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The Perceived Impacts of the 14-Year (1989-2003) Civil War on Higher Education in Liberia: An Analysis of the Case for the University of Liberia and Cuttington University

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THE PERCEIVED IMPACTS OF THE 14-YEAR (1989-2003) CIVIL WAR ON
HIGHER EDUCATION IN LIBERIA: AN ANALYSIS OF THE CASE FOR
THE UNIVERSITY OF LIBERIA AND CUTTINGTON UNIVERSITY

by

Manjergie Cecelia Ndebe

A Dissertation
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
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Department of Educational Leadership, Research and Technology
Advisor: Van Cooley, Ed.D.

Western Michigan University
Kalamazoo, Michigan
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THE PERCEIVED IMPACTS OF THE 14-YEAR (1989-2003) CIVIL WAR ON
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Manjerngie Cecelia Ndebe, Ph.D.

Western Michigan University, 2010

Civil wars affect the social systems of a nation, including higher education. The purpose of this study was to do an in-depth concurrent mixed method analysis of the perceived impacts of the 14-year (1989–2003) civil war on higher education institutions in Liberia during the civil war years and from the end of the civil war in 2003 to the point of data collection in 2007. The literature is replete with expert opinions on the impacts of the Liberian civil war, but only limited evidence for quantitative and qualitative studies on war impacts in general exists.

No study on the context of higher education was found for Liberia or any other nation. The University of Liberia and Cuttington University were analyzed through a quantitative survey with 316 randomly selected subjects and five specifically designed interview protocols with nine senior university administrators and a designee of the National Commission for Higher Education, after the study was approved by Western Michigan University Human Subjects Institutional Review Board and written consents were obtained from each subject before participation.

The impacts of the civil war on teaching quality, student enrollment, student persistence, student graduation rates, and resources for faculty and students during and

after the civil war were analyzed through paired samples *t* tests. Students perceived more negative impacts during the war than after the war ended. Differences between students were analyzed using independent samples *t* tests. Students at Cuttington University reported better teaching quality and resources during and after the civil war. No differences were observed on student admission, retention, or graduation rates among the students.

Paired samples *t* tests were used to measure perceptions of non-students including faculty, administrators, and staff on the same issues, and on university governance they perceived more negative impacts during the war than after the war. Differences between non-students were analyzed using independent samples *t* tests and no differences were reported from the survey, but Cuttington non-students indicated better governance, teaching quality, and resources during and after the war from the interview data. The findings from documentary reviews and site observations were similar to the findings above.

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DEDICATION

I wish to dedicate this dissertation to my all my fellow Liberians whose blood was shed in the rice riots of 1979, in the so-called military coup of 1980, in the months that followed the unfair elections of 1985, and in the brutal civil wars of 1989 to 2003. I lost 32 of my relatives to the civil wars and my father's body, like those of many other noble Liberians, is in exile where he did not want to die. To the many Liberians whose dreams and aspirations were cut short due to the war or the tragic events that escalated to war, I solemnly remember you and dedicate this dissertation to you collectively. To those of you Liberians that were specially killed because you were administrators, faculty, staff, and students at higher education institutions in Liberia, I salute you as the brave, courageous ones.

To those of us Liberians that are alive, let me remind us that war for any reason does not lead to peace and liberty. Good governance and the rule of law have proven sustainable even in tough times. Let us teach our children and their children that blood shed does not lead to peace and liberty as we remember fellow Liberians whose blood was shed. Liberia is a true land of Liberty. In unity we should love our land, for Liberia is our home. Together we should uphold Liberia and defend it with our lives. Together in good governance and the rule of law we stand and never betray our land. Together we should build a strong Liberian Army to always defend her cause.

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I wish to thank Dr. Evelyn Kandakai for being instrumental in making the connections for me to interview the Deputy Director of Administration at the National Commission for Higher Education and at the University of Liberia. I want to express my gratitude to Dr. Melvin Mason for extensive phone conversations to provide me accurate information on the history of Cuttington University. I want to thank the late Dr. William Saa Salifu's family for the great dad and husband they had; he also provided extensive telephone information on the state of Cuttington before and during the war.

I want to thank all the Liberians in the U.S. who participated in the instrument review analysis, the actual survey subjects, and the senior university officials who participated in the interviews to make the study a success. Thanks to Dean Abdullah of the University of Liberia for gaining access to offices I needed to work with to recruit subjects. I thank Dr. Henrique Tokpa, President of Cuttington University, and former President of the University of Liberia Ambassador Al Hansan Conteh, for giving me permission to conduct the research on their campuses. I thank Joel Bimba for his

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Manjerngie Cecelia Ndebe

TABLE OF CONTENTS

ACKNOWLEDGMENTS	ii
LIST OF TABLES	ix
CHAPTER	
I. INTRODUCTION.....	1
Purpose of the Study	3
Statement of the Problem.....	5
Research Questions	7
Rationale and Significance of the Study	7
Methodology	9
Quantitative Methods.....	9
Qualitative Methods.....	10
Human Subjects Institutional Review Board Approval	10
Delimitations and Limitations of the Study	11
Delimitations.....	11
Limitations	11
Definitions of Key Terms	12
Organization of the Study	13
II. LITERATURE REVIEW.....	14
An Overview of Liberia	14

Table of Contents—Continued

CHAPTER

The University of Liberia.....	16
Governance and Faculty Prior to the Civil War (1949 to 1989).....	20
Funding at the University of Liberia Before the Civil War	22
Internal and External Efficiencies at the University of Liberia Before Civil War.....	25
Other Public Higher Education Institutions Prior to the Civil War	27
Cuttington University Prior to the Civil War.....	29
Governance and Faculty at Cuttington University Before the Civil War (1959-1989).....	32
Funding at Cuttington University Before the Civil War.....	33
Internal and External Efficiencies at Cuttington Before the War	34
Civil War Impacts on General and Higher Education	36
The University of Liberia During the Civil War.....	37
Cuttington University During the Liberian Civil War	38
The Impacts of Civil Wars on African Higher Education.....	42
Economic, Social, Psychological, Health, and Environmental Impacts of Civil Wars in the World	44
Environmental/Landmine Impacts of Civil Wars	48
Literature Update 2006 to Present on the Status of Higher Education in Post-War Liberia.....	48
Need for Empirical Research on the Impacts of the 14-Year Civil War on Higher Education in Liberia.....	54
Chapter Summary	56

Table of Contents—Continued

CHAPTER

III. METHODOLOGY	57
Purpose of the Study	57
Research Questions and Operational Definitions of Variables.....	58
The Research Questions.....	58
Operational Definitions of Variables	59
Research Design.....	60
Sampling Methods and Ethical Considerations	61
Quantitative Survey.....	61
Ethical Considerations	64
Instrumentation	65
Perceptual Quantitative Survey.....	65
Qualitative Semi-Structured Multiple Case Study Interview Protocols	69
Analyses and Statistical Methods	71
Quantitative Analysis Methods.....	71
Qualitative Analysis Methods.....	72
Background of the Researcher and Possible Bias	73
Chapter Summary	74
IV. RESULTS AND FINDINGS	75
Computations of Missing Data	76
Frequencies of Demographic Data.....	77

Table of Contents—Continued

CHAPTER

Data Results for Research Questions	78
Research Question 1	78
Research Question 2	80
Research Question 3	82
Research Question 4	92
Findings from Review Documents Related to the Civil War	98
University of Liberia	98
Cuttington University.....	101
Chapter Summary	104
V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS.....	105
Research Question 1	105
Research Question 2	109
Research Question 3	112
Research Question 4	113
Other Recommendations for Further Study	114
Limitations	114
Conclusion of the Study.....	115
REFERENCES	117
APPENDICES	
A. Human Subjects Institutional Review Board Letter of Approval	126

Table of Contents—Continued

APPENDICES

B.	Letters of Approval from the Presidents of Cuttington University and the University of Liberia	128
C.	Consents for Quantitative and Semi-Structured Interviews and Subject Recruitment Script	131
D.	Crosswalk Table on Four Research Questions and the Quantitative and Qualitative Responses Used to Address Them	139
E.	Cronbach’s Alpha Values for Instrument and Scales Applicable to the Study	142
F.	Ndebe War Impacts Measuring Instrument (NWIMI)	145

LIST OF TABLES

1. University Type and Total Number for Each Subgroup in the Sample	64
2. Demographic Frequencies for the Student and Non-Student Groups in the Study	78
3. During and Post-Civil War Paired Samples t Tests Result for Student Group	79
4. During and Post-Civil War Independent Samples t Tests for Differences Between Student Groups.....	81
5. During and Post-War Civil War Paired Samples t Test Results for Non-Student Group	83
6. Independent Samples t Tests for Differences Between Non-Student Groups	93

CHAPTER I

INTRODUCTION

The three types of wars fought in Africa include anti-colonial wars, civil wars, and wars of unification (Sarkees, 2000). Namibia and Zimbabwe (formerly Rhodesia) from 1972 to 1980 fought anti-colonial wars to gain independence as did many African nations (Doyle & Sambanis, 2000; Licklider, 1995). Bangladesh also waged a civil war to gain independence from Pakistan in 1971 (Leitenberg, 2001). Similarly, Liberia engaged in a civil war for 14 years. The impact of these civil wars upon the social, economic, and political structures of these countries has not been studied in great depth. In addition, there is a dearth of critical studies that have focused on the impact of civil war upon institutions of higher learning, and these are necessary for the reconstruction of other war-torn countries, such as Liberia.

To comprehend the perceived impacts of the civil war on Liberian higher education, a definition of a civil war is useful. A civil war is a major, sustained, violent conflict between military forces of a state and the insurgent forces composed mainly of residents of the same state (Henderson, 1999). A civil war is an event in which an identifiable rebel organization challenges the government militarily. This military opposition must lead to more than 1,000 combat-related deaths with at least 5% of casualties sustained by government forces before a war can be termed a “civil war” (Collier et al., 2003). In other words, a civil war is a form of violence between rebel and

government forces resulting from 500 to 1,000 deaths a year in addition to sustained infrastructural damage (Sambanis, 2004).

Historically, the impacts of a civil war represent the adverse consequences resulting from violent behavior during civil war that affect all aspects of a nation including higher education institutions. For example, during the civil war in Sudan beginning in the 1980s, educational resources were diverted toward the war effort and this resulted in educational institutions being targeted by warlords for use as war bases (Salih, 1993). In addition to the destruction of schools during civil wars, these wars cause the remaining educational institutions at all levels, including higher education, to be overcrowded with large numbers of students in the post-war era as students from completely destroyed institutions seek admission to fewer existing ones (Askin, 1988/1989).

Rebuilding higher education institutions was a daunting process in the post American civil war (Blake, 1963). Similarly, Mazawi (2004) claimed that civil wars in Arab states fragmented universities in the post-war era and Fatfat (1998) found that the two most common reasons that Lebanese people emigrated to the U.S. was a search for better higher education and research facilities that they could not find at home. In Sudan, the southern universities Juba, Upper Nile, and BahrEl were relocated in 1983 to the capital Khartoum because of the civil war between Muslims in the north and Christians in the south and those institutions were not reopened again in the south until 2004 (“Three Universities to Be Returned to Southern Sudan Soon,” 2004). Civil wars that took place the 1990s in Angola and the Democratic Republic of Congo destroyed the universities; in

2003, these nations were just beginning to rebuild their higher education institutions (Teferra & Altbach, 2003).

Liberia experienced two phases of a brutally intensive civil war from 1989 to 2003 that had devastating effects upon the infrastructure of the country, including the educational system. The Liberian civil war resulted in a 72% illiteracy rate for the entire population (Kollie, 2004) and led to the closure of the school systems in Liberia (Schwab, 2001). Two thirds of all primary school infrastructures were destroyed according to the Women's Commission for Refugee Women and Children (2006). In higher education, the war eliminated financial security and weakened almost all operational functions at the University of Liberia (Kollie, 2004). The war also resulted in the torture and killings of some academic staff and students, thereby crippling access to the academicians, teachers, and professional staff essential for reconstruction (Mason, Tokpa, Gongar, and Mason, 1993). Due to large scale looting and destruction of Liberian higher education institutions, major rehabilitation is now required to cope with post-war challenges (Humanitarian Information Centre, 2003).

Purpose of the Study

The purpose of the dissertation research was to study the impacts of the 14-year civil war (1989 to 2003) on higher education in Liberia. The study analyzed the perceived impacts of the 14-year civil war on two Liberian higher education institutions: the University of Liberia, a public institution, and Cuttington University, a private sectarian institution. To date, they enroll about 90% of all higher education students in the nation. These two institutions are internationally recognized and were founded over 100 years

prior to the inception of the Liberian civil war in 1989. Understanding what happened to these institutions from the perspectives of the administrators, faculty, staff, and students may guide the planning and expansion of Liberian higher education in the post-war era. The study may also benefit other war-torn nations as they move toward post-war recovery.

Manpower development is critical to economic development more so than capital, natural resources, foreign aid, and international trade. In order for a nation to effectively tap into its natural resources, to efficiently use capital and foreign aid, and to collaboratively participate in international trade, it must first have trained manpower in place to do the work. According to Harbison and Myers (1964), any nation that is unable to develop its human resources cannot build anything, let alone a modern political system, national unity, or a prosperous economy. The United Nations now claims that global economic development and security are contingent on the development of human resources at higher education institutions (Bloom, Canning, & Chan, 2006) and this is critical more so for Africa.

Fobanjong (2006) reported that Liberia has more natural resources than human resources and this gap is hurting the country's post-war recovery efforts. The manpower for all levels of reconstruction in Liberia comes from institutions of higher education which are the wellsprings for future growth and development. Therefore, a study such as this one, which delineates the impacts of the war upon these institutions of higher education, is critical and may guide the country in better designing post-war recovery programs.

Statement of the Problem

Higher education is also a repository and defender of culture, an agent of change in any culture, and an engine for national economic growth as well as an instrument for the realization of collective aspirations (Johnstone, Arora, & Expeerton, 1998). Education at any level has the potential in post-conflict situations to restore a sense of order (UNESCO, 2000). It has been observed that post-conflict nations focus on rapid rehabilitation and the resumption of education. However, dramatic improvements in education are difficult to achieve in post-conflicts nations due to the constraints on public resources, inefficient utilization of existing resources, and persistent high growth of populations (Tokyo Agenda for Action, 1998).

Sparse information regarding the secondary and tertiary education sectors emerged during a 2005 field visit to Liberia by the Women's Commission for Refugee Women and Children. The report stated that primary education and non-formal education in post-conflict Liberia are being financed by government, international donor agencies such as the United States Agency for International Development (USAID), United Nations Development Project (UNDP), United Nations International Children Education Fund (UNICEF), and the European Union (EU), local communities, and non-governmental organizations. The commission recommended that the secondary and higher education sub-sectors of the Liberian education system need a great many resources in order to move into recovery (Women's Commission for Refugee Women and Children, 2006).

After the immediate ceasefire in 1991, the Liberian government, international organizations, and churches began rehabilitating primary and secondary education structures, while the two major higher education institutions remained closed (Mason et al., 1993). The United Nations Development Project in Liberia organized a written report known as the National Human Development Report–Liberia [NHDR] (UNDP Liberia, 2006). This document lacks any assessment of the state of higher education in Liberia during and after the civil war. In its recommendations to the Liberian government, the Liberia NHDR did not mention higher education institutions among the major participants it deemed responsible for the reconstruction of Liberia. Ironically, one of the most essential factors that relate to national recovery—the reconstruction of higher educational system—was not included in this report.

According to Fields (2007), the Minister of Education Dr. Joseph Korto reached out to the American Association of State Colleges and Universities in early 2007 to assist Liberia with reconstructing higher education. However, he did not ask the Association of Liberian Universities or leaders of Liberian higher education institutions to develop national higher education goals for the post-war reconstruction. Although Jones and Baumgartner (2004) stressed the need for representation on agenda setting for public policy development and implementation in order to achieve optimal results, there were little, if any, inputs from Liberian educators regarding post-war reconstruction plans for education. Studies measuring actual or perceived impacts of a civil war on higher education in Liberia are severely limited, although expert opinions by political scientists, journalists, diplomats, international crisis management organizations, conflict resolution and research institutions, civil war theorists, and higher education professionals exist.

Research Questions

The research questions for this study are as follows:

1. How do students at higher education institutions perceive (a) the quality of teaching; (b) student admission, retention, and graduation; and (c) student resources during the 14-year civil war compared to the time after the civil war (2003-2007)?
2. Is there a difference between student perceptions at a public institution, University of Liberia, and those at a private institution. Cuttington University?
3. How do faculty, staff, and administrators at the University of Liberia and Cuttington University perceive (a) the quality of teaching; (b) student admission, retention, and graduation; (c) student resources; (d) and governance during the 14-year civil war compared to the time after the civil war (2003-2007)?
4. Is there a difference between faculty, staff, and administrator perceptions at a public institution such as the University of Liberia and those at a private institution such as Cuttington University?

Rationale and Significance of the Study

Quantitative or qualitative studies that have examined the impacts of the civil war on Liberian higher education institutions are limited. Ngaima (2003) studied factors perceived by expatriate Liberians in the U.S. to be responsible for the Liberian civil war. Buor (2001) studied the ethnonational tensions that led to the civil war. Flomo (2006)

studied the role of the church in dealing with the effects of the civil war on Liberian higher education. These studies have neither provided an in-depth analysis of the factors that have impacted higher educational structures in Liberia nor have they focused upon the voices of students and faculty in the midst of this crisis. In light of the above, the results of this study are intended to contribute the following six broad goals:

1. This study will narrow the gap in the scholarship and may lead to an assessment of the problems now faced by the entire Liberian higher education sector in the post-conflict period.
2. Reporting the findings of this study on two major Liberian higher education institutions during and after the war may enhance policy development to strengthen and engage government with higher education institutions to produce the needed professionals for the short-term, medium, and long-term needs of Liberia.
3. The findings may be helpful to the Liberian government in formulating national policies on higher education and its role in national development, especially during post-conflict reconstruction.
4. The findings of this study may enable Liberian higher education institutions to plan and implement better internal policies that enhance the development of cutting edge academic work including teaching, research, and publication, and service to the community in ways that will, in the long run, raise the sub-regional, regional, and global standards.

5. The study may add new and foundational knowledge to the existing qualitative and quantitative research to guide other scholars in continued research on Liberian higher education and or other sectors of the Liberian national economy and security.
6. The findings may assist international researchers in analyzing the impacts of wars and civil wars on higher education in other African nations and the world.

Methodology

Details on methods and design are presented in Chapter III. The study used a concurrent mixed methodology including a perceptual quantitative survey with 316 randomly selected subjects and 10 semi-structured multiple case study interview protocols to collect data. The subjects were restricted to Liberians at the two higher education institutions analyzed. The subjects also had to live as non-displaced persons, displaced persons, combatants, or soldiers in Liberia or must have fled to neighboring African countries as refugees during the civil war.

Quantitative Methods

The researcher developed the quantitative survey, including six major paired scales and paired subscales, to analyze the research questions on the impacts of the civil on higher education institutions in Liberia. A review for clarity of the survey instrument was conducted with six Liberians living in the U.S. who did not participate in the actual study. A Cronbach's alpha was performed to establish reliability for this new instrument

and a high value of .95 was obtained. An instrument must be reliable before quantitative data can be considered to be valid (Fink, 2006; Fredrickson, 1986; Mertler & Vannatta, 2005). The survey was designed at a sixth grade reading level and was intended to take 1.5 to 2 hours. Each subject in the survey was paid U.S. \$5.00 to increase participation and return rates.

Qualitative Methods

The semi-structured interview protocols were also developed by the researcher and used to gather information from the vice presidents of administration, finance, academic affairs, and student affairs at each of the two institutions as well as from a designee from the National Commission of Higher Education (NCHE) at the Ministry of Education. Each interview was designed to last for 2 hours. Two former Liberian higher education administrators that migrated to the U.S. during the war gave inputs for the development of the interview protocols. They did not participate in the actual case study interviews. This research focused on obtaining the opinions of Liberians of diverse academic and cultural backgrounds. This study analyzed Liberian higher education institutions at the social level because higher education requires the interaction of complex subsystems with expertise to solve problems. It also requires interaction with the external community and the nation in which it is established.

Human Subjects Institutional Review Board Approval

The proposal for this study was submitted to the dissertation committee for approval. Following the dissertation committee's approval, the proposal was submitted to

Western Michigan University Human Subjects Institutional Review Board (HSIRB) for full review. The HSIRB committee approved the study on December 23, 2006. The actual study was conducted January to February 2007 in Liberia.

Delimitations and Limitations of the Study

Delimitations

The data collection occurred between January and February 2007 in Liberia. Liberians are the primary audience for this study. The government, institutions of higher learning, and donor agencies are particular candidates for the research.

Limitations

The two oldest higher education institutions were analyzed along with the National Commission of Higher Education in the Ministry of Education. The study included a review of national documents and publications and field observations. The findings cannot be generalized to other nations because the study analyzed civil war impacts on only two higher education institutions in Liberia, one private and one public. The study design is a non-experimental quantitative and case study mixed method. The absence of random assignment of subjects to groups and the absence of manipulation of the dependent variables preclude the generalization of the study's findings to other nations. The findings may provide insights for analysis of war impacts on higher education in other war-torn countries, but its results cannot scientifically be used as the

basis to make decisions for higher education in other war-torn nations. Further study is needed to enhance world-wide knowledge in this area.

Definitions of Key Terms

University governance: This includes the formal and informal processes employed by universities to make informed institutional decisions at various authority structures. The development of higher education is contingent on good governance (World Bank, 2000). Good governance is a process that is transparent, accountable, participative, true, law-abiding, and broadly consensual (Schofield & Sausman, 2004; Mintrom & Vergari, 1998).

Higher education: Any level of education that requires completion of secondary school for admission is a higher education. It includes universities, teacher training colleges, and professional schools (UNESCO, 1963).

Perceptions: These are defined as the subjective interpretations and judgments that individuals hold or have about a phenomenon, events, experiences, or situations (Fink, 2006).

Administrators: These are individuals that “maintain, coordinate, and oversee various programs in private and public colleges and universities” (StateUniversity.com, 2009, p. 1).

Faculty: They are “the teaching staff of a college or university” (USA Education Guides, 2009, p. 1).

Staff members: These are employees of higher education institutions doing functions other than instruction and administration (StateUniversity.com, 2009).

Students: Individuals who are "enrolled in a college or university" (Farlex, 2009, p. 1).

Organization of the Study

Chapter II comprises the literature review on the purpose of the study and the problem statement advanced in this chapter. An update on the literature from 2006 to the present is also included in Chapter II. Chapter III provides comprehensive overview of the methodology used to conduct the study. Results of the study are presented in Chapter IV and interpretations with a summary of the findings, conclusions, and recommendations for additional research are included in Chapter V. Following the reference pages are the appendices.

Appendix A contains a scanned letter of approval from the Western Michigan University Human Subjects Institutional Review Board. Appendix B contains letters of approval from the presidents of the two universities studied. Appendix C includes consent forms and subject recruitment script, while Appendix D covers the crosswalks table on research questions. Appendix E contains the Cronbach's alpha tables on the entire survey instrument and scales used in this study. Appendix F contains the quantitative survey.

.

CHAPTER II

LITERATURE REVIEW

The purpose of the literature review is to provide background information that lends to a more cogent understanding of the country of Liberia, especially during the time of its civil war, and to delineate the nature of the effects of the war upon institutions of higher education, as well as within the infrastructure of the nation. The major components for the literature review are divided into seven areas. The first include an overview of Liberia. The second area is a historical review of the University of Liberia and the United States' connection, and its financial status contingent on international political, economic, and security events before the inception of the civil war.

Other public higher education institutions in Liberia before the civil war are mentioned in this chapter. Following that is the historical overview of Cuttington University. Civil war impacts on higher education in Liberia are presented from the literature. The economic, political, social, health, psychological, and environmental impacts of civil wars are presented.

An Overview of Liberia

Portuguese explorers were the first Europeans to explore the area that came to be known as "Liberia" and named it the Grain Coast because of the presence of abundant grains of Malegueta pepper. In 1663, the British installed trading posts on the Grain Coast

but the Dutch destroyed them a year later. No other European power laid claim to the region until the 1800s. Liberia was founded in 1820 by the American Colonization Society (ACS) for the resettlement of freed slaves (Hoff, 1985). Freed slaves in Liberia called themselves Americo-Liberians and first settled in an area called Christopolis, which became Monrovia in 1824 in honor of U.S. President James Monroe (Public Broadcasting System, 2005).

James Monroe, Andrew Jackson, Henry Clay, Daniel Webster, and Bushrod Washington were prominent U.S. government officials who sponsored the ACS endeavors in founding Liberia (Livingston, 1976). The freed slaves changed the country's name to Liberia, meaning "land of the free," and gained independence from the American Colonization Society on July 26, 1847 (Dunn, 1999; Konneh, 2002).

Liberia is now a 43,000 square mile independent republic in West Africa bounded by the Atlantic Ocean on the southeast, by the Republic of Sierra Leone on the northwest, by the Republic of Guinea on the north and by the Ivory Coast on the east. Liberia is located about four degrees north of the equator (Hoff, 1985). It has three branches of government, namely, the executive, legislative, and judiciary, patterned after the U.S. system of government. The legislature is bicameral with county representatives and senators. The Liberian constitution has restricted citizenship only to people of African ancestry.

English is the official language, and the Liberian dollar replaced the U.S. dollar as the official currency in 1980. The capital is Monrovia and the country is currently divided into 15 or more counties and made up of 16 to 18 indigenous tribes besides the Americo-Liberians and the Congos. The Congos are descendants of blacks from other African

countries captured in the 1800s by American and British ships from slave buyers on the high seas. The Americo-Liberians and the Congos together make up about 5% of the population. The two groups together are commonly referred to as the Congo people in Liberia. The indigenous tribes or members of the ethnic groups make up 95% of the population. The 2001 estimate for the Liberian population is 3,225,837 (Mapzones.com, 2005). The World Bank (2008) estimate for Liberian population is 3,793,400 and Wikipedia (2010) cites the actual population as 3,476,608 for 2008 and estimated 3,955,000 for 2009. It also claims Liberia has the third highest population growth rate at 4.5%.

The Liberian economy is mostly agrarian. Large scale production for export is done through foreign investment in rubber, timber, iron ore, and diamonds. Raw materials, equipment, and consumer goods are imported by a sizable number of Lebanese, Asian Indians, and West African businessmen. The Liberian Maritime has the world's largest number of registered shipping tonnage as foreign ships are allowed to register inexpensively under a Liberian flag of convenience (Mapzone.com, 2005). The military consists of the army, navy, and the air force. By 1985, there were 6,300 men and women in the Armed Forces of Liberia (Tellewolyan, n.d.).

The University of Liberia

The University of Liberia experienced numerous interruptions for various reasons from its inception and developmental years. These are identified from the literature throughout this section. The development of higher education in Liberia began shortly after the nation's independence (Hoff, 1985; Livingston, 1976). In 1848, the nation's first

president, Joseph Jenkins Roberts, appealed to both the American Colonization Society and the Massachusetts Colonization Society for funding to build a higher education institution because Liberia had none. Through negotiations, the Trustees Board of Donations was formed to build what came to known as Liberia College. Though chartered in 1850, Liberia College did not start classes until 1862 (Hoff, 1985; Livingston, 1976; Buor, 2001; Seyon, 2003).

The New York Colonization Society and the Boston-based Trustees Board of Donations became the sponsors and held absolute governing powers over the institution. To fully represent the American land grant college system in Africa, all building materials for the construction came from the U.S. Various American professors and colleges supplied materials for the library and for the laboratory (Livingston, 1976). The two American boards determined the curriculum and appointed faculty and administrators for Liberia College; the Liberian Board of Trustees implemented their wishes (Hoff, 1985; Livingston, 1976). The president of the college reported to the Liberian Board of Trustees, which, in turn, reported to the two American boards, and the latter handed their plans to the Liberian government for implementation.

Three fourths of the settlers were illiterate except for the light-skinned group known as the Mulattos. As a result, most of the faculty members were black and white Americans sent by the American boards in the first two decades to join the faculty ranks (Livingston, 1976). Due to the shortage of trained professional manpower during the first 50 years of the college, Liberian government officials were forced to serve as college administrators and faculty. For example, Joseph Jenkins Roberts simultaneously served as president of the nation and president of Liberia College (Hoff, 1985). Liberia College

closed several times in the 1890s due to lack of strong leadership and financial difficulties brought on by the depression of the 1870s (Hoff, 1985; Livingston, 1976).

Up to the 19th century, the college was open only to children of Americo-Liberians, and most of them were Mulattos. The enrollment was no more than 20 students a year up to 1900. Of the 57 students enrolled in the years 1864 to 1876, 26 dropped during their freshman year and 10 died either from malaria or from wounds incurred during battles with hostile, indigenous Liberians. The college graduated only 10 students from 1866 to 1902 (Hoff, 1985; Livingston, 1976). Approximately 60 prepared students had entered the college by 1885 while 350 were college preparatory students. A female preparatory section of 20 students was added in 1882 during the administration of the first black college president, Edward Wilmot Blyden.

Blyden also recommended that the college incorporate the teaching of Arabic and indigenous languages such as Kpelle, Vai, and Kru. However, due to racial strife between the Mulatto and black settlers at the college, Blyden was forced out of the country in 1885 and did not return until 1900 (Livingston, 1976). Blyden, upon his return, suggested again that the college curriculum be reflective of native society, law, culture, and religion, but most of his compatriots, made up of the fundamentalist Christian population of Americo-Liberians, regarded his ideas as folly (Hoff, 1985; Livingston, 1976).

Financial difficulties at the college were exacerbated by disputes between the American and Liberian boards of trustees. The split arose from a demand by the Americans to relocate the college from Monrovia to the interior where it could be accessible to all Liberians to make an inclusive educational institution with representation from the children of the indigenous people. The Liberian government refused to relocate

the institution and the American boards ended their financial support. Following that, the college officially went under the sole control of the Liberian board of trustees by 1900 (Hoff, 1985; Livingston, 1976).

The available literature does not explain or elaborate upon any impacts on the quality of higher education in Liberia after the exodus of the American boards, but it does state, however, that financial difficulties were exacerbated with their departure, as would be expected under the circumstances. The literature also indicates that Cuttington was operational in the interior of Liberia by the time the University of Liberia was placed under the sole control of the Liberian government, a point that will be developed in a subsequent section of the chapter.

In 1921, the college moved to the former Liberian State Department building called the Grant House and it completely burned in 1949. It remained closed until the Liberian Legislature chartered it as the University of Liberia on February 15, 1951 in its present location (Hoff, 1985). The history of the University of Liberia is divided into four phases: the early period or planning for the college (1822-1850), the middle period marked by the establishment and operation of the college (1850-1900), the modern period encompassing the creation of the University of Liberia (1900-1961), and the recent period (1962-1980) marked with intensive planning for the relocation of all or parts of the institution to Fendell, about 14 miles outside Monrovia (Hoff, 1985).

Despite its problematic history, many of the university's alumni have served as presidents of the university and the country, cabinet ministers, heads of corporations, senators, judges and chief justices, and professors (Livingston, 1976). Prior to the civil war, the University of Liberia had six colleges and four professional schools. The

undergraduate colleges include Liberia College of Social Sciences and Humanities, Tubman Teachers' College, Faulkner College of Science and Technology, the College of Business and Public Administration, Tolbert College of Agriculture and Forestry, and the College of General Education. The four professional schools are A. M. Dogliotti College of Medicine, Louis Arthur Grimes School of Law, School of Pharmacy, and the master's degree level graduate programs in Regional Planning, Educational Leadership, Business Administration, and International Studies (Hoff, 1985; Seyon, 2003). By 1989, the University of Liberia had 7,000 students (Seyon, 2003).

Governance and Faculty Prior to the Civil War (1949 to 1989)

As in many former colonial African nations, the University of Liberia is headed by the president of the nation who is referred to as the "visitor to the university." The president of Liberia, with or without input from the faculty, nominated to the board of trustees a candidate for president of the University of Liberia. The president appointed one third of the board members. The university president served on the board as a voting member, while the minister of education served as an ex-officio member on the board. The board was elected annually (Hoff, 1985). Next to the board of trustees was the administrative council made up of deans, department heads, vice presidents for administration and academic affairs, comptroller, a faculty representative, and student representatives. Under the leadership of former Liberian President William R. Tolbert, a faculty senate was created on July 23, 1973 (Seyon, 2003), but internal conflicts among the faculty and administrators lingered despite the restructuring of administrative chains of command (Hoff, 1985).

A charter in 1951 changed Liberia College to the University of Liberia. This required the development of qualified faculty for all colleges and departments. The Cornell Plan was developed to partly send U.S. faculty to the institution and to train Liberian faculty. Hoff (1985) stated that from 1963-1968, Cornell University, through USAID, sent a team of 29 resident American experts to serve the university in various instructional, advisory, financial, and administrative capacities. About 42 Liberian faculty members were given fellowships for study or orientation visits to the U.S. in 1962 and 22 of them earned master's degrees (Hoff, 1985). Among the 113 faculty members at the university in 1973, 14% were professors, 16% associate professors, 12% assistant professors, and 58% instructors. However, 52% of the 113 faculty members were Liberians and 48% were foreign expatriates. According to Hoff, 68% of faculty and staff of high academic rank, including deans, department heads, professors, and associate professors, were made up of expatriates. Hoff, however, claimed that by 1980, this gap was reduced to 54%. For example, among the 89 faculty members with Ph.D. degrees in 1980, 48 were Liberians; among 124 faculty members with master's degrees in 1980, 67 were Liberians; and among the 50 faculty members with bachelor's degrees in 1980, 43 were Liberians (Hoff, 1985).

Until 1973, most foreign faculty members came from other African countries including Ghana, Sierra Leone, Nigeria, Egypt, Uganda, and Zaire. A small number of faculty members were from the U.S., Israel, Germany, Britain, France, Netherlands, the former Soviet Union, India, Pakistan, and the Philippines. Expatriates were paid about U.S. \$2,000 to \$5,000, more per year than their Liberian colleagues. The salary gap between foreign and national faculty members began to close by the end of 1978, when

119 Liberian faculty members had benefited from studying abroad. Despite the increase in the Liberian faculty shown above, there was still a shortage of faculty because many qualified Liberians chose to live abroad in developed countries after completing their studies (Hoff, 1985). For example, of 33 faculty members sent to the U.S. for study in 1982, 27 stayed in the U.S. and only three Ph.D. holders and three master's degree holders returned home to teach.

Funding at the University of Liberia Before the Civil War

Higher education in Liberia is financed from five sources including the government of Liberia, tuition and fees, donors, alumni, and fund-raising campaigns (Mason et al., 1993). The University of Liberia accounted for 20% of the Ministry of Education budget, and its students paid less than 22% of the total cost of their education. From 1951, the university received support from UNESCO, the Food and Agricultural Organization in the form of college instructors for the College of Agriculture and Forestry, World Health Organization, USAID through scholarships and fellowships for faculty advancement, and various other international organizations. Following a fund drive of U.S. \$536,154.83 in 1965, the library holdings went from 2,700 volumes in 1963 to 40,000 in 1968. The establishment of the student affairs office with its own dean through the Cornell Plan led to an increment in student enrollment from 270 in 1962 to 1,000 by 1968 when publication of the university *Liberian Law Journal* commenced (Hoff, 1985).

The Liberian educational system at all levels improved exponentially with the encouragement and expansion of foreign investments under President William V. S.

Tubman. President Tubman created an Open Door Policy that allowed foreign investors to come into Liberia under flexible investment conditions. Foreign investment in iron ore and rubber increased the nation's per capita income by more than 80%. Liberia experienced economic prosperity from 1966 to 1971, and during this time Tubman and Vice President Tolbert tried to close the educational gap between the Americo-Liberians and the indigenous Liberians through the Unification Policy. The number of schools in Liberia quadrupled within two decades of this policy. The department of education received the highest appropriation of all government departments and agencies. For instance, from 1966 to 1970, the government spent U.S. \$30.1 million on educational expansion. Higher education funding went from U.S. \$4,026,150 in 1964 to U.S. \$6,624,541 in 1971. High school education was made free of charge, student enrollment increased 7-fold, and the education budget increased 19-fold. The cost of college education was reduced by 50%, and the government offered free text books for all college students (Beleky, 1973).

In 1972, the World Bank approved and funded a planning and major research unit at the University of Liberia. After Tolbert succeeded Tubman, Tolbert made education, and especially higher education, a top priority. Tolbert made a 12-year-long range plan from 1976 to 1987 to strengthen undergraduate and graduate programs, enhance research and public service, develop the libraries, promote faculty and staff development, improve student services, restructure administration, create a university health center, and improve physical facilities. Tolbert's plan was aided by the Agency for International Development (AID) of the World Bank. Tolbert also established an institute of research in 1978 with

emphasis on applied research to improve curricular offerings, and dedicated a new science complex in 1979 (Hoff, 1985).

However, a downward shift in the economy occurred, and the funded programs changed in the mid 1980s when the World Bank and the IMF, through the structural adjustment programs (SAPs), dramatically reduced funding for higher education in Liberia as in all Sub-Saharan African nations. This led to a decline in government funding for education at all levels. The World Bank's shift in policy on funding primary education to neglect of higher education in the late 1970s to 1990s even further contributed to the tension between the government and the University of Liberia (Buor, 2001; Seyon, 2003; Tellewolyan, n.d.). The state education budget from 1986 to 1987 was reduced to U.S. \$36.2 million. Of this amount, the University of Liberia received only \$5.32 million (14%), though its enrollment was about 7,000 students (Seyon, 2003).

Governance at the University of Liberia was often interrupted by the national government due to student and faculty involvement in protests against the national government and due to the turnover of university administrators since its founding in 1862. The university was closed in 1979 by President Tolbert and again in 1984 by President Doe. The first and only female university president Antoinette Brown Sherman was appointed by Tolbert in 1978 and dismissed by Doe in 1984 (Buor, 2001; Seyon, 2003; Tellewolyan, n.d.). These events also posed an untoward effect upon students and their pursuit of higher education.

Dr. Sherman was replaced by Dr. Steven Yekeson, a very strong university president who was later killed during the civil war in 1990. Abrupt changes at the senior leadership level must have posed great administrative hardship upon students and faculty

alike. The University of Liberia, like all other higher education institutions in Liberia, was then and still is male dominated, and while the majority of students who were males may have not minded Dr. Sherman's dismissal, the female students may have been negatively affected.

Students' relationship with the Liberian government was also negatively impacted by the close proximity of the university to government offices: the main campus is located next to the Capitol Building, Foreign Affairs Ministry, the Executive Mansion, Temple of Justice, Information Ministry, and the National Police Headquarters. Heightened tensions between and among these entities would have been exacerbated in bad times, such as those characterized by the war. This close proximity of the university to main government offices increased tensions; there was more press coverage of protests than there would have been if the university was far off. Increased press coverage led to negative reactions against the protesters by the national government.

Internal and External Efficiencies at the University of Liberia Before Civil War

Internal and external efficiencies are measures of the quality of a higher education institution. Internal efficiency is the relationship between inputs (including human and capital) and outputs (including number of graduates, student to staff ratios, and research and publications). External efficiency is the relationship between higher education and the labor market, reflected by employment and unemployment rates (Woodhall, 2003). From 1963 to 1983, enrollment increased at the University of Liberia but the graduation rate never exceeded 10% of those enrolled. Graduation rate was especially low at 3% for the College of Science and Technology in 1983. Low morale and low faculty salaries led

to drops in enrollment and graduation rates at the Teachers' College in 1983. Enrollment of female students increased from 64 in 1963 to 829 in 1983, but only 31% of all graduates in 1983 were females (Hoff, 1985).

From 1981 to 1987, women accounted for 38% of enrollment in all high schools, but only a fraction of them completed to enter college (Seyon, 2003). International enrollment increased from 5% in 1963 to 20% in 1971, representing 20 different countries, but it declined to 6% by 1983 (Hoff, 1985). Many students failed the entrance exam at the University of Liberia (Hoff, 1985; Seyon, 2003).

Hoff (1985) claims that from 1970 to 1974, only 19% of students offered admission actually passed the exam in both English and mathematics. Among 2,919 students who took the entrance examination in 1979, only 107 or 3.6% passed both subjects. Of 692 freshmen admitted in 1980, 541 or 78% were accepted on a remedial basis. Out of 3,577 who took the entrance in 1981, only 66 or 1.8% passed, while 84% of the 648 students admitted were remedial students. Out of 3,321 of all students enrolled in 1981, 831 or 25% had academic difficulty and 281 or 8.5% were readmitted students.

According to Seyon (2003) and Hoff (1985), there were high numbers of students dropping out and high numbers of students repeating classes at the University of Liberia before the civil war even started. Hoff stated that there was 11.2% course repetition rate among graduates and a 44.2% drop-out rate among all students. In 1977, 813 or 32.6% of students were on academic probation by the end of their first semester, and in 1981 that figure was about 788 or 20.7%. Seyon argued that the University of Liberia was internally so inefficient that, from 1983 to 1987, it had a 70% remediation rate and 60% attrition rate for undergraduate students.

According to Seyon (2003) and Hoff (1985), the poor internal efficiency stemmed from two sources: poorly prepared high school graduates and low faculty morale. Poor facilities, poor teacher quality, and lack of instructional materials at primary and secondary school levels were noted prior to the civil war, and this worsened dramatically with the onset of the war and its aftermath. Attrition remained almost constant. The U.S. Overseas Advisors Link (2000) stated that only a small percentage of students at the University of Liberia were able to complete their degrees in 4 years. Most students took 6 to 7 years to earn a degree.

Seyon (2003) claimed that from 1983 to 1987, the graduation rate in the Teachers' College plummeted to 15% of those admitted. As a result of this low output, the combined number of teachers that graduated from all higher education institutions in that period was 253. Researchers Seyon (2003) and Hoff (1985) indicated that, prior to the civil war, more rural Liberian children and those from urban private schools entered and did better in college than students from urban public high schools. Rural children tended to come from church schools with better instructional facilities and teachers.

Other Public Higher Education Institutions Prior to the Civil War

The shortage of qualified teachers led the Liberian legislature in 1958 to charter primary teacher training institutions in three provinces under the direct supervision of the Ministry of Education. The Kakata Rural Teacher Training Institute (KRTTI) served the central province. Zorzor Rural Teacher Training Institute (ZRTTI) supported the western province, while Webbo Rural Teacher Training Institute (WRTTI) was supposed to serve

the eastern province. The WRTTI was eliminated from final plans due to financial and logistic problems (Mason et al., 1993; Mehaffey, 1980; Seyon, 2003).

Mehaffey (1980) noted that the Tuskegee Institute in Alabama was selected through a 1960 agreement between the U.S. and Liberia to develop and implement academic programs at the teacher training institutes. The Tuskegee team, headed by William B. Pollard and W. W. Bearden, worked in Liberia from 1960 to 1969 but failed to incorporate rural needs into the curricular development of the programs. Following the Tuskegee team departure, the UN, with funding from the USAID and the Liberian government, revised and incorporated the needed areas in the program from 1971 to 1976. ZRTTI, which was exclusively an in-service program, began classes with 80 students in 1961 and graduated 52 students by 1963. KRTTI, an exclusively pre-service program, opened in 1964.

Beleky (1973) stated that during 1966-1971 more schools were being opened in the interior to reduce the educational gap between the children of the settlers and the indigenous children who were mostly in the rural areas. Mehaffey (1980) reported that from 1976, a high school diploma was required to enroll in the institutes, but prior to that, sixth and eighth grade graduates were also enrolled. Each institute was led by a director and assisted by staff members including deans, a business manager, a registrar, librarians, full-time faculty, and others. Each student was initially required to attend for 3 years before getting certification, but after the UN revision of the program, the duration of attendance was reduced and eventually the secondary school component was eliminated. Every graduate was prepared to teach elementary and junior high school in a specialized subject matter (Mehaffey, 1980).

Mason et al. (1993) claimed that most graduates from these institutes were not as qualified as those from the University of Liberia and Cuttington University. As a result, academic work from the teacher training institutions was not transferable; the graduates had to take the entrance examination for both Cuttington and the University of Liberia and start as freshmen to earn their bachelor's degree (Hoff, 1985).

The government of Liberia also opened the Tubman National Institute of Medical Arts (TNIMA) in 1960 to offer diplomas in registered nursing and physician assistance, among others. To reduce the severe shortages of technicians and engineers, the Liberian legislature chartered the William V. S. Tubman Technical College of Maryland County in 1971. It began operations in 1978 offering associate degrees in electrical, civil, industrial, and mechanical engineering as well as in technical teacher training. The college was located away from major industrial areas for political reasons. To complicate matters, the World Bank, through its structural adjustment programs denied, the Liberian government a higher education loan to fund the college prior to the civil war. As a result, it lacked qualified faculty and was poorly equipped in terms of library, laboratory, and communication apparatus. The college eventually closed in the first part of the civil war from 1989 to 1997 (Seyon, 2003).

Cuttington University Prior to the Civil War

Cuttington University's history began 1885 when the Right Reverend Samuel David Ferguson, Bishop of the Liberian Episcopal Church, started a manual labor farm school called Hoffman Institute at Cape Palmas, Mary County, on 100 acres of land. The land was purchased through a U.S. \$5,000 financial gift from Mr. Fulton Cutting through

the Board of Missions of the Episcopal Church in the U.S. for the practical instruction of boys to work in mission schools. The school was relocated to Harper City in 1887 due to tribal wars. The Liberian National Council of the Episcopal Church sent U.S. \$9,500 in 1888 to start construction of a new campus for the school in Harper.

In 1896, a divinity school was added and the name was changed to Cuttington Collegiate and Divinity School in honor of Mr. Cutting. Its classical curriculum encompassed English, Latin, Greek, grammar and composition, mathematics, French, science, history, music, and religious knowledge. The first class had 100 male students. The school did not grant any degrees in its developmental years because its purpose was to train leaders for the church (Mehaffey, 1980). Despite the existence of an academic curriculum, the school did not confer degrees and, instead, focused on its priority of developing church leaders.

By 1922, Cuttington Collegiate and Divinity School was incorporated to grant degrees and diplomas. Due to limited funds, Cuttington Collegiate and Divinity School closed in 1929 for 20 years. In 1948, a decision was made to relocate the school from Harper to Suacoco, Bong County, in central Liberia about 120 miles from Monrovia, to make the school more accessible to students from all parts of the country, and the Liberian government gave 1,500 acres of agricultural land to the school. By March 1949, classes resumed with three students and three faculty members. Large scale construction on the college, including Epiphany Chapel, faculty and student housing units, a science building, a dining hall, administration building, library, museum, Peace Corps training center, a campus clinic, and a campus elementary school for staff children, continued from 1954 to 1976. In 1978, USAID provided a U.S. \$5.5 million grant for the building

and operation of the 2-year agricultural program called the Rural Development Institute (RDI).

Construction of RDI and other physical facilities was completed in 1980 (Mehaffey, 1980). Student enrollment was restricted in the 1980s due to limited facilities (W. S. Salifu, personal communication, July 7, 2005). William Saa Salifu, Sr. was dean of academic affairs at Cuttington University prior to the civil war. Many buildings and faculty residential units were renovated from 1988 to 1989 (M. J. Mason, personal communication, June 6, 2005). Melvin J. Mason was one of three students in 1949 and he later served as president of Cuttington University from 1988 to 2002. As soon as the renovation was completed, the civil war began. M. J. Mason (personal communication, June 6, 2005) also noted that a plan was in place prior to the war to expand physical facilities in order to enhance the curriculum and launch graduate programs in the 1990s. Cuttington's graduate school did not start until after the civil war ended in 2003.

In terms of curricular expansion, biology was added in 1950, agriculture in 1955, education in 1957, economics and business in 1963, and nursing in 1964 (Mehaffey, 1980). The agricultural program phased out in 1966 due to limited funds and also due to the establishment of the College of Agriculture and Forestry at the University of Liberia. Six academic divisions including Theology, Education, Nursing, Humanities, Science, and Social Sciences were created. In 1976, the school was chartered by the Liberian legislature as Cuttington University College to reflect its university level status. It retained this name until it became Cuttington University on July 20, 2005 (Tokpa, 2005). Until 1988, Cuttington was the only private 4-year degree-granting college outside of seminaries and Bible colleges in Liberia (Mason et al., 1993; Seyon, 2003).

Governance and Faculty at Cuttington University Before the Civil War (1959-1989)

Governance at Cuttington University was headed by a 16-member board of trustees chaired by the bishop of the Liberian Episcopal Church. The bishop, in consultation with board members, appointed the president of the university. The president of Cuttington University also served on the board as a voting member. Board members usually were appointed for life or until they chose to leave and the actions of the board were final on all issues relating to Cuttington. The administrative cabinet of the college included the deans, director of admission and registration, chaplain, comptroller, and a public relations officer. Academic divisional chairs assigned courses to faculty and recommended candidates for employment in their respective divisions. Faculty and staff were allowed to make suggestions on issues (Mehaffey, 1980).

A high faculty turnover rate due to dependence on foreign expatriates existed in the 1960s. The U.S. Associated Colleges of the Midwest found that several faculty members were teaching subjects outside their disciplines and important subjects were not taught due to lack of faculty, inadequate faculty offices, lack of classrooms and laboratory space, and inadequate library materials. The college also suffered from weakness in science, education, and political science curricula. In 1967, college President James Baker made a proposal to train Liberian and African faculty. From 1975 to 1978, only 14 of 64 faculty members had been at the college for 5 years, while the rest were new (Mehaffey, 1980).

It is indicated that by the 1980s, faculty recruitment was often done nationally and internationally based on training background and experience of candidates. Cuttington's

staff development plan helped a significant number of Liberian faculty members to obtain Fulbright and other international scholarships to earn their master's and doctoral degrees (W. S. Salifu, personal communication, July 7, 2005). Former Cuttington President Mason concurred with Dr. Salifu, former vice president of academic affairs, that, prior to the war, only a third of the faculty had terminal degrees, two thirds had master's degrees, and the rest had bachelor's degrees (M. J. Mason, personal communication, June 6, 2005).

Cuttington improved its faculty development and curriculum through relationships with the Association of African Universities, the Ford and Rockefeller Foundations (1960s), the Associated Colleges of the Midwest (1963-1968), the Association of Episcopal Colleges (since 1978), the Partnership for Service Learning (1988), and the American Schools and Hospitals Abroad (1970-1989). In addition, Cuttington developed exchange programs with Kalamazoo College, Susquehanna College, and Witworth College in the U.S. (Committee for Third Cuttington, 1997).

Funding at Cuttington University Before the Civil War

Up to the late 1970s, Cuttington was funded by the Episcopal Church, the United Methodist Church, the Lutheran Church, Friends of Cuttington, the Associated Colleges of the Midwest in the U.S., Fulbright and Peace Corps through USAID, British universities, the French government, the Christian Service Corps, and the Liberian government. By the late 1970s, the Liberian government paid only 6-8% of Cuttington's operational cost after the IMF imposed its structural adjustment programs (SAPs) on African countries. By this time, 75-80% of the cost came from the Episcopal Church and

tuition fees. The Episcopal Church in America covered 44-60%, and 38% came from tuition. In 1975, an endowment was established to strengthen the finances of the institution (Mehaffey, 1980).

Dr. Mason indicated that, when he became president, 40% of Cuttington's budget was covered by the Liberian government prior to the civil war in 1989, 20% came from tuition, 20-25% from the Episcopal Church in America, and 20-25% from the American Schools and Hospitals Abroad (M. J. Mason, personal communication, June 6, 2005). Dr. Salifu indicated that only 20% of the operational budget was covered by the Liberian government and even that percentage was often defaulted in payment from year to year. The Liberian American Mining Company (LAMCO) and the Firestone Rubber and Tire Company also made financial contributions through student scholarships (W. S. Salifu, personal communication, July 7, 2005). According to Seyon (2003), due to the World Bank's ongoing SAPs in the late 1980s, Cuttington, like the University of Liberia, also suffered additional reduction in funding from the Liberian government.

Internal and External Efficiencies at Cuttington Before the War

Due to lack of faculty, only 414 students were enrolled at Cuttington by 1977 (Mehaffey, 1980). Dr. Salifu stated that, prior to the war, about 1,000 students were enrolled at Cuttington for the 1989-1990 academic year. The graduation rates at Cuttington were high, at about 90%, and students often graduated within 4 years or less if they attended summer school or took overloads (W. S. Salifu, personal communication, July 7, 2005). Dr. Mason disagreed and argued that the graduation rates were between 75-80%. Dr. Mason observed the student body at Cuttington consisted of 48-49% females in

all programs and from all parts of the country (M. J. Mason, personal communication, June 6, 2005). Both Mason and Salifu said that the remediation rate was minimal, about 10 to 15%, compared to that of the University of Liberia. The graduation success was attributed to both a faculty and student commitment to learning.

Cuttington University is significantly smaller in size than the University of Liberia, but it graduated a larger number of students compared to enrollment rates prior to the civil war than the University of Liberia (M. J. Mason, personal communication, June 6, 2005; W. S. Salifu, personal communication, July 7, 2005). Prior to the civil war, female student enrollments, the graduation rates, and the graduate job placement were higher for Cuttington than for the University of Liberia. Cuttington had very high internal and external efficiencies. Cuttington University's robust internal efficiency prior to the civil war was in part due to the hard work of its faculty members, according to M. J. Mason (personal communication, June 6, 2005) and W. S. Salifu (personal communication, July 7, 2005).

The Committee for Third Cuttington (1997) argued that Cuttington played a significant role in manpower development for Liberia, Africa, and the world. The Committee for Third Cuttington also reported that Cuttington University's alumni include six Episcopal Church bishops, three vice presidents of Liberia, 45% of all civil servants (including five cabinet ministers in Liberia and at least 50% of all junior ministers), 60% of Liberian medical doctors, several presidents of Cuttington, a president and vice president of the University of Liberia, and many Liberian nursing leaders and staff nurses. Cuttington's graduates have held prominent positions in Tanzania, Kenya, Nigeria, Cameroon, Swaziland, Sierra Leone, and Gambia.

Dr. Mason argued that Cuttington graduated 200 Nigerian students alone before the civil war, and its alumni also include graduates from India, Japan, Lebanon, and Switzerland. Prior to the civil war, there were two main student social clubs called Freeman and Mason. No student political parties existed, but several student organizations existed. There were no student demonstrations at Cuttington against the government, even when President Doe banned student organizations in 1982. However, in 1987, Cuttington students went on strike and the commencement was delayed until February 1988 (M. J. Mason, personal communication, June 6, 2005).

Civil War Impacts on General and Higher Education

Civil wars, no matter where they occur, exert devastating effects upon the citizen, educational systems, institutions, as well as on the country's physical and economic infrastructure. According to William (2004), schools become visible targets for rebels during conflict and conflict keeps children out of school because parents keep their children at home for safety. William also claimed that a nation's stock of human capital diminishes as the conflict goes on. The psychological effects of conflict prevent even those in school from learning up to their potential (William, 2004). The destruction of schools during civil wars can cause the remaining institutions to be crowded with large numbers of students from schools that were destroyed. This results into a daunting pedagogical task (Askin, 1988/1989).

Harber (1996) stated that the civil war in Liberia killed 25% of teachers and caused an estimated 5,000 school teachers to seek refuge in exile. Most of the government primary and secondary schools in the interior of Liberia were either

destroyed or left to deteriorate by the protracted civil war. Seyon (2003) and Buor (2001) stated that this left the Liberian educational system in the hands of church and private owners.

The University of Liberia During the Civil War

As the civil war was approaching the capital city of Monrovia in 1990, both Cuttington and the University of Liberia were forced to close their doors. The warring factions regarded the two institutions as supporters of former Liberian President Samuel Doe, and, consequently, targeted their personnel and students. According to Mason et al., (1993), rebels killed Dr. Stephen Yekeson, president of the University of Liberia. Dr. Yekeson also served as president of Cuttington University prior to assuming University of Liberia's leadership. Many faculty and staff members of the University of Liberia were also killed, although an accurate count has been impossible to obtain due to the chaos of the period. Seyon (1997) claimed that the University of Liberia became a battleground between rebels and Doe soldiers and many buildings were bombed.

Seyon (1997) also stated that when relative calm returned to the country in 1991, the University of Liberia reopened in March 1992 with 4,000 students, and Seyon served as president. Seyon said that many of the 60,000 rebels that fought in the first phase of the civil war, 1989 to 1996, were college students and a quarter of the 4,000 students at the University of Liberia in 1992 were former combatants. The University of Liberia was forced to close again in September 1992 due to hostilities of the war. According to Seyon (2003), the university reopened after peace was in place by April 1996 and enrollment went up to 5,250 students. However, new factional fighting broke out in 1996 and the

university was looted of all equipment and furniture. Seyon (2003) also indicated that, from 1989 to 1996, the civil war caused a total of about U.S. \$20 million in damages to the university.

The war-related damage to the university set institutional development back by half a century or more according to Seyon (2003), who also claimed that an exodus of senior scholars from Liberia occurred during the war, causing a shortage of faculty. It was projected that many senior professors who left would not return even after the war. Tuition scholarships awarded prior to the war at both private and public higher institutions were stopped during the war, and Seyon stated that these scholarships were probably not going to be restored after the war. Seyon argued that, prior to the civil war, students and their parents paid only 10% of the cost of education at the University of Liberia, but they would bear a greater financial responsibility for their education after the civil war.

Due to lack of funds and a need for better instructors, the University of Liberia closed again in 2000 and did not open until 2003 after Liberian Interim President Charles Gyude Bryant made U.S. \$400,000 available for operation (Overseas Advisors Link, 2000). In November 2004, Dr. Al Hassan Conteh assumed leadership of the university, and he was replaced by Emmett Dennis in the 2007-2008 academic year.

Cuttington University During the Liberian Civil War

Cuttington University suffered extensive physical damage during the civil war (Seyon, 2003). The university closed in May 1990 and its campus was taken over by Charles Taylor's National Patriotic Front rebels for use as their headquarters or seat of

assembly from July 1990 to 1992. Most of the students and faculty members fled to other parts of the country and into neighboring nations. In response to rebels taking over the Cuttington campus, President Doe's soldiers arrested officials of Cuttington for allegedly collaborating with the rebel forces, though the rebel forces wounded then Cuttington President Melvin J. Mason and tortured his wife, along with many others (Mason et al., 1993). As a result of the long-term occupation of the campus by rebels, Cuttington did not reopen in Liberia until 1998 (Committee for Third Cuttington, 1997; Mason et al., 1993; Seyon, 2003).

From 1990 to 1998, Cuttington developed a memorandum of understanding with the University of Liberia for its junior and senior nursing and education majors to complete their program requirements at the University of Liberia, but to obtain Cuttington degrees (Mason et al., 1993). President Mason, his wife, and other members of the administration were offered political asylum, an office, and residence in Virginia in the U.S. by Dr. Thomas Law, president of St. Paul College in Lawrenceville, Virginia in 1991 (Committee for Third Cuttington, 1997).

A board of directors for Cuttington-In-Exile was formed 1991 and Dr. Wilbert LeMelle, president of the Phelps-Stokes Fund, became the chairman. Goals of the program included placing Cuttington junior and senior refugee students in other universities, providing other programs to accommodate nursing and theological students in Monrovia, creating opportunities for junior staff to continue their master's degree education, and developing plans and the financial support to enable Cuttington to return to Liberia once peace was achieved.

Through the Cuttington-In-Exile program, Cuttington students were accepted in the U.S. by Cornell University, St. Paul College, Augustine College in North Carolina, and Berea College in Kentucky. Students were also enrolled at colleges in Egypt and England. The program phased out in February 1996 (Committee for Third Cuttington, 1997; Mason et al., 1993; Seyon, 2003). The University of Liberia did not have a program like Cuttington University during the war. Though it is not an established fact, the speculation is that, because Dr. Yekeson was killed along with many foreign faculty members by rebels, no leadership was in place to negotiate the transfer of students to foreign universities, and it was not until 1992 before an interim president, Dr. Patrick Seyon, was appointed at the University of Liberia.

In January 1996, Dr. Mason and former Liberian Episcopal Bishop Neufville went to Cuttington campus in Liberia and found it occupied by more than 650 displaced persons and an Economic Community of West African States' Ceasefire Monitoring Group (ECOMOG) peacekeeping military command. By April 1996, another fight between the rebel factions broke out in Liberia and Dr. Mason returned to the U.S. In late October and November 1997, a group of administrators that assessed the campus to devise plans for reopening Cuttington in Liberia found extensive damage and looting to campus facilities by rival rebel factions; as well, they determined that approximately 6,000 displaced persons were occupying the campus (Committee for Third Cuttington, 1997).

Mason (2001) claimed that Cuttington reopened in Liberia in October 1998 with 125 students and 15 faculty members. Mason (2001) stated that in order to reopen the college, Cuttington's operational budget for faculty salaries was cut by half the rate in

1990. Faculty salaries were increased later by 20%. The cost of educating a student per year was U.S. \$2,000, but students actually paid U.S. \$850 while benefactors in the U.S. and elsewhere covered the rest. About 50% of students were on scholarships of one kind or another (Mason, 2001). The American Schools and Hospitals Abroad resumed its financial support to Cuttington in 1998. The Liberian government under Charles Taylor gave one generator, a solar system, and two buses according to Mason (personal communication, June 6, 2005).

Within 3 years of reopening Cuttington in Liberia, 12 faculty residences, seven dormitories, the RDI complex, the cafeteria, and the library were renovated. Electricity, restored on Christmas 1998, was on from 6 p.m. to 12 midnight daily. Eight drinking wells tainted by dead bodies from the first phase of the civil war were purified. Enrollment increased by 208 students in the second semester to a total of 333. The enrollment at third Cuttington was 333 in 1998-1999, 407 in 1999-2000, and 435 in 2000-2001. Registration was at 500 students, with 65 instructors, beginning with the 2001-2002 academic year. Two thirds of the faculty members were part-time commuters from Monrovia (Mason, 2001).

Physical infrastructures renovated at the university following elections in 1997 were destroyed by the second phase of the civil war during 2001-2003. The campus in 2003 was unoccupied, as many people relocated for safety in other places of the country. An estimated \$2,624,385 plus \$256,050 was projected for the renovation of the campus buildings following the end of the war in 2003 (Cuttington University, 2003). Due to repeated attacks on Cuttington and the University of Liberia and because of the escalating demand for higher education by individuals among the 1.3 million people forced into

Monrovia and its environs during the war, a number of privately owned higher education institutions emerged. Among them are 4 university colleges, 1 polytechnic, 8 seminaries, and 16 junior colleges (Humanitarian Information Centre, 2003).

These new institutions of higher education began in about 1997 following semi-democratic elections that occurred after a ceasefire from phase one of the civil war was in place. The main rebel leader, Charles Taylor, was elected by coercion; former U.S. President Jimmy Carter monitored and approved these elections. Then the second phase of the civil war started in 2001 by disgruntled rebel factions. The second phase war was mainly based in the rural areas until 2003, before it eventually reached Monrovia. Former U.S. President George Water Bush or Bush II demanded for Taylor to resign the presidency and leave Liberia. Taylor agreed and left the country and thus eminent atrocities in Monrovia that would have also impacted newer higher education institutions were curtailed. President Bush also prevailed on the UN Security Council to send the largest ever UN peace-keeping force in the world to Liberia. The United Nations Mission in Liberia (UNMIL) peace-keeping force of 15,000 that was sent began phasing out of Liberia at the end of 2007 (Leopold, 2007).

The Impacts of Civil Wars on African Higher Education

The wars that plagued Africa in recent times have affected children and education in particular. Women and children account for 92% of Africa's war-related deaths and 200,000 children have been orphaned in Rwanda alone due to civil wars. In Mozambique during the 1980s, the civil war caused the destruction and closure of 60% of the nation's schools. Similarly, the Sudanese civil war of the 1980s highly diverted educational

resources toward the war, and warlords targeted educational institutions for use as bases (Salih, 1993).

The civil war that started 2003 in Darfur, Sudan, has devastated primary, secondary, and higher education sectors and added economic and social burdens to neighboring countries. The Women's Commission for Refugee Women and Children in 2005-2006 reported that secondary schools did not exist and no opportunities for technical or vocational education were available for the displaced Sudanese youths in Darfur (Women's Commission for Refugee Women and Children, 2007). Kenya has taken on the process of training thousands of primary, secondary, and technical school teachers to reconstruct education in Darfur ("Kenya to Send More Teachers to South Sudan," *Sudan Tribune*, 2007).

Due to the 1983 civil war between Muslims in the north and Christians in the south, three southern universities, including Juba, Upper Nile, and BahrEl, were relocated to the Sudanese capital Khartoum in the north. The universities were not reopened in the south until after 2004. This absence of public universities for two decades in southern Sudan eliminated higher education opportunities for many youths who could not afford to move north for fear of being killed ("Three Universities," *Sudan Tribune*, 2004). Somalia, Angola, and the Democratic Republic of Congo lost university level institutions as the result of civil wars. In 2003, these countries were just beginning to rebuild their higher education institutions (Teferra & Altbach, 2003).

During the civil war in Sierra Leone, Fourah Bay College campus of the University of Sierra Leone was seized and many lecturers that fled the country have not returned. Libraries at Fourah Bay College and Njala University were looted, vandalized,

and burned during the civil war. Rebels targeted libraries to undermine the effective operation of higher education institutions (Govie, 2005).

Economic, Social, Psychological, Health, and Environmental Impacts of Civil Wars in the World

According to Ghoborah, Huth, and Russett (2003), civilians more often than combatants suffer from most of the adverse effects of civil wars, and many of these adverse consequences accrue long after the civil war concludes. Civil wars result in the loss of physical and human capital, which then reduces the steady per capita income for the state. Civil wars divert foreign direct investment from the country because of instability. A civil war increases the government's military spending on the conflict and thus channels money away from productive economic activities and decreases spending on infrastructure, road networks, communication systems, and health and education. Civil war is a development in reverse, because it causes double economic loss to a nation through the loss of available resources toward the war and the loss through the damage to existing sources of capital (Collier et al., 2003). The greatest economic impact of a civil war is from the direct destruction of infrastructure, because the destruction of physical infrastructure such as telecommunications, airports, seaports, roads, and bridges is part of rebel tactics in bringing down legitimate regimes (Sambanis, 2004). In Liberia, rebels destroyed and looted most of the Liberian Electricity Corporation and removed much of the distribution and transmission systems. During a civil war, rebels control areas with natural and mineral resources to finance rebel operations and this prevents a sitting

national government from generating revenue to run the country (Collier et al., 2003; Murdoch & Sandler, 2002; Sambanis, 2004).

A civil war leaves a legacy of persistent poverty and misery. During a civil war, there is a huge capital erosion of 9 to 20% of private wealth from the country (Collier et al., 2003). A civil war also increases corruption, thus further declining limited resources as fiscal policies, political institutions, and human rights are eroded through conflict (Collier et al., 2003). A civil war creates fear for further conflict and leads to continued violence and criminal behaviors in the post-war era. These behaviors result in the state increasing military spending and building a national military force to maintain security and peace. As a result, the pace of post-conflict recovery is dependent on national policies and on the level of international support (Collier et al., 2003). This means a country from war must have strategic plans for post-war recovery and the international society, such as the UN, IMF, World Bank, and financial contributions from countries in the developed world. A civil war in close vicinity to peaceful neighboring nations can divert foreign investors from those nations. These countries must also expand their own economic and human resources to secure their borders from rebel incursions (Murdoch & Sandler, 2002).

According to Collier et al. (2003), fatalities and population displacements are the most obvious social effects of recent civil wars. Unlike the civil wars of the 19th century, civil war casualties today are 90% civilians and only 10% combatants. Mortality and morbidity rates increase during civil wars and the duration of the war heavily impacts these rates. In the first 5 years after a civil war, the infant mortality rate remains at 11%, while adult mortality rate increases.

Civil wars demand intervention by the UN, which needs human and capital resources to address the resulting deplorable humanitarian conditions. Collier et al. (2003) argued that in 2001, the UNHCR assisted about 5.3 million internally displaced persons and 12 million refugees from civil wars in the world. Collier et al. claimed that Liberia and Sudan topped the list for Africa's refugees and internally displaced persons (IDP) and estimated that 70% of Liberia's population suffered displacement from the devastating political, economic, and social consequences of the civil conflict. Collier et al. also reported that about 750,000 Liberians went into exile, 150,000 or more were killed, and approximately 1 million Liberians became IDPs exposed to all sorts of diseases in the displaced camps.

Ghoborah et al. (2003) argued that civil wars tend to significantly reduce the aggregate measures of health performance and increase the post-conflict incidence of death and disability among populations from infectious diseases like measles, diarrhea, meningitis, respiratory infections, malaria, and HIV/AIDS. Ghoborah et al. claimed that poor health for war-torn populations is exacerbated by the fact that civil wars destroy health facilities and expose civilians to conditions such as crowding, bad water, poor sanitation, and malnutrition. Malaria is the highest indirect cause of civil war casualties in Africa. Civil wars also reduce government spending on public health by pulling available resources away for military spending (Ghoborah et al., 2003).

Survivors of wars or of other traumatic events most likely have some form of post-traumatic stress disorder (PTSD). The rates of HIV/AIDS infection among military recruits, especially young single men, are five times greater than the normal population. HIV is spread by rebels and soldiers to women in the population through gender-based

violence as they force women into sexual favors in exchange for protection (Ghoborah et al., 2003; Schultz, 1999). Carballo and Solby (2001) indicated that the incidence of rape dramatically increases during war, and refugees, displaced women, and girls are at greatest risk. Carballo and Solby also claimed that more than 200,000 women were raped during the Rwandan civil war and many testified of being intentionally infected with HIV by enemy soldiers. Carballo and Solby reported that HIV-infected soldiers widely used rape as a warfare tool during conflicts in Liberia, Mozambique, Rwanda, and Sierra Leone.

About 50% of women surveyed said they were subjected to one or more instances of physical sexual violence during the Liberian civil war (Swiss et al., 1998). According to Carballo and Solby (2001), the reintegration of combatants after a civil war also increases the risk of spreading HIV to the rest of the population, as it has happened in Uganda. Ghoborah et al. (2003) claimed that the lack of educational facilities after civil wars makes it impossible to teach the population about prevention methods, and they argued that war-related psychological trauma is very deep and may probably lead to irreversible psychological consequences because mental health services are often not available during the war or in the post-conflict period.

Ghoborah et al. (2003) indicated the loss of family members, friends, employment, and identity, and living in transitory conditions such as refugee camps or displaced persons camps lead to hopelessness and long-lasting mental health problems like depression and schizophrenia, which in turn lead to premature death. Another indirect mental health effect of civil wars identified by Ghoborah et al. is suicide among childbearing women that it is probably due to the trauma of rape. These experts claimed

that civil war-related mental health consequences can lead to intergenerational transmission of trauma.

Environmental/Landmine Impacts of Civil Wars

The effects of landmines are both economic and health-related because they are a negative capital stock accumulated during the war. Landmines kill and maim people long after the wars have ended. The International Campaign to Ban Landmines recorded 7,987 landmine casualties in 70 countries world-wide, with 70% of them being civilian victims. Cambodia was cited as being one of the heaviest landmine and unexploded ordinance contaminated nations. The 1997 international ban on antipersonnel mines has helped to decrease the production and trade of landmines and consequently reduced their casualties. The presence of landmines in any post-conflict nation poses a threat to social and economic reconstruction and recovery (Collier et al., 2003). Landmines do permanent damage to lives and forestation, while rivers and wells contaminated with bodies during wars can be cleaned afterwards and made safe for drinking and other uses as in Rwanda, Liberia, and the Euphrates River in Iraq.

Literature Update 2006 to Present on the Status of Higher Education in Post-War Liberia

A review in education databases, ERIC, international dissertation databases, prominent international higher education, economic, political, conflict resolution, peace research journals, regional book collection sites, World Bank, UNESCO, UNICEF, and other sources was done to track current studies on higher education institutions in Liberia

during or after the civil war and none was found. However, some developments on post-war higher education expansion were found mostly from non-academic sources.

Fobanjong (2006) presented a paper on *Assessing Liberia's Post-War Recovery within the Theoretical Framework of the Phoenix Factor* at the First International Conference on the State of Affairs of Africa sponsored by the International Institute for Justice and Development in Stoneham, Massachusetts, October 26-28, 2006. Fobanjong stated that the Phoenix Factor holds if nations that undergo a devastating war like Liberia rise back in 15 to 20 years post-war peace time using certain psychological factors including a nation's population perception of safety, employment, and access to resources. Fobanjong argued that the election of the first female president for Africa made Liberia a democratic trailblazer, that Liberia, in addition to 3 years of stability, also made progress by becoming the second nation on earth after South Africa to institute a Truth and Reconciliation Commission, and its economy is slowly picking up. English (2008) found that tree crops, including rubber, oil palm, cocoa, and coffee, accounted for 60% of the total exports from Liberia in 2007.

Fobanjong (2006) reported that even after the war, Liberia has more natural resources (diamonds, timber, gold, food crops, rubber, coffee, cocoa, iron ore, hydropower) than human and technological capital. Fobanjong argued that Liberia will need to invest in human capital development in order to better develop its wealth of natural resources into final products for export to rebuild its economy before a Phoenix Factor can be applied to its recovery efforts. Fobanjong claimed that Liberia has the potential to supply food to all of West Africa if it develops the proper human capital to develop food crop production.

Bloom et al. (2006) gathered literature and empirical evidence in support of current reversal of the World Bank policy and beliefs about higher education and economic development in Sub-Saharan Africa. In the past (1967 to 1995), the World Bank, International Monetary Fund, and other developed world donors had a bias against investment into African higher education in favor of primary and secondary education. African governments were negatively influenced and pressured by the international donors not to invest in their higher education institutions. As a result, the institutional infrastructure, including physical structures, resources, quality of education and research output, collapsed in Sub-Saharan Africa for 40 years.

Bloom et al. (2006) found that this policy was wrong and harmful and the contrary was true—that higher education development in South Korea and other Asian countries, Europe, Central, and South America after World War II—positively impacted economic development, reduced poverty, improved health, and ensured security. Bloom et al. argued that the World Bank, IMF, and other donor investment in higher education in some African countries such as Mauritius, Tanzania, Ghana, Uganda, and others suggests that higher education development, especially in science, engineering, and technology, with other appropriate conditions in place will improve Sub-Saharan African chances in the global knowledge-based competitive economic age. They lamented the current low higher education enrollment of 5% for populations in Sub-Saharan Africa compared to higher rates of enrollment in other regions of the world.

Chen, Loayza, and Reynal-Querol (2008), in their study of the aftermath of civil war economic development for nations including Liberia, found that growth in GDP in the post-war or peace time is higher than the pre-war GDP. They also argued that Japan,

following the Allied bombing, was able to rebuild its economy and be part of the developed world and G-7 nations because of investment in science and technology through higher education. Chen et al. claimed that post-war recovery for any nation is measured by its economic performance, health and education, political development, and demographic trends.

The United States of America reinstated the Peace Corps program in Liberia in 2008 following a request by President Johnson Sirleaf of Liberia to President George Bush of the United States. Twelve volunteers were sent in 2008 and a second team of 22 in 2009 for a 6- to 9-month period each. The hope is to return to a 2-year commitment over time. From 1960 to 1990, 4,400 American Peace Corp volunteers served Liberia in teacher training, reviving libraries, higher education, parent-teacher channels of communication, and stepping up health care, according to Voice of America (2008).

On April 27, 2007, President Ellen Johnson Sirleaf, in an effort to rebuild the University of Liberia, dedicated an information 200 computer technology (ICT) project called the Digital Bridge Project to transition the university to a knowledge-based institution. According to Bamiro and Levinson (2009), this project was funded by the World Bank and Nigeria's largest Zenith Bank. This College Portal software reduces the digital divide for 19,000 students, faculty, and staff at the university by giving them intranet, VSAT Internet, and access to digital archives at the Library of Congress and MIT, and it houses some 3 million library volumes and research databases. In the past, the students had only small libraries stocked with very old books. According to Bamiro and Levison, students are expected to pay subscription fees to keep the project running.

In another development, Syracuse University New York donated U.S. \$20,000 worth of equipment including digital cameras, lenses, battery memory cards, and two laptops to the mass communication department of the University of Liberia on March 31, 2009 (Macha, 2009). Academics for Higher Education and Development (2009) sent two consultants to help the current president of the University of Liberia, Dr. Emmet Dennis, revise a 5-year long-range and senior management plans as well as develop a program for visiting academics for the University of Liberia. This non-governmental organization is based in Montreal, Quebec, Canada.

Spark, a non-governmental organization founded 1994 and based in Europe, sponsored the “Liberia Faculty Enrichment Program” in partnership with the Association of Liberian Universities from July 6 to 17, 2009. The program was an intensive training for senior undergraduate students and faculty from the Association of Liberian Universities member institutions to improve writing, teaching, research, and business skills, and they in turn were to teach colleagues the same skills (Spark, 2009).

Gollie (2009), of STAR Radio in Monrovia, reported that the National Commission on Higher Education commissioned two committees of Liberian academics to revise the freshmen and sophomore curricula to line up with information technology, gender and environmental issues, and others to ensure transfer of credits among institutions. Work was expected to be completed December 2009 for implementation in the next academic year. The Tubman Technical College in Maryland County, which was closed during and after the war, is now open as a full-fledged college in the same location in Maryland County, Liberia.

According to the International Network for Higher Education (2009) country profile, the University of Liberia and Cuttington University are the only two institutions offering graduate degrees, while AME University, Don Bosco Technical College, United Methodist University, Monrovia College, African Methodist Episcopal Zion University, and Tubman Technical College offer undergraduate degrees. In addition to these, there are several seminaries and Bible colleges, junior colleges, and polytechnics operating mostly in the Monrovia area. The rural area is mostly void of higher education institutions except Maryland County, Bong County, and Nimba County among the 14 rural counties.

According to World Data on Education from UNESCO (2006) on Liberia, the enrollment rate for boys was 69.1%, and for girls, 39.9%, in 1999, and only 6.5% of teachers had a college or better education, 28% were certified by the Ministry of Education, and 65% of teachers had no more than a secondary education. STAR Radio (2009) also reported on November 29, 2009 that there are 1 million primary school students enrolled in public and private schools across the country. Shriberg (2008) studied the “Perceptive Social Justice and Teacher Well Being” among diverse primary school teachers in Lofa, Nimba, and Montserrado counties and found lack of infrastructure, teaching resources, and poor salaries as problems in the study. Wilson (2008) found ethnic and gender disparities in the Liberian educational system from a literature review of documents in the U.S. Wilson recommended that Liberia develop a diverse country-driven education policy headed by Liberian academics to improve the disparities. Wilson also noted that Liberia joined UNESCO “Fast Track Plan Education for All” in 2007 to quickly get students who were too old for grade school through their education.

Need for Empirical Research on the Impacts of the 14-Year Civil War on Higher Education in Liberia

Ngaima (2003) studied factors perceived by expatriate Liberians in the U.S. to be responsible for the Liberian civil war without studying the impacts of these perceived factors on higher education. Buor (2001) studied the ethnonational tensions that led to the civil war but not the impacts of the war on higher education. Flomo (2006) researched the role of the church in dealing with the effects of the civil war on Liberian higher education, but he did not quantify these effects.

There have been numerous reports for the comprehensive rehabilitation of primary education, including the rapid assessment of Liberia's learning spaces done on primary education by UNICEF and cited by the Humanitarian Information Centre (2003), Kandakai (2005), and the Women's Commission for Refugee Women and Children (2006). The government of Liberia on June 13, 2006 welcomed the launching of the Liberian Education Trust for the restoration of basic education in post-war Liberia. Through this trust, 50 primary and secondary schools will be built, 500 teachers will be trained, and stipends will be provided for 5,000 female students throughout Liberia. Its advisory board is headed by former Education Minister Dr. Evelyn Kandakai (AllAfrica.com, 2006).

In addition to strengthening primary education without a mention of higher education, a number of polytechnics may be constructed in the four most populated counties of Bong, Nimba, Lofa, and Grand Gedeh at a cost of U.S. \$30 million from proceeds raised for the reconstruction of Liberia during the donor conference held in New York City by former interim president Charles Gyude Bryant. The polytechnics are to

provide technical education to returning refugees and high school dropouts in various vocational areas (Daybor & Horace, 2005). These new polytechnics will be in addition to the already proliferating junior colleges, polytechnics, and others in Monrovia, while the main universities are not mentioned in the post-war education plans. The Liberia NHDR (UNDP Liberia, 2006) document never made mention of higher education enrollment or its state of affairs during and after the war.

Therefore, evidence pointing to the need for research to quantify what happened to Liberian higher education institutions during the civil war and in the immediate post-war era 2003 to 2007 is critical because research in this area is severely limited from the literature reviewed. The new paradigm shift by the World Bank, IMF, and other donors to investment in higher education as key to economic development and security in Africa as evidenced in Japan, South Korea, Europe, and America, supports the argument for this study credence. No evidence from the literature to date measures war impacts on higher education.

Against this backdrop, the study proposed the empirical examination of the perceived impacts of the civil war on Liberian higher education during the 14-year (1989-2003) war and the immediate period after the civil war from August 13, 2003 to February 2007. No study in the literature review before data collection or the updated review after data collection has researched the area of concern. The outcome of this dissertation study may narrow the gap in knowledge on the measurement of war impacts on higher education institutions, stimulate further research on Liberian higher educational system, and guide research in other war-torn countries.

Chapter Summary

This chapter presented information to solidify a working knowledge of civil wars. The information focused on the economic, social, and political devastation suffered by the people of Liberia and also detailed the psychological and physical effects of displacement. Further, the chapter delineated the history of Liberia's two most important universities: The University of Liberia and Cuttington University. The historical underpinnings of both institutions point to evolutions characterized by their own internal struggles, their own form of "civil war" as they tried to develop and advance their educational missions against a backdrop of national chaos.

The chapter also clearly indicated a solid argument for future research in the area of higher education in war-torn Liberia and in other devastated countries. Nations confronted by civil war lose important resources—both human and monetary—that could be used to advance national priorities, such as education. Chapter III delineates the design and methodology employed to conduct and analyze this study.

CHAPTER III

METHODOLOGY

This mixed method investigation included a quantitative survey of 256 items with 316 subjects. A qualitative section includes nine semi-structured multiple case studies involving open-ended interviews with senior level administrators at two Liberian higher education institutions and a designee of the National Commission on Higher Education (NCHE) in the Ministry of Education. The initial intent was to study the causes of the Liberian civil war and then its impacts on higher education in regard to governance, finance, infrastructure, faculty, students, and resources for faculty and students. After data collection, modifications were made to the original research questions to narrow the focus and to increase clarity. As a result, four questions were developed based on the collected data and fewer items than 256 are applicable now to the new set of four research questions that were crafted.

Purpose of the Study

The purpose of this study is to analyze the perceived impacts of the 14-year civil war on higher education institutions in Liberia from the perceptions of administrators, faculty, staff, and students through a quantitative survey and interviews at the University of Liberia, a public institution, and Cuttington University, a private sectarian institution, and from the review of documents. This study examined the circumstances surrounding

Liberian higher education institutions during (1989-2003) and after (2007) the civil war. To date, they enroll about 90% of all higher education students in the nation.

These two institutions are internationally recognized and were founded over 100 years prior to the inception of the Liberian civil war in 1989. No studies to date have focused on measuring war impacts on higher education in Liberia. Understanding what happened to these institutions from the perspectives of the administrators, faculty, staff, and students may guide the planning and expansion of Liberian higher education in the post-war era. The study may also benefit other war-torn nations as they move toward post-war recovery. Four research questions that guided this study are advanced below. The table in Appendix D contains the crosswalk between the quantitative survey and qualitative interview questions that were used to answer each of the research questions.

Research Questions and Operational Definitions of Variables

The Research Questions

1. How do students at higher education institutions perceive (a) the quality of teaching; (b) student admission, retention, and graduation; and (c) student resources during the 14-year civil war compared to the time after the civil war (2003-2007)?
2. Is there a difference between student perceptions at a public institution, University of Liberia, and those at a private institution, Cuttington University?
3. How do faculty, staff, and administrators at the University of Liberia and Cuttington University perceive (a) the quality of teaching; (b) student

admission, retention, and graduation; (c) student resources; (d) and governance during the 14-year civil war compared to the time after the civil war (2003-2007)?

4. Is there a difference between faculty, staff, and administrator perceptions at a public institution such as the University of Liberia and those at a private institution such as the Cuttington University?

Operational Definitions of Variables

According to Edwards, Thomas, Rosenfeld, and Booth-Kewley (1997), an independent variable is a variable that is manipulated or changed to affect an outcome. In this study, the various subjects including administrators, faculty, staff, and students are the independent variables. The dependent variable as defined by Thomas et al. is the resulting outcome from the manipulation of the independent variable. For example, the calculated perceptions about student admission, persistence, and graduation rates by students at a public versus a private university in the quantitative survey of this study are the dependent variables.

Civil war is operationally defined as violence between government and rebel forces composed mainly of residents of the state resulting in 500 to 1,000 combat deaths and sustained infrastructural damage in a year (Sambanis, 2004). Civil war impacts are operationally defined as adverse effects resulting from violent behaviors during the civil war. These include economic, social, political, physical, psychological, health, and environmental consequences (Collier et al., 2003). Perceptions are operationally

described as the subjective judgments the individuals hold or have about phenomena, events, situations, and issues (Fink, 2006).

Administrators are officials in various capacities of governing higher education institutions. Faculty is composed of professionals responsible for curriculum development, instruction, and research at higher education institutions. Staff members are employees of higher education institutions doing functions other than instruction and administration. Together, these form the non-student group at each of the two institutions. Students for this study are individuals that have completed secondary school and are enrolled either as undergraduate, graduate, professional, or non-matriculated students at university level higher education institutions in Liberia.

Research Design

According to several sources (Adebajo, 1997; Alao, 1998; de Waal, 2002; Huband, 1998; Kula, 1999; Magyar & Conteh-Morgan, 1998; Nass, 2000; UNDP Liberia, 2006), the Liberian civil war devastated all economic sectors. Therefore, the study used mixed method research design, including a perceptual quantitative study and a qualitative aspect that is made of different types of semi-structured multiple case study interview protocols. The quantitative arm includes a survey that was done with groups of subjects at the same time at the two universities on specific dates outlined under sampling below. The qualitative includes four semi-structured multiple case interview protocols with the vice presidents of administration, finance, academic affairs, and student affairs at each university. Another interview protocol was prepared for a designee of the National Commission for Higher Education (NCHE) in the Ministry of Education.

Sampling Methods and Ethical Considerations

Quantitative Survey

According to Keppel and Wickens (2004), Rao (2000), and Glass and Hopkins (1996), a sample of 100 or more can improve the power of analysis of the data and it makes the outcome to mirror that of the population compared to smaller samples. Keppel and Wickens, Rao, and Glass and Hopkins also argued that random sampling gives every subject equal chance to be selected and it allows every population unit an equal chance of appearing in the sample. The subjects had to be Liberians that lived in Liberia as non-displaced persons, displaced persons, former combatants or rebels, former soldiers, or Liberians that had fled to neighboring African countries as refugees during the civil war. A dice was thrown for each name on the list of potential subjects obtained from the two institutions. A dice is a small cube with one to six spots used to generate random numbers. If the dice landed showing number 1, the subject was included, but if the dice landed showing a number other than 1, the subject was excluded. A four-way unbalanced random sample of 316 subjects including students, faculty, administrators, and staff members at Cuttington University and the University of Liberia constituted the survey portion of the study.

The entire data collection took place from January to February 2007 in Liberia, West Africa. The researcher left the U.S. January 13, 2007, and reached Liberia January 14, 2007. The researcher readily obtained most of the needed information, such as list of faculty, staff, administrators, and students for random sample selection, from Cuttington University to recruit subjects according to protocol. Exactly 138 instead of 100 subjects

were randomly selected and surveyed at Cuttington University on January 29 to 30, 2007, at its main campus in Bong County, and from January 31 to February 1, 2007, at its graduate school in Monrovia. The 138 subjects included 96 students, 9 administrators, 18 faculty members, and 15 staff members. Many of the faculty members were busy with final exams and declined to participate. As a result, 46 more students and 5 more staff members were surveyed to meet sample target.

The contact person at the University of Liberia was unable to give the study access to the registrar's office or individual colleges to begin subject recruitment. The external faculty for the study at the time of data collection was Dr. Evenly D. Kandakai, who recommended that the dean of the Teachers' College be contacted. Dean Abdullai, with permission from President Al Hasan Conteh, prevailed on offices the study needed to work with to select subjects and collect data. In light of the above, the study only randomly selected students from four colleges including the Business College, Teachers' College, Liberia College, and Science College. Students from the Law School, Medical College, School of Pharmacy, College of Agriculture and Forestry, and the Graduate School were not around. Exactly 178 subjects including faculty, staff, administrators, and students across the university that were randomly selected consented to participate and were surveyed February 13 to 14, 2007 from 8:00 a.m. to 5:00 p.m. at the University of Liberia in a large classroom.

Many of the randomly selected faculty and administrators were not available to participate in the survey and, as a result, 15 administrators, 19 faculty, 27 staff members, and 117 students consented and participated. Some foreign faculty, staff, and students were around, but they could not be surveyed because they were in the exclusionary group

of the protocol. The study hired a research assistant known as Joel T. Bimba, who at the time of the study was a senior in sociology at a university in Liberia that was not included in the study. He assisted with data collection at two different universities located 120 miles apart over 6 days to many different subjects. Joel was trained and given opportunity to read and fully understand the research protocol before subject recruitment and data collection commenced. All of the 316 subjects surveyed returned their survey booklets.

A U.S. \$5 reward was given each subject that participated in the survey to increase return rates. Even those who did not completely fill out the survey got the \$5 once they turned in the booklets. Semi-structured interviews with the vice presidents of administration, finance, academic affairs, and student affairs at each of the two institutions and with a Ministry of Education designee were also conducted alongside the survey. Due to the nature of interview subjects, Joel did not conduct any of the interviews. The unedited answers obtained from the interviews are presented in

At Cuttington University, semi-structured interviews of 2 hours each were conducted with the vice president for administration, the associate vice president of academic affairs, the budget accountant, and the acting dean of students. The associate vice president of academic affairs was interviewed because the vice president of academic affairs at the time of data collection was an American and he did not meet inclusionary criteria. Table 1 on the next page summarizes number of subjects by university and group.

Table 1

University Type and Total Number for Each Subgroup in the Sample

	University of Liberia	Cuttington University	Entire Survey Total
Students	117	96	213
Staff	27	15	42
Faculty	19	18	37
Administrators	15	9	24
Total	178	138	316

Ethical Considerations

The need to obtain approval from the Human Subjects Institutional Review Board (HSIRB) prior to the initiation of a research project involving human subjects has been stressed by Burns and Grove (1997), Bordens and Abbott (1996), Rudestam and Newton (2001), and Locke, Spirduso, and Silverman (2000). On September 23, 2006, an application for a full board review of this dissertation study was filed with the Western Michigan University Human Subjects Institutional Review Board. On December 23, 2006, the study was approved by the entire board. The HSIRB application contains the inclusionary and exclusionary criteria for sample selection. A copy of the board's letter of approval is in Appendix A of this dissertation. The presidents of University of Liberia and Cuttington University gave the researcher written permission to conduct the study on their campuses and copies of their letters of approval are in Appendix B. Consents were obtained in writing from subjects in the survey and those interviewed; copies are in Appendix C.

Instrumentation

Perceptual Quantitative Survey

Instrumentation is important for the outcome of the data analysis and it must match and be appropriate for the research design and questions (Burns & Grove, 1997; Fredrickson, 1986). The study designed and used a quantitative survey based on the description of the usefulness, design, and measurement of quantitative studies from literature. Fink (2006), Edwards et al. (1997), and Czaja (2004) define perception studies as studies that focus on people's perceptions of events, problems, and organizations among others; a majority of these studies are multiple choice surveys. Multiple choice surveys are more efficient, are easy to use, make data entry easy, and are easy to score. Perception studies are more reliable through the uniform data they provide because respondents respond to the same options.

A quantitative survey instrument based on the Liberian context was designed for this study and each survey question is a 5-point Likert-type scale including 0 (zero) = no extent, 1 = small extent, 2 = medium extent, 3 = large extent, and 4 = very large extent, among other 5-point scales in the instrument.

The instrument took about 1.5 to 2 hours to complete. A review of the survey instrument for clarity, content, length, and cultural appropriateness was conducted with five Liberians. The five subjects belong to various ethnic groups that were rivals during the civil war in Liberia and they included four Cuttington University alumni and one University of Liberia alumnus. All were professionals in different fields and lived in Kalamazoo, Michigan, in the United States at the time of review. The review participants

unanimously agreed that the content of the instrument, its sixth grade English reading level, all the questions, and the 1.5-hour time frame for completion of the instrument were appropriate for the Liberian context.

The review participants stated that the 12 questions on demographics would help generate data on the representation of people from different religious and ethnic backgrounds at Liberian higher education institutions. The sixth grade English reading level is the standard for Western Michigan University Human Subjects Institutional Review Board. The quantitative survey instrument is in Appendix F. Six paired major scales and paired subscales were computed from a 256-item survey instrument for data analyses.

The definitions of the major and subscales are provided in the value labels of the raw and imputed data sets upon request. According to Fredrickson (1986), it is very important to group questions and provide transitions that describe the format of the topic to prevent boredom and fatigue often associated with lengthy questionnaires. In this dissertation, questions were grouped and transitions were provided that led to 100% return of the surveys by subjects. Subar, Ziegler, Thompson et al (2001) found that the length of the questionnaire does not affect response rates but the clarity of longer surveys matters. Though this study's survey was long, designing it on a topic of interest to subjects which is, the impacts of the civil war on their particular university, encouraged 300 out of 316 respondents to complete the survey and all of them to turn in their booklets. All the subjects experienced the civil war and remembered vividly as they filled out the survey.

Studies have also found that, regardless of length, only surveys that offered material or monetary rewards were able to obtain statistically significant higher response rates and quality data (Church, 1993; Yu & Cooper, 1983). Each subject was compensated with U.S. \$5.00 to increase response and return rates. The subject response rate was 95%, or 300 subjects completed the entire survey. The survey return rate was 100%, which means all 316 subjects turned in their surveys. The order of the alternative answers should be arranged from least to the most comprehensive through a Likert-type scale of 1 to 5 or 7 items (Fredrickson, 1986).

This survey was on a topic that a large random sample of 316 subjects experienced and it was clearly written in simple English with single thought (of war impacts on different areas of university operation including governance, finance, infrastructure, faculty quality, students, and resources) in most of the Likert-type scale choices. Lastly, the acceptable range for subgroups in any study is from a minimum of two to a maximum of four (Fink, 2006). This study incorporated four subgroups in the dependent and independent variables for initial study and only up to three subgroups in the dependent variables, and two in the interdependent variables for the revised study. The subgroups in the independent variable for revised research question 1 are students at private Cuttington University and students from the public University of Liberia. The dependent variable is the resulting perceptions of these students and its subgroups are their perceptions on admission, perceptions on persistence, and perceptions on graduation rates. This quantitative instrument is found in Appendix F.

Cronbach's alpha correlation describes how well different items complement each other in their measurement for the same quality or dimension instrument. A Kappa,

descriptive statistics, Spearman rank order correlation, Pearson product correlation, chi-squares, *t* tests, analysis of variance (ANOVA), and regressions are also used in analyzing perception studies (Czaja, 2004; Edwards et al., 1997; Fink, 2006). Multivariate analyses of variance (MANOVAs) are employed for data involving the comparison of multiple independent variables on one or more dependent variables, while MANCOVA or multivariate analysis of covariance compares covariances among groups (Mertler & Vannatta, 2005). MANCOVA was used in the original study, but due to the narrow focus the study took on, *t* tests were used in the analyses as would be cleared in a subsequent section. The study also used correlations and chi-squares in description of the demographics and relation of scales to each other. Under other circumstances for data collected, any of the other statistical tests are applicable.

To ensure the instrument is valid and reliable, a Cronbach's alpha was conducted. It is claimed that no instrument can be valid without being first reliable, though a reliable instrument is not always valid (Gillies, 1982). The reliability of an instrument can be tested for stability and equivalence which is also called inter-rater reliability (Mertler & Vannatta, 2005). This study opted to do reliability testing for both the stability of the instrument and the internal consistency of the instrument. Stability of the instrument used in this dissertation was tested and established by comparing the values of the Cronbach's alpha during the war with those after the war on the same concept for the same subjects.

A Cronbach's alpha was analyzed for the entire survey instrument, for each of the six pairs of major scales including governance, funding, infrastructure, professor or faculty issues, student issues, and resources for faculty and students along with all their subscales. Cronbach's alpha of .71 and higher of an entire instrument suggests that the

instrument used has produced reasonably valid perceptual measures of the construct in consistent patterns (Fredrickson, 1986). According to Mertler and Vannatta (2005), Fredrickson (1986), and Fink (2006), an instrument can be lowly, moderately, or highly reliable. Cronbach's alpha reliabilities generated for the entire instrument and the scales are presented in Appendix E.

The Cronbach's alpha for the entire instrument is .95 and it is also high for all major scales. The original research questions of this dissertation were analyzed by using only the major scales. The Cronbach's alpha values for the major and subscales used to answer the revised research questions for the dissertation are governance (.83 for GovernanceA and .80 for GovernanceB), teaching quality (.87 for ProfessorIssueA and .88 for ProfessorIssueB), student admission (.51 for SsubQualEnrollA and .39 for SsubQualEnrollB), retention and graduation (.65 for SsubIntEfficiencyA and .37 for SsubIntEfficiencyB), and resources (.80 for ResourceServicesA and .80 for ResourceServicesB). The study created combined subscales for student admission, retention, and graduation during and after the war and their Cronbach's alpha values are (.73 for SsubAdmissionRetentionGraduationA and .53 for SsubAdmissionRetentionGraduationB). These combined scales were used to analyze data instead of the individual subscales above.

Qualitative Semi-Structured Multiple Case Study Interview Protocols

The concurrent use of multiple case study questionnaires to complement the quantitative survey data is recommended by Fink (2006), Edwards et al. (1997), Burns and Abbott (1997), and Czaja (2004). According to Yin (1994) and Fredrickson (1986), a

case study is an empirical inquiry that investigates a contemporary problem in a real life context when boundaries between the phenomenon and the context are not clear and a triangulation of data from multiple sources of evidence is required to understand the phenomenon.

The semi-structured multiple-case study interview protocols for the administrators were based on some of the issues on the survey as well as those areas that could not be fully answered by a survey. A slightly more national and specific interview protocol for the Ministry of Education designee was developed to get a sense of the Liberia government agenda for higher education. The semi-structured multiple-case study interview protocols were reviewed by former Liberian higher education officials that lived and worked in Liberia during the civil war before moving to the U.S. Their suggestions led to the protocols being specifically tailored to each official interviewed to avoid repetitions. The qualitative instrument is found in Appendix D.

Yin (1994) and Fredrickson (1986) also argued that a researcher must keep a firm grasp of the problem and the theoretical and policy issues on the topic to understand the purpose and to exercise judgment during data collection. The researcher must be able to interpret information as it is gathered to know immediately if several sources agree or contradict one another on the issues. Yin (1994) argued that the evidence resulting from a multiple-case study is often compelling and the overall study is considered to be more robust than a single-case study.

Analyses and Statistical Methods

Quantitative Analysis Methods

The Statistical Package for Social Sciences (SPSS) was used to analyze the data. In SPSS, a code book was developed for each variable and data were entered for each subject. To ensure the confidentiality of respondents, a code number was assigned to each and names were removed. Data exploration was performed for accuracy and completeness. The raw data was found to be missing sections left out by a number of subjects. The study with professional help created the missing data in SAS and then imputed it into SPSS.

Descriptive statistics including means, standard deviations (STDs), frequencies and proportions, as appropriate, were used to describe the characteristics and overall responses of the participants in Chapter IV. Independent samples *t* tests were used for research questions 2 and 4. Paired samples *t* tests were used to analyze research questions 1 and 3. Bonferroni tests were done to reduce type one error associated with running multiple *t* tests by dividing the alpha of .05 with the total number of dependent variables for each research question. Alpha .05 was divided by three dependent variables for research questions 1 and 3 and the result was .016. The same Bonferroni result of .016 was obtained after dividing .05 by four dependent variables for research questions 3 and 4. This means that for each paired sample *t*-test result and for each independent samples *t*-test result, the *p*-value must be .016 or less in order for the interpretation to be significant at alpha .05.

Literature is replete with studies that have used *t* tests for data analysis and a few more mentioned below. *t* tests were used to study gender and racial differences in acculturative stress among the descendants of American servicemen and Vietnamese or Cambodian women during the Vietnam War by Nwadiora and McAdoo (1996). *t* tests were also used to study the effects that HIV/AIDS education had on 81 rehabilitation workers by Fried, Roberto, Shaw, and Richter (1997).

Qualitative Analysis Methods

In a multiple-case study method, if similar results are obtained from all of the cases, replication is said to have taken place. According to Yin (1994), Fink (2006), Edwards et al. (1997), and Czaja (2004), the criteria for judging the quality of a case study include construct validity, internal validity, external validity, and reliability. Reporting case studies does not require uniform and acceptable outlines since the field work is likely to lead to large amounts of documentary evidence in the form of published reports, publications, memoranda, and other documents that must be reviewed and reported (Yin, 1994).

According to Yin (1994), multiple sources of data provide multiple similar measures of the phenomenon and the rationale for triangulation to enhance construct validity from multiple sources of evidence. Yin also claimed that case study analysis is contingent on the investigator's rigorous thinking and sufficient presentation of evidence along with careful consideration for alternative interpretations based on theoretical propositions. Through pattern-matching, the patterns coincide and make the internal validity of the results robust.

Multiple-case study interviews were done over several days with the administrators and a designee of the Ministry of Education alongside a survey with 316 subjects to bolster data on the research problem in ways that a single method would have not accomplished. Their answers for each research question are presented and the major themes resulting for the over qualitative aspect are formulated under research question 3 and 4 in Chapter IV; students did not participate in the interviews. Shriberg (2008) used case study interviews, surveys, focus groups, participant observation, and document review for a mixed methodology to study social justice and well-being among diverse primary school teachers in Liberia after the civil war ended. Shriberg also employed major themes in analyzing the qualitative aspect of her study.

Background of the Researcher and Possible Bias

The researcher was a senior student in pre-medicine studying biology at Cuttington University when the Liberian civil war started on December 24, 1989. She was forced, along with other students, to leave studies after the university closed down on May 19, 1990 as reverberations of guns from the civil war approached the campus. The researcher went to Monrovia for safety but the war reached there quickly. The researcher then went to her home county Lofa in rural Liberia. While running away from the war in Monrovia, the researcher saw unimaginable human suffering. She saw bodies in rivers and suffered hunger for days. In Lofa County away from the war, she taught biology and chemistry in her church high school from March 1990 to April 1993. In May 1993, the civil war reached her county and forced the researcher and her family that survived into the neighboring country of Guinea.

The two phases of the Liberian civil war killed 32 members of the researcher's family and caused her to immigrate to the U.S. through an academic fellowship from the United Nations Higher Commissioner for Refugee to complete her bachelor's in biology at Berea College in Kentucky through the Cuttington In-Exile Program. Over the years from 1996, the research has traveled home to Liberia, taking note of what the country and people went through. She would have been a medical doctor in Liberia had it not been for the war. This bitter and unforgettable experience encouraged the researcher to focus her doctoral thesis on the impacts of the civil war on Liberian higher education institutions. This, in a way, could be a potential bias, though she worked very hard at doing an objective scientific and scholarly work in data collection and analyses as outlined above and as would be shown from the results in Chapter IV. Similarly, in Chapter V, interpretations, recommendations, and conclusions are based on the evidence found from the study and real-life stories.

Chapter Summary

In this chapter, an overview of methodology was presented. An evolution to the study and how its focus was narrowed to enhance clarity through the revised four research questions following the purpose was described. The design, sampling, instrumentation, and analysis methods were clearly expounded with citation of authorities. Possible bias as a result of the impacts of the war on the researcher and her family, friends, colleagues, and county was also addressed. How this potential bias was reduced, if not prevented, was fully delineated.

CHAPTER IV

RESULTS AND FINDINGS

This study examined causes of the Liberian civil war and its impacts on Liberian higher education in regard to governance, finance, infrastructure, faculty, students, and resources for faculty and students at the University of Liberia and Cuttington University. Most importantly, this study queried selected participants regarding their perceptions of conditions that existed in these universities prior to and after the civil war. Modifications were made to the original research questions to narrow the focus and to increase clarity. The revised areas examined the impact of the war in the following areas: (1) faculty recruitment and teaching quality, (2) student admission, (3) student persistence in college, (4) student graduation rates, (5) the availability of resources for faculty and students, and (6) the effectiveness of governance at the University of Liberia and Cuttington University.

To conduct this study, four research questions were developed. A quantitative survey based upon a survey instrument that contained 256 items was conducted with 316 randomly selected subjects from both institutions. Two-hour semi-structured multiple case study interviews were conducted with the vice president for administration, the associate vice president of academic affairs, the budget accountant, and the acting dean of students at Cuttington University. At the University of Liberia, personal interviews were conducted with the administrative assistant to the vice president for administration, the university comptroller, the interim vice president of academic affairs, the vice president

of graduate education, and the dean of student affairs. In addition to this, the investigator conducted an interview with the deputy director of administration for the National Commission of Higher Education at the Ministry of Education.

The first section of Chapter IV describes the population of students and faculty members affiliated with each university by selected demographic characteristics. Descriptive statistics and paired samples *t* tests were delineated to address research questions 1 and 3 on the subjects' perceptions of civil war impacts during and after the civil war. Descriptive statistics and independent samples *t* tests for research questions 3 and 4 were also included in this section. Qualitative data results were reported for research questions 3 and 4. Interview questions did not address research questions 1 and 2 as students did not participate in the interviews. Documents from each of the two universities were reviewed and the results are presented as well. On-site observations were conducted for validation of interview responses and to provide meaning from the quantitative and qualitative analyses. A brief explanation of how the data were computed and missing items were address is provided below.

Computations of Missing Data

Utilizing the Statistical Packages for the Social Sciences, or SPSS, a code book was created containing the variable name, value label, and level of measurement for each variable (Cronk, 2006). In conducting a factorial analysis, it was determined that there were missing data on certain items. This analysis revealed that 1.6% of the entire data was lost. In addition to this, 163 to 165 subjects left some questions on the survey unanswered. These missing data would have negatively impacted the results of the study.

Missing data to date can only be computed into SAS statistical software (Schlotzhauer & Littell, 1997).

The missing data were generated by doing five runs of the available data and taking the average of them for each subject in SAS software. The imputed data were merged and transported into SPSS after saving the steps and the results in SAS. In SPSS, the imputed data was manually rounded to the nearest whole number and saved. Following data imputation, 311 subjects had answers to every item on the survey instrument, while only 5 subjects left 15-37% of their data unanswered on faculty issues, student issues, and resources. For these subjects, computation of data was not an option because they failed to respond to a number of questions. Narrative results of the interview questions were used to specifically address research questions 3 and 4.

Frequencies of Demographic Data

Table 2 provides an overview for student and non-student participants by gender and age categories disaggregated by Cuttington University and the University of Liberia. From frequencies obtained, all 316 subjects that consented participated and turned in their survey. There were 213 students (67.4%) and 103 non-students including faculty, staff, and administrators (32.6%). By university type, there were 178 subjects at the University of Liberia including 117 students and 61 non-student members. At Cuttington University, there were 138 subjects including 94 students and 44 non-students. The 222 males in the study constituted 70.3% of sample and 94 females made up 29.7% of all subjects. By age groups, there were 203 young adults ages 18-39 (64.2%), 94 middle age subjects ages 40-54 years old (29.7%), and 19 older adults subjects ages 55-69 years old (6%).

Table 2

Demographic Frequencies for the Student and Non-Student Groups in the Study

Demographic Variables	Student Group		Non-Student Group		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
University of Liberia	117	66	61	34	178	100
Cuttington University	94	68	44	32	138	100
Male	137	62	85	38	222	100
Female	76	81	18	19	94	100
Young Adults (18-39)	169	83	34	17	203	100
Middle Adults (40-54)	41	44	53	56	94	100
Older Adults (55-69)	3	16	16	84	19	100

Note. *n* = number of subjects in the group; % = percentage of group frequency.

Following the demographic data above are the quantitative data results for research questions 1 and 2, and research questions 3 and 4 have both quantitative and qualitative results. This section of Chapter IV begins with research question 1 and ends with qualitative results on research question 4.

Data Results for Research Questions

Research Question 1

How do students at higher education institutions perceive (a) the quality of teaching; (b) student admission, retention, and graduation rates; and (c) resources students and faculty during the 14-year civil war compared to the time after the civil war (2003-2007)?

In Table 3 below, the p value for each variable tested shows that students at both institutions perceived statistically significant improvements in teaching quality; student admission, retention, and graduation rates; and improved availability of resources after the civil war than during the war $p < .000$ for Bonferroni .016 at alpha .05. In other words, the civil war was perceived to have had negative impacts on higher education institutions in Liberia during the war than the time-period after the war. The p -values for teaching quality, student admission retention and graduation rates, and resources are significant at $p < .000$. This value is less than Bonferroni .016 for alpha .05 and the findings are statistically significant.

Table 3

During and Post-Civil War Paired Samples t Tests Result for Student Group

Outcome	N	During Civil War		After Civil War		Dif (se)	t	2-tailed p -value	95% CI	
		M	SD	M	SD				LL	UL
Teaching quality	211	1.90	0.53	2.54	0.63	-0.64	-15.14	.000	-0.722	-0.56
Student admission, retention and graduation	211	2.48	0.56	3.17	0.47	-0.69	-15.75	.000	-0.779	-0.606
Resources for students and faculty	211	2.12	0.48	2.83	0.53	-0.70	-17.25	.000	-0.79	-0.62

Note. CI = confidence interval, LL = lower limit, UL = upper limit.

* $p < .05$, two-tailed. ** $p < .01$, two-tailed. Bonferroni of .016 at alpha .05.

At a two-tailed 95% confidence interval level of measurement, the mean for teaching quality during the war was 1.90 while the mean for the same variable after the

war ended was 2.54. These values fell between the lower confidence interval limit of -0.722 and the upper confidence interval limit of -0.56 . For the combined variable student admission, retention, and graduation rates, the perceived mean at the two-tailed 95% confidence interval was 2.48, and after the war, it was 3.17 between the lower confidence interval of -0.799 and upper confidence interval limit of -0.606 . Lastly, the variable associated with resources for faculty and students had a mean of 2.12 during the war and a mean of 2.83 after the war. The differences between the means prior to and after the civil war was statistically significant ($p < .000$) with a lower confidence interval limit of -0.79 and the upper confidence of -0.62 .

The results presented below are from measures of differences between students at Cuttington University and the University of Liberia.

Research Question 2

Is there a difference between students at a public institution, University of Liberia, and those at a private institution, Cuttington University, in their perception of war impacts on the quality of teaching, student admission retention and graduation rates, and student and faculty resources?

The p -value .014 for differences in quality of teaching in Table 4 below was less than a Bonferroni of .016 at alpha .05. The results revealed that the students at private Cuttington University perceived a higher quality of teaching than their counterparts at the public University of Liberia. The p -value .194 for differences in student admission, retention, and graduation rates was greater than Bonferroni .016 at alpha .05. There were no significant differences in perception of war impacts between students at the two

institutions for this combined variable. In terms of resources for student and faculty, students from Cuttington University reported better resources during and after the war than their counterparts at the University of Liberia. The $p < .004$ value was greater than Bonferroni .016 at alpha .05.

Table 4

During and Post-Civil War Independent Samples t Tests for Differences Between Student Groups

Outcome	Private University			Public University			Dif (se)	<i>t</i>	2-tailed <i>p</i> -value	95% CI	
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>				LL	UL
Difference in teaching quality	94	0.76	0.71	117	0.55	0.52	-0.21	-2.48	.014	-0.374	-0.043
Difference in student admission, retention and graduation	94	0.76	0.73	117	0.64	0.55	-0.12	-1.34	.194	-0.289	-0.059
Difference in resources for students and faculty	94	0.83	0.65	117	0.60	0.52	-0.23	-2.90	.004	-0.394	-0.075

Note. CI = confidence interval, LL = lower limit, UL = upper limit.

* $p < .05$, two-tailed. ** $p < .01$, two-tailed. Bonferroni of .016 at alpha .05.

At a two-tailed 95% confidence interval for quality of teaching, the mean score of 0.76 for students at Cuttington University was significantly higher than the mean score of 0.55 for students at the University of Liberia between the lower confidence interval limit of -0.374 and the upper confidence interval limit of -0.043. Between the lower 95% confidence interval limit of -0.289 and the upper confidence interval limit of -0.058, the

mean score of 0.76 for students at Cuttington University was higher than the mean score of 0.64 for students at University of Liberia for the combined variable known as student admission, retention, and graduation rates. Differences in student perception of the availability of resources for faculty and students during and after the civil war at the two-tailed 95% confidence interval level are statistically significant with students at Cuttington University reporting a higher mean of 0.83 compared to a mean score of 0.60 for students at the University of Liberia between lower confidence interval limit of -0.394 and upper confidence interval limit of -0.075 .

Now the results from the analyses of the non-students including faculty, administrators, and staff are presented. Question 3 is a measure of the perceptions of this group on the issues students were tested about and also for civil war impacts on university governance.

Research Question 3

How do faculty, staff, and administrators (non-student group) perceive (a) the quality of teaching; (b) student admission, retention, and graduation; (c) student resources; (d) and governance during the 14-year civil war compared to the time after the civil war (2003-2007)?

Table 5 below summarizes the results for this question. A $p < .000$ value for a Bonferroni .016 at alpha .05 for each variable tested shows that the non-students at both institutions perceived statistically significant improvements in teaching quality; student admission, retention, and graduation rates; resources; and governance after the civil war compared to during the war. The civil war was perceived to have had negative impacts on

higher education institutions in Liberia during the war than in the post-war era. The p -values for teaching quality, student admission retention and graduation rates, resources, and governance are each $p < .000$. This value was less than Bonferroni .016 at alpha .05 and the findings were statistically significant.

Table 5

During and Post-War Civil War Paired Samples t Test Results for Non-Student Group

Outcome	N	During Civil War		After Civil War		Dif (se)	t	2-tailed p -value	95% CI	
		M	SD	M	SD				LL	UL
Teaching quality	102	1.76	0.48	2.24	0.56	-0.63	-10.99	.000	-0.740	-0.513
Student admission, retention and graduation	102	2.46	0.64	3.11	0.44	-0.65	-11.17	.000	-0.764	-0.534
Resources for students and faculty	101	2.02	0.50	2.81	0.48	-0.79	-13.28	.000	-0.903	-0.668
Governance	103	2.30	0.53	2.78	0.44	-0.48	-9.80	.000	-0.576	-0.382

Note. CI = confidence interval, LL = lower limit, UL = upper limit.

* $p < .05$, two-tailed. ** $p < .01$, two-tailed. Bonferroni of .016 at alpha .05.

At a two-tailed 95% confidence interval, the mean 1.76 for teaching quality during the war was smaller than the mean of 2.24 for the same variable after the war ended between the lower confidence interval limit of -0.740 and the upper confidence interval limit of -0.513. For the combined variable student admission, retention, and graduation rates, the perceived mean at the two-tailed 95% confidence interval was 2.46, and after the war, it was 3.11 between the lower confidence interval of -0.765 and upper

confidence interval limit of -0.534 . When the variable resources for faculty and student was measured at the two-tailed 95% confidence interval level, the mean of 2.02 during the war was statistically significantly smaller than the mean of 2.81 after the war between the lower confidence interval limit of -0.902 and the upper confidence of -0.671 . Lastly, the mean for governance at a two-tailed 95% confidence interval level of measurement during the war was 2.30 and the mean for the same variable after the civil war was statistically significantly higher at 2.78 between the lower confidence interval limit of -0.583 and the upper confidence interval limit of -0.382 .

The qualitative analyses for research question 3 are provided below.

Analyses of Qualitative Responses

Officials from the University of Liberia and Cuttington University and the designee of the National Commission for Higher Education (NCHE) were interviewed about the quality of teaching; student admission, retention, and graduation rates; resources for faculty and students; and university governance during and after the civil war to help clarify and explain the quantitative data for research questions 3 and 4 in this study. Yin (1994) argued that evidence resulting from multiple case studies such as the interview protocols applied in this study is often compelling, making the overall study more robust than a single interview or case study. For example, in this study, responses from two parallel sources such as those from the two deans of students or the two vice presidents for academic affairs that agreed with one another on an issue were considered supportive in clarifying the quantitative survey.

Analysis of Qualitative Responses on Teaching Quality

The NCHE designee and senior administrators from both institutions indicated that teaching quality during the war was poor. It was revealed that poor teaching quality during the war stemmed from many senior faculty members leaving the country as a result of the ongoing civil war. The threat of harm and the murder of colleagues and leaders increased the exodus of faculty. All respondents lamented the lack of finances during the war as another impact on the quality of teaching. Poor salaries forced the remaining faculty to seek employment in government or non-governmental organizations (NGOs), or to be employed concurrently with another institution.

Personal safety was a major concern for professors and administrators during the war years. There was strong agreement that following the war and the return of a competent, stable work force, the educational environment and teaching improved. This resulted from better security, financial sources, and support of education following the war. The major areas of war impact that emerged from responses on the quality of teaching were security, finance, and teaching resources. These factors impacted teaching quality during the war and following the war. After the war, increased safety, funding, and resources improved the quality of teaching. Important quotes by the associate vice president for academic affairs at Cuttington and the vice president for graduation education at the University of Liberia on teaching quality during and after the civil war are provided below.

Cuttington again closed in 2002 due to ongoing war and suffered a large brain drain of faculty members. After the war, there are more resident faculty members at Cuttington and more qualified faculty now than during the war. Undergraduate classes are meeting three times a week in the post-war time and faculty have

office hours to have one-on-one encounters with students. There are 24 faculty members with PhDs and 32 with master's degrees on both graduate and undergraduate faculty. There are 43 bachelor prepared TAs and 16 associate degree or post high school prepared TAs on the undergraduate faculty. (Associate Vice President for Academic Affairs, Cuttington University, January 26, 2007)

During the war faculty members were not strongly prepared and many of the good professors left the country causing massive brain drain. After the war, gradual improvement in the quality of the faculty is taking place as qualified faculty are being attracted with better salaries and the new MBA program in the graduate school is a big attraction. (Vice President of Graduate Education, University of Liberia, February 14, 2007)

The quality of the faculty was poor during the war and those that taught were cautious in teaching students exposed to war and social problems. Only one PhD faculty was in the university during the war with a number of master's prepared faculty and many bachelor degree holders. After the war, 15-20 former faculty members have returned from the U.S. and other countries on a part-time basis while working with other agencies. The UN Peacekeeping Force sent in 42 faculty volunteers in various disciplines but they need orientation in teaching at the university and often need teaching assistants to fill in for them when they do their main jobs at the UN. Many of these volunteers left after realizing they could not effectively teach college students. (Interim Vice President of Academic Affairs, University of Liberia, February 14, 2007)

Student Admission, Retention, and Graduation Rates

Student Admission and Retention. Respondents at Cuttington University and the University of Liberia reported that during the civil war, student admission rates were higher than retention rates and graduation rates. This resulted from movement of populations for safety. A second explanation for this observation during the war is that government officials forced the University of Liberia officials to admit former rebels without an entrance examination. In addition to resentment for their participation in the civil war, many of these students were poorly prepared. Former President Charles Taylor's government officials forced the University of Liberia administration to enroll

former fighters in his defunct rebel faction that was known as the National Patriotic Front of Liberia without an entrance examination. Taylor's government developed a list of combatants that, it argued, needed college education to better run the Liberian government in the post-war era.

When Charles Taylor became president of Liberia in 1996, he sent a list of former fighters that were serving in his government to be admitted as students in the university without taking any entrance examination. Charles Taylor appointed one of his former rebel commanders, Dr. John Roberts, to serve as president of the University of Liberia and many of his former combatants were admitted without taking the historically tough entrance examination at the university. (Administrative Assistant to the Vice President for Administration, University of Liberia, February 12, 2007)

High school students' performance on the WACE was very poor during the war and the students were poorly prepared for college education because most of the high schools were destroyed and the few that remained had poor facilities. Things are gradually improving since the war ended; many are passing the WACE and college entrance examinations. (Deputy Director of Administration, National Commission for Higher Education in Liberia, February 3, 2007)

Other factors related to retention during war time were safety, drug and substance abuse problems, and lack of learning resources. Similarly, 100% of respondents indicated improvement in the problem areas after the war ended, thus resulting in higher student retention rates. The following are supporting quotes.

Marijuana abuse was very high during the war and 45% alcohol abuse. After the war, only 5% or less marijuana abusers and 15-20% alcohol abusers have been noted. (Interim Dean of Students, Cuttington University: January 27, 2007)

There was lesser alcohol but more marijuana and cocaine abuse during the war. After the war, more alcohol abuse than marijuana or cocaine abuse because there are more laws and regulations enforced against marijuana and cocaine usage. In Liberia, people are not penalized for alcoholism. (Dean of Students, University of Liberia: February 8, 2007)

Graduation Rates. All respondents interviewed on this topic agreed that graduation rates curtailed as the war escalated. Graduation rates have increased since the

civil war ended in 2003. With the war concluded, increased enrollment due to former combatants returning to the classroom, increased safety, and few student riots and protests collectively improved post-war graduation rates.

Another factor related to graduation rates improvement is that after the war, the United Nations Development Project (UNDP), through the Disarmament, Demobilization, Rehabilitation and Reintegration Program (DDRRP), financially paid for former combatants to enroll in various colleges and universities and graduate. When data for this study were collected in 2007, Cuttington University had 350 undergraduate students that enrolled through the UNDP DDRRP and about 1,000 students at the University of Liberia were former combatants through the DDRRP. This post-war DDRRP project underwritten by the UNDP increased the overall graduation rates as indicated by academic affairs officials of both institutions during separate interviews with me.

Graduation rates increased from a few hundred students every 4 years during the war to over 1,000 students graduating each year at the University of Liberia. The same was noted at Cuttington with a little over 100 students during the war to over 200 students graduating each year after the war. All respondents agreed the war severely impacted graduation and other university functions. In short, 100% of the respondents agreed longer duration of the war impacted graduation rates from higher education institutions in Liberia when other conditions were met. Below are some interesting quotes respondents provided on graduation rates during and after the civil war.

45-65% during the war and 70-80% after the war. Mandatory two summer sessions for each undergraduate student accounts for the high rate of graduation: 146 students graduated in 2006 and the narrative given you has additional

information. (Associate VP for Academic Affairs, Cuttington University: January 27, 2007)

Lower during the war and only four graduations from 1989 to 2003. Since the end of the war, second graduation scheduled later this year 2007. (Vice President for Graduate Education, University of Liberia, February 14, 2007)

Along the same line, the interim vice president for academic affairs at the University of Liberia offered the following comments.

During the war probably only four graduations from 1992 to 2000 and numbers were smaller from 2002 to 2004. After the war, the highest number of graduates in the history of the university took place in 2006 when 1,100 students obtained degrees in various fields. (Interim Vice President for Academic Affairs, University of Liberia, February 14, 2007)

Resources for Faculty and Students

The Deputy Director of Administration at the National Commission for Higher Education, and administrative vice presidents and officials from academic affairs, student affairs, and finance agreed that, in addition to safety, resources to support the teaching and learning environment were critical aspects to student academic success. These important factors included classrooms, libraries, technology and internet services, textbooks, availability of quality food and safe water, transportation, and computers, among many other resources delineated by responders. Below are some quotes that speak to the preceding analysis. The first quote is from the Deputy Director of Administration at the National Commission for Higher Education.

During the war, public high school students performed less on the WACE than those from private or church high schools. After the war, public high school students continued to perform poorly in most cases because private and church high schools have better facilities. There are more trained teachers in government high schools but the facilities and salaries are poor, thus making government teachers to seek other jobs to subsidize their incomes at the expense of students.

(Deputy Director for Administration, National Commission for Higher Education, February 3, 2007)

Library was looted twice during the war but after the war, library acquisition is large with journals, computers, and reference books. The bookstore is operational. (Associate VP for Academic Affairs, Cuttington University, January 27, 2007)

During the war libraries were completely looted and professors had to make course packs for sale to students. After the war, books are gradually being donated from overseas. There is still shortage in library holdings. (Vice President for Graduate Education, University of Liberia, February 14, 2007)

The interim vice president for academic affairs at the University of Liberia stated:

During the war the library holdings were less than pre-war time. After the war, the medical school is expected to get an electronic library started in 2007. The main university library continues to receive tons of donations in textbooks, reference books, and few journals. The donated materials have not been stocked for use because the roof is leaking and shelves need replacement. The law school library is fully equipped with recent materials.

When asked about access to non-university libraries such as the United States Agency for International Development, libraries of other embassies and agencies, a quote from the Cuttington University respondent on access to USAID Library was not the same as the quotes from his counterparts at the University of Liberia.

No access during the war. After the war, only students and faculty of the graduate school have access to USAID and other libraries in Monrovia. The graduate school has its own library. The main campus is 120 miles away from these libraries. (Associate Vice President for Academic Affairs, Cuttington University, January 27, 2007)

Faculty and staff had access to these libraries only during time of cease fire during the war. After the war, the USAID library is open to the university and the public but university members must present identification. (Vice President for Graduate Education, University of Liberia, January 27, 2007)

USAID library was closed during war. After the war, USAID library is open to university members and plans are underway to electronically connect the new university library to U.S. Library of Congress, MIT Library, and Harvard University Libraries. The new university library will have a site to seat 50 faculty members and another to seat 150 students at the same time. The student bio data

will be loaded on the net. (Interim Vice President for Academic Affairs, University of Liberia, February 14, 2007)

The respondents from the both institutions had the following to say after they were questioned about the availability of resources and supplies for faculty and students:

None during the war. After the war, very limited microscopes, chemicals, and specimens are available. (Associate VP for Academic Affairs, Cuttington University, January 27, 2007)

Damaged by war during the war. After the war, few provisions being made including 25 microscopes for 200 students. Laboratory sections of courses not being done on schedule with courses and this makes students to stay longer in schools before they graduate. (Interim VP for Academic Affairs, University of Liberia, February 14, 2007)

Cafeteria non-operational during the war except 2001 to 2003. The food was less nutritious and cost students less. After the war, there is a trained dietician on staff. Students love the food and it costs them U.S. \$0.50 more than during the war 2001 to 2003. Cafeteria renovation completed 2006. (Acting Dean of Student Affairs, Cuttington University, January 27, 2007)

Cafeterias were damaged during the war. After the war, no more university owned cafeterias; the buildings were renovated and are being rented to different food vendors that provide food service at U.S. \$1.00 per meal to the university community. The food that the vendors provide is relatively good. (Dean of Student Affairs, University of Liberia, February 8, 2007)

Water and electricity systems destroyed during the war but after the war, these were restored and electricity is on 19 hours a day. Drinking wells are chlorinated for use. (Acting Dean of Students, Cuttington University, January 27, 2007)

Dormitories and faculty housing were destroyed during the war and electricity power lines destroyed as well. After the war, the university acquired a large generator to provide electricity to most offices. There are no dormitories or faculty housing after the war because the buildings have been converted to classrooms and office following renovation to accommodate very high student enrollment in the post-war era. Faculty housing allowance is factored in the recent faculty pay raises. (Dean of Student Affairs, University of Liberia, February 8, 2007)

Differences in perceptions of war impact between non-students at Cuttington University and those at the University. In other words, research question 4 focused on

quantitative and qualitative perceptual differences between faculty, staff, and administrators at University of Liberia and those at Cuttington University.

Research Question 4

Is there a difference between perceptions by faculty, staff, and administrators (non-student group) at a public institution, University of Liberia, and those at a private institution, Cuttington University?

The p -value .981 for differences in quality of teaching in Table 6 was greater than Bonferroni of .016 at alpha .05. This means that there are no statistically significant differences between non-students at the private Cuttington University and the public University of Liberia for war impacts on teaching quality during and after the civil war ended. The p -value $<.175$ for differences in student admission, retention, and graduation rates is greater than Bonferroni .016 at alpha .05. There were no significant differences between non-students at the two institutions for perception of war impacts on this combined variable. Similarly, there were no significant differences between non-students from Cuttington University and their counterparts at the University of Liberia in reference to perception of war impacts on resources for students and faculty ($p < .027$ value was greater than Bonferroni .016 at alpha .05). There were no significant differences between non-students at the University of Liberia and those at Cuttington University for governance ($p < .098$ value was greater than Bonferroni .016 at alpha .05).

When a two-tailed 95% confidence interval statistics was considered for quality of teaching, the mean score of 0.63 for non-students at Cuttington University was the same as the mean score of 0.63 for students at the University of Liberia between the lower

confidence interval limit of -0.233 and the upper confidence interval limit of -0.228 . Between the lower 95% confidence interval limit of -0.394 and the upper confidence interval of -0.073 , the mean score of 0.74 for non-students at Cuttington University was not significantly higher than the mean score of 0.58 for non-students at University of Liberia for the combined variable known as student admission, retention, and graduation rates.

Table 6

Independent Samples t Tests for Differences Between Non-Student Groups

Outcome	Private University			Public University			Dif (se)	<i>t</i>	2-tailed <i>p</i> -value	95% CI	
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>				LL	UL
Difference in teaching quality	42	0.63	0.56	60	0.63	0.59	-0.00	-0.02	.981	-0.234	-0.228
Difference in student admission, retention and graduation	42	0.74	0.57	60	0.58	0.60	-0.16	-1.30	.175	-0.394	-0.072
Difference in resources for students and faculty	42	0.94	0.61	59	0.68	0.56	-0.26	-2.90	.027	-0.498	-0.031
Differences in governance	42	0.38	0.52	61	0.55	0.47	-0.16	-1.67	.098	-0.031	-0.360

Note. CI = confidence interval, LL = lower limit, UL = upper limit.

* $p < .05$, two-tailed. ** $p < .01$, two-tailed. Bonferroni of .016 at alpha .05.

Differences in non-student perception of the availability of resources for faculty and students during and after the civil war at a two-tailed 95% confidence interval were

not significant, though non-students at Cuttington University reported a higher mean of 0.94 compared to a mean score of 0.68 for students at the University of Liberia between a lower confidence interval limit of -0.498 and upper confidence interval limit of -0.031 . At a two-tailed 95% confidence interval level of measurement, no statistically significant differences were observed for governance between the non-students at the University of Liberia with mean score of 0.55 and their counterparts at Cuttington University with mean score of 0.382 between the lower confidence interval limit of -0.031 and upper confidence interval limit of 0.361.

Qualitative Results on Differences Between Non-Student Groups at Cuttington University and the University of Liberia

Respondents from Cuttington University and the University of Liberia indicated the civil war and the unsafe atmosphere created undermined quality of teaching. From the interviews on quality of teaching, the two institutions' quality of teaching was undermined by the unsafe atmosphere brought on by the civil war. Cuttington, which is primarily located in the rural area, was forced to relocate the campus to other locations around the country. These changes resulted in losing faculty to exodus, war-related diseases, and one to direct battle death.

Though sources of financial support were disrupted by the civil war for both institutions, Cuttington respondents reported better salaries for faculty during and after the war than their counterparts at University of Liberia. Cuttington remained a member of international bodies, including the Association of African Universities, International Association of Universities, and American Association of Episcopal Universities, while

the University of Liberia was and is currently still limited to national affiliations.

Cuttington was able to have an in-exile program preparing faculty and increasing graduation rates pending cessation of war in Liberia and this created better quality teaching for Cuttington University than University of Liberia. Below are large quotes specific to above analyses. The first is a quote by Cuttington University's associate vice president of academic affairs.

During the war Cuttington operated in-exile in collaboration with universities and colleges in the U.S., England, and other countries where senior students were sent to complete their degrees. Cuttington again closed in 2002 due to ongoing war and suffered a large brain drain of faculty members.

After the war, there are more resident faculty members at Cuttington and more qualified faculty now than during the war. Undergraduate classes are meeting three times a week in the post war time and faculty have office hours to have one-on-one encounters with students. There are 24 faculty members with Ph.D. and 32 with master's degrees on both graduate and undergraduate faculty. There are 43 bachelor prepared TAs and 16 associate degree or post high school prepared TAs on the undergraduate faculty. (Associate Vice President for Academic Affairs, Cuttington University, January 27, 2007)

The University of Liberia officials commented on the same issues addressed by their Cuttington University counterparts.

During the war faculty members were not strongly prepared many of the good professors left the country causing massive brain drain. After the war, gradual improvement in the quality of the faculty is taking place as qualified faculty members are being attracted with better salaries and the new MBA program in the graduate school is a big attraction. (Vice President for Graduate Education, University of Liberia, February 14, 2007)

The quality of the faculty was poor during the war and those that taught were cautious in teaching students exposed to war and social problems. Only one Ph.D. faculty was in the university during the war with a number of master's prepared faculty and many bachelor degree holders. After the war, 15-20 former faculty members have returned from the U.S. and other countries on a part-time basis while working with other agencies. The UN Peacekeeping Force sent in 42 faculty volunteers in various disciplines but they need orientation in teaching at the university and often need teaching assistants to fill in for them when they do their

main jobs at the UN Many of these volunteers left after realizing they could not effectively teach college students. (Interim Vice President of Academic Affairs, University of Liberia: February 14, 2007)

Cuttington participants reported that most students were admitted to the university from private and church schools. Cuttington's location away from Monrovia reduced student riots and protests, thus increasing persistence and graduation rates than the University Liberia. Cuttington University and the University of Liberia both experienced losses of resources for faculty and students during the war. However, Cuttington's respondents reported a satisfactory start to recovery which was evidenced by the number of new infrastructures and renovations to existing facilities. In contrast, the University of Liberia had not renovated most of its structures following cessation of hostilities. Better financial sources resulted in Cuttington restoring electricity, water, housing for students and faculty, a working health center, computers, and a functional library. University of Liberia officials reported that 2004 ushered in the beginning stages of improvement.

The University of Liberia non-students reported the loss of a president, 15 faculty members, staff and administrators, coupled with frequent replacement of university presidents during and after the war negatively impacted the quality of governance at the University of Liberia. In comparison, Cuttington non-student group reported that Cuttington University enjoyed greater leadership stability which resulted in improved governance during and after the civil war. Whereas the University of Liberia had six presidents from 1992 to present time including Patrick Seyons, John Roberts, Frederick Gbegbe, James Kollie, Hansan Conteh, and now Emmet Dennis, Cuttington has only had two presidents including Melvin Mason from 1988 to 2002, and Henrique Tokpa from 2002 to present.

Turnover rates of leaders as revealed by the non-student group at the University of Liberia resulted in ineffective governance. Interestingly, respondents from both universities were even on the impacts that the enrollment and employment of former rebels and soldiers have had on their institutions. The following comments demonstrate the impacts of former rebels becoming students, faculty, staff, or administrators.

No data available for during the war. After the war, there was lot of fear in the beginning but lesser problems from former fighters have reduced fear level for the faculty, staff, and students. The campus is more peaceful at this time. (Vice President for Administration, Cuttington University, January 27, 2007).

During the war a lot of fear among members of the campus community as people boasted of their rebel and army affiliations to those who were not. After the war, people have accepted them and they have caused no harm to others. (Administrative Assistant to VP Administration, University of Liberia, February 8, 2007)

War time data not available. After the war, one former commander in chief of a rebel organization is a faculty member but he has no problems. There may be other faculty and staff members not known. All 36 members of the campus security force are former rebel fighters; a policy implemented to redirect their skills to productive activity. (Vice President for Administration, Cuttington University, January 27, 2007).

Several served during the war including a university president Dr. John Roberts, who was previously a rebel commander under Charles Taylor's Patriotic Front of Liberia rebel faction. He was appointed president of the university when Taylor became president of Liberia. After the war, a former rebel commander Alahaji Kromah is currently teaching journalism in the undergraduate school and he also teaches in the graduate school at the Ibrahim Babangida International Studies program. A former female rebel known as Wade Koluba Wreh also teaches journalism. (Administrative Assistant to VP Administration, University of Liberia, February 8, 2007)

Data not available for war time. After the war, about 250 students or more admitted through the DDRRP (Disarmament, Demobilization, Rehabilitation, and Reintegration Program) and their tuition is paid by the UN Development Project (UNDP). In addition, 50% of all students may have been rebels but the admission forms do not provide for any rebel identification. (Vice President for Administration, Cuttington University, January 27, 2007)

During the war a whole lot of them were enrolled. After the war, many are enrolled through the UN program called Disarmament, Demobilization, Rehabilitation, Reintegration program. Others are here on their own to gain higher education. (Administrative Assistant to VP Administration, University of Liberia, February 8, 2007)

The next section of this chapter summarizes results of documentary document reviews and the investigator's field observations.

Findings from Review Documents Related to the Civil War

During the interviews with university officials, supporting documents were presented to this study. Reporting the findings from these documents will provide clarity to the qualitative and quantitative data on teaching quality; student admission, retention, and graduation rates; resources for faculty and students; and governance.

University of Liberia

The document titled "Global Objectives of the University in the Medium and Long-terms" was obtained and reviewed. This report outlined steps for post-war recovery of the institution revealing specific immediate rebuilding targets to be accomplished from August 2004 to October 2005. The document revealed the University of Liberia would (a) have completed renovation of its main and extended campuses; (b) started voluntary repatriation of university faculty and staff abroad in other countries; (c) conducted workshops and programs to rehabilitate faculty, staff, and students from the trauma of the civil war; (d) enhanced security on all campuses; (e) published the university catalog and formulated an accelerated program in conjunction with the council and faculty senate to increase graduation rates for war related overdue students; and (f) instituted steps to

strengthen post-war teaching and research. The main campus library should have been rebuilt and furnished with needed holdings for all departments. Payment of salary in arrears and a comprehensive health insurance plan for faculty, staff, and administration also should have been accomplished during this period.

Conclusions were established through onsite observations in Liberia, conversations with government officials, and the analysis of a variety of documents. It was observed that the Medical College and most of the buildings on the main campus had been completely renovated except for the university health center and a few others. The Law School library has current material using the year of publication of the books and other periodicals, and legal documents. The main university library remained in its pre-war location and is not yet renovated. Shelves were old and most empty, with boxes of books donated not cataloged or easily accessible to students. The ceilings are stained with leakage points.

There was electricity in all the buildings the researcher entered, but no running water in the bathrooms that she used during data collection (February 3 to March 2, 2007). The faculty senate and university council were functional. The conference room was air conditioned and had appropriate furnishing. Campus security was present on campus. Members of the security force indicated their work conditions had improved with the furnishing of logistical support and cars to increase their operational capacity and campus visibility. The computer center and the campus Internet café were filled with users. Classrooms had ample chairs and buses were clean and generally in good condition. Finally, there was a trimester system in place in most of the colleges to increase graduation rates. Students the researcher spoke with said they love it, but most of

the faculty spoken to have not yet subscribed to the idea, though they are working with administration to implement it.

Medium objectives were established for rebuilding and renovation November 2005 to August 2007. Changes included launching of the university information technology and Internet system, reopening of the university bookstore, relocation of some programs back to Fendell campus, and reorganizing existing programs based on internal and external evaluations. Over 4,500 students in the College of Agriculture and the Science College had been relocated to their pre-war site at Fendell. The road leading to Fendell was in good shape, but laboratories lack needed equipment, chemicals, and specimens. The university bookstore had not yet opened, but as of May 2007, the university had received a U.S. \$2.5 million information technology center with 250 computers on the main campus. It was funded by the World Bank and the International Finance Corporation (IFC). The American Internet giant CISCO provided the hardware that is used by over 12,000 students.

Long-term objectives September 2007 to December 2011 included completing relocation of all undergraduate programs to Fendell by 2011, securing a stable supply of equipment and chemicals for the science college, and the establishment of a poly laboratory for the Medical College. The University of Liberia planned to recruit and tenure eminent scholars in education, medicine, agriculture, engineering, life sciences, geology, environmental science, and conflict resolution by 2011. University of Liberia officials also planned by 2011 to establish partnerships for visiting faculty/scholars, administrative experts, and student exchange programs between University of Liberia and universities in Africa, United States, and Europe. University President Al Hasan Conteh

revealed the Chinese government planned to build a new campus at Fendell for undergraduate programs by 2011. This new campus has actually been constructed; the researcher visited Fendell January 2010 and saw multiple tall buildings almost completed. Dr. Conteh also stated that a University of Liberia's capital campaign is ongoing to set up a U.S. \$25 million endowment (Al Hasan Conteh, personal communication, March 2, 2007).

During the observations done from February 3 to March 2, 2007, precise student enrollment at the University of Liberia was difficult to obtain. The president and vice president of academic affairs stated there were approximately 15,000 students, while the registrar and dean of student affairs speculated enrollment as around 17,000 students. The registrar was unable to provide roster of all students, claiming that colleges and schools had not all submitted students registered in their programs at the time of data collection. Graduation rates increased with the new trimester system in place. In 2006, the university graduated the highest number of students since its founding in 1951 with 1,100 students from all programs completing their degrees.

Cuttington University

The mission of Cuttington University includes teaching, research, and service to the community. Following the war, Cuttington conducted a self-study of previous academic years and cited a number of achievements that included an increase in both graduate and undergraduate enrollment, increase in graduation rates, the development of new academic programs, the creation of the Centre for Continuing Education and subsequent enrollment of students in a range of continuing and distance education

programs, and the chartering of the university college into a full-fledged university in 2005.

Cuttington University developed a post-war recovery plan titled the Cuttington University Strategic Development Plan that covered the time frame 2007 to 2017. To implement the plan, Cuttington contracted with external management and architectural firms. The board of trustees approved objectives included self-sustainability, social justice, economic independence, and sustained development. Goals included educating for employment, expanding educational opportunities, establishment of community colleges in response to the post-war challenges in Liberia, and improving educational efficiency. Methods Cuttington planned to use to meet goals consisted of strengthening links, meeting manpower needs, developing postgraduate programs, establishing regional centers of excellence, expanding the university around the country, building local research capacity, educating students in Liberia, narrowing gender gap, strengthening tertiary education in Liberia, developing affiliation structures, developing a management information system, restructuring the university administration, and improving cost effectiveness.

Cuttington also proposed increasing faculty research capacity to generate funds, increasing collaboration with the National Commission of Higher Education, strengthening links with industries to increase employment for graduates, encouraging entrepreneurial skills among graduates, introducing sound financial management system based on accountability and transparency, developing the university into an effective research and information centre through increased use of information technology, and increasing its library holdings and services. A Cuttington University Foundation to

generate donations and an alumni office was in the process of being created to reduce its reliance on tuition fees with the eventual possibility of privatizing operation in the future. The 2007-2017 post-war recovery plan states that Cuttington needs at least 30% of its faculty to be international scholars and reputable medical training universities were being sought to transfer Cuttington future premedical graduates to study outside of Liberia.

In terms of building and environmental conditions, there was electricity in most classrooms. The main campus cafeteria was completely renovated and functioning. The bookstore reopened 2007. The Agape Clinic was staffed with nurses and operational to serve faculty and students. There was also a Cuttington Community College serving students in Kakata Margibi County. Dormitories and faculty housing were renovated and occupied. New dormitories and faculty apartments were constructed on the main campus. However, other objectives, including a credit union for Cuttington family, construction of stores to generate money, a fire prevention plan, an electronic data processing system for the registrar's office, and the development of a laundry mart have not yet been established.

Cuttington University's annual report generated by the registrar's office was reviewed. According to the report, the graduation class of 2004 consisted of 104 undergraduate students and no graduate students. The nursing department has consistently had the highest enrollment rate of about 40% of the entire undergraduate student body. Data from the registrar's office were not comprehensive and other sources were explored. According to Episcopallife Online (2007), Cuttington graduated 178 undergraduate students and 103 graduate students during its 46th commencement convocation on July 29, 2007.

Chapter Summary

This chapter has presented the quantitative survey and qualitative semi-structured multiple case study results from interviews university and government officials. Other sources used to supplement the data included review of government and university documents and reports, and observations that occurred during multiple visits to both the University of Liberia and Cuttington University. Data obtained through these sources provide a snapshot of changes and improvements that have occurred in the post-war Liberia. Though the amount of progress differs at Cuttington University and University of Liberia, plans had been established and steps taken to rebuild both institutions. Conclusions and recommendations are delineated in Chapter V.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The focus of the dissertation was to measure the impacts of the Liberian civil war on the University of Liberia and Cuttington University during and after the war.

According to Morgan, Reichert, and Harrison (2002), Locke et al. (2000), and Rudestam and Newton (2001), data are meaningless if they are not understandable to the readers. This chapter includes a discussion of data under each of the four research questions.

Recommendations to enhance higher education and recommendations for further study are presented. Limitations are presented in separate sections. The final section includes a chapter summary and concluding statement.

Research Question 1

How do students at higher education institutions perceive (a) the quality of teaching; (b) student admission, retention, and graduation rates; and (c) student resources during the 14-year civil war compared to the time after the civil war (2003-2007)?

Results revealed more negative impacts during the war than after the war. Improvements in the quality of teaching; student admission, retention, and graduation rates; and student resources were observed following the war. The lack of safety during the war led to an exodus of university faculty, movement of populations around the country, damage to physical structures, and diversion of finances away from education.

The war disrupted all aspects of the national economy. Higher education was impacted because of the flight and relocation of many professors that resulted from violence and the inability of institutions to educate large numbers of students.

The study chronicled the reports by experts including journalists, diplomats, peace-keeping agencies, foreign bodies, and well-meaning Liberians in literature on the devastating impacts of the Liberian civil war on the national economic infrastructures. The study relied on the opinions of experts on war impacts on the University of Liberia and Cuttington University to design instruments for data collection. Seyon (1997, 2003) and Mason et al. (1993) lamented the mass exodus of senior faculty members from both institutions, the loss of university members, and the destruction of infrastructures. The associate vice president for academic affairs at Cuttington University (personal communication, January 26, 2007) stated:

Cuttington again closed in 2002 due to ongoing war and suffered a large brain drain of faculty members. After the war, there are more resident faculty members at Cuttington and more qualified faculty now than during the war. Undergraduate classes are meeting three times a week in the post-war time and faculty members have office hours to have one on one encounter with students.

Collier et al. (2003) reported the greatest social impacts of civil wars are human fatalities. The economic impacts are destruction of physical infrastructures and economic sources, while health and psychological impacts include increase rates of infectious diseases and mental illness both during and after war. Representatives from both institutions studied noted the losses of faculty, staff, and students, damage to infrastructure, and substance and drug abuse by students, as psychological issues from the hostilities.

The quality of the faculty was diminished during the war and those that taught were cautious in teaching students exposed to war and social problems. . . . Marijuana abuse was very high during the war and 45% alcohol abuse. After the war, only 5% or less marijuana abusers and 15-20% alcohol abusers have been noted. (Interim Vice President of Academic Affairs, University of Liberia, February 14, 2007)

Clearly, without a conclusion to the civil war, mental health issues among young Liberians would have further curtailed the possibility of human capital development.

Education has the potential in post-conflict situations to restore a sense of order (UNESCO, 2000). According to Bloom et al. (2006), the United Nations claimed that global economic development and security are contingent on the development of human resources at higher education institutions and this is critical more so for Africa. Harbinson and Myers (1964) argued that any nation unable to develop its human resources cannot build anything, let alone a modern political system, national unity, or a prosperous economy.

Liberia's effective global economy is contingent on highly trained professionals, but Liberia is disadvantaged due to a war that negatively disrupted the K-12 and higher education systems and resulted in the inability of Liberia to sustain its human resource demands. Fobanjong (2006) reported that even after the civil ended, Liberia has more natural resources than human capital. Post-war era Liberian schools and universities are gradually improving in a number of areas as the universities rapidly prepare students to fill vacancies in government and the private sectors. Rebuilding higher education institutions was also a daunting process in the post-American civil war, according to Blake (1963), but the evidence shows it is achievable with targeted and sustained effort.

Chen et al. (2008) reported that investment in higher education following the civil war resulted in economic development and growth in nation's GDP.

In Liberia, excessive spending on military during the war years is now being diverted to economic development. Both the University of Liberia and Cuttington have developed graduate and undergraduate programs, with both institutions training the staff and professionals needed in the reconstruction process. Cuttington University established a graduate school that offers master's degrees in public health, higher educational administration, curriculum and instruction, business management and accounting, a master's in divinity, master's of business administration, and other disciplines to help reduce the shortage of healthcare workers, bankers, college faculty, and administrators.

From the researcher's personal experiences, two of her nephews secured graduate education and both have obtained their master's in higher educational administration at Cuttington, with one of the nephews being promoted as chair of his department at one of the newer Liberian universities following his graduation. Many other Liberians in the post-war era are earning graduate degrees and they are replacing foreign experts in rebuilding Liberia. At the University of Liberia, many are earning their MBA, master's degrees in regional planning, higher educational leadership, international studies, and other disciplines, and many are faculty members and administrators at the newer universities that offer only undergraduate degrees at this time. The University of Liberia also continues to expand its graduate programs to provide personnel for the Liberian labor market. The aforementioned findings from the qualitative data and real-life stories all demonstrate improvements in post-war Liberia, with gradual economic improvement and an increase in the standard of living.

Research Question 2

Is there a difference between student perceptions at a public institution, University of Liberia, and those at a private institution, Cuttington University?

Cuttington University students reported higher quality of teaching by their faculty during and after the civil than their counterparts at the University of Liberia. Cuttington University, as a private sectarian institution, has diversified funding sources in addition to charging higher tuition than the University of Liberia. This financial advantage enabled Cuttington to attract and pay better salaries for faculty than University of Liberia, where limited financial resources to attract and retain faculty and staff was problematic even after the conclusion of the civil war. Cuttington students also reported superior resources during and after the civil war than their University of Liberia counterparts.

A stronger financial solidity for Cuttington University was clearly evident. Cuttington was able to restore electricity, water, library, dormitories, faculty housing, faculty offices, and many other resources before the University of Liberia, which had not yet renovated all of its buildings or restored all pre-war services. Since the conclusion of war, the University of Liberia has spent 20% of its operational budget on building renovations. These findings support what Mason (2001) and Committee for Third Cuttington (1997) reported about the strengths of Cuttington in establishing an in-exile program for its students and junior faculty. There was also a plan for its senior nursing and education students to complete degrees at the University of Liberia.

Cuttington had many different sources of funding, including tuition and fees absorbed by students and their sponsors before, during, and after the civil war. This

fundamental difference provided Cuttington a financial advantage that allowed the university to offer faculty and staff better salaries than any other higher education institution in Liberia. Cuttington faculty and staff salaries were paid without interruption from 1998 to 2002 and from late 2003 to the present. In fact, Cuttington raised faculty salaries in 1999 and again by 10% from October to November of 2006. The salary range was \$250 to \$900 a month. At the time of the study, the operational budget at Cuttington was unavailable and participants did not have knowledge of the overall budget. It was surmised that participants were reluctant to share budgetary data because they were not authorized to do so. This paranoia and reluctance to share was one of the results of post-war Liberia.

The study recommends that, due to this war-tested financial advantage, Cuttington should consider incorporating a law school, a medical college, and engineering, science and technology into its curriculum to provide more Liberians the opportunity for training skill development that would contribute to national reconstruction. Only the University of Liberia has a law school, medical college, and engineering, science, and technology, but it is often closed, thus making the path to graduation of professionals from these schools longer. Cuttington University has higher graduation rates, and adding these programs to its curriculum will quadruple the number of lawyers, doctors, engineers, and scientists Liberia needs in the post-war reconstruction.

The University of Liberia at the time of data collection was using Tubman High School and G. W. Gibson High School campuses for instruction and, in exchange, the university is offering scholarships for high school teachers to attend the university. It was observed the University of Liberia was constructing a new extensive university campus to

house the undergraduate school in 2011. This is interesting, because the University of Liberia by charter is dependent on the Liberian government for 60% of its funding with less emphasis on reasonable tuition collection. This represents a major change, as the dependency on the national government for funding of its major activities resulted in faculty working for months during the war without compensation as government leaders did not place high priority on higher education during the civil war. Until July 2006, faculty members at the University of Liberia were paid \$15 to \$30 a month. To economically survive, many faculty members took positions in private and public sectors, while at the same time continuing to teach. In July 2006, the Johnson Sirleaf administration increased faculty salaries by 225% and paid back some of the salaries not paid during the civil war.

Following the war, scholarships from government ministries, agencies, corporations, churches, social and civic organizations, the Islamic Society, and private local foundations helped to strengthen the financial status of the university. The only other major source of funding for the University of Liberia is a yearly lease payment of \$100,000 by the U.S. Embassy's use of its Grey Stone Park that is owned by the university. Small amounts of revenue are also raised from rental fees collected from vendors that currently rent the auditorium and cafeterias. The 2005-2006 operational budget for the University of Liberia was \$2.9 million for 12,500 students, faculty, staff, and purchases. The government of President Johnson Sirleaf paid 60% of this budget as required. According to the comptroller, approximately \$20,416 of the operational budget was allocated for faculty research in 2007.

Students from both institutions did not differ in their perceptions of the variable that measured student enrollment, retention, and graduation rates. College students did not typically understand enrollment, retention, or graduation rates, as their concerns focused on teaching quality and resources available to help them succeed in classes. The findings of this study helped to eliminate some of the absence of information. However, understanding war impacts on higher education institutions by insurgent organizations is an ongoing challenge, as educators and leaders balance the rebuilding of physical infrastructures and address the psychological remnants of war, while at the same time attempting to educate students and simultaneously conducting research. This is truly a daunting task.

Research Question 3

How do faculty, staff, and administrators (non-student group) perceive (a) the quality of teaching; (b) student admission, retention, and graduation; (c) student resources; (d) and governance during the 14-year civil war compared to the time after the civil war (2003-2007)?

Non-students, like the students in the study, reported more negative impacts during the war time than after the war. The lack of safety during the war led to an exodus of university faculty, movement of populations around the country, damage to physical structures, and diversion of finances away from education. Both institutions experienced this phenomenon. Teaching quality; student admission, retention, and graduation rates; and allocation of resources for students were disrupted by the war. The main objective

during the civil war was survival, not higher education. Both institutions suffered losses in the faculty ranks. This is supported by the following quotation.

High school students' performance on the WACE was very poor during the war and the students were poorly prepared for college education because most of the high schools were destroyed and the few that remained had poor facilities. Things are gradually improving since the war ended; many are passing the WACE and college entrance examinations. (Deputy Director of Administration, National Commission for Higher Education in Liberia, February 3, 2007)

Senior officials at University of Liberia and Cuttington University, and the deputy director for administration at the National Commission for Higher Education in Liberia, emphasized the negative impacts of the civil war on university governance; quality of teaching; quality of programs in medicine, science, and technology, among others; student admission, retention, and graduation rates; and resources, as well as the loss of human capital. The study also has demonstrated that governance for the University of Liberia was severely affected during the war following the death of Dr. Steven Yekeson in the war. Stability in university governance at the University of Liberia continues to improve. Since the end of the war in 2003, the university has had two presidents, whereas the university had 5-6 presidents from 1992 to 2003. Cuttington maintained a stable leadership structure throughout the war to the present when governance was analyzed.

Research Question 4

Is there a difference between faculty, staff, and administrator perceptions at a public institution such as the University of Liberia and those at a private institution such as Cuttington University?

Non-students at both Cuttington and the University of Liberia did not differ in their perception that the active civil war had adverse consequences on all aspects of operating higher education at both institutions. Both universities faced the task of re-establishing governance structures, improving teaching quality, rebuilding physical structures, and providing resources for teaching and learning.

Other Recommendations for Further Study

Though the study has added significant knowledge to literature, it recommends the following areas for further research with rationales. Further study is needed to repeat the methods using a four-way balanced sample, because the sample for the study was not balanced across groups: 213 students, 42 staff, 37 faculty, and 24 administrators. Using a balanced four-way grouping may generate different results to strengthen our understanding of data in this new area. The study might also focus on other Liberian higher education institutions and compare findings to this investigation. Civil wars are very complex. Additional research on the impacts of education in rebuilding a country's physical and economic infrastructure is also needed. It would be interesting to examine the impacts of assimilation of the former combatants into the general population and their short- and long-term influence on higher education institutions and the greater Liberian society.

Limitations

This study was limited to the two oldest higher education institutions that were analyzed along with National Commission of Higher Education from the Ministry of

Education, the national documents reviewed, and field observations made during data collection. Some associations to newer Liberian higher education institutions are made because subjects were randomly selected from all cultural backgrounds of Liberia and from the comprehensiveness of results obtained, given that the institutions studied currently enroll 90% of all higher education students in the country. The findings cannot be generalized to other nations because the study was based on the Liberian context and its method is a non-experimental quantitative and case study mixed methodology. The absence of random assignment of subjects to groups and the absence of manipulation of the dependent variables, in this case, the civil war through all its various facets, will preclude the generalization of the study's findings. The study, though robust, is the first of its kind and further study is needed to enhance knowledge in this area.

Conclusion of the Study

The passion I had for the topic, the love of my country Liberia, and the desire to contribute to literature on Liberian higher education in a way that has never been done, along with the help of God through Jesus, made the completion of the study a reality. The study was partially sponsored by Western Michigan University Graduate College Research Travel Fund and largely paid for out-of-pocket by the researcher.

Through the literature reviewed on the study, it was found that a large knowledge gap on the impacts of the 14-year civil war (1989-2003) on higher education institutions in Liberia existed. There was little written about the impacts of the civil war on higher education, although numerous opinions and observational data were available from a variety of resources. The study analyzed the impacts of the war on the University of

Liberia, which is public, and private sectarian Cuttington University, which are the two oldest higher education institutions. The study revealed the 14-year (1989-2003) civil war severely impacted higher education institutions in governance, quality of teaching, student issues, and resources for faculty and students. The study also revealed the critical part that education plays in a country's economic growth during and following war. Government leaders are encouraged to connect education with the rebuilding of the country's infrastructure.

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Appendix A

**Human Subjects Institutional Review Board
Letter of Approval**

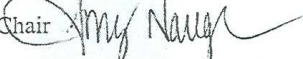
WESTERN MICHIGAN UNIVERSITY



Human Subjects Institutional Review Board

Date: December 22, 2006

To: Lewis Pyenson, Principal Investigator
Manjerngie Ndebe-Ngovo, Student Investigator for dissertation

From: Amy Naugle, Ph.D., Chair 

Re: HSIRB Project Number: 06-09-23

This letter will serve as confirmation that your research project entitled "The Perceived Impacts of the 14-Year Civil War on Higher Education in Liberia, An Analysis of the University of Liberia and Cuttington University" has been **approved** under the **full** category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note that you may **only** conduct this research exactly in the form it was approved. You must seek specific board approval for any changes in this project. You must also seek reapproval if the project extends beyond the termination date noted below. In addition if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: October 27, 2007

Appendix B

**Letters of Approval from the Presidents of Cuttington University
and the University of Liberia**

CUTTINGTON UNIVERSITY

SUAKOKO, BONG COUNTY
P. O. BOX 10-0277
1000 MONROVIA 10, LIBERIA
WEST AFRICA

OFFICE OF THE PRESIDENT

Cuttingtonuniversity@yahoo.com

www.cuttington.org
September 14, 2006

Email:

Website:

Manjerngie C. Ndebe-Ngovo, MS, RN, FNP-C
7192 Crown Pointe Circle
Portage, MI 49024

Dear Scholar Ndebe-Ngoro:

Greetings from Liberia. Please be advised that the committee or Academic Affairs reviewed and approved your request to conduct research with human subjects or Cuttington's Campus. The approval is based upon your conceptualization that you will use a "quantitative survey of 132 questions with the first ten questions or demographics and the remaining 122 needing two multiple choice answers each." Additionally, you are expected to carry out the survey in a hall or classroom with 60-125 Cuttington subjects, including administrators, faculty members, staff members of all types, and students at all levels randomly selected.

We are pleased to accord you the opportunity to come to Cuttington, we look forward to your arrival and we are sure your work will aid in the development of Liberia. Should you have additional concerns, please contact Dr. James Mock, Vice President for Academic Affairs, at chewwehc@yahoo.com

Best wishes

Henrique F. Tokpa, Ph.D.
President
Cuttington University

Office of the President
University of Liberia
Capitol Hill
P.O. Box 9020
Monrovia, Liberia

September 22, 2006

Dear Ms Ndebe-Ngovo:

I am very pleased to inform you of my approval of your field visit to conduct your dissertation research at the University of Liberia in November 2006.

I understand your dissertation topic is “The Impacts of the 14-Year (1989-2003) Civil War on Higher Education in Liberia: An Analysis of the University of Liberia and Cuttington University.”

Please send me your updated C.V. and approved dissertation proposal as soon as possible.

Mr. Martin Scott-tabi, the University of Liberia’s Director of International Partnership, will coordinate your visit and assist you with your survey and other logistical aspects of your visit. He can be reached at 011-231-6-842718, and by email at <tmartscott@yahoo.com>.

It would helpful if you could send me your Itinerary at your earliest convenience.

I have mailed you a hard copy of this letter on my letter head.

Please feel free to contact me if you need further assistance or information ahead of your trip.

I look forward to welcoming you to campus in November.

With kind regards,

Al- Hassan Conteh
President, University of Liberia

Appendix C

**Consents for Quantitative and Semi-Structured Interviews
and Subject Recruitment Script**

WESTERN MICHIGAN UNIVERSITY**Consent for Quantitative Survey****Principal Investigator:** Dr. Lewis Pyenson, PhD, FRSC (Academy II)

Member of Correspondant, Academie Interntionale d'histoire des Sciences (Paris)

Dean of the Graduate College

Professor of History

Western Michigan University

1903 Western Michigan Avenue

Kalamazoo, MI 49008-5242

Telephone 269 387 8202 **Fax** 269 387 8232**Email:** lewis.pyenson@wmich.edu**Doctoral Student Researcher:** Manjerngie Cecelia Ndebe-Ngovo, MS, RN, FNP-C**Dissertation Title:** The Perceived Impacts of the 14-Year (1989-2003) Civil War on

Higher Education in Liberia: An Analysis of the Case for University of Liberia and

Cuttington University

Quantitative Survey Questionnaire

January-March 2007

WMU Chair, Human Subjects Institutional Review Board: 269 387 8293**WMU Vice President for Research:** 269 387 8298

WESTERN MICHIGAN UNIVERSITY

Consent to Participate in the Survey

Dear Prospective Participant:

You are invited to freely participate in this research study. For your participation, you will receive a gift of US\$5.00, a pen and a pencil. The **purpose** of the research is to study the **perceptions or the thinking** of Liberians such as university administrators, faculty, staff, and students about the impacts the 14-year civil war from 1989 to 2003 and then from 2003 to the present time, on leadership, funding, physical infrastructure, faculty, students, and resources for students and faculty at the University of Liberia and Cuttington University. **Only Liberians** who were in Liberia during the civil war as non-displaced persons, displaced persons, combatants, government soldiers, or those who ran away to other African countries after the civil war started are eligible to take part in this study. This study is for Manjerngie Ndebe-Ngovo's dissertation. You may refuse to participate or quit at any time during the study without prejudice or penalty.

The **benefit** of this research to you is that, in addition to the US \$5.00 gift that you get by participating today, your institution will be analyzed and the recommendations that may come from the study may lead to good policies. These policies may improve university education, university teaching, university governance, university financial sources, university resources, and also improve working conditions at a university. You are helping to advance knowledge about your university and your country Liberia through research. In addition, you may be able to use the results of this study to guide you in conducting your own research study in the future or in making decisions as a leader now or in the future. The more Liberians do research on Liberia and write about their findings, the more knowledge and development will be available to advance Liberia economically and technologically.

Taking part in this study **may be painful** in that you have to think, and remember some of the bad things that happened to people, buildings, facilities, and other things at your university during the civil war in order to answer the questions. You may also **feel sad** because of the bad things that happened to yourself during the civil war as you take part. You may seek help for any emotional pain experienced during the survey from your own spiritual leaders or from professional organizations such as the Catholic Relief Services, the Lutheran World Service, the National Interfaith Council, and The Women's Commission for Refugee Women and Children among other NGOs that cater to post traumatic stress problems. If you choose to take part, it will be kept confidential or private unless you tell other people that you took part in the study. If you decide to take part, you are free to stop answering the questions and leave at any time you decide and nothing will happen to you. If you decide to answer the questions after reading this consent/agreement sheet, and you turn in your survey, you are agreeing to take part in the study. **The survey has 158 questions and it will take about one and the half hours to two hours to complete.**

This consent document has been approved for use for one year by the Human Subjects Institutional Review Board (HSIRB) as indicated by the stamped date and signature of the board chair in the upper right hand corner. If you have any questions or

need help during the survey, you can ask me or my assistant Joel T. Bimba. If you notice anything bad about the study that you don't like, or about how I am conducting it, please contact my chair Dean Lewis Pyenson immediately either through her telephone number, fax number, address, or email provided for you on the cover sheet of this consent form. You may also contact the human subjects review board chair or the vice president for research at their telephone numbers provided on the covered sheet of this consent. Keep the cover sheet for yourself. Thank you so much for completely answering this survey; I wish you all the best of luck in what ever role you are in here at your university.

WESTERN MICHIGAN UNIVERSITY

Consent for Semi-Structured Interview Protocols

Principal Investigator: Dr. Lewis Pyenson, PhD, FRSC (Academy II)

Member of Correspondant, Academie Interntionale d'histoire des Sciences (Paris)

Dean of the Graduate College

Professor of History

Western Michigan University

1903 Western Michigan Avenue

Kalamazoo, MI 49008-5242

Telephone 269 387 8202 **Fax** 269 387 8232

Email: lewis.pyenson@wmich.edu

Doctoral Student Researcher: Manjerngie Cecelia Ndebe-Ngovo, MS, RN, FNP-C

Dissertation Title: The Perceived Impacts of the 14-Year Civil (1989-2003) War on

Higher Education in Liberia: An Analysis of the Case for University of Liberia and

Cuttington University

Semi-Structured Interview Protocols

January-March 2007

WMU Chair, Human Subjects Institutional Review Board: 269 387 8293

WMU Vice President for Research: 269 387 8298

WESTERN MICHIGAN UNIVERSITY

Consent to Participate in the Semi-Structured Interviews

Dear Prospective Participant:

You are kindly invited to participate freely in this study. This study is for Manjerngie Ndebe-Ngovo's dissertation. The study is interested in doing individual case studies with administrators of the University of Liberia, Cuttington University, and a designee of the Ministry of Education so they can shed more light on the research problem in a way that is not attainable through the survey instrument. These case studies are intended to bolster the study more comprehensively.

The **purpose** of the research is to study the **perceptions or the thinking** of Liberians such as university administrators, faculty, staff, and students about the impacts the 14-year civil war from 1989 to 2003 and then from 2003 to the present time, on leadership, funding, physical infrastructure, faculty, students, and resources for students and faculty at the University of Liberia and Cuttington University. **Only Liberians** who were in Liberia during the civil war as non-displaced persons, displaced persons, combatants, government soldiers, or those who ran away to other African countries after the civil started, are eligible to take part in this study. You may refuse to participate or quit at any time during the study without prejudice or penalty.

If you agree to participate, please make time available to meet with me twice for about an hour each to explore information associated to your office that may relevant for certain areas of the research. Your answers during the two session interview will elucidate the understanding of events relating to higher education in Liberia during the past fourteen years of civil war and since the war ended in 2003 to present time. The **benefits** of participating in the individual interviews include the following. As a leader, you may personally be contributing needed information that may impact policy development and implementation on Liberian higher education. Your insight may expand relevant research knowledge and publication on Liberia. The study will make available a hard copy of the dissertation upon completion of data analysis to your institution and the Ministry of Education. You may be able to use its findings with proper citation in presentations on higher education in Liberia and to develop better higher education policies for your university. Please feel free to provide any written material that may be complementary to your answers during the questions.

The **risks of participating** include the following. It may be **uncomfortable** for you to talk with a researcher twice for about an hour each because of time constraints related to your job. It may also be frustrating to recall events or to find relevant documents in order to respond to the questions. You may at times feel skeptical to disclose relevant information needed by this study. You are free to answer all questions or some as you desire; though thorough factual answers would highly be appreciated. Your current leadership role is publicly known; to protect you, this researcher will mask your identity and position in data analysis and discussion unless you specifically request that I mention title or name. You will also be allowed to make a choice about which of your statements during the interview should be part of the data analysis and which ones are to be precluded. In addition, you can withdraw at any time from the case study

interview without fear of repercussions. This written consent will be kept separate from the answers you will give. You may seek help for any emotional pain experienced during the interviews from your own spiritual leaders or from professional organizations such as the Catholic Relief Services, the Lutheran World Service, the National Interfaith Council, or The Women's Commission for Refugee Women and Children among other NGOs that cater to post traumatic stress problems.

If you agree to participate in the case study interview, please print your name, sign your name, your title, and institutional affiliation. If you are representing the Ministry of Education, indicate that under affiliation. I wish to express my gratitude to you for considering participation in this research case study. This consent document has been approved for use for one year by the Western Michigan University Human Subjects Institutional Review Board (HSIRB) as indicated by the stamped date and signature of the board chair in the upper right hand corner. If you notice anything improper about the study or about how I am conducting it, please contact my chair Dean Lewis Pyenson immediately either through her telephone number, fax number, address, or email provided for you on the cover sheet of this consent form. You may also contact the human subjects review board chair or the vice president for research at their telephone numbers provided on the covered sheet of this consent. Please keep the cover sheet for yourself.

Participant's Printed Name _____

Participant's Signature _____

Participant's Title _____

Participant's Affiliation _____

Contact Persons:

Principal Investigator: Dean Lewis Pyenson, PhD, FRSC (Academy II)

Doctoral Student Researcher: Manjerngie Cecelia Ndebe-Ngovo, MS, RN, FNP-C

WESTERN MICHIGAN UNIVERSITY
Script for Subject Recruitment

Hello Sir/Madam _____ . My name is _____ . Your name was randomly chosen as a potential participant for a survey research scheduled to take place on your university campus on the following two different days from 8 AM to 5 PM each.

- _____
- _____

I am kindly asking you to come over on one of the days at _____ hall/classroom to learn about the study. If you come and you agree to take part in the study after reading the consent/agreement information, you will get US\$5.00, a pen, and a pencil for participation. Thank you for giving me the time to contact about this study and I look forward to seeing soon.

Appendix D

Crosswalk Table on Four Research Questions and the Quantitative and Qualitative Responses Used to Address Them

		Quantitative Survey Questions used to answer this Research Question	Qualitative Interview Questions that further answer this Research Question
1	How do students in higher education institutions perceive (a) the quality of teaching, (b) student admission, retention, and graduation, and (c) student resources during the 14 year civil war compared to the end of the war (2003 to 2007)?	<p>(a) Quality of teaching: Difference between ProfessorIssueA (P1A-20A) and ProfessorIssueB (P1B-20B)</p> <hr/> <p>(b) Student admission, retention, and graduation: Difference between SsubQualEnrollA (S1A, S4A, S8A, S9A, S10A, & S11A) and SsubQualEnrollB (S1B, S4B, S8B, S9B, S10B, S11B), difference between SsubIntEfficiencyA (S12A, S13A, S14A, S15, S16A, & S17A) and SsubIntEfficiencyB (S12B, S13B, S14B, S15B, S16B, & S17B)</p> <hr/> <p>(C) Student resources: Difference between ResourcesServiceA (R1A to R21A) and ResourcesServiceB (R1B to R21B)</p>	
2	Is there a difference between the perceptions of students at the public and private universities?	Same questions used to answer research question one.	Same questions for research question one.
3	How do faculty, staff, and administrators at higher education institutions perceive (a) the quality of teaching, (b) student admission, retention, and graduation, (c) student resources, and (d) governance during the 14 year civil war compared to the end of the war (2003 to 2007)?	Same questions used to answer research question one and (d) Governance: Difference between GovernanceA (G1A to G27A) and GovernanceB (G1B to G27B).	<p>(a) Quality of teaching: Appendix D1 Protocol I #8 & 9, appendix D3 Protocol II #8-12, 14, &19, appendix D4 Protocol IV #1-12, 14, 17, 21, & 22</p> <hr/> <p>(b) Student admission, retention, graduation: Appendix D1 Protocol I #11-13, appendix D4 Protocol IV #18, 24-28, 30-32, appendix D5 Protocol V #1-3, & 6-14,</p> <hr/>

		Quantitative Survey Questions used to answer this Research Question	Qualitative Interview Questions that further answer this Research Question
			(c) Student Resources: Appendix D1 Protocol I #10, appendix D3 Protocol III #21-25, 27, 29-34, appendix D4 Protocol IV #19, 20, & 23, appendix D5 Protocol V #4-5 &15. Appendix D1 Protocol I #1-3 & 17, appendix D2 Protocol II #1-27
4	Is there a difference between perceptions by faculty, staff, and administrator at the public and private universities?	All questions used to answer research question three	All questions used to answer research question three.

Appendix E

**Cronbach's Alpha Values for Instrument and Scales
Applicable to the Study**

There were 311 or 98.4% of valid cases/subjects and five cases or subjects were excluded because as stated earlier, they left out 15-37% of data unanswered. The mean is 713.06, the variance is large at 6794.03, and the standard deviation (Std) is 82.43. Thus, the Cronbach's alpha for the entire survey instrument is .95, meaning that there is a 95% consistency in scores produced by the instrument in a stable fashion through the entire survey. The reliabilities of the major scales and their corresponding subscales during and after the civil war are presented in this section. The major governance scale during the war or GovernanceA has 316 cases, 27 items, a mean of 62.10, variance of 204.50, Std deviation of 14.30, and Cronbach's alpha of .83. This means there is 83% consistency in the scores produced by this scale and it has higher reliability and it was used for data collection and analyses in this dissertation. GovernanceB, which is the major scale for the end of the war to now, has 316 cases, 27 items, a mean of 74.46, variance of 158.14, Std deviation of 12.58, and a Cronbach's alpha of .80, thus 80% consistency in the scores it produced. With this high reliability, it was used for data collection and analysis in the study.

The governance subscales GsubAdmStrength A and B for the strength of the university administration during and after the war both have higher Cronbach's alpha values of .82 and .81 and this means there is 82% and 81% consistency in the scores produced by each of these scales and because of their higher reliability values, they were used for data collection and analysis in this dissertation. The governance subscales on diversity and representation GsubInclusion A and B during and after the civil war are moderately reliable at .64 and .61 Cronbach's alpha values. The governance subscales measuring sexual harassment on the university campus during and after the war to now

known as GsubSexHarassment A and B are highly reliable with Cronbach's alpha values of .87 and .87. Lastly, the governance subscales on stability of the university campus during and after the civil war called GsubStability A and B are moderately reliable at Cronbach's alpha .67 and .55. Appendix F, which follows, provides partial sections of the survey instrument used to analyze research questions for this dissertation.

Appendix F

Ndebe War Impacts Measuring Instrument (NWIMI)

University Governance Issues

<p>G1. To what extent do you believe that your university campus has been safe</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>
<p>G2. In your opinion to what extent has the replacement of presidents weakened the ability of administration to govern effectively</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>
<p>G3. In your opinion how strong or weak has the quality of your university administration been</p>	<p>During the civil war? i. Very weak quality ii. Weak quality iii. Average quality iv. Strong quality v. Very strong quality</p>	<p>End of civil war to now? i. Very weak quality ii. Weak quality iii. Average quality iv. Strong quality v. Very strong quality</p>
<p>G4. In your opinion to what extent has your university administration taken into consideration the needs and concerns of the student body in formulating goals for operation</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>
<p>G5. In your opinion to what extent has the administration at your university considered faculty opinions and recommendations in formulating goals and objectives for institutional operation</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>

<p>G6. In your opinion to what extent has the administration been transparent in decision making and implementation of policies at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>G7. In your opinion to what extent has the administration been effectively handling the financial resources at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>G8. In your opinion to what extent has the administration been working to strengthen the academic programs at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>G9. In your opinion to what extent has the administration been fostering unity among faculty, staff, and students of various ethnic groups and back grounds at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent

<p>G10. In your opinion to what extent has the administrative structure included people from various ethnic groups and backgrounds at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>G11. In your opinion to what extent has the administration adjusted the goals of your university because of the prevailing national circumstances in Liberia</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>G12. In your opinion to what extent has the administration been building a working relationship with the larger Liberian community at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>G13. In your opinion how has the distance of your university main campus from government offices in Monrovia affected the relationship of your university with the Liberian government</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No effect on the relationship ii. Very negatively iii. Negatively iv. Positively v. Very positively 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No effect on the relationship ii. Very negatively iii. Negatively iv. Positively v. Very positively

<p>G14. In your opinion to what extent could potential or actual riots and protests at your university toward the Liberian government be reduced if your university were able to independently operate with less financial assistance, and no administrative appointments from the Liberian Government</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>G15. In your opinion to what extent could potential or actual riots and protests at your university toward the Liberian government be reduced through the democratic election of Liberian presidents that follow the constitution and democratic processes to govern the state</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>G16. In your opinion to what extent could potential or actual riots or protests toward the Liberian government be reduced if all the campuses of your university were located twenty or more miles outside the Capital City of Monrovia?</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent

<p>G17. In your opinion to what extent have people associated with rebel factions and the Armed Forces of Liberia been employed as faculty members at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>G18. In your opinion to what extent have people associated with rebel factions and the Armed Forces of Liberia been employed as administrators at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>G19. In your opinion to what extent have people associated with rebel factions and the Armed Forces of Liberia been employed as staff members at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>G20. In your opinion to what extent have former combatants and soldiers been admitted as students at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent

<p>G21. In your opinion to what extent has the employment of people associated with rebel factions and the Armed Forces of Liberia as staff, faculty, or administrators at your university created fear for your personal safety?</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>G22. In your opinion to what extent has the admission or returning of former combatants and soldiers as students at your university created fear for your personal safety?</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>G23. In your opinion, to what extent have you or other people experienced sexual harassment by administrators at your university?</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>G24. In your opinion to what extent have you or other people experienced sexual harassment by faculty members at your university?</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent

G25. In your opinion to what extent have you or other people experienced sexual harassment by staff members at your university?	During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent	End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
G26. In your opinion to what extent have you or other people experienced sexual harassment by students at your university?	During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent	End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
G27. In your opinion to what extent have you or other people from your university experienced sexual harassment by individuals outside your campus?	During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent	End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent

University Faculty/Professor Issues

P1. In your opinion what has been the teaching quality of the faculty at your university	During the civil war? i. No quality ii. Low quality iii. Moderate quality iv. High quality v. Very high quality	End of civil war to now? i. No quality ii. Low quality iii. Moderate quality iv. High quality v. Very high quality
P2. In your opinion to what extent have academic programs at your university been closed or reduced for lack of faculty	During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent	End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent

<p>P3. In your opinion to what extent has your university employed expatriate or foreign faculty members to fill positions for which qualified Liberian faculty members are not available</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>
<p>P4. In your opinion to what extent has your university been able to hire and retain foreign or Liberian faculty members with Ph. D. degrees</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>
<p>P5. In your opinion to what extent have part time faculty members been employed at your university</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>
<p>P6. In your opinion to what extent have faculty members been assigned to teach courses they are not trained or qualified to teach at your university</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>
<p>P7. In your opinion to what extent has your university implemented training programs such as conferences or workshops to improve faculty teaching skills</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>
<p>P8. In your opinion to what extent has your university provided scholarships or fellowships for faculty to improve their level of education and expertise</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>

<p>P9. In your opinion to what extent have Liberian faculty members come back to teach at your university after advanced training abroad in developed nations</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>
<p>P10. In your opinion to what extent have faculty at your university been encouraged by the administration to do research and publish their findings</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>
<p>P11. In your opinion to what extent have faculty members spent time to encourage students to learn and understand the course contents at your university</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>
<p>P12. To what extent has the administration encouraged students to write formal evaluations on the teaching quality of the faculty at your university</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>
<p>P13. In your opinion to what extent have faculty members been promoted to higher ranks based on their level of education at your university</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>

<p>P14. In your opinion to what extent has faculty promotion been based on their research quality at your university?</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>
<p>P15. In your opinion to what extent has faculty promotion to higher ranks based on their interest in promoting student learning of the material they teach at your university?</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>
<p>P16. In your opinion to what extent have faculty engaged in supervising or doing various joint research projects with students at your university?</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>
<p>P17. In your opinion to what extent have faculty at your university engaged in research projects sponsored financially by the government of Liberia?</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>
<p>P18. In your opinion to what extent have faculty at your university reached out to local private and business companies for money to conduct and publish research?</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>

<p>P19. In your opinion to what extent have faculty at your university made attempts to do joint research with faculty at other universities in Liberia</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>
<p>P20. In your opinion to what extent have faculty at your university applied for financial grants from local and foreign NGOs to conduct research projects and publish</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>

University Student Issues

<p>S1. In your opinion to what extent has student enrollment increased or declined at your university</p>	<p>During the civil war? i. No change ii. Small decline iii. Medium decline iv. Large increment v. Very large increment</p>	<p>End of civil war to now? i. No change ii. Small decline iii. Medium decline iv. Large increment v. Very large increment</p>
<p>S4. To what extent have students from your university reached out to voluntarily help students in the high schools study to successfully graduate and enroll in college</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>
<p>S8. In your opinion to what extent have students from church or private high schools enrolled at your university</p>	<p>During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>	<p>End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent</p>

<p>S9. In your opinion to what extent have female students enrolled at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>S10. In your opinion to what extent have students been admitted at your university without passing the West African Examination</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>S11. In your opinion to what extent have students who are admitted at your university without passing the West African Examination also fail the university admission entrance exam</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>S12. In your opinion to what extent have students repeated classes at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>S13. In your opinion to what extent have students been put on academic probation at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>S14. In your opinion to what extent have students been suspended or expelled for academic reasons from your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent

S15. Compared to the number of students admitted each year, how would you describe the graduation rates at your university	During the civil war? i. No change in rates ii. Low rates iii. Moderate rates iv. High rates v. Very high rates	End of civil war to now? i. No change in rates ii. Low rates iii. Moderate rates iv. High rates v. Very high rates
S16. In your opinion to what extent have students taken longer to graduate because your university has been closed at times	During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent	End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
S17. In your opinion to what extent could having a four semester academic year including first and second semesters lasting three and the half months each, and summer one and summer two lasting two months each, at your university, shorten time for graduation and increase graduation rates	During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent	End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent

You are almost to the end; you only have one more section to finish. Remember to circle two answers for each question.

Resources for Faculty and Students

R1. In your opinion to what extent have campus library services been available for students and faculty at your university	During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent	End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
R2. In your opinion to what extent have public library resources been available for students and faculty in the city or town where your university is located	During the civil war? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent	End of civil war to now? i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent

<p>R3. In your opinion to what extent have USAID library and other embassy or agency library services been available to students and faculty members of your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>R4. In your opinion to what extent have faculty used lectures to teach classes at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>R5. In your opinion to what extent have faculty used the Internet and the world wide web as a reference resource to teach classes at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>R6. In your opinion to what extent have faculty taught classes through long distance education methods such as mail paper correspondence, audio tapes, video tapes, or the Internet at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>R7. In your opinion to what extent have laboratories, chemicals, microscopes, specimens, and other specific needs been available for student learning at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent

<p>R8. In your opinion to what extent have textbooks, reference books, and journals been available for student learning at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>R9. In your opinion to what extent have students invested money on pamphlets and photocopies due to lack of text and reference books at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>R10. In your opinion to what extent have students invested money on notebooks, pens, pencils, calculators, and computers among others, at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>R11. In your opinion to what extent has computer services been available for faculty and students at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>R12. In your opinion to what extent has campus wide email service communication been available for students and faculty at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent

<p>R13. In your opinion to what extent have off campus Internet service engines such as yahoo.com, google.com, or others been available for members of your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>R14. In your opinion how much has it cost members of your university to have access to on campus computer and Internet services</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No cost ii. Small cost iii. Moderate cost iv. High cost v. Very high cost 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No cost ii. Small cost iii. Moderate cost iv. High cost v. Very high cost
<p>R15. In your opinion how much has it cost members of your university to have access to off campus computer and Internet engines like yahoo.com, google.com, and others</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No cost ii. Small cost iii. Moderate cost iv. High cost v. Very high cost 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No cost ii. Small cost iii. Moderate cost iv. High cost v. Very high cost
<p>R16. In your opinion to what extent have trucks, buses, and cars among other transportation services owned by your university been available for use by administrators, faculty, students, and staff</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>R17. In your opinion to what extent have public and private transportation services been available for students, staff, administrators, and faculty at your university to pay for use</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent

<p>R18. In your opinion to what extent have students, administrators, staff, and faculty been walking to your campus from a lack of public and private transportation services</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>R19. In your opinion to what extent has food been available for students and for sale from your university agricultural product farms and animal husbandry</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>R20. In your opinion to what extent have tools and equipments for agriculture and maintenance been available for students, staff, and faculty at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent
<p>R21. In your opinion to what extent have healthcare services like medical hospitals, mental health hospitals and clinics been available for faculty, administrators staff, and students at your university</p>	<p>During the civil war?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent 	<p>End of civil war to now?</p> <ul style="list-style-type: none"> i. No extent ii. Small extent iii. Medium extent iv. Large extent v. Very large extent