# INSTITUTIONAL FACTORS AND THEIR RELATIONSHIP TO HISPANIC PARTICIPATION IN TEXAS EXTENSION PROGRAMS

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**Abstract**

*Predicated on the rapidly changing ethnic demographics in Texas and 69.3% parity levels for Hispanic participants in Extension programs, this causal-comparative study examined relationships between seven institutional variables and levels of Hispanic participation in Texas Extension programs. Parity was used as measure of participation and calculated as a 3-year mean percent of Hispanic participation from 2001-2003. Variables were collected through a web-based instrument using a Likert-type scale. A pilot test resulted in internal validity of .77 using Cronbach's alpha. The study determined the correlational relationships between seven independent institutional variables and the dependent variable, program parity. Confidence levels were set at .05 a priori and data were analyzed through descriptive statistics and bivariate correlations. A population of 332 county faculty from TCE (1862) and CEP (1890) were studied. It was found that no variables were positively correlated, five variables were negatively correlated, and two variables were not correlated to Hispanic participation. Four of the five negatively correlated variables had a low level of correlation and one had a moderate level. It was concluded that those variables with positive correlations had the potential to increase Hispanic participation while those with negative correlations could be detrimental to Hispanic participation.*

## Introduction

Extension education continues to change its programs to meet the needs of a changing society. Once a rural, agrarian state with the bulk of the population concentrated in the eastern portion of the state, Texas has changed significantly in the last century. By 2030, trends suggest a population that is 63% ethnic minority and is poorer, less educated, and less equipped to compete globally. Growth patterns suggest increases in demand for owned housing, health care, personal care costs, and reduced demand for traditional educational services. The future of Texas is one of increased use of welfare and human service programs, lower per capita tax revenues, and increased government costs (Murdock et. al, 1997).

For an agency dedicated to education and, in addition, one that is non-formal in nature, Extension has great potential to position itself to meet the educational needs of Hispanic audiences if it can dedicate itself to reducing institutional barriers, developing relevant competencies among its faculty, and implementing methodologies that will serve the specific needs of Hispanic audiences. Otherwise, Extension may be perceived as a traditional educational service that serves a very narrow audience and not valued as highly by nontraditional audiences or viewed as a contemporary provider of educational programs and services.

As a provider of non-formal education, Extension is in a position to respond to the needs of the fast growing Texas Hispanic community by developing and delivering appropriate educational responses that can be helpful to Hispanic audiences throughout Texas and the nation. An understanding of the specific needs of this audience and the skills to effectively develop, deliver, and evaluate educational programs to these audiences is critical to any successful effort. A three-year average of reporting data (2001–2003) from the Texas Cooperative Extension report database (TCE, 2003) showed an average of 58,049 records per year, 132,176 group methods per year, and 2,908,715 educational contacts per year. Of those contacts, Hispanics accounted for an average of 683,485 per year, or 23.5%. At this level and considering the 33.9% Hispanic share of the Texas population, Extension programs are reaching Hispanics at a 69.3% parity level (Census, 2002).

Parity was used as a performance factor in this study to describe the degree to which Extension agents successfully reached Hispanics in their county at a level that mirrored the demographics of the county. It was also used as a way to compensate for the range of differences in Hispanic populations throughout the 254 counties in Texas. The use of the term parity was in the place of formal legal terms such as disparate treatment or disparate impact because it was the purpose of this study to identify variables that could reasonably lead to higher levels of Hispanic participation in Extension programs and not to identify elements of Texas Extension programs that had discriminatory intent or effect. Nonetheless, the issue of civil rights cannot be separated from studies that explore reasons why certain protected populations are not served or do not benefit from public services in equitable proportions to mainstream populations.

Further analysis of state reporting data by state goal and by selected identifier codes allowed more precise description of data relevant to this study. Table 1 illustrates Hispanic participation in each of four state goals and parity levels for each goal. State Goal 1 is related to the issues of health, safety, and well-being and showed the highest percentage of Hispanic participation at 33.8%. This participation rate is 99.7% of parity. Parity was calculated by dividing percent participation by 33.9%, a fixed factor that represented the percent Hispanic population for Texas.

On the opposite end of the scale, the state goal dedicated to economic competitiveness, goal 3, had a participation rate of 13.2% Hispanics, 38.9% of parity. The other two goals,

environmental stewardship and life skills/leadership, showed 21.6% and 21.3% Hispanic participation, respectively. These statistics place Extension programming for one goal at parity with the population and leave the other three goals at significantly lower levels ranging from 38.6% to 63.7% of parity.

**Table 1. % Hispanic participation and parity levels by state goal, 2001-2003.**

| State Goal | Health (1) | Environmental Stewardship (2) | Economic Competitiveness (3) | Life Skills (4) |
|---|---|---|---|---|
| % Hispanic Participation | 33.8 | 21.6 | 13.2 | 21.3 |
| % Hispanic Population (2002) | 33.9 | 33.9 | 33.9 | 33.9 |
| % Parity | 99.7 | 63.7 | 38.9 | 62.8 |

To further describe current levels of Hispanic participation in Extension programs, monthly report data was retrieved according to a variety of statewide initiatives. A total of 38 statewide initiatives were examined. Only 11 of the 38 initiatives selected met or exceeded parity. Overall, Exension's average for Hispanic participation falls below that of their share of the population. While some programs clearly exceed parity, others fall sufficiently short of it so as to draw the organizational average to its level at 69.3% of parity.

The need to improve Hispanic outreach in TCE has been driven by fast changing demographics in the state, state administrative support for a state diversity plan, including staffing priorities for minority faculty and emphasis on hiring county faculty that reflect the demography of the state and the counties they serve (Gillespie, 2003). Furthermore, Gillespie (1996) provided evidence that Hispanics will participate in Extension programs given the opportunity, relevant programs that meet their needs, and appropriate educational approaches. Gillespie (1996) cited a finding in her five-year project for Texas Cooperative Extension that Hispanics were eager to participate in Extension educational programs. These findings challenge the common assumption that a lack of participation by Hispanics is caused wholly by their lack of interest and has no relationship to organizational variables. Conversely, these findings support the need for more detailed study of variables that affect Hispanic participation in Extension programs and eliminate audience initiative or interest as the lone variable(s).

## Theoretical Framework

Knowles' et al. (1998) core principles of adult learning are a critical framework from which to consider strategies that could improve programs and services for Hispanics. While some references to pedagogical theory were cited, adult learning theory is considered most relevant to this study for three reasons. One is that the majority of Extension audiences are adults (TCE, 2003). The second is that the nature of non-formal education employs program development and delivery processes that are consistent with adult learning theory (Harman, 1976). Finally, much of the pedagogical theory is shifting from a teacher-centered focus to learner-centered approaches such as "learning communities" that are also consistent with Knowles' learning theory (Reyes, Scribner, & Scribner, 1999).

Grossman (1984) found that ethnicity was a factor in successful educational approaches for Hispanics. Hispanic learners whose teachers were also Hispanic experienced greater success in

school while those with non-Hispanic teachers didn't. Non-Hispanic teachers were also less likely to make accommodations for Hispanics. However, as non-Hispanic educators gained experience working with Hispanic learners, the differences in student performance based on ethnicity declined.

Warrix and Bocanegra (1998) found that efforts to reach Hispanic Day Care Providers in the Cleveland area were more successful when Hispanics were placed on Extension advisory committees and involved in focus groups. Cano and Bankston (1992) studied minority participation in the 4-H program. They found that a lack of role models among agents, staff, and volunteers affected participation.

Finally, Hispanics are over-represented in urban areas. According to U.S. Census data, (U.S. Census, 2003), the proportion of Hispanics living in urban areas exceeds that of the population as a whole. While only 58% of the composite state population lives in the six most populous counties in Texas, approximately 67% of Hispanics reside in the largest six urban areas. This suggests that staffing in urban areas could be a factor in reaching Hispanics.

## Purpose

The purpose of this study was to identify institutional variables that affect the levels of Hispanic participation in Texas Extension programs. The literature cites numerous factors that affect learning and participation by Hispanics. These factors involve demographics, educational methodologies, educator competencies, and institutional characteristics. This study compared the dependent variable "program parity" to a series of institutional variables to determine those factors associated with the level of Hispanic participation in a given county program. The following objective was identified for this study:

What institutional variables are associated with Hispanic participation in Texas Extension programs?

## Methods

The population of this study included all Extension agents employed by Texas Cooperative Extension (TCE) and Prairie View A&M University's Cooperative Extension Program (CEP). The population for both agencies included approximately 650 faculty members of which 332 met the criteria for the study. Only faculty members that were currently employed with TCE or CEP and had three years of data in the same county were included in the census. The research design for this study was causal-comparative as recognized by Gall, Borg, and Gall (1996). Percent Hispanic participation in the subject's program, weighted based on potential Hispanic population in the county, was the variable used as a performance factor in this study and was named "program parity." This measured the level of Hispanic participation relative to the potential population in the county. Parity values were calculated by dividing percent program participation by the percent Hispanic population in the county. This "program parity" factor was used as the dependent variable for this study and was calculated for each subject in the population.

Data were collected through a survey instrument and through Human Resource departments at both Texas Cooperative Extension (TCE) and at the Prairie View Cooperative Extension Program (CEP). Instrument responses were coded to reflect a "1" for strongly disagree, a "2" for disagree, a "3" for neutral responses, "4" for agree, and "5" for strongly agree responses. Other data were collected through publicly available web sources such as the U.S. Census Bureau (2002) and TCE monarch reporting system. For the data collected through the

instrument, the Hardin-Brashears Bi-Modal method (Fraze et al. 2002) was employed to improve response rate.

Data were analyzed through the SPSS statistical analysis package, version 11.0. A total of 194 cases were considered. Using SPSS's option for scale measures, these cases were analyzed and yielded an alpha of .79. Reliability was consistent with the pilot test. Confidence levels were set at 95%, a priori. Control for non-response error on the survey was accomplished by a t-test of early and late respondents. No t values were found to be significant when equal variances were assumed and not assumed to be equal.

The dependent variable for this study was program parity and was calculated by dividing the percent Hispanics participation by the percent Hispanic population in the county of the responding agent. Table 2 shows a mean parity value of 66.87. The range of values for program parity was 2.85% to 409.39%. This range indicates that some county faculty were reaching 2.85% of the potential Hispanics in their county while others were reaching Hispanics in proportions that were four times higher than their share of their county population. The mean parity level was 66.9%, which was consistent with the 69.3% state average for the 2001-2003 reporting period. A similar parity value was calculated for committee membership. The range of committee parity values ranged from 0% to 500.8%.

**Table 2. Measures of central tendency and dispersion for program parity values.**

| | N | *M* | *Mdn* | *Mde* | *SD* | Range | Variance |
|---|---|---|---|---|---|---|---|
| Parity | 213 | 66.87 | 60.45 | 2.85 | 49.86 | 406.54 | 2485.93 |

## Results

Descriptive statistics for institutional variables collected through the instrument are shown in Table 3. These data are numbered in order of their appearance on the instrument. The highest mean was for I1, state leadership support for programs that serve Hispanics and the lowest mean was for I4, supervisor support for programs that serve Hispanic audiences. The mode for I2 and I3 was 2.0, indicating that the most common response was "disagree." These two variables measured the perceived adequacy of county-based faculty (I2) and specialist faculty (I3) to meet the needs of Hispanics. These two variables also had the greatest measures of dispersion as observed through their variances and standard deviation.

**Table 3. Measures of central tendency and dispersion for institutional variables.**

| | N | *M* | *Mdn* | *Mde* | *SD* | Range | Variance |
|---|---|---|---|---|---|---|---|
| I1 | 213 | 4.08 | 4.00 | 4.00 | .82 | 4.00 | . 66 |
| I2 | 211 | 2.94 | 3.00 | 2.00 | 1.03 | 4.00 | 1.06 |
| I3 | 212 | 2.87 | 3.00 | 2.00 | 1.05 | 4.00 | 1.10 |
| I4 | 213 | 3.70 | 4.00 | 4.00 | .93 | 4.00 | .86 |
| I5 | 212 | 3.76 | 4.00 | 4.00 | .86 | 4.00 | .74 |
| I6 | 213 | 3.96 | 4.00 | 4.00 | .74 | 4.00 | .55 |
| I7 | 212 | 3.93 | 4.00 | 4.00 | .76 | 3.00 | .58 |

The seven institutional variables in the instrument were examined for their correlative properties to the dependent variable, program parity. The institutional items shown in Table 4 showed that five of the seven variables showed a statistically significant negative correlation to the dependent variable. Four of the five had a low level of correlation (Davis, 1971) and one (I2) had a moderate level. The other two variables, I4 and I6, were not statistically significant. These two variables were related to supervisor support for Hispanic programming (I4) and commissioners' court support for Hispanic programming (I6). Perceptions of supervisor or commissioners' court support for Hispanic programming was not correlated with the dependent variable, program parity. No variables showed a positive correlation with program parity.

Relative to the objective of this research, this study found four institutional variables with a low level of correlation (Davis, 1971) to program parity and one (I2) with a moderate correlation (Davis, 1971), all of which were negative. The strongest negative correlation was I2, the variable related to the adequacy of county faculty necessary to effectively serve Hispanic audiences at -.32. Those following in rank order were adequate specialist support (I3), accessible office facilities (I7), organizational commitment to Hispanics (I5), and state agency leadership support (I1) at -.26, -.18, -.17, and -.15, respectively.

**Table 4. Correlations for Institutional (I) variables.**

| | | Program Parity | I1 | I2 | I3 | I4 | I5 | I6 | I7 |
|---|---|---|---|---|---|---|---|---|---|
| Program Parity | r | 1 | -.15* | -.32** | -.26** | -.08 | -.17** | -.06 | -.18** |
| | p | | .03 | .00 | .00 | .26 | .01 | .35 | .01 |
| I1 | r | | 1 | .34** | .43** | .33** | .50** | .39** | .19** |
| | p | | | .00 | .00 | .00 | .00 | .00 | .01 |
| I2 | r | | | 1 | .72** | .27** | .44** | .33** | .29** |
| | p | | | | .00 | .00 | .00 | .00 | .00 |
| I3 | r | | | | 1 | .33** | .52** | .32** | .34** |
| | p | | | | | .00 | .00 | .00 | .00 |
| I4 | r | | | | | 1 | .45** | .42** | .34** |
| | p | | | | | | .00 | .00 | .00 |
| I5 | r | | | | | | 1 | .34** | .26** |
| | p | | | | | | | .00 | .00 |
| I6 | r | | | | | | | 1 | .20** |
| | p | | | | | | | | .00 |
| I7 | r | | | | | | | | 1 |
| | p | | | | | | | | |

Note. * $p < .05$; ** $p < .01$;

## Conclusions & Implications

The following conclusions were made:

1. State level administrators are perceived to be more supportive of efforts to reach Hispanic audiences than field-based administrators.
2. There is perceived to be inadequate county-based faculty and specialists to meet the needs of Hispanic audiences throughout the state.
3. Among agents with high levels of Hispanic participation, the location of county Extension offices is perceived to be a factor that discourages Hispanic participation in Extension programs.
4. Among agents with high levels of Hispanic participation, there is a perceived absence of organizational commitment to Hispanic audiences that has the effect of discouraging Hispanic participation in county programs.
5. County faculty who perceive that institutional variables are adequate to meet the needs of Hispanic audiences are more likely to have low levels of Hispanic participation in their county program.
6. County faculty who perceive that institutional factors are inadequate in meeting the needs of Hispanic audiences are more likely to have high levels of Hispanic participation in their county program.
7. Given the lack of a single institutional factor that was positively correlated to Hispanic participation, the inherent institutional characteristics present within Texas Cooperative Extension have the overall effect of discouraging Hispanic participation in Extension programs.

## Implications

The implications of this study suggest that Texas Cooperative Extension might be poorly staffed to meet the needs of the fast growing Hispanic population in Texas. This may be the result of population demographics that are growing faster than Extension's ability to change. It may also be the result of an unwillingness to change at a rate necessary to keep up with society's pace of change. Another implication is the potential for Extension educators who do not consider all people to be members of their primary audience. For example, while the organization as a whole cites "the people of Texas" as its customer base, agricultural agents in particular, who represent 53% of respondents in this study, often refer to their audience as the "farmers and ranchers" of their respective county. Some agricultural agents that participated in the study and others who offered feedback on its design suggested that the programming demographics of agricultural agents should be compared to the demographics of farm and ranch operators in the respective county and that it was unfair to make comparisons to the demographics of the county at large. County demographics and farm/ranch demographics are vastly different in their demographic profiles. While this remains an arguable point, it raises an important question about who the primary audience is for the majority of agency personnel. Is it truly the public at large or, as a practical matter, a much narrower audience composed of farmers and ranchers. As Texas continues to change and Hispanics continue to grow, the potential exists for broader public interest in the benefits of Extension education. The potential also exists for declining interest by the broader population if the bulk of benefits of Extension education primarily benefit a very narrow audience. Both these scenarios have implications for future public support of Extension education.

## Recommendations

1. Increase the number of field-based and state level minority administrators who are demonstrated high performers and have been successful working with Hispanic audiences.
2. Increase the number of county-based faculty and specialists with experience and competencies relevant to Hispanic audiences.
3. Pursue alternative or additional county office locations that are more accessible to Hispanics.
4. Develop a clear definition of the audience for the agriculture and natural resource program and the extent to which Hispanics shall be targeted.
5. Develop a strategic plan that sets goals for Hispanic participation in all program areas and effectively communicates the organization's commitment by integrating performance expectations, provision for rewards and incentives, and support for training and professional development.

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