## **Culture, Context and Positive Adaptation of U.S. Latinx Youth**

Nancy A. Gonzales Dean, Natural Sciences Foundation Professor of Psychology Arizona State University

Nebraska Center for Research on Children, Youth, Families & Schools University of Nebraska September 11, 2018



# ASU REACH Institute



90% of proven behavioral and mental health interventions have yet to be used by practitioners in public and private health sectors. The ASU REACH Institute is changing that!

The ASU REACH Institute, within the Department of Psychology, bridges the gap between university-based research and practice to advance education, health, and well-being of children and families. We partner with scientists, policy makers, and community stakeholders locally and globally and across diverse service sectors, including schools, community mental health agencies and child welfare. Scientists at the ASU REACH institute are leaders.



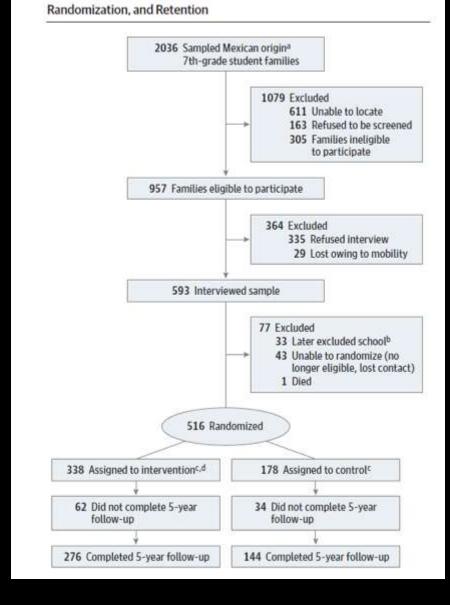


- Basic Science: Developmental Psychopathology
- Mixed Methods
- Longitudinal models of Risk and Resilience
- Multiple Levels of Analysis (Biopsychosocial models)
- Predicting Development and Adaptation in Context
- Focus on Minority Health Disparities (Mexican American population)

## **Intervention Science**

- Randomized Clinical Trials
- Effectiveness Studies
- Dissemination & Implementation Research
- eHealth and mHealth Technologies
- Services and Marketing Research
- Local and Global Dissemination

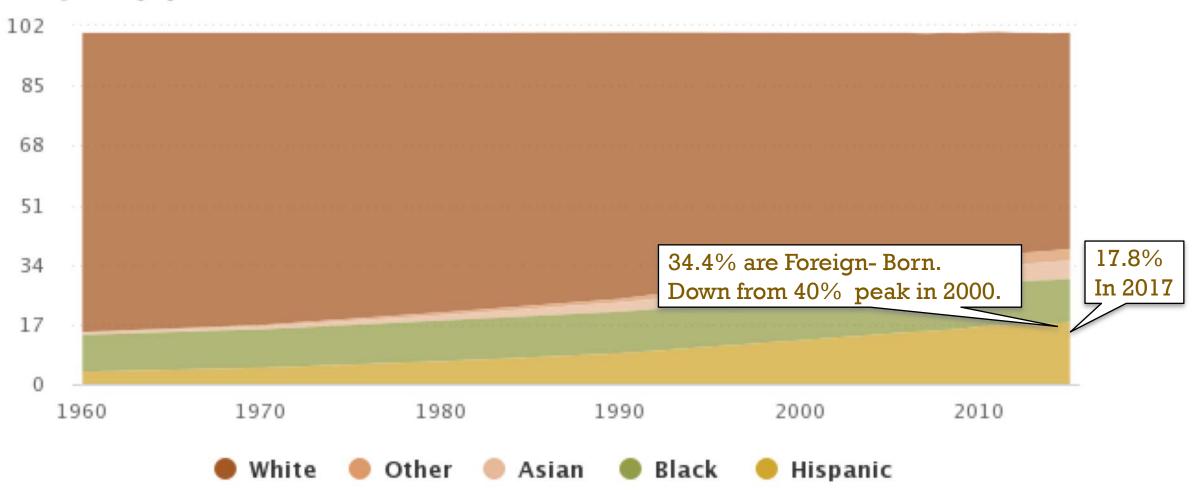




Figure, Flowchart of Intervention Recruitment, Enrollment,

### Hispanics are a rising share of the U.S. population

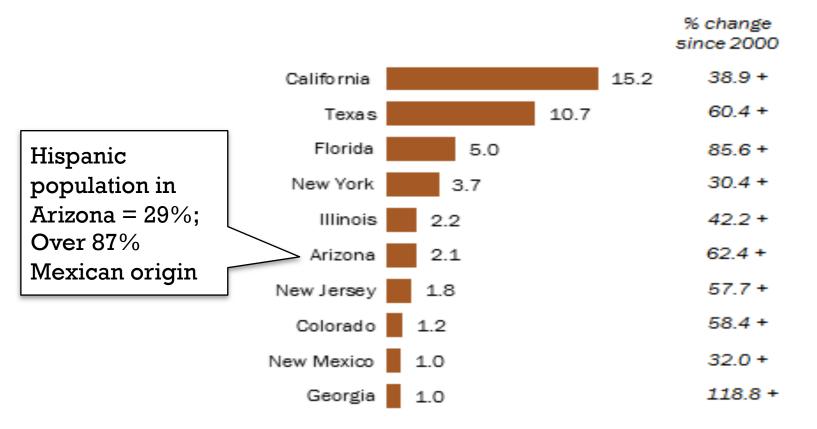
% of total population



PEW RESEARCH CENTER

### **Total Hispanic Population and Rate of Growth**

#### In millions



Note: Charts show the top 10 states for the number of Latinos in 2015 along with the percent change of the population that is Latino since 2000.

Source: Pew Research Center tabulation of the 2000 census (5% IPUMS) and 2015 American Community Surveys (1% IPUMS).

#### PEW RESEARCH CENTER

Health Disparities are preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experienced by socially disadvantaged populations.

# Latino Health Disparities Compared to Non-Hispanic White\*

### ADULTS

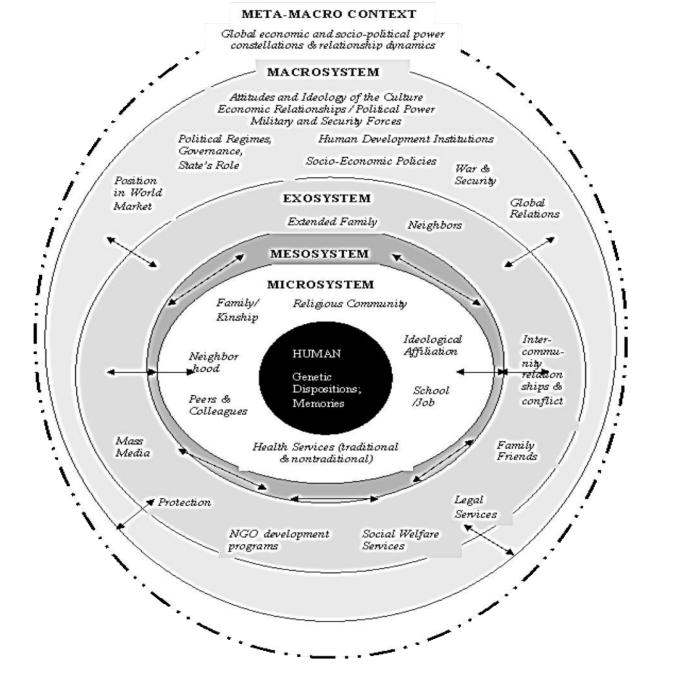
- 2X as likely to have asthma
- 6X as likely to have tuberculosis
- 45% more likely to be newly diagnosed with cervical cancer
- 15% more likely to have liver disease
- 15% more likely to be obese
- 3.5X as likely to be diagnosed with HIV
- 65% more likely to be diabetic\

### CHILDREN & YOUTH

- 30% more likely to die as infant
- 2X as likely to have asthma
- 35% more likely to be obese
- 60% more likely to attempt suicide
- 2x more likely to be incarcerated
- 6X higher teen births
- 2X higher high school dropout

\*Vary by nativity, years in the U.S., and community context (e.g., Latino Health Paradox)

Health Disparities are Systemic & Multiply Determined



Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Cambridge, MA: Harvard University Press.

Cultural Integration in Family, Developmental, Clinical Science (Identifying unique cultural processes relevant to health and development)



- Ethnic and Racial Discrimination
- Ethnic & Cultural Identity
- Cultural / Racial Socialization
- Acculturation & Enculturation
- Cultural Resources
- Immigration and documentation
- Ecologically valid parenting
- Neighborhood & Community Cultural Characteristics

To fully understand how culture influences health behaviors of immigrant and cultural minority youth, must understand their adaptation to mainstream culture (acculturation) and their ethnic cultural (enculturation).

## Research on Mexican American Families

- La Familia longitudinal study of cultural and contextual influences on development and mental health of Mexican American youth living in diverse community contexts (NIMH; Roosa, Gonzales, Knight)
- Puentes a la Secundaria (BRIDGES) efficacy trial and long-term follow-up of Bridges Program to prevent mental health problems in adolescence (NIMH; Gonzales, Dumka, Millsap)
- Stridges Optimization efficacy/effectiveness hybrid trial of optimized substance abuse preventive intervention
- La Vida Diaria daily diary study of family obligations and assistance behaviors to predict health risk behaviors among Mexican American high school students (NICHD; Fuligni, Gonzales, Weisner)
- Las Madres Nuevas study of risk and protective processes that influence postpartum depression and subsequent mother-infant co-regulatory processes (NIMH; Crnic, Gonzales, Luecken)
- College Knowing & Going Pathways sources of influence on Latino youths' preferences and plans to attend college (Helios Education Foundation; Gonzales, Doane)
- CHAMACOS study of long-term effects of early adversity in a population of migrant farmworker with high levels of environmental exposures (NIDA; Deardorff, Eskenazi)

## Externalizing and Internalizing are risk factors for Substance Abuse

- Externalizing psychopathology is a robust predictor of alcohol and substance abuse problems and disorders
- Evidence indicates internalizing symptoms, especially depressive symptoms (internalizing), add to this risk, (Hussong et al., 2017). However, internalizing effects have been inconsistent.
- High rates of comorbidity are also observed (Kessler et al., 2012) and research suggests that adolescents who experience co-occurring depressive symptoms and delinquent behavior have significantly worse overall outcomes than adolescents who report only depressive symptoms or delinquent behavior (Capaldi & Stoolmiller, 1999).
- It is unknown whether these pathways operate similarly for Latino youth and immigrants.









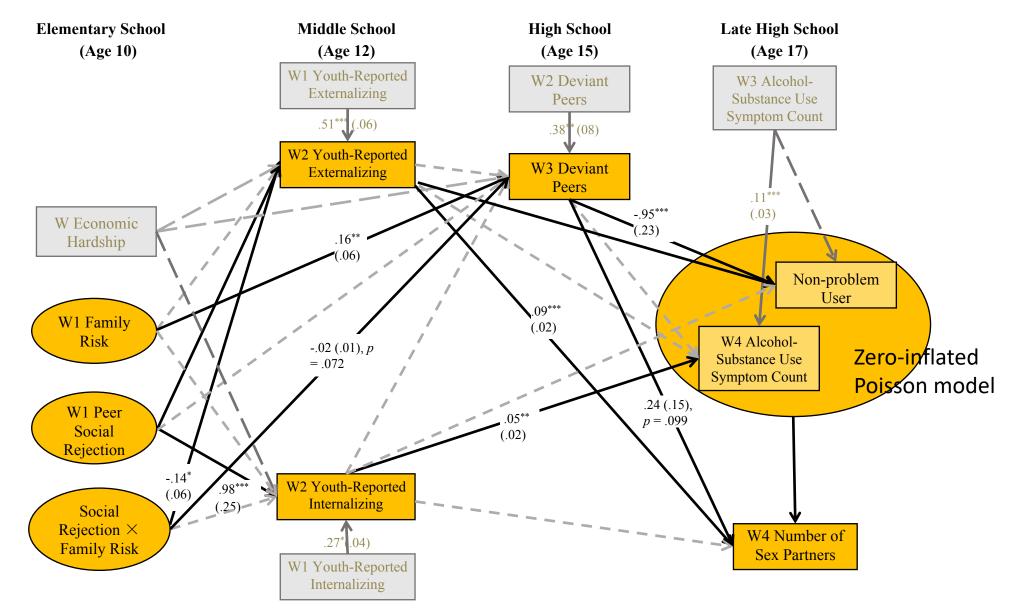
- Ongoing Longitudinal Study of 749 Mexican American youth and families
  - Recruited children in 5<sup>th</sup> grade from 43 school communities
  - sampling maximized community and family diversity
  - ongoing assessments of the mental health, family, community and cultural characteristics over time
- Sample representative of MA population in the Phoenix metro area
  - 74.3 % of mothers born in Mexico
  - 70.3% of adolescents born in the United States
- Data collected at 6 time points:
  - Time 1: 5<sup>th</sup> grade (~11 years)
  - Time 2: 7<sup>th</sup> grade (~13 years)
  - Time 3: 10<sup>th</sup> grade (~16 years)
  - Time 4: 12<sup>th</sup> grade (~18 years)
  - Time 5: young adult (~20 years)
  - Time 6: (~ 24 years, in progress)

Roosa, Liu, Torres, Gonzales, Knight & Saenz, D. (2008)

Cascading Developmental Pathways to Adolescent Risk-Taking

- Do problems in the family and peer contexts contribute to internalizing and externalizing problems for Mexican American youth in early adolescence?
- Do these pathways lead, in turn to high risk behaviors in late adolescence, including problem drug and alcohol use and risky sexual behavior?
- What role do deviant peers play in these developmental pathways?
- Are similar pathways found for boys vs. girls, and for foreign-born vs. U.S.born youth?

### **Externalizing and Internalizing Pathways to Mexican American Adolescent Risk-Taking**



*Note*: Zero-inflated Poisson model was used to model alchol-substance use symptom counts. *Unstandardized* path coefficients are reported. Significant or trending paths are solid lines; non-significant paths are dashed. \* p < .05. \*\* p < .01. \*\*\* p < .001.

Gonzales, Liu, Jensen et al., (2017). *Development and Psychopathology* 

#### **Elementary School Middle School High School** Late High School (Age 10) (Age 12) (Age 15) (Age 17) W1 Youth-Reported W2 Deviant W3 Alcohol-Externalizing Substance Use Peers Symptom Count .51\*\*\* (.06) .38\*\*(08) W2 Youth-Reported W3 Deviant Externalizing Peers .11\*\*\* .95\*\*\* (.03)W Economic .23) .16\*\* Hardship Non-problem User W1 Family (.02)W4 Alcohol-Risk -.02 (.01), Substance Use p = .072Symptom Count .24 (.15), W1 Peer p = .099Social .02) leiection W2 Youth-Reported -.14\* 98\*\*\* (.06)(.25) Internalizing Social Rejection $\times$ W4 Number of .27\*(.04) **Family Risk** Sex Partners W1 Youth-Reported Internalizing

### **Externalizing and Internalizing Pathways to Mexican American Adolescent Risk-Taking**

Some paths were stronger for:

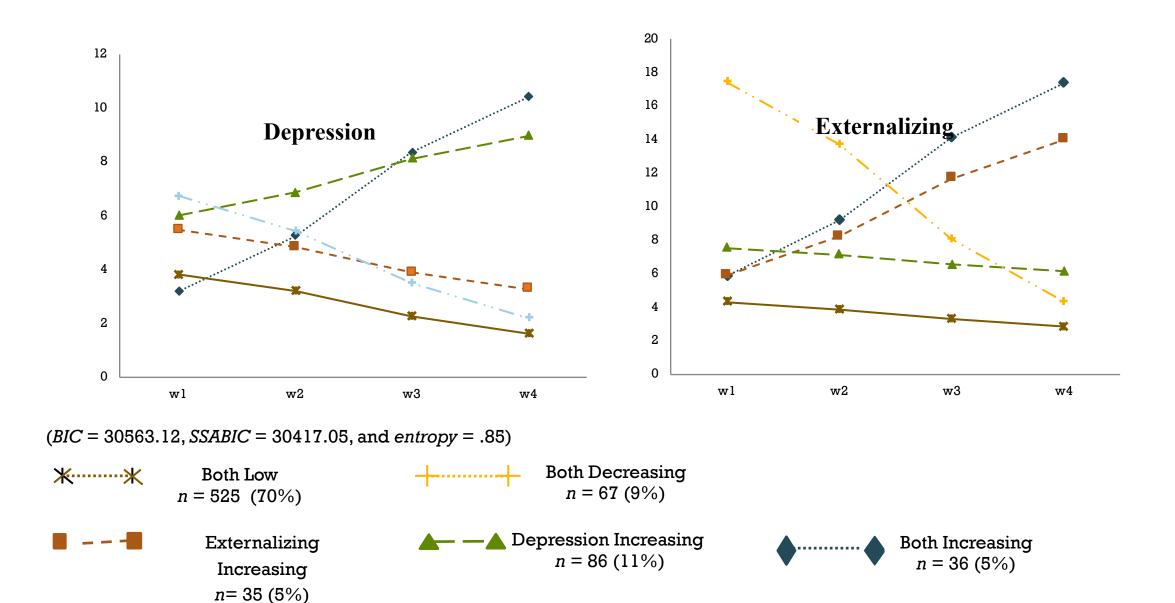
- ... girls than boys
- externalizing → # sex partners
- alc-drug use → # sex partners

... more vs. less traditional values

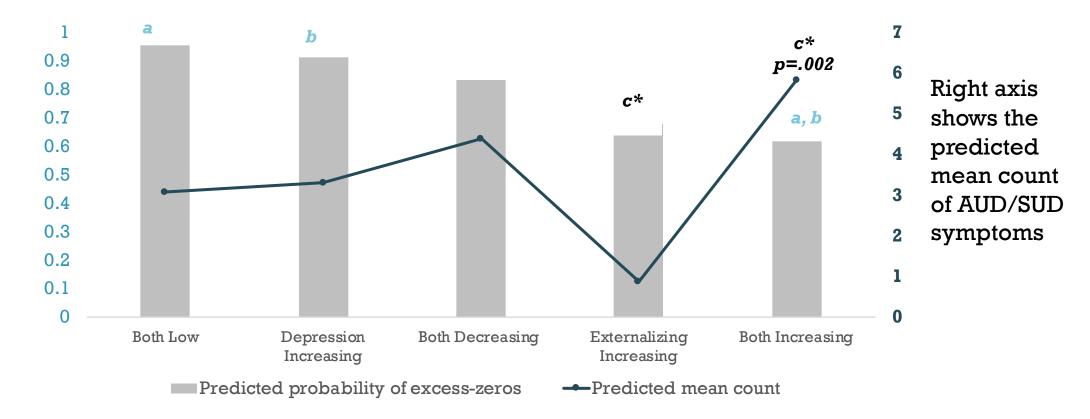
- externalizing → deviant peers,
- externalizing → alc-drug use
- .. less vs more mainstream values
- externalizing → # sex partners,
- internalizing → alc-drug use

*Note*: Model based on youth-reported internalizing and externalizing symptoms. *Unstandardized* path coefficients are reported. Significant or trending paths are solid lines; non-significant paths are dashed. \* p < .05. \*\* p < .01. \*\*\* p < .001.

### **Figure 1.** *Five classes of depression and externalizing comorbid growth trajectories.*



**Figure 3.** *Predicted probability of excess-zeros and predicted mean counts from the zero-inflated model across the five classes.* 



\*Significant differences between classes indicated by matched letters,

# Traditional Values as Cultural Resource



### Familism

Support: emotional closeness and reliable help

**Obligation:** duty to assist

**Referent:** individual actions reflect the family

Respeto: youth respect parents and other family members

Sabogal et al., 1987; Knight et al., 2010, 2014, 2015; Stein et al., 2014; Zeiders et al., 2013; Gonzales et al., 2008; Germán et al., 2009; Perez & Cruess, 2014; Cupito et al., 2015; Fuligni & Pedersen, 2002; Vargas et al., 2013

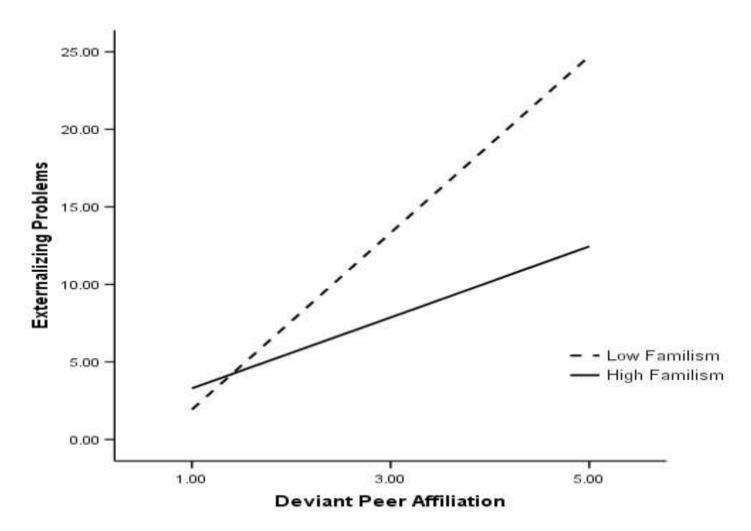
# Traditional Cultural Values

- Protects against negative outcomes
  - Internalizing and externalizing
  - Risky behaviors
  - Poor health (sleep, stress reactivity, depression)

- Promotes positive development
  - Academic performance, engagement, motivation, persistence
  - Prosocial behaviors
  - Coping resources

Sabogal et al., 1987; Knight et al., 2010, 2014, 2015; Stein et al., 2014; Zeiders et al., 2013; Gonzales et al., 2008; Germán et al., 2009; Perez & Cruess, 2014; Cupito et al., 2015; Fuligni & Pedersen, 2002; Vargas et al., 2013

### PROTECTIVE (MODERATING) EFFECTS OF FAMILISM TO REDUCE EXTERNALIZING FOR ADOLESCENTS EXPOSED TO DEVIANT PEERS

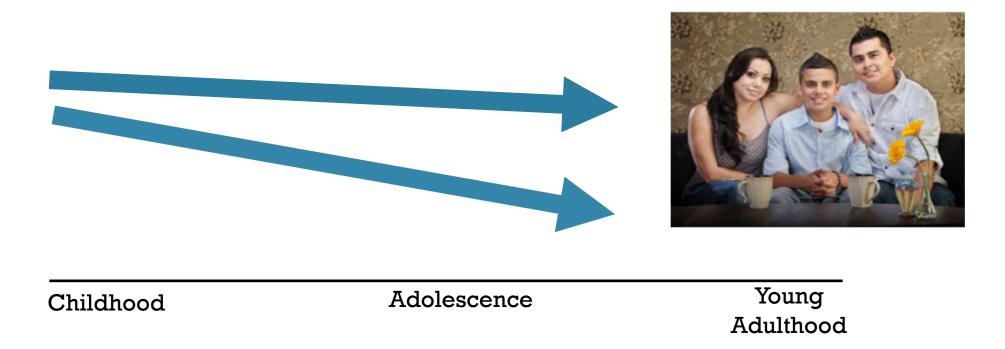


- Similar protective effects found for mother, father, and youth familism
- Effects especially strong if fathers endorse high levels of familism
- Prospective analyses also show slower growth in deviant peer affiliation for youth high on familism

German, Gonzales, et al. (2009) Journal of Early Adolescence

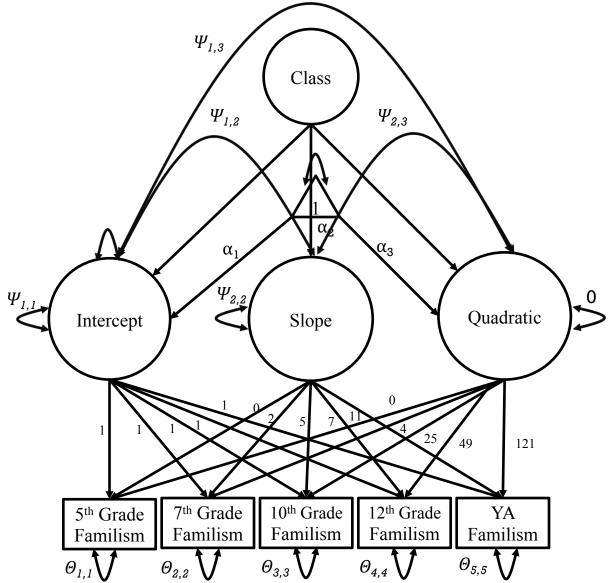
## Familism Trajectories and Impact

Studies examining classes of change in acculturation and ethnic identity suggest multiple trajectories

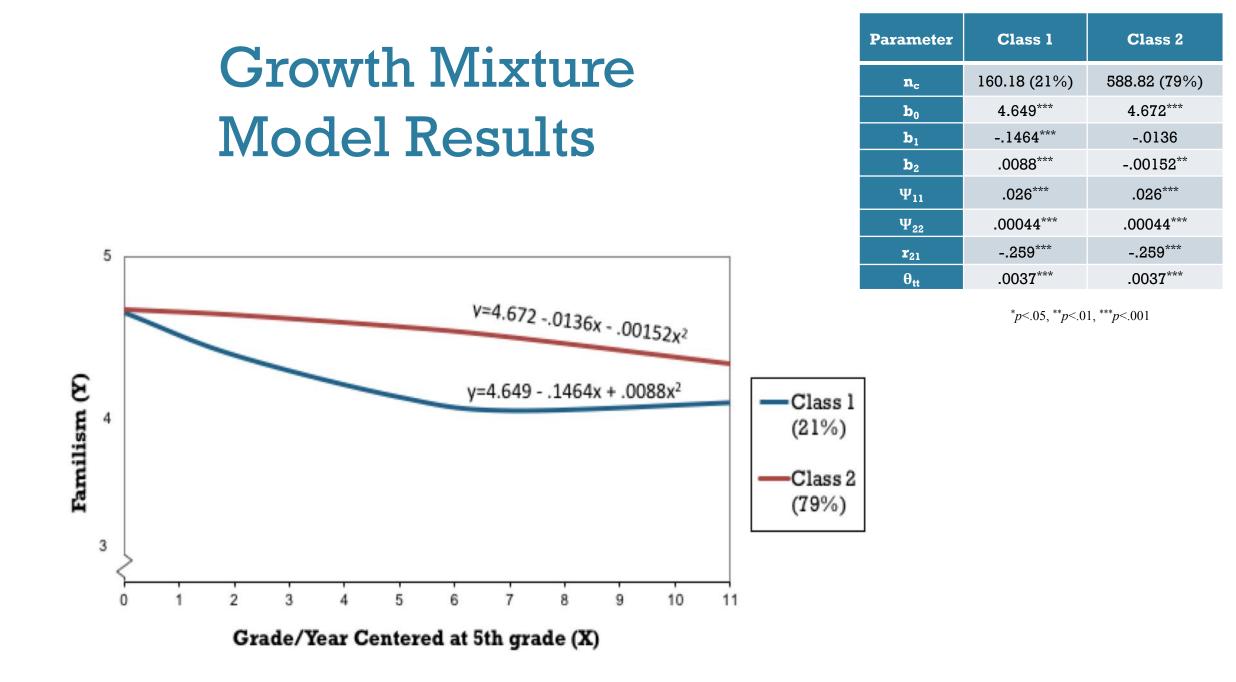


Schwartz et al., 2015; Knight et al., 2014; Cruz et al., 2017; Fuligni & Pedersen, 2002; Updegraff et al., 2012; Padilla et al., 2016

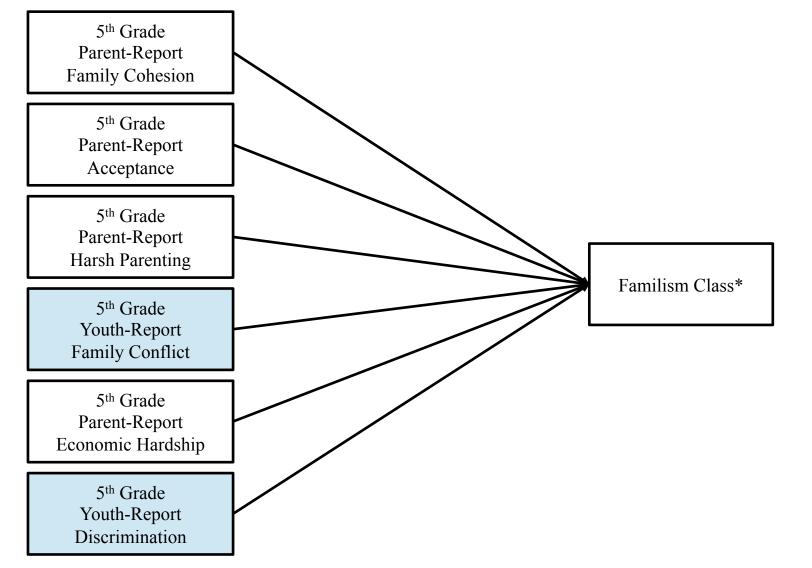
## **Examined Profiles of Familism**



- Grade time metric, centered at 5<sup>th</sup> grade
- FIML, Auxiliaries
- Univariate Modeling
- Growth Mixture Modeling
- R3Step to test predictors of class membership



## **R3STEP Procedure**



- Categorical variable representing the two familism classes created
- Binomial logistic regression
- Separate father-report and mother-report models

\* Variable created representing most probable class membership.

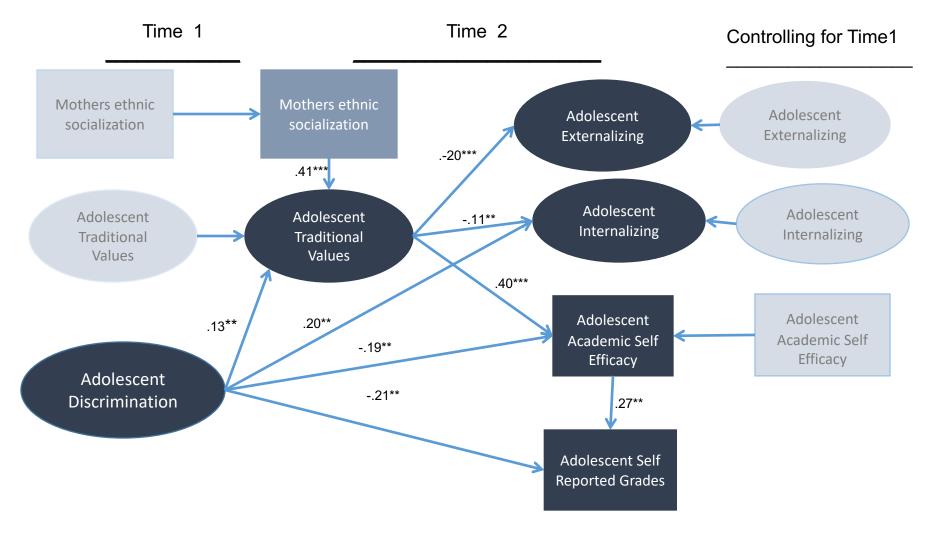
## **R3STEP Procedure Results**

Class 1: Decreasing then slowing down before increasing (21%) Class 2: Decreasing slightly then speeding up (79%)

	Mother Model	Father Model
5 <sup>th</sup> Grade Predictors	Probability of Being in Class 1 versus Class 2 $eta(SE)$	
Family Cohesion	.22(.36)	.55 (.44)
Acceptance	03(.38)	58 (.43)
Harsh Parenting	11(.22)	17(.35)
Family Conflict	.19*(.10)	.26*(.12)
Economic Hardship	.05(.05)	06(.07)
Perceived Ethnic Discrimination	84*(.39)	68*(.34)

\* *p* < .05

Role of Discrimination and Values on Later outcomes (Mexican American Values Provide Resource to Counteract Discrimination)



RMSEA=.04; CFI=.93;SMRM= .05 \*\*\*p < .001, \*\*p< .01

Berkel et al. (2011). Journal of Research on Adolescence

## The Protective Effects of Neighborhood Familism and the Ethnic Enclave

- Neighborhood familism supports positive parenting practices
- Neighborhood familism buffers the deleterious effects of neighborhood danger on parenting and family functioning.
- Neighborhood Hispanic density predicts more optimal youth functioning, positive ethnic identity, and decreased exposure to discrimination and diurnal cortisol levels.
- Neighborhood ethnic density and mitigates effects of early puberty on adolescent internalizing and externalizing symptoms.

[White, Deardorff, Liu., & Gonzales, N.A. (2013). *Developmental Psychology*; White, Zeiders, Gonzales, Tein, & Roosa, (2013). *Journal of Family Psychology*; White, Deardorff, & Gonzales, N.A. (2012). *Journal of Adolescent Health*; Gonzales, Coxe, Roosa, et al. (2011) *American Journal of Community Psychology*]

## Helios Qualitative Study of College Going Pathways: Two stage design in 5 high schools in Arizona

Phase I. Initial brief in-school survey of all high school juniors identified college goals/intentions (N=2,129)

- Definitely plan to attend
- High likelihood of attending
- Maybe/undecided or not intending
- Selection criteria
  - GPA of 2.0 or higher
  - Self identify as Latino/a

### Phase II: One-hour Focus Group Interviews

3 groups recruited through stratified sampling at each school (Total N=139; 51% male)

• 21% first-generation immigrants, 50% 2<sup>nd</sup> generation, 29% 3<sup>rd</sup> generation or more

## General Interview Topics



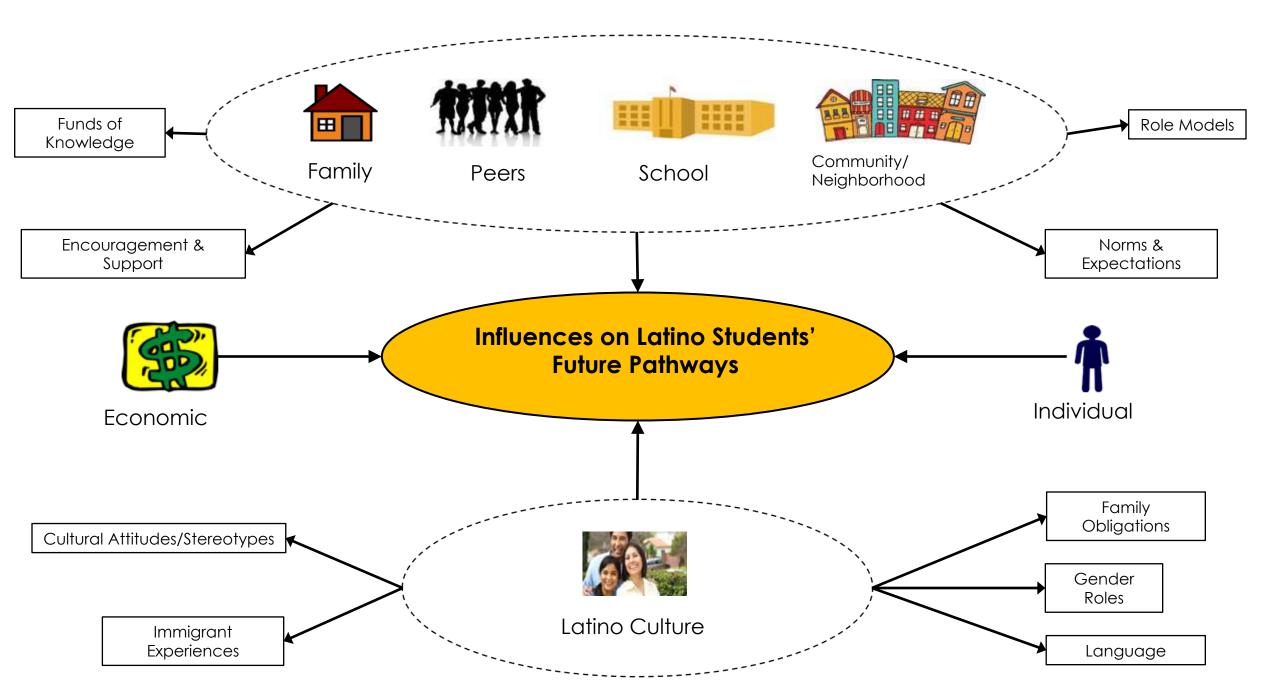
### Imagine yourself in the future and what do you hope to be doing?

• Do you plan to attend college?

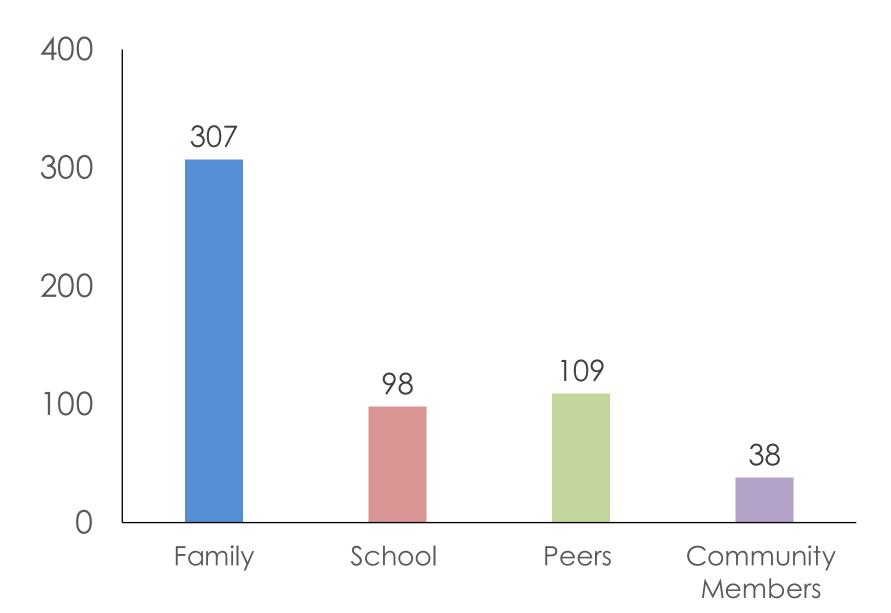
### Who or what has influenced these plans?

• What role does family, peer group, school, community, culture play in future planning and decision-making?

### What can schools do to better facilitate planning?



## Sources of Influence Mentioned Across All Focus Groups



## The Role of the Family

When family members have attended college, they provide:

- Family Role Models
- Information & guidance
- A vivid image that college is possible

Um, okay, years ago I was very scared of my future. I didn't have any ideas of what was I going to do...And I have about three cousins that are attending, um, U of A....And ever since they...have attended university I have looked up to them and they've given me, like an example....and that's what made me think that the future's not scary. (Female)

## The Role of the Family

Even if families have not attended, they provide:

- Discussions about future careers and steps to achieve them
- Enrichment opportunities (enrolling students in different schools or special programs)
- Encouragement for students to seek resources outside the family

Well, it's been like, it-- like, I don't have like-- well, it's always been like ever since I was little, "I have to go to college. After high school, I go to college."....Like, I don't wanna, like-- well, I don't wanna, like, work at a fast food restaurant or something, and like, I don't want that for, like, my-- like, I think about like my future kids and like my future, so I don't want that for them. So, I wanna go to college....'cause my parents always like encouraged me....and they remind me every day that, "You have to go to college. You have to go to. (Female)

*I talk to my mom a lot about it.* She constantly talks about it too, about the future and what I have to do and the steps to take. (Female)

## The Power of Family Obligations

A strong sense of obligation to the family plays a big role in motivating Latino students to succeed in school and pursue college.

- Students are motivated to make their families proud and achieve success to help their families in the future
- Students also feel motivation/pressure because the family has sacrificed so much

Both my parents, they made it till freshman year (high school). And so, ever since like I started school and like high school, they were always pushing me to become more and get more successful than they did...And so **they made more sacrifices for me,** and stuff like that...**Looking forward to things your parents didn't do and doing it for them. (Male)** 

Well, they just-- they push me. They say that they'll be proud of me, that I'll make a difference, that my life will be so much better, and I'll be able to help them and myself out, and school-- **what they missed out**, and they see what I'm doing, and they're really impressed, and it just makes me feel good, **so I want to do it for them.** (Female)



# How they talked about Culture and Discrimination

Students are well aware of the common stereotypes for Hispanics/Mexicans Female: ...Mostly when they say "Mexicans," they think, "Oh, they're going to work in the field or they're going to work in construction."

Male: Or, "they're lazy." Or "they're nothing." Female: Or... "Oh, they're going to do what Mexicans do." Work as a janitor or something...Because immigrants work in those jobs, they think, "Oh, you're Latino, so you're getting work in the job like with housing and stuff." (Trevor Browne)

It's known for...the women to stay at home and for the guys to go out to work. But it's not like a job they got from a college degree. It's a job like in a factor or construction. And then the woman is at home taking care of the kids. Like, personal experience...(Female).

### How they talked about Discrimination

Students were also aware of racism/ discrimination at a broader level and the potential threat this posed for them

 Given the timing of our interviews (Spring 2016), many students were focused on the possible impact of the 2016 election *Oh, I have something, have you heard of Donald Trump saying something that Mexico send in their worst people? Or Something like that. You guys send in Mexicans but their the bad ones or something like that? .... So I guess there's a lot of Mexicans, also, that are trying to prove him [Donald Trump] wrong by, like, getting good education and like, helping out. And they'll, they'll see well like they're, they're aren't all bad. They're not the bad ones.* **(Female)** 

*Uh, maybe like uh seeing like uh, like billionaires like Donald Trump open his mouth like that. Maybe just like trying to be better than them; show him what we can do.* **(Female)** 

See I'm really scared if he wins elections on presidency, we because if-- from my point of view if he wins, I guess I won't have a future, because universities and all these federal agencies will be more harsh on Hispanics or Latinos, and I guess he could really ruin my path to college. (Male)

### Students Perceive a Generational Shift

Many students described what they perceive is a generational shift in what it means to be Latina/o and the role that stereotypes/discrimination will play in their lives.

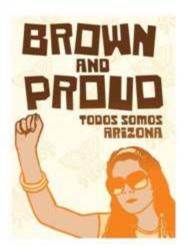
Latinx youth today ... Are motivated to reject or counteract negative stereotypes

- Have more role models that break stereotypes
- Are proud of being bilingual and want to retain their Spanish language
- Are aware of shifting gender roles and greater opportunities for women



# Latina/o Youth Today

Stereotypes and discrimination motivated many students to push back and prove them wrong.

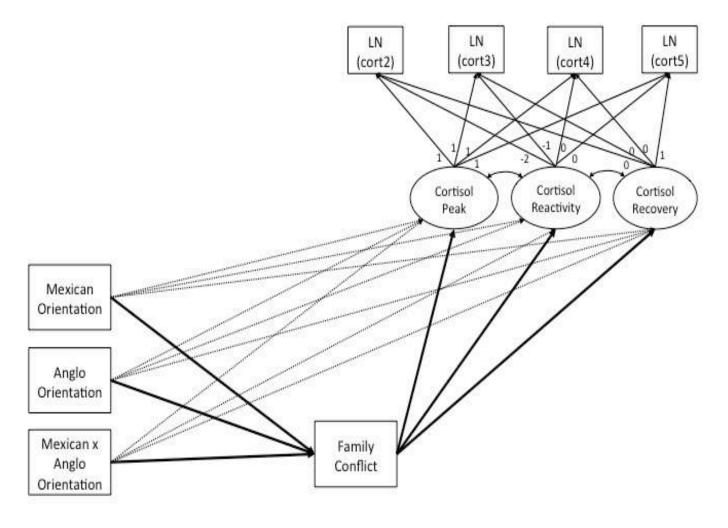


...and you could actually look at it as, we're trying to better ourselves as a community. We're trying to better ourselves as a race. And get past that stereotype everybody thinks of us, and strive higher than what they think of us...(Male)

Like people in Scottsdale see us, like you know "They're the ghetto kids." And then like, I don't know, it kinda makes me want to do better, like to prove them wrong... (Male) Students endorsed the value of retaining their traditional culture (i.e., language) but also believe they must succeed as "Americans" to get ahead.

### Bicultural Orientation and Trier Social Stress Test among CHAMACOS youth in migrant farmworker community





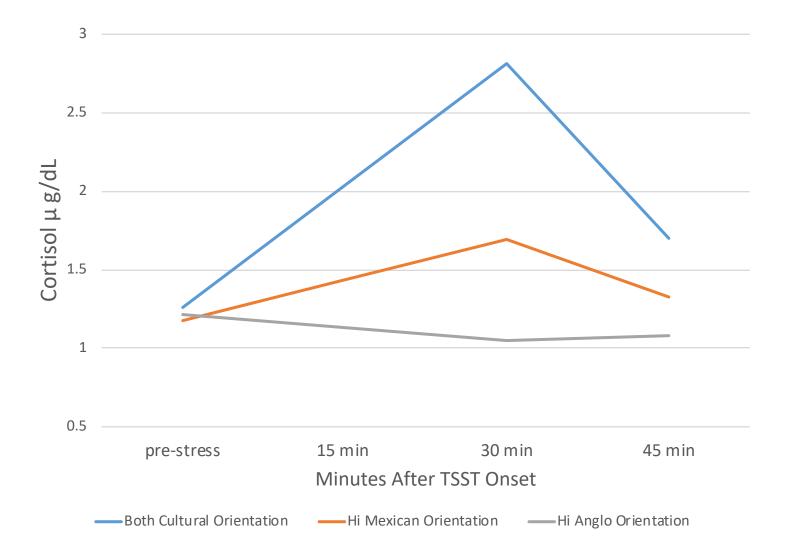
Gonzales, Johnson, Shirtcliff, Tein, Eskenazi, & Deardorff (2018). *Development and Psyhopathology*.

# Parameter estimates for the effects of cultural orientation variables to the growth factors of cortisol responsivity to the TSST

Predictor	Outcome	Unstandardized B	Standard Error	95% Cl (lower, upper)	t-values	Standardized β
Mexican orientation	Cortisol peak	0.096	0.058	0.01768 0.209	1.654	0.105
	Cortisol reactivity	0.052	0.028	-0.00288 0.10688	1.896	0.164
	Cortisol recovery	-0.061	0.038	-0.13548 0.01348	-1.626	-0.153
Anglo orientation	Cortisol peak	0.061	0.091	-0.16236 0.19436	0.171	0.011
	Cortisol reactivity	0.001	0.045	-0.08720 0.08920	0.033	0.003
	Cortisol recovery	-0.020	0.064	-0.14544 0.10544	-0.315	-0.033
Mexican x Anglo orientation	Cortisol peak	0.272	0.101	0.07404 0.46996	2.707**	0.172
	Cortisol reactivity	0.129	0.048	0.03492 0.22308	2.711**	0.235
	Cortisol recovery	-0.178	0.065	-0.30540 -0.050	-2.729**	-0.256

\*\* $p \le 0.01$ 

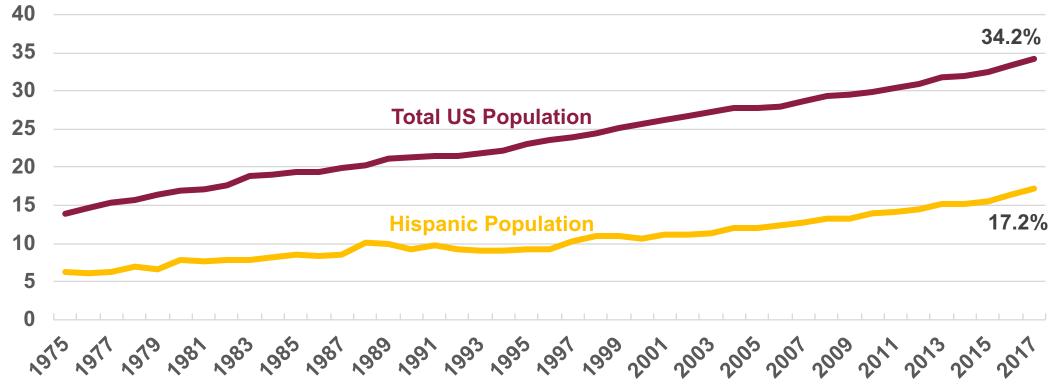
Cortisol reactivity to stress as predicted by structural equation modeling at 2 standard deviations above and below the estimated mean on Mexican and Anglo orientation.



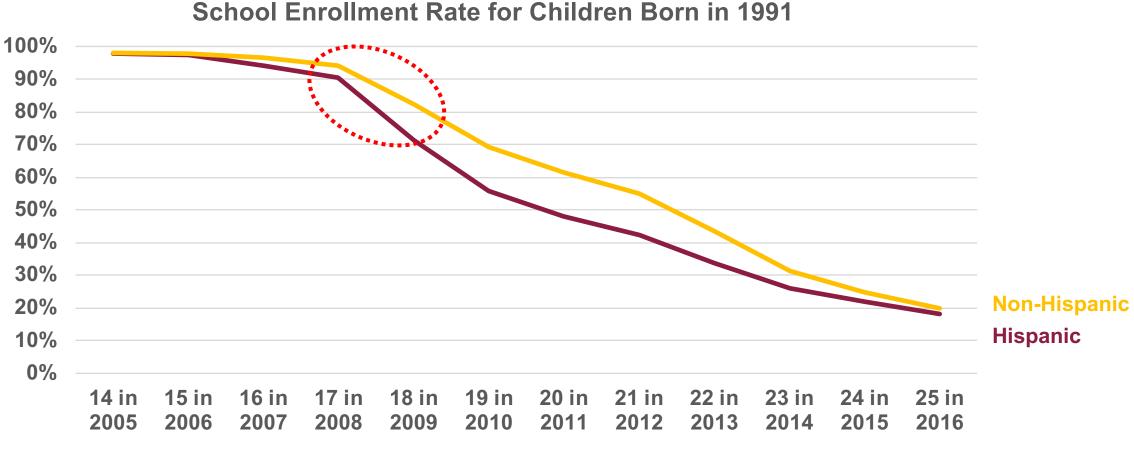
Despite progress, the current educational pipeline continues to produce significant disparities between Hispanics and non-Hispanics.

### The Bachelor's Degree Attainment Gap Between Hispanics and the Overall Population is Large and Enduring





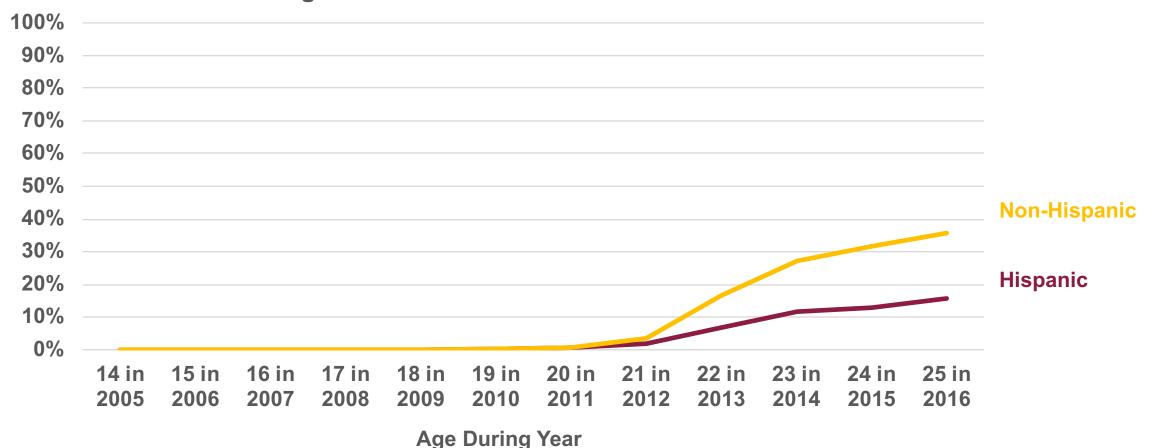
### Hispanics and Non-Hispanics Enroll in School at Similar Rates Until Just Before High School Graduation



Age During Year

### Differences in High School Completion Cause a 20 Percentage Point Disparity in Bachelor's Degree Attainment by Age 25

**Bachelor's Degree Attainment Rate for Children Born in 1991** 



**Despite nearly the same** rates of workforce participation, Hispanics earn much less in wages than non-Hispanics.



To achieve significant impact on health disparities will require that we also address education disparities for future generations of Latino students.

### A Middle School Promotion and Prevention Program



**Creating Lifelong Success** 

Focuses on Middle School transition as key turning point for students and families to ensure lifelong success

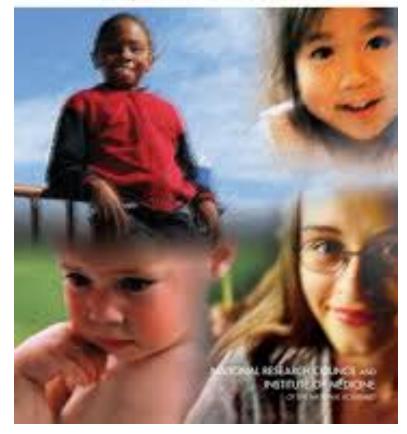
<u>Parents</u> and <u>teens</u> attend training sessions together in the evening (combined Parent-Youth Approach)

Bridges is a FAMILY Intervention!



Preventing Mental, Emotional, and Behavioral Disorders Among Young People

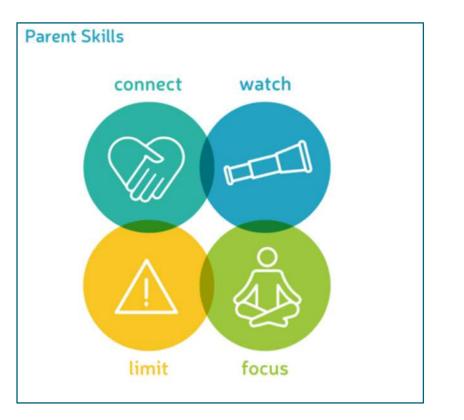
Progress and Possibilities



- Meta-analyses and numerous RCTs have demonstrated strong empirical support for interventions aimed at improving parenting and family functioning.
- Family-focused interventions demonstrate effects on multiple problem behaviors and produce lasting benefits.
- Positive effects have been shown for ethnically diverse families, including both culturally broad and culture- specific approaches.
- Multicomponent interventions that simultaneous address risk across contexts may be necessary at later developmental stages when trajectories are entrenched, and for youth in low income neighborhoods and families.
- When conducted, economic analyses consistently show benefits outweigh costs of family interventions.

## **Goals of Bridges Parent Intervention**

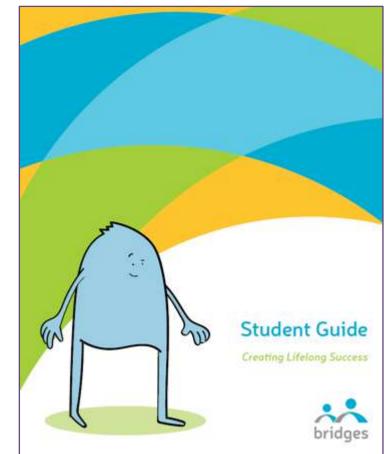
- Strengthen Parenting and Parent-Teen Communication
  - Support positive development and motivation
  - Protect and limit risk-taking
  - Reduce negative, coercive family interactions
- Increase Parental Involvement in Education
  - Build cultural capital / funds of knowledge
  - Promote school engagement and lifelong success
- Build Family & Cultural Strengths
  - Intervention family-centered (Dads also participate)
  - Cultural strength fostered to promote resilience and bicultural competence





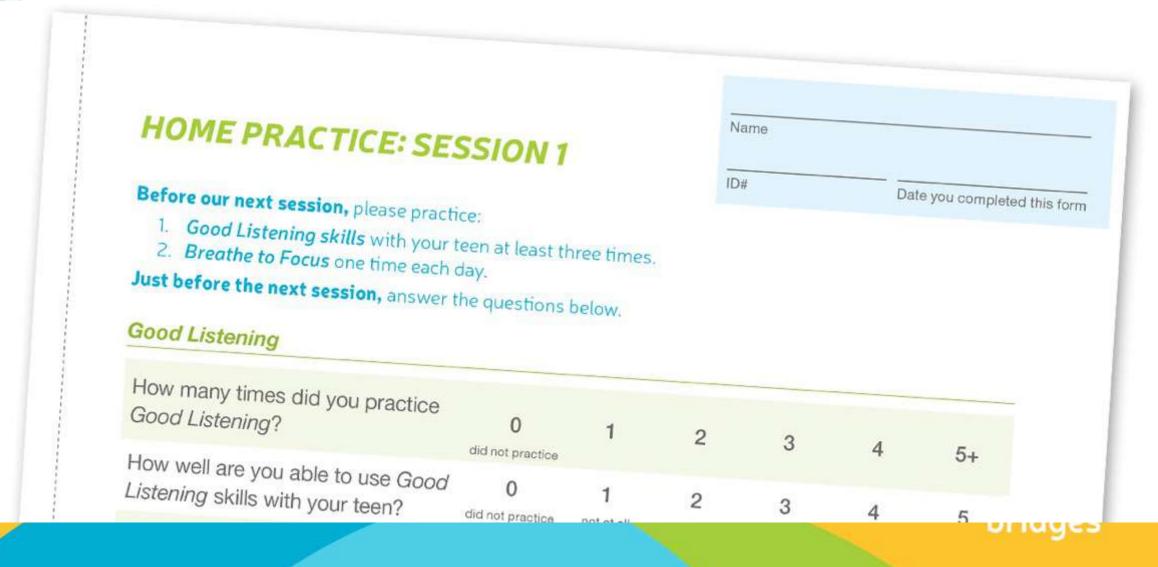
# **Goals of Bridges Teen Intervention**

- Promote school engagement and GRIT
  - Focus on future possible selves, life goals, importance of school
  - Learn strategies to stay focused and persistent with goals
- Increase youth skills to navigate Middle School transition
  - Learn skills to cope with school, peer, & family problems
  - Problem-solving, emotion regulation, self control, and cognitive coping, and support seeking in response to stress





Parents and Teens have Home Practice after every session ...... *"Home Practice is the Program!"* 



# Peer to Peer Parent-to-Parent

Participants support one another to overcome barriers while focused on positive goals not deficits.



# Bridges Family Meetings (all parents and teens meet together)

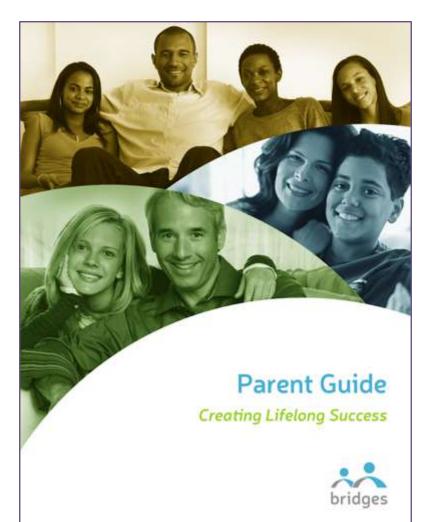
 Parents and teens practice skills together

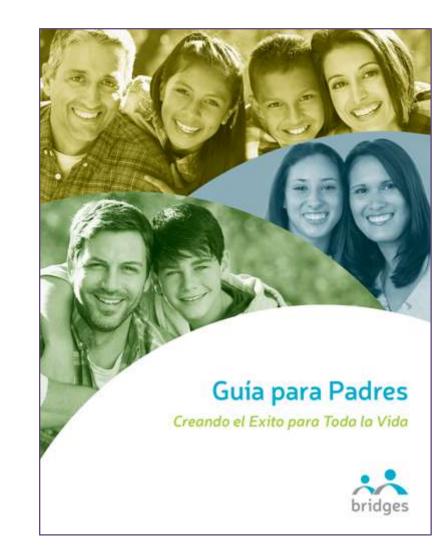




 Families affirm their commitment to support teen success

# Bridges Parent Program (English and Spanish)





# Teen, parent, and family sessions work together to achieve more than any one alone

## 1 + 1 + 1 = 5





### THEORY OF THE INTERVENTION



**Adolescents:** goals, planning, problem-solving, academic engagement, emotion regulation

SELF REGULATION

- **Parents:** parents' mindfulness & self regulation, parental monitoring & structuring, coaching adolescent problem-solving and emotion understanding, parental support and positive reinforcement
- Families: cohesion, familism, respect

# **Randomized Clinical Trial**

Random assignment of 516 7<sup>th</sup> graders (50.2% female):

- Intervention (n = 338) 2 Home Visits, 9 Sessions
- Brief Workshop Control Group (n 178)
- Maternal and paternal caregivers invited

Longitudinal Assessment and Test of Moderated Mediation:

- 1. Pre intervention (Fall of 7<sup>th</sup> grade)
- 2. Post intervention (Spring of 7<sup>th</sup> grade) --- 87% retention
- 3. One year posttest (8<sup>th</sup> grade) --- 84% retention
- 4. Two year posttest (9<sup>th</sup> grade) --- 82% retention
- 5. Five year posttest (12<sup>th</sup> grade) --- 80% retention
- 6. Seven year posttest (age 20) --- 80% retention

### Immediate Positive Intervention Effects

- Family Cohesion (English group)
- Youth:
  - Coping Efficacy
  - School Engagement
- Fathers:
  - Supportive Parenting
  - Consistent Discipline
  - Monitoring
- Mothers:
  - Positive Reinforcement
  - Monitoring
  - Harsh Parenting

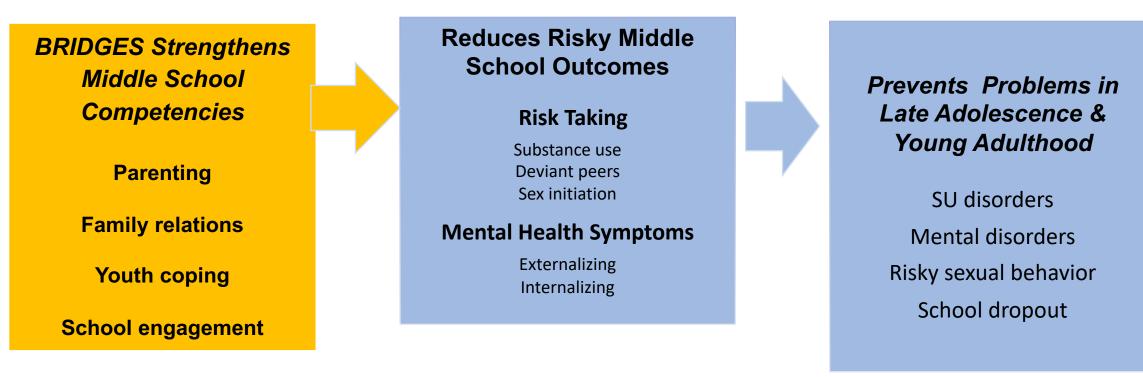
Gonzales, N.A., Dumka, L.E., Millsap, R.E., et al. (2012) *Journal of Consulting and Clinical Psychology*, 80(1), 1-16.

### One year Intervention Effects

- Lower rates of substance use, internalizing and externalizing symptoms, school discipline problems, early sexual initiation
- Higher grades
- Effects on Substance Use <u>mediated</u> by post-test changes in effective parenting, adolescent coping efficacy, adolescent school engagement, and family cohesion
- Less depression for mothers

Gonzales, N.A., Dumka, L.E., Millsap, R.E., et al. (2012) *Journal of Consulting and Clinical Psychology, 80(1),* 1-16.; Wong, J.J., Gonzales, N.A., Montano, Z., Dumka, L.E., & Millsap, R.E. (2014). *Journal of Family Psychology, 28,* 267-277.; Germán, L., Gonzales, N.A., West, S.G., & Dumka, L.E. (in press). *Cultural Diversity and Ethnic Minority Psychology.* 

### **THEORY OF BRIDGES INTERVENTION**



#### **COPING/ SELF REGULATION**

- Adolescents: values based goals, coping skills (problem solving, emotion regulation, cognitive coping)
- **Parents:** mindfulness, parental monitoring & structuring, coaching adolescent problem-solving and emotion understanding, parental support and reinforcement
- Families: familism, respect, cohesion

Empowered families to use cultural strengths.

Provided opportunities for each family to apply skills to their specific needs & values -- teens and families take what they need

## School Engagement Effects in High School

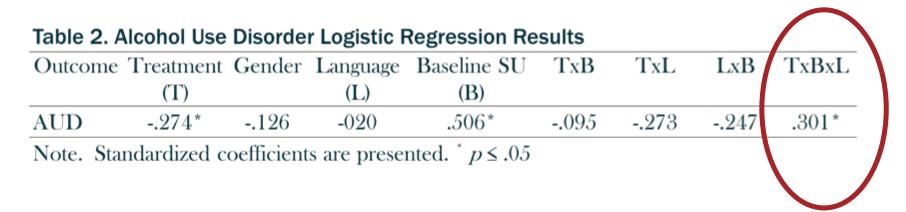
- Bridges significantly increased school engagement in the first year of high school (9<sup>th</sup> grade)
- School engagement mediated effects on late high school internalizing symptoms, substance use, and <u>school dropout</u>
- Long-term effects demonstrate the importance of school bonding over time

Gonzales, N.A., Wong, J.J., Toomey, R.B., Millsap, R., Dumka, L.E., Mauricio, A.M. (2014). *Prevention Science, 15,* 929-939.; Wong, J.J., Gonzales, N.A., Montano, Z., Dumka, L.E., & Millsap, R.E. (2014). *Journal of Family Psychology, 28,* 267-277.; Germán, L., Gonzales, N.A., West, S.G., & Dumka, L.E. (in press). ;*Cultural Diversity and Ethnic Minority Psychology.* 

### **Alcohol Use and Abuse Results in Late High School**

Outcome	Treatment	Gender	Language	Baseline SU	TxB
	(T)		(L)	(B)	
Alc. Use Freq.	054	117*	.041	.484*	256*
Binge Drinking	030	<b></b> 131*	.034	.542*	342*
Drunkenness	062	110*	.094*	.521*	290*

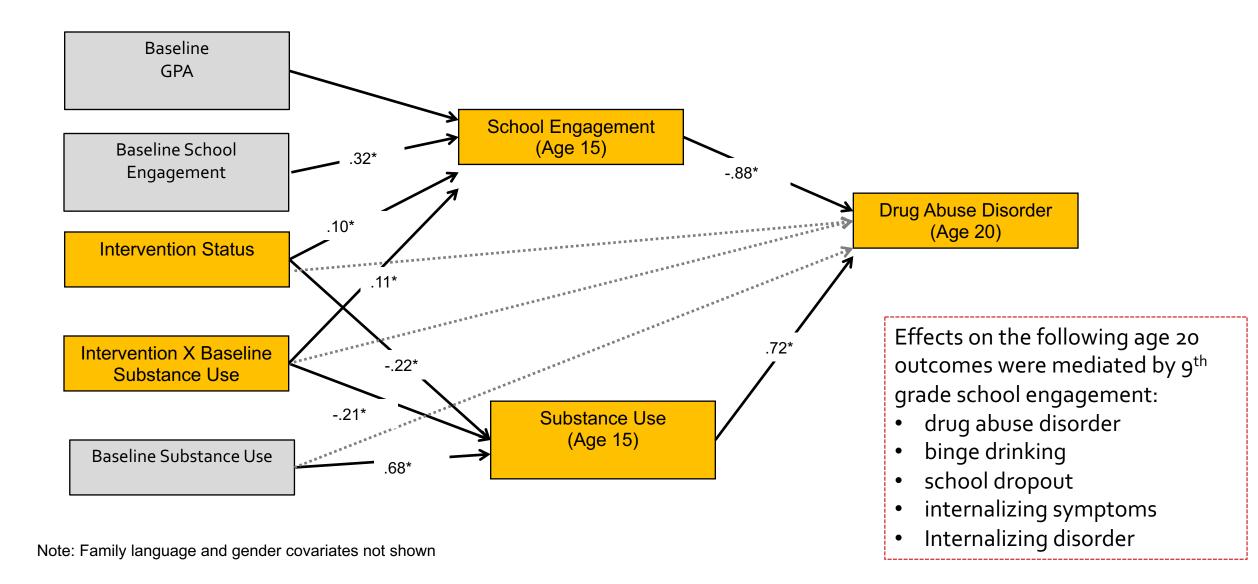
#### Table 1. Past Year Drinking Behaviors Model Results



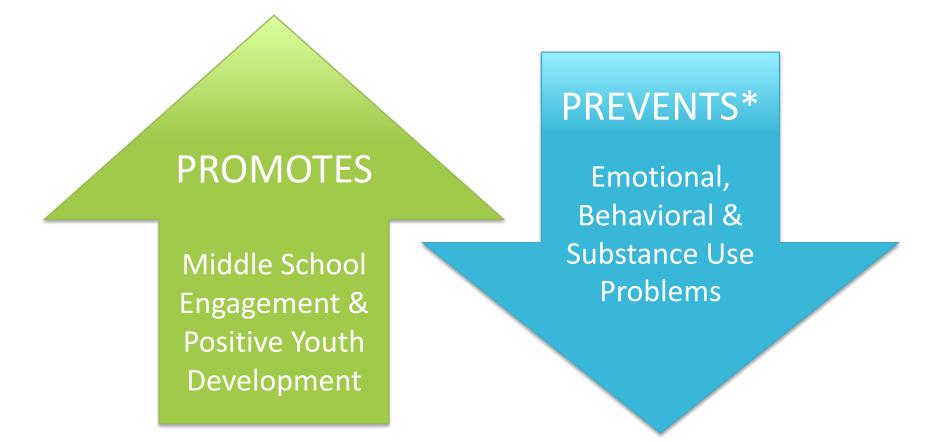
\* Significant baseline interactions show those at highest risk benefit the most

Gonzales, Jensen, Tein et al., (2018). JAMA Psychiatry

### Long-Term Effects in Emerging Adulthood



Families and schools working together to keep teens on the good path (el buen camino)





# Moving to Scale

- Currently testing a streamlined ("optimized') version that is more efficient and sustainable
- Optimized version was developed in partnership with Title 1 Middle Schools
- Makes use of technology to reduce cost and maximize reach



To help more youth achieve Cultural Maintenance and Mainstream Integration we need to think big about the broader agenda of ACCESS and INCLUSION and this will require broad systemic change.

- This work was supported by:
  - National Institute of Mental Health grant R01 MH64707.
  - National Institute of Mental Health grant R01 MH68920
  - National Institute of Child and Human Development Training grant T32-HD07376
  - National Institute of Drug Abuse R01 DA045855.
  - Helios Education Foundation
- We thank the families, schools, teachers, and research staff that have come together in support of our youth.
- Special thanks to Dr. Lorey Wheeler



**Creating Lifelong Success**