Teenage Pregnancy Rates: A Multiple Regression Analysis of Teen Pregnancy Rates and the Correlates for Texas Counties in the Year 2010

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ABSTRACT: *This report examines a myriad of research on teenage pregnancy across the United States and specifically the state of Texas to elucidate the correlates involved with teenage pregnancy rates. This research includes studies compiled mostly from the 2010 census in Texas counties and employs a multiple regression analysis of the variables to determine the statistical significance of each one in relation to teenage pregnancy rates. The key factors presented in this research offer a valuable resource as law makers and legislatures continuously look to teenage pregnancy research while evaluating how to reduce the rates of unplanned pregnancies and developing new legislation concerning abortion.*

Introduction

Teenage pregnancy has become an epidemic in Texas where there are 54,000 births to teenage mothers a year. In 2010 only two states in the nation had a higher birth rate, according to the Texas Department of State Health Services. Every 10 minutes a teenager in Texas gets pregnant, and as far as repeat teen births, defined as females between the ages of 15 and 19 who have a second child, Texas leads the nation (Sanders, 2011). Having the third highest teen pregnancy rate and the highest repeat birth rate in the nation negatively affects the welfare and economy of Texans, as this research will show there is a correlation between teenage pregnancy and low income levels; therefore, people expect the state government to do something about this costly problem. Barb Steinberg, a social worker from Austin, TX specializing in working with female adolescents notes, "We know that girls (teen moms) are more likely to drop out of school so they are lacking in education . . . We know that they are more likely to experience poverty, and we know that their children are affected negatively as well" (Sanders, 2011, para. 6). As Gretchen Sanders (2011) explains, children of teenage mothers tend not to receive adequate healthcare or education, and in combination with these factors, she argues that there is a link between the children of teenage mothers and higher rates of incarceration.

Texas officials are at odds over what the most effective way to decrease the rates of teen pregnancy in the state is. On one hand, Governor Perry and others think that abstinence is the best way to reduce pregnancy rates and that it alone should be taught in schools. On the other hand, many experts say that abstinence-only programs are less effective than comprehensive programs, which give school-age children access to useful and helpful information along with contraceptives. These comprehensive programs not only help the children, but they also educate parents on how to speak to their children about sex and pregnancy prevention.

In this study we have taken 13 variables of interest with the target focus on females aged 13–17 years in all 254 Texas counties in 2010 and tried to find what really affects teen pregnancy. The variables researched include age, race, economic status, education level, employment, religion, rural percentage, income, population size, and divorce rates.

Literature Review

Over the years, teenage pregnancy has become more and more accepted and talked about in the United States. Previous literature shows that teenage pregnancy rates across the United States have been steadily decreasing since the 1950's. These studies have sought to identify

and understand what key factors have a correlation with teenage pregnancy rates.

Economic Status or Income Level

Finkelstein, Finkelstein, Christie, Roden, and Shelton (1982) studied 14–16 year-old mothers, 70% of whom were unmarried, and most of the fathers were 4 to 5 years older than the mothers. Most of the mothers were living with their parents and had incomes in the poverty range. The study showed that race was a factor, as 14–15 year old African American female adolescents had proportionally more pregnancies than White adolescent females and their first prenatal visits were much later on average. Children of White mothers later had more acute illness visits during the 2-year follow up. Looking at the children of the teenage mothers compared to a group of 20–30 year old mothers, the mental development of the children of the teenagers was not at the same level as the comparison group (Finkelstein et al., 1982). Low economic status is a strong indicator of early sexual activity, pregnancy, and child bearing. It is significantly related to pregnancies in early and middle adolescents, and strongly correltated with living arrangements (Shirley & Long, 2004). Ethnic and racial disparity is interrelated with socioeconomic status; African American and Hispanic teens frequently live in low income families as compared to White teens (Shirley & Long, 2004).

Race

In general, high teenage pregnancy rates in the United States are often associated with the country's large minority population. While pregnancy rates among racial and ethnic groups do vary greatly, studies in the early 1980s showed that even the rates for White teens in the United States were among the highest in the world compared with other industrialized nations (Shirley & Long, 2004). In Texas Shirley and Long (2004) found that Hispanic and African American teens experienced birth rates much higher than White teens. However, White adolescent females who became pregnant had abortions more often than pregnant teenagers from minority groups. The study included both teens and older women; researchers found that, on average, African American women have their first child approximately four-fifths of a year before White women. African American women are more likely at each age level to become pregnant earlier than White or Hispanic women (Shirley & Long, 2004).

Age

Another variable used in relation with this dependent variable of teenage pregnancy is age. The classification of a teenager ranges from the age of 13 to 19; however, many classify a teenager as someone between the ages of 13 to 17. Finkelstein et al. (1982) found that there was some relation between age and teenage pregnancy. In this particular study there were two different groups of women compared: groups of female adolescents ages 14, 15, and 16 and a group of 100 women ages 20–30 years (Finkelstein et al., 1982). Some of the outcomes of this study were that the "1-min Apgar scores for the children of 14 year olds were lower and the school dropout rate was higher with increasing maternal age. In comparing the teen to the 20–30-year-old group, the only finding was higher complication rate for pregnancy and delivery for the teen group" (Finkelstein et al., 1982, p. 1). In other words, there is not a significant difference in the children when the age of the mother is in the teenage range; however, the difficulties for the mother socially, mentally, emotionally, and physically are much more significant to a teenager than that of a woman in her 20s or 30s, according to this data.

Education

The amount of education that a teenage mother has received is one factor that really influences teenage pregnancy. It would be very easy to assume that teens who do not go to school are at greater risk, but this is not the case (Shirley & Long, 2004). Enrollment in school alone does not exactly lower the rate of teenage pregnancy. The real determining factor is the students' educational aspirations. Consequently, when the educational goals of teens increase, the rate of teenage pregnancy begins to decline. Another study showed counties with higher education levels had lower teenage pregnancy rates. Each additional year of schooling delayed a teenage girl's first birth by almost three fourths of a year (Shirley & Long, 2004). It is still not very clear whether pregnancy causes girls to drop out, or if the reason they are pregnant is because they dropped out of school.

Employment

Employment and education are two highly related variables. Teenagers who do not have jobs have more free time, and more time alone while their parents may be at work. If a teenage mother drops out of high school, it would be more difficult for her to obtain a job because employers may not be willing to hire someone without a high school diploma or GED. A woman who goes to

school, obtains a job, and keeps that job for more than one year has the possibility of higher wages and lowers the risk of premarital pregnancy (Shirley & Long, 2004). Teenage mothers find it difficult to maintain a job because they may not have much help with the child, and often, by the time they have or would have graduated high school, they have more than one child.

Rural/Urban

A study investigating the association between sociodemographic factors and adolescent females aged 14–16 years having children found that the location of these teenagers' residences—whether rural, urban or border communities—might be significant (Castrucci, Clark, Lewis, Samsel, & Mirchandani, 2010). This study observed the differences of rural, urban, and border areas from 2000–2004. In this period, the study found that among the 29,186 births to female adolescents aged 14–16 years "having both parents born outside of the U.S. was associated with a 5.29 (95% CI: 4.82, 5.80) times increase in the odds of the paternal age of 20 years or older; in comparison to having both parents born in the U.S. Parental place of birth was associated with greater odds of parental age of 20 years or older in urban areas compared to rural or border areas" (Castrucci et al., 2010, p. 899). In other words, this set of data shows that if both parents are born outside the United States they have a greater risk of having a child while they are under the age of 20; however, if both parents are born in the United States it is more likely that the parents will be under the age of 20 in a rural or border area than in an urban area.

Population Density

In densely populated areas there may be more teen pregnancies. However, in areas in which the population density is low, there may be a higher teenage pregnancy rate. In areas that have a higher female-to-male ratio there will be more pregnancies (Shirley & Long, 2004). The effect of population density really comes down to the type of area that is being examined. For instance, in Texas, Dallas will have more teenage pregnancies than Hartley, because there are more teenagers in Dallas. Therefore, a teenager's chance of getting pregnant must be assessed by evaluating the specific pregnancy rate for a county rather than the overall number of pregnancies in a county.

Divorce

Many teens who get pregnant often feel that the next best step is to get married. However, men and women who marry as teens are more likely to get divorced than

couples who are over 25 years at the time of marriage (Shirley & Long, 2004). It is difficult for marriages between teenagers to last; when a teenage pregnancy is thrown into the mix, it makes things even more difficult. This is just one aspect of divorce and its correlation with teenage pregnancy. Another possible factor in an increased risk of teenage pregnancy is girls who were raised in a divorced family, with the father being absent. A study of girls in fatherless homes was compared to that of teenage boys and the link between an absent father and the boys' involvement in criminal behavior at an early age. The results showed that female adolescents reared in fatherless homes are twice as likely to end up pregnant, and the boys are more likely to be involved in criminal activity (University of California at Santa Barbara, 1996). Economists at the University of California at Santa Barbara discovered that it is hard for teenage girls to cope with the absence of their father; therefore, they are likely to engage in potentially self-destructive behavior trying to compensate for his absence (University of California at Santa Barbara, 1996). It becomes a perpetual cycle because those raised in a divorced home are at greater risk of becoming pregnant as a teenager, and pregnant teenagers that get married are more likely to become divorced.

Religion

Many studies have examined how religion correlates with teenage pregnancy rates. Joseph Strayhorn of Drexel University College of Medicine studied nearly 36,000 subjects regarding the relation between religion and teenage pregnancy rates (Bryner, 2009). Strayhorn "found a strong correlation between statewide conservative religiousness and statewide teen birth rates, even when they accounted for income and abortion rates" (Bryner, 2009, para. 11). The results of this study show many different possible relations between religion and teenage pregnancy. For example, states in the United States "whose residents have more conservative religious beliefs on average tend to have higher rates of teenagers giving birth" (Bryner, 2009, para. 1). This is shown to be possibly due "to the fact that communities with such religious beliefs (a literal interpretation of the Bible, for instance) may frown upon contraception . . . If that same culture isn't successfully discouraging teen sex, the pregnancy and birth rates rise" (Bryner, 2009, para. 2). In this particular study "Mississippi topped the list for conservative religious beliefs and teen birth rates" (Bryner, 2009, para. 3). As Strayhorn notes, "We conjecture that religious communities in the U.S. are more successful in discouraging the use of contraception among their teen-

agers than they are in discouraging sexual intercourse itself" (Bryner, 2009, para. 4).

This particular study seeks to try to present a clearer picture of these variables and how they correlate with the dependent variable, teenage pregnancy ages ranging from 13–17, from the year 2010 in all 254 Texas counties.

Methodology
Data Sources

The data for teenage pregnancy rates in the United States was prepared by the National Campaign to Prevent Teen Pregnancy and Unplanned Pregnancy, January 2010 (Kost, Henshaw, & Carlin, 2010). The U.S. rates describe pregnancies per 1,000 adolescents aged 15–19 years, in 2005. The female population age 13–17 years and teenage pregnancy rates for Texas and Texas counties come from the Texas Department of State Health Services in 2010 in which pregnancy is defined per 1,000 adolescents between 13 and 17 years. The Texas counties' median household income is compiled by the County Information Program, Texas Association of Counties from the data source of U.S. Census Bureau, and Small Area Income and Poverty Estimates of 2012 (U.S. Census Bureau, 2012). The total population and county-level demographic data of Texas and each individual county for the White, Black, Hispanic, and Native American populations were gathered from the Texas State Data Center for the census of 2010 (Texas State Data Center, 2010). The Association of Religious Data Archives presents a myriad of well-researched data on the topic of religious adherents for each county in the state of Texas.

Operational Definitions of Variables of Interest

- Ethnicity and race data for the year 2010 come directly from the State Data Center. The study explores the percentage of the population that is White, Black, Hispanic, and Native American.
- The median household income and per capita income for 2011 produces the socioeconomic status average in each county. Overall poverty rates and child poverty rates in 2000 were looked at as well. Each variable's data are collected from the Texas State Data Center.
- Political Geography is addressed by the percentage of the county population that lives in a rural area. Therefore, data for percent urban is the difference between the total population percentage and the rural area percentage drawn from the Texas State Data Center.
- Education data come from the Texas State Data Center. Education attainment is described as residents 25 years

of age or older with a high school diploma. This study does not assess those who have attained an alternative high school education such as a GED or attended secondary achievement school. The data set in this study shows only the percentage of people with a high school diploma above the age of 24.
- County unemployment data come from the Texas State Data Center. The data in this study show only the percentage rate of the population that is unemployed in 2010.
- Religious data come from the Association of Religion Data Archives. The religious affiliation rates are separated into three categories of classification. This study shows the rate of the population that is either Evangelical adherents, Mainline adherents, or Catholic adherents.

Research Findings

- Historic trends analyze the teenage pregnancy rates for the United States from 1950 to 2002 (Allan Guttmacher Institute, 2004).
- Studies from the Texas Department of Health compare the average Texas pregnancy rates with the highest-ranking county in Texas pregnancy rate for the years of 1994–2003.
- Kost et al. (2010) show the ranking of Texas compared to the teenage pregnancy rates in the other 49 states as well as the steady decline of pregnancy rates between each state.
- The study by Kost et al. (2010) provides evidence of the gradual decrease in pregnancy rates in Texas overall and within each of the ethnic classifications of White, Black, and Hispanic.
- Additional data from the Texas State Data Center (2010) compare the demographic data of the highest ranked Texas County in relation to the average of all counties in Texas. Some counties may have a higher rate or percentage with a specific category and then have a significantly lower rate or percentage in another because of the varying demographics of each county. For example, Brooks County has the highest teen pregnancy rate in Texas, but Harris County ranks first in terms of numbers of pregnancies in Texas. This is because Brooks County has 16 total teenage pregnancies out of a teenage female population of 245. On the other hand, Harris County has a pregnancy rate of 22.2 because there were a total of 3,306 teenage pregnancies out of a teenage female population of 148,696.

Analysis

Most of the literature on teenage pregnancy points out that pregnancy rates for teenagers is steadily decreasing. Data from the Allan Guttmacher Institute demonstrates that from 1950 to 2001, the teenage pregnancy rates dropped from 40.7 to 24.7 teen pregnancies per 1,000 teens between the ages of 15 and 17 years (Allan Guttmacher Institute, 2004).

Highest Counties and U.S. Compared to Texas

Teenage pregnancy rates in Texas and in the counties with higher teenage pregnancy rates consistently follow the trends observed nationwide. Between 1994 and 2003 the teenage pregnancy rates declined by nearly a third from a percentage of 41.5 to 27.6 (Texas Department of Health, 2010). However, Texas ranks 47 out of 50 in the U.S. (Kost et al., 2010). According to the National Campaign to Prevent Teen Pregnancy and Unplanned Pregnancy, the average teenage pregnancy rates in Texas are still substantially higher than the averages in the United States. The data examined by Kost et al. (2010) shows the overall change in pregnancy rates per 1,000 adolescents aged 15 to 19 among each state from 1988 to 2005. Through these years the teen pregnancy rates in Texas have decreased by 24.8% and the United States average decreased by 36.9% (Kost et al., 2010). Additionally, their data shows the relative teenage pregnancy rates of White, Black, and Hispanic populations in the 254 counties of Texas. All rates show a steady decline from 1990 to 2002. Of note, the highest rate among these three ethnic groups belongs to those who identify as Hispanic (Kost et al., 2010).

Demographic and Social Profile of Texas Counties in 2010

Teenage pregnancy rates in Texas have shown a slow and steady decline, but they are still higher than average rates found in the United States. The preceding part of the paper delved into the possible explanations for why Texas has one of the highest pregnancy rates in the United States. The following are demographic variables we found to have a correlation with teenage pregnancy rates in Texas counties.

Pregnancies, Live Births, Fetal Deaths, and Abortions to Women 13 to 17 Years of Age

Accoring to the Texas Department of Health, Brooks County had the highest teenage pregnancy rate in 2010 of 65.3%. Of the 7,223 residents in Brooks County, 6,590 were Hispanic. Harris County had the highest number of pregnancies, and of the population of 4 million, the largest ethnic group was Hispanics with 1.6 million. Since Harris County had the largest population in 2010, it is understandable that they experienced the most live births, fetal deaths, and abortions.

Race and Ethnicity

The population of Texas is closely dichotomous in terms of ethnic groups. In 2010, 46% of the population was White and 38% was Hispanic. The counties with the high concentration of a particular ethnic group were Starr and Maverick (Texas State Data Center, 2010). Both counties had a 96% Hispanic population and Brooks County trailed closely with a total Hispanic population of 91%. On the other hand, Harris County's ethnic and racial population closely mimicked the percentages of Texas' average with 34% White, 19% African American, and 41% Hispanic. While Texas residents are 46% White, Clay County's population is slightly more than 94% White. African Americans make up nearly 12% of the Texas population, but the highest county percentage of African Americans is 34% in Jefferson County. Thirty-eight percent of the Texas population was Hispanic in 2010; however, current research by the U.S. Census Bureau shows that Hispanics will outnumber the White population by the year 2020 in Texas (Window on State Government, 2000).

Socioeconomic Status

The literature indicates that poverty levels are linked with teen pregnancy rates. The median household income for Texas was over $48,000 in 2010 (Texas State Data Center, 2010). The county with the largest median household income was Rockwall County with over $84,000 and the lowest was Zavala County with $22,982. However, Starr County was not far behind with a median income just over $24,000. Significantly, at 6.1% Rockwall County has one of the lowest teenage pregnancy rates in Texas for 2010. In contrast, Zavala County has over double the Texas average of 21% with a teen pregnancy rate of 48%. These statistics support the previous research that income level correlates to teenage pregnancy rates.

Table 1. Descriptive Statistics

	Mean	Std. Deviation
Teenage Pregnancy Percent	22.4543	11.67959
County Percent White	81.1465	8.57900
County Percent Black	6.3264	6.67175
County Percent Hispanic or Latino/a	32.2657	22.92965
County Percent Native American	.7291	.39665
County Median Household Income	42562.91	9668.691
Percentage of Residents over 25 with High School Diploma	77.3319	8.29889
County Unemployment Rate	7.3846	2.21749
Percent of County Population Rural	55.5202	31.90337
Divorce Percent	8.7449	1.85725
Rate of Evangelical Adherents	372.5785	182.47645
Rate of Mainline Adherents	102.3140	60.39953
Rate of Catholic Adherents	177.1159	168.75159

N=254

Religious Adherents

The majority of the Texas counties' residents are Evangelical Christian (Grammich et al., 2012). Jim Hogg County, which has the second highest Catholic adherents rate in Texas of 910.62, also has a teenage pregnancy rate of 50% (Grammich et al., 2012).

Political Geography

Texas seems to be no exception to the observation that teenage pregnancy is more common in urban populations (Texas State Data Center, 2010). Texas has a myriad of counties that are predominately rural, and most of these rural counties are equal to or lower than the state average pregnancy rate.

Divorced Percentage

Jones County has a divorced percentage of 15, almost double that of the state of Texas (Texas State Data Center, 2010). Although Jones County has the highest divorce rate, the teenage pregnancy rate is significantly lower than the average teenage pregnancy rate in Texas. Further shown by the analysis concerning correlations, teenage pregnancy rates seem to have no significant correlation with divorce percentages in Texas. The literature suggests that a high divorce rate should be positively correlated with teenage pregnancy.

Education

Almost all sources contend that teenage pregnancy is related to education such that as education levels decline, teenage pregnancy rates increase. Data from the Texas State Data Center (2010) show that Collin County has the highest percentage of persons over 25 with at least a high school diploma (92.8%). Collin County has a teenage pregnancy rate of 7% which is substantially lower than the Texas average of 21.4%. There are 145 counties that have higher education rates (age 25+ w/ H.S. Diploma) than the average in Texas. Of those 145 counties, 114 (78.6%) have a lower teen pregnancy rate than the county average in Texas (Texas State Data Center, 2010).

Unemployment

Previous literature suggests that the rate of teenage pregnancy is affected by unemployment rates. In 2010 Starr County had the highest percentage of unemployment in the state of Texas, more than doubling the Texas unemployment average (Texas State Data Center, 2010). Starr County is ranked 25th in Texas for county teenage pregnancy rates, with 1 being the highest and 254 being the lowest. Starr County led with both the highest Hispanic population and unemployment rates (Texas State Data Center, 2010). This observation suggests a possible correlation between these two variables. Further research would need to be done to determine if there was a positive correlation signifying that as Hispanic rates increase, unemployment rates increase also.

Table 2. Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	β	t	Sig.
1 (Constant)	28.441	22.178		1.282	.201
County Percent White	-.060	.168	-.044	-.356	.722
County Percent Black	.111	.252	.063	.439	.661
County Percent Hispanic or Latino/a	.231	.066	.454	3.497	.001
County Percent Native American	-.243	1.681	-.008	-.144	.885
County Median Household Income	.000	.000	-.307	-4.376	.000
Percentage of Residents over 25 with High School Diploma	-.042	.125	-.030	-.399	.735
County Unemployment Rate	.065	.344	.012	.188	.851
Percent of County Population Rural	-.054	.024	-.148	-2.302	.022
Divorce Percent	.686	.377	.109	1.817	.070
Rate of Evangelical Adherents	.009	.005	.139	1.899	.060
Rate of Mainline Adherents	.022	.011	.116	1.969	.050
Rate of Catholic Adherents	.005	.005	.074	.984	.326

[a]Dependent Variable: Teenage Pregnancy Percent

Data Configured in SPSS

Table 1, labeled Descriptive Statistics, contains the mean and standard deviation of the thirteen variables computed for all 254 counties in Texas. The mean portrays the data percentage or rate specific to the particular variable listed when all 254 counties are averaged together. The standard deviation shows the amount of variation or difference from the mean. A standard deviation with a higher value indicates the data have a larger range and are more spread out. A low standard deviation signifies that the data tends not to vary very far from the mean.

The Model Summary table gives the R^2 value. The R^2 in this research is equal to 0.418. The number for R^2 represents the amount of variance that is explained by the variables used in the research. Therefore, these thirteen variables explain 41.8% of the variance, meaning that just under 60% of this statistical model on teenage pregnancy rates is unexplained.

The coefficients table (Table 2) displays the statistics for linear regression that was run on these data of teenage pregnancy rates in Texas counties. The importance of this table is specifically in the last column titled Sig. This column displays whether or not each variable is statistically significant. In relation to this research, a sig value, also written as the p value, has significance if it is 0.05 or

lower. If the p value is closer to zero, it has a higher level of significance.

Table 3, titled Correlations, demonstrates which variables have a correlation or relation to the dependent variable of teenage pregnancy percentage and the strength of that relation. If the Pearson Correlation number is closer to 1, whether positive or negative, it is significant. If the correlation number is negative that means there is a negative relation. For example, as one variable increases the other variable decreases. A positive correlation number shows a positive relation. As one variable increases the other variable increases, but it is important to remember that correlation does not necessarily equate to causation.

Conclusion

This paper achieves a myriad of equivalent conclusions drawn by previous research on teenage pregnancy rates. There are several strong correlates for teenage pregnancy that are statistically identified from this study, which include ethnicity, median household income, and political geography. This research identifies a positive correlation between the percentage of Hispanic population and teenage pregnancy rates. As the Hispanic population increased, the teenage pregnancy rate also increased. The second and most significant variable in this study

Table 3. Model Summary

Model	R	R^2	Adj-R^2	Std Error of the Estimate
1	.646[a]	.418	.389	9.13036

[a]Predictors: (Constant), Teenage Pregnancy Percent, County Percent White, County Percent African American, County Percent Hispanic or Latino/a, County Percent Native American, County Median Household Income, Percentage of Residents over 25 with High School Diploma, County Unemployment Rate, Percent of County Population Rural, Divorce Percent, Rate of Evangelical Adherents, Rate of Mainline Adherents, Rate of Catholic Adherents

is income. It is highly significant, but the correlation is negative with teenage pregnancy rates. Therefore, as the percentage of median household income increases in a county, the teenage pregnancy rate decreases. This finding is tantamount to previous research identifying poverty levels as one of the greatest correlates to teenage pregnancy. The third significant independent variable is the percentage of the county that is rural. This correlation was also negative, which means that as the percentage of the population that is rural increases the teenage pregnancy rate declines. This specific result is of interest because the surface area of Texas is close to 270,000 square miles. Comparatively, Texas has more land mass than France and is two times the size of Germany. With such a large area, it is no surprise that 57 (23%) counties in Texas have a rural percentage of 100% (Texas State Data Center, 2010). Of those 57 counties, 19 have a teenage pregnancy rate higher than the 21.4% average pregnancy rate of Texas. Although a significant amount of Texas is made up of rural population, the handful of urban, metropolitan areas in Texas have some of the highest population numbers in the United States. This could possibly explain why Texas has been ranked as one of the top five states with the highest teen pregnancy rates.

There were two variables, education and divorce, that previous literature showed to have a significant relationship with teenage pregnancy. However, this study shows that there was not a statistical significance between teenage pregnancy rates and the education level or divorce rate in each county in Texas. A possible explanation, pertaining to divorce correlation with teenage pregnancy, as to why this research conducted in Texas counties did

not support previous literature could be attributed to the fact that the compared literature included other variables not included in this study. For example, in the study conducted at the University of California, Santa Barbara, Phillips and Comanor concluded that the absence of the father significantly affects the son more than the daughter. Their research was based on the effect towards the son and daughter individually in a single parent house (University of California of Santa Barbara, 1996). However, this study in Texas counties only accounts for variables affecting the pregnant teens, which of course are females and not their male counterparts. Further research will need to be conducted to determine what other factors may explain how education and divorce play a role with pregnancy rates and if Texas' results are atypical when compared to other states. This research shows that there is a statistical significance between the percentage of Hispanic population, education, income, and percentage of a county being rural. Future research needs to examine other confounding variables that may affect the negative correlation between the three aforementioned variables and the percentage of Hispanic population, which seems to consistently have the highest percentage of teenage pregnancy.

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