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An Evolving Curriculum: The Technical Core of Hispanic-Serving Institutions in the State of Texas

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Abstract

Although there is extensive research pertaining to Hispanic Serving Institutions (HSI), it is primarily framed around the U.S. federal definition of Hispanic Serving Institutions established by Title V of the Higher Education Act of 1965. This law identifies HSI as institutions that have a Hispanic student population of at least 25 percent and “at least 50 percent of their Latino students are low-income individuals and that those institutions have nonprofit status” (as cited in Dayton, Gonzalez-Vasquez, Martinez, & Plum, 2004). The identifying category HSI established economic support for Hispanic Serving Institutions. However, because of the government’s precise definition, there is enormous confusion surrounding the nature of Hispanic Serving Institutions in this country.

Preliminary research has revealed several gaps in knowledge and understanding of HSI, as well as a singular-thinking pattern that promotes boundaries when trying to understand the phenomena. The fact that HSIs are only identified according to a federal definition limits the total number of colleges and universities that can receive federal funds for educating Latinos.

This study identifies a newly discovered phenomenon within Hispanic majority institutions in the State of Texas. By removing the current federal definition of Hispanic serving institutions, this study was able to include all colleges and universities that have a predominantly Hispanic student population.

In addition, this study provides an understanding of Hispanic serving institutions by examining the nature of the relationship between Parson’s technical core and Wallerstein’s World-System Theory. The use of an occupational taxonomy provides an explanation of how and into what areas students who attend Hispanic serving institutions are being educated.

Introduction

Although there is extensive research pertaining to Hispanic Serving Institutions (HSI), it is primarily framed around the federal definition of Hispanic-Serving Institutions established by Title V of the Higher Education Act of 1965. This law identifies HSI as institutions at which at least 25 percent of the student population is Latino and “at

least 50 percent of their Latino students are low-income individuals and that those institutions have nonprofit status" (as cited in Dayton, Gonzalez-Vasquez, Martinez, & Plum, 2004). The identifying category HSI established economic support for Hispanic-Serving Institutions. However, because of the government's precise definition, there is enormous confusion surrounding the nature of Hispanic-Serving Institutions in this country.

Preliminary research has revealed several gaps in knowledge and understanding of HSI, as well as a singular-thinking pattern that promotes boundaries when trying to understand the phenomena. The fact that HSI are only identified according to a federal definition limits the total number of colleges and universities that can receive federal funds for educating Latinos.

Purpose of the Study

This study explores one sector of American higher education, specifically Hispanic- Serving Institutions (HSI) in Texas. However, the definition of HSI used by the researchers in this study includes not only institutions that have been identified by the federal government as HSI but also any institution whose Hispanic student population is 50% or more. This definition also includes proprietary schools which have a Hispanic population of 50% or more. The purpose of this study was to develop a more contemporary definition and understanding of Hispanic higher education by exploring the core technologies of Hispanic-Serving Institutions.

Theoretical Framework

In order to study the core technologies of Hispanic-Serving Institutions, the researchers used a conceptual framework based on a cognitive system of understanding institutional theory and specifically the technical core level of Parsons (1960) theory of three levels of organizational control. Through the use of institutional theory, issues such as core technologies, and their prestige, discretion, and earnings at multiple levels, can be understood as to how they combine to form one complex sector of higher education.

The researchers also used world-systems theory to help conceptualize this study. World-system theory revolves around the economic priorities and organizational framework of a nation, and the political and social structures that emerge to facilitate economic production and growth. In our exceedingly capitalistic world, advantages in economic production often lead to commercial and financial dominance. Economic, commercial, and financial success then gives rise to hegemonic dominance of one state over another. The imposition of cultural values to reinforce dominance and military force to ensure stability often follows. Therefore, world-system theory has as its underlying concept multiple states linked in complex and interdependent ways, but operating with a single logic (Straussfogel, 1997).

This theoretical framework allowed for an organization of the data and led to the development of an occupational taxonomy that explains Hispanic-Serving Institutions core technologies and their prestige, discretion, and earnings. Therefore, by framing research in this way, this study explains how one sector of higher education fits into the larger social system of American higher education.

The Significance of the Study

This study explores a newly identified phenomenon within Hispanic-Serving Institutions. This study will contribute to the literature on Hispanic-Serving Institutions because it offers a new way of conceptualizing them without excluding institutions that do not meet the federal definition. This study is also significant because it explores what Hispanic-Serving Institutions do based on core technologies and investigates the disparity of degree types and offerings between institutions of higher education in the state of Texas. By utilizing concepts inherent in world-systems theory and Parsons's three levels of organizational control, our conceptual framework organizes Texas institutions of higher education into core categories.

For many institutions, a primary responsibility is to produce degreed students. The quantity, type, prestige, and economic value of these degrees have an influence over the ability of an individual (and ultimately a community) to succeed and prosper in the power hierarchy of society. Comparatively, this paper examines the sharp distinctions between educational institutions along the border of Texas and Mexico (the border corridor) and those located in the center of the state that form a triangle connecting Houston, Dallas, and Austin. Rather than explaining their function through loose fitting categories that only offer descriptors of the kind of institutions that exist. Furthermore, by identifying and clarifying the core technologies that make up Hispanic-Serving Institutions, we may gain further understanding regarding the type of education students are receiving when attending Hispanic-Serving Institutions.

Through this process of inquiry, it is our hope that this study will influence policymakers to further include and increase participation by Hispanic-Serving Institutions, in the contemporary discussion on national education policy. This would also include issues of funding specifically related to Hispanic serving institutions.

Definition of Terms

Hispanic:

"This term implies a Spanish origin, not a race, nationality, nor a narrowly defined ethnic group" (Borunda, 1990, p. 187).

Hispanic-Serving Institution:

Any college, university, or postsecondary proprietary institution with the largest percentage of students being Hispanic.

Institutionalization:
"A process . . . that happens to an organization over time, reflecting the organization's own distinctive history, the people who have been in it, the groups it embodies and the vested interests they have created, and the way it had adapted to its environment. The degree of institutionalization depends on how much leeway there is for personal and group interaction" (Selznick, 1957, p. 16).

Organization:
"A system of interdependent activities linking shifting coalitions of participants; the systems are embedded in—dependent on continuing exchanges with and constituted by—the environments in which they operate" (Scott, 1998, p. 28).

Operating Core:
"…. basic work related directly to the production of products and services" (Mintzber, 1979, p. 24).

Occupational Prestige:
An occupation's social status.

Occupational Discretion:
The degree of autonomy that an occupation has.

Occupational Earnings:
The average salary for a given occupation.

Methodology

The research tradition driving this study is the interpretive approach. "Interpretive methods are based on the presupposition that we live in a social world characterized by the possibilities of multiple interpretations" (Yanow, 2000, p. 5). The interpretive tradition embraces various fieldwork methods. According to Erickson (1986), fieldwork involves the following:

1. Intensive, long-term participation in a field setting.
2. Careful recording of what happens in the setting by writing field notes and collecting other kinds of documentary evidence (e.g., memos, records, examples of student work, audiotapes, videotapes).
3. Subsequent analytic reflection on the documentary record obtained in the field and reporting by means of detailed description, using narrative vignettes and direct quotes from interviews, as well as by more general description in the form of analytic charts, summary tables, and descriptive statistics (p. 121).

This study explicates how the dominant operating cores at Hispanic-Serving Institutions help to maintain a system of institutionalized racism in the United States. Moreover, it helps to deconstruct myths about Hispanic-Serving Institutions and explains

how the cultural and social aspects further maintain institutionalized racism.

1. How many Hispanic-Serving Institutions exist in Texas?
2. What are the dominant operating cores of Hispanic-Serving Institutions in Texas?
3. How have the dominant operating cores of Texas HSIs changed over time?
4. What institutional functions are served by the dominant operating cores of Hispanic-Serving Institutions?

The interpretive approach helps answer the questions, “What is happening here? And what do these happenings mean to the people engaged in them?” (Erickson, 1986, p. 124). The interpretive approach also allows oppressed individuals to have a voice and enables them to tell their story. The tradition behind the interpretive approach and the specificity with which it addresses issues of meaning allowed the researchers to examine organizations from varying perspectives.

Parson’s theory, which identifies three levels of organizational control, allowed the researchers to study the dominant core technologies of Hispanic-Serving Institutions in Texas. The three levels of organizational control are institutional, managerial, and technical. However, of the three, the technical core has proven most useful to the researchers in understanding the dominant core technologies of the HSI in Texas and the prestige, discretion, and earnings tied to the majors offered by each institution. This conceptual framework allowed the researchers to understand how the technology of these institutions has impacted both higher education in Texas and society at large.

The first level of Parson’s theory is the technical level:

> In this view every formal organization contains a sub-organization whose “problems” are focused around effective performance of the technical function—the conduct of classes by teachers, the processing of income tax returns and the handling of recalcitrant by the bureau, the processing of material and supervision of these operations in the case of physical production. The primary exigencies to which the technical sub-organization is oriented are those imposed by the nature of the technical task, such as the materials which must be processed and the kinds of cooperation of different people required to get the job done effectively. (Thompson, 1967, p. 10)

Analysis and Display

The analysis and display was adapted from a similar study conducted by (Satterfield, 2008). The researcher’s mode of inquiry

was field study research. This approach enables multiple methods and multiple kinds of information. Using a variety of methods enabled the researcher to collect data in a manner that permitted the conceptual framework and additional research questions to emerge directly from the data.

The unit of analysis is the organizational population of Hispanic-Serving Institutions. Because the researchers want to develop a contemporary definition and understanding of Hispanic-Serving Institutions, questions of organizational similarity had to address. This study used the rational categories described by Scott (1998) as proposed by Parsons (1967) to define the institutional population.

To determine the core technologies, the researchers examined institutional catalogs, promotional mailings, institutional web sites, and College Source, an online database housing post-secondary institution course catalogs. Because of the in-depth nature of core technologies, the researchers then developed an occupational taxonomy to categorize the core technologies at Hispanic-Serving Institutions. The occupational taxonomy helped the researchers examine the data in a way that preliminary conclusions could be made about possible themes and account for any thematic clustering. (Miles & Huberman, 1994). Moreover this processes allowed the researchers to develop categories around technologies (Satterfield, 2008). In addition the researchers used the process of open and axial coding to help determine the dominant core technologies of Hispanic serving institutions. Through these two processes the researchers were able to deconstruct the data and search for similarities as well as differences. Strauss and Corbin (1990) noted that when developing categories, the initial name given must be more conceptual than the names grouped under it.

Once the categories were developed in the occupational taxonomy, the researchers looked at each individual occupation's level of occupational prestige, occupational discretion, and occupational earnings. Like Satterfield (2008) the researchers organized the occupational attributes around scores of high, medium, or low. Additionally, the researchers also used the prestige scores from a rating system developed by Hodge, Siegel, and Rossi (1963) at the National Opinion Research Center and later updated Davis, Smith, Hodge, Nakao, and Treas in the General Social Survey (1989) and used by Satterfield (2008). If an occupation has a prestige score of 70 or above, it received a score of high occupational prestige. If it has a prestige score of 60 to 59, it received a score of medium occupational prestige. If it received 58 or lower, it received a score of low occupational prestige.

The occupational attribute of discretion was determined by using the 2004-2005 edition of the **Occupational Outlook Handbook** compiled by the U.S. Department of Labor (DOL). To understand the level of discretion each person has in a particular occupation, the researchers explored the idea of the nature of work as outlined by the

DOL. Each occupation earned a score of high, medium, or low on the basis of its nature of work.

A score for the occupational attribute of earnings was determined by using the DOL **Occupational Outlook Handbook**. The scores for each occupation were set at specific income levels. To have a high level of occupational earnings, an occupation had to have a median income level of $51,000 or more. To receive a score in the medium level, an occupation had to have a median income level from $39,000 to $50,000. Occupations that have a median income level between $15,000 and $38,000 received a score of low for occupational earnings. Once each occupation had a score for each occupational attribute, percentages for occupational prestige, occupational discretion, and occupational earnings for each major category and subcategory were calculated.

Hispanic Demographics and Migration

Although the growth of the Latino population in this country has been relatively high and steady throughout the years, the access and educational attainment of members of this group is not comparable to the other ethnic groups in the US. Access of Latinos to K-12 and higher education has been mainly due to pressure influenced by demographic growth, and to a lesser degree to demands from Hispanic or Latino individuals or organizations.

Huntington (2004, p. 213) identifies at least two different immigration waves; the first wave consisted of approximately 34 million Europeans who arrived to the US between 1820 and 1924. The second migration wave occurred between 1965 and 2000 when approximately 23 million immigrants came mainly from Latin America and Asia. These immigration waves which are diverse in terms of origin, ethnicity educational and socioeconomic background have had a tremendous influence in the economic, political and cultural systems, especially in the geographical areas where immigrants reside.

Hispanic migration to the US can not be trivialized. The socioeconomic and demographic characteristics of this ethnic group are very diverse (Trueba, 1999, p. 33). The Latino population is integrated by diverse ethnic groups and nationalities. In 1970, the population of Spanish origin was 9.1 million, or 4.5% of the total US population; in 1989, it was 14.5 million, which represented approximately 6.5% of the total population in the US (Borunda, 1990, p. 8). By 1990, the Hispanic population had increased to 20.1 million or 8% of the US population (Trueba, 1999, p. 34). In 1980, the largest subgroup of Hispanic immigrants was from Mexico, Puerto Rico, and Cuba (Hayes-Bautista, Schink, and Chapa, 1988, p.131, in E. Trueba, 1999, p. 35). Other subgroups that account for a significant proportion of the Hispanic population are from Central America, Colombia, and Dominican Republic. However, the subgroup that has had the most rapid increases is that of Mexicans. Between 1980 and 1988, there

was an increase of 39.9% (Borunda, 1990, p. 8).

College attendance and graduation rates vary among the different Latino subgroups; Trueba indicates that “Often the main motivation for Latinos to come and stay in this country is to provide their children with better education” (1999, p. 41). Trueba goes further to indicate that “schooling, educational levels, and literacy are considered by many scholars as pivotal for increasing social and economic mobility in immigrants and other populations” (1999, p. 46). The degree of educational outcomes is influenced by the quality of institutions. Completion rates for Hispanics are very low. A smaller proportion of Hispanics complete college compared to the rates of other ethnic subgroups. In 2000, 10% of Hispanics ages 25 to 29 completed a bachelors; degree or higher; 34% of Whites and 18% of Blacks completed a similar degree (NCES, 2003, p.106).

Despite the importance of educational access and increased educational attainment indicated above, access of Hispanics to college has not been parallel to the growth of the Hispanic population. The growth of Hispanic-Serving Institutions and enrollment of Hispanic has been growing since the 1970s. Statistics related to Hispanics in higher education prior to 1960 are difficult to ascertain (Borunda, 1999). Borunda (1999) reported that in 1968 only 1.7% of the total undergraduate enrollment in the US was of Hispanic origin. It was during this time that several of the institutions serving Hispanics emerged. Prior to 1970, none of the Hispanic-Serving Institutions in the mainland were accredited (Borunda, 1999). By 1978 there were 15 institutions serving Hispanic students, nine of which had enrollment over 4, 000 Hispanic students. By 1984, there were 49 institutions whose enrollments were over 30% of Hispanic students and of these 49 institutions, six had a student population that was 50% or more of Hispanic origin.

Another critical point in the education of Hispanic or other minorities in this country is the institutions and programs of study that they have access to. Several scholars indicate that equal access does not constitute equal opportunity for minority students (Gandara, 1986; Astin, 1982 in Borunda, 1999). Duran (1983 in Borunda, 1990:85) mentioned that Hispanics are overrepresented at less prestigious institutions of higher education. Borunda (1990) concluded that most of Hispanic students in the US were enrolled in 2 or 4 year institutions that are less prestigious. In Borunda’s study of 10 Hispanic serving institutions, the author found that the programs of study emphasized professional and vocational training, that none were highly selective, that they did not emphasize research, and that they were not doctoral granting universities.

Findings and Discussion

The following section is a discussion of dominant operating cores at Hispanic-Serving Institutions. The researchers used an occupational taxonomy to categorize the dominant operating cores at

Hispanic-Serving Institutions.

According to Minztberg (1979), “The operating core of the organization encompasses those members—the operators—who perform the basic work related directly to the production of products and services” (p. 24). The products and services, in this case, are the degree programs that are offered at Hispanic-Serving Institutions. Each of the 28 Hispanic serving institutions has an operating core that supports and promotes the production of a service industry. This section describes an occupational taxonomy based on service occupations that developed over time.

Occupations can be defined in several ways. According to Salz (1944), an occupation is a specific activity with a market value, which an individual continually pursues for the purpose of obtaining a steady income. This activity also determines the social position of the individual. Like Salz, Hughes (1965) emphasized the financial implications and social aspects of occupations. Roe’s (1956) idea of an occupation is an activity that an adult spends most of his/her time doing and, consequently, most of their thoughts pursing.

Hall (1975) also contributed to the definition of occupations: “An occupation is the social role performed by adult members of society that directly and/or indirectly yields social and financial consequences and that constitutes a major focus in the life of an adult” (p. 6). This definition of occupation incorporates both the individual and society. Because there are many different kinds of occupations, it is not enough to just define the term occupation. The increasing specialization that is required of some occupations creates occupational divisions (Hobson & Sulivan, 1990). These specialties are sometimes absent a common core (Freidson, 1973).

Mercantile Services Industry

This core occupational category has four occupational subcategories:
(a) **mechanical vocational**, (b) **food services**, (c) **illustration services**, and (d) **personal services**. In the four occupational subcategories there are a total of 34 occupations. The first subcategory, **mechanical vocational**, consists of (a) air frame and power worker, (b) architectural technician, (c) auto and auto body repair, (d) aviation systems and avionics, (e) biomedical technician, (f) building property maintenance, (g) communications installer, (h) computer technician (i) diesel engine repair, (j) electrical and electronics equipment installer, (k) electrical and digital communication, (l) engineering technician, (m) environmental technician (n) heating/air conditioning and refrigeration, (o) industrial electronics/machinery installer and repairer, (p) instrumentation technician, (q) machinist/machine shop assistant, (r) major appliance and installer and repair, (s) mechanical drafting, (t) petroleum technician, (u) printing press operator/print maker, (v) radio and TV technician, (w) tool and die maker, and (x) welding.

The second subcategory, **illustration services**, has the following occupations:
(a) art/fine art, (b) film/video and photographic art, (c) graphic design, commercial art and illustration, and (d) interior design. The following occupations make up the third subcategory: (a) culinary arts and (b) institutional food worker. The last subcategory, **personal services**, contains (a) child care, (b) cosmetology, (c) custom tailor, and (d) hotel/motel/restaurant. Each subcategory has low occupational prestige, low occupational earnings, and low occupational discretion.

Of the 34 occupations within this core category, 91.2% of them have low occupational prestige, 8.8% have medium occupational prestige, and none has a high level of occupational prestige. Occupational discretion in this category does not fare much better than does occupational prestige. Within this core category, 76.5% of the occupations have low occupational discretion, 8.8% have medium occupational discretion, and 14.7% has a high level of occupational discretion. Occupational earnings in this category were also primarily low; 91.2% of the occupations have low occupational earnings and 8.8% have a medium level of occupational earnings.

The subcategory **mechanical vocational** has 23 occupations. Of the 23 occupations, all are low in occupational prestige, discretion, and earnings except for (a) airframe and power plant worker, (b) architectural technician, (c) avionics, (d) biomedical technician, and (e) electrical and digital communications. These occupations have a medium level of occupational earnings.

The subcategory **illustration services** is characterized by occupations that are artistic in nature. It has four occupations:
(a) art/fine art, (b) film, video, and photographic art, (c) graphic design/commercial art illustration, and (d) interior design. All four occupations have low levels of earnings.

The subcategory **food service** has two occupations: (a) culinary arts and (b) institutional food worker. The occupation culinary arts is low in both occupational prestige and occupational earnings, but has a high level of occupational discretion. The occupation institutional food worker is low in prestige and earnings, but high in discretion.

The last subcategory is **personal service**. Four occupations make up the subcategory **personal service**. The occupations childcare, cosmetology, custom tailor, and hotel/motel and restaurant all have low occupational prestige and low occupational earnings, but vary in levels of occupational discretion. Cosmetology and custom tailor have medium-level occupational discretion. Childcare and hotel/motel and restaurant worker have low-level occupational discretion.

Business Services Industry

This core category has five subcategories: (a) **business office**

support, (b) **business support services**, (c) **business service management**, (d) **business specific services**, and (e) **facilities operation**. The first subcategory **business office support** contains (a) administrative secretarial science, (b) data processing, (c) executive assistant secretary, (d) general office/clerical typing, (e) heath services administration, (f) medical administration assistant, and (g) office supervision and management. The second subcategory, **business support service**, contains (a) accounting/accounting technician, (b) banking and financial support service, (c) court reporter, (d) finance, (e) marketing, and (f) procurement and contracts. The third subcategory, **business services management**, includes (a) insurance risk management, (b) human resources, (c) business administration and management, (d) aviation management, and (e) music business management. The fourth subcategory, **business specific services**, consists of (a) architectural engineering, (b) chemical engineering, (c) civil engineering, (d) computer engineering, (e) industrial product technology, (f) mechanical engineering, and (g) metallurgical engineering. The last subcategory, **facilities operation**, is composed of agribusiness operations.

This core category contains occupations that are low in occupational prestige, occupational discretion, and occupational earnings. In this category, 46.2.0% of the occupations have low occupational prestige, 26.9% have medium levels of occupational prestige, and 26.9% have a high level of occupational prestige. Low-level occupational discretion is also common in this category; 57.6% of the occupations have low occupational discretion and 42.3% have medium occupational discretion. Of the occupations in this category, 42.3% of them have a low level of occupational earnings. Yet, the earnings levels were relatively close between medium at 30.7% and high at 26.9%. The occupations that have a high level of occupational earnings in this category are specifically related to engineering in the subcategory of **business specific services**.

The occupations (a) chemical engineer, (b) civil engineer, (c) computer engineer, (d) mechanical engineer, and (e) metallurgical engineer all have a high level of occupational earnings except for architectural engineering, which has a medium level of occupational earnings. However, all the occupations under the **subcategory business specific services** have a medium level of discretion even with medium or high level of earnings. The high earnings relate to the specificity of an engineer's role and the medium level of discretion relates to where the occupations are performed. According to Freidson (1973), "…. engineering is seen to be in a position only to implement goals dictated by industry and government" (p. 10).

The subcategory **business service management** is relatively consistent with medium-level occupational attributes. However, occupational prestige, discretion, and earnings are low for insurance risk management. Business administration and management and human resource management both have high-level occupational earnings and medium-level occupational prestige and occupational

discretion. The occupation in the subcategory facilities operation is low in each occupational attribute.

Wellness Services Industry

This core category consists of seven occupational subcategories: (a) **health diagnosis**, (b) **health diagnosis assistant**, (c) **health assessment and treating**, (d) **health technicians**, (e) **science technicians**, (f) **scientist and science**, and (g) **health vocations**. The first subcategory, **health diagnosis**, consists only of optician. The second subcategory, **health diagnosis assistant**, has two occupations: (a) dental hygienist/assistant and (b) veterinary assistant. In **health assessment and treating**, there are eight occupations: (a) alcohol and drug abuse counseling, (b) clinical psychology, (c) dietician, (d) nurse (R.N.), (e) occupational therapy, (f) physical therapy, (g) public health, and (h) speech pathology. There are 12 occupations in the subcategory **health technicians**. They consist of (a) diagnostic medical sonograph, (b) dietician assistant, (c) emergency medical technician, (d) medical assistant, (e) medical lab assistant, (f) medical radiology, (g) medical technician, (h) medial technician, (i) nurse (L.P.N.), (j) occupational safety and health technician, (k) respiratory technician, and (l) and surgical room technician. The next subcategory, **scientist and sciences**, consists of 14 occupations: (a) animal science, (b) biological science, (c) chemistry, (d) computer information science, (e) computer science, (f) exercise science, (g) geography, (h) horticulture, (j) mathematics, (k) microbiology, (l) molecular biology, (m) physical science, (n) physics, and (o) psychology. The subcategory **science technician** has only two occupations. They are (a) chemical technician and (b) mortuary science. There are four occupations in the last subcategory, **health vocations**. This subcategory consists of (a) nurse's aide, (b) occupational therapy assistant, (c) pharmacy assistant, and (d) physical therapy assistant.

Of these subcategories, 51.2% have low occupational prestige, 30.2% have medium occupational prestige, and 18.6% have high occupational prestige. Low occupational discretion is associated with 51.2% of the subcategories and 48.8% have medium occupational discretion. Low occupational earnings are associated with 48.8% of the subcategories, 32.6% have medium occupational earnings, and 18.6 % have a high level of occupational earnings.

Public Services Industry

The major category, **human services industry**, has four subcategories:
(a) **consumer social services**, (b) **professional human services**, (c) **professional human services assistant**, and (d) **protective services**. The first subcategory, **consumer social service**, consists of nine occupations: (a) counseling, (b) educational psychologist, (c) gerontologist, (d) individual family studies, and (e) and social work. The next subcategory, **professional human services**, consists of

one occupation and that is Law (J.D.). The next subcategory, **professional human services assistant**, only has one occupation: paralegal/legal assistant. The last subcategory **protective services** consists of three occupations: (a) law enforcement and corrections (police science), (b) criminal justice, and (c) fire protection.

Within the major category **human services industries**, 60.0% of the occupations have low occupational prestige, 30.0% have medium-level occupational discretion, and 10.0% of them have high occupational prestige. Of the occupations in the category **human services**, 80% have low occupational discretion, 10.0% have a medium level of occupational discretion, and 10.0% have a high level of occupational discretion. Of the levels of earnings in this category, 50.0% are also primarily low, 40.0% have medium occupational earnings, and only 10.0% of the occupations have a high level of occupational earnings.

In the subcategory **consumer social services**, only counseling has a medium level of occupational discretion. Educational psychologist has a medium level of occupational prestige and a medium level of occupational earnings; however, it has a low level of occupational discretion. The remaining occupations in this category, (a) social work, (b) gerontology, and (c) individual family studies, all have low occupational prestige, occupational discretion, and occupational earnings.

The subcategory **professional human services** has only the one occupation, the field of law. Each of the occupational attributes for law (J.D.) is high. Paralegal/legal assistant is the only occupation in the subcategory professional human service assistant. Paralegal/legal assistant has low occupational prestige and low occupational discretion, but its occupational earnings are at the medium level. The reason for this is because persons in the paralegal legal/ assistant occupation work closely with the profession of law. The work they do is usually delegated and supervised by the members of the law profession. According to Hodson and Sullivan (1990), the occupation paralegal is not a true profession.

The subcategory **protective services** has three occupations: (a) law enforcement/ corrections, (b) criminal justice, and (c) fire protection. These occupations vary in their levels of occupational prestige and occupational earnings, but they all have a low level of occupational discretion. Law enforcement/corrections has a medium level of occupational prestige and a medium level of occupational earnings. Fire protection has a medium level of occupational prestige and a low level of occupational earnings, but criminal justice has low levels of both occupational prestige and occupational discretion. Nonetheless, it has a medium level of occupational earnings.

School Services Industry

The last major category, **education**, consists of five

subcategories: (a) **health-related education**, (b) **humanities**, (c) **language- and-literature-related education**, (d) **public/private education related services**, and (e) **educational assistant**. The first subcategory, **health-related education**, consists of three occupations: (a) health, (b) physical education, (c) sports fitness administration. The next subcategory is **humanities**. Within this subcategory there are 14 occupations: (a) African American Studies, (b) anthropology, (c) economics, (d) ethnic and cultural studies, (e) history, (f) liberal arts, (g) music, (h) philosophy, (i) political science, (j) radio and television broadcasting, (k) sociology, (l) speech and rhetorical studies, (m) theater art, and (n) visual and performing arts. The subcategory **language- and-literature-related education** consists of four occupations: (a) English language literature, (b) French language and literature, and (c) Romance languages, (d) Spanish language and literature. The subcategory **public/private education-related services** consists of six occupations: (a) adult and continuing education, (b) curriculum instruction, (c) education administration, (d) school psychology, (e) special education, and (f) teaching ESL. The last subcategory is **educational assistant**, which consists of only one occupation: teacher's aide.

Within these five subcategories, the levels of occupational prestige, occupational discretion, and occupational earnings vary. Of the 28 occupations that make up the subcategories, 3.8% have low occupational prestige, 14.3% have medium-level occupational prestige, and 82.1% have a high level of occupational prestige. The level of occupational discretion is strongest in the medium level; 89.3% of the occupations have a medium level. Only 3.6% of the occupations have low occupational discretion, and 7.1% have a high level of occupational discretion. In this category, occupational earnings are clustered in the medium level at 71.4%, whereas 21.4% have low occupational earnings and 7.1% have a high level of occupational earnings.

Among the **health-related education** sub category occupations, all three occupations have a medium level of occupational discretion. **Physical education and health have a high level of occupational prestige but with a low level** of occupational earnings.

The subcategory **humanities** has 14 occupations: (a) African-American studies, (b) anthropology, (c) economics, (d) ethnic and cultural studies, (e) history, (f) liberal arts, (g) music, (h) philosophy, (i) political science, (j) radio and television broadcasting, (k) sociology, (l) speech and rhetorical studies, (m) theater arts, and (n) visual and performing arts. Within the subcategory **humanities**, African American Studies, anthropology, ethnic and cultural studies, history, liberal arts, music, philosophy, political science, sociology, and speech and rhetorical studies all have a high level of occupational prestige and a medium level of occupational discretion and occupational earnings. Radio and television broadcasting has a high level of occupational prestige, a medium level of occupational discretion, and a low level of occupational earnings. Visual and

performing arts is high in both occupational prestige and discretion but low in occupational earnings. Economics has a medium level occupational prestige, discretion, and earnings.

Language- and-literature-related education consists of four occupations: (a) English language literature, (b) French language and literature, (c) Romance languages, and (d) Spanish language and literature. All of these types of occupations have a high level of occupational prestige, medium occupational discretion, and medium occupational earnings.

The subcategory **public/private education-related services** has six occupations: (a) adult and continuing education, (b) curriculum instruction, (c) education administration, (d) special education, (e) school psychology, and (f) teaching English as a second language (ESL). Within this subcategory, adult and continuing education, curriculum instruction, education administration, and teaching ESL are the occupations that have a high level of occupational prestige. All of the occupations in this subcategory have a medium level of occupational discretion. Adult and continuing education has low occupational earnings, but teaching ESL has medium occupational earnings. However, curriculum instruction and education administration have a high level of occupational earnings. School psychology and special education have medium-level occupational attributes.

The subcategory **educational assistant** has only one occupation, teaching assistant. The occupation **teaching assistant** is low in occupational prestige, occupational discretion, and occupational earnings. This was the only subcategory that carried one occupation.

The role that Hispanic-Serving Institutions is playing in the development of Latinos is important. Yet, as they reach for a greater level of respect, they still face great challenges. In contemporary times, Latinos have progressed and increased their voice in many arenas. Most people believe that the arena of education shows the most evidence of progress. However, the occupational taxonomy shows that HSIs are centered around low- prestige, low-discretion, and low-earnings service occupations.

While there has been increased access to post-secondary education by Hispanic students, they are disproportionately enrolled in lower tier institutions (Astin, 1982). Moreover, Gandara (1986) says that “equal access to unequal institutions does not constitute equality of opportunity” (p.268).

It is supremely important for institutions like the University of Texas at El Paso (UTEP) to continue and further their leadership role in the education of Hispanic students. Borunda (1990) said that only UTEP and Texas A& I, now Texas A&M Kingsville, could consider themselves research institutions. The current federal definition can not

be relied on to give a clear picture of the educational status of Hispanic students.

In recent years, the concept of world-systems theory has expanded greatly beyond focusing solely on economic interactions. Beyond economic inquiry, world-systems theory has evolved into the concept of globalization. This evolution has resulted in the application of world-system concepts in multiple areas such as health policies, music, ethnicity, gender, environmental advocacy and education. A "virtual explosion of interest" in the concepts of world-systems theory/globalization and comparative education has resulted in a number of edited volumes, articles, and special journal issues. "Like scholars in other applied areas, comparative education scholars orient their inquiry both materially and metaphorically in relation to economic research. That is, some examine how education facilitates the flow of capital in the world, while others explore the homogenization of education – and local responses to it, including forms of resistance – at the world level" (Clayton, 2004, p. 275). This study shows that Hispanic-Serving Institutions in Texas must change their technical core if they wish to change the peripheral role of the regions in which they exist.

Conclusion

The core technologies at Hispanic serving intuitions in Texas resemble the institutionalized norms and values of workforce development. Like Satterfield's (2008) study of African American higher education institutions, Hispanic serving institutions maintain a system of organization that supports low-end occupations in the service industry. Similarly to African American higher education colleges and universities Hispanic serving institutions in Texas do not offer an academic curriculum that fully prepares students for professional careers. Moreover, there are no areas of study represented by professional schools. While all of the Hispanic serving institutions in this study are four year colleges and universities, they still operate with the dominant social norms, values, and cognitive categories that represent workforce development.

The Hispanic population is the fastest growing population in the United States. As the population continues to grow education will increasingly become even more vital to the Hispanic community. However, with the current academic focus at the Hispanic serving institutions in Texas one cannot logically expect for the group to prosper via a student academic curriculum.

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