occupation by the Japanese during World War II, but struggles continued throughout the 20th century long after the occupation ended. Since the end of the Japanese occupation, Thailand has struggled to become a participatory democracy (Fry, 2002). Thailand came closer to that goal in 1997 when the government, even in the midst of the financial crisis, created a new constitution (Baker, 2005).

Education in Thailand

As with every society, Thailand has had an informal system of education since the beginning of its existence, but it is important to understand that up until the 19th century education in Thailand was essentially an adopted system from India that had been modified to meet the needs of Thai society (Wyatt, 1969). In addition, it was quite common for members of the royal family or those of nobility to receive western educations abroad. In the 1870s, the monarchy attempted to create a national education system based on the western-style education that they were familiar with; however, the creation of a national system was not as easy to implement as the monarchy would have hoped (Wyatt, 1969).

King Chulalongkorn's government oversaw the slow introduction of new schools in the 1880s, after the failure of the initial national education system (Baker, 2005). It was in 1885 that the Education Department of Thailand was created and run by Prince Damrong who had helped to revive the educational reforms of the past decade (Wyatt, 1969). Over the course of the first seven years of the Education Department, 1885-1892, education became systematic and spread throughout the entire country (Wyatt, 1969). The influences of the western systems could be more clearly seen when King Chulalongkorn used the education system to train Thais for public service careers, much like the British did in their colonies (Laohavichien, 1984).

Since the dissolution of the absolute monarchy Thailand has gone through three major educational reforms. First, a student led uprising in 1973 caused a clash with civilians and the military as students protested on October 13th and 14th. This began the first major educational reforms of the 20th century (Fry, 2002). The conflict caused the King to take unprecedented measures in naming a new prime minister and promising a new constitution within one year (Baker, 2005). The uprising also allowed the new government to make educational reforms around issues of effectiveness, efficiency, and freedom (Fry, 2002).

The second reform came in the early part of the 1990s as Thailand attempted to adjust education to the idea of globalization (Fry, 2002). This reform was short-lived as the financial crisis hit in 1997 and has been the driving force behind most of the recent

reforms in all aspects of Thai society. In spite of the economic crisis the Thai government was able to debate and adopt a new constitution in 1997 that required educational reform and decentralization (Fry, 2002). In 1999 the National Education Act was passed that outlined systematic changes to Thai education with the goals being that education would be a lifelong process, would be accessible by all segments of society, and would strive for continuous development of knowledge and learning processes ("The Education," 2000).

Malaysia

Malaysia as it is now known came into existence in 1963 when Sabah, Sarawak, Malay Peninsula, and Singapore merged with the federation of Malaya; Singapore was expelled from the federation of Malaysia two years later in 1965 (Hooker, 2003). The colonies of Malay had gained independence in 1957, a few years before Malaysia was created (Hashim, 1996). Before the creation of Malaysia or Malaya, the area had been a collection of British colonies and Dutch colonies held in trust by the British (Hooker, 2003).

The British colonialists had a impact on the racial identity of Malaysia by bringing Chinese slaves to Malay in the 1850s and Indian slaves in the 1870s (Hashim, 1996). As with most colonies, Malay's resources were harvested and exported for the benefit of Britain; those resources were tin and rubber. In fact, the overharvesting of rubber caused the Malay colonies to feel the effects of the Great Depression more than other Southeast Asian countries because all the land was in use and they did not have the capacity to grow food (Hooker, 2003).

Malaysia operates as a parliamentary democracy. The type of government is also a lasting effect of having been a British colony. Before Britain granted independence to Malaysia it played a major role in setting up the government, outlining certain parts of their federal constitution, and even hand picking some of the higher administrative officials that would be in place for the initial few years of independence (Hooker, 2003).

Education in Malaysia

Education in Malaysia was a major issue in transitioning from a colonized nation to an independent nation. Even before the British colonization of the Malaysian territories, the dominant religion, Islam, had created education systems to inform citizens of the religious beliefs of the faith (Hashim, 1996). When the British colonized Malay, they instituted an education system in all of the colonies with the purpose of helping the natives to maintain traditional life and to prevent social unrest through restricted education (Hooker, 2003). In fact, the British limited education to "creating better fishermen and farmers, because the British worried that an 'over-educated' population might rebel against colonial rule" (Hashim, 1996).

In the latter part of the 20th century, as a newly independent country, Malaysia saw education as a tool to "create bonds between individuals who otherwise might have little in common" (Hooker, 2003). However, the policies contradicted that ideal by accommodating the racial identity of the citizens and allowing educational instruction to take place in Malay, English, Chinese, and Tamil (Hashim, 1996). The English schools were the most structured, as replicas of western-style education, and were the best option for those citizens wanting to become socially mobile (Guadart, 1987). However, the government instituted an affirmative action policy for native Malays, which applied to education as well as other social services, shortly after becoming independent (Kuppusamy, 2007). The education system still accommodates the racial identity of Malaysia by allowing the primary form of instruction to be in Malay, Chinese, or Tamil. However, both English and Malay have to be taught regardless of the primary language of instruction.

Similarly to Thailand, Malaysia has experienced uprisings related to education. In 1969, riots over racial tensions caused the Malaysian government to tackle issues of inequality and inefficiency within all areas of the society, with education being a priority (Hashim, 1996). As the Malaysian government focused on the issues of inequality and discrimination, major reforms to education curriculum did not occur until 1983 ("Malaysia," 2006). However, an emphasis on all aspects of education was more greatly seen in the strategic plans that Malaysia created in the 1990s.

Summary

The political histories of Thailand and Malaysia are very different from one another. The major difference involves the extent of influence and historical control from the western world. Malaysia endured this influence throughout its colonized period, while Thailand avoided some of the impact of that influence by never being colonized. Despite that difference in the interactions between Thailand, Malaysia, and the west, both countries have established education systems that appear to be replicas of the western systems (See Appendix A). The structure of education for both countries is a primary education from age 6 through 12 or 13, then secondary education from age 12 or 13 through 17 or 18.

CHAPTER V
STATISTICAL FINDINGS

Several quantitative measures of economic indicators, educational inputs, and educational outputs will be reviewed and discussed in this chapter. The economic indicators include percentage of debt service, GDP per capita, inflation rates, foreign exchanges reserves, and current account balances. The educational inputs will be expenditure of education, measured several different ways. Finally, the educational outputs will be pupil-teacher ratios, school life expectancy, enrolment rates, and literacy.

Economic Indicators

The economic indicators are being used to identify the existing differences or similarities between Thailand and Malaysia before the Asian Financial Crisis. Likewise, the changes in the indicators after the financial crisis will be observed to understand what actions were taken by each country to recover from the crisis. We will first observe the measures of GDP and debt service before comparing the three measures that were included as conditions of Thailand's bailout: inflation rates, foreign exchange reserves, and current account balances.

Differences in Gross Domestic Product

Thailand has consistently carried a higher GDP than Malaysia from 1990-2007. Even though Thailand has a higher GDP, the population of Thailand is so much higher than Malaysia's that Thailand's GDP per capita is lower than Malaysia's. Thailand's population is nearly triple that of Malaysia's population. Malaysia's population was about 18 million in 1990 and rose to nearly 27 million in 2007, whereas Thailand's population was about 56 million in 1990 and increased to nearly 66 million in 2007. The difference in population sizes has allowed Malaysia to carry a GDP per capita that is

nearly twice as much as Thailand's from 1990-2007. Malaysia's GDP per capita has increased from about $2,342 US dollars in 1990 to $6,956 in 2007. Thailand's GDP per capita was about $1,518 US dollars in 1990 and has increased to $3,732 in 2007.

Differences in Debt Service

By accepting an IMF loan to help recover from the Asian Financial Crisis, Thailand carried a higher percentage of debt service than Malaysia from 1999-2005. Over the seven year period, Thailand's average GNI percentage of debt service was nearly 13% while Malaysia's was 8%. The debt service also appeared to greatly vary through those years whereas Malaysia's debt service seemed to remain relatively stable over the same time period (Figure 2).

The fluctuation in the debt service for Thailand is a result of the monetary value of debt service used as the numerator to calculate the percentage of GNI. Thailand's debt service fluctuated between about $12 billion and $19 billion US dollars. The fluctuation in the monetary value of debt service that Thailand carried and subsequently the percentage of debt service is the result of Thailand agreeing to let the baht, Thailand's currency, float as part of the IMF bailout (International, 2008). Figure 2 shows the fluctuations as a percentage of GNI but it also mirrors the monetary value of debt service and indirectly displays the value of the baht during those years.

For Malaysia, the numerator, monetary value of debt service, varied between $4.5 billion and $9.3 billion US dollars. However, the variation is a more stable increase over the seven years and, similar to Thailand, the percentages towards the later years are not as high because of the slight increase in GNI, the denominator. The stability in Malaysia's debt service is a result of Malaysia keeping its currency pegged to the US dollar in the aftermath of the Asian Financial Crisis. In fact, Malaysia was able to keep the ringgit pegged to the US dollar because it did not accept the IMF bailout after the Asian Financial Crisis.

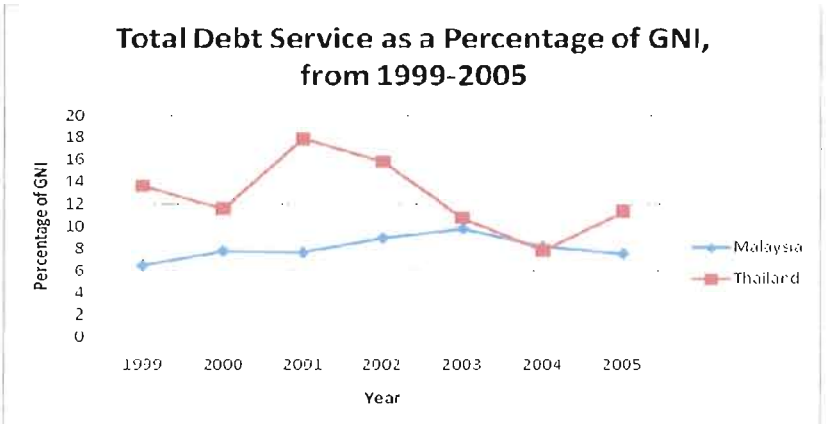


Figure 2. Debt Service Comparison

Conditional Bailout Measures

To receive funds from the IMF after the financial crisis, Thailand offered to make substantial changes to its fiscal policies. First, Thailand promised to work at reducing their current account deficit to around 3 or 4% of their GDP. Before the financial crisis Thailand and Malaysia were both carrying current account deficits that at times spiked to between 8 and 10% of their GDP (Figure 3). In the year following the crisis, 1998, both countries displayed control over their trade by producing current account surpluses of nearly 13% of their GDP. Thailand slowly began to balance the current account after the initial current account surplus in 1998, while Malaysia stayed strict on its imports and continued to carry a higher current account surplus.

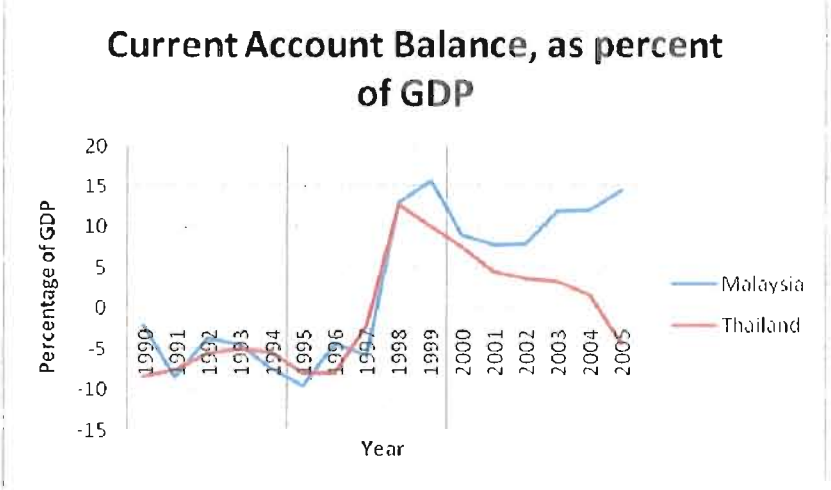


Figure 3. Current Account Balance as Percentage of GDP from 1990-2005.

Second, Thailand agreed to reduce inflation rates from its spike of nearly 10% back down to 5% or less (International, 2008). Thailand's inflation rate spiked to around 8%, according to World Economic outlook data, in 1998, but drastically decreased in the years following the crisis. Thailand's inflation rate fluctuated between 0 and 2% for the first five years after the financial crisis, meeting part of the conditions of the IMF bailout. Malaysia's inflation rate also saw a spike in 1998, to just over 5%, as a result of the financial crisis and it too reduced inflation to around 2% in the first few years following the crisis.

In the four years prior to the financial crisis, 1994-1997, Malaysia appeared to have a significantly lower inflation rate compared to Thailand (Figure 4). In those years Malaysia averaged an inflation rate of 3.3% while Thailand averaged an inflation rate of 5.6%. However, after the financial crisis both countries reduced their inflation rates and there no longer appears to be a substantial difference.

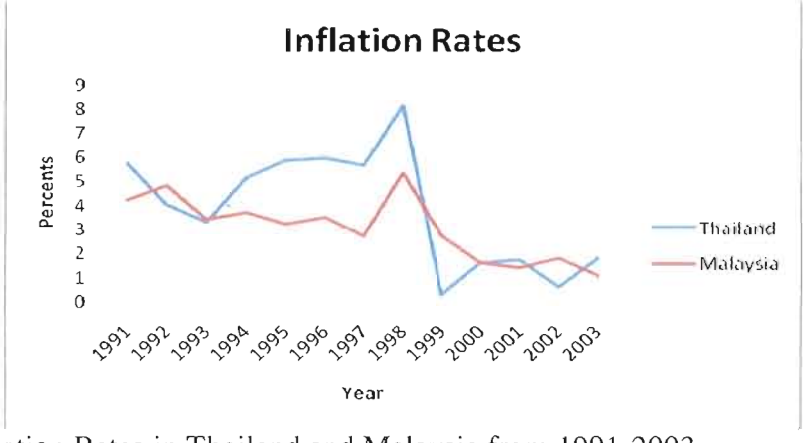


Figure 4. Inflation Rates in Thailand and Malaysia from 1991-2003.

Thirdly, Thailand also promised to increase its foreign exchange reserves that had been hit hard by the crisis. Thailand's reserves dropped 11.5US$ billion in 1997, while Malaysia's reserves dropped about 6US$ billion. By 2005 Thailand had nearly doubled their foreign exchange reserve from $25.7 billion in 1997 to $50.5 billion in 2005, while Malaysia more than tripled their foreign exchange reserve from $20 billion in 1997 to $69 billion in 2005.

Summary of Economic Indicators

Thailand and Malaysia have different GDP measures. Thailand has a higher overall GDP, but Malaysia's small population makes its GDP per capita nearly double that of Thailand's. Additionally, Thailand carried a higher percentage of debt service following the crisis, which can be attributed to the acceptance of the IMF bailout. Despite these differing economic indicators, both countries displayed similar changes in their fiscal policies in the wake of the financial crisis. Thailand reduced its inflation rate, increased its foreign exchange reserves, and reversed its current account deficit to a current account surplus to be in compliance with the terms of their bailout. Malaysia was under no pressure to do the same and yet the measures show that Malaysia reacted the same way in the years following the financial crisis.

Inputs to Education

A review of expenditure on education for each country will be conducted in this section. The review will observe several different measures of expenditure after the financial crisis to identify if the countries experienced negative trends in funding education during the recovery period. Additionally, by comparing the expenditure on education between Thailand and Malaysia we might be able to identify the priority each country places on education.

Expenditures on Education

From 1999-2005, Thailand appears to have dedicated higher percentages of their total government expenditures to education than Malaysia on average, but Malaysia has actually averaged higher percentages of spending on education based on their GDP and GNI expenditures (Figure 5). Even though it appears that Thailand spends slightly more of its total government expenditure on education, there is actually little difference between the two countries in total government expenditure from 1999-2005. Both countries spend around 25% of their total government expenditures on education.

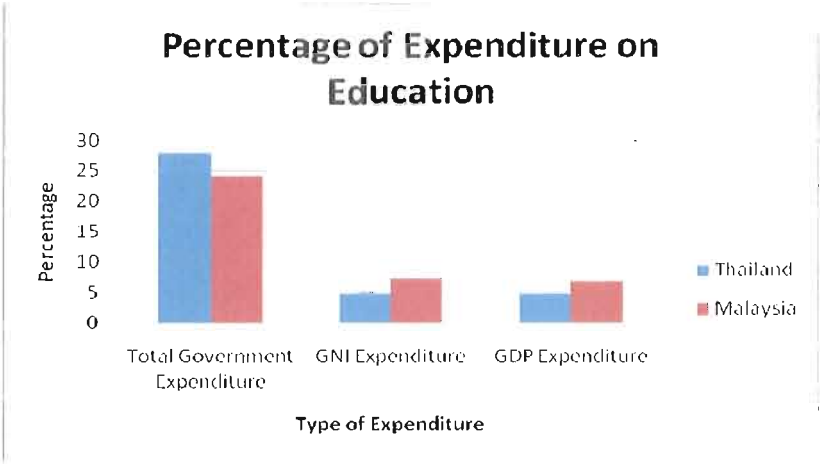


Figure 5. Average Percentage of Public Expenditure on Education by total government, GNI, and GDP from 1999-2005

The total government expenditures on education for the two countries displayed different trends in the years following the crisis to reach similar averages. Malaysia's total government expenditure fluctuated between 28% and 20% with no consistent positive or negative trend from 1999-2005. Thailand's total government expenditure on education saw an initial increase to about 30% in 2000 before a distant negative trend towards 25% in the following years (Figure 6).

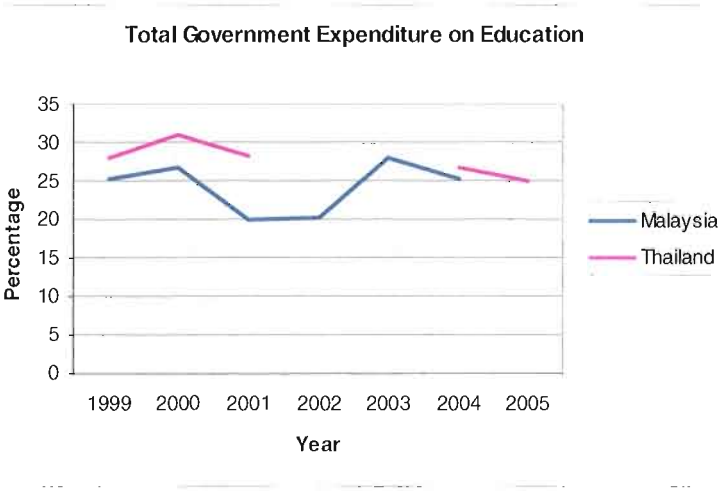


Figure 6. Educational Expenditure as a percentage of total government spending, from 1999-2005

The percentage of GNI and GDP dedicated to educational expenditures was significantly higher for Malaysia. The difference is expected as the two countries, Thailand and Malaysia, have similar education expenditure in monetary terms, but Thailand has a significantly higher GNI and GDP than Malaysia. Between 1999-2005, Thailand's GNI or GDP would have been roughly between 30 to 50 billion dollars higher than Malaysia's. With similar amounts spent on education, Malaysia's lower GNI and GDP would produce a higher percentage of GNI and GDP dedicated to education.

The higher amount of GNI and GDP dedicated to education might be a result of the differences in population, meaning that Malaysia's costs in other areas might not be as high as they are in Thailand. Malaysia's education expenditure per capita is over twice as much as Thailand's, similar to the overall GDP per capita measure. In 1999, Malaysia's educational expenditure per capita was about $202 US dollars compared to $99 for Thailand. Both countries saw increases in this measure during the first few years after the financial crisis. In 2003, Malaysia's educational expenditure per capita was $352 before dropping to $283 in 2004. Thailand seemed to display slower progress but saw its educational expenditure per capita increase to $104 in 2004 (Figure 7).

Although some of the difference between Malaysia's educational expenditure per capita and Thailand's is a result of Malaysia's overall wealth and higher GDP per capita, Malaysia did consistently dedicate higher percentages of its per capita spending to education. In 1999, Malaysia's percentage of GDP per capita dedicated to education was 5.7 and saw an increase to 8.1 percent in 2002, before declining to 6.2 in 2004. Thailand's percentage of GDP per capita spending on education was around 5 percent from 1999-2001 before decreasing to about 4 percent in 2004 and 2005.

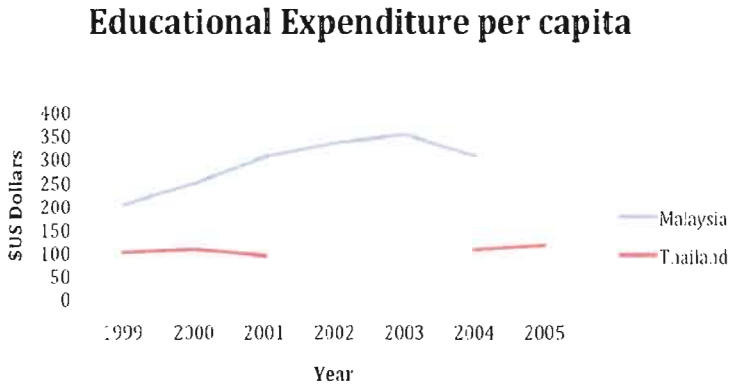


Figure 7. Educational Expenditure per capita in $US dollars, from 1999-2005

Summary of Educational Inputs

Thailand and Malaysia appear to spend the same amount of money on education; however, Malaysia has dedicated higher amounts of its GDP to educational expenditures. In fact, Malaysia has been able to provide twice as much in per capita spending towards education than Thailand. The differences in the expenditure numbers for the two countries are related to the differences in the populations of the two countries. However, the differences are not consistent between the two countries as Malaysia gave a higher percentage of their GDP per capita to education.

Educational Outputs

In this section educational output measures will be observed. These measures include pupil-teacher ratios, school life expectancy, enrolment rates, and literacy. The outputs are being observed to identify any differences that could potentially be linked to the differences in the educational inputs that were observed in the previous section.

Pupil-Teacher Ratios

The overall similarities in expenditure on education can be seen in areas of expense for school operations. Thailand and Malaysia had very similar pupil-teacher ratios for primary education from 1999-2007. Both countries displayed downward trends in their pupil-teacher ratios for primary schooling (Figure 8). However, Thailand's pupil-

teacher ratio for secondary education was higher than Malaysia's, averaging 23 from 2001-2007 versus nearly 18 for Malaysia. During that period of time Thailand's secondary pupil-teacher ratio displayed a negative trend moving from 24 down to 22 then 21 in the later years observed. Malaysia's ratio moved from 18 to 17 in the latter part of the years observed.

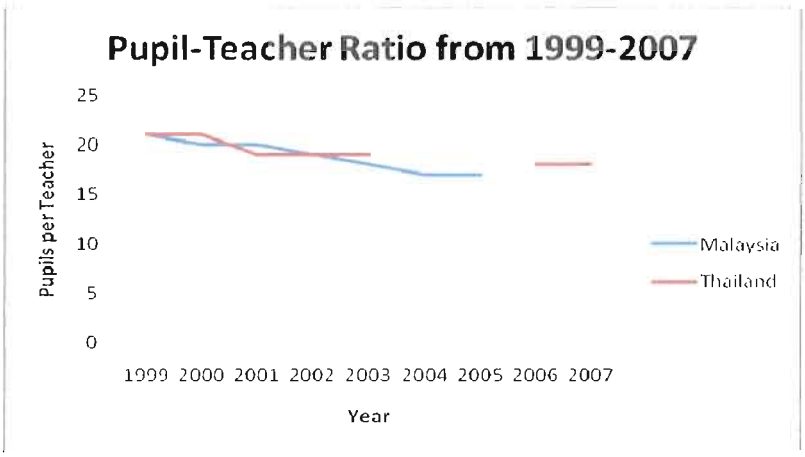


Figure 8. Pupil-Teacher Ratio for Thailand and Malaysia from 1999-2007 at the Primary Level

School Attendance and Literacy

Both countries list 6 as the age that children enter the primary school system and the school life expectancy of each country is relatively the same. The average school life expectancy for both Thailand and Malaysia was roughly 10.5 years, from 2001-2005. However, Thailand displayed a more stable positive trend in school life expectancy moving from 10.3 years in 2001 to around 11.2 years in 2006. Malaysia also showed a positive trend moving from about 10.4 years in 1999 to nearly 11 years in 2004 before slightly dropping to about 10.8 years in 2005.

Despite the school life expectancy, it appears that children progress at the appropriate rate in Malaysia more often than those in Thailand based on the enrolment rates and ratios for primary and secondary education. Malaysia's gross enrolment ratio and net enrolment rates parallel each other, increasing from 98% in 1999 to 100% in

2005 for primary schooling. Thailand's gross enrolment ratio for primary education appears to be significantly higher than Malaysia's. Thailand's gross enrolment ratio varied between 106% and 110% for primary education over the seven years and no data was available to indicate the net enrolment rate during the same period (Figure 9). The high gross enrolment ratio indicates that some of Thailand's primary school enrolment is from non-age specific students.

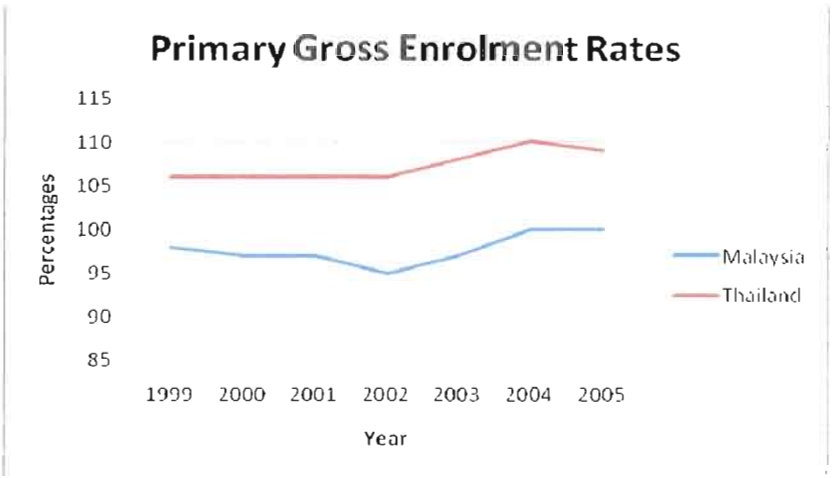


Figure 9. Gross Enrolment Rates for Primary Education from 1999-2005

The difference in gross enrolment ratios does not apply to secondary education. Malaysia's gross enrolment ratio and net enrolment rates paralleled each other as they varied between 65% and 72% from 1999 to 2005, while Thailand's secondary education gross enrolment ratio steadily increased from 67% in 2001 to 77% in 2005 (Figure 10). Again, Thailand does not have data on the net enrolment rates for secondary education during this time so it is unknown what portion of enrolment is the age specific population.

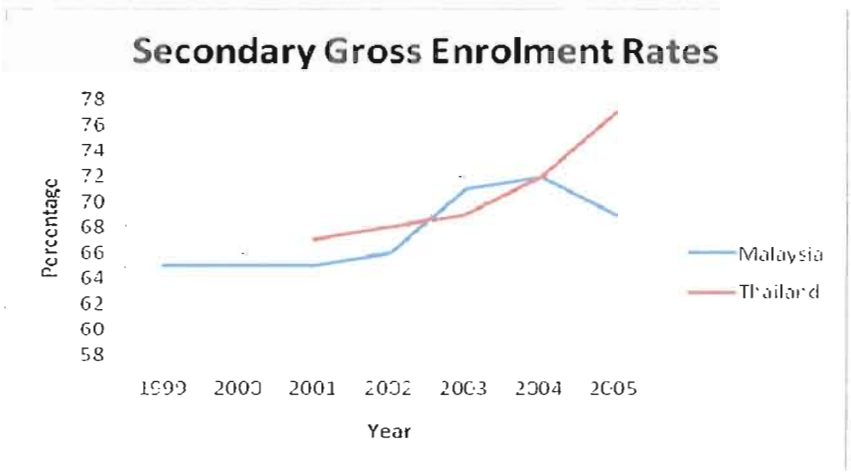


Figure 10. Gross Enrolment Rates for Secondary Education from 1999-2005

Thailand and Malaysia also appear to have very similar literacy rates for their youth populations, ages 15-24, both averaging around 98%. The average of 98% applies to all the youth measures of literacy: total population, male population, and female population. However, a closer comparison of the youth literacy rate from 2005-2007 shows that Malaysia has been increasing its youth literacy rate at a faster pace than Thailand (Figure 11).

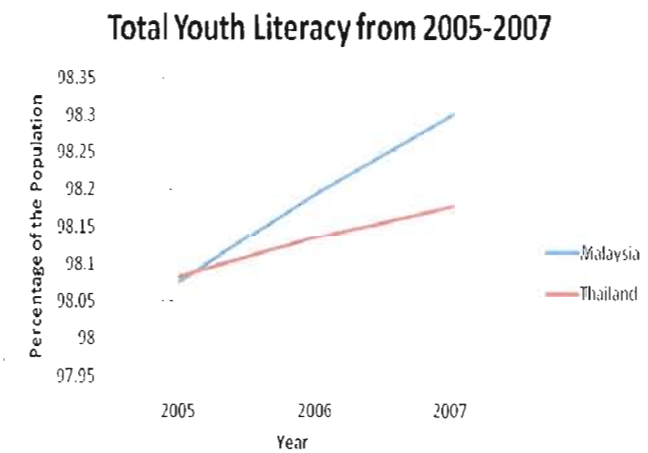


Figure 11. Youth Literacy Rates, ages 15-24, for Thailand and Malaysia during 2005-2007.

Summary of Educational Outputs

Both Thailand and Malaysia display similar educational outputs for the years following the financial crisis. Both countries averaged about 10.5 years in school life expectancy, showed trends toward smaller classroom sizes with the pupil-teacher ratios, and averaged 98% for their youth literacy rates. The only output that displayed big differences was the enrolment rates. Thailand had higher gross enrolment rates for primary schooling that suggests some of the students are either under-age or over-age, while Malaysia appears to have age appropriate enrolment in primary schools with their gross enrolment ratio mirroring its net enrolment rate.

Summary of Findings

The findings display a small number of different statistics between Thailand and Malaysia. However, positive trends for all education and literacy indicators can be seen for both countries since 1999. Malaysia appears to show a more rapid positive trend in the youth literacy rates, while being more committed to education spending by dedicating higher percentages of their GNI and GDP to education. Still, Thailand also displays positive trends.

In the wake of the Asian Financial Crisis, Thailand and Malaysia reacted similarly to get their economies back on track with the international community. Both countries reduced their inflation rates and increased their foreign exchange reserves. However, it was Malaysia that sustained a stricter control of its importing by maintaining a higher current account surplus after the crisis, while Thailand was able to produce a current account surplus it did a more efficient job of balancing importing with exporting. It appears that Thailand and Malaysia took the same strategy to recovering from the crisis. Thailand was required to by the terms of their bailout, however the Malaysian government made the adjustments without incurring additional debt.

CHAPTER VI
CONCLUSIONS AND DISCUSSION

This chapter will discuss the conclusions and limitations of this study, as well as provide ideas for future research that could be pursued. The conclusions presented will be based on the interpretation of the findings in the previous chapter. The limitation discussion will present the issues encountered in the data that was used to conduct this study. Finally, the future research section will include questions that presented themselves while this study was being conducted.

Conclusions

Thailand has relied on foreign debt to help fund education at the same level that neighboring Malaysia has been funding its education system. This is evident in the fact that the percentage of total government expenditure on education for both Malaysia and Thailand is relatively the same. However, Thailand has struggled to dedicate as high of percentages of its GNI and GDP expenditures to education. The difference in educational inputs is also seen in the per capita measures with Malaysia consistently dedicating higher percentages of per capita expenditures to education. Malaysia's ability to dedicate high amounts of its expenditure to education is an indicator of the country's wealth, but it is also indicative of the priority that Malaysia has been able to make education. Thailand has historically placed priority on education and even stated to continue to protect education when it accepted the terms of the IMF bailout (International, 2008); but it appears that in the wake of the Asian Financial Crisis, Thailand was not able to place the same level of priority on education as Malaysia.

Thailand also appeared to struggle a little more than Malaysia in educating its population, with a slower progression of its youth literacy rate. However, the more alarming finding was the enrolment rates. The discrepancy between Thailand's and

Malaysia's gross enrolment ratios suggest that children are not progressing through the education system at the age-specific rate in Thailand. In fact, at least 6-10% of primary school enrolment in Thailand, between 1999-2007, is for either under-aged or over-aged individuals. In Malaysia the gross enrolment ratios and net enrolment rates mirrored each other suggesting that nearly all, if not all, students in primary school are age appropriate.

Despite the few differences, these findings seem to suggest that the higher percentage of debt service has not had a severe negative impact on the delivery of education services in Thailand, compared to Malaysia. Thailand's education appeared to be lagging behind Malaysia but most of its indicators were still able to display slight positive trends over the course of 1999-2007. Ultimately the additional debt might have slowed the progression of education while Thailand was restructuring after the crisis, and some of the restructuring was most likely to be in compliance with the conditions of the IMF bailout, but it does not appear to have harmed the progression of education.

Part of the similarities between Thailand and Malaysia can be attributed to the fact that both countries responded to the financial crisis by adjusting their fiscal policies. Thailand agreed to reduce its current account deficit, reduce its inflation rate, and increase its foreign exchange reserve in exchange for IMF bailout funds. Malaysia chose not to accept an IMF bailout but still reduced its inflation rates, increased its foreign exchange reserves, and reversed its current account deficit to a current account surplus.

Even making similar adjustments, Malaysia, which suffered similarly as Thailand in the Asian Financial Crisis, was able to continue to fund education without incurring more debt in the years following the crisis. This suggests that if countries place priority on social services, such as education, when their economies are struggling, it is possible to provide comparable services to those who accept foreign aid. Plus, it is possible that Malaysia is better off than Thailand because their education system is seeing positive trends despite struggling through the Asian Financial Crisis and the government has been able to use country specific policies instead of focusing on current western driven fiscal policies. Certainly Malaysia's wealth has also helped them in recovering from the Asian Financial Crisis. Malaysia's wealth has given them the ability to make the adjustments and continue funding education without incurring additional debt.

Malaysia might also illustrate that bailouts are not necessarily needed for struggling countries to continue to make forward progress and would even help in a case for the argument that bailouts are a moral hazard. Malaysia instituted the adjustments without the incentive of monetary assistance, whereas Thailand relied on the monetary incentive to make the adjustments. There is no way of knowing how Thailand would have responded to the crisis without the IMF bailout, but Malaysia's experience may show that the same measures can be taken without incurring more debt.

It is possible that most countries have become comfortable with the idea of incurring debt to work through bad financial cycles, but that itself seems cyclical. Mexico is a great case study for the cyclical nature of financial crises and bailouts, with its need for four IMF bailouts over the course of two decades. Other countries have relied on the IMF just as much as Mexico and even the United States is not averse to taking on debt in the midst of an economic crisis. The way Malaysia handled its financial crisis in the later part of the 1990s might be the initial step that keeps Malaysia from suffering similar crises in the future; however, Thailand and other Asian countries will mostly likely rely on bailouts from the IMF and World Bank until they are forced to deal with poor financial cycles without international assistance.

Limitations

There were a few limitations of the study that should be acknowledged. First, although the data was collected from reliable sources, the UNESCO Institute of Statistics, the UN common database, and the World Economic outlook database, there were holes in the data. The data tables created from UNESCO were for years 1999-2007 but most indicators were missing years of data and most of the retrievable data was for the years 1999-2005. With a minimal amount of data available, the findings presented here should be seen as suggestive rather than definitive.

In addition, even though the findings are suggestive, this study cannot directly test a causal relation between the education indicators and the structural adjustment policies of Thailand's loan. At most, this study observes the increased debt service that Thailand carried after the Asian Financial Crisis and the trends in the economic indicators tied to

the IMF bailout, and then suggest that it is possible that the education trends are related to the economic trends and debt. Ultimately, this study has only indirectly implied that the structural adjustment policies have had an influence on the education indicators through observing the education and economic trends since the financial crisis.

Future Research

This study has uncovered some education trends that should be further researched. First, the enrolment ratios for Thailand indicated that there was a substantial number of either under-aged or over-aged students enrolled in primary school. The UNESCO Institute of Statistics has limited data for Thailand on under-aged or over-aged enrolment as well as rural and urban differentials. It would be interesting to research whether the issue of age-specific enrolment is nationwide or if it is problem seen mostly in the rural regions of the country. In addition, it would be important to investigate why there might be a problem with age-specific progression through the education system in Thailand?

Second, research could examine the importance attached to education in Thailand? In the midst of the financial crisis Thailand produced a national education policy around reform and decentralization. What specific reforms did it call for and where was the importance in education placed, as far as inputs or outputs? The data this study observed suggests that monetary inputs are not necessarily a priority, so what, according to the National Education Act of 1999, was to become a priority and how have those goals progressed?

Thirdly, this study focuses on the progression of inputs to the education systems in Thailand and Malaysia. A review of the outputs would provide a better understanding of how the entire education system has progressed. More extensively reviewing outputs, such as student achievement and literacy, could help to identify how the fluctuations in inputs have impacted the quality of education that students receive. This research would have to wait for more time to pass to truly be able to evaluate the significant impacts, if any exist.

Lastly, this study found there to be relatively no harm done to the delivery of education in Thailand since the financial crisis, but it would be interesting to investigate the progression of education and other social services in Korea and Indonesia as they were the other two hardest hit countries in the Asian Financial Crisis. In fact, Korea accepted the biggest bailout from the IMF in the wake of the crisis. It would be interesting to examine if Korea or Indonesia have had a harder or easier time providing education services since the financial crisis.

APPENDIX A

EDUCATION SYSTEMS OF THAILAND, MALAYSIA, AND THE UNITED STATES

This appendix contains visual depictions of the structure of the Malaysian, Thai, and American educational systems. The figures are meant to help compare the structures for similarities and differences. These similarities and differences have also been partially noted in the text of this study.

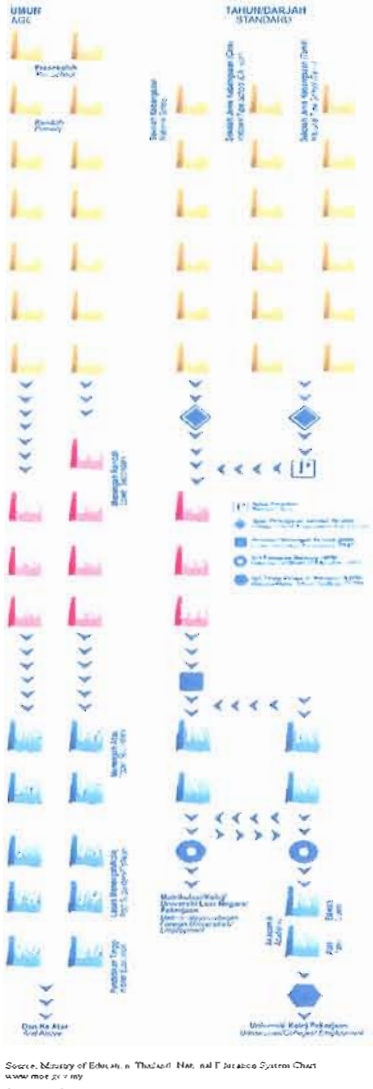
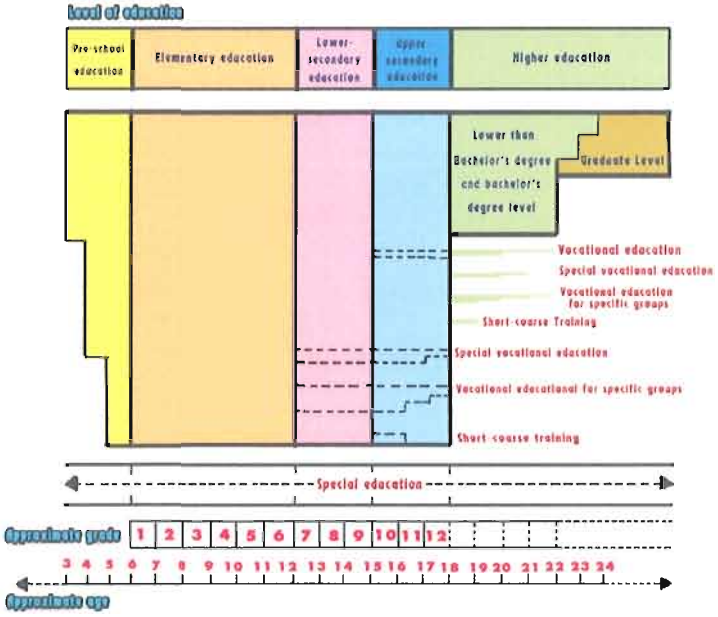
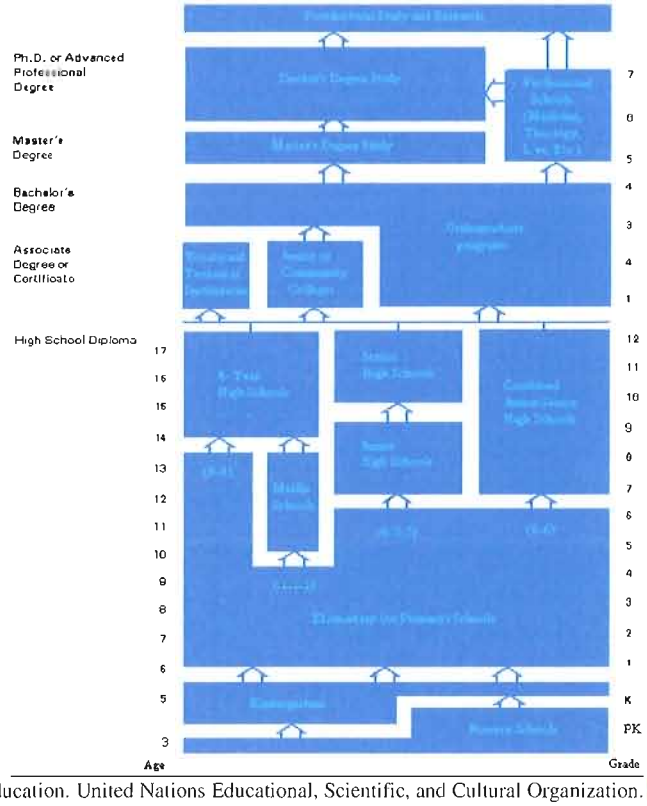


Figure 12. Malaysia's Education System



Source: International Bureau of Education. United Nations Educational, Scientific, and Cultural Organization. www.ibe.unesco.org

Figure 13. Thailand's Education System



Source: International Bureau of Education. United Nations Educational, Scientific, and Cultural Organization. www.ibe.unesco.org

Figure 14. United States' Education System

APPENDIX B

TEXT TABLE OF MEASURES

This appendix contains a table that lists each measure used in this studied along with a definition for each measure. Most of the educational measures, both inputs and outputs, have definitions that are included in the UNESCO Institute of Statistic's online glossary. The rest of the definitions are explanations of how the measure as calculated or what the measure represents.

Table 1. Text Definitions of Measures

Measure	Definition
Economic Indicators:	
Debt Service, as percentage of GNI	Total debt service carried divided by Gross National Income, this is a World Bank Development Indicator.
GDP Per Capita	Gross domestic product per capita at current prices, measure in U.S. dollars.
Current Account Balances	Current account balance presented as a percentage of the GDP.
Foreign Exchange Reserves	The total gold holdings and convertible national currency held in its banks, measured in $US dollar as reported by the IMF.
Inflation Rates	Calculated from the Inflation, average consumer prices index in the World Economic Outlook database.
Educational Inputs:	
Educational Expenditure, as percentage of total government[1]	Known as Public expenditure on education as percentage of total government expenditure: Current and capital expenditures on education by local, regional and national governments, including municipalities (household contributions are excluded), expressed as a percentage of total government expenditure on all sectors (including health, education, social services, etc.).
Educational Expenditure, as percentage of GNI[1]	Known as Public expenditure on education as percentage of Gross National Product (GNP): Current and capital expenditures on education by local, regional and national governments, including municipalities (household contributions are excluded), expressed as a percentage of the GNP.

Educational Expenditure, as percentage of GDP[1]	Known as Public expenditure on education as percentage of GDP: Current and capital expenditures on education by local, regional and national governments, including municipalities (household contributions are excluded), expressed as a percentage of the GDP.
Educational Expenditure, per capita	Multiplied Total GDP by Educational Expenditure as percentage of GDP, than divided by Population.
Educational Outputs:	
Pupil-Teacher Ratio[1]	Average number of pupils (students) per teacher at a specific level of education in a given school-year, based on headcounts for both pupils and teachers.
School-Life Expectancy[1]	Number of years a person of a given age can expect to spend within the specified levels, including years spent on repetition.
Gross Enrolment Ratio[1]	Number of pupils enrolled in a given level of education, regardless of age, expressed as a percentage of the population in the theoretical age group for the same level of education.
Net Enrolment Rate[1]	Number of pupils of the theoretical school-age group for a given level of education, expressed as a percentage of the total population in that age-group.
Youth Literacy Rate[1]	The number of literate/illiterate persons aged fifteen to twenty-four, expressed as a percentage of the total population in that age group. A person is considered literate/illiterate if he/she can/cannot read and write with understanding a simple statement related to his/her life.

[1]These definitions were obtained from the UNESCO Institute for Statistics' Glossary. <www.uis.unesco.org/glossary/>

REFERENCES

Baker, Chris and Pasuk Phongpaichit. *A History of Thailand.* New York: Cambridge University Press, 2005.

CIA – The World Factbook. 2008. Central Intelligence Agency. 18 Feb. 2009. <https://www.cia.gov/library/publications/the-world-factbook/>

Carnoy, Martin. "Structural adjustment and the changing face of education." *International Labour Review*, vol. 134, no. 6, (1995), pp. 653-673

Collier, Paul, and Jan W. Gunning. "The IMF's Role in Structural Adjustment." *The Economic Journal* 109 (1999).

Cornia, Giovanni Andrea, Richard Jolly, and Frances Stewart. *Adjustment with a human face*, vol. 1. Oxford: Clarendon Press, 1987

Cornia, Giovanni Andrea, Richard Jolly, and Frances Stewart. *Adjustment with a human face*, vol. 2. Oxford: Clarendon Press, 1988

Cutler, David M., et al. "Financial crisis, health outcomes and ageing: Mexico in the 1980s and 1990s." *Journal of Public Economics*, no. 84, (2002), pp. 279-303.

Feldstein, Martin "Refocusing the IMF." *Foreign Affairs*, (March/April 1998).

Figueroa, Leonel. "Economic Adjustment and Development in Peru: Towards an Alternative Policy." *Adjustment with a human face.* Ed. Giovanni Cornia, Richard Jolly, and Frances Stewart. Oxford: Clarendon Press, 1988. pp 156-183.

Fry, Gerald W. "The Evolution of Educational Reform in Thailand." Paper presented at the second international forum on education reform: Key factors in effective implementation. Bangkok, Thailand: 2002.

Gaudart, Hyacinth. "English Language Teaching in Malaysia: A Historical Account." *The English Teacher*, vol. xvi, (1987).

Hashim, Rosnani. *Educational Dualism in Malaysia: Implications for Theory and Practice.* New York: Oxford University Press, 1996.

Heyneman, S.P. "The history and problems in the making of education policy at the World Bank 1960-200." *International Journal of Educational Development* 23 (2003): 315-37.

Hodd, Michael. "Africa, the IMF and the World Bank." *African Affairs*, vol. 86, no. 344, (Jul., 1987), pp. 331-342.

Hooker, Virginia Matheson. *A Short History of Malaysia: Linking East and West.* Australia: Allen & Unwin, 2003.

International Bureau of Education. United Nations Educational, Scientific, and Cultural Organization. 12 Jan. 2009. <www.ibe.unesco.org>

International Monetary Fund. 2008. International Monetary Fund. 8 Oct. 2008. <http://www.imf.org/>

Kakwani, Nanak, Elena, Makonnen, and Jacques Van der Gaag. "Structural adjustment and living conditions in developing countries." *PRE Working Paper WPS 407*, (1990). Washington, DC, World Bank.

Kapur, Devesh. "The IMF: A cure or a curse?" *Foreign Policy*, vol. 111, (Summer 1998), pp. 114-130.

Kuppusamy, Baradan. "Facing Malaysia's Racial Issues." *Time.* 26 Nov. 2007.

Laohavichien, Uthai. "The Problems and Prospects of Public Administration Education in Thailand." *Asian Journal of Public Administration*, (1984), pp. 46-60.

Macedo, Roberto. "Brazilian Children and the Economic Crisis: The Evidence from the State of Sao Paulo." *Adjustment with a human face.* Ed. Giovanni Cornia, Richard Jolly, and Frances Stewart. Oxford: Clarendon Press, 1988. pp 28-56.

"Malaysia." United Nations Educational, Scientific, and Cultural Organization. *World Data on Education.* 6th ed., 2006.

Meltzer, Allan H. "Asian problem and the IMF." *Cato Journal*, vol. 17, no. 3, (Winter 1998): 267. Academic Search Premier. EBSCO. University of Oregon Knight Library, Eugene, OR.16 July 2008.

Mertens, L., and PJ Richards. "Recession and employment in Mexico." *International Labour Review*, vol. 126, no. 2, (Mar.-Apr. 1987), pp. 229-243.

Punyaratabandhu-Bhakdi, Suchitra. "Thailand in 1982: General Arthit Takes Center Stage."*Asian Survey*, vol. 23, no.2, A Survey of Asia in 1982: Part II, (Feb., 1983), pp. 172-177.

Raczynski, Dagmar. "Social Policy, Poverty, and Vulnerable Groups: Children in Chile." *Adjustment with a human face.* Ed. Giovanni Cornia, Richard Jolly, and Frances Stewart. Oxford: Clarendon Press, 1988. pp 57-92.

Radelet, Steven, Jeffrey Sachs, Richard Cooper, and Barry Bosworth. "The East Asian Financial Crisis: Diagnosis, Remedies, Prospects." *Brookings Papers on Economic Activity*, vol. 1998, no. 1, (1998), pp. 1-90.

"School Life Expectancy." United Nations Educational, Scientific and Cultural Organization. 6 Nov. 2008. <http://www.uis.unesco.org/i_pages/indspec/tecspe_sle.htm>

Thailand. Ministry of Education. *National Education System Chart.* 12 Jan. 2009. <www.moe.gov.my>

"The Education Act of 1999." Thailand. Office of the Educational Council. *Education in Thailand 2000/2001.* Bangkok: 2000.

World Bank. 2008. The World Bank Group. 8 Oct. 2008. <http://www.worldbank.org/>

Wyatt, David K. *The Politics of Reform in Thailand.* New Haven: Yale University Press, 1969.