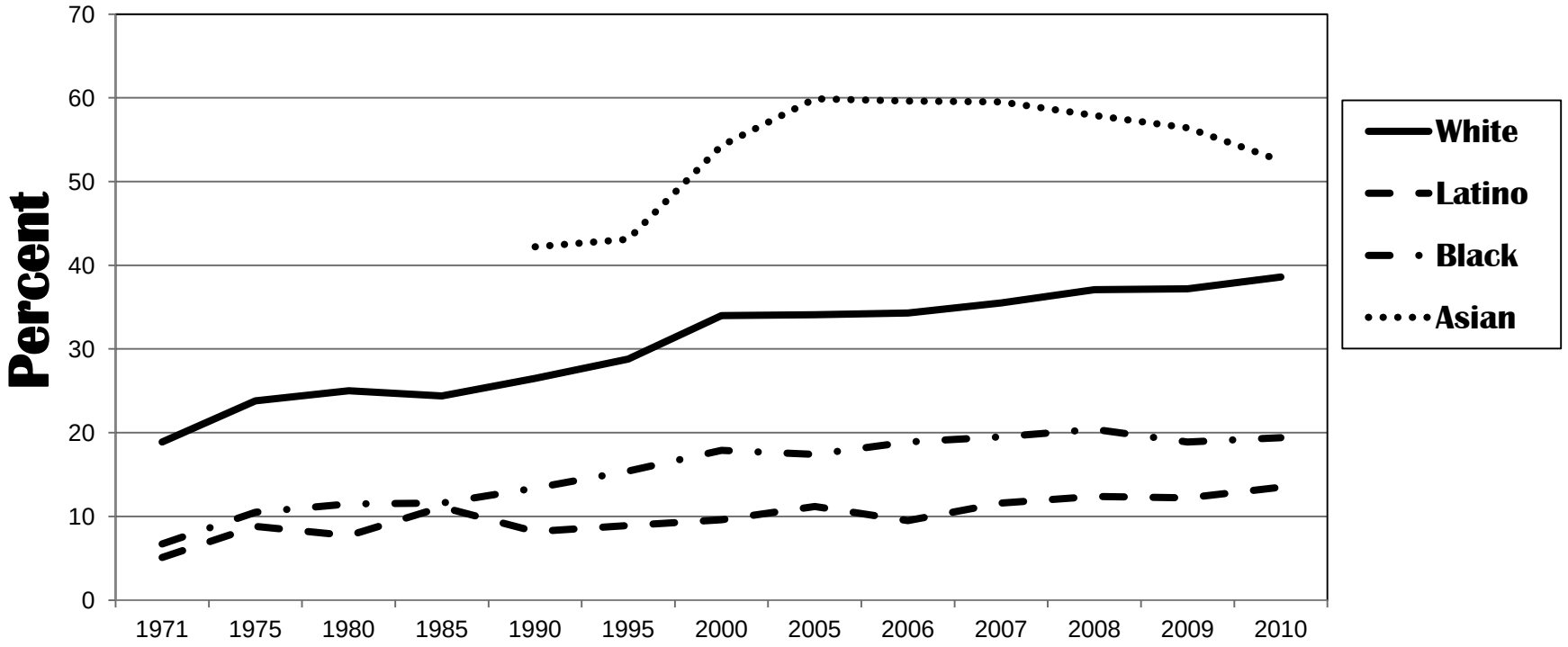
Aligned Ambitions on the Path to College: Insights into the Hispanic College Puzzle

Sarah Ryan
sarah.ryan@email.ucr.edu
University of California – Riverside
June 4, 2012

ACKNOWLEDGEMENTS: This presentation is based on work supported by the Association for Institutional Research, the National Center for Education Statistics, the National Science Foundation and the National Postsecondary Education Cooperative under the Association for Institutional Research Grant Number DG-1125.

As Enrollment has Increased, Disparities have Persisted

Percentage of 25- to 29-year-olds who completed a bachelor's degree, 1971-2010



Source: Aud, S., Hussar, W., Kena, G., Bianco, K., Frohlich, L., Kemp, J., Tahan, K. (2011). *The condition of education 2011* (NCES 2011-033). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

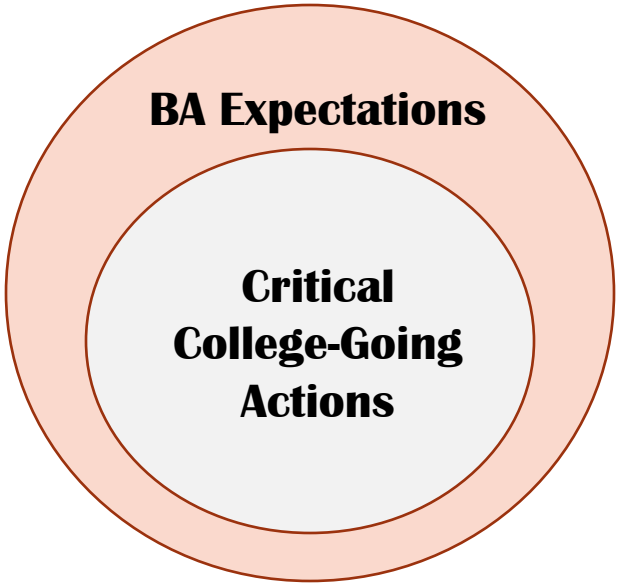
Earlier Pieces Set the Framework for this Research

- **Fry**
- **Gándara**
- **McDonough**
- **Nuñez**
- **O'Connor**
- **Perna**
- **Solórzano**
- **Tienda**
- ***Et cetera…***
- **…the point is, I am standing on many shoulders**

The Role of Social Capital in the Portfolio of Parent Resources Should not be Overlooked

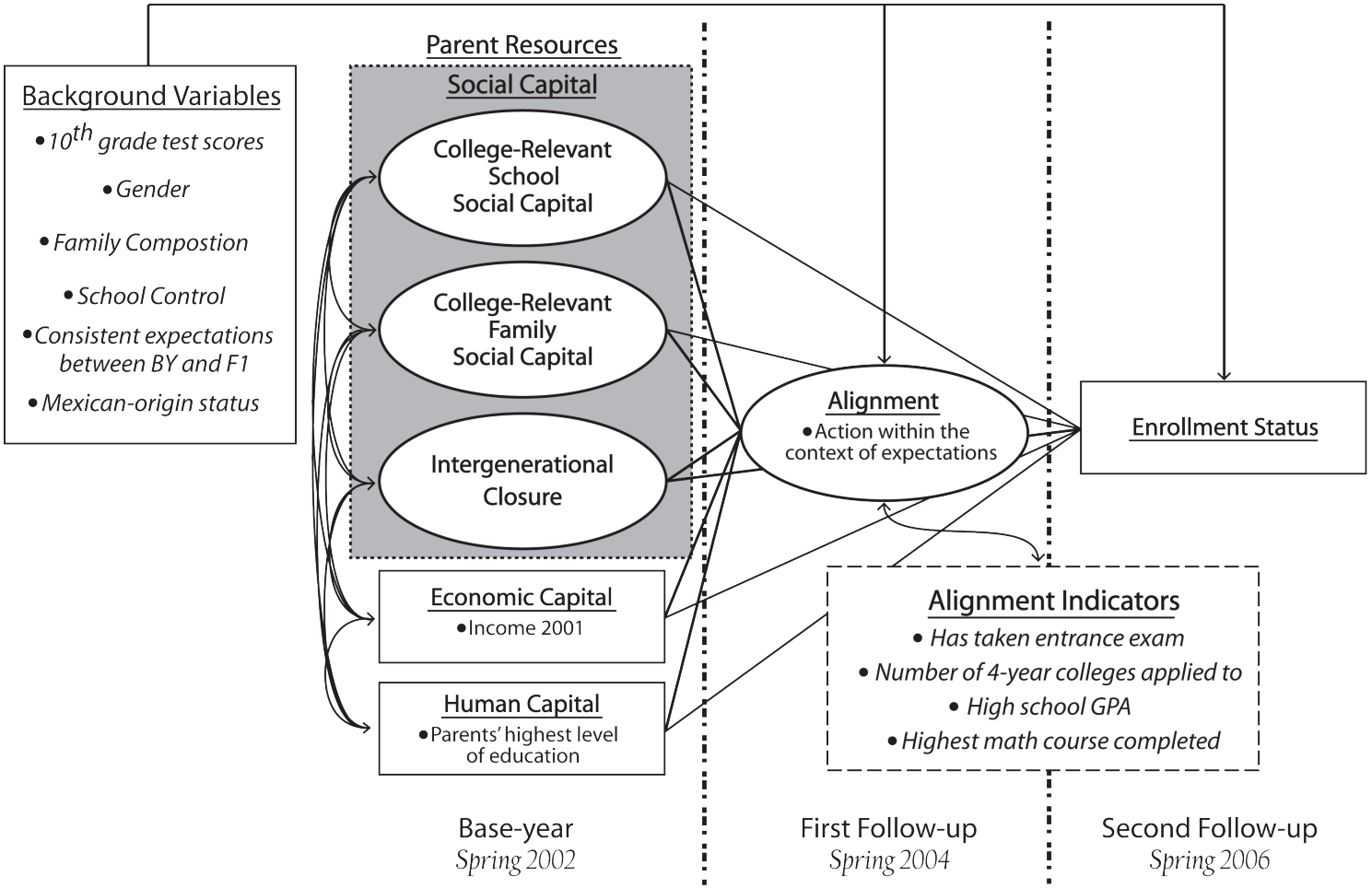
- **Beyond SES —**
  - **James Coleman and human capital investment**
- **Social Capital as Catalyst —**
  - **Pierre Bourdieu and the multiplier effect**

Alignment: Why Getting to College Requires Doing Not Just One Thing, But Many Things



- **Aligned Ambitions**
- **Sample Selection *and* Action Selection**
- **Latent Variable Modeling**

The Latino College Choice Process: *How* do Parent Resources Matter?



Research Questions

1. **Do levels of student alignment vary across groups?**

2. **Across groups, is variation in enrollment associated with variation in parent resources? With variation in alignment?**

3. **Across groups, do parent resources indirectly influence enrollment *via* alignment?**

4. **Do the above associations vary across groups?**

Defining the Samples for this Research

- ***Initial sample*: Nationally representative sample of 2002 10th graders included in BY, F1 and F2 waves (N=13,221)**

- **Further limited:**
  - **12th grade BA plans**
  - **High school completion by June 2005**

- ***Latino N*=1,024 students**
  - **Gen1 N = 176**
  - **Gen 2 N = 308**
  - **Gen3+ N = 354**

- ***Non-Latino White N*=5,420 students**

Latino College Choice and Enrollment

- **Aligned expectations and actions provide large 4-year enrollment boost**
- **Individual traits feature prominently, influence of parent resources less strong**

College Choice and Enrollment Across Immigrant Status

- **Alignment has consistently strong influence**
- **The influence of each type and form of parent resource varies across generation groups**

College Choice and Enrollment Among Latino and White Students

- **Again, expectation-action alignment has powerful influence**
- **The two groups differ importantly – as does their process of college choice**

Results: Full Structural Model, Both Samples

	College Enrollment Status			
	Latina/o Students		White Students	
	b	*SE*	*b*	*SE*
Parent Resources				
Social Capital				
College-Relevant School Social Capital	-0.05	0.08	0.06	0.04
College-Relevant Family Social Capital	-0.04	-0.08	0.01	0.04
Intergenerational Closure	0.10	0.10	0.02	0.05
Economic Capital				
Income	0.01	0.02	0.03**	0.01
Human Capital				
Education: Some college	0.03	0.10	-0.03	0.06
Education: BA or above	0.17	0.12	0.13*	0.07
Student Alignment				
Expectation-Action Alignment	0.98**	0.08	1.03**	0.05

Mediation: LATINO SAMPLE

	Direct Effect		Indirect Effect via Alignment		Total Effect	
	b	SE	*b*	SE	*b*	SE
Parent Resources						
Social Capital						
College-Relevant School Social Capital	-0.04	0.09	0.10	0.08	0.06	0.10
College-Relevant Family Social Capital	-0.05	0.09	0.05	0.07	0.00	0.08
Intergenerational closure	0.10	0.11	0.05	0.10	0.15	0.13
Economic Capital						
Income	0.01	0.03	0.01	0.02	0.02	0.02
Human Capital						
Education: BA or above	0.17	0.12	0.10	0.12	0.27*	0.12

Mediation :WHITE SAMPLE

	Direct Effect		Indirect Effect via Alignment		Total Effect	
	b	SE	*b*	SE	*b*	SE
Parent Resources						
Social Capital						
College-Relevant School Social Capital	0.05	0.04	-0.13	0.05	-0.07	0.04
College-Relevant Family Social Capital	0.01	0.04	0.14	0.04	0.15	0.04
Intergenerational closure	0.03	0.05	0.16	0.04	0.18	0.04
Economic Capital						
Income	0.03	0.01	0.03	0.01	0.06	0.01
Human Capital						
Education: BA or above	0.13	0.06	0.25	0.06	0.38	0.01

So Now What?
Implications for Policy, Practice and Research

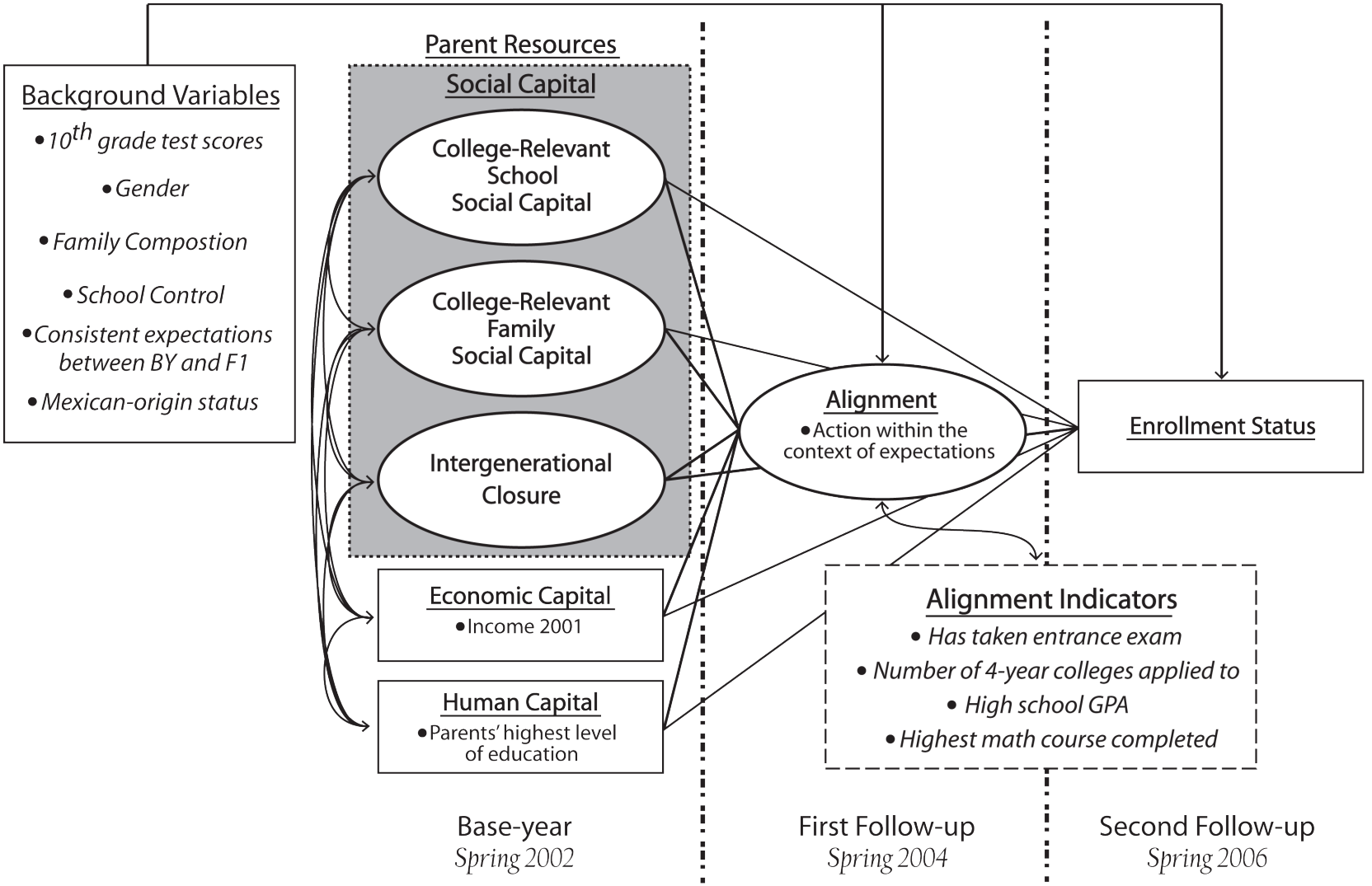
- **Alignment is critical**
- **Differential availability and usefulness of parent resources across groups**
- **The puzzle is still incomplete**

Like all Research, This Study has Limitations

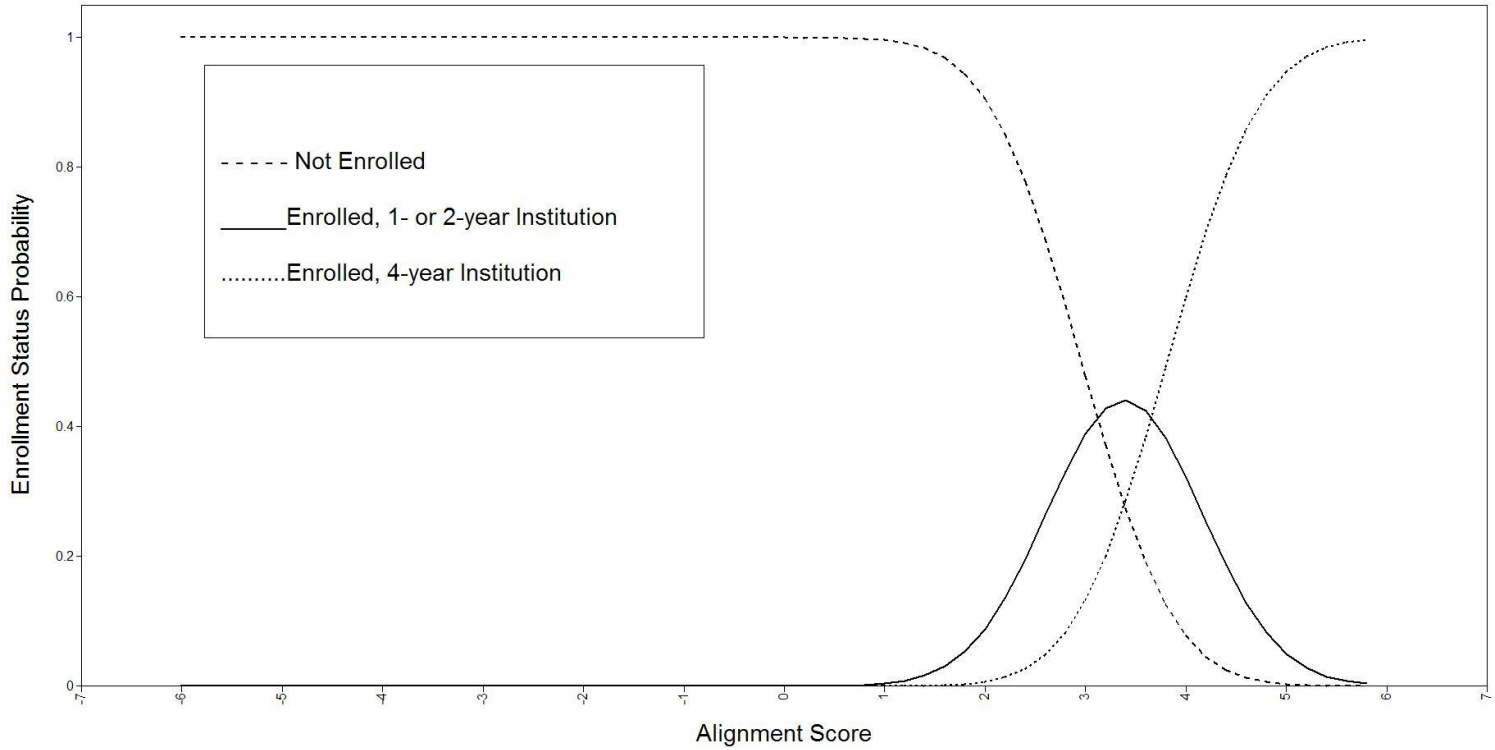
- Generalizability
- Latino subgroup analyses
- Measurement of sociological constructs
- Selection bias
  - Proximity?
  - Affordability?
- Social context

Appendix

CONCEPTUAL MODEL



Item Characteristic Curve for Enrollment Status (Outcome Measure) as a Function of Alignment, Latino Sample



Statistical model

$$Prob\,(y = 3\ (4\text{-year enrollment}) \mid \boldsymbol{\eta}_{iy,}\, \boldsymbol{x}i) = 1 - \Phi\,[\,(\tau_2 + \boldsymbol{\lambda}_y\boldsymbol{\eta}_i + \boldsymbol{\kappa}_j\boldsymbol{x}_i)\,(1/\sqrt{\theta_y})\,]$$

where η is a vector of latent factor means for individual *i* with the observed outcome variable *y* and *x* is a vector of observed covariates for individual *i*. The Cumulative Distribution Function of the standard normal distribution is represented by Φ, and τ defines a threshold ($-\tau = \alpha$) for the observed latent response variable y^* that underlies the observed *y* such that that $y = 3$ is observed when y^* exceeds τ_2, the threshold separating the $y = 2$ from $y = 3$. The vector of probit regression coefficients for the regression of *y* on the latent factors for individual *i* is represented by λ and the vector of probit regression coefficients for the regression of *y* on the observed covariates is represented by κ. Finally, θ is the residual variance of *y*.

The Structural Model Design follows Barron and Kenny (1986) on Mediation

1. Parent Resources → PSE Status
2. Parent Resources → Alignment
3. Accounting for Parent Resources, Alignment → PSE Status
   - Partial mediation: Previously significant relationship between parent resources and enrollment status is reduced (test *change in parameter* for significance)
4. In the presence of Alignment, the relationship between Parent Resources and PSE Status is no longer significant (complete mediation).

Latino Parent Expectations

The expectation parents of Latino youth have for their child's educational attainment do not appear to vary across generations in this sample.

Among parents of immigrant students 95 % expect that their son or daughter will obtain a bachelor's or advanced degree, while among parents of second- and third-generation Latino youth the figures are 96 % and 94 % respectively. It is possible, however, that this could be a reflection of the fact that my sample is limited to students who expected to complete a bachelor's degree or higher in their senior year—students' high expectations may influence parents' high expectations (and vice versa).

Still, when I examine the expectations parents of Latino youth across the entire *ELS* sample, while the percentage of parents who expect their child to complete a bachelor's or advanced degree is not as high, the percentages do not vary substantially across student generation status. Among parents of both immigrant and second-generation Latino students, 89 % expect this level of educational attainment, while among parents of third-generation students, this figure drops slightly to 84 %.

More About College Expectations

- **Among Latino students in the sample, just under 11 % did not expect to complete a bachelor's degree in 10th grade. Among their non-Latino White counterparts, about 5 % had lower expectations in 10th grade than in 12th grade.**

- **Within the entire *ELS* sample, across generation status around half of Hispanic students expected to complete a bachelor's or advanced degree. Specifically, the Latino students in this sample represent 47 percent of immigrant, 55 percent of second-generation, and 55 percent of third-generation students in the full *ELS* base year sample.**

Application and Acceptance

- Just over 71 % of Latino students and 84 % of White students in this sample submitted at least one application to a four-year institution.
- Among Latino students in the sample, about 29 % were classified as "academic concentrators." Among white students, the percentage (44.5) was considerably higher.
- Eighty-six percent of Latino sample members were accepted to at least one four-year college, while 94 % of White students had the option of enrolling in at least one four-year institution.
- Among Latino students in the current sample, 14.9 % never enrolled in any postsecondary institution, while among White students 7.2 % never enrolled. Just under 17 % of Latino sample members stopped or dropped out prior to January of 2006, while about 12 % of White students did so.
- There was a gap in enrollment between high school and college among 8.5 % of Latino sample members and 5.2 % of White sample members.

The Importance of Living at Home?

- **Contrary to what might be expected given the research literature on the preference Latino parents have for their children to remain at home while attending college, while 40 % Latino parents held this preference, among their White counterparts the percentage was substantially higher at 84 %. Yet among their children, this trend was reversed. While about 68 % of Latino students stated that it was somewhat or very important to live at home while in college, only 35 % of White students said the same.**

Where are Latino Students Located?

School urbanicity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Urban	125511	47.2	47.2	47.2
	Suburban	113884	42.8	42.8	89.9
	Rural	26752	10.1	10.1	100.0
	Total	266147	100.0	100.0	

Geographic region of school

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Northeast	39720	14.9	14.9	14.9
	Midwest	32068	12.0	12.0	27.0
	South	77296	29.0	29.0	56.0
	West	117063	44.0	44.0	100.0
	Total	266147	100.0	100.0	

Robust Weighted Least Squares Estimation

When using the robust weighted least squares estimator (WLSMV) with model covariates, model estimation proceeds in four steps. First, univariate probit regressions of each y* on all x variables are conducted using all people with data on that y* and the x variables. Second, bivariate probit regressions of each pair of y* variables on the x variables are conducted using all people with data for that pair. Third, the weight matrix is estimated. Finally, the model is fit using weighted least squares. The first two steps of the model estimation use maximum likelihood estimation to handle missingness. Cases with missing data on any of the observed covariates or the outcome variable are dropped. This resulted in 2 cases being dropped from the analyses.