



# Books, Babies, or Both: Hispanic Dropouts and Pregnancies in Texas Public Schools

Teresa D. Nelson, Ph.D



Photo by Leonard Ortiz 2007

Texas Schools Project  
Seminar Series  
University of Texas - Dallas

January 15, 2009

Photo by Tim Frederick 2006

## Summary of study

- 9<sup>th</sup> grade in 1994-95; 6 yrs HS experience
- Factors:
  - Individual demographics
  - Neighborhood characteristics
  - High school characteristics
- Probability for 1 of 4 outcomes:
  - Dropped and pregnant
  - Not dropped and pregnant
  - Dropped and not pregnant
  - Not dropped and not pregnant

## Summary findings

- Initially, Hispanics appear to have higher risk of becoming DP or NDP than Blacks, but contextual factors eliminate the difference
- Border effects are large and important (possible cultural effects?)--even more than family income
- Immigrants are less likely to be dropped out and/or pregnant than those born in the US
- Including attrition in the dropout measure generally increases the probability of dropout and/or pregnancy outcomes
- Age is ethnic- and outcome-specific: older Hispanics are much likelier to be dropped/pregnant or not dropped/pregnant than are Blacks.
- Younger girls are more likely to be dropped and/or pregnant as campus size increases
- Older girls receiving special education or English-language services are less likely to become dropped out and/or pregnant.
- Not having a standardized math score is a strong risk signal.
- Attending all-Black HS seem to reduce the probability of dropping out and/or pregnancy

All results are estimated relative to Whites.

DP: Dropped out and pregnant (negative outcome)

NDP: Not dropped out and pregnant (negative outcome)

# Order of Presentation

Magnitude of the issue

Prior research

Identifying, defining, measuring and describing

Findings

Interpretations and plausible explanations

Policy considerations

The path forward

## Magnitude of the issue

- *Dropouts*
  - *30+% high school dropout rates*
  - *40% for Hispanics*
  - *1999: Texas 3<sup>rd</sup> highest level of dropouts in US*
- *Pregnancies/births*
  - *Pregnancy in 1995 (US): 1 in 3 sexually active Black or Hispanic vs 1 in 6 White*
  - *In 1996: Texas ranked 1<sup>st</sup> in teenage pregnancy in US*
  - *In 2001, 1 of 27 girls 16 years old in Texas gets pregnant*
  - *Bexar county: Hispanic birth rate is 2X Black rate, 5X White rate*

# Fertility and Dropping Out

## Academic Literature

- **Human capital investment & endowments** (Rosenzweig & Wolpin, 1995)
- **"problem syndrome,"** control and differential association theories (Little & Rankin, 2001)
- **Prevention Strategies** (Christopher, 1995), including Social Learning Theory (Kirby *et al.*, 1994)
- **Economic development: old age security** (Robinson, 1985; Cain, 1981; Kao, McHugh & Travis, 2007)
- **Dropout/ pregnancy as a process** (Entwisle & Hayduk, 1988; Rumberger & Larson, 1998; Afable-Munsuz & Brindis, 2006)
- **Retention** (Jimerson, Anderson & Whipple 2002)
- **Ethnicity/Culture/Religiosity** (Manlove et al. 2000; Jonsson, Hrafn & Rendall 2004; Fernandez & Fogli 2005; Afable-Munsuz & Brindis 2006; Brewster et al., 1988; Regnerus 2007; Smith & Denton 2006)
- **Neighborhood context /epidemic theory** (Crane, 1991)
- Peer effects (Evans, Oates & Schwab, 1992)
- **Family context** (Rumberger 2001; Portes 1998; Afable-Munsuz & Brindis 2006)

Note: These references are not intended to be exhaustive.

## Contributions

1. Methodological advancement (*di Tomasso and Weeks, 2000*)
  - Single joint model, dropout & pregnancy coded together into the dependent variable
2. Conservative and more inclusive estimates for dropouts and pregnancies
3. Comprehensive individual data
  - Distinct age group models
4. Neighborhood & HS contextual measures

## Data

### **Texas Schools Project (TSP):**

- 6 yrs. cross-sectional data (1994-1995 to 1999-2000) to capture high school experience
- *Individual characteristics:* ethnicity, age, economic status, language needs, gifted, immigrant status, geographic location, math score
- *High school composition:* ethnicity, economically disadvantaged and immigrants; campus size
- *File types:* attendance, enrollment, demography, course completion, dropout/leaver, Career Technology, TAAS (standardized test scores) spanning 1990-91 through 1999-2000

**U.S. Census:** neighborhood-level (tract) measures: ethnicity, income, immigrants, Spanish speakers, mobility and grandparents in home



# Ethnicity/age distributions in the data

**Table 5.7 Ethnic distributions within age groups**

Among:	<u>White</u>	<u>Hispanic</u>	<u>Black</u>	<u>Total</u>
Age status				
Below normal age	51.0	29.2	19.7	100
Normal age	55.2	31.1	13.7	100
Above normal age	29.7 ←	<b>50.4</b>	→ 19.9	100
No. of observations	68,221	54,017	22,937	145,175

**Table 5.8 Age distributions within ethnicity**

	Among:		
	<u>White</u>	<u>Hispanic</u>	<u>Black</u>
Age status			
Below normal age	2.8	2.0	3.2
Normal age	77.2	55.0	56.8
Above normal age	<u>20.1</u> ←	<b>43.0</b>	<b>40.0</b>
Totals	100	100	100

## Distributions: other individual demographics

**Table 5.13 Percent economically disadvantaged, immigrant, needing language services or living at the border by ethnicity (as percents)**

	Among:			
	<u>All</u>	<u>White</u>	<u>Hispanic</u>	<u>Black</u>
Economically disadvantaged	57.7	29.3	<b>84.8</b>	<b>78.4</b>
Language needs	12.8	0.3	33.9	0.5
Immigrant	6.3	0.5	<b>16.0</b>	0.9
Border	14.4	3.1	<b>34.4</b>	1.1

## Dependent variable: Definition & measurement

### Conservative

#### Dropout

- TSP's TEA official dropout and dropout reason files

#### Pregnancy

- Campuses serving pregnant girls
- Career & Technology program
- Coursework for pregnant/parenting
- Dropout reasons

### Moderate

#### Dropout

- Conservative measure PLUS attrition

#### Pregnancy

- Conservative measure

- 
- 
-

## Measurement: dependent variable

Table 5.4 Dropout and Pregnancy (Conservative msr) by ethnicity and age (in percent)

	<i>Dependent variable (joint distribution of Pregnant and Dropped outcomes)</i>				<i>Marginal distributions</i>	
	<u>Dropped &amp; Pregnant</u>	<u>Not Dropped &amp; Pregnant</u>	<u>Dropped &amp; Not Pregnant</u>	<u>Not Dropped &amp; Not Pregnant</u>	<u>Preg-nant</u>	<u>Drop-ped</u>
<i>normal-age</i>						
All	0.08	0.6	4.9	94.5	<b>0.7</b>	<b>5.0</b>
White	0.03	0.2	3.0	96.8	<b>0.2</b>	3.0
Hispanic	<b>0.18</b>	<b>1.4</b>	<b>7.6</b>	90.9	<b>1.5</b>	<b>7.8</b>
Black	0.04	0.5	6.2	93.2	<b>0.6</b>	<b>6.3</b>
<i>Older</i>						
All	1.1	2.4	18.5	78.1	<b>3.5</b>	<b>19.6</b>
White	0.6	1.4	14.6	83.4	<b>2.0</b>	15.2
Hispanic	<b>1.5</b>	<b>2.9</b>	19.4	76.2	<b>4.4</b>	<b>20.9</b>
Black	1.0	2.4	<b>21.8</b>	74.9	<b>3.4</b>	<b>22.8</b>

## Measurement: dependent variable by family economic status and age

Table 5.12 Dropout and pregnancy outcomes among Hispanics by family income and age (as percent)							
		<i>Dependent variable (joint distribution of Pregnant and Dropped outcomes)</i>				<i>Marginal distributions</i>	
<i>Among:</i>		<u>Dropped &amp; Pregnant</u>	<u>Not Dropped &amp; Pregnant</u>	<u>Dropped &amp; Not Pregnant</u>	<u>Not Dropped &amp; Not Pregnant</u>	<u>Preg-nant</u>	<u>Drop-ped</u>
<b>Non-poor Hispanic NATIVES</b>							
	Normal age	0.02	0.7	2.5	96.8	0.7	2.6
<b>(2)</b>	Above normal age	<b>0.8</b>	<b>2.1</b>	<b>16.3</b>	80.8	<b>2.9</b>	17.1
Non-poor Hispanic immigrants							
	Normal age	0.00	1.0	16.5	82.5	1.0	16.5
	Above normal age	0.00	0.4	18.7	80.9	<b>0.4</b>	18.7
<b>Poor Hispanic NATIVES</b>							
	Normal age	0.3	1.7	8.6	89.5	1.9	8.8
<b>(1)</b>	Above normal age	<b>1.8</b>	<b>3.5</b>	<b>20.7</b>	74.1	<b>5.3</b>	22.4
Poor Hispanic immigrants							
	Normal age	0.03	0.8	9.8	89.4	0.8	9.8
<b>(3)</b>	Above normal age	<b>0.5</b>	<b>1.4</b>	<b>16.3</b>	81.8	<b>1.9</b>	16.8

## Method

Exhaustive, mutually-exclusive probabilistic jointly determined choice set (DP, NDP, DNP, NDNP);

Cumulative logistic function (multinomial logit)

$$\ln \Omega_{ij} = \beta_{0,j} + X_{ijl} \beta_{jl} + \varepsilon_{ij}$$

Estimation of marginal effects

$$\frac{\partial y_{ij}}{\partial X_{ijl}}$$

## Variations in models

**Left hand side:** probability of each of the 4 choice outcomes

*as a function of .....*

**Right hand side:**

■ Start with: race/ethnicity

■ Add: age

■ Add: other individual demographics/characteristics

■ Add: neighborhood characteristics

■ Add: high school characteristics

} BASIC

} FULL

## Dependent variable abbreviations

**DP** - Dropped out AND Pregnant

**NDP** - Not Dropped out AND Pregnant

**DNP** - Dropped out AND Not Pregnant

**NDNP** - Not Dropped out AND Not Pregnant



## Results: measurement

- 4 probabilistic outcomes (“marginal effects”)
- Scaled in percentage points
- All findings are relative to a White female

# Results – Ethnicity

Marginal effects for **below- and normal-age** females, and unconditional probabilities

		<u>Conservative</u>			<u>Moderate</u>		
		DP	NDP	DNP	DP	NDP	DNP
Basic Models (C1)		.08%	0.59%	4.81%	0.27%	0.40%	25.76%
1	Hispanic	<b>0.138***</b>	<b>0.832***</b>	4.619***	<b>0.487***</b>	1.181***	6.827***
2	Black	0.002	<b>0.206***</b>	3.129***	0.114***	0.318***	5.025***
Full Models (C5)							
3	Hispanic	0.0001	0.097***	0.173	0.024	0.071***	(5.891)
4	Black	(0.0002)	0.150***	(0.880)***	0.018	0.100***	(10.804)

Marginal effects for **above age** females, and unconditional probabilities

Basic Models (M1)		1.11%	2.36%	18.46%	2.71%	0.76%	64.94%
5	Hispanic	<b>0.843***</b>	1.548***	4.821***	1.987***	0.405***	4.700***
6	Black	0.407***	0.983***	7.156***	1.182***	0.207*	6.259***
Full Models (M5)							
7	Hispanic	0.264***	0.853***	1.307**	0.796***	0.289***	(4.506)***
8	Black	0.327***	0.897***	0.097	0.813***	0.384***	(9.698)***

\* p < .10, \*\* p < .05, \*\*\* p < .01

## Results for below- and normal-age females using moderate measures

**Results – Individual characteristics**

	DP	NDP	DNP	NDNP
Individual (M2)	0.27%	0.40%	4.81%	73.57%
Econ.dis.	0.164***	0.356***	12.865***	(13.271)***
Immigrant	(0.099)***	(0.188)***	1.581**	(1.359)*
Border	0.479***	1.279***	(5.397)***	4.096***
Full Models (M5)				
Econ.dis.	0.104***	0.202***	13.197***	(13.429)***
Immigrant	(0.034)*	(0.015)	2.044***	(2.009)***
Border	0.580***	1.265***	(1.889)***	0.569

## Results for above -age females using moderate measures

\* p < .10, \*\* p < .05, \*\*\* p < .01

Individual (M2)	2.71%	0.76%	64.94%	31.59%
Econ.dis.	1.704***	0.291***	10.259***	(12.254)***
Immigrant	(1.342)***	(0.166)	(5.176)***	6.684***
Border	0.949***	0.484***	(4.926)***	3.493***
Full Models (M5)				
Econ.dis.	1.400***	0.280***	9.682***	(11.361)***
Immigrant	(0.866)***	0.028	(5.793)***	6.630***
Border	1.719***	0.547***	(3.273)***	1.007 <sup>19</sup>

# Findings specific to DP

- Using ethnicity only, Hispanics are 171% likelier than Whites (conservatively msd) and 180% likelier (moderately msd).
- Initially, Hispanics start have a higher risk of becoming DP than Blacks, but contextual factors greatly reduce the ethnic effects and virtually eliminate the difference.
- Border effects are large and important (possible cultural effects?)--even moreso than family income; the difference between race/ethnicity and immigrant status possibly hints at generational effects.
  - A poor female is 5.33 times likelier to become DP than even a Hispanic
  - Living near the border contributed most to DP, increasing the unconditional probability by 178%

All results are estimated relative to Whites.

DP: Dropped out and pregnant (negative outcome)

NDP: Not dropped out and pregnant (negative outcome)

## Findings specific to DP

- Including attrition in the dropout measure generally increases the probability of negative outcomes.
  - Going from the conservative to the moderate model, the border effect increased by a factor of 208.
- Gifted students or having a higher math score reduces the probability of being DP.
  - Its marginal effect is greater than those of all other individual characteristics
  - It reduces the probability of DP for a female with otherwise average characteristics by 53%
- Not having a standardized math score is a strong risk signal.

## Findings specific to DP

- Incorporating high school characteristics reduces all marginal effects, EXCEPT for being near the border
- Unexpectedly, being exposed to an increased percentage of Hispanic or Black students in HS reduces the probability of DP (though the effect is small).
- Being at an all-Black HS seems to reduce the probability of harmful outcomes.
- But higher percentages of Hispanic or Blacks in the neighborhoods increases the probability of DP
- The more immigrants in the neighborhood, the greater the probability of DP.
- After including all HS & neighborhood characteristics, living near the border contributes more to the probability of DP than any other variable.

## Summary findings for NDP and DNP outcomes

### NDP OUTCOME

- Probability for Hispanics is 0.41 pctg. pts. higher than for Whites
- For Blacks, it is 0.20 pctg. pts. higher

### DNP Outcome

- For Blacks, probability is 6.26 pctg. pts. higher than for Whites
- For Hispanics, it is 4.7 pctg. pts. higher

## Overall summary findings

- Initially, Hispanics appear to have higher risk of becoming DP or NDP than Blacks, but contextual factors generally eliminate the difference
- Border effects are large and important (possible cultural effects?)--even more than family income
- Immigrants are less likely to be dropped out and/or pregnant than those born in the US
- Including attrition in the dropout measure generally increases the probability of dropout and/or pregnancy outcomes
- Age is ethnic- and outcome-specific: older Hispanics are much likelier to be dropped/pregnant or not dropped/pregnant than are Blacks.
- Younger girls are more likely to be dropped and/or pregnant as campus size increases
- Older girls receiving special education or English-language services are less likely to become dropped out and/or pregnant.
- Not having a standardized math score is a strong risk signal.
- Attending all-Black HS seem to reduce the probability of dropping out and/or pregnancy

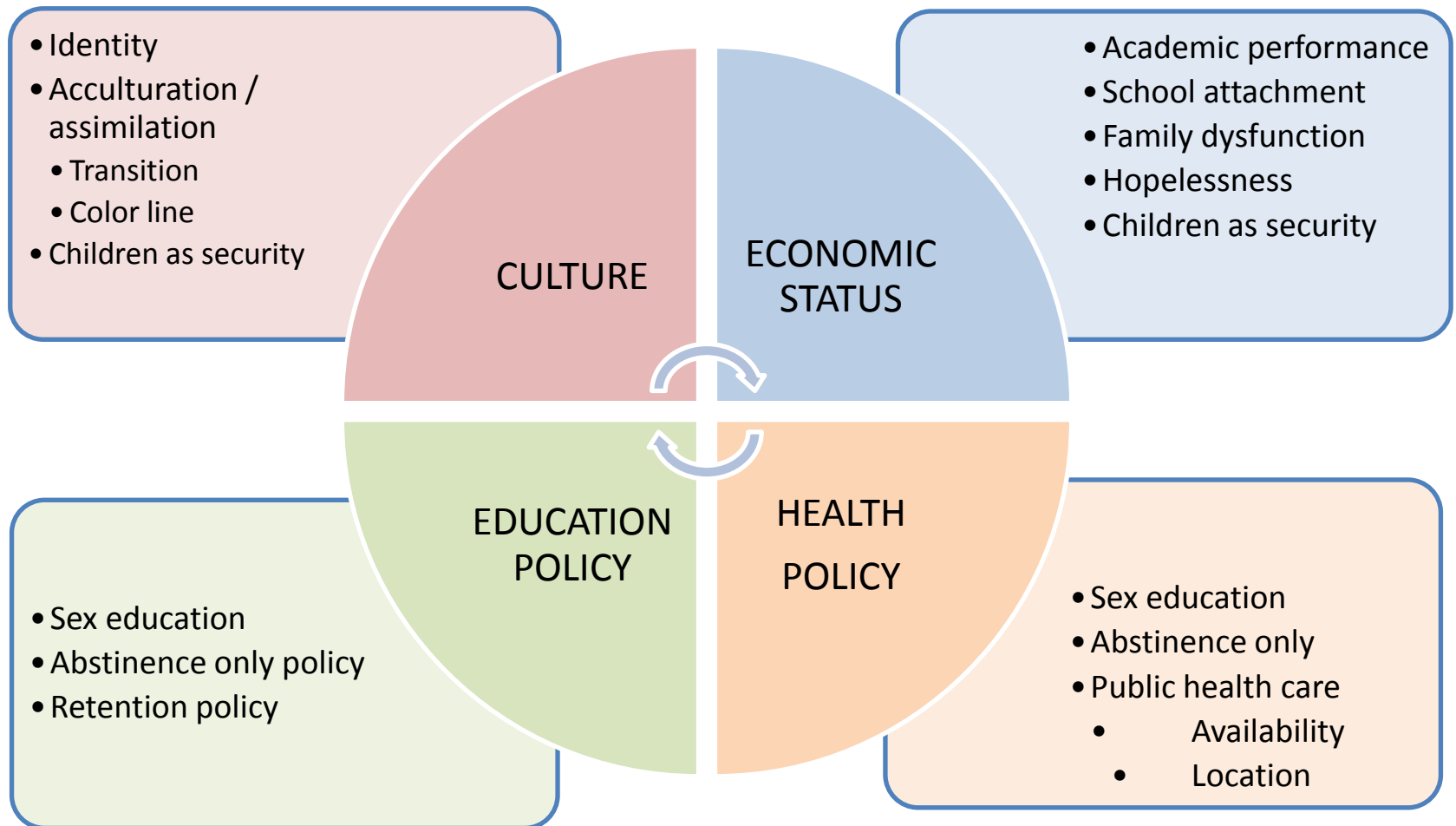
All results are estimated relative to Whites.

DP: Dropped out and pregnant (negative outcome)

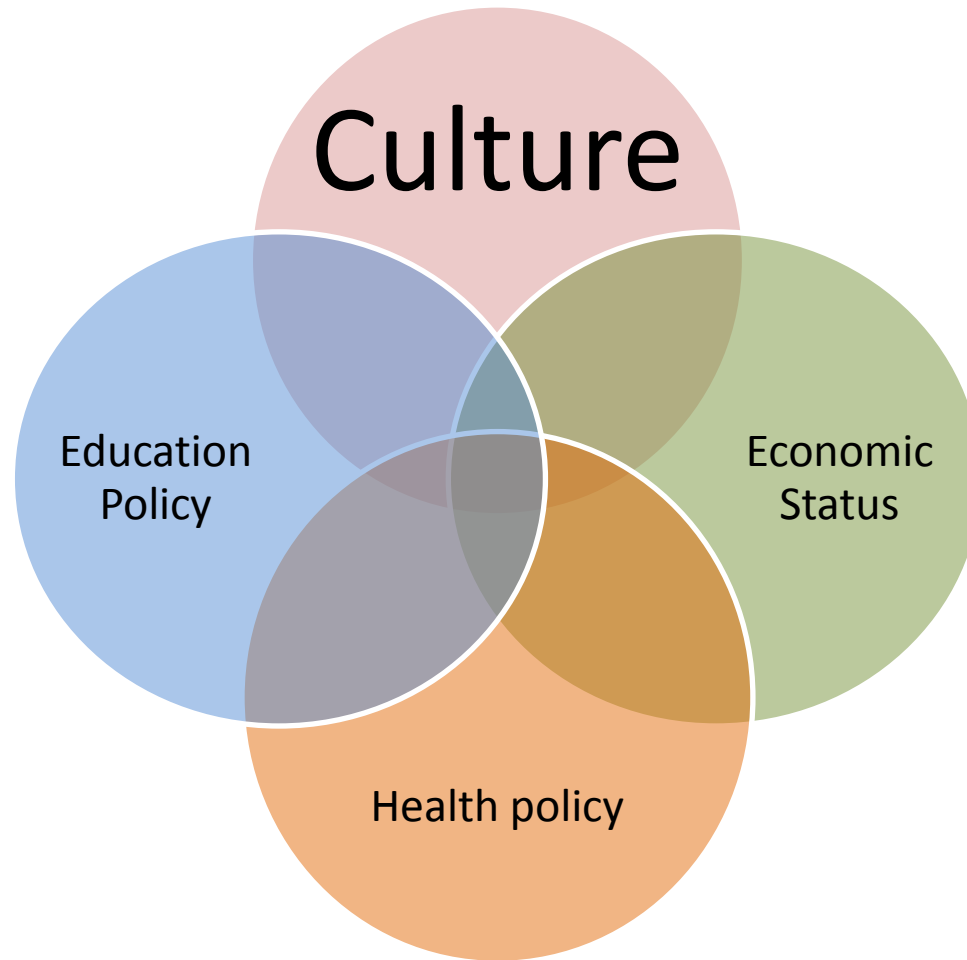
NDP: Not dropped out and pregnant (negative outcome)



# Interpretation / plausible explanations



# Interpretation / plausible explanations



## Policy Considerations

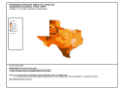
- Academic assistance / retention reduction can improve educational outcomes
- Cultural sensitivity in pedagogy, institutional processes and organization, and attitudes and behavior of school staff are cited as conducive to improved educational outcomes
- School-community-family connectivity can improve educational outcomes
- Mother-daughter connections are important to reducing pregnancy
- High school-to-work initiatives targeted to high risk schools might improve students' expectations for better work opportunities, thus keeping them in school and reducing pregnancies

# Path Ahead

## Continuing Research

### Existing data

- Geographic-cultural phenomena
  - ▶ Regional



### New data

- Birth data & Mom's SS
- Location of health clinics
- Generational effects
  - ▶ Acculturation / assimilation measures
- Detailed family information
  - ▶ Single/two-parent; family size; job classifications
- Preferences
  - Sexual activity, birth control, having children

## La quinceañera



## Hispanic high school parent



Photo by Leonard Ortiz 2007

Liset Landeros and daughter







## Hispanic high school graduate







Thank you.

## Models

$$P(Y_i = j) = \frac{1}{1 + e^{-Z_{ij}}}, \quad P_j(X_i) = \frac{\exp(X_{ij}\beta_j)}{\exp(X_{1j}\beta_j) + \dots + \exp(X_{mj}\beta_j)}$$

$Z_{ij}$  is the linear indexes of  $\alpha_j + \sum_{s=1}^S \phi_{sj} C_{si} + \sum_{l=1}^L \beta_{lj} X_{il}$

$Y_i$  = outcomes in {1, 2, 3, 4} ( $j$  indexes outcomes,  $i$  individuals)

$\alpha_j$  = constant in outcome  $j$ 's logistic probability equation

$\beta_{lj}$  are the coefficients for  $X_{il}$ , indexed by  $l$  in {1, ...,  $L$ }

$X_{il}$  is individual  $i$ 's value of the  $l^{\text{th}}$  regressor

~~$\phi_{sj}$  is the coefficient for Campus  $s$  in equation  $j$~~

~~$C_{si}$  are campus dummies~~

### J-Outcomes

$j=1$  Dropped & Pregnant (DP)

$j=2$  Not dropped & Pregnant (NDP)

$j=3$  Dropped & Not pregnant (DNP)

$j=4$  Not dropped & Not pregnant (NDNP)

### X-vector

individual demographics

high school characteristics

neighborhood characteristics

## Results: moderately measured

### Individual models (M2)

	DP	NDP	DNP
Hispanic			
Below/normal	0.035	0.145***	(5.960)***
Older	1.190***	0.464***	(3.970)***
Black			
Below/normal	(0.002)	0.118***	(9.073)***
Older	0.136	0.208***	(6.627)***
P < .10, ** p < .05, *** p < .01			

### High school models (M2)

	DP	NDP	DNP
Hispanic			
Below/normal	0.023 NS	0.077***	(5.856)***
Older	0.864***	0.303***	(4.464)***
Black			
Below/normal	0.026 NS	0.131***	(10.673)***
Older	0.844***	0.402***	(9.625)***
P < .10, ** p < .05, *** p < .01			

### Full models (M2)

	DP	DP	NDP
Hispanic			
Below/normal	0.024 NS	0.071***	(5.891)***
Older	0.796***	0.298***	(4.506)***
Black			
Below/normal	0.018 NS	0.100***	(10.804)***
Older	0.793***	0.384***	(9.698)***
P < .10, ** p < .05, *** p < .01			

# Results by dependent variable for individual, HS and full models

DP	Individual (M2)		HS (M3)		Full (M5)	
	Y/Normal	Older	Y/Normal	Older	Y/Normal	Older
Econ disadvantaged	0.164***	1.704***	0.108***	1.396***	0.104***	1.400***
Math	(0.040)***	(0.240)***	(0.030)***	(0.209)***	(0.030)***	(0.206)***
Nomath	0.125***	3.005***	0.101***	2.770***	0.092***	2.700***
Language needs	(0.027)	(1.328)***	(0.007)	(0.968)***	(0.021)	(0.927)***
Gifted	(0.097)***	(0.781)**	(0.065)***	(0.270)	(0.059)***	(0.265)
Speced	(0.009)	(1.210)***	(0.006)	(1.164)***	(0.003)	(1.133)***
Immigrant	(0.099)***	(1.342)***	(0.041)***	(0.875)***	(0.034)***	(0.866)***
Border	0.479***	0.949***	0.649***	1.110***	0.580***	1.719***

*Relative to a White female w/avg. characteristics and holding constant all other RHS-variables*

NDP						
DP	Individual (M2)		HS (M3)		Full (M5)	
	Y/Normal	Older	Y/Normal	Older	Y/Normal	Older
Econ disadvantaged	0.242***	0.291***	0.139***	0.276***	0.128***	0.280***
Math	(0.004)	0.153	(0.001)	0.155	(0.008)	0.148
Nomath	(0.106)***	(0.670)***	(0.067)***	(0.588)***	(0.060)***	(0.575)***
Language needs	(0.039)**	(0.516)***	(0.019)	(0.399)***	(0.039)***	(0.394)***
Gifted	(0.001)	0.043	0.021	0.252	0.034	0.190
Speced	(0.011)	0.319**	0.000	0.241**	0.001	0.242**
Immigrant	(0.123)***	(0.166)	(0.016)	0.033	(0.002)	0.028
Border	0.821***	0.484***	1.022***	0.513***	0.740***	0.547***

*Relative to a White female w/avg. characteristics and holding constant all other RHS-variables*

DNP						
DP	Individual (M2)		HS (M3)		Full (M5)	
	Y/Normal	Older	Y/Normal	Older	Y/Normal	Older
Econ	12.865***	10.259***	13.105***	9.600***	13.197***	9.682***
Math	(7.337)***	(12.445)***	(7.314)***	(12.483)***	(7.336)***	(12.478)***
Nomath	23.621***	36.759***	23.121***	36.640***	27.072***	36.583***
Language needs	(0.092)	(3.675)***	(0.419)	(4.179)***	(0.654)	(4.093)***
Gifted	(9.465)***	(18.869)***	(9.620)***	(20.914)***	(9.632)***	(20.553)***
Speced	(6.041)***	(31.575)***	(5.551)***	(31.353)***	(5.617)***	(31.370)***
Immigrant	1.581**	(5.176)***	1.728**	(6.023)***	2.044**	(5.793)***
Border	(5.397)***	(4.926)***	(4.358)***	(5.715)***	(1.889)***	(3.273)***

*Relative to a White female w/avg. characteristics and holding constant all other RHS-variables*

p < .10, \*\* p < .05, \*\*\* p < .01

Table 6.2. Marginal effects on the probability of being Dropped out and Pregnant, *conservatively* measured (unconditional probability is 0.08%) for the primary models of interest using the below- and normal-age sample of 99,076 females

Variables	Basic:	Basic <i>plus</i> all	Basic with all	Basic with all	Full model:
	ethnicity and age	individual demographics	individual demographics <i>plus</i> HS characteristics	individual demographics <i>plus</i> neighborhood characteristics	all individual, neighborhood and high school characteristics
	C1	C2	C3	C4	C5
Hispanic	0.1374 ***	0.0003	0.0003	0.0001	0.0001
Black	0.0015	(0.0006) **	(0.0003)	(0.0004) **	(0.0002)
Economically disadvantaged		0.0016 ***	0.0015 ***	0.0011 ***	0.0006 ***
Math		(0.0004)	(0.0004) ***	(0.0002) ***	(0.0002) ***
Nomath		0.0004	0.0005	0.0002	0.0002
Language needs		(0.0001)	0.0000	(0.0001)	(0.0001)
Gifted		(0.0377) ***	(0.0287) ***	(0.0356) ***	(0.0249) ***
Speced		0.0005	0.0005	0.0004	0.0002
Immigrant		(0.0010) ***	(0.0009) ***	(0.0007) ***	(0.0004) ***
Border		0.0023 ***	0.0046 ***	0.0012 ***	0.0015 ***
Pct Hispanic in neighborhood				0.0000	(0.0000)
Pct Black in neighborhood				(0.0000)	0.0000
Family income in neighborhood				(0.0001)	(0.0001)
Pct immigrant in neighborhood				0.0001	0.0005
Pct Spanish speakers in neighborhood				(0.0000) ***	0.0000
Pct mobility in neighborhood				0.0000	0.0000
Pct grandparents in neighborhood				(0.0000)	(0.0000) ***
Missing census				(0.0007) ***	(0.0004)
Pct Hispanic at HS			(0.0000) ***		(0.0000)
Pct Black at HS			(0.0000)		(0.0000)
Pct economically disadvantaged at HS			0.0002		0.0001
Pct immigrant at HS			(0.0000)		(0.0000)
Campus Size			0.0004		0.0001

\*  $p < .10$  \*\*  $p < .05$  \*\*\*  $p < .01$

Note: Appendix C, Table C.1 provides the values of variables for computing marginal effects. Campus size is the log of total campus population at campuses attended by females in the cohort.



Table 6.3. Marginal effects on the probability of being Dropped out and Pregnant, *moderately* measured (unconditional probability is 0.27%) for the primary models of interest using the below- and normal-age sample of 95,365 females

Variables	Basic:	Basic and	Basic with all	Basic with all	Full Model: all
	ethnicity and age	<i>plus</i> all individual demographics	individual demographics <i>plus</i> HS characteristics	individual demographics <i>plus</i> neighborhood characteristics	individual, neighborhood and high school
	M1	M2	M3	M4	M5
Hispanic	0.487 ***	0.035	0.023	0.013	0.024
Black	0.114 ***	(0.002)	0.026	(0.006)	0.018
Economically disadvantaged		0.164 ***	0.108 ***	0.160 ***	0.104 ***
Math		(0.040) ***	(0.030) ***	(0.039) ***	(0.030) ***
Nomath		0.125 ***	0.101 ***	0.118 ***	0.092 ***
Language needs		(0.027)	(0.007)	(0.029)	(0.021)
Gifted		(0.097) ***	(0.065) ***	(0.093) ***	(0.059) ***
Speced		(0.009)	(0.006)	(0.003)	(0.003)
Immigrant		(0.099) ***	(0.041) **	(0.095) ***	(0.034) *
Border		0.479 ***	0.649 ***	0.408 ***	0.580 ***
Pct Hispanic in neighborhood				0.030	(0.001) ***
Pct Black in neighborhood				0.001	0.003
Family income in neighborhood				0.006	(0.001)
Pct immigrant in neighborhood				0.019	0.070
Pct Spanish speakers in neighborhood				(0.000)	(0.000)
Pct mobility in neighborhood				(0.001)	(0.000)
Pct grandparents in neighborhood				(0.000)	(0.000)
Missing census				0.017	(0.029)
Pct Hispanic at HS			(0.001) ***		(0.000)
Pct Black at HS			(0.000) ***		(0.000)
Pct economically disadvantaged at HS			0.022 **		0.017 *
Pct immigrant at HS			(0.000)		(0.000)
Campus Size			0.064 ***		0.035 **

\* p < .10 \*\* p < .05 \*\*\* p < .01

Note: Appendix C, Table C1 provides the values of variables for computing marginal effects. Neighborhood variables are measured as percent. Campus size is the log of total campus population at campuses attended by females in the cohort.

Table 6.4. Marginal effects on the probability of being Dropped out and Pregnant, *conservatively* measured (unconditional probability is 1.11%) for the primary models of interest using the above-normal age sample of 46,099 females

Variables	Basic: ethnicity and age	Basic <i>plus</i> all individual demographics	Basic with all individual demographics <i>plus</i> HS characteristics	Basic with all individual demographics <i>plus</i> neighborhood characteristics	Full Model: all individual, neighborhood and high school characteristics
	C1	C2	C3	C4	C5
Hispanic	0.843 ***	0.463 ***	0.288 ***	0.284 ***	0.264 ***
Black	0.407 ***	0.011	0.330 ***	0.169 *	0.322 ***
Economically disadvantaged		0.654 ***	0.568 ***	0.597 ***	0.562 ***
Math		(0.073) ***	(0.064) ***	(0.065) ***	(0.063) ***
Nomath		1.415 ***	1.323 ***	1.343 ***	1.294 ***
Language needs		(0.416) ***	(0.303) ***	(0.317) ***	(0.278) ***
Gifted		(0.455) **	(0.305)	(0.377) *	(0.311)
Speced		(0.284) ***	(0.295) ***	(0.289) ***	(0.288) ***
Immigrant		(0.522) ***	(0.389) ***	(0.454) ***	(0.386) ***
Border		0.207 **	0.107	0.295 **	0.320 **
Pct Hispanic in neighborhood				0.244	0.151
Pct Black in neighborhood				(0.003) ***	0.013
Family income in neighborhood				(0.035)	0.175
Pct immigrant in neighborhood				(0.003) ***	(0.002)
Pct Spanish speakers in neighborhood				(0.001)	(0.002) **
Pct mobility in neighborhood				0.022 *	0.027 **
Pct grandparents in neighborhood				(0.003)	(0.008)
Missing census				0.233	12.173
Pct Hispanic at HS			0.009 *		0.003
Pct Black at HS			(0.003) ***		(0.002) ***
Pct economically disadvantaged at HS			0.001		0.003
Pct immigrant at HS			(0.001)		(0.001) *
Campus Size			(0.099)		(0.109) ***

\* p < .10 \*\* p < .05 \*\*\* p < .01

Note: Appendix C, Table C.1 provides the values of variables for computing marginal effects.

Neighborhood variables are measured as percent. Campus size is the log of total campus population at campuses attended by females in the cohort.

Table 6.5. Marginal effects on the probability of being Dropped out and Pregnant, *moderately* measured (unconditional probability is 2.71%) for the primary models of interest using the above-normal age sample of 46,099 females

Variables	Basic: ethnicity and age	Basic <i>plus</i> all individual demographics	Basic with all individual demographics <i>plus</i> HS characteristics	Basic with all individual demographics <i>plus</i> neighborhood characteristics	Full Model: all individual, neighborhood and high school characteristics
	M1	M2	M3	M4	M5
Hispanic	1.987 ***	1.190 ***	0.864 ***	0.704 ***	0.796 ***
Black	1.182 ***	0.136	0.844 ***	0.480 ***	0.793 ***
Economically disadvantaged		1.704 ***	1.396 ***	1.559 ***	1.400 ***
Math		(0.240) ***	(0.209) ***	(0.219) ***	(0.206) ***
Nomath		3.005 ***	2.770 ***	2.866 ***	2.700 ***
Language needs		(1.328) ***	(0.968) ***	(1.095) ***	(0.927) ***
Gifted		(0.781) *	(0.270)	(0.559)	(0.265)
Spced		(1.210) ***	(1.164) ***	(1.174) ***	(1.133) ***
Immigrant		(1.342) ***	(0.875) ***	(1.180) ***	(0.866) ***
Border		0.949 ***	1.100 ***	1.159 ***	1.719 ***
Pct Hispanic in neighborhood				0.891 ***	0.420 **
Pct Black in neighborhood				(0.006) ***	0.016
Family income in neighborhood				(0.366) ***	0.306
Pct immigrant in neighborhood				(0.005)	0.021
Pct Spanish speakers in neighborhood				(0.002) **	(0.006) ***
Pct mobility in neighborhood				0.046 ***	0.071 ***
Pct grandparents in neighborhood				(0.002)	(0.038) ***
Missing census				(1.756) ***	15.152
Pct Hispanic at HS			0.002		(0.006) **
Pct Black at HS			(0.007) ***		(0.007) ***
Pct economically disadvantaged at HS			0.038 ***		0.045 ***
Pct immigrant at HS			(0.000) ***		(0.001) **
Campus Size			(0.214) ***		(0.266) ***

\* p < .10 \*\* p < .05 \*\*\* p < .01

Note: Appendix C, Table C.1 provides the values of variables for computing marginal effects.

Neighborhood variables are measured as percent. Campus size is the log of total campus population at campuses attended by females in the cohort.

Table 6.6. Marginal effects on the probability of being Not Dropped out and Pregnant, *conservatively* measured (unconditional probability is 0.59%) for the primary models of interest using the below- and normal-age sample of 99,076 females

Variables	Basic:	Basic <i>plus</i> all	Basic with all	Basic with all	Full Model:
	ethnicity and age	individual demographics	individual demographics <i>plus</i> HS characteristics	individual demographics <i>plus</i> neighborhood characteristics	all individual, neighborhood and high school characteristics
	C1	C2	C3	C4	C5
Hispanic	0.832 ***	0.181 ***	0.101 ***	0.109 **	0.097 ***
Black	0.206 ***	0.161 ***	0.188 ***	0.163 **	0.150 ***
Economically disadvantaged		0.356 ***	0.213 ***	0.326 ***	0.202 ***
Math		(0.022) *	(0.013)	(0.024) **	(0.020) ***
Nomath		(0.013)	(0.006)	(0.019)	(0.006)
Language needs		(0.061) **	(0.028)	(0.075) ***	(0.059) ***
Gifted		(0.054)	(0.007)	(0.039)	0.009
Speced		(0.037)	(0.016)	(0.020)	(0.012)
Immigrant		(0.188) ***	(0.034)	(0.174) ***	(0.015)
Border		1.279 ***	1.579 ***	0.829 ***	1.265 ***
Pct Hispanic in neighborhood				0.057	(0.001) ***
Pct Black in neighborhood				(0.000)	(0.000)
Family income in neighborhood				(0.004)	(0.047) ***
Pct immigrant in neighborhood				0.320 **	0.382 **
Pct Spanish speakers in neighborhood				(0.001) **	0.001
Pct mobility in neighborhood				(0.002) ***	(0.001) ***
Pct grandparents in neighborhood				(0.000)	(0.003) *
Missing census				(0.071)	(0.215) ***
Pct Hispanic at HS			(0.001) ***		0.001
Pct Black at HS			(0.000) ***		(0.000) **
Pct economically disadvantaged at HS			0.059 ***		0.029 ***
Pct immigrant at HS			(0.000)		(0.000)
Campus Size			0.275 ***		0.175 ***

\* p < .10 \*\* p < .05 \*\*\* p < .01

Note: Appendix C, Table C.1 provides the values of variables for computing marginal effects.

Neighborhood variables are measured as percent. Campus size is the log of total campus population at campuses attended by females in the cohort.

Table 6.7. Marginal effects on the probability of being Not Dropped out and Pregnant, *moderately* measured (unconditional probability is 0.40%) for the primary models of interest using the below- and normal-age sample of 99,076 females

Variables	Basic:	Basic <i>plus</i> all	Basic with all	Basic with all	Full Model:
	ethnicity and age	individual demographics	individual <i>plus</i> HS characteristics	individual demographics <i>plus</i> neighborhood characteristics	all individual, neighborhood and high school
	M1	M2	M3	M4	M5
Hispanic	1.181 ***	0.145 ***	0.077 ***	0.089 ***	0.071 ***
Black	0.318 ***	0.118 ***	0.131 ***	0.124 ***	0.100 ***
Economically disadvantaged		0.242 ***	0.139 ***	0.212 ***	0.128 ***
Math		(0.004)	(0.001)	(0.008)	(0.008)
Nomath		(0.106) ***	(0.067) ***	(0.097) ***	(0.060) ***
Language needs		(0.039) *	(0.019)	(0.050) ***	(0.039) ***
Gifted		(0.001)	0.021	0.010	0.034
Speced		(0.011)	0.000	(0.001)	0.001
Immigrant		(0.123) ***	(0.016)	(0.110) ***	(0.002)
Border		0.821 ***	1.022 ***	0.461 ***	0.740 ***
Pct Hispanic in neighborhood				0.021	(0.000) *
Pct Black in neighborhood				(0.001) *	(0.000) ***
Family income in neighborhood				(0.017)	(0.036) ***
Pct immigrant in neighborhood				0.412	0.414 *
Pct Spanish speakers in neighborhood				(0.000) *	0.001
Pct mobility in neighborhood				(0.001) ***	(0.001) ***
Pct grandparents in neighborhood				(0.000)	(0.002) ***
Missing census				(0.142)	(0.145) ***
Pct Hispanic at HS			(0.001) ***		0.001
Pct Black at HS			(0.000) ***		(0.000) **
Pct economically disadvantaged at HS			0.041 ***		0.016 *
Pct immigrant at HS			(0.000)		(0.000)
Campus Size			0.224 ***		0.142 ***

\* p < .10 \*\* p < .05 \*\*\* p < .01

Note: Appendix C, Table C.1 provides the values of variables for computing marginal effects.

Neighborhood variables are measured as percent. Campus size is the log of total campus population at campuses attended by females in the cohort.

Table 6.8. Marginal effects on the probability of being Not Dropped out and Pregnant, *conservatively* measured (unconditional probability is 2.36%) for the primary models of interest using the above-normal age sample of 46,099 females

Variables	Basic:	Basic <i>plus</i> all	Basic with all	Basic with all	Full Model:
	ethnicity and age	individual demographics	individual demographics <i>plus</i> HS characteristics	individual demographics <i>plus</i> neighborhood characteristics	all individual, neighborhood and high school characteristics
	C1	C2	C3	C4	C5
Hispanic	1.548 ***	1.234 ***	0.913 ***	0.773 ***	0.853 ***
Black	0.983 ***	0.388 **	0.963 ***	0.645 ***	0.897 ***
Economically disadvantaged		1.359 ***	1.093 ***	1.259 ***	1.104 ***
Math		0.001	0.025	0.029 ***	0.023
Nomath		0.933 ***	0.888 ***	0.897 ***	0.839 ***
Language needs		(1.467) ***	(1.083) ***	(1.273)	(1.062) ***
Gifted		(0.254)	0.288	(0.101)	0.257
Speced		(0.609) ***	(0.644) ***	(0.605) ***	(0.604) ***
Immigrant		(1.024) ***	(0.461) **	(0.897) ***	(0.439) **
Border		1.291 ***	1.695 ***	1.398 ***	2.097 ***
Pct Hispanic in neighborhood				0.734 ***	0.233
Pct Black in neighborhood				(0.002)	0.028
Family income in neighborhood				(0.338) ***	0.184
Pct immigrant in neighborhood				0.005	0.050 *
Pct Spanish speakers in neighborhood				(0.003) **	(0.009) ***
Pct mobility in neighborhood				0.034 **	0.053 ***
Pct grandparents in neighborhood				(0.000)	(0.045) ***
Missing census				(1.690) ***	7.536
Pct Hispanic at HS			0.004		(0.006) **
Pct Black at HS			(0.008) ***		(0.008) ***
Pct economically disadvantaged at HS			0.032 ***		0.043 ***
Pct immigrant at HS			(0.000) *		(0.000)
Campus Size			(0.145) ***		(0.200) ***

\* p<.10 \*\* p<.05 \*\*\* p<.01

Note: Appendix C, Table C.1 provides the values of variables for computing marginal effects.

Neighborhood variables are measured as percent. Campus size is the log of total campus population at campuses attended by females in the cohort.

Table 6.9. Marginal effects on the probability of being Not Dropped out and Pregnant, *moderately* measured (unconditional probability is 0.76%) for the primary models of interest using the above-normal age sample of 46,099 females

Variables	Basic:	Basic <i>plus</i> all	Basic with all	Basic with all	Full Model:
	ethnicity and age	individual demographics	individual <i>plus</i> HS characteristics	individual <i>plus</i> HS characteristics	all individual, neighborhood and high school characteristics
	M1	M2	M3	M4	M5
Hispanic	0.405 ***	0.464 ***	0.303 ***	0.326 ***	0.289 ***
Black	0.207 *	0.208 **	0.402 ***	0.283 **	0.384 ***
Economically disadvantaged		0.291 ***	0.276 ***	0.291 ***	0.280 ***
Math		0.153	0.155	0.161	0.148
Nomath		(0.670) ***	(0.588) ***	(0.625) ***	(0.575) ***
Language needs		(0.516) ***	(0.399) ***	(0.455) ***	(0.394) ***
Gifted		0.043	0.252	0.061	0.190
Speced		0.319 **	0.241 **	0.281 **	0.242 **
Immigrant		(0.166)	0.033	(0.143)	0.028
Border		0.484 ***	0.513 ***	0.470 ***	0.547 ***
Pct Hispanic in neighborhood				0.086	0.006
Pct Black in neighborhood				0.004	0.026
Family income in neighborhood				0.090	0.072
Pct immigrant in neighborhood				(0.002)	0.010
Pct Spanish speakers in neighborhood				(0.002)	(0.004) ***
Pct mobility in neighborhood				0.008	0.008
Pct grandparents in neighborhood				(0.000)	(0.015) ***
Missing census				3.836	2.862
Pct Hispanic at HS			0.020 *		0.010
Pct Black at HS			(0.002) *		(0.003) ***
Pct economically disadvantaged at HS			(0.003)		(0.000)
Pct immigrant at HS			(0.000)		(0.000)
Campus Size			(0.029)		(0.037)

\* p < .10 \*\* p < .05 \*\*\* p < .01

Note: Appendix C, Table C.1 provides the values of variables for computing marginal effects. Neighborhood variables are measured as percent. Campus size is the log of total campus population at campuses attended by females in the cohort.

Table 6.10. Marginal effects on the probability of being Dropped out and Not Pregnant, *conservatively* measured (unconditional probability is 4.81%) for the primary models of interest using the below- and normal-age sample of 99,076 females

Variables	Basic:	Basic <i>plus</i> all	Basic with all	Basic with all	Full Model:
	ethnicity and age	individual demographics	individual demographics <i>plus</i> HS characteristics	individual demographics <i>plus</i> neighborhood characteristics	all individual, neighborhood and high school characteristics
	C1	C2	C3	C4	C5
Hispanic	4.619 ***	0.495 ***	0.178	0.316 **	0.173
Black	3.129 ***	(0.499) ***	(0.869) ***	(0.713) ***	(0.880) ***
Economically disadvantaged		3.519 ***	3.378 ***	3.491 ***	3.371 ***
Math		(1.175) ***	(1.161) ***	(1.170) ***	(1.161) ***
Nomath		3.282 ***	3.176 ***	3.165 ***	3.155 ***
Language needs		0.086	(0.008)	0.002	(0.058)
Gifted		(1.948) ***	(2.035) ***	(1.997) ***	(2.043) ***
Speced		(0.416) **	(0.304)	(0.344) *	(0.304)
Immigrant		0.151	0.051	0.157	0.092
Border		(0.978) ***	(1.211) ***	(1.026) ***	(1.073) ***
Pct Hispanic in neighborhood				0.011	(0.002)
Pct Black in neighborhood				0.013 **	(0.001)
Family income in neighborhood				(0.046)	0.117
Pct immigrant in neighborhood				(0.002)	(0.005)
Pct Spanish speakers in neighborhood				(0.005)	(0.002)
Pct mobility in neighborhood				0.029 ***	0.028 ***
Pct grandparents in neighborhood				(0.010)	(0.011)
Missing census				0.847	2.441
Pct Hispanic at HS			0.003		0.007
Pct Black at HS			0.009		0.012
Pct economically disadvantaged at HS			0.009		0.014 *
Pct immigrant at HS			0.008		0.001
Campus Size			0.161 **		0.075

\* p < .10 \*\* p < .05 \*\*\* p < .01

Note: Appendix C, Table C.1 provides the values of variables for computing marginal effects.

Neighborhood variables are measured as percent. Campus size is the log of total campus population at campuses attended by females in the cohort.



Table 6.11. Marginal effects on the probability of being Dropped out and Not Pregnant, *moderately* measured (unconditional probability is 25.76%) for the primary models of interest using the below- and normal-age sample of 99,076 females

<u>Variables</u>	Basic:	Basic <i>plus</i> all	Basic with all	Basic with all	Full Model:
	ethnicity and age	individual demographics	individual demographics <i>plus</i> HS characteristics	individual demographics <i>plus</i> neighborhood characteristics	all individual, neighborhood and high school characteristics
	M1	M2	M3	M4	M5
Hispanic	6.827 ***	(5.960) ***	(5.856) ***	(6.048) ***	(5.891) ***
Black	5.025 ***	(9.073) ***	(10.673) ***	(10.149) ***	(10.804) ***
Economically disadvantaged		12.865 ***	13.105 ***	13.451 ***	13.197 ***
Math		(7.337) ***	(7.314) ***	(7.384) ***	(7.336) ***
Nomath		23.621 ***	23.121 ***	23.190 ***	23.072 ***
Language needs		(0.092)	(0.419)	(0.541)	(0.654)
Gifted		(9.465) ***	(9.620) ***	(9.565) ***	(9.632) ***
Speced		(6.041) ***	(5.551) ***	(5.841) ***	(5.617) ***
Immigrant		1.581 **	1.728 **	1.966 ***	2.044 ***
Border		(5.397) ***	(4.358) ***	(2.471) ***	(1.889) ***
Pct Hispanic in neighborhood				0.263 ***	0.296 ***
Pct Black in neighborhood				0.058 ***	(0.007)
Family income in neighborhood				2.568 ***	3.338 ***
Pct immigrant in neighborhood				0.058	0.034
Pct Spanish speakers in neighborhood				(0.121) ***	(0.139) ***
Pct mobility in neighborhood				0.121 ***	0.118 ***
Pct grandparents in neighborhood				0.149	0.093
Missing census				41.718 ***	48.850 ***
Pct Hispanic at HS			(0.045) ***		(0.063) ***
Pct Black at HS			0.028 *		0.027
Pct economically disadvantaged at HS			0.024		0.089 ***
Pct immigrant at HS			0.007		(0.010)
Campus Size			2.023 ***		1.217 ***

\* p < .10 \*\* p < .05 \*\*\* p < .01

Note: Appendix C, Table C.1 provides the values of variables for computing marginal effects.

Neighborhood variables are measured as percent. Campus size is the log of total campus population at campuses attended by females in the cohort.

Table 6.12. Marginal effects on the probability of being Dropped out and Not Pregnant, *conservatively* measured (unconditional probability is 18.46%) for the primary models of interest using the above-normal age sample of 46,099 females

Variables	Basic:	Basic <i>plus</i> all	Basic with all	Basic with all	Full Model:
	ethnicity and age	individual demographics	demographics <i>plus</i> HS characteristics	individual demographics <i>plus</i> neighborhood characteristics	individual, neighborhood and high school characteristics
	C1	C2	C3	C4	C5
Hispanic	4.821 ***	2.447 ***	1.307 **	2.080 ***	1.307 **
Black	7.156 ***	2.050 ***	0.115	1.119 *	0.097
Economically disadvantaged		6.615 ***	6.477 ***	6.356 ***	6.430 ***
Math		(2.948) ***	(2.957) ***	(2.943) ***	(2.956) ***
Nomath		12.561 ***	12.347 ***	12.428 ***	12.335 ***
Language needs		(1.060) **	(0.924) *	(1.036) **	(0.940) *
Gifted		(11.472) ***	(11.770) ***	(11.614) ***	(11.631) ***
Speced		(4.605) ***	(4.439) ***	(4.536) ***	(4.489) ***
Immigrant		(3.717) ***	(3.488) ***	(3.661) ***	(3.440) ***
Border		(4.011) ***	(4.343) ***	(4.290) ***	(4.220) ***
Pct Hispanic in neighborhood				(0.168) ***	(0.079) **
Pct Black in neighborhood				0.005	(0.053) ***
Family income in neighborhood				(0.957) *	(1.446) **
Pct immigrant in neighborhood				(0.027)	(0.025)
Pct Spanish speakers in neighborhood				(0.038)	(0.012)
Pct mobility in neighborhood				0.005	0.009
Pct grandparents in neighborhood				0.491 ***	0.441 ***
Missing census				(7.247)	(12.769) ***
Pct Hispanic at HS			0.085 ***		0.133 ***
Pct Black at HS			0.109 ***		0.171 ***
Pct economically disadvantaged at HS			(0.037) **		(0.066) ***
Pct immigrant at HS			(0.048) ***		(0.048) ***
Campus Size			(0.697) ***		(0.743) ***

\* p < .10 \*\* p < .05 \*\*\* p < .01

Note: Appendix C, Table C.1 provides the values of variables for computing marginal effects.

Neighborhood variables are measured as percent. Campus size is the log of total campus population at campuses attended by females in the cohort.

Table 6.13. Marginal effects on the probability of being Dropped out and Not Pregnant, *moderately* measured (unconditional probability is 64.94%) for the primary models of interest using the above-normal age sample of 46,099 females

Variables	Basic: ethnicity and age	Basic <i>plus</i> all individual demographics	Basic with all individual demographics <i>plus</i> HS characteristics	Basic with all individual demographics <i>plus</i> neighborhood characteristics	Full Model: all individual, neighborhood and high school characteristics
	M1	M2	M3	M4	M5
Hispanic	4.700 ***	(3.970) ***	(4.464) ***	(4.147) ***	(4.506) ***
Black	6.259 ***	(6.627) ***	(9.625) ***	(7.624) ***	(9.698) ***
Economically disadvantaged		10.259 ***	9.600 ***	10.180 ***	9.682 ***
Math		(12.445) ***	(12.483) ***	(12.441) ***	(12.478) ***
Nomath		36.759 ***	36.640 ***	36.695 ***	36.583 ***
Language needs		(3.675) ***	(4.179) ***	(3.825) ***	(4.093) ***
Gifted		(18.869) ***	(20.914) ***	(19.239) ***	(20.553) ***
Spaced		(31.575) ***	(31.353) ***	(31.488) ***	(31.370) ***
Immigrant		(5.176) ***	(6.023) ***	(5.049) ***	(5.793) ***
Border		(4.926) ***	(5.715) ***	(3.634) ***	(3.273) ***
Pct Hispanic in neighborhood				(0.689) ***	(0.207)
Pct Black in neighborhood				(0.004)	(0.164) ***
Family income in neighborhood				(0.515)	0.761
Pct immigrant in neighborhood				0.097 ***	0.072 **
Pct Spanish speakers in neighborhood				(0.377) ***	(0.456) ***
Pct mobility in neighborhood				(0.047) *	(0.034) ***
Pct grandparents in neighborhood				0.126 ***	0.367
Missing census				(2.692)	(1.592)
Pct Hispanic at HS			0.010		0.008
Pct Black at HS			0.072 ***		0.123 ***
Pct economically disadvantaged at HS			(0.003)		(0.007)
Pct immigrant at HS			0.026		0.043
Campus Size			(0.985) ***		(1.113) ***

\* p < .10 \*\* p < .05 \*\*\* p < .01

Note: Appendix C, Table C.1 provides the values of variables for computing marginal effects.

Neighborhood variables are measured as percent. Campus size is the log of total campus population at campuses attended by females in the cohort.

Table 6.14. Marginal effects on the probability of being Not Dropped out and Not Pregnant, *conservatively* measured (unconditional probability is 94.52%) for the primary models of interest using the below- and normal-age sample of 99,076 females

	Basic: ethnicity and age	Basic <i>plus</i> all individual demographics	Basic with all individual demographics <i>plus</i> HS characteristics	Basic with all individual demographics <i>plus</i> neighborhood characteristics	Full Model: all individual, neighborhood and high school characteristics
<u>Variables</u>	C1	C2	C3	C4	C5
Hispanic	(5.938) ***	(0.677) ***	(0.279) *	(0.425) ***	(0.270)
Black	(3.449) ***	0.339 **	0.681 ***	0.550 ***	0.730 ***
Economically disadvantaged		(3.877) ***	(3.592) ***	(3.818) ***	(3.574) ***
Math		1.198 ***	1.174 ***	1.194 ***	1.182 ***
Nomath		(3.270) ***	(3.170) ***	(3.146) ***	(3.149) ***
Language needs		(0.025)	0.035	0.073	0.117
Gifted		2.040 ***	2.071 ***	2.072 ***	2.059 ***
Spced		0.452 **	0.320 *	0.364 *	0.316 *
Immigrant		0.039	(0.017)	0.018	(0.077)
Border		(0.303) *	(0.373) *	0.196	(0.193)
Pct Hispanic in neighborhood				(0.068)	0.003
Pct Black in neighborhood				(0.013) **	0.002
Family income in neighborhood				0.051	(0.070)
Pct immigrant in neighborhood				(0.319) **	(0.378) ***
Pct Spanish speakers in neighborhood				0.006	0.001
Pct mobility in neighborhood				(0.028) ***	(0.027) ***
Pct grandparents in neighborhood				0.010	0.013
Missing census				(0.775)	(2.225)
Pct Hispanic at HS			(0.002)		(0.008)
Pct Black at HS			(0.009)		(0.012)
Pct economically disadvantaged at HS			(0.069) ***		(0.043) ***
Pct immigrant at HS			(0.008)		(0.001)
Campus Size			(0.436) ***		(0.249) ***

\* p < .10 \*\* p < .05 \*\*\* p < .01

Note: Appendix C, Table C.1 provides the values of variables for computing marginal effects.

Neighborhood variables are measured as percent. Campus size is the log of total campus population at campuses attended by females in the cohort.

Table 6.15. Marginal effects on the probability of being Not Dropped out and Not Pregnant, *moderately* measured (unconditional probability is 73.57%) for the primary models of interest using the below- and normal-age sample of 99,076 females

Variables	Basic: ethnicity and age	Basic <i>plus</i> all individual demographics	Basic with all individual demographics <i>plus</i> HS characteristics	Basic with all individual demographics <i>plus</i> neighborhood characteristics	Full Model: all individual, neighborhood and high school characteristics
	M1	M2	M3	M4	M5
Hispanic	(8.146) ***	5.780 ***	5.756 ***	5.947 ***	5.796 ***
Black	(5.344) ***	8.957 ***	10.517 ***	10.031 ***	10.686 ***
Economically disadvantaged		(13.271) ***	(13.352) ***	(13.822) ***	(13.429) ***
Math		7.381 ***	7.345 ***	7.431 ***	7.374 ***
Nomath		(23.640) ***	(23.154) ***	(23.211) ***	(23.104) ***
Language needs		0.158	0.445	0.621	0.713
Gifted		9.564 ***	9.663 ***	9.648 ***	9.657 ***
Speced		6.060 ***	5.557 ***	5.845 ***	5.619 ***
Immigrant		(1.359) *	(1.671) **	(1.761) **	(2.009) ***
Border		4.096 ***	2.686 ***	1.602 ***	0.569
Pct Hispanic in neighborhood				(0.314) ***	(0.296) ***
Pct Black in neighborhood				(0.058) ***	0.004
Family income in neighborhood				(2.558) ***	(3.301) ***
Pct immigrant in neighborhood				(0.489) ***	(0.517) ***
Pct Spanish speakers in neighborhood				0.122 ***	0.139 ***
Pct mobility in neighborhood				(0.120) ***	(0.117) ***
Pct grandparents in neighborhood				(0.149)	(0.090)
Missing census				(41.592) ***	(48.676) ***
Pct Hispanic at HS			0.046 ***		0.062 ***
Pct Black at HS			(0.027) *		(0.027)
Pct economically disadvantaged at HS			(0.087) ***		(0.122) ***
Pct immigrant at HS			(0.007)		0.010
Campus Size			(2.312) ***		(1.393) ***

\* p < .10 \*\* p < .05 \*\*\* p < .01

Note: Appendix C, Table C.1 provides the values of variables for computing marginal effects.

Neighborhood variables are measured as percent. Campus size is the log of total campus population at campuses attended by females in the cohort.

Table 6.16. Marginal effects on the probability of being Not Dropped out and Not Pregnant, *conservatively* measured (unconditional probability is 78.07%) for the primary models of interest using the above-normal age sample of 46,099 females

Variables	Basic:	Basic <i>plus</i> all	Basic with all	Basic with all	Full Model:
	ethnicity and age	individual demographics	demographics <i>plus</i> HS characteristics	individual demographics <i>plus</i> neighborhood characteristics	all individual, neighborhood and high school characteristics
	C1	C2	C3	C4	C5
Hispanic	(7.212) ***	(4.143) ***	(2.508) ***	(3.137) ***	(2.425) ***
Black	(8.545) ***	(2.449) ***	(1.408) **	(1.934) ***	(1.316) **
Economically disadvantaged		(8.627) ***	(8.138) ***	(8.212) ***	(8.096) ***
Math		3.020 ***	2.996 ***	2.979 ***	2.995 ***
Nomath		(14.909) ***	(14.558) ***	(14.668) ***	(14.467) ***
Language needs		2.943 ***	2.310 ***	2.626 ***	2.280 ***
Gifted		12.182 ***	11.787 ***	12.093 ***	11.685 ***
Speced		5.498 ***	5.379 ***	5.430 ***	5.381 ***
Immigrant		5.264 ***	4.337 ***	5.012 ***	4.266 ***
Border		2.513 ***	2.542 ***	2.598 ***	1.804 **
Pct Hispanic in neighborhood				(0.811) ***	(0.305) **
Pct Black in neighborhood				(0.000)	0.012 *
Family income in neighborhood				1.331 **	1.088
Pct immigrant in neighborhood				0.024	(0.023)
Pct Spanish speakers in neighborhood				0.042	0.023
Pct mobility in neighborhood				(0.061) **	(0.089) ***
Pct grandparents in neighborhood				(0.488) ***	(0.388) ***
Missing census				8.704 *	(6.941)
Pct Hispanic at HS			(0.098) ***		(0.129) ***
Pct Black at HS			(0.098) ***		(0.161) ***
Pct economically disadvantaged at HS			0.004		0.021
Pct immigrant at HS			0.049 ***		0.050 ***
Campus Size			0.941 ***		1.053 ***

\* p < .10 \*\* p < .05 \*\*\* p < .01

Note: Appendix C, Table C.1 provides the values of variables for computing marginal effects.

Neighborhood variables are measured as percent. Campus size is the log of total campus population at campuses attended by females in the cohort.

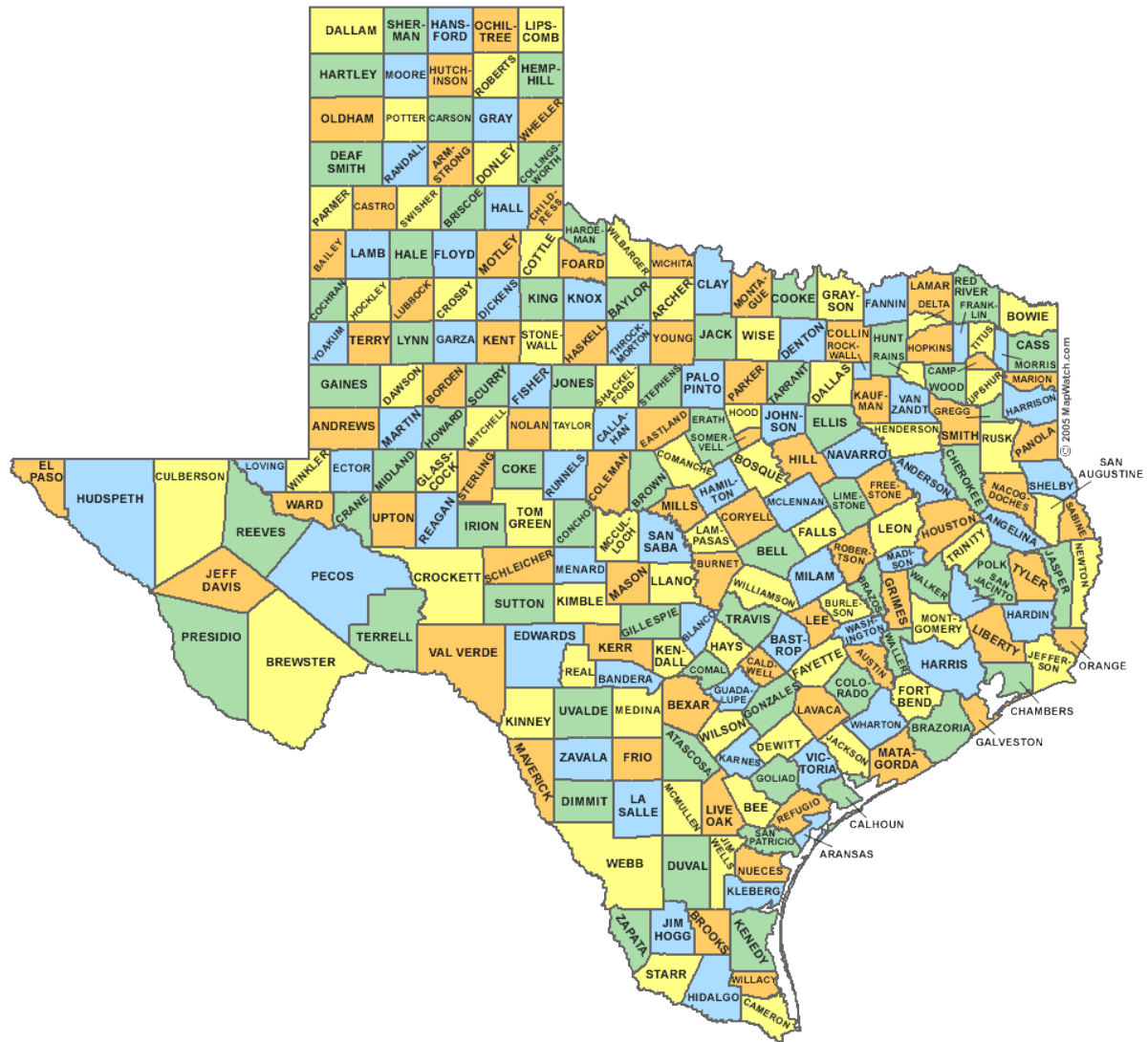
Table 6.17. Marginal effects on the probability of being Not Dropped out and Not Pregnant, *moderately* measured (unconditional probability is 31.59%) for the primary models of interest using the above-normal age sample of 46,099 females

Variables	Basic: ethnicity and age	Basic <i>plus</i> all individual demographics	Basic with all individual demographics <i>plus</i> HS characteristics	Basic with all individual demographics <i>plus</i> neighborhood characteristics	Full Model: all individual, neighbor-hood and high school characteristics
	M1	M2	M3	M4	M5
Hispanic	(7.091) ***	2.316 ***	3.297 ***	3.117 ***	3.422 ***
Black	(7.649) ***	6.283 ***	8.378 ***	6.861 ***	8.520 ***
Economically disadvantaged		(12.254) ***	(11.272) ***	(12.031) ***	(11.361) ***
Math		12.532 ***	12.536 ***	12.499 ***	12.536 ***
Nomath		(39.094) ***	(38.822) ***	(38.936) ***	(38.709) ***
Language needs		5.519 ***	5.547 ***	5.375 ***	5.413 ***
Gifted		19.607 ***	20.933 ***	19.737 ***	20.627 ***
Speced		32.467 ***	32.276 ***	32.381 ***	32.262 ***
Immigrant		6.684 ***	6.865 ***	6.372 ***	6.630 ***
Border		3.493 ***	4.102 ***	2.005 **	1.007
Pct Hispanic in neighborhood				(0.288) ***	(0.219) ***
Pct Black in neighborhood				0.006	0.122 ***
Family income in neighborhood				0.792	(1.139)
Pct immigrant in neighborhood				(0.091) ***	(0.104) ***
Pct Spanish speakers in neighborhood				0.382 ***	0.466 ***
Pct mobility in neighborhood				(0.007)	(0.045) **
Pct grandparents in neighborhood				(0.124) ***	(0.314) ***
Missing census				0.612	(16.422) ***
Pct Hispanic at HS			(0.032)		(0.011)
Pct Black at HS			(0.062) ***		(0.113) ***
Pct economically disadvantaged at HS			(0.032)		(0.038)
Pct immigrant at HS			(0.025)		(0.042)
Campus Size			1.228 ***		1.416 ***

\*  $p < .10$  \*\*  $p < .05$  \*\*\*  $p < .01$

Note: Appendix C, Table C.1 provides the values of variables for computing marginal effects.

Neighborhood variables are measured as percent. Campus size is the log of total campus population at campuses attended by females in the cohort.





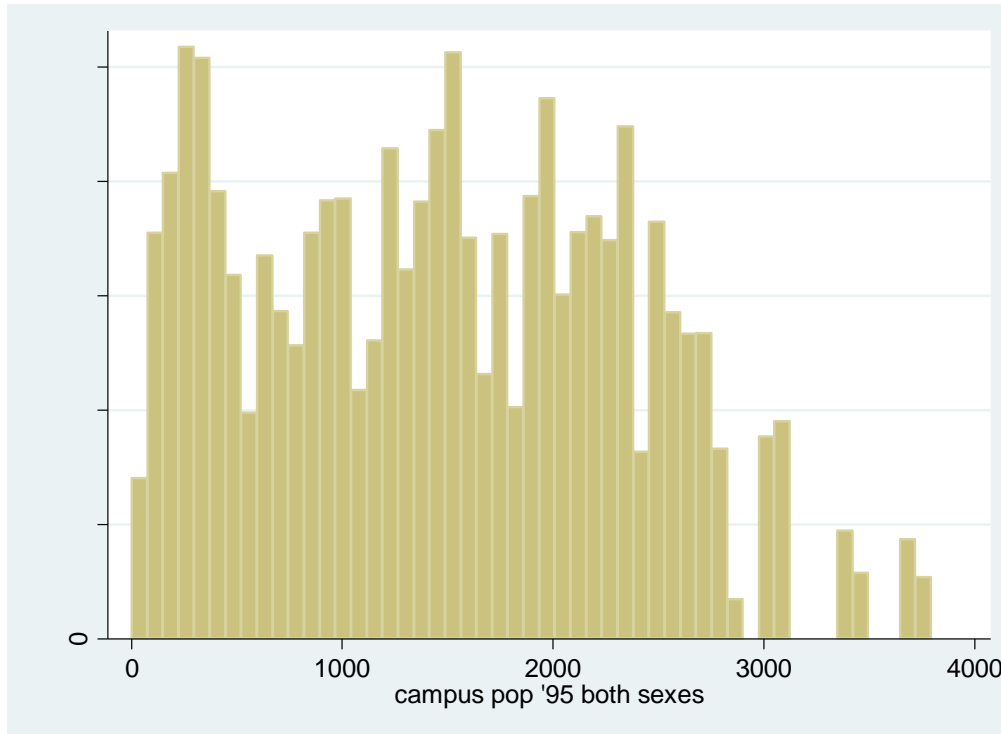
## Texas Colonias



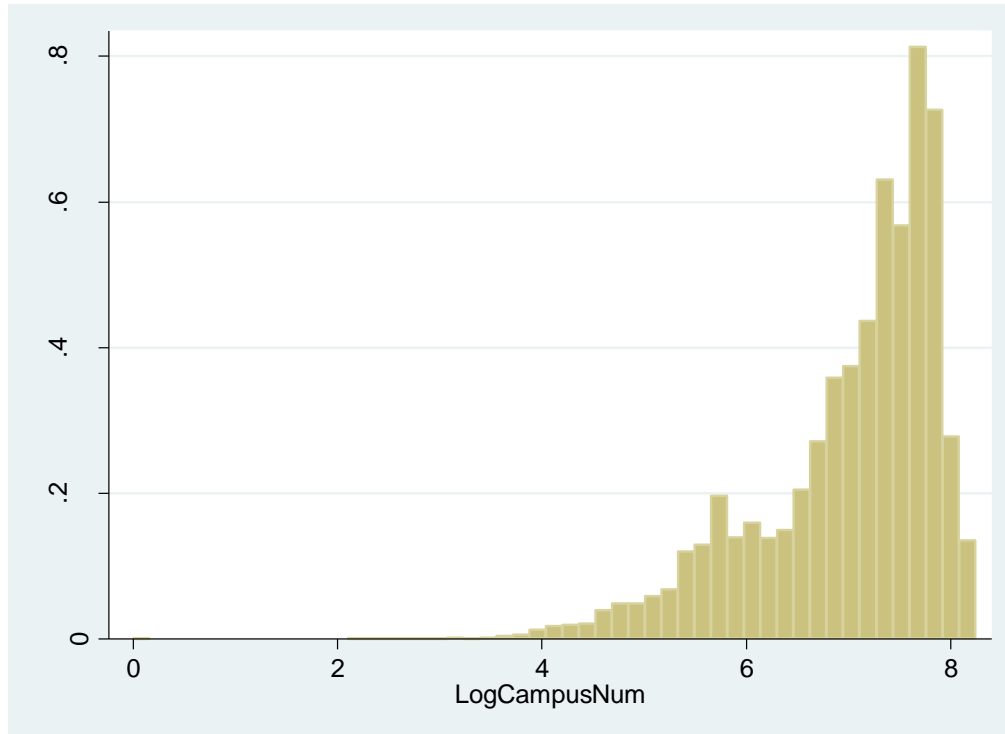
**Table 4.1 Correlations between neighborhood (level percent) and high school variables (level percent) for the full cohort**

	<u>Pct Hispanic in neighborhood</u>	<u>Pct Black in neighborhood</u>	<u>Family income in neighborhood</u>	<u>Pct immigrant in neighborhood</u>	<u>Pct Spanish speakers in neighborhood</u>	<u>Pct mobility in neighborhood</u>	<u>Pct grandparents in neighborhood</u>	<u>Pct Hispanic at HS</u>	<u>Pct Black at HS</u>	<u>Pct economically disadvantaged at HS</u>	<u>Pct immigrant at HS</u>
<b>Pct Hispanic in neighborhood</b>	1.000										
<b>Pct Black in neighborhood</b>	-0.226	1.000									
<b>Family income in neighborhood</b>	0.153	0.072	1.000								
<b>Pct immigrant in neighborhood</b>	0.714	-0.082	0.180	1.000							
<b>Pct Spanish speakers in neighborhood</b>	0.985	-0.199	0.145	0.776	1.000						
<b>Pct mobility in neighborhood</b>	-0.010	0.101	0.662	0.205	-0.002	1.000					
<b>Pct grandparents in neighborhood</b>	0.380	0.446	0.342	0.397	0.396	0.153	1.000				
<b>Pct Hispanic at HS</b>	0.883	-0.026	-0.405	0.558	0.865	-0.143	0.199	1.000			
<b>Pct Black at HS</b>	-0.271	0.838	-0.082	-0.072	-0.243	0.004	0.316	-0.332	1.000		
<b>Pct economically disadvantaged at HS</b>	0.683	0.150	-0.115	0.458	0.685	-0.179	0.414	0.751	0.198	1.000	
<b>Pct immigrant at HS</b>	0.552	-0.150	-0.027	0.537	0.602	-0.052	0.185	0.649	-0.167	0.570	1.000

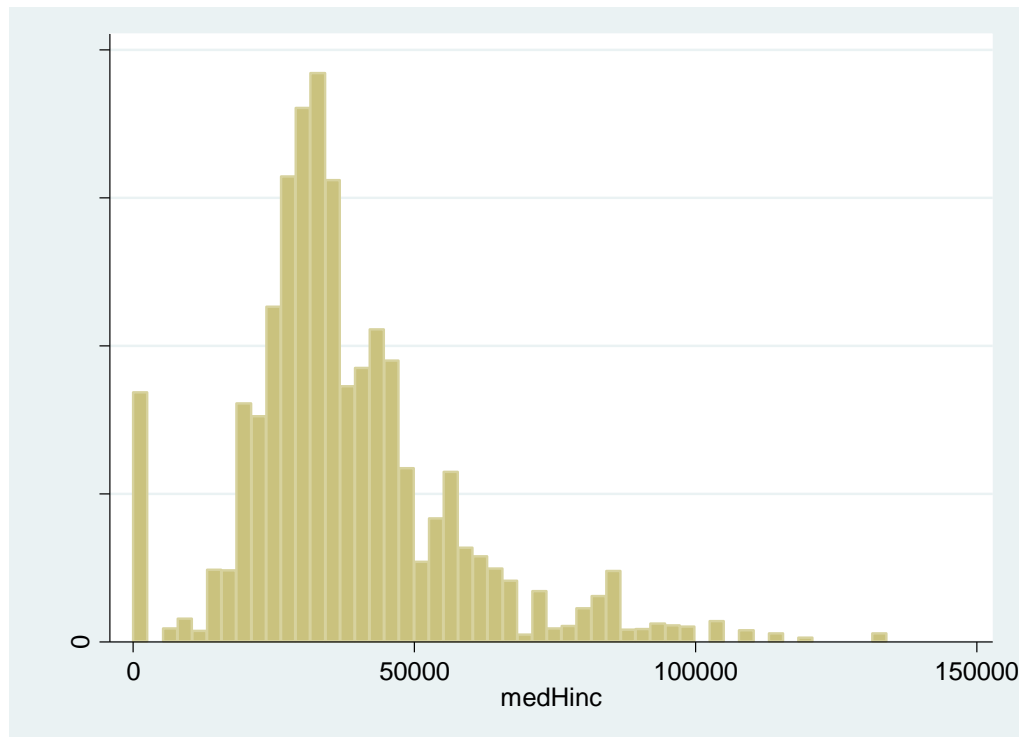
# Histogram of campus sizes



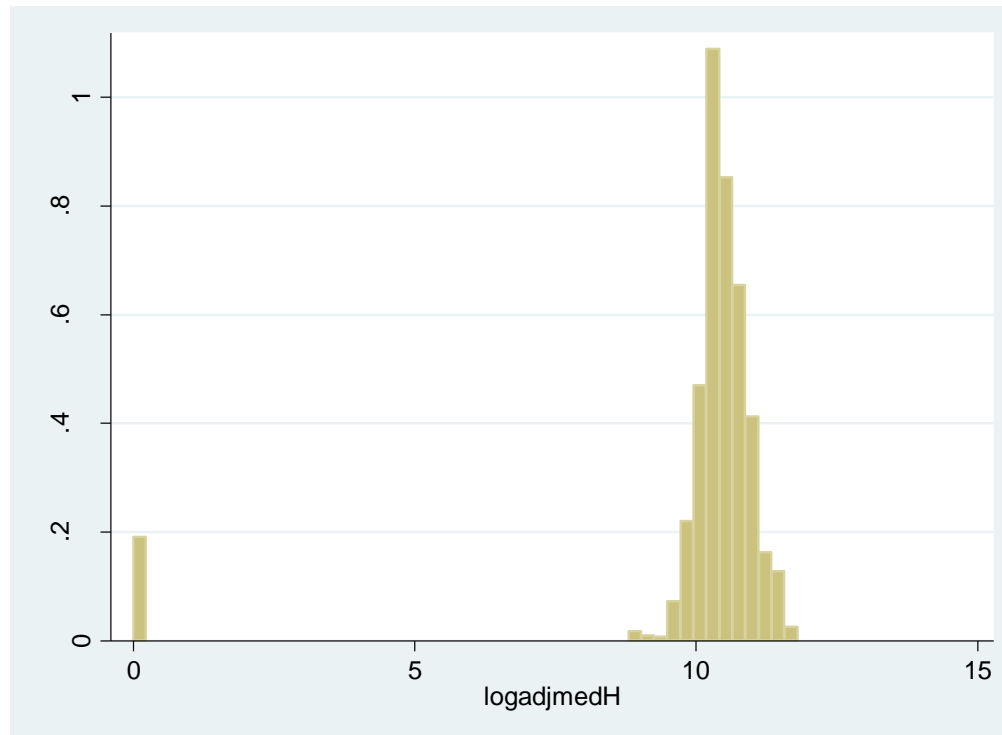
# Histogram of log of campus sizes



# Histogram of median household income



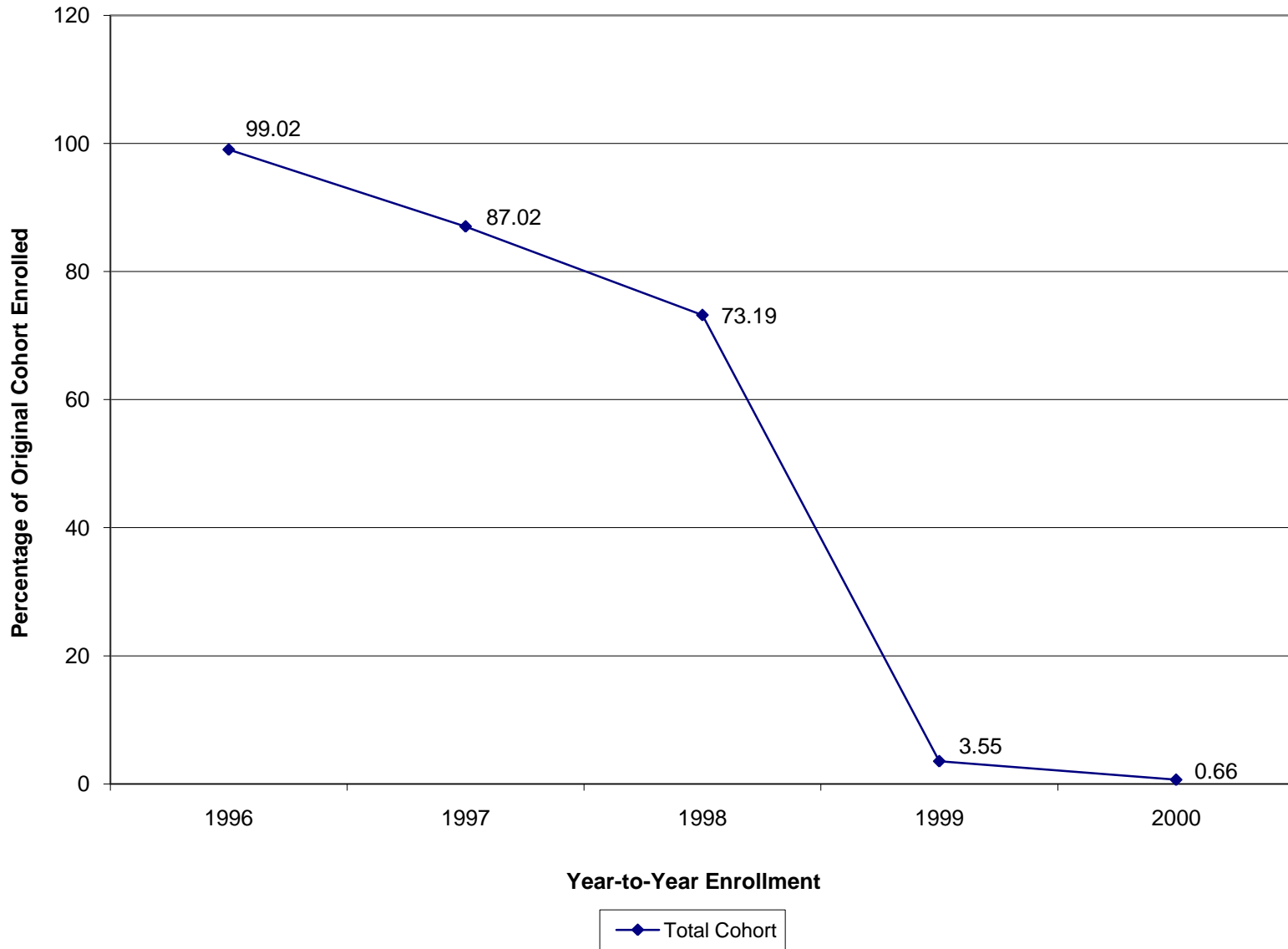
# Histogram of the log of median household income



# Dropout reasons by pregnancy, marriage, and other

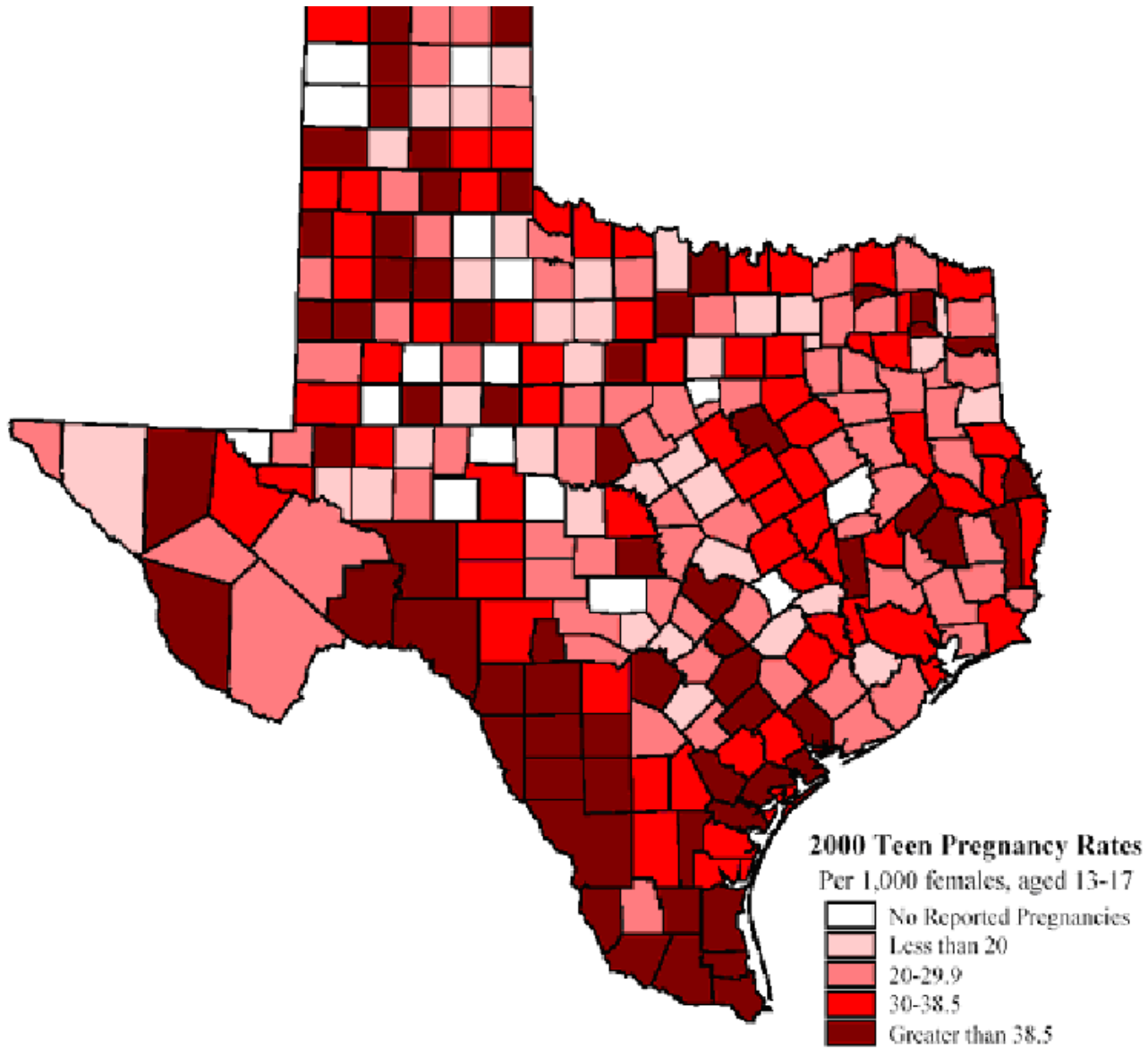
		All	PregA	PregF
Blk		23,012		
Hsp		54,213		
Wht		68,579		
Summed Total		145,804	2,266	8,527
Reported Total		145,804	2,266	8,527
<u>Droppre</u> <u>g</u>			5.52	
Blk	14.40	0.08	4.69	0.86
Hsp	64.00	0.15	5.37	1.87
Wht	21.60	0.04	6.91	1.25
Blk	14.40			
Hsp	64.00			
Wht	21.60			
	100.00			
<u>Dropmar</u> <u>r</u>				1.40
Blk	1.68	0.01		0.10
Hsp	78.15	0.17		2.18
Wht	20.17	0.03		1.11
Blk	1.68			
Hsp	78.15			
Wht	20.17			
	100			
<u>Dropothr</u>				15.82
Blk	25.57	1.50		16.44
Hsp	55.74	1.39		17.61
Wht	18.68	0.37		11.68

Percentage of the total cohort enrolled in each year





# Texas teen pregnancy rates, 2000



## Table of basic models for ethnicity

Results for above normal-age females using moderate measures					
		DP 2.71% <u>(Table 6.5)</u>	NDP 0.76% <u>(Table 6.9)</u>	DNP 64.94% <u>(Table 6.13)</u>	NDNP 31.59% <u>(Table 6.17)</u>
<i>Basic Models</i>					
	Hispanic	1.987***	0.405***	4.700***	-7.091***
	Black	1.182***	0.204*	6.259***	-7.649***
<i>Full Models</i>					
	Hispanic	0.796***	0.289***	0.289***	-4.506***
	Black	0.793***	0.384***	0.384***	-6.698***

Table 4.2 Overview of empirical models for investigating joint decisions about dropping out and/or pregnancy while in high school

<u>Variables</u>	<i>Models</i>				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Hispanic	X	X	X	X	X
Black	X	X	X	X	X
Economically disadvantaged		X	X	X	X
Math		X	X	X	X
Nomath		X	X	X	X
Language needs		X	X	X	X
Gifted		X	X	X	X
Speced		X	X	X	X
Immigrant		X	X	X	X
Border		X	X	X	X
Pct Hispanic in neighborhood				X	X
Pct Black in neighborhood				X	X
Family income in neighborhood				X	X
Pct immigrant in neighborhood				X	X
Pct Spanish speakers in neighborhood				X	X
Pct mobility in neighborhood				X	X
Pct grandparents in neighborhood				X	X
Missing census				X	X
Pct Hispanic at HS			X		X
Pct Black at HS			X		X
Pct economically disadvantaged at HS			X		X
Pct immigrant at HS			X		X
Campus size			X		X

The models shown here will be considered twice, once using the below/normal age female population and again using the older age female population.

Table 4.3 Models by sub-group populations to investigate effects on joint decisions about dropping out and/or pregnancy while in high school

Parameters	<i>Models</i>		
	Hispanics	Blacks	Those at/near the border
Hispanic			X
Black			X
Below normal age	X	X	
Above normal age	X	X	
Economic disadvantage	X	X	X
Math	X	X	X
Nomath	X	X	X
Language needs	X	X	X
Gifted	X	X	X
Speced	X	X	X
Immigrant	X	X	X
Border	X	X	
Pct Hispanic in neighborhood	X	X	X
Pct Black in neighborhood	X	X	X
Family income in neighborhood	X	X	X
Pct immigrant in neighborhood	X	X	X
Pct Spanish speakers in neighborhood	X	X	X
Pct mobility in neighborhood	X	X	X
Pct grandparents in neighborhood	X	X	X
Missing Census	X	X	X
Pct Hispanic at HS	X	X	X
Pct Black at HS	X	X	X
Pct econ. disadv. at HS	X	X	X
Pct immigrant at HS	X	X	X
Campus size	X	X	X

Table 4.4 Hypotheses of effects for the outcome Dropped out and Pregnant

<u>Variables</u>	<u>Models</u>				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Hispanic	+	+	+	+	+
Black	+	?	?	?	?
Economically disadvantaged		+	+	+	+
Math		-	-	-	-
Nomath		+	+	+	+
Language needs		-	-	-	-
Gifted		-	-	-	-
Speced		-	-	-	-
Immigrant		?	?	?	?
Border		?	?	?	+
Pct Hispanic in neighborhood				?	?
Family income in neighborhood				-	-
Immigrant in neighborhood				?	?
Pct Spanish speakers in neighborhood				?	?
Pct mobility in neighborhood				+	+
Pct grandparents in neighborhood				?	?
Missing census				?	?
Pct Hispanic at HS			?		?
Pct Black at HS			?		?
Pct economically disadvantaged at HS			+		+
Pct immigrant at HS			?		?
Campus Size			?		?

The "+" sign corresponds with a hypothesized marginal effect greater than zero.

Table 4.5 Theoretically-derived hypotheses of effects for the outcome Not dropped out and Pregnant

<u>Variables</u>	<u>Models</u>				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Hispanic	+	+	+	+	+
Black	+	+	+	+	+
Economically disadvantaged		+	+	+	+
Math		+	+	+	+
Nomath		-	-	-	-
Language needs		-	-	-	-
Gifted		+	+	+	+
Speced		-	-	-	-
Immigrant		?	?	?	?
Border		?	?	?	?
Pct Hispanic in neighborhood				?	?
Pct Black in neighborhood				?	?
Family income in neighborhood				+	+
Pct immigrant in neighborhood				?	?
Pct Spanish speakers in neighborhood				?	?
Pct mobility in neighborhood				-	-
Pct grandparents in neighborhood				?	?
Missing census				?	?
Pct Hispanic at HS			?		?
Pct Black at HS			?		?
Pct economically disadvantaged at HS			-		-
Pct immigrant at HS			?		?
Campus Size			?		?

The "+" sign corresponds with a hypothesized marginal effect greater than zero.

The "-" sign corresponds with a hypothesized marginal effect less than zero.

A "?" indicates that the effect cannot be *a priori* hypothesized.

Table 4.6 Theoretically-derived hypotheses of effects for the outcome Dropped out and Not Pregnant

<u>Variables</u>	<u>Models</u>				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Hispanic	+	+	+	+	+
Black	?	?	?	?	?
Economically disadvantaged		+	+	+	+
Math		-	-	-	-
Nomath		+	+	+	+
Language needs		-	-	-	-
Gifted		-	-	-	-
Speced		-	-	-	-
Immigrant		?	?	?	?
Border		?	?	?	?
Pct Hispanic in neighborhood				?	?
Pct Black in neighborhood				?	?
Family income in neighborhood				-	-
Pct immigrant in neighborhood				?	?
Pct Spanish speakers in neighborhood				?	?
Pct mobility in neighborhood				+	+
Pct grandparents in neighborhood				?	?
Missing census				?	?
Pct Hispanic at HS			?		?
Pct Black at HS			?		?
Pct economically disadvantaged at HS			+		+
Pct immigrant at HS			?		?
Campus Size			?		?

The "+" sign corresponds with a hypothesized marginal effect greater than zero.





Table 5.9. Dropout and pregnancy outcomes by family income and their marginal distributions (as percent)

	Conservative						Inclusive					
	<i>Dependent variable (joint distribution of Pregnant and Dropped outcomes)</i>						<i>Dependent variable (joint distribution of Pregnant and Dropped outcomes)</i>					
					<i>Marginal distributions</i>						<i>Marginal distributions</i>	
<i>Among:</i>	<u>Dropped &amp; Pregnant</u>	<u>Not Dropped &amp; Pregnant</u>	<u>Dropped &amp; Not Pregnant</u>	<u>Not Dropped &amp; Not Pregnant</u>	<u>Pregnant</u>	<u>Dropped</u>	<u>Dropped &amp; Pregnant</u>	<u>Not Dropped &amp; Pregnant</u>	<u>Dropped &amp; Not Pregnant</u>	<u>Not Dropped &amp; Not Pregnant</u>	<u>Pregnant</u>	<u>Dropped</u>
<i>All non-poor</i>	0.1	0.3	3.7	95.9	0.4	3.8	1.7	0.9	23.7	73.9	2.6	25.4
Normal age, non-poor	0.02	0.2	2.0	97.9	0.2	2.0	0.6	0.6	17.9	81.1	1.2	18.5
Above normal age, non-poor	0.3	1.0	12.3	86.3	1.4	12.7	7.2	2.3	51.5	39.3	9.5	58.7
<i>All poor</i>	0.7	1.1	7.9	90.9	1.7	8.6	0.7	1.8	13.3	84.3	2.5	14.0
Normal age, poor	0.2	1.1	8.0	90.9	1.3	8.2	2.6	2.0	31.6	64.0	4.6	34.2
Above normal age, poor	1.3	2.7	20.2	75.7	4.1	21.5	11.4	2.4	58.9	27.5	13.8	70.3

Table 5.10. Dropout and pregnancy outcomes by family income ethnicity and age, and their marginal distributions (as percent)

	Conservative				Inclusive							
	<i>Dependent variable (joint distribution of Pregnant and Dropped outcomes)</i>				<i>Dependent variable (joint distribution of Pregnant and Dropped outcomes)</i>							
	<i>Marginal distributions</i>				<i>Marginal distributions</i>							
<i>Among:</i>	<u>Dropped &amp; Pregnant</u>	<u>Not Dropped &amp; Pregnant</u>	<u>Dropped &amp; Not Pregnant</u>	<u>Not Dropped &amp; Not Pregnant</u>	<u>Preg- nant</u>	<u>Drop- ped</u>	<u>Dropped &amp; Pregnant</u>	<u>Not Dropped &amp; Pregnant</u>	<u>Dropped &amp; Not Pregnant</u>	<u>Not Dropped &amp; Not Pregnant</u>	<u>Preg- nant</u>	<u>Drop- ped</u>
<i>Non-poor Whites</i>												
All ages	0.1	0.2	3.0	96.8	0.2	3.0	1.3	0.6	22.1	76.0	1.9	23.3
Normal age	0.0	0.1	1.8	98.1	0.1	1.8	0.5	0.4	17.8	81.3	0.9	18.3
Above normal age	0.2	0.8	10.2	88.8	1.0	10.4	6.1	2.2	47.7	44.0	8.2	53.8
<i>Poor Whites</i>												
All ages	0.4	1.0	10.9	87.7	1.4	11.3	4.7	1.5	44.9	48.9	6.2	49.6
Normal age	0.1	0.5	6.7	92.8	0.6	6.8	2.2	1.2	35.7	60.9	3.4	37.9
Above normal age	1.0	2.0	18.9	78.1	2.9	19.9	9.4	2.1	62.2	26.4	11.5	71.6
<i>Non-poor Hispanics</i>												
All ages	0.2	1.0	6.6	92.2	1.2	6.8	3.1	1.4	30.5	65.1	4.4	33.6
Normal age	0.02	0.7	2.8	96.5	0.7	2.8	1.0	1.0	18.3	79.7	2.0	19.3
Above normal age	0.7	1.9	16.6	80.8	2.6	17.3	8.4	2.3	61.2	28.1	10.7	69.6
<i>Poor Hispanics</i>												
All ages	0.8	2.2	13.8	83.2	3.0	14.6	6.3	2.2	43.3	48.1	8.5	49.7
Normal age	0.2	1.5	8.7	89.5	1.7	9.0	2.5	2.3	30.4	64.7	4.8	32.9
Above normal age	1.5	3.0	19.7	75.7	4.6	21.3	10.9	2.1	56.6	28.4	13.0	67.5
<i>Non-poor Blacks</i>												
All ages	0.0	0.4	5.6	94.0	0.4	5.6	3.1	1.4	26.4	69.1	4.5	29.5
Normal age	0.0	0.2	2.3	97.5	0.2	2.3	0.8	1.0	18.0	80.2	1.8	18.8
Above normal age	0.2	0.9	16.6	82.4	1.0	16.7	10.6	2.5	53.7	33.3	13.0	64.2
<i>Poor Blacks</i>												
All ages	0.5	1.5	14.2	83.8	2.0	14.7	8.1	2.4	41.2	48.3	10.5	49.3
Normal age	0.1	0.6	7.7	91.7	0.7	7.7	3.0	1.9	28.9	66.2	4.9	31.9
Above normal age	1.1	2.6	22.5	73.8	3.7	23.7	14.4	3.0	56.7	25.9	17.4	71.1

Table 5.11. Hispanic Dropout and Pregnancy outcomes by immigrant versus non-immigrant status (as percent)

	Conservative						Inclusive					
	<i>Dependent variable (joint distribution of Pregnant and Dropped outcomes)</i>				<i>Marginal distributions</i>		<i>Dependent variable (joint distribution of Pregnant and Dropped outcomes)</i>				<i>Marginal distributions</i>	
	<u>Dropped &amp; Pregnant</u>	<u>Not Dropped &amp; Pregnant</u>	<u>Dropped &amp; Not Pregnant</u>	<u>Not Dropped &amp; Not Pregnant</u>	<u>Preg-nant</u>	<u>Drop-ped</u>	<u>Dropped &amp; Pregnant</u>	<u>Not Dropped &amp; Pregnant</u>	<u>Dropped &amp; Not Pregnant</u>	<u>Not Dropped &amp; Not Pregnant</u>	<u>Preg - nant</u>	<u>Drop - ped</u>
<i>All Hispanic non-immigrants</i>	0.8	2.2	12.5	84.4	3.0	13.3	6.4	2.3	40.0	51.3	8.6	46.4
Normal age	0.2	0.3	7.4	92.2	0.5	7.6	2.3	2.2	27.0	68.5	4.5	29.3
Above normal age	1.7	3.3	20.2	74.8	5.0	21.9	12.0	2.4	58.2	27.4	14.4	70.2
<i>All Hispanic immigrants</i>	0.3	1.1	13.4	85.3	1.3	13.6	3.4	1.3	50.0	45.3	4.7	53.4
Normal-age	0.03	0.8	9.9	89.2	0.8	10.0	1.53	1.4	36.1	61.0	2.9	37.6
Above normal age	0.5	1.3	16.4	81.8	1.8	16.9	4.96	1.2	61.6	32.2	6.1	66.6

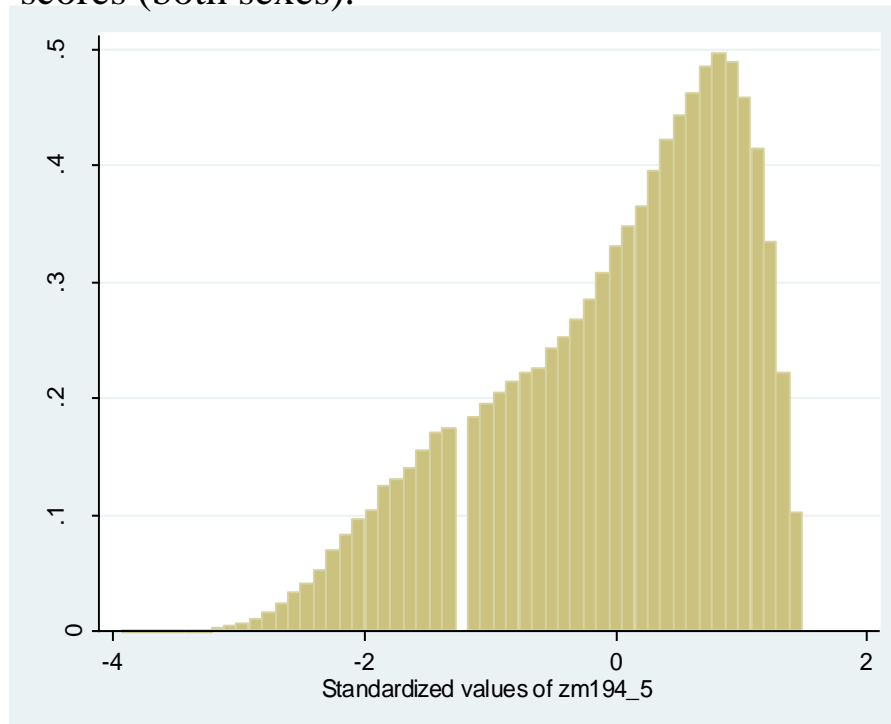
Table 5.12. Dropout and pregnancy outcomes among Hispanics by family income and age (as percent)

		<i>Conservative</i>					
		<i>Dependent variable (joint distribution of Pregnant and Dropped outcomes)</i>				<i>Marginal distributions</i>	
<i>Among:</i>		Not Dropped & Pregnant	Not Dropped & Pregnant	Dropped & Not Pregnant	Dropped & Not Pregnant	Preg nant	Drop ped
<u>Non-poor</u>							
<i>Non-poor Hispanic natives</i>							
	All ages	0.2	1.0	6.1	92.7	1.3	6.3
	Normal age	0.02	0.7	2.5	96.8	0.7	2.6
	Above normal age	0.8	2.1	16.3	80.8	2.9	17.1
<i>Non-poor Hispanic immigrants</i>							
	All ages	0.00	0.8	17.8	81.4	0.8	17.8
	Normal age	0.00	1.0	16.5	82.5	1.0	16.5
	Above normal age	0.00	0.4	18.7	80.9	0.4	18.7
<u>Poor</u>							
<i>Poor Hispanic natives</i>							
	All ages	0.9	2.5	13.9	82.7	3.4	14.8
	Normal age	0.3	1.7	8.6	89.5	1.9	8.8
	Above normal age	1.8	3.5	20.7	74.1	5.3	22.4
<i>Poor Hispanic immigrants</i>							
	All ages	0.3	1.1	13.2	85.4	1.4	13.5
	Normal age	0.03	0.8	9.8	89.4	0.8	9.8
	Above normal age	0.5	1.4	16.3	81.8	1.9	16.8

Table 5.12. continued

		<i>Inclusive</i>					
		<i>Dependent variable (joint distribution of Pregnant and Dropped outcomes)</i>				<i>Marginal distributions</i>	
<i>Among:</i>		Not Dropped & Pregnant	Not Dropped & Pregnant	Dropped & Not Pregnant	Dropped & Not Pregnant	Preg nant	Drop ped
<u>Non-poor</u>							
<i>Non-poor Hispanic natives</i>							
	All ages	3.1	1.4	28.7	66.9	4.4	31.8
	Normal age	1.0	1.0	17.7	80.3	2.0	18.7
	Above normal age	9.0	2.4	59.1	29.5	11.4	68.0
<i>Non-poor Hispanic immigrants</i>							
	All ages	3.1	0.8	70.0	26.1	3.9	73.1
	Normal age	1.0	0.00	53.4	45.6	1.0	54.4
	Above normal age	3.7	1.2	79.3	15.9	4.9	82.9
<u>Poor</u>							
<i>Poor Hispanic natives</i>							
	All ages	7.0	2.4	42.1	48.5	9.4	49.1
	Normal age	2.7	2.5	29.5	65.3	5.2	32.2
	Above normal age	12.4	2.4	58.1	27.2	14.7	70.5
<i>Poor Hispanic immigrants</i>							
	All ages	3.3	1.3	48.8	46.6	4.6	52.2
	Normal age	1.5	1.5	35.6	61.4	3.0	37.1
	Above normal age	5.0	1.2	60.6	33.2	6.2	65.7

Figure 5.2 Histogram of the 1990-91 statewide 5th grade normalized and standardized TAAS math scores (both sexes).



# Tests of hypotheses

Test of hypothesis for multiple coefficients across three models for each of three outcomes using conservative measurements for above-normal age females

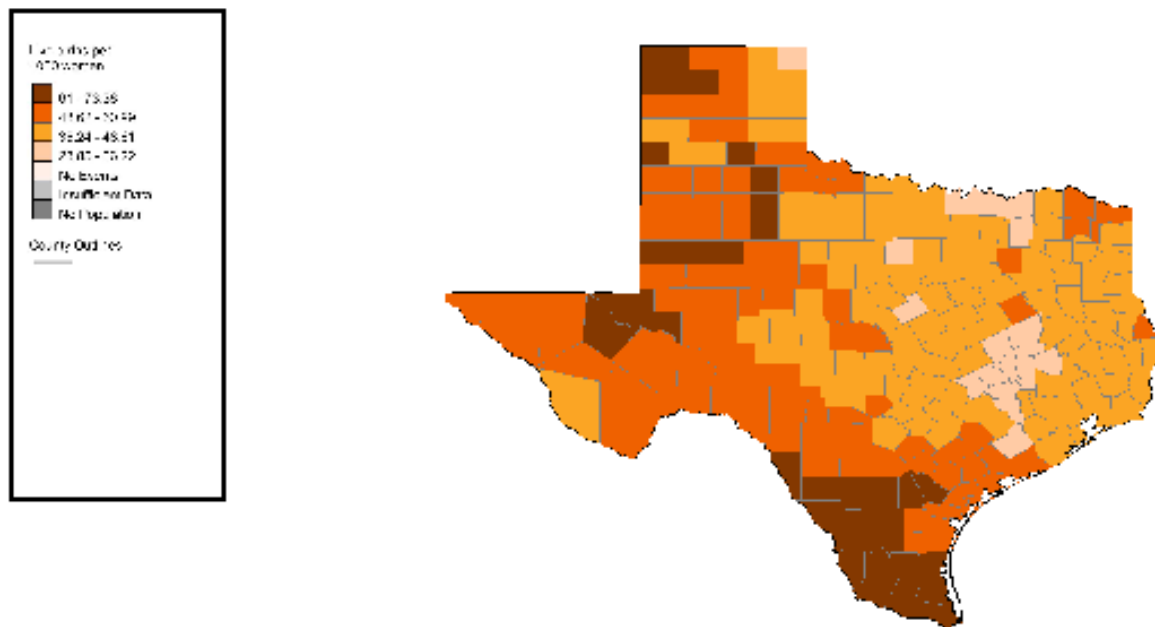
	DP			NDP			DNP		
	<u>C3</u>	<u>C4</u>	<u>C5</u>	<u>C3</u>	<u>C4</u>	<u>C5</u>	<u>C3</u>	<u>C4</u>	<u>C5</u>
Neighborhood	---	0.955 0	0.107 0	---	0.109 1	0.207 0	---	0.198 7	0.046 0
High School	0.000 0	---	0.000 0	0.000 0	---	0.000 0	0.000 9	---	0.001 5

# Major Hypotheses (*Relative to the average White female*)

	<b>Dropped &amp; Pregnant</b>	<b>Not Dropped and Pregnant</b>	<b>Dropped and Not Pregnant</b>
Hispanic	+	+	+
Econ.Disadvantage	+	+	+
Immigrant	?	?	?
Border	?	?	?
Black	+	?	+
Special education	-	-	-
Age: older	+	+	+

## Pregnancy Outcome Rates for Texas by Smoothed Counties, 1995-1999

Fertility; 15-17 years; All Races; All Ethnicities



The rate for Texas is 46.64.

**National Statistics** † The rate for the nation is 32.01.

The upper 10th percentile rates for this demographic group are 48.77 and above.

The lower 10th percentile rates for this demographic group are 15.63 and below.

Source: 1-CDC, National Center for Health Statistics, Division of Vital Statistics, National Vital Statistics System.

2-U.S. Bureau of the Census, United States population estimates, by age, sex, race, and Hispanic origin: 1995-1999. Washington: U.S. Department of Commerce.

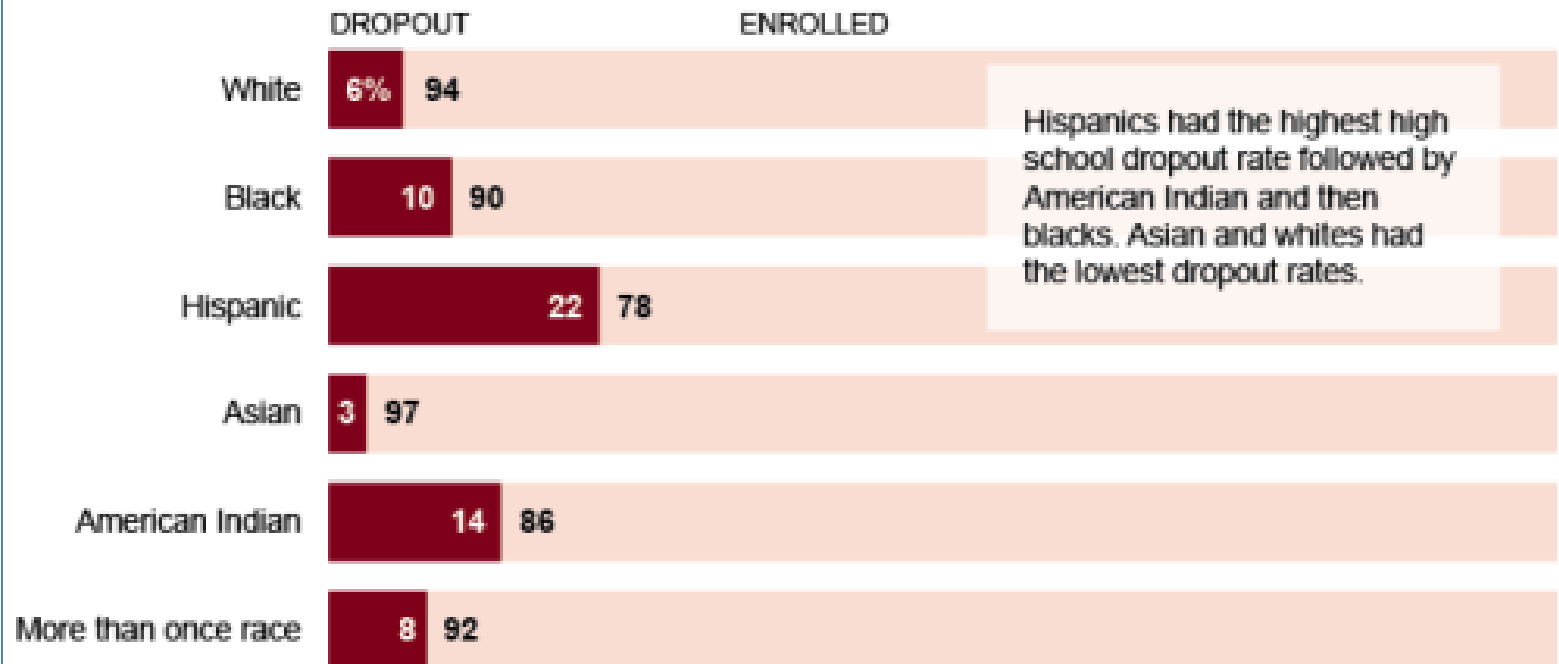
Map classification method: Equal Interval



# Magnitude of the issue: dropouts

## High School Dropout Rates by Race

According to an analysis done in October 2005, there was an estimated 3.5 million high school dropouts in the United States.



Sources: U.S. Department of Commerce, Census Bureau, Current Population Survey

FlowingData

# Magnitude of the issue: pregnancy/births

“TEENAGE PREGNANCY RATES ... DECLINED CONSIDERABLY IN THE 1990’S ... DOWN 15 PERCENT” (FEMALES 15-19 YRS)

Centers for Disease Control and Prevention, National Center for Health Statistics, Jan. 2000, Series 21 No.

56

In the United States, **teen pregnancy** rates have dropped in the last decade, but the decline is the smallest for

Latinas...WPTV - West Palm Beach,FL, Sept. 14, 2007.

**However, in 1995, “about 1 out of 3 sexually active black and Hispanic teenagers became pregnant compared with about 1 out of 6 sexually active non-Hispanic white teenagers.**

Centers for Disease Control and Prevention, National Center for Health Statistics, Jan. 2000, Series

21 No. 56

**In 2002, Hispanics had the highest birth rate: 83.4 births per 1000 females** (Martin et al. 2005)

## Magnitude of the issue: pregnancy/births US and TEXAS

Teen Pregnancy Rate for Girls Aged 15-19 by Race/Ethnicity,  
2000 (Rate per 1,000)

Statistic	Texas	United States
Non-Hispanic Whites	65	55
African Americans	120	153
Hispanics	142	138

Source: The National Campaign to Prevent Teen Pregnancy (2007) compiled from a report by The Alan Guttmacher Institute (2004).

Magnitude of the issue: pregnancy/births  
TEXAS

**1996: Texas 1<sup>st</sup> in number of teenage pregnancies** (CDC 2000)

A consequence: by 2007, Webb county in Texas  
had the highest proportion of children under 5-yrs old.

Table 5.6. Age distribution in the 1994-1995 9th-grade cohort

<u>Age</u>	<u>Number of individuals</u>	<u>Percent within cohort</u>
<i>Below normal age*</i>		
14	3,711	2.6
<i>Normal age*</i>		
14	44,809	30.9
15	50,556	34.8
<i>Above normal age*</i>		
15	17,616	12.1
16	20,743	14.3
17	5,922	4.1
18	1,403	1.0
19	NA**	
20	NA**	
Total(excluding 19 and 20 year olds):	144,760	99.7

\*An individual was classified as normal-age if her birth date satisfied state guidelines matching ages with grade levels.

\*\*NA indicates counts that cannot be revealed as required by the Family Educational Rights and Privacy Act (FERPA). The cohort sample size is 145,175. Thus, the 415 (= 145,175 - 144,760) excluded girls in the cohort, who were ages 19 and 20, represent less than 0.3 percent of the cohort sample size.

Table 5.14. Means and standard deviations of individual characteristics and their neighborhood characteristics averaged over individuals (as percents or a 0-to-1 binary variable)

<u>Variables</u>	<u>Mean</u>	<u>Min</u>	<u>Max</u>	<u>Standard Deviation</u>
Hispanic	0.37	0	1	0.48
Black	0.16	0	1	0.37
Below normal age	0.03	0	1	0.16
Above normal age	0.32	0	1	0.47
Hispanic-above normal age	0.16	0	1	0.37
Black-above normal age interaction	0.06	0	1	0.24
Economically disadvantaged	0.58	0	1	0.49
Math	-0.02	-4.01	1.64	0.86
Nomath	0.23	0	1	0.42
Language needs	0.13	0	1	0.33
Gifted	0.09	0	1	0.28
Speced	0.07	0	1	0.26
Immigrant	0.06	0	1	0.24
Border	0.14	0	1	0.35
Pct Hispanic in neighborhood	0.34	0.00	1.00	0.31
Pct Black in neighborhood	0.11	0.00	0.95	0.19
Family income in neighborhood	37,886	0.00	134,081	19,181
Pct immigrant in neighborhood	0.13	0.00	61.55	0.12
Pct Spanish speakers in neighborhood	0.27	0.00	0.91	0.25
Pct mobility in neighborhood	0.46	0.00	1.00	0.15
Pct grandparents in neighborhood	0.07	0.00	0.21	0.03
Missing census	0.00	0	1	0.03
Pct Hispanic at HS	0.37	0.00	100.00	0.32
Pct Black at HS	0.15	0.00	0.98	0.21
Pct economically disadvantaged at HS	0.51	0.00	100.00	0.25
Pct immigrant at HS	0.06	0.00	0.96	0.10
Hispanic-Pct Hispanic at HS	0.24	0.00	100.00	0.36
Pct Hispanic females at HS	0.35	0.00	100.00	0.32
Pct Black females at HS	0.15	0.00	0.99	0.21
Pct econ. disadvantaged females at	0.51	0.00	100.00	0.25
Pct immigrant females at HS	0.06	0.00	100.00	0.09
Hispanic-Pct Hispanic at HS	0.23	0.00	100.00	0.36
Campus Size	1472	6	880	3795

Table 5.1 Years and types of TSP PEIMS<sup>1</sup> data files used for constructing the cohort and creating the variables

Data file types	1990-1991	1991-1992	1992-1993	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	uses of data sources
Enrollment	-	-	-	-	C	-	-	-	-	-	construction of cohort (list of IDs that define the cohort)
Enrollment	V, +	V, +	V, +	V, +	ch, V, DV	ch, V, DV	ch, V, DV	ch, V, DV	ch, V, DV	ch, V, DV	collect demographic and sample attrition information
Demography	**	**	ch, +	ch, +	ch, +	ch, +	ch, +	ch, +	ch, +	ch, +	duplicate observations checking
Course Completion	**	DV	DV	DV	DV	DV	DV	DV	DV	DV	
Career & Technology (Enrollment)	DV	DV	DV	DV	DV	DV	DV	DV	DV	DV	primary source for measuring pregnancy outcomes

<sup>1</sup> Public Education Information Management System (PEIMS)

“C” indicates source files that were used to identify individuals in the cohort (dataset construction).

"ch" indicates sources used for checking duplicate observations and other low-frequency but potentially serious identifications problems originating from the construction of the data.

"V" indicates source files used to construct new variables (variables construction).

"DV" (for Dependent Variable) indicates source files used in constructing both conservative and inclusive measures of the dependent variable defined by pregnancy and dropout outcomes.

"+" indicates source files used to add or match demographic characteristics in the cohort.

• Files not available in those years; they either did not exist (e.g. Leaver) or were replaced (e.g. Drop, Drop Reason).

\*\* TSP files either did not exist or were not available for use.

Table 5.1 continued

Data file types	1990-1991	1991-1992	1992-1993	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	uses of data sources
Attendance			V, DV	V, DV	V, DV	V, DV	V, DV	V, DV	V, DV	V, DV	campuses devoted to serving pregnant girls (conservative & inclusive)
Drop	**	**			DV	DV	DV	DV	DV	•	
Drop Reason	**	**	**		DV	DV	DV	DV	DV	•	dropout and pregnancy outcomes (conservative & inclusive)
Leaver	•	•	•	•	•	•	•	•	•	DV	
Graduation					DV	DV	DV	DV	DV	DV	dropout information (inclusive only)
TAAS, all grades	V, +	V, +	V, +	V, +	V, +	V, +	V, +	V, +	V, +	V, +	standardized math scores

<sup>1</sup> Public Education Information Management System (PEIMS)

“C” indicates source files that were used to identify individuals in the cohort (dataset construction).

"ch" indicates sources used for checking duplicate observations and other low-frequency but potentially serious identifications problems originating from the construction of the data.

"V" indicates source files used to construct new variables (variables construction).

"DV" (for Dependent Variable) indicates source files used in constructing both conservative and inclusive measures of the dependent variable defined by pregnancy and dropout outcomes.

"+" indicates source files used to add or match demographic characteristics in the cohort.

• Files not available in those years; they either did not exist (e.g. Leaver) or were replaced (e.g. Drop, Drop Reason).

\*\* TSP files either did not exist or were not available for use.



## Results - high school exposure

### Marginal effects for below- and normal age girls, moderately measured

Percent	DP	NDP	DNP
Hispanic	(0.001)***	(0.001)***	(0.045)***
Black	(0.000)***	(0.000)***	NS
Economically disadvantaged	0.022**	0.041	NS
Immigrant	NS	NS	NS
Campus Size	0.064***	0.224***	2.023***

For a unit change of 0% to 100% for percents; from min. to max. for campus size

\* p <.10, \*\* p <.05, \*\*\* p <.01

# Interpretation / Plausible Explanations

## Dropping Out

- Hopelessness of poverty
  - Educational future
  - Employment future
- Dysfunctional family
  - Abuse
  - Parenting
- Cultural identity
  - Membership attachment
  - Gender role
- Health policy
- Education policy
  - Abstinence only vs sex education in schools
- Poor academic performance
  - Attachment to school
- Economic disadvantage
  - Abuse as child
  - Attachment to school
  - Poor academic performance
- Culture
  - Hispanic vs. Black
  - Catholicism vs. Protestantism
  - Mexican-heritage vs. American heritage
- Acculturation/assimilation
  - Color line
  - Transitions and adjustments

# Measurement: dependent variable

Table 5.4. Dropout and pregnancy by ethnicity and age (in percent)

		Conservative						Inclusive					
		<i>Dependent variable (joint distribution of Pregnant and Dropped outcomes)</i>				<i>Marginal distributions</i>		<i>Dependent variable (joint distribution of Pregnant and Dropped outcomes)</i>				<i>Marginal distributions</i>	
		Dropped & Pregnant	Not Dropped & Pregnant	Dropped & Not Pregnant	Not Dropped & Not Pregnant			Dropped & Pregnant	Not Dropped & Pregnant	Dropped & Not Pregnant	Not Dropped & Not Pregnant		
<i>Among:</i>		<u>Dropped &amp; Pregnant</u>	<u>Not Dropped &amp; Pregnant</u>	<u>Dropped &amp; Not Pregnant</u>	<u>Not Dropped &amp; Not Pregnant</u>	<u>Preg-nant</u>	<u>Drop-ped</u>	<u>Dropped &amp; Pregnant</u>	<u>Not Dropped &amp; Pregnant</u>	<u>Dropped &amp; Not Pregnant</u>	<u>Not Dropped &amp; Not Pregnant</u>	<u>Preg-nant</u>	<u>Drop-ped</u>
All (N=145,175)		0.41	1.2	9.1	89.3	1.6	9.6	4.3	1.5	34.9	59.2	5.9	39.3
All Whites (N=68,221)		0.15	0.4	5.3	94.2	0.6	5.4	2.3	0.9	28.7	68.1	3.2	31.0
All Hispanics (N=54,017)		0.72	2.0	12.7	84.6	2.8	13.4	5.8	2.1	41.4	50.7	7.9	47.2
All Blacks (N=22,937)		0.43	1.3	12.4	86.0	1.7	12.8	7.0	2.2	38.0	52.4	9.2	45.0
<i>normal-age</i>													
All		0.08	0.6	4.9	94.5	0.7	5.0	1.5	1.2	24.5	72.7	2.7	26.1
White		0.03	0.2	3.0	96.8	0.2	3.0	0.9	0.6	22.1	76.4	1.5	23.0
Hispanic		0.18	1.4	7.6	90.9	1.5	7.8	2.2	2.1	28.1	67.6	4.3	30.4
Black		0.04	0.5	6.2	93.2	0.6	6.3	2.4	1.6	26.0	69.9	4.1	28.5
<i>older</i>													
All		1.1	2.4	18.5	78.1	3.5	19.6	10.4	2.3	57.2	30.1	12.7	67.7
White		0.6	1.4	14.6	83.4	2.0	15.2	7.8	2.1	55.0	35.1	9.9	62.8
Hispanic		1.5	2.9	19.4	76.2	4.4	20.9	10.6	2.1	58.9	28.4	12.8	69.5
Black		1.0	2.4	21.8	74.9	3.4	22.8	13.9	3.0	56.3	26.8	16.9	70.3

# Measurement: published Texas birth rates by age/ethnicity/year

Table 5.5. Birth rates per 1000 females aged 15-19 in Texas, by ethnicity for years 1995-2000

<u>Year</u>	<u>Black</u>	<u>Hispanic</u>	<u>White</u>
1995	97	119	44
1996	94	117	42
1997	94	117	41
1998	90	119	40
1999	86	123	39
2000	80	104	42

*Sources:* Birth statistics were calculated by author using data available from the Texas Department of State Health Services, Texas Health Data. These data were accessed using the customizable statistical reports, <http://soupfin.tdh.state.tx.us/birthdoc.htm> and <http://soupfin.tdh.state.tx.us/people.htm>. Population statistics for 1995 through 1999 were estimates. The 2000 population was calculated by author using the 2000 U.S. Census factfinder table selection for White non-Hispanic, Black-alone and Hispanic, <http://factfinder.census.gov/>.

## Summary of the dependent variable

### Conservative

- Official HS dropout rates
- &
- Conservative pregnancy measures

### Moderate

- Inclusive HS dropout rates
- &
- Conservative pregnancy measures