Fall 2005

Culture of Obesity

Bridget Frugoli Melton
Georgia Southern University

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THE CULTURE OF OBESITY

by

BRIDGET FRUGOLI MELTON

(Under the Direction of William Reynolds)

ABSTRACT

This dissertation sought to critically analyze the university environment by examining how the representation practices of corporations articulate with the growing obesity epidemic. For this study, existing data from one southeastern university was collected to describe the articulation between the university and obesity. The analysis examined the collected information and used the cultural studies concept of representation to expose the articulation between obesity and the university setting including the major theoretical works of Marion Nestle, Henry Giroux, Michel Foucault, and Paulo Freire. Physical fitness and dietary risk behaviors in students were described using the instrument of the 1995 National College Health Risk Behavior Survey. Data was also gathered from official campus sources to describe the physical activity and nutritional environment to which students are exposed. The representation analysis revealed three important critiques: the university’s administration is not consistent in its messaging, the environment represents the student as an emotional consumer while academics represents the student as a rational thinker, and the curriculum creates “docile” students incapable of true liberation.

INDEX WORDS: Obesity, Cultural Studies, Behavioral Risk, Physical Activity, Nutrition
THE CULTURE OF OBESITY

by

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B.A., Purdue University, 1997
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THE CULTURE OF OBESITY

by

BRIDGET FRUGOLI MELTON

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DEDICATION

This dissertation is dedicated to my wonderful family, who have encouraged and supported me through this journey. It would have been impossible to have finished without my beloved husband, Ronnie, who gave up countless weekends and nights to allow me to stay focused. My two daughters, Nia and Ella, provided all the motivation I needed to finish. And finally, I thank my parents, Mary and Mike Lewis for encouraging me to be all I could. To Nancy, for keep a tribute of my late father, Joe Frugoli, in my memory and listening to all the finer details. I love all of you and could not imagine having a more supportive family.
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CHAPTER I: INTRODUCTION

As a health educator, I grapple on a daily basis with what I see as a central contradiction between theory and practice concerning obesity in the university setting. On one hand, obesity-related concepts are taught in the classroom to all of undergraduate students who graduate from Georgia Southern University. The general health course outlines the physical activity and nutritional guidelines important to maintaining fitness. On the other hand, the campus environment sends contradictory messages to students about how to actually use the information they have learned. The campus is inundated with the corporate food industry, and its mass marketing connotations infiltrate every aspect of student life. Thinking about this contradiction, I have often wondered what role the university might play in creating an environment so counterproductive to good health.

I became interested in the university’s responsibility in the obesity epidemic because I have been a player – albeit a minor one- in the some of the events I describe in this study. I first experienced the university as an undergraduate student at Purdue University, as a Biology and Movement and Sport Science major. I went from class to class learning about the biological and behavioral causes of obesity. I studied the cellular and genetic links of obesity in biology classes and the behavioral aspects in health and disease courses.

While working in wellness centers, I continuously advised to my clients on how to improve their health through exercise and nutrition. Unaware of the contradictions I enacted, I snacked from the vending machines: Coke and Snickers bars were my snacks of choice. I also ate at university restaurants: hamburgers and fries.
It was not until I began graduate studies in Exercise Physiology that I realized the environment’s impact on disease, especially obesity. The focus of my studies at the time was on disease state and the elderly population. However, the more time I spent in the university environment and worked with diseased-state clients, I realized that good or poor health does not happen overnight. It is something that is conditioned in every one of us over time. As the many health models meticulously outline, our environment plays a major role in the development of obesity.

In recently thinking about such matters, I have concluded that the university routinely chooses to value business aspects over the consideration of public health. This condition may not surprise anyone who follows the university political scene, but throughout my doctoral work in education, this contradiction really came to bother me. How can an entity like the university system “teach” the right concepts concerning obesity but not promote an anti-obesity environment in its cultural landscape?

While working on my doctoral studies, I came to join the ranks of faculty. Now I was on the other side of the fence, continuing the education process. In this role, I find it especially disheartening that the university does not practice what we teach in the classroom. When I look out at my classes, I see young, impressionable people who do not realize the ambivalent attitude that the university has toward their health. In my own lecture hall, I am paralyzed by bureaucracy. I know that my best intentions to transform my students are in vain because of limited pedagogy and the consumer environment which exists on campus.

This dissertation discusses the issues raised by obesity as well as the university’s responsibility to address this public health concern through its environment and
curriculum. I hope university administrators, educators, and students will read it and keep in mind their role in the process: whether they continue the “oppression” or aid in the “liberation” of students. Paulo Freire’s (1998) words best describe my rationale for this study: “I struggle for a radical change in the way things are rather than simply wait for it to arrive because someone said it will arrive someday” (Friere, 1998 p. 122).

Recently, obesity has received much deserved attention from the medical field and popular media. It is not news that the United States faces an obesity epidemic, with 65 percent of the population classified as overweight or obese (Centers for Disease Control and Prevention [CDC], 2005a). Medical research is frantically looking for a genetic answer; public health officials are desperately trying to educate the public about risk factors; and Corporate America is also cashing in on the problem by offering fad diets and empty promises. This insidious problem has everyone looking at different factors while ignoring the obvious.

This study will investigate the culture of obesity. First, a brief background will establish the problem; methods will be outlined, the significance established, and each chapter described. The three main areas for the literature review include cultural studies, the corporate influence on society and the university, and the impact these factors have on obesity.

This theoretical inquiry will use cultural studies as its main framework. Cultural studies is a discipline in academia that crosses a range of subjects including sociology, literary theory, media studies, and cultural anthropology to facilitate the study of cultural phenomena within a society (McRobbie, 1999). According to Grossberg, Nelson, and Treichler (1992), cultural studies “attempts to cut across diverse social and political
interests and address many of the struggles within the current scene” (p. 1). Cultural studies does this by analyzing cultural practices which are comprised of the ways people do particular things in a particular culture, such as watching television or eating out. Because cultural studies does not have one all-encompassing definition with a precise scope, it can be cumbersome and difficult to characterize. However, cultural studies is not just a hodgepodge of loosely defined concepts. It is a recognized discipline that attempts to study cultural phenomena from a range of political and social points of view.

Looking at the American environment in which we live, it is difficult to ignore corporate influence on the individual and the community. Naomi Klein’s (2000) *No Logo* gives a thorough background of corporate growth in the American landscape. She traces the development of large corporations such as Nike, Wal-mart, Best Buy, Bed, Bath, and Beyond, MCI and others, and sheds light on how they have shaped and changed American culture. The branding and marketing ploys used by these large corporations are called into question by Klein’s critical analysis.

This kind of inquiry inspires thinking about health-related issues and the influence of major corporations. Morgan Spurlock’s documentary, *Supersize Me* (2004), investigates the cultural phenomena of health issues as they are related to the poor nutrition promoted by certain food companies. The food industry’s influence is not isolated to commercial environments; it has moved to public arenas such as schools. Marion Nestle, in *Food Politics* (2003), discusses the manipulation the food industry has exerted on public and private schools along with the potential affect this is having on children.
Several cultural theorists have looked at the impact of corporatization on higher education. Bill Reading’s *University in Ruins* (1996) and Stanley Aronowitz’s *The Knowledge Factory* (2000) both describe how the university employs corporate tactics, and they question the mission of the current university. Henry Giroux has taken Reading’s and Aronowitz’s criticisms to the next level and accused higher education of being anti-democratic. Although Giroux criticizes corporate culture for infiltrating higher education, he still views education a place of hope.

Curriculum and its political undertones have been explored in the works of Paulo Freire and Michel Foucault. In *Pedagogy of the Oppressed* (1977), Freire’s observations on the “banking” model of education question the true intension of education; but, like Giroux, Freire offers a vision of hope. Foucault’s works, primarily *Discipline and punish: The birth of the prison* (1971), have been applied to numerous institutions, from correctional institutes, and health care to education. His theory uniquely deconstructs how social systems function within a society; this can be applied to the health curriculum.

Although some cultural theorists have briefly looked at the effect of corporatization on education, few have investigated the negative health effects fostered by the environment of the education system. This gap in the body of research creates an opportunity to use the cultural studies framework to critique the influence of the current university environment on health in general and obesity in particular. Examining environmental factors which initially seem unrelated can show us how individuals make choices that affect their health. Research has shown that traditional college-aged students are at a critical juncture, developing habits for which the consequences are long term and far-reaching. College-aged students are immersed in the university setting, learning not
only in the classroom but also from their everyday practices, from driving to class to making selections in the cafeteria. While some critics may view these experiences as unrelated or insignificant, cultural studies theorists would argue that these choice actions have a profound effect on individuals and, therefore, on society. Encouraging a healthy lifestyle requires more than creating a slogan and placing it next to the salad bar; it also requires support in the overall atmosphere the university creates.

The university is a unique public environment because all aspects of the environment are controlled, including those that influence physical activity and nutrition, two factors that directly affect obesity. The university is also a public agency with a restricted budget. Though at first blush, these facts seem unrelated, together they create an atmosphere of irony: the university posts signage about making healthy eating choices but offer only Coca-Cola-sponsored products in vending machines all across campus. The university also displays a conflict of interest by publicly promoting physical activity and, at the same time, selling passes that allow students to park next to the buildings in which their classes take place. In its curriculum as well, the university must examine its policies for not only the content of its message but also the delivery of the message, the materials used to deliver it, and the size and requirements of its classes. With these contradictions, it would appear that the university is duplicitous in its actions because these issues fail to reinforce students’ positive choices.

The purpose of this study is to investigate the culture of obesity in the university setting. The promotion of physical activity and proper nutrition will be investigated to determine if they are truly supported by a defined cultural structure or are simply surface dressing contradicted by the university’s underlying practice. I will do this using one
southeastern university as an example university. I will pull information from this example university to describe the environment and then use a cultural studies approach to analyze specific elements. No single analysis method or framework is consistent in the cultural studies field; however, several concepts are accepted and used within the methodology of research in cultural studies, including articulation, ideology, identity and representation.

Statement of the Problem

The social responsibility of the university is to produce critical citizens of the world. To accomplish this goal, the university must foster the practice of questioning and provide an environment that encourages thoughtful decision making as it applies to the whole student. Conversely, the environment the university indirectly fosters is antidemocratic and produces pro-obesity attitudes.

The Purpose of the Study

The purpose of the study was to critically analyze the university environment using the representation approach within the cultural studies domain to examine the articulation between the obesity epidemic and the university’s social responsibility.

Research Questions

The guiding research questions examined in this study were:

1. What is the university administration’s role in creating an anti-obesity environment?
2. How does the environment represent the student in light of the obesity epidemic?
3. How does the curriculum represent the student in light of the obesity epidemic?
Significance of the Study

Over the past 20 years, the incidence of obesity in the United States has increased at an accelerated rate among all genders and ages groups, with consequent increased risk of disabilities and premature death (Volicer et al., 2003). Although all groups are affected, there is a significant disparity between socioeconomic groups and races, see Table 1 in Appendix A (CDC, 2004, Sarlio-Lahteenkorva, Silvertoinen, & Lahelma, 2004). Medical expenses related to overweight and obesity accounted for 9.1 percent of total U.S. medical expenditures in 1998 (CDC, 2005b). The annual cost of health care for overweight and obese individuals averages 37 percent more than for people of normal weight, adding approximately $732 to the annual medical bills of every American (Connely, 2003).

Studies have indicated that college students are at a critical period; weight gained during the college years could increase students’ likelihood to become obese in the future (Racette, Deusinger, Strube, Highstein, & Deusinger, 2005). One study indicates that the average college freshman gains 4.2 pounds during the first 12 weeks on campus (Anderson, Shapiro & Lundgren, 2003). College campuses are an ideal place to integrate obesity prevention programs within academic courses and/or other programming. They also serve as key places to introduce public pedagogy as prevention to obesity.

John Dewey (1916) recognized the importance of health education: “make health an aim [of education]; normal development cannot be had without regard to the vigor of the body- an obvious enough fact and yet one whose due recognition in practice would almost automatically revolutionize many of our educational practices” (p. 135). Within the university setting, it is imperative to look at all the factors that shape the health
behaviors of college students, including corporate relationships, elements of the environment, and the health curriculum. The environment in which college students live both passively and actively exerts influence on their nutritional and physical activity decisions. This study intends to analyze these elements with a cultural studies approach. Health curricula should be one factor that enables citizens to be critical actors, however, “educators are increasingly being pressured to become either servants of corporate power or disengaged specialists wedded to the imperative of a resurgent and debasing academic professionalism” (Giroux, 2000a, p. 343).

To a community, the university acts as a role model, promoting healthy lifestyles and fostering intellectual growth. To the individual, the university serves as an extension of the learning process. With such a responsibility placed upon our universities, it is imperative to look closely at the relationships universities form with corporations. The best intentions of the student and the community must not to be compromised: “As a crucial area of civil society, adult education can play an important role in this ‘war of position,’ entailing wider-ranging counter-hegemonic cultural activity” (Mayo, 1999, p. 39).

There are several assumptions in conducting this study. First, cultural studies, an interdisciplinary approach to understanding the production and consumption of cultural practices, is relevant to health education. Second, the obesity epidemic, as it is commonly discussed is a biological, behavioral and a cultural construction that represents impart the interests of the dominant classes and institutions in society. Finally, critical evaluation of the obesity epidemic as it relates to the university setting will be beneficial by allowing alternative solutions to the obesity problem to be presented and discussed
Summary

The negative influence of culture can be catastrophic to an individual’s and a society’s health. The university has a social responsibility in combating the obesity epidemic. This study is geared at discovering the factors that impact obesity in the college-aged population using the theoretical framework of cultural studies. The purpose of the study was to critically analyze the university environment by examining how the representation practices of corporations articulate with the growing obesity epidemic.

Chapter 1 has introduced the problem of obesity as it relates to the university setting. Chapter 2 will expand on the literature in three main areas, beginning with cultural studies as a discipline and including its definition, history and application. The second area to be reviewed is the influence of corporate culture on society and the university. The final area to be examined will be obesity, from etiology to impact on society.

The theoretic framework and methodology will be established in Chapter 3. The procedures for data collection along with the actual data will be presented. In Chapter 4, the tools of cultural studies will be used to analyze the findings of Chapter 3. Representation theory will be used to describe the university administration’s role in perpetuating obesity. The environment will be deconstructed to expose how students are represented, as both rational thinkers and emotional consumers. Finally, the works of Freire and Foucault will be used to examine the health curriculum. The study is summarized in Chapter 5. General recommendations will be made for the university’s administration, environment and curriculum design. Finally, suggestions for further research will also be made.
CHAPTER II: REVIEW OF LITERATURE

The literature review will cover three bodies of research including cultural studies, corporate culture, and culture’s impact on obesity. In the first section, cultural studies will be defined, a brief history will be discussed, and the applications of cultural studies will be clarified. The next section, corporate culture, will outline the American culture and, more specifically, the ways in which the university culture has been influenced by corporations. The final section will look at the impact of obesity from an epidemiological perspective and how culture affects obesity.

Cultural Studies

Definition

Over the past decade, cultural studies has been loosely defined as a form of critical cultural analysis (Andrews, 2002). Cultural studies is a branch of learning that spans a range of subjects including sociology, literary theory, media studies, and cultural anthropology to facilitate the study of cultural phenomena within a society. Cultural studies has been described as a “trans-discipline” (McRobbie, 1999), “post-discipline” (Wright, 2004), “reluctant discipline” (Bennett, 1992), “hidden-discipline” (McEwan, 2002), “quasi-discipline” (Reading, 1996), and even “anti-disciplinary” (Wright & Maton, 2004). According to Grossberg, Nelson, and Treichler (1992), cultural studies “attempts to cut across diverse social and political interests and address many of the struggles within the current scene” (p. 1). Cultural practices are comprised of the ways people do specific things in a particular culture, such as watching television or eating out. With this broad definition, cultural studies can address many cultural issues in ways not possible with traditional methods.
Grossberg, Nelson, and Triechler (1992), stress that “cultural studies draws from whatever fields are necessary to produce the knowledge required for a particular project” (p. 2). Moreover, they (1992) emphasize that “because cultural studies is concerned with the interrelationships between supposedly separate cultural domains, it necessarily interrogates the mutual determination of popular belief and other discursive formations” (p. 11). Cultural theorists seek to understand the relation of cultural activity to power; according to Stuart Hall (2003), the study of elements of cultural power is what distinguishes cultural studies from other disciplines, such as (gender, race and social status). “Culture” for the culture theorist includes not only the traditional high arts and popular arts, but also everyday practices and meaning (McRobbie, 1999).

Currently, there is no single description that can encompass what “cultural studies” actually means. The essence of cultural studies, however, can be applied to numerous undiscovered areas of interest. To specify or limit the field to one definition would produce subjects on the “outside” or marginalize the cultural studies approach, which is completely antithetical to the central themes of cultural studies. The ambiguity of the definition might be better understood by investigating the roots of this approach; therefore, the history of cultural studies will be reviewed.

History

Many resist the temptation to limit cultural studies to one meaning, according to Handel Wright (2004); similarly, few are willing to acknowledge the pluralism of its history. Cultural studies as a practice emerged in multiple locations around the world, at various times and in various intellectual contexts, including Culturology in Russia in the
The birth of cultural studies as its own discipline has commonly been attributed to a series of “crises” in the humanities and social sciences, including differences in theory, parameter, and identity (Brantlinger, 1990). The introduction of a new or trans-discipline, cultural studies threatened the traditional canon, which increased the resistance to this discipline (Reading, 1996). Adult education has also been attributed with spring-boarding cultural studies as its own discipline, especially in the study of British history. However, this origin has been marginalized in favor of the crises narrative (Wright & Maton, 2004).

The idea that cultural studies originated in adult education begins in England with the progressive teachings of Richard Hoggart and Raymond Williams in the early 1960’s. Hoggart, considered the founding father of cultural studies in Britain, was born to a working class family, served in the war, and then taught English literature in adult education classes at a local university (Grossberg, Nelson, & Treichler, 1992). His teaching is important because he and Williams were introducing literary criticism and social and political science to those who typically did not have access to this knowledge/education, such as non-traditional students (Edgar & Sedgwick, 1999). “Culture” was considered to be part of high society; however, Hoggart and Williams contested this point of view and insisted that “culture” included everyday life experiences
(newspaper, music, family, abuse and so on). Hoggart served as the first Director of the Centre for Contemporary Cultural Studies at Birmingham (CCCS).

Raymond Williams is also considered a pioneer and a major forerunner of British cultural studies (Edgar & Sedgwick, 1999). His books *The Long Revolution* (1961) and *Culture and Society: 1780-1950* (1958) are the foundation of the cultural studies discipline. In *The Long Revolution*, Williams expands on ways to identify the hidden aspects of political change and the formation of social structures (Williams, 1989). Williams is most concerned with how culture is produced and reproduced. In *Culture and Society*, he refutes the dividing line between high culture and popular culture and argues that art and politics are for all individuals, not just the privileged minorities.

According to Williams (1989) “culture is the way in which the process of education, the experience of literature, and - for someone moving out of the working-class family to higher education- inequalities, comes through…culture is one way in which class, the fact of major divisions between men, shows itself” (p. 32). This kind of thinking spear-headed the cultural studies discipline; looking at inequalities between social classes is still a major theme. Coming from a working class family, Williams focused his life’s work on the political struggle of that economic group. Williams has been described as a socialist, because of his commitment to promoting a democratic society (Williams, 1989). He was a leader in the “New Left” movement. Williams related literature content and authors to the historical and social development of ideas and cultures (Grossberg, Nelson, & Treicher, 1992). The focus of his work was in everyday experiences and activities, which is a center theme of cultural studies today.
Wright, although he acknowledges the major contributions of the CCCS, criticizes the limitation of this origin to primarily academia and Euro-centrism. He offers that an account of the African origins of cultural studies is more participatory and active. In 1977, the Kamiriithu Community Centre and Cultural Centre near the village of Limuru, Kenya, was a place that housed “a cultural center of self-reliance that attempted to address the many problems of the villagers as well as provide a place for cultural and theatrical productions” (Wright, 2004, p. 64). Kamiriithu Centre differs from the Birmingham Centre in four main ways. First, the Kamiriithu Centre was founded based on a populist basis and included two-third females; Birmingham Centre’s original theorists were men (however, this has changed; there are now several female contributors, including Angela McRobbie and Charlotte Brunson). Secondly, the Kamiriithu Centre focused on performance acts, incorporating political activism and creative works. The Birmingham Centre focused on critique of and commentary about popular and political culture, a strictly observational position. The third difference Wright highlights is the general location from which each center worked. The Birmingham Centre was at the heart of “elitism and the reification of knowledge” whereas the Kamiriithu Centre was located outside the general population and actively recruited community members in their “(re)production and critical examination of the local politics and culture” (Wright, p. 65, 2004). The final difference between the two historical centers/origins is the focus of each on how to blur the lines between high and low culture. Birmingham Centre pointed out the differences that existed through reading and writing, whereas the Kamiriithu Centre highlighted the difference by using performing acts to blur lines between different cultures.
Both of these histories are relevant to this dissertation argument. The Birmingham Centre is founded on the adult education origin and will be the prime method that I will advocate for infusing critical cultural pedagogy into health education. However, the Kamiriithu Centre offers another means of infusion of this critical cultural pedagogy through action not limited to the classroom or university setting. This brief history demonstrates the diverse roots of cultural studies. The next section will focus on the key tenets incorporated into cultural studies application, regardless of its history.

Applications

It is difficult not only to define cultural studies and its history, but also to explain the methodology that cultural theorists incorporate. There is no one method or framework that is consistent throughout the field of cultural studies. There are, however, several concepts that are accepted within the methodology of research, including articulation, ideology, hegemony, representation, and identity. For this study, articulation will be the main concept to be applied. Articulation is supported by the other tenets: hegemony, ideology, representation and identity. However, hegemony and ideology are the main deep-seated theoretical concepts that work to support articulation in cultural discourse, whereas, representation and identity are more tangible aspects of a cultural discourse fueled by hegemony and ideology.

Articulation

Jennifer Slack (1996) describes articulation as “one of the most generative concepts in contemporary cultural studies” (p.112). The basic practice of articulation is the joining together of two social forces, which is associated with Marxism and Althusserian theories (Edgar and Sedgwick, 1999). Cultural studies uses articulation to
analyze the relationship between any two factors. In this study, the concepts are the obesity epidemic and the university’s social responsibility. Traditionally these factors may or may not have been associated; however, the cultural theorist explores the relationship between these items within their political and social context.

Articulation is a process of making connections. Grossberg, Nelson, & Treichler (1992) define articulation as “the production of identity on top of differences, of unities out of fragments, of structures across practices. Articulation links this practice to that of meaning, this meaning to that of reality, this experience to those of politics. And these links are themselves articulated into larger structures” (p. 54). Commonly, political undertones are related to issues in the everyday happenings in a culture, i.e., cultural theorists might examine the relationship between gender and screening for cardiovascular disease. Women suffering from heart attacks are frequently misdiagnosed because they do not have the same classic symptoms as men.

In addition, patriarchal ideology sees women as caregivers within the home who, therefore, do not experience the same levels or kinds of stressors that men experience in the workplace. Stereotyping, unfortunately, does cross over into medical practice, and articulation is one way to describe different relationships in the political and social context.

In the early 1970s, articulation was first used in cultural studies to alleviate the problem in Marxism, which is that all relationships are reduced to the base superstructure model. This offers an inadequate explanation of the mechanisms of domination and subordination. Articulation addresses this issue by questioning, in a non-reductionist manner, the way in which social fields are joined (Slack, 1992). Althusser brought the
idea of complex totality to the table. This concept views relationships as complex and multi-leveled within a structure. Ernesto Laclau and Stuart Hall furthered the development and understanding of articulation into what it is now understood in a cultural studies context.

Ernesto Laclau’s (1977) *Politics and Ideology in Marxist Theory* suggests that class reduction is impossible because even though there is a class structure in a given society, not all members may believe they are part of a specific group. Articulation offers a more complex mode of understanding the relationship between non-correspondence and contradiction. Laclau viewed articulation as a method to discover hegemony, the control of one group by another. Articulation would reveal hegemony by defining the relationship between two factors. For example, obese individuals are viewed as having poor social standing. Articulation helps explain these two outwardly unrelated factors: health condition and social status. Obese individuals have been described as lazy, unhappy, and sad, a cultural stigma that originates in stereotyping and negative representation. Obesity is more prevalent among lower socio-economic classes and is also more prevalent among certain races. Articulation allows another means to discover the relationship between obesity and social status.

Stuart Hall’s work is impressive in its description and use of articulation. Hall draws on Marx and Althusser’s works to develop his concepts of articulation theory (Wise, 2003). Hall considers that “articulation enables us to think of how specific practices articulated around contradictions which do not all arise in the same way, at the same point, in the same moment, can nevertheless be thought together” as cited in Slack (1996, p. 122). His position differs from Laclau’s non-reductionism and offers a ‘reality
stable conditioning’ for articulation to exist. Hall’s theory of articulation is widely applied in different field studies (Slack, 1996). Hall applies articulation to race, ethnicity, popular culture and communication. According to Grossberg (1996), Hall uses the struggle between “popular” and “populist” articulations to describe the political successes of the New Right and Thatcherism. He also uses articulation with his notions of representations. It is important to recognize the theoretical support of articulation, which is maintained by two concepts, ideology and hegemony, in a more covert process.

**Ideology**

Simply put, ideology is a consistent set of beliefs. Within Marxism, ideology is the beliefs of the ruling class. Ideology feeds into Gramsci’s hegemony and Althusser’s behavioral ideology in which the focus is not on ideas but on behaviors or lived relations. Ideology is the framework of beliefs to which any society or group adheres. Eagleton (1991) concludes, in his *Ideology: An Introduction*, that “very often, [ideology] refers to the ways in which signs, meanings and values help to reproduce a dominant social power; but it can also denote any significant conjuncture between discourse and political interests” (p. 221).

For example, in America, the dominant ideology of marriage is as being between one man and one woman, though there are groups who would contest. The dominant ideology of marriage is so strong that it influences law and the actions of many people. Those who are in the dominant group want all other groups to adhere to their notion of marriage; disagreement questions not only the ideology but the actions and the status of the dominant group.
Peter McLaren (1998) describes ideology as the production of meaning through a system of representation. This production of meaning is brought about by the relationship between meaning and power in society. For example, the condition of obesity has traditionally been viewed as an individual’s fault: the individual cannot control his or her eating and/or the individual is lazy and does not exercise. The dominant groups do not want to consider obesity a cultural phenomenon; this would pinpoint blame and potentially affect their social status. The food industry, because of their economic and political position, is part of the dominant group that tries to create the meaning in ideology. The belief that obesity is a personal choice relieves them of any responsibility.

Henry Giroux (2000b) argues that ideology “structures the unconscious of students” (p. 81). Giroux argues that the dominant class dictates ideas and content within schooling as cited in Pinar, Reynolds, Slattery, & Taubman (1995). However, as more focus is placed on the political nature of curriculum, it is acknowledged that ideology is both a constraint and a facilitator for empowerment; thus, it cannot be exclusively considered as a negative in the political processes of curriculum (McLaren, 1998). Ideology in health education is extremely important, especially regarding obesity. The health curriculum shapes students’ beliefs about the causes, prevention and treatment of obesity.

The majority of individuals within a society will subscribe to the same ideology, regardless of class. Most Americans have very similar ideologies, for example, women are the primary care givers, or men are more capable at authoritative roles. Capitalism and consumerism thrive on and fuel ideology, for example, the belief that good parents
take their children to fast food restaurants or the notion that being overweight is a product of individual choice. Here, the fast food industry prospers from the ideology and avoids the responsibility of nutritionally poor products.

It is important to recognize that there is no one ideology, although certain groups may wish that all persons would subscribe to their ideology. Different groups of people, from corporate enterprise and government to religious groups, etc., have certain ideologies. However, looking at a whole community/culture, one finds that there are usually dominating ideologies that are widely accepted. Cultural studies questions and interrogates these ideologies, which can make cultural studies an un-popular practice or a demeaned anti-discipline. The dominant groups are threatened by the challenge to the status quo. Cultural studies can also threaten hegemony.

Hegemony

Hegemony, like ideology, is another concept that acts to support articulation. Hegemony is the rule or influence of one country or group over another and the principle about which a group or element is organized (Edgar & Sedgwick, 2000). Antonio Gramsci (1971) used this concept to describe the dominant class in contemporary capitalism. The dominant class maintains rule not actively by physical force or threat but passively, through mass media and more persuasively in nature. However, some subordinate groups actively respond to and resist political and economic domination.

Aronowitz & Giroux (1985) use the theory of hegemony to explore the ideology in the reproduction of class relations. Hegemony is most commonly implemented through shaping human consciousness. Hegemony could be viewed as an outcome or situation achieved through ideological practices (Pinar, Reynolds, Slattery, & Taubman,
Michael Apple (1990) uses the notion of hegemony in his arguments concerning ideology and reproduction theory. Hegemony is a passive process and usually supported by the majority. The subordinate classes’ activities are informed by the dominant classes’ values and interests. Those values and interests are expressed through systems of representation (images, visions, movies, fairytales, stories, ideals), all of which are controlled by the dominant class. There are many means by which the dominant class tries to “fix” the meaning of representations: developing a common worldview, content of mass media, education, health care, and government agencies (McLaren, 1998). Having one common view or orientation ensures class reproduction and prevents individuals from questioning the status quo.

Ideology and hegemony are theories that can be used to explain articulation in an abstract manner. However, representation and identity theories work in a covert manner. These theories lend themselves to specific examples in a given culture. Commonly, cultural theorists will “read” the “text” using the tools of representation and identity theories. Grossberg reflects on this system of representation: “We can deconstruct any text, disseminating and fragmenting it’s meaning into its different contexts and codes, displacing any claim it makes to have a meaning. Yet, particular texts are consistently read with the same meaning, located with the same codes, as if they were written there for all to see. Thus, every sign must be and is made to mean” (Grossberg 1996, pp. 157-158). The meaning of signs is intricate, but signs operate as representation, and then representation contributes to the formation of our identity.
As previously mentioned, hegemony works through systems of representation. Hall explains three approaches to representation: reflective, intentional and constructionist approaches. The reflective approach draws the meaning of a subject from an object, person, idea or event in the real world. Language in the reflective approach functions like a mirror; it projects the content of the real world back. For example, a chair is simply a chair. The reflective approach is limited in its use, because it does not take into account fiction, word sounds, and images which we fully understand but which do not really exist except in our imaginations. With the intentional approach, the speaker or composer seeks to impose his or her unique meaning on the world through language. For the intentional approach, the world means what the author intends it to mean. However, this is not a functional concept, for if it was, we would only be able to express ourselves in an entirely private language, unable to truly communicate to other people.

Language is a social system, through which we must convey our private thoughts outward by entering into a convention of language to be shared and understood by others using rules and codes. The final approach to representation is the constructionist approach, which takes into account the social and public characteristics of language. Language in this approach is not fixed by objects or by an individual user of language. “Things” do not simply “mean;” we construct their meaning using representational systems. It is important not to confuse the material world (where things and people exist) with symbolic practices. Constructivists do not deny the existence of the material world. However, it is not the material world that gives meaning; it is the language system that constructs meaning. It is individuals who use the conceptual systems of a culture and a
language system to construct meaning, to make the world meaningful and to communicate about the world meaningfully to others. The constructionist approach to representation will be used in the analysis of this study.

According to Hall (2000), the constructionist approach to representation examines the production of meaning through language, which is the key to understanding culture. We convey our thoughts, concepts, feelings and ideas through language with the help of signs or symbols (verbal, written, musical, objects etc.). Within a culture, signs have shared meaning. Food is not only necessary for our biological existence; it is part of our culture. For example, for many people, the phrase “kid’s meal,” produces the image of a child’s portioned hamburger, small fries, small drink and a toy packed in a cartoon-decorated bag. Food in itself represents something. Try to imagine Thanksgiving dinners with no turkeys, birthdays with no cakes, picnics without sandwiches, family gatherings or social functions without food.

The drive to consume certain foods is not only due to hunger but also to emotional need. An individual associates his or her security, happiness, or love to particular foods, and the marketing of certain foods is centered around this connection. Food marketers capitalize on consumers’ emotions. Currently, a new line of frozen dinners is being marketed: “Slow Cookers,” meals that are prepared by placing the contents of pre-packaged meals into crock-pots and cooking for 8 hours. The television advertisement equates this meal with the “home-cooked meals Mom used to make.” For those consumers who have had meals prepared by their mothers or caregivers, that message is very powerful. It is also very powerful for those who have not had this experience of “home-cooked meals” but who identify with a notion of “the good life,” or
what it is to be a part of the dominant culture. Both past experiences and the myth of
certain experiences, like “home-cooking,” generate strong emotional responses for
consumers.

The knowledge that certain words and images evoke certain feelings is a major
marketing tool in a consumer culture. du Gay (2000) observes that “Meaning is produced
at ‘economic’ sites (at work, in boardrooms) and circulated through economic processes
and practices (advertising and marketing and even the product itself) and, no less than in
other domains of existence, in contemporary societies” (p. 114). The fast food industry
uses commercials and other media avenues to exploit the emotional connection we have
with food and to try to connect their product with the representation system. The fast
food industry seeks to represent itself as a necessary component of the American
lifestyle. Commonly, commercials focus on families uniting at the local fast food chain.
In a McDonald’s television ad (2000), a father is at home with a crying 3-year-olds; the
child is not happy until the father brings him to the chain restaurant. What is this
supposed to represent? It appears that fast food chains are necessary to make our
children happy or that successful fathers take their children out to eat.

Postmodernists subscribe to the idea of hyperreality, which is the constant re-
structuring of representation in mass media society (Hall, 2003). Today, we live in a
world in which our experiences are moved from “reality” to “hyperreality,” shaped by the
consumer-driven representations found in film, television, advertisement, and electronic
media. “Hyperreality” is one of the key factors contributing to the obesity epidemic our
nation is facing. As Kincheloe (2002) explores in his book The Sign of the Burger,
hyperreality shapes American sentiment to overlook the power relations in consumerism.
An important note about representation is that no one meaning can be created by a representation for a specific object. Images are often “floating” signifiers: they mean different things to different people. However, at some point, meaning has to be fixed; the object needs to mean something particular at given point in time under certain conditions. We constantly try to fix images/concepts/objects so that we can make sense of them in our own worlds. Those in power try to fix meanings before consumers fix meaning for themselves so that it will become naturalized and unquestioned. Nevertheless, in the system of representation, meaning is never fixable or absolute. For example, one person might equate the image of a hamburger with McDonald’s; another person might equate that image to home-prepared foods. However, the McDonald’s Corporation would like to “fix” the meaning of the hamburger image to equate to their product for every person, which would, in turn, be a potentially profitable association for McDonald’s.

Identity

The concept of identity works closely with the concept of representation. Identity theory explores how individuals and groups construct, negotiate and defend their identities or self-understanding (Edgar & Sedgwick, 2000). Althusser discusses the ways in which the ideology of identity is a product of the dominant social ideals which formulate one’s identity. The power that ideology has on a society is also exerted on the individual. An individual’s concept of self is shaped by the dominant ideology. This creation of identity transpires through a system of representations.

The fast food industry attempts to interweave a company’s identities with the consumers’ identities. Slogans like “Have it your way,” or “You gotta do the Dew,” aim to attach to a product a personal message that tells consumers that the product is what
they want and, further, that it is who they are. Television advertisements also portray images to appeal to certain consumers. For example, Taco Bell depicts young “hip” adults hanging out with friends at the restaurant. These representations make it seem that social acceptance and happiness will come from visiting Taco Bell. When consumers visit these companies, they are enacting physical manifestations of themselves or of who they want to be.

Cultural theorists use identity theories to postulate how individuals read a given text and re-identify themselves. Just like with representation, not all individuals are going to “read” the text in a particular manner nor re-identify themselves in the same fashion. This concept feeds back into the floating signifier. Representation is the major concept that will be applied in the analysis portion of this study. The tools of representation and identity will be used to investigate how the environment that the university supports and fosters influences obesity. Before the methods are discussed, a second body of literature representing corporate culture will be reviewed.

Corporate Culture

*American Culture and Corporations*

“Corporate culture” describes the current American landscape in which capitalism, consumerism and the market economy are present. It affects every facet of American life, from the cars we drive and the food we eat to the education of our children. Corporate culture has a major impact on the way we live, and it is time to look critically at the impact corporate culture has on our health. The first part of this section will investigate the American cultural background through the lens of corporate culture,
including a brief history of American corporations, a discussion of branding, and a final focus on the fast food industry. The second part of this section will investigate the development of corporate influence on universities, including the social responsibility of university and the roles universities have assumed, concentrating on consumerism and antidemocratic approaches.

*History of corporations*

Corporations have long been a part of American culture; however, they have not always held the dominant spot in the landscape. In the middle of the 19th century, corporations had a challenging task to accomplish: convincing the consumer that their products were actually worth buying. Commonly, corporations introduced new products to replace traditional ones. Consumers were skeptical of these new inventions. Advertising informed the customer of how the product would improve the task at hand. For example, many new cleaning supplies were introduced with an emphasis on the convenience and the superiority of the product. The marketing and advertising appealed to a “rational” customer. In the 1880s, corporate logos were used to instill familiarity with a product. Because of the newness of products, consumers might shy away from the unfamiliar. Unintentionally, the use of logos was the first of the “branding” concepts to emerge. It was a long time before the branding concept was used to its potential. In the 1940s, corporations developed what Klein describes as a “corporate consciousness” (2000). Corporations wanted to be associated with certain images, and the images were carefully crafted by marketing and branding techniques. The marketing emphasis changed from advertising a product to marketing a corporation: a set of values and ideals that appealed to the dominant culture: ideology in action.
By the mid 1980s, corporations were primarily focusing on marketing brands rather than products, and their emphasis turned from manufacturing the best product to instilling the brand image. For example, Tommy Hilfiger used to make a product that was traditionally seen only in country clubs; however, the growing middle and lower classes began to purchase Tommy products to emulate images of wealth and prestige associated with a country club lifestyle. Marketers took note of this association and the trends of consumers, precipitating a shift from quality to quantity. Advertisement spending in the United States increased 4 fold from 1979 to 1988, from around $50 billion to more than $200 billion (Klein, 2000). This large increase can be attributed to the increased international marketing (globalization) and also an expansion of the target audience to include the middle class and children. American brands increased the product promotions portions of their marketing budgets from 30 percent in 1983 to over 75 percent in 1993 (Klein, 2000). The 1980s were a heyday for the branding machine. These increases were reflected in the growth of large corporations.

It wasn’t until the early 1990s that lower and middle class consumers began bargain shopping, choosing off-brands instead of heavily marketed name-brands. Discount shoppers now flocked to large discount retailer corporations i.e. Wal-Mart, Office Max, Bed, Bath and Beyond. The industry was shocked and fearful of price wars that would drag corporations into bankruptcy or intensify the corporate competition. However, this trend did not last long and ended with a split consumer base beneficial to both the name brands and the discount retailers fresh on the scene. This history, although brief, provides a glimpse of the progression corporations have made into the American landscape. Along with corporations, came their most powerful tool: branding.
Branding extends beyond the recognition of a specific company; it is fueled by and fuels ideology.

**Branding Concept**

All major corporations, whether Tommy Hilfiger or Wal-Mart, were using branding as part of their marketing strategies. Again, branding is not about selling a product; it is about selling an image: “Consumers don’t truly believe there is a huge difference between products, which is why brands must establish emotional ties with their consumer[s] through experience” (Klein, 2000, p. 20). Corporations use branding to promote three main themes: convenience, emotion and identity.

Convenience is a quality that many corporations have traditionally marketed and still try to market, especially the food industry. American culture has changed; the “traditional” family unit is no longer traditional. There has been an increase in single parent families, and there are more mothers are now working outside the home. These changes to the family unit have transformed the concept of time. People are very busy, from working longer hours to trying to maintain numerous extra-curricular activities for their children.

The food industry offers a solution to the time constraint. From Ruby Tuesday’s and Burger King to Swanson, companies associate convenience with their brands. It is much easier, faster, and less work to eat at Ruby Tuesday’s or drive through Burger King’s window than it is to go home and cook a meal. Swanson wants you to know that it is much more convenient to pop in one of their TV dinners than it is to prepare a home-cooked meal. Their products and companies offer a better way to live.
Convenience adheres to the dominant ideology: that everyone wants to be in the upper class of society. This convenience allows consumers to do more: work more hours to get a promotion or have their children in more activities to expose them to more “culture.” The drive to do more plays into the class myth, that the dominant culture is better, and being at a certain economic level or participating in certain social event will bring a person closer to the dominant group’s status. However, many times it does the opposite, i.e. eating out or on the run not only compromises quality time for the family, but also compromises health. Subordinant groups fall prey to this class myth.

Emotion is the biggest draw corporations use to sell their products with branding. Companies know that consumers do not see much of a difference between one product and another. The quality difference between Lee jeans and Gaps jeans is not the deciding factor in consumer choice. Rather, it is the image portrayed in branding that determines consumer choices. Gap has done an excellent job of connecting their product with an emotion. Gap commercials commonly feature not jeans, but images of carefree good-looking individuals. The customer sees these advertisements and they want to be the people in the images: carefree, beautiful, and, of course, wearing Gap clothing.

Commercials and other media avenues for fast foods draw on the emotional connections we have with food and try to connect their products to this representation system, as a necessary entity in the American lifestyle. A TGIF restaurant commercial taps into this emotional connection. In one commercial, they show images of people who do not eat at their establishment versus those who do eat at their restaurant. In the first scene, an announcer states “Outside, it is Monday,” and images appear of people of who are bored, tired, and melancholy. In a second scene, the announcer states, “Inside, it is
Friday,” and images appear of people who appear happy, energetic and laughing. The knowledge that certain words and images invoke certain feelings is a major marketing tool in advertising. The commercial appeals to the white collar working class (those who have to sit in offices every day) and promotes a “stick it to the man” mentality: you might have to work and your job stinks every day, but you can come here (even on a Monday) and feel like you are on vacation or at a party. The commercial works on many emotional levels: anger, boredom, rebellion, joy, entertainment and entitlement.

Corporations also use class consciousness to market products. Slogans such as “Have it your way,” “DQ something different,” and “You deserve a break today,” all attempt to make consumers feel as if consuming a particular product will help them regain control of their of lives or enjoy a particular lifestyle. The overt message is that the consumer is overworked and the specific brand can relieve their troubles and make the kids happy. Who would not want to be a part of this? Who is not already a part of this? But how in-control is a person when there is a limited menu selection and a preset routine of dining and clean-up ritual?

Corporations try to brand their company identities onto social and individual identities: “Culture and commodity become indistinguishable, and social identities are shaped almost exclusively within the ideology of consumerism” (Giroux, 2000, p. 68). This dynamic allows the selection of a brand to seem like a personal choice.

Corporations seek to become household names, a “normal” selection, and a social norm.

The concept of branding has had a major impact on marketing strategies for corporations; it has taken advertising to a whole new level. Companies want their images to be associated not only with the product or company, but also with major events:
concerts, sporting events, community gatherings, any public activity. Corporations sponsor events that might get them more visibility in a community. Sponsorship initially seemed a win-win scenario: a company sponsored an event by giving a monetary or in-kind gift for advertising space on printed materials. The small by-lines companies used to stamp on event propaganda has evolved. Companies were not satisfied with one line on the back of a program; they wanted more recognition and to become the main, rather than the secondary, focus. Athletic events are a perfect example of the evolution of sponsorships.

Many people remember sporting events of the past, whether major league baseball games or local school inter-squad scrimmage games, at which small corporate logos were placed on scoreboards. Perhaps while watching a sporting event on television, a viewer might see a corporate logo printed on a flag in the background. Most of us did not even notice when announcers stated during final credits, “this game was brought to you by XYZ company.” It was just a part of the background noise, drowned out by the jubilant cheering or despairing commentary.

However, “background noise” was not enough for some companies. The messaging might not be strong enough to create a lifelong consumer. Corporations wanted to share the limelight with the major event. So, rather than sponsoring an event, they began featuring the event. For example, the long standing Heritage Classic Golf Tournament in Hilton Head, South Carolina, used to be sponsored by MCI (who was recently bought out by World.Com). Rather than taking the second seat, the sponsorship deal changed to include a name change to the event; it became known as the MCI Classic. Many still refer to the event as the “Heritage Classic,” but all literature now
reads “MCI Classic.” This is just one of many examples in sporting events: the Outback Bowl, the Alltel Bowl, Nokia Sugar Bowl, Chick-fil-A Peach Bowl, Continental Tire Bowl and many more. Not only are end-of-season professional playoff games being sponsored; some colleges are looking for sponsorship of regularly scheduled rival games. Professional and college athletics are not the only sports being sponsored; youth sports have also become an avenue of marketing: Shik Three-on-Three Youth Baseball Competition, or Pepsi’s Punt, Pass and Kick for children 8 years and older, are just two examples of corporate invasion of local age-group sports. Corporations have moved from very public arenas to local and more private venues. Marketing has even become customized to the individual on the internet; based on your site selections, certain companies place pop-up advertisements.

Recently, corporations have made another breakthrough in branding use: they now own broadcasting stations; MTV, Nickelodeon, TLC, Disney and more. It is not a surprise that corporations own television stations; the surprise is the underlying control that corporations have with ownership. Corporations then control what is aired and what is not, from programming to commercials. Commonly, networks actually produce the programming to be viewed. This control of production is directly linked to Michel Foucault’s concept of the control of knowledge. Foucault’s *Discipline and Punish* explains his position that the most powerful knowledge is disciplinary, which is produced by discipline and control over others. Corporations desire to be the center, as in Foucault’s panopticon, giving the corporation a distinct vantage point on the social structuring. Fiske (1993) discusses Foucault’s theory in relation to media effect on “docile bodies” in *Power Plays, Power Works*. 
Network television stations also allow corporations to have center stage. In the weekly series *The Apprentice*, with Donald Trump, a corporation sponsors the television show, not just by having commercials but being a part of the show. *The Apprentice* is a “reality show,” whose contestants are competing against each other to win a job opportunity with the Trump Corporation. The featured corporation (besides Trump’s own) participates by providing some type of task for the competitors to complete, such as designing a new bottle for Pepsi, or developing a new advertising campaign for Levi’s, or marketing a new burger for Burger King. So the corporations not only have a captive audience for 60-second commercial breaks, they are also featured for the full hour of television programming.

Branding has evolved from trying to achieve simple brand recognition to being recognized as a necessary part of social gatherings. This is of particular interest when examining health trends that corporations influence. The fast food industry has influence over health. The products that they make literally go into the body and have a direct link to the individual’s health. The fast food industry’s influence is not only apparent in our culture, but also in education. Although examples in popular culture have already been given, the next section will focus on the food industry’s marketing to children.

*Fast-food industry*

Fast food corporations want to be a part of every facet of culture, holding a dominant space in society that encourages Americans to visit their businesses as often as possible, but not one that allows the questioning of the nutritional value of their food, the socioeconomic targeting of marketing or the environmental effects of their production.
The images of convenience, emotional happiness, and identity that fast food portrays are quite distant from reality. The fast food industry wants to divert consumer attention to warm happy feelings and away from the negative aspects of their industry, such as obesity. Fast food is not nutrient-dense food. It contains high concentrations of fat and sodium.

Marketing campaigns of the fast food industry use educational strategies to transform people, especially children, into consumers. Two fundamental principles of classical conditioning, repetition and reinforcement, are key for programming customers.

Commercials are a major avenue to reach the child consumer, who is now exposed to 40,000 television ads a year; and close to 70 percent of those ads are for food (Fonda, 2004). The sheer number of commercials to which children are exposed highlights the repetition tactic used to affect consumers, either consciously or subconsciously. Children 2-7 years of age watch about 11 hours of television each week, but those 8–18 years of age watch about 22 hours of television in the same length of time. Furthermore, children 8 years and under do not understand the difference between commercials and programming (Nestle, 2002), which makes this type of advertising manipulative and deceptive. Several countries have banned child-targeted television advertising, including Norway, Sweden and the province of Quebec (Fonda, 2004).

The fast food industry also employs a reinforcement tactic, clearly demonstrated by the promotional toys the industry offers. It is obvious how the industry reinforces patronage of the child consumers. Toys of all sorts have been placed in “kid’s meals” and offer a reward, reinforcing whatever behavior the child exhibited to convince parents to frequent a particular restaurant. These toys are commonly linked to a promotional
element of children’s movies, such as, *Finding Nemo, Shrek, Spiderman,* and *Batman.* These toys appeal to adults as well as to children. Websites for fast food toy collectors reinforce adult collection of these items.

The fast food industry also uses repetition and reinforcement with children’s games and learning tools. The American Dietetic Association and the McDonald’s Corporation launched “Food FUNdamentals,” an educational promotion, in 1997, which featured traditionally “nutritional” food (milk, vegetables, and meat figures) presented as anthropomorphetic characters stamped with the McDonald’s logo and included nutritional fact sheets. The nutritional facts have been scrutinized for misleading nutritional information found in Nestle’s *Food Politics* (2002). These conflicting messages can be problematic. Seventy percent of children ages 6 to 8 years think fast food is healthier than foods prepared at home (Wallis, Barnes, & Friedhoff, 2004).

These tactics have been very successful in product recognition. Spurlock’s *Super Size Me* demonstrates how kids identify Ronald McDonald; however some have a difficult time identifying Jesus Christ (Sullum, 2003). Children are getting the corporate “message” about fast food. The next hurdle the industry has to overcome is getting children to their products.

A growing trend of the fast food industry is to put restaurants in non-traditional locations such as malls, airports, and other retail outlets. Schools make an ideal location for fast food restaurants: “In 1997, 30 percent of public high schools sold fast foods from one of the nine major fast food chains. At least one high school is actually licensed as a fast food franchise, it pays royalties to the parent company and keeps the profits, which are said to be $100,000 annually” (Nestle, 2002, p. 194).
It is inconsistent to place a fast food chain with foods of poor nutritional value just across campus from health classes. Those administrators in control of making such decisions are faced with tremendous pressures, including education budget cuts. Fast food companies offer enticing “partnerships” with schools. Although fast food initially costs more, the mark-up is also much higher than traditional cafeteria food, giving higher net profits. Giroux (2000) comments, “Yet as crucial as the role of public schooling has been in American history, it is facing an unprecedented attack from proponents of market ideology who strongly advocate the unparalleled expansion of corporate culture” (p. 84).

The percent of children who are overweight and obese has more than doubled in the last 30 years, from 6 percent in the early 1970s to 15 percent in 2004 (CDC, 2005c). It is imperative that educators and administrators look past the initial monetary benefits and examine the environmental effects of fast food culture, which could perpetuate health concerns within our schools.

Branding techniques work because they appeal to the consumers’ emotions and identity. It is a powerful weapon in the marketing arsenal of many different types of corporations. It has been extremely powerful in the marketing of fast food. The following section will further investigate what impact corporations have on education.

**Corporate influence on the University**

It is important to acknowledge the purpose of the university before investigating the effects of corporatization upon it. Higher education can be viewed as an instrument of social improvement/healing, meaning that Americans place faith in the benefits that an entire community will gain from educated individuals. Those individuals will learn to be doctors, scientists, law enforcers, engineers, medical specialists, and trade workers.
Those individuals also learn about important health factors that influence communicable and chronic diseases from the college curriculum. Although not everyone in the community attends these institutes, there is what epidemiology calls a “herd” effect: those individuals who do not attend will receive the benefits/protective factors from the majority who do.

Martha Nussbaum (1997) points out a fundamental principle of social reconstructionists: that education is supposed to be a place where students learn how to think critically for themselves and become productive citizens of the world. Creating this citizen is also a principle of John Dewey’s theory of education in *Democracy and Education* (1916): “Since education is a social process, and there are many kinds of societies, a criterion for educational criticism and construction implies a particular social ideal. Such a society must have a type of education which gives individuals a personal interest in social relationships and control, and the habits of mind which secure changes without introducing disorder” (p. 99). Individuals learn how to function in the world and be productive members of society; they learn how to participate in a democratic society.

Education is also seen as a tool in rectifying social injustice, such as racism, by creating an understanding in students that they are connected to their fellow man in both direct and indirect ways. This is why multicultural education became a part of the curriculum in all levels of education. Paulo Freire (1970), along with many others, views education is a source of hope to make a better tomorrow for society: “Education as the practice of freedom – as opposed to education as the practice of domination” (p. 69). The ideal learning environment is one in which students are inspired to self-reflect on their experiences in addition to gaining new knowledge. This ideal environment operates
on democratic principles. However, a democratic environment is also encumbered by
democratic downfalls, such the negative effect of capitalism: Giroux (2003)
acknowledges this: “As democratic values give way to commercial values, intellectual
ambitions are often reduced to an instrument of the entrepreneurial self, and social
visions are dismissed as hopelessly out of date” (p. 156).

*Place of learning or place of job training*

The function of the university in society has been hotly debated in educational
and community circles. What role does the university fulfill for the community and the
individual? In *University In Ruins*, Reading (1996) outlines the transformation of the
university from its early existence to its present condition. According to Reading, “It is
no longer clear what the place of the university is within society nor what the exact nature
of that society is, and the changing institutional form of the University is something that
intellectuals cannot afford to ignore” (p. 2). One group of persons might feel that the
university should keep its traditional role of producing culture for society; however,
many new theories define the university as an entity that uncovers the culture that is
produced by society.

Many cultural theorists, critical of current ideas about the university’s function,
are still romantically married to the notion that schools are a place of hope and positive
change. Giroux and Myrsiades (2001) believes that the education system is a “critical
social imperative of educating citizens who can sustain and develop inclusive democratic
public spheres” (p. 33). However, the function of today’s university is in question. The
influence of corporate culture has called into question the university’s role in job training
and producing critical citizens, as well as the nature of university/corporate relationships.
Colleges and universities are heeding the call to make students job-ready upon graduation. Stanley Aronowitz (2000), in *The Knowledge Factory*, contends that the university has yielded its responsibility of making critical citizens to meeting market demand and producing the next line of the American work force: “The main task of the public four-year and community colleges would be to transmit technical knowledge to future employees of the U.S. labor market” (p. 39). The university setting has morphed into a “Knowledge Factory.” The main goal of the university now seems to be to mass-produce workers, adapting programs by dropping liberal arts courses for more technically-based-courses to meet the criteria of corporate employees. And to make a profit.

Others have questioned the ability of the university to produce “critical citizens” under current conditions. Students are less prepared entering colleges and universities: Gould (2003) cites one study that reports 73 percent of colleges and universities increased their remedial course offerings in 1997. College instructors are feeling this change. Students are not prepared with basic reading, writing, and math skills; therefore, time must be spent refining the basics before developing higher learning skills. Gould (2003) also cites *Change: Magazine for Higher Learning* in 1998, “Consistently throughout the 1990s over 70 percent of students surveyed reported the most important reason for attending college was to be able to get a better job” (p. 46).

Universities and colleges have been losing the financial support of the government because of budget cuts beginning in the 1980s and continuing to the present. This decrease in funding caused administrators to welcome the sponsorships and partnerships that corporations offered. Universities are motivated by producing
“knowledge” as a product. This leads to research endeavors with ethical implications. Private sponsorship of research became prominent; the right of a corporation or sponsor to control the publication and release of knowledge discovered in corporate-sponsored research is now included in contract agreements. In some cases, findings that did not financially benefit a sponsoring corporation were blocked from released. In No Logo, Klein (2000) discusses the University of Toronto’s research partnership with a pharmaceutical company to test the effectiveness of the company’s drugs. Researchers at the university found that the drug produced major complications and stopped the study before completion. The pharmaceutical company threatened to sue the researchers if they went public with the information, claiming a clause in the contract between the university and company allowed the company to suppress findings for one year after the study. In 1994, 35 percent of U.S. universities allowed partnering research companies to block findings and 53 percent agreed to delay publication of findings (Klein, 2000).

Aronowitz points out Clark Kerr’s hopelessly optimistic take on corporate relationships with universities, “while extending their role as professional servants to business and government powers, universities can still remain critics of the “status quo” and enter into “productive conflict with society” (p. 34). Can this truly happen? Klein (2000) cites a situation at a north Georgia high school: on what the administration deemed “Coke Day,” all students were to wear apparel with the company logo; however, one student questioned the status quo by wearing a “Pepsi” t-shirt; he was promptly suspended for his actions. In 1963, it might have seemed reasonable to Kerr and others that a non-biased and professional relationship might potentially exist for university and corporations, but in today’s mass market culture, that seems like a fantastic idea.
Along with sponsorships and partnerships between universities and corporations, universities also take on a corporate model in their internal structure. Most university presidents now resemble CEO’s of corporations and have corporate experience versus teaching experience. The highest-paid positions in most universities are not faculty positions; they are administrative positions. In addition, universities have recently adopted the corporate slogan of “Excellence.” This borrowed term is one way of bringing the Total Quality Management system into the university setting, establishing a system of checks and balances to justify existence.

Center of Excellence – extension of the corporate model

The idea of “Excellence” is dismantled in Reading’s (1996) University in Ruins and is equated with another corporate tactic: “The point is not that no one knows what excellence is but that everyone has his or her own idea of what it is. And once excellence has been generally accepted as an organizing principle, there is no need to argue about differing definition. Everyone is excellent, in their own way, and everyone has more of a stake in being left alone to be excellent than in intervening in the administrative process” (pp. 32-33). Universities make up their own standards to deem themselves “excellent,” from the number of student credit hours, graduation rates, or percentages of terminal degrees, to the diversity of students on campus. This empty term has changed the focus of most universities: “In the University of Excellence, knowledge tends to disappear, to be replaced as a goal by facility in the processing of information: something should be known, yet it becomes less and less urgent that one know what it is that should be known” (Reading, 1996, p. 86).
Along with corporate structure, universities are accepting and fostering a consumer mentality. Capitalism is being welcomed into the very fabric of the university’s function. Students view themselves as consumers not only of knowledge, but also of the “university experience.” From the moment they wake up in the morning, go to the cafeteria, and stroll down the corridors of academic buildings, to buying their books at the university store, they are bombarded with marketing propaganda: “everything in the lives of students encourages them to think of themselves as consumers rather than members of the community” (Reading, 1996, p. 11).

*Consumerism’s Impact on higher education*

The university fosters the next generation of consumers in several ways, such as increasing class fees, expanding course size, exposing students to selected companies and making students captive audiences. Tuition prices have increased at alarming rates compared to the 3-4 percent of national inflation rates: “From 1996-97 to 2000-01, only five years, tuition has risen a further 18 percent for public schools and 27 percent for private school. In constant dollars, the increase in public four-year schools tuition in the past fifteen years has been 69 percent and in private four-year schools, 82 percent” (Gould, 2003, p. 52). Placing this price tag on education only begs student/consumers to ask, “What is it that I am paying for?” As Gould describes, most students are simply looking for a passport into the workforce (Gould, 2003). Going through the higher education process with its tuition, fees, books and living costs places a tremendous amount of stress on students and their families. Many students have to work part-time or even full-time jobs to make financial ends meet. The concept of “earning” an education is overshadowed by the idea of “buying” an education. Attention that would normally be
focused on studies is taken away, and the overall experience of becoming a critical citizen diminished. Students focus on the minimal amount of material that is most commonly memorized to pass exams and acquire credit hours for graduation. Learning and growing as individuals is bypassed for the process of filling in squares and checking off requirements.

Along with increased financial obligations, students are exposed to factory-like lecture halls that hold 200 to 500 hundred students. Students sit in the amphitheater like empty vessels waiting for the instructor to pour knowledge into them. Paulo Freire would argue that this “banking” method of teaching does not promote learning but reinforces the status quo in class structure: “Professors attempt to ‘fill’ the students by making deposits of information, which the professor considers to constitute true knowledge. And since man ‘receives’ the world as passive entities, education should make them more passive still and adapt them to the world…everything in this ready-to-wear approach serves to obviate thinking” (Freire, 1970, pp. 62-63). Ideally, a class should be small enough for students to develop relationships with each other and the instructor. Many instructors feel 15 to 25 students is an ideal number and is more conducive to the use of a variety of teaching strategies.

The university makes learning difficult by increasing the number of seats in classes to become more cost efficient. A range of course subjects, such as health education, have been reduced to a lecture formats with standardized books and teaching assistants instead of degreed professors. Learning becomes impersonal, as there is no longer a relationship between each student and the professor. The large number of students in a class forces evaluation to consist of an inventory of requirements for
students to pass. When students are exposed to this high-priced environment, it is no wonder that they consider themselves consumers.

Another way the university facilitates a consumer-driven environment is to subject students to approved corporations, allowing certain companies direct access to the student population without concern for potential negative consequences. Cola companies have expanded their presence and roles in the public schools far beyond athletic scoreboards and vending machines, their traditional place for decades. Currently, universities succumb to corporate pressure for increased amount of money sponsorship, commercializing their curricula and helping the corporation strengthen its market power. The cola companies have signed hundreds of “pouring rights” contracts with universities across the nation. “Pouring Rights” is the legal agreement between one organization and a cola company to sell their products exclusively on the organization’s property. This precludes competition with other cola companies which encourages greater soda consumption by their students. After signing these exclusive contracts, university administrators find themselves devoting valuable time to management, taking on the role of soda promoter and accepting advertising propaganda. The large amount of up-front money to the university, however, is an effective inducement to stick to the contract. The University of Minnesota, with 37,000 students, has a $28 million, 10-year contract with Coca-Cola (non-guaranteed), one of the largest contracts ever signed by a university (White, 1999).

Pouring rights contracts have become a solution to university budget cuts made by state legislations. Pennsylvania State University signed a $14 million, 10-year contract with Pepsi-Cola in 1992 (White, 1999). This was approved after the university’s budget
was cut by $250 million, 3.5 percent of the total state funding to Pen State. Corporations are quick to come to the financial aid of universities; however they come with their own interests to protect, not necessarily students’ or society’s best interest.

A fundamental tenets of democracy is choice; however, universities that allow corporations to dominate their campuses limit the number of choices their students might have had. Using the cola companies as an example, what choice does the student have between Coke and MinuteMaid? Both beverages are Coca-Cola products. That is not a choice. When a student walks into the cafeteria, they have a “choice” of prearranged fast food or contracted food selections. These choices are made for the student by the university.

Other corporations that are allowed access to students are credit card companies. Commonly, credit card companies set up a centrally-located booth on campus to solicit new members, usually during the first couple of weeks of school. Credit card companies also have agreements with bookstores such that advertisements for the company are placed in bags along with student purchases. Credit cards are very tempting to students, with their “buy now and pay later” concept, and many students do not recognize the financial debt that they can accumulate. The average American currently has $11,000 worth of credit card debt; it seems that the university wants to support these growing numbers (NBC Nightly News, 2004). However, the university has an obligation to weigh the advantages and disadvantages of allowing access to students. Students’ health and wellness is dependant upon their environment, which is dictated by the university.

Yet another example of how the university treats students like consumers is found in changes to curriculum. Again, budget cuts cause the university to decide which
programs to continue and which to cut. Student enrollment in academic programs is usually reflected in the job market. Arts and humanities courses have taken a heavy hit from budget and program cuts because these areas do not directly provide technical training or job marketability for the student. The goal of many students attending colleges and universities is not higher education but job placement in a field that they feel passionately about; the financial repercussions will not allow the freedom of pursuing “higher” education.

Student evaluations are another tactic in the curriculum that reinforces a consumer mentality. Students are asked to evaluate courses and instructors at the end of each term; part of the information is extracted to exemplify the Excellence criteria that the university has written for itself. Part of the information is used in instructors’ performance evaluations, which indirectly determines whether or not an instructor will keep a job. The curriculum is geared to treat students as consumers of knowledge rather than as critical citizens.

The environment that the university creates for students encourages them to think of themselves as consumers: high tuition fees, cafeterias that look like mall food courts, and even evaluation of the curriculum. The curriculum reflects a consumer-driven program in three ways: first, the existence of a program is based on the number of enrolled students; second, the course content is tailored by the publishing companies, and finally, student evaluations play a role in making the student feel like a consumer rather than a student. So how does the university justify this practice?
Antidemocratic Posture

The influence that corporations have on universities has inspired several cultural theorists to question the actions of universities, calling them antidemocratic. Kenneth Saltman, Alex Molnar, and Henry Giroux all share the view that capitalism embodies an antidemocratic exploitation of schools and schooling; consequently, students are reconstructed as consumers and democratic values are replaced with market values.

Saltman’s (2000) *Collateral Damage: Corporatizing Public Schools* argues that privatization does not accomplish the purpose of lower cost; however, it does decrease democracy. He claims that privatization “increases costs, increases the potential for abuse and corruption, decreases public oversight and decreases the stability and reliability of high quality service” (p. 1). Saltman has written extensively on different corporations and their purpose in invading educational space. Corporations function ideologically to promote a corporate-friendly world view, define student identity through consumption and render nationality as a corporate interest rather than a public interest (2001). Saltman suggests re-centering school power by keeping private interest out of the education realm.

Alex Molnar heads Arizona State University’s Commercialism in Education Research. He and fellow researchers are investigating the effect of corporations on education. Molnar’s main argument is that corporations create a false “crisis:” that the educational system fails students. Molnar (1996) contends that, in fact, “by the mid-1990s, American public schools were, against all odds, actually educating a more diverse and more impoverished student body to a higher standard of academic performance” (p.9). Corporations, in their own self-interest, want access to schools, and one way of doing this is to create a problem for which they pose themselves as the solution.
Corporate America’s main concern, however, is the bottom line and presence in schools is one way of increasing the bottom line (Molnar, 2005). This is not a recent phenomenon. Molnar reveals that in 1929, the National Education Association released a committee report warning that corporations might interfere with the principles of democratic education (Molnar & Reaves, 2001).

Giroux has written extensively about how corporate culture has influenced schools, especially higher education. His most recent works include Stealing Innocence (2000), Beyond the Corporate University (2001), and The Abandoned Generation (2003). All address the compromise education makes in order to meet the desire of corporations:

Corporate culture functions largely to cancel out the democratic impulses and practices of civil society by either devaluing them or absorbing such impulses within a market logic. Public spheres are replaced by commercial spheres as the substance of critical democracy is emptied out and replaced by a democracy of goods, consumer life-styles, shopping malls and the increasing expansion of the cultural and political power of corporation throughout the world. (Giroux, 2001, pp. 30-31)

All three authors agree that contemporary capitalism, with its hyperconsumerism and market culture, has, in significant ways, underminded the principles of democracy. Schools should not be places where corporations market products to captive audiences, where students are merely or mainly taught to be consumers and where students are exploited for profit. Schools at all levels should be places that not only teach democracy, but act in democratic and equitable ways toward and with all students, staff, and faculty. Universities play an important role in educating citizens for participation in democratic society.
The influence corporate culture has on Universities not only assaults democracy but compromises American health. Health education should include the teaching of cultural studies and critical pedagogy: “Critical pedagogy is a politics of understanding and action, an act of knowing that attempts to situate everyday life in a larger geopolitical context, with the goal of fostering regional collective self-responsibility” (McLaren, 1998, p. 7). One health consequence of the environment influence the university exerts is obesity. The final body of literature will include a review of obesity including its impact (prevalence, criticism, disparities, and economic cost) and etiology (genetic, behavioral and environmental factors).

Culture’s Impact on Obesity

Impact of Obesity

Prevalence

The prevalence of obesity among U.S. adults is 30%, which reflects a 61% increase since 1960; this means 38.8 million American adults are now obese (CDC, 2005a). In 2004, 65% of U.S. adults were considered overweight or obese (CDC, 2005a). Increased obesity rates affected nearly every subgroup of the U.S. population. Table A1 reflects the percentages of individuals who were considered obese, including specific categories such as gender, age, race, education level, and smoking status (Appendix A).

The increase in obesity is not restricted to the adult population. There has also been substantial increase in child and adolescent obesity. The National Health and Nutrition Examination Survey (NHANES) indicates that an estimated 15% of children and adolescents ages 1-19 years are overweight, a two-fold increase from 1963 to 2000. The 1999-2000 findings for children and adolescents suggest the likelihood of another
generation of overweight adults who may be at risk for overweight and obesity-related health conditions (CDC, 2005c).

The U.S. is not the only country experiencing epidemic levels of obesity. In virtually all developed countries, rates of obesity are on the rise. In 1995, the World Health Organization (WHO) estimated that 200 million adults worldwide were obese. Subsequently, in 2000, the WHO recalculated the estimate and announced that the number of obese adults worldwide was over 300 million. In most European countries, the prevalence of obesity is anywhere from 10 to 25%, and the rate has increased by as much as 10 to 40% in the past 10 years world-wide (WHO, 2005).

Criticism of the obesity epidemic

Although the leading health agencies in the United States (CDC, National Institute of Health) and across the world (World Health Organization) agree that obesity is a national and world-wide epidemic, some contest this view (Gibbs, 2005). Jeffery Friedman, from Rockefeller University, contends that national data is misleading. The United States Center for Health Statistics has lowered the weight distribution range and now more people are classified as overweight compared to 1991. However, he does recognize that there has been, on average, a 7 to 10 pound weight increase per person since 1991 as cited in Kolata (2004).

Paul Campos (2004), author of *The Obesity Myth*, claims that national health organizations use a faulty measure of body mass index to report obesity, which is misleading to the individual and public. Body mass index is a quick measurement of composition. It has been approved by the CDC and National Institutes of Health (NIH) as a reliable measure in large populations to determine body weight. Health professionals
will tell an individual that BMI is an estimate and that there are other more reliable measures to determine whether a person is overweight or obese.

Friedman, Campos, and others are more concerned that the war against obesity has turned into a war against the obese. Kathleen LeBesco, (2004) author of *Revolting Bodies?: The Struggle to Redefine Fat Identity*, feels that the medical profession has equated fatness with sickness or ill health. She refers to medical resources to support her claim that individuals who are slightly overweight and who are also active live longer than their normal-weight counterparts, which studies seem to prove. And she also concludes that the environment in which we live should be the focus of change.

However, the toxic environment in which we live is manifested in our health, particularly in overweight and obese physical states.

**Disparities**

Even though there are critics of the obesity epidemic, all agree on the negative consequences this disease has on the body. As alarming as the prevalence of the disease might be, the disparities found in the population warrant the same attention.

Although all subgroups are affected by obesity and overweight prevalence, there are apparent disparities among certain groups. These health disparities are commonly found in obesity statistics in Hispanic and African populations because of the disproportionately high percentage of obesity compared to white counterparts (Sanchez-Johnson, Fitzgibbon, Martinovich, Stolley, Dyer, & Van Horn, 2004; Crawford, Story, Wang, Ritchie, & Sabry, 2001; Denney, Drueger, Rogers, & Foardman, 2004; Gordon-Larsen, Adair, & Popkins, 2003). The act of looking at any health issue within a racial context has fueled much debate. Some feel that race is an unscientific, socially
constructed taxonomy that is based on an ideology that views some human populations as inherently superior to others on the basis of external physical characteristics or geographic origin (Williams, Lavizzo-Mourey, & Warren, 1994). However, others argue that race is socially meaningful but of limited biological significance and that racial or ethnic variation in health status results primarily from variations of exposure or vulnerability to behavioral, psychosocial material and environmental risk factors and resources. Lillie-Blanton and Laveist (1996) warn that racial and ethnic group comparisons of health indices are frequently presented without stratifying or adjusting for socio-economic conditions that could affect interpretation of the data. Although racial/ethnic differences could be linked to socio-economic conditions, they are not exclusive and other factors should be investigated. Whaley (2003) suggests that cultural dimensions are key to the understanding of racial differences in health status.

Disparities in race or other subgrouping will not disappear if we just ignore them. It is important to understand health in relation to race because it offers an opportunity to use risk prevention and ask more important questions such as: why do these disparities exist and what perpetuates and sustains these disparities in our culture?

In February 1998, President Bill Clinton announced a new initiative that set a national goal of eliminating longstanding racial/ethnic disparities in health by 2010. Today, President George W. Bush is mounting public and private coalition efforts aimed at eliminating racial and ethnic disparities in health and health care (Ibrahim, et al., 2003). However, epidemiological evidence shows that class-based inequalities have either persisted or widened, despite overall improvements in the health of Western populations (Bolan, Murphy and Gleeson, 2004).
Other associated diseases

There are many health risks associated with being overweight and obese. Obese individuals are considered to be at higher risk for disability and premature death than non-obese individuals. These health risks increase as the severity of an individual’s obesity increases. The increase in the phenomenon of obesity has an important impact on the incidence of cardiovascular disease (CVD), type 2 diabetes mellitus, cancer, and osteoarthritis. Obesity has a more pronounced impact on morbidity than on mortality (Visscher & Seidell, 2001). When the cost of obesity is considered, it should also take into account the implications of obesity.

Obesity was identified as a risk factor for CVD not long after it was identified as a mortality risk factor. Abdominal adiposity in particular is associated with CVD risk (Donahue, Abbott, Bloom, Reed, & Yano, 1987). Obesity is a risk factor for increased blood pressure and unfavorable lipid profile: decreased high-density lipoprotein (HDL) cholesterol levels and increased low-density lipoprotein (LDL) cholesterol and triglyceride levels. However, obesity is also directly related to CVD independent from blood pressure and lipid levels; the relationship between obesity and CVD is attenuated, but relative risks remain high and significant (Donahue, Abbott, Bloom, Reed, & Yano, 1987). Framingham data, based on 26 years of continuous observation of approximately 5200 men and women aged 28-62, showed that high relative weights were predictive of myocardial infarction, sudden death, congestive heart failure and atherothrombotic strokes. It was also estimated from the Framingham Study data that if everyone maintained an optimal weight, there would be 25% less CVD and 35% fewer strokes or episodes of
heart failure. A 20% weight reduction in the obese should confer a 40% reduced risk of coronary events (Hubert, 1983).

Besides being a major risk factor for CVD, obesity, in particular, abdominal obesity, is the most important risk factor in the onset of type 2 diabetes. The WHO has calculated that about 64% of type 2 diabetes in U.S. men and 74% in US women could be avoided if there were no BMIs above 25 kg/m2 (Chan, Rimm, Colditz, Stampfer, & Willett, 1994). Concentrations of free fatty acids are excessive in individuals with abdominal obesity and amplify insulin resistance which contributes to the etiology of diabetes.

The American Institute for Cancer Research and the World Cancer Research Fund (WCRF) completed a comprehensive review of the relationship between obesity and several cancers. The results point to a relation between BMI and several types of cancers including endometrial, colon, prostrate, and gallbladder cancers. The American Cancer Society’s follow-up study provides evidence of the association of obesity with cancer mortality. Among the 750,000 adults aged 30 years and older who were followed from 1960 to 1972, obese men had a 1.33 times higher mortality rate and obese women a 1.55 times higher mortality rate from cancer than did their non-obese peers (Garfinkel, 1986). A possible mechanism for the relationship between obesity and cancer is the metabolic abnormalities that result from high BMI levels. Metabolic abnormalities promote cell growth in general and tumor cells specifically. Obesity might also influence cancer detection (WCRFA, 2005). Obese women are more reluctant than non-obese women to participate in cervical and breast cancer screening programs (Wee, McCarthy, Davis, & Phillips, 2000).
Obesity is one of the most important preventable risk factors of osteoarthritis in knees and hip joints. It is also an important risk factor for disability. Osteoarthritis is more common in women than in men. The relationship between being overweight and having osteoarthritis is explained at least in part by the high joint pressure in overweight individuals (Oliverua, Cirillo, Reed, & Walker, 1999).

Obesity can lead to many other adverse health conditions, according to the National Institutes of Health. Overweight and obese individuals are at increased risk for physical ailments such as high blood pressure, hypertension, high blood cholesterol, dyslipidemia, Type 2 diabetes, insulin resistance, glucose intolerance, hyperinsulinemia, coronary heart disease, angina pectoris, congestive heart failure, stroke, gallstones, cholecystitis and cholelithiasis, gout, obstructive sleep apnea and respiratory problems, some types of cancer (such as endometrial, breast, prostate and colon), complications of pregnancy, poor female reproductive health (such as menstrual irregularities, infertility, irregular ovulation), bladder control problems (such as stress incontinence), uric acid nephrolithiasis and psychological disorders (such as depression, eating disorders, distorted body image and low self esteem) (National Institute of Diabetes and Digestive & Kidney Disease [NIDDK], 2005; Oliverian et al., 1999; Wee et al., 2000).

**Economic cost**

Obesity is a complicated disease that is linked to many other disease states; with such a connection, it is no wonder that the cost associated with obesity is extremely high. Direct and indirect costs associated with obesity in the United States totaled $99.2 billion in 1997; in 2000, costs rose to $117 billion: direct cost was $61 billion, and indirect cost $56 billion (NIDDK, 2005; Visscher & Seidell, 2001). Direct costs include funds spent
on or by the individual: prescriptions, doctor visits, hospital stays, quality of life. The indirect cost of obesity is paid by society includes, loss of productivity, sick days, and premature pensions. The WHO (2005) noted that in most developed countries, 2-7% of health care costs were devoted to obesity and obesity-related conditions. With obesity rates increasing in Westernized countries, these cost percentages will also continue to rise. The WHO has prioritized understanding how obesity affects the world’s economy (2005).

Specifically, health expenditures associated with obesity are more costly than the health risks associated with smoking, heavy drinking, and poverty (Sturm, 2002). Sturm (2002) used data from Healthcare for Communities, a 1998 U.S. telephone survey that polled approximately 10,000 subjects. The only specific health issue that exceeds obesity for cost is aging. Results indicated that health care costs for the obese are 36% higher and medication costs 77% higher than for the non-obese. These alarming economic figures indicate that society is literally paying the price of the obesity epidemic. Both the direct and indirect costs of health care could be reduced by a 10% decrease in weight of obese individuals (Goldstein, 1992). It would be advantageous to both individuals and society to understand the financial and physical impact of obesity.

The Etiology of Obesity

Salbe and Ravussin (2000) determined that proper weight maintenance, otherwise known as the energy balance, is as follows: Energy Intake (food/calories) = Energy Expenditure (physical work/exercise). The energy balance system once regarded as obvious and simple is becoming one of the most complex in medical practice (Rosmond,
Being overweight and/or obese are multifactoral conditions caused by numerous variables that emanate from biological, environmental, and/or behavioral risk factors (Bouchard, 2000). Therefore, biological, behavioral and environmental variables should be examined.

**Biological Causes**

The genetic link for obesity has been extensively explored in biogenetic research studies within the past decade (Barsh, 2000; Bouchard, 1997; Salbe, 2004). Scientists realized genetic/obesity relationship possibilities through studies of identical and non-identical twins (Brook, Huntley & Slack, 1975; Feinleib et al., 1997). Results from these investigations revealed startling similarities between identical twins regarding blood cholesterol, blood pressure, glucose tolerance, and obesity as compared to their non-identical twin counterparts. The results indicated that genetic factors were a major contributor to body fat composition.

Additionally, this gene/obesity link inference is strengthened when comparing identical twin subjects who were reared together to sets of identical twins who were separated at birth. Stunkard, Harris, Pedersen and McClearn (1990) found that there were only small body fat composition differences between identical twins raised together and those who were separated within the first year of life. Further, Price, Cadoret, Stunkard, & Troughton (1987) affirmed an alarming genetic link for obesity with their examination of biological mothers and their offspring who had been adopted as infants. The results showed a significant relationship between the body fat composition of biological mothers and their biological offspring. Conversely, there was no relationship between the
adoptive parents and the adopted offspring’s body compositions. These outcomes indicate a compelling genetic impact on obesity.

Childhood obesity has been identified as an obvious risk factor for adult obesity (Bar-O, Fareyt, Bouchard, Brownwell, Dietz, & Ravussin, 1998). If a child is obese, the trait follows the individual into adulthood (Bouchard, 2000). Additionally, if one or both of a child’s parents are obese, the child has a 25-30% higher than normal chance of becoming an obese adult (Anspaugh et al., 2001).

Recent research findings have suggested that certain genes are responsible for variables related to obesity. All together, 40 genes have been associated with excessive weight characteristics (DNA Sciences, 2000). Some of these genes work with other genes to predispose a person to obesity. For example, variants of the POMC gene on chromosome 2 interact with the PC1 gene found on chromosome 5 to produce conditions associated with obesity (DNA Sciences, 2000). Also, studies have shown that severely obese families tend to share certain types of variants of the M4R gene on chromosome 18 (DNA Sciences, 2000).

Hormonal factors that protect the ideal body weight have been found to have possible connections to obesity. The hormone leptin, found in all adipose cells, has been determined to act as a switch or catalyst that tells the brain whether or not the body needs more food. When a person starts to lose weight, the body manufacturing of leptin decreases, which signals the body to eat more. Conversely, when this person gains weight, leptin production increases, which signals to the body to suppress energy intake (Niswender, Morton, Stearns, Rhodes, Myers, & Schwartz, 2001).
Noteworthy findings in recent research have emerged regarding the ability of the peptide hormone ghrelin’s ability to monitor body weight. Ghrelin, which is produced in the stomach, is very much like leptin. It seems to communicate with the brain to control the intake of food (Cummings & Schwartz, 2003). When humans are hungry, their levels of ghrelin increase; levels subsequently drop after meals. This specific hormone was revealed when investigating hormone levels following gastric bypass surgery (Wren et al., 2000). Individuals who have had gastric bypass surgery have most of the stomach tied off, which impairs the secretion of ghrelin. Experts believe that, along with the smaller size of the stomach, the reduced ghrelin concentration in gastric bypass patients may contribute to the rapid weight loss that these individuals experience (Cummings & Schwartz, 2003).

An additional biological fact that can explain differences in rates of obesity is gender. Being female is a risk factor for obesity (Salbe & Ravussin, 2000). Females naturally possess more body fat for reproductive reasons (Wilmore & Costill, 1999). Body fat is a storage agent for estrogen, a hormone necessary for reproductive organ functioning in females (Salbe & Ravussin, 2000). Insufficient levels of estrogen due to depletion of adipose tissue interferes with reproduction. Also, pregnancy has been shown to elevate a female’s body fat percentage in order to protect the unborn child. This increase of body fat inhibits weight loss after the birth of the child (Rosato, 2000).

Aging is a biological factor that can inhibit weight loss. As the average human body ages past its second decade, it loses muscle mass (Wilmore & Costill, 1999). Muscle is the tissue that needs and consumes the most energy in the body. As muscle tissue decreases, the rate at which the body expends energy decreases; this is also known
as a decrease in the basal metabolic rate. When this happens, the energy balance is disrupted and weight gain occurs.

Although numerous research studies have found strong associations between human genetic activity and obesity, many investigations state that the genetic relationship is fused with two key behavioral factors: physical activity and nutrition (Meyre, Boutin, & Froguel, 2004; Froguel & Boutin, 2001; Kaprio, Eriksson, Lehtovirta, Koskenvuo & Tuomilehto, 2001). This strong connection between genetics, behavior, and environment is based on the fact that obesity does not occur when food is scarce; obesity is found only in industrial areas of the world where an abundance of food is available (WHO, 2005). Obesity seems to be a disease of developed countries only.

**Behavioral Causes**

For this study, behavioral factors are those factors that are controlled directly by the individual. The two major behavioral causes that dictate the maintenance of weight are physical activity and nutrition (Salbe & Ravussin, 2000). Therefore, the basis for obesity can be explained through an examination of these two causes.

It is hard to describe the behavioral factors that influence obesity without also describing environmental factors that influence obesity. These two factors are very similar and sometimes cannot be separated. For example, one cause of being overweight or obese is the lack of physical activity. This lack of physical activity may be attributed to the individual not enjoying physical activity, which we would attribute to behavioral factors. However, the individual might not have the time for physical activity due to work demands and other obligations, which could be attributed to environmental
influence. In most cases, individuals are influenced by both, and one factor might positively or negatively influence the other factors.

Physical activity has been defined as any bodily movement produced by skeletal muscle that results in energy expenditure (Pate et al., 1995). “Bodily movement” includes daily living activities (i.e. housework, hobbies, chores, work) and exercise. Exercise is a subcategory of physical activity and is defined as planned, structured and repetitive bodily movements performed to improve or maintain one or more components of fitness (Pate et al., 1995). Components of fitness include aerobic endurance, muscular strength and endurance, flexibility and body composition (Hales, 2004).

Healthy People 2010, the national strategy for the improvement of health in the U.S., recommends vigorous exercise three days or more per week for 20 or more minutes per occasion in sustained duration in order to gain all the possible health benefits that physical activity can foster (United States Department of Health and Human Services [USDHHS], 1999). Vigorous exercise involves activities that are rhythmic and repetitive, use large muscle groups, and cause the heart rate to measure 60% intensity (percentage of the maximal age-predicted heart rate). An example of this type of exercise would be a brisk jog without interruption.

However, Healthy People 2010 also suggested that if a person cannot participate in vigorous exercise at this rate, participation in moderate to regular exercise, preferably daily or at least five days per week, for 30 minutes or more at a time would be sufficient to attain many of the health benefits that vigorous exercise can provide. An example of this type of exercise would be a brisk walk for an hour. Further, Healthy People 2010 recommended that a person who is completely sedentary should begin an exercise
program slowly and less intensely with leisure time physical activity. An example of this type of activity would include light housework or gardening. Gradually, this inactive group can increase the duration and intensity of physical activity, which has been shown to improve a person’s overall health status (Bouchard, 2000).

Despite recommendations from U.S. government agencies and other private industry experts, the typical U.S. citizen does not participate regularly in vigorous exercise or even in moderate physical activity. It has recently been estimated that one third of the adult population in the U.S. does not engage in any physical activity (CDC, 2004). Other investigations indicate that 40% of all U.S. adults do not participate in any leisure activity (USDHHS, 2000).

The alarming data concerning patterns of physical activity for adults are also observed when examining younger age groups. The rates for physical activity and enrollment in physical education classes for U.S. youth are declining, despite research that affirms that children need an abundance of daily exercise. It is recommended that children and adolescents engage in vigorous physical activity 20 minutes or more in duration and at least three days per week (USDHHS, 2000). Although there is little data and no recent national statistics regarding the young child’s physical activity pattern, there are indications that physical inactivity behaviors are increasing in prevalence in U.S. children (Gutin & Bareau, 2000).

Current national data do exist confirming unhealthy physical activity patterns among the U.S. adolescent population. The CDC, which supervises the Youth Risk Behavior Surveillance System (YRBSS), recently released results for the year 2003 (CDC, 2004). The YRBSS uses the Youth Risk Behavior Survey (YRBS) to question
adolescents in grades 9 through 12 across the U.S. about their health behaviors. The CDC has administered the YRBS every year since 1991. According to the most recent YRBS data, approximately one third of U.S. adolescents did not participate in any vigorous physical activity in 2003 (Table A2 in Appendix A). The YRBS data revealed that only 62.6% of U.S. adolescents surveyed take part in the recommended amount of vigorous activity. Additionally, there is an apparent gender disparity in the overall high school population, for which 58.1% of female adolescents as compared to 71.0% of males vigorously exercised (in students grade 9-12 and in all ethnic backgrounds).

Cultural studies questions not only where the disparities in physical activity exist, but why. It seems that cultural influences promote physical activity for males but not females.

Inconsistencies in the physical activity data are apparent when examining the specific age or grade of adolescent respondents. For the most part, ninth grade respondents are more active than their high school-aged counterparts. As these adolescents progress through high school, the amount of physical activity in which they participate decreases. Overall, ninth grade students reported a 68.9% rate for vigorous activity, contrasted with a rate of 55.0% of 12th graders (CDC, 2004). Why do such trends happen at the high school level? This seems a behavior that can likely be controlled with environmental influence.

There is a pervasive gender difference in 9th grade data. Overall, female respondents disclosed a 55.0% vigorous activity rate. However, there is a steady decline from 9th to 12th grades, 63.6%, 58.2%, 49.4%, and 46.4%, respectively. This decrease
corresponds well with other instances in the literature that indicate female adolescents become more sedentary as they progress through puberty (Gutlin & Barbeau, 2000).

Racial differences are evident when examining vigorous physical activity rates for adolescents. Total responses for White adolescents reveal that 65.2% participate in vigorous physical activity, as compared to only 54.8% of Black high school students. Additionally, 59.3% of Hispanic adolescents take part in vigorous physical activity. When race is analyzed independent of socio-economic level there could be a major impact on the results. Nevertheless, these data indicate an alarming health disparity that remains consistent in life, with adult racial differences indicating obesity rates that are higher for Blacks and Hispanics (CDC, 2004).

Obvious variation is found between race and gender responses when examining participation in vigorous physical activity (Table 2 in Appendix A). In general, both female and male White high school students possess the highest rates of vigorous physical activity when compared to female and male Black and Hispanic adolescents. White female adolescents reported a 58.1% vigorous physical activity rate as compared to Hispanic females, with 51.8% rate, and Black females, with a 44.9% rate. Similarly, White high school males noted a 71.9% result for participating in vigorous physical activity with Hispanic adolescent males reporting a lower 66.7% rate. Black males reported the least amount of vigorous physical activity, at 65.0% (CDC, 2004). The link between obesity and physical inactivity has been strongly established. It is alarming that the groups with the highest disadvantage (low socio-economic levels) are being predisposed to inactivity as such an early age disproportionally.
Moderate physical activity is defined as activity that does not cause sweating or hard breathing performed for more than 30 minutes on more than five days per week. The results for this item are similar to those for vigorous physical activity with regard to race, age, and gender (Appendix A). In total, only 24.7% of the adolescents surveyed reported participating in moderate physical activity. Gender differences continued, with male adolescents reporting a 27.2% rate as compared to the female rate of 22.1% (CDC, 2004). Racial disparities were also illustrated with moderate physical activity rates (Appendix A). White adolescents reported that 26.2% were moderately active, whereas Black adolescents participated at a rate of only 21.7%. Hispanic adolescents reported a slightly better (22.0%) rate of moderate physical activity (CDC, 2004).

Discussion regarding the causes for these adolescents’ lack of participation in physical activity has been largely centered on the variables related to viewing television (Tremblay, & Whims, 2003). The recent YBRS data confirmed high rates of adolescent television viewing (CDC, 2004). In total, 38.2% of all U.S. adolescents watch three or more hours of television per day. Black adolescents reported the highest percentage of three or more hours per day with 64.3%, whereas Hispanic youth tallied 46.8% and White 31.7%. It has been noted that the snowball effect of video games, TV, and the Internet has placed children in this physical inactivity trap (Tremblay, & Whims, 2003).

Additionally, a decline in the number of required daily physical activity education programs in U.S. schools has been cited as a reason why U.S. children have become more sedentary (USDHHS, 2001). The YRBS data revealed that 55.7% of the U.S. adolescent population surveyed was enrolled in a physical education class, which illustrated that almost half were not. Further, only 28.4% of the total group responded affirmatively
when asked if their physical education classes met every day. Recently, the U.S. government acted on these statistics and passed legislation that placed more emphasis on improving physical education in the schools. This specific legislation is called the Carol M. White Physical Education for Progress (PEP) Act. The PEP bill allows for $400 million in grant money to be released over five years to qualified schools. These funds can be used to institute physical education programs and/or to improve physical education programs that are already in place (American Alliance for Health, Physical Education, Recreation, & Dance, 2002). Schools with the resources to access those grants will benefit from this legislation: however, schools without those resources (abilities to write successful grant applications) will see no such benefit, widening the gap in health disparities between socio-economic groups.

The disturbing adolescent physical activity statistics are most likely the product of the sedentary behaviors that children in the U.S. practice (Gutin & Barbea, 2000). First indications of this inactivity were reported in the first of two National Children and Youth Fitness Study (NCYFS I), which was launched to measure the fitness levels of U.S. children aged 10-17 years in 5th through 12th grades (Ross & Pate, 1987). The second study, NCYFS II, was conducted two years later and specifically examined the fitness levels of children aged 6-9 years (Ross & Pate, 1987). Researchers found that the scores of fit children correlated directly to having daily physical activity classes conducted by a trained specialist. Other key variables that correlate were less television time, more physical activity with parents, and more extracurricular physical activity. The study also found that skin-fold measurements for the 1987 sample indicated higher
body fat levels than measures recorded for children aged 6-11 in the late 1960s (Ross, Pate, Lohman, & Christenson, 1987).

Increasing rates of adult and youth obesity indicate patterns of physical inactivity from the early years (Moran, 1999). In summary, increasing physical activity in children is one key to decreasing the rate of adult obesity (Gutin & Barbeau, 2000).

Typical U.S. dietary behaviors are as unhealthy as exercise patterns. The Dietary Guidelines for America produced by the U.S. Department of Agricultural recommends that one’s diet include a variety of foods; among these are grains, vegetables, fruits and foods moderate in sodium, sugar, and fat.

The Food Guide Pyramid (FGP) was developed in 1992 to help visually demonstrate proper servings of specific foods for daily consumption (USDA, 1992). The FGP was designed by the U.S. Department of Agriculture; many contest that the design is based on dubious scientific evidence and a biased perspective (Ottoboni & Ottoboni, 2004). The pyramid took the place of the concept of Basic Four Food Groups. The pyramid shape is a graphic that helps to illustrate the bulk of U.S. diet should come from mainly grains, fruits, and vegetables. Specifically, the FGP suggests that the average adult eat per day 6-11 servings from the bread, cereal, rice and pasta group; 3-5 servings from the vegetables group; 2-4 servings from the fruit group; 2-3 servings from the milk, yogurt, and cheese group; 2-3 servings from the meat, poultry, fish, bean, and nut group; and small amounts of the fats, oils, and sweets group.

The Department of Agriculture and the Department of Health and Human Service (USDHHS) released new guidelines for eating health to the American public in 2005. There is pictorial graph at this point, and the biggest change is the incorporation of
physical activity. The USDHHS has just updated their web site with the latest
information on the new food pyramid. The new pyramid is tailored to the individual by
gender, age, weight and physical activity level. They have also included a dietary and
physical activity assessment tool for the public on their website.

The change is much needed, as it is estimated that only 3% of individuals follow
four of the five major recommendations of the old FGP from the above (United States
Department of Agriculture [USDA], (1992). According to BRFSS data, only 23.1% of
the total population consumes the recommended “5 a day,” which represents the
minimum of 3 vegetables and 2 fruits. However, using the NHANES data, 28% eat 3
vegetables and only 3% consume 2 fruits (USDHHS, 2001).

Dietary behaviors among adolescents mirror the behaviors of their adult
counterparts. The Recommended Dietary Allowance (RDA) for adolescents is 3 servings
of vegetables and 2 servings of fruits per day, the same as adults. Additionally, the
adolescent RDA for drinking milk is 3 or 8 oz. more glasses a day. According to the
CDC and the 2001 Youth Risk Behavioral Survey (YRBS) results, only 21.4% of all U.S.
adolescents eat the recommended 5 a day and only 16.4% drink 3 or more 8 oz. glasses of
milk per day (Table A3 in Appendix A). The data in Table A3 confirms that there are
serious disparities in nutritional habits across racial/ethnic groups. Black adolescents
reported 23.2% rate of eating fewer than “5 a day,” (76.8% do not eat five fruits and
vegetables per day) whereas Hispanic youth responded with a 24.4% rate, and White
adolescents registered a 20.5% value. Black high school students report the least milk
consumption, with only with only 11.6% fulfilling the RDA. Hispanic youth reported a
13.1% rate of fulfilling milk requirement whereas White adolescent responses showed a
20.0% rate of drinking the RDA for milk (CDC, 2004). Again, race is reported without consideration for socio-economic level.

Nutritional differences were found when observing male and female responses regarding the RDA consumption of vegetables/fruits and milk (Table A3 in Appendix A). Although both males and females failed to reach the RDA, more male adolescents ate more than “5 fruits and vegetables a day” (23.6%) as compared to their female counterparts (20.3%). Further, female adolescent respondents drank fewer than 3 glasses of milk; only 11.2% of females drank the recommended amount of milk compared to their male counterparts, who reported 22.7% meeting recommendations. These unhealthy habits have been shown to continue in adulthood and manifest in an obese community.

In the college population, 15.5% of American students 18-24 years of age were overweight and 28.5% of those over 25 years were overweight (CDC, 2003). According to Morgan (2001) approximately 14.9 million students are enrolled in the American university and college system. It is estimated that 57% of the total college student body is between the ages of 18 and 24 (CDC, 1997). Roughly one fourth of the total U.S. population in this age group are either full or part-time students at a college or university, and more than half have attended a college or university at one time. Therefore, the college/university site is an excellent venue for distributing health information and possibly for stimulating good health habits for a lifetime.

Self-reported data regarding health behaviors for college-aged individuals were analyzed in 1995 by the CDC. These data were the basis for findings revealed in the National College Health Risk Behavior Survey (CDC, 1997). This survey questioned
college-aged students attending 2- and 4-year institutions. In addition, age-group analysis was performed, dividing students into two groups: 18-24 years of age and 25 years and older. The CDC also examined differences between sexes and between ethnicities.

The recommendation for physical activity in college-aged individuals is the same as for adults: 30 minutes of moderate activity on most days of the week and/or 20 minutes of vigorous physical activity 3 days per week. Examining the physical activity data reveals that 37.6% of all college-aged respondents participated in vigorous physical activity. Significant gender and ethnic disparities emerged as well. Only 33.0% of females indicated that they participated in vigorous physical activities as compared to 43.7% of males. Black females reported that only 27.6% involved themselves in vigorous physical activity, whereas 50.3% of Black males exercised vigorously. Hispanic females reported 30.6% participation, whereas 41.7% of Hispanic males indicated participation in vigorous activities (CDC, 1997). What is going on culturally to foster such unequal proportions of activity in the college population?

The lack of physical activity among college students is also apparent when looking at the percentage of students who were enrolled in physical education (PE) classes while attending college. According to the NCHRBS, only 20.8% were participating in a PE course. The overall female percentage was 20.1 as compared to the overall male percentage of 21. An additional difference is observed when examining the age-group data. The 18-24 year old group had a total of 26.4% who were in rolled in a PE class, whereas the older age group (25 years and older) reported an 11.2% enrollment rate.
In addition, disparities among persons of color were evident. Whereas, White college students reported a 20.5% participation rate in PE classes, Black students in this study reported a slightly higher rate of 21.7%. Hispanic students, however, reported a lower rate of 17.6% participation. This college-age difference regarding activity corresponds with data from later in life which shows that adult members of the Hispanic community are not as likely to participate in physical activity when compared to other ethnic groups. Additionally, the NCHRBS data revealed that the female Hispanic percentage rate (19.4%) for enrollment in PE classes is higher than the male Hispanic rate (14.4%). These sex rates differ from the numbers for White and Black students. The White female rate was 19.8% whereas the White male was 21.4%. The Black female proportions were 18.1% as compared to the Black male rates of 27.1%. These last two rates are especially interesting due to the considerable dissimilarity of the numbers.

Physical education can be viewed as a behavioral factor if the student chooses to enroll in the course for the health benefits. However, physical education could also be viewed as an environmental factor if it is required. The NCHRBS survey does not specify if the attendance in PE course is required or elective.

One last interesting perspective on college-age physical activity is the level of participation in intercollegiate sports. According to the CDC, only 17.5% of the total respondents were involved in college sports. The data reveal that only 10.3% of female respondents participated in team sports as compared to a male rate of 26.6%. This is a distressing disparity particularly in light of the 30-year-old federally mandated Title IX. This legislation calls for equal access to athletic funding for both males and females (National Association for Girls and Women in Sports, 2005).
According to the NCHRBS, 26.3% of college students indicated that they eat the recommended 5 or more fruits and vegetables per day. Specifically, 25.0% of female participants reported that they ate 5 or more servings of vegetables and fruits, whereas male counterparts noted a bit more, with 28.1% (CDC, 1997). The difference in calorie consumption might explain some of the difference between sexes.

Race or ethnicity was a variable that correlated to differences regarding this question on the NCHRBS. White respondents stated that 24.6% met the requirement for fruits and vegetables, whereas 29.8% of Black respondents stated that they ate 5 or more vegetables and fruits per day. Additionally, differences were found when examining age groups. According to the CDC (1997), the age group of 18-24 years had a 25.0% rate whereas the 25-years-and-older group responded with a 28.5% value (Table A4 in Appendix A). These differences might be explained in the context of the cultural differences between these groups.

*Environmental causes*

The final factor to consider when evaluating the causes of obesity is environment. Environmental factors are those elements in our everyday lives that have an external influence on our physical activity and nutritional choices. Environmental factors may be the key to solving the puzzle of obesity, due mainly to the fact that obesity is not found in areas of the world that do not have an abundance of food and do not have the technology, such as television, computer access, and video games, that induces those in industrialized countries to stay sedentary (Bouchard, 2000). Most current research offers this factor as being instrumental in understanding obesity.
Again, environmental and behavioral factors are very closely related. It is hard to consider each in isolation, for example, portion size has been discussed in several articles as an environmental influence. Portion sizes have increased in our society through the years. The RDA serving size of meat is 3 oz; however, in most sit-down restaurants, the options are 6, 12 and 14 oz. steaks. This is also true in fast-food restaurants; the small soda has evolved from 8 oz to 16 oz, and the options of a medium 24 oz., large 48 oz., or even the super-sized 64 oz., are also available and encouraged. It is easy to view portion size as an environmental influence. It is also easy to view portion size as a behavioral factor, because individuals are eating more. This could be due to behavioral influences such as social conditioning or habit.

There is a new focus in obesity research on environmental factors. These factors include everything from portion size, access to physical activity outlets, availability and cost of nutritious foods, advertisement and marketing of foods, and sedentary time (time spent in a car, TV watching, video game time), to health education. Researchers also hope that investigations of environmental factors will offer a better understanding of how certain subcultures react to different environments and a means of closing gaps in obesity disparities. For this research, environment will, like behavioral factors, be broken down into three main areas: physical activity, nutritional and educational factors.

The environmental factors that encourage obesity are those factors that decrease physical activity. In our current American society, many factors fit this description including cars, elevators, lack of access to recreational outlets, community design or any factor that restricts physical activity. Recently, obesity was related to time spent in a car. Frank, Andresen & Schmid (2004) found that for each hour spent in a car per day there
was a 6% increase in the likelihood of obesity. This same study also found that each kilometer walked per day corresponded with a 4.8% reduction in the likelihood of obesity. Both of these findings were determined to be consistent predictors of obesity across gender and ethnicity (Frank, Andresen, & Schmid, 2004).

Community design has long been a tool of public health for disease control. Zoning restrictions and sanitation requirements were first a part of community design to reduce infectious diseases such as cholera, tuberculosis, and malaria. Now community design is being investigated as a possible avenue for controlling obesity. One study surveyed a community of adults in Missouri and found that the absence of outdoor exercise facilities and sidewalks were associated with overweight individuals surveyed (Catlin, Somoes and Brownson, 2003). Another study looked at neighborhood-based differences in physical activity and reported that neighborhoods with high-walkability had higher reported periods of physical activity than those neighborhoods with low-walkability (Saeben, Sallis, Black, & Chen, 2003). “Walkability” was defined as terrains that included sidewalks, lighting and safety features. Although these studies showed a positive relationship between community design and low rates of overweight and obese individuals, not all research indicates the same results. Cervero and Duncan (2003) found no relationship between walking, bicycling and urban community design in the San Francisco Bay area. These authors did conclude however, that pedestrian-friendly communities might help increase physical activity for the long term in high-risk socio-demographic groups.

Obesity research has traditionally focused on an individual’s control of nutrition. Now, studies are shifting to investigate the influence environment has on how individuals
eat. The environmental factors that influence obesity include portion size, convenience, cost, and advertising. Wansink (2004) also includes package size, plate size, lighting, and socializing as potential environmental factors that can influence the consumption of food more than most people realize. As mentioned earlier, increased portion sizes encourage individuals to eat more without realizing the impact this increased calorie load can have on them. Levitisky and Youn served three groups of undergraduate volunteers either 100%, 125% or 150% of the RDA for calories per meal. They found that when larger amounts were served, significantly greater amounts of food were consumed. This data is consistent with the research of Nestle and Young, who originally suggested that American portion sizes are responsible for the epidemic of overweight and obese individuals.

The role of pricing for high-calorie, high-fat food has also come under scrutiny for its contribution to obesity. Drewnowski (2004) investigated the cost barrier to diet choices and found that there are both real and perceived cost barriers to dietary change. Other researchers have suggested lowering prices and increasing the point-of-purchase promotion of nutritionally dense food (Cobb, & Solera, 2003; French, 2003), meaning we should see more sales on healthy foods along with placing fruits and vegetables by the check-out lines in the grocery store instead of candy bars, chips, and sodas.

Sanchez-Johnson et al. (2004) looked at racial differences between Latin-American and Black females with regard to calorie consumption. They reported that Black females consumed more kilocalories and higher percentages of fat than Latin-American females after controlling for BMI, education, marital status and number of children. They suggested future studies to explore cultural attitudes and beliefs related to
weight that could provide information for the development of culturally competent obesity interventions. Accessibility to healthy or poor food choices also plays a role in the obesity epidemic.

At home, we have control over the food products that are available; however, at work or school we do not have such a luxury. Recently, elementary and high schools have come under fire for the kinds of food products that have been made available to students. Some nutrition advocates are pushing hard to get high-sugar products out of their schools’ vending machines. Venice High School in Los Angeles replaced their vending machine full of sugary sodas and empty-calorie candy with nutritious snacks including fruits, granola bars and juices. Although there were worries about the loss of revenue from the “soda” ban, the administration actually saw an increase in revenue (Crane, 2004). Convenience is a major influence on an individual’s food selections. Foods in vending machines are convenient, yet they are rarely nutritious. Those who are responsible for the contents of vending machines in public spaces need to understand the impact that these high-sugar, empty-calorie foods have on societal health.

Advertising and marketing by the fast food industry plays a major role in today’s eating selections, as previously discussed. Americans spent $110 billion dollars on fast food in 2000 (Food TV, 2004). The fast food industry has become part of our cultural landscape. Try to imagine driving down any main street in small town USA without seeing the neon signs of the fast food industry. Giroux reflects, “Culture and commodity become indistinguishable and social identities are shaped almost exclusively within the ideology of consumerism” (p. 68). The fast food industry tries to weave their company identity into social and individual identities.
School is commonly viewed as a place to mold youth and shape them into social products. Information is carefully or haphazardly crafted into the curriculum to guarantee the regurgitated knowledge of those in power. Education is viewed as a tool to cause action; however, in most cases it causes the opposite: “The project of education arises whenever certain people determine that the world would fare better if certain other people, especially but not exclusively young people, learned certain things. The heavily financed state public schools and academies of the industrialized Western world are but one example of education in action” (Smith, 1999, p. 45)

Obesity has become a politically-charged problem because it potentially has a financial impact on the nation and contributes to the top causes of death (cancer and cardiovascular disease) and chronic illness. Health education can be seen as a vehicle to “fix” this social epidemic. The material covered in health courses includes basic obesity information; however, it does not challenge students to really understand obesity as it pertains to them as individuals. The college health course is designed to impart a large amount of information to a large number of students in a short amount of time. To guarantee the delivery of this information, administrators look at standardized test scores and passing rates as success indicators; never mind the continually increasing obesity rate.

This business-like approach to education has led to a numbing effect on students. School has become a place to close their minds and to fit into a mold. Teaching the definitions and statistics on obesity is not leading to the self-achievement of ideal body weight and reduced risk of disease. Our teaching practices might be contributing to such
health hazards; the teaching process itself may be creating hurdles for our students to jump.

The 1995 NCHRBS inquired about the availability of nutrition information as well as physical activity information to college students. Overall, only 30.4% answered positively to accessing nutrition information and 35.9% responded affirmatively regarding access to physical activity information. This one-third proportion is minute when considering the increase in excess-weight conditions in our society. Information based on these health concerns is vital to the success of decreasing obesity in the U.S.

The goal of health education should be for the student to understand basic nutrition and fitness concepts and to be able to use that knowledge to make healthy lifestyle choices. As previously discussed, it is apparent that the American population is becoming more obese. But why? Colleges are disbursing the proper material in health education courses. The facts about obesity are being delivered. However, there is a disconnect between the facts of health education and the application of the material. Schools fail to bring about health changes in their students because the faculty and administration have not student how to critically analyze the environment in which they live. The purpose of this study is to use cultural studies to analyze the environmental factors in the university setting that might be contributing to obesity.
CHAPTER III: CRITICAL ANALYSIS SET-UP

Theoretical Framework

The purpose of this study was to critically analyze the environmental factors in a university setting that impact obesity. One way to analysis this phenomenon is through cultural studies. Cultural studies allows for the discovery of interrelationships between supposedly separate cultural domains (Grossberg, Nelson and Treichler, 1992). The main focus of this approach concentrates on the production of meaning, assuming a mass production of culture and identifying power as residing with those who produce cultural artifacts. Those who control the means of production essentially control a culture.

“Culture” for the culture studies researcher not only includes the traditional high arts and popular arts, but also includes everyday meaning and practices (McRobbie, 1999).

In *Cultural Studies*, Grossberg, Nelson and Treichler characterize the subject matter of cultural studies in terms of cultural practice and its relation to power. Culture is a strategic pedagogical and political terrain whose force as a “crucial site and weapon of power in the modern world can, in part, be understood in its contextual specificity” (Giroux, 2000, p. 342). Cultural theorists seek to understand the relation of cultural activity to power. Cultural theorists also apply a Marxist model to the field (Hall, 2003).

Traditionally, public health research, particularly obesity research, has been dominated by qualitative and quantitative studies. Although quantitative and qualitative research has yielded a great wealth of knowledge concerning obesity, there is the need to reflect on the plethora of research and the current cultural phenomenon. This inquiry would be best guided by a theoretical analysis of the problem at hand. There is no one way to enact cultural studies. In the past it has been approached in many different ways.
Grossberg (1992) states that, “to operate within a contextual cultural studies strategy means recognizing that social forms can only be understood by the way that they are articulated into a particular set of complex social contexts, recognizing that there are no necessary correspondences in history, but that history is always the production of such connections or correspondences” (p. 53). The goal of this study is to uncover the underlying issues of obesity that are present in the university setting.

The environment the university creates for the student should be one that promotes a healthy lifestyle and that fosters a critical mind. However, the infusion of corporate trends and practices into campus life undermines that goal. Large corporations and their management styles have infiltrated the landscape of the university campus without being questioned. Their presence has become part of the fabric of student experience. Cultural studies will be used to explain the articulation between obesity and the social responsibility of the university.

Cultural studies allows for an expansive and flexible methodological arsenal, including the major tenets of cultural studies: articulation, hegemony, ideology, representation, and identity. Articulation is the connection that can make a unity of two different elements, under certain conditions (Hall, 1996). Articulation will be the major form of inquiry because it is supported by ideology, hegemony, representation, and identity. This study investigates how obesity is connected to the university environment using Hall’s theory of representation as a guide in analyzing the data. Hegemony, ideology and identity, although briefly discussed, will not be the focus of this study.

The first part of the study describes the population demographic and apparent obesity risk linked to physical activity and nutrition at one southeastern university
(Georgia Southern University) compared to national norms. The second part of the study describes the cultural environment at this university, focusing mainly on the curriculum. The information in this chapter will be described as “text” and can be “read” through a cultural studies lens to describe the university’s role in the obesity epidemic. The final part of this study analyzes parts one and two from a cultural studies perspective using representation theory as the main tool.

Data Collection Procedures and Descriptive Analysis of Population

Population Description

Physical fitness and dietary risk behaviors among Georgia Southern University (GSU) students were assessed using a cross-sectional research design. Students enrolled in the Healthful Living (HLTH 1520) course served as the sample population for this study. Because HLTH 1520 is required of all students at the university, data collection in this venue makes it possible to closely approximate behaviors in the university population at large. However, in practice, HLTH 1520 is a course normally taken early during one’s college career. Since all students are required to take this course, it was anticipated that data collection as part of the online component of the course would maximize student responses and provide a reliable estimate for health behavior. In the fall of 2004, 2466 students were registered in the Healthful Living course and 1356 students during the spring of 2005 (J. Rushing, personal communication, August, 15, 2005). 3822 students over the 2004-2005 academic year participated in the course; that is 24% of the total population of the university. Moreover, behavior risk information obtained from this survey was relevant and applicable to the health-based nature of this course.
The survey was anonymous and electronically administered through the WebCT component of the class during fall 2004 and spring 2005. WebCT is an online learning tool used at GSU. Prior to data collection, the Institutional Review Board at Georgia Southern University reviewed and approved all proposed methods.

All students attending class were given the opportunity to take the survey, but participation was voluntary. Students choosing not to participate did not complete the online survey. As an incentive for completion, students were given extra-credit for electronically submitting their surveys. Students could have chosen to refuse to answer any or all of the survey questions. 74% of enrolled students responded to the survey.

The data collection instrument was the 1995 National College Health Risk Behavior Survey (NCHRBS) developed by the Center for Disease Control and Prevention (CDC). See Appendix A for a copy of the survey. This 96-item questionnaire collects behavior data on a number of issues including dietary patterns, physical activity, alcohol, tobacco and other drug use, sexual activity, and injury/violence (see Appendix B). Although the behavior content areas are expansive, demographics, physical activity, and dietary behaviors data were extracted for this study.

The GSU population will be compared to CDC national norms to aid in the description of the population. However, nutritional and exercise trends have changed in the past 10 years. The CDC is slated to gather new data in 2005, but that report will not be available for this study. The researcher felt CDC data is useful in giving a reference point to describe population health behaviors. When possible, other supporting data will be called upon to compare GSU students to current national norms.
For this report, physical activity and dietary risk behavioral data were analyzed using descriptive statistics as will be discussed in Chapter 4. Data are presented in table and graph forms. SPSS Version 8.0 for Windows was the software utilized for data analysis.

The sample set racial background was relatively comparable to the overall population of Georgia Southern University. The percent of Black females, Black males, White females, and White males was 10.8%, 10.7% 34.5%, and 37.7%, respectively (Table 3.1).
### Table 3.1

Georgia Southern University Undergraduate Population by Sex and Race: Total Population and Physical Activity and Dietary Risk Behavioral Sample Set, Fall 2004 and Spring 2005

<table>
<thead>
<tr>
<th>Race/Gender</th>
<th>Total Population</th>
<th>Sample Set</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Black</td>
<td>3,755</td>
<td>23.3</td>
</tr>
<tr>
<td>Female</td>
<td>2,140</td>
<td>13.3</td>
</tr>
<tr>
<td>Male</td>
<td>1,615</td>
<td>10.0</td>
</tr>
<tr>
<td>White</td>
<td>11,543</td>
<td>71.7</td>
</tr>
<tr>
<td>Female</td>
<td>5,834</td>
<td>36.2</td>
</tr>
<tr>
<td>Male</td>
<td>5,709</td>
<td>35.5</td>
</tr>
<tr>
<td>All Others</td>
<td>802</td>
<td>5.0</td>
</tr>
<tr>
<td>Female</td>
<td>379</td>
<td>2.4</td>
</tr>
<tr>
<td>Male</td>
<td>423</td>
<td>2.6</td>
</tr>
<tr>
<td>Total</td>
<td>16,100</td>
<td>100</td>
</tr>
<tr>
<td>Total Female</td>
<td>8,353</td>
<td>51.9</td>
</tr>
<tr>
<td>Total Male</td>
<td>7,747</td>
<td>48.1</td>
</tr>
</tbody>
</table>

Resources: College Student Health Risk Behavior Profile, Prepared by The Center for Rural Health and Research and Jiann-Ping Hsu School of Public Health & Georgia Southern University Fact Book, 2004-2005.

The average weight of White males, White females, Black males and Black females was 177.0 pounds, 140.7 pounds, 181.7 pounds, and 155.4 pounds, respectively (Table 3.2). Black males and females had body mass indices (BMI) of close to 25.
White males had a BMI of 23.9 compared to 22.6 for white females. An adult who has a BMI between 25 and 29.9 is considered overweight and BMI of 30 or higher is considered obese (CDC, 2005). Although this population is not considered obese, Black males and females are very close to being considered overweight.

Table 3.2

Georgia Southern University Undergraduate Population: Characteristics of Student Body

<table>
<thead>
<tr>
<th>Variable</th>
<th>White Male</th>
<th>White Female</th>
<th>Black Male</th>
<th>Black Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. Wt</td>
<td>177.0</td>
<td>140.7</td>
<td>181.7</td>
<td>155.4</td>
<td>162.0</td>
</tr>
<tr>
<td>Avg. Ht</td>
<td>71.6</td>
<td>66.3</td>
<td>71.1</td>
<td>66.7</td>
<td>68.9</td>
</tr>
<tr>
<td>BMI</td>
<td>23.9</td>
<td>22.6</td>
<td>24.9</td>
<td>24.7</td>
<td>23.7</td>
</tr>
</tbody>
</table>

Resources: College Student Health Risk Behavior Profile, Prepared by The Center for Rural Health and Research and Jiann-Ping Hsu School of Public Health.

The proportion of students reporting food consumption for a particular group in the last 24 hours is illustrated in Figures 3.1 and 3.2. As illustrated in Figure 1, students at GSU exhibited eating slightly fewer servings of fruits and vegetable as compared to U.S. college students, with Black females reporting the same amount as national norms. National data for adults 18-24 years is 21.1% according to the 2003 5 A Day Data (CDC, 2005), which would still show GSU students having a lower consumption of fruit and
vegetables than their peers. Eating five fruit and vegetables per day is considered to be a healthy diet, one that reduces the risk of obesity (CDC, 2005).

Figure 3.1: Percentage of Students Reporting Adequate Fruit and Vegetable Consumption, Georgia Southern University and U.S. College Students Compared.

Resources: College Student Health Risk Behavior Profile, Prepared by The Center for Rural Health and Research and Jiann-Ping Hsu School of Public Health and NCHRBS, 1997.

According to the data presented in Figure 2, GSU students reported eating comparable amounts of food high in fat to the national report. High fat diets are linked to increasing one’s risk of obesity. From this data, GSU students would be considered to have an increased risk for obesity due to poor nutritional habits.
Figure 3.2: Percentage of Students Reporting Adequate Consumption of High-Fat Foods, Georgia Southern University and U.S. College Students Compared.

The proportion of students at Georgia Southern University engaging in vigorous physical activity can be viewed in Figure 3. Males were more likely than females to report being physically active. Black females (32.1%) reported the least of amount vigorous physical activity. From the data, fewer than half of GSU students have protective effects against obesity from vigorous physical activity.
Figure 3.3: Percentage of Students Reporting Who Participated in Vigorous Physical Activity in the Last 7 Days, Georgia Southern University and U.S. College Students Compared.

Resources: College Student Health Risk Behavior Profile, Prepared by The Center for Rural Health and Research and Jiann-Ping Hsu School of Public Health and NCHRBS, 1997.

According to the data (Figure 3.4), Black males and females were more likely to participate in moderate physical activity than their white counterparts. Black males reported the highest participation with 39.2%. All groups reported slightly higher rates of participation compared to U.S. averages. However, two thirds of GSU students do not get enough moderate physical activity and have an increased risk of obesity due to this behavior.
Description of the University Environment

Using the Freedom of Information Act, descriptive data was gathered from official Georgia Southern University campus sources to describe the physical activity and nutritional environment to which students are exposed. The three main areas of interest included nutrition, physical activity and curriculum. For each of the areas, several guiding research questions were developed. University representatives were contacted through email and solicited for specific information under their areas of directorship. Below, the procedures and findings will be explained for each of the interest areas.

Nutrition

To investigate the nutritional opportunities available to students, three sub-areas were addressed: vending machines, cafeterias and community relationships. Tom Palfy, Director of Food Services for Georgia Southern University, was contacted via email for
comments on the following questions. Mr. Palfy agreed to a brief meeting to address these questions.

Vending Machines Research Questions

1. Who decides and how is it decided where to place vending machines across campus?

2. What types of food products are offered in the vending machines?

3. Why are these particular products being offered?

4. What are the nutritional values of the foods being offered?

5. What are the contractual relationships between the university and food companies?

Mr. Palfy described the process of deciding where to place vending areas as occurring during preliminary planning with the contractor when constructing new buildings. Most existing and all new buildings have vending areas. Palfy is responsible for the food choices in the vending machines and his departmental staff operates and fills all snack machines. According to Palfy, the foods that are supplied in vending machines are those “products that move” (T. Palfy, personal communication, August 21, 2005). In most vending machines across campus there are candy bars (Kit Kat, Snickers), chips (Doritos, flavored chips, pretzels) and miscellaneous food (Pop Tarts, gums). Palfy explains it as a simple consumer-driven selection. The vending machines are a profit generation business for GSU, last fiscal year 2005, the net profit on vending was $73,800 (T. Palfy, personal communication, September 29, 2005). When asked if nutrient-dense foods have or can be offered, Palfy describes two problems. First, perishable food products such as fruits, vegetables, or sandwiches would require refrigerated machines, and those items
not sold in a timely fashion would be wasted and cost the university revenue. The second problem with most nutrient-dense food is the cost/profit margin. It is not economically feasible to have these types of foods without certainty of the students purchasing them.

As far as the beverage vending machines, Georgia Southern University has a licensing agreement with Coca-Cola. The Coca-Cola company has exclusive pouring rights on campus; no other cola company can put their products in vending machines or have their products sold on campus, see Appendix C for a copy of this agreement.

**Food Services Research Questions**

1. Who decides what restaurants and food services are placed across campus?

2. How do they decide where the restaurants are placed?

3. What types of food products are offered at these restaurants?

4. What are the nutritional values of foods being offered?

Food Services is in charge of all restaurants/cafeterias on campus. All students have the option to purchase a meal plan, with freshman living on campus required to purchase one of the food plans, unless they live in the campus dorm that has efficiency kitchens. A list of restaurants and their hours of service can be found on the GSU Food Services web page. Meal plans can be used at any of the on-campus establishments.

Ultimately, Tom Palfy regulates food selection on campus within the Board of Regents guidelines and with the approval of the Vice President’s Office. Palfy attends several food and beverage conventions throughout the year and tries to keep Georgia Southern University current with national trends. As far as the placement of restaurants, Palfy is also instrumental in those decisions, along with making sure that food service areas are equipped with certain features, i.e. ventilation hoods and drainage systems. In
the construction of new buildings, restaurant placement is considered during the blueprint stage. Georgia Southern University has licenses with Hot Stuff Foods, previously Orion Foods, to have several of their restaurant chains on campus, including Freshen’s™, C-Street Bakery™, Stone Willy's Pizza®, Summit Subs®, and Asian Creations®, as well as a license with Chick-fil-A®, a well-known fast-food chain in the southern region of the country. The difference between a license and a contract is that licensing allows for Food Services to be in charge of and running the restaurants, including the staffing. Commonly, if a food franchised is contracted, the store runs by its own management staff. Palfy adds that Georgia Southern University’s Chick-fil-A® is currently the top selling store of all other on-campus stores across the nation. Chick-fil-A® has exclusive rights to sell chicken in the Russell Union; no other boneless chicken product can be served in that particular building. GSU is trying to get a coffee house and a sub shop on campus, specifically Starbucks®, Larry’s Giant Subs®, SubWay®, or Quiznos®.

When questioned about the selection of companies coming onto campus, Palfy stated it is because our students are “brand-conscious” and that is what they want. Each year Food Services surveys the students inquiring about their existing services and the students’ preferences for new selections. The most recent survey investigated the choice for brand name coffee house; the survey revealed that 79.2% of GSU students prefer Starbucks, then Daily Grind (9.2%), Caribou (6.3%), Jittery Joe’s (3.0%) and finally Seattle’s Best (2.2%). The selection of food chains is based on not only the financial agreement between the university and the company but also customer value (desire of the students).
Recently, a local restaurant opened a kiosk on campus, Wrapsody Grill. Palfy was able to get Wrapsody Grill approved based on the popularity of the local store and the desire to bring innovative ideas to campus with food services. Wrapsody Grill has been extremely successful according to Palfy. Owner Michael Price has actually joined Food Services at GSU as a Special Projects Chef and will be instrumental in updating the Educated Palate (restaurant in the student union which was designed in 1986) as well as potentially creating a vegetarian restaurant for campus.

The nutritional value for Hot Stuff Foods and Chick-fil-A® can be found on the internet or by requesting the information from Food Services (Appendix B). The Educated Palate, Southern Traditions, Eagle Cantina, CJ’s Barbeque, Wrapsody Grill, and Hard Drive Café do not have nutritional information for their products. See Appendix D for available nutritional information.

Community Offerings Research Questions:

1. What is the proximity of local food businesses to campus?
2. What local fast food/restaurants accept student EagleExpress cards?
3. Who grants this privilege?

Georgia Southern University is located in Statesboro, GA a city of 23,000 residents. There are more than 32 restaurants, three local grocery stores and a Super Wal-mart registered with the Visitor’s Bureau, all in close proximately to the campus. Several food businesses are close enough to campus to walk to. Many local businesses accept EagleExpress, the student credit card. A list of these businesses can be found on the Georgia Southern University Food Services home page. The University’s incentive to grant EagleExpress service is that the university collects a 10% royalty on the net sale
from the business. Businesses are required to fill out contracts with Food Services and
must be approved by the Vice President’s Office.

Physical Activity

Campus Recreation Research Questions

1. What activities and services does a campus recreation organization offer to
students?

2. What is the participation level in campus-sponsored recreation activities by the
student body?

3. What is the demographic breakdown of participation?

A meeting was requested with Campus Recreation and Intramural Director, Gene
Sherry, via email to discuss the recreational offerings and participation levels in campus
recreation. Mr. Sherry emphasized that the purpose of the Department of Campus
Recreation and Intramurals (CRI) is to provide growth opportunities and educational
experiences to students which will enrich the life-long learning process. CRI programs
and facilities, including those that are recreational, educational and sporting in nature,
are geared to promote and develop healthy life-style choices. Six main programs are
offered by CRI: aquatics, club sports, fitness programs, informal recreation, intramural
sports and Southern Adventures. CRI facilities include M.C. Anderson Recreational
Park, housing the Recreational Activity Center (RAC), the main building for CRI with
three main gyms, climbing wall, racquetball courts, auxiliary gym, weight room with
circuit training and cardiovascular equipment, group exercise room, multipurpose room,
elevated track and administrative offices. The Multiplex and Club Sport Field includes
multipurpose playing fields for soccer, softball, flag football, rugby, lacrosse, and
ultimate Frisbee. A walking track circles round the perimeter. The Hanner Field House has two gyms, activity rooms, indoor pool and outdoor lighted tennis courts. The Hanner Sports Complex has two softball fields. An expanded description of facilities and programs can be found in the Georgia Southern University 2004-2005 Undergraduate and Graduate Catalog beginning on page 40.

Mr. Sherry did not have the 2004-2005 academic annual report as of August 23rd, 2005, but expected it by the middle of September. He was concerned that the upcoming report might not be a true reflection of the actual participation in campus recreation for two reasons: first, the software for logging participation was non-functional during the first week of classes of fall 2004, and, second, the satellite facilities did not electronically record participation; human error, he speculated, would be very high. For example, at the Hanner pool, swimmers are asked to sign in to record participation; however, supervising lifeguards do not always enforce this policy. The Fitness Extension and Weight Extension (two workout facilities) have similar sign-in procedures and possible problems. Mr. Sherry also expects to see a decrease in participation based on the fact that facilities are overcrowded, and, in his experience, there is usually a drop in participation right before the opening of a new facility. Mr. Sherry is overseeing the 30 million dollar RAC expansion which is projected to open fall 2006, which will double the size of the current facility. This project is being funded directly by student activity fees, on which students voted in fall 2004.

One of Mr. Sherry’s primary focuses is the effect of participation on student retention. In previous years, he has shown that students who frequent the Recreational Athletic Center (RAC) 20 plus times per semester have higher GPA’s and higher
retention than those students who do not participate in RAC activities. Retention is
defined as the number of freshman who return to GSU as sophomores.

Mr. Sherry requested, on the researcher’s behalf, that Georgia Southern
University’s Office of Strategic Research and Analysis generate a report of participation
in CRI programming based on sex, classification, and ethnicity for those students who
used CRI programming, once per semester, 30 times, and 45 times per semester. There is
no way of knowing what type of activity the students were engaging in while
participating in CRI programming. Some students might have engaged in cardio-
respiratory exercise while other might have been observing an intramural sports event.

The full report by the Office of Strategic Research and Analysis can be found in
Appendix E; and Figure 3.5 illustrates selected data. From the total number of students
who paid activity fees to use the CRI facilities, 64% have participated in CRI
programming at least once during the fall 2004 semester, 7.8% have participated 30 times
(an average of twice per week), and only 3% of the students participated 45 or more
times (an average of 3 days per week). There appear to be differences between sexes,
classification, and ethnicity. Males were more likely to participate than females; younger
classifications were more likely compared to upper classmen; and White students were
less likely to participate compared to Black and other races.

The majority of freshman (73.6%) had some interaction with the CRI
programming during the fall of 2004. However, some physical activity academic courses
are taught in CRI facilities and students must check-in as regular participants. This could
influence the data, with 25% of the student population registered for a physical activity
courses. The percent of students who participated in CRI programming decreases with
each subsequent year, with approximately 50% of the seniors having some type of interaction with CRI.

Figure 3.5

Campus Recreation and Intramural (CRI) Program Participation: Subset by classification and gender

<table>
<thead>
<tr>
<th>Fall 2004</th>
<th>Total Students</th>
<th>All CRI Programming</th>
<th>Recreation Activities Center (RAC)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>At least 1 participation</td>
<td>At least 30 visits</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Total</td>
<td>13,520</td>
<td>8,657</td>
<td>64.0%</td>
</tr>
<tr>
<td>Black</td>
<td>3,157</td>
<td>2,141</td>
<td>67.8%</td>
</tr>
<tr>
<td>Female</td>
<td>1,729</td>
<td>1,014</td>
<td>58.6%</td>
</tr>
<tr>
<td>Male</td>
<td>1,428</td>
<td>1,127</td>
<td>78.9%</td>
</tr>
<tr>
<td>White</td>
<td>9,691</td>
<td>6,078</td>
<td>62.7%</td>
</tr>
<tr>
<td>Female</td>
<td>4,613</td>
<td>2,711</td>
<td>58.8%</td>
</tr>
<tr>
<td>Male</td>
<td>5,078</td>
<td>3,367</td>
<td>66.3%</td>
</tr>
<tr>
<td>All others</td>
<td>672</td>
<td>438</td>
<td>65.2%</td>
</tr>
<tr>
<td>Female</td>
<td>304</td>
<td>186</td>
<td>61.2%</td>
</tr>
<tr>
<td>Male</td>
<td>368</td>
<td>252</td>
<td>68.5%</td>
</tr>
<tr>
<td>Freshmen</td>
<td>5,055</td>
<td>3,718</td>
<td>73.6%</td>
</tr>
<tr>
<td>Sophomores</td>
<td>2,961</td>
<td>1,963</td>
<td>66.3%</td>
</tr>
<tr>
<td>Juniors</td>
<td>2,591</td>
<td>1,513</td>
<td>58.4%</td>
</tr>
<tr>
<td>Seniors</td>
<td>2,913</td>
<td>1,463</td>
<td>50.2%</td>
</tr>
</tbody>
</table>

Resource: Georgia Southern University, Office of Strategic Research and Analysis, September 29, 2005.

Athletic Participation Research Questions

1. What is the participation in athletic sports?

2. What is the demographic breakdown of participation?

Sam Baker, Director of Athletics was emailed to request athletics participation numbers. He forwarded my request to Steven Bowen, Assistant Director of Athletics. Mr. Bowen sent raw data, including numbers, sex, race and year of all athletes for Fall
2004 and Spring 2005 (S. Bowen, personal communication, August 23, 2005). Only 3% of the student population participated in NCAA athletics at GSU for fall 2004; Table 2 describes participation based on race and sex.

Figure 3.6 illustrates the racial breakdown of athletic participation at GSU compared to the overall university population. Three hundred and fifty eight students participated in the athletic program at GSU, totaling 3% of the total population. Twice as many Black males participated in athletics than are represented in the GSU population. White females had less representation in athletic participation compared to the general population, 23.4% and 36.4%, respectively.

Figure 3.6: Percentage of Students Who Participated in NCAA Athletics in fall 2004 Compared to the Total Population at Georgia Southern University.

Physical Environment Questions

1. What percentage of students drive to class?
2. Is the campus designed to promote walking and according to whom?
3. What parking issues might influence a student’s decision to walk or drive on this particular campus?

Bob Chambers, Director of Transportation Services was contacted via email and asked the specific research questions. Mr. Chamber responded in an email: “The number of students who purchased parking passes for the 2004-2005 academic year] is 70 - 75%, but that is based on the entire enrollment [16,100 total students]. Some don't have cars and some live in the non-commuter zone [close to campus] and are not eligible to purchase a permit (B. Chamber, personal communication, August, 7, 2005). In response to the main goals of the transportation system, Chambers replied, “We are running out of parking and there is nowhere else on campus to build more. We hope the transit service will fill the gap between the supply of spaces we have and the parking demand for those spaces. Transit will provide access to campus for those without permits by allowing them to use the remote parking currently available at the stadium and RAC and catch the shuttle to campus. Students can park free in these remote parking lots and take the shuttle to campus and be within a 5 minute walk of most academic buildings.”

Charles Taylor, Campus Landscape Architect/Planner, was also contacted to discuss the university’s physical environment and pedestrian. Referring to his technical memorandum, Taylor reviewed the university’s physical master plan. He emphasized the goal of preserving and enhancing the functionality and physical attractiveness of the campus. The pedestrian is one way of accomplishing this goal. It forces vehicular traffic to the perimeter, while consolidating the academic core at the heart of campus. The master plan also preserves the existing Green Way running the length of the campus; the university has plans to expand on that Green Way and has applied for T-Grants for
the Department of Transportation (state grant funding that is to encourage non-vehicular transportation). However, Georgia Southern University has currently not been funded for the improvement of the Green Way. When asked if the master plan incorporated the idea of increasing physical activity of students, Taylor responded that physical activity is a secondary function of the pedestrium and the primary function was “connectivity.” “Connectivity,” explained by Taylor, is the university idea of keeping the academic buildings in the core of the campus and using the pedestrium connect academic quads or clusters of buildings (C. Taylor, personal communication, August 21, 2005).

Curriculum

Academics Research Questions

1. What are the requirements for the General Health and the Physical Activity courses for all students?

2. What is the curriculum design of these health and physical activity courses?

To investigate the curriculum, the Director of the Physical Activity Program, Drew Zwald, and Director of the Healthful Living Program, Larry Bryant, were contacted by email and were asked the above questions. Dr. Zwald agreed to meet on August 12, 2005, to discuss the physical activity program offered by Georgia Southern University.

All undergraduate students are required to take (2) one-credit-hour physical activity courses and one two-credit-hour health course (Healthful Living HLTH 1520); a list of all courses available are located in Georgia Southern University 2004-2005 Undergraduate and Graduate Catalog. A total of 6,507 students participated in physical activity courses during the 2004-2005 academic year, 3,385 and 3,122 students for the fall and spring, respectively (P. Davis, personal communication, August 15, 2005).
These numbers are raw figures and do not take into account the multiple classes in which a student might be enrolled. Nevertheless, it could be estimated that about 25% of the total GSU population were participating in physical activity courses during the fall of 2005.

Dr. Zwald explained that the rationale of physical activity courses is to support the overall development of the student in life-skills and fitness. He referred to his Memo to the Core Curriculum Committee of May 1996, when the university was reviewing its core curriculum (personal communication):

Georgia Southern University has identified ten categories of general education outcomes. Two of the ten outcomes will be met with our Health/Physical Activity Program:

7. Familiarity with major issues
Students will demonstrate familiarity with and some understanding of such major issues facing all societies as health issues, including those pertaining to human sexuality.

10. Worthy use of leisure
Students will demonstrate their capacity for a worthy use of leisure by valuing physical activity and its contribution to a healthy lifestyle. (Zwald, D, personal communication)

Dr. Zwald explained that the viability of the physical activity program is guaranteed by the continued support of the university in valuing the physical education program and its contribution to the overall education of the student. Dr. Zwald has given
many lectures on justifying college and university physical activity programs. He emphasizes that the two most important factors in the success of a program are its centrality to the university’s mission and the university’s support of the program, be it finances, facilities or staffing.

The curriculum design for the physical activity courses is highlighted in the example syllabi in Appendix A. Each course is designed to function within the 15 week semester system, meeting twice a week for 50 minutes. The courses are heavily skills-based: 45% of the grade is based on “skill” testing, 35% on written testing (midterm and final), 10% on self-assessments, and 10% on participation. The majority of courses include a warm-up, activity and cool down portion with mini-lectures introduced into class at appropriate times. The teaching style is focused primarily on skills development through active participation in paired teaching and group activities.

Zwald is also responsible for hiring and training graduate students to teach the physical activity courses, with the exception of certain specialty courses that are contracted out to certified professionals including Scuba and Equestrian courses. The majority of physical activities instructors are graduate assistants seeking Master’s Degrees in the School of Public Health with emphasis in Health Services Administration, Health and Physical Education, Community Health Education, Biostatistics, Exercise Science, Athletic Training, Sport Psychology, or Coaching. The training of the instructors is outlined in Dr. Zwald’s “Improving Instruction in a Physical Education Basic Instruction Program” Presentation, which highlights six major factors: identifying and selecting instructors, scheduling, implementing policies and procedures, pre-service
training, evaluating and providing incentives and recognition. The only areas which focus on pedagogy are the pre-service training and evaluation.

Mr. Bryant was contacted via email to discuss the general health course offered at GSU. The basic health course that is required of all undergraduates is called Healthful Living (HLTH 1520). This course is designed in Bryant’s description as a “knowledge-based” course to ensure that the student has been exposed to the basic health principles ranging from physical activity, infectious disease control, chronic disease, sexuality and substance misuse and abuse. As with the physical activity courses Dr. Zwald described, the health course meets the university objectives in familiarizing students with major issues and understanding the worthy use of leisure. A copy of the course syllabus can be found in Appendix F. This course description is found in the GSU 2004-2005 Undergraduate and Graduate Catalog:

A course designed to introduce students to fundamental concepts associated with healthful living throughout the lifespan in modern society. Course content focuses upon the promotion of health and wellness within individuals, families, and communities through an understanding of healthful living, development of healthy lifestyles, and avoiding or overcoming harmful habits.

Currently, Georgia Southern University has moved from Master’s degreeed instructors to graduate teaching assistants in Public Health to teach these courses. The minimum qualification for the graduate assistance to teach in the Healthful Living program is an undergraduate degree and acceptance in the Graduate School at GSU. Barry Joyner, Acting Chair of the Jiann-Ping Hsu School of Public Health, adds that teaching experience is preferred, but not necessary. The graduate assistant attend the same pre-
service training as the physical activity graduate assistants, plus an additional four-hour training session focusing on the Healthful Living Program.

This health course enrolls anywhere from 25 students in an honors section to 150 - 320 students in regular sections based on the size of a lecture hall. The teaching format is mainly lecture. The course has been designed with the collaboration of the publisher (Thomason Publishing) and has an online component especially designed from the publisher.

Summary

In this chapter, the theoretical background was justified and the analytical set-up was described. The analysis set-up consisted of describing the population demographics, apparent risk associated with physical activity and nutrition, and the environment in the sample university. The next chapter will critically analyze the findings by using representation theory, focusing mainly on the curriculum, pedagogy and environment. Chapter 5 will include a brief summary of the study, a discussion of the implications of the study and recommendations for action.
CHAPTER IV: ANALYSIS

The purpose of this study was to critically analyze one southeastern university’s environment in relation to the obesity epidemic. The research was inspired by cultural studies and used representation analysis as a way of understanding and interpreting the practices of a university environment.

Obesity is projected into the discourse of the university setting through its administration, environment, and curriculum. This discourse can be deconstructed and analyzed using representation to expose the meaning behind university culture. According to Fiske (1993), “Representation is control. The power to represent the world is the power to re-present us in it or it in us,” (p. 160). The previous chapter detailed the environment of one university setting, including a discussion of sample demographics, the environment as it pertains to physical activity and nutrition, and curriculum design of the general health course. This chapter will use that sample university to critically analyze the discourse of obesity within the university setting.

The prime focus of the study is the curriculum, however it is important to acknowledge that the curriculum does not exist by itself; the curriculum is both supported and opposed by the existing university administration and physical environment. For this reason, administration and environment will also be briefly analyzed. The main curriculum through which the university addresses obesity with the entire student body is the general health course, Healthful Living (HLTH 1520). This chapter will be organized according to the analysis of each aspect of the university.
The University’s Administrative Role in Obesity

Part one of this chapter will analyze the university’s administrative role in the articulation of obesity using the major works of Henry Giroux. A brief description of this particular university will be given. Then its mission statement will be investigated to expose the university’s written stance as it might pertain to obesity. In the final portion, the selected administrative inter-workings of the university will be analyzed.

Georgia Southern University is a member institution of the University System of Georgia, offering 120 academic majors in a comprehensive array of baccalaureate degrees and selected master's and doctoral programs. The University has earned national accreditation in 79 program areas from 20 accrediting bodies. Academic programs are organized in seven colleges: Business Administration, Education, Health and Human Sciences, Information Technology, Liberal Arts and Social Sciences, the Allen E. Paulson College of Science and Technology, and the Jack N. Averitt College of Graduate Studies. The University awarded 2,777 degrees in 2004-05.

A residential university with a projected fall 2005 enrollment of approximately 16,400 students, Georgia Southern is the largest university in the southern half of Georgia. Georgia Southern enrolls a diverse population representing not only Georgia, but 48 states and more than 85 nations. Ninety percent of undergraduates are full-time students.

The 675-acre park-like campus continues an era of capital construction that has opened new facilities for colleges and academic programs, student recreation and development, University housing, athletics, and public service. The university also has many complimentary cultural centers including a museum of cultural and natural history,
a botanical garden, a wildlife education center, a performing arts center, and a new continuing education and conference center. The University's Division I athletic teams compete in the Southern Conference. The campus is located in Statesboro, a community of 30,000, an hour from historic Savannah and beach resorts, and approximately 200 miles from Atlanta.

In *Experience and Education*, Dewey describes an educational experience as being part of a continuity of experiences that promote individual and community growth. Dewey’s educational philosophy is rooted in the belief that individuals are active members of real communities that shape them and are in turn shaped by them. In his words, “such a society must have a type of education which gives individuals a personal interest in social relationships and control, and the habits of mind which secure social changes without introducing disorder” (Dewey, 1916/1944, p. 99). Bynum (2005) reflects on Dewey’s philosophy that education is a continuation of social life: “an image of internally cohesive and fluently self-continuing social life as its center, and this description of society as existing in the communication that enables its [education] cohesion and continuity is important as relating to his [Dewey’s] essential world view and philosophical orientation” (p. 364).

Dewey’s principles seem consistent with Georgia Southern University’s mission statement as they pertain to continuing the educational process beyond the campus and into the society:

“…Faculty, staff, and students embrace core values expressed through integrity, civility, kindness, collaboration, and a commitment to lifelong learning, wellness, and *social responsibility*. The University fosters access to its educational
programs, provides a comprehensive and fulfilling university experience, and *enhances quality of life in the region* through collaborative relationships supporting education, health care and human services, cultural experiences, scientific and technological advancement, athletics, and regional development.”

*Georgia Southern University Mission Statement, June 2004.*

Both Dewey and Georgia Southern recognize the importance of education in the enhancement of the society or community. Dewey’s principles and GSU mission can be extended to include society’s most pressing health problems. Obesity is a problem that not only affects the individual but the community as well. As described in the review of literature obesity is a disease with many other health implications and reduces one’s *quality of life.* Paul Krugman, a New York Times reporter, points out that, “fat is a fiscal issue” as well (2005, July 4). Given the current university mission statement, there is an obvious need to address obesity by the university as part of their own social responsibility. Currently, the School of Public Health has received internal funding from GSU’s Office of Research Services and Sponsored Programs in the sum of $50,000: to study factors surrounding obesity epidemic through scholarly research. This is direct example of the university’s acknowledgement of their responsibility in the obesity epidemic. Higher education, according to Dewey and the university’s mission statement, is an integral element in the solution the obesity epidemic.

Even though there is an outward expression of Deweyian principles in the mission statement of the university, the inner workings of the administration call into question its commitment to uphold those principles. Cultural studies has investigated neoliberalism’s effects on education: “Neoliberalism attempts to eliminate an engaged critique about its
most basic principles and social consequences by embracing the market as the arbiter of social destiny” (Giroux, 2003, p. 158). This study will be an extension of those critiques with a focus on obesity.

Neoliberalism depicts a corporate model in American culture which focuses on mass marketing of products for consumption. It is often considered a position that supports and promotes consumerism. Large corporations are the driving force behind the idea of neoliberalism. Corporations, which many universities have modeled themselves after, are becoming part of the education landscape. However, the “corporate university” has to be critically analyzed for its contributions to the individual and the community (Molnar, 2005)

The university is a place where social change can be fueled by the critical thinking of its faculty and students, according to Giroux (2003): “Education is a moral and political practice and always presupposes an introduction to and preparation for a particular forms of social life, particular rendering of what community is and an idea of what the future might hold” (p. 171). One evident example of this is the university’s role in changing the public’s attitude towards the Vietnam War.

The administration plays a crucial role in setting the stage for education’s democratic function. The mission, vision and goals of the university directly influence every aspect of student life, from the curriculum to the campus environment. Although the main focus of this study is not administration, it is important to highlight the administration’s role in the problem of obesity. The university administration not only makes decisions that impact the curriculum, but has an indirect influence on obesity through its modeling.
The university has been increasingly criticized for taking on the appearance and function of the corporate model (Aronowitz, 2000; Giroux & Myrsiades, 2001; Gould, 2003, Molnar, & Reaves, 2001; and Readings, 1996). Aronowitz (2000) states, “Some have become big businesses, employing thousands and collecting millions in tuition fees, receiving grants from government and private sources and for a select few, raising billions in huge endowments” (p. 11). Georgia Southern is no exception to this rule. With over 16,000 students, Georgia Southern functions quite efficiently under the corporate model, focusing on raising entrance SAT scores, retention and public and private partnerships. At the Fall 2005 Convocation Ceremony, President Grube remarked on the record high SATs (average 1,100) of new freshman and retention rates (80% freshmen returned to the university). Leadership has taken a different turn under the model of the corporate university: “Today’s college presidents are known less for their intellectual leadership than for their role as fundraisers and ribbon cutters and coat holders, filling a slot rather than changing the world. Academic administrators are supposed to bridge the world of academia and business” (Giroux, 2003, p. 170).

Georgia Southern University is no different from any other university; in its day-to-day functioning works very hard to keep its enrollment numbers up (income) and cut spending (expenditure), a simple principle of business. However, in the process of generating record high numbers and proving its “excellence,” according to Reading (1996), the university has lost sight of the purpose of education: “ Corporatize higher education, which while offering one of the few sites for linking learning with social change is increasingly being redefined in market terms as corporate culture subsumes democratic culture, and critical learning is replaced by an instrumentalist logic that
celebrates the imperative of the bottom line, downsizing, and outsourcing” (Giroux, 2000b, p. 11). Administration embraces corporate culture and overlooks the impact it has on obesity.

The bottom line has increasingly become a focus in the university setting. Georgia Southern has also adopted this idea and has made extreme cuts in educating students on health topics. Financial support from the university for the Healthful Living Program has been downsized. In 2003-2004, the Healthful Living Program supported 3 full time instructors and had a budget of $120,000. Six graduate assistants now teach the Healthful Living Program courses, at a salary cost to the university of $48,000.

Furthermore, the publisher of the selected textbook and the university have entered into a contract which pays a $5 fee per book, sold in the bookstore, to the university. For 2004-2005 academic year, 3,822 students participated in the Healthful Living Program, generating approximately $19,000 in revenue for the university from book sales. Additionally, the institutional revenue generated from this course, at $204 per credit hour for in-state residents, totaled over $770,000. This deliberate administrative action has devalued the importance of the instructor along with the subject of health education. It is quite evident that the bottom line takes precedence over education.

Students are caught in the university’s move from making critical citizens to making obedient consumers. Georgia Southern University used to proudly claim that their students were taught by “real professors,” not teaching assistants; that slogan has been phased out of the marketing plan. The Healthful Living Program offers a course that crams more than 300 students into lecture halls and gives the responsibility of
educating to a graduate assistant. The university expects the student to take this class seriously. At the end of the course, the university gives the student a course evaluation to fill out to quantify the administrators’ “calculation of a quotient of consumer satisfaction” (Reading, 1996, p. 130). The message to students is clear: “customer satisfaction is offered as a surrogate for learning and to be a citizen is to be a consumer, and nothing more. Freedom means freedom to purchase” (Giroux, 2003, p. 187).

The university’s administration has a vital role in shaping not only academic courses but also the non-academic environment. Private and public sponsorships are encouraged by administrators. However, the end result is that non-academic spaces resemble shopping malls. David Trend points out that: “student unions and cafeterias take on the appearance -- or were conceptualized from the beginning -- as shopping malls or food courts, as vendors competed to place university logos on caps, mugs, and credit cards. This is a larger pattern in what has been termed the ‘Disneyfication’ of college life…a pervasive impulse toward infotainment…where learning is ‘fun,’ and the staff is ‘perky,’ presentation takes precedence over substance, and where students become ‘consumers’” (Giroux, 2003, p. 186).

Some universities have completely turned themselves over to corporations and, instead of allowing corporations into the academic environment, corporations are allowing education into the corporate world. Molnar (2005) uncovers this phenomenon with Lafayette Square School, the campus of which is located in the Lafayette Square Mall. These “Education Resource Centers” are just another means for markets to burrow into public education. Schools, such as Lafayette Square, conduct classes in the classroom within the mall complex. Along with attending classes, students work part-
time jobs at the mall. It is a very convenient means to have students continue their role as consumers/students.

Although Georgia Southern University has not moved its campus into the Statesboro mall, the public spaces of the campus are becoming infiltrated with marketers. To understand the kind of threat this presents, we must investigate the effects corporations have on education. It is important to acknowledge here the role that a university’s administration has in safeguarding the university environment:

Universities do not simply produce knowledge and values for students; they also play an influential role in shaping their identities. If colleges and universities are to define themselves as centers of teaching and learning vital to the democratic life of the nation, they are going to have to acknowledge the real danger of becoming corporate, mere adjuncts to big business. At the very least, this demands that they exercise the political, civic, and ethical courage needed to refuse the commercial rewards that would reduce them to being simply another brand new or corporate logo. (Giroux, 2003, p. 187).

There is no denying that corporate America’s model of business has permeated the university setting. There is also no denying that a corporate mentality has helped to improve efficiency in the university or that corporate cooperation has provided much-needed financial assistance. However, it is important not to loss sight of the principles of higher education.

As Giroux (2001) puts it, “fundamental to the rise of a vibrant democratic culture is the recognition that education must be treated as a public good and not merely as a site for commercial investment or for affirming a notion of the private good based exclusively
on the fulfillment of individual needs” (p. 33). Education is for developing critical citizens, which in turn benefits a whole society. Today, we are faced with a chronic disease of obesity that is amplified by the corporate culture (or what Krugman calls “pro-obesity” culture) which now permeates the university setting. It is time for the university’s administration to revisit its mission and address the obesity epidemic as leaders in the community, not as advocates for consumerism.

Bipolar Environment: Rational thinking verse Emotional Response

Pool (2001) has summed up the current approach of many in health professions: “The question can no longer be, What is it about the obese that makes them fat? but instead must be, What is it about our society, our culture, or physical environment that makes so many of us fat?” (p. 14). Pool points out the need to investigate the environment of the campus using cultural studies. Cultural studies exposes how students are represented as rational thinkers, and at the same time, how they are represented as emotional consumers.

Walking through the Georgia Southern University campus, it is not hard to see the contradictions which exist between theory and practice when it comes to nutrition and exercise. On one hand, the university preaches about the importance of a healthy lifestyle in its lecture halls and classrooms. On the contrary, the offerings in vending machines and restaurants leaves little opportunity to achieve that healthy lifestyle. Furthermore, the physical activity facilities appear to be recreational havens conducive to physical activity; however these playing fields are only occupied by a select few. This conflict has a direct bearing on the obesity epidemic. The bi-polar environment the university hosts results
from tension inherent when choosing between producing critical citizens and maintaining its allegiance to corporate interests.

Although the general health curriculum will be analyzed in the final section of this chapter, the theory behind the course will be briefly discussed here. The university requires every student to take the general health course to promote “lifelong fitness,” according to official Georgia Southern University representatives. In the fall of 2004, 2,466 students were registered in the Healthful Living courses; in the spring of 2005, 1,356 students were registered. Over the 2004-2005 academic-year, 3,822 students participated in the course, representing 24% of the total university population. The course directly addresses issues related to obesity, including nutrition and physical activity. In the classroom, instructors disseminate information about nutrition and fitness. Students are able to demonstrate their understanding of the information through testing. In theory, students become knowledgeable about the subject matter; they know that they ought to exercise for 30 minutes per day according to the Surgeon’s General Report, and they know that they ought to consume five fruits and vegetables per day. In practice, however, these are not the choices students make.

From the data gathered, it is evident that the majority of students at Georgia Southern University do not adhere to a healthy lifestyle. Only 1 in 4 students surveyed consumed five fruits and vegetables, and nearly 4 in 5 consumed high-fat food. Yet they know these are poor nutritional choices. Furthermore, of those students surveyed, only 2 in 5 students got enough vigorous exercise, and 1 in 5 students got enough moderate exercise. Why do students act in direct conflict to what they know is best for them?
In the field of public health, there are several behavioral models that help explain why people engage or do not engage in certain health behavior. The Theory of Planned Behavior (TPB) is a widely used and accepted model (Ajzen, 1991; Fishbein & Ajzen, 1975). The TPB framework contends that behavioral beliefs comprised of one’s attitude, normative belief comprised of subjective norms, and control of beliefs which is a person’s perceived control over his own behavior are important determinants to the intention to act, which is the major determinant to the actual behavior (Figure 4.1). Perceived control can also directly factor into the actual behavior.

Figure 4.1
Theory of Planned Behavior

An individual’s attitude towards a behavior is based on many different variables including external, contextual variables such as age, sex, race, socioeconomic status and religion. One’s knowledge base is the bedrock on which one’s attitude is formed. This knowledge is the area the university addresses in general health classes. Knowledge base is important in the formation of potential outcomes of behavior. For example, knowing
what food to eat, how the food will affect an individual in the short term and long term, as well as the implication to disease all make up an individual’s knowledge that could affect one’s health behaviors related to obesity. An attitude is formed through the cognitive processes involved with beliefs about the possible behavior’s outcomes (Fishbien & Ajzen, 1975). The structure of an attitude is also affected by normative beliefs, or how one’s social circle feels about the behavior. Attitudes are known to bias judgments and memory and can act as filters when processing new information (Ajzen, 2001).

Subjective norms influence intentions to behave. This construct represents the perceived social pressure to perform or not to perform a behavior (Ajzen, 1991). This variable involves what important people within the social circle believe about executing the behavior in question. Subjective norms are also affected by an individual’s motivation to comply with the subjective norm of a particular behavior (Glanz, 1990). For example, a young woman might begin smoking because after viewing cigarette advertisements, she believes that young, thin women are supposed to smoke. This process of association is largely subconscious (Boihem, & Emmanouilides, 1996), and is what the food industry concentrates on to get an individual to do a particular behavior, such as purchasing a cola from the vending machine.

According to the TPB, behavior can be predicted if both the intention to behave and the perceived control of the behavior are established and as long as the intention is constant (Ajzen, 2001). In other words, if a person has a strong intention to behave in a certain way and believes that he or she will be successful in executing the behavior, the behavior will occur.
The university does not consider the subjective norms or self-efficacy that influences students’ behaviors. The university does, however, rely on old theories of individual responsibility for behavior in spite of current research in behavioral theory and obesity, which clearly points out that multiple factors contribute to obesity. This individual choice approach, in Nestle’s (2002) opinion, “serves the interests of the food industry for one critical reason: if diet is a matter of individual free will, then the only appropriate remedy for poor diets is education and nutritionists should be off teaching people to take personal responsibility for their own diet and health- not how to institute societal changes that might make it easier for everyone to do so,” (p. 360).

Addressing obesity as an issue of individual responsibility is clearly how the university views the problem and solution, and the majority of Americans would agree. For example, after viewing *Supersize Me*, students were asked, “Who is at fault for the obesity epidemic?” Close to 90% of a class of 300 students felt that individuals are to blame. This is not surprising based on the current ideology in America, which is shaped largely by corporations.

As Hall would assert, whoever controls the “production” of knowledge has the power within a society. Knowledge and power are one and the same. “Knowledge” is not simply learned from a text book; it is also shaped by the environment and culture. Applying that sentiment to the obesity problem of today, the food industry is in control of knowledge, shaping the way Americans view nutrition and physical activity behaviors. Ironically, individuals commonly blame themselves for a problem that the food industry clearly exploits. For example, a student will commonly comment, “I know I should not eat this candy bar.” Although the food industry influences public knowledge, it depict
behaviors as private matters, controlled by individual. Slogans such as “Have it your way” or “Just do it” imply that a person is in control of his or her actions. However, the opposite is true. Sub-consciously an individual wants to be that self-controlled person in the image or slogan and link that image to the product the company is selling. Therefore, an individual must consume the product to embody that image or slogan. The food company knows of this association; however, they will state that it is a private matter of individual choice to purchase their product.

Kincheloe captures the essence of the effect of the food industry on the university: “The traditional definitions of ‘the public’ and ‘the private’ are reconfigured, and the boundaries between them are blurred. Thus, the New Corporate Order marches on, reinscribing everything in its path” (Kincheloe, 2002, p. 188). The food industry does not want a clear line of responsibility drawn for obesity; they would prefer those boundaries to be “blurred” so they can avoid any responsibility.

Believing obesity to be a “private” or individual problem serves the interest of the corporation. This was also how the tobacco industry addressed their implication in the incidence of lung cancer years ago. Bernstein (1997) points out several staggering similarities between “the Big Tobacco and the Big Fat.” Historically tobacco use was viewed as a matter of personal choice. If a person smoked, it was her choice. Today, obesity is viewed in the same regard: an obese person chooses to overeat. The legal system aids in perpetuating this view of the individual as responsible. Currently, 20 states have “commonsense consumption” laws, which prohibits lawsuits seeking personal injury damages related to obesity: 11 other states have similar legislation pending (Warner, 2005). The university is not alone in blaming the individual.
The “rational thinker” that university produces is no match for the emotional consumer that corporations exploits by effectively appealing to our “soft spots.” Though it is apparent that students are not engaging in healthy lifestyles, the university turns a blind eye to the problem, refuting its social responsibility and turning responsibility over to the individual student. This is evident in the relationships and contractual agreements that universities have with corporations. Because of these relationships and contracts, students are treated as emotional consumers in nutritional and physical activity outlets maintained by the university.

**Nutritional Outlets**

Nutritional outlets on campus assume that students are consumers, not rational thinkers; these temporary student consumers will become in the food industry’s view lifelong consumers. As consumers, students are asked to make choices based on their emotions rather than on knowledge. Both the vending machines and restaurants on campus serve as vehicles to promote the mass marketing of the food industry. Additionally, vending machines limit the choices of students, thereby challenging democratic principles. Restaurant offerings on campus are also called into question: is the university acting in the best interest of the student? The possible exploitation of “captive” students demands investigation.

Vending machines are found in most buildings across campus at Georgia Southern University. Usually, they are located in common areas for convenience and accessibility. There are two main types of vending machines: beverage dispensers and food/snack dispensers. The limited choices students are offered challenge democratic
ideals. In addition, the mere presence of vending machines serves to promote the food industry.

Beverage machines on the GSU campus offer only Coca-Cola products. Coca-Cola has exclusive “pouring rights” on GSU campus, meaning no other soda company is allowed to sell their products on campus, even inside restaurants. Coca-Cola offers a variety of their products, including regular sodas, diet sodas, sports drinks, juice, and water. The financial agreement between the university and Coca Cola can be found in Appendix C. Unfortunately, the university did not disclose any additional funding they may receive from the Coco-Cola Company. University officials stated that this was the only contractual agreement between the university and Coca-Cola concerning beverage machines. It is difficult to believe that university gets only the contracted amount per beverage. “Pouring rights” on campus have been known to reach millions of dollars.

We may deduce two possibilities: one, GSU receives additional funding from Coca-Cola; however, it is in the form of donations and therefore difficult to track specific gifts-in-kind and/or financial amounts associated with those donations. Two, the university may really only receive the amount on the contract, which really calls into question the university’s willingness to make students a captive audience for free.

Regardless of the university’s monetary windfall from beverage sales, the situation still stands: the only drinking selections available across campus are products made by Coca-Cola. If one looks at the nutritional information, it would definitely not be in line with the textbook used in the general health course to describe a nutrient-dense product. Education is supposed to lead to a democratic society; however, the limited
choices in the beverage machines illustrates the university’s willingness to trade
democratic ideals for corporate financial backing.

The challenge to democratic ideals is not only evident in limited choices, but in
the university’s willingness to open the campus to corporate America. The decision of
what to stock in the snack vending machines is fueled by consumer spending, according
to Tom Palfy. Profits drive selection. The marketing and advertising the food industry
employs is strongly tied to the idea of “branding” according Naomi Klein (2000).
Allowing the food industry a place on campus reinforces brand loyalty beyond mass
media avenues. So even though the university is to a place where critical thinking is
supposed to develop, the market changes the role of the student.

Giroux recognizes “attempts to corporatize higher education, which while
offering one of the few sites for linking learning with social change, is increasingly being
redefined in market terms as corporate culture subsumes democratic culture and critical
learning is replaced by an instrumentalist logic that celebrates the imperative of the
bottom line, downsizing, and outsourcing” (Giroux, 2000, p. 11). The nutritional outlet
on campus could be a viable avenue for social change; however, “private gain now
cancels out the public good” (Giroux, 2000, p. 11). Students become victims in the
corporatization of the university.

Obsessed with the bottom line, the university increasingly devalues its role as a
democratic public sphere committed to the broader values of an engaged and critical
citizenry. For Hall, cultural politics is in part about the regulation and distribution of
resources. The food selections in vending machines can be viewed through this lens; the
choices made for students limit and control their options in achieving a healthy lifestyle.
Some will argue that students can easily bring healthy snacks to school with them; the university does not prevent them from doing so or require students to purchase food from vending machines. But this supports Nestle’s (2002) comments on individual responsibility for obesity. It is a matter of convenience to blame the individual, but cultural studies links the responsibility of the university to bring about democratic citizens.

Along with vending machines, the university maintains several restaurants for students. The university requires freshmen living in dorms without kitchenettes to purchase meal plans, thus requiring students to eat at one of the university eateries or university-sponsored restaurant off-campus. The university requirement that students purchase meal plans acknowledges the role that the university plays in achieving the health of students. It is akin to the parental obligation to provide a child with food; thus the university acknowledges its responsibility to students. The university fails in this obligation when it comes to the quality of food it offers. Palfy states in the data collection that one of the main influences in selecting restaurants is appeal to the student/customer, who, as he recognizes, is “brand conscious.” The student/consumer gets what the student/consumer wants. However, parents who feed their children only what their children want are considered neglectful by society. Giving a child cookies, chips, cake, and ice cream every day would not be considered nutritious, but in essence, that is what the university is doing by letting students dictate food selections. Parents do have more control of their children than the university has of its students. Parents also have to work hard to make vegetables seem enticing and to limit a child’s intake of
sweets. That is what responsible parents do. But the university’s responsibility is clouded by the corporate culture that has been absorbed into the academic environment.

The university has to be conscious of what food companies they expose the students to, not because those food companies cause instantaneous obesity. Instead, the university should be critical of the values those food companies will instill in students. *The Ad and the Ego*, produced by Boihem & Emmanouilides (1996), explores the effect of environmental marketing: it argues that mass marketing appeals to the subconscious and is so covert that we do not even recognize advertisements around us. The mass marketing produced by the food industry functions by using symbols to connect meaning to their products. Sut Jhalley states, “Symbolism is never natural. Symbolism is always tied up with power. Symbolism is always tied up with control, social and cultural power” (Boihem & Emmanouilides, 1996). Hosting food companies on campus actually extends the reach of the food industry. Kinchleloe recognizes this effect: “McDonald’s does not just sell hamburgers to individuals; it also sells lifestyles and affective dispositions that position McDonald’s consumption in a larger psychosocial matrix” (Kincheloe, 2002, p. 186).

Although GSU does not host McDonald’s on its campus, other national chains have the same effect: “Symbols are separate from ideas, they do not encourage thought,” (Hally, 2000) and this thoughtless process appeals to emotions, which drive the activity of consuming. This is where a disconnect is created on campus. The university feels it addresses its social responsibility by requiring all students to purchase meals plans and to take a general health class to provide them with the knowledge to make healthy choices.
But the food industry tempts the emotional consumer who does not use rational thought to choose between an apple or an order of cheese fries. That is no choice.

Furthermore, the student is not represented in the environmental discourse as a rational thinker, contrary to the university’s stated position. Nutritional information is not easily accessible for students. Chick-fil-Lay places nutritional information on-line through their website. The Orion Company’s nutritional information can be requested through Palfy’s office or through the actual company. GSU’s restaurants (The Educated Palate and Southern Traditions) plus Wrapsody Grill do not have nutritional information available at all. Even if a student was trying to practice what they learned in the classroom, it would not be an easy task. Molnar & Reaves (2002) reflect that “Consumerism that has permeated into the university campus deploys a variety of non-rational appeals and attempts to create pseudo-communities based on consumption or the uncritical acceptance of a particular policy or point of view” (p. 44).

It is not only nutritional outlets on the GSU campus that represent students as “emotional consumers” with little opportunity to be “rational thinkers.” The environment plays a large role in facilitating or impeding physical activity.

Physical Activity Outlets

The university shows its support for many forms of physical activity within its environment; however, it is up to students to use rational thought to take advantage of these outlets. An examination of these outlets reveals a show of support, several areas will be briefly analyzed: academics, campus recreation and intramurals (CRI), athletics and the parking/pedestrium system.
Physical activity, like nutrition, is supported by the university through academics, but participation in physical activity is completely left to the student. The university again creates a bipolar environment. In essence, the university believes that just because they teach students physical activity skills, students will use their rational thinking to maintain appropriate activity levels, (30 minutes per day on most days of the week). An investigation of the physical activity outlets on campus shows that this is not happening. Only a minority of students are active. Physical activity courses are the major venue in which students are engaging in physical activity; campus recreation also draws a large portion of students, and finally, athletics can contribute to physical activity of the students.

As stated earlier, it is a powerful stance to require physical activity courses as a part of the core curriculum. In the fall of 2004, 25% of the total GSU student population participated in the physical education program. Although the curriculum of physical activity courses will not be analyzed, it is important to note that these courses meet twice per week for fifty minutes. Actual activity time varies from 20 to 50 minutes depending on the class. The skills developed in the course are supposed to become habits carried out by students throughout their lives.

Continuation of physical activity is important in avoiding an overweight or obese condition. However, it is apparent that students are enacting knowledge. Fewer than half of GSU students surveyed reported engaging in recommended amount of vigorous or moderate physical activity in the past seven days. Furthermore, CRI and athletic participation statistics show only a minority of students engaging in physical activity.
Participation information in CRI shows that 64% of the population had at least one interaction with CRI programming. Only 7.8% of the students participated in CRI programming 30 or more times per semester, an average of twice per week. The CRI data also reflects the national trend of physical inactivity, the highest level of which is seen in Black females compared to all other groups. The facilities that are supported by the university are not being used by students to their full potential.

Georgia Southern University’s athletic program is relatively reflective of its actual population according to ethnic diversity. As expected, there are a higher percentage of male athletes due to the fact that university has a Division IAA football team with 128 male students on the roster (see Figure 6 in Chapter 3). The student-athlete made up 3% of the total population with 358 students in the fall 2004 participating in the athletic program. Furthermore, over one-third of the student-athletes are males participating in football; sport that is a revenue generating sport. Athletics is not a major outlet for physical activity for the majority of the students at Georgia Southern University. However, even though the numbers are small, it does represent the university major commitment to physical activity.

Finally, transportation issues and the pedestrian system are representative of the university’s attitude towards student physical activity. In 2004-2005, close to 70% of students bought parking passes for convenience and accessibility. There is no arguing that students need these passes in order to gain access to the university, especially because a majority of students live off-campus. However, students are treated as consumers in the transportation system. Parking problems on campus in 2004-2005 were no secret. It was a common occurrence for students to be late for classes or miss
classes because they were unsuccessful in finding convenient, close parking places. Parking lots surrounding the most utilized buildings are often full and many students wait for others to leave. But many parking lots went unused. Students’ consumer mentality is what fuels this aspect of the parking “problem.” Students do not want to walk to class; they are used to the conveniences they commonly experience in the environment around them. They would rather skip class than walk for ten minutes.

The design of the physical environment is also fueled by the consumer mentality of the students, which dictates the actions of the administration of the university. The GSU campus is currently being extensively renovated. The future plans, according to Charles Taylor, Campus Landscape Architect/Planner, are to make the campus more pedestrian-friendly by improving the quality of sidewalks and greenery. One of the main goals is to make the campus, in Taylor’s description, more “connective” by pushing vehicle traffic to the perimeters of campus and locating academic buildings at the heart of campus. The aesthetic of the campus is vital to the recruitment of new students. The question of the pedestrian being an enabling factor for physical activity was not addressed by Taylor, although he did agree it is a secondary function of the system.

The fact that the university does not consider physical activity a prime function of the pedestrian exemplifies the disconnection of the university from its social responsibility to promote lifelong fitness within its environment. The changes that are being to the university landscape have the potential to positively impact the physical activity patterns of students. However the university’s focus seems to be recruiting student dollars rather than promoting student health. The university is so busy keeping up with corporate America that it neglects its important social role. Investigating the
“Docile Bodies:” The Effects of Curriculum

In order to understand how the current health curriculum perpetuates the problem of obesity, it is necessary to look at the issue through the lens of cultural studies. The theories of Michel Foucault and Paulo Freire are most useful for this purpose and should guide any critical analysis of the ways in which obesity is articulated in the health curriculum.

Foucault and Freire have both written extensively on the relationship between power and education systems. Both recognize that the education system plays a major role in controlling power within a society and serves as an extension of the dominant class over subordinate classes, consistent with Gramscian hegemonic notion. Foucault interrogates the structural system of education and its power over the student. According to Foucault (1981), “Power is not a substance. Neither is it a mysterious property whose origin must be delved into. Power is only a certain type of relation between individuals” (p. 253). This power relation can be understood as productive processes of formation of conduct and as relations involved in transforming the student into a subject, which operates through concrete techniques such as testing and concrete forms of knowledge such as course materials. While Freire focuses on the pedagogical aspect, or what he terms “critical pedagogy,” his radical counter-hegemonic approach views education as a transformative process with the hope that it can bring about social change (Freire, 1970).
However, the current structure of the course design does not encourage or allow this transformation to occur.

**Foucault: Obesity as a Discourse**

The health curriculum is ideal as an avenue to address the obesity epidemic within the university system. However, under the scrutiny of cultural studies, it becomes a facilitator of the obesity problem rather than a solution. Obesity is a byproduct of the power structure within society. Foucault describes the modality through which power works as “constant coercion, supervising the processes of the activity rather than its result, and it is exercised according to the codification that partitions as closely as possible time, space, movement. Disciplines became general formulas of domination” (Foucault, 1975, p. 137). The health discipline, rather than focusing on the end result of a healthy lifestyle, focuses on the intricate details of running students through the Health Education Program. A useful analysis of the course should begin with an examination of the course structure.

The general health education course taught at Georgia Southern University is a required course for all undergraduate students. As it is a part of the required core curriculum the number of students enrolled in the course is very large. In the fall semester of 2004, 11 sections were offered, and in the spring of 2005, eight sections were offered. Each section enrolls 150-300 students, for a total of nearly 5,000 students in an academic year. Students are required to buy their textbooks from the Georgia Southern University bookstore or an off-campus book store. The health course is a part of what the
School of Public Health terms the “Healthful Living Program.” This program was taught by instructors with master’s degrees or doctorates; however, in the 2004-2005 academic year, those instructors were phased out. Beginning with fall 2005, the general health course was being taught by graduate students in the School of Public Health. The Healthful Living Program has been turned into what the Program Director, Larry Bryant, terms “canned” or a “stand and deliver” program. Bryant is in favor of graduate assistants teaching the health course; he states that, “it is becoming more and more common among universities across the nation to have graduate students teach introductory health courses” (L. Bryant, personal communication, August 8, 2005). All sections of the health course at GSU use the same book and have a template syllabus to follow (see Appendix F). All of the graduate assistants are required to teach according to the template syllabus and are not supposed to modify this document.

*Docile Bodies: Obesity and Power*

Because the Healthful Living course is required, the act of participation is one of obedience and one of many administrative controls over the student body. According to Foucault (1977), “The classical age discovered the body as object and target of power. – to the body that is manipulated, shaped, trained, which obeys, responds, becomes skilful and increases its forces” (p. 136). The student is required and therefore manipulated into taking this health course. Within the course design, power is continually exerted over students, rendering them, in Foucault’s term, “docile:” “It is certainly not the first time that the body [has] become the object of such imperious and pressing investments; in every society, the body [is] in the grip of very strict powers, which impose[s] on it constraints, prohibition or obligation” (Foucault, 1977, p. 136). The health curriculum
satisfies Foucault's definition of docile bodies in two ways: surveillance through a lecture-style format, and normalization, through testing procedures.

**Surveillance**

Foucault draws upon the work of Jeremy Bentham (1748-1832), a British writer, reformer, and philosopher, who designed the Panopticon. This design was essentially an architectural plan for a prison system relatively simple in design but socially and psychologically complex in effect. The cells of the prisoners are arranged circularly around a central guard tower such that each cell houses a single prisoner who is isolated from all other inmates. From the central tower, a single guard is able to monitor any prisoner in any cell at any time. Foucault uses the Panopticon to conceptualize the function of surveillance in modern institutions, notably prisons, but also workplaces, clinics, education systems and government.

The general health course is constructed in a lecture-style format, striking an eerie resemblance to the Panopticon in Foucault’s (1977) description: “he who is subjected to a field of visibility, and who knows it, assumes responsibility for the constraints of power” (p. 202). Large lecture halls may seat up to 320 students. Students focus their attention towards the center stage where the instructor reflects their optical gaze. An instructor cannot view each student all of the time, but that is irrelevant, according to Foucault, (1977) who states that “this architectural apparatus should be a machine for creating and sustaining a power relation independent of the person who exercises it; in short, that the inmates should be caught up in a power situation of which they are themselves the
bearers” (p. 201). Although students are not in single cells, they still sit in the auditorium; rarely do they divert their attention from the instructor unless they feel that the optical gaze is not focused on them. Students may casually converse with their neighbors, but the conversation is easily extinguished by an instructor with a look, or the instructor might even verbally ask them to stop talking.

Within health lecture halls, obesity facts and figures are spilled out onto the auditorium but fall upon students who have been institutionalized. Students obediently attend class because they fear the unknown repercussions of the system of power. Their actions are automatic and programmed. This type of environment does not reflect learning. When students do interact with the optical gaze on the stage, it only reflects their learned behaviors. Their questions do not express understanding or learning; instead, they attest to the boredom and routine of education: Is that going to be on the test?” or “Do we have to know that?” These are two common questions health instructors hear again and again. Even worse than numbing questions are students’ physical demeanor: falling asleep, reading the newspaper, applying makeup, or talking. On the surface, these actions can be viewed as rude, inconsiderate or insubordinate. But beyond the surface, one can see that students behave this way because they have been trained to do so. They are not asked to bring thought into the lecture halls; they are asked to be subservient to the power relation established:

Children learn to leave their words outside, in the hall, on the bus, at home, removing them like muddy boots. Words stick in their throats. And they are surprised to find that just as they are no longer understood by others, they do not understand. They stare at unyielding marks on a page, at blank lines on the ditto.
They strain for meaning in primers that are not about anything. They feel dulled by textbooks and lectures that do not ask them anything. (Atwell-Vasey, p. 2)

A lecture-style format does not want the student to think for themselves, which is necessary for any control over personal health, especially obesity. This design requires the student to fall into place of the established power structure. It reinforces passive behavior, “docile bodies,” preparing them for a future of submission to social power. Even their actual bodies reflect the motionlessness of the material. They sit confined to their individual chairs or “cells,” unaware of the irony that takes place. The instructor preaches about being active, yet the physical environment refuses such action.

An administration’s justification for these large sections is budget concerns. The panopticon set-up is the ultimate model of efficiency. This coincides with Foucault’s (1977) concept of power: “It made the educational space function like a learning machine but also as a machine for supervising, hierarchizing, rewarding” (p. 147). There is no evidence that higher education overtly attempts to exercise its power over students in such a manner; however, the best interests of the student are overshadowed by the administration’s mission to run a business following a corporate model, allowing for a system of surveillance at all levels of the university. This type of lecture format renders students incapable of gaining control over their own bodies, passive to their own learning, and passive in their approach to health problems, hence, adding to the problem of obesity.

Along with the lecturing technique, surveillance is also implemented in the course through assignments. Besides reading the assigned chapters of the required text, the only homework that the student has to complete is the on-line self-assessment surveys. These
on-line surveys question students about their health behaviors on a variety of topics. In particular, several surveys deal with students’ physical and nutritional activities. These surveys ask students to self-report how many days per week they exercise or how many fruits and vegetables they eat per day. This self-reporting, although not analyzed by the instructor, encourages a student to, in Foucault’s rationale, “inscribe in himself the power relation in which he simultaneously plays both roles; he becomes the principle of his own subjection. By this very fact, the external power may throw off its physical weight; it tends to the non-corporal; and, the more it approaches this limit, the more constant, profound and permanent are its effect” (Foucault, 1977, p. 203).

Although students are told that these surveys are confidential and anonymous, there is a subconscious awareness of being watched. Students may or may not be honest in their responses. The mere idea that someone might be evaluating them could influence their responses, for they might want to appear to themselves, as well as anyone “watching,” that they are or are not participating in certain behaviors. For example, the survey asks about the use of illegal drugs. Student might not want to report that they are using these drugs for fear of being arrested or appearing unhealthy; similarly, students might be in denial of their drug problems. The ultimate goal of surveillance is the creation of docile bodies through disciplinary norms whose focus is not physical but mental.

**Normalization**

A second method through which control of the student body is achieved is normalization, a system of finely gradated and measurable intervals through which individuals can be distributed around a norm. This norm both organizes and is the result
of such controlled distribution (Rabinow, 1991, p. 20). The process of normalization utilizes comparison, differentiation, hierarchization, homogenization and exclusion to achieve control over the student body.

Factory-like teaching methods (large sections and standardized testing) are seldom questioned. They comprise a routine teaching style employed across many disciplines. This kind of course design is considered the “norm.” Foucault (1977) remarks, “Like surveillance and with it, normalization becomes one of the great instruments of power at the end of the classic age” (p. 184). No one questions the norm or stops to critically analyze the design and pedagogy of the health curriculum and its relation to the social structuring of society. No one questions the extension of power upon students that, in turn, conditions students for future social institutionalization. Normalization does not allow for critical thinking.

“Health” courses are usually taken at face value: their purpose is to teach health principles. Students, instructors and administrators rarely question how methods used to teach are instrumental in maintaining a societal system of power. According to Foucault (1977), “In a sense, the power of normalization imposes homogeneity. It is easy to understand how the power of the norm functions within a system of formal equality, since with a homogeneity that is the rule, the norm introduces, as a useful imperative and as a result of measurement, all the shading of individual differences” (p. 184). Whether the disparities in obesity are somehow linked to the societal system of power is a question that is not asked, because normalization silences opposition. Foucault’s theory of normalization is complex; organizations such as higher education feed into this normalization or accepted standard and perpetuate the power structure within society.
Along with classroom design (lecture hall with a focus on the instructor), testing procedures reinforce the dominating power of the university: “Testing serves to show whether the subject has reached the level required, of guaranteeing that each subject undergoes the same apprenticeship and of differentiating the abilities of each individual” (Foucault, 1977, p. 158). Although it is important to make sure the students understand the course content, the current evaluation design does not directly measure the students’ comprehension of course material. Nevertheless, this course is required, and each student must pass the course to graduate, creating the minimal level required.

Four examinations are given in each section of the health course; the exams consist of 50 multiple-choice questions, and students have 50 minutes to complete the examinations. They are to arrive for the exam at a specific time and bring with them the proper scantron, pencil and ID in order to take the examination. Without such materials, they are not allowed to take the exam, pass the course, or fulfill their requirement for graduation. Hence it is the set of procedures found within the testing process that are the true apparatus of power.

Emphasis is reflected away from the application of course content and focused on the ritualistic procedures of testing. A true test of understanding would be the demonstration of healthy skills and behaviors learned within the course. Can the student make appropriate choices at the grocery store of nutritious items? Does the student engage in physical activity for at least 30 minute per day? Now, it is not feasible to test in such a manner, but multiple choice exams are very difficult to design such that they assess critical thinking. Most of the questions from the instructor’s test bank reflect only root learning.
Testing root learning is an exercise to guarantee that all students demonstrate the same training. Power is exerted over the student not simply to force health curriculum or testing onto the students: “Discipline may be identified neither with an institution nor with an apparatus; it is a type of power, a modality for its exercise, comprising a whole set of instruments, techniques, procedures, levels of application; it is a ‘physics’ or an ‘anatomy’ of power, (Foucault, 1977, p. 215). Testing takes the focus from desirable outcomes and focuses instead on daily practices, which instills adherence to a system. Testing measures only the student’s ability to demonstrate ritualistic gestures.

Foucault’s theory of power and control grants an understanding of how the health course design might in itself be debilitating for true behavior change when it comes to obesity. The format of the class, from the lecture organization and testing procedures to the normalization process, renders students powerless over their own self control. Foucault (1977) argues that this “must be understood as a generalizable model of functioning; a way of defining power relations in terms of the everyday life of men” (p. 20).

Paulo Freire’s work adds to the analysis of the health course by shedding light on the pedagogical aspects of the course. Freire’s work focuses on the process of oppression through pedagogy.

*Freire’s Insights*

Freire is widely regarded as one of the leading figures in the area of critical pedagogy, that particular type of pedagogy which is concerned with issues of social difference, social justice and social transformation. Freire emphasizes that a strong relationship exists between education and politics: “It is impossible to deny, except
intentionally or by innocence, the political aspect of education” (1970, p. 122). Freire’s works are relevant to health education in this study in two distinct ways: first, his views on “banking” education describe the negative aspects of the current education process, and second, the incorporation of “praxis” into health education.

Banking

Mainstream education is characterized by what Freire calls “banking education,” a top-down approach to knowledge transmission though which the teacher is the sole dispenser of knowledge and the students are its passive recipients. It constitutes a non-reflective mode of learning: “Education thus becomes an act of depositing, in which the students are the depositories and the teacher is the depositor. Instead of communicating, the teacher issues communiqués and makes deposits which the students patiently receive, memorize and repeat,” (Freire, 1970, p. 58). The banking system represents the student as an “object” rather than a “subject” of the learning process.

This banking system is represented through the dominant pedagogy found in the general health course. Although it is not required that graduate students teach in this manner, instructors are given little choice, due to the high number of students and the lecture-hall environment. Again, the average health class has 150 to 300 students in each section. In lecture halls, students sit in an auditorium looking down at the instructor, who is posed on the stage. The instructor disseminates the course material to the students as if they were empty vessels to be filled. The health courses that employ this banking style do not consider the effects of its pedagogy. As Pinar reflects, critical theorists refute this type of teaching method:
But, as curriculum theorists have long appreciated, the exchange and acquisition of information is not education. Being informed is not equivalent to erudition. Information must be tempered with intellectual judgment, critical thinking, ethics, and self-reflexivity. The complicated conversation that is curriculum requires interdisciplinarity, intellectuality, erudition, and self-reflexivity. This is not a recipe for high-test scores, but a common faith in the possibility of self-realization and democratization, twin projects of social and subjective reconstruction (Pinar, 2004, p. 8).

Obesity, as described in Chapter 2, is discriminatory in its affliction of the population; those who are in most need of liberation from this disease are alienated by the banking method. Minority students, specifically African-American females, are at highest risk for obesity. Banking style is most threatening to these students, because it teaches them not to question their own oppression. Banking methods of education alienate students, preventing the liberation that Freire believes can be the result of education.

Alienation

The health course creates this alienation is several ways: through the use of standardized textbook, through a lack of personal communication with the instructor, and through “normalized” assessment methods. First, the course textbook is an instrument of alienation. It presents facts and statistical information in a passive matter. The text presents a one-size-fits-all treatment of its subject matter and is used around the nation in a variety of university cultures. Because the authors generalize readers’ experiences as being the same across cultures and locations, individuality is not addressed within the
text. This invalidates the text, leaving students with an experience that “is unable to transform reality” (Freire, 1970, p. 75). This “across-the-board” selection of a text is typical of the banking method of education. The past experience of the learner is not valued, nor is it even considered within the pedagogy. For example, in the chapter on physical activity, the text gives the basic facts about regular exercise: “To get these benefits, you don’t have to turn into a jock or fitness fanatic. But you do have to get moving. This chapter can help. It presents the latest activity recommendation, documents the benefits of exercise, describes types of exercise, and provides guidelines for getting in shape and exercise safety” (Hales, 2004, p. 74). The opening line insinuates an ignorant or immature audience who should be glad to receive the basic information the book provides. However, students already know why exercise is important, and most can tell you what to do. The real problem with obesity is that people do not exercise because of socio-cultural reasons that the book does not even address.

Presenting the course material in as static a fashion as the text does is a tragedy if we consider that health education is a personal matter. A person’s history and experience not only affect their physical health but also their overall well-being. The textbook disconnects this relationship, separating individuals from the reality of their lives, thus dis-empowering the learner and making the learner in Friere’s term, “oppressed.” For example, the textbook outlines nutrition requirements: “Adults, …, should get 45 to 65 percent of calories from carbohydrates, 20 to 35 percent of calories from fat and 10 to 35 percent from protein” (Hales, 2004, p. 98). The chapter then defines the nutrients and list several types of food that are high in those particular nutrients. The only cultural factor of diet remotely addressed is dietary diversity, which describes different cuisines
including: African-American, Chinese, French, Indian, Japanese, Mediterranean, Southeast Asian and Mexican diets. At Georgia Southern University, the student population is mainly made up of White, then Black and a very few “others,” 73.2%, 21.5% and 6.2% respectively. A direct address of the southern diet of Whites and Blacks would be more relevant and empowering to the student. A critical analysis of the food industry would be even more beneficial and empowering; according to Freire (1970), “Even if the people’s thinking is superstitious or naïve, it is only as they rethink their assumptions in action that they can change. Producing and acting upon their own ideas – not consuming those of others – must constitute that process” (p. 100).

Although the textbook does not acknowledge individual differences, it pretends to. The text includes statistics concerning college populations. One figure illustrates *Exercising During College – and After* (Hanes, 2004, p. 74). This graph shows the activity patterns of groups during and after college in three types of college exercisers: regular exercisers, irregular exercisers and non-exercisers. But the facts are confining; they do not address how one who might be in the non-exerciser group during college could move into the exercise group following graduation. Instead of motivating, the figure, without explanation or discussion, locks in activity levels for the future; a non-exercising student might think, “Oh well, I guess I will always not exercise.” A second table, *How Freshmen Change the Way They Eat*, highlights the percentage of freshmen who stop eating meat, who admit that their diets changed for the worse and those who did not eat 5 fruits and vegetables per day (Hanes, 2004, p. 106). Again, neither the figures or subsequent text focus on actions students might take to empower themselves.
Along with providing rational college statistics, the publisher is now “customizing” the textbook for individual schools. This entails adding a list of campus resources in the front of the standardized text. Any true customizing would include statistical information about the particular region of the state and country in which a school is located, as well as statistics and analysis of a school’s own student population.

The lack of communication between the instructor and student furthers and reinforces the alienation of students: “Without dialogue there is no communication, and without communication there can be no true education” (Freire, 1970, p. 81). According to Freire dialogue is absolutely imperative to learning, as it allows for and encourages critical thinking. Instead, instructors commonly give students knowledge or impose on students a model of “good behavior” which they should follow. This is very much the same case when addressing obesity. Health educators inform students of what obesity is and what behavioral models to follow to avoid obesity. In the absence of dialogue, students fail to connect the facts of obesity to the reality of the world in which they live. The student is never in control of her situation, because there is a distance from the disease in the text and in the lecture. Within the chapter that addresses obesity, the textbook states, “Whatever your eating style, there are only two effective strategies for losing weight: eating less and exercising more. Unfortunately, most people search for easier alternatives that almost invariably turn into dietary dead ends” (Hanes, 2004, p. 113). This would be an excellent opportunity to discuss why some people want a quick fix for weight problems and why it is so hard to eat correctly in our culture. The book does not address those issues, but it does reinforce the idea that obesity is a matter of personal choice and responsibility when, in fact, it has been well-documented that
environment, genetics, culture and socio-economic factors are also involved. Dialogue allows an instructor to expose prejudice and preconceived ideas, thereby fostering understanding of the issue of obesity and possibly encouraging students to take control of their thoughts and their actions.

Assessment is another means by which students could become more connected to the course material. However, current assessment methods reinforce the alienation of the student from the material and from each other. Testing in large sections of the health course is a matter of efficiency. Multiple choice tests are geared to measure the root learning that has taken place rather than encourage students to synthesize material with their own real experience. The textbook publisher, attempting to cover every possible need of the institution, even provides testing banks and software that creates exams. Graduate assistants, who may or may not have had any teaching experience, are practically forced to rely on such testing methods because of the sheer number of students they must assess. In order to cover the required amount of material in the short amount of time allowed, they cannot possibly spend time reading and grading even short written responses to thoughtfully-prepared exam questions. Students are tested over facts and figures and are not asked to place themselves within the reference of the course material. Alienation of the student is the result.

The topic of health becomes impersonal and dehumanized in this environment. Students are not encouraged to engage in topics; rather they become a part of what Freire terms a “culture of silence,” sitting quietly in their seats waiting for class to be over. However, health is a course from which students can potentially use the content on a daily basis, improving their overall well-being. In order for the information to have an
impact on students’ lives, it must stimulate students to think for themselves. Students must understand how the material pertains to them as individuals. Freire addresses the paradox of banking in education: “The humanism of the banking approach masks the effort to turn men into automatons – the very negation of their ontological vocation to be more fully human” (Freire, 1970, p. 61). In an attempt to defeat this dehumanization of students, Freire offers a solution to the traditional “banking education:” the idea of praxis.

*Praxis*

Freire posed a model of education centered around the concept of “praxis,” an education process by which the learner is encouraged, through critical “authentic” dialogue, to unveil some of the social contradictions in existence within one’s community and beyond. Praxis constitutes the means by which learners engage in an ongoing process of critical literacy, a process that entails their reading both “the word” and “the world.” The process of education that Freire advocates is a democratic one, which also has a collective learning dimension.

Praxis involves, first and foremost, dialogue. Dialogue enables “men to develop their power to perceive critically the way they exist in the world with which and in which they find themselves; they come to see the world not as a static reality, but a reality in process, in transformation” (Freire, 1970, p. 71). This powerful tool can be applied in health education to address the obesity epidemic. Students should understand their relationship to the disease, not just regurgitate the facts of obesity. Students need to think critically about their place in the obesity discourse.

Obesity is a chronic disease with many factors that influence its progression. Students need to be able understand their control of the disease and to think critically
about how they are influenced by media and the environment. Nutritional choices are not generally made with rational thought but with emotions; students should be able to decipher how they make these emotional choices. They should understand their current behaviors and what choices they individually make in their daily lives that will influence obesity.

Dialogue would allow for the possibility of the production and construction of knowledge (Freire, 1998). Within the dialogue, students begin to understand their positions in relation to obesity, their risk levels and why they might be at those levels of risk. For example, an Hispanic female student would not only learn that she is at higher risk for obesity compared to her white counterparts, but also what factors are linked to this difference, such as cultural differences, media influences and behavioral factors. Dialogue allows students to reflect on their relationship to obesity and thus leads to the ability to take action. This process of praxis reflection and action allows for change not only in the individual but in the community; it allows for the “transformation of the world” (Freire, 1970, p. 119).

Dialogue involves both the instructor and students; however the instructor’s role is not to simply spew or deposit facts and figures. The instructor should be competent, yet not enforce authoritarian rule within the dialogue: “It is not our role to speak to the people about our own view of the world, nor to attempt to impose that view on them, but rather to dialogue with the people about their view and ours. We must realize that their view of the world, manifested variously in the their action, reflects their situation in the world” (Freire, 1970, p. 85). In order to have this dialogue, the instructor should have a
relationship with the student. Dialogue in Freire’s model requires love, humility, faith, hope, and above all critical thinking.

Dialogue encourages action in the learner. The instructor enables learners to reflect on the “codified versions of the reality” in a process of praxis. With obesity, students might reflect on the marketing ploys that food companies use to increase sales. Students might then reflect on how they normally respond to similar marketing ploys and what this does to their bodies, along with the effects this might have on society – such as the normalization of such a behavior. By this process, students are able to view problems of obesity in a more critical light.

Currently, the health course design makes dialogue impossible. The instructor may engage in some dialogue within the class; however, practically speaking, there is no means for all students to interact. Who suffers? Those who do not actively seek out dialogue with the instructor; those who, in Foucault’s opinion, have been submissive to educational discipline; they suffer. Those students who are at greatest risk of obesity (including those who are currently overweight or obese) are less likely to engage in dialogue because obesity has a social stigma attached to it. Students who are already overweight or have negative behavioral habits fear public embarrassment by drawing attention to themselves by engaging in dialogue. Foucault’s observation that panoptic monitoring of the lecture hall makes students feel they will be judged, for all eyes will be on them. The experience of exposing oneself is frightening for students, but may also be uncomfortable for the instructor in authentic dialogue.

According to Freire, the instructor is also expected to take risk in the dialogue, acknowledging that reality might not be aligned with his or her view of the world. The
teacher joins the learning process and creates a relationship in which knowledge is passed in two directions. The instructor enables the learner to make a transformation, however, he or she too might be learning and transforming as well. This phenomenon is especially difficult for novice instructors, who may be accustomed to traditional teaching method; they believe they should be the authority on all subject matters in the class. Engaging in dialogue for this instructor will potentially shift the power structure within the discourse. The fear of losing control of the students or class by stepping out their authoritative positions stops any dialogue that an instructor cannot easily orchestrate. Instead of engaging students in dialogue, the instructor holds fast to the “banking” style of education.

The obesity epidemic is directly and indirectly addressed in the health course by the banking method of education. Rather than potentially liberating students from the condition of obesity, it indoctrinates them into the system of oppression as Freire would describe it. Banking education fails to bring about change: “The banking concept of education…serves the interest of oppression” (Freire 1970, p. 64). Freire offers an alternative to this oppressive style of teaching, praxis in which dialogue is encouraged. This dialogue brings about the possibility for true learning and transformation. Foucault and Freire offer the theoretical grounding in which this analysis was able to be derived. Foucault’s notion of docile bodies leads the analysis by equating the health curriculum with the controlling rigor of the discipline. The health course design renders the student mindless and submissive to the overriding power structure. Freire’s concept of banking education confirms the oppression that the health course instills in students. However,
Freire also offers the notion of dialogue to break the cycle of oppression. This praxis conception will further expanded in the conclusion, Chapter 5.

Summary

This chapter critically analyzed one southeastern university in relation to the role of the administration, physical environment and curriculum in connection to the obesity epidemic. The administration outwardly acknowledged its responsibilities to students through the university’s mission statement and support of academic research endeavors. However, the administration’s actions through decreased funding to the health program and support of neoliberalism in educational space conflicts with their outward commitment.

The environment sends mixed messages to students, projecting them as rational thinkers and emotional consumers. Academic preparation student receive does not match the power corporations have to make emotional appeals to students to make poor health choices.

Finally the chapter analyzes the curriculum using Foucault and Freire. Foucault’s theories are applicable to the current structuring of the health curriculum, rendering students docile bodies. Freire's theories of banking explain the paralyzing pedagogy of the curriculum but offer an inspiration of hope. Chapter 5 will summarize the entire dissertation, offer implications and further suggestion for research.
CHAPTER V: SUMMATION, IMPLICATIONS AND SUGGESTIONS

It was Stuart Hall who used the analogy of fish in water to describe our environment: We are like fish in water, not giving much thought to the environment that we live in, even though we are immersed in it (Halley, 2000). But the water impacts every facet of our lives, including health. As a health educator, I relate to Hall’s analogy; our environment has a direct impact on our personal and community health, yet we do not pay much attention to what goes on around us. Recent research on obesity points to the potential impact of our environment on our health. However, research rarely critically analyzes the environmental impact on obesity.

The purpose of this study was to critically analyze the university environment and its relationship to obesity using cultural studies. The articulation between obesity and the university environment was deconstructed using representation theory. The research was carried out in the spirit of empowerment. It is hoped that health education practice will benefit from the use of representation analysis as a way to interrogate factors related to obesity. Also, it is hoped that the practice of critical pedagogy and cultural studies will become integral parts of all health education practices.

Summary

It is evident that the university has a social responsibility to the student and to the community to be a leader in addressing public health problems. Obesity has now surpassed smoking as the number one preventable health risk. Nevertheless, there is a disconnect between what is taught in the classroom and the environment college students are exposed to on a daily basis. If the university’s mission is to foster critical citizens, its
commitment is in question because it allows environmental factors to promote consumerism over knowledge.

The first portion of the review of literature included an overview of how corporations have become a colossal part of the American landscape. The social marketing technique of branding is one of the main principles that companies employ to sell a certain type of ideological lifestyle. As Kincheloe (2002) states, “McDonald’s does not just sell hamburgers to individuals; it also sells lifestyles” (p. 186).

The second part of the literature review explored how corporations have moved into the landscapes of the university. Universities have adopted the corporate model in their administrative and daily operations. Corporations have also developed partnerships with universities, providing universities with monetary support in return for unlimited access to students. Corporate influence on the university has raised many questions from critics: “the modeling of higher education after corporate principles and the partnerships they create with the business community do more than reorient the purpose and meaning of higher education. Such reforms also instrumentalize the curricula and narrow what it means to extend knowledge to broader social concerns” (Giroux, 2000b, p. 29).

The final portion of the literature review investigated the obesity epidemic including etiology, prevalence, and impact. Obesity is a serious health concern that is influenced by genetics, behavior and the environment. Many studies suggest the need for further investigation of the role that environment plays in this national health issue (Lillie-Blanton & Laveist 1996; Nestle, 2000; Racette, et al., 2005; and Saeben, et al., 2003).
For this study, existing data from one southeastern university was collected to describe the articulation between the university and obesity. First, population demographics and apparent obesity risk linked to physical activity and nutrition was revealed. Then the cultural environment of the university, including the administrative policies, physical environment and curriculum was also evaluated. The analysis examined the collected information and used the cultural studies concept of representation to expose the articulation between obesity and the university setting.

Physical fitness and dietary risk behaviors in students were assessed using a cross-sectional research design and the instrument of the 1995 National College Health Risk Behavior Survey developed by the Center for Disease Control and Prevention. Students at Georgia Southern University exhibited eating slightly less fruits and vegetable as compared to U.S. college students; Black females reported the same amount as national norms. The population demographics were obtained from the university fact book and compared to the sample set of obesity-related health behaviors. The sample set racial background was relatively comparable to the overall population of Georgia Southern University.

Data was gathered from official campus sources to describe the physical activity and nutritional environment to which students are exposed. Three main areas of interest included nutrition, physical activity and curriculum. Guiding research questions were developed for each area. University representatives were contacted and solicited for specific information under their areas of directorship.

The representation analysis revealed three important critiques: Georgia Southern University’s administration is not consistent in its messaging. The environment
represents the student as an emotional consumer while academics represents the student as a rational thinker. Finally, the curriculum creates “docile” students incapable of true liberation.

The first part of the analysis interrogated the administration’s role in creating a positive influence on obesity through academics and the physical environment. Although the mission statement and required health course supports an anti-obesity concept, the administration’s actions do not mirror this sentiment. The university has downsized financial support to the Healthful Living Program along with opening traditionally non-commodifiable spaces to the free market. According to Giroux, “the cost accounting principles of efficiency, calculability, predictability, and control of the corporate order have restructured the meaning and purpose of education” (Giroux & Myrsiades, 2001, p. 36).

The second area of analysis revealed that students are being represented as emotional consumers by food industries on campus while the university prepares rational thinkers to make decisions about nutrition and physical activity. As Nestle (2002) points out, “We may believe that we make informed decisions about food choice, but we cannot do so if we are oblivious of the ways food companies influence our choices” (p. 360). The university does not acknowledge corporate influence on the student and the potential negative effect it has on obesity. The university feels its social responsibility ends at the classroom door.

The curriculum, key to the empowerment of the student, institutionalizes students and trains them to regurgitate root information. Foucault’s work highlights that health course design creates a submissive consumer through surveillance and normalization.
Large lecture halls mimic the surveillance described in Foucault’s idea of the panopticon. The testing and homework required by the course instills normalization.

The health curriculum employs a banking style method, that in Freire’s (1970) opinion, “inhibits creativity and domesticates the intentionality of consciousness by isolating consciousness from the world, thereby denying men their ontological and historical vocation of becoming fully human” (p.71). The lack of dialogue (between the student and teacher and student and student) and alienation of the student within the course represent the pedagogy as oppression. Freire’s work supports the potentially liberating effects this course could have on students through praxis.

Implications of the Study

In the United States, of more than 12 million people aged 18-24, the majority (57%) are enrolled in 3,600 colleges and university across the nation (Racette, et al., 2005). College students represent a readily accessible population in which assessment and intervention are feasible and important for effecting positive changes in physical activity and dietary behaviors. Preventative measures to reduce the number of overweight and obese individuals are critical for improving our nation’s health.

The university has a social responsibility to be a leader in a community and address obesity factors head-on. The university must first realign its mission with its actions on campus. A critical analysis of the health curriculum and environment must be addressed by the university’s administration. Morrison (2001) warns that, “If the university does not take seriously and rigorously its role as a guardian of wider civic freedoms, as interrogator of more and more complex ethical problems, as servant and preserver of deeper democratic practices, then some other regime or ménage of regimes
will do it for us and without us” (p. 278). The university can easily encourage students to take an active role in their own educations by opening the dialogue between key university official and students to address the obesity epidemic. The university is a unique atmosphere because it is does have control of the environment. Although, it might initially be an unpopular limiting corporate access to the public space of the university would send a strong message to society. The university ought to demand that students have healthy options in vending machines and restaurants even if it does not generate as much profit as non-nutritious treats; the university should also have more university-wide physical activity promotion to encourage non-participating students to engage in some type of physical activity. Academics cannot do it on their own; there must be the support from administration in creating a positive environment in which combat obesity.

The current health curriculum delivery is counterproductive to bringing about behavioral changes that affect obesity. This research suggests several changes. First and foremost, class-size should be reduced to foster a better learning environment, one that Freire would describe as lending itself to dialogue. Current class size undermines the ability of an instructor to facilitate true learning according to Foucault and Freire. Having smaller classes is not an unprecedented strategies at Georgia Southern University. Several other required university courses, such as GSU 1210, ENGL 1101 and 1102, and physical activity courses are taught with only 10-30 students. This is especially important if graduate teaching assistants instruct these courses. Smaller classes would allow for a more critically pedagogical approach, which will be discussed shortly.
Regardless of course enrollment, the teaching assistants need comprehensive training. Currently, teaching assistants attend four hours of training to prepare them to teach these large sections. The majority of the training focuses on the management of the course, not teaching. This is an injustice to both students and teaching assistants. It is imperative that instructors are not only knowledgeable about health education, but are able to aid in the transformation of the student. This result cannot result from the current format. Instructors must be able to utilize the final suggestion of critical pedagogy. An alternative or additional solution would be to hire full-time instructors with master’s degrees or doctorate in public health.

Peter McLaren (along with other cultural theorists) has suggested critical pedagogy for education. This involves not simply giving out facts but also getting students to think critically about the socio-political aspects of the problem at hand. This method is imperative to bringing about any major change in the obesity epidemic. Students need to realize that obesity is not caused only by genetic predisposition or individual weakness, but that obesity is an environmental consequence. In addition, they need to understand their control of the problem, what choices they can make in changing their own futures along with the nation’s health.

The health curriculum should include an interdisciplinary approach, calling upon cultural studies for “strategies of understanding, engagement, and transformation that address the most demanding social problems of our time” (Giroux, 2003, p.29).

Suggestions for Further Research

This study has stimulated several suggestions for further research such on topics such as the university’s role in health issues; obesity factors in the college-aged
population; and examination of the health curriculum. Education has always been a hotly-debated topic: what role should the university play in society, and how should that role should address health concerns of society? How can higher education aid public health concerns such as obesity?

Another area that needs further investigating is the college-aged population and its connection to obesity. It has been stated that college-aged students are at a critical point in their lives for developing behavior patterns. However, data is missing to fully understand the current behavior risks and attitudes surrounding obesity. There are no up-to-date data to describe health behaviors in the college population. The Center for Disease Control and Prevention data are from 1997. An update to the behavior risk survey is planned for 2005, but as of October, 2005, no reports have been released. There have been drastic changes in the cultural perceptions of physical activity and nutrition in the past 20 years. There has been a 50% increase in leisure activities in the past two decades. There is a definite need for up-dated data on national health behaviors concerning obesity.

This study was limited in that it only looked at one southeastern university. It would be advisable to develop a standardized university assessment tool to compare the health curriculum and physical environments of universities across the nation. Currently, there is no known national data on the requirement of physical activity and health courses. The only information found in the literature is more than ten years old; and it found that only 20% of state colleges and universities require physical activity courses for undergraduates (Hensely, 1998).
Further, I recommend that theoretical research be expanded and promoted. Its potential for empowerment and learning must be realized, while not forgetting that any type of research also has the ability to be exploitative. While not wanting to revisit the often acrimonious debate that arises between proponents of quantitative and qualitative research, the methods and strategies of theoretical research must be recognized as both legitimate and powerful. Also, as a way of promoting critical abilities, students must have the opportunity to critically analyze their own environments. Just like the fish in the sea, we must become aware of the potentially toxic water we swim in.
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APPENDIX A

TABLES 1-4 for Literature Review
Table A1


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<td>30.4</td>
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</table>

Table A2

Percentage of US High School Students Who Participated in Vigorous Physical Activity and Moderate Physical Activity by Sex, Race/Ethnicity, and Age

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<th>Moderate physical activity</th>
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<td>Female Male Total</td>
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<td>Race/Ethnicity</td>
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<td></td>
</tr>
<tr>
<td>White</td>
<td>58.1 71.9 65.2 23.3 28.9 26.2</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>44.9 65.0 54.8 17.5 25.8 21.7</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>51.8 66.7 59.3 20.6 23.3 22.0</td>
<td></td>
</tr>
<tr>
<td>Grade</td>
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<td></td>
</tr>
<tr>
<td>9</td>
<td>63.6 73.1 68.5 22.3 28.3 25.4</td>
<td></td>
</tr>
<tr>
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<td>58.2 71.5 64.9 25.3 26.2 25.7</td>
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<tr>
<td>11</td>
<td>49.4 70.4 60.1 20.0 28.1 24.2</td>
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<td>12</td>
<td>46.4 63.7 55.0 20.0 26.3 23.2</td>
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</tr>
<tr>
<td>Total</td>
<td>55.0 70.0 62.6 22.1 22.1 24.7</td>
<td></td>
</tr>
</tbody>
</table>

Table A3

Percentage of US High School Students Who Had Eaten $\geq 5$ Serving Per Day of Fruits and Vegetables and Who Had Drunk $\geq 3$ Glasses of Milk Per Day by Sex, Race/Ethnicity, and Age

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<th>Male</th>
<th>Total</th>
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<td>7.5</td>
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<tr>
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<td>24.4</td>
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<td>13.1</td>
</tr>
<tr>
<td><strong>Grade</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
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<td><strong>Total</strong></td>
<td>20.3</td>
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<td>22.0</td>
<td>11.2</td>
<td>22.7</td>
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Table A4
Percentage of US College Students Who Had Eaten ≥5 Serving Per Day of Fruits and Vegetables and Who Ate 2 ≤ Serving of Fat Per Day by Sex, Race/Ethnicity, and Age

<table>
<thead>
<tr>
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<td>Age</td>
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<td>18-25 years</td>
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<td>&gt;25 years</td>
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APPENDIX B

National College Health Risk Behavior Survey
This survey is about health behavior. The information you provide will help to identify the kind of health programs and services Georgia Southern University students need.

This is an anonymous survey and participation is completely voluntary. Completion of this survey indicates your consent to participate in this research study. Only data from person 18 years old or older will be used in this research. The answers you give will be safeguarded to the fullest extent possible in accordance with applicable statutes. No individual responses will be reported, so please answer every question as honestly as you can. Mark only one answer to every question unless otherwise indicated.

Please select only one answer unless otherwise instructed.
1. How old are you (in years)?
   □ ≤ 17 □ 18 □ 19 □ 20 □ 21 □ 22 □ 23 □ 24 □ ≥ 25

2. What is your gender?
   □ Female □ Male

3. What is your class standing?
   □ Freshman □ Sophomore □ Junior □ Senior □ Graduate Student □ Other___________

4. What is your current year in college?
   □ 1st □ 2nd □ 3rd □ 4th □ 5th □ 6th □ 7th □ 8th

5. Are you a full-time student?
   □ Yes □ No

6. How do you describe yourself?
   □ White □ Black □ Hispanic/ □ Asian/ □ Amer. Indian/ □ Other__________
   Latino Pacific Islander Alaskan Native

7. What is your marital status?
   □ Never been married □ Married □ Separated □ Divorced □ Widowed

8. With who do you currently live? (Select all that apply)
   □ Alone □ Spouse/ □ Roommate(s)/ □ Parent(s)/ □ Your □ Other
   domestic friend(s) guardian(s) children

9. Where do you currently live?
   □ College dorm/ □ Fraternity/ □ Other university/ □ Off-campus □ Parent/ □ Other________
   residence hall sorority housing college housing housing/ guardian’s
   apartment home

10. Are you a member of a social fraternity or sorority?
    □ Yes □ No

11. How many hours (hrs) a week do you work for pay?
    □ 0 hrs □ 1-9 hrs □ 10-19 hrs □ 20-29 hrs □ 30-39 hrs □ 40 hrs □ More than 40 hrs

12. Do you have any kind of health care coverage, including health insurance or prepaid plans such as HMO’s (health maintenance organizations)?
    □ Yes □ No □ Not sure
13. How much education does your mother have?
☐ < High School  ☐ High School/Some College  ☐ College Degree  ☐ Graduate Degree  ☐ Not Sure  ☐ GED

14. How much education does your father have?
☐ < High School  ☐ High School/Some College  ☐ College Degree  ☐ Graduate Degree  ☐ Not Sure  ☐ GED

The next 15 questions ask about safety and violence.

15. How often do you wear a seat belt when riding in a car driven by someone else?
☐ Never  ☐ Rarely  ☐ Sometimes  ☐ Most of the times  ☐ Always

16. How often do you wear a seat belt when driving a car?
☐ I do not  ☐ Never  ☐ Rarely  ☐ Sometimes  ☐ Most of the time  ☐ Always drive a car

17. During the past 12 months, how many times did you ride a motorcycle?
☐ 0 times  ☐ 1 - 10 times  ☐ 11 - 20 times  ☐ 21 - 39 times  ☐ 40 or more times

18. When you rode a motorcycle during the past 12 months how often did you wear a helmet?
☐ I did not ride a motorcycle during the past 12 months  ☐ Never  ☐ Rarely  ☐ Sometimes  ☐ Most of the time  ☐ Always

19. During the past 12 months, how many times did you ride a bicycle?
☐ 0 times  ☐ 1 - 10 times  ☐ 11 - 20 times  ☐ 21 - 39 times  ☐ 40 or more times

20. When you rode a bicycle during the past 12 months, how often did you wear a helmet?
☐ I did not ride a bicycle during the past 12 months  ☐ Never  ☐ Rarely  ☐ Sometimes  ☐ Most of the time  ☐ Always

21. During the past 12 months, how many times did you go boating or swimming?
☐ 0 times  ☐ 1 - 10 times  ☐ 11 - 20 times  ☐ 21 - 39 times  ☐ 40 or more times

22. When you went boating or swimming during the past 12 months, how often did you drink alcohol?
☐ I did not go boating/swimming during the past 12 months  ☐ Never  ☐ Rarely  ☐ Sometimes  ☐ Most of the time  ☐ Always

23. During the past 30 days, how many times did you ride in a car or other vehicle driven by someone who had been drinking alcohol?
☐ 0 times  ☐ 1 time  ☐ 2 - 3 times  ☐ 4 - 5 times  ☐ 6 or more times

24. During the past 30 days, how many times did you drive a car or other vehicle when you had been drinking alcohol?
☐ 0 times  ☐ 1 time  ☐ 2 - 3 times  ☐ 4 - 5 times  ☐ 6 or more times
25. During the past 30 days, on how many days did you carry a **weapon** such as a gun, knife or club? Do not count carrying a weapon as part of your job.

- [ ] 0 days
- [ ] 1 day
- [ ] 2 - 3 days
- [ ] 4 - 5 days
- [ ] 6 or more days

26. During the past 30 days, on how many days did you carry a gun? Do not count carrying a gun as part of your job.

- [ ] 0 days
- [ ] 1 day
- [ ] 2 - 3 days
- [ ] 4 - 5 days
- [ ] 6 or more days

27. During the past 12 months, how many times were you in a physical fight? *(If you answer “0 times – skip to question 30)*

- [ ] 0 times
- [ ] 1 time
- [ ] 2 - 3 times
- [ ] 4 - 5 times
- [ ] 6 – 7 times
- [ ] 8 – 9 times
- [ ] 10 – 11 times
- [ ] 12 or more times

28. During the past 12 months, with whom did you fight? *(Select all that apply.)*

- [ ] A total stranger
- [ ] A friend/ date
- [ ] A boy/girlfriend/ someone I know
- [ ] My spouse/domestic partner
- [ ] A parent/sibling/other family member
- [ ] Other_______

29. During the past 12 months, how many times were you in a physical fight in which you were injured and had to be treated by a doctor or nurse?

- [ ] 0 times
- [ ] 1 time
- [ ] 2 - 3 times
- [ ] 4 - 5 times
- [ ] 6 or more times

Sometimes people feel so depressed and hopeless about the future that they may consider attempting suicide, that is, taking some action to end their own life. The next four questions ask about suicide.

30. During the past 12 months, did you ever seriously consider attempting suicide?

- [ ] Yes
- [ ] No

31. During the past 12 months, did you make a plan about how you would attempt suicide?

- [ ] Yes
- [ ] No

32. During the past 12 months, how many times did you actually attempt suicide?

- [ ] 0 times
- [ ] 1 time
- [ ] 2 - 3 times
- [ ] 4 - 5 times
- [ ] 6 or more times

33. If you attempted suicide during the past 12 months, did any attempt result in an injury, poisoning, or overdose that had to be treated by a doctor or nurse?

- [ ] Yes
- [ ] No

The next eight questions ask about tobacco use.

34. Have you ever tried cigarette smoking, even one or two puffs?

- [ ] Yes
- [ ] No *(Skip to question 41)*
35. How old were you (in years) when you smoked a whole cigarette for the first time?
   □ I have never smoked a whole cigarette
   □ 12 or younger  □ 13 – 14  □ 15 – 16  □ 17 – 18  □ 19 – 20  □ 20 – 24  □ 25 or older

36. During the past 30 days, on how many days did you smoke cigarettes?
   □ 0 days  □ 1 - 2 days  □ 3 - 5 days  □ 6 - 9 days  □ 10 - 19 days  □ 20 - 29 days  □ All 30 days

37. During the past 30 days, on the days you smoked, how many cigarettes did you smoke per day?
   □ I did not smoke  □ Less than 1  □ 1  □ 1 – 5  □ 6 – 10  □ 11 – 20  □ More than 20 cigarettes during the past 30 days

38. Have you ever smoked cigarettes regularly, that is, at least one cigarette every day for 30 days?
   □ Yes  □ No

39. How old were you (in years) when you first started smoking cigarettes regularly (at least one cigarette every day for 30 days)?
   □ I have never smoked cigarettes regularly  □ 12 or younger  □ 13 – 14  □ 15 – 16  □ 17 – 18  □ 19 – 20  □ 21 – 24  □ 25 or older

40. Have you ever tried to quit smoking cigarettes?
   □ Yes  □ No

41. During the past 30 days, on how many days did you use chewing tobacco or snuff such as Redman, Levi Garrett, Beechnut, Skoal, Skoal Bandits, or Copenhagen?
   □ 0 days  □ 1 - 2 days  □ 3 - 5 days  □ 6 - 9 days  □ 10 - 19 days  □ 20 - 29 days  □ All 30 days

The next three questions ask about drinking alcohol. This includes drinking beer, wine, wine coolers, and liquor such as rum, gin, vodka, or whiskey. For these questions, drinking alcohol does not include drinking a few sips of wine for religious purposes.

42. How old were you when you had your first drink of alcohol other than a few sips?
   □ I have never had a drink of alcohol other than a few sips younger  □ 12 or younger  □ 13 – 14  □ 15 – 16  □ 17 – 18  □ 19 – 20  □ 21 – 24  □ 25 or older

(Skip to question 45)

43. During the past 30 days, on how many days did you have at least one drink of alcohol?
   □ 0 days  □ 1 - 2 days  □ 3 - 5 days  □ 6 - 9 days  □ 10 - 19 days  □ 20 - 29 days  □ All 30 days
44. During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is within a couple of hours?

- 0 days
- 1 - 2 days
- 3 - 5 days
- 6 - 9 days
- 10 - 19 days
- 20 - 29 days
- All 30 days

The next three questions ask about marijuana use.

45. During your life how many times have you used marijuana?

- 0 times
- 1 - 2 times
- 3 - 9 times
- 10 – 19 times
- 20 – 39 times
- 40 – 99 times
- 100 or more

(Skip to question 48)

46. How old were you (in years) when you tried marijuana for the first time?

- 12 or younger
- 13 – 14
- 15 – 16
- 17 – 18
- 19 – 20
- 21 – 24
- 25 or older

47. During the past 30 days, how many times did you use marijuana?

- 0 times
- 1 - 2 times
- 3 - 9 times
- 10 – 19 times
- 20 – 39 times
- 40 or more times

The next 10 questions ask about cocaine and other drug use.

48. During your life, how many times have you used any form of cocaine including powder, crack, or freebase?

- 0 times
- 1 - 2 times
- 3 - 9 times
- 10 – 19 times
- 20 – 39 times
- 40 – 99 times
- 100 or more

(Skip to question 52)

49. How old were you when you tried any form of cocaine, including powder, crack, or freebase, for the first time?

- 12 or younger
- 13 – 14
- 15 – 16
- 17 – 18
- 19 – 20
- 21 – 24
- 25 or older

50. During the past 30 days, how any times did you use any form of cocaine, including powder, crack, or freebase?

- 0 times
- 1 - 2 times
- 3 - 9 times
- 10 – 19 times
- 20 – 39 times
- 40 or more times

51. During your life, how many times have you used the crack or freebase forms of cocaine?

- 0 times
- 1 - 2 times
- 3 - 9 times
- 10 – 19 times
- 20 – 39 times
- 100 or more

52. During your life, how many times have you sniffed glue, or breathed the contents of aerosol spray cans or inhaled any paints or sprays to get high?

- 0 times
- 1 - 2 times
- 3 - 9 times
- 10 – 19 times
- 20 – 39 times
- 40 – 99 times
- 100 or more
53. During your life, how many times have you taken **steroid pills or shots** without a doctor’s prescription?

- □ 0 times  □ 1 - 2 times  □ 3 - 9 times  □ 10 – 19 times  □ 20 – 39 times  □ 40 – 99 times  □ 100 or more

54. During your life, how many times have you used any other type of **illegal** drug, such as LSD, PCP, ecstasy, mushrooms, speed, ice, or heroin?

- □ 0 times  □ 1 - 2 times  □ 3 - 9 times  □ 10 – 19 times  □ 20 – 39 times  □ 40 – 99 times  □ 100 or more

55. During the past 30 days, how many times have you used any other type of **illegal** drug, such as LSD, PCP, ecstasy, mushrooms, speed, ice, or heroin?

- □ 0 times  □ 1 - 2 times  □ 3 - 9 times  □ 10 – 19 times  □ 20 – 39 times  □ 40 or more times

56. During the past 30 days, how many times have you used any **illegal** drug in combination with drinking alcohol?

- □ 0 times  □ 1 - 2 times  □ 3 - 9 times  □ 10 – 19 times  □ 20 – 39 times  □ 40 or more times

57. During your life, how many times have you used a needle to inject any illegal drug into your body?

- □ 0 times  □ 1 time  □ 2 or more times

The next 15 questions ask about sexual behavior. For the purpose of this survey, sexual intercourse is defined as vaginal intercourse, anal intercourse, or oral/genital sex.

58. How old were you when you had sexual intercourse for the first time?

- □ I have never had sexual intercourse younger  □ 12 or  □ 13 – 14  □ 15 – 16  □ 17 – 18  □ 19 – 20  □ 21 – 24  □ 25 or older

(Skip to question 69)

59. During your life, with how many **females** have you had sexual intercourse?

- □ I have never had sexual intercourse with a female.  □ 1 female  □ 2 females  □ 3 females  □ 4 females  □ 5 females  □ 6 or more females

60. During the past 3 months, with how many **females** have you had sexual intercourse?

- □ I have never had sexual intercourse with a female.  □ 1 female  □ 2 females  □ 3 females  □ 4 females  □ 5 females  □ 6 or more females

61. During your life, with how many **males** have you had sexual intercourse?

- □ I have never had sexual intercourse with a male.  □ 1 male  □ 2 males  □ 3 males  □ 4 males  □ 5 males  □ 6 or more males
62. During the past 3 months, with how many males have you had sexual intercourse?

- [ ] I have never
- [ ] I have had
  - [ ] 1 male
  - [ ] 2 males
  - [ ] 3 males
  - [ ] 4 males
  - [ ] 5 males
  - [ ] 6 or more

During the past 3 months, sexual intercourse
with a male, but not during the past 3 months

63. During the past 30 days, how many times did you have sexual intercourse?

- [ ] 0 times
- [ ] 1 time
- [ ] 2 - 3 times
- [ ] 4 - 9 times
- [ ] 10 - 19 times
- [ ] 20 or more times

64. During the past 30 days, how often did you or your partner use a condom?

- [ ] I have not had
- [ ] Never
- [ ] Rarely
- [ ] Sometimes
- [ ] Most of the time
- [ ] Always

During the past 30 days

65. The last time you had sexual intercourse, did you or your partner use a condom?

- [ ] Yes
- [ ] No

66. Did you drink alcohol or use drugs before you had sexual intercourse the last time?

- [ ] Yes
- [ ] No

67. The last time you had sexual intercourse, what method did you or your partner use to prevent pregnancy? (Select all that apply.)

- [ ] No method was used to prevent pregnancy
- [ ] Birth control pills
- [ ] Condoms
- [ ] Withdrawal
- [ ] Some other method
- [ ] Not sure

68. How many times have you been pregnant or gotten someone pregnant?

- [ ] 0 times
- [ ] 1 time
- [ ] 2 or more times
- [ ] Not sure

69. During your life, have you ever been forced to have sexual intercourse against your will?

- [ ] Yes
- [ ] No (Skip to question 72)

70. How old were you (in years) the first time you were forced to have sexual intercourse against your will?

- [ ] 4 or younger
- [ ] 5 - 12
- [ ] 13 - 14
- [ ] 15 - 16
- [ ] 17 - 18
- [ ] 19 - 20
- [ ] 21 - 24
- [ ] 25 or older

71. How old were you (in years) the last time you were forced to have sexual intercourse against your will?

- [ ] 4 or younger
- [ ] 5 - 12
- [ ] 13 - 14
- [ ] 15 - 16
- [ ] 17 - 18
- [ ] 19 - 20
- [ ] 21 - 24
- [ ] 25 or older
72. Have you ever had your blood tested for the AIDS virus/HIV infection?
   - Yes
   - No
   - Not sure

73. How do you describe your weight?
   - Very underweight
   - Slightly underweight
   - About the right weight
   - Slightly overweight
   - Very overweight

74. Which of the following are you trying to do about your weight?
   - Lose weight
   - Gain weight
   - Stay the same weight
   - I am not trying to do anything about my weight

75. During the past 30 days, did you diet to lose weight or to keep from gaining weight?
   - Yes
   - No

76. During the past 30 days, did you exercise to lose weight or to keep from gaining weight?
   - Yes
   - No

77. During the past 30 days, did you vomit or take laxatives to lose weight or to keep from gaining weight?
   - Yes
   - No

78. During the past 30 days, did you take diet pills to lose weight or to keep from gaining weight?
   - Yes
   - No

79. What is your height (in feet and inches)?
   - ≤ 5′0
   - 5′1
   - 5′2
   - 5′3
   - 5′4
   - 5′5
   - 5′6
   - 5′7
   - 5′8
   - 5′9
   - 5′10
   - 5′11
   - 6′0
   - 6′1
   - 6′2
   - ≥ 6′3

80. What is your weight (in pounds)?
   - ≤ 90
   - 91 – 110
   - 111 – 130
   - 131 – 150
   - 151 – 170
   - 171 – 190
   - 191 – 210
   - 211 – 230
   - 231 – 250
   - 251 – 270
   - 271 – 290
   - 291 – 300
   - ≥ 300

The next seven questions ask about food you ate yesterday. Think about all the meals and snacks you ate yesterday from the time you got up until you went to bed. Be sure to include food you ate at home, on campus at restaurants, or anywhere else.

81. Yesterday, how many times did you eat fruit?
   - 0 times
   - 1 time
   - 2 times
   - 3 or more times

82. Yesterday, how many times did you drink fruit juice?
   - 0 times
   - 1 time
   - 2 times
   - 3 or more times
83. Yesterday, how many times did you eat green salad?

☐ 0 times  ☐ 1 time  ☐ 2 times  ☐ 3 or more times

84. Yesterday, how many times did you eat cooked vegetables?

☐ 0 times  ☐ 1 time  ☐ 2 times  ☐ 3 or more times

85. Yesterday how many times did you eat hamburger, hot dogs, or sausage?

☐ 0 times  ☐ 1 time  ☐ 2 times  ☐ 3 or more times

86. Yesterday, how many times did you eat French fries or potato chips?

☐ 0 times  ☐ 1 time  ☐ 2 times  ☐ 3 or more times

87. Yesterday how many times did you eat cookies, doughnuts, pie or cake?

☐ 0 times  ☐ 1 time  ☐ 2 times  ☐ 3 or more times

The next six questions ask about physical activity.

88. On how many of the past 7 days did you exercise or participate in sports activities for at least 20 minutes that made you sweat and breathe hard, such as basketball, jogging, swimming laps, tennis, fast bicycling, or similar aerobic activities?

☐ 0 days  ☐ 1 days  ☐ 2 days  ☐ 3 days  ☐ 4 days  ☐ 5 days  ☐ 6 days  ☐ 7 days

89. On how many of the past 7 days did you do stretching exercises, such as toe touching, knee bending, or leg stretching?

☐ 0 days  ☐ 1 days  ☐ 2 days  ☐ 3 days  ☐ 4 days  ☐ 5 days  ☐ 6 days  ☐ 7 days

90. On how many of the past 7 days did you do exercises to strengthen or tone your muscles, such as push-ups, sit-ups, or weight lifting?

☐ 0 days  ☐ 1 days  ☐ 2 days  ☐ 3 days  ☐ 4 days  ☐ 5 days  ☐ 6 days  ☐ 7 days

91. On how many of the past 7 days did you walk or bicycle for at least 30 minutes at a time? (Include walking or bicycling to or from class or work.)

☐ 0 days  ☐ 1 days  ☐ 2 days  ☐ 3 days  ☐ 4 days  ☐ 5 days  ☐ 6 days  ☐ 7 days

92. During this school year, have you been enrolled in a physical education class?

☐ Yes  ☐ No

93. During this school year, on how many college sports teams (intramural or extramural) did you participate?

☐ 0 teams  ☐ 1 team  ☐ 2 teams  ☐ 3 or more teams
The next three questions ask about AIDS education and health information.

94. Have you ever been taught about AIDS or HIV infection in your college classes?

☐ Yes  ☐ No  ☐ Not sure

95. During this school year, where on your college campus did you receive information about avoiding AIDS or HIV infection? (Select all that apply.)

☐ College classes  ☐ Residence hall/other campus housing  ☐ Student clubs/organizations  ☐ Student health center

☐ Health fair  ☐ Pamphlets/brochures/newspapers  ☐ College newspapers  ☐ Informal discussions with friends

☐ Other sources of information  ☐ I was not provided with any information

96. On which of the following health topics have you ever received information from your college or university? (Select all that apply.)

☐ Tobacco use  ☐ Alcohol/other drug use prevention  ☐ Violence prevention

☐ Injury prevention/safety prevention  ☐ Suicide prevention  ☐ Pregnancy prevention

☐ Sexually transmitted disease (STD) prevention  ☐ AIDS or HIV infection prevention

☐ Dietary behaviors/nutrition  ☐ Physical activity/fitness

97. How many hours of television do you watch each day.

☐ Less than 1 hour  ☐ 1 – 2 hours  ☐ 3 – 4 hours  ☐ 5 – 6 hours  ☐ 7 – 8 hours  ☐ 9 or more hours

98. Have you ever been enrolled in Healthful Living (HLTH 1520) at Georgia Southern?

☐ Yes  ☐ No

99. Why are you enrolled in Healthful Living (HLTH 1520) at Georgia Southern again?

☐ This is the first semester I have been enrolled in Healthful Living  ☐ I dropped Healthful Living in a previous semester  ☐ I am repeating Healthful Living because of academic reasons

100. How would you rate the overall benefit of the Healthful Living (HLTH 1520) curriculum to students at Georgia Southern?

☐ Very Beneficial  ☐ Beneficial  ☐ Somewhat Beneficial  ☐ Not Beneficial
APPENDIX C

Coca-Cola Contract
Beverage Vending Letter of Agreement

Coca-Cola Bottling Company United—East, LLC and Georgia Southern Auxiliary Services mutually agree to the following terms for beverage vending on the campus of Georgia Southern University.

A. Coca-Cola Bottling Company United—East, LLC will provide the following services and equipment for beverage vending on the campus of Georgia Southern University:

1. Installation of beverage vending machines
2. Filling of all beverage vending machines
3. Free service and repair on all beverage vending machines
4. Collecting money from beverage vending machines
5. Payment of monthly commission check to GSU Auxiliary Services
6. Mutually agreed vend prices and commission rates (see attachment)

B. Georgia Southern Auxiliary Services will provide the following to Coca-Cola Bottling Company United—East, LLC pertaining to beverage vending on the campus of Georgia Southern University:

1. The exclusive right to vend beverages on the Georgia Southern campus
2. Mutually agreed upon vending areas on campus

C. Title to Equipment: Title to vending equipment is, and will all times, remain vested in Coca-Cola Bottling Company United—East, LLC. Georgia Southern Auxiliary Services will have no right, title, or interest in or to the vending equipment except the right to use of the equipment in the ordinary course of its business.

D. Term of Agreement: This agreement shall remain in force from date of signing through the following June 30th (End of University fiscal year). Georgia Southern Auxiliary Services will have the option to renew this contract for an additional four (4) one (1) year option periods.

Signed: Tom PaIy, Foodservice Director
             Georgia Southern Auxiliary Services

Jake Powell, Cold Drink Manager
Coca-Cola Bottling Company United—East, LLC

10/25/04 Date

Attachment:
Georgia Southern University Vending

<table>
<thead>
<tr>
<th>Package/Brand</th>
<th>Vend Rate</th>
<th>Commission</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soft Drink Cans</td>
<td>$0.60</td>
<td>$7.06 / case</td>
<td>49%</td>
</tr>
<tr>
<td>Non-Carb Cans</td>
<td>$0.85</td>
<td>$6.12 / case</td>
<td>30%</td>
</tr>
<tr>
<td>20oz. Soft Drink</td>
<td>$1.00</td>
<td>$10.80 / case</td>
<td>45%</td>
</tr>
<tr>
<td>20oz. Non-Carb</td>
<td>$1.00</td>
<td>$7.20 / case</td>
<td>30%</td>
</tr>
<tr>
<td>Dasani 12oz.</td>
<td>$0.60</td>
<td>$4.32 / case</td>
<td>30%</td>
</tr>
</tbody>
</table>

**Commission is paid on a per case basis, not on cash collected.
APPENDIX D

Nutritional Information
# Cinnamon Street® Bakery

## Nutritional Information

<table>
<thead>
<tr>
<th>Menu Items</th>
<th>Serving Size</th>
<th>Calories</th>
<th>Calories from Fat</th>
<th>Total Fat (g)</th>
<th>Saturated Fat (g)</th>
<th>Cholesterol (mg)</th>
<th>Sodium (mg)</th>
<th>Total Carbohydrates (g)</th>
<th>Dietary Fiber (g)</th>
<th>Sugars (g)</th>
<th>Protein (g)</th>
<th>Vitamin A</th>
<th>Vitamin C</th>
<th>Calcium</th>
<th>Iron</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cinnamon Rolls</strong></td>
<td></td>
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</tr>
<tr>
<td>Large Cinnamon Roll</td>
<td>240g</td>
<td>800</td>
<td>200</td>
<td>10g</td>
<td>60mg</td>
<td>1280mg</td>
<td>140g</td>
<td>8g</td>
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<td>16g</td>
<td>16%</td>
<td>0%</td>
<td>16%</td>
<td>16%</td>
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<tr>
<td>Small Cinnamon Roll</td>
<td>113g</td>
<td>380</td>
<td>90</td>
<td>10g</td>
<td>30mg</td>
<td>600mg</td>
<td>68g</td>
<td>3g</td>
<td>36g</td>
<td>7g</td>
<td>6%</td>
<td>0%</td>
<td>8%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Cookies</strong></td>
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</tr>
<tr>
<td>M&amp;M Chocolate Chip</td>
<td>78g</td>
<td>340</td>
<td>120</td>
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<td>6g</td>
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Nutritional Information is based on the standard Cinnamon Street® product formulations. Minor variations may occur.
# Summit Subs™
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<th>Pork</th>
<th>Beef</th>
<th>Can. Bac</th>
<th>Supreme</th>
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<table>
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<th>Landslide</th>
<th>Pep</th>
<th>H. Sauce</th>
<th>Pork</th>
<th>Beef</th>
<th>Can. Bac</th>
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## Nutritional Information

### Single Serving Portions

### Almond Chicken w/Fried Rice

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<tr>
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<tr>
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### Almond Chicken w/Steamed Rice

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<td>3g</td>
<td>12%</td>
</tr>
<tr>
<td>Sugars</td>
<td>5g</td>
<td></td>
</tr>
<tr>
<td>Protein</td>
<td>26g</td>
<td></td>
</tr>
<tr>
<td>Vitamin A</td>
<td>0g</td>
<td>80%</td>
</tr>
<tr>
<td>Vitamin C</td>
<td>0g</td>
<td>6%</td>
</tr>
<tr>
<td>Calcium</td>
<td>0g</td>
<td>6%</td>
</tr>
<tr>
<td>Iron</td>
<td>0g</td>
<td>25%</td>
</tr>
</tbody>
</table>

### Beef & Broccoli w/Steamed Rice

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Amount</th>
<th>% Daily Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Weight</td>
<td>17.00 oz.</td>
<td></td>
</tr>
<tr>
<td>Serving Size 1 serving</td>
<td>482g</td>
<td></td>
</tr>
<tr>
<td>Calories</td>
<td>690</td>
<td></td>
</tr>
<tr>
<td>Calories from Fat</td>
<td>220</td>
<td></td>
</tr>
<tr>
<td>Total Fat</td>
<td>24g</td>
<td>37%</td>
</tr>
<tr>
<td>Saturated Fat</td>
<td>7g</td>
<td>36%</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>40mg</td>
<td>13%</td>
</tr>
<tr>
<td>Sodium</td>
<td>700mg</td>
<td>29%</td>
</tr>
<tr>
<td>Total Carbohydrate</td>
<td>94g</td>
<td>31%</td>
</tr>
<tr>
<td>Dietary Fiber</td>
<td>3g</td>
<td>12%</td>
</tr>
<tr>
<td>Sugars</td>
<td>19g</td>
<td></td>
</tr>
<tr>
<td>Protein</td>
<td>20g</td>
<td></td>
</tr>
<tr>
<td>Vitamin A</td>
<td>0g</td>
<td>20%</td>
</tr>
<tr>
<td>Vitamin C</td>
<td>0g</td>
<td>90%</td>
</tr>
<tr>
<td>Calcium</td>
<td>0g</td>
<td>6%</td>
</tr>
<tr>
<td>Iron</td>
<td>0g</td>
<td>50%</td>
</tr>
</tbody>
</table>
Beef Lo Mein

Total Weight: 15.00 oz.
Serving Size (1 serving): 425g
Calories: 670
Calories from Fat: 250
Total Fat: 28g (43%)
Saturated Fat: 7g (35%)
Cholesterol: 40mg (13%)
Sodium: 1110mg (46%)
Total Carbohydrate: 82g (27%)
Dietary Fiber: 7g (30%)
Sugars: 18g
Protein: 25g
Vitamin A: 100%
Vitamin C: 100%
Calcium: 20%
Iron: 25%

Chicken Lo Mein

Total Weight: 15.00 oz.
Serving Size (1 serving): 425g
Calories: 620
Calories from Fat: 180
Total Fat: 20g (31%)
Saturated Fat: 3g (15%)
Cholesterol: 50mg (16%)
Sodium: 1130mg (47%)
Total Carbohydrate: 81g (27%)
Dietary Fiber: 7g (29%)
Sugars: 18g
Protein: 30g
Vitamin A: 100%
Vitamin C: 100%
Calcium: 20%
Iron: 20%

Vegetable Lo Mein

Total Weight: 14.99 oz.
Serving Size (1 serving): 425g
Calories: 570
Calories from Fat: 140
Total Fat: 16g (24%)
Saturated Fat: 2.5g (12%)
Cholesterol: 40mg (0%)
Sodium: 1120mg (47%)
Total Carbohydrate: 97g (32%)
Dietary Fiber: 7g (26%)
Sugars: 12g
Protein: 12g
Vitamin A: 130%
Vitamin C: 130%
Calcium: 25%
Iron: 40%
<table>
<thead>
<tr>
<th>Beef Teriyaki w/Fried Rice</th>
<th>Chicken &amp; Broccoli w/Fried Rice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Weight: 16.50 oz.</td>
<td>Total Weight: 17.00 oz.</td>
</tr>
<tr>
<td>Serving Size (1 serving): 468g</td>
<td>Serving Size (1 serving): 482g</td>
</tr>
<tr>
<td>Calories: 700</td>
<td>Calories: 640</td>
</tr>
<tr>
<td>Calories from Fat: 300</td>
<td>Calories from Fat: 220</td>
</tr>
<tr>
<td>Total Fat: 33g</td>
<td>Total Fat: 25g</td>
</tr>
<tr>
<td>Saturated Fat: 9g</td>
<td>Saturated Fat: 5g</td>
</tr>
<tr>
<td>Cholesterol: 110mg</td>
<td>Cholesterol: 115mg</td>
</tr>
<tr>
<td>Sodium: 1490mg</td>
<td>Sodium: 1150mg</td>
</tr>
<tr>
<td>Total Carbohydrate: 76g</td>
<td>Total Carbohydrate: 73g</td>
</tr>
<tr>
<td>Dietary Fiber: 3g</td>
<td>Dietary Fiber: 3g</td>
</tr>
<tr>
<td>Sugars: 25g</td>
<td>Sugars: 22g</td>
</tr>
<tr>
<td>Protein: 20g</td>
<td>Protein: 26g</td>
</tr>
<tr>
<td>Vitamin A: 170%</td>
<td>Vitamin A: 25%</td>
</tr>
<tr>
<td>Vitamin C: 45%</td>
<td>Vitamin C: 90%</td>
</tr>
<tr>
<td>Calcium: 6%</td>
<td>Calcium: 6%</td>
</tr>
<tr>
<td>Iron: 25%</td>
<td>Iron: 45%</td>
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<table>
<thead>
<tr>
<th>Beef Teriyaki w/Steamed Rice</th>
<th>Chicken &amp; Broccoli w/Steamed Rice</th>
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<tbody>
<tr>
<td>Total Weight: 16.50 oz.</td>
<td>Total Weight: 17.00 oz.</td>
</tr>
<tr>
<td>Serving Size (1 serving): 468g</td>
<td>Serving Size (1 serving): 482g</td>
</tr>
<tr>
<td>Calories: 710</td>
<td>Calories: 640</td>
</tr>
<tr>
<td>Calories from Fat: 220</td>
<td>Calories from Fat: 150</td>
</tr>
<tr>
<td>Total Fat: 25g</td>
<td>Total Fat: 16g</td>
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<tr>
<td>Saturated Fat: 7g</td>
<td>Saturated Fat: 3g</td>
</tr>
<tr>
<td>Cholesterol: 40mg</td>
<td>Cholesterol: 50mg</td>
</tr>
<tr>
<td>Sodium: 1050mg</td>
<td>Sodium: 720mg</td>
</tr>
<tr>
<td>Total Carbohydrate: 95g</td>
<td>Total Carbohydrate: 83g</td>
</tr>
<tr>
<td>Dietary Fiber: 3g</td>
<td>Dietary Fiber: 3g</td>
</tr>
<tr>
<td>Sugars: 23g</td>
<td>Sugars: 19g</td>
</tr>
<tr>
<td>Protein: 19g</td>
<td>Protein: 26g</td>
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<tr>
<td>Vitamin A: 160%</td>
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<tr>
<td>Vitamin C: 45%</td>
<td>Vitamin C: 90%</td>
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<tr>
<td>Calcium: 6%</td>
<td>Calcium: 6%</td>
</tr>
<tr>
<td>Iron: 30%</td>
<td>Iron: 50%</td>
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## Asian Creations Fried Rice

<table>
<thead>
<tr>
<th>Nutritional Information</th>
<th>Single Serving Portions</th>
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<tbody>
<tr>
<td></td>
<td><strong>Asian Creations Fried Rice</strong></td>
</tr>
<tr>
<td>Total Weight</td>
<td>8.00 oz.</td>
</tr>
<tr>
<td>Serving Size (1 serving)</td>
<td>227g</td>
</tr>
<tr>
<td>Calories</td>
<td>290</td>
</tr>
<tr>
<td>Calories from Fat</td>
<td>80</td>
</tr>
<tr>
<td>Total Fat</td>
<td>9g</td>
</tr>
<tr>
<td></td>
<td>14%</td>
</tr>
<tr>
<td>Saturated Fat</td>
<td>2g</td>
</tr>
<tr>
<td></td>
<td>9%</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>70mg</td>
</tr>
<tr>
<td></td>
<td>23%</td>
</tr>
<tr>
<td>Sodium</td>
<td>440mg</td>
</tr>
<tr>
<td></td>
<td>16%</td>
</tr>
<tr>
<td>Total Carbohydrate</td>
<td>45g</td>
</tr>
<tr>
<td></td>
<td>15%</td>
</tr>
<tr>
<td>Dietary Fiber</td>
<td>0g</td>
</tr>
<tr>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>Sugars</td>
<td>3g</td>
</tr>
<tr>
<td>Protein</td>
<td>6g</td>
</tr>
<tr>
<td>Vitamin A</td>
<td>6g</td>
</tr>
<tr>
<td>Vitamin C</td>
<td>0%</td>
</tr>
<tr>
<td>Calcium</td>
<td>2%</td>
</tr>
<tr>
<td>Iron</td>
<td>15%</td>
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</table>

## Asian Creations Steamed Rice

<table>
<thead>
<tr>
<th>Nutritional Information</th>
<th>Single Serving Portions</th>
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<tbody>
<tr>
<td></td>
<td><strong>Asian Creations Steamed Rice</strong></td>
</tr>
<tr>
<td>Total Weight</td>
<td>8.00 oz.</td>
</tr>
<tr>
<td>Serving Size (1 serving)</td>
<td>227g</td>
</tr>
<tr>
<td>Calories</td>
<td>290</td>
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<tr>
<td>Calories from Fat</td>
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<td>Total Fat</td>
<td>0g</td>
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<tr>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>Saturated Fat</td>
<td>0g</td>
</tr>
<tr>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>0mg</td>
</tr>
<tr>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>Sodium</td>
<td>0mg</td>
</tr>
<tr>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>Total Carbohydrate</td>
<td>65g</td>
</tr>
<tr>
<td></td>
<td>22%</td>
</tr>
<tr>
<td>Dietary Fiber</td>
<td>&lt;1g</td>
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<tr>
<td></td>
<td>3%</td>
</tr>
<tr>
<td>Sugars</td>
<td>0g</td>
</tr>
<tr>
<td>Protein</td>
<td>8g</td>
</tr>
<tr>
<td>Vitamin A</td>
<td>0%</td>
</tr>
<tr>
<td>Vitamin C</td>
<td>0%</td>
</tr>
<tr>
<td>Calcium</td>
<td>0%</td>
</tr>
<tr>
<td>Iron</td>
<td>20%</td>
</tr>
<tr>
<td>Nutritional Information</td>
<td>Single Serving Portions</td>
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<tr>
<td>------------------------</td>
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</table>

<table>
<thead>
<tr>
<th><strong>General Gau’s Chicken w/Fried Rice</strong></th>
<th><strong>Hawaiian Chicken w/Fried Rice</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Weight: 16.50 oz.</td>
<td>Total Weight: 15.90 oz.</td>
</tr>
<tr>
<td>Serving Size (1 serving): 468g</td>
<td>Serving Size (1 serving): 451g</td>
</tr>
<tr>
<td>Calories: 710</td>
<td>Calories: 590</td>
</tr>
<tr>
<td>Calories from Fat: 300</td>
<td>Calories from Fat: 200</td>
</tr>
<tr>
<td>Total Fat: 39g, 51%</td>
<td>Total Fat: 22g, 34%</td>
</tr>
<tr>
<td>Saturated Fat: 6g, 32%</td>
<td>Saturated Fat: 4.5g, 22%</td>
</tr>
<tr>
<td>Cholesterol: 95mg, 31%</td>
<td>Cholesterol: 120mg, 39%</td>
</tr>
<tr>
<td>Sodium: 1790mg, 75%</td>
<td>Sodium: 1390mg, 58%</td>
</tr>
<tr>
<td>Total Carbohydrate: 85g, 26%</td>
<td>Total Carbohydrate: 86g, 22%</td>
</tr>
<tr>
<td>Dietary Fiber: 3g, 13%</td>
<td>Dietary Fiber: 2g, 7%</td>
</tr>
<tr>
<td>Sugars: 23g</td>
<td>Sugars: 16g</td>
</tr>
<tr>
<td>Protein: 17g</td>
<td>Protein: 25g</td>
</tr>
<tr>
<td>Vitamin A: 25%</td>
<td>Vitamin A: 8%</td>
</tr>
<tr>
<td>Vitamin C: 90%</td>
<td>Vitamin C: 50%</td>
</tr>
<tr>
<td>Calcium: 10%</td>
<td>Calcium: 4%</td>
</tr>
<tr>
<td>Iron: 20%</td>
<td>Iron: 20%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>General Gau’s Chicken w/Steamed Rice</strong></th>
<th><strong>Hawaiian Chicken w/Steamed Rice</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Weight: 16.50 oz.</td>
<td>Total Weight: 15.90 oz.</td>
</tr>
<tr>
<td>Serving Size (1 serving): 468g</td>
<td>Serving Size (1 serving): 451g</td>
</tr>
<tr>
<td>Calories: 710</td>
<td>Calories: 590</td>
</tr>
<tr>
<td>Calories from Fat: 220</td>
<td>Calories from Fat: 120</td>
</tr>
<tr>
<td>Total Fat: 25g, 38%</td>
<td>Total Fat: 14g, 21%</td>
</tr>
<tr>
<td>Saturated Fat: 4.5g, 23%</td>
<td>Saturated Fat: 2.5g, 13%</td>
</tr>
<tr>
<td>Cholesterol: 25mg, 8%</td>
<td>Cholesterol: 50mg, 16%</td>
</tr>
<tr>
<td>Sodium: 1350mg, 66%</td>
<td>Sodium: 950mg, 40%</td>
</tr>
<tr>
<td>Total Carbohydrate: 105g, 35%</td>
<td>Total Carbohydrate: 86g, 29%</td>
</tr>
<tr>
<td>Dietary Fiber: 4g, 14%</td>
<td>Dietary Fiber: 2g, 8%</td>
</tr>
<tr>
<td>Sugars: 21g</td>
<td>Sugars: 16g</td>
</tr>
<tr>
<td>Protein: 16g</td>
<td>Protein: 25g</td>
</tr>
<tr>
<td>Vitamin A: 20%</td>
<td>Vitamin A: 2%</td>
</tr>
<tr>
<td>Vitamin C: 90%</td>
<td>Vitamin C: 50%</td>
</tr>
<tr>
<td>Calcium: 6%</td>
<td>Calcium: 2%</td>
</tr>
<tr>
<td>Iron: 30%</td>
<td>Iron: 25%</td>
</tr>
<tr>
<td>Nutritional Information</td>
<td>Single Serving Portions</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------------------------</td>
</tr>
</tbody>
</table>

### Kung Pau Chicken w/Fried Rice
- **Total Weight:** 16.10 oz.
- **Serving Size (1 serving):** 456g
- **Calories:** 710
- **Calories from Fat:** 300
  - **Total Fat:** 33g (51%)
  - **Saturated Fat:** 6g (32%)
  - **Cholesterol:** 115mg (39%)
  - **Sodium:** 1430mg (60%)
  - **Total Carbohydrate:** 75g (25%)
  - **Dietary Fiber:** 5g (20%)
  - **Sugars:** 22g
  - **Protein:** 28g
  - **Vitamin A:** 60%
  - **Vitamin C:** 15%
  - **Calcium:** 6%
  - **Iron:** 25%

### Kung Pau Chicken w/Steamed Rice
- **Total Weight:** 16.10 oz.
- **Serving Size (1 serving):** 456g
- **Calories:** 710
- **Calories from Fat:** 220
  - **Total Fat:** 25g (38%)
  - **Saturated Fat:** 4.5g (23%)
  - **Cholesterol:** 50mg (16%)
  - **Sodium:** 990mg (41%)
  - **Total Carbohydrate:** 94g (31%)
  - **Dietary Fiber:** 5g (21%)
  - **Sugars:** 20g
  - **Protein:** 27g
  - **Vitamin A:** 60%
  - **Vitamin C:** 15%
  - **Calcium:** 6%
  - **Iron:** 30%

### Mongolian Beef w/Fried Rice
- **Total Weight:** 16.10 oz.
- **Serving Size (1 serving):** 456g
- **Calories:** 690
- **Calories from Fat:** 280
  - **Total Fat:** 33g (50%)
  - **Saturated Fat:** 9g (45%)
  - **Cholesterol:** 110mg (36%)
  - **Sodium:** 1400mg (58%)
  - **Total Carbohydrate:** 73g (24%)
  - **Dietary Fiber:** 2g (8%)
  - **Sugars:** 16g
  - **Protein:** 21g
  - **Vitamin A:** 8%
  - **Vitamin C:** 8%
  - **Calcium:** 6%
  - **Iron:** 25%

### Mongolian Beef w/Steamed Rice
- **Total Weight:** 14.10 oz.
- **Serving Size (1 serving):** 400g
- **Calories:** 510
- **Calories from Fat:** 220
  - **Total Fat:** 24g (37%)
  - **Saturated Fat:** 7g (36%)
  - **Cholesterol:** 40mg (13%)
  - **Sodium:** 960mg (40%)
  - **Total Carbohydrate:** 77g (26%)
  - **Dietary Fiber:** 2g (8%)
  - **Sugars:** 14g
  - **Protein:** 19g
  - **Vitamin A:** 2%
  - **Vitamin C:** 6%
  - **Calcium:** 4%
  - **Iron:** 25%
### Moo Goo Gai Pan w/Fried Rice

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fat</td>
<td>25g</td>
<td>38%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cholesterol</td>
<td>5g</td>
<td>25%</td>
<td></td>
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</tr>
<tr>
<td>Sodium</td>
<td>120mg</td>
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<tr>
<td>Total Carbohydrate</td>
<td>57g</td>
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<tr>
<td>Vitamin C</td>
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<td></td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>Calcium</td>
<td></td>
<td></td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Iron</td>
<td></td>
<td></td>
<td>25%</td>
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### Moo Goo Gai Pan w/Steamed Rice

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</thead>
<tbody>
<tr>
<td>Fat</td>
<td>16g</td>
<td>25%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cholesterol</td>
<td>3g</td>
<td>16%</td>
<td></td>
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</tr>
<tr>
<td>Sodium</td>
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<td>17%</td>
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<tr>
<td>Total Carbohydrate</td>
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<tr>
<td>Dietary Fiber</td>
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<td>8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugars</td>
<td>4g</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protein</td>
<td>22g</td>
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<tr>
<td>Vitamin A</td>
<td></td>
<td></td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Vitamin C</td>
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<td></td>
<td>15%</td>
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<tr>
<td>Calcium</td>
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</tr>
<tr>
<td>Iron</td>
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### Spicy Thai Beef w/Fried Rice

<table>
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<tr>
<td>Protein</td>
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<tr>
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<td>60%</td>
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<td>Vitamin C</td>
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<td></td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>Calcium</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Iron</td>
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### Spicy Thai Beef w/Steamed Rice

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<td>28g</td>
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<td>60%</td>
<td></td>
</tr>
<tr>
<td>Vitamin C</td>
<td></td>
<td></td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>Calcium</td>
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<td></td>
<td>4%</td>
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<tr>
<td>Iron</td>
<td></td>
<td></td>
<td>50%</td>
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</tr>
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### Nutritional Information

**Single Serving Portions**

<table>
<thead>
<tr>
<th>Nutritional Information</th>
<th>Spicy Thai Chicken w/Fried Rice</th>
<th>Sweet &amp; Sour Chicken w/Fried Rice</th>
<th>Spicy Thai Chicken w/Steamed Rice</th>
<th>Sweet &amp; Sour Chicken w/Steamed Rice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Weight</td>
<td>17.20 oz.</td>
<td>16.50 oz.</td>
<td>15.20 oz.</td>
<td>16.50 oz.</td>
</tr>
<tr>
<td>Serving Size (1 serving)</td>
<td>488g</td>
<td>468g</td>
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<tr>
<td>Calories</td>
<td>670</td>
<td>710</td>
<td>600</td>
<td>710</td>
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<tr>
<td>Calories from Fat</td>
<td>260</td>
<td>300</td>
<td>180</td>
<td>220</td>
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<tr>
<td>Total Fat</td>
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<td>33g</td>
<td>29g</td>
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<tr>
<td>Cholesterol</td>
<td>115mg</td>
<td>95mg</td>
<td>50mg</td>
<td>25mg</td>
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<tr>
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<td>1530mg</td>
<td>990mg</td>
<td>1100mg</td>
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<tr>
<td>Protein</td>
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<td>14g</td>
</tr>
<tr>
<td>Vitamin A</td>
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<tr>
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<td>Calcium</td>
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<td>8%</td>
<td></td>
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</tr>
<tr>
<td>Iron</td>
<td></td>
<td>20%</td>
<td></td>
<td></td>
</tr>
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</table>

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<table>
<thead>
<tr>
<th>Nutritional Information</th>
<th>Single Serving Portions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teriyaki Chicken w/Fried Rice</strong></td>
<td><strong>Vegetable Delight w/Fried Rice</strong></td>
</tr>
<tr>
<td>Serving Size (1 serving) ........... 468g</td>
<td>Serving Size (1 serving) ........... 468g</td>
</tr>
<tr>
<td>Calories ................. 670</td>
<td>Calories ................. 470</td>
</tr>
<tr>
<td>Calories from Fat ................. 230</td>
<td>Calories from Fat ................. 190</td>
</tr>
<tr>
<td>Total Fat ................. 26g .......... 40%</td>
<td>Total Fat ................. 21g .......... 32%</td>
</tr>
<tr>
<td>Saturated Fat ................. 5g .......... 26%</td>
<td>Saturated Fat ................. 4g .......... 19%</td>
</tr>
<tr>
<td>Cholesterol ................. 115mg .......... 39%</td>
<td>Cholesterol ................. 70mg .......... 23%</td>
</tr>
<tr>
<td>Sodium ................. 1380mg .......... 57%</td>
<td>Sodium ................. 1990mg .......... 79%</td>
</tr>
<tr>
<td>Total Carbohydrate ................. 79g .......... 26%</td>
<td>Total Carbohydrate ................. 60g .......... 20%</td>
</tr>
<tr>
<td>Dietary Fiber ................. 2g .......... 9%</td>
<td>Dietary Fiber ................. 2g .......... 8%</td>
</tr>
<tr>
<td>Sugars ................. 27g</td>
<td>Sugars ................. 7g</td>
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<tr>
<td>Protein ................. 25g</td>
<td>Protein ................. 8g</td>
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<tr>
<td>Vitamin A ................. 170%</td>
<td>Vitamin A ................. 180%</td>
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<tr>
<td>Vitamin C ................. 40%</td>
<td>Vitamin C ................. 90%</td>
</tr>
<tr>
<td>Calcium ................. 6%</td>
<td>Calcium ................. 6%</td>
</tr>
<tr>
<td>Iron ................. 20%</td>
<td>Iron ................. 20%</td>
</tr>
</tbody>
</table>

| **Teriyaki Chicken w/Steamed Rice** | **Vegetable Delight w/Steamed Rice** |
| Serving Size (1 serving) ........... 468g | Serving Size (1 serving) ........... 468g |
| Calories ................. 670 | Calories ................. 470 |
| Calories from Fat ................. 150 | Calories from Fat ................. 110 |
| Total Fat ................. 17g .......... 26% | Total Fat ................. 12g .......... 19% |
| Saturated Fat ................. 3.5g .......... 17% | Saturated Fat ................. 2g .......... 10% |
| Cholesterol ................. 50mg .......... 16% | Cholesterol ................. 0mg .......... 0% |
| Sodium ................. 920mg .......... 38% | Sodium ................. 1480mg .......... 61% |
| Total Carbohydrate ................. 99g .......... 33% | Total Carbohydrate ................. 80g .......... 27% |
| Dietary Fiber ................. 3g .......... 10% | Dietary Fiber ................. 2g .......... 9% |
| Sugars ................. 25g | Sugars ................. 4g |
| Protein ................. 24g | Protein ................. 8g |
| Vitamin A ................. 160% | Vitamin A ................. 170% |
| Vitamin C ................. 40% | Vitamin C ................. 90% |
| Calcium ................. 4% | Calcium ................. 4% |
| Iron ................. 25% | Iron ................. 25% |
### Pork & Vegetable Egg Roll (Fried)

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<tbody>
<tr>
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<td>Vitamin C</td>
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<tr>
<td>Calcium</td>
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<td>Iron</td>
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### Chicken Potsticker (Fried)

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<tr>
<td>Vitamin C</td>
<td></td>
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<tr>
<td>Calcium</td>
<td></td>
</tr>
<tr>
<td>Iron</td>
<td></td>
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<tr>
<td>SW Menu Items</td>
<td>Serving Size (g)</td>
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<td>-------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>5 Meat Signature</td>
<td>1/2 pza</td>
</tr>
<tr>
<td>Beef</td>
<td>1/2 pza</td>
</tr>
<tr>
<td>B'fast</td>
<td>1/2 pza</td>
</tr>
<tr>
<td>B'fast Supreme</td>
<td>1/2 pza</td>
</tr>
<tr>
<td>Canadian Bacon</td>
<td>1/2 pza</td>
</tr>
<tr>
<td>Cheese</td>
<td>1/2 pza</td>
</tr>
<tr>
<td>Can Bac Pineapple</td>
<td>1/2 pza</td>
</tr>
<tr>
<td>Veggie Escape</td>
<td>1/2 pza</td>
</tr>
<tr>
<td>Italian Sausage</td>
<td>1/2 pza</td>
</tr>
<tr>
<td>Pepperoni</td>
<td>1/2 pza</td>
</tr>
<tr>
<td>Pepperoni Dbl</td>
<td>1/2 pza</td>
</tr>
<tr>
<td>Pork</td>
<td>1/2 pza</td>
</tr>
<tr>
<td>Supreme</td>
<td>1/2 pza</td>
</tr>
<tr>
<td>5 Meat Signature</td>
<td>1/4 pza</td>
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<tr>
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<td>1/4 pza</td>
</tr>
<tr>
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<td>1/4 pza</td>
</tr>
<tr>
<td>B'fast Supreme</td>
<td>1/4 pza</td>
</tr>
<tr>
<td>Can Bac Pineapple</td>
<td>1/4 pza</td>
</tr>
<tr>
<td>Canadian Bacon</td>
<td>1/4 pza</td>
</tr>
<tr>
<td>Cheese</td>
<td>1/4 pza</td>
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<tr>
<td>Italian Sausage</td>
<td>1/4 pza</td>
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<tr>
<td>Pepperoni</td>
<td>1/4 pza</td>
</tr>
<tr>
<td>Pepperoni Dbl</td>
<td>1/4 pza</td>
</tr>
<tr>
<td>Pork</td>
<td>1/4 pza</td>
</tr>
<tr>
<td>Supreme</td>
<td>1/4 pza</td>
</tr>
<tr>
<td>Veggie Escape</td>
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</tr>
<tr>
<td>5 Meat Signature</td>
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<tr>
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<tr>
<td>B'fast Supreme</td>
<td>1/9 pza</td>
</tr>
<tr>
<td>Can Bac</td>
<td>1/8 pza</td>
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<tr>
<td>Can Bac Pineapple</td>
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<tr>
<td>Cheese</td>
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<tr>
<td>Italian Sausage</td>
<td>1/8 pza</td>
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<tr>
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<td>1/8 pza</td>
</tr>
<tr>
<td>Pork</td>
<td>1/8 pza</td>
</tr>
<tr>
<td>Supreme</td>
<td>1/9 pza</td>
</tr>
<tr>
<td>Veggie Escape</td>
<td>1/8 pza</td>
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</tbody>
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Nutritional information is based on Stone Willie's product formulations. Minor variations may occur during preparation.

All information is intended for general knowledge and is not a substitute for medical advice or treatment for specific medical conditions.
## Classics

<table>
<thead>
<tr>
<th></th>
<th>Chick-fil-A® Chicken Sandwich (1 sandwich)</th>
<th>Chick-fil-A® Chicken Deluxe Sandwich (1 sandwich)</th>
<th>Chicken (1 fillet, no bun, no pickles)</th>
<th>Chick-fil-A® Chargrilled Chicken Sandwich (1 sandwich)</th>
<th>Chargrilled Chicken (1 fillet, no bun, no pickles)</th>
<th>Chargrilled Chicken Club Sandwich (1 sandwich, no sauce)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serving Size</td>
<td>6.0</td>
<td>5.8</td>
<td>7.3</td>
<td>3.7</td>
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<td>3.15</td>
</tr>
<tr>
<td>Per Container</td>
<td>170</td>
<td>164</td>
<td>208</td>
<td>105</td>
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<td>380</td>
<td>420</td>
<td>220</td>
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<td>Calories from Fat</td>
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</tr>
</tbody>
</table>

Percentage from daily values are based upon a 2,000 calorie diet. Figures listed are average.

Federal regulations have been used for rounding of nutritional data.

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We strive to provide you with accurate, up-to-date, nutritional information, which meets or exceeds government requirements for nutritional analysis. We regularly monitor changes in (1) nutritional analysis methods, (2) ingredients used in our products, (3) cooking techniques, and (4) food safety procedures.

Visit our website, chick-fil-a.com, for the most up-to-date information.

Differences may occur due to the nature of the product and to variations in preparation at the Unit level.

1. Nutrition information in this brochure was obtained through all of the following sources:
   - Independent testing laboratories.
   - The Food Processor (ESHA Research): Nutrition Labeling and Formulation Software.
   - Food suppliers or manufacturers.

2. Ingredients may change without notice. Ask the store Operator if you have concerns about any product or its ingredients.

3. Food allergic quests, please see Operator for any questions regarding ingredients. We use only 100% refined peanut oil.

---

**CLASSICS**

**Chick-fil-A® Chicken Sandwich (1 sandwich)**

Ingredients: 100% natural whole breast filet, seaoning (salt, monosodium glutamate, sugar, spices, paprika), seasoned crouton (enriched bleached flour, modified barley flour, maize, rice, thiamin mononitrate, riboflavin, folic acid), sugar, salt, monosodium glutamate, potato flakes, leavening (baking soda, sodium aluminum phosphate, monocalcium phosphate), spice, soybean oil, color (paprika), milk wash (water, whole powdered egg and nonfat milk solids), peanut oil (fully refined peanut oil with TBHQ and citric acid added to preserve freshness and dimethyldodecylamine, sodium azodicarbonamide). Contains less than 1% of the following: calcium chloride, alun, sodium benenate, potassium sorbate (preservatives), natural flavors, polysorbate 80, Yellow 6, Blue 1). Served with lettuce and tomato.

**Chick-fil-A® Chargrilled Chicken Sandwich (1 sandwich)**

Ingredients: Chargrilled chicken breast filets containing up to 18% solution of water, seasoning (salt, sugar, dextrose, garlic powder, onion powder, maltodextrin, natural yeast extract, spice, disodium inosinate, disodium guanylate, flavor, paprika [color]), leavening (salt, sugar, spices, and paprika), butter flavored vegetable oil (partially hydrogenated soybean oil, palm kernel oil, lecithin, artificial flavor, TBHQ, beta carotene), rice starch and potassium phosphate, tomatoes, green leaf lettuce, pickles (cucumbers, water, vinegar, salt), contains less than 1% of the following: calcium chloride, alun, sodium benenate and potassium sorbate [preservatives], natural flavors, polysorbate 80, Yellow 6, Blue 1). Served on a golden wheat bun.

**Chick-fil-A® Chargrilled Chicken Club Sandwich (without sauce)**

Ingredients: Chargrilled chicken breast filets containing up to 18% solution of water, seasoning (salt, sugar, dextrose, garlic powder, onion powder, maltodextrin, natural yeast extract, spice, disodium inosinate, disodium guanylate, flavor, paprika [color]), leavening (salt, sugar, spices, and paprika), butter flavored vegetable oil (partially hydrogenated soybean oil, palm kernel oil, lecithin, natural flavor), rice starch and potassium phosphate, tomatoes, green leaf lettuce, provolone cheese (pasteurized milk, cheese culture, salt, emulsifiers and natural smoke flavor), pickles (cucumbers, water, vinegar, salt), contains less than 1% of the following: calcium chloride, alun, sodium benenate and potassium sorbate [preservatives], natural flavors, polysorbate 80, Yellow 6, Blue 1). Applewood bacon (cured with water, salt, sugar, natural and artificial smoke flavoring with natural apple flavor added, sodium phosphate, sodium dextrose, sodium erythorbate, sodium nitrate). Served on a golden wheat bun.

---

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### Classics

#### Chick-fil-A Chicken Strips
- **Ingredients:** Seasoned chicken tenderloins (water, seasonings [sugar, salt, monosodium glutamate, food starch, garlic powder, onion powder, malodextrin, spice, natural flavors, paprika [for color]], with more than 2% sodium silicate added as an anti-caking agent), seasoned coater (enriched bleached flour [with malted barley flour, niacin, iron, thiamine mononitrate, riboflavin, folic acid], sugar, salt, monosodium glutamate, monodentate maltodextrin, leavening [baking soda, sodium aluminum phosphate, monocalcium phosphate], spice, soybean oil, color [paprika]), peanut oil (fully refined peanut oil with TBHQ and citric acid added to preserve freshness and Dimethyldiphenylsilane an anti-oxidant agent added).

#### Chick-fil-A Nuggets
- **Ingredients:** 100% natural chicken breast (seasoning [salt, monosodium glutamate, sugar, spices, paprika]), seasoned coater (enriched bleached flour [with malted barley flour, niacin, iron, thiamine mononitrate, riboflavin, folic acid], sugar, salt, monosodium glutamate, monodentate maltodextrin, leavening [baking soda, sodium aluminum phosphate, monocalcium phosphate], spice, soybean oil, color [paprika]), milk wash (water, whole powdered egg and nonfat milk solids), salt (enriched bleached flour with TBHQ and citric acid added to preserve freshness and Dimethyldiphenylsilane an anti-oxidant agent added).

#### Chick-fil-A Chicken Salad Sandwich
- **Ingredients:** 100% whole chicken breast fillet (seasoning [salt, monosodium glutamate, sugar, spices, paprika]), seasoned coater (enriched bleached flour [with malted barley flour, niacin, iron, thiamine mononitrate, riboflavin, folic acid], sugar, salt, monosodium glutamate, monodentate maltodextrin, leavening [baking soda, sodium aluminum phosphate, monocalcium phosphate], spice, soybean oil, color [paprika]), milk wash (water, whole powdered egg and nonfat milk solids), seasoned chicken tenderloins (water, seasonings [sugar, salt, monosodium glutamate, food starch, garlic powder, onion powder, malodextrin, spice, natural flavors, paprika [for color]], with more than 2% sodium silicate added as an anti-caking agent), peanut oil (fully refined peanut oil with TBHQ and citric acid added to preserve freshness and Dimethyldiphenylsilane an anti-oxidant agent added), diced cooked eggs, celery, mayonnaise (soybean oil, water, egg yolks, distilled vinegar, high fructose corn syrup, salt, spice, calcium disodium EDTA to protect flavor), pickle relish (cucumbers, high fructose corn syrup, corn syrup, vinegar, sugar, salt, mustard seed, calcium chloride, alum, potassium sorbate [preservative], natural flavors, polysorbate 80, dehydrated red bell pepper, turmeric). Served on two slices of wheat bread from a local bakery.

### Chick-fil-A Cool Wraps

#### Chargrilled Chicken Cool Wrap
- **Ingredients:** Flatbread (enriched flour [wheat, niacin, reduced iron, thiamine mononitrate, riboflavin, folic acid], water, sugar, salt, pils fresh [wheat flour, pear gum, L-cysteine, vegetable monoglycerides and diglycerides, fungal enzyme], oat fiber, yeast, calcium propionate [to retard spoilage]), Chargrilled chicken breast fillets containing up to 18% solution of water, seasonings (sugar, salt, dextrose, garlic powder, onion powder, malodextrin, autolyzed yeast extract, spice, disodium inosinate, disodium guanylate, flavor, paprika [color]), seasoning (salt, sugar, spices, and paprika), butter flavored vegetable oil (partially hydrogenated soybean oil, palm kernel oil, lecithin, artificial flavor, TBHQ, beta carotene), rice starch and potassium phosphate, romaine lettuce, iceberg lettuce, red cabbage, tomatoes, carrots, Monterrey/Cheddar cheese blend (Monterrey Jack cheese [cultured pasteurized milk, salt, enyzymes] cheddar cheese [cultured pasteurized milk, salt, enzymes, annatto seed], powdered cellulose to prevent caking).

#### Chicken Caesar Cool Wrap
- **Ingredients:** Flatbread (enriched flour [wheat, niacin, reduced iron, thiamine mononitrate, riboflavin, folic acid], water, sugar, salt, pils fresh [wheat flour, pear gum, L-cysteine, vegetable monoglycerides and diglycerides, fungal enzymes], oat fiber, yeast, calcium propionate [to retard spoilage]), Chargrilled chicken breast fillets containing up to 18% solution of water, seasonings (sugar, salt, dextrose, garlic powder, onion powder, malodextrin, autolyzed yeast extract, spice, disodium inosinate, disodium guanylate, flavor, paprika [color]), seasoning (salt, sugar, spices, and paprika), butter flavored vegetable oil (partially hydrogenated soybean oil, palm kernel oil, lecithin, artificial flavor, TBHQ, beta carotene), rice starch and potassium phosphate, romaine lettuce, Parmesan cheese (cultured pasteurized part-skim milk, salt, enzymes), powdered cellulose added to prevent caking, potassium sorbate [a preservative]).

#### Spicy Chicken Cool Wrap
- **Ingredients:** Flatbread (enriched flour [wheat, niacin, reduced iron, thiamine mononitrate, riboflavin, folic acid], water, sugar, salt, pils fresh [wheat flour, pear gum, L-cysteine, vegetable monoglycerides and diglycerides, fungal enzyme], oat fiber, yeast, calcium propionate [to retard spoilage]), Spicy Chargrilled Chicken 100% natural whole chicken breast fillets, seasoning (salt, disodium glutamate, sugar, spices, paprika), coated with [flour, partially hydrogenated soybean oil and/or canola oil of partially hydrogenated soybean oil, salt, and chili pepper, garlic powder, autolyzed yeast extract, silic acid, disodium inosinate, citric acid, disodium guanylate, dehydrated parsley, in more or less than 2% calcium silicate (anti-caking agent)], romaine lettuce, iceberg lettuce, red cabbage, tomatoes, Monterrey/Cheddar Cheese blend (Monterrey Jack cheese [cultured pasteurized milk, salt, enzymes] cheddar cheese [cultured pasteurized milk, salt, enzymes, annatto seed], powdered cellulose to prevent caking).
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<th>SIDE ITEMS</th>
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**SALADS**

**CHICK-FIL-A® SOUTHWEST CHICKEN SALAD** (1 salad) | **CARROT & RAISIN SALAD** (small) |
| **CHICK-FIL-A® SIPPING STRIPS® SALAD** (1 salad) | **FRUIT CUP** (medium) |
| **FRUIT CUP** (medium) | **HEARTY BREAD OF CHICKEN SOUP** (1 cup) |
| Serving Size - oz | 9.7 | 4.5 |
| Serving Size - g | 275 | 128 |
| Serving Per Container | 1 | 11 |
| Calories | 180 | 260 |
| Calories from Fat | 60 | 170 |
| %DV | %DV | %DV |
| Total Fat | 6g | 3g | 3.5g |
| Saturated Fat | 1g | 21g | 3g |
| Trans Fat | 0g | 0g | 0g |
| Cholesterol | 65mg | 21.1g | 13g |
| Sodium | 260mg | 12g | 120 |
| Total Carbohydrate | 15g | 35mg | 0g |
| Dietary Fiber | 6g | 75mg | 0g |
| Sugars | 6g | 5g | 3g |
| Protein | 2.5g | 15g | 0g |
| Vitamin A | 70% | 40% | 71% |
| Vitamin C | 50% | 35% | 21% |
| Calcium | 15% | 6% | 3% |
| Iron | 4% | 2% | 0% |

**SIDE ITEMS**

**SIDE SALAD** | **CARROT & RAISIN SALAD** (small) | **FRUIT CUP** (medium) | **HEARTY BREAD OF CHICKEN SOUP** (1 cup) |
| Ingredients: Chargrilled chicken breast fillets containing up to 15% solution of water, seasoning (sugar, salt, dehydroxy, garlic powder, onion powder, dextrose, soy sauce, spice, dehydrated onion, dehydrated garlic, dehydrated parsley, paprika [for color],), butter flavored vegetable oil (partially hydrogenated soybean oil, palm kernel oil, lecithin, artificial flavor, TBHQ, beta-carotene), rice starch and potassium phosphate, romaine lettuce, iceberg lettuce, carrots, grape tomatoes, broccoli, red cabbage, Monterey/Cheddar cheese blend (Monterey Jack cheese [cultured pasteurized milk, salt, enzymes] cheddar cheese [cultured pasteurized milk, salt, enzymes, annatto color], powdered cellulose to prevent caking). | Ingredients: Carrots, raisins (natural seeds), pineapple, papaya, mango sauce (soybean oil, sugar, water, egg yolk, distilled vinegar, high fructose corn syrup, salt, spice, calcium disodium EDTA to protect flavor), fresh squeezed lemon juice, sugar. | Ingredients: Carrots, radishes, (natural seeds), pineapple, papaya, mango sauce (soybean oil, sugar, water, egg yolk, distilled vinegar, high fructose corn syrup, salt, spice, calcium disodium EDTA to protect flavor), fresh squeezed lemon juice, sugar. | Ingredients: Rice, wheat, barley, soybean, animal bone meal, salt, casein, vitamins, minerals. |
| Ingredients: Carrots, radishes (natural seeds), pineapple, papaya, mango sauce (soybean oil, sugar, water, egg yolk, distilled vinegar, high fructose corn syrup, salt, spice, calcium disodium EDTA to protect flavor), fresh squeezed lemon juice, sugar. | Ingredients: Carrots, radishes (natural seeds), pineapple, papaya, mango sauce (soybean oil, sugar, water, egg yolk, distilled vinegar, high fructose corn syrup, salt, spice, calcium disodium EDTA to protect flavor), fresh squeezed lemon juice, sugar. | Ingredients: Carrots, radishes (natural seeds), pineapple, papaya, mango sauce (soybean oil, sugar, water, egg yolk, distilled vinegar, high fructose corn syrup, salt, spice, calcium disodium EDTA to protect flavor), fresh squeezed lemon juice, sugar. | Ingredients: Rice, wheat, barley, soybean, animal bone meal, salt, casein, vitamins, minerals. |

**HEARTY BREAD OF CHICKEN SOUP**

**COLE SLAW**

**CARROT & RAISIN SALAD** (small) | **FRUIT CUP** (medium) | **HEARTY BREAD OF CHICKEN SOUP** (1 cup) |
| Ingredients: Carrots, radishes (natural seeds), pineapple, papaya, mango sauce (soybean oil, sugar, water, egg yolk, distilled vinegar, high fructose corn syrup, salt, spice, calcium disodium EDTA to protect flavor), fresh squeezed lemon juice, sugar. | Ingredients: Carrots, radishes (natural seeds), pineapple, papaya, mango sauce (soybean oil, sugar, water, egg yolk, distilled vinegar, high fructose corn syrup, salt, spice, calcium disodium EDTA to protect flavor), fresh squeezed lemon juice, sugar. | Ingredients: Rice, wheat, barley, soybean, animal bone meal, salt, casein, vitamins, minerals. |

**FRUIT CUP**

**HEARTY BREAD OF CHICKEN SOUP**

**COLE SLAW**

**CARROT & RAISIN SALAD** (small) | **FRUIT CUP** (medium) | **HEARTY BREAD OF CHICKEN SOUP** (1 cup) |
| Ingredients: Carrots, radishes (natural seeds), pineapple, papaya, mango sauce (soybean oil, sugar, water, egg yolk, distilled vinegar, high fructose corn syrup, salt, spice, calcium disodium EDTA to protect flavor), fresh squeezed lemon juice, sugar. | Ingredients: Carrots, radishes (natural seeds), pineapple, papaya, mango sauce (soybean oil, sugar, water, egg yolk, distilled vinegar, high fructose corn syrup, salt, spice, calcium disodium EDTA to protect flavor), fresh squeezed lemon juice, sugar. | Ingredients: Rice, wheat, barley, soybean, animal bone meal, salt, casein, vitamins, minerals. |

**HEARTY BREAD OF CHICKEN SOUP**

**COLE SLAW**

**CARROT & RAISIN SALAD** (small) | **FRUIT CUP** (medium) | **HEARTY BREAD OF CHICKEN SOUP** (1 cup) |
| Ingredients: Carrots, radishes (natural seeds), pineapple, papaya, mango sauce (soybean oil, sugar, water, egg yolk, distilled vinegar, high fructose corn syrup, salt, spice, calcium disodium EDTA to protect flavor), fresh squeezed lemon juice, sugar. | Ingredients: Carrots, radishes (natural seeds), pineapple, papaya, mango sauce (soybean oil, sugar, water, egg yolk, distilled vinegar, high fructose corn syrup, salt, spice, calcium disodium EDTA to protect flavor), fresh squeezed lemon juice, sugar. | Ingredients: Rice, wheat, barley, soybean, animal bone meal, salt, casein, vitamins, minerals. |

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APPENDIX E

Campus Recreation and Intramural (CRI) Program Participations
Georgia Southern University
Office of Strategic Research and Analysis (OSRA)
09/29/2005

Project Request: Campus Recreation and Intramural (CRI) Program Participations

Requested by: Bridget Melton, Instructor, Jiann-Ping Hsu School of Public Health

Project Abstract: Campus Recreation and Intramural (CRI) program participation was requested of OSRA by Instructor Melton to be used in her dissertation. The information provides an overall view of physical activity among Georgia Southern University’s student body.

Methodology: Campus Recreation and Intramural participation data are provided to OSRA annually for analysis. Gene Sherry, the director of the CRI, approved the release of these data to be utilized in Instructor Melton’s study.

The CRI database was queried for the Fall 2004 and Spring 2005 terms to determine participation by three categories: Classification, Ethnicity, and Gender. Each of these categories was examined in the context of the term being studied. For example, if a student was Freshmen in the Fall and a Sophomore in the Spring, his participations would have been classified under Freshmen in the Fall term table and Sophomore in the Spring term table.

Project Timeframe: 09/29/2005 – 09/30/2005

Project Costs: 5 hours staff time, plus any requested copies of project info

Project Contact: Renee Hayes, Research Analyst

Project Support: Office of Strategic Research and Analysis
  o Dr. Jayne Perkins Brown, Director
  o Renee Hayes, Research Analyst

Jiann-Ping Hsu School of Public Health
  o Bridget Melton, Instructor

Campus Recreation and Intramurals
  o Gene Sherry, Director

Project Source of Copies: Office of Strategic Research and Analysis
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APPENDIX F

Healthful Living Sample Syllabus
Please read and thoroughly understand all the information in this course syllabus.

**GENERAL INFORMATION AND ASSIGNMENT SCHEDULE**

**Course Description**
A course designed to introduce students to fundamental concepts associated with healthful living, throughout the lifespan, in modern society. Course content focuses upon the promotion of health and wellness within individuals, families, and communities through an understanding of healthful living, development of healthy lifestyles, and avoiding or overcoming harmful habits. (2 credit hours)

**Course Objectives**
As a result of this course the student should be able to:

- Demonstrate an understanding of healthful living concepts as well as the factors that promote health and wellness throughout the lifespan.
- Demonstrate the ability to appropriately address identified risk factors and to make health-wise choices.
- Develop a plan for adjusting or maintaining a balance among the dimensions of psychosocial health: mental, emotional, social, and spiritual wellness.
- Describe current equity, multicultural, and diversity issues in health promotion.
- Describe the characteristics of intimate relationships and discuss sexuality and sexual behavior.
- Demonstrate knowledge of the impact of stress on health and well-being as well as the capability to implement a plan for effective stress management.
- Assess personal nutritional habits and implement health-wise behavior change.
- Assess personal fitness level and develop a personal fitness program.
- Identify the characteristics and consequences of drug use and abuse.
- Describe disease states and discuss measures for prevention.
- Analyze and discuss current trends of violence and abuse from an individual, family, and community perspective.

**Required Textbook**

**Course Requirements**
*Each student is required to have a copy of the text.* An access code is required to obtain materials and assignments on Web-ct. Your access code is provided for you with the purchase of the new textbook. Protect your code carefully for it may only be used once. Class discussions will center on the text chapters. *Although we may not cover all the material in the text in class, the*
assigned information will be on the exams. Besides materials in the textbook, you will be responsible for information that is discussed in class, presented through audiovisual aids or by guest speakers and assigned on line in Web-ct.

Attendance
Attendance is the responsibility of each student. When absent from class, the student assumes total responsibility for class notes and announcements. Students who stop attending class without officially withdrawing from the class will receive a final grade of (F). To officially withdraw from any of your classes without academic penalty, you must do so October 12th, 2004.

Examinations
1. For taking examinations and extra credit quizzes, you must have the ParScore (Red) Scantron Form F-288 answer sheet (a total of 6) and a #2 lead pencil. NO STUDENT will be allowed to take an exam without the proper answer sheet and pencil.
2. Unless documentation of special circumstances is provided, you will be allowed no more than fifty minutes from the start of the exam period to complete an exam.
3. Students who arrive after the first student turns in his/her exam will not be allowed to take the exam. There will be NO makeup exam for a student that comes unprepared or late.
4. MAKE UP EXAM POLICY
   Students are required to take exams as scheduled or announced in class. Makeup exams are rare and should not be expected. Makeup exams will be considered for the following: (1) an official GSU activity and (2) illness so severe that you were unable to take the exam as scheduled. In these rare instances, you must notify the instructor PRIOR to the scheduled examination. In addition, you must present an official university excuse or written documentation from a physician to the instructor prior to the exam and NO LATER than the class following the missed exam. If approved, the date and time for the makeup exam will be determined by the instructor. If you do not qualify for a makeup or if you miss the scheduled makeup exam, a zero (0) will be recorded for the exam grade.
5. Points will be deducted from test scores if ALL directions are NOT correctly followed.
6. There will be four (4) examinations worth a total of 400 points. Also, there is an on line Web-ct component included in the Healthful Living curriculum. Your completion of the Health-Wheel Assessments and the Health Surveys are worth 140 points. Please note that each of these areas are date-framed for completion. There will be no opportunity to submit the assignment once the date has passed. In addition, there will be three (3) unannounced 10-point quizzes for extra credit. Students with regular attendance and who are prepared with correct answers can earn up to 30 points. Questions may come from any topic…health, current events, etc. You must have the same answer sheet as indicated above. Credit will be given only to those who correctly follow the directions and you will have no more than 5 minutes to complete this in class quiz. In addition, you can earn 30 more extra credit points by completing the CDC Health Risk Behavior Survey found in WebCt. There are no valid excuses and no make-ups for missed extra credit opportunities.
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<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health-Wheel Assessments</td>
<td>60</td>
<td>Aug. 16 - Sept. 8th</td>
</tr>
<tr>
<td>Health Surveys</td>
<td>80</td>
<td>(ONLY available to complete during dates listed in the course schedule)</td>
</tr>
<tr>
<td>Extra Credit CDC Survey</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>540</td>
<td>Nov. 30th</td>
</tr>
</tbody>
</table>

Grading

Your final course grade will be determined from the percentages and points listed below:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
<th>Points**</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90 - 100%</td>
<td>486 - 540</td>
</tr>
<tr>
<td>B</td>
<td>80 - 89%</td>
<td>432 - 485</td>
</tr>
<tr>
<td>C</td>
<td>70 - 79%</td>
<td>378 - 431</td>
</tr>
<tr>
<td>D</td>
<td>60 - 69%</td>
<td>324 - 377</td>
</tr>
<tr>
<td>F</td>
<td>0 - 59%</td>
<td>0 - 323</td>
</tr>
</tbody>
</table>

**Please note:** The points you earn in the course are not arbitrary! For example, if you earn 485 total points, you have earned a (B) for the course. Any extra credit points earned are simply added to your total points!

Grade Posting

Your grades will be assessable to you through Web-ct. **No grades will be given out over the telephone or by E-mail.**

Academic Misconduct

Academic misconduct will be dealt with according to Georgia Southern University policy. Students are encouraged to read and be familiar with such policies. These policies can be found in the GSU Student Code of Conduct Policies and Procedures, 2003-2004.

- Remember, for each exam and extra credit quiz you will need a Scantron Form F-288 and a #2 Pencil!
- **“Remember, life is 10% what happens to you and 90% how you react to it!”**
<table>
<thead>
<tr>
<th>COURSE SCHEDULE AND TOPICS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOPIC</strong></td>
</tr>
<tr>
<td><strong>Part I</strong></td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
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<tr>
<td></td>
</tr>
</tbody>
</table>

**Health Surveys:** Available from August 16, 2004 through September 8th
- Well-being Scale
- Is Something Wrong?
- Rate Your Diet
- Do you know how to lose weight?

**EXAM 1***: As announced in class

| **Part II** | **PERSONAL STRESS MANAGEMENT** | Chapter 2 |
|            | **DRUG USE, MISUSE, AND ABUSE** | Chapter 11 |
|            | **ALCOHOL AND TOBACCO USE, MISUSE, AND ABUSE** | Chapter 12 |

**Health Surveys:** Available from September 9th through October 5th
- Student Stress Scale
- Is it a Substance Use Disorder?
- Do you have a Drinking Problem?
- Are you Addicted to Nicotine?

**EXAM 2***: As announced in class

| **Part III** | **PROTECTING YOURSELF FROM INFECTIOUS DISEASES** | Chapter 9 |
|             | **LOWERING YOUR RISK OF MAJOR DISEASES** | Chapter 10 |

**Health Surveys:** Available from October 6th through October 28th
- STD Attitude Scale
- What’s your Risk for Hearth Disease?
- Are you at Risk for Cancer?
- How do you Feel about Death?

**EXAM 3***: As announced in class

| **Part IV** | **COMMUNICATION AND SEXUALITY** | Chapter 7 |
|            | **REPRODUCTIVE CHOICES**       | Chapter 8 |
|            | **PREVENTING INJURY, VIOLENCE AND VICTIMIZATION** | Chapter 14 |

**Health Surveys:** Available from October 29th through November 30th
- How Strong is the Communication and Affection in your Relationship?
- How much do you know about Sex?
- Which Contraceptive Method is Best for you?
- Are you doing your Part for the Planet?

**FINAL EXAM (Last day of class)** As indicated on
APPENDIX G

Physical Activity Sample Syllabi
Course Title: KINS 1110 Aerobics
Instructor: 

Section: 
Office: 

Location: 
Phone: 

Time/Days: 
Office Hours: 

Course Description: A course designed to introduce basic aerobic skills and knowledge.

Course Objectives:
The student will be able to:
1. Identify the five (5) total fitness components.
2. Identify the five (5) criteria that are necessary for an activity to be labeled aerobic, the benefits of aerobic exercise, and the kinds of modalities that are considered aerobic.
3. Identify the four segments of an aerobic exercise class.
4. Take and record his/her own resting heart rate and calculate his/her own target heart rate zone.
5. Choose his/her proper bench height.
6. Demonstrate correct body alignment, both static and dynamic.
7. Perform sustained high intensity low-impact aerobic exercise for a maximum of 20 minutes.
8. Perform three basic low impact movements and three basic step training steps.
9. Improve resting heart rate from the initial 3-minute step test.
10. Demonstrate the exercises that stretch the major muscle groups.

Course Content:
Components of physical fitness
Aerobic vs. Anaerobic activity
Warm-up and cool down procedures
Monitoring exercise intensity
Aerobic activity techniques (low impact, basic step)
Responding to exercise-related injuries

Course Text: Aerobics Today, Casten & Jordan
Written Exams  35%   A = 90 - 100  
Skills Tests  45%   B = 80 - 89  
Participation  10%   C = 70 – 79  
WEBCT Component  10%   D = 60 – 69  
F  =   <  60  

Dress Code:  Aerobic leotards and tights are acceptable as well as athletic shorts and t-shirts.  
Appropriate exercise shoes are required.  Shirts must be worn at all times.  Failure to wear  
required attire will result in an absence.  Also, bring a towel and a bottle to every workout.  No  
gum or jewelry is permitted.  

Attendance:  Each student is required to attend 80% of the class meetings in order to have the  
opportunity to pass.  This is interpreted to mean a maximum of six (6) absences.  Students  
missing more than six classes will not pass the class.  Roll will be taken five (5) minutes after the  
hour.  **Anyone coming in after roll has been taken has the responsibility to inform the  
instructor of his/her presence.** A tardy will be given to those students coming in after roll has  
been taken.  Three (3) tardies will be equivalent to one absence.  **There are no excused  
absences!** Therefore, use your absences wisely.  Poor attendance can negatively affect your  
grade.  **No class will be canceled.**  

WEBCT: When you purchase your book, you NEED TO make sure that you purchase a WEBCT  
computer pincode for the specific textbook.  **THE ONLY WAY TO PURCHASE THIS PINCODE is**  
to purchase the pincode at the University Bookstore on campus and/or at Gray’s Bookstore.  This  
pincode will allow you to access 5 different inventories based on mental well being and exercise  
motivation.  You need to complete all 5 inventories to earn 10% of your overall grade.  If you are  
taking two courses simultaneously, you will need to make sure you complete 2 DIFFERENT sets  
of online questionnaires. Once you complete the four inventories, you will receive confirmation via  
your GSU email.  Please print the confirmation page and turn it in to your instructor for credit.  If  
you have any questions about this aspect of your grade, please contact your instructor.  

Agreement to Participate:  All students are required to read and sign the Departmental  
Agreement to Participate form prior to the first day of activity.  

Student Conduct:  A student must abide by all components of the student conduct code.  
A student found in violation of the University’s academic dishonesty policy will receive a  
final grade of “F”.
Course Description: A course designed to introduce golf skills, fundamentals and knowledge. An additional fee of $40.00 is required.

Course Objectives:
1. The student will develop a proficiency in the basic skills of golf, progressing from putting into chipping and pitches through the full swing.
2. The student will demonstrate understanding of the rules, strategy, and etiquette in the game of golf.

Course Content:
- History, rules, terminology and etiquette
- Equipment
- Warm-up and cool down procedures
- Basic skills (grip, stance, alignment, posture, ball position)
- Basic techniques and drills (putting, chipping, pitching, full swing)
- Basic mental and physical strategies

Required Course Text: Golf Today, Snead

Evaluation: Grading Scale:
- Written Exams 35% A= 90 - 100
- Skills Tests 45% B = 80 - 89
- Participation 10% C = 70 – 79
- Web CT 10% D = 60 - 69
- Office Hours F = < 60
**Dress Code:** The dress code of the Southern Links Golf Club apply to the class. This includes: no cut-offs, jeans or jean shorts, ripped T-shirts or sweatpants are permitted. Footwear must be golf or tennis shoes. Failure to wear required attire will result in an absence.

**Equipment:** All equipment will be provided by the Southern Links Golf Club.

**Attendance:** Each student is required to attend 80% of the class hours in order to have the opportunity to pass. This is interpreted to mean a maximum of six (6) absences. Students missing more than six classes will not pass the class. Roll will be taken five (5) minutes after the hour. **Anyone coming in after roll has been taken has the responsibility to inform the instructor of his/her presence.** A tardy will be given to those students coming in after roll has been taken. Three (3) tardies will be equivalent to one absence. **There are no excused absences!** Therefore, use your absences wisely. Poor attendance can negatively affect your grade. **No class will be canceled.**

**WEBCT:** When you purchase your book, you NEED TO make sure that you purchase a WEBCT computer pincode for the specific textbook. THE ONLY WAY TO PURCHASE THIS PINCODE is to purchase the pincode at the University Bookstore on campus and/or at Gray’s Bookstore. This pincode will allow you to access 5 different inventories based on mental well being and exercise motivation. You need to complete all 5 inventories to earn 10% of your overall grade. If you are taking two courses simultaneously, you will need to make sure you complete 2 DIFFERENT sets of online questionnaires. Once you complete the four inventories, you will receive confirmation via your GSU email. Please print the confirmation page and turn it in to your instructor for credit. If you have any questions about this aspect of your grade, please contact your instructor.

**Fees:** $40.00

**Agreement to participate:** All students are required to read and sign the Departmental Agreement to Participate form prior to the first day of activity.

**Student Conduct:** A student must abide by all components of the student conduct code. A student found in violation of the University’s academic dishonesty policy will receive a final grade of “F”.