

The Expansion and Organization of Higher Education in Asia:
A Comparative and Longitudinal Study, 1950 - Present

CHEUNG, Ho Yan Yannie

A Thesis Submitted in Partial Fulfilment
of the Requirements for the Degree of
Doctor of Philosophy
in
Sociology

The Chinese University of Hong Kong
November 2012

Abstract of thesis entitled:

The Expansion and Organization of Higher Education in Asia: A Comparative and Longitudinal Study, 1950 – Present

Submitted by CHEUNG, Ho Yan Yannie

for the degree of Doctor of Philosophy

at The Chinese University of Hong Kong in November 2012

ABSTRACT

This study explores the relationship between national expansion of higher education and the international system. It examines the process through which countries expand higher education enrollments and reorganize goals of national higher education.

The theoretical framework of this study draws on the world culture/society theory, one of the strands from the new institutionalist perspective. Based on universalized ideas about the value of national progress and individual development, countries organize their national higher education enrollments and goals with reference to exemplary templates of world educational ideologies independent of local conditions.

In this study, both comparative and longitudinal methods are employed to conduct quantitative and qualitative analyses. The findings suggest that world-wide higher education enrollments have expanded consistently over time. Widened openings to higher education have transformed traditional classification of gender partition, knowledge categories, and program intensity. A new organization of knowledge creation and transmission is emerging with an increasing number of women, a progressive rise of social sciences, and a rapid expansion of undergraduate programs in world higher education.

The study further investigates regional variations in higher education expansion. By regional comparison, the expansion in Asia displays a consistent world pattern that is not associated with national characteristics and educational hegemony.

The expansion of higher education is elaborated in greater detail through a specific case. The findings suggest that the case of Hong Kong has moved towards a more “national” framed orientation that puts more emphasis on fulfilling the needs of

human capital storage or satisfying demands from various competing social constituencies within Hong Kong society. But through a cross-national comparison of Hong Kong and some other Asian societies, the reorganized goals of Hong Kong's higher education are also homogenous to a "model" that emphasizes economic efficiency, social betterment, and individual development. The results indicate local or national responses to the legitimated institutional rules and conventions embedded in the increasingly transnational environment. The case-based investigation into the reorganization of higher education discourses further explicates the central role that formal statement of goals play in shaping the expansion of an active and participatory model of citizenship building in Hong Kong.

撮 要

亞洲社會的高等教育膨脹與組織：比較及縱貫研究

(1950 年至現時)

本研究探討國家高等教育與國際社會體系之關係。透過比較各國高等教育的入學情況及教育目標，檢視國家高等教育組織制度化的過程。

本研究的理論框架建基於新制度主義之中的世界文化/社會理論。該理論提出即使各國內在社會發展狀況有所不同，高等教育組織模式都以國際盛行的教育意識形態為參考藍本。透過審視高等教育膨脹的世界性社會現象，本研究闡釋跨國環境之內嵌存一套價值、標準及常規，促使現代社會的發展藍本趨向同一化的表述模式。

本研究採用比較及縱貫研究方法，進行量性及質性數據分析。量性研究結果顯示，全世界高等教育入學率有三方面持續性增長：女性參與增多，社會科學學科亦有擴展，與及本科課程急速膨脹。研究結果反映入學增長的趨勢為全世界高等教育帶來組織性的改變，例如傳統高等教育的性別差異、知識組合及課程層級。本研究多變量分析結果顯示，二次大戰後的亞洲社會也有同樣趨勢，但國內發展需要及國外教育霸權主義並非亞洲地區內高等教育急速膨脹的主要因素。為了更深入探討高等教育的膨脹與組織，研究以香港社會的高等教育發展作個案分析。個案文本分析結果顯示，回歸中國以後，香港的高等教育目標包含更多對本土關注的內容，當中不乏經濟增長及社會改進的功能性規範，同時也強調現代社會對個人發展的集體想像。文本分析進一步比較香港的高等教育改革文本與其他亞洲社會的高等教育目標，結果顯示亞洲社會的高等教育改革論述愈來愈相近的趨勢。由此可見，高等教育論述的轉變，並非香港社會獨有的現象。透過比較文本分析，亞洲社會的高等教育論述說明一種強調主動參與建構公民實體的跨國價值，漸漸體現於高等教育目標的更替之間。因此，高等教育改革不僅有著推動本土社會改進的功能，高等教育亦可被視為本土或國家向跨界域、跨國意識形態作出回應的集體構想。

ACKNOWLEDGEMENTS

Many people have contributed to the development and completion of this research. One of those to whom I am deeply indebted is Professor Suk-Ying Wong, my thesis supervisor. Not only did she help develop the basic framework of the research, but also she provided resources to enable the study. Her access to the data set of the Stanford Comparative Institution Seminar Team has made this comparative and longitudinal study possible. Without her support, I could not have completed this dissertation. I am most grateful to her guidance that she has greatly expanded my theoretical horizon across many issues in the fields of sociology of education and organizations. Her encouragement and patience have made my graduate study fruitful and enjoyable.

I am also grateful to other members of the Thesis/Assessment Committee. I would like to express my gratitude to Professor Tony Tam, Chairperson of the Committee. The study has benefited substantially from Professor Tam's advice since its earliest development. His discerning questions constantly pointed me to make reflections on the theoretical focus and methodological formulation of this study. I would like to extend my gratitude to Professor Kwok-fai Ting, Member of the Committee. I am grateful to Professor Ting for his questions and comments that enhance the articulation of the study to existing theoretical perspectives. I would like to express my gratitude to Professor Alvin Y. So, External Examiner of the Committee. I am grateful to Professor So for his comments and suggestions that help enrich the theoretical relevance of this study to policy making and practice. I would also like to express my gratitude to former committee members, Professor Lin Tao and Professor Doo Hwan Kim, who gave comments to the research proposal of this study.

I would like to express my gratitude to the Stanford Comparative Institution Seminar Team (SCIST) that gave permission to use the comparative and longitudinal data. The SCIST data set made the analysis of the present study possible and its data structure helped the present study to house the most recent time points across nations.

Data collection is frequently a major challenge to cross-national studies. It was made less challenging with the advice from many local and overseas higher education specialists and librarians. Their assistance made my data collection smooth and fruitful. I would like to express my gratitude to Dr. Molly N. N. Lee, Asia-Pacific Programme of Educational Programme for Development, UNESCO. With her kind referral, I could then proceed effectively to locate world data organized by the UNESCO Institute for Statistics (UIS). I would like to express my gratitude to Ms. Chiao-Ling Chien, Assistant Programme Specialist (Regional Unit I), UIS, for

her assistance to download the UNESCO world enrolment information. I would like to extend my thanks to Mr. Nick Mulhern, Librarian of the Association of Commonwealth Universities, for his advice to identify world membership information from local libraries. I would also like to express my thanks to Miss Alice Wong, Executive Officer (Administration) of the University Grants Committee Secretariat, Hong Kong, for her help to retrieve archive information. I would like to extend my thanks to the librarians at the Chinese University Hong Kong (CUHK) and those at the Main Library of the University of Hong Kong.

I would like to dedicate a note of thanks to those who have provided administrative support to my graduate study at the Department of Sociology, CUHK. My special thanks are dedicated to Claudia Chan, Grace Wong, and May Lo for reminding the important procedures and maintaining my graduate study profile. I am grateful to John Wong and Fion Ng for their technical support to data mining and processing of the study.

I am very grateful to two friends who took time from their packed schedules to read my drafts. My deepest gratitude is dedicated to Andrew Lui who has reviewed every draft of the dissertation. I am most grateful to his constructive suggestions that enhance the clarity of the arguments. My warmest appreciation is devoted to Gigi Lui. I am grateful that she helped review the earlier drafts and introduced many methods to broaden my writing capabilities.

Many friends gave huge support to my graduate study. I would like to express my gratitude to Yuen Kit Chow who helped retrieve world enrollment information that could only be found in the National Library of Australia. Special thanks go to Fai Choi who has shown tremendous moral support to my graduate study. I am thankful that she has been walking with me through prayers. I would never forget her short and powerful note of encouragement: “Concentrate and write!” I am thankful to C.K. and Vincent Chiu who offered me a nice environment to write during my short stay in Sydney. I am grateful that the Lui family offered a pleasant place for me to think and write in solitude. My special thanks are devoted to Kwong Yee Shun for her help to provide many practical solutions to challenges I met in my graduate work. I am grateful that she is always ready to listen and never hesitates to share comforting words. My thanks are devoted to the Lee family for offering awesome meals to slow down my pace. I would like to thank Brigitte Ma for her help to my recovery and her enthusiastic support to my work.

My graduate study is a thankful one as many people have been shepherding me through life’s challenges. My thanks are devoted to Rev. Yu, Mrs. Tsang, and Pastor Gladys of the C. C. C. Hop Yat Church (H. K. Church). I would like to express my thankfulness to Dr. Terina Khoo for her encouragement that helps me persevere in prayers and God’s word. I am grateful to Lilee Tan for her cheerful reminder: “Enjoy

the dissertation!” My special thanks are dedicated to the ladies at the Bible Study Fellowship for their prayers and encouraging words that help me focus on seeking God for provisions and guidance. I am thankful to have fellowship time with brothers and sisters in Christ at the Department. I am very grateful to Professor Tony Tam and Dr. Ly-yun Chang for their prayers and encouragement that bring my attention to wait upon the LORD and put my trust in Him. I am thankful to study God’s word with Grace Wong, Victor Shin, Tsz-ming Or, Ka Man Lee, and Gigi Lo during lunch time. My thanks are given to them for their prayer support and encouraging words.

Through their effective organization of medical treatment and support, I may gain a smooth recovery and continue my research. My deepest gratitude is dedicated to Dr. Bonita Angela Ka Bo Law. I would like to express my gratitude to Professor Winnie Yeo, Department of Clinical Oncology, CUHK. I would also like to extend my thanks to medical practitioners of the Prince of Wales Hospital and Gloria Chan and Connie Wong of the Cancer Patient Resource Centre.

I am most grateful to my family. Their love covers me over all challenges. My deepest gratitude must be dedicated to my parents, Ding Hung and Fung Sin Cheung. I am very grateful to their support and consideration. With their patience and encouragement, I may have the privilege to devote most of my time and energy to the dissertation for eighteen months. I am thankful to my mother who prepares nourishing meals that comfort my soul and mind. I am also thankful to my father who ensures things function properly so that I may concentrate on writing the dissertation. My warmest appreciation is devoted to my brother Eric and sister-in-law Stephanie who gave many encouraging words and shared family responsibilities. I would like to express my gratitude to Aunt Ching Ki and Man Ki for their encouraging words. My special thanks are devoted to cousin Gigi and her family. Her family always fills me with joy and laughter. I am thankful to Aunt Yvonne who gave timely provisions to sustain my full-time writing. I would like to express my thanks to cousin Samuel and Bryan who have shown enormous support to my graduate study.

While preparing this note of acknowledge, I am amazed how people and provisions have rained down to shape my graduate work. I am also amazed how all things work together in every step. I am thankful to God who carries me through.

TABLE OF CONTENTS

	Page
ABSTRACT	i
ACKNOWLEDGMENTS	iv
LIST OF TABLES.....	ix
LIST OF FIGURES.....	xi
 <u>Chapter</u>	
1. INTRODUCTION.....	1
Notes.....	7
 2. THEORETICAL APPROACHES TO MODELS OF ORGANIZATIONAL EXPANSION IN HIGHER EDUCATION.....	 8
A. Introduction.....	8
B. The World Culture/ World Society Perspectives.....	8
C. Mainstream Theoretical Approaches.....	14
The Normative Realist Approach.....	15
The Social Differentiation Realist Approach.....	18
Some Recent Realist Approaches (I): Rational Choice Theory.....	21
Some Recent Realist Approaches (II): Post-nationalist Approach..	23
D. Summary of the Theoretical Approaches and Their Implications.....	25
 3. RESEARCH DESIGN, MEASUREMENT, AND DATA SOURCES... ..	 28
A. Units of Analysis.....	28
B. Variables: Measurement and Indicators.....	28
C. Data: Sources and Characteristics.....	36
D. Analysis.....	37
 4. THE EXPANSION AND ORGANIZATION OF HIGHER EDUCATION: 1950-2007.....	 41
A. Introduction.....	41
B. The General Trend.....	42
C. National Consistency Over Time.....	56
D. Regional Variations.....	62
E. Summary and Its Implications.....	68
 5. REGIONAL ANALYSIS OF HIGHER EDUCATION EXPANSION IN ASIA: 1950-2007.....	 71
A. Introduction.....	71
B. Multiple Regression Analyses of Higher Education Expansion in Asia: 1950-2007.....	 71
C. Results and Discussion.....	77
D. Empirical Notes and Concluding Remarks.....	88
Notes.....	91
 6. BORROW FROM THE WORLD AND DRESS UP THE SHOWCASE FOR ASIA: A CASE OF THE EXPANSION AND ORGANIZATION OF HIGHER EDUCATION IN HONG KONG.....	 92
A. Introduction.....	92

B. A Case of Higher Education in Hong Kong.....	93
C. Reforms as Collective Projects of Individual Competence and National Development.....	95
D. Portraits of Higher Education as a Normative Good around Asia.....	102
E. Decreasing Emphasis on National Needs as the Normative Focus of Goals.....	111
F. Borrowing World Prerequisites and Making Distinct and Significant Presence in the Region.....	120
G. Mobilizing Individuals into the Collective Project of Transnationalism.....	124
H. World Knowledge Revolution Celebrating Schooled Personhood....	127
I. Conclusion.....	140
Notes.....	143
7. CONCLUSION.....	144
A. Summary.....	144
B. Concluding Remarks.....	146
C. Theoretical Implications for Policy Making and Practice.....	148
D. Limitations of the Study and Suggestions for Further Research.....	150
APPENDICES	
I. Data Set (x) for Periods 1 (1998-2001), 2 (2002-2005), and 3 (2006-2009).....	153
II. Country Coding for the Prevalence of Islamic Ethics and Confucian Traditions in Asia.....	154
III. Typology of World Regions.....	155
IV. List of Data Sources for the Dependent and Independent Variables...	156
V. Higher Education Enrollments in Hong Kong, Women and Men, 1970 – 2009.....	159
VI. Country List of Most Frequent Participants in International Education Tests.....	160
VII. Types of Stakeholders Responding to the Higher Education Reform in 2002.....	161
BIBLIOGRAPHY.....	162

LIST OF TABLES

Table	Page	
4.1.1	Enrollments to Higher Education Disciplinary Areas in Recent Periods: Mean Percentages for All Countries for which Data are Available.....	48
4.1.2	The Prevalence of Higher Educational Enrollments in Disciplinary Areas in Recent Periods: Mean Percentages for the 20 – 24 Age Group Populations and Properties for Constant Panels of All Available Countries.....	50
4.1.3	The Prevalence of Higher Educational Enrollments in Disciplinary Areas in Recent Periods: Mean Percentages for the 20 – 24 Age Group Populations and Properties for Constant Panels of All Available Countries, for Women.....	51
4.1.4	The Prevalence of Higher Educational Enrollments in Disciplinary Areas in Recent Periods: Mean Percentages for the 20 – 24 Age Group Populations and Properties for Constant Panels of All Available Countries, for Men.....	52
4.2	Mean Higher Educational Enrollments in Levels of Programs as Percents of the 20-24 Age Group Populations: For All Available Countries, 1998-2009.....	54
4.3	Intercorrelations between Periods of Higher Educational Enrollments in Disciplinary Areas as Percents of the 20 - 24 Age Group Populations: For All Available Countries, All Students, 1998-2009.....	57
4.4	Intercorrelations between Periods of Higher Educational Enrollments in Levels of Program as Percents of the 20 - 24 Age Group Populations: For All Available Countries, 1998-2009.....	58
4.5	Intercorrelations between Periods of Higher Educational Enrollments in Disciplinary Areas as Percents of the 20 - 24 Age Group Populations: For All Available Countries, All Students, Three Different Time Periods.....	60
4.6	Intercorrelations between Periods of Higher Educational Enrollments in Levels of Program as Percents of the 20 - 24 Age Group Populations: For All Available Countries, Three Different Time Periods.....	61
4.7	Mean Higher Education Enrollments as Percents to 20-24 Age Group Populations: For All Available Countries, Separately for World Regions, and for Women and Men 1950-2007.....	64

Table	Page
4.8 Mean Higher Educational Enrollments as Percents of the 20 - 24 Age Group Populations and Colonial Legacy: For All Available Countries, Separately for 1950-2007.....	66
5.1 Summary of the Effects of Independent Variables on Higher Education Enrollments in Asia, Separately for Women and Men in Two Time Periods: 1950-1989 and 1990-2007.....	78
5.2 Summary of the Effects of Independent Variables and the Control Variable (Cultural Attributes of Islam) on Higher Education in Asia, Separately for Women and Men in Two Time Periods: 1950-1989 and 1990-2007.....	83
5.3 Summary of the Effects of Independent Variables and the Control Variable (Cultural Attributes of Confucianism) on Higher Education in Asia, Separately for Women and Men in Two Time Periods: 1950-1989 and 1990-2007.....	85
5.4 Summary of the Effects of Independent Variables and the Control Variable (Colonial Influence) on Higher Education in Asia, Separately for Women and Men in Two Time Periods: 1950-1989 and 1990-2007.....	87
6.1 A Comparison of Goals of Higher Education Reforms in the United Kingdom and Hong Kong.....	98
6.2.1 A Summary of Goals and Visions of Higher Education in Five Asian Societies: Time Period 1985-2001.....	106
6.2.2 A Summary of Goals and Visions of Higher Education in Five Asian Societies: Time Period 2005-2010.....	112
6.3 Prevalence of Asian Countries as Percents of the World Memberships for International Organizations of Higher Education 1950-2012.....	116
6.4 Percentages of Member Compositions to the University Grants Committee in Higher Education Reforms, 2002, 2004, and 2010.....	122
6.5 Mean Percentages of Instructional Time Given to Subjects of the Traditional and New Senior Secondary School Curriculum in Hong Kong.....	136

LIST OF FIGURES

Figure		Page
4.1	Mean Higher Educational Enrollments as Percents of the 20-24 Age Group Populations: For All Available Countries, 1950-2007.....	44
6.1	Trend of Higher Education Enrollment in Hong Kong, 1965-2010....	96
6.2	A Summary of Goals and Visions from the World Declaration on Higher Education for the Twenty-first Century.....	119

Chapter One

Introduction

Since the end of World War II, the development of higher education has become a widespread activity in the world. With the consolidation of nation-states, higher education has emerged to be a national project essential to state development and societal integration. In public debates and discussions, higher education is perceived to have the power to train effective citizens for national transformation. By its authority to creating and transmitting legitimate knowledge, higher education is seen as a modernization project that delivers training and knowledge relevant to skills needed in the workforce. Countries, whether rich or poor, are eager to spend public money or mobilize resources to increase higher education places and diversify categories of knowledge. Whenever there are changes in the national goals for state development, higher education reform is almost always one of the major items on the national agenda. During periods of national crisis such as economic downturns, military failures, social unrests, fading dominance of political influence over a given country, or national audits decrying falling standard of children and young adults, reforming higher education is one of the immediate solutions that reformers look up to. These reactions seem to indicate the assumption that higher education and modern society are technically and functionally relevant to each other. Some critics argue that the technical and functional components have overshadowed purposes and autonomy of higher education (Barnett 2000; Bloom 1987; Etzkowitz, Webster, and Healey 1998; Kirp 2003; Readings 1996). These are prominent interpretations of the central role of higher education in modern society. With all these debates and discussions, empirical fact of higher education as a modern mass culture is however scant. Increasing population coverage and knowledge organizing in higher education are components essential to include as many members into the project of modernity and to create an active and participatory citizenry for social progress and individual development. Thus, description and exploration of the actual organization of enrollments and knowledge deserves a comprehensive investigation.

In order to explore the empirical fact of the organization of higher education, the normative realist and cultural idealist models of higher education are two theoretical approaches that the present study will address. In order to further our understanding

of the value and meaning of higher education expansion as a human capital powerhouse, status musical chairs, or shared dream, some questions are to be raised: What are the trends and patterns of higher education enrollments in different countries? How common or widespread are the countries engaged in higher education expansion? When did the countries start to expand openings to higher education? How do countries differ in the ways they have revised the goals of higher education over time? Questions like these generate basic inquiries to the research study of higher education. The study will give specific focus on investigating theoretical implications for understanding the expansion and organization of higher education through the institutional base of world culture.

The Nature of Expanded and Institutionalized Higher Education

When Alice found Humpty Dumpty sitting on the top of a high wall, she introduced herself by telling him her name. Then Humpty Dumpty asked, ‘What does it mean?’ ‘*Must* a name mean something?’ Alice asked doubtfully. ‘Of course it must,’ Humpty Dumpty said, ‘*my* name means the shape I am – and a good handsome shape it is, too. With a name like yours, you might be any shape, almost.’¹

Perhaps like Alice’s thoughts about naming, higher education is firmly fixed in place that we need not to give a second thought about what it means in order to create and deliver knowledge. In fact, Humpty Dumpty’s response that names should mean something sheds some light to national variations in higher education. Defining by naming, countries vary in the way they name the goals of higher education. In Japan, higher education was presented as an effective means to claim for universal ideals of equal achievement, educational effectiveness, social integration, and individual development in the seventies of last century. In Uzbekistan, the development of modern higher education system carries the name of building a democratic state and open civil society after the disintegration of the Former Soviet Union in the nineties. In recent years, the Americans gave emphasis to posit her international dominance through building the largest proportion of higher education graduates in the world by the end of next decade. Just to name a few, there are still many more variations to be exemplified across nations. The organization of goals, objectives, visions, groupings of knowledge, and organization of enrollments might appear in any shape.

There has been a consensus that modern higher education has its origin in the

West. The organization of western higher education draws upon the increasing proportion of men and women allocated to disciplinary areas of humanities, social sciences, and natural sciences. Implicitly embedded in the expansion, there is a conferral of individual's right to be part of the project of modernization through knowledge creation and delivery. This logic of confidence and good faith in higher education blends well with the enlightenment ideals central to the western educational legacy. In other non-western countries, organization of higher education enrollments had expanded very little, especially for women before seventies. For countries in world regions of Arabs and Sub-Saharan Africa, openings to higher education were scant. In countries under colonial influence, places to higher education were restrictive. But since the seventies, the growth of enrollments to higher education enrollments has been impressive in almost every nation (Riddle 1989; Schofer and Meyer 2005; Trow 2006).

Modern higher education is perceived as a largely western concept. A country's response to expand higher education enrollments is either a vehement adaptation or fierce resistance simply because of the western origin of higher education. A UNESCO study shows that the development of higher education is an item high on the debate after colonialism in the newly independent nations (Meek, Teichler, and Teichler 2009). Former French and Belgian colonies in Africa have the fastest expanding enrollments after independence. One reason is that these former colonies still held onto the former colonial education and kept close connections with their former metropolitan power (Shabani 2006). Former colonies in the Arabs also built national universities immediately after independence. Rather than making links to their former colonial power, national higher education systems were portrayed as national symbols of independence and collective bases for the promotion of a traditional category of knowledge, such as the "Arabic sciences" across the Islamic countries (Herrera 2006). Women's incorporation to higher education in these Islamic countries also varies. Some of them receive a large proportion of women students in higher education. An example is Malaysia which has an impressively high enrollment of women to engineering schools. There have been scant studies conducted to inquire into these issues.

Higher education is a highly developed institution that operates under a category of rules authorizing public allocation of personnel and classification of knowledge. Focusing mainly on educational organizations as complex bureaucracies coordinated

by political systems in just the same ways as most technical or production systems in modern society has left many unexplored implications for organization theory and research. Specifically, as nations grow, the rules and roles of educational organizations have to be highly controlled, standardized, and coordinated as to sort and allocate citizens into the highly stratified statuses of the political, economic and societal systems. Within the context of state formation and nation building, educational bureaucracies have emerged into agents creating and defining types of authoritative knowledge and categories of standardized personnel in modern societies. All these types and categories are labels that get attached to individuals on the basis of their credentialed education background (Meyer 1977). Through ceremonies of affixing particular labels to individuals, all these standardizations take on “a rulelike status” that are institutionalized in conventions, norms and ideologies of the wider society (Meyer and Rowan 1977:341). They become essential components for organizing higher education in order to gain domestic support and to seek international approval.

With these assumptions, this study aims to advance theoretical understanding of the relationship between national higher education expansion and the international system. The new institutionalist perspective is the guiding framework of this study. Based on universally shared ideals about national progress and individual development, countries organize their national higher education enrollments and goals with reference to exemplary templates of world educational ideologies.

There have been plenty of case studies on national higher education systems delineating particular origins and processes within specific countries, but little has been explored about the trend of expansion in the international and regional domains. Especially, the study attempts to explore the significance of world culture to the expansion of higher education. Cross-national data serves as an exercise to investigate the patterns that world-wide higher education has been shifting toward. Thus, the study analyzes comparative information from a large number of countries over time. The primary source of data contains enrollment figures from 182 countries over the period 1950-2009. A case study of higher education reforms in Hong Kong serves to illustrate the processes and mechanisms of change and to examine the extent of consistency with the results of the cross-national analysis while exploring a single context in detail. A combination of quantitative and qualitative techniques is employed to examine changing organization of higher education. Advantages of

using mixed methods are to confirm consistency in findings, put the results into context, and compensate the biases of only focusing on a single kind of data.

In the light of the orientation of this study, the following chapters further investigate theoretical implications for understanding the underlying forces of higher education expansion and organization in the context of a wider institutional environment.

Chapter Two describes some major theoretical perspectives concerning the relationship between higher education and society, and outlines their implications for understanding the expansion and organization of higher education. Noting the inadequacy and narrowness of scope of these perspectives in explaining higher education expansion, the chapter proceeds to offer an alternative approach to examine the organization of modern higher education. The major focus in this chapter is to examine the extent to which the organization of higher education is a reflection of a world cultural model and how the value of “model” higher education penetrates and shapes national goals of creating a trained and professional mass.

Chapter Three presents an account of the research design of the study. This includes assumptions of the units of analysis and the measurement of dependent and independent variables. It further describes the sources and characteristics of the data. Methodological techniques that are employed in the study are explained.

Chapter Four traces the expansion and organization of higher education since the end of World War II, showing when and where higher education in the world began to take off. The chapter also presents the organization of higher education enrollments by gender compositions, disciplinary areas, and program levels. The purpose of this chapter is to examine whether the organizational patterns of higher education enrollments reflects a worldwide convergence of institutional rules and ideology that are embedded in the international environment.

Chapter Five investigates some basic findings from the previous chapters by employing a multivariate statistical technique. Hypotheses that are generated from the conceptual framework are tested. This chapter focuses on two major research issues with a specific focus on the region of Asia: (1) the relationship between the extent of national variations in the overall enrollments and some national characteristics, and (2) the underlying forces that determine the expansion and organization of higher education. The analysis is cross-sectional in nature covering two time periods: 1950-1989 and 1990-2007.

Chapter Six illustrates discourses on the expansion and organization of higher education with a case. The case study sheds light on how the findings in the international context are operating in the actual and particular political, economic, and regional conditions. The case study further exemplifies comparative information from several societies and world cultural agents to enrich the studies of higher education as organizations.

Chapter Seven summarizes findings of the research study and assesses their addition to our understanding of the expansion and organization of higher education. Potential implications of the findings and directions for future research are discussed.

NOTES

¹ A conversation between Alice and Humpty Dumpty, paraphrased from “Chapter Six Humpty Dumpty” in Lewis Carroll’s *Through the Looking-Glass and What Alice Found There* ([1871]1993:201).

Chapter Two

Theoretical Approaches to Models of Organizational Expansion in Higher Education

A. Introduction

Expansion of higher education throughout the world since World War II has been strikingly rapid. Many schools of thought have generated sociological theories to understand the expansion of education in modern society. These lines of arguments provide a theoretical foundation to further study the organizational expansion of higher education.

The purpose of this chapter is to review existing sociological theories that pertain diversified emphases on the theoretical explanations to educational expansion. The present study conceptualizes these theorists into two major approaches: the realist and idealist. Theories from the realist approach give special attention to the structural characteristics of education. Contrary to the realist, theories from the idealist approach give emphasis on the significance of values and meanings to organizational expansion. Through the discussion of these two distinct approaches, the present chapter may enhance our theoretical understanding in the ways that countries simultaneously expand their national higher education in a comparative context.

While purporting to explain the simultaneous expansion among countries, little coherent theories have been formulated to address the relationship between regional characteristics of the countries and the organizational expansion. The present chapter will explore a regional dimension through theories of hegemonic influence across regions.

The chapter will then proceed to propose guiding proportions to the study of organizational expansion in higher education from the theoretical implications of idealist and realist approaches.

B. The World Culture/ World Society Perspectives: An Idealist Approach to Models of Organizational Expansion in Higher Education

The idealist theorists emphasize the ideological and cultural bases of the world societies (Meyer and Hannan 1979; Meyer 1980; Meyer et al. 1997). On the contrary, theories of the realist approach perceive educational system as a network of organization interactions. Following this theoretical tradition of the realists,

educational research agenda tends to focus on the effects of higher education on individuals' attainment and achievement. Differential access to education, structure of knowledge, and the local and state authority over education are topics central to the study of higher education as an organization. Although the linkages between the organizations are formulated and specified, tracing the linkages to their broader societal context is often difficult since there are many possible paths which causally link other societal institutions with the higher educational system. Little attention has been given to the ways that education would emerge and interact with other social organization and become institutionalized in the broader societal context.

For the world culture/society theorists, educational expansion has its source from norms, rules, and conventions that prevail in the world order. This chapter examines the idealist approach with a focus on the arguments of the world cultural/society perspective, one of the strands from the new institutionalist theory. This perspective provides a school of thought explaining the social construction of mass culture in modern societies which offers major implications for this study.

Higher Education as an Institution

According to the world culture/society theorists, higher education is a collective project of citizenship building in modern society. Expansion of enrollments and emergence of a new knowledge domain do not isolate from the broader societal context. Changes in student compositions and groupings of knowledge often involve social constituencies from all levels in society. The source of the allocating power of higher education comes from the larger society rather than originates from within a specific institution. The higher education system is then "chartered" to perform the allocating role and mandated to confer on students as its charter, defined as "the agreed upon social definition of its products" (Meyer 1970). College or university students also change to conform to their future roles defined by the charter. Once social reality is created, people come to expect it to continue. They forget that they created it and could make changes when social reality becomes institutionalized as described by Berger and Luckmann (1966). This social definition of reality offers a possibility that actors and their actions in modern society are highly structured by institutional rules.

In this light of the theory of institutionalization, educational systems are modeled distinctively from technical and productive organizations managed by economic

entities or large bureaucracies operated by national polities. Specifically, the roles and rules of educational organizations have to be organized in a highly standardized and legitimized way which is based on the expansion of nation-states in order to integrate distinct groups of people into a standardized citizenry of a highly differentiated and stratified modern society. As a consequence, educational organizations take on control over ritual classifications (Meyer 1977) of levels of education, types of credentials, topics of curricula, and roles and responsibilities of teachers and students. All these standardizations are essential for the legitimacy of higher education because they are institutionalized in the rules, norms, and ideology of the broader society.

In modern societies, higher education has an all-embracing cultural meaning. Highly legitimized by the world institutional order, the cultural form of higher education contains a set of taken-for-granted rules and conventions as a means to achieve the collective goals of progress and justice (Meyer, Boli, and Thomas 1987; Meyer et al. 2006). The institutionalization theory treats actors and their actions as social entities to be created and legitimated by the institutional structure of society. The perspective provides an important implication for the expansion and organization of higher education.

Incorporation of Individuals into a Secularized and Universalized World Order

For the world culture/society theorists, higher education expands to include all walks of citizens into the collective project relevant to social and individual development. In the age of Enlightenment, social life was reconstituted as a rational and purposive project devoted to achieving new secular goals of social development and human equality when a new institutional framework emerged (Nisbet 1980). Central to these institutional frames is the incorporation of individual members into political regimes of sovereignty and loyalty or economic loci of production and consumption in modern societies. Such frames generate a demand for individuals to be autonomous and competent members who are rational, purposive, and empowered to act in the new universalized system (Meyer 1980). The individual membership fashions the development of nationalized education in a way that mass schooling and higher education systems are testing grounds of nationalism or promoters of national projects (Gellner 1983; Smith 1998; Thomas et al. 1987). The success or failure in national development depends upon the state's capabilities to root these collective

goals of progress and justice in the new knowledge systems (Ramirez and Boli 1987; Schofer 2003; Toulmin 1989).

Modern societies around the world show remarkable similarities in mass schooling and higher education systems and increasingly so over time. The distinct status given to graduates is indicated by the topics, fields, and credentials of higher education. Women's increasing participation and the rise of social sciences have recently received more emphasis in higher education enrollment and content (Frank and Gabler 2006; Ramirez and Wotipka 2001). Thus, the institutionally differentiated categories of certified individuals were mobilized in the ideological accounts emphasizing full individual competence and social progress (Fiala and Gordon-Lanford 1987).

The Expansion of the Authority and Responsibility of Nation-States

The world culture/society perspective argues that higher education expands as the authority, responsibility, and sovereignty of the nation-state system increase. The rational purposive model emerged to be a new image of the construction of society emphasizing economic, political, and cultural individualism as the colonial regimes declined and the nation-state system further consolidated. Nation-states of old and new made almost simultaneous responses to the emerging institutional culture and standard sets of institutional forms that specified "proper" attributes of a modern nation (Grew 1984; Ramirez and Boli 1987) and pressed a society to mobilize for progress and to compete for success in the broader intra-national polity. Therefore, the state conferred economic, political and cultural rights and statuses on the individual members and prescribes responsibilities to the individuals to take part in the state-centered development for national modernization (Almond and Verba [1963] 1989; Bendix 1964; Marshall 1964). Thus, creating and defining a citizenry of certified individuals for nation-building remained the most prominent goal of the state.

Higher education has become rudimentary mechanism for creating certified individuals. It prepares individuals for their future roles defined by the "charter" coming from the larger society. Although higher education organization maintains little short term effect on individuals' values and attitudes, the schooled individuals do change once they are in their future social and economic roles through "lagged socialization" (Meyer 1970, 1977). A main objective of an educational system is to

incorporate all certified and non-certified individuals into the national polity. Higher education is far from simply a functional reality of providing specialized training. It is a set of institutional rules and conventions that reflect the uniform authority, responsibility, and sovereignty of the increasingly expanding nation-state. A major goal of a higher educational system is to expand its “governmentality” on the individual and societal level (Foucault 1991) that are collectively organized and culturally imagined (Anderson 1983) in the most universal assumptions of the world. Most important to the state is to authorize a unified knowledge system supported by distinctive charters to construct attachments to “a common set of purposes, symbols, and assumptions about proper conduct in the social arenas” (Boli, Ramirez, and Meyer 1985:159).

Attachments to the Ideologies and Institutional Rules in the Modern World Polity

Expansion of higher education is a collective project extending beyond national boundaries. The centrality of the world culture/society argument lies in the extensive dimension of culturally rationalized rules and conventions that are “exogenous to any given society, located not only in individual or elite sentiments, but also in many world institutions” (Meyer 1980:117).

Some empirical facts support this school of thought. Almost every child receives basic education that is similar in goals and objectives, school class structure, expenditure patterns, and pedagogic emphasis (Bromley, Meyer, and Ramirez 2011b; Fiala and Gordon-Lanford 1987; Inkeles and Sirowy 1983). Most countries have increasingly schooled young individuals to higher education which also shows similar patterns in population coverage and cultural content (Bradley and Ramirez 1996; Frank and Gabler 2006; Riddle 1993). In such a case, educational expansion is a cosmopolitan and universalistic phenomenon.

From this perspective, educational expansion is articulated worldwide in the context of standard visions and universalized ideologies about the value of development and progress as well as the legitimating power of education in presenting a “model” image of the modern state and society. Nearly all countries expand higher education irrespective of the economic, political, and social development (Meyer et al. 1977). In response to the world order, decision makers pattern their nation-state systems after the authoritative and exemplary standards. That influences the internal organization of a variety of institutions and practices,

such as medical health practices, citizenship rights and responsibilities, or educational expansion. A major concern for these states is to project a proper image of “nation-state” and then to receive internal and external recognition in the increasingly integrated world system. Therefore, it is not surprising to anticipate the higher education goals of the new countries will look like the prevailing models in the broader institutional environments (DiMaggio and Powell 1983).

Early studies of higher educational expansion were frequently confined to evaluate these theoretical arguments in a particular country (Flexner 1930; Zeldin 1967) or a set of countries leading to rapid growth (Ben-David and Zloczower 1962) in a particular time point. In recent years, some studies have begun to investigate the education system using a historical approach that examines the origin and evolution of education ideas and inventions through historical time. These theorists examine the role of a country’s cultural milieu in the formation of a standardized schooling system (Kaestle 1973, 1983) and the evolution of universities from training grounds for the elites into knowledge transmission for the masses (Kerr 1991, 1994; Soares 1999). These cases studies enabled educational policy makers to trace the educational effects on particular countries as well as to borrow these new ideas for educational reforms. Such policy orientation promotes comparative studies of educational expansion. For example, when Asian school children scored high in international reading, writing and arithmetic tests in the 1990s, the Americans’ immediate reaction was to call for reform campaigns to make higher education for all to national reform agenda and to look up useful reference from Asia. Pan-Asia economic success has stimulated a large number of studies suggesting advantages of Asian curricula and pedagogies. While existing research tends to emphasize how education affects national improvement and individual empowerment, the ways that countries adopting While existing research tends to emphasize specific features of a single country or region, how the countries or regions adopt a particular model of higher education remains unexplored.

Colonial Legacy and Post-Independence Patterning

Colonial experience could have affected the model of higher education to be adopted by the former colonies after independence. An additional dimension that merits the attention of this study is the argument offered by some neocolonialism perspectives. These theorists argue that most colonial countries adopted the model of

the educational systems of the colonial sovereigns. After the breakdown of colonial empires, newly independent countries preserve the colonial educational systems, maintaining ties with the former colonizers (Altbach 1998, 2007a). But, as the world society consolidated recently, this study expects that the patterns of population coverage and knowledge categories will become more homogenous and institutionalized in national higher education systems all over the world.

Shifting Centers of Educational Reference

Models of higher education expansion could have replaced one another as the ideological reference for education shifts. After World War II, the United States and the former Soviet Union emerged as the major powers in the world order. The United States emerged to dominate in both the economic and political realms in the world order. The American image projected to be the world's exemplary reference for national development which appeared to be particularly appealing to emerging nation-states. International relations theorists and political economists refer this period as "a rise of American hegemony" (Kennedy 1989; Keohane 1982; Gilpin 2002) or an age of "soft power" (Nye 1990, 2004). Some macro-critical theorists call it an age of cultural imperialism (Carnoy 1974; Mazrui 1975; Woodhouse 1987). Accordingly, these theorists predict that educational goals and national curricula would predominantly reflect American values and ideologies as the countries expand their higher education systems. Empirical evidence for this prediction is scant despite the cultural imperialists' attempts to substantiate the spread of western hegemony or soft power through the expansion of higher education. In order to evaluate the extent of hegemonic effects through higher education expansion, it requires some vigorous cross-national and longitudinal analysis on some major components of higher education system, such as the enrollment composition, knowledge categories, and pedagogical practices. A consistent pattern of change for these three components over time will reflect a shifting focus of most exemplary educational reference among the countries.

C. Mainstream Theoretical Approaches: The Realist Models of Organizational Expansion in Higher Education

While the world culture/society perspective emphasizes the idealistic and cultural bases of the world societies, the realist approaches attribute higher education

expansion to the functional aspects of the nation-state system or power dimensions of the world network of social class. The present chapter examines the normative realist, social differential realist, rational choice, and post-nationalist theories that include traditional and recent approaches to study the realist aspect of educational expansion.

The Normative Realist Approach

The normative theories that attempt to explain the societal role of higher educational expansion have mostly drawn on the concept of modern functionalism. Education systems are organized to satisfy societal criterion for manpower and to allocate individuals to the specific roles essential to a society that is increasingly diversified. The major function of education is socialization through which children are trained to satisfy the demands and fulfill the norms of society (Durkheim [1922] 1956). Modern educational settings, such as the school, function to train children to be committed to the broad values of society and competent to perform specific adult roles in society (Dreeben 1968; Parsons 1959).

For the normative realists, changes in educational system are largely associated to the emergence of a new social order. Transforming and expanding the education system becomes necessary to meet the new needs and ideas of society. This lateral social differentiation is the major attribute of modern society which establishes the foundation for one of the major theoretical approaches to national development and educational expansion at all levels. The normative realist on higher education expansion could have the theoretical implication to explore the relationship between rapid increases in enrollments, knowledge categories, and program levels and national development in modern society.

To deduce hypotheses for a comparative empirical study of higher education as the study of structural arrangements from a particular social system within a single country is difficult. Two major contemporary theories of development, modernization theory and human capital theory stimulated further research on the causal linkage between national development and education.

Modernization theorists argue that development is seen as a progressive movement in which societies evolve largely through similar stages and patterns. Manpower is seen as a necessary entity for a society's development. Modernization theorists give attention to the significance of modern attitudes and values to the development of a society. Achievement-motivated values and entrepreneurial spirit

held by individuals in the majority of the population are prerequisites to the development of society (Inkeles and Smith 1974; McClelland 1961). These theorists contend that modern values are social constructs that can be created, planned, and instilled. As a social institution for economic and technological advancement, education system becomes a technical and ideological training ground essential to the spread of modern values.

While sociologists focus on a board-based perspective of individual improvement for national development, economists argue that formation of human capital and individual productivity is a key to economic growth. For human capital theory, a society invests education and training on individuals who will then turn out to be productive workers contributing to economic advancement of society (Becker 1964; Denison 1962; Schultz 1961). Human capital theorists treat workers as “holders of capital” who are capable of generating economic outputs through the knowledge and skills they have acquired from education (Karabel and Halsey 1977:13).

For a society to develop into a modern state, individuals and groups in the society maximize skills and advanced technologies for performing economic roles (Goldin and Katz 2008). For example, higher education gives emphasis to the instruction of logical thinking, analytical reasoning, and specialized knowledge which increase workers’ productivity. Education expansion is basically motivated by calculated needs and its primary societal function rests upon economic benefits. New structure and knowledge domains in higher education emerge to meet the demands of the economy. Thus, provision and expansion of education are seen an investment and a consumption good in modern society.

Theories converging into this line of argument strongly emphasize the internal conditions of societies as major influences on social structure. These internal features include industrialization, urbanization, and agricultural commercialization as progress toward the development of a modern society. Modernization is to enable the participation of its members to acquire higher levels of cognitive capabilities and skills in order to create competent and rational citizens for a complex modern society (Eisenstadt 1986; Lerner 1964; Parsons 1977). Thus, normative realist theorists suggest that the extent of education expansion is affected by the level of modernization of a society. In the case of higher education, which is usually seen as a social institution representing these sets of modern values and attitudes, one would expect more resources and emphases to be placed on this form of education.

The assumption of links between societal levels in the causal model being developed has received most challenges from the critics of modernization theory. Modernization theorists assume that the expanded education has modernization consequences. Schooled persons who acquire modern values, attitudes, and behavior are seen as units adding up to generate socioeconomic development at the societal level. This version of normative realism is criticized for its ideological bias toward *status quo* and ethnocentrism (Fägerlind and Saha 1989) and its absence of how society evolves over time. Some critics argue that this causal inference may not necessarily suffice since a society does not exist as a total of all the individuals within it. Its overemphasis on the relative autonomy of national development poses a major shortcoming to the modernization theory (Gusfield 1967; Portes 1973). Thus, cross-national comparisons at societal level deserve further exploration.

Critics of normative realism challenge the rigidity of its argument in defining the social construction of an integrated knowledge system within a society. According to the normative realist approach, as a society develops, higher education expansion functions as a prerequisite for societal development. The limitation of the perspective is that neither does the theory indicate the source of “proper” form of knowledge system that most countries subscribe to, nor does it account for higher education being expanded in poor countries almost as much as in the rich ones.

For one thing, most nations in the world comprise diversified groups on different social issues, for example ethnic or gender issues. Higher education expansion can be a contesting ground among various social constituencies to compete for their own interest and status. Thus, it is difficult to arrive at a consensus for the needs of society and what type of modern values should be included as higher education goals and curricula. This unresolved question furthers another criticism: How does a specific goal or curriculum get included into the official agenda and gain legitimacy in national higher education? Normative realist theory contends the issue of what should be included. However it has not addressed to what has actually been included and implemented. Higher education evolves and expands over time, in the same way as the organization and ordering of knowledge has been changing (Clark 1983, 1987, 1998; Gumpert 2002). It does not exist as a stagnant unit perceived by the normative realist perspective. Not only does higher education react to national needs, but also it responds to external conditions as countries increasingly integrate themselves to the international system. A line of research have shown that the worldwide expansion of

basic and higher education as a response to national attributes as much as to the standards and culture that are prevalent in the world order (Meyer et al. 1977, Meyer, Ramirez, and Soysal 1992; Frank and Gabler 2006).

Empirical studies have little consensus so far on the effects of education on national development. Some have confirmed positive associations between the extent of education expansion and economic growth (Barro 2001; Psacharopoulos and Woodhall 1985). Further comparisons between levels of education show a lack of consistency between the effects of lower level of education from the higher one. While some found the effects of primary education are stronger than higher education in developing countries (Psacharopoulos 1989), whereas several recent ones demonstrate stronger effects of higher education on economic development than the lower level of education (Carnoy 1998). For one thing, cross-national studies have found the effects of education expansion are weaker than have been predicted by the normative realist theorists (Meyer and Hannan 1979; Windolf 1997). Rather than further investigating into the social function of education for national development, some recent studies focus on the reciprocal effects of education expansion and national development (Schofer and Meyer 2005). Instead, the notion of national economic development as fulfilling the needs for higher education serves a guiding proposition. But the objective of including the notion of national economic development has no intent to measure the actual “economic” strength of a country to the degree of higher education expansion. The notion carries the significance of evaluating the normative realists’ argument for a presence of a relationship between national development and education. In the present study, the concept of “structural inertia” (Hannan and Freeman 1984) helps explore the extent to which higher education expansion is responding to pressure from other organizations, such as economic organization of national development.

The Social Differentiation Realist Approach

Social differentiation theorists pursue a distinctive line of arguments from the normative realist theory. Following the Marxist critique, education is a social control to produce a compliant labor force (Bowles and Gintis 1976; Carnoy and Levin 1985). Different levels of schooling have the social uses to inculcate the norms, values and attitudes of the capitalist class essential to preserving the hierarchical structure and controlling over the spread of revolutionary ideology (Carnoy 1974;

Katz 1968). Education expansion serves to reproduce the existing division of labor and to maintain the hegemony of the dominant class in capitalist societies (Althusser 1971; Bowles 1971).

Another version of social differentiation approach depicts education as a resource and ground for status competition and class conflict. Rather than focusing on the increasing technical needs of the society, the social differentiation theorists argue that education reflects the effects of individuals and groups competing for wealth, status, and power (Bourdieu and Passeron 1977; Collins 1971, 1979; Schneider and Stevenson 1999). Education expansion is a result of competitions among groups. While superior status groups use education to raise the standard of education so as to protect their own privileges and culture, lower status groups also demand more access to be schooled. Higher education goals and curricula have become contesting arenas perpetuating status cultures and values. The theoretical implication of the social differentiation theory to higher education expansion in the present study is to focus on the extent that the shift of gender enrollment pattern in higher education is a reflection of competitions between social groups.

Excessive emphasis on social exchange of power within a particular society is a major challenge to the social differentiation theorists. Critics challenge the extent of the superior status groups controlling over the lower ones from getting access while expanding higher education. Another problem is that the social differentiation theorists make no further account to the dilemma that both the superior and lower status groups possess the same value for higher education expansion (Rubinson 1986).

The major concerns of the social differentiation theories lie in the internal structure and process of society focusing on issues including class ideology in capitalist society, status competition, and social inequalities. Another line of arguments focuses on the divergent development of societies. The world system or dependency theorists argue that countries as constituents operating under a transnational network of capitalist exchange.

World economy and the resultant international division of labor occupy central places in this line of argument. Dependency is the basic notion reflecting the linkages between societies in a world of exchange dominated by the capitalist network. The world structure of economic development divides countries into three levels: the core, the periphery, and the semi-periphery (Wallerstein 1974, 1980, 1989, 2011). With

rapid economic gains, the core countries dominate the international stratification system. They have more production, power, and prestige than the peripheral ones. Uneven development between the core and the periphery is an argument central to the world system theory. Through a self-generating cycle of capitalist power expansion, core countries continue their dominance of the world production and thus effectively insulate peripheral countries from the possibility of entering the center. For the peripheral and semi-peripheral countries, they strive for a rising toward core status in the world economy. Thus, the rising or falling status from the central stage has become a main concern for the theorists to explain “the rise of the West” as well as economic success in a specific region and country (Arrighi 1996, 2007; Frank 1998).

World system theorists argue that a country’s world status has a strong causal relationship with the development of its educational system. This line of arguments depicts that the local elites in colonial or peripheral countries derive power mainly from their connections to the core countries, thus poor countries are less likely to accomplish national integration (Arrighi 1978; Frank 1969). They further contends that local elites in these poor countries frequently uphold attitudes, values and interests largely consistent with those in the core countries (Frank 1972). In contrast to the modernization theory, local elites holding modern values from the core hinder the poor countries’ capability to accomplish national integration.

The theoretical implication of the world system theory is that educational goals and curricula give the least emphasis to nationalistic values. National priorities for higher education become most intensive on specialized and vocational training in order to reproduce the local elites’ values. Most importantly, national education system functions as a world manpower storehouse to produce an inexpensive and vast labor force for manufacturing, agricultural and service occupations. Another theoretical implication is that the local elites may model their national educational structure and curricula after the most advanced capitalist societies as they take up attitudes, values, and interests similar to those from the core countries. However, such possible outcome of structural dependency has not yet been predicted by most world system or dependency theorists (Amin et al. 1982, 1990), suggesting a further empirical investigation into the theory’s implication.

Theorists from the social differentiation approach tend to give emphasis to conflicts that are produced and reproduced from the structure of education system.

Most of these discussions locate conflicts and control at the center of education system that understate the goals of societal and individual progress. If education serves as the mechanism reproducing capitalist class values and attitudes, how do these values get defined and transmitted? In what ways does the socialization of norms and values take place in order to maintain the hegemonic or hierarchical structure of society? Little empirical evidence has been uncovered to address these research questions. The present study will focus on exploring colonial experience as a kind of hegemonic influence to shape the pattern of higher education expansion.

Some Recent Realist Approaches (I): Rational Choice Theory

Normative and social differentiation realists are two mainstream approaches which have occupied a central place in providing macro-sociological explanations to the structure and process of education. But neither of them deals directly with how individuals' choices and decisions that make society function or status groups compete. Rational choice theory emerges to examine the nature of self-interested individuals and their capabilities to action in society (Boudon 1981; Coleman 1986). This approach describes individuals as rational, purposive, and sovereign, so it is for groups, organizations and nation-states. For these theorists, the relationship between actors and their resulting actions is a causal one. They argue that stratification of education operates upon differential choices and decisions that reflect the relative capabilities of different social classes to calculate and further their own interests. Education expansion is very much a differential social choice which is linked to a differential attainment of education. This kind of differentiation is mostly vertical and closely related to class structure (Breen and Goldthorpe 1997). This line of thought mainly gives focus on social choice and exchange operating within the internal structure of society, addressing such topics like social mobility, inequalities of educational opportunities, and parents' and students' educational decisions (Boudon 1974; Coleman 1988; Gambetta 1987).

According to rational choice theorists, knowledge categories and study programs in higher education would diversify and differentiate as education is a mechanism infusing self-interested choices and the strategic interactions of individuals that are in persistent exchange. In this vision of rational choice theorists, upper class children tend to choose colleges and universities that are traditionally prestigious or highly selective in order to secure their class positions. What motivates the upper class

children may not be valid for lower class children. They may tend to organize their choices to enter higher education programs with technical and vocational emphases. Therefore, modern higher education is likely to expand and exhibit differentiations in curricular emphases and types of study programs. The theoretical implication of the rational choice theory for higher education expansion could be the extent of knowledge categories is related to individual choices and decisions from diversified class background.

Although the rational choice theory provides a new perspective to the study of higher education, it raises several questions that have left unanswered. The theory perceives the expansion of a curriculum or a program in higher education as an arbitrary adjustment depending on the prevailing education choices categorized by social class. But the questions to be raised are, when and under what conditions will higher education expand or modify its stated goals, programs, and curricula? To what extent does the higher education expansion reflecting the dominant class ideology? In what ways can this generalization be substantiated across countries? What are the underlying forces for countries to expand and reorganize their national higher education?

Indeed, the normative realist, social differentiation, and rational choice theorists make a converging argument for higher education expansion. Their theories treat education expansion as a socially useful goal which functions either to integrate or segregate people in an increasingly differentiated society. According to the normative realist perspective, education expansion serves to advance societal and individual efficiency that offers a common culture holding a society together. On the contrary, the social differentiation and the rational choice perspectives emphasize education expansion as a differentiation process that maintains the structure of social inequality in society. Even though each perspective provides different theoretical accounts in some respects, they arrive at similar predictions for the expansion of higher education from nation to nation. With the emergence of newly independent nations after World War II, the state has taken over the responsibility for its authority over education in society. Higher education has been increasingly seen as a national project on the top of almost every internal agenda across countries. Polity structures may vary sharply from time to time. Enrollment data and national goals for higher education are to be collected from many countries and for as many time points as possible, otherwise, it is difficult to generate empirical evidence based on falsifiable

hypotheses. These theories are still unable to be refined with empirical support.

Some Recent Realist Approaches (II): Post-nationalist Approach

A new line of thought in social science has emerged to address the relationship between nation-states and their external environment. The post-nationalist perspective argues that nation-states as sovereign over domestic needs overshadows demands from the broader world. They contend that the authority of nation-states has become diluted as national issues that are increasingly linked to the prevalent regime in the broader world. In the vision of this perspective, independent nation-states are seen as components of a global society through various transnational processes such as cosmopolitanization of risks, networkization of information, and denationalization of citizenship (Beck 1992, 2006, 2009; Castells 1999, 2009; Sassen 1988, 2006). The theoretical implication of this approach to education expansion rests upon the authority that comes from the prevailing regime in the international domain.

With its concentration on development of theoretical abstraction, the work of post-nationalist theorists tends to focus on social and political dynamics operating across countries. The lack of empirical research on how transnational forces affect the national entities is a major limitation of this perspective. An absence of the countries' reaction or resistance to the increasingly penetration of international regime has left the theory some issues unaddressed, indicating a need for further exploration.

This post-nationalist approach to the study of education has influenced theory development by new critical sociologists of education through the work for theoretical refinement and empirical evidence. However, it is difficult to generate a general theory on a world culture of education given that the approach is largely based on a single polity or at most a few. Cases studies may provide examples and descriptive information on some aspects of education expansion. But there is a need for more evidence across space and time in order to formulate congruent theories of the institutionalization of the world culture.

Since World War II, there has been a general assumption that higher education possesses a main role in national development, leading to the worldwide expansion of education. Cross-national studies over time are relatively effective to study the extension of the assumption at a broader societal level (Meyer, Ramirez, and Soysal 1992; Schofer and Meyer 2005). While evaluating these theoretical arguments, little

empirical effort has been devoted to the ways that nation and region are redefined in relation to each other and in response to international trends within specific world regions. Perhaps the world culture/society perspectives can offer a theoretical interpretation to such societal dynamics which would argue that nation-states tend to draw on the most legitimated model of higher education when they integrate into the world system. It is expected that the shared cultural and organizational milieu encourages countries to adopt the prevalent form of enrollment, curricula and pedagogies into their national higher education system (Meyer 1977). This is a key question that this study attempts to address.

Expanding sociological understanding on the organization of higher education is one of the major concerns in the world culture/society perspective. Some social scientists of this perspective are engaged in building a theoretical framework to conceptualize an organizational model of higher education (Ramirez 2002; Frank and Meyer 2007; Ramirez 2006a; Meyer et al. 2006). Their theoretical framework and implications stimulate many comparative and longitudinal studies which collect empirical evidence refining the theoretical perspective on the expansion and organization of higher education. The theoretical and empirical emphases of this school of thought are: the expansion of higher education enrollment trends (Bradley and Ramirez 1996; Meyer et al. 1977; Ramirez 2006b; Ramirez and Riddle 1991; Ramirez and Wotipka 2001; Riddle 1993, 1996; Schofer and Meyer 2005) and the organization of higher education curricula (Frank and Gabler 2006; Frank and Meyer 2006; Frank, Robinson, and Olesen 2011; Frank, Schofer, and Torres 1994; Frank et al. 2000; Gabler and Frank 2005).

The world culture/society theorists have provided apt theoretical discussion and empirical evidence to explicate the general pattern of participation in higher education across nation and over time, a world-wide shift of gender partitioning in enrollments, and a transnational reconstruction of knowledge. The study will pay attention to address two missing gaps of the world culture/society perspective. First, scant attention has been paid to the extent that these world trends are valid across and within world regions with diverse political and cultural attributes. Second, the existing studies of the world culture/society perspective support that the traditional gender gap is decreasing. But there is no further exploration into the extent of underlying forces to shape the gender participation in enrollment or curricula. Based on the theories and empirical findings from the world culture/society perspective, the

present study will investigate these unexplored issues on the regional and societal level of analysis. The research design of studying the world trend, regional focus and a case study will provide an exploratory framework to analyze the relations of institutional, structural, and societal levels (Jepperson and Meyer 2011).

In the light of a general review of these theoretical issues about the expansion of higher education, some fundamental and emerging inquiries are suggested for exploratory purposes other than formal hypothesis testing. The implications of all the theoretical perspectives examined in this chapter offer two sets of guiding propositions. Propositions 1 to 3 draw on the theoretical perspectives of world culture/society approach from the new institutional theory:

- 1: The emphasis placed on expanding higher education enrollments is consistent across countries and over time.
- 2: The degree of gender differentiation with more men than women in higher education enrollments is decreasing across countries and over time.
- 3: Knowledge categories and pedagogical emphases in higher education are increasingly homogeneous among the nation-states.

The theoretical implications of the realist perspectives offer the following propositions:

- 4: The degree of emphasis devoted to higher education expansion is related to national characteristics, such as the extent of economic modernization.
- 5: The portrayal of national goals for higher education expansion varies from nation to nation, reflecting distinctive historical attributes.

D. Summary of the Theoretical Approaches and Their Implications

The present chapter presents an overview of theoretical perspectives on the models of organizational expansion in higher education. The idealist and realist theories are two lines of thoughts that the chapter has reviewed about expansion of modern education system. From the idealist line of thought, the world culture/society perspective conceptualizes higher education expansion as an institutional form which reflects norms, rules, and conventions that are culturally rationalized and highly legitimized in the modern world societies.

Some of the realist perspectives also attempt to explain the expansion and organization of higher education. Both the normative and social differentiation

theories from the realist perspective offer some explanations of the structural characteristics of higher education, emphasizing either its role in maintaining *status quo* in society or its contributions to societal stratification and differentiation. Some recent realist approaches like the rational choice theory offers a more refined and systematic view into the formation and internal dynamics of the expansion of higher education with other societal entities in modern society. But, these theories confine the domain of higher education to the internal structure and interaction of local forces in a single society. World system theory and post-nationalist theory could have provided another theoretical approach to the organizational expansion of higher education. Their implications move the study of higher education toward national reactions to the external dynamics generating from the intra-national sphere.

By focusing on either the internal or external societal conditions to explain the expansion of higher education, the realist theories have not given enough attention to the content of higher education as a world culture and its symbolic value as a shared vision embedded in the world-wide penetration of this educational ideology. With decline of colonial legacy and the further consolidation of nation-state system, a new model of the social construction of society emerges. A rationalized model emphasizing secular individualism emphasizing economic, political and cultural participation has replaced the old mass culture of nationalism. Thus, it is not surprising to see countries and semi-autonomous polities tend to reference and incorporate most prevalent models in the world, in order to be “proper nation-states” that receive internal and external recognition.

The subsequent chapters will examine the extent to which higher education can be expanded with a shared ideology. By focusing on several debates about the rise of a new gender gap, the replacement of social sciences as an integrated group of knowledge, and the rapid expansion of sub-degrees and undergraduate degrees, Chapter four will provide a descriptive overview of the world-wide trends in higher education. Chapter five will examine the extent of national variations to explain higher education expansion. This chapter streamlines the focus to study the general enrollments of women and men to higher education through statistical technique of quantitative analysis of two time periods in Asia, a region that includes various economic, political, and cultural conditions. Chapter six will then process to present a case study of Hong Kong with a comparison with several societies in Asia. The chapter attempts to explore the underlying forces that generate an incorporation of a

specific model of higher education with special attention to the changing curricular and pedagogical content and its relation to the expansion of population coverage. Although the world culture/society perspective receives challenges to the extent of its testability, guiding proportions that have been formulated to serve an exploratory purpose, based on the implications of this perspective.

Chapter Three

Research Design, Measurement, and Data Sources

Chapter three discusses the design of the study, the measurement of the variables, the sources of the data, and the types of analysis the study will use.

A. Unit of Analysis

The focus of this study is the formal organization of higher education and its expansion, and the data reflect national policies on widening enrollments to higher education. In most countries, national higher education is an institution which is organized and controlled by the state. With diverse national characteristics, the expansion patterns could have differed from one nation to another. A comparison of the expansion across the nations is relevant to the research design of this study. For this purpose, the basic research design compares variations in economic, political and educational conditions on the societal level that makes the nation-state or national society as unit of analysis.

The study uses two criteria for case selection. First, it includes all independent countries in the world. Second, it also includes countries which are dependent on another country, but with some degree of autonomy over their internal structure. There are also countries that have their own political structures but are under the influence of another country in the region. The study also includes colonies with some degree of autonomy that they represent variations in state formation (see Appendix I for enrollment data available from the countries).

B. Variables: Measurement and Indicators

There has been comparative research which has extensively studied the relationships between national determinants and the organization of higher education enrollments. Since 1980s, social scientists of the world culture/society perspective at the Stanford Comparative Institution Seminar Team have moved toward empirical analyses of cross-national and longitudinal data. Their groundbreaking research findings have generated a methodological and data framework specific to the study of educational organizations (Benavot 1992; Bromley, Meyer, and Ramirez 2011b; Meyer and Hannan 1979; Meyer, Ramirez, and Soysal 1992; Riddle 1993; Schofer

and Meyer 2005; Wong 1989, 1991).

The design of this study draws special reference to the methodological and conceptualization framework from Wong's research on social science curriculum (1989). The methodological design, variable operationalization, and data preparation of the original study provide guiding frameworks to the exploration of national characteristics and the expansion of higher education in this study. Common to most comparative and longitudinal study is the data as being not as regular, uniform, and consistent across countries and over time. Countries most integrated to the world system tend to create and circulate their enrollment information internationally more frequent than those that are less integrated. Thus, a solution to find a reason of the possible bias is to compare data and results with other empirical works that have been extensively established to study data of comparative and longitudinal nature. The empirical findings of the Stanford Comparative Institution Seminar Team provide robustness checks to observe consistency and comparability of data analysis in this study. On the basis of the Stanford Comparative Institution Seminar Team's data set (2009), the present study includes most recent enrollment information from as many countries and time points as possible.

This study attempts to speculate on some possible explanatory factors that are related to the expansion of higher education. The dependent and independent variables are described below:

The Dependent Variable

The dependent variable is the extent to which the formal organization of higher education is institutionalized. This variable is conceptualized as the emphasis allocated to build a modern higher education system endorsed by the state. It is measured by the proportion of higher educational enrollment as percentages of the appropriate age group population. The study employs the same method of estimation to measure enrollment proportions for women and men. It is important to point out that the national estimate per capita based on the whole population is a conventional estimation showing the prevalence of higher education among the nations. But this study uses the national estimate based on the 20-24 age group. A zero-order correlation analysis has been carried out to examine the strength of association among these two measures prior to the longitudinal analysis. It shows two measures are highly correlated with each other. Further efforts have been made to examine the

enrollment measures by the proportion of the whole population and age groups from 20-24. Enrollment estimates by specific age groups are available for a much longer period of time in most countries. Thus, they enhance comparability across countries over time. For purposes of clarity and measurement accuracy, this study uses a more comprehensive measure of national enrollment in higher education as percents of the 20-24 age group.

The study will examine the enrollment trends in three aspects: gender composition, disciplinary areas, and levels of program. Descriptive data presents enrollment proportions separately for women and men. The three disciplinary areas included in the study are humanities, social sciences, and natural sciences. The levels of program are sub-degree, undergraduate degree, and postgraduate degree. Descriptive analyses of these three aspects are essential to evaluate the extent that the expansion of higher education as fulfilling human capital needs suggested by the normative realists. Specifically, the growth of sub-degree has been seen as social conflict or status stratification, serving the state authority to exercise hegemony as the social differentiation realists predict. Thus, the cross-national study of these three aspects will address the theoretical implications examined in the earlier chapter.

The present study will then proceed to examine the relationship between national characteristics and higher education expansion in Asia through a series of multivariate analyses. The number of dependent variables will scale down to a single set of variable that reflects the overall enrollment and its gender composition. Compared to the enrollment data from disciplinary areas and program levels, overall trend data and gender data of enrollments include more comparative information across nations and over time. Thus, the focus on a single set of dependent variables enhances the accuracy and comparability of the multivariate analyses to identify factors explaining higher education expansion across two time periods.

In the preliminary analysis, the time periods are divided into ten year intervals starting from 1950 to the latest available time point in 2007. For a closer examination to disciplinary areas and levels of program (the dependent variables) in higher education, only recent time periods from 1998-2009 are available. Thus, the time periods are grouped into three panels: 1998-2001, 2002-2005, 2006-2009. In subsequent analysis of relationship between national characteristics and higher education enrollments, the time periods will be grouped into two panels: 1950-1989, 1990-2007. These sets of periodization may seem arbitrary but they cover historical

eras which show considerable variations in the social, political, and regional conditions prevailing in the world system and are long enough to trace any significant overall trends and patterns in the expansion of higher education.

Independent Variables

Based on some general theoretical perspectives which are mostly derived from arguments on the expansion and organization of modern higher education, a set of explanatory variables is identified to examine the relationships between national characteristics and the expansion of higher education. Following the study of Wong (1989), this analysis adopted variables that measure economic development, education as a nation-building project, political patterns of authority, colonial hegemony, and integration to the world society. Two variables measuring cultural attributes of traditions and beliefs are added to the original model. These variables are:

(1) Economic Modernization Advancement in national wealth has frequently been seen as a prominent goal for national projects of state development. The variable operationalizing economic development is largely formulated on a purely “economic” basis as perceived by the normative realist perspective. Moreover, the variable measuring economic development draws on the assumption that economic development is related to educational expansion, for example, economic advancement to invest in education, or further investment in human capital for further economic growth. But little attention has been given to the ways that make organizations indifferent to changes. Organizations are subject to “structural inertia” and they may not be responsive to external pressure for change (Hannan and Freeman 1984). Following this line of thought, this study includes the “economic” variable to explore the extent of “inertial pressure” on organizations. Thus, the present study will follow Wong’s procedure of variable operationalization (1989) for the selection of the “economic” variable.

Different from other empirical indicators measuring national characteristics such as, political modernization or cultural attributions, there seems to have been a common understanding on the measurement of economic modernization. Conventional indicators that are widely used in most cross-national research are: log gross domestic product per capita, log kilowatt-hours of electricity consumed, log kilograms of crude and finished steel consumed, the percentages of male workforce

in industry etc. In this study, the indicator of “log kilowatt-hours of electricity consumed” is used to measure the level of economic modernization of a country. It is worth noting that the other indicators of economic development mentioned above could have been applied alternatively to substantiate the effects of the explanatory variable. However, a zero-order correlation analysis has been conducted to show the strength of association among these homogeneous variables prior to the multivariate analysis. The analysis shows that these variables are highly correlated with each other. Therefore, the decision to select one variable from this homogenous set of economic development variables seems legitimate and viable. Moreover, the selection procedure chooses the variable that can obtain a maximum number of cases. Log kilowatt-hours consumption for 1950-1985 and 1990-2005 were selected as indicators of economic measures in the cross-sectional regression models for 1950-1989 and 1990-2007 respectively.

(2) Characteristics of Nation-Building through Education Nation-building, development, and progress are major concerns of nation-states since World War II. Education as a national project has institutionalized belief in individuals as primary actors accomplishing national goals of the state. To raise an educated citizenry is seen as beneficial to the individuals as well as the state. Thus, the logic of belief reaches out into the education arena where the states begin to take responsibility for training their members necessary for nation-building and progress (Bendix 1978; Boli-Bennett and Meyer 1978). From all the educational aims that are promoted by the state in the world (Fiala and Gordon-Lanford 1987), the present study focuses on aims which themes are most relevant to the present study of higher education expansion. Two major themes are:

- (i) National Development and Citizenship – education is for the creation of members in society who will actively participate in social integration and national projects of state development. Rights of the individuals and the responsibilities of the individuals to society are often emphasized in stated goals.
- (ii) Democracy and Equality – the role of education is to promote active participation and to advance equality, for example equal opportunities for female participation in education.

Official documents such as international educational surveys or

communiqués, national education yearbooks or annual reports, and national reform proposals are formal expressions of educational goals representing the state. Number of enrollments into basic and higher education is an indicator reflecting how pronounced the states are promoting these educational ideologies. Secondary enrollment data are selected to measure the spread of these educational ideologies among the nations. The educational ideology data for this study come from a very extensive survey documenting secondary school enrollments to the world educational systems conducted by the United Nations Educational, Scientific and Cultural Organization (UNESCO) since fifties in the last century. Not only do the data reflect the general educational patterns among these nations, but they also enhance comparability among these countries since data are available from a large number of countries over time.

(3) State Strength and Authority While expanding and consolidating its social and political authority, the state increasingly incorporates external templates defined by chartered goals of national progress and individual rights. Adaptation to these goals involves building national culture, ideology, and traditions or modifying the existing. Education is the major vehicle for appropriating these culturally constructed goals. Thus, the extent of the state's power and authority is reflected in the degree of its pervasiveness in social institutions and the lives of individuals. The present study employs a measurement of the patterns of political regimes by the *Polity IV Project* (Marshall, Gurr, and Jaggers 2009). This indicator measures state power from -10 to 10, with -10 representing strongest tendency to autocracy. It also reflects the extent of state control over national projects and lives of individuals. Countries receiving -10 can be conceptualized as countries with strongest state power and control. For uniformity and clarity to interpret the regression model, a reverse coding was made for the variable. Countries receiving the highest scores are countries which have higher level of state control over national projects and lives of individuals. It is important to note that most societies in this Asian subset receive the highest scores.

(4) World System Integration With an increasing exposure to the international environment, states begin to incorporate a similar pattern of institutional forms and culture that fashions an exemplary template for modern nations. Education is one of the nation-state structures that expand rapidly around the world most prevailing order. Measurement of countries' degree of integration into the world

system is represented by number of memberships in non-government organizations. Non-governmental organizations are world cultural carriers that link one country to another. Participants to international conferences or global advocacies often bring along shared worldwide problems and resolutions which are also top priorities on the national agenda in each country. Thus, international conferences or global movements provide platforms facilitating spread of new ideas and culture to common problems and resolutions. High scores on the measure imply a high frequency of cultural contacts between each country.

Control Variables

The regression analysis will include three control variables to explore the relationship between expansion of higher education and national characteristics. The control variables are measures of cultural attributes of beliefs and traditions with a special reference to the region Asia. Islamic Ethics and Confucian traditions are two variables reflecting national and cultural characteristics unique to most Asian countries. The last control variable measures the extent of colonial legacy on higher education expansion.

- (1) Cultural Attributes of Beliefs and Traditions Modern nation-states emerge as collective projects for national progress and individual development. Embedded in these nation-states is distinctive culture that uniquely defines national characteristics. Accordingly education has become a vehicle transmitting cultural beliefs, styles and tastes through social and cultural arrangements in these nation-states. Within the scope of Asian region, two types of cultural attributes identified are as distinctive in Asia other than any world regions (Appendix II for the country coding of the prevalence of Islamic ethics and Confucian traditions in Asia).
 - (i) *Islamic Ethics* – Islamic countries often treat religion and state as an integrated entity. There may be a unique cultural expression of state goals for nation-building. Thus, there may be a tendency to show a relatively less connection to the external world environment. Enrollments into higher education may generate a distinct pattern from the prevalent world order. Specifically, women’s enrollment into higher education may show a traditional partitioning from that of men in these

Islamic countries. This analysis employs data source from *The Association of Religion Data Archives* (Finke and Grim 2005). The data set codes the Islamic beliefs into four kinds: Muslim (Unspecified), Muslim Sunni, Muslim Shi'a, and Muslim (Other). These four types were recoded into an indicative variable with “1” representing Islam as the major religion practiced in that country, “0” representing religious categories other than Islam.

(ii) *Confucian Traditions* – Confucian traditions represent a subtle and pervasive culture among Asian countries. Confucian ideas are cultural artifacts that consider education as means to training responsible citizens and then building a “good” nation. Thus, societies sharing the beliefs of Confucianism would be most likely to institutionalize higher education which is to be reflected through the proportion of higher education enrollment. But it is difficult to determine the prevalence of a cultural attribute that is diffused and has a relatively high level of integration with other culture values. For example, the version of Confucian ethics in Japan could have been varied from those in Myanmar, Taiwan, or Thailand. Moreover, Confucian ethics and heritages have evolved from its rudimentary form into various kinds of Confucianism, such as New Confucianism. In order to make the variable operable in the setting of regression analysis, the cross-sectional study assigned a single coding to all kinds of Confucian ethics. The coding of countries with the prevalence of Confucian traditions was based on case studies which examined the relationship between modernization and Confucianism in Asia (Rozman 1991; Tu 1996, 1998; Vogel 1991). This is an indicative variable with “1” representing Confucianism as the prevalent tradition in that country, “0” representing otherwise.

(2) Colonial Influence By the end of World War II, the world regime of old empires and colonial systems came to an end. A new world order marked by the United States and the Soviet Union emerged. It also marked a shift of the sphere of power. Rather than seeking direct interests through trading activities as the British, French, and Portuguese practiced in their former colonies, a free world of trade and

exchange promulgated by the United States became prevalent in the world order. With the emergence of free-trade ideology in the sixties, massive plans of economic assistance were given to other countries from the United States. Critics argued that foreign aid of such kind was a form of social control extending U.S. influence in other world regions (Carnoy 1974). Other critics suggest it was an alternative version of cultural dependence (Arnove 1980).

But the regime of free-trade and foreign aids has been recently replaced by the use of “soft power” through cultural visions and international cosmopolitanism in order to “attract” other countries to copy from countries with the most appealing model. An independent state’s aspiration to imitate examples (whether it is from former metropolitan powers or the “model” template in the world) can be reflected from her social or political programs. This aspiration includes higher education expansion. So far at this point of discussion, it is not clear whether this is a result of the cultural dependency, or this is really a world-wide diffusion process during a period of educational hegemony. But, newly born nations are often involved in rapid nation-building when colonization comes to an end. They are chartered with new goals aiming at national progress, development, and growth. Thus, a former affiliation to the metropolitan powers determines the likelihood of expanding national higher education. This study covers the period of colonization since 1815 to present. This is an indicative variable with “1” representing the presence of colonial past, “0” representing otherwise.

C. Data: Sources and Characteristics

The data from the Stanford Comparative Institution Seminar Team (2009) reflect national policy on the expansion and organization of higher education. Earlier and recent time points are to be added to the data set in order to adequately explain the relationship between expansion of higher education and social change.

Official national higher education enrollments have been systematically collected for many countries each year, listing number of women and men attending higher education. Most enrollment figures are documented regularly by international

organizations like UNESCO, the World Bank, OECD, US Agency for International Development, Education Policy and Data Center, and The Eurydice Network. The bulk of the data for the period 1950-1969 comes from UNESCO's Basic Facts and Figures (UNESCO 1952-54, 1956-62). Data for the time period 1970-2007 comes directly from UNESCO's online data center. For the purpose of comparability over time, efforts were made to examine the data across time among the nations. Supplementary data from other international data sources are used to fill in the missing time points. Online archives of national statistical bureau or ministries of education are also sources to fill in absent time points of some countries (e.g. Germany, Taiwan, and Singapore etc.). Therefore, this study has been able to locate and generate more data than expected.

Limitations of the Data

Despite the richness of the sources of data, there are some limitations of this data set to be noted:

- (1) The data represent the formal organization of national policy on higher education. Organizations of curriculum, professorship, research centers, and administration as essential components of higher education expansion may not be encompassed in the data.
- (2) The study of enrollments to disciplinary areas and program levels uses systematic data documented by the international organizations. Although the systematic sources for higher education enrollments have received regular documentation since World War II, a first systematic source with curricular and program classification only emerged by the end of nineties of last century. Thus, the data with these specific classifications can only reflect recent shifts of disciplinary areas and levels of program in the specific time periods.
- (3) The data do not represent a random sample of cases since countries that are less integrated to the world system are less likely to collect or release information on their national educational system. Thus, it is inevitable that countries of such kind are underrepresented in the sample.

D. Analyses

The present study employs an integration of quantitative and qualitative analyses

with provide a systematic way to detect sources of error from a single method and explore alternative measures (Pearce 2002; Small 2011). Chapter four and five use quantitative data from the Stanford Comparative Institution Seminar Team (2009) to generate descriptive statistics and to implement a series of multivariate analyses of higher education enrollments.

Chapter four examines the general trend of the expansion and organization of higher education through descriptions of the longitudinal and cross-national character of higher education across all the countries from 1950 to 2009.

In Chapter five, cross-sectional study employs a multivariate statistical technique of multiple regression analysis to further assess the theoretical implications of the idealist and realist approaches. While examining the factors can explain the expansion of higher education over time, systematic changes will inform the extent that the model of higher education has shifted. As discussed earlier, one of the limitations of comparative study is that enrollment information over time may vary from nations to nations. It is unrealistic to collect enrollments information for all nations across all time points. A possible solution is to focus on a single world region that samples various national characteristics of state development, political authority, and cultural beliefs and to include enrollment data from as many countries and time points in that region. Compared to other world regions, Asia can be considered as a world region that contains varying levels of economic modernization (poor and rich countries), differing types of political regime (sovereign and city-states), and diversified religious and cultural beliefs (Islam, Christianity, Buddhism, and Confucianism).

Chapter six presents an empirical extension of the research on a case study of Hong Kong society. The results from quantitative data analysis only describe the world-wide and regional patterns of higher education expansion and identify which factors constitute the rapid expansion. The case study serves to address a methodological weakness of the cross-national and cross-sectional studies in earlier chapters. The present study of higher education expansion will benefit from a case that explores the underlying forces that incorporate or resist a specific model of higher education.

Hong Kong society may serve as a case to address the unexplored issue. Hong Kong was once a British colony since nineteenth century and then she returned to China in 1997. She is now operating as a semi-autonomous city-state under the

guiding principle of “one country, two systems”. The absence of autonomy provides a historical setting to explore the extent that the Hong Kong’s model of higher education has shifted toward former colonizer, current sovereign, or other models in the world.

Another significance to study Hong Kong as a case of higher education expansion is that Hong Kong is one of few other societies in Asia which makes a policy statement of becoming a regional higher education hub. The educational aspiration shows that higher education is not confined to a local scope serving the internal needs of human capital within Hong Kong society. The portrayal of higher education has given strong emphasis to Hong Kong’s registration to the world community of learning. A consistent portrayal can be found from Hong Kong’s active registration into some world-wide educational testing regimes, such as the Program for International Student Assessment (PISA) and the Trends in International Mathematics and Science Study (TIMSS) in basic education. Thus, Hong Kong’s portrayal of higher education as a case deserves further investigation.

The case study presents a discourse analysis of formal documents on Hong Kong’s higher education reforms since 1910s. The case study also draws on supporting documents which documented responses of various stakeholders, for example official reports of the legislature, policy responses from the local convocations, and official records of public consultation on the reform proposals.

Studying the case of Hong Kong’s higher education in isolation is not enough to explore the underlying forces that influence a society to adopt a specific formal statement of higher education development. The case of Hong Kong includes a comparison of the goals with Hong Kong’s former and current sovereigns in order to explore a possible presence of hegemonic influence to Hong Kong’s higher education expansion as predicted by the world system or cultural imperialism theorists.

The case study will then compare Hong Kong’s higher education reforms with several Asian countries that implemented higher education reforms in the same periods and possessed similar trajectories of economic modernization in the region. The case study will examine the formal statements of higher education reforms in Japan, South Korea, Taiwan, and Singapore. The objective of comparing Hong Kong with these Asian countries is to explore the presence of “organizational inertia” in the relationship between national development and expansion of higher education as suggested by the theoretical implications of the idealist approach. Thus, the case will

focus on the comparison of formal statements of higher education reforms in two time periods: 1985-2001 and 2005-2010.

The case study will further explore the extent of Hong Kong's integration to the world system as suggested by the idealist approach. The case study will compare the formal statements formulated by the world organization of educational professionals and trace the degree of Hong Kong's participation in international organizations and international educational audits since 1960s. Chapter six as the empirical extension of the research has the significance to explore the theoretical relevance of the world culture/society theorists to the understanding of higher education expansion.

Chapter Four

The Expansion and Organization of Higher Education: 1950 – 2007

A. Introduction

The expansion of the modern higher education is closely associated with the consolidation of the nation-states by the turn of the nineteenth century. As the states expanded, higher education also became a national project which the state committed efforts to authorize, plan, and administer higher education places, goals, and programs. In the twentieth century, not only had higher education made the western countries wealthy, but also it made them create and spread universal knowledge, and thus the claim for national strength and integration became salient in the fifties of last century. Many states started to utilize higher education as a vehicle for making national economic progress and forging national identity and cohesion. One of the remarkable examples is Japan's dramatic and enormous increase in the number of universities immediately after World War II was thought to be a creation of a new society (Riddle 1989), showing a prominent part of higher education had been playing in national development for progress and integration.

Early fifties marked a period of intense domestic and national development related to World War II and worldwide economic setback. National developmentalism of such kind had become more pronounced on higher education goals and programs as states had increasingly making claims for the educational domain. The spirit of national development positioned states into the open and engendered comparisons of higher education systems between nation states (Altbach 2007b). As a result, states engaged actively in similar educational innovations, making every effort to modernization for social efficiency and national progress. All these were to be fulfilled by introducing new national goals to higher education system.

Knowledge creation and delivery commanded central places in the early activities of modern higher education in the West. As higher education system expanded in modern society, its rudimentary activities also evolved, diversified, and reorganized. Never had higher education contained in its elementary form. Instead, it was located in increasingly distinctive categories: natural sciences, humanities, and social sciences, and increasingly gendered compositions: an enormous movement of

men and women into higher education programs. These are some major areas in higher education which draws legitimacy for modernizing society and even individual's life as any other national project. So, how do countries differ in the way they organize this national project of higher education? How much variation exists among them? How systematic is this variation with reference to national consistency over time? Recent research on higher education suggests that such innovation is itself a reflection of a common and widespread institution sharing ideologies, standards, customs, and rules that are in universal character (Meyer et al. 1977; Sirowy and Benavot 1986; Riddle 1989; Meyer, Ramirez, and Soysal 1992; Schofer and Meyer 2005). To what extent does the organization of higher education also reflect this universal process of the expansion of higher education in response to exemplary templates of the world educational agents? These are questions that the present chapter seeks to investigate.

This empirical chapter will trace the enrollment changes in major components of worldwide higher education – gender composition, disciplinary areas, and program types – since the fifties of last century, and show when and where rapid expansion appear in higher education and how these changes have been taking place. These three components of enrollments address the theoretical implications examined in the earlier chapter that deserve special analyses. Descriptive analysis of these three components offers an investigation into the ways that the expansion of higher education is a supply to human capital needs, a demand from the status group to further their interests or a control from the state authority to exercise educational hegemony as the realist perspectives predict. For a clearer investigation into gender information of enrollment to disciplinary areas and program types, enrollments of women and men are analyzed respectively. The results are presented in separate sets for further comparison with that of the overall enrollment. Enrollments to the three disciplinary areas are humanities, social sciences, and natural sciences. The levels of program include sub-degree, undergraduate degree, and postgraduate degree.

B. The General Trend

The first issue hinges on the overall world trend or consistency in higher education enrollment across national educational systems. Some might suggest that it is difficult to capture variations in national enrollment change since countries have their structures of higher education systems and programs at various time points. But,

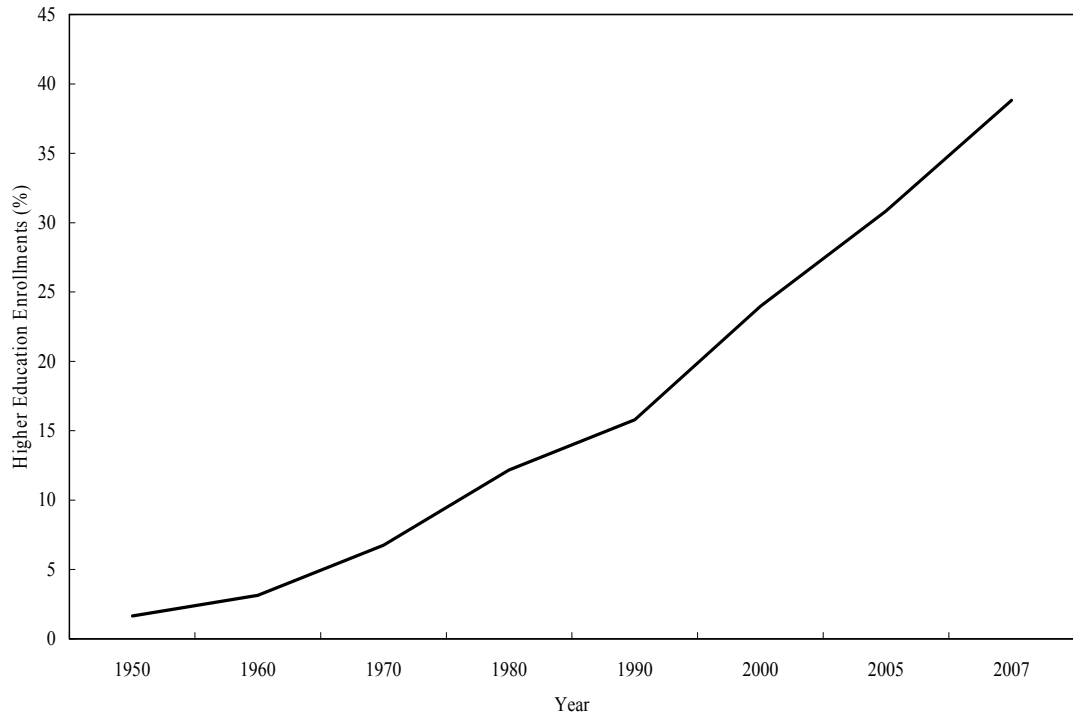
this is not specifically a problem as a standardized and systematic format of enrollment data is available at some world educational agents for a period of time.

For a clear picture of how the world enrollments to higher education changed, results of each decade since 1950 are highlighted. Figure 4.1 presents the mean percentages of higher education enrollment with reference to the age group populations for all countries of the world of which data were available and separately for female and male students. In Figure 4.1 Part A, worldwide enrollment to higher education was strikingly low in early fifties. Only a few engaged in higher education: less than two percent of the age group was attending higher education programs across the world. Figure 4.1 Part B shows that male students made up the majority in higher education. The figures for these two groups converge over time in the nineties when they cross over. Ever since the emergence of traditional forms of modern higher education, men have been the dominant group across all higher education curricula. Even when men were to be schooled in combination with women, they have increasingly engaged in certain categories in mathematics, natural sciences, and engineering. In the sixties, engineering became an extremely popular subject among male students (Jacobs 1996).

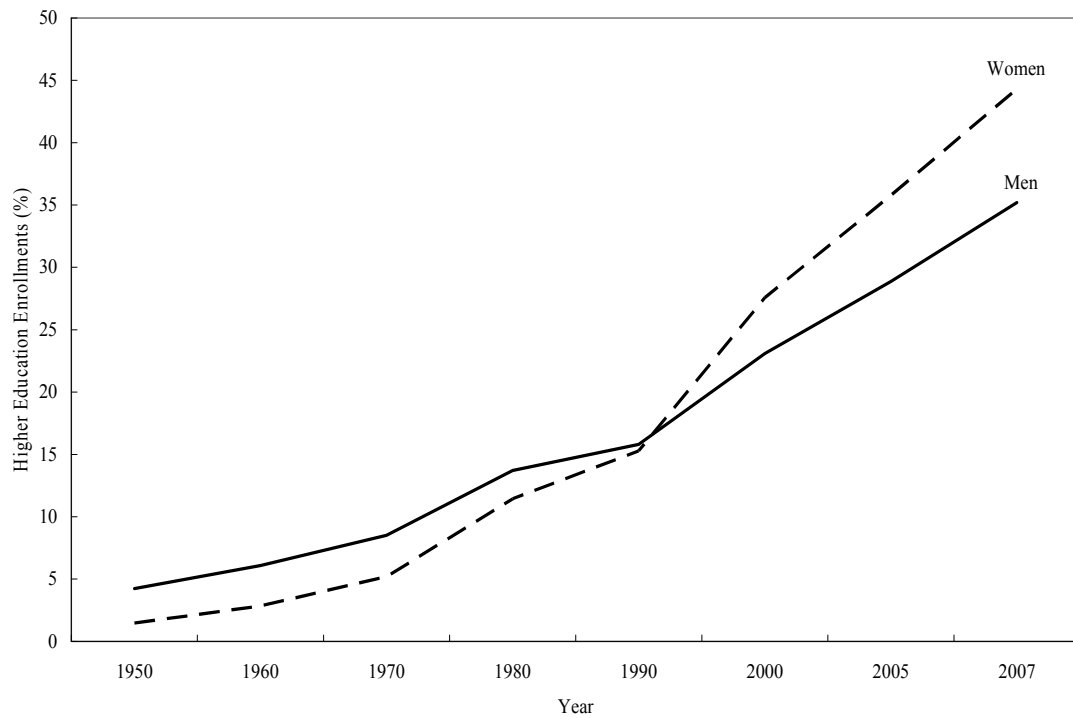
A very small portion of places was allocated to women: it counts just one percent compared to men who have been a dominant group in the world's higher education in 1950. Women's engagement in higher education was extremely low during the first two decades. Not until sixties in the last century did most countries adopt "equal opportunities" to give girls and women the same openings as boys and men in education (UNSECO 1960). Official plans to allocate resources for women's engagement in education began to be adopted at the Fourth World Conference on Women in 1995. Since then educational innovations have often been attached to the men and place allocation, curriculum design, pedagogical strategies, and administration in higher education. As shown in Figure 4.1 Part B, women started to take up more places in higher education programs than men in the 1980s and have been increasing in every decade since. The most striking fact is the dramatic upsurge of women's entry to worldwide higher education in the 2000s. But at the same time, men's traditional prevalence in natural sciences continued even women were increasingly moving into the field (Ramirez and Wotipka 2001). However, some recent research examines cross-national gender enrollments since the 1990s and suggests even though women are increasing moving into higher education, they

Figure 4.1 Mean Higher Educational Enrollments as Percents of the 20-24 Age Group Populations: For All Available Countries, 1950-2007⁽ⁱ⁾

A. Overall



B. Women and Men⁽ⁱⁱ⁾



Notes:

- (i) Percentages were compiled from fourteen systematic sources. The sources of information are listed below.
- (ii) The percentages for all students in proportion to their age group are not averages of those for female and male students. A separate estimation based on female and male population was made for the two groups over time.

Sources:

- Department of Statistics, Ministry of Education, Taiwan. 1999, 2002, and 2008. "Number of Students at All Levels—By Public or Private." *Number of School, Teachers, Classes, Students, and Graduates 1950-2009* (in Chinese). Retrieved March 3, 2010 (<http://www.dgbas.gov.tw/ct.asp?xItem=15423&CtNode=4610>).
- Department of Statistics. 1985 and 1995. *Yearbook of Statistics*. Singapore: Department of Statistics.
- Department of Statistics. 2000 and 2005. *General Household Survey*. Singapore: Department of Statistics.
- Directorate General of Budget, Accounting and Statistics, Executive Yuan, R.O.C. 1981. "Population." *Statistical Abstract of the Republic of China 1955-1973*. Zug, Switzerland: Inter Documentation Co.
- Directorate-General of Budget, Accounting & Statistics, Executive Yuan. 1975 and 1991. *Statistical Yearbook of the Republic of China*. Taipei: Directorate-General of Budget, Accounting & Statistics, Executive Yuan, Republic of China.
- Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat. 2009. *World Population Prospects: The 2008 Revision*. Retrieved February 08, 2010 (<http://esa.un.org/unpp>).
- Stanford Comparative Institution Seminar Team. 2009. *Stanford Comparative Institution Seminar Team Data Set*. (Limited access with special permission).
- Statistics and Census Service Macau. *Time Series Database 1990 - 2007*. Retrieved: April 1, 2010 (<http://www.dsec.gov.mo/TimeSeriesDatabase.aspx>).
- Statistisches Bundesamt. 1998, 2002 and 2008. "Bevölkerung" and "Bildung und Kultur, Forschung und Entwicklung." *Genesis-online Datenbank* (in German). Retrieved October 19, 2011. (https://www-genesis.destatis.de/genesis/online/data;jsessionid=87A8BFB6CB9671CE10F3E773AA41B3AF.tomcat_GO_1_1?operation=statistikenVerzeichnis).
- Tōkeikyoku, Sōrifu, Japan. 1951. *Japan Statistical Yearbook, 1949-1981*. Netherlands: Inter Documentation.
- UNESCO Institute for Statistics. 2009. "Table 26: Historical Data - Tertiary Education Summary." Retrieved August 4, 2009. (http://www.uis.unesco.org/template/pdf/ged/2009/GED2009_Hist1.xls).
- UNESCO Institute for Statistics. 2010. "Table 14: Tertiary Indicators." Retrieved October 12, 2011. (<http://stats.uis.unesco.org/unesco/TableViewer/tableView.aspx?ReportId=167>).
- UNESCO. 1952, 1956, 1958, and 1961. *Basic Facts and Figures: International Statistics Relating to Education, Culture and Communication*. Paris: UNESCO.

UNESCO. 1963, 1966-1976, 1987, 1995, 1998, and 1999. *Statistical Yearbook*. Paris
UNESCO.

University Grants Committee of Hong Kong. 1996. *Facts and Figures*. Hong Kong:
University Grants Committee Secretariat.

usually concentrate in certain traditionally female dominated curricula (Barone 2011; Charles and Bradley 2009). But still educational innovations for women's engagement in education add a women's perspective to traditional disciplinary areas. New curricula, such as gender studies and women studies began to emerge in many countries (Wotipka and Ramirez 2008). In Figure 4.1 Part B, women remain as the dominant group in higher education for the last decade during the current period.

To make a concise presentation and analysis of the data, results are reported by grouping the data into three time periods: 1950-1969, 1970-1989, and 1990-2007 for the enrollment data to higher education. For a closer examination of enrollments to specific disciplinary areas and program levels, only recent data is available from the systematic sources. Thus, the data is collapsed into three short time periods: 1998-2001, 2002-2005, and 2006-2009.

Table 4.1.1 reports the mean percentages of enrollments in each disciplinary area over the three periods for all countries in the data set. Thus, different numbers of countries are included and their standard deviations reported at each time point. The mean percentage of enrolment in all disciplinary areas as a whole shows a consistent upward movement across all three time periods: 10.5% in the period of 1998-2001, 11.5% in the period of 2002-2005, and 14.3% in the recent time period. Higher education places in all countries have invariably increased in all periods in less than two decades. Social sciences received the largest portion of students. None of the areas experienced a decline in higher education places, even the least popular categories of humanities shows a persistent rise. But if we examine enrollment in individual areas for women and men separately, there is much variation in terms of their prevalence in higher education across all disciplinary areas. The separate presentation of women and men's enrollment in all categories shows a stable increase over time. Enrollments of women and men were well partitioned in terms of disciplinary areas. Humanities and Social sciences are two areas most popular among women. Natural sciences have a higher concentration of men.

Table 4.1.1 reports results for all countries that are available in the dataset. Since the number of cases in each time point varies intensely, it allows limited comparisons over time. Thus, Table 4.1.2, 4.1.3, and 4.1.4 correct the limitation by reporting cases for which data are available in either all three time periods or two successive periods. The first panel of cases 1998-2001 and 2002-05 represents an earlier period of comparison and the second one 2002-05 and 2006-09 represents a later one. After

Table 4.1.1 Enrollments to Higher Education Disciplinary Areas in Recent Periods: Mean Percentages for All Countries for which Data are Available (Standard Deviations in Parentheses)

	1998-2001		2002-2005		2006-2009	
Total						
Humanities	3.9	(3.3)	3.9	(3.6)	4.5	(3.9)
Social sciences	15.7	(10.8)	18.1	(13.7)	22.9	(15.2)
Natural sciences	11.8	(9.7)	12.5	(10.8)	15.4	(11.2)
All Areas	10.5	(8.0)	11.5	(9.4)	14.3	(10.1)
N =	78		102		99	
Female						
Humanities	4.9	(4.6)	5.1	(4.8)	5.8	(5.1)
Social sciences	18.6	(14.3)	22.4	(17.2)	27.7	(19.9)
Natural sciences	9.4	(8.5)	11.1	(9.8)	14.2	(11.0)
All Areas	11.0	(9.1)	12.9	(10.6)	15.9	(12.0)
N =	74		95		95	
Male						
Humanities	2.6	(2.4)	2.7	(2.5)	3.2	(2.8)
Social sciences	12.8	(8.7)	14.9	(10.9)	18.1	(11.8)
Natural sciences	12.9	(11.4)	14.0	(11.9)	16.3	(12.0)
All Areas	9.4	(7.5)	10.5	(8.4)	12.5	(8.9)
N =	74		95		95	

Notes:

Mean Percentages were compiled from four systematic sources. The sources of information are listed below.

Sources:

Department of Statistics Singapore. 2009. *Yearbook of Statistics Singapore*. Singapore: Department of Statistics.

Department of Statistics, Ministry of Education, Taiwan. 1999, 2002, and 2008.

“Number of Students at All Levels—By Public or Private.” *Number of School, Teachers, Classes, Students, and Graduates 1950-2009*. (In Chinese). Retrieved March 3, 2010

(<http://www.dgbas.gov.tw/ct.asp?xItem=15423&CtNode=4610>).

- Statistisches Bundesamt. 1998, 2002 and 2008. "Bevölkerung" and "Bildung und Kultur, Forschung und Entwicklung." *Genesis-online Datenbank* (in German). Retrieved October 19, 2011.
(https://www-genesis.destatis.de/genesis/online/data;jsessionid=87A8BFB6CB9671CE10F3E773AA41B3AF.tomcat_GO_1_1?operation=statistikenVerzeichnis).
- UNESCO Institute for Statistics. 2009. "Table 26: Historical Data - Tertiary Education Summary." Retrieved August 4, 2009.
(http://www.uis.unesco.org/template/pdf/ged/2009/GED2009_Hist1.xls).
- UNESCO Institute for Statistics. 2010. "Table 14: Tertiary Indicators." Retrieved October 12, 2011.
(<http://stats.uis.unesco.org/unesco/TableViewer/tableView.aspx?ReportId=167>).

Table 4.1.2 The Prevalence of Higher Educational Enrollments in Disciplinary Areas in Recent Periods: Mean Percentages for the 20 – 24 Age Group Populations and Properties for Constant Panels of All Available Countries (Standard Deviations in Parentheses)

	1998-2001	2002-2005	2006-2009
Total			
Humanities	4.5 (3.4)	5.2 (3.8)	5.9 (4.0)
Social sciences	18.4 (10.3)	22.4 (12.6)	25.2 (13.3)
Natural sciences	13.7 (9.8)	16.1 (11.2)	18.0 (11.2)
Overall Enrollment	12.2 (7.8)	14.6 (9.2)	15.6 (16.4)
N = 57			
Earlier Comparison			
Humanities	2.2 (2.4)	2.2 (2.3)	-
Social sciences	9.9 (10.8)	9.8 (10.3)	-
Natural sciences	5.3 (6.9)	6.3 (6.9)	-
Overall Enrollment	5.8 (6.7)	6.1 (6.5)	-
N = 9			
Recent Comparison			
Humanities	-	3.2 (2.8)	3.2 (2.9)
Social sciences	-	19.1 (15.7)	22.0 (16.2)
Natural sciences	-	11.7 (9.4)	12.8 (9.1)
Overall Enrollment	-	11.3 (9.3)	12.7 (9.4)
N = 20			

Notes and sources (as listed in Table 4.1.1)

Table 4.1.3 The Prevalence of Higher Educational Enrollments in Disciplinary Areas in Recent Periods: Mean Percentages for the 20 – 24 Age Group Populations and Properties for Constant Panels of All Available Countries, for Women (Standard Deviations in Parentheses)

	1998-2001	2002-2005	2006-2009
Total			
Humanities	5.9 (4.7)	6.7 (5.1)	7.5 (5.3)
Social sciences	22.3 (13.5)	27.3 (17.0)	30.7 (17.8)
Natural sciences	11.5 (8.6)	14.1 (10.2)	16.3 (10.6)
Overall Enrollment	13.3 (8.9)	16.0 (10.8)	18.3 (11.2)
N = 54			
Earlier Comparison			
Humanities	2.9 (3.3)	2.9 (3.1)	-
Social sciences	11.6 (14.3)	12.3 (13.7)	-
Natural sciences	4.8 (6.2)	5.7 (6.2)	-
Overall Enrollment	6.4 (7.9)	6.9 (7.7)	-
N = 9			
Recent Comparison			
Humanities	-	4.4 (4.1)	4.4 (3.8)
Social sciences	-	22.3 (17.2)	26.5 (19.5)
Natural sciences	-	10.7 (8.6)	11.8 (8.4)
Overall Enrollment	-	12.5 (10.0)	14.2 (10.6)
N = 19			

Notes and sources (as listed in Table 4.1.1)

Table 4.1.4 The Prevalence of Higher Educational Enrollments in Disciplinary Areas in Recent Periods: Mean Percentages for the 20 – 24 Age Group Populations and Properties for Constant Panels of All Available Countries, for Men (Standard Deviations in Parentheses)

	1998-2001	2002-2005	2006-2009
Total			
Humanities	3.1 (2.4)	3.5 (2.7)	4.1 (2.9)
Social sciences	15.1 (8.3)	17.6 (9.3)	19.7 (9.5)
Natural sciences	15.5 (11.7)	17.6 (12.4)	19.0 (12.4)
Overall Enrollment	11.2 (7.4)	12.9 (8.1)	14.3 (8.3)
N = 54			
Earlier Comparison			
Humanities	1.6 (2.0)	1.7 (1.7)	-
Social sciences	8.4 (8.2)	8.0 (7.9)	-
Natural sciences	6.0 (7.9)	7.0 (7.7)	-
Overall Enrollment	5.3 (6.0)	5.6 (5.8)	-
N = 9			
Recent Comparison			
Humanities	-	2.3 (1.9)	2.3 (2.2)
Social sciences	-	16.8 (14.5)	19.3 (14.8)
Natural sciences	-	13.9 (10.4)	15.0 (10.2)
Overall Enrollment	-	11.0 (8.9)	12.2 (9.1)
N = 19			

Notes and sources (as listed in Table 4.1.1)

grouping the data into time blocks, these three tables give a more telling comparison about changes in disciplinary areas over time. The overall results in these three tables suggest four trends: first, there has been a persistent increase in every disciplinary area of higher education almost everywhere in the world. The increase remains constant over time in terms of enrollment to all disciplinary areas among all students. Second, social sciences and natural sciences increased sharply in the time periods of 2002-2005 and 2006-2009. Table 4.1.3 and 4.1.4 show persistent movement of women into social sciences and natural sciences. At the same time, men were increasingly moving into the disciplinary area of social sciences. Third, the disciplinary area of social sciences enrolled the largest number of students in less than two decades. About 19 percent of men and women in the world's age group 20-24 were studying in social sciences. The late comparison of women's enrollment shows the largest portion is allocated to social sciences compared to humanities and natural sciences. Fourth, enrollments to humanities remained relatively stable across all time points. In general, the results in Table 4.1.2 are congruous with the results in Table 4.1.1.

The results presented by levels of programs are shown in Table 4.2. The table reports the mean percentages of enrollments in each level of higher education program over the three periods for all countries in the data set. The mean percentage of enrolment to all levels as a whole shows a consistent upward movement across all three time points: 13.8% in the period of 1998-2001, 18.3% in the period of 2002-05, and 19.3% in the recent time period. There is almost no variation in terms of the persistence to increase higher education places by three types of programs in all countries. This upward movement shows a sharp increase in the periods of 1998-2001 and 2002-05. There is no decline in higher education places in all levels. But if we examine enrollment in individual level for sub-degree, undergraduate and postgraduate degrees separately, there is much variation in terms of their prevalence in higher education over time. The undergraduate level was allocating most places to students from the time periods of 1998-2001 to 2002-05. Almost all disciplinary areas show stable increases over time. Only there is a slight decline in enrollment to sub-degree programs in the time period of 2006-09 (10.8% to 10.5%).

The overall results in Table 4.2 suggest three trends: first, there has been a persistent increase in every level of higher education almost everywhere in the world. Increase has remained constant over time in terms of enrollment in all levels among

Table 4.2 Mean Higher Educational Enrollments in Levels of Programs as Percents of the 20-24 Age Group Populations: For All Available Countries, 1998-2009

	1998-2001	2002-2005	2006-2009
Sub-degree	8.6 (15.7)	10.8 (19.8)	10.5 (19.1)
N =	122	117	117
Undergraduate degree	31.9 (46.1)	42.8 (58.9)	46.0 (65.9)
N =	139	136	128
Postgraduate	0.9 (2.3)	1.2 (2.5)	1.3 (2.7)
N =	102	101	101
All levels	13.8 (21.4)	18.3 (27.1)	19.3 (29.2)
N =	121	118	115

Notes and sources (as listed in Table 4.1.1)

all students. Second, the level of undergraduate programs grew into the largest portion in less than two decades. About 40 per cent of men and women in the world's age group 20-24 were studying in some kind of undergraduate programs. The late comparison shows the level of undergraduate grew rapidly as compared to the sub-degree and postgraduate ones. Third, enrollment to postgraduate has remained relatively stable across all time points. Only there was a slight decline in enrollment to sub-degree shown in the time blocks of 2002-05 and 2006-09.

The overall results by gender composition, disciplinary areas, and program levels have so far shown recent trends of enrollments to higher education by the beginning of nineties of last century. The results in all decadal time points and aggregated time blocks are consistent with one another. While the overall enrollment to higher education shows a constant increase over time, each gender group, an individual disciplinary area, or a single level of program evolves rather differently from one another. Women emerge to be the largest portion of student enrollment to higher education in a half century, nothing short of men's persistent enrollment over time. At the same time, with a stable enrollment to humanities and natural sciences, the disciplinary area of social sciences as an integrated domain has increasingly schooled the greatest portion of students. Not only do women evolve to be the majority to study social sciences, but also an increasing portion among men is floating into the area. While enrollments to sub-degree and postgraduate degrees continue to make stable increases, undergraduate program still commands the largest portion of enrollment to higher education and is extending further from three years to four years.

With each distinctive opening in the individual component, not only does there follow a universal expansion in enrollment to higher education, but also a partial expansion in specific components to broadening and integrating more women and men into disciplinary areas and levels from traditional classifications of knowledge and new curricular innovations especially after the nineties of last century. Such a phenomenon seems to have suggested a possible alternating flow between the components of each gendered, disciplinary, and layered composition in higher education. But at the same time, it may suggest a distinctive movement toward standardization of educational models that reflects an increasing homogeneity across countries.

All these results give evidence that enrollment to higher education as a whole

shows a general aggregate consistency over time, while the overall enrollments are constantly on the move with dramatic partial openings of places in social sciences and undergraduate programs. So far some questions to be addressed are: do countries increase the specified components in a time period also show similar tendencies in the next? How much variation can we observe, if there is any? The results concerning higher education enrollments in last six decades have shown higher education enrollment grows steadily over time. Any increasing emphasis on a specific disciplinary area and program type is very much to be in place in the next time period. Thus, we are expecting positive correlations between one time period and its next. From here some other questions to follow, how prevalent are these partial expansions, or how much is the tendency to expand higher education enrollment a consistent national attribute? These enquiries are to be explored by presenting two correlation matrices for each disciplinary area and then each program level over time.

C. National Consistency Over Time

Table 4.3 shows correlations in terms of higher education enrollments in all areas as percents of the 20-24 age group populations to each disciplinary area. Table 4.4 shows correlations in terms of higher education enrollments in all levels as percents of the 20-24 age group populations to each program. The signs of some of the correlation coefficients are positive as expected. But, the data for disciplinary areas and levels of program show strikingly low correlation over time. In most of the cases the correlations over time in disciplinary areas and levels of program are less than 0.5. As a whole, the results suggest that the partial expansion of specific disciplinary area or program level seems to be less consistent over time as the correlations between one time period to the next is low. But still the correlations of overall enrollments is almost perfect that higher education enrollments as a whole is increasing over time.

Although the findings show a low degree of consistency over time from the data, the shifting signs of the correlation could have indicate a further investigation into the relationship between disciplinary areas or between program levels. The partial expansion of a specific disciplinary area or a particular program level could have indicated the presence of a complementary or an alternating relationship between the disciplinary areas or across the program levels. The guiding questions to examine the correlation coefficients across areas or levels are: What kinds of relationships exist

Table 4.3 Intercorrelations between Periods of Higher Educational Enrollments in Disciplinary Areas as Percents of the 20 - 24 Age Group Populations: For All Available Countries, All Students, 1998-2009 (Cases in Parentheses)

		1998-2001	2002-2005	2006-2009
Humanities	1998-2001	1.00	.03	-.36 *
	2002-2005	(45)	1.00	-.01
	2006-2009	(43)	(64)	1.00
Social sciences	1998-2001	1.00	.38 *	.17
	2002-2005	(46)	1.00	-.33 *
	2006-2009	(42)	(63)	1.00
Natural sciences	1998-2001	1.00	.16	-.33 *
	2002-2005	(46)	1.00	.55 **
	2006-2009	(43)	(63)	1.00
All areas	1998-2001	1.00	.97 **	.91 **
	2002-2005	(138)	1.00	.96 **
	2006-2009	(128)	(128)	1.00

Notes and sources (as listed in Table 4.1.1)

Table 4.4 Intercorrelations between Periods of Higher Educational Enrollments in Levels of Program as Percents of the 20 - 24 Age Group Populations: For All Available Countries, 1998-2009 (Cases in Parentheses)

		1998-2001	2002-2005	2006-2009
Sub-degree	1998-2001	1.00	.21 *	-.22
	2002-2005	(86)	1.00	-.25 *
	2006-2009	(69)	(81)	1.00
Undergraduate degree	1998-2001	1.00	.50 **	.40 **
	2002-2005	(101)	1.00	-.31 **
	2006-2009	(81)	(93)	1.00
Postgraduate	1998-2001	1.00	.60 **	-.01
	2002-2005	(76)	1.00	.57 **
	2006-2009	(67)	(78)	1.00
All levels	1998-2001	1.00	.97 **	.91 **
	2002-2005	(138)	1.00	.96 **
	2006-2009	(128)	(128)	1.00

Notes and sources (as listed in Table 4.1.1)

predominantly between students' enrollments to these disciplinary areas or program levels? How much do these disciplinary areas or program levels show consistent patterns in term of their correlations with each other? Positive correlations indicate the presence of complementary relations between the disciplinary areas or across the program levels. The negative ones point to the presence of alternating relationships between the disciplinary areas or across the program levels.

Table 4.5 presents the correlations between percentages of students enrolling to humanities, social sciences, and natural sciences in each period. In the time period 1998-2001, these three disciplinary areas are moderately and positively correlated with each other, which indicate a complementary relation between humanities, social sciences, and natural sciences. A negative correlation between humanities and social sciences emerges in the time period from 2002-05. The negative correlations remain in the recent time period. At the same time, a negative correlation is found among social sciences and natural sciences. These findings reveal that there was an alternating relationship between social sciences and other disciplinary areas.

As shown in Table 4.6, undergraduate and postgraduate levels are positively correlated to each other which shows these two levels of programs are complementary to one another in the time periods of 1998-2001 and 2002-05. Instead, sub-degree level remains all negatively correlated to undergraduate and postgraduate levels across two time periods. In the recent time period, sub-degree remains negatively correlated with postgraduate level as in the past two time periods. But signs reverse between the correlations to sub-degree with undergraduate (0.35) and that between undergraduate and postgraduate (-0.36). This indicates neither a complementary nor alternating relationship between these two pairs of programs. With the correlations of disciplinary areas, the correlations between program levels provide a consistent pattern of shift in the emphasis of the organization of knowledge across the world and over time. The systematic shift seems to give little support to the predictions of the normative functionalist that higher education expansion is a fulfillment of the internal demands of human capital needs. Neither the complementary relationship of the program levels confirms the expansion of higher education serves superior groups for their own interest and status as the social differentiation realists predict. These findings seem to falsify the earlier speculation that there are some underlying forces other than the national attributes that replace one disciplinary area or level of program with another.

Table 4.5 Intercorrelations between Periods of Higher Educational Enrollments in Disciplinary Areas as Percents of the 20 - 24 Age Group Populations: For All Available Countries, All Students, Three Different Time Periods

	1998-2001		
	Humanities	Social sciences	Natural sciences
Humanities	1.00	.59 **	.54 **
Social sciences		1.00	.39 **
Natural sciences			1.00
N = 54			
	2002-2005		
	Humanities	Social sciences	Natural sciences
Humanities	1.00	-.09	.21
Social sciences		1.00	.42 **
Natural sciences			1.00
N = 73			
	2006-2009		
	Humanities	Social sciences	Natural sciences
Humanities	1.00	-.83 **	.92 **
Social sciences		1.00	-.81 **
Natural sciences			1.00
N = 84			

Notes and sources (as listed in Table 4.1.1)

Table 4.6 Intercorrelations between Periods of Higher Educational Enrollments in Levels of Program as Percents of the 20 - 24 Age Group Populations: For All Available Countries, Three Different Time Periods (Cases in Parentheses)

	1998-2001		
	Sub-degree	Undergraduate	Postgraduate
Sub-degree	1.00	-.40 **	-.03
Undergraduate degree	(99)	1.00	.08
Postgraduate	(73)	(81)	1.00
	2002-2005		
	Sub-degree	Undergraduate	Postgraduate
Sub-degree	1.00	-.30 **	-.46 **
Undergraduate degree	(109)	1.00	.53 **
Postgraduate	(83)	(94)	1.00
	2006-2009		
	Sub-degree	Undergraduate	Postgraduate
Sub-degree	1.00	.35 **	-.33 **
Undergraduate degree	(94)	1.00	-.36 **
Postgraduate	(67)	(89)	1.00

Notes and sources (as listed in Table 4.1.1)

D. Regional Variations

To this very moment, there is still no indication of the extent to which the partial expansion of higher education enrollment is related to hegemonic influence external to the countries. After World War II, former colonies began to emerge as newly independent countries. These newly independent countries tend to treat higher education as a national project of state development and expand higher education with reference to their former colonizers as predicted by the world system theorists and cultural imperialists. World geographical regions largely reflect the concentration of former colonies or semi-autonomous polities. The metropolitan powers are countries from Continental Europe. Former colonies largely concentrate in Asia, Sub-Saharan Africa, and Latin America. A closer investigation into higher education enrollments in different world regions will address the theoretical implications discussed in earlier chapter. These issues are explored by comparing portions of higher education enrollment on the basis of world regional patterns and nation-state independence status over time.

The typology of world regions and their countries largely follow the regional classification by the UNESCO Institute of Statistics. Australia and New Zealand are two countries being moved from the region of Pacific and Micronesia to the group of the West as most comparative studies employ the regrouping of countries. This study adopts this minor adjustment in order to enhance the comparability of the results with existing research findings. While exploring regional variations, some guiding questions are to be raised: How common is the upward trend of enrollment in different regions of the world? Are enrollments in Western countries more likely to spread as they have a long established tradition of western knowledge creation? How popular entering universities or colleges are among men and women in these world regions? Do some culturally homogeneous countries share similar socio-cultural attributes in terms of political and educational system, level of economic development, language, ethnicity, and religion? Do newly independent countries tend to expand higher education immediately after resuming sovereignty? These questions are explored by reporting enrollment percentages on countries classified by seven world regions: Arab States, Asia, Central and Eastern Europe, Latin America and the Caribbean, Sub-Saharan Africa, the Pacific and Micronesia, and the West (see Appendix III for the country list of world regions).

The results defined by regions are presented in Table 4.7 and are reported in terms of higher education enrollments as percents to 20-24 age group populations over time. As the number of cases varies greatly among the subsamples, the regional data is collapsed into three time periods: 1950-69, 1970-89, and 1990-2007 since World War II which allows a more precise comparison between the regions.

An analysis of these figures shows that some moderate regional variations are evident in the enrollments to higher education in the past six decades. Overall enrollments of women and men have the largest portion in countries in the West and Central and Eastern Europe in all three time periods. Enrollments in these two regions have been increasing over time. Indeed, countries in the West receive highest portion of enrollments among all regions (from 6.6% to 53%). Higher education has been opened the least portion to men and women in countries of Sub-Sahara Africa (0.1% to 3.7%).

These regional variations can perhaps be perceived as a consequence of different cultural attitude regarding connectedness to world educational models. In most countries in the West, higher education is usually seen as a prominent locus of knowledge creation and delivery which make open contact to world educational conferences and associations, and universities and educational authorities as a legitimate priority on national agendas. This is consistent with recent longitudinal studies of worldwide expansion of higher education that enrollments tend to expand faster in countries established close connection to the world society through memberships to international organizations or associations (Schofer and Meyer 2005).

In contrast, in some countries of the Sub-Sahara, social upheaval and sovereign changes might have disrupted the countries' links to these external educational links as most western countries enter into. The isolation is reflected through a low women's enrollment to higher education as a marked distinction for the region from all other regions. Islam is one of the major religions practiced in most countries of the Sub-Sahara Africa. It is speculated that men would be given priorities to enter higher education and thus there would be a low portion for women. But the speculation on the influence of religious background on higher education expansion seems to receive little evidence from the data while comparing women's enrollments in Sub-Saharan Africa with another world region which Islam is also a major religion.

Table 4.7 Mean Higher Education Enrollments as Percents to 20-24 Age Group Populations: For All Available Countries, Separately for World Regions, and for Women and Men 1950-2007 (Standard Deviations in Parentheses)

	World Regions							Overall
	The West	Central & Eastern Europe	Sub-Saharan Africa	Arab States	Latin America & Caribbean	The Pacific & Micronesia	Asia	
<i>Total</i>								
1950-1969	6.6 (24)	5.8 (8)	0.1 (40)	0.8 (7)	2.1 (26)	0 (2)	2.0 (36)	2.4 (143)
1970-1989	20.6 (23)	17.7 (14)	1.0 (35)	4.5 (6)	8.1 (28)	3.4 (5)	7.0 (46)	8.6 (157)
1990-2007	53.0 (24)	45.5 (19)	3.7 (42)	15.0 (8)	24.8 (32)	12.8 (8)	22.5 (49)	24.2 (182)
<i>Female</i>								
1950-1969	4.3 (24)	4.8 (8)	0.2 (14)	0.3 (6)	1.4 (21)	0 (1)	1.9 (18)	2.2 (92)
1970-1989	17.9 (23)	26.6 (11)	0.3 (33)	2.3 (6)	6.6 (27)	4.0 (5)	6.9 (37)	8.4 (142)
1990-2007	56.2 (24)	53.5 (18)	2.8 (42)	15.8 (8)	30.6 (32)	16.1 (7)	24.7 (47)	27.4 (178)
<i>Male</i>								
1950-1969	9.6 (24)	8.5 (8)	0.5 (14)	1.7 (6)	3.3 (21)	0 (1)	4.2 (18)	5.0 (92)
1970-1989	23.5 (23)	23.2 (12)	1.3 (33)	6.6 (6)	8.9 (27)	7.4 (5)	9.2 (37)	10.8 (143)
1990-2007	45.6 (24)	39.6 (18)	4.6 (42)	16.6 (8)	21.1 (32)	10.5 (7)	23.9 (47)	22.9 (178)

Notes and Sources (as listed in Figure 4.1)

In the Arab States, women's enrollments shows a sharp increase in women's enrollment from less than one percent in the time period 1950-1969 to 15.8 percent in the time period from 1990-2007. The proportion of women's enrollments is almost the same as that of men in the time period 1990-2007. Thus, geo-political isolation might have contributed to the slow increases in the Sub-Sahara Africa.

In general, enrollments in proportion to the age group population have increased enormously and dramatically in most other regions of the world over time (Arab States, Asia, Latin America and the Caribbean, and the Pacific and Micronesia). As far as separate groups of women and men are concerned, the findings are consistent to each other. As a whole, higher education has expanded almost everywhere.

A closer comparison of the findings from each region to the world overall enrollments, the findings of Asia present a similar pattern to the world's trend as shown in Table 4.7. In all three categories of enrollments for the total, female, and male, Asia's patterns of enrollments over time are similar to the world's trend. The pattern implies Asia has been following closely to the world trend since World War II. This similarity invites further investigation of the extent to which countries expand higher education as to satisfy internal needs for human capital or competing interests between status groups, or the hegemonic influence from the world order. Asia may offer a "sample" to further inquire into factors that influence countries to incorporate or resist a specific pattern of higher education expansion.

All these regional findings confirm our earlier speculations that as far as regional variation do not show any radical inconsistency, the worldwide expansion in higher education over time has reflected possible consequences by political and cultural variations. Thus, the worldwide expansion raises another important enquiry by exploring the independent status of countries.

Table 4.8 presents mean percentages of higher education enrollment in proportion to 20-24 age group population in terms of the year of independence and former colonial experience. The results show two periods of nationalism as having no striking impact on higher education enrollments in newly independent states. The expansion in higher education is a worldwide trend without much attachment to the starting point of independence. From a view of the colonial background, all the former colonies committed little emphasis to expand higher education places after World War II as shown in the time period 1950-69. But the proportion of enrollment increases steadily over time. By the recent period, former Anglo-U.S. colonies have

Table 4.8 Mean Higher Educational Enrollments as Percents of the 20 - 24 Age Group Populations and Colonial Legacy: For All Available Countries, Separately for 1950-2007 (Cases in Parentheses)

		Independence Status							
		Year of Independence		Former Colonial Power					
				Anglo-U.S.		French		Spanish -Portuguese	
		1950-1969	After 1970	1950-1969	After 1970	1950-1969	After 1970	1950-1969	After 1970
All	1950-1969	2.2	1.4	0.4	0	0.2	0.2	0.3	-
	1970-1989	7.0	4.6	1.6	0	0.5	0	1.6	-
	1990-2007	18.2	12.6	5.3	0	2.6	0	2.5	-
Female	1950-1969	1.0	0.6	0.3	0	0.1	0.1	0.1	-
	1970-1989	4.7	3.0	1.0	0	0.1	0	0.7	-
	1990-2007	17.2	12.0	5.6	0	1.7	0	2.0	-
Male	1950-1969	2.4	1.5	0.5	0	0.2	0.3	0.4	-
	1970-1989	7.2	4.7	1.5	0	0.5	0	2.3	-
	1990-2007	15.1	10.6	4.5	0	1.6	0	2.9	-
N =		73	130	41	5	10	6	7	0

Notes and Sources (as listed in Figure 4.1)

the larger proportion of increase than the other two groups of former colonies (0.4% to 5.3%). Former colonies of the British and the American show a similar proportion of women and men entering into higher education. The former French colonies also display a similar one over time. In contrast, former Spanish-Portuguese colonies have higher men's enrollment to higher education. The British, Americans and French were the earliest nations introducing the educational innovation of coeducation to their national education systems in the nineteenth century. Perhaps these former colonies have tended to reflect the educational models of their sovereign power. Specifically, former colonies of Spanish-Portuguese are countries from the Latin-American region which seem to follow the tendency to expand higher education as the state in Latin America tend to give more emphasis and resources to higher education than basic education (Benavot 2006).

From the data, there is no indication that expansion in higher education enrollments is related to colonial experience of the post-colonial indigenous countries as the world system theorists and cultural imperialists predict. The finding implies that these post-colonial countries are less likely to follow the higher education models of their former sovereigns. Colonial experience or hegemonic control from metropolitan powers counts no significant influence to the ways that the countries expand their higher education.

So far at this point, the results have shown higher education expansion is a world-wide trend within which regional variations also exist. Like other world regions, Asia's enrollment patterns show a similar trend and follow closer to the world-wide trend than other world regions. This finding has shed light on a collective tab of "Asian-ness" attaching to the region where countries are loosely integrated and largely segregated. The label of "Asian-ness" could have reflected the internal needs to create human capital for regional and international competitions as predicted by the realist perspectives. But the increasing enrollments to higher education across the region in the last three decades, not only have South Korea, Japan, India, and Taiwan rapidly expanded higher education enrollments for state development, but also many Asian countries, such as, Malaysia and Indonesia, have been widening entrance to higher education, especially women's participation in higher education. The expansion of higher education across Asia emerges to be an ideological movement that integrates the loosely associated members in the region and gives emphasis to the unique cultural and political variations, such as the prevalence of Islamic ethics

and Confucian traditions. Under the canopy of world-wide trend and regional variations, Asian countries come with distinct portrayal while expanding national higher education. Sovereign states tend to perceive their sovereign right of a nation-state that higher education places, goals and programs are in part the national project for state development. Semi-autonomous polities may take a similar portrayal emphasizing “sovereign rights of individuals” that demonstrates transnational or cosmopolitan characteristics (see Wong 2007 for “sovereignty right of a *nation-state*” and “sovereignty right of *individuals*”) to the goals and visions of higher education. This complex mix of local and transnational portrayal of higher education makes Asia an interesting region which invites further exploration.

The present study will give specific focus to Asia as a “sample” in order to examine national characteristics explaining expansion of higher education. Compared to other world regions, Asia encompasses countries and semi-autonomous polities across a diverse level of economic development, different kinds of political regime and authority, major religious beliefs and traditional values in the world, and colonial legacy from the metropolitan powers. At the same time, the world region of Asia also includes some national characteristics that make the region of Asia distinctive from most world regions, for example, trajectories of development and educational ideologies. Asia includes the varieties of “economic miracle” from Japan and China that pose intellectual challenges to the contemporary theories of modernization in the past five decades. In international educational assessment since 1990s, Asian school children’s performance has frequently alerted the western countries to examine the Asian characteristics of learning and parenting and to implement national education reforms. Thus, the independent or nationalized polities in Asia may form a conceptual “sample” to further explore the underlying forces that promote specific model of higher education expansion in the present study.

E. Summary and Its Implications

This chapter examines the overall trends in the enrollments to higher education around the world. In spite of regional variations and colonial experience, the enrollment pattern as a whole is impressively homogenous over time, showing an overall simultaneous upsurge trend in enrollments. Seventies in the last century marked a dramatic and enormous worldwide shift from higher education with limited and reserved places to an open and elaborated form available to the populace. The

results presented in this chapter provide evidence that the expansion in higher education is a matter of standardization other than diversification.

The results presented in this chapter could have provided little support to the theoretical implications of the realist approaches. The homogeneity of overall enrollment trends across the nations over time demonstrates higher education expansion may not fulfill the human capital needs internal to each country as predicted by the normative realists. The descriptive analysis of gender enrollments shows that women's rapid enrollments over time do not diminish men's enrollments to higher education. The result may not correspond to the prediction of the social differentiation realists. With enrollment information from former colonies, expansion in higher education enrollments may not be related to colonial experience of the post-colonial indigenous countries as the world system theorists and cultural imperialists predict.

Instead, the results of this chapter seem to provide more evidence to support the theoretical implications of the world culture/society perspectives on higher education expansion. The results of partial expansion demonstrate the presence of alternating relationships inside each knowledge category of higher education. Individuals in these knowledge categories become legitimate entities to claim for distinctive status, rights, and capacities. With the emergence of new social definition of individuals as essential units for national development, new collective and institutional frameworks emerge and a new mass culture is incorporated into the national education agendas. Cultural artifacts of the traditional mass culture are to be reorganized around a rationalized approach which emphasizes social integration for state development as a secular nationalism for progress and excellence (Wong 1991).

The emergence of the "new gender gap" and the spread of social sciences may imply new collective conditions and social expectations are substituting the old mass culture. The partial expansion across the social and knowledge categories may have moved toward a new rationalized approach for secular individualism (Meyer 1977) emphasizing sovereign rights of individuals (Wong 2007) as to accomplish universal principles of progress and equality.

The expansion in the undergraduate level has opened up a wider platform or opportunity for an active and participatory citizenship in the universalized and rationalized project of national development and individual competence. Perhaps, the dramatic worldwide expansion in higher education enrollments has reflected a

collective vision to a more rational, participatory, and equalitarian society.

So far to this point, the present study still has not addressed the legitimate source that determines a country's incorporation or resistance to a specific model of higher education. A homogenous pattern of higher education expansion could have been a mere reflex to follow some pervasive exemplary education systems of the metropolitan powers, such as the American or the British ones, for a period of educational hegemony as predicted by the realist approaches. A series of multivariate regression analysis will further explore the relationship between higher education expansion and the national characteristics, such as, level of modernization, educational characteristics for nation-building, political regime and authority, integration to world system, and cultural attributes of beliefs. As discussed in earlier chapter, the present study shares the common problem of data in comparative studies across nations and over time. A possible solution is to employ purposive method to "sample" a cluster of countries from a world region and to collect as many time points as possible for that particular region. Asia as a region including most cultural, political, post-colonial, and trajectory variations, its national conditions will provide a rich soil for evaluating the arguments of the idealist and realist perspectives. These issues will be further explored in next chapters.

Chapter Five

Regional Analysis of Higher Education Expansion in Asia: 1950 – 2007

A. Introduction

Chapter four presents an overview of the world trends in the expansion and organization of national higher education enrollments. The data provide substantial evidence that enrollments to higher education has remained consistent over time and there are only modest regional variations. In the chapter, the finding of the reorganization of higher education enrollments since World War II is the most interesting that invites further exploration with a specific focus moving from the world-wide trend to regional variations. Such findings suggest two research issues: (1) to what extent can national variations in the expansion of higher education be adequately explained; and (2) what are the underlying forces that determine a specific pattern of expansion in higher education? The present chapter uses Asia to continue the investigation into these issues by applying ordinary least squares statistical technique. The analysis will be cross-sectional in nature covering two time periods after World War II: 1950-1989 and 1990-2007. The data for analysis in this chapter draws mainly from the comparative and longitudinal data set of the Stanford Comparative Institution Seminar Team (2009).

B. Multiple Regression Analyses of Higher Education Expansion in Asia:

1950-2007

As discussed in earlier chapter, there has been extensive comparative historical research on the expansion and organization of higher education (Meyer, Ramirez, and Soysal 1992; Ramirez and Wotipka 2001; Riddle 1993; Schofer and Meyer 2005). Theories on the expansion of higher education tend to draw on general arguments from the idealist and realist perspectives about rise and expansion of modern higher education. Some hypotheses have been formulated in Chapter two to explore these theories' implications for the expansion of higher education. These guiding propositions are further elaborated for operationalization of variables in the present chapter.

Summary of Guiding Propositions

Propositions 1 to 3 draw on the theoretical perspectives of world culture/society approach from the new institutional theory:

- 1) The nation-state system continued as major actors which defined values and institutional activities in modern society after World War II. Education became the major vehicle for transmitting values and objectives of the state necessary for national projects of state development. These formal expressions of characteristics of state development through higher education are particularly pronounced in the stated goals and visions of national higher education. Thus,
 - (2a) the promotion of the right of every citizen to higher education has intensified since World War II;
 - (2b) the promotion of democracy and equality began to emerge between 1950 and 1989, and became more pronounced between 1990 and 2007.
- 2) The major objective of a higher education system authorized by the state is to include all individuals as members to the national polity. Thus, as the state authority and strength consolidates, expansion will be more elaborated in higher education.
- 3) The degree of a country's connection to the world culture determines the likelihood that a country's culture will incorporate the world culture to a wide range of domains in social life. Thus, as nations are more integrated into the international system, they are more likely to expand their national model of higher education most prevalent to the world system.

The theoretical implications of the realist perspectives offer the following guiding propositions:

- 4) As discussed in Chapter three, the variable operationalizing economic development is largely formulated on a purely "economic" basis as the normative realist perspective predicts. With the orientation of the variable as a measurement of economic growth, most empirical studies tend to assume that economic development is related to higher education expansion. But there is a possibility that the relationship between higher education expansion and economic growth does not exist. Social organizations may survive

without responding to changes external to them. Organizations may subject to “structural inertia” and they may become indifferent to external pressures for change (Hannan and Freeman 1984). Following this line of thought, this study includes the “economic” variable to explore the extent of “inertial pressure” on organizations. The guiding proposition explores the presence or absence of an association between higher education enrollments and economic modernization.

- 5) The portrayal of national goals for higher education expansion has been found to vary from nation to nation, reflecting distinctive historical attributes, for example, cultural attributes of traditional beliefs and colonial experience. This analysis includes three control variables to explore the guiding proposition. Thus,
 - (5a) countries where Islamic beliefs are prevalent are less likely to expand their national model of higher education.
 - (5b) countries where Confucian values are prevalent are more likely to expand their national model of higher education.
 - (5c) former colonies are more likely to expand their national model of higher education by following that of their former colonizers.

Variables: Measurement and Indicators

Chapter three presents a description of the explanatory variables to be examined in the present study. The regional study of this chapter employs the whole set of variables to explore the relationships between national characteristics and the expansion of higher education (see Chapter three for detailed description and Appendix IV for data sources of all variables). The present chapter presents a summary of the dependent and independent variables discussed in Chapter three. They are:

The Dependent Variable

One of the major concerns of this study is to investigate the extent to which higher education is expanding. The degree of expansion is conceptualized as the emphasis allocated to build a modern higher education system endorsed by the state. Thus, the dependent variable is measured by the mean percentages of higher education enrollments in proportion to the relevant age group populations. It is

important to point out that countries vary in their choice of age groups for their presentation of national enrollments. For purposes of measurement uniformity and accuracy, the dependent variable adopted here is the enrollment proportion with reference to the 20 to 24 age group. The series of multivariate analyses examine the relationship between national characteristics and higher education expansion in Asia. The regression model will analyze a single set of dependent variables that measures the overall enrollment and its gender composition. A closer examination to the enrollment data by disciplinary areas and program levels, general enrollment data of total, female, males to higher education include more comparative information across nations and over time. Thus, the focus on a single set of dependent variables strengthens the accuracy and comparability of multivariate analyses between two time periods.

Independent Variables

Based on the research design of Wong (1989), this analysis adopted variables that measure economic development, education as a nation-building project, political patterns of authority, colonial hegemony, and integration to the world society. Three control variables measuring cultural attributes of traditions and beliefs are added to the original regression model. These variables are:

(1) Economic Modernization Rather conceptualizing economic modernization as a pure “economic” indicator, the present study operationalized the variable in terms of the extent of “structural inertia” (Hannan and Freeman 1984) between higher education enrollments in relation to the degree of economic modernization. Following the screening procedure of variables from Wong (1989), the indicator of “log kilowatt-hours of electricity consumed” was used to measure the level of economic modernization of a country. Log kilowatt-hours consumption for 1950-1985 and 1990-2005 in a five-year interval were selected as indicators of economic measures in the cross-sectional regression models for 1950-1989 and 1990-2007 respectively.

(2) Education and Nation-Building Education as a national project has instilled belief in individuals as primary actors fulfilling national goals of the state. To raise an educated citizenry is thought to be beneficial to the state as well as the individuals. Thus, the logic of belief reaches out into the education arena where the states begin to charter responsibility for creating members necessary for

nation-building (Bendix 1978; Boli-Bennett and Meyer 1978; Meyer 1970). From all the educational aims that are promoted by the state, national development, citizenship, democracy, and equality are themes frequently reflected in basic and higher education (Fiala and Gordon-Lanford 1987). Secondary school enrollment data are selected to measure the spread of these educational ideologies across the nations.

(3) State Strength and Authority The extent of the state's power and authority is reflected in the degree of its influence in the lives of individuals and social institutions. The analysis employs the *Polity IV Project* data set classifying the patterns of political authority (Marshall, Gurr, and Jaggers 2009). The measurement reflects the extent of state control over national projects and lives of individuals. This indicator measures state power from -10 to 10, with -10 representing strongest tendency to autocracy. In the original data set, countries receiving -10 are conceptualized as countries with strongest state power and control over their members. For uniformity and clarity to interpret the regression model, a reverse coding was made for the variable. Countries with the highest scores are those which have higher level of state control over national projects and lives of individuals. From the descriptive data of this variable, most societies in this Asian subset receive the highest.

(4) World System Integration With more exposure to the international sphere, nation-states have increasingly incorporated institutional forms and culture that instill a "proper" model for modern nations. Joining non-governmental organizations is one of the measurements of a country's degree of integration into the world system. High scores on the measurement indicate frequent cultural contacts between each country through international conferences or global advocacies.

Control Variables

The regression analysis will include three control variables to explore the relationship between expansion of higher education and national characteristics. The control variables are:

- (1) Cultural Attributes of Beliefs and Traditions Two types of cultural attributes identified are as distinctive in Asia other than any world regions They are:
 - (i) *Islamic Ethics* – Employing data source from *The Association of*

Religion Data Archives (Finke and Grim 2005), this analysis recodes the four kinds of Islamic beliefs: Muslim (Unspecified), Muslim Sunni, Muslim Shi'a, and Muslim (Other) into a single category. This is an indicative variable with “1” representing Islam as the major religion practiced in that country, “0” representing religious categories other than Islam.

- (ii) *Confucian Traditions* – as discussed in Chapter three, it is difficult to determine the prevalence of a cultural attribute that is diffused and has a relatively high level of integration with other culture values. Moreover, ancient Confucianism has evolved into varieties of Confucian ethics. The cross-sectional study assigned a single coding to include all kinds of Confucian ethics, in order to operate the variable with other exploratory variables in the regression analysis. The country coding of Confucian traditions as prevalent in the specific country was based on case studies which examined modernization and Confucianism in Asia (Rozman 1991; Tu 1996, 1998; Vogel 1991). This is an indicative variable with “1” representing Confucian thoughts as the prevalent tradition in that country, “0” representing otherwise.
- (2) Colonial Influence Former affiliation to metropolitan powers determines the likelihood of expanding national higher education. This is an indicative variable with “1” representing the presence of colonial experience, “0” representing otherwise.

The Model

This section analyses the results of multivariate regressions that assess the relationship between the expansion of higher education (the dependent variable) and some measures of national characteristics for two different time periods: 1950-1989 and 1990-2007. The variable of economic modernization is included to explore the extent of “structural inertia” in this model in order to confirm the absence or presence of an association between higher education enrollments and economic modernization. For the rest of the independent variables and the set of control variables serve to explore factors that are also significant to the expansion of higher education.

Multivariate regression analysis is used to explore some hypotheses that have

been derived from general theoretical arguments with regard to higher education expansion. The regression analysis is appropriate for examining the simultaneous effects of major explanatory variables on the response variable. The empirical models to be tested are presented as follows:

Basic Model:

$$Y = a + b^1(\textit{Economic Modernization}) + b^2(\textit{Education and Nation-Building}) + b^3(\textit{State Strength and Authority}) + b^4(\textit{World System Integration}) + e$$

Basic Model with Control Variables:

$$Y^1 = a + b^1(\textit{Economic Modernization}) + b^2(\textit{Education and Nation-Building}) + b^3(\textit{State Strength and Authority}) + b^4(\textit{World System Integration}) + b^5(\textit{Islamic Ethics}) + e$$

$$Y^2 = a + b^1(\textit{Economic Modernization}) + b^2(\textit{Education and Nation-Building}) + b^3(\textit{State Strength and Authority}) + b^4(\textit{World System Integration}) + b^5(\textit{Confucian Traditions}) + e$$

$$Y^3 = a + b^1(\textit{Economic Modernization}) + b^2(\textit{Education and Nation-Building}) + b^3(\textit{State Strength and Authority}) + b^4(\textit{World System Integration}) + b^5(\textit{Colonial Influence}) + e$$

where Y, the dependent variable is the mean percentages of higher education enrollment for each time period to be investigated, 1950-1989 and 1990-2007, and a is the constant term and e is the error term.

C. Results and Discussion

In order to provide an overall assessment of the general theoretical perspectives discussed in the previous chapter, Table 5.1 presents cross-sectional multiple regression analyses of the status of expansion in higher education for all Asian countries in two time periods, 1950-1989 and 1990-2007 supplemented separate results for men's and women's enrollment to higher education (N = 51). The present study contains a relatively small number of cases. Some studies on comparative methodologies suggest that the problem of small "N" is common to comparative studies using nation-state as the unit of analysis (Liberson 1991). The common problem could have invited alternative research methods and data analysis technique to study comparative studies with small sample size (Ragin 1992).

As the key empirical objective of the present study is to explore the underlying forces explaining higher education expansion across countries and over

Table 5.1 Summary of the Effects of Independent Variables on Higher Education Enrollments in Asia, Separately for Women and Men in Two Time Periods: 1950-1989 and 1990-2007

Dependent Variable: Mean Percentages of Higher Education Enrollment

A. Time Period 1950-1989

Enrollment Group	Eq# #	Independent Variables				R ²	N
		Economic Modern-ization	Nation Building Characteristics	State Strength & Authority	World System Integration		
All	1a.	-.02 [@] (.11) -.03	1.04* (.24) .75	.06* (.03) .33	.59* (.21) .46	.67	30
Women	1b.	.17 (.15) .21	.94* (.34) .55	.09* (.05) .40	.61* (.30) .39	.59	29
Men	1c.	-.05 (.09) -.13	.43* (.20) .58	.03 (.03) .27	.22 (.18) .31	.30	26

B. Time Period 1990-2007

Enrollment Group	Eq# #	Independent Variables				R ²	N
		Economic Modern-ization	Nation Building Characteristics	State Strength & Authority	World System Integration		
All	2a.	6.18* (1.08) .65	9.63 (46.36) .02	-1.25* (.25) -.60	-.98 (1.85) -.07	.64	43
Women	2b.	8.22* (1.26) .71	16.83 (54.08) .03	-1.60* (.30) -.63	-3.51 (2.16) -.19	.67	42
Men	2c.	.27* (.06) .51	4.03 (2.75) .17	-.06* (.02) -.56	-.03 (.11) -.03	.58	42

* significant at .1

@ = entries are unstandardized slope, standard error of slope in parentheses, and beta.

time, it is unrealistic to collect enrollment data across all nations and over a long period of time. As discussed in Chapter three, a possible solution is to examine the enrollment data and national characteristics in a world region that “sample” as many economic, political, cultural conditions as possible for regression analysis. The present study as an uneven probability sample may subject to less restrictive sampling criteria than the probability sampling. As far as the cross-sectional study makes no violation to draw inferential results from the sample to other countries of the world regions, the present study will benefit from employing the statistical technique to explore how much variation in the expansion of higher education can be explained by national characteristics in Asia. Thus, the results are to be interpreted with caution. Although making estimates inferring the results to the population is not the major focus of the analysis, the present study has checked the assumptions of normality, linearity, and multicollinearity and performed logarithmic transformation to enhance the operation of the regression analysis¹.

Economic Modernization

In the first time period 1950-1989 being examined, the level of economic development consistently shows insignificant effects on the extent of higher education expansion, implying that internal development of a country is unrelated to the organization of higher education. While the coefficients remain negative in all the estimated equations, suggesting that poorer countries may pay more attention and spend more resources to open more higher education places to individuals, the effects are small and insignificant that they are negligible. While examining the effects from the women and men groups, the finding for men is consistent to the overall engagement to higher education. But when women’s enrollment is examined, the coefficients are positive in all the estimated equations, suggesting that richer countries may give more attention and resources to create places for women in these Asian countries under examined. However, whether the coefficients are positive or negative, the effects are small and insignificant that they are negligible. This finding in the first time period runs contrary to the prediction of the functional perspectives that internal development of a country determines the extent of higher education expansion. It seems to suggest the expansion of higher education is independent of national economic growth.

While examining the second time period from 1990-2007, the results present a striking pattern of the effect. The level of economic modernization which is

insignificant and negative consistently in the first time period changes into significant and positive effects in the second time period, indicating internal development is related to the organization of higher education. In the second time period, the coefficients remain positive in all the estimated equations, suggesting that richer countries may pay more attention and spend more resources to open higher education places to individuals. The finding from the overall result shows consistency in the proportions of men's engagement to higher education. But in the case of women, the coefficients remain positive in all the estimated equations, suggesting that richer countries continue to devote more attention and resources in creating more places for women. All the effects of economic modernization are moderate and significant. This finding in the second time period shows the expansion of higher education is determined by national economic growth. The shift perhaps reflects a time-lagged effect of economic modernization in the sixties that Japan shook the world with her economic miracle and the "Four Tigers" had their national economies took-off after the seventies. Thus, in the first time period, the effect remains insignificant and negative. But the effect becomes all significant and positive over time. Such a shift may be due partly to trade liberalism became widely institutionalized throughout the world after World War II when economic protectionism came to an end. Like other countries, Asian national societies are likely to respond to the cultural order beyond their national boundary within which the international environment prevails.

Education and Nation-Building

The measure of characteristics for nation-building through schooling is significant and shows a positive effect on the expansion of higher education enrollment in the first time period, implying that characteristics of nation-building through education is related to the expansion of higher education from 1950-1989.

Although not significant, the effects of national development through schooling remain constantly positive with a larger effect in the recent time period. The findings from men's and women's enrollments are also consistent to the overall trend, suggesting that education for national integration and development has been in place since World War II. The effect is larger on women than men throughout the two time periods, reflecting a national project began to incorporate all categories of national citizens into national building. The finding provides evidence contrary to the social differentiation realists' prediction. Especially, Asia is a region with many

societies holding traditional values that give superior status to men over women. For example, Confucian values perceive women as submissive and inferior to men in family and society, and Islamic ethics place women almost as “secondary class” citizens. Rapid enrollment of women to higher education illuminates the characteristic of higher education for nation-building as a congruent, legitimate, visionary, and participatory model of citizenship.

State Strength and Authority

The degree of state authority and strength shows significant effect over time. In the first time period, the effect on the extent of higher education expansion shows a positive effect, but a negative effect in the recent one with the measure of Polity IV Project’s patterns of authority and regime changes. The findings separately for men and women show constantly consistent effects of the extent that the state’s penetration to social institutions and individuals’ life courses on the expansion of higher education. Like the overall results in the first time period, state control shows positive effect on higher education for men and women, except the coefficient for the men’s group is small and insignificant. These findings suggest that states in Asia pay more attention and resources to widen openings to higher education. Countries with greater state control are more likely to provide wider rooms for women to receive higher education. Countries with a higher degree of control institutional structures of society and pervasiveness in individual lives are more likely to incorporate more openings into higher education in the first time period.

But in the second time period, states with a lower degree of control are more likely to expand national higher education. Since the major concerns of most independent states or the newly independent after World War II were national integration and economic consolidation through rapid reconstruction and retrenchment, the promotion of liberal ideological principles like democracy and equality might have received lower priorities on the national agenda for state development. Thus, higher education as one of the top national projects receives greater state attention in the first time period. But with the concurrent decline of welfare-statism and the rise of democratization and human rights regime since the nineties, these new political ideologies became prevalent throughout the world that countries are now more responsive to the world cultural order prevailing in the international environment. The coefficients in the recent time period reflect the shift. They show significant and negative effects on higher education expansion,

suggesting a country with lesser state control is more likely to open up more higher education places. A closer examination to the indicator of state strength across all countries, state strength in Asia is relatively stronger than other world regions. Given the finding that women in Asia benefit from the expansion of higher education, traditional model of higher education as a training ground of elites are moving toward the model of participatory citizenship that incorporate all walks of citizens into the modern project of development. These findings indicate a further exploration into cultural, political, and religious variations that may relate to higher education expansion.

World System Integration

After World War II, the effect of integration into the world systems on a country's intention to expand national higher education in Asia is significant and positive, except men's enrollment. But once entering the nineties, the coefficient shifts and shows insignificant and negative effect which present the same finding for separate observations of men and women enrollments. The shift suggests that higher education expansion may draw on characteristics that are unique to the region of Asia. For example, China's expansion of higher education was limited before 1980s. South Korea represents another type of expansion that higher education enrollments had reached its optimal by the end of the last century. The individual cases show that expansion of higher education could have related to the cultural trajectories or unique attributes of the region, suggesting the presence of an Asian model that draws on the rapid expansion of mass education in the region. A closer examination into the association of secondary school and higher education enrollments, the correlation coefficient is significant and positive (0.38). But the relationship between mass education and higher education is weak. Given that some Asian countries have almost reaching full expansion in the last century, the present study will further explore national characteristics that are specific to the region, for example, Islamic or Confucian integration. The basic empirical models are modified with an addition of a control variable at a time. Two measures indicating cultural attributes are Islamic ethics and Confucian traditions.

Cultural Attributes of Beliefs and Traditions: Islamic Ethics

Table 5.2 presents the effects of the prevalence of Islamic Ethics in social rules and cultural conventions on the extent of expansion in higher education. Coefficients of the core variables from the basic model remain constantly consistent

Table 5.2 Summary of the Effects of Independent Variables and the Control Variable (Cultural Attributes of Islam) on Higher Education in Asia, Separately for Women and Men in Two Time Periods: 1950-1989 and 1990-2007

Dependent Variable: Mean Percentages of Higher Education Enrollment

A. Time Period 1950-1989

Enrollment Group	Eq#	Independent Variables					R ²	N
		Economic Modern-ization	Nation Building Character-istics	State Strength & Authority	World System Integration	Islamic Ethics		
All	3a.	-.02 [@] (.11) -.04	1.04* (.24) .75	.06* (.04) .33	.59* (.22) .46	.01 (.31) .01	.67	30
Female	3b.	.21 (.16) .25	.93* (.34) .54	.11* (.05) .45	.63* (.30) .40	-.43 (.43) -.14	.61	29
Male	3c.	-.05 (.10) -.15	.44* (.21) .59	.03 (.03) .24	.21 (.19) .31	.08 (.26) .06	.30	26

B. Time Period 1990-2007

Enrollment Group	Eq#	Independent Variables					R ²	N
		Economic Modern-ization	Nation Building Character-istics	State Strength & Authority	World System Integration	Islamic Ethics		
All	4a.	6.26* (1.07) .66	30.50 (47.88) .07	-1.07* (.28) -.51	-.80 (1.83) -.05	-4.87 (3.33) -.17	.66	43
Female	4b.	8.29* (1.26) .71	34.53 (56.59) .07	-1.45* (.33) -.57	-3.36 (2.17) -.19	-4.13 (3.94) -.12	.68	42
Male	4c.	.27* (.07) .51	4.68 (2.90) .20	-.06* (.02) -.51	-.02 (.11) -.03	-.15 (.20) -.10	.59	42

* significant at .1

@ = entries are unstandardized slope, standard error of slope in parentheses, and beta.

to the results obtained in earlier section. All through the time periods, the coefficients of the measure are insignificant. In the first time period, the effect of Islamic ethics is positive, implying that Islamic countries in Asia also expanded their national higher education. The same effect is found among enrollments to higher education among men. However, the effects are small and insignificant that they are negligible. Although insignificant, the spirit of Islamism shows negative effect on women's enrollment to higher education, suggesting that countries with little Islamic legacy are more likely to have greater proportion of women receiving higher education. This effect seems to extend to the recent period. In the second time period, the effects on the overall, women and men enrollments are negative. The results could have reflected the influence of Islamic revivalism as a new cultural ideology emerged in countries where the religious belief is prevalent since the seventies. Thus, a distinct pattern of organizing higher education emerges as shown from the finding in the first time period. With a world-wide diffusion of Islamic societies, an emphasis on global Islamic identity develops into a transnational Islamism. Thus, countries with Islamic ties are more likely to focus on integrating individuals into the national polity through Islamic ethics than higher education for nation-building. But these results for the effects of Islamic ethics on the expansion of higher education should be interpreted with caution as most of its effects are small and insignificant. The exploration into the cultural attributes of Islamic ethics expands our horizon of intellectual inquiry into the dynamics of incorporation or resistance of a specific model of higher education in individual countries with an Islamic cultural and religious background.

Cultural Attributes of Beliefs and Traditions: Confucian Traditions

Table 5.3 presents the effects of Confucian traditions on the status of higher education in Asia across two time periods. As discussed in earlier chapter, Confucianism has grown into varieties through schools of thoughts and portrayals diffused in some Asian countries that Confucian traditions are prevalent. The present study conceptualizes Confucian traditions from an operational level for regression analysis.

Before the nineties, the effect of Confucian traditions to the overall expansion in higher education is insignificant and negative, implying countries or societies having traditions of Confucianism are less likely to expand higher education, especially, to expand women's enrollment to higher education. But a striking change takes place

Table 5.3 Summary of the Effects of Independent Variables and the Control Variable (Cultural Attributes of Confucianism) on Higher Education in Asia, Separately for Women and Men in Two Time Periods: 1950-1989 and 1990-2007

Dependent Variable: Mean Percentages of Higher Education Enrollment

A. Time Period 1950-1989

Enrollment Group	Eq#	Independent Variables					R ²	N
		Economic Modern-ization	Nation Building Characteristics	State Strength & Authority	World System Integration	Confucian Traditions		
All	5a.	-.01@ (.11) -.01	1.05* (.23) .76	.07* (.03) .36	.64* (.21) .50	-.50 (.37) -.16	.69	30
Female	5b.	.18 (.16) .22	.96* (.34) .56	.10* (.05) .41	.65* (.31) .41	-.34 (.54) -.09	.60	29
Male	5c.	-.05 (.10) -.14	.43* (.21) .58	.03 (.03) .26	.21 (.19) .31	.04 (.33) .02	.30	26

B. Time Period 1990-2007

Enrollment Group	Eq#	Independent Variables					R ²	N
		Economic Modern-ization	Nation Building Characteristics	State Strength & Authority	World System Integration	Confucian Traditions		
All	6a.	5.34* (1.00) .56	49.36 (43.23) .12	-1.26* (.23) -.60	-1.91 (1.68) -.13	11.84* (3.62) .31	.72	43
Female	6b.	7.59* (1.26) .66	46.53 (54.40) .09	-1.60* (.29) -.63	-4.21* (2.12) -.23	8.85* (4.56) .19	.70	42
Male	6c.	.21* (.06) .41	6.60* (2.49) .28	-.07* (.01) -.57	-.09 (.10) -.11	.77* (.21) .37	.69	42

* significant at .1

@ = entries are unstandardized slope, standard error of slope in parentheses, and beta.

while entering the nineties. The coefficients are significant and positive, suggesting societies with Confucian traditions are more likely to expand higher education enrollments, especially the proportion of women to higher education. The promotion of neo-Confucian ethics has become appealing in Asia since the nineties. Most traditional attributes of neo-Confucianism give emphasis to the use of rationality to promote a combination of traditions and modernization. Although Confucian traditions have an Asian source, through an integration of traditions and modernity, it draws legitimacy from highly rationalized models of education and society from the world cultural order within which the international environment prevails. Thus, the shift to significant and positive effects in the recent time period suggests that countries with Confucian cultural ideologies are more likely to stimulate the expansion of higher education enrollments.

So far to this point of exploration, the organization of higher education is largely independent of national wealth – a finding which makes the functional interpretation unlikely except in the early time period in Asia. In general, the multivariate analyses suggest that there is moderate association between the institutionalization of higher education enrollments and national characteristics as the highest R-square for the estimated equations is only 0.72 and the lowest as 0.30. This suggests either that there is still some unexplained variation in the dependent variable or the selected explanatory variables might not have adequately explained the actual situation in the equations. Thus, what are the underlying forces that determine the expansion and organization of higher education enrollments in Asia? This section will further explore the issue of colonial influence during a period of educational hegemony.

Colonial Influence

Table 5.4 shows that almost all effects of colonial influence during a period of educational hegemony by the metropolitan powers on the expansion of higher education are consistently insignificant and positive across the two time periods. The results imply countries which are former colonies are more likely to expand higher education enrollments and give more attention to expand women's proportion in higher education. The coefficients become larger in the recent time period. The effects of colonial influence on the overall and female enrollments suggest that countries with colonial past are more likely to widen openings to higher education, especially for women in Asia. But these results should be interpreted with caution as all of them are insignificant.

Table 5.4 Summary of the Effects of Independent Variables and the Control Variable (Colonial Influence) on Higher Education in Asia, Separately for Women and Men in Two Time Periods: 1950-1989 and 1990-2007

Dependent Variable: Mean Percentages of Higher Education Enrollment

A. Time Period 1950-1989

Enrollment Group	Eq#	Independent Variables					R ²	N
		Economic Modern-ization	Nation Building Character-istics	State Strength & Authority	World System Integration	Colonial Influence		
All	7a.	-.01 [@] (.12) -.01	.99* (.27) .72	-.06* (.03) -.33	.61* (.22) .47	.20 (.45) .06	.68	30
Female	7b.	.24 (.16) .29	.75* (.36) .44	-.09* (.05) -.38	.68* (.30) .43	.80 (.62) .18	.62	29
Male	7c.	-.06 (.10) -.16	.46* (.23) .62	-.03 (.03) -.27	.21 (.19) .30	-.11 (.39) -.06	.30	26

B. Time Period 1990-2007

Enrollment Group	Eq#	Independent Variables					R ²	N
		Economic Modern-ization	Nation Building Character-istics	State Strength & Authority	World System Integration	Colonial Influence		
All	8a.	6.25* (1.10) .65	6.14 (47.07) .01	1.23* (.26) .59	-.69 (1.93) -.05	2.68 (4.34) .06	.64	43
Female	8b.	8.32* (1.27) .72	11.67 (54.75) .02	1.58* (.30) .62	-3.09 (2.24) -.17	3.96 (5.05) .08	.67	42
Male	8c.	.27* (.07) .51	3.91 (2.81) .17	.06* (.02) .56	-.02 (.12) -.02	.09 (.26) .04	.58	42

* significant at .1

@ = entries are unstandardized slope, standard error of slope in parentheses, and beta.

D. Empirical Notes and Concluding Remarks

This chapter has attempted to examine two further research issues with regard to the expansion and organization of higher education enrollments: (1) To what extent can national variations in the overall enrollments, separately for women and men, be adequately explained by some national characteristics in Asian countries? And (2) what are the underlying factors that determine a country expanding the national higher education in this region?

All through the first time period after World War II, the results have shown that national characteristics are not adequate to explain the expansion of higher education and rapid incorporation of women to higher education. This is specifically the case with national wealth that runs contrary to the functionalists' prediction for possible political orientation of expansion in higher education as a mere consequence of structural modernization and diversification, or structural inequality and hegemony. To a large extent, a country's levels of development are independent of the expansion of higher education enrollments.

Most characteristics of nation-building are weakly associated with the overall expansion or separately for women and men. This study, however, does locate some significant effects in the rapid widening of openings to higher education. The promotion of international developmentalism for social progress and human rights has been particularly appealing since the end of World War II. This finding implies that a widespread educational ideology has been firmly institutionalized in the international environment and permeated into all countries' educational priorities irrespective of how many or how little the portions that a country allocates to the national higher education system.

But since the nineties, the results have shown systematic changes of effects that national characteristics have become adequate enough to explain the expansion and the rapid incorporation of women to higher education. With the overview of the systematic shifts over time, each set of results show consistent effects on the expansion of higher education in about the same time period – a period in which world cultural discourses have emphasized trade liberalism of a country's internal development and decentralization of state control in social institutions and individual life courses. This finding points to a speculation of the effects of unique cultural forces in the region. Islamic ethics does not adequately predict the expansion or inertia of higher education. Only in the nineties, the cultural attributes of Confucian

traditions adequately predict the expansion of higher education enrollments. But, like other national characteristics, neo-Confucian ethics have a marked tendency to integrate world cultures that prevails in the international environment with the traditions. The above evidence supports a world-wide diffusion process of educational ideologies and their penetration to national education agendas. But Asia is also a region tinted with colonial past. National higher education may be born out of the metropolitan traditions or copy an expansive model of higher education during a period of educational hegemony. But, the result shows that colonial influence does not have any significant effect in the organization of higher education. Perhaps, the systematic shifts are merely replacements of common world ideologies over time.

At this point, the study has systematically documented evidence that the expansion and organization of higher education can be more adequately explained by the institutionalist perspective. The striking consistency of the overall expansion of higher education in Asia reflects responses of nations to the rules and conventions that are institutionalized in the international environment. Once the expansion is in place in higher education, it remains constant for a long period of time. In modern societies where the status of higher education is so firmly institutionalized, although many may question the efficiency and effectiveness of the international structures or education practices in higher education, all these do not stop national efforts to define goals and allocate resources. Thus the “model” template of higher education result more from shared cultural understanding (Meyer and Rowan 1977) in the forms of common goals and visions of higher education that are most pronounced in the environment.

While the evidence generally supports the perspective of the institutionalist, further details to clarify the process of expansion are needed. This study will continue to explore the implications of this perspective by tracing an account of the development of higher education in a specific case. A case study of Hong Kong provides an extension to the exploration. Hong Kong society has sampled “national” characteristics that discussed in the present study. Indeed, national independence has never happened to Hong Kong since nineteenth century, when she became a British colony. After 1997, she then became a semi-autonomous polity of China that has experienced transition to market socialism and embedded to traditional values of Confucianism. The colonial legacy of Hong Kong could have provided a context to study the extent that model of Hong Kong’s higher education would be subjected to

the influence of her present sovereign. Especially, Hong Kong is reforming her higher education system from formerly three-years to now four-year study program. The four-year study program could have provided evidence supporting the development of Hong Kong's higher education is susceptible to the Chinese model of higher education. But at the same time, Hong Kong as a city-state frequently participates in international tests and rankings that evaluate performance of students and universities by international standards. Active participation in international standardization exercises could have also reflected the extent to which Hong Kong portrays the goals of higher education. Thus, the case study serves as an extension of these empirical findings and further explores how cosmopolitan city imagination becomes a steering force for this Asian city to envision a typical model of citizenship building (Soysal and Wong 2011).

NOTES

¹ In time period 1950-1989, the present study has performed logarithmic transformation to three independent variables of economic modernization, education for nation-building, and attachments to world society. In time period 1990-2007, the present study has performed logarithmic transformation to two independent variables of economic modernization and attachments to world society. The dependent variable measuring higher education expansion has also undergone logarithmic transformation.

Chapter Six

Borrow from the World and Dress up the Showcase for Asia: A Case of the Expansion and Organization of Higher Education in Hong Kong

A. Introduction

This chapter examines in greater detail the expansion and organization of higher education in Hong Kong. Not only does this chapter focus on analyzing formal statements of higher education over time in Hong Kong, but it also pays equal attention to the official bulletins that state educational aims and objectives of some countries in Asia. In the present chapter, the case study explores the extent that the world cultural/society perspective can be applicable to explain the expansion of higher education.

The present chapter is an extension of the empirical results from Chapter four and five. The purpose is to integrate the components that the present study intends to address to through a case study of Hong Kong. The regional studies in the pervious chapter show a shift of educational reference of higher education expansion from the emphasis on a standard model to some regional emphases in Asia since 1990s. The findings suggest a reasonable possibility that a regional model of an integrated knowledge system in Asia has emerged. However, multivariate regression analysis has its limits in tracing the extent that individual polities' attachment to or deviation from the worldwide model of higher education expansion from time to time. An inquiry to the presence of an Asian model is the objective of the present study. This chapter aims to approach the case of Hong Kong as an extension of the empirical findings and to answer the following question: what are the underlying forces that generate a homogeneous expansion in enrollments with an increasing shrinkage of the traditional gender gap? In order to answer the question, organizational memberships for gaining international recognition and curricular and pedagogical reform are two issues that the case study addresses. Specifically, little has been examined about the changing curricular and pedagogical content of education and its relation to the shrinkage of the traditional gender gap. From the realist perspective, the increasing role of women in education and labor force has been treated as a significant powerhouse to create economic miracles in Asia (Brinton 1993; Lee 1998; Salaff 1981). Rather than empowering human capital storage in a specific society or

securing interest and status in the region, the reordering of national goals and gender coverage has its source from a new form of knowledge organization. Instead, new curricular groupings and pedagogical practices could have influenced which national priorities are to be included and which groups of individuals are to be schooled. Thus, an investigation into a specific case of a recent curricular and pedagogical reform in Hong Kong will serve an exploratory purpose.

One of the major problems in this kind of historical and comparative research is the inaccessibility of relevant and comparable data for all Asian national societies, such as, changes in higher education prescribed by national education ministries and higher educational advisory bodies. Due to the limitation, the collection of these data is beyond the scope of the study. Another common problem in comparative study is the scope of inquiry often places emphasis to internal changes within a particular national society. Scant attention has been given to the institutional or societal environment external to the national society. Therefore, the case study will serve as an example of how the comparative information on societies could enrich the field of comparative study on higher education.

B. A Case of Higher Education in Hong Kong

Hong Kong's possession by British business, political and cultural interests began in 1842. It is not surprising that the early higher education of this Asian colony strongly resembled that of the United Kingdom. British social and educational values that were intended to integrate Hong Kong society thus predominated over the early goals of higher education in the colony. The goals of higher education during this early colonial period had a clear objective to socialize young adults to become "patriotic and loyal citizens" and to provide secular education to train professionals for the colony and other British colonies, with special attention given to follow the British model of "red brick" universities. Schools and subjects with greater practical uses were given first priority while setting forth the agenda. Faculty of science, faculty of medicine and several arts subjects were introduced to be knowledge useful and relevant to industries and commercial uses (Committee for the Establishment of a University for Hong Kong October 29, 1908).

A definite shift from British influences became evident in the higher education after the Second World War when the first foreign aid team arrived at the colony with a "resuscitation" plan to revive the colony's higher education. While this team

suggested to reconstruct the colonial university “as an autonomous institution and on a permanent basis”, the goal shift its focus to the “advancement of knowledge” with a strong emphasis on the British model of knowledge creation as a means of bringing the university closer to the world community of higher knowledge (Cox 1946). Academic excellence had begun to replace the emphasis on the strategic and diplomatic usefulness of the university. The prevalent objective of higher education at this stage was to gain membership to the “republic of learning” and to attain “world-class excellence and international character” (Jennings and Logan 1954; Jones and Adams 1950), which was concurrent with the disappearance of the British-oriented goals for the knowledge system.

Following the return of Hong Kong to her original sovereign in 1997, higher education goals became a focal point for advancing societal goals, such as economic development and social integration. Population coverage continued to expand in higher education in the form of percentages and numbers in places made available shortly before Hong Kong’s return. Although the organizational form of higher education remained largely the same as the British one, the focus of goals extended further to the regional and world recognition. New goals such as “pursuit of excellence” and “world-class education institutions” were attached to the objectives of curriculum content and pedagogical format.

Current goals of higher education in Hong Kong apparently focus on the promotion of regional and world exposure, with less emphasis on adopting the model of her present sovereign. After the return to China, the “world-class excellence” approach remained on the agenda of higher education. Tracing the higher education goals stated in the formal documents of the University Grants Committee (2002a, 2004a, and 2010), the goals were further expanded with the incorporation of new branding of goals introduced by various foreign aid teams, for example, “quality auditing mechanisms”, “research excellence for knowledge creation”, and “increasing elements of internationalization”.

In response to the new branding, exhaustive efforts were made to set up internal audit standards and centers of quality management for teaching and learning routines in each university. Students’ engagements and outcomes have become standardized components on course syllabi. Team teaching, course evaluation exercises, and external reviews were portrayed to be effective claims for reaching to teaching and learning excellence.

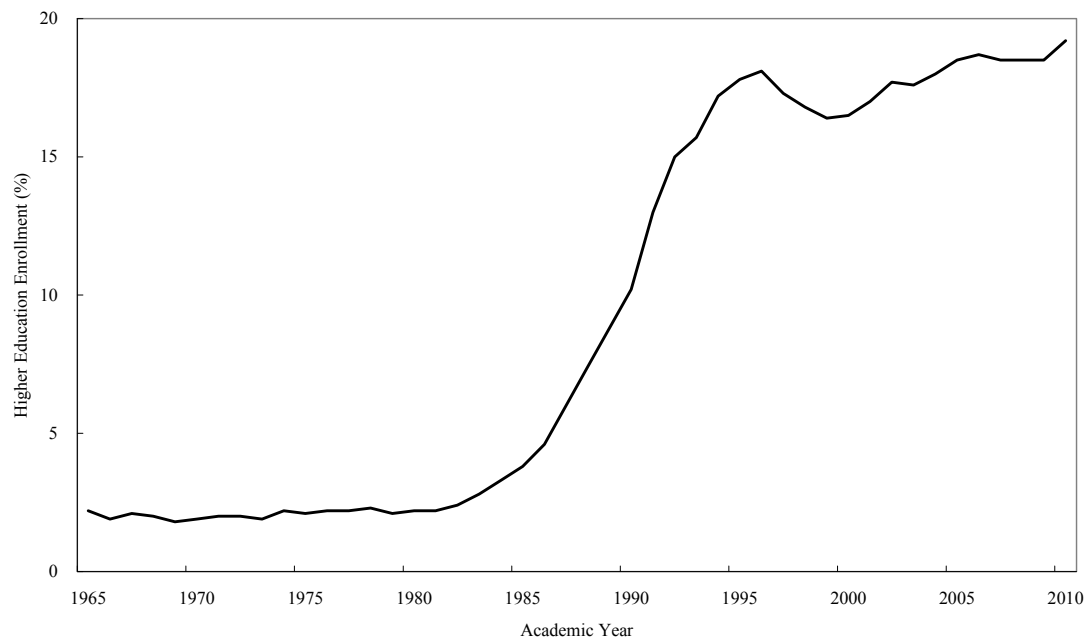
The organization of higher education in Hong Kong has evolved from a rudimentary form to become an integral component in the education system within a century. Higher education has undergone some reforms over time, but never has the goal of increasing places removed from the higher education institutions ever since its emergence. The average enrollment remained slightly lower than the regional and world ones. As shown in Figure 6.1, the time period 1985-1995 marked a rapid upsurge of higher education places which is consistent with the formal statements for development during the transitional period from the British to the original sovereign of Hong Kong. The Hong Kong administration set forth an agenda to broaden the base of higher education citizenry further to 60 percent of the relevant age group after Hong Kong's return.

Expansion in higher education places seems to be a deliberate attempt to move away from the colonial legacy and towards the original sovereign. Building a new group of citizenry became indispensable. The growth in higher education places also shows constant revisions of higher education goals across time. To what extent did these changes in official statements reflect a power influence of the sovereign from the British or China before and after the political return? How is the reorganization of the goals as a mere replacement of reform priorities or simply an educational innovation in the case of Hong Kong? To what extent has the world culture penetrated into Hong Kong and reflected in the organization of goals in higher education? The case study will compare the goals of Hong Kong with those of her former and present sovereigns in order to address these questions unanswered in the previous chapters. The comparison is essential to explore the extent of national regimes as hegemonic influence to the incorporation of a specific pattern of higher education. In the previous chapter, the multivariate analyses provide evidence to support that former colonial legacy has no significant influence to the adoption of higher education expansion. But Hong Kong has never possessed independent status and she only experienced a political transition from the British to China. The case of Hong Kong's "one country, two systems" invites further inquiry to the relevance of hegemonic influence on higher education expansion.

C. Reforms as Collective Projects of Individual Competence and National Development

Almost all strategic and diplomatic goals of higher education disappeared from

Figure 6.1 Trend of Higher Education Enrollment in Hong Kong, 1965-2010



Notes: The age cohort of 17-20 years old was the base of estimation. The figure was compiled from the systematic source list below.

Source: The University Grants Committee, Hong Kong. 2011b. "Student Enrolment of First-year-first-degree (FYFD) Places of UGC-funded Programmes 1965/66 to 2010/11." *Statistics*. Retrieved September 21, 2011. (<http://cdcf.ugc.edu.hk/cdcf/searchStatisticReport.do;jsessionid=A6D96B15076413E4D0D3FE84085DE4FB#>)

the policy agenda before the return of Hong Kong to China. The goals of Hong Kong's higher education largely developed in congruence with that of the United Kingdom, except the British emphasis on higher education as an organization creating highly educated citizens. For the rest of the goals, the British and Hong Kong ones converged simultaneously on the theme of higher education as a project of modernization. But they made distinctive portrayals to the forms of creating an integrated knowledge system. While the British portrayed higher education as locus of advancing universal knowledge as natural and empirical, Hong Kong portrayed higher education as a part of creating and delivering universal knowledge through an integration of traditions and modernity after World War II. Efforts were given to emphasize the international character of higher education which distinguished Hong Kong from that of the United Kingdom during this period.

British higher education has undergone important transformations over time. In 1960s, the British thoroughly reformed her higher education system. A significant aspect of higher education aims was made to be consistent to national goals of development and social integration. Not only did the goals put emphasis to training professionals relevant to the workplace, but also higher education had a significance to "promote the general powers of the mind" and "produce not mere specialists but rather cultivated men and women". Higher education was portrayed as a modernization project which emphasized "the advancement of learning" that creating universal knowledge for the world was an essential component of what higher education should be. As a major locus of socializing young citizens in the United Kingdom, higher education was seen as a national project for "the transmission of a common culture and common standard of citizenship" (Robbins 1963:6-7).

With the return of Hong Kong from the British to the original sovereign in 1997, higher education reforms in Hong Kong became more of a focus of advancing national goals similar to that of the U.K. and China, such as economic development and social integration. For the first time, higher education goals presented themselves in an elaborated format. A careful examination of the higher education goals during this period, as shown in Table 6.1, reveals that Hong Kong's organization of higher education goals seemed to have patterned after that of the British. The common theme of higher education goals of the British and Hong Kong emphasized on students in the reform of the British in 1997 and Hong Kong's reform in 2000. Students are expected to have critical thinking. The British reform intended to

Table 6.1 A Comparison of Goals of Higher Education Reforms in the United Kingdom and Hong Kong

The United Kingdom (1997)	Hong Kong (2000)
<ul style="list-style-type: none"> ● To encourage and enable all students – whether they demonstrate the highest intellectual potential or whether they have struggled to reach the threshold of higher education – to achieve beyond their expectations; ● To safeguard the rigour of its awards, ensuring that UK qualifications meet the needs of UK students and have standing throughout the world; ● To be at the leading edge of world practice in effective learning and teaching; ● To undertake research that matches the best in the world, and make its benefits available to the nation; ● To ensure that its support for regional and local communities is at least comparable to that provided by higher education in competitor nations; ● To sustain a culture which demands disciplined thinking, encourages curiosity, challenges existing ideas and generates new ones; ● To be part of the conscience of a democratic society, founded on respect for the rights of the individual and the responsibilities of the individual to society as a whole; ● To be explicit and clear in how it goes about its business, be accountable to students and to society, and seek continuously to improve its own performance. 	<ul style="list-style-type: none"> - <u>Aims</u>: To consolidate students’ abilities and attitudes for life-long learning, and to nurture people who have confidence, a sense of justice and social responsibility and a global outlook. - <u>Objectives</u>: <ul style="list-style-type: none"> ● To develop students’ independent and critical thinking, creativity and ability to learn independently and to explore, in preparation for the mastering of knowledge in a certain discipline. ● To foster in students an aspiration for self-improvement, a positive attitude towards life and a commitment to their families, their society and their country. ● To enhance students’ ability to learn, live and work in a diverse social and cross-cultural environment.

Notes: Higher education goals were summarized from two systematic sources. The sources of information are listed below.

Sources:

Dearing, Ron. 1997. *Higher Education in the Learning Society: Report of the National Committee of Inquiry into Higher Education*. London: Stationery Office.

Education Commission. 2000. *Learning for Life, Learning through Life: Reform Proposals for the Education System in Hong Kong*, Hong Kong: Education Commission.

“sustain a culture which demands disciplined thinking, encourages curiosity, challenges existing ideas and generates new ones”. In Hong Kong’s reform, students were encouraged to develop “independent and critical thinking, creativity and ability to learn independently and to explore, in preparation for the mastering of knowledge in a certain discipline”.

Developing individuals’ life biographies through higher education is a common theme that the formal statements of the British and Hong Kong put emphasis on. A closer comparison of the goals shown in Table 6.1, enhancing the collective responsibilities of individuals to the society is another significant aspect that common across the goals of the British and Hong Kong. For example, one of the goals in the British reform emphasized students as “part of the conscience of a democratic society, founded on respect for the rights of the individual and the responsibilities of the individual to society as a whole”. The Hong Kong reform also put emphasis to the collectivity of individuals and their connection with other social members. Formal statement of higher education contained the goal “to consolidate students’ abilities and attitudes for life-long learning, and to nurture people who have confidence, a sense of justice and social responsibility and a global outlook”. Although the Hong Kong reform did not bring in the goals of creating world-class universities just as the British one, the 2002 higher education reform included the goal of making a small number of universities capable of competing at the highest international level.

Another British influence to Hong Kong’s higher education could have continued to exist in some higher education reforms even Hong Kong returned to China. In these post-colonial time periods of higher education reforms, there was a synthesis of some common goals advocated by groups of British leaders in higher education profession, for example, the Sutherland group in 2002 and the Lucas group in 2010. These goals of developing individual life biographies and making world-class universities seemed to have intertwined with each other. Given the unique historical link of Hong Kong with the British, the patterns of Hong Kong’s formal statements of goals could have imprinted traces of the democratization of modern individualism. But when Hong Kong returned to the original sovereign, the British model of higher education could have lost its prevalence in Hong Kong. The pattern of Hong Kong’s higher education could have subjected to China’s hegemonic influence in the form of “one country, two systems”. Thus, a further inquiry into the

transformation of goals in contemporary China enhances our understanding of the extent that Hong Kong's incorporation of a specific pattern in higher education. Especially, Hong Kong's higher education structure has been moving toward a four-year program. The structural change seems to be a response to China's influence.

During the same time period, in 1990s China prescribed a new set of higher education goals which were tightly consistent to the national goals for progress and social integration. Here the portrayal of goals gave strong emphasis to higher education as a national projection of modernization which trained experts and professionals and set forth a culture of science and technology for practical uses in contemporary Chinese society. Science and technology commanded a central place in the portrayal of higher education goals. For example, China assigned a significant portion of the goals to elaborate how "science application as a primary force of production" was connected to the national direction for science and technological development. But at the same time, higher education was positioned to be a cultural project that it created models and solutions for a historical and ideological project of socialism. In the case of China, the remaking of higher education was a good part of creating a historical and cultural innovation of "socialism with Chinese characteristics" (Central Committee of the Chinese Communist Party and the State Council, P.R.C. 1993).

This national priority later received a national branding, *Project 211*, as to fulfill the national goal of bringing the higher education closer to the world's standard of knowledge creation. Even more exhaustive efforts were made to reform teaching and research facilities of a few key universities through another national priority with a new branding, *Project 985*. Rather than expressing the projection as an attempt of reaching out to the world standard, the *Project 985* topped up a small group of national universities to become "first-class universities with international standard" (Ministry of Education, P.R.C. 1998). The core rationale seemed to be consistent to the original goal of fulfilling national development and progress and reflecting national strength and prestige. This portion of "excellence" and "internationalization" seemed to have reflected its trace through an expression of creating universal knowledge or making links to the world academic community in that of the British, Hong Kong, and China ones.

This portion of goals continued to be stated in the 2010 national reform. But it

has received relatively less elaboration in the 2010 national goals for higher education. The main thrust of the reform paid relatively greater emphasis to higher education curriculum and pedagogies than the scientization of higher education and its ideological position. For the first time since 1990s, these goals presented a slight trace of student-centric emphasis which portrayed students as persons “participation actively in their own learning”. Thus, standardized mechanisms of quality assurance and auditing were seen as new and effective measures to monitor learning and teaching performance. But still, the higher educational branding of “first-class universities and areas of excellence” continued to command a central place in the national goals. A large portion of national goals gave emphasis to the “international characteristics” of knowledge creation and delivery through “links to international academic organization, active participation in cross-national science projects and establishment of joint research centers” (Ministry of Education, P.R.C. 2010).

Through a cross-national and cross-sectional comparison of higher education goals, these three societies’ expectations on higher education expressed a common projection of active participation in universal knowledge creation and delivery. The British and Chinese intended higher education as national projects for social progress and integration. These national goals promulgated the states to have always directed the priorities of higher education. Before her return to China, Hong Kong’s civil authorities had been giving efforts to redirect the emphasis on higher education. Little evidence of cultural imperialism has been found as world system and dependency theorists have predicted in this portion of goals. This finding is consistent with the results from the earlier chapters that former colonial legacy provides no connection to explain the expansion of higher education. Emphasis on “first-class,” “learning edge of world practice,” and “internationalization” has become prevalent in a way that these three distinctive societies seemed to have responded to a common cultural form of higher education which had a penetrating effect on legitimate the reordering of higher education goals.

D. Portraits of Higher Education as a Normative Good around Asia

Not only was such an organizational reference of higher education penetrated into national goals of the sovereign states as in United Kingdom and China, but also the goals of Hong Kong higher education showed little deviation from the world reference. Never had Hong Kong possessed sovereign right of a nation-state, nor had

she undergone a pessimistic condition of political helplessness drawing on the historical fatalism of nativist and nationalistic movements as in Taiwan society. In fact, the absence of sovereignty rights created a space for the penetration of this highly rationalized model of higher education in Hong Kong. Moreover, the emphasis on the autonomous status of higher education in the 1950s could have positioned Hong Kong higher education against intervention from any organized and unorganized movements to make higher education goals deviate from the universal label of academic freedom. After the sovereignty handover in 1997, the prescription of “one country, two systems” to the current Hong Kong society had shaded her higher education goals with a transnational attribute which even made bigger rooms for the penetrating effect of the organizational reference of modern higher education. Rather than drawing legitimacy for modern higher education from Hong Kong’s past as a former colony, her present as a central metropolitan, or her future as part of the rising great power, higher education goals make explicit reference to Hong Kong’s higher education as an autonomous and transcendental entity placed strong emphasis on universal knowledge creation and delivery, nothing short of official claims for world standard and international excellence.

Such a world legitimate reference of higher education seemed to have shed light on the issue of higher education as a national project of state development, which is appropriated differently by the conception of political sovereignty in China, the United Kingdom, and Hong Kong. Higher education has been seen as one of the top national projects for modernization and social integration through an integration of science and education. Here higher education goals of China are expressed as scientization of modern nationalism.

While Hong Kong had no sovereignty rights, an absence of such enabled her to drive her higher education goals further out of her local context. Goals of the United Kingdom also reflected the same expression of the presence of political sovereignty. By the expression of British goals, the national project of higher education was perceived as democratization of individualism. Higher education is seen as “part of the conscience of a democratic society, founded on respect for the rights of the individual and the responsibilities of the individual to society as a whole”. Individual rights rather than science and education are source of ordering priorities for higher education. Thus her expression of goals is leveled to a transnational domain which reflected more cosmopolitanism of individualism, for example, emphasis to train

individuals to have a “global outlook”. While portraying her position of higher education with reference to her political sovereign, Hong Kong often portrayed herself as a “window” or “bridge” between the mainland and the world. At the same time, her expression of goals has always taken the Asian region into consideration which never had any of her Asian neighbors presented themselves in such a way, for example, the making of an educational hub in Asia with specific reference to the neighboring societies, such as Japan and other three “Asian Tigers”.

From these portrayals of Hong Kong’s higher education, it could have implied that that a society reorganizes (or “window-dresses”) its national priorities of higher education when it interacts with a diversified audience in the local, regional, or a world setting. To what extent did these priorities as labels reflecting national realities? Were these goals as cultural artifacts original to the historical and political courses of these societies? Or did these goals of a society, for example, Hong Kong reflect a diffusing effect of a world reference legitimate the reordering of goals? The case study will further explore these questions by examining the formal statements of higher education from societies in Asia. The focus of investigation will pay attention to analyze the extent that the content and themes in the formal statements of higher education could have shifted across two time periods.

The present study includes countries and semi-autonomous polities that sample major national characteristics in Asia. For example, Japan and China are included as sovereign states that have no colonial experience. Hong Kong and Taiwan are city-states with colonial legacy. With the nativist movement, Taiwan has a pessimistic portrayal of a politically helpless community. Singapore is a nation-state having colonial past and has been vigorous to establish her legitimate position as an international power. Following the guiding propositions of this study on the presence of organizational inertia, the present study includes South Korea with Hong Kong, Singapore, and Taiwan. Examination into the goals of the “Asian Tigers” and Japan addresses the extent to which changes in higher education goals are related to the “economic” needs or other possible underlying forces.

These Asian societies revised the goals at different points in time. In order to enhance comparability of higher education reforms between Hong Kong and some other societies in Asia, the case study chose the most recent reforms in the twenty-first century across these societies. Then efforts were made to trace another major reform prior to the recent ones. Thus, formal statements in each society two

time periods of reform were made available for comparison. The data could be grouped into two time periods: 1985-2001 and 2005-2010.

Table 6.2.1 and 6.2.2 presented goals of China, Japan, and other three “Asian Tigers” in two time periods in which these societies rapidly and simultaneously reordered goals of higher education. A comparison of the latest goals with their previous ones has illuminated the national expectation for higher education in these neighboring societies. In the first time period as shown in Table 6.2.1, the five societies presented peculiar stands for what higher education should be. For instance, China in the 1980s, higher education was in its rudimentary and restrictedly specialized form. With the “open door” policy, goals began to carry a national expectation of developing into a full and comprehensive form of higher education which kept up to the pace of the national economy. Goals were expressed as instrumental to the nation’s economic development and the ideological project of modernization.

Japan’s higher education reform was a good example for national responses to economic crisis. In the 1990s, when the economic bubble burst affected the Japanese economy, the nation’s immediate response was to call for a higher education reform which placed great emphases on quality checks as an effective means to strengthen the academic standard of undergraduate curriculum and research activities. Rather than making greater efforts to specialize knowledge creation and delivery, the Japanese higher education system began to move from a unified form to an elaborated presentation of higher education with emphasis on individuality. Thus, diversification of learning modes and inter-institutional mobility of students became measures to replenish the human capital storage for economic revival. But still, the reform reflected a slight trace that higher education reform as a prominent national project for development. For example, the reform introduced a label of “lifelong learning society” expressed the reform as a social movement for integration in which universities were to be responsive to changes in society.

Higher education reform in Taiwan presented a distinctive case that goals seemed to have reflected a political shadow of directing national expectations that draws largely from the internal conditions of Taiwan. Despite her peculiar and disillusioned situation for international recognition, the political situation seems to

Table 6.2.1 A Summary of Goals and Visions of Higher Education in Five Asian Societies: Time Period 1985-2001

Goals and Visions	
China (1985)	<ul style="list-style-type: none"> ● To develop a comprehensive disciplinary higher education system which its levels and proportions are equivalent to the level of the nation's economic strength; ● To cultivate high level professional and experts for the nation; ● To pursue scientific and technological development autonomously and find solutions to prominent theoretical and practical problems while developing projects of socialist modernization.
Japan (1990)	<ul style="list-style-type: none"> ● Enhancing higher education <ul style="list-style-type: none"> - Improvements and enhancement of graduate schools - Improvement of the system of academic degrees - Strengthening the educational functions of the university ● Developing more distinctive and more diverse activities at individual institutions of higher education <ul style="list-style-type: none"> - Improve the content of general and specialized education - Decrease in the population aged 18 and its impact on higher education - Coping with internationalization and with the information age ● Diversifying procedures for selecting entrants ● Coping with a lifelong learning society <ul style="list-style-type: none"> - Diversifying the modes of learning - Dealing with students' transfer - Evaluation of the performance of students who have studies in institutions other than universities - Promotion of cooperation between the university and society ● Activated programs in education and research <ul style="list-style-type: none"> - Self-evaluation and self-innovation - Reinforcing financial resources
Taiwan (2001)	<ul style="list-style-type: none"> ● <u>Academic research and seeking enlightenment</u>: universities should pursue advanced academic research in order to invent new theory, create new culture and realize new ideals. ● <u>University autonomy and academic freedom</u>: the ideal of academic free should include "freedom to teach" and "freedom to learn". Universities possess autonomy to make decisions regarding teaching and research. But at the same time, universities have responsibilities to maintain the quality of their output. ● <u>Pursuit of excellence and promotion of quality</u>: not only does university education commit to a pursuit of "creative knowledge", but also it devotes to the development of a whole person. University education aims at nurturing students to become individuals who possess humanistic literacy, morality of personality, taste of life, and quality of work so that they may enjoy life and live to the full.

Goals and Visions

- Integration with the community and giving full responsibility: university education should provide lifelong learning opportunities to adult learners so that they can receive a vast amount of new knowledge and stimulate them to grow continuously for personal life, for survival of the whole society, and national development.
 - Approaching the international world and academic export: internationalization of universities is a commonly accepted indicator of national strength and competitiveness. The internationalization of universities is an important step to facilitate the internationalization of the nation.
- Singapore (2000)
- Universities produce the graduate manpower for our high-tech, knowledge economy.
 - Universities educate Singaporeans to be global workers but local citizens contributing actively to Singapore.
 - Universities are creators of new knowledge and new applications needed to help Singapore become a Renaissance City in the fullest sense, with a blossoming of advances in science, technology, commerce, and the arts.
- South Korea (1985)
- Reorganization of the school system;
 - Reform of the entrance examination system;
 - Modernization of school facilities;
 - Recruitment of qualified teachers;
 - Development of high-level manpower in science and technology;
 - Renovation of educational contents and methods;
 - Pursuit of excellence in higher education;
 - Autonomy in local educational administration;
 - Establishment of a consistent educational administration; and
 - Drastic increase in educational investment.
-

Notes: Higher education goals were summarized from five systematic sources. The sources of information are listed below.

Sources:

- Central Committee of the Communist Party of China and the State Council. 1985. *The Decision of the Reform of Education System of the Central Committee of the Communist Party of China* (in Chinese). May 27, 1985. Retrieved November 21, 2011 (http://www.moe.gov.cn/publicfiles/business/htmlfiles/moe/moe_177/200407/2482.html).
- Lee, Jeong-Kyu. 2000. "Main Reform on Higher Education Systems in Korea." *Revista Electrónica de Investigación Educativa* 2(2):61-76.
- Ministry of Education, Republic of China (Taiwan). 2001. *White Paper on University Education Policy* (in Chinese). Retrieved May 12, 2011 (<http://history.moe.gov.tw/important.asp?id=37>).
- Ministry of Education, Science and Culture, Japan. 1990. *Japanese Government Policies in Education, Science and Culture*. Retrieved May 19, 2011

(http://www.mext.go.jp/b_menu/hakusho/html/hpae199001/index.html).
Ministry of Education, Singapore, 2000. Education Towards the 21st Century -
Singapore's Universities of Tomorrow, Address by RADM (NS) Teo Chee
Hean, Minister for Education and Second Minister for Defence at the Alumni
International Singapore (AIS) Lecture. Jan 7, 2000. Retrieved March 12,
2012 (http://www.moe.gov.sg/media/speeches/2000/sp10012000_print.htm).

position Taiwan to adopt the portrayal as optimistic pessimism. The nativist Taiwan movement has given more emphasis on the local and indigenous needs of Taiwan society.

When the Democratic Progressive Party replaced the Kuomintang regime in 2000s, the goals seemed to have reflected a new national-historical presentation of Taiwan through its emphasis on the making of “a whole person”. Rather than presented the goals in technical expression, for the first time, Taiwan projected a student-centric presentation emphasizing individuality in the national goals which are expecting a new breed of young people who were independent individuals “who possess humanistic literacy, morality of personality, taste of life, and quality of work.” Instead, the goals projected higher education as one of the life course events that students “may enjoy life and live to the full.” Not only did university education make new categories of citizens, but also universities were thought to be effective means of infusing the whole society with new knowledge and culture which are most essential to the society’s survival and state development. In this case, the new portrayal seemed to have moved away from the historical legacy of pessimism and uneasiness that penetrated Taiwan’s political presentation since her relocation on the island after 1940s.

Although Singapore was once a colony, her independence in the 1960s provided her legitimate claims to sovereign rights of nation building which posed an example from that of Taiwan. Singapore called for a first formal higher education reform immediately after the Asian economic setbacks at the end of 1990s. Higher education in Singapore showed the same national expectation of cultivating highly educated and specialized professionals for fulfilling the national goals of development. Rather than drawing legitimacy from projections to the future, Singapore expressed higher education visions through cultural artifacts of knowledge creation as in the time of Renaissance. Although Singapore was a nation of her own making, with the vision to be a “Renaissance City”, Singapore’s higher education derived legitimacy from her transnational and cosmopolitanism of nationalism for the reordering of goals. Thus, it was not uncommon to find emphasis on social integration of the local citizens, and the country’s integration to the world society through a socialization of local citizens into global workers.

When the democratic regime replaced the military rule in 1980s, South Korea set forth a reform to modernize the higher education system. The reform was a

response to the nation's industrialization. Goals were expressed as consolidation and standardization of curriculum, teaching pedagogies and educational bureaucracy which drew claims of legitimacy from the nation's needs for modernized and high level human capital fulfilling national goals for development and progress.

Through a cross-national examination of the goals, China, Japan and the "Three Tigers" made distinctive portrayals of higher education as essential to state development. Portrayals of higher education vision could have reflected that the reordering of goals was closely associated with historical legacy, regime changes, social turmoil, and economic setbacks. For example, China, Japan and South Korea drew sources of higher education reforms from sovereign presentation of a modernized nationalism. Reforms of goals were national authorities' responses to the present conditions. For Taiwan under the Democratic Progressive's reign, reform goals stemmed legitimacy from Taiwan's cultural presentation of individualism with a modernized projection of individuality from the present to the future. As a relatively young nation-state, rather than presenting higher education reform as a sovereign presentation of nationalism, Singapore modernized higher education goals through an imagery of Renaissance which portrayed a rebirth of a city of intellect advancing new knowledge in science and humanities. Cultural artifacts became legitimate sources for reform which tagged a cosmopolitanism label to the sovereign presentation of nationalism from the present to the past and eventually to the infinite future. Thus, the goals of Singapore expressed an emphasis on socializing young people into citizens for nation building and a devotion to cultivating local citizens into active participants of the world society. In all of these societies examined, distinctive portrayals of goals and visions were reflections of the national realities of state development.

Taiwan and Japan were two cases which made relatively elaborated statements of integration to the international society. For example, in Taiwan's higher education reform, internationalization was a national response to Taiwan's entrance to the World Trade Organization in 2002. National goals of higher education reform gave one third of its portion to elaborate the national responses to the global pressure through moving towards the international society. Internationalization of universities was thought to be a legitimate marker showing national strength for international competitions. Thus, the internationalization of universities through academic exchange was an expression of making an effective link to the world society that

Taiwan perceived the linkage essential for the society's survival and national development. In 1990s, when the bursting of economic bubbles shook the Japanese society, a small portion of the higher education goals made a slight trace of internationalization of higher education system in which the Japanese positioned the goals as a diplomatic means of holding existing ties with the international society. National survival and development were major concerns for the Japanese higher education reform. Taiwan and Japan's insert of higher education as ties to world society in the goals seemed to have reflected a common set of institutional rules for modern higher education that these Asian societies began giving priorities on their agendas, although they received only a relatively slight portion of attention in this time period.

Goals in time period 1985-2001 shows a movement beyond the dichotomy between indigenous and nation sovereign states. Diverse portrayals of making higher education international in these countries have created a shared cultural speech across the national conditions of sovereign nation states, city state with learned helplessness or nation-state striving for international cultural power. In the case of Hong Kong's portrayal, her goals tend to emphasize less on higher education for internal needs and to stress her significance in Asia when her competitive edge is decreasing.

E. Decreasing Emphasis on National Needs as the Normative Focus of Goals

Table 6.2.2 presented the goals from latest higher education reforms in these five societies in the time period from 2005-2010. The time period has a unique theme across the selected countries. Almost all of them stress the need to reform in order to be prepared for the future challenges in 21st Century. Compared to the goals in time period 1985-2001, goals in the time period 2005-2010 give lesser emphasis on national needs, but more on making higher education international.

Not only did Taiwan and Japan insert transnational reform priorities to modernize the higher education system, but also China, Singapore and South Korea portrayed a common emphasis on reaching the highest world standard through taking up standardized bases of accrediting, auditing, rating and ranking academic activities. For example, Taiwan and Japan kept the goals of internationalizing their universities. On the top of that, they enhanced the priorities of quality assurance for universities. Specifically in the case of Taiwan, when the Democratic Progressive party stepped

Table 6.2.2 A Summary of Goals and Visions of Higher Education in Five Asian Societies: Time Period 2005-2010

Goals and Visions	
China (2010)	<ul style="list-style-type: none"> ● A comprehensive enhancement of higher education quality for attaining international reputation, approaching first-class standard and strengthening competitiveness of higher education in the international sphere; ● Improving the quality of teaching and learning through quality assurance mechanisms to produce specialists and professionals; ● Raising scientific research standard; ● Strengthening services to the community; ● Building a flexible higher education structure to cater the needs of the nation and special economic regions; ● Building a group of first-class universities and areas of excellence through <i>Project 211</i> and <i>Project 985</i>.
Japan (2009)	<ul style="list-style-type: none"> ● Cultivation of human resources with expert knowledge and skills in various academic disciplines and high-level research, contribute to social and economic development in a far-reaching manner; ● Guaranteeing the quality of universities; ● Internationalization of universities; ● Dealing with social issues; ● Financial assistance for students
Taiwan (2010)	<ul style="list-style-type: none"> ● Greater flexibility and autonomy for higher education institutions to manage their school affairs and administrative duties ● More diversity and flexibility for entrance to higher education ● Fostering an environment of fair competition between public and private universities in order to achieve social fairness and justice ● Enhancing internationalization of higher education and expanding the output of higher education ● Enhancing higher education quality and responding to the needs of development in society.
Singapore (2005)	<ul style="list-style-type: none"> ● Universities foster a greater sense of ownership and inspire a sense of belonging among their stakeholders, namely, the university Council, senior management, faculty, staff, students and alumni so that they can each feel a personal stake in the success of the university and play a more proactive role in helping the universities achieve their missions; ● They are able to differentiate themselves from their competitors and achieve peaks of excellence in specific niche areas at worldclass level; and ● They are nimble-footed and entrepreneurial to respond to market changes and hold their own against overseas universities in a globally competitive university landscape.

Goals and Visions

South Korea (2005)	<u>Brain Korea 21 Phase II</u> ¹ : <ul style="list-style-type: none">● Nurture 10 top research-oriented universities in key fields;● Join the world's top ten rank in terms of SCI-paper publication;● Become one of the world's top ten advanced countries in terms of technology transfer from university to industry.
--------------------	---

Notes: Higher education goals were summarized from five systematic sources. The sources of information are listed below.

Sources:

- Higher Education Division, Ministry of Education, Singapore. 2005. *Autonomous Universities - Towards Peaks of Excellence Report to the Committee to Review University Autonomy, Governance and Funding*. Retrieved April 13, 2011 (<http://www.moe.gov.sg/media/press/2005/UAGF%20Preliminary%20Report.pdf>).
- Ministry of Education and Human Resources Development, Republic of Korea. 2005. *Brain Korea 21*. Retrieved April 12, 2011 (<http://english.mest.go.kr/web/42207/en/board/endownload.do?boardSeq=36541>).
- Ministry of Education, Republic of China (Taiwan). 2010. *Educational Goals and Policies* (in Chinese). Retrieved May 12, 2011 (http://www.edu.tw/files/site_content/EDU01/10003-OK_1.pdf).
- Ministry of Education, Science and Culture, Japan. 2009. *Japanese Government Policies in Education, Science and Culture*. March 12, 2012 (http://www.mext.go.jp/b_menu/hakusho/html/hpab200901/1305844.htm).
- The General Office of the State Council, the People's Republic of China. 2010 *Educational Reform and Development Planning Guideline (2010-2020)* (in Chinese). Beijing: People's Publishing House.

down in 2008, the Kuomintang regime switched all the goals back to the version of 1996 reform. Internationalization of higher education for international competitiveness still commanded a central place in higher education reform.

China gave exhaustive elaboration on raising higher education quality and mechanisms to safeguard teaching and research output. Building a group of first-class universities and areas of excellence through *Project 211* and *Project 985* continued to be seen as top national project to modernize higher education and state development. In the case of Singapore, new set of priorities replaced previous goals. All the priorities expressed a common theme of sizing up the universities' capabilities for global competition, specifically, competition against foreign universities. South Korea removed all the goals shown in 1985 and put on new goals which presented a tight focus on higher education as locus of knowledge creation which expressed strong inclination to follow international standards of advanced research, for example, to nurture ten top research-oriented universities in key fields, to join the world's top ten by the standard of Science Citation Index paper publication.

The cross-time investigation shows a tremendous reordering of goals in portraying expectations for higher education in all five societies. The cross-sectional comparative investigation reveals a much similar way of expressing higher education goals. In all of these Asian societies examined, portrayals of higher education goals have become more modernized in which the scope of higher education organizations as actors has been increasingly elaborated from the national into the transnational domain. New goals, such as, internationalization and quality standardization, have begun to command a prominent place in national higher education agendas. It is most noteworthy that the reordering of goals reflects "a globalization of instrumental models of actorhood" (Meyer 2000:235) in the transnational domain, such as, international associations. Participation in these transnationalized associational networks has a diffusing effect of editing "proper" models of higher education, even though higher education have frequently been appropriated as national projects of state development.

The comparison of goals in two time periods only reflects the shift in emphasis from the local to the international. But little has been known of the shift of focus as related to world system integration of the countries as shown in the empirical findings of the previous chapters. Attaining memberships to international

organizations of higher education reflects the extent that a country's integration to the world's most legitimate standard. Moreover, the degree of participation in these international organizations is a reflection of the eagerness of the countries to respond to making attachments to the world system. Thus, the frequency of Asian countries participating in international organizations of higher education deserves further investigation.

Table 6.3 Part A and B present the portion of Asian societies' membership in six globalized associational networks for higher education since 1913. A cross-time examination of the portion of Asian societies was consistent through the time periods. The result suggests that Asian societies have been devoting efforts to integrate into the world society through memberships to these transnationalized associational networks. But a more detailed examination of membership by individual universities or colleges reveals a strikingly enormous growth in the portion of Asian membership in the time period 1990-2012. The Asian members composed of almost one-third for the world membership in two newly opened cultural agents. The findings suggest Asian societies are active participants to integrate themselves closer to the world society through demonstrating rights and responsibilities to these transnationalized educational associations.

Expanding memberships by individual institutions in the 1990s and 2000s reflects Asian higher education as an autonomous entity which operates in a transnational domain which emphasizes each individual institution as part of the citizenry to the world society. Such a transnationality of rationalized model of actorhood (Meyer 2000) have reflected a symbolic move of Asian higher education to integrate goals for internationalization and quality standardization on the national or domestic agenda in the recent reforms. Thus, the reordering of priorities is a shifting shadow of the world's legitimate template for higher education as shown in one of the most prevalent world cultural agent, the United Nations Educational, scientific, and Cultural Organization (UNESCO) as transnational culture makers of educational references.

Table 6.3 Prevalence of Asian Countries as Percents of the World Memberships for International Organizations of Higher Education 1950-2012^(a)

A. Membership by Country

International Organizations of Higher Education ^(b)	1950-1969	1970-1989	1990-2012
Association of Commonwealth Universities	23.8	24.1	16.1
International Association of Universities	34.3	28.2	29
Asian Development Bank	50	46.8	48.5
Universitas 21	-	-	20
Global University Network for Innovation	-	-	25
Worldwide Universities Network	-	-	15.8

B. Membership by Institution^(c)

International Organizations of Higher Education ^(b)	1950-1969	1970-1989	1990-2012
Association of Commonwealth Universities	28.9	53.2	47.3
International Association of Universities	22.6	25.6	40.7
Universitas 21	-	-	40
Global University Network for Innovation	-	-	15.9
Worldwide Universities Network	-	-	30.4

Notes:

- (a) Percentages were compiled from six systematic sources. The sources of information are listed below.
- (b) The order of international organizations was arranged in chronological order in accordance to their year of establishment:

<u>Year</u>	<u>Organization</u>
1913	Association of Commonwealth Universities
1950	International Association of Universities
1966	Asian Development Bank
1997	Universitas 21
1999	Global University Network for Innovation
2000	Worldwide Universities Network

- (c) Institutional membership is not available from ADB as its unit of membership based on national aggregates only.

Sources:

- Asian Development Bank. 2012. "Members." Retrieved March 19, 2012 (<http://www.adb.org/about/members>).
- Association of Universities of the British Commonwealth. 1957, 1983, 1989, and 1995. *The Yearbook of the Universities of the Commonwealth*. London: Association of Commonwealth Universities.
- Association of Universities of the British Commonwealth. 2012. "Members by Country." Retrieved March 15, 2012 (<http://www.acu.ac.uk/>).
- Global University Network for Innovation. 2010. "Institutional Members Directory." Retrieved March 16, 2012 (http://www.guninetwork.org/guni.network/institutional-members/countrysearchinst_view).
- International Association of Universities. 1953, 1965, 1971, and 1982. *Bulletin - International Association of Universities*. Paris : Bureau International des Universités.
- International Association of Universities. 2012. "Members." Retrieved March 16, 2012 (<http://www.iau-aiu.net/content/institutions>).
- Universitas 21. 2012. "Member List." Retrieved March 16, 2012 (<http://www.universitas21.com/member>).
- Worldwide Universities Network. 2012. "WUN Member Universities." Retrieved March 16, 2012 (<http://www.wun.ac.uk/about/members>).

Figure 6.2 presents a summary of higher education goals adopted by pan-educational professionals from all nations in 1998. The set of goals for higher education is a reflection of the shared visions of higher education that receives legitimacy from most nations in the world before the formulation of the goals for each Asian country in the time period 2005-2010. Research finding in Chapter five has shown higher education expansion is related to integration to the world system. This finding has received a confirmation from the vigorous participation of Asian countries in international organizations. But little has been known about the world-wide content of the formal statement of higher education. Thus, similarity of the goals from the Asian reform agendas to this worldwide version may provide evidence to show which specific model of higher education that these Asian countries are trying to incorporate.

From the comparison of the higher education goals for the time period 2005-2010, the formal statements of these Asian societies expressed that higher education has the role of knowledge creation and delivery. But these societies put diverse emphasis on this role. For example, China and Singapore give same emphasis on developing research in science, arts, and humanities as an effective means to create and deliver knowledge. In the case of Japan and Taiwan, knowledge creation and delivery are expressed through diversification of types of higher education. The formal statements of Hong Kong, Taiwan, and Singapore emphasized knowledge creation and delivery through building a new form of individualism. Individuality with capabilities and creativity is a new reform item with a person or student-centric emphasis on “higher education personnel and students as major actors” as stated in the UNESCO World Declaration on Higher Education for the Twenty-first Century (1998b).

With the adaptation of similar reform items, the reorganization of goals in Hong Kong is evidently a response to the world standardized model. Today, in Hong Kong, not only does higher education reform continue to expand its population coverage which encourages the incorporation of more women to higher education. Current higher education goals apparently adopted the pan-educational that focuses on advancing human development through whole-person and student-centric approaches. Thus, it is not surprising for many societies to take measures to reform education structure, school curriculum, and teaching pedagogies. The implication of this finding to the present study is that educational ideology is a possible force other than national characteristics to promote higher education expansion. An investigation into

Figure 6.2 A Summary of Goals and Visions from the World Declaration on Higher Education for the Twenty-first Century

- Equity of access
- Enhancing participation and promoting the role of women
- Advancing knowledge through research in science, the arts and humanities and the dissemination of its results
- Long-term orientation based on relevance
- Strengthening co-operation with the world of work and analysing and anticipating societal needs
- Diversification for enhanced equity of opportunity
- Innovative educational approaches: critical thinking and creativity
- Higher education personnel and students as major actors

Notes: Goals were summarized from a systematic source. The source of information is listed below.

Source: United Nations Educational, Scientific, and Cultural Organization. 1998b. *World Declaration on Higher Education for the Twenty-first Century: Vision and Action and Framework for Priority Action for Change and Development in Higher Education*. October 9, 1998. Retrieved May 24, 2011 (http://www.unesco.org/education/educprog/wche/declaration_eng.htm).

the role of educational ideology in the form of curricular content and pedagogical practice deserves further attention. The present study draws on a recent curricular reform that is transforming Hong Kong's secondary schooling and higher education.

F. Borrowing World Prerequisites and Making Distinct and Significant Presence in the Region

With the establishment of the first university in last century, Hong Kong's higher education goals evolved from colonial emphasis on higher education as social control and integration to emphasis on excellence and internationalization in 2010s. The evolution of goals reveals higher education as a modern project of cultural transformation. Not only does it expand in enrollment places, types of schools, and scope of curriculum, but also higher education evolves into an institution which reconfigures local actors of higher education to the worldwide project of modernization. Building a modern university than a colonial one is always a major concern for civil authorities across time.

British values and elements of higher learning were introduced to the education system during the early periods when the formation of modern higher education took place in Hong Kong, but in no other historical period do we find the reiteration of the British influence. As the higher education system became more structured, the organization of higher education adopted the pattern that was prevalent in Britain, yet retained a distinctive form that emphasized traditional local culture with international character and the training of the local professionals. During this period of educational hegemony, the organizational pattern of Hong Kong higher education clearly has shifted to resemble the British one, but the organizational elements of knowledge did not deviate from a Hong Kong oriented version. Concurrently with the termination of the British model in the late nineties came the introduction of new sets of goals common to China and even some other Asian societies, indicating that not only has a deviation from the expected pattern of British influence take place, but also a new movement of taking up worldwide goals of human development is in place in the organization of Hong Kong higher education.

Little evidence of cultural imperialism predicted by some dependency theorists has been found in this portion of educational goals. Instead, emphasis on incorporating the world trend of higher education is prevalent in all times. In a world society that is increasingly more decentralized and diversified in educational

problems, solutions may emerge through interactions in the international environment.

None of this portrayal in the region motivates Hong Kong to follow exemplary models from the neighboring societies or “potential competitors” in the region. Instead, world prerequisites are seen as legitimate sources that Hong Kong has been drawn frequently upon. Although British influence was disappearing gradually by the time when Hong Kong returned to China in 1997, the administrative polity would have been affected by her original sovereign at that time. When the local authorities made official statements to higher education, they gave strong emphasis to improve the standard in order to receive international recognition (Hong Kong Chief Executive 1997). Attachments to the international standard were even more intensified to build “centres of excellence” as to prepare Hong Kong to be “a regional centre for higher education” in the *Policy Address 1998* (Hong Kong Chief Executive 1998). From this formal statement, drawing legitimacy from the world standard is an effective way to be a regional focus for Hong Kong. The present chapter will further explore the sources of legitimacy that reflect through country of origins of educational professionals who participated in formulating Hong Kong’s higher education goals in three time points.

Table 6.4 shows the proportions of local and overseas members of the University Grants Committee in 2002, 2004, and 2010. Throughout all three time points, the civil authority for higher education has included an even proportion of local and overseas members. The overseas membership comprises of educational professionals from Britain, the Continental Europe, the United States, Australia, China, and Singapore, reflecting a world profile of multiculturalism. Across these three time points, there was no significant decline in the non-local membership. Within the non-local membership, there was an increasingly even representation from Britain, the United States, and Australia. In 2010, the committee did not include educational professionals from the Europe and Singapore. The proportion of members from China remained lower than the overall representation from Britain, the United States, and Australia. The distribution of membership from the non-local group reflects that Hong Kong could not have followed the Asian model or Chinese model. Instead, the cosmopolitan characteristic of membership reflects world influence as prevalent to the development of higher education policy in Hong Kong over time.

Table 6.4 Percentages of Member Compositions to the University Grants Committee in Higher Education Reforms, 2002, 2004, and 2010

Members' Origin	2002	2004	2010
Hong Kong	54.5	60.9	59.3
U.K.	13.6	8.7	11.1
Continental Europe	9.1	8.7	0
U.S.	9.1	4.3	11.1
Australia	4.5	4.3	11.1
China	4.5	8.7	7.4
Singapore	4.5	4.3	0

Notes: Percentages of membership composition were compiled from three systematic sources. The sources of information are listed below.

Sources:

University Grants Committee, Hong Kong. 2002b. "Membership of UGC and List of its Sub-committees." *Facts and Figures*. Hong Kong: University Grants Committee Secretariat.

University Grants Committee, Hong Kong. 2004b. "Membership of UGC and List of its Sub-committees." *Facts and Figures*. Hong Kong: University Grants Committee Secretariat.

University Grants Committee, Hong Kong. 2011a. "Members' Attendance at the Meetings of the UGC, its Subcommittees and Groups (From 1 April 2010 to 21 March 2011)." *Annual Report 2010 - 2011*. Hong Kong: University Grants Committee.

Participation in international assessment of student achievement is one of the sources to develop links for international integration (Kamens and McNeely 2010). Hong Kong's robustness to gain international recognition has been reflected from active participation in world and transnational associations. Hong Kong has participated in almost all waves of major world-wide educational tests since 1981. For example, Secondary International Mathematics Study (SIMS), Trends in International Mathematics and Science Study (TIMSS) organized by the International Association for the Evaluation of Educational Achievement (IEA) and the Programme for International Students Assessment (PISA) by the Organisation for Economic Co-operation and Development (OECD). Carefully examined the list of countries participated most in international education tests since 1962, Hong Kong was the only semi-autonomous polity which took almost as many tests as the western ones (Appendix VI). The extent of robust subscription to world assessments has shown Hong Kong's strong reference of world prerequisites while retuning its portrait in regional integration.

Successive entrance to world cultural agents is another example showing strong attachments to world standards. Universities in Hong Kong have joined the Association of Commonwealth Universities (ACU) since 1912. Hong Kong gained membership from the International Association of Universities (IAU) and Asian Development Bank (ADB) in 1960s. Not only did local universities joined world cultural agents with longer history, but also they made efforts to form world networks. For example, the University of Hong Kong was one of the founders of *Universitas 21* in 1997.

World, regional, and local rankings are motifs that frequently occur on the official media releases and homepages of local universities. Accomplishments of the local universities are expressed as a shared status legitimized by the world standard. For example, the University of Hong Kong (HKU) presented its recent rankings in Hong Kong, Asia and the world with the heading "We stand with the TOP UNIVERSITIES IN THE WORLD" (Communications and Public Affairs Office, HKU, October 2011). Little has been found the universities announced their world rankings as efforts empowering local human powerhouse that functionalist perspective would predict. Local universities have begun to formally display academic ratings that they have received from world associations of educational auditing² on official homepages and online press releases beginning this century. For

example, Hong Kong University of Science and Technology (HKUST) announced the business school's first entry to world ranking (Media Information Center, HKUST, January 24, 2000). In the same year, The Chinese University of Hong Kong (CUHK) made an announcement of being the first on Asiaweek's ranking (Communications and Public Relations Office, May 5, 2000). Efforts to incorporate these world prerequisites into the official homepages became more intense in recent years. For example, under the section of "About HKUST", HKUST announced its world rankings in the "ranking" page that both the world and regional rankings are shown from 2008 to 2012. Another university, CUHK inscribed a separate webpage posting its connection to the world cultural agent on its official homepage (Office of Academic Links, CUHK, March 23, 2012).

G. Mobilizing Individuals into the Collective Project of Transnationalism

With the expanding reference to world prerequisites, both the schooled and unschooled of higher education remade themselves into components essential to the making of a "regional hub" in Asia. In the case of Hong Kong higher education reforms, these transnational educational professionals depicted these citizens of "Asia's world city" possessed capabilities of transnational communication and an integrated model of scientific and humanistic knowledge (UGC 2002). For one thing, these capabilities and integrated knowledge is to turn citizens "into key players in the world stage". What had been formulated by the educational professionals received greatest responses from immediate stakeholders to higher education. At the same time, some less immediate stakeholders, such as functional and geographical constituencies, professional bodies, and religious bodies also responded to the reform proposal (See Appendix VII for a list of stakeholders who gave formal responses to the higher education reform). The reform proposal gained popular support from schools of continuing education, academic accreditation organization, organizations for adult education, and university alumni. Specifically, a working group on higher education called for an even greater increase in order to catch up Singapore and Shanghai whose higher education enrollments had grown far ahead (LegCo Panel on Education, Legislative Council, June 1, 2001). With the emergence of sub-degree as an extension of higher education in Hong Kong, standard and quality of these programs were of increasing concern to students, parents, educators, and policy makers (LegCo Panel on Education, Legislative Council, May 15, 2001). Although

most stakeholders strongly opposed the introduction of flexible employment packages to the higher education professionals and administrators, the overall reform seemed to have received popular support to the expansion of places and strategies of patterning after the world-class one (Official Record of Proceedings, Legislative Council, June 26, 2002).

Lines of supporting the reform were a reflection of the status and interest of these social constituencies. One of the prominent stakeholders of higher education, alumni group of the oldest university in Hong Kong supported the move toward a more elitist higher education and the reduction the number of higher education institutions (The University of Hong Kong Convocation 2002). Another alumni group of the colloquial university also gave support and called for a switch from three-year to four-year degree with a reduction of secondary school years from the existing seven years to six (The Chinese University of Hong Kong Convocation 2002). Given these group interests in higher education, the Hong Kong administration and all stakeholders of education has had to adjust constantly to various educational ideologies of competing forces in society. Thus, the most effective reform would direct the emphasis of higher education towards a universal and abstract model of higher education.

In response to the public concern, a transnational advisory group returned the reform proposal into the making of a small number of higher education institutions competitive at the international level. At the same time, measures were to be introduced to keep these newly emerged sub-degrees up to standard. Efforts have never devoted to follow the Chinese model of higher education. Especially, when China moved away from international isolation further informed these educational administrators that a world standardized model as essential to Hong Kong's higher education.

Although these ideas of excellence and internationalization are highly abstract, the higher level of rationalization of the common purposes of higher education seemed to have made bigger rooms to accommodate the competing educational ideologies with one another. This example of higher education reform as an all-embracing idea to the diverse status groups does not correspond to the prediction of the micro social differentiation realists. After the 2002 reform, the introduction of two reforms in 2004 and 2010 continued to receive oppositions from the competing interests in higher education. At the same time, these competing interests began to

arrive at a common platform when the reforms pointed to ideas of “global competitiveness”, “centre of excellence” and “internationalization” in the remaking of Hong Kong into an educational hub in Asia and its higher education into a world-class one. The internationalization of higher education received popular support that it was perceived to be an effective means of “nurturing a global view amongst students so that they would become good global citizens and be concerned about global issues.” (Hong Kong Higher Education Review Group, UGC 2009).

A further noteworthy observation is the extent of significance which countries attach to re-centering of reform emphases. Concerns about economic development and social progress, integration to the prevalent model of higher education and the problems of graduates’ quality are common themes that consistently to be placed on the agenda of Hong Kong’s higher education reforms in whatever emphases the goals of higher education have been centered on. On one hand, the former colony and now a semi-autonomous polity has been responding to a world institutional order which comprises a set of taken-for-granted standards and conventions, and on the other hand, it has been under internal pressure to achieve economic development and social progress to which higher education reforms become indispensable.

Throughout the history of the Hong Kong modern higher education, although goals and visions promulgated by transnational experts of education have always directed the focus of higher education, the colonial or the civil authorities made efforts to involve social constituencies from all sectors. For example, special ad hoc committees at the University Grants Committee were set up to involve locals from all sectors to present their expectations for higher education. Another public channel for greater local involvement was through the education panel at the legislature. Review groups for reforms were never short of members from local financial, industrial and commercial fields. Perhaps, the origin of the establishment of the first university was to train and cultivate a class of elites or to supply highly educated human capital to the colonial administration. But over time, reform efforts have been exhaustive. The civil authorities called for various reform committees one after another to reorganize the goals of higher education. Broader scope and kinds of stakeholders began to involve in voicing their concerns of higher education. Wider channels were made available for the public to air their support or opposition to these reforms. No matter which direction the public opinion turns to, higher education in Hong Kong still holds a major concern to the emphasis of a world legitimized model of higher

education.

Another good example is the introduction of standards of quality assurance to the universities. Academics in Hong Kong were to put on the same standardized procedures to examine their own teaching and research practices and outcomes. For example, Research Assessment Exercise (RAE) and Teaching and Learning Quality Process Review (TLQPR) were two marked measures introduced to examine teaching and learning capabilities of Hong Kong higher education. In response, universities in Hong Kong incorporated international indicators for academic standards, such as Impact Factors, as a legitimate reference to differentiate academic strength and status. Although all these mechanisms have caused internal resistance for the assessment pressure and generated critical debates on academic autonomy (Postiglione 2002), all these internal pressure poses no blocks to divert the universities of Hong Kong from the highly rationalized model of higher education. In the case of Hong Kong, higher education is excessively influenced by international environment. Any big internal tension is very much a reflection of the vigorous domestic responses to the common world culture which prevails in the external environment.

H. World Knowledge Revolution Celebrating Schooled Individualism

Reform efforts often become even more vigorous when a society undergoes sovereignty changes, social unrest, or economic downturns in international competitions. After Hong Kong returned to her original sovereign, exhaustive efforts have been made to place national education to the agendas on the school curriculum reform, despite it continues to be a controversy today. The example shows education systems are susceptible to social change that reform measures to school structure, curriculum, and pedagogies are “symptoms” and “results” of changes taken place in wider society (Durkheim 1977). It is especially true when nation-state has increased its authority to pursue national goals such as economic and social progress after World War II. Schooling is seen as one of the most effective vehicles for advancing these national goals. Thus it is not uncommon for national authorities to press on educational reforms for powering up to the expectation of training effective and efficient workers who have the individual capabilities to compete in the international arena. In response to the rapidly shifting global economies, exhaustive efforts are taken to reform school structure and curricula content and to expand human capital

powerhouse through giving more academic, professional and technical places in higher education. Some critics argue that the rapid expansion brings about intellectual marketization and privatization. Universities become ruined and demoralized organizations under the regime of academic capitalism, thus efforts are to be made to restore universities and higher education to their rightful functions (Barnett 2000; Bloom 1987; Etzkowitz, Webster, and Healey 1998; Kirp 2003; Readings 1996). Efforts to install new goals to higher education have become frequent responses for national authorities to the grievances. Not only are new goals introduced to recreate purposes to modern higher education, but also new pedagogies are launched to promote a paradigm shift in learning and teaching practices. New modules of teacher education give emphasis to transform students into effective learners. But at the same time, the form of educational ideals and practices adopted by national authorities has become surprisingly standardized around the world (Baker and LeTendre 2005), given the greater emphasis of the national circumstances of these educational reforms to the local economic growth and social development.

The standardization of reform formats seems to have a parallel to “denationalization” of education as Sassen (2006) observed that although local policies or social constituencies are territorially bounded entities, they have increasingly “denationalized” what are originally national, while giving greater orientation to global agendas and trying to apply international standards to national situations. National entities and social constituencies have increasingly taken purposive actions inside and even outside the boundaries of modern nation states. But, international organizations such as UNESCO and Human Development Network at the World Bank continue to define, specify, and standardize models of ideas, components, and practices in basic and higher education which reflect in educational policies and projects in many societies (Chabbott 2003; The Inter-Agency Commission of UNDO, UNESCO, UNICEF, WORLD BANK 1990; UNESCO 1949 and 1998a). National spending and foreign aid to formal education are means to achieve these goals of economic development and social progress among nation-states from a variety of economic trajectory (Foster 1977; Heyneman and Loxley 1983). Thus, education for national economic growth becomes one of top priorities on national agenda and a common concern to the nation-states since World War II.

Modern individuals are increasingly seen as autonomous persons who have the

capabilities to be active and responsible for their own learning and to appropriate attributes to become members in the local and world society. While the nation-states placed more emphasis on the spread of mass education and expansion of higher education enrollment (Meyer, Ramirez, and Soysal 1992; Schofer and Meyer 2005), a focus on individual or human development has become prominent among the transnational educational experts and professionals (Chabbott 2003). In response to the emerging ideas of individualism, the local educational systems try to prepare individuals to compete and participate in a much bigger world through a curricular and pedagogical replacement and incorporation of new curricular and pedagogical forms in all educational sectors.

Curricular and pedagogical replacement has taken place in both mass and higher education sectors to bring about this type of individuals --- who make a good part inside and outside society --- to become world citizens. For example, in primary school, social science as an integrated subject has been receiving more instructional time than some traditional academic subjects, such as history and geography (Wong 1991). A gradual decline in humanities and natural sciences programs gives more room to social sciences and programs with greater occupational and professional orientation (Brint 2002; Frank and Gabler 2006). Curricular replacements allows rises of new components in academic subjects, for example, an introduction of diversity to citizenship education and human rights to social science education (Meyer, Bromley, and Ramirez 2010; Soysal and Wong 2010). Environmental education as a new subject is to be incorporated to basic and higher education curricula (Bromley, Meyer, and Ramirez 2011a; Frank, Robinson, and Olesen 2011).

Replacements in curricular and pedagogical emphases reflect a modern world constructed pedagogical shift from the traditional instructor-led approach to the learner-centered one, implying recent reform efforts in Hong Kong could have mirrored the worldwide shift. Not only do new curricular components make ways to reposition modern individuals in local and global world, but also the focus of teaching pedagogies are retuning to greater emphasis on students' needs and participation from teachers' authority over what and how to be taught. The shift in instructional approach has reflected through the big word of "learner-centered approach" or "student-centered approach" which emphasizes a greater relevance to students' immediate world and emotional connection in primary school science subjects (McEneaney 2003); greater incorporation of learner-targeted elements in

secondary school social science textbooks (Bromley, Meyer, and Ramirez 2011b); an increasing variety of academic subjects or electives for students to show preferences and make choices in their own learning (Kamens and Benavot 2006).

The ideological change at present in Hong Kong seems to have reflected a revival of child-centered form of curriculum and pedagogy prominent in the western societies. A child is seen as an active and autonomous individual who has the capabilities to make choices of his or her own learning in the last century (Dewey [1906] 1925; Piaget 1965; Vygotsky [1933] 1978). The ideology of childhood portrays students as autonomous individuals who have the capabilities to integrate what they have learnt to their past experience. Their learning activities occur in a constructed environment where students can learn through doing and teaching. Thus, it is not surprising to give rise to a set of student-oriented pedagogies emphasizing the incorporation of active participatory components in learning.

Active and democratic participation in the schooling process is one of the core components to the knowledge-based revolution emphasizing student-centric curricula and pedagogies. Students are seen as individuals having capabilities to cooperate and communicate with each other through a variety of pedagogical methodologies with greater personal relevance and social accessibility. All these active and participatory components took roots as the westerners' responses to train workers with greater efficiency and effectiveness in global competition, when the Japanese alerted the westerners with her economic miracle in the 1980s. Not only did the Americans immediately respond to reform school curriculum and teacher education (U. S. National Commission on Excellence in Education 1983), but also higher education experts and professionals introduced two pedagogical inventions, active learning and cooperative learning (Bonwell and Eison 1991; Johnson, Johnson, and Smith 1991) to reform the traditional higher education pedagogies in response to the national project of powering up the human capital storehouse for international competition. Still the curricular and pedagogical movement has been highly rationalized by the global realities through World Bank's Development Education Program and UNESCO's advocacy towards knowledge societies (Bindé 2005) as a legitimate reference for revising learning contents and pedagogical practices in basic and higher education.

This approach gives focus to children's emotion and experience emphasizing each child as physically, emotionally, and developmentally unique and priceless.

Such changing ideology of childhood has escalated expectations on which forms of legal jurisdiction, family and parenting practices, and schooling models that are most relevant to children's development (Lareau 2003; Zelizer 1994). Not only does the ideological change take place in modern marriage and families in specific national setting, the ideology of childhood has made children as a separate and distinct category dependent on adults' protection through the worldwide spread of legal regulations for the world's children (Boli-Bennett and Meyer 1978). The distinct status has schooled these individuals into a collective form of membership emphasizing children have the right to basic education and young adults have the right to higher education by their merits (Universal Declaration of Human Rights 1948, Article 26).

A world knowledge revolution celebrating a collectivity of individualism -- autonomous individuals who are interested in learning and have capabilities to master analytical skills and collaboration with others -- is highly rationalized and culturally imagined (Anderson 1983) by the global realities as a legitimate reference for educational reforms. It is considered to be idiosyncratic if the curricular and pedagogical reforms deviate from the vision of educating future citizens in national societies. Thus, schools have been increasingly expected to provide children and young adults to have opportunities of self development and actualization through the rise of nation-states and the spread of mass education. The state-managed individualism of children and young people is seen as essential components for the making of national development and social progress.

The common image of student-centric approach embraces categories of people as with men and women who come from distinctive of cultural and social backgrounds to become one under the larger label of students as world citizens-to-be. This imagery seems to have presented a more equalitarian vision of schooling process through the curricular and pedagogical emphases on active participation. But, some argue inequalities continue to reproduce the traditional distinctions between men and women, the economically favored and the disadvantaged, and the ethnic majority and the minorities (Massey et. al. 2006; Mullen 2010). It is true that gender, class, race, and ethnic distinctions are sorting categories to prioritize who is to be or not to be selected in the schooling process. However, the decline significance of the traditional gender distinction has presented a separate type of inequalities from other categories of social class, race, and ethnicity. Although some classroom

managements and school environments give greater emotional attention and physical freedom to boys than girls (Sadker and Sadker 1994; Thorne 1993), these unequal treatments seem to have not stopped women from reaching parity with men.

In traditionally male-biased subjects of natural sciences and mathematics, gender distinction has been disappearing across the world (Baker, LeTendre, and Wiseman 2005). Girls and women make higher grades in academic performance. This also carries over to higher education. A reversal of traditional gender distinction became even more obvious with an increasing enrollment of women to colleges and universities after the Second World War in the United States (Goldin, Katz, and Kuziemko 2006). But given the increasing enrollment of women in higher education, a majority of female students concentrated in non-science and non-engineering schools, while men's enrollment to higher education continued to grow in traditional male-predominated ones (Ramirez and Wotipka 2001). All these show the gender components in schooling is evolving and reorganizing across the basic and higher education sectors. To what extent does this organization and reorganization reflect an effective measure removing traditional partitioning to reproduce gender distinction? Or is the reversal of traditional gender distinction an outward sign to the regrouping of curricular and pedagogical emphases?

This curricular and pedagogical reference of student-centric approach seems to have an all-embracing significance for the whole global category of world citizenry with a gradually disappearance of the traditional gender distinctions as with men and women in school performance. But some observe and argue that curricular and pedagogical components make bigger rooms for girls to be better prepared to succeed in school performance, such as girls show more compliance and give more responses to curricular and pedagogical components emphasizing interpersonal communication, emotional connectedness, and cooperative work (Michelson 1989); but boys, specifically, those from working class background consider these active, interactive, and participatory components as feminine and show less willingness to take part in these learning culture and activities (Gibson 1991). Thus, it is not surprising for female students to reach parity with the males and some even surpass them in school performance and enrolment to higher education.

Not only does the knowledge based revolution place autonomous individuals to the center of modern world knowledge construction, but also the new curricular and pedagogical approach reorganizes the traditional partitioning of men and women in

academic tracks and fields of study. These new learning contents and pedagogical styles have increasingly opened up more space to incorporate girls and women into the modern project of knowledge construction across basic and higher education sectors. It is expectant that the new gender distinctions in higher education enrollments will become even more obvious when the traditional paper modules begin to give increasing pedagogical emphases to interactive, and participatory components, such as, group discussions and presentations, peer-tutoring, project work, and use of multi-media and information technology.

While the autonomous individualism of men and women commands greater authority at the center of higher education learning than the basic education one, the new gender regime with a preeminence of women carries even further onto higher education sectors which freedom of thought and expression for self development and empowerment of these autonomous individuals. Longitudinal studies found that women's enrollment to higher education outnumbering men across the world and their participation expanded rapidly in academic fields which has been traditionally female predominant, such as arts, humanities, and some new sub-fields of study, for example, women studies (Bradley 2000; DiMaggio and Mohr 1985; Wotipka and Ramirez 2008).

The emergence of the new gender regime is a reflection of the penetration of world-wide shift from curricular and pedagogical emphases for human capital to individual development which directed by the highly legitimized reference that learning should be exciting and joyful and learning happens through social interactions. This world-wide movement of gender regime and curricular and pedagogical approaches is also reflecting through subject integration and reorganization of academic tracks and students' choices in Hong Kong's recent curricular reform.

The goals of the new curricular and pedagogical reform seemed to have incorporated the essential components of the student-centric approach:

We develop our attitudes and abilities, and construct knowledge from our learning experiences. From what we see and experience, we build up gradually our knowledge of people and matters. We gradually learn how to analyze, judge and establish our own values. The design of the school curricula should therefore be premised on students' learning experiences. ...[T]o help students develop all-round abilities and positive attitudes in preparation for lifelong

learning, we must provide them with comprehensive and balanced learning experiences. ...The integration of various forms of formal, non-formal and informal learning activities within and outside the classroom will enable students to have an interesting and diversified learning life, helping them cultivate an interest in learning, positive values and attitudes, and will hone their analytical and independent thinking, analytical skills, creativity, communication skills as well as their commitment to the society and the nation. (Education Commission 2000:45)

The new curriculum and pedagogy give emphasis to students' personal interest and experience in learning activities for students' self-expression, improvement and empowerment. What is to be learnt and taught have expanded from content to abilities, attitudes and even skills for the whole life course through a variety of pedagogical methodologies, such as, active learning, project learning, experiential learning, and service learning. Children's or students' experience in schooling process commands a central place in teacher education curriculum and school reform which creates students from passive recipients to active participants of their learning and remakes teachers from fact deliverers to knowledge construction facilitators. Even learning contents as school subjects receive new labels and reposition themselves into categories of "learning experience". Given the relabeling of what is to be learnt and taught, the new curriculum structure and pedagogical practices reorganized the traditional subjects into five categories of learning experiences. The new pattern of subjects made room for liberal studies which integrates several social sciences subjects from the traditional curricula. At the same time, the new curriculum introduces new pedagogical and assessment component, independent enquiry study, to the new subject liberal studies which emphasizes students' capabilities to problem-solving, critical thinking, and personal connectedness to social issues.

Structural changes in years of schooling and groupings of knowledge came along with the reform. The instructional duration of the new senior secondary curriculum reduced from four years to three beginning in 2009. The year of study in higher education extended from three years to four in 2012. Another major measure was an introduction of a new grouping of curricular content to the senior secondary. In the traditional form of senior secondary, students were given a common set of subject on languages, science and humanities. At the same time, students were grouped into academic tracks of arts or science which gave different emphasis on the use of language. But once the new curriculum began to take place, the traditional

mechanism of academic tracking was to be removed. Thus, the elective subjects of the new curriculum have become to open to all. Three new groupings of academic subjects, namely, core subjects, elective subjects, and other learning experiences replaced the traditional tracks in arts and science. Chinese and English languages, liberal studies, and mathematics comprise the core group which receives the largest proportion of assessment in the higher education entrance examination. But the core group also devoted stronger emphasis to the command of languages than the traditional one.

Curricular change in the senior secondary school level has its significance to the gender composition in higher education once the new senior secondary curriculum implemented in 2012. Young women's entrance to higher education may further expand as they largely perform better than young men in subjects related to language use. The curricular and pedagogical reform could have created mechanisms favorable to young women's performance in public examinations.

In Table 6.5, the traditional curriculum in Form Four and Five gave an even allocation of instructional time to two categories of core subjects which have predominant emphases on the use of languages. Core subjects with greater emphasis on Chinese language, English language, and humanities carried the same proportion of instructional time as those core subjects with lesser use of languages, such as, mathematics, science, and practical or technical subjects. Both categories received an even proportion of instructional time (37.5%). Electives were given further emphasis in Form Six and Seven. The instruction time of electives increased from 37.5 to 62.5 percent. Given that all students were grouped into different academic tracks, the elective mechanism of the traditional curriculum made plentiful room for students to gain opportunities to studying subjects favorable to their own language orientation. Time allocation to core and elective subjects seemed to have provided an effective mechanism to control the influence of language abilities to student achievement in the traditional curriculum.

The future gender composition in higher education could have reflected another form of "gender inequality" as social differentiation realists predict. But the findings from Chapter four on the worldwide expansion of all disciplinary areas and levels show that women's enrollments are increasing and so do those of men over time. Instead, the curricular reform in senior secondary school and higher education expansion in Hong Kong could have reflected an active and participatory model of

Table 6.5 Mean Percentages of Instructional Time Given to Subjects of the Traditional and New Senior Secondary School Curriculum in Hong Kong ^(a)

		Traditional Curriculum ^(b)		New Curriculum ^(c)
		(Form 4 – 5: 1993 – 2009) (Form 6 – 7: 1993 – 2012)		(2009 - present)
		Lower Senior Secondary (Form 4 – 5)	Upper Senior Secondary (Form 6 – 7)	Secondary 4 – 6
Core Subjects	Subjects with greater emphasis on the use of languages			
	Chinese Language	12.5%	12.5%	13.75%
	English Language	12.5%	12.5%	13.75%
	Liberal Studies	---	12.5%	12.5%
	Humanities	12.5%	---	---
	Subjects with lesser emphasis on the use of languages			
	Mathematics	12.5%	---	12.5%
	Science	12.5%	---	---
	Practical/Technical	12.5%	---	---
Elective Subjects	Elective (I)	12.5%	25%	10%
	Elective (II)	12.5%	25%	10%
	Elective (III)	---	---	10%
	Semi-elective	---	12.5%	---
Other Learning Experiences	Aesthetic Experience	---	---	
	Physical Experience	---	---	17.5 %
	Moral and Civic Education, Community Service and Career-related Experiences	---	---	

Notes:

(a) Mean Percentages were compiled from three systematic sources. The sources of information are listed below.

(b) Time allocation was based on eight periods per day in a five-day week.

(c) The new curriculum guide provides a range of percentage given to each subject.

A mean percentage from the range was compiled for comparisons across the two types of curriculum. For example, in the new curriculum, 12.5-15 percent of instruction time is to be given to the learning of Chinese Language. Thus the mean percentage for the subject is 13.5 percent. The same case applies to English language, Mathematics and Liberal Studies. For the elective subjects, students may choose two or three subjects, thus an average is taken from the maximum percentage for three selective subjects. Mean percentages of Other Learning Experiences is 17.5 percent after the estimation of all the core and elective subjects. It is still within the range of the recommended range of time allocation.

Sources:

- Curriculum Development Council. 1993a. *Guide to the Secondary 1 to 5 Curriculum*. Hong Kong: Education Department.
- Curriculum Development Council. 1993b. *Guide to the Sixth Form Curriculum*. Hong Kong: Education Department.
- Education and Manpower Bureau. 2005. *The New Academic Structure for Senior Secondary Education and Higher Education --- Action Plan for Investing in the Future of Hong Kong*. Hong Kong: Education and Manpower Bureau.

citizenship building that includes as many walks of citizens as possible.

Regrouping of curricular content brought the traditional categories of subjects and the tracking mechanism to an end. Table 6.5 shows a greater amount of time was devoted to Chinese and English subjects. About 27 percent of the new curriculum was devoted to the two subjects, compared to 25 percent for the two subjects in the traditional one. Although the core subject of mathematics received same portion of instructional time as Liberal Studies in the new curriculum, what it has received was just half a portion of the instructional time in the traditional upper senior curriculum. In this case, the new allocation of time reflected a greater emphasis to the use of languages than the traditional one. With the emphasis to students' choices and interests to subject selection in the new curriculum, students who have stronger orientation to science subjects would have received lesser portion of instructional time from the new curriculum. By the new allocation of time, the elective subjects received only a portion of 30 percent in instruction which was even less than a half of the original allocation in the traditional one. Under such reallocation, students who have stronger orientation for science subjects received lesser instructional time than other subjects with greater language emphasis. With the sharp shrinkage of instructional time, language abilities seemed to have overlaid other academic abilities relevant to student's achievement in the public entrance examination to higher education.

Not only did the new grouping of curricular content and instructional time affect individual's academic results, but also the removal of tracking set forth non-traditional regime of gender distinction in higher education. The curricular and pedagogical movement remade the traditional gender partitioning in higher education. With stronger emphasis on individual choices and interests claimed for greater orientation to student-centric curricula and pedagogies, the academic edges of traditional gender distinction began to move as in the curricular and pedagogical reform of the senior secondary education.

With the new curriculum and evaluation criteria, female students are more likely to perform better than the males. While the traditional advantage of males in mathematics is gradually disappearing the regrouping of subjects seems to have created a less favorable situation to male students who have relatively weaker language abilities than females in the same age group. Gender differences in academic achievements have been evident in learning languages and mathematics.

Some argue that female students have been performing better in languages than males (Burman, Bitan and Booth 2008; Cole 1997). Longitudinal studies and international academic testing results have observed the gender gap in mathematics is closing up across time (Else-Quest, Hyde, and Linn 2010; Hyde, Fennema, and Lamon 1990; Lindberg et al. 2010). Thus, the curricular regrouping has a significant implication to opportunities entering into higher education between male and female students.

It was especially true that boys were those who conventionally showed greater orientation to study science subjects than girls. But with a decrease in time allocation to the electives, the new groupings of curriculum and pedagogies tended to assess students on language abilities which placed boys to a less favorable academic position. Even if boys chose to study all mathematics and science subjects as three elective subjects, the portion for mathematics and science made up only thirty percent of the total instructional attention. Forty percent of the instructional attention carried strong language emphases.

Not only did the core subjects presented a greater orientation to language abilities, but also the new category of informal education “other learning experiences” gave emphasis to language abilities in a way that students are to present their informal learning through written or verbal formats of documenting their reflections. In this case, the stated instructional time for the new curriculum seemed to have made a bigger room for girls to enter universities and colleges. While tracing the longitudinal data of Hong Kong’s gender partitioning in higher education, higher education began to incorporate a great number of women after the rapid double expansion of higher education places in 1989 (Appendix V). From then on, women’s enrollment kept a slightly greater number than men that created a non-traditional gender distinction in higher education places.

When individual choices and interests have become a forefront priority, traditional gender distinction are moving the edges of academic partitions of boys and girls in schooling as school administrators, parents and educators have expected. While the future gender distinction in higher education is still developing, there is a possibility that the new curriculum would have set forth an agenda of equal participation in higher education which a similar controversy on the allocation of secondary school places to primary school children in 2000s. A court decision *Equal Opportunities Commission v. Director of Education* (HCAL1555/2000 [2001]) was

made as to reform the allocation priorities which came into practice since 1978. The school place allocation mechanism put primary school boys and girls on a separate ranking of their academic achievements. The original rationale was expressed as boys lagged behind girls in personal and intellectual development in primary school. Thus, the mechanism of separate ranking set out to bring a complementary measure against discrimination of boys who were less academically developed with girls of the same age. Two decades later, the model of gender regime shifted and expressed in a way that the separate ranking made girls less favorable to the allocation of places. The measure was once a positive discrimination for a collective of students and turned into a policy generating direct discrimination against individual students. As a consequence, the secondary school entrance mechanism has undergone major revisions over time.

The new gender partitioning in Hong Kong is a reflection consistent to the world-wide incorporation of greater emphasis on personal choices and interests in curriculum and pedagogies through subject integration and reorganization of academic tracks. At the same time, the reform is a highly rationalized project legitimate to the world templates that men and women have the same access to education and freedom to choose upon a purely student-centric basis. Although the case of Hong Kong is merely a case of reforming senior secondary school curricula and pedagogies, the introduction of the new curriculum emphasizing students' personal choices and individualism set forth a new gender regime in higher education, on one hand, more female students will have even greater entrance to higher education, but on the other hand, more male students will have lesser than before. Following this world trend of curricular and pedagogical practices, a further reversal of traditional gender distinction is expecting in future higher education.

I. Conclusion

This chapter has traced the expansion and organization of higher education system in Hong Kong. Compared with the world and regional pattern, Hong Kong has consistently low enrollments in higher education. In the case of Hong Kong, once the higher education system was institutionalized, it found a secure position in the modern educational system. It continued to organize and reorganize its goals in higher education. This finding shows a specific organizational connection between Hong Kong and the prevalent world reference of higher education that can be

understood in terms of a global effect. The expansion and organization of higher education goals reflects the prevalent institutional rules and conventions that are generated from the increasingly convergent transnational environment. Countries respond to the standards and conventions that prevail in the modern world polity, and thus, homogeneities can be found in many of their internal organizational structures.

Within a country, as the state expands its rights and authority in the public sector, it increasingly defines national progress in terms of how effectively it can promote economic and technological advancement, equal and democratic participation, and individual development etc. Therefore, the state constantly corresponds to demands from internal interest groups in order to legitimize its national purpose of higher education reforms. This adjustment process is also evident in Hong Kong. Although the internal interest groups are highly contesting to each other, the portrayal of higher education as part of domestic projects to make Hong Kong a world-class city has created a common purpose for the heterogeneous interests. The common purpose has made higher education a popular locus for promoting economic and social efficiency.

After the British's handover of Hong Kong to her original sovereign, she searched for new paths of development in order to cast aside her previous pattern of colonial organization. Concurrently with the disappearance of British influence, the expected pattern of China seemed to have emerged as an example for Hong Kong. While comparing recent goals of the British and Hong Kong, they took up a similar approach, even China began to incorporate student-centricism and whole-person approaches in the current national development project (Communist Party of China 2011). National and domestic goals to be realized through higher education reforms possess a consistency with each other although both reforms are distinguished by their specific order of higher education priorities over time. These common goals emphasize economic and social efficiency and promote individual development. Even more importantly, not only Hong Kong's higher education is gearing toward a more "nation" or local orientation of goals, but also they are organizing goals that are also common to those of some other Asian societies and their former colonizers. Therefore, the importance that countries assign to package or repackage the goals may not have any significance for what is actually expected to be implemented in the higher education professions. This reinforces one of the findings of this study that the worldwide shift to one model of higher education from another is a matter of shadow packaging – external standards and conventions applying until the time of the new

versions.

This chapter is limited in its conclusions since it has only confined itself to the analysis of official goals of higher education reforms. An investigation of higher education will not be completed without also examining the implementation of these reforms. Institutional rules and organizational structures vary from polity to polity, but to inform theoretical development, a larger number of countries and over longer periods of time are needed for further evidence on these points.

NOTES

¹ South Korea's higher education reform *Brain Korea 21* was carried out in two phases. The first phase was implemented in 1999. The goals were as follows.

- (1) To develop world class graduate schools and nurture research and development manpower
- (2) To enhance research capability through supporting future research and development manpower financially
- (3) To nurture specialized regional universities and strengthen industry-university ties
- (4) To reform university system to nurture creative human resources.

² The most cited world rankings among universities in Hong Kong are *Times Higher Education Supplement (THES)*, *Quacquarelli Symonds (QS) World University Rankings* and *Quacquarelli Symonds (QS) Asian University Rankings*. *Economist Intelligence Unit* and *Global EMBA Rankings of Finance Times* are indicators frequently cited by business schools across the world.

Chapter Seven

Conclusion

A. Summary

The study has examined the expansion and organization of higher education from three empirical explorations into world trend, regional conditions, and a local case study. The aim is to provide an integral study to understand higher education expansion as an institution. The contribution of this study is to use an alternative approach to explore the organizational model of higher education expansion. Not only does the study provide a structure or case study to examine and evaluate various realist perspectives to the explanation of higher education as an expanding organization, but also does the study adopt an integrated methodological approach that seeks to examine the world trend, regional focus, and a local case study in order to understand better the organization and expansion of the higher education institution.

This thesis has documented the findings as follows. The analysis began with a descriptive overview of the general trends in the enrollment to higher education around the world since fifties in the last century. The result shows that enrollment to higher education system has remained highly consistent over time in terms of the gender composition across disciplinary areas and program levels. The finding reflects the worldwide expansion that follows closely a modern education culture that is largely universal within which an active and participatory model of citizenship building is in place.

The next finding that draws our attention is the increasing enrollments to social sciences from humanities and natural sciences around the world after World War II, indicating the dramatic world-wide shift from traditional categories of knowledge to an integrated one. The results point to a possibility that the shift is a substitution between categories of knowledge reflecting higher education expansion is a reorganization of knowledge domains in arts, sciences, and technology rather than an insertion of social innovation. These findings provided a basis for further investigation of the expansion and organization of higher education in the subsequent chapters.

The study proceeded to explore two issues of the expansion and organization of

higher education: (1) to what extent can national variations in the expansion of higher education be adequately explained; and (2) what are the underlying forces that determine a specific pattern of expansion in higher education. The findings suggest the dynamics of the world cultural system as a possible explanation to the expansion.

The results show some consistent patterns in Asia's expansion and organization of higher education through a series of multivariate analyses. Running counter to normative realist arguments, national development is not related to the expansion of higher education enrollments. The data reveal some significant effects of educational ideology and world integration on higher education expansion, for both women and men from the two time periods of 1950-1989 and 1990-2007. Contrary to the argument of social differentiation, expansion in higher education incorporates more of essential elements for modern citizenship building that emphasizes the centrality and capacity of an individual. Moreover, the result confirms that colonial influence does not have a significant effect on the organization of higher education in Asia. The impressive regional shift to expanding higher education enrollments is independent of the national level of development contrary to some of the predictions posed by the world system theories and cultural imperialism theories.

The study explored these issues in greater detail by tracing the expansion and organization of higher education with reference to official statements of higher education's goals, objectives, and aims from other societies in Asia. These official statements are formal claims to introduce new social expectations to the national agenda of higher education. An inquiry into the emergence of these reform claims over time is essential to study the collective construction of modern citizenship in which these societies were involved.

A case-based investigation into Hong Kong society further elaborates the theoretical relevance of the world culture/society perspective on the expansion and organization of higher education. The early form of higher education in Hong Kong has been formalized on the basis of a western-style educational system. While some western and colonial influences are prevalent in the form of higher education in the early stage, these influences tend to disappear after World War II. Nonetheless, such a move carries as much a symbolic value as a thorough educational revolution to transform the colonial higher education. Although the organizational patterns are modeled after the British and the enrollments remain far below the world's average, the formalized goals of higher education make strong attachments to world reference

whenever Hong Kong updates her portrait to the Asian community. Examining the shift of higher education goals over time in Hong Kong, the result reveals an interesting pattern in the organization of higher education goals, consistent with findings in the quantitative analysis.

B. Concluding Remarks

In a conclusion, the present study provides substantial evidence that the expansion and organization of higher education is closely related to the dynamics of a world culture firmly institutionalized in the modern world society. The consistency of the expansion of population coverage, disciplinary areas, and program types reflect national responses to a world order embedded in the institutional environment which comprises of a set of taken-for-granted rules and conventions for national development. With an increasing chartering of new projects for national progress and development to the nation-states, it is not surprising for the polities incorporating these values, standards, and goals which are exogenous to internal attributes into their local or national agendas.

This study has no intent to underemphasize the efficiency and effectiveness of educational reforms implemented by national governments. But, the study aims to be a reflection on the extent that educational organizations have been successfully institutionalized the social reality for a collective project for building an active and participatory model of modern citizenship.

To a large extent, the findings show the world culture/society theory presents a perspective relevant to consolidate our theoretical understanding that modern educational activities are legitimate as their functional attributes to national advancement distinctive to each society. The theory also extends a possible theoretical alternative perceiving modern education as a mass culture being ideologically legitimate to the broader world environment.

The ideological emphasis of the world culture theory provides a theoretical implication to focus on the role of universalistic values as forces to shape responses of modern educational enterprises and local social movements as well. The theoretical implication of world culture theory by no means conceptualizes the creation of social order as a mere structural adjustment of internal arrangements for societal or world demands. Instead, with the emphasis on the interplay of the local and global, the world culture/society theory takes into account the relationship

between legitimacy and organizational efficiency.

Internal arrangements of the organizations are to avoid exposure to the forefront of the external environment while seeking organizational effectiveness and efficiency. Rather than refining and aligning the stated goals, daily activities are decoupled from the formal statements. Program or disciplinary areas and bench-markings in higher education are day-to-day activities governed by another mythical set of rules and regulations being legitimated by the world level and then diffused to the local. Indeed, some distinctive changes are to found in world rankings while making a closer comparison of program level and disciplinary areas across higher education in the world. But the matter is not merely about changes persist or not. All these features of higher education, no matter how much they have changed, they all approach toward the same direction beyond national boundaries as reflected from the world rankings. Thus, if an organization needs to manage its governance and efficiency effectively, it has to decouple its day-to-day activities from the external environment.

The study draws our attention to address a missing link about theoretical formulation of the world culture/society perspective on the social and political dynamics of higher education. The gap suggests an option to consider the expanding trend, for example to review and analyze how countries resist or incorporate some higher education goals. The option helps understand how national high education organizes in a specific way and help examine dynamics that might come from the internal as with the cultural; higher education stakeholders as with the non-stakeholders; policy makers as with those subjected to the policy; social movement activists as with the bystanders. The rapid inclusion of all social constituencies addresses the theoretical significance of world culture/society theory on the role of cultural carriers channeling such change and the mechanisms that make the “sacredness” of higher education becoming more and more susceptible to external change.

The theoretical tradition of institutionalism provides a substantial foundation to explicate the institutionalization and diffusion of modern educational ideology on a world scale and an individual polity as well. This study adds a regional domain that has been receiving attention from many other empirical studies on the relevance of cultural dynamics in Asia.

The study of Asia allows us to review the major findings and world trend. The empirical findings strengthen the world culture/society theorists’ arguments by

means of documenting a shift of educational reference of higher education expansion from the emphasis on a standard model to some regional emphases in Asia since 1990s. This finding indicates the presence of regional-specific cultural attributes that have provided pervasive grounds to incorporate or resist the prevalent reference of world higher educational arrangements. Specifically, formal educational goals and universities have increasingly given emphases to their positions in the world, and the region as well. The regional positioning raises an issue for the world culture/society perspective to explore further theoretical elaboration on the interplay between the local and the global with the presence of the regional. The regional has frequently perceived as an economically useful enterprise to advance regional economic growth and governance and resolve economic crisis that explains how nations/polities integrate into regionalized entities. Some argue that cultural attributes specific to Asia provides evidence to support the rapid expansion of higher education. But the main finding in Asia shows that the world model prevails in the regional. Thus, this study could have provided a reasonable possibility to enhance the world culture/society perspective's explanatory strength in arguing for the transnationality of world references to modern educational arrangements with particular attention to fine-tune the diffusion of ideologies from the external environment.

A case-based investigation provides a more detailed investigation to decipher the possible vessels and mechanisms that shape the reality of the local. Even if the public discourses of the policy makers and social constituencies are frequently diverse while formulating local goals of higher education, the narratives for revised goals over time come up with a blueprint of higher education covering themes that are transcendental beyond the polity's and the regional boundaries. This study adds a regional dimension of analysis that enriches the highly legitimated discourses through interplay between the local, the regional, and the global.

C. Theoretical Implications for Policy Making and Practice

The study has shown the prevalence of universalistic values external from the environment that has prominent places to shape the expansion and organization of higher education in the local society. The study has no intent to suggest that policy makers to retain their traditional governance of allocating resources or local advocacies to assume a global occupying style to mobilize social justice or equity in local society. The study points to an emerging policy implication extending beyond

constraints of resources and power within the local society. Local demands and public opinions for the betterment of the local society are reflections of shifts in external norms and rules. Local structural changes and bottom-up movements are increasingly dressing up with universalistic values, such as rule of law, democratization, individual and group rights, and social justice. Thus, it is not surprising to observe the public debates configuring local concerns or “core values of Hong Kong” with labels that are universalistic as shown in the discourses of local social movements.

The world culture/society perspective may provide an explanatory dimension to discuss the recent debate on the instruction of national education in local society. The perspective helps understand the dynamics of culture to transform a student movement into a mass mobilization. While the advocacies were voicing their opposition to the content of the national education, they portrayed an umbrella discourse to advocate the advancement of democracy in Hong Kong. The instruction of national education was not simply an education issue about what was to be taught or a political one about which side gained an upper hand in the public debate. The portrayal of advocacy discourses might have reflected shades of universalistic values in shaping local discourses. For example, the advocacies portrayed the movement as a participatory project of building active citizenship that includes all walks of individuals. Student participants put on new labels proclaiming that they were not simply as young individuals who were educated to become future citizens. Their discourses positioned themselves as real citizens and empowered individuals with the capabilities to participate actively in all current debates and public discussions in Hong Kong society. In a similar vein, the tinting of local discourses with universalistic values ran through recent movement discourses of land justice, environmental conservation, or media close-down.

While the public attention has its focus on the extent of the effectiveness of the movement, little has been paid to a missing link between the social movement and day-to-day practice in the local society. The world culture/society theory argues that day-to-day activities in modern organizations are largely decoupled from the formalized goals. For example, in response to the instruction of national education, schools attached diverse labels to the instruction of national education. Some schools emphasized the existing civic education was sufficient to teach national education. Some integrated the components of national education to formal curricula of social

studies, life education, or religious education. At the same time, some continued to adopt nationalistic reference for the instruction of the subject. Hong Kong society could have made a peculiar response to the content of the subject that is distinctive from nations and states in the world. But the public discussions were never on the maneuver to “delete” the subject or diverted to the direction as if national education had never existed.

The policy implication of the world culture/society theory has its crucial place to suggest an option to any public policy that tends to give emphasis on values and practices that are particularistic to a specific society. World culture or regional attributes of traditions and beliefs could have provided an alternative perspective to approach the intensive public debates that streamline into “for or against” sectarian positions on the public agenda. With special reference to the instruction of citizenship education in Hong Kong, the world culture/society perspective implies an incorporation of universalistic values to the instruction prior to the inculcation of the particularistic ones.

D. Limitations of the Study and Suggestions for Further Research

Cross-national studies are known to have theoretical and methodological shortcomings. Comparative organization studies also share the same problems. A complete analysis of higher education organization would comprise two aspects: the formal and the implemented. This study has focused on the analysis of higher education expansion at the formal level, which uncovers a complete view of the operation of goals in educational systems. Cross-national and longitudinal data on various sorts of the expansion and organization of higher education are needed in order to be able to adequately explain the relationship between forms of organization and social change. Comparative analysis of higher education enrollments over time has added an extra dimension to understand the social construction of an integrated knowledge system in modern societies.

The study has made a methodological exploration to integrate the world, regional, and local studies. The regional and case-based investigation suggests the relevance and dynamics of culture to the expansion and organization of higher education. Case comparison based on cultural attributes, such as Islamism, Confucianism, or capitalist exchange, is a potential direction furthering regional comparative studies.

The guiding propositions for exploratory purposes in the present study provide

bases to further formulate formal hypotheses that emphasize mechanism-based hypothesis testing. The suggestion for further research is to set up critical tests delineating the extent that ideological dominance of the American higher educational regime or the world institutionalization and diffusion of higher educational configuration provides a reasonable explanation to worldwide expansion of higher education.

The present study has focused on the shift of disciplinary areas and their gender compositions in higher education. But the scope of the present study could not venture further into a comprehensive investigation and discussion of knowledge reorganization across the disciplinary areas of arts, sciences, and technology. Some studies examined the rise of social sciences and practical arts (Brint 2002; Frank and Gabler 2006). But little has been examined the world trend of enrollments in different disciplinary areas, gender partitioning in each disciplinary area, and the regional attributes to knowledge reconstruction. A further inquiry into these issues will by all means strengthen the present study.

Given that many countries have incorporated new schools and disciplinary areas, some variations of the goals and enrollments will be expected. For example, traditional science categories regroup into new and schools of life science or public health. In such a case, the data would fail to capture the precise expansion and organization of knowledge. An improvement to the study can be attained by extending the analysis through the structural organization of national higher education systems which includes an analysis of newly emerged schools in higher education would be appropriate.

National society is the unit of analysis. The present study has included as much enrollment information from all countries or semi-autonomous polities as possible. Especially, when those polities are more integrated to the world society, they tend to create more official enrollment information and circulate them through world cultural agents compared to polities that are less integrated. It is however difficult to obtain a random sample of cases. As the study does not represent a random sample of nation-states, the findings must be interpreted with caution. Since this shortcoming is common to most cross-national studies, therefore, the solution is to include as many polities as available.

Time points in this study are grouped arbitrarily into two time periods that poses the problem of capturing the dynamics of organizational changes. As polities emerge

at different time points and introduce higher education reforms under varying internal conditions, it is unrealistic to analyze those changes under a uniform length of time. A possible solution is to collect more complete continuous-time enrollment data which would provide an integral analysis to further study data of this type.

Appendix I

Data Set (x) for Periods 1 (1998-2001), 2 (2002-2005), and 3 (2006-2009)

Country	Period			Country	Period			Country	Period			Country	Period		
	1	2	3		1	2	3		1	2	3		1	2	3
Afghanistan	x	x		Cuba	x	x	x	Libya	x	x		St. Vincent and the Grenadines	x	x	
Albania	x	x		Cyprus	x	x	x	Liechtenstein		x	x	Samoa		x	
Algeria		x	x	Czech Republic	x	x	x	Lithuania	x	x	x	Sao Tome and Principe		x	x
Andorra		x	x	Denmark	x	x	x	Luxembourg	x	x	x	Saudi Arabia	x	x	x
Angola		x	x	Djibouti	x	x	x	Macao	x	x	x	Senegal		x	
Anguilla		x	x	Dominica		x	x	Macedonia (FYR)	x	x	x	Serbia			x
Antigua and Barbuda			x	Dominican Republic		x		Madagascar	x	x	x	Seychelles	x	x	
Argentina	x	x	x	Ecuador			x	Malawi		x	x	Sierra Leone	x	x	
Armenia	x	x	x	Egypt		x	x	Malaysia	x	x	x	Singapore	x	x	x
Aruba	x	x	x	El Salvador		x	x	Maldives			x	Slovakia	x	x	x
Australia	x	x	x	Equatorial Guinea		x		Mali			x	Slovenia	x	x	x
Austria	x	x	x	Eritrea		x	x	Malta	x	x	x	Solomon Islands		x	x
Azerbaijan	x	x	x	Estonia		x	x	Marshall Islands		x	x	South Africa	x	x	x
Bahrain		x	x	Ethiopia		x	x	Mauritania	x	x	x	Spain	x	x	x
Bangladesh	x	x	x	Fiji			x	Mauritius	x	x	x	Sri Lanka	x	x	x
Barbados		x	x	Finland		x	x	Mexico	x	x	x	Sudan		x	
Belarus	x	x	x	France		x	x	Micronesia		x		Suriname			x
Belgium	x	x	x	Gabon			x	Mongolia	x	x	x	Swaziland	x	x	x
Belize			x	Gambia		x	x	Montenegro	x	x	x	Sweden	x	x	x
Benin		x		Georgia		x	x	Montserrat			x	Switzerland	x	x	x
Bermuda			x	Germany		x	x	Morocco	x	x	x	Taiwan	x	x	x
Bhutan	x	x	x	Ghana			x	Mozambique		x	x	Tajikistan	x	x	x
Bolivia		x		Greece		x	x	Myanmar	x	x	x	Tanzania	x	x	
Bosnia and Herzegovina			x	Grenada			x	Namibia	x	x	x	Thailand	x	x	x
Botswana	x	x	x	Guatemala			x	Nauru		x	x	Timor-Leste			x
Brazil		x	x	Guinea			x	Nepal		x		Togo		x	x
British Virgin Islands		x	x	Guyana			x	Netherlands	x	x	x	Tokelau		x	x
Brunei	x	x	x	Honduras			x	Netherlands Antilles		x	x	Tonga		x	x
Bulgaria	x	x	x	Hong Kong			x	New Zealand	x	x	x	Trinidad and Tobago		x	x
Burkina Faso			x	Hungary			x	Nicaragua	x	x	x	Tunisia	x	x	x
Burundi	x	x	x	Iceland			x	Niger			x	Turkey	x	x	x
Cambodia	x	x	x	India			x	Nigeria		x	x	Turks and Caicos Islands			x
Cameroon		x	x	Indonesia			x	Niue		x	x	Tuvalu		x	x
Canada	x	x	x	Iran			x	Norway	x	x	x	Uganda		x	x
Cape Verde	x	x	x	Iraq			x	Oman	x	x	x	Ukraine	x	x	x
Cayman Islands		x		Ireland			x	Pakistan	x	x	x	United Arab Emirates	x	x	x
Central African Republic		x		Israel			x	Palestine	x	x	x	United Kingdom	x	x	x
Chad			x	Italy			x	Panama	x	x	x	United States	x	x	x
Chile	x	x	x	Jamaica			x	Papua New Guinea		x		Uruguay		x	x
China (People's Republic)		x	x	Japan			x	Paraguay			x	Uzbekistan	x	x	x
Colombia	x	x	x	Jordan			x	Peru	x	x	x	Vanuatu		x	x
Comoros		x		Kazakhstan			x	Philippines	x	x	x	Venezuela	x	x	x
Congo	x	x	x	Kenya			x	Poland	x	x	x	Vietnam		x	x
Congo (DR)			x	Kiribati			x	Portugal	x	x	x	Yemen	x	x	x
Cook Islands		x		Korea (PDR)				Puerto Rico			x	Zambia			x
Costa Rica			x	Korea (Republic)			x	Qatar		x	x	Zimbabwe			x
Côte d'Ivoire		x		Kuwait			x	Moldova (Republic)	x	x	x				
Croatia	x	x	x	Kyrgyzstan			x	Romania	x	x	x				
				Laos			x	Russian Federation	x	x	x				
				Latvia			x	Rwanda		x	x				
				Lebanon			x	St. Kitts and Nevis			x				
				Lesotho			x	St. Lucia			x				
				Liberia			x								

Appendix II

Country Coding for the Prevalence of Islamic Ethics and Confucian Traditions in Asia

A. Islamic Ethics as the Prevalent Religion

Afghanistan	Iran	Malaysia	Syria
Azerbaijan	Iraq	Maldives	Tajikistan
Bahrain	Jordan	Oman	Turkey
Bangladesh	Kazakhstan	Pakistan	Turkmenistan
Brunei	Kuwait	Palestine	United Arab Emirates
Darussalam	Kyrgyzstan	Qatar	Uzbekistan
Indonesia	Lebanon	Saudi Arabia	Yemen

(N=27)

Source:

Finke, Roger and Brian J. Grim. 2005. "Cross-National Socio-Economic and Religion Data, 2005." *The Association of Religion Data Archives*. Retrieved October 13, 2009 (<http://www.thearda.com/Archive/Files/Descriptions/ECON2005.asp>).

B. Confucian Traditions as Prevalent Values

China
Hong Kong
Japan
North Korea
South Korea
Macao
Singapore
Taiwan
Vietnam

(N=9)

Sources:

- Rozman, Gilbert. 1991. *The East Asian Region: Confucian Heritage and Its Modern Adaptation*. Princeton, NJ: Princeton University Press.
- Tu, Wei-ming. 1996. *Confucian Traditions in East Asian Modernity: Moral Education and Economic Culture in Japan and the Four Mini-Dragons*. Cambridge, Mass.: Harvard University Press.
- Tu, Weiming. 1998. "Beyond the Enlightenment Mentality." Pp.3-22 in *Confucianism and Ecology: The Interrelation of Heaven, Earth, and Humans*, edited by M. E. Tucker and J. Berthrong. Cambridge, Mass.: Distributed by Harvard University Press for the Harvard University Center for the Study of World Religions.
- Vogel, Ezra F. 1991. *The Four Little Dragons: The Spread of Industrialization in East Asia*. Cambridge, Mass.: Harvard University Press.

Appendix III

Typology of World Regions

1. **Arab States:** Algeria Djibouti Egypt Libya Mauritania Morocco
Sudan Tunisia (N=8)
2. **Central and Eastern Europe:** Albania Belarus Bosnia and Herzegovina
Bulgaria Croatia Czech Republic Estonia Hungary Latvia Lithuania
Macedonia Moldova Poland Romania Russia Serbia Slovakia
Slovenia Ukraine (N=19)
3. **Asia:** Afghanistan Armenia Azerbaijan Bahrain Bangladesh Bhutan
Brunei Darussalam Cambodia China Cyprus Georgia Hong Kong
India Indonesia Iran Iraq Israel Japan Jordan Kazakhstan Kuwait
Kyrgyzstan Laos Lebanon Macao Malaysia Maldives Mongolia
Myanmar Nepal North Korea Oman Pakistan Palestine Philippines
Qatar Saudi Arabia Singapore South Korea Sri Lanka Syria Taiwan
Tajikistan Thailand Timor-Leste Turkey Turkmenistan United Arab Emirates
Uzbekistan Viet Nam Yemen (N=51)
4. **Latin America and the Caribbean:** Anguilla Antigua and Barbuda
Argentina Aruba Barbados Belize Bermuda Bolivia Brazil
British Virgin Islands Cayman Islands Chile Colombia Costa Rica Cuba
Dominica Dominican Republic Ecuador El Salvador Grenada
Guatemala Guyana Honduras Jamaica Mexico Montserrat
Nicaragua Panama Paraguay Peru Saint Kitts and Nevis Saint Lucia
Saint Vincent and the Grenadines Suriname Trinidad and Tobago
Turks and Caicos Islands Uruguay Venezuela (N=38)
5. **The West:** Austria Belgium Canada Denmark Finland France
Gibraltar Greece Iceland Ireland Italy Liechtenstein Luxembourg
Malta Monaco Netherlands Norway Portugal Spain Sweden
Switzerland United Kingdom United States of America Australia
New Zealand (N=25)
6. **The Pacific and Micronesia:** Cook Islands Fiji Kiribati Marshall Islands
Federated States of Micronesia Nauru Niue Palau Papua New Guinea
Samoa Solomon Islands Tokelau Tonga Tuvalu Vanuatu (N=15)
7. **Sub-Saharan Africa:** Angola Benin Botswana Burkina Faso Burundi
Cameroon Cape Verde Central African Republic Chad Comoros Congo
Côte d'Ivoire Democratic Republic of the Congo Equatorial Guinea Eritrea
Ethiopia Gabon Gambia Ghana Guinea Guinea-Bissau Kenya
Lesotho Liberia Madagascar Malawi Mali Mauritius Mozambique
Namibia Niger Nigeria Rwanda Sao Tome and Principe Senegal
Seychelles Sierra Leone Somalia South Africa Swaziland Togo
Uganda Tanzania Zambia Zimbabwe (N= 45)

Appendix IV

List of Data Sources for the Dependent and Independent Variables

Variables	Date Sources
<i>Dependent Variable</i>	
Higher Education Enrollment	Department of Statistics, Singapore (1985, 1995, 2000, 2005 and 2009); Department of Statistics, Ministry of Education, Taiwan (1999, 2002, and 2008); Department of Statistics, Ministry of Education, Taiwan (1999, 2002, and 2008) Directorate General of Budget, Accounting and Statistics, Executive Yuan, R.O.C. (1975, 1981 and 1991); Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2009); Stanford Comparative Institution Seminar Team (2009); Statistics and Census Service Macau (1990 – 2007) ; Statistisches Bundesamt (1998, 2002 and 2008) ; Tōkeikyoku, Sōrifu, Japan. (1951); UNESCO (1952, 1956, 1958, and 1961); UNESCO (1963, 1966-1976, 1987, 1995, 1998, and 1999) UNESCO Institute of Statistics (2009); University Grants Committee of Hong Kong (1996)
<i>Independent Variables</i>	
Economic Modernization	Bureau of Energy, Ministry of Economic Affairs (2011); Directorate-General of Budget, Accounting and Statistics, Executive Yuan, Taiwan (2004); Stanford Comparative Institution Seminar Team (2009); World Bank (1990, 1995, 2000 and 2005)
Education for National Building	Stanford Comparative Institution Seminar Team (2009); UNESCO (1952, 1956, 1958, and 1961); UNESCO (1963, 1966-1976, 1987, 1995, 1998, and 1999) UNESCO Institute of Statistics (2009); Department of Statistics, Ministry of Education, Taiwan (1975, 1980, 1985, 1990, 1995, 2000, 2005 and 2007)
State Strength and Authority	Marshall, Jagers and Gurr (2009)
World System Integration	Stanford Comparative Institution Seminar Team (2009)
<i>Control Variables</i>	
Islamic Beliefs	Finke and Grim (2005)
Confucian Traditions	Rozman (1991); Tu (1996 and 1998); Vogel (1991)
Colonial Experience	Stanford Comparative Institution Seminar Team (2009)

Notes: The list was compiled from twenty-six systematic sources. The sources of information are listed below.

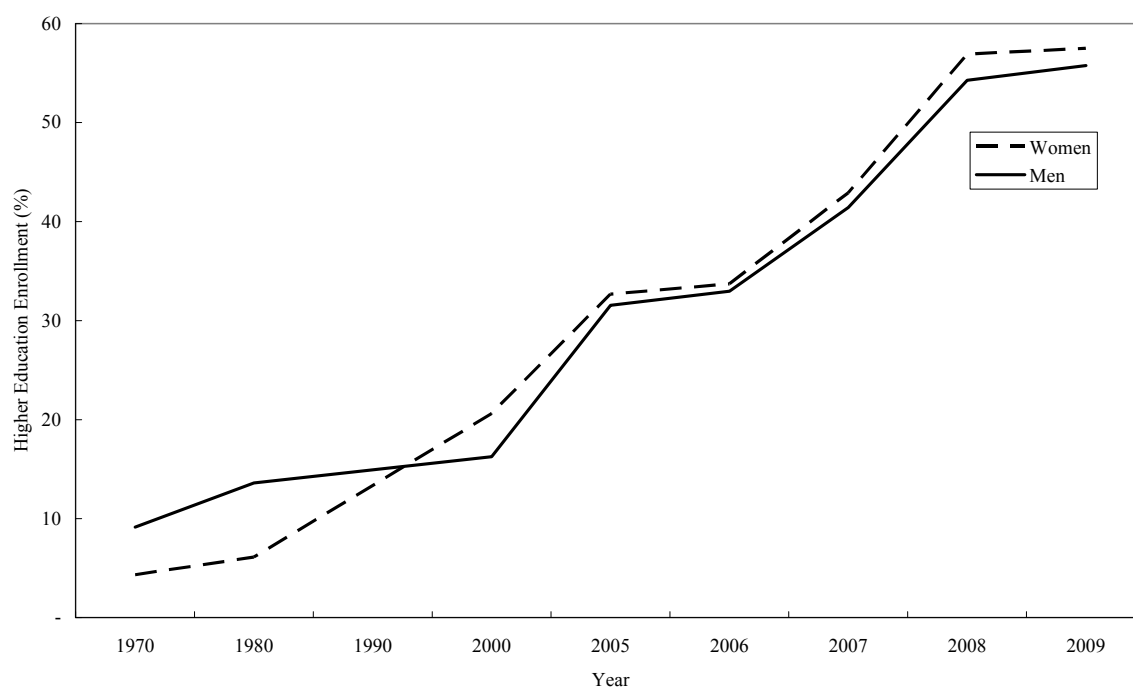
Sources:

- Bureau of Energy, Ministry of Economic Affairs. 2011. "Energy Efficiency Indicators." *Energy Indicators of Taiwan 1990-2010*. Retrieved April 16, 2012
(http://web3.moeaboe.gov.tw/ECW/populace/content/wHandMenuFile.ashx?menu_id=866)
- Department of Statistics Singapore. 2009. *Yearbook of Statistics Singapore*. Singapore: Department of Statistics.
- Department of Statistics, Ministry of Education, Taiwan. 1975, 1980, 1985, 1990, 1995, 2000, 2005 and 2007. "Enrollment Rate of School – Gross Enrollment Ratio." *Enrollment Rate of School — Gross Enrollment Ratio 1976-2009* (in Chinese). Retrieved May 19, 2010
(<http://www.dgbas.gov.tw/ct.asp?xItem=15423&CtNode=4610>)
- Department of Statistics, Ministry of Education, Taiwan. 1999, 2002, and 2008. "Number of Students at All Levels – By Public or Private." *Number of School, Teachers, Classes, Students, and Graduates 1950-2009* (in Chinese). Retrieved March 3, 2010
(<http://www.dgbas.gov.tw/ct.asp?xItem=15423&CtNode=4610>).
- Department of Statistics. 1985 and 1995. *Yearbook of Statistics*. Singapore: Department of Statistics.
- Department of Statistics. 2000 and 2005. *General Household Survey*. Singapore: Department of Statistics.
- Directorate General of Budget, Accounting and Statistics, Executive Yuan, R.O.C. 1981. "Population." *Statistical Abstract of the Republic of China 1955-1973*. Zug, Switzerland: Inter Documentation Co.
- Directorate-General of Budget, Accounting and Statistics, Executive Yuan. 1975 and 1991. *Statistical Yearbook of the Republic of China*. Taipei: Directorate-General of Budget, Accounting & Statistics, Executive Yuan, Republic of China.
- Directorate-General of Budget, Accounting and Statistics, Executive Yuan, R.O.C. (Taiwan). 2004. *Statistical Yearbook of the Republic of China* (in Chinese). Taipei: Directorate-General of Budget, Accounting and Statistics, Executive Yuan, R.O.C. (Taiwan).
- Finke, Roger and Brian J. Grim. 2005. "Cross-National Socio-Economic and Religion Data, 2005." *The Association of Religion Data Archives*. Retrieved October 13, 2009
(<http://www.thearda.com/Archive/Files/Descriptions/ECON2005.asp>)
- Japan. Sōrifu. Tōkeikyoku. 1951. *Japan Statistical Yearbook, 1949-1981*. Netherlands: Inter Documentation.
- Marshall, Monty G., Keith Jagers, and Ted Robert Gurr. 2009. "Polity IV Annual Time-Series 1800-2009." *Polity IV Project: Political Regime Characteristics and Transitions, 1800-2009*. Retrieved October 23, 2009
(<http://www.systemicpeace.org/polity/polity4.htm>).
- Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat. 2009. *World Population Prospects: The 2008 Revision*. Retrieved February 08, 2010 (<http://esa.un.org/unpp>).
- Rozman, Gilbert. 1991. *The East Asian Region: Confucian Heritage and Its Modern*

- Adaptation*. Princeton, NJ: Princeton University Press.
- Stanford Comparative Institution Seminar Team. 2009. *Stanford Comparative Institution Seminar Team Data Set*. (Limited access with special permission).
- Statistics and Census Service Macau. *Time Series Database 1990 - 2007*. Retrieved: April 1, 2010 (<http://www.dsec.gov.mo/TimeSeriesDatabase.aspx>).
- Statistisches Bundesamt. 1998, 2002 and 2008. "Bevölkerung" and "Bildung und Kultur, Forschung und Entwicklung." *Genesis-online Datenbank* (in German). Retrieved October 19, 2011 (https://www-genesis.destatis.de/genesis/online/data;jsessionid=87A8BFB6CB9671CE10F3E773AA41B3AF.tomcat_GO_1_1?operation=statistikenVerzeichnis).
- Tu, Wei-ming. 1996. *Confucian Traditions in East Asian Modernity: Moral Education and Economic Culture in Japan and the Four Mini-Dragons*. Cambridge, Mass.: Harvard University Press.
- Tu, Weiming. 1998. "Beyond the Enlightenment Mentality." Pp.3-22 in *Confucianism and Ecology: The Interrelation of Heaven, Earth, and Humans*, edited by M. E. Tucker and J. Berthrong. Cambridge, Mass.: Distributed by Harvard University Press for the Harvard University Center for the Study of World Religions.
- UNESCO Institute for Statistics. 2009. "Table 26: Historical Data - Tertiary Education Summary." Retrieved August 4, 2009 (http://www.uis.unesco.org/template/pdf/ged/2009/GED2009_Hist1.xls).
- UNESCO. 1952, 1956, 1958, and 1961. *Basic Facts and Figures: International Statistics Relating to Education, Culture and Communication*. Paris: UNESCO.
- UNESCO. 1963, 1966-1976, 1987, 1995, 1998, and 1999. *Statistical Yearbook*. Paris: UNESCO.
- University Grants Committee of Hong Kong. 1996. *Facts and Figures*. Hong Kong: University Grants Committee Secretariat.
- Vogel, Ezra F. 1991. *The Four Little Dragons: The Spread of Industrialization in East Asia*. Cambridge, Mass.: Harvard University Press.
- World Bank. 1990, 1995, 2000 and 2005. "Electricity Power Consumption." The World Development Indicators. Retrieved April 16, 2012 (http://data.un.org/Data.aspx?q=electric+power+consumption&d=WDI&f=Indicator_Code%3aEG.USE.ELEC.KH.PC).

Appendix V

Higher Education Enrollments in Hong Kong, Women and Men, 1970 – 2009



Notes:

Mean Percentages were compiled from two systematic sources. The sources of information are listed below.

Sources:

UNESCO Institute for Statistics. 2009. "Table 26: Historical Data - Tertiary Education Summary." Retrieved August 4, 2009

(http://www.uis.unesco.org/template/pdf/ged/2009/GED2009_Hist1.xls).

UNESCO Institute for Statistics. 2010. "Table 14: Tertiary Indicators." Retrieved October 12, 2011

(<http://stats.uis.unesco.org/unesco/TableViewer/tableView.aspx?ReportId=167>).

Appendix VI

Country List of Most Frequent Participants in International Education Tests

Country	Total Number of International Tests
United States	30
Netherlands	26
Israel	25
Finland	25
Italy	25
United Kingdom	24
Hungary	23
Sweden	23
Hong Kong	22
Thailand	22
Belgium	22
New Zealand	20

Notes: The order of countries was compiled from a systematic source collecting international test data information from 273 countries and semi-autonomous polities. This table only shows twelve countries or semi-autonomous polity that participated in more than 20 tests since 1962. The source of information is listed below.

Source: “International Test Data” from Data Archive of the Stanford Comparative Institution Seminar Team (2009).

Appendix VII

Types of Stakeholders Responding to the Higher Education Reform in 2002

Type of Stakeholders (N = 134)	Number of Response
Higher Education Institutions	51
Higher Education Professionals and Administrators	11
Parents and Teachers	10
Social and Geographical Constituencies	9
Professional Groups	9
Higher Education Students	8
Social Welfare and Services	8
Educational Policy Concern Groups	6
Religious Bodies	6
Advisory Committees to Government	3
Higher Education Alumni	3
Unclassified	10

Notes: Number of responses from the stakeholders was coded from a systematic source. The source of information is listed below.

Source: List of Organizations and Persons Making Submissions in Response to the HER Report, Legislative Council Brief, Higher Education Review and Rolling Over the 2001/02 to 2003/04 Triennium to the 2004/05 Academic Year, Education and Manpower Bureau, the Hong Kong Special Administrative Region, December 2, 2002.

Bibliography

- Almond, Gabriel A. and Sidney Verba. [1963] 1989. *The Civic Culture: Political Attitudes and Democracy in Five Nations*. Reprinted, Newbury Park, Calif.: Sage.
- Altbach, Philip.G. 1998. *Comparative Higher Education: Knowledge, the University, and Development*. Hong Kong: Comparative Education Research Centre, University of Hong Kong.
- Altbach, Philip.G. 2007a. "Empire of Knowledge and Development." pp. 1-28 in *World Class Worldwide: Transforming Research Universities in Asia and Latin America* edited by P. G. Altbach and J. Balán. Baltimore: Johns Hopkins University Press.
- Altbach, Philip G. 2007b. "Introduction: The Underlying Realities of Higher Education in the 21st Century." in *Higher Education in the New Century: Global Challenges and Innovative Ideas*, edited by P. G. Altbach and P. McGill Peterson. Rotterdam: Sense Publishers.
- Althusser, Louis. 1971. "Ideology and Ideological State Apparatuses" in L. Althusser *Lenin and Philosophy and other Essays*. New York: Monthly Review Press.
- Amin, Samir, Giovanni Arrighi, Andre Gunder Frank, and Immanuel Wallerstein. 1982. *Dynamics of Global Crisis*. New York and London: Monthly Review Press and Macmillian.
- Amin, Samir, Giovanni Arrighi, Andre Gunder Frank, and Immanuel Wallerstein. 1990. *Transforming the Revolution: Social Movements and the World-System*. New York: Monthly Review Press.
- Anderson, Benedict. 1983. *Imagined Communities: Reflections on the Origin and Spread of Nationalism*. London: Verso.
- Arnove, Robert F. 1980. "Comparative Education and World-Systems Analysis." *Comparative Education Review* 24(1):48-62.
- Arrighi, Giovanni. 1978. *The Geometry of Imperialism: The Limits of Hobson's Paradigm*. Translated by Patrick Camiller. London: NLB.
- Arrighi, Giovanni. 1996. "The Rise of East Asia: World Systemic and Regional Aspects." *International Journal of Sociology and Social Policy* 16(7/8):6-44.
- Arrighi, Giovanni. 2007. *Adam Smith in Beijing: Lineages of the Twenty-first Century*. London; New York: Verso.
- Asian Development Bank. 2012. "Members." Retrieved March 19, 2012 (<http://www.adb.org/about/members>).

- Association of Universities of the British Commonwealth. 1957, 1983, 1989, and 1995. *The Yearbook of the Universities of the Commonwealth*. London: Association of Universities of the British Commonwealth.
- Association of Universities of the British Commonwealth. 2012. "Members by Country." Retrieved February 23, 2012 (<http://www.acu.ac.uk/>).
- Baker, David P. and Gerald K. LeTendre. 2005. *National Differences, Global Similarities: World Culture and the Future of Schooling*. Stanford, CA: Stanford Social Sciences.
- Baker, David P., Gerald K. LeTendre, and Alexander Wiseman. 2005. "The Declining Significance of Gender and the Rise of Equalitarian Mathematics Education." Pp. 16-33 in *National Differences, Global Similarities: World Culture and the Future of Schooling* edited by D. P. Baker and L. K. Gerald. Stanford, CA: Stanford Social Sciences.
- Barnett, Ronald. 2000. *Realizing the University in an Age of Supercomplexity*. Buckingham, England; Philadelphia, Pennsylvania: Society for Research into Higher Education and Open University Press.
- Barone, Carlos. 2011. "Some Things Never Change: Gender Segregation in Higher Education across Eight Nations and Three Decades." *Sociology of Education* 84(2): 157-176.
- Barro, Robert J. 2001. "Human Capital and Growth." *American Economic Review* 91(2):12-17.
- Beck, Ulrich. 1992. *Risk Society: Towards a New Modernity*. Translated by Mark Ritter. London; Newbury Park, Calif.: Sage Publications.
- Beck, Ulrich. 2006. *The Cosmopolitan Vision*. Translated by Ciaran Cronin. Cambridge, UK; Malden, MA: Polity Press.
- Beck, Ulrich. 2009. *World at Risk*. Translated by Ciaran Cronin. Cambridge, UK; Malden, MA: Polity Press.
- Becker, Gary S. 1964. *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*. New York: National Bureau of Economic Research; distributed by Columbia University Press.
- Benavot, Aaron. 1992. "Curricular Content, Educational Expansion, and Economic Growth." *Comparative Education Review* 36(2):150-74.
- Benavot, Aaron. 2006. "The Diversification of Secondary Education: School Curricula in Comparative Perspective." IBE Working Papers on Curriculum Issues Number 6. Geneva: UNESCO International Bureau of Education.
- Ben-David, Joseph and Awraham Zloczower. 1962. "Universities and Academic Systems in Modern Societies." *European Journal of Sociology* 3(1):45-84.

- Bendix, Reinhard. 1964. *Nation-Building and Citizenship: Studies of Our Changing Social Order*. New York: Wiley.
- Bendix, Reinhard. 1978. *Kings or People: Power and the Mandate to Rule*. Berkeley: University of California Press.
- Berger, Peter L. and Thomas Luckmann. 1966. *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. New York: Doubleday and Company, Inc.
- Bindé, Jérôme. 2005. *Towards Knowledge Societies: UNESCO World Report*. Paris: UNESCO.
- Bloom, Allan. 1987. *The Closing of the American Mind*. New York: Simon and Schuster.
- Boli, John, Francisco O. Ramirez, and John W. Meyer. 1985. "Explaining the Origins and Expansion of Mass Education." *Comparative Education Review* 29(2):145-70.
- Boli-Bennett, John and John Meyer. 1978. "The Ideology of Childhood and the State: Rules Distinguishing Children in National Constitutions, 1870-1970." *American Sociological Review* 43(6):797-812.
- Bonwell, Charles C. and James A. Eison. 1991. "Active Learning: Creating Excitement in the Classroom." ASHE-ERIC Higher Education Report No. 1. Washington, DC: Graduate School of Education and Human Development, George Washington University.
- Boudon, Raymond. 1974. *Education, Opportunity, and Social Inequality: Changing Prospects in Western Society*. New York: Wiley.
- Boudon, Raymond. 1981. *The Logic of Social Action: An Introduction to Sociological Analysis*. London; Boston: Routledge & Kegan Paul.
- Bourdieu, Pierre, and Jean Claude Passeron. 1977. *Reproduction in Education, Society and Culture*. London, Beverly Hills: Sage Publications.
- Bowles, Samuel. 1971. "Unequal Education and the Reproduction of the Social Division of Labor." *Review of Radical Political Economics* 3(4):1-30.
- Bowles, Samuel and Herbert Gintis. 1976. *Schooling in Capitalist America: Educational Reform and the Contradiction of Economic Life*. New York: Basic Books.
- Bradley, Karen. 2000. "The Incorporation of Women into Higher Education: Paradoxical Outcomes?" *Sociology of Education* 73(1):1-18.

- Bradley, Karen and Francisco O. Ramirez. 1996. "World Polity and Gender Parity: Women's Share of Higher Education, 1965-1985." *Research in Sociology of Education and Socialization* 11:63-91.
- Breen, Richard and John. H. Goldthorpe. 1997. "Explaining Educational Differentials - Towards a Formal Rational Action Theory." *Rationality and Society* 9(3):275-305.
- Brint, Steven. 2002. "The Rise of the 'Practical Arts'." pp. 231-59 in *The Future of the City of Intellect: the Changing American University*, edited by S. Brint. Stanford, CA: Stanford University Press.
- Brinton, Mary C. 1993. *Women and the Economic Miracle: Gender and Work in Postwar Japan*. Berkeley, Calif.: University of California Press.
- Bromley, Patricia, John W. Meyer, and Francisco O. Ramirez. 2011a. "The Worldwide Spread of Environmental Discourse in Social Science Textbooks: Cross-National Patterns and Hierarchical Linear Models." *Comparative Education Review* 55(4): 517-45.
- Bromley, Patricia, John W. Meyer, and Francisco O. Ramirez. 2011b. "Student-Centeredness in Social Science Textbooks, 1970-2008: A Cross-National Study." *Social Forces* 90(2):547-70.
- Bureau of Energy, Ministry of Economic Affairs. 2011. "Energy Efficiency Indicators." *Energy Indicators of Taiwan 1990-2010*. Retrieved April 16, 2012 (http://web3.moeaboe.gov.tw/ECW/populace/content/wHandMenuFile.ashx?menu_id=866).
- Burman, Douglas D., Tali Bitan, and James R. Booth. 2008. "Sex Differences in Neural Processing of Language among Children." *Neuropsychologia* 46(5):1349-62.
- Carnoy, Martin. 1974. *Education as Cultural Imperialism*. New York: D. McKay Co..
- Carnoy, Martin. 1998. "The Globalization of Innovation, Nationalist Competition, and the Internationalization of Scientific Training." *Competition and Change* 3(1/2):237-62.
- Carnoy, Martin and Henry Levin. 1985. *Schooling and Work in the Democratic State*. Stanford, CA: Stanford University Press.
- Castells, Manuel. 1999. *The Rise of the Network Society*. Cambridge, MA: Blackwell Publishers.
- Castells, Manuel. 2009. *Communication Power*. Oxford; New York: Oxford University Press.

- Central Committee of the Chinese Communist Party and the State Council, P.R.C. 1993. *Outline for Education Reform and Development* (in Chinese). February 13, 1993. Retrieved November 21, 2011 (http://www.moe.gov.cn/publicfiles/business/htmlfiles/moe/moe_177/200407/2484.html).
- Central Committee of the Communist Party of China and the State Council, P.R.C. 1985. *The Decision of the Reform of Education System of the Central Committee of the Communist Party of China* (in Chinese). May 27, 1985. Retrieved November 21, 2011 (http://www.moe.gov.cn/publicfiles/business/htmlfiles/moe/moe_177/200407/2482.html).
- Chabbott, Colette. 2003. *Constructing Education for Development: International Organizations and Education for All*. New York: RoutledgeFalmer.
- Charles, Maria and Karen Bradley. 2009. "Indulging Our Gendered Selves? Sex Segregation by Field of Study in 44 Countries." *American Journal of Sociology* 114(4): 924-76.
- Clark, Burton R. 1983. *The Higher Education System: Academic Organization in Cross-National Perspective*. Berkeley, Calif.: University of California Press.
- Clark, Burton R. 1987. *The Academic Profession: National, Disciplinary, and Institutional Settings*. Berkeley: University of California Press.
- Clark, Burton R. 1998. *Creating Entrepreneurial Universities: Organizational Pathways of Transformation*. Oxford, U.K.; New York: Published for the IAU Press by Pergamon Press.
- Cole, Nancy S. 1997. *The ETS Gender Study: How Females and Males Perform in Educational Settings*. Princeton, N.J.: Educational Testing Service.
- Coleman, James. S. 1986. "Social Theory, Social Research, and a Theory of Action." *American Journal of Sociology* 91(6):1309-35.
- Coleman, James. S. 1988. "Social Capital in the Creation of Human Capital." *American Journal of Sociology* 94(Supplement): S95-S120.
- Collins, Randall. 1971. "Functional and Conflict Theories of Educational Stratification." *American Sociological Review* 36(6):1002-19.
- Collins, Randall. 1979. *The Credential Society: An Historical Sociology of Education and Stratification*. New York: Academic Press.
- Committee for the Establishment of a University for Hong Kong. 1908. *Papers Relative to the Proposed Hongkong University*. Hong Kong: Noronha.

- Communications and Public Affairs Office, The University of Hong Kong. 2011. "Ranked 1st in Hong Kong, 1st in Asia, 22nd in the World." Retrieved July 18, 2012 (<http://www.cpao.hku.hk/publications/firstandforemost/first-and-foremost/en/stand.htm>).
- Communications and Public Relations Office, The Chinese University of Hong Kong. 2000. "The Chinese University of Hong Kong's MBA Programmes Rank First in Asiaweek's Ranking." May 5, 2000. Retrieved July 18, 2012 (<http://www.cuhk.edu.hk/ipro/000505e%282%29.htm>).
- Communist Party of China. 2011. *The Twelfth Five-Year Program on National Economic and Social Development* (in Chinese). Beijing: People's Publishing House.
- Cox, Christopher William Machell. 1946. *Report of the Hong Kong University Advisory Committee*. London: His Majesty's Stationery Office.
- Curriculum Development Council. 1993a. *Guide to the Secondary 1 to 5 Curriculum*. Hong Kong: Education Department.
- Curriculum Development Council. 1993b. *Guide to the Sixth Form Curriculum*. Hong Kong: Education Department.
- Dearing, Ron. 1997. *Higher Education in the Learning Society: Report of the National Committee of Inquiry into Higher Education*. London: Stationery Office.
- Denison, Edward Fulton. 1962. *The Sources of Economic Growth in the United States and the Alternatives before Us*. New York: Committee for Economic Development.
- Department of Statistics Singapore. 2009. *Yearbook of Statistics Singapore*. Singapore: Department of Statistics.
- Department of Statistics, Ministry of Education, Taiwan. 1975, 1980, 1985, 1990, 1995, 2000, 2005 and 2007. "Enrollment Rate of School – Gross Enrollment Ratio." *Enrollment Rate of School — Gross Enrollment Ratio 1976-2009* (in Chinese). Retrieved May 19, 2010 (<http://www.dgbas.gov.tw/ct.asp?xItem=15423&CtNode=4610>).
- Department of Statistics, Ministry of Education, Taiwan. 1999, 2002, and 2008. "Number of Students at All Levels – By Public or Private." *Number of School, Teachers, Classes, Students, and Graduates 1950-2009* (in Chinese). Retrieved March 3, 2010 (<http://www.dgbas.gov.tw/ct.asp?xItem=15423&CtNode=4610>).
- Department of Statistics. 1985 and 1995. *Yearbook of Statistics*. Singapore: Department of Statistics.

- Department of Statistics. 2000 and 2005. *General Household Survey*. Singapore: Department of Statistics.
- Dewey, John. [1916] 1925. *Democracy and Education: An Introduction to the Philosophy of Education*. New York: The Macmillan Company.
- DiMaggio, Paul and John Mohr. 1985. "Cultural Capital, Educational Attainment, and Marital Selection." *American Journal of Sociology* 90(6):1231-61.
- DiMaggio, Paul J. and Walter W. Powell. 1983. "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields." *American Sociological Review* 48(2):147-60.
- Directorate General of Budget, Accounting and Statistics, Executive Yuan, R.O.C. 1981. "Population." *Statistical Abstract of the Republic of China 1955-1973*. Zug, Switzerland: Inter Documentation Co.
- Directorate-General of Budget, Accounting and Statistics, Executive Yuan. 1975 and 1991. *Statistical Yearbook of the Republic of China*. Taipei: Directorate-General of Budget, Accounting & Statistics, Executive Yuan, Republic of China.
- Directorate-General of Budget, Accounting and Statistics, Executive Yuan, R.O.C. (Taiwan). 2004. *Statistical Yearbook of the Republic of China* (in Chinese). Taipei: Directorate-General of Budget, Accounting and Statistics, Executive Yuan, R.O.C. (Taiwan).
- Dreeben, Robert. 1968. "The Contribution of Schooling to the Learning of Norms." Pp. 63-90 in *On What is Learned in School*. Reading, Mass.: Addison-Wesley Publishing Co., Inc.
- Durkheim, Emile [1922] 1956. "Education: Its Nature and Its Role." Pp. 61-90 in *Education and Sociology*. Translated by S. D. Fox. Glencoe, Illinois: Free Press.
- Durkheim, Emile. 1977. "On Education and Society." Pp. 92-104 in *Power and Ideology in Education*, edited by J. Karabel and A. H. Halsey. New York: Oxford University Press.
- Education and Manpower Bureau, Hong Kong. 2005. *The New Academic Structure for Senior Secondary Education and Higher Education --- Action Plan for Investing in the Future of Hong Kong*. Hong Kong: Education and Manpower Bureau.
- Education Commission, Hong Kong. 2000. *Learning for Life, Learning through Life: Reform Proposals for the Education System in Hong Kong*. Hong Kong: Education Commission.
- Eisenstadt, Shmuel N. 1986. *The Origins and Diversity of Axial Age Civilizations*. Albany, NY: SUNY Press.

- Else-Quest, Nicole M., Janet Shibley Hyde, and Marcia C. Linn. 2010. "Cross-National Patterns of Gender Differences in Mathematics: A Meta-Analysis." *Psychological Bulletin* 136(1):103-27.
- Equal Opportunities Commission v. Director of Education* HCAL1555/2000 (2001). Retrieved September 26, 2011 (http://legalref.judiciary.gov.hk/doc/judg/word/vetted/other/en/2000/HCAL001555_2000.doc).
- Etzkowitz, Henry, Andrew Webster, and Peter Healey. 1998. *Capitalizing Knowledge: New Intersections of Industry and Academia*. Albany, New York: State University of New York Press.
- Fägerlind, Ingemar and Lawrence J. Saha. 1989. *Education and National Development: A Comparative Perspective*. Oxford: Pergamon.
- Fiala, Robert and Audri Gordon Lanford. 1987. "Educational Ideology and the World Educational Revolution, 1950-1970." *Comparative Education Review* 31(3):315-32.
- Finke, Roger and Brian J. Grim. 2005. "Cross-National Socio-Economic and Religion Data, 2005." *The Association of Religion Data Archives*. Retrieved October 13, 2009 (<http://www.thearda.com/Archive/Files/Descriptions/ECON2005.asp>).
- Flexner, Abraham. 1930. *Universities: American, English, German*. New York: Oxford University Press.
- Foster, Philip. 1977. "Education and Social Differentiation in Less Developed Countries." *Comparative Education Review* 21(2/3):211-29.
- Foucault, Michel. 1991. "Governmentality." In *The Foucault Effect: Studies in Governmentality*, edited by G. Burchell, C. Gordon, and P. Miller. Chicago: University of Chicago Press.
- Frank, Andre Gunder. 1969. "The Development of Underdevelopment." Pp. 3-20 in *Latin America: Underdevelopment or Revolution*. New York: Monthly Review Press.
- Frank, Andre Gunder. 1972. *Lumpenbourgeoisie: Lumpendevlopment; Dependence, Class, and Politics in Latin America*. Translated by M. D. Berdecio. New York: Monthly Review Press.
- Frank, Andre Gunder. 1998. *Reorient: Global Economy in the Asian Age*. Berkeley, Calif.: University of California Press.
- Frank, David John and Jay Gabler. 2006. *Reconstructing the University: Worldwide Shifts in Academia in the 20th Century*. Stanford, CA: Stanford University Press.

- Frank, David John and John W. Meyer. 2006. "Worldwide Expansion and Change in the University." Pp.19-44 in *Towards a Multiversity? Universities between Global Trends and National Traditions*, edited by G. Krücken, C. Castor, A. Kosmützky, and M. Torcka. Bielefeld, Germany: transcript Verlag.
- Frank, David John, Karen Jeong Robinson, and Jared Olesen. 2011. "The Global Expansion of Environmental Education in Universities." *Comparative Education Review* 55(4):546-73.
- Frank, David John, Evan Schofer, and John Charles Torres. 1994. "Rethinking History: Change in the University Curriculum, 1910-90" *Sociology of Education* 67(4):231-42.
- Frank, David John, Suk-Ying Wong, John W. Meyer, and Francisco O. Ramirez. 2000. "What Counts as History: A Cross-National and Longitudinal Study of University Curricula." *Comparative Education Review* 44(1):29-53.
- Gabler, Jay and David John Frank. 2005. "The Natural Sciences in the University: Change and Variation over the 20th Century." *Sociology of Education* 78(3):183-206.
- Gambetta, Diego. 1987. *Were They Pushed or Did They Jump? Individual Decision Mechanisms in Education*. Cambridge: Cambridge University Press.
- Gellner, Ernest. 1983. *Nations and Nationalism*. Oxford: Blackwell.
- Gibson, Margaret A. 1991. "Ethnicity, Gender, and Social Class: The School Adaption Patterns of West Indian Youth." Pp. 169-203 in *Minority Status and Schoolings: A Comparative Study of Immigration and Involuntary Minorities*, edited by M. A. Gibson and J. U. Ogbu. New York and London: Garland.
- Gilpin, Robert. 2002. "The Rise of American Hegemony." Pp. 165-82 in *Two Hegemonies: Britain 1846-1914 and the United States 1941-2001*, edited by P. K. O'Brien, and A. Clesse. Aldershot, England; Burlington, Vt.: Ashgate.
- Global University Network for Innovation. 2010. "Institutional Members Directory." Retrieved March 16, 2012 (http://www.guninetwork.org/guni.network/institutional-members/countrysearchinst_view).
- Goldin, Claudia and Lawrence F. Katz. 2008. *The Race between Education and Technology*. Cambridge, Mass.: Belknap Press of Harvard University Press.
- Goldin, Claudia, Lawrence F. Katz, and Ilyana Kuziemko. 2006. "The Homecoming of American College Women: The Reversal of the College Gender." *The Journal of Economic Perspectives* 20(4):133-56.
- Grew, Raymond. 1984. "The Nineteenth Century European State." pp. 83-120 in *Statemaking and Social Movements: Essays in History and Theory*, edited by C. Bright and S. Harding. Ann Arbor: University of Michigan Press.

- Gumport, Patricia J. 2002. "Universities and Knowledge: Restructuring the City of Intellect." Pp. 47-81 in *The Future of the City of Intellect: The Changing American University*, edited by S. Brint. Stanford, CA: Stanford University Press.
- Gusfield, Joseph. 1967. "Tradition and Modernity: Misplaced Polarities in the Study of Social Change." *American Journal of Sociology*. 72(4):351-62.
- Hannan, Michael T. and John Freeman. 1984. "Structural Inertia and Organizational Change." *American Sociological Review* 49(2):149-64.
- Herrera, Linda. 2006. "Higher Education in the Arab World." Pp. 409-421 in *International Handbook of Higher Education*, edited by J. J. F. Forest and P. G. Altbach. Dordrecht: Springer.
- Heyneman, Stephen P. and William A. Loxley. 1983. "The Effect of Primary-school Quality on Academic Achievement across Twenty-Nine High- and Low-Income Countries." *American Journal of Sociology* 88(6):1162-94.
- Higher Education Division, Ministry of Education, Singapore. 2005. *Autonomous Universities - Towards Peaks of Excellence Report to the Committee to Review University Autonomy, Governance and Funding*. Retrieved April 13, 2011 (<http://www.moe.gov.sg/media/press/2005/UAGF%20Preliminary%20Report.pdf>).
- Hong Kong Chief Executive. 1997. *The 1997 Policy Address*. Hong Kong: Printing Department.
- Hong Kong Chief Executive. 1998. *The 1998 Policy Address*. Hong Kong: Printing Department.
- Hong Kong Higher Education Review Group, University Grants Committee. 2009. *Consultation Fora Held on 2 and 3 September 2009, Gist of Comments Received*. Retrieved August 9, 2011 (<http://www.ugc.edu.hk/eng/doc/ugc/publication/other/2009/her2010.pdf>).
- Hong Kong University of Science and Technology. 2012. "Rankings (2008 - 2012)." Retrieved July 18, 2012 (<http://www.ust.hk/eng/about/ranking.htm>).
- Hyde, Janet Shibley., Elizabeth Fennema, and Susan J. Lamon. 1990. "Gender Differences in Mathematics Performance: A Meta-Analysis." *Psychological Bulletin* 107(2):139-55.
- Inkeles, Alex and David H. Smith. 1974. *Becoming Modern: Individual Change in Six Developing Countries*. Cambridge, Massachusetts and London: Harvard University Press.
- Inkeles, Alex and Larry Sirowy 1983. "Convergent and Divergent Trends in National Educational Systems." *Social Forces* 62(2):303-33.

- Inter-Agency Commission of UNDO, UNESCO, UNICEF, WORLD BANK. 1990. *Meeting Basic Learning Needs: A Vision for the 1990s*. New York: UNICEF House.
- International Association of Universities. 1953, 1965, 1971, and 1982. *Bulletin - International Association of Universities*. Paris : Bureau International des Universités.
- International Association of Universities. 2012. "Members." Retrieved March 16, 2012 (<http://www.iau-aiu.net/content/institutions>).
- Jacobs, Jerry A. 1996. "Gender Inequality and Higher Education." *Annual Review of Sociology* 22:153-85.
- Jennings, Ivor and Douglas William Logan. 1954. *A Report on the University of Hong Kong*. Hong Kong: The University of Hong Kong.
- Jepperson, Ronald and John W. Meyer. 2011. "Multiple Levels of Analysis and the Limitations of Methodological Individualisms." *Sociological Theory* 29(1):54-73.
- Johnson, David W., Roger T. Johnson, and Karl A. Smith. 1991. "Cooperative Learning: Increasing College Faculty Instructional Productivity." ASHE-ERIC Higher Education Report No. 4. Washington, DC: Graduate School of Education and Human Development, George Washington University.
- Jones, Bernard Mouat and Walter Adams. 1950. *Visit to University of Hong Kong, April, 1950*. London: Inter-University Council for Higher Education in the Colonies.
- Kaestle, Carl F. 1973. *The Evolution of an Urban School System: New York City, 1750-1850*. Cambridge, Mass.: Harvard University Press.
- Kaestle, Carl F. 1983. *Pillars of the Republic: Common Schools and American Society, 1780-1860*. New York: Hill and Wang.
- Kamens, David H. and Aaron Benavot. 2006. "Worldwide Models of Secondary Education 1960-2000." Pp. 135-54 in *School Knowledge in Comparative and Historical Perspective: Changing Curricula in Primary and Secondary Education*, edited by A. Benavot and C. Braslavsky. Hong Kong: University of Hong Kong Press and Amsterdam: Springer.
- Kamens, David H. and Connie L. McNeely. 2009. "Globalization and the Growth of International Educational Testing and National Assessment." *Comparative Education Review* 54(1):5-25.
- Karabel, Jerome and A. H. Halsey. 1977. "Educational Research: A Review and an Interpretation." Pp. 1-85 in *Power and Ideology in Education*, edited by J. Karabel and A. H. Halsey. New York: Oxford University Press.

- Katz, Michael B. 1968. *The Irony of Early School Reform: Educational Innovation in Mid-Nineteenth Century Massachusetts*. Cambridge, Mass.: Harvard University Press.
- Kennedy, Paul. 1989. *The Rise and Fall of the Great Powers: Economic Change and Military Conflict from 1500 to 2000*. New York: Vintage Books.
- Keohane, Robert O. 1982. "Hegemonic Leadership and U.S. Foreign Economic Policy in the 'Long Decade' of the 1950s." Pp. 49-76 in *America in a World Changing Economy*, edited by W. P. Avery and D. P. Rapkin. New York: Longman.
- Kerr, Clark. 1991. *The Great Transformation in Higher Education, 1960-1980*. Albany, N.Y.: State University of New York Press.
- Kerr, Clark. 1994. *Higher Education Cannot Escape History: Issues for the Twenty-First Century*. Albany, N.Y.: State University of New York Press.
- Kirp, David L. 2003. *Shakespeare, Einstein, and the Bottom Line: The Marketing of Higher Education*. Cambridge, Massachusetts: Harvard University Press.
- Lareau, Annette. 2003. *Unequal Childhoods: Class, Race, and Family Life*. Berkeley: University of California Press.
- Lee, Ching Kwan. 1998. *Gender and the South China Miracle: Two Worlds of Factory Women*. Berkeley, Calif.: University of California Press.
- Lee, Jeong-Kyu. 2000. "Main Reform on Higher Education Systems in Korea." *Revista Electrónica de Investigación Educativa* 2(2):61-76.
- Legislative Council, The Hong Kong Special Administrative Region. 2001a. LegCo Panel on Education Subcommittee on Increase in Post-secondary Education Opportunities. May 15, 2001. LC Paper No. CB(2)1841/00-01. Retrieved September 23, 2011 (http://www.legco.gov.hk/yr00-01/english/panels/ed/ed_psec/reports/b1841e.pdf).
- Legislative Council, the Hong Kong Special Administrative Region. 2001b. LegCo Panel on Education, June 1, 2001. LC Paper No. CB(2)185/01-02. Retrieved July 19, 2011 (http://www.legco.gov.hk/yr00-01/english/panels/ed/ed_psec/minutes/psec010601.pdf).
- Legislative Council, The Hong Kong Special Administrative Region. 2002. Official Record of Proceedings, Legislative Council, June 26, 2002. LC Paper No. CB(2)503/02-03(02). Retrieved August 17, 2011 (<http://www.legco.gov.hk/yr02-03/english/panels/ed/papers/ed1202cb2-503-2e.pdf>).

- Lerner, Daniel. 1964. *The Passing of Traditional Society: Modernizing the Middle East*. New York: Free Press of Glencoe.
- Lieberson, Stanley. 1991. "Small N's and Big Conclusions: An Examination of the Reasoning in Comparative Studies Based on a Small Number of Cases." *Social Forces* 70(2):307-20.
- Lindberg, Sara M., Janet Shibley Hyde, Jennifer L. Petersen, and Marcia C. Linn. 2010. "New Trends in Gender and Mathematics Performance: A Meta-Analysis." *Psychological Bulletin* 136(6):1123-35.
- Marshall, Monty G., Keith Jagers, and Ted Robert Gurr. 2009. "Polity IV Annual Time-Series 1800-2009." *Polity IV Project: Political Regime Characteristics and Transitions, 1800-2009*. Retrieved October 23, 2009 (<http://www.systemicpeace.org/polity/polity4.htm>).
- Marshall, T. H. 1964. *Class, Citizenship, and Social Development*. New York: Doubleday.
- Massey, Douglas S., Camille Z. Charles, Garvey F. Lundy, and Mary J. Fischer. 2006. *The Source of the River: The Social Origins of Freshmen at America's Selective Colleges and Universities*. Princeton, N.J.: Princeton University Press.
- Mazrui, Ali A. 1975. "The African University as a Multinational Corporation: Problems of Penetration and Dependency." *Harvard Educational Review* 45(2):191-210.
- McClelland, David C. 1961. *The Achieving Society*. Princeton, N.J.: Van Nostrand.
- McEneaney, Elizabeth H. 2003. "Elements of a Contemporary Primary School Science." Pp. 136-54 in *Science in the Modern World Polity: Institutionalization and Globalization*, edited by G. S. Drori, J. W. Meyer, F. O. Ramirez, and E. Schofer. Stanford CA: Stanford University Press.
- Media Information Center, the Hong Kong University of Science and Technology. 2000. "HKUST Business School Enters Financial Times World List." January 24, 2000. Retrieved July 18, 2012 (http://www.ust.hk/~webopa/news/2000_News/news0124.html).
- Meek, Lynn V., Ulrich Teichler, and Mary-Louise Kearney. 2009. *Higher Education, Research and Innovation: Changing Dynamics – Report on the UNESCO Forum on Higher Education, Research and Knowledge 2001-2009*. Kassel: UNESCO Forum on Higher Education Research and Knowledge/ International Centre for Higher Education Research Kassel.
- Meyer, John W. 1970. "The Charters: Conditions of Diffuse Socialization in Schools." Pp. 564-78 in *Social Processes and Social Structures*, edited by W. R. Scott. New York: Holt, Rinehart and Winston.

- Meyer, John W. 1977. "The Effects of Education as an Institution." *American Journal of Sociology* 83(1):55-77.
- Meyer, John W. 1980. "The World Polity and the Authority of the Nation-state." Pp. 109-37 in *Studies of the Modern World-System*, edited by A. Bergesen. New York: Academic Press.
- Meyer, John W. 2000. "Globalization: Sources and Effects on National States and Societies." *International Sociology* 15(2): 233-48.
- Meyer, John W., John Boli, and George M. Thomas. 1987. "Ontological and Rationalization in the western Cultural Account." Pp. 242-60 in *Institutional Structure: Constituting State, Society, and the Individual*, edited by G. M. Thomas, J. W. Meyer, F. O. Ramirez, and J. Boil. Newbury Park, CA: Sage Publications.
- Meyer, John W., John Boli, George M. Thomas, and Francisco O. Ramirez. 1997. "World Society and the Nation-State." *American Journal of Sociology* 103(1):144-81.
- Meyer, John W., Patricia Bromley, and Francisco O. Ramirez. 2010. "Human Rights in Social Science Textbooks: Cross-national Analyses, 1970–2008." *Sociology of Education* 83(2):111-34.
- Meyer, John W. and Michael Hannan. 1979. *National Development and the World System: Educational, Economic, and Political Change, 1950-1970*. Chicago: The University of Chicago Press.
- Meyer, John W., Francisco O. Ramirez, David John Frank, and Evan Schofer. 2006. "Higher Education as an Institution." CDDRL Working Papers No. 57, Center on Democracy, Development, and The Rule of Law, Freeman Spogli Institute for International Studies, Stanford University, Encina Hall, Stanford, CA.
- Meyer, John W., Francisco O. Ramirez, Richard Rubinson, and John Boli-Bennett. 1977. "The World Educational Revolution, 1950-1970." *Sociology of Education* 50(4):242-58.
- Meyer, John W., Francisco O. Ramirez, and Yasemin Nuhoğlu Soysal. 1992. "World Expansion of Mass Education, 1870-1980." *Sociology of Education* 65(2):128-49.
- Meyer, John W. and Brian Rowan. 1977. "Institutionalized Organizations: Formal Structure as Myth and Ceremony." *American Journal of Sociology* 83(2):340-63.
- Michelson, Roslyn Arlin. 1989. "Why Does Jane Read and Write So Well? The Anomaly of Women's Achievement." *Sociology of Education* 62(1):47-63.

- Ministry of Education and Human Resources Development, Republic of Korea. 2005. *Brain Korea 21*. Retrieved April 12, 2011 (<http://english.mest.go.kr/web/42207/en/board/endownload.do?boardSeq=36541>).
- Ministry of Education, People's Republic of China. 1998. *Action Scheme for Invigorating Education towards the 21st Century* (in Chinese). Retrieved November 21, 2011 (<http://www.moe.gov.cn/publicfiles/business/htmlfiles/moe/s3735/200407/2487.html>).
- Ministry of Education, People's Republic of China. 2010. *State Guidelines for Medium-to-Long-Term Education Reform and Development Plan (2010-2020)* (in Chinese). Retrieved November 21, 2011 (http://www.moe.gov.cn/publicfiles/business/htmlfiles/moe/s4668/201008/xxgk_93785.html).
- Ministry of Education, Republic of China (Taiwan). 2001. *White Paper on University Education Policy* (in Chinese). Retrieved May 12, 2011 (<http://history.moe.gov.tw/important.asp?id=37>).
- Ministry of Education, Republic of China (Taiwan). 2010. *Educational Goals and Policies* (in Chinese). Retrieved May 12, 2011 (http://www.edu.tw/files/site_content/EDU01/10003-OK_1.pdf).
- Ministry of Education, Science and Culture, Japan. 1990. *Japanese Government Policies in Education, Science and Culture 1990*. Retrieved May 19, 2011 (http://www.mext.go.jp/b_menu/hakusho/html/hpae199001/index.html).
- Ministry of Education, Science and Culture, Japan. 2009. *Japanese Government Policies in Education, Science and Culture*. March 12, 2012 (http://www.mext.go.jp/b_menu/hakusho/html/hpab200901/1305844.htm).
- Ministry of Education, Singapore. 2000. Education Towards the 21st Century - Singapore's Universities of Tomorrow, Address by RADM (NS) Teo Chee Hean, Minister for Education and Second Minister for Defence at the Alumni International Singapore (AIS) Lecture. Jan 7, 2000. Retrieved March 12, 2012 (http://www.moe.gov.sg/media/speeches/2000/sp10012000_print.htm).
- Mullen, Ann L. 2010. *Degrees of Inequality: Culture, Class, and Gender in American Higher Education*. Baltimore, Md.: Johns Hopkins University Press.
- Nisbet, Robert. 1980. *History of the Idea of Progress*. London: Heinemann.
- Nye, Joseph S. 1990. *Bound to Lead: the Changing Nature of American Power*. New York: Basic Books.
- Nye, Joseph S. 2004. *Soft Power: The Means to Success in World Politics*. New York: Public Affairs.

- Office of Academic Links, The Chinese University of Hong Kong. 2012. "Worldwide Universities Networks." Retrieved July 18, 2012 (<http://www.cuhk.edu.hk/oal/linkage/wun.html>).
- Parsons, Talcott. 1959. "The School Class as a Social System: Some of Its Functions in American Society." *Harvard Educational Review* 29(4):297-318.
- Parsons, Talcott. 1977. *Social Systems and the Evolution of Action Theory*. New York: Free Press.
- Pearce, Lisa D. 2002. "Integrating Survey and Ethnographic Methods for Systematic Anomalous Case Analysis." *Sociological Methodology* 32:103-32.
- Piaget, Jean. 1965. *The Moral Judgment of the Child*. Translated by Marjorie Gabain. New York: Free Press.
- Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat. *World Population Prospects: The 2008 Revision*. Retrieved February 08, 2010 (<http://esa.un.org/unpp>).
- Portes, Alejandro. 1973. "Modernity and Development: A Critique." *Studies in Comparative International Development* 8(3):247-79.
- Postiglione, Gerard A. 2002. "The Transformation of Academic Autonomy in Hong Kong." Pp. 307-321 in *Crisis and Transformation in China's Hong Kong*, edited by M.K. Chan, and A.Y. So. London: M.E. Sharpe.
- Psacharopoulos, George and Maureen Woodhall. 1985. *Education for Development: An Analysis of Investment Choices*. New York: Oxford University Press.
- Psacharopoulos, George. 1989. "Time Trends of the Returns to Education: Cross-national Evidence." *Economics of Education Review* 8(3):225-31.
- Ragin, Charles C. 1992. "Introduction: Cases of 'What is a case?'" pp. 1-18 in *What Is a Case?: Exploring the Foundations of Social Inquiry*, edited by C. C. Ragin and H. S. Becker. Cambridge; New York: Cambridge University Press.
- Ramirez, Francisco O. 2002. "Eye Wide Shut: University, State and Society." *European Educational Research Journal* 1(2):256-73.
- Ramirez, Francisco O. 2006a. "The Rationalization of Universities." Pp.225-44 in *Transnational Governance: Institutional Dynamics of Regulation*, edited by M. Djelic and K. Sahlin-Andersson. Cambridge, UK; New York: Cambridge University Press.
- Ramirez, Francisco O. 2006b. "Growing Commonalities and Persistent Differences in Higher Education: Universities between Global Models and National Legacies." Pp.123-41 in *The New Institutionalism in Education*, edited by Heinz-Dieter Meyer, Brian Rowan. Albany: State University of New York Press.

- Ramirez, Francisco O. and John Boli. 1987. "The Political Construction of Mass Schooling: European Origins and Worldwide Institutionalization." *Sociology of Education* 60(1):2-17.
- Ramirez, Francisco O. and Phyllis Riddle. 1991. "The Expansion of Higher Education." Pp.91-105 in *International Higher Education: An Encyclopedia*, edited by P. G. Altbach. New York: Garland Publishing, Inc..
- Ramirez, Francisco O. and Christine Min Wotipka. 2001. "Slowly But Surely? The Global Expansion of Women's Participation in Science and Engineering Fields of Study." *Sociology of Education* 74(3):231-51.
- Readings, Bill. 1996. *The University in Ruins*. Cambridge, Massachusetts: Harvard University Press.
- Riddle, Phyllis Irene. 1989. "University and State: Political Competition and the Rise of Universities, 1200-1985." Unpublished Doctoral Dissertation, Department of Sociology, Stanford University.
- Riddle, Phyllis. 1993. "Political Authority and University Formation in Europe." *Sociological Perspectives* 36(1):45-62.
- Riddle, Phyllis. 1996. "The University and Political Authority: Historical Trends and Contemporary Possibilities." *Research in Sociology of Education and Socialization* 11:43-62.
- Robbins, Lionel. 1963. *Higher Education/ Report of the Committee Appointed by the Prime Minister, under the Chairmanship of Lord Robbins, 1961-63*. London: H.M.S.O.
- Rozman, Gilbert. 1991. *The East Asian Region: Confucian Heritage and Its Modern Adaptation*. Princeton, NJ: Princeton University Press.
- Rubinson, Richard. 1986. "Class Formation, Politics, and Institutions: Schooling in the United States." *American Journal of Sociology* 92(3):519-48.
- Sadker, Myra and David Miller Sadker. 1994. *Failing at Fairness: How America's Schools Cheat Girls*. New York: Charles Scribners Sons, Macmillan Publishing Co.
- Salaff, Janet W. 1981, *Working Daughters of Hong Kong: Filial Piety or Power in the Family*. Cambridge; New York : Cambridge University Press.
- Sassen, Saskia. 1988. *The Mobility of Labor and Capital: A Study in International Investment and Labor Flow*. Cambridge: Cambridge University Press.
- Sassen, Saskia. 2006. *Territory, Authority, Rights: From Medieval to Global Assemblages*. Princeton, N.J.: Princeton University Press.

- Schneider, Barbara L. and David Stevenson. 1999. *The Ambitious Generation : America's Teenagers, Motivated but Directionless*. New Haven: Yale University Press.
- Schofer, Evan and John W. Meyer. 2005. "The World-Wide Expansion of Higher Education in the Twentieth Century." *American Sociological Review* 70(6):898-920.
- Schofer, Evan. 2003. "The Global Institutionalization of Geological Science, 1800-1990." *American Sociological Review* 68(5):730-59.
- Schultz, Theodore W. 1961. "Investment in Human Capital." *American Economic Review* 51(1):1-17.
- Shabani, Juma. 2006. "Higher Education in French-Speaking Sub-Saharan Africa." Pp. 483-502 in *International Handbook of Higher Education*, edited by J. J.F. Forest and P. G. Altbach. Dordrecht: Springer.
- Sirowy, Larry and Aaron Benavot 1986. "Higher Education in an Era of Equality: A Cross-National Study of Institutional Differentiation at the Tertiary Level." *Research in Sociology of Education and Socialization* 6:1-44.
- Small, Mario Luis. 2011. "Methods Study: Recent Trends in a Rapidly Growing Literature." *Annual Review of Sociology* 37:57-86.
- Smith, Anthony D. 1998. *Nationalism and Modernism: A Critical Survey of Recent Theories of Nations and Nationalism*. London; New York: Routledge.
- Soares, Joseph A. 1999. *The Decline of Privilege: The Modernization of Oxford University*. Stanford, CA: Stanford University Press.
- Soysal, Yasemin Nuhoğlu and Suk-Ying Wong. 2010. "Diversity from Within and Without: Comparative Notes from France and Japan." *Multicultural Education Review* 2(1):77-92.
- Soysal, Yasemin and Suk-Ying Wong. 2011. "Citizenship as a National and Transnational Enterprise: How Education Shapes Up to Regional and Global Relevance." Prepared for the Nation and Citizen in Transformation: Making and Unmaking of Transnationalism in East Asia, May 6-7, Hong Kong.
- Stanford Comparative Institution Seminar Team. 2009. *Stanford Comparative Institution Seminar Team Data Set*. (Limited access with special permission).
- Statistics and Census Service Macau. *Time Series Database 1990 - 2007*. Retrieved: April 1, 2010 (<http://www.dsec.gov.mo/TimeSeriesDatabase.aspx>).

- Statistisches Bundesamt. 1998, 2002 and 2008. "Bevölkerung" and "Bildung und Kultur, Forschung und Entwicklung." *Genesis-online Datenbank* (in German). Retrieved October 19, 2011 (https://www-genesis.destatis.de/genesis/online/data;jsessionid=87A8BFB6CB9671CE10F3E773AA41B3AF.tomcat_GO_1_1?operation=statistikenVerzeichnis).
- The Chinese University of Hong Kong Convocation. 2002. Responses to Higher Education Reform in Hong Kong: Vision and Reality of Reforming the Higher Education System. (in Chinese) Retrieved August 17, 2011 (http://www.alumni.cuhk.edu.hk/chi/convocation/paper/Rpt_0420.pdf).
- The General Office of the State Council, the People's Republic of China. 2010 *Educational Reform and Development Planning Guideline (2010-2020)* (in Chinese). Beijing: People's Publishing House.
- The University of Hong Kong Convocation. 2002. Response to Lord Sutherland's Report on Higher Education in Hong Kong. Retrieved August 10, 2011 (<http://www.hku.hk/convocat/pdf/UGCResponse.pdf>).
- Thomas, George M., John W. Meyer, Francisco O. Ramirez, and John Boli. 1987. *Institutional Structure: Constituting State, Society, and the Individual*. Newbury Park, CA: Sage Publications.
- Throne, Barrie. 1993. *Gender Play: Girls and Boys in School*. New Brunswick, N.J.: Rutgers University Press.
- Tōkeikyoku, Sōrifu, Japan. 1951. *Japan Statistical Yearbook, 1949-1981*. Netherlands: Inter Documentation.
- Toulmin, Stephen. 1989. *Cosmopolis: The Hidden Agenda of Modernity*. New York, NY: Free Press.
- Trow, Martin. 2006. "Reflections on the Transition from Elite to Mass to Universal Access: Forms and Phases of Higher Education in Modern Societies since WWII." Pp. 243-280 in *International Handbook of Higher Education*, edited by J. J. F. Forest and P. G. Altbach. Dordrecht: Springer.
- Tu, Wei-ming. 1996. *Confucian Traditions in East Asian Modernity: Moral Education and Economic Culture in Japan and the Four Mini-Dragons*. Cambridge, Mass.: Harvard University Press.
- Tu, Weiming. 1998. "Beyond the Enlightenment Mentality." Pp.3-22 in *Confucianism and Ecology: The Interrelation of Heaven, Earth, and Humans*, edited by M. E. Tucker and J. Berthrong. Cambridge, Mass.: Distributed by Harvard University Press for the Harvard University Center for the Study of World Religions.

- U. S. National Commission on Excellence in Education. 1983. *A Nation at Risk: The Imperative for Educational Reform: a Report to the Nation and the Secretary of Education*. Washington, D.C.: the National Commission on Excellence in Education.
- UNESCO Institute for Statistics. 2009. "Table 26: Historical Data - Tertiary Education Summary." Retrieved August 4, 2009 (http://www.uis.unesco.org/template/pdf/ged/2009/GED2009_Hist1.xls).
- UNESCO Institute for Statistics. 2010. "Table 14: Tertiary Indicators." Retrieved October 12, 2011 (<http://stats.uis.unesco.org/unesco/TableViewer/tableView.aspx?ReportId=167>).
- UNESCO. 1949. *Fundamental Education: A Description and Programme*. Paris: UNESCO.
- UNESCO. 1952, 1956, 1958, and 1961. *Basic Facts and Figures: International Statistics Relating to Education, Culture and Communication*. Paris: UNESCO.
- UNESCO. 1960. *The Convention against Discrimination in Education*. Retrieved April 2, 2012 (http://www.un.org/womenwatch/directory/convention_against_discrimination_in_education_10739.htm).
- UNESCO. 1963, 1966-1976, 1987, 1995, 1998, and 1999. *Statistical Yearbook*. Paris UNESCO.
- UNESCO. 1998a. *World Declaration on Education for All and Framework for Action to Meet Basic Learning Needs*. New York: Inter-Agency Commission.
- UNESCO. 1998b. *World Declaration on Higher Education for the Twenty-first Century: Vision and Action and Framework for Priority Action for Change and Development in Higher Education*. October 9, 1998. Retrieved May 24, 2011 (http://www.unesco.org/education/educprog/wche/declaration_eng.htm).
- Universal Declaration of Human Rights*, Article 26 (1948).
- Universitas 21. 2012. "Member List." Retrieved March 16, 2012 (<http://www.universitas21.com/member>).
- University Grants Committee of Hong Kong. 1996. *Facts and Figures*. Hong Kong: University Grants Committee Secretariat.
- University Grants Committee, Hong Kong. 2002a. *Higher Education in Hong Kong: Report of the University Grants Committee*. Hong Kong: University Grants Committee.
- University Grants Committee, Hong Kong. 2002b. "Membership of UGC and List of its Sub-committees." *Facts and Figures*. Hong Kong: University Grants Committee Secretariat.

- University Grants Committee, Hong Kong. 2004a. *Hong Kong Higher Education: To Make a Difference, To Move with the Times*. Hong Kong: Government Logistics Department.
- University Grants Committee, Hong Kong. 2004b. "Membership of UGC and List of its Sub-committees." *Facts and Figures*. Hong Kong: University Grants Committee Secretariat.
- University Grants Committee, Hong Kong. 2010. *Aspirations for the Higher Education System in Hong Kong*. Hong Kong: University Grants Committee.
- University Grants Committee, Hong Kong. 2011a. "Members' Attendance at the Meetings of the UGC, its Subcommittees and Groups (From 1 April 2010 to 21 March 2011)." *Annual Report 2010 - 2011*. Hong Kong: University Grants Committee.
- University Grants Committee, Hong Kong. 2011b. "Student Enrolment of First-year-first-degree (FYFD) Places of UGC-funded Programmes 1965/66 to 2010/11." *Statistics*. Retrieved September 21, 2011 (<http://cdcf.ugc.edu.hk/cdcf/searchStatisticReport.do;jsessionid=A6D96B15076413E4D0D3FE84085DE4FB#>).
- Vogel, Ezra F. 1991. *The Four Little Dragons: The Spread of Industrialization in East Asia*. Cambridge, Mass.: Harvard University Press.
- Vygotskiĭ, Lev Semenovich. [1933] 1978. "Play and its Role in the Mental Development of the Child." Pp. 461-63 in *Play: It's Role in Development and Evolution*, edited by J. S. Bruner, A. Jolly, and K. Sylva. New York: Penguin Books.
- Wallerstein, Immanuel. 1974. *The Modern World-System I: Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century*. New York: Academic Press.
- Wallerstein, Immanuel. 1980. *The Modern World-System II: Mercantilism and the Consolidation of the European World-Economy, 1600-1975*. New York: Academic Press.
- Wallerstein, Immanuel. 1989. *The Modern World-System III: The Second Era of Great Expansion of the Capitalist World Economy, 1730-1840*. New York: Academic Press.
- Wallerstein, Immanuel. 2011. *The Modern World-System IV: Centrist Liberalism Triumphant, 1789-1914*. Berkeley and Los Angeles, CA; London: University of California Press.
- Windolf, Paul. 1997. *Expansion and Structural Change: Higher Education in Germany, the United States, and Japan, 1870-1990*. Boulder, CO: Westview Press.

- Wong, Suk-Ying. 1989. "The Evolution and Organization of the Social Science Curriculum: A Cross-national Study, 1900-1985." PhD dissertation, School of Education, University of Stanford, CA.
- Wong, Suk-Ying. 1991. "The Evolution of Social Science Instruction, 1900-86: A Cross-National Study." *Sociology of Education* 64(1):33-47.
- Wong, Suk-Ying. 2007. "The Standardization and globalization of World History Teaching in China, Hong Kong and Taiwan: A Comparative and Longitudinal Study." Presented at the Department of Sociology, Yonsei University, October 26-27, Seoul, Korea.
- Woodhouse, Howard R. 1987. "Knowledge, Power and the University in a Developing Country: Nigeria and Cultural Dependency." *Compare: A Journal of Comparative and International Education* 17(2):119-36.
- World Bank. 1990, 1995, 2000 and 2005. "Electricity Power Consumption." *The World Development Indicators*. Retrieved April 16, 2012 (http://data.un.org/Data.aspx?q=electric+power+consumption&d=WDI&f=Indicator_Code%3aEG.USE.ELEC.KH.PC).
- Worldwide Universities Network. 2012. "WUN Member Universities." Retrieved March 16, 2012 (<http://www.wun.ac.uk/about/members>).
- Wotipka, Christine Min and Francisco O. Ramirez. 2008. "Women's Studies as a Global Innovation." Pp. 89-110 in *The Worldwide Transformation of Higher Education*, edited by D. P. Baker and A. W. Wiseman. Amsterdam: Elsevier JAI Press.
- Zeldin, Theodore. 1967. "Higher Education in France, 1848-1940." *Journal of Contemporary History* 2(3):53-80.
- Zelizer, Viviana A. Rotman. 1994. *Pricing the Priceless Child: the Changing Social Value of Children*. Princeton, N.J.: Princeton University Press.