



**Latino Adolescent  
Migration, Health,  
and Adaptation**

<http://www.cpc.unc.edu/projects/lamha>



# **Migration and Mental Health: Latino Youth and Parents Adapting to Life in the American South**

**Final Results**

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**UNC**  
CAROLINA  
POPULATION  
CENTER

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## SUMMARY

This final report focuses on the migration and acculturation experiences of first generation immigrant youth ages 12-19. These youth were enrolled in a high school or middle school in North Carolina between Fall 2004 and Spring 2006. In this report, we provide an overview of individual characteristics, including acculturation levels, social supports, and socio-economic backgrounds, for both Latino adolescents and their caregivers. We then examine their migration journeys by considering life experiences in the home country, reasons for migrating, and the migration process. In reviewing this immigrant population's adjustment to the U.S., we discuss key issues related to family, school, community, discrimination, and acculturation experiences. Finally, we assess the physical and mental health of caregivers and adolescents. We find the following:

- Latino immigrants in North Carolina were primarily of Mexican origin (73%) with few having U.S. citizenship. Most adolescents came before the age of 13 and reported high English language skills. Caregivers had low levels of education, with 70% never finishing high school, and a sizeable portion only spoke Spanish (63%). While there were high levels of employment among caregivers, wages were low resulting in economic instability.
- The prospect of more economic and educational opportunities in the U.S. was a primary motivation for immigration among LAMHA study participants. While LAMHA families had some economic resources to help them migrate, the process of migration was stressful for most. However, even with this stress and periods of familial separation that resulted from the migration process, the vast majority of caregivers and adolescents believed that migrating was the best decision for themselves and their family.
- Extended family provided extensive instrumental emotional support for Latino adolescent immigrants and their caregivers. Levels of familism (i.e. a family-centered orientation), however, varied by place of birth and length of residence. We found little evidence that acculturation threatens familism, among first-generation immigrants.
- Immigrant Latino youth were highly motivated to succeed academically. They and their parents had high aspirations for their future educational endeavors. Nearly three quarters (66%) of adolescents aspired to a 4-year degree or more. A lower percentage (56%), however, actually expected to achieve this aspiration. In addition to expectations, we found that gender and region of birth contributed to each student's connection to his/her school.
- For the caregivers, the broader neighborhood context and ethnic community played an important role in providing the social support needed to adjust to life in the U.S. The vast majority of caregivers felt supported by people from their home country. Few caregivers indicated that ethnic isolation and neighborhood racial tensions were problematic, but these issues were of concern for a small

- 
- percentage of caregivers. The strength of neighborhood and co-ethnic social support varied significantly by country of origin.
- Discrimination was a significant concern for both caregivers and adolescents. For caregivers, discrimination was a problem in both the workplace and the community. For adolescents, discrimination experiences varied by gender. Male and female adolescents reported similar levels of discrimination by teachers, school administrators, and community members, but females reported higher levels of discrimination from school peers.
  - Both caregivers and adolescents acculturated to life in the United States while still maintaining their own ethnic identity. According to the Psychological Acculturation scale (PAS), adolescents were more likely to be bicultural than caregivers. South American immigrants, as a whole, were more likely to be bicultural than immigrants from Central America or the Caribbean or from Mexico. Length of residence was moderately associated with English language proficiency for adolescents but was insignificant for caregivers. The limited number of English as a Second Language programs accessible to caregivers restricted their opportunity to learn English.
  - Only a small percentage of caregivers had access to health insurance (34%). However, most (85%) reported being in good to excellent health. Despite reporting generally good overall health, mental health problems such as trauma (22%), depression (15%), and psychological distress (10%) were prevalent among caregivers. Experiences of acculturative stress, lack of social support, and discrimination contributed to these mental health problems.
  - A little more than a fifth (21%) of adolescents was reported by their caregivers to have health insurance, and 9% of adolescents reported having poor to fair health. North Carolina Latino immigrant youth were engaged in fewer risky behaviors (e.g., alcohol consumption) than other adolescents in the U.S., but depression (8%), PTSD (6%), and anxiety (30%) affected many. Females reported mental health concerns more frequently than males.

To improve the mental health status of Latino immigrant populations in North Carolina, the experiences hindering adaptation and mental health must be addressed and the factors promoting adaptation and mental health must be nurtured. The recommendations outlined at the end of the report suggest ways that schools and communities can work with Latino youth and their families to facilitate positive adaptation.

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## PROJECT DESCRIPTION

The last decade has been characterized by an unprecedented growth in the Latino population of North Carolina.<sup>1</sup> In North Carolina, the population has grown 394% from 77,000 in 1990 to 379,000 in 2000 (U.S. Census Bureau 2001). This growth has created many new challenges for North Carolina's health and social service organizations. One area where resources and data are especially lacking is mental health. At a state level, Hispanics, advocates, and policy makers attending the March 2001 *El Foro Latino*, an annual discussion forum for Hispanics in North Carolina, identified mental health needs as a key concern for the Latino community. At the national level, the Surgeon General released a report identifying many of the barriers faced by Latinos and other minorities in finding, accessing, and utilizing mental health services (U.S. Department of Health and Human Services 2001). The report concluded with a call to action, saying that "...the National agenda can be informed by understanding how the strengths of different groups' cultural and historical experiences might be drawn upon to help prevent the emergence of mental health problems or reduce the effects of mental illness when it strikes."

Despite the increasing size and economic presence of Latinos in the U.S. and these urgent calls to action in preventing and treating mental illness, there is little definitive data on the prevalence or etiology of mental health problems among Latino adolescents. The few studies which do include information on mental health and have sufficient numbers of Latino respondents do not collect substantial data on migration or acculturation experiences. As a result mental health is inadequately contextualized to reflect the life events and experiences that may contribute to, or exacerbate, mental health difficulties.

The Latino Adolescent Migration, Health, and Adaptation (LAMHA) study aimed to: (1) provide prevalence data on mental health symptoms among first-generation Latino youth, (2) describe the characteristics of the community, school, and family contexts that affect the mental health of new immigrant youth, (3) describe the migration and acculturation experiences of immigrant Latino youth, and (4) explore parent and child understandings of mental health and illness. This project creates a foundation for further examination of the efficacy of culturally-tailored interventions, comparisons between established and newly forming immigrant communities, and the improvement of mental health services to Latino populations.

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<sup>1</sup> Throughout this report, we will use the word "Latino" or "Hispanic" inter-changeably to describe the population of interest. We recognize that this term spans a variety of cultural groups with different migration histories, cultural traditions, and needs.

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## METHODS

The LAMHA study collected data on 283 first-generation Latino immigrant youth ages 12-19 and 283 of their primary caregivers (mostly mothers). First-generation immigrant youth were defined as youth born outside of the U.S. to foreign-born parents.<sup>2</sup> Approximately half of the parent sample (n=151) also participated in a survey of health service use patterns adapted from the Child and Adolescent Service Assessment (CASA) (Ascher et al. 1996). Finally, qualitative interviews about migration and acculturation experiences were completed with 20 Latino youth and qualitative interviews about mental health beliefs were completed with 14 primary caregivers.<sup>3</sup> In a preliminary pilot study for the LAMHA project, qualitative interviews with 20 Latino parents were also conducted. All data is being made available by the Carolina Population Center through a contract use agreement (see <http://www.cpc.unc.edu/projects/lamha>).

This report provides final findings to school systems that assisted with the LAMHA project. The findings are based on a weighted sample of 281 parent-child dyads. All data were collected between the Fall of 2004 and the Spring of 2006. Weights ensure that the data can be generalized to all Latino youth living in high growth Latino communities in North Carolina.

Using a stratified random sampling strategy, the LAMHA study was designed to generalize to first-generation Latino immigrant youth aged 12-19 who were living in high-growth (i.e.  $\geq 394\%$  growth between 1990 and 2000) Latino communities in North Carolina with a Latino population of at least 5,000. Based on data from the Census 2000, 17% of North Carolina's 100 counties qualified as large high-density Latino communities. Fifty-seven percent (N=217,221) of North Carolina's Latino population lived in these 17 counties and 68% were first-generation immigrants.

The focus on first-generation Latino adolescents living in large high-growth communities was both practical and substantive. On a practical level, it greatly facilitated data collection efforts and reduced the cost of the study. The size criterion helped to ensure an adequate sample size while reducing travel costs. The growth criterion facilitated the enrollment of first-generation, immigrant youth into the study. On a substantive level,

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<sup>2</sup> Youth born abroad to at least one U.S. born parent are U.S. citizens and are not included as first-generation immigrants.

<sup>3</sup> The majority of qualitative interviews were conducted in Spanish. Interviewers translated and transcribed interviews. Dr. Perreira directed the adolescent interviews. She is fluent in Spanish and met weekly with interviewers on the adolescent interview team to review all transcriptions and translations. Though Dr. Chapman directed the health beliefs component of the study, Dr. Perreira also provided oversight of the transcription and translation of the health belief interviews with parents. These efforts help to ensure the integrity of the translations from Spanish to English.

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this design focused our study on communities in North Carolina where mental health services for the Latino community are most needed and least developed.

To ensure economic variation in the communities in which Latino youth live, high schools serving large high-growth Latino communities were stratified into two groups – urban and rural. Urban high schools were defined as high schools serving counties where over 50% of the population was living inside an urbanized area or urban cluster. Rural high schools were defined as serving counties where 50% or less of the population was living in an urbanized area or urban cluster. Four high schools from the urban strata and six high schools from the rural strata were selected with a probability proportional to the size of Latino enrollment in each school. For each high school selected, all middle schools sending students to the participating high school were also selected.

A total of 4 urban and 6 rural school districts including 11 high schools and 14 middle schools participated in the study. After receiving passive consent from parents, school districts provided us with names and contact information for students who identified as Hispanic or Latino. Students and their primary caregivers were then contacted and recruited by phone. Active consent was provided for all interviews.

Teens and parents were asked to complete an interview-administered survey comprised of five sets of survey instruments that have been used and validated extensively with Spanish-speaking populations (Table 1). The first set of instruments focused on youth and parental mental health. The *Child Behavior Checklist* (Achenbach 1991) and the corresponding *Youth Self Report* (Achenbach 1991), asked questions about specific competencies and behavioral/emotional problems. Parents complete the Child Behavior Checklist and youth complete the Youth Self-Report. Youth also completed the Children's Depression Inventory (Kovacs 1992) and the shortened version of the *Multidimensional Anxiety Scale for Children* (MASC-10) (March et al. 1997). Parental depression and psychological distress was measured using the Center for Epidemiological Studies Depression Scale (CES-D) (Radloff 1977), the PRIME-MD, and the K3 Psychological Distress measure. The *Trauma Symptom Checklist for Children* (Birere 1996a) and the *Modified PTSD Symptom Scale* (MPSS-SR) (Falsetti et al. 1993), were used to identify symptoms of post-traumatic stress in youth and adults, respectively.

The second set of instruments focused on acculturation and family. The Psychological Acculturation Scale (Tropp et al. 1999) was used to evaluate the degree of acculturation. The Family Adaptation and Cohesion Scale (FACES II) and the Familism Scale by Gil, Wagner, and Vega (2000) were used to assess emotional bonding in the family unit and the family's ability to change its power structure, role relationships, and relationship rules in response to situational demands (Olson 1986, 1989).

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## **Table 1. Contents of Caregiver and Youth Surveys**

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### **Factual Areas**

- (1) Age at entry
- (2) Length of time in the U.S.
- (3) Family structure and Family functioning (Familism and FACES)
- (4) Parent & child employment and education histories
- (5) Views of School
- (8) Migration Experience and Acculturation

### **Mental Health Measures – Youth**

- (1) Child Behavior Checklist (parent completed)
- (2) Youth Self-Report
- (3) Trauma Symptom Checklist for Children
- (4) Children's Depression Inventory
- (5) Multidimensional Anxiety Scale for Children
- (6) Youth Reported Delinquency

### **Mental Health Measures – Caregiver**

- (1) Modified PTSD Symptom Scale
  - (2) Center for Epidemiologic Studies- Depression Scale
  - (3) PRIME-MD Clinical Depression Scale
  - (4) K3 Psychological Distress Scale
- 

Additionally, the survey included three scales on perceptions of school performance from the School Success Profile (Bowen and Richman 1997) and the Social Support Scale (Richman, Rosenfeld, and Hardy 1993). Lastly, participants answered socio-demographic questions and questions about the context of their migration and settlement into the United States. These questions were adapted from the Youth Adaptation and Growth Study and the corresponding survey for parents (Portes and Rumbaut 2001).

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## OVERVIEW OF STUDY PARTICIPANTS

### Adolescents

Reflecting national trends, the LAMHA adolescents were from a variety of Latin American countries (Table 2). According to the 2000 U.S. Census (Guzman 2001), Latino immigrants were primarily from Mexico (59%) with smaller percentages from Central America or the Caribbean (24%) and South America (4%). In our sample, 73% of the students were from Mexico, 22% from Central America/Caribbean, and 4% from South America.<sup>4</sup> The average age of participants was 14 years old.

We found that the vast majority of participants were not U.S. citizens (95%). Given residency requirements for citizenship, the short length of residency for this population may partially explain the low citizenship rates. While citizenship and legal documentation are two separate issues, a lack of citizenship indicates that these students have limited rights and opportunities. For instance, non-U.S. citizens often have fewer opportunities in higher education because many forms of financial aid, scholarships, and internships require citizenship status.

Despite their citizenship status, many students had begun to acculturate to life in the U.S. According to the Short Acculturation Scale for Hispanics<sup>5</sup> (SASH) (Marin et al. 1987), 70% of students had high English language proficiency. At the same time, over half of the students maintained their native language skills and spoke only Spanish in the home.

The preservation of native language skills can promote fluent bilingualism and improve academic outcomes. Previous research shows that students who are proficient bilinguals actually perform better academically than monolingual students (Feliciano 2001; White and Kaufman 1997). Unfortunately, many students become *limited* bilinguals stuck between two languages with no strong foundation in either. Thus, educators face many challenges in promoting English language acquisition while also helping immigrant students maintain and advance their foreign language skills.

Almost two-thirds of Latino immigrant students in North Carolina had lived in the U.S. for five years or less. Presumably, the more time students reside in the U.S. the more they acculturate. At the same time, students can develop an oppositional culture (Ogbu 2004) with more time in the U.S. and can face more barriers to their success (e.g., lower

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<sup>4</sup> The data for the country from which the family immigrated was collected from the caregivers not the adolescents.

<sup>5</sup> The Short Acculturation Scale for Hispanics includes 12 items related to three factors including language use, media, and ethnic social relations. We utilized the four language use items to measure low and high English language acculturation.

family cohesion, lower educational expectations, and a greater susceptibility to negative teacher attitudes) (Potochnick and Perreira 2007; Cooley 2001; Valenzuela 1999; Gill, Wagner and Vega 2000; Vega 1995).

<b>Table 2. Selected Youth Participant Characteristics</b>	<b>%/Mean</b>	<b>N</b>
Boys interviewed	45%	281
Girls interviewed	55%	281
Average age of youth	14yrs	281
<b>Immigration Experience</b>		
Immigrated from Mexico	73%	281
Immigrated from South America	4%	281
Immigrated from Central America/Caribbean	22%	281
<b>Acculturation</b>		
Non-U.S. citizen	95%	265
English language ability (SASH)		
High (score=8+)	70%	278
Low (score<8)	30%	278
Speaks only Spanish in the home	58%	280
Total time in the United States		
Five years or less	65%	281
More than five years	35%	281
Age at arrival		
Before Age 6	15%	272
Six years old to twelve years old	66%	272
Thirteen years or older	20%	272
<b>Social Support</b>		
Youth lived with two biological parents	55%	275
Religious	60%	233
<b>Socio-Economic Background</b>		
Youth worked in past 12 months	23%	273

NOTE: Ns are the total of students responding to a question. Missing values are present when students refuse to answer or don't know the answer to a question.

The majority of LAMHA students (66%) came to the U.S. between the ages of six and twelve. Fifteen percent of students came to U.S. before the age of six, which means that they were of the 1.5 generation (Rumbaut and Portes 2001). Because youth of the 1.5

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generation start formal schooling in the U.S. and because they have spent a limited amount of time in their home country, their acculturation experiences can be less demanding than the acculturation experiences of immigrant youth who arrive at an older age. However, the direct immigrant ties of the 1.5 generation can create distinct acculturation challenges (e.g., adjusting to norms, language, and new familial roles) that native youth of immigrant parents do not face.

In contrast to the 1.5 generation, a fifth of students came to the U.S. at the age of 13 or older. For these students many aspects of acculturation can be more difficult. For instance, previous research has found that the actual amount of time needed to reach academic English language proficiency varies by the age of migration to the U.S. Students who enter the educational system at ages 8-11 are the fastest to progress needing 2-5yrs, while those who enter at ages 12-15 may need as many as 6-8 years (Collier 1987; Thomas and Collier 2001). Students who migrate at later ages are also more likely to drop out of high school or never enroll than those who migrate at younger ages (Fry 2005; Fry 2003).

High social support and socioeconomic backgrounds can also facilitate acculturation (Alba and Nee 2003). Both family and community support help adolescents adapt to new situations and promote mental health. A majority of the participants lived with both biological parents, and 60% reported being religious. In terms of socioeconomic background, participants faced economic burdens that hinder adaptation and reduce mental health. Almost a quarter of LAMHA students reported working in the past 12 months. While limited amounts of work can have positive effects, working can also detract from educational opportunities and create additional stress (Schoenhals, Tienda, and Schneider 1998). In sum, while Latino youth had familial and social supports to help with acculturation, they also faced economic burdens that could create additional acculturation burdens.

## Caregivers

The majority of caregivers who participated were mothers (76%) with an average age of 39 (Table 3). Like the students, the vast majority of the caregivers were not U.S. citizens (97%), meaning that these participants had limited political rights. The majority (63%) of caregivers also only spoke Spanish. Limited English language abilities can make it difficult for caregivers to become involved with their child's school and to navigate other social systems.

In contrast to the adolescents, caregivers had resided in the U.S. for a longer period of time. Sixty-three percent of caregivers had lived in the U.S. for more than five years, while only 35% of adolescents had lived in the U.S. this long. This difference in length of residence is a consequence of the migration process, which often separates parent and child. Thirty-eight percent of LAMHA caregivers indicated that during the migration

process they were separated from their child for one month or more. An additional 32% reported being separated from their child for a year or more. When they are reunited, their protracted separation has often disrupted parent-child bonds and will require psychological adjustments by both (Suárez-Orozco and Suárez-Orozco 2001).

<b>Table 3. Selected LAMHA Caregiver Characteristics</b>	<b>%/Mean</b>	<b>N</b>
Mothers answered the survey	76%	275
Caregiver's avg. age	39	274
<b>Immigration Experience</b>		
Family Separation		
One month or more	38%	272
One year or more	32%	272
<b>Acculturation</b>		
Non U.S. citizen	97%	276
Speaks only Spanish	63%	277
Total time in the United States		
Five years or less	37%	275
More than five years	63%	275
<b>Social Support</b>		
Caregiver is married	68%	278
Religious	51%	246
<b>Educational Background</b>		
Eighth grade or less	53%	274
Beyond 8th grade, no high school	17%	274
High school	15%	274
Vocational, trade, or business school	8%	274
Bachelor's degree	6%	274
<b>Socio-Economic Background</b>		
Caregiver works full- or part-time	79%	280
Both caregivers work full- or part-time	63%	254
Avg. Monthly Income	\$1,869	229
Avg. Monthly Remittances	\$149	267
Avg. Household Size	5	276
Receives Public Assistance	7%	279
Owens a Home	19%	279

NOTE: Ns are the total of students responding to a question. Missing values are present when students refuse to answer or don't know the answer to a question.



The social support and human capital resources of a caregiver can help both caregivers and adolescents maintain their mental health. The vast majority of the caregivers (68%) were married and half of them were religious. Both church and partners can be a source of support. In terms of educational resources, a large majority (70%) of caregivers had less than a high school education and a significant portion of them (53%) had never attended high school. With low levels of education, caregivers can struggle to secure economic stability for their families and may not be able to assist their children with basic school assignments.

The majority of the caregivers (79%) worked full- or part-time and over half of the households (63%) had both parents working. Despite this high level of employment, the average household income for LAMHA families was below the poverty line. The average monthly household income for participants was \$1,869, which equates to an annual income of \$22,428. Moreover, the average family size was five. The 2006 poverty line for a family of five was \$23,400 (U.S. Dept. of HHS 2006). In addition to supporting their household, caregivers were also sending remittances to their family in Latin America. On average, they sent \$149 a month, which is about 8% of their average monthly incomes.

A small percentage (7%) of the caregivers reported receiving public assistance (e.g. TANF, SSI or food stamps). This low participation in public assistance is likely due, in part, to the 1996 welfare reforms that preclude immigrant groups from receiving assistance during their first five years of residence (Massey et al. 2002). Finally, even with significant economic constraints, about a fifth (19%) of the caregivers reported owning their own home, which is a positive indicator of economic advancement and residential stability (Rumbaut 1999).

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## THE MIGRATION JOURNEY

According to prior research, those who decide to immigrate tend to be better off educationally and economically than those who stay in their home countries (Feliciano 2006). Data from the LAMHA report supports these results. The majority of LAMHA caregivers (58%) were employed before coming to the U.S. and 71% reported owning their own home in Latin America. Over 80% lived in homes or apartments with cement or tile floors (compared to dirt or wood floors), running water, and inside bathrooms. While the majority of the LAMHA participants may not have been the poorest in their home countries, the economic resources and experiences they brought with them varied. The following adolescent comments about living conditions in their native countries demonstrate this variation.

### Quotation 1

It was a house of two floors. You can say that we were middle class there. We had a dining room, a living room, and a half bath for guests who visited and needed to clean up. And up the staircase there were more rooms.

### Quotation 2

I don't really remember much from that (*life in Mexico*). My house was made of wood. I think we bought that house. We also didn't really have a floor. It was just dirt and most was cement.

The majority (57%) of adolescents reported being involved in the decision to immigrate. Both caregivers and adolescents provided similar reasons for why the family decided to immigrate (Figure 1)—primarily economic. More adolescents indicated family reunification as a motivation for migration than caregivers (26% vs. 8%). This difference is likely due to caregivers immigrating first and then sending for their children. The following adolescent quotes describe their reasons for immigrating and the process of immigration.

### Quotation 1

yeah, they [parents] moved here to provide us with a better life and not letting us like, live what they had lived when they were little, that's what they moved here for.

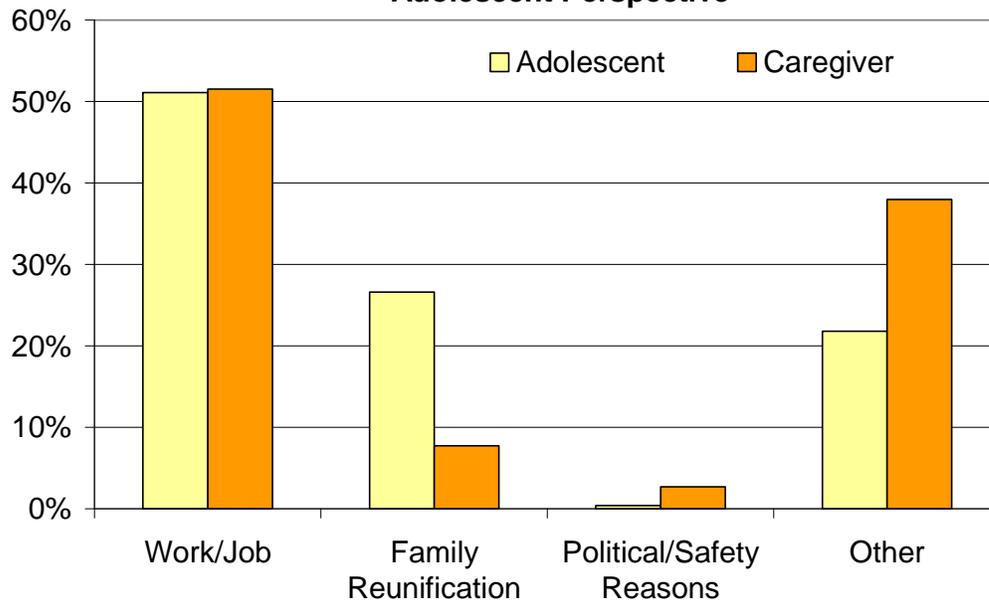
### Quotation 2

My dad? He first came to Florida. He was with my other aunt. However, he came here because I think there was better work. (*thinking*) Yes. That was it, the work was better. Over there the only job he could get was cutting down oranges. So he came here for work.

### Quotation 3

There wasn't much money. We, I mean we kept having hard times with money and stuff like that. Like we needed coats and there wasn't any money for any. So they decided that they haven't tried it. They made their own little drug store. But it didn't work out. They broke. They decided that that was enough. They knew that it was never going to change so they came here.

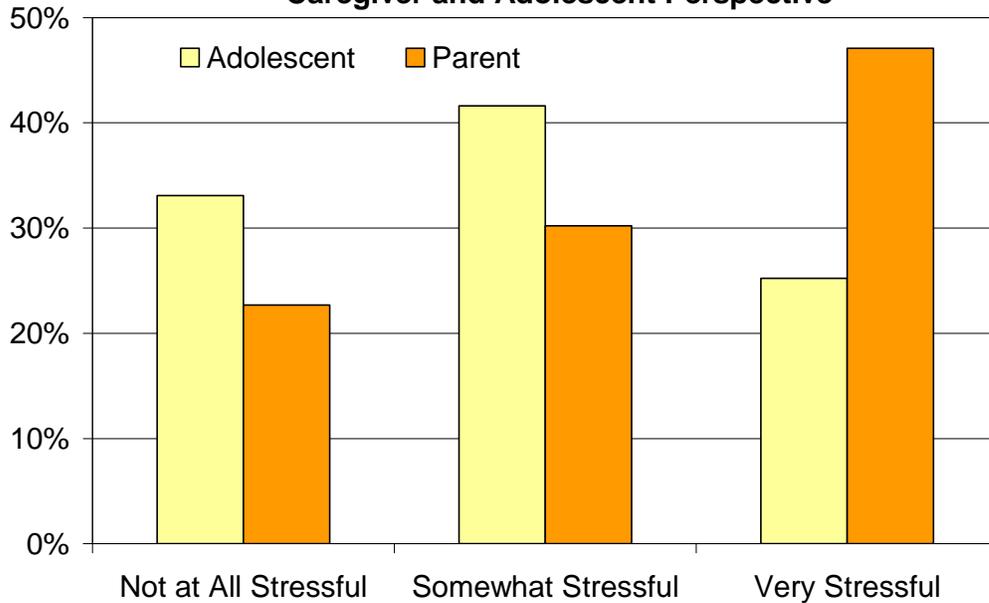
**Figure 1. Reasons for Moving to the US from Caregiver and Adolescent Perspective**



The actual process of migrating can be highly stressful. Immigrants have concerns about the future and about what they are leaving behind. In addition, they have safety concerns related to the actual physical act of migrating. The vast majority of both caregivers (77%) and adolescents (67%) reported that the experience was at least somewhat stressful (Figure 2). However, caregivers experienced higher levels of stress related to migration than adolescents experienced. Forty-seven percent of caregivers, compared to 25% of adolescents, indicated that the immigration experience was *very* stressful. This most likely reflected caregivers' responsibilities for their entire family.



**Figure 2. Reported Stress Level of Migration Experience from Caregiver and Adolescent Perspective**



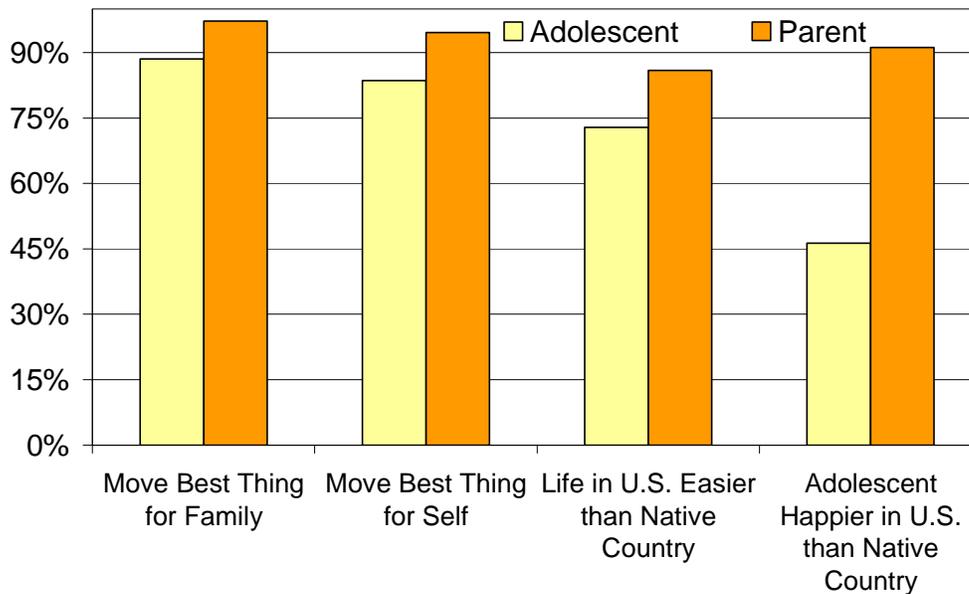
The following quote demonstrates one of the concerns that many adolescents had about migrating.

**Quotation 1**

I was 14 and my mom told me that we had to come here because my daddy was already here and we had to come because I had to get a better life, to learn English and that stuff. And, I didn't like that. I was really mad at first because you know I was in Middle school and my friends and everybody was there. When I was in Middle school I thought I was going to graduate with all my friends and that stuff. And then my mom just told me that she wanted me to come here with her. It was hard because I didn't want to. I said, "NO, I am not going over there!"

While migration was stressful, both caregivers and adolescents were ultimately happy with the decision to migrate. Almost all of the caregivers (97%) and adolescents (89%) indicated that migrating was the best decision for the family (Figure 3). Compared to adolescents, caregivers were slightly more likely to report that the move was the best thing for them (95% vs. 84%) and that life in the U.S. was easier than in their native country (86% vs. 73%). However, caregivers substantially overestimated how happy the move had made their adolescent children. Caregivers were significantly more likely to report that the adolescents were happier in the U.S. (compared to their native country) than the adolescents were to report being happier (91% vs. 46%).

**Figure 3. Satisfaction with Migration Decision from Caregiver and Adolescent Perspective**



As the following quotes demonstrate, it took time for most adolescents to become satisfied with the decision to migrate.

**Quotation 1:**

Like for the first year for the half of year we kind of like didn't want to stay here but after that we got to know more people and more people. So, we kind of like well we wanted to stay here now. Like my mother asked us if we wanted to leave but we say, "No." We wanted to stay. We were comfortable here.

**Quotation 2:**

Well, at first I didn't want to go because of the change. Sometimes a person is afraid because it's another country. It's another culture, other people. And sometimes it's as if you fear that but really it's like the saying goes, "no one becomes a prophet in their own land." [nadie se hace profeta en su propia tierra] so at times one has to search for other places and that's what I've found in this country, a great opportunity.

**Quotation 3:**

So many things that...I know that I didn't have, we didn't have a car when we used to live there. If I were to stay there I probably would not have finished school because I would have to go work out in the fields or something. So many



more chances here, so many open doors in terms of finding a job, getting an education. Doing what you want to do for a living, basically. It's something that you would not have. Basically, it's the economy. You have so many benefits here, that you would just not have over there.

**Quotation 4:**

Now that I am here I wouldn't change anything because even if I have to be through discrimination and all that stuff it helped me learn that is how life is. And now I know English and that is very good for me. Because after I graduate, I'm going back to Mexico. And I am going to college in Mexico to be an ESL teacher because I want to help other people learn English there. I wouldn't change any of it.

In sum, the prospect of more opportunities in the U.S. motivated the migration of most Latino youth and their caregivers in NC. While Latino immigrant families had some economic resources to help them migrate, the process of migration was still stressful for most. Even with this stress and periods of familial separation that resulted from the migration process, the vast majority of the caregivers and adolescents believed that migrating was the best decision for themselves and their families.

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## FAMILY EXPERIENCES

Family support among immigrant populations can serve as an important resource for both the caregiver and the adolescent. For Latino populations, researchers use the term familism to refer to attitudes about the family unit as an essential aspect of one's life (Cooley 2001). This strong sense of family orientation among Latino populations is viewed as a beneficial or protective factor against wider negative social forces.

Reflecting the centrality of family among all Latino populations, familism varied little by country of origin. It did, however, vary between caregivers and adolescents (Figure 4). On a scale of 0 to 28 (Gil and Vega 1996; Gil, Vega, and Dimas 1994), caregivers were more likely to report higher familism scores than adolescents. This difference between caregiver and adolescent reports may be a consequence of the acculturation process. Youth with fewer ties to their home countries and greater exposure to the norms and values of the U.S. may acculturate more quickly than their parents. The dissonant acculturation levels of parents and their children can undermine the strength and role of the family unit (Cooley 2001; Gil, Wagner, and Vega 2000; Vega 1995).

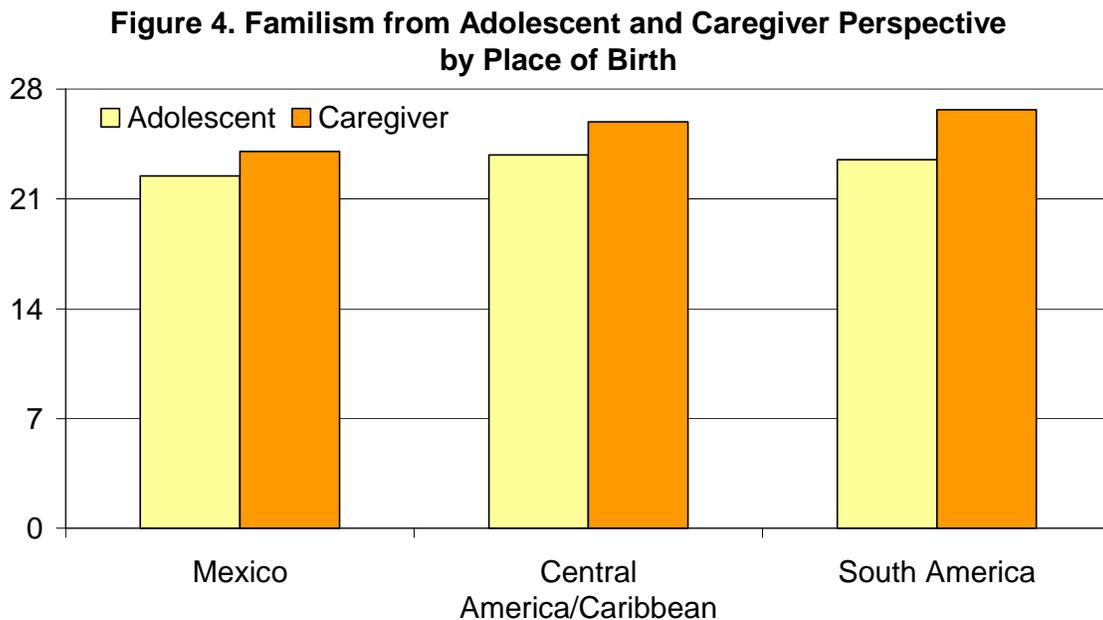
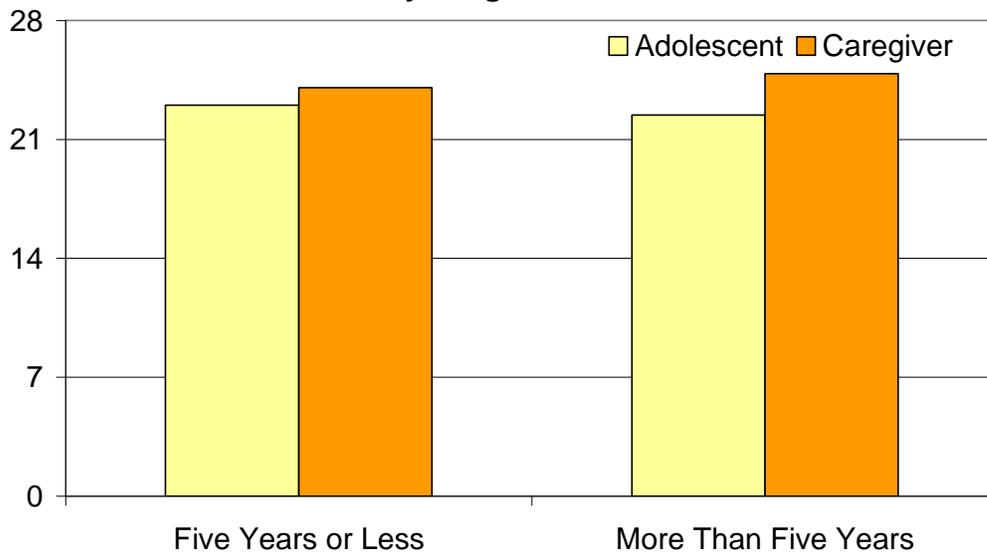


Figure 5 shows how levels of familism vary by length of residence for both caregivers and adolescents. Contrary to research findings that acculturation threatens familism,

there were no statistically significant differences in familism scores by length of residence. LAMHA caregivers who had resided in the U.S. for more than five years had similar familism scores than those who had resided in the U.S. for five years or less (24.87 vs. 24.05). The same was true for adolescents where familism scores did not differ significantly by length of residence. In sum, we found mixed support for the theory that acculturation threatens familism. There was evidence that familism rates differed between parent and child, but these differences did not increase with length of residence in the U.S.

**Figure 5. Familism from Adolescent and Caregiver Perspective by Length of Residence**



The following adolescent quotes demonstrate the important role families had in the daily lives of the Latino immigrant youth and how the role of families changed due to the migration process. Students had become more reliant on family as a social support in the U.S.

**Quotation 1:**

Well, I feel really, you know like, it's really different since we are really alone here. We're just three and my mom is always working and my sister, you know, it's just my little sister and me...

**Quotation 2:**

Well, yes, for example in this next semester we are going to have orientations. And my mom will go. My dad can't because he works in the evening. But my



mom, always. It is not important when, my mom is always there. If it is for an hour she is there for the whole hour [she is there] and she goes to see ALL of the teachers. Even though she can't speak with them, I translate...

**Quotation 3:**

Here the family's more you know, in my family the family's more together. We talk a lot about more issues that I don't think we would've dealt with or talked about over there.

**Quotation 4:**

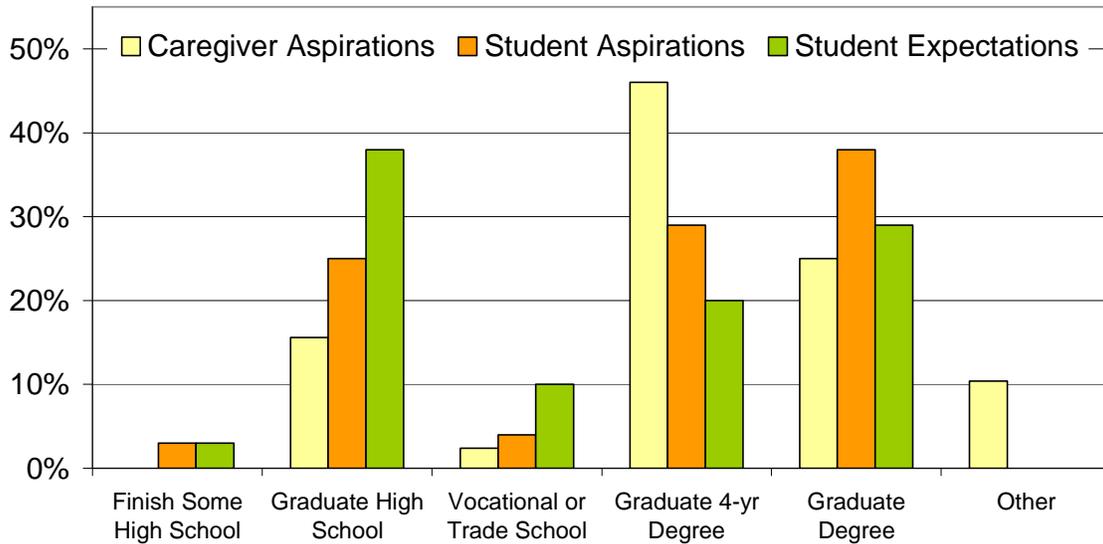
Um, yes. Well because of the relationship that now we [family] are together we try to dedicate more time to having always a space for being together. Or we create a space in order to chat or to have more trust because now we are together.

## SCHOOL EXPERIENCES

Both adolescents and caregivers placed great value on current and future educational progress. Adolescents, even more so than their caregivers, reported higher levels of aspirations for their future academic achievement (Figure 6).<sup>6</sup> A little more than a quarter (29%) of the caregivers reported that they aspired for their child to obtain a graduate degree, but over a third (38%) of adolescents reported these same high aspirations.

While parents and students had high academic aspirations, many did not actually believe that they could achieve their educational goals. Only 29% of students actually expected to obtain a graduate degree, though 38% aspired to obtain one. More telling was the percent of students who expected to complete high school. While only a quarter of students aspired to complete only high school, over a third (38%) expected that they would not be able to go beyond high school despite having higher aspirations.

**Figure 6. Comparison of Caregiver and Student Academic Aspirations to Student Academic Expectations**



<sup>6</sup> Ten percent of parents reported “other” when asked about their academic aspirations for their child. The majority of the “other” responses indicated that parents wanted their child to obtain all that he/she could and/or wanted.

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Given the low economic status and citizenship rates among the LAMHA sample, for many adolescents higher education was not seen as a realistic goal. The following quotes demonstrate the struggle adolescents faced between academic aspirations and academic expectations.

**Quotation 1:**

Take it from my issue, I'm not a legal immigrant, I don't have a visa, I don't have nothin'. And in school, when I was in the 11th grade, I graduated taking AP Calculus, which is, you know, it was just me and another Hispanic girl, and all the other Hispanics were like "why? You can't continue studying, why would you do it?" and I was like "if there's ever a chance for me to go, I'll have that behind me." It won't be just "well you didn't have good grades in school so why are you doin' it now?" I believe that's basically the motivation I had, so I took AP Calculus, I also took a college level course.

**Quotation 2:**

My mom wants me to go back to Mexico to see if there I can go to college because here it costs a lot of money and I don't have papers to be able to go to college here. And I want to go but I'm scared because it's different, they say now in Mexico, it scares me.

To better understand how school experiences contribute to aspirations and expectations, we administered a number of scales that asked adolescents about their schools. These scales were taken from the nationally recognized School Success Profile (SSP). The *School Satisfaction* scale represents the extent to which a student perceives a positive academic and social school climate. The *Teacher Support* scale represents the extent to which students' and teachers' attitudes and behaviors are helpful. The *School Safety* scale represents the extent to which students experience the school environment as safe and secure. The *General Social Support* scale represents the extent to which a student has people in his or her life who provide both concrete and emotional expressions of support on a weekly basis. For all scales a higher score indicates a more desirable perception.

Table 4 shows how these school experience measures differ by gender, while table 5 shows how they differ by place of birth. Females were more likely to report positive school perceptions in all cases except school safety, but the differences were not statistically significant. School satisfaction levels for both male and female Latinos are worrisome given that Latinos have the second lowest level of student achievement and highest dropout rate of all ethnic/racial groups (Rumbaut and Portes 2001; Zambrana and Zoppi 2002).

**Table 4. Means of School Experience Items for LAMHA Participants by Gender**

	Male	Female
School Satisfaction (Range of 0-7)	5.94	6.64
Teacher Support (Range of 0-11)	9.92	10.51
School Safety (Range of 0-18)	6.19	5.03
General Social Support (Range of 0-8)	5.55	6.37

Although not statistically significant, we also found differences in school experiences by place of birth. Students from South America had the highest scores for school satisfaction and general social support. They were the least likely, though, to report positive scores for school safety. Students from Central America or the Caribbean were the most satisfied with school safety and teacher support.

**Table 5. Means of School Experience Items for LAMHA Participants by Place of Birth**

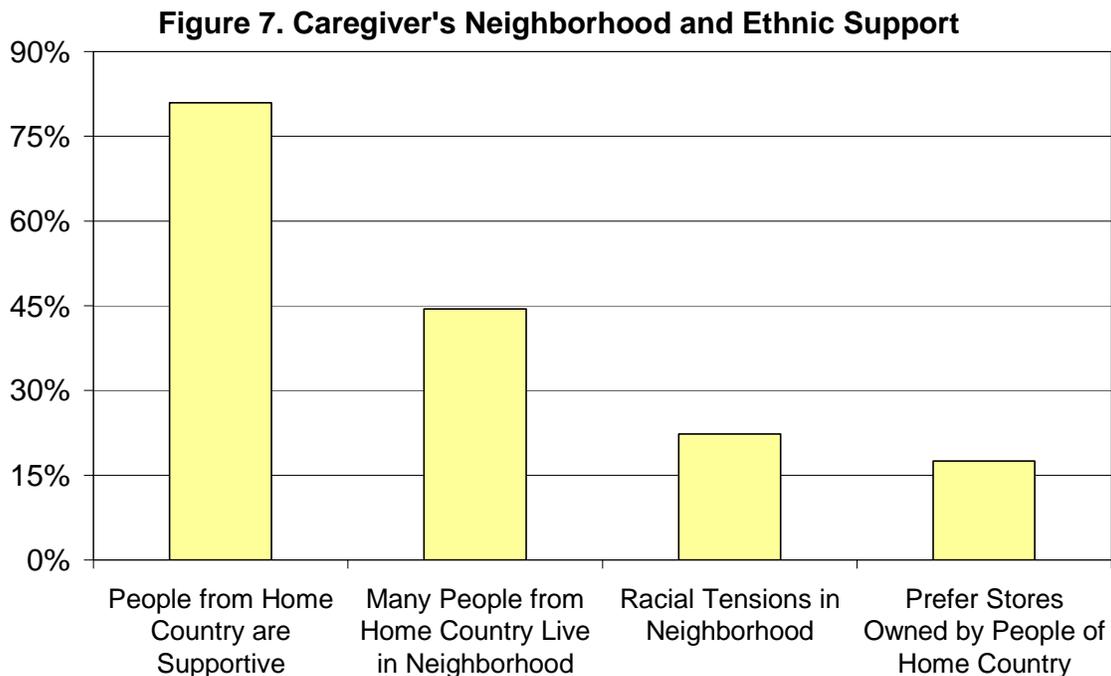
	Mexico	Central America/Caribbean	South America
School Satisfaction (Range of 0-7)	6.37	6.16	6.47
Teacher Support (Range of 0-11)	10.21	10.43	9.87
School Safety (Range of 0-18)	5.31	7.08	3.95
General Social Support (Range of 0-8)	6.01	6.04	6.40

Given the different achievement rates across Latino sub-populations, schools need to pay particular attention to these differing trends in overall school experiences. More positive school experiences can lead to higher levels of school engagement and improved performance in school.

## COMMUNITY EXPERIENCES

Research finds that the characteristics of a neighborhood can have an influential impact on a variety of outcomes, including educational attainment, access to the labor market, development of social norms, and overall mental well-being (Stanton-Salazar 2001; Ginther, Haveman, and Wolfe 2000; Wilson 1987). Neighborhood impacts can be positive or negative. The key for any type of neighborhood characteristics to have an influence is that there is some sense of community (good or bad) that connects individuals together (Entwisle 2007).

The majority of Latino caregivers had close connections to individuals in their community. Over two-thirds had another relative living nearby, and half had a close friend that lived nearby. In describing their neighborhoods and ethnic support, 45% of caregivers said that many people from their home country lived in their neighborhood (Figure 7). Caregivers expressed a positive perception of their fellow ethnic group. Over 80% said that people from their home country were supportive. Thus, not only were caregivers residing close to their ethnic group, but they were receiving positive support from this group.

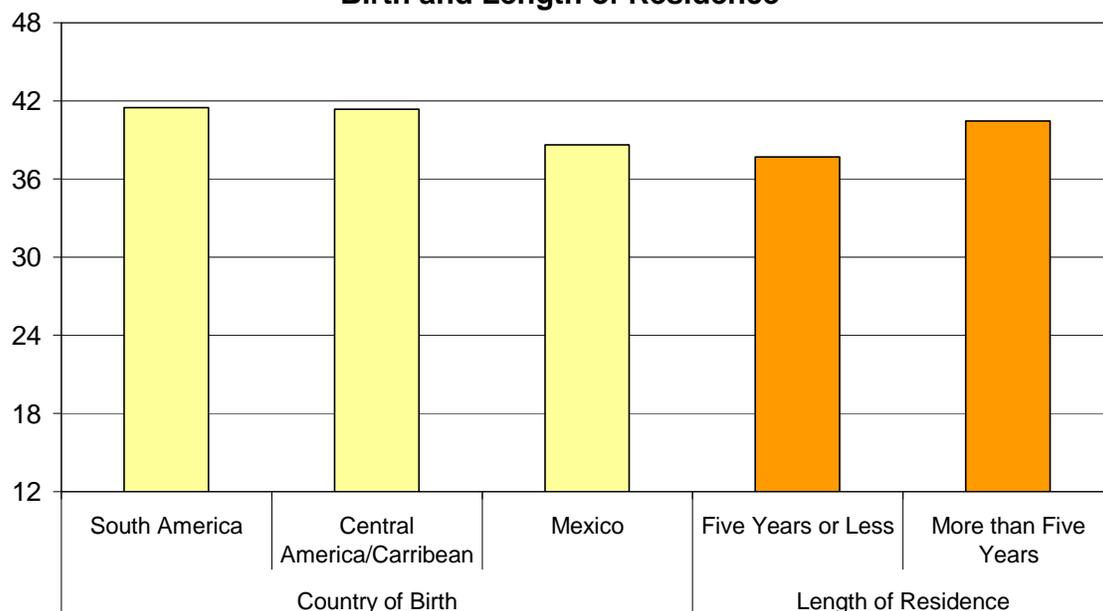


While the social support of their fellow ethnic group was important, caregivers were not isolated from other groups. Less than a fifth (16%) of the caregivers said that they preferred to shop in stores owned by people of their home country. Moreover, for the majority there was little indication that racial tensions were a problem in their neighborhoods. Concern is warranted, though, for the twenty percent of the caregivers who noted that racial tensions were an issue in their neighborhoods. These tensions can have negative impacts on mental well-being of both caregivers and adolescents.

The different elements of neighborhoods can influence the level of social support caregivers feel. To assess the overall caregivers' sense of social support, we utilized the Interpersonal Support Evaluation List (ISEL-12). This is a 12 item list that measures perceived social support across a variety of situations. The scale ranges from 12-48 with high scores being more positive.

There were differences in caregiver levels of social support by region of birth and length of residence (Figure 8). Caregivers from South America reported the highest levels of social support, while caregivers from Mexico reported the lowest levels.

**Figure 8. Caregiver's Level of Social Support by Region of Birth and Length of Residence**



These disparities in social support may partially explain the diverging adaptation patterns among Latino populations. Mexican Americans have been found to have less educational and economic success than other Latino groups and immigrant populations in general

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(Portes and Rumbaut 2001). While each immigrant group enters the U.S. with differing economic and educational resources, the social supports they establish in the U.S. can be used to overcome such initial disparities. Thus, the lower levels of social support among Mexican Americans in this study could negatively affect their socioeconomic adaptation in North Carolina.

Fortunately, the social support levels of caregivers appear to improve overtime. Caregivers who resided in the U.S. for more than five years reported higher levels of social support than those who had lived in the U.S. for five years of less. The challenge for policymakers is to determine how to foster the development of social support among immigrant populations early in the adaptation process. Greater social support at the onset of migration could attenuate initial stress levels, reduce the development of mental health problems, and ease the transition to the U.S.

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## DISCRIMINATORY EXPERIENCES

Discriminatory experiences can make both adolescents and caregivers feel socially marginalized and reduce their sense of self worth. Whether felt personally or not, discrimination against a family member can have a profound impact on the mental health of the entire family. For instance, caregivers often worry more about protecting their children from such negative experiences than from protecting themselves. Likewise, adolescents want to protect their family from discrimination.

Both adolescents and caregivers were asked to report if they had experienced ethnic or racial discrimination at least once while residing in the U.S. A sizeable portion of both groups responded yes. Adolescents, however, were more likely to indicate having experienced discrimination than caregivers (41% vs. 32%). Below we examine the sources and types of discrimination for caregivers and adolescents.

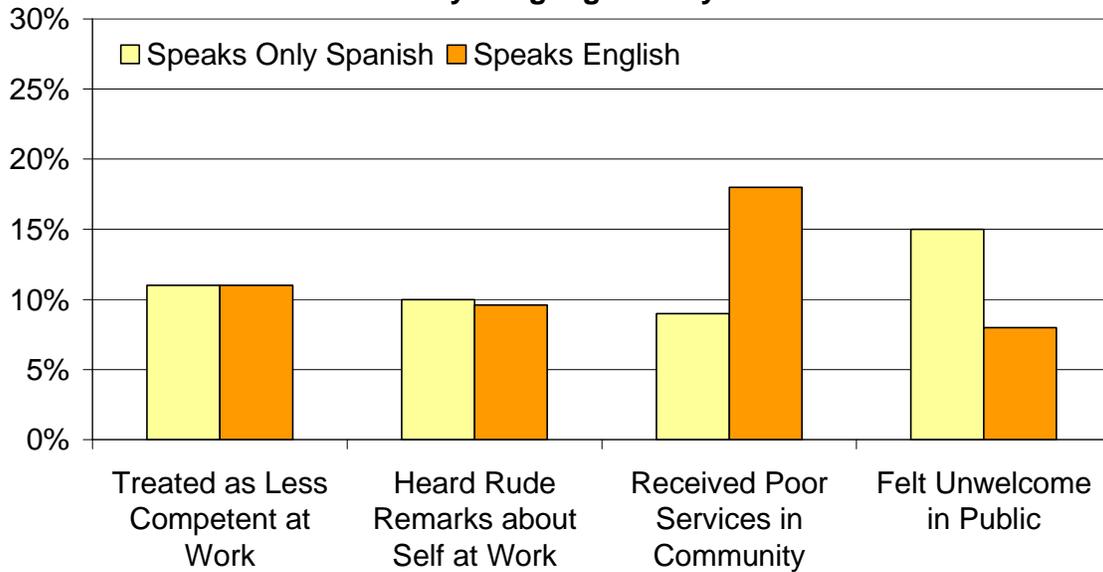
### Caregiver Experiences

While some current media attention and research focuses on the rising division between Hispanics and Blacks, a plurality (40%) of LAMHA caregivers indicated that Whites were the racial group most likely to discriminate against them. Only a third of caregivers indicated that Blacks were the racial group most likely to discriminate. Almost 10% of caregivers indicated that other Latinos were the group most likely to discriminate. This division among Latinos emphasizes the importance of remembering the pan-ethnic and multi-generational nature of this population.

Caregivers perceived discrimination in both the work place and the wider community (Figure 9). In the workplace, both caregivers who only spoke Spanish and caregivers who spoke English experienced similar levels of discrimination. Both groups were equally likely to be treated as less competent at work and to hear rude remarks in the workplace. Discrimination experiences in the broader community, however, differed by language ability. Those who spoke English were more likely to report receiving poor service in the community (18% vs. 9%), while those who only spoke Spanish were more likely to report feeling unwelcome in public (15% vs. 8%).

These diverging community experiences can reflect different levels of involvement by English language ability. Presumably, caregivers with stronger English language skills are more likely to be engaged in the broader community. Thus, as a result, language acculturation may come with a cost—discrimination—as this population begins to interact more with other racial/ethnic groups. Despite encountering more discriminatory experiences those with higher English language skills were still more comfortable in public than those who spoke only Spanish.

**Figure 9. Caregivers' Reports of Discrimination by Language Ability**



### Adolescent Experiences

Male and female adolescents reported similar levels of discrimination by teachers, school administrators, and community members (Figure 10). But, they reported significantly higher levels of discrimination by their peers at school and females reported more peer discrimination than males. When talking about their experiences with discrimination adolescents made the following comments:

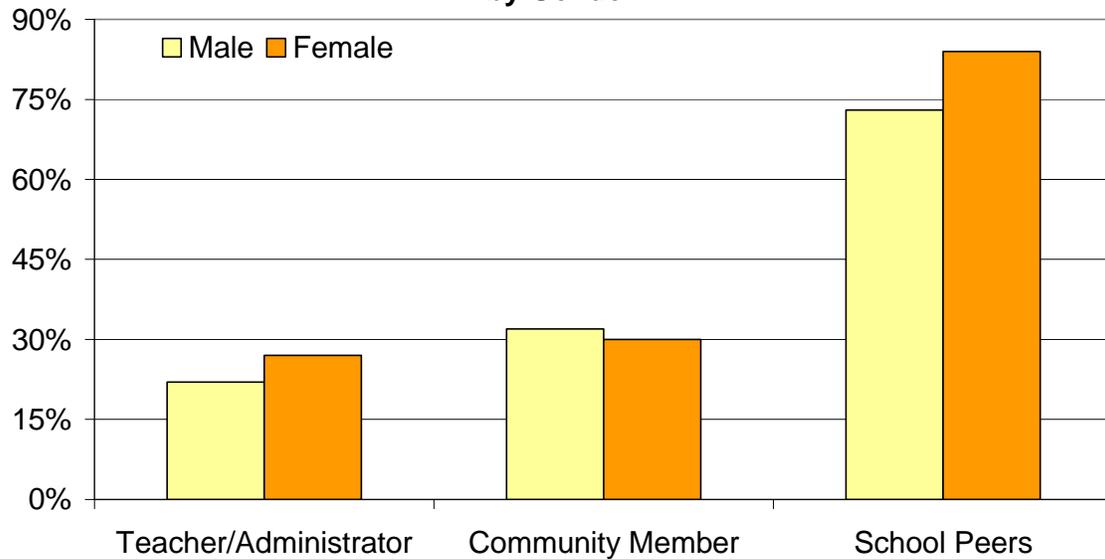
#### Quotation 1:

Most are good, certain ones [students] are racist, not all. But the ones who are racist, they never leave you be. They are always there bothering you, calling you names, insulting you, saying rude things to you. And since we don't let them, we answer back, they always punish us, the Mexicans, and all that...

#### Quotation 2:

In school I always had problems because the Americans [typically, means white] called me "wetback" and "beaner" "Mexican, go back to Mexico, we don't want you here." And so, I answered back and I was the only one that got in trouble, not the American. And I was always stuck in the intervention center, ISS [In School Suspension].

**Figure 10. Adolescents' Reports on Sources of Discrimination by Gender**



Peer-to-peer harassment and discrimination occurs not only between race-ethnic groups but also within race-ethnic groups. Differences in generational status and the pan-ethnic nature of the Latino population can form the basis discrimination among Latinos. The following quotes reflect the socially marginalization felt by some Latino youth from their Latino peers.

**Quotation 1:**

There were other Latinos there. I felt bad because the Latinos that were in that school where I used to go they knew English very well. So they talked to each other in English. I was the only one who didn't know any English. So I couldn't understand anything and that stuff. So I think between Latinos we discriminate each other because of that.

Not all students, though, felt discriminated against as the following quote emphasizes.

**Quotation 1:**

no, I don't think I never got, I never felt like I was being discriminated, naw. Then like, when they came here before they were used to discriminate people from their color. I thought it was going to be like that but naw, it ain't, it's not like that anymore.

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## ACCULTURATION EXPERIENCES

Upon entering the U.S., immigrant populations face a multitude of adjustment challenges, including managing a new language, adapting to new social norms and mores, and learning to navigate new educational and health systems. The acculturative stress immigrant populations undergo during this adjustment process can have significant impacts on their mental well-being. Research finds that immigrant populations who are able to adapt to their new society without losing their cultural identity are best able to minimize the negative impacts of acculturative stress (LaFromboise et al. 1993). Sometimes referred to as bicultural, these immigrants experience fewer mental health and behavioral problems.

Using the Psychological Acculturation Scale (PAS) we assessed an individual's sense of psychological attachment and belonging within the Anglo-American and Latino/Hispanic cultures. The scale ranged from 1 to 5 with lower scores representing a Latino preference and higher scores representing an Anglo preference.<sup>7</sup> A score of 3 indicated a high-level of comfort with both cultural groups.

Regardless of country of origin, the average PAS score for adolescents indicated that they felt more comfortable with Anglo-Americans than their parents (Table 6). It is common for adults to face more difficulties adjusting to a new country than adolescents who have a relative advantage in learning a new language and social customs. Furthermore, through the school system, the values, norms, and customs of a community are continually reinforced.

**Table 6. Psychological Acculturation Scale Means for Caregivers and Adolescents by Region of Birth**

	Caregiver	Adolescent
Mexico	1.63	2.03
Central America/Caribbean	1.77	2.27
South America	2.16	2.91

Compared to their respective peers from Mexico and Central America or the Caribbean, immigrants from South America reported greater acculturation to the U.S. Given that South American immigrants tend to come from a higher socioeconomic status than other Latino immigrant populations, they may more easily adjust to life in the U.S. However, both youths and their caregivers from every region maintained a strong sense of attachment and belonging to their cultural heritages.

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<sup>7</sup> The original PAS uses a scale that ranges from 1 to 9 with 5 indicating biculturalism. Our PAS measure was rescaled to range from 1 to 5 in order to simplify the survey. The interpretation remains the same.

To assess factors that facilitate the acculturation process for caregivers and adolescents, tables 7 and 8 examine the correlations<sup>8</sup> between different measures of acculturation.

**Table 7. Correlation Matrix of Acculturation Measures for Caregivers**

	Length of Residence In U.S.	SASH English Language Score
Length of Residence In U.S.	--	--
SASH English Language Score	.108*	--
Psychological Acculturation Scale (PAS)	.246**	.586***

For caregivers, their English language usage (as measured by four items of the Short Acculturation Scale for Hispanics) was correlated with their PAS score (.59), while length of residence was weakly correlated (.25). Similar correlation patterns were found for adolescents, but compared to caregivers, English language usage was not as strongly related to the adolescents' PAS score (.33 vs. .59). This suggests language acculturation and psychological acculturation are more distinct dimensions of acculturation among adolescents.

**Table 8. Correlation Matrix of Acculturation Measures for Adolescents**

	Length of Residence In U.S.	SASH English Language Score
Length of Residence In U.S.	--	--
SASH English Language Score	.594***	--
Psychological Acculturation Scale (PAS)	.283***	.327***

Still, knowing English opens doors and opportunities for immigrants that facilitate their adjustment to the U.S. As indicated by the correlations with length of residence, more time in the U.S. tends to be associated with greater language and psychological acculturation. These associations, however, are much stronger among adolescents than their caregivers.

The following quotes indicate some of the acculturation challenges adolescents faced and highlight the different ways they resolved them.

<sup>8</sup> Correlations consider the bi-variate relationship between two variables. The coefficient indicates the relative strength of the association. A general guideline for interpreting the coefficients is as follows: a) weak relationship—coefficient is less than .3; b) moderate relationship—coefficient ranges from .3 to .7; c) strong relationship—coefficient is greater than .7.

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**Quotation 1:**

And it's hard because the things that parents, like our parents taught us, they're not the same as what our teachers or the things that are outside are teaching us right now, so we have to kind of live with it, we have to kind of change but keep what our parents taught us in some way.

**Quotation 2:**

Call it the friction of two cultures. Because a person that was born here, even if they are Hispanic, has many aspects of the American culture, so at times there's a friction between "I'm Mexican and I want my traditions to continue being valid" and "I'm American and I want my traditions also to continue being valid." And when there's no agreement between the two, that's where the conflicts begin, the problems. That there is no concordance, that there is a conflict between the two cultures. That could be a problem.

**Quotation 3:**

Well in our family for example we keep the values that we brought with us, with the values that we were born with, it's always like that with values, I mean there can be a person that decides to leave those values, those people exist, but yes, we have kept the values that we were born with so I think we have continued with that, with that education that was given to us, that was fomented from the time we were small, so I think there's no problem.

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## CAREGIVER HEALTH

### General Health

While the LAMHA study focused on the mental health of immigrant caregivers and youth, we also collected information on overall physical health and access to health services. Latino caregivers had limited access to health insurance. Only a little more than a third (34%) reported having any health care insurance. Most worked in service and retail sectors where employers did not offer insurance. In addition, few have access to Medicaid since the program requires permanent legal residency for at least five years. Despite the low levels of health care access, the vast majority of caregivers (86%) reported having good to excellent health. Fourteen percent, though, reported having fair or poor health.

### Psychological Distress and Depression

Experiences of loss, trauma, discrimination, and other types of stress during migration and settlement in the U.S. can translate into high levels of depression and other mental health symptoms not only for adolescents but also for their primary caregivers (Perreira, Chapman, and Livas-Stein 2006). Moreover, parental depression has been strongly associated with depression and other developmental challenges for children (Dennis et al. 2003; Conger and Elder 1994; Linver, Brooks-Gunn, and Kohen 2002).

Almost a fifth (22%) of the primary caregivers (mostly mothers) in the LAMHA study indicated that they had experienced at least one traumatic event (e.g., crime, violence, war, etc.) in their life (Figure 11). Of those who experienced trauma, the average number of traumatic events experienced was one and a half. Almost 15% of caregivers showed signs of clinically significant depression as measured by the Center for Epidemiological Studies Depression Scale (CES-D).<sup>9</sup> This result is similar to other studies which find high rates of depression among Latinos, especially women and children (Alderete et al. 2000; Ortega et al. 2000; Rickert Weimann and Borenson 2000; Vega and Rumbaut 1991). The depression rate for non-Hispanic whites ranges between 8 and 9 percent (Vega and Rumbaut 1991). When we examined clinical diagnoses for psychological distress,<sup>10</sup> we found that almost a tenth of the caregivers experienced serious psychological distress.

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<sup>9</sup> The CES-D is thought to be one of the most valid measures of depressive symptoms for the Latino population (Vega et al. 1986).

<sup>10</sup> We used the K6 measure of non-specific psychological distress. The scale ranges from 0 to 24 with scores of 13 or more indicating serious psychological distress. See Kessler et al. (2003) for more information.

**Figure 11. Caregiver Mental Health in Latino Immigrant Families**

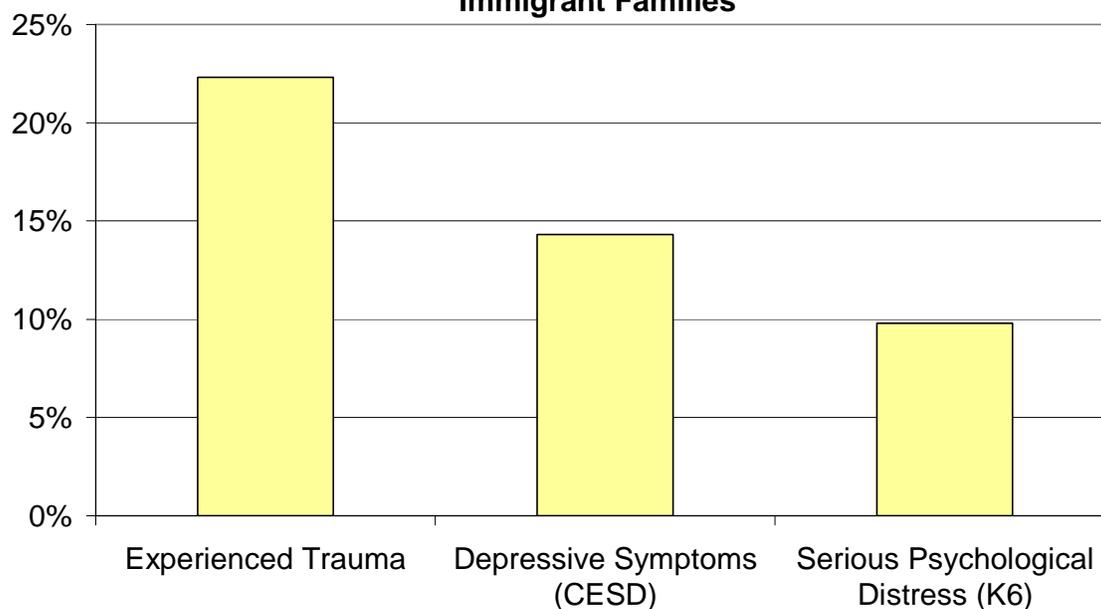


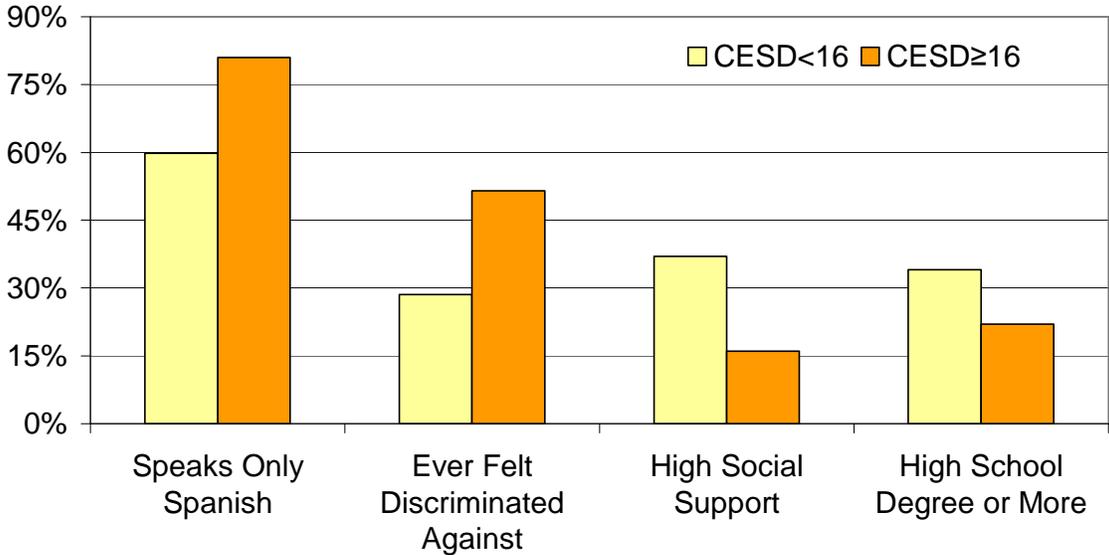
Figure 12 shows that the experiences of acculturative stress, social support, and discrimination clearly contributed to the risk of depression among caregivers in the LAMHA sample. Depressive symptoms also differed by education level. For example, caregivers with significant depressive symptoms ( $CESD \geq 16$ ) were more likely to only speak Spanish (81% vs. 60%) and to report having experienced discrimination (52% vs. 29%) than caregivers who did not experience symptoms. Furthermore, caregivers with depressive symptoms were less likely to report high levels of social support<sup>11</sup> (16% vs. 37%) and less likely to have a high school degree (22% vs. 34%).

The relationship between acculturative experiences and caregiver mental health has a significant impact—both direct and indirect—on the adolescent’s own mental well-being. Caregivers struggling to adjust to a new society are limited in their capacity to help their children make the same adjustments.

<sup>11</sup> High social support is defined as the 25<sup>th</sup> percentile of the ISEL-12 social support measure reported in the Community Experiences section.



**Figure 12. Acculturation, Social Support, Education and Discrimination by Caregiver Depressive Symptoms**



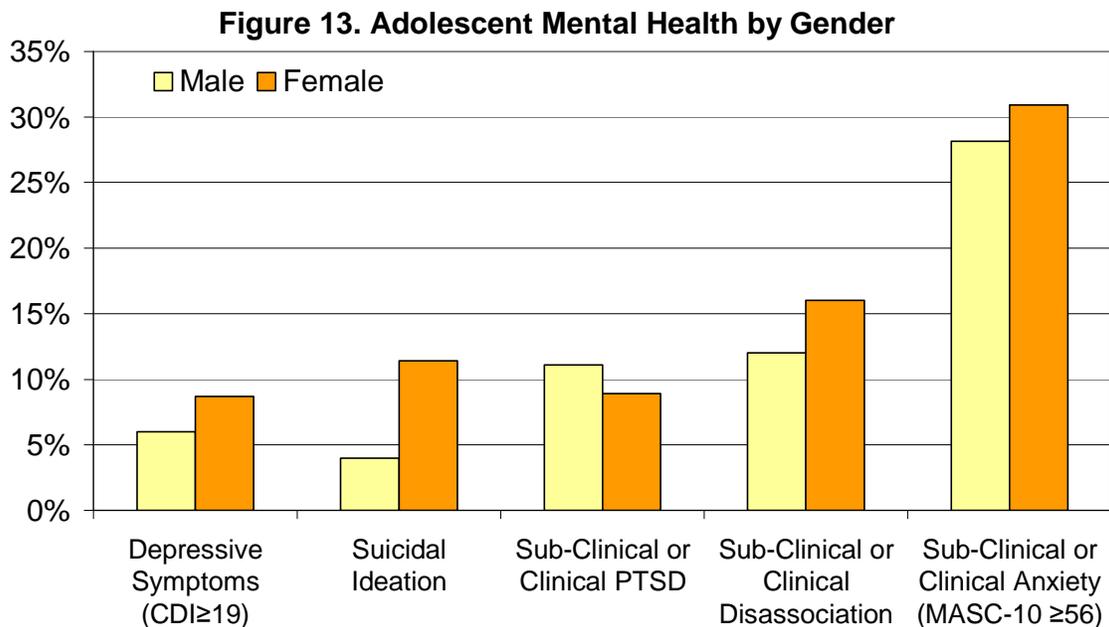
## ADOLESCENT HEALTH AND BEHAVIOR

### General Health

Adolescents had even lower rates of health insurance coverage than their caregivers. Only a fifth (21%) of Latino immigrant youth, compared to a third of caregivers, had health insurance.<sup>12</sup> Despite this low rate of health insurance coverage, families were able to find other means to access health care—possibly using out-of-pocket expenses or community health care providers.<sup>13</sup> Forty percent of the adolescents reported that they had received a routine physical exam in the past year. The vast majority of adolescents (91%) reported that their overall health was good to excellent. About 10% reported having fair or poor health.

### Depression, Anxiety, and Post-Traumatic Stress

The mental health status of Latino adolescents varied substantially by gender (Figure 13). Overall, females reported more mental health problems than males.



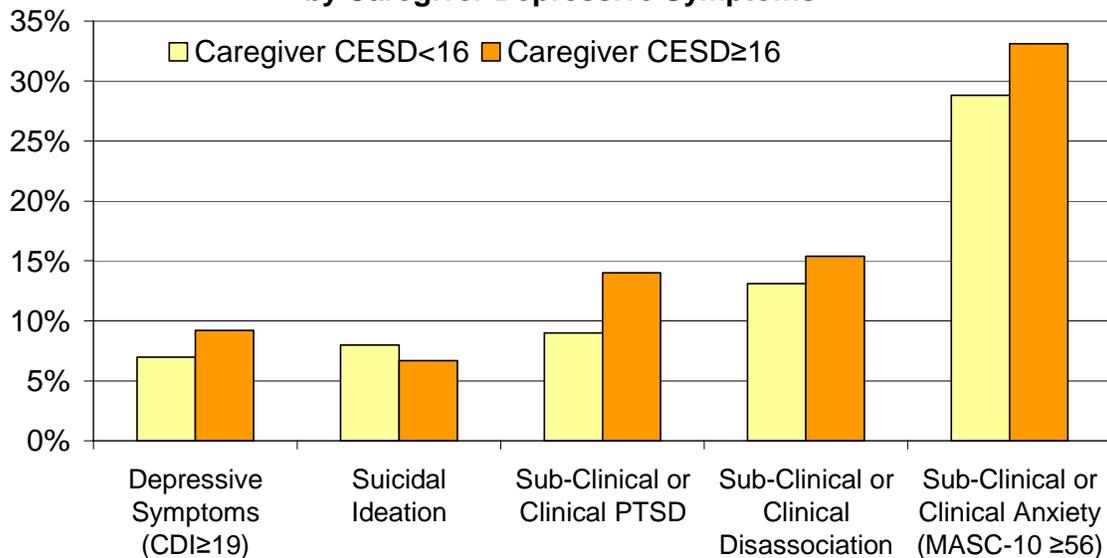
<sup>12</sup> Caregivers reported whether or not the adolescent had health insurance.

<sup>13</sup> Community health care providers include federally qualified health care centers, migrant health care centers, and non-profit providers whose mission includes serving indigent or low-income communities.

Compared to males, females suffered from more depressive symptoms (i.e. a CDI score  $\geq 19$ ) (9% vs. 6%) and had higher levels of disassociation (16% vs. 12%). They were also significantly more likely to report suicidal ideation (11% vs. 4%). According to the Multidimensional Anxiety Scale for Children (MASC-10)<sup>14</sup>, females were at a greater risk of experiencing high levels of anxiety (31% vs. 28%). Males, however, were more likely to have sub-clinical or clinical symptoms of Post Traumatic Stress Disorder (11% vs. 9%) as determined by the Trauma Symptom Checklist (TSCC-A).

As found with previous research (Dennis et al. 2003; Conger and Elder 1994; Linver, Brooks-Gunn and Kohen 2002), parental depressive symptoms were strongly associated with the mental health of LAMHA youth. Children of caregivers with depressive symptoms suffered more mental health symptoms than children of caregivers without depressive symptoms (Figure 14).

**Figure 14. Adolescent Mental Health by Caregiver Depressive Symptoms**



For instance, youth with a depressive parent were more likely to experience depressive symptoms (9% vs. 7%), post-traumatic distress (14% vs. 9%), disassociation (15% vs.

<sup>14</sup> The MASC reported is based on an internal normative sample with the following means and standard deviations by age and gender: 1) females 12-15=11.47(4.99); 2) females 16-19=12.29(4.71); 3) males 12-15=9.99(5.12); and 4) males 16-19=8.68(5.43). Using an external normative sample, 34% of females and 31% of males showed sub-clinical or clinical signs of anxiety. The external sample used 4.5 as the standard deviation for all categories and the following specific means: 1) females 12-15=11.5; 2) females 16-19=12; 3) males 12-15=9.5; and 4) males 16-19=9.5.

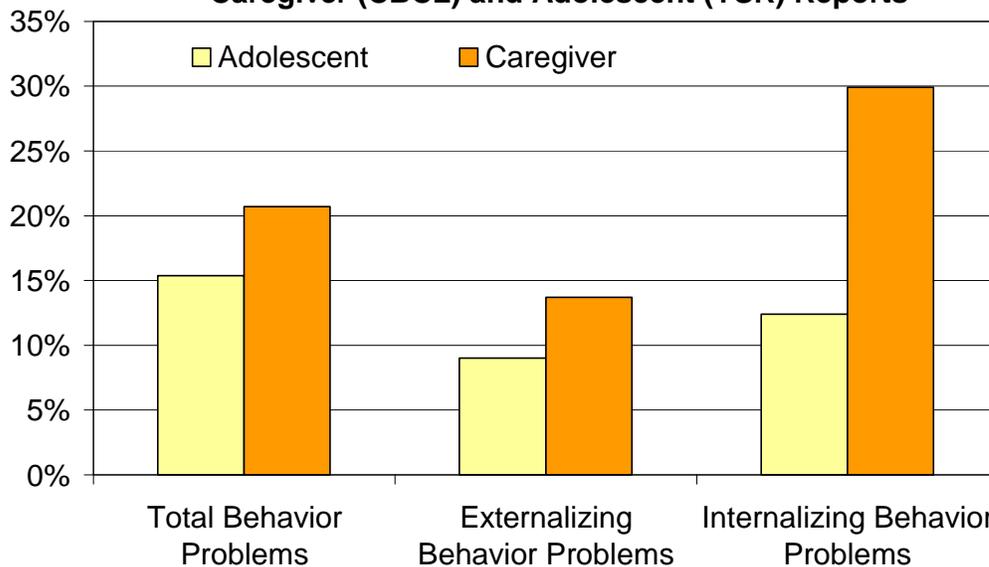
13%), and anxiety (33% vs. 29%) than youth with a parent who did not have substantial depressive symptoms. Suicidal ideation, however, did not differ significantly by caregiver mental health.

### Mental Health and Behavior

To determine the relationship between adolescent behaviors and their overall mental health, we utilized both the Child Behavior Check List (CBCL), a parent report of child behaviors, and the Youth Self Report (YSR), the adolescent self-report version of the CBCL. We found differences in the sub-clinical and clinical diagnoses of behavioral problems by adolescent and caregiver reports (Figure 15).

Overall, adolescents reported fewer total (15% vs. 21%), external (9% vs. 14%), and internal (12% vs. 30%) behavioral problems than did their caregivers. While it is not uncommon for discrepancies between the CBCL and YSR to occur, these findings indicate a high level of disconnect between adolescent and caregivers when it comes to understanding the adolescents' mental health and behavior.

**Figure 15. Percent of Adolescents with Clinical and Sub-Clinical Signs of Mental Health Problems as Indicated by Caregiver (CBCL) and Adolescent (YSR) Reports**

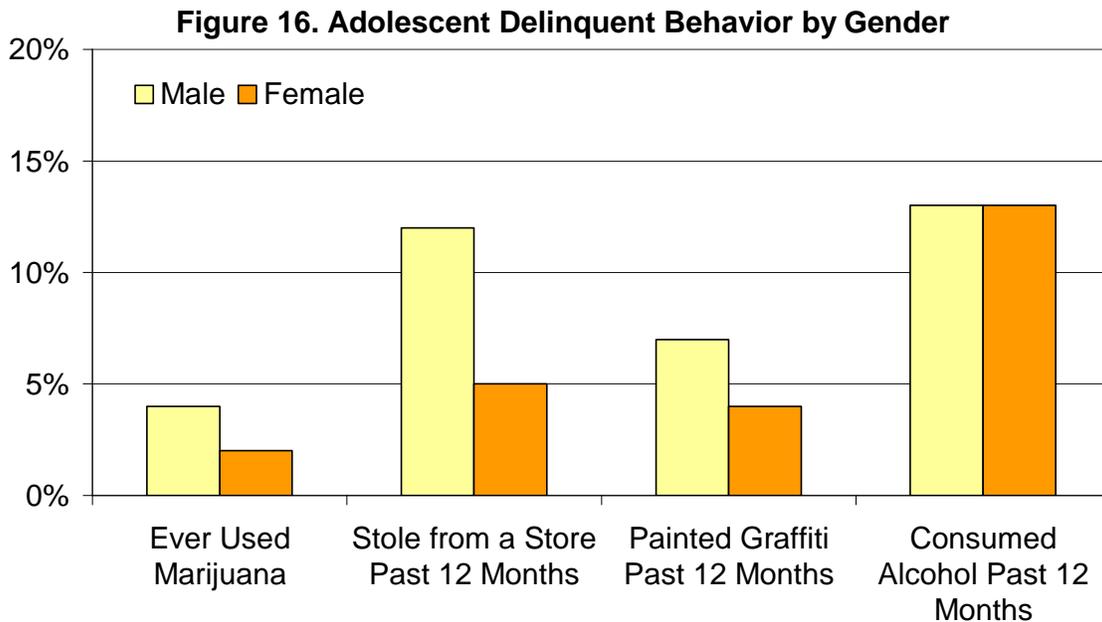


An important similarity found is that both caregivers and adolescents were more likely to indicate that youths' behavioral problems were expressed internally rather than externally. Distinguishing between internal and external behavioral problems is important when considering how best to treat an adolescent (Achenbach 1991). Adolescents who exhibit internalizing behaviors are more withdrawn, have higher

anxiety, and experience more depression, while adolescents who exhibit externalizing behaviors are more aggressive and delinquent.

### Substance Use and Delinquency

While Latino adolescents reported relatively high levels of mental health concerns, they reported lower levels of delinquency (Figure 16). As found in prior studies, immigrant youth were much less likely to use illicit drugs and alcohol (Harris 1999; Harris et al. 2006).



Less than 5% of males and females in the LAMHA study reported that they had ever used marijuana. Males and females were equally likely to have consumed alcohol in the past 12 months (13%), but this percentage was sizably lower than national estimates (19% for 14-year olds and 27% for 15-year olds) (DHHS 2006). Considering other delinquent behaviors, less than 10% of males and females reported that they had painted graffiti on someone else's property in the past 12 months. While slightly higher, few students reported that they had stolen from a store in the past 12 months (12% for males and 5% for females).

For those students who had engaged in delinquent behaviors, the following quotes demonstrate the type of behaviors they engaged in and their reasons for participating.

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**Quotation 1:**

I just, I didn't know how to choose my friends. I only saw what I thought was cool, it was like, "aw, those guys look cool, nobody messes with them, I wanna be like that, so nobody can mess with me" stuff like that. I started hanging around them, and got into all that stuff.

**Quotation 2:**

Um, get suspended off the school bus, like throwin' paper or like throwin' paper at the driver, being bad in classes, not doing your work, just walkin' out, stuff like that. Fightin' sometimes, which I wasn't really good at most of the time...

**Quotation 3:**

Well, this is the thing. Like, senior year, there was like an area of my life that was like gangster, like "don't mess with me, I'm a gangster I'll kill you." I had guns and everything. My room didn't look like this, it wasn't colorful it was all dark, like grrr. I was so mean, to everybody.

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## STUDY LIMITATIONS

These final results should be read and used with some caveats in mind. The first set of cautions relates to sampling strategies and our ability to contact potential respondents. Our respondents were initially contacted and recruited by phone and many could not be contacted because their phone lines had been disconnected, phone numbers changed, or they did not answer the phone after repeated attempts. Thus, our sample may not reflect Latino families without telephone access. In addition, due to the sampling strategy and sampling frame, this study does not fully capture youth who live with parents who are migrant farm workers.

Please note that this sample is taken from Latino youth who are attending school. Many youth migrate to the U.S. and never attend a U.S. school system (Fry 2005). In addition, of those that do enter school, many may drop out to enter the workforce, assume primary roles as young parents, or because language and educational barriers seem insurmountable to them. Therefore, our survey lacks the perspective of these youth who may be more vulnerable than those who are attending school.

Finally, the results presented are largely descriptive and correlational. As our research continues, more rigorous statistical methods will be employed to assess the strength and depth of the thematic trends identified in this paper.

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## CONCLUSIONS

Latino immigrant adolescents and caregivers in North Carolinian faced many challenges migrating and adapting to life in the United States, but their strength and resiliency facilitated their success. With the Latino immigrant population, we found important differences in socio-economic resources and mental health status. Adolescent and caregiver outcomes varied by gender, length of residence, and region of origin.

Latino immigrant youth were brought to the U.S. as part of their parents' decisions to secure economic stability and to improve the life chances of their children. While the majority of caregivers and adolescents claimed that the migration process was stressful, both overwhelmingly felt that the decision to migrate was the best decision.

As the immigrant Latino population adapted to their new settings and social norms, they found strengths and weaknesses in their family, school, and community experiences. Family was an important source of personal support for all adolescents and caregivers. In terms of academic achievement, adolescents and caregivers had high aspirations for the student's future educational success, but students worried that they could not actually attain their educational goals. The differing school experiences for girls and boys and for students from different regions of origin contributed to their perceptions of future opportunities. For caregivers, wider neighborhood contexts and ethnic communities played an important role in providing the social support needed to successfully adapt to life in the U.S. The strength of this social support, however, varied significantly by country of origin.

Discrimination was a significant concern for both caregivers and adolescents. At least in the short-run, a perverse consequence of increased acculturation was an increase in discrimination experienced. Discriminatory experiences and harassment from peers kept adolescents from truly feeling a part of the school community and parents from feeling a part of their work and neighborhood communities. Despite discrimination, both caregivers and adolescents continued to acculturate with time in the U.S.

The challenges of migration and acculturation take a toll on the mental and emotional health of immigrant Latino caregivers and adolescents. Depression, trauma, and psychological distress were of significant concern for caregivers. Moreover, while few adolescents were engaged in risky behaviors, depression, PTSD, disassociation, and anxiety affected a sizeable percent.

Schools and communities are a critical part of the Latino immigrant experience. We hope that this report and the recommendations we provide will be helpful to both in expanding their efforts to assist this population.

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## RECOMMENDATIONS

### **Expand both physical and mental health care access for caregivers and adolescents.**

A small yet significant proportion of caregivers and youth reported having fair to poor health. Moreover, mental health problems, such as anxiety, depression, and PTSD were of sizeable concern in this population. Relatively few Latino immigrants, however, had access to health insurance. This lack of health insurance was a significant barrier to accessing health care services. These services are not only important for addressing current health care problems but are also important for providing preventing the onset of more serious illnesses.

Several measures could be taken to increase access to health insurance and services. First, residency restrictions on federal means tested programs could be removed as a way to increase access to public health insurance. Second, given the high level of employment among this population, health insurance coverage could be increased through the employer. Third, more state and community health care programs could be provided. Lastly, schools could improve health care access for adolescents through the use of school nurses and social workers.

### **Provide English classes and continuing education opportunities for adults through schools and community organizations.**

The adaptation of immigrant Latino caregivers in North Carolina was hindered by their low levels of education and minimal English language abilities. Compared to the youth, who benefit from the schooling system, there are fewer educational opportunities for adults. Together, schools and community organization could provide English language classes, GED courses, and relevant technical courses that improve the skill sets of caregivers.

### **Pro-actively provide counseling and guidance for Latino youth both in terms of academic development as well as personal development.**

Many immigrant Latino students in North Carolina had high academic aspirations but did not know how to achieve those aspirations. Some had a limited understanding of the U.S. educational system, particularly the post-secondary education system. Because many of these students (and caregivers) do not know what to ask, schools need to pro-actively provide this information. In addition to academic support, Latino students need emotional and personal guidance. The LAMHA adolescents had relatively high levels of mental health concerns.

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Guidance counselors, school social workers, teachers, staff, and administrators can all assist these students with their personal development.

**Provide alternative activities for adolescents to minimize delinquency problems and to improve overall mental health.**

Latino adolescents were at risk of serious behavioral health problems. Moreover, while delinquent behavior among immigrant Latino youth was relatively small compared to national averages, delinquency was still an issue. Students who were engaged in delinquent behavior often noted that they had had a difficult time making friends. Schools and communities can minimize these mental health and delinquency problems by creating extracurricular activities for youth. These activities should provide youth with the opportunity to interact with positive role models, to build positive peer relationships, and to develop personal skills that strengthen one's feeling of self worth. The key to these programs is to promote diversity within them by helping to make these programs financially accessible to students and ensuring that lower-income students and students with working parents can attend.

**Create cultural awareness workshops that provide background information on the challenges Latino students encounter and generate discussion among school faculty and staff to develop best practices for overcoming these challenges and to minimize discrimination experiences that occur within the school.**

The school experiences of immigrant Latino youth in North Carolina differed by gender and by place of birth. To help teachers and staff better connect to all Latino students and to facilitate students' academic achievement, more information on Latin American cultures and the varieties of experiences among Latino students is needed. Done poorly, cultural awareness can reinforce stereotypes. Done well, these workshops can generate awareness, discussion, the opportunity to share common teaching challenges, and possible solutions to these challenges. These workshops can be used to develop best practices that foster strong relationships with Latino students and parents and that promote academic achievement.

**Actively promote cultural understanding among all students by creating opportunities to learn about and study world histories and by developing opportunities for youth to positively interact with different ethnic and racial groups in their schools.**

For the immigrant Latino students in North Carolina, discrimination by their peers and others occurred far too often. While schools cannot completely prevent discrimination, they can use school activities as an opportunity to foster cultural understanding. Schools can create in-class projects and extracurricular activities

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that allow all students to share information about their cultural backgrounds. Students can also promote diversity within their extracurricular programs by helping to make these programs financially accessible to students and ensuring that lower-income students and students with working parents can attend. The more students interact with persons of different racial groups and develop shared experiences and shared successes, the less discrimination will occur.

**Actively promote cultural understanding in the workforce and community by creating opportunities to learn about other cultures and by developing opportunities for co-workers and community members to positively interact with different ethnic and racial groups.**

Among immigrant Latino caregivers in North Carolina, discriminatory experiences in the workplace and the community also occurred frequently. To minimize work place discrimination, equal protection under labor laws is needed for all workers, regardless of their citizenship status. In addition, employers can provide cultural awareness training for its management personnel. This training should cover effective methods for identifying and eliminating discrimination practices in the workplace. The workshops should also provide management with ideas about how to foster positive race relations within the workplace, possibly through mentoring programs or social activities. Community groups, such as churches, non-profit organizations, social clubs, can also improve race relations through education campaigns and social activities that focus on racial tolerance and understanding.

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## NOTES

- (1) Please refer questions regarding the adolescent interviews to Dr. Perreira. Questions regarding the parent health beliefs interviews should be referred to Dr. Chapman.
- (2) Preliminary results regarding health beliefs and service use are not included in this report. They are on-line at [www.cpc.unc.edu/projects/lamha/publications](http://www.cpc.unc.edu/projects/lamha/publications).
- (3) Results for the LAMHA pilot interviews with Latino immigrant parents have been published elsewhere. A short abstract and reference to the article is on line at [www.cpc.unc.edu/projects/lamha/publications](http://www.cpc.unc.edu/projects/lamha/publications).

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## REFERENCES

- Achenbach, T.M. (1991). *Manual for the Child Behavior Checklist 4-18 and 1991 profile*. Burlington, VT: University of Vermont.
- Alba, R. and Nee, V. (2003). *Remaking the American Mainstream*. MA: Harvard University Press.
- Alderete, E., Vega, W.A., Kolody, B., and Aguilar-Gaxiola, S. (2000). Effects of time in the U.S. and Indian ethnicity on DSM-III-R psychiatric disorders among Mexican origin adults. *Journal of Nervous and Mental Disease*, 188, 90-100.
- Ascher, B.H., Farmer, E.M.Z., Burns, B.J., and Angold, A. (1996). The child and adolescent assessment (CASA): Description and psychometrics. *Journal of Emotional and Behavioral Disorders*. 4(1), 12-20.
- Bowen, G.L. and Richman, J. M. (1997). *The School Success Profile*. Chapel Hill, NC: The University of North Carolina at Chapel Hill, School of Social Work.
- Bowen, G.L., Rose, R.A., and Bowen, N.K. (2005). *The Reliability and Validity of the School Success Profile*. Philadelphia, Pa: Xlibris.
- Briere, J. (1996). *Trauma Symptom Checklist for Children: Professional Manual*. Odessa, FL: Psychological Assessment Resources.
- Collier, V. (1987). Age and rate of acquisition of second language for academic purposes. *TESOL Quarterly*, 21(4), 617-641.
- Cooley, C. (2001). The relationship between familism and child maltreatment in Latino and Anglo families. *Child Maltreatment* 6(2), 130-142.
- Conger, R.D. and Elder, G.H., Jr. (1994). *Families in Troubled Times*. New York: De Gruyter.
- Cortes, D. E., Rogler, L.H., and Malgady, R. G. (1994). Biculturalism among Puerto Rican adults in the United States. *American Journal of Community Psychology*, 22(3), 707-721.
- Dennis, J.M., Parke, R.D., Coltrane, S., Blancher, J., and Borthwick-Duffy, S.A. (2003). Economic pressure, maternal depression, and child adjustment in Latino families: An exploratory study. *Journal of Family and Economic Issues*, 24(2), 183-2002.

- 
- Entwisle, B. (2007). Putting people into place. *Demography*, 4(44), 687-703.
- Falsetti, S.A., Resick, P.A., Resnick, H.S., and Kilpatrick, D., (1993). The Modified PTSD Symptom Scale: A brief self-report measure of posttraumatic stress disorder. *The Behavioral Therapist*, 16, 161-162.
- Feliciano, C. (2006). Beyond the family: The influences of premigration group status on the educational expectations of immigrants' children. *Sociology of Education*, 79, 281-303.
- Feliciano, C. (2001). The benefits of biculturalism: Exposure to immigrant culture and dropping out of school among Asian and Latino youths. *Social Science Quarterly*, 82, 865-879.
- Fry, R. (2005). *The Higher Dropout Rate of Foreign-born Teens: The Role of Schooling Abroad*. Pew Hispanic Center. Executive Summary. November 1, 2005.
- Fry, R. (2003). *Hispanic Youth Dropping out of Schools*. Washington D.C. Pew Hispanic Center. Available at: <http://pewhispanic.org/reports/report.php?ReportID=19>
- Gil, A.G., Wagner, E.F., and Vega, W.A. (2000). Acculturation, familism and alcohol use among Latino adolescent males: Longitudinal relations. *Journal of Community Psychology*, 28(4), 443-458.
- Ginther, D., Haveman, R., and Wolfe, B. (2000). Neighborhood attributes as determinants of children's outcomes: How robust are the relationships? *The Journal of Human Resources*, 35, 603-642.
- Guzman, B. (2001). Hispanic Population U.S. Census Brief. *United States Census*, 2000. Available at: <http://www.census.gov/prod/2001pubs/c2kbr01-3.pdf>
- Harris, K.M. (1999). The health status and risk behavior of adolescents in immigrant families'. In Hernandez, D.H. (Ed.), *Children of Immigrants: Health, Adjustment, And Public Assistance*, Washington, D.C., National Academy Press.
- Harris, K.M., Gordon-Larsen, P., Chantala, K., and Udry, J.R. (2006). Longitudinal trends in race and ethnic disparities in leading health indicators from adolescence to young adulthood. *Archives of Pediatrics and Adolescent Medicine*, 160, 74-81.
- Kovacs, M. (1992). *The Children's Depression Inventory*. North Towanda New York: Multi-Health Systems, Inc.
- LaFromboise, T., Coleman, H.L., and Gerton J. (1993). Psychological impact of biculturalism: Evidence and theory. *Psychological Bulletin*, 114(3), 395-412.

- 
- Linver, M.R., Brooks-Gunn, J., and Kohen, D.E. (2002). Family processes as pathways from income to young children's development. *Developmental Psychology*, 38(5), 719-734.
- March, J. S., Parker, J.D.A., Sullivan, K., Stallings, P. and Conners, C.K. (1997). *The Multidimensional Anxiety Scale for Children (MASC):* Factor structure, reliability, and validity. *Journal of the American Academy of Child and Adolescent Psychiatry*, 36, 554-565.
- Marin, G., Sabogal, F., VanOss Marin, B., Otero-Sabogal, F., and Perez-Stable, E.J. (1987). Development of a short acculturation scale for Hispanics. *Hispanic Journal of Behavioral Sciences*, 9, 183-205.
- Massey, D., Durand, J., and Malone, N. (2002). *Beyond Smoke and Mirrors: Mexican Immigration in an Era of Economic Integration*. New York, NY: Russell Sage Foundation.
- North Carolina Institute of Medicine. (2003). *North Carolina Latino Health, 2003*. [Online] Available: <http://www.nciom.org/pubs/latinohealth.html>.
- Ogbu, J. (2004). Collective identity and the burden of 'acting White' in Black history, community, and education. *Urban Review*, 36(1), 1-35.
- Olson, D.H. (1989). Circumplex model of family systems VIII: Family assessment and intervention. In D.H. Olson, C.S. Russell, and D.H. Sprenkle (Eds.), *Circumplex model: Systematic assessment and treatment of families*. New York: Haworth Press.
- Ortega, A.N., Rosenheck, R., Alegria, M., and Desai, R.A. (2000). Acculturation and the lifetime risk of psychiatric and substance use disorders among Hispanics. *Journal of Nervous Mental Disease*, 188, 728-735.
- Perreira, K., Beeber, L., Schwartz, T. and Hoditch-Davis, D. (2005). Preparing the Way: Early Head Start and the Socio-emotional Health of Infants and Toddlers in Latino Immigrant Families. Paper presented at the *Conference on Poverty, Public Policy, and the Well-Being of Immigrant Children*. University of Michigan National Poverty Center. Ann Arbor, MI (June)
- Perreira, K., Ornelas, I., Beeber, L., Schwartz, T., and Hoditch-Davis, D. (2006). Preparing the Way: Early Head Start and the Socio-emotional Health of Infants and Toddlers in Latino Immigrant Families. Paper presented at *Head Start's Eighth National Research Conference*. Washington, DC.

- 
- Perreira, K., Chapman, M., and G. Stein. (2006). Becoming an American parent: Overcoming challenges and finding strength in a new immigrant Latino community. *Journal of Family Issues*, 27(10), 1383-1414.
- Portes, A., and Rumbaut, R.G. (2001). *Legacies: The Story of the Immigrant Second Generation*. Berkeley and Los Angeles, California: University of California Press.
- Potochnick, S., and Perreira, K. (2007). *Being well and doing well: The health and academic experiences of Latino high school students in North Carolina*. Preliminary School Report for the Southern Immigrant Academic Adaptation Study. Available at: <http://www.cpc.unc.edu/projects/siaa>.
- Radloff, L. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385–401.
- Richman, J. Rosenfeld, L., and Hardy, C.J. (1993). The social support survey: An initial validation study of a clinical measure and practice model of the social support process. *Research on Social Work Practice*, 3(3), 288-311.
- Rickert, V. I., Wiemann, C. M., and Berenson, A. B. (2000). Ethnic differences in depressive symptomatology among young women. *Obstetrics and Gynecology*, 95, 55–60.
- Rogler, L.H., Cortes, R.S. and Malgadi, R.G. (1991). Acculturation and mental health status among Hispanics. *American Psychologist*, 46, 585-597.
- Rumbaut, R. (1999). Passages to Adulthood: The Adaptation of Children of Immigrants in California. In D. Hernandez (Ed.). *Children of Immigrants: Health, Adjustment, and Public Assistance* (478-545). Washington, D.C.: National Academy of Press.
- Rumbaut, R. and A. Portes. (2001). *Ethnicities: Children of Immigrants in America*. Berkeley, CA: University of California Press.
- Shoenhals, M., Tienda, M., and Schneider, B. (1998). The educational and personal consequences of adolescent employment. *Social Forces* 77(2), 723-762.
- Stanton-Salazar, R. (2001). *Manufacturing Hope and Despair: The School and Kin Support Networks of U.S.-Mexican Youth*. NY, NY: Teachers College Press.
- Suárez-Orozco, C. and Suárez-Orozco, M. (2001). *Children of Immigration*. Boston, MA: Harvard University Press.

- 
- Szapocznik, J. and Kurtines (1980). Acculturation, biculturalism and adjustment among Cuban Americans. In A. Padilla (Ed.). *Acculturation: Theory, Models, and Some New Findings* (139-159). Boulder, CO: Praeger.
- Thomas, W. and Collier, P. (2001). *A National Study of School Effectiveness for Language Minority Students' Long-Term Academic Achievement*. Washington DC: Center for Research on Education, Diversity, and Excellence.
- Tropp, L.R., Coll, C.G., Alarcon, O., and Vazquez Garcia, H.A. (1999). Psychological acculturation: Development of a new measure for Puerto Ricans on the U.S. mainland. *Education and Psychological Measurement*. 59(2), 351-367.
- U.S. Census Bureau (2001). *United States Census Bureau Interactive Census Database* [Online]. Available: <http://www.census.gov>.
- U.S. Department of Health and Human Services (2006). *The 2006 HHS Poverty Guidelines*. Available at <http://aspe.hhs.gov/poverty/06poverty.shtml>.
- U.S. Department of Health and Human Services (2006). *The 2006 National Survey on Drug Use and Health*." Available at: <http://www.oas.samhsa.gov/NSDUHlatest.htm>.
- U.S. Department of Health and Human Services (2001). *Mental health: Culture, race, and ethnicity. A supplement to Mental Health: A Report of the Surgeon General*. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services.
- Valenzuela, A. (1999). *Subtractive Schooling: U.S. Mexican-American Youth and the Politics of Caring*. Albany: State University of New York Press.
- Vega, W. and Rumbaut, R. (1991). Ethnic minorities and mental health. *Annual Review of Sociology*, 17, 351-383.
- Vega, W.A. (1995). The study of Latino families: A point of departure. In R.E. Zambrana, *Understanding Latino Families: Scholarship, Policy, and Practice*. (pp. 3-17). Thousand Oaks, CA, US: Sage Publications.
- White, M. and G. Kaufman (1997). Language usage, social capital, and school completion among immigrants and native-born ethnic groups. *Social Science Quarterly*, 78, 386-398.
- Wilson, W. J. (1987). *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy*. Chicago, IL: University of Chicago Press.

---

Wong, J.S. (2000). The effects of age and political exposure on the development of party identification among Asian American and Latino immigrants in the United States. *Political Behavior*, 22, 341-371.

Zambrana, R. and I. Zoppi (2002). Latino students: Translating cultural wealth into Social Capital to Improve Academic Success. *Journal of Ethnic and Cultural Diversity in Social Work*, 11, 33-53.