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Family Obligation Across Contexts: Hispanic Youth in North Carolina and Southern California

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Abstract

Over the past decade, the Hispanic population has grown in areas with little to no history of recent immigration. Prior research comparing Hispanics in new and established destinations has chiefly focused on differences in socioeconomic indicators of assimilation. Our article departs from this work by shifting the focus to sociocultural outcomes. Specifically, we use data from Los Angeles and North Carolina to examine differences in the strength of family obligation (N = 552). We find that demographic characteristics explain all of the geographic difference in family obligation between these locations. However, we also find that co-ethnic concentration is positively correlated with adolescents' endorsement of future family support, once ethnic identity is included in the analysis.

Keywords

development, Hispanic/Latino families, immigrant families, intergenerational relationships

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Introduction

The Hispanic population in the United States grew at an unprecedented rate over the past decade (Humes, Jones, & Ramirez, 2011). This growth was particularly visible in areas with little to no history of recent immigration—"new destinations" throughout the northwestern, southeastern, and midwestern regions of the United States (Durand, Massey, & Charvet, 2000; Zúñiga & Hernández-León, 2005). In these areas, economic restructuring in low-wage, low-skilled industrial and agricultural sectors offered Hispanics new and often greater opportunities compared to "established" gateway regions in Southern California and the American southwest (Kandel & Parrado, 2005).

Research comparing Hispanic individuals in nontraditional and established locations has typically focused on socioeconomic indicators of assimilation. Far less attention has been paid to differences in the sociocultural adaptation of Hispanics across these regions. This article addresses a gap in the literature by shifting the focus away from socioeconomic outcomes to examine family obligation. Family obligation refers to a collection of attitudes and behaviors related to the provision of support, assistance, and respect to family members and can broadly be linked to similar concepts of family solidarity, kin collectivism, and familism.

In this article, we examine differences in the strength of family obligation between Hispanic youth in the new destinations of urban and rural North Carolina and their counterparts in the established destination of Los Angeles. We focus on family obligation because of its integral importance for family relationships within the Hispanic community across the life course (Sabogal, Marin, Oterosabogal, Marin, & Perezstable, 1987; Vega, 1995).

Family Obligation Among Hispanics Across the Life Course

Family obligation represents a fundamental connection between individuals and their families. In the family literature, it has often been used as a rubric to explain variation in family behaviors and attitudes across race/ethnic groups. Numerous scholars have written about the role of family obligation, or familism in Hispanic families (see Landale & Oropesa, 2007, for a review). Three dimensions of familism are frequently mentioned in the literature (Valenzuela & Dornbusch, 1994). The structural/demographic dimension is illustrated by differences in living arrangements, marriage, and fertility patterns. The behavioral dimension includes activities that individuals do to fulfill family obligations, including the provision of economic and social support and instrumental assistance. Finally, the attitudinal dimension gauges values and attitudes about family loyalty, collectivism, and solidarity.

Stronger family obligation among Hispanics, in contrast to other groups, is found throughout the life course. During childhood and early adolescence, Hispanic youth consistently score higher on a sense of responsibility toward parents and extended family members (Baer & Schmitz, 2007; Phinney, Ong, & Madden, 2000; Sabogal et al., 1987). This is often a direct result of parental tendencies to socialize children into the importance of devoting time, money, and resources to the family and showing loyalty toward one's family members. From a young age, children are taught the value of spending birthdays and holidays with family members, both extended and nuclear, of assisting the family in household chores, and of showing respect and deference toward elders (Brown, Tanner-Smith, Lesane-Brown, & Lesane-Brown, 2007; Umaña-Taylor, Alfaro, Bamaca, & Guimond, 2009).

The transition from adolescence to young adulthood also marks an important life stage when family obligations are potentially renegotiated. Previous research finds that commitments to the family tend to increase with age (Fuligni & Pedersen, 2002). These endorsements are linked to earlier feelings of family solidarity and suggest that attitudes about family obligation also translate into actual assistance of family members later on. For example, one study found that adolescents who endorsed strong levels of obligation during high school were more likely to actually live with and provide financial contributions to parents following graduation than those with weaker endorsements. The relationship between prior attitudes and actual assistance was especially strong among Hispanics, compared to Whites (Fuligni & Pedersen, 2002).

Adolescents' attitudes about obligation and their commitments to assist family members in the future are influenced by a host of factors, including the present and future resources of the family. Given Hispanics' limited access to financial resources—due in part to disparities in income and education throughout the life course—Hispanic youth may feel especially obligated to help older family members in the future (Gassoumis, Wilber, Baker, & Torres-Gil, 2010). Families who are aware of such realities directly and indirectly socialize children into such values (Knight et al., 2011). This may partially explain why rates of coresidence and geographic proximity are higher among Hispanics in adulthood and later life, even when financial needs are frequently unmet (Burr & Mutchler, 1999; Dietz, 1995; Sarkisian, Gerena, & Gerstel, 2007).

Social Contexts and Family Obligation

Social contexts may also influence feelings of family obligation. A growing body of research points to the correlation between national contexts and attitudes toward family obligation among adults, especially as it relates to later-life caregiving (Brandt, Haberkern, & Szydlik, 2009; Dykstra & Fokkema, 2011; Kalmijn & Saraceno, 2008). This research cites the importance of

cultural norms as well as variation in public support as two main reasons behind observed cross-national differences. Yet far fewer studies have examined whether regional social contexts also influence family obligation. Thus, the recent arrival of Hispanics in areas with little to no history of Hispanic settlement or migration presents a unique opportunity to understand how context may shape attitudes toward family obligation.

New and Established Destinations: North Carolina Versus Los Angeles

In this study, we compare Hispanic adolescents in North Carolina, a new destination state for Hispanics (Mohl, 2003; Suro & Singer, 2002), to Hispanic youth in Los Angeles, a well-established gateway city for immigrants and home to the largest Hispanic population in the United States. The steady growth of Hispanics in the South has been the subject of academic interest for well over the past decade (see Marrow, 2011, for an overview). North Carolina, with its complex racial history, recent growth in urban centers, and transformations in the rural economy, is similar to other states throughout the Southeastern United States that have emerged as new settlement regions for Hispanics.

Like other states in the region, North Carolina had no recent history of migration, due in large part to its historic dependence on slave labor and, subsequently, unskilled, poor, native-born, mostly African American labor. But beginning in the 1990s, urban areas such as Charlotte and Raleigh began to develop as major centers of commerce. This in turn intensified the demand for housing, schools, and other public infrastructure and created a number of service sector jobs. Hispanics, many of whom were immigrants, were formally recruited from typical gateway states (e.g., Texas and California) and Latin America directly (e.g., Mexico) for these jobs (Perreira, 2011). Thus, between 1990 and 2009, the Hispanic population in North Carolina grew by a factor of 10: from 76,726 individuals in 1990 to 715,703 individuals in 2009 (U.S. Census Bureau, 1990, 2009a). Most of this growth occurred in urban areas, where 70% of the Hispanic population resides (Johnson & Kasarda, 2009; Suro & Singer 2002).

Yet in rural areas, the Hispanic population grew too. New meat and poultry processing plants that traditionally rely on low-skilled, low-wage labor emerged in rural areas, adding diversity to a rural economy based primarily on tobacco farming and agriculture. Although these areas tend to be more socially isolated, Hispanics residing in rural counties are much more spatially concentrated, due in part to the geographic concentration of agricultural and meat processing industries (Kandel & Parrado, 2005).

The regional distribution of jobs in North Carolina and other differences between rural and urban areas have lead to variation in the type of individuals who choose to settle in urban versus rural regions. On average, Hispanics in urban areas tend to be more educated, speak better English, and, if foreign-born, are more likely to have lived in the country longer than those in rural areas (Kandel & Cromartie, 2004). Many have also left previous jobs in rural regions of the state for better opportunities in urban centers (Johnson-Webb, 2002). On the other hand, interviews with Hispanics in rural North Carolina suggest that they are more likely to be recent arrivals and to be undocumented, in part because securing jobs as a newcomer without papers is easier in rural areas (Marrow, 2011). Recent estimates suggest that the majority (69%) of foreign-born Hispanics residing in North Carolina are from Mexico (U.S. Census Bureau, 2010).

In contrast to North Carolina, Los Angeles has an extensive history of Hispanic settlement that originated with the Californios, individuals of Mexican and Spanish descent who had settled in the region well before California gained statehood. Waves of immigration from Latin America, primarily Mexico, continued well into the 20th century. Los Angeles, however, emerged as a major immigrant destination only in the 1970s, and has since become the nation's second largest metropolitan area and home to the country's most concentrated Hispanic population. Los Angeles is unique among cities in other Gateway states across the American Southwest, which are smaller in size and where Hispanics yield a smaller absolute (although not necessarily relative) demographic and political presence. Unlike their counterparts in North Carolina, Hispanics in California are more likely to be native-born; those who are foreign-born are also more likely to possess legal immigration status (Passel, 2005; U.S. Census Bureau, 2009b). Among those who are foreign-born, the majority (73%) are from Mexico (U.S. Census Bureau, 2010). However, adults tend to be better educated and less concentrated in specific industrial sectors compared to North Carolina. Demographic differences between Hispanics in Los Angeles versus those in rural and urban areas of North Carolina are largely a story of selection, which may in turn influence levels of family obligation.

Sociodemographic and Contextual Correlates of Family Obligation

There are numerous factors that could produce differences in family obligation in new and established destinations, including both characteristics of the populations themselves as well as various aspects of the local context.

Individual- and family-level access to economic and social resources in particular are important correlates of family obligation across the life course.

Demographic Traits

Families with few economic resources may foster a strong sense of family obligation to ensure the household's social and financial stability. Among adolescents, previous research suggests that individuals whose parents have low levels of education more strongly endorsed values of family obligation than peers with highly educated parents (Hardway & Fuligni, 2006). In addition to education, the nativity status of parents and children should be taken into consideration. Because foreign-born parents tend to endorse stronger values of family obligation than the native-born—both due to cultural norms brought from the origin country as well as a sense of obligation that is reinforced through the migration process itself—children of immigrants who are also born abroad will possess cultural values that are more closely aligned to those of their first-generation parents than those born in the new country (Phinney et al., 2000; Portes & Rumbaut, 2001; Sabogal et al., 1987). Thus, first-generation children of immigrants are more likely to endorse stronger attitudes toward family obligation than their second-generation peers. Speaking parents' native language at home may also be an indicator of the degree to which children are able to empathize with other family members, such as parents. Those who interact with family members in a language other than English may thus be more predisposed toward family obligation than those who speak English at home (Portes & Rumbaut, 2001; Umaña-Taylor et al., 2009).

Gender, age, and family structure are also well-known correlates of family obligation. In general, daughters are subject to stronger ethnic socialization by parents than sons (Umaña-Taylor et al., 2009). Daughters are also more likely to provide daily assistance to parents in later life compared to sons, both in the United States and in Latin America (Hogan, Eggebeen, & Clogg, 1993; Wong & Palloni, 2009). Thus, we may expect levels of family obligation to be stronger among daughters compared to sons. Finally, family structure may be especially important in adolescents' development of family obligation. Previous research suggests that adolescents living in single-parent households have a weaker sense of obligation to support parents in the future than those living in two-parent households (Fuligni, 2001). This may occur in part because those raised in single-parent families and stepfamilies are less emotionally close to biological parents and stepparents during adolescence (King, 2009). In later life, ties between generations tend to be weaker when parents are divorced, although this is much

more detrimental when parents remarry, as opposed to remaining single (Aquilino, 1997; Lin, 2008). Based on this evidence, we may expect adolescents living in two-parent biological households to have stronger endorsements of future family support than those raised in different family structures. Finally, children with many siblings may feel less obligated to the family because of a shared "burden" to assist parents in later life. Ethnographic evidence from the United States suggests that children from large families indeed report fewer individual transfers of time and money to parents than those from smaller sibships (Matthews, 2002).

Taking the findings on demographic correlates of family obligation into account, it is likely that differences in the social and demographic profiles of Hispanics across regions partially explains contextual variation in levels of family obligation. This may be especially true given the nature of regional selection into certain areas as noted earlier. For instance, greater socioeconomic resources and a smaller share of first-generation, foreign-born immigrants among Hispanics in California may lead to lower levels of family obligation compared to those in North Carolina. Similarly, longer periods of residence in the United States (for the foreign-born), greater English proficiency, and a more highly educated share of individuals among Hispanics in urban North Carolina may also lead to weaker endorsements of family solidarity compared to counterparts in rural regions of the state. Thus, based on knowledge of the demographic profile of Hispanics across these regions, we would expect those in rural North Carolina to have the highest level of family obligation and those in urban Los Angeles to have the lowest level of family obligation.

Social Context

In addition to individual demographic traits, certain characteristics of the local context will also affect adolescents' endorsements of family obligation. Although there are several measures to consider, two measures of social contact are particularly important factors that could influence family obligation: co-ethnic concentration and ethnic discrimination. Specifically, residing in areas with large concentrations of co-ethnics may reinforce pan-ethnic cultural norms such as family obligation. Prior research on the assimilation of immigrants emphasizes the unique role that the co-ethnic community can have on adolescent development (Portes & Rumbaut, 2001; Portes & Zhou 1993; Zhou & Bankston, 1998). Moreover, hypotheses about differences in assimilation between traditional and new receiving immigrant communities are defined by differences in co-ethnicity (Crowley, Lichter, & Qian, 2006; Lichter, Johnson, Turner, & Churilla, 2012; Marrow, 2011). Prior research

suggests that the geographic concentration of Mexican Americans in Los Angeles is one reason why attitudes toward family assistance do not differ between first- and second-generation adolescents (Phinney et al., 2000). Less ethnic concentration in North Carolina, on the other hand, may lead to weaker attitudes toward family obligation.

In addition to co-ethnic concentration, discrimination toward one's ethnic group may foster a strong sense of obligation to aid one's family members. In particular, adolescents may express solidarity with family members and may be more inclined to help them in the face of ethnic discrimination (Coll et al., 1996). Previous research highlights greater discrimination among Hispanic youth in new destinations, such as North Carolina, compared to established destinations such as Southern California, as well as differences between discrimination in rural versus urban locations (Marrow, 2011; Potochnick, Perreira, & Fuligni, 2012).

Ethnic Identity

Finally, adolescents' perceptions of their own ethnic identities are strongly tied to family obligation. One way in which this may occur is through family socialization. Previous studies suggest that in Hispanic families where children were strongly socialized into parents' native culture, children also displayed a strong sense of ethnic belonging and were more inclined to believe in the importance of family support (Umaña-Taylor et al., 2009). Ethnic identity may also act as the conduit through which norms about family obligation are spread. Prior research suggests that parents' intergenerational transmission of cultural values (i.e., family support) occurs via the strengthening of children's ethnic identities (Knight et al. 2011). One longitudinal study of adolescents found that strong endorsements of ethnic identity in earlier years were significant predictors of family obligation later on; yet the reverse relationship did not hold; that is, family obligation in earlier years did not predict ethnic identity in subsequent years (Kiang & Fuligni, 2009). In addition to a direct effect, ethnic identity may also mediate the relationship between demographic traits and family obligation. For instance, foreign-born adolescents and those who speak a language other than English at home possess stronger ethnic identities than their native-born, English-speaking peers (Umaña-Taylor et al., 2009), which may in turn explain at least part of the association between these traits and family obligation. Ethnic identity may also mediate the link between contextual characteristics and family obligation, although the relationship here may be more complex and the direction difficult to determine. On the one hand, residing in areas with high concentrations of co-ethnics could reinforce an adolescent's ethnic identity and, by extension,

family obligation (Phinney et al., 2000). On the other hand, being a conspicuous minority could make one's ethnicity more salient and thereby increase family obligation (Brown et al., 2007). In a similar vein—the mechanism by which ethnic discrimination increases a sense of protection and desire to assist the family may occur via increasing one's sense of ethnic identity (Fuligni & Flook, 2005).

Hypotheses

In this article, we hypothesize the following: (1) adolescents in North Carolina will report stronger levels of family obligation than those residing in Los Angeles and that the largest difference will be between those residing in Los Angeles and rural counties in North Carolina; (2) a large share of the geographic difference in family obligation will be due to demographic differences that reflect underlying selection into new versus established destinations; (3) local variation in social context measures such as co-ethnic concentration and ethnic discrimination will also explain geographic variation in family obligation; and (4) ethnic identity will mediate the demographic and contextual correlates of family obligation.

Data and Sample

Data for this study come from the Los Angeles Social Identification and Academic Adaptation study (LA-SIAA) and the North Carolina Southern Immigrant Academic Adaptation study (NC-SIAA). The NC-SIAA and the LA-SIAA questionnaires are identical in almost all respects. Both surveys required an active consent process from parents.

We used a cross section of the LA-SIAA data collected in 2002-2003, when participants were enrolled in 9th grade. The Los Angeles study specifically sampled youth from three high schools with high proportions of Hispanic adolescents, although in no school was there a dominant Hispanic population. All 9th graders, regardless of ethnicity, were asked to complete the survey. The response rate for the Los Angeles study was 65%. Comparisons with the Los Angeles Family and Neighborhood Study (LA FANS) (not shown here), a representative study of all neighborhoods and households in Los Angeles County, suggest that the LA-SIAA sample of Hispanic students is similar on several demographic characteristics. For example, LA FANS children who were enrolled in the 9th grade in 2000 were as likely to be female, foreign-born, and to live with both biological parents as respondents in the LA-SIAA sample. However, children in the LA FANS sample were more likely to have mothers who had never graduated from high school than

those in the LA-SIAA sample. One reason for this may be that LA FANs oversampled low-income families and families living in low-income neighborhoods (Sastry, Ghosh-Dastidar, Adams, & Pebley, 2006).

In North Carolina, a stratified, cluster design was used to sample Hispanic youth enrolled in 9th grade in nine public high schools located in high-density, high-growth Hispanic immigrant receiving communities throughout North Carolina. The study was conducted in 2006-2007 and captures a diverse population of rural and urban residents and is representative of Hispanic students enrolled in public high schools at the time. The response rate for the North Carolina study was 60%. Comparisons between the NC-SIAA and Hispanic high-school-age children in the American Community Survey (not shown here) suggest that the samples are similar along those items that we measured (e.g., percent foreign-born, language use at home, parents' education).

The combined sample consisted of 557 Hispanic adolescents. After case-wise deletion of 5 respondents (0.01% of the sample) with missing values on all items of family obligation, we were left with an analytical sample of 552 adolescents: 106 adolescents in rural North Carolina, 132 in urban North Carolina, and 314 in Los Angeles. Multiple imputation of missing values on the explanatory variables for 87 respondents (15.8% of the sample) was conducted using the *ice* command in *Stata/IC* 10.0 (Royston, 2006). Additional analyses (not shown here) suggested that the sample with no missing values was not substantially different from the full sample of 557 students.

Approximately 60% of our total sample identified as Mexican or Mexican American (65% in Los Angeles, 64% in rural North Carolina, 43% in urban North Carolina). Respondents were asked, "Which of the following ethnic labels do you use to describe yourself? Check as many as apply." Thus the categories were not mutually exclusive. We would prefer to limit the analysis to one ethnic group, but sample size restrictions prevent us from doing so.[1]

Although the sample is limited in size, we use the LA-SIAA and NC-SIAA for several reasons. First, sample sizes of Hispanic adolescents living in new destinations in any nationally representative data set (e.g., Fragile Families Study, National Longitudinal Study of Adolescent Health) are limited. The NC-SIAA represents the only representative dataset of Hispanic youth in North Carolina. Second, both surveys include a rich set of measures that capture attitudes toward family obligation and social context measures that are not available in other data sets with sizable samples of Hispanic youth. These measures are described below.

Measures

Family Obligation

The dependent variable of interest measures adolescents' attitudes toward future family assistance. This captures a crucial aspect of family obligation and family solidarity—adolescents' commitments to help family members in the future. The measure was based on a 6-item scale, which includes the following items: (a) help parents financially in the future, (b) have parents live with you when they get older, (c) help take care of brothers and sisters in the future, (d) spend time with parents even after you no longer live with them, (e) live or go to college near parents, and (f) live at home with parents until married. Adolescents were asked how important each item was and ranked each statement on a 5-point scale ranging from *Not At All Important* to *Very Important.* Higher scores reflect higher family obligation. The scale is found to be significantly reliable in prior work (Fuligni, Tseng, & Lam, 1999). In this sample, alpha values suggest reliable internal consistencies for rural North Carolina (α = .77), urban North Carolina (α = .71), and Los Angeles (α = .78).

Region of Residence

The main independent variable of interest is region of residence. Region of residence is measured using a categorical variable indicating whether the adolescent resided in Los Angeles (by default urban), urban North Carolina, or rural North Carolina at the time the survey was taken. Urban areas are defined as counties where at least 50% of the residents live in "urbanized areas" according to Census 2000 definitions (U.S. Census Bureau, 2002). By contrast, rural regions are defined as those counties where less than 50% of the residents live in "urbanized areas."

Variation Across Contexts

We include two measures that capture potential variation across contexts: co-ethnic concentration and mean level of ethnic discrimination. The percentage of Hispanic individuals residing in the school census tract is measured using a continuous variable and is mean centered. We use the percent of Hispanic respondents in the school census tract as a proxy for potential contact with other Hispanics.[2] We also measure the mean level of ethnic discrimination the respondent reports over a 2-week period. Specifically, students were asked to prepare a daily diary checklist of whether "something bad happen to

you or you were treated poorly because of your race or ethnicity" on a daily basis. Students submitted 14 daily diary entries over a 2-week period. The measure used here is each student's 14-day average of reported negative ethnic treatment, centered at the mean.

Demographic Traits

To control for differences in the population composition between adolescents in North Carolina and Los Angeles, we account for geographic variation in gender, age, foreign-born status, language spoken at home, and family-level variables, such as family structure and number of siblings. Respondent's gender was dummy coded (female = 1, male = 0). Age was included as a continuous variable. Nativity status was dummy coded (foreign born = 1, native born = 0).[3] Likewise, a dummy variable was assigned to respondents who spoke a language other than English at home (Other language = 1, English = 0). Ninety percent of respondents spoke Spanish at home, with the remainder reporting Portuguese or other languages (e.g., Acateco). Our measure of family structure distinguishes between whether respondents reported living with both biological parents (=1) or not (=0). Number of siblings was a continuous measure of siblings living in the household at the time of survey. To capture parents' socioeconomic status, we include a dummy variable indicating whether at least one parent had a high school degree. Respondents were asked to report on their father's or mother's highest level of schooling completed, regardless of whether they currently reside with the parent.[4] Those whose parents had less than a high school degree were assigned a value of 1, whereas those with at least one parent who had a high school degree or more were assigned a value of 0. This measure has been used in previous studies of the same data (Potochnick et al., 2012). The LA-SIAA and NC-SIAA surveys did not ask students to report on parental income.[5]

Ethnic Identity

The LA-SIAA and NC-SIAA surveys include two measures of ethnic identification validated in earlier studies. The first measure assesses ethnic belonging and is derived from Phinney's (1992) Multigroup Ethnic Identity Measure. This consists of a 7-item scale, where respondents report the degree to which they agree with the following statements: (a) I have a clear sense of my ethnic background and what it means for me, (b) I am happy that I am a member of the group I belong to, (c) I have a strong sense of belonging to my own ethnic group, (d) I understand pretty well what my ethnic group membership means

to me, (e) I have a lot of pride in my ethnic group, (e) I feel a strong attachment toward my own ethnic group, and (f) I feel good about my cultural or ethnic background. All items were scored on a 5-point scale ranging from *Strongly Disagree* to *Strongly Agree* with higher scores reflecting stronger ethnic belonging.

A second measure asks adolescents about ethnic centrality, derived from Sellers, Smith, Shelton, Rowley, and Chavous's (1998) Multidimensional Model of Racial Identity. This also consists of a 7-item scale, where respondents report the degree to which they agree with the following statements: (a) in general, being a member of my ethnic group is an important part of my self-image; (b) being a part of my ethnic group is an important reflection of who I am; (c) I have a strong sense of belonging to my own ethnic group; (d) I feel a strong attachment toward my own ethnic group; (e) overall, being a member of my ethnic group has very little to do with how I feel about myself; (f) being a part of my ethnic group is unimportant to my sense of what kind of person I am; and (g) being a part of my ethnic group is not a major factor in my social relationships. All items were scored on a 5-point scale ranging from *Strongly Disagree* to *Strongly Agree* with higher scores reflecting stronger ethnic centrality. In our study, alpha scores indicated a reliable internal consistency of ethnic belonging ($\alpha = .87$) and ethnic centrality ($\alpha = .70$). We combined these two measures and mean center the variable in the analysis ($\alpha = .82$).[6]

Analysis

The analysis consisted of two parts. First, we tested for mean differences across regions without controlling for potential mediating factors. This allows us to address Hypothesis 1, that adolescents in North Carolina will report stronger levels of family obligation than those residing in Los Angeles and that the largest difference will be between those residing in Los Angeles and rural counties in North Carolina. We use Wald statistics to test for differences.

Second, we used ordinary least squares regression to examine the association between region of residence and adolescents' reports of family obligation after the inclusion of demographic factors, social context measures, such as co-ethnic concentration and ethnic discrimination, and ethnic identity. This allows us to test Hypothesis 2 that most of the variation in family obligation across contexts will be explained by demographic differences that reflect underlying selection into new versus established destinations. In Hypothesis 3, local variation in social context measures such as co-ethnic concentration and ethnic discrimination will also explain geographic variation in family

obligation, and finally, in Hypothesis 4, ethnic identity will mediate the demographic and contextual correlates of family obligation. Pooling the two sources of data together, the baseline model examined the association between region of residence and reported levels of family obligation. The second model included the participant's individual demographic characteristics such as gender, age, and nativity status. Family-level characteristics included parents' education, whether the respondent was living with both biological parents, and his/her number of siblings living at home at the time of the survey. The third model added in social context measures of co-ethnic concentration and daily experiences of discrimination. In the fourth model, we include the participant's own sense of ethnic identity to test for mediation between demographic and contextual factors and family obligation.

We analyzed our data in *Stata/IC* 10.0 and used the -cluster- command to adjust the standard errors for clustering between schools. In separate analyses not shown here, we applied an explicit multilevel framework using *HLM* and found no difference in our results (results available from author). Therefore, we present the results from our regression analysis only.

Results

Descriptive Results

Table 1 presents mean differences between Hispanic adolescents in urban and rural North Carolina and Los Angeles. From Panel A, it is clear that on average, adolescents in all regions tend to feel strongly about family obligations, with each region showing a mean greater than 3 (based on a scale from 1 to 5). The distribution of the index is skewed to the left. However, those in North Carolina felt more obligated toward their families than adolescents living in Los Angeles. Results show that average levels of family obligation were highest among Hispanic adolescents residing in urban North Carolina (3.76) and lowest among their Los Angeles peers (3.49). The difference between these two figures is approximately one third of the standard deviation for family obligation for the entire sample. Although small, the difference is statistically significant at $p < .05$. However, the difference between urban and rural North Carolina was not statistically significant. On further examination of the subscale components, it is clear that two items drive regional differences in the overall scale: living with parents until marriage and living with parents in later life. Attitudes about coresiding with parents now and in the future are significantly stronger among adolescents living in both regions of North Carolina, compared to their counterparts in Los Angeles.

Table 1. Sample Characteristics for Latino Adolescents in Los Angeles and North Carolina ($N = 552$).

	Los Angeles		NC-Rural		NC-Urban		
	Mean	*SD*	Mean	*SD*	Mean	*SD*	Contrasts
Panel A							
Future family obligation	3.49	0.86	3.74	0.87	3.76	0.77	NCR > LA*; NCU > LA***
Future family obligation subscale components							
Help your parents financially in the future	4.46	0.93	4.48	1.05	4.57	0.87	—
Live at home with your parents until you are married	2.37	1.36	3.10	1.57	3.05	1.52	NCR > LA***; NCU > LA**
Help take care of your brothers and sisters in the future	3.88	1.31	4.09	1.15	3.93	1.15	—
Spend time with your parents even after you no longer live with them	4.34	1.00	4.34	1.07	4.35	1.00	—
Live or go to college near your parent	3.01	1.36	2.97	1.41	3.10	1.33	—
Have your parents live with you when they get older	2.93	1.40	3.47	1.37	3.59	1.30	NCR > LA***; NCU > LA***
Panel B							
Demographic characteristics							
Female[a]	0.52		0.55		0.54		—
Age	14.83		15.42		15.30		NCR > LA***; NCU > LA**
Foreign-born[b]	0.19		0.63		0.75		NCR, NCU > LA***
Non-English at home[c]	0.46		0.86		0.82		NCR, NCU > LA***
Living with both biological parents[d]	0.59		0.61		0.54		NCR > NCU*
Number of siblings in household	1.36	1.31	1.89	1.33	1.59	1.35	NCR > LA**
Neither parent graduated HS[e]	0.26		0.65		0.43		NCR > LA***; NCR > NCU*
Social contact							
% Hispanic in school tract	0.26	0.12	0.13	0.07	0.04	0.02	LA, NCR > NCU**
Ethnic discrimination	0.02	0.07	0.06	0.17	0.03	0.09	NCR > LA**; NCR > NCU*
Ethnic identity	7.20	1.63	8.27	1.34	8.38	1.24	NCR, NCU > LA***
Sample size	314		106		132		

Note. NC = North Carolina. Means and standard deviations calculated using the average of the imputed data sets; Contrasts use Wald tests and *p* value calculated by Stata's –mim- command based on Rubin's combination rules (1987).
a. Female: 0 = male, 1 = female; b. Foreign-born status: 0 = native-born, 1 = foreign-born; c. Non-English at home: 0 = English, 1 = non-English; d. Living with biological parents: 0 = not, 1 = both biological parents; e. Neither parent graduated from high school: 0 = both parents < HS, 1 = 1 + parent HS+.
*$p < .10$. **$p < .05$. ***$p < .01$.

A large portion of the regional difference in family obligation could be due to demographic variation across groups. For example, Panel B (in Table 1) shows that a significantly larger share of adolescents in North Carolina is foreign born (75% in urban areas) compared to Los Angeles (19%). This was also reflected in the share of adolescents who spoke a non-English language at home, with a smaller percentage in Los Angeles (46%) speaking a language other than English compared to rural (86%) and urban North Carolina (82%). Household and parents' characteristics also differed between the groups. Hispanic adolescents in Los Angeles had fewer siblings (1.4) than those in rural (1.9) and urban North Carolina (1.6). Parents of adolescents in rural North Carolina were the least educated: approximately 65% of adolescents had parents who never attained a high school degree. By contrast, only 26% of adolescents in Los Angeles had parents who never graduated from high school.

With respect to contextual differences, there was also clear variation between Los Angeles and rural and urban areas of North Carolina. The share of Hispanics in the school census tract was highest in Los Angeles (26%) compared to rural North Carolina (13%) and was lowest among those in urban North Carolina (4%). In general, these patterns are consistent with documented concentrations of Hispanics in Los Angeles and rural parts of North Carolina (Johnson & Kasarda, 2009). Respondents' average reports of ethnic discrimination was lowest in Los Angeles (.02) and highest among those living in urban North Carolina (.06).

Finally, ethnic identification was strongest among respondents living in urban North Carolina (8.38) compared to peers in rural areas (8.27) and in Los Angeles (7.20). These findings are consistent with previous work suggesting that in social contexts where ethnic groups are in the minority (i.e., urban North Carolina), ethnic identity and family obligation will also be stronger (Brown et al., 2007; Fuligni & Flook, 2005).

Multivariate Results

Table 2 presents the bivariate relationships between variables in our model. Focusing on our dependent variable, it is clear that region of residence is significantly associated with family obligation. In particular, living in Los Angeles is negatively associated with commitments to the family. Being female, older, foreign-born, speaking English at home, and having siblings and parents with low levels of education are also all positively correlated with family obligation. On the other hand, co-ethnic concentration and experiencing ethnic discrimination are negatively associated with family obligation,

Table 2. Correlation of Variables ($N = 552$).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) Family obligation	1.00											
(2) Region = Los Angeles	−0.15*	1.00										
(3) Female	0.04*	−0.02	1.00									
(4) Age	0.07*	−0.37*	−0.04*	1.00								
(5) Foreign-born	0.16*	−0.51*	−0.04*	0.38*	1.00							
(6) Non-English at home	0.20*	−0.38*	−0.02	0.22*	0.46*	1.00						
(7) Live with biological parents	−0.01	0.02	0.01	−0.03	−0.03	0.07*	1.00					
(8) Number of siblings	0.07*	−0.14*	0.04	0.05*	0.01	0.07*	0.17*	1.00				
(9) Neither parent graduated high school	0.23*	−0.28*	0.08*	0.30*	0.21*	0.39*	0.10*	0.19*	1.00			
(10) % Hispanic in school tract[a]	−0.07*	0.65*	−0.02	−0.27*	−0.30*	−0.19*	0.05*	−0.04*	−0.10*	1.00		
(11) Ethnic discrimination[a]	−0.06*	−0.12*	−0.10*	0.05*	0.09*	−0.01	0.05*	0.02	0.05*	−0.08*	1.00	
(12) Ethnic identity[a]	0.34*	−0.35*	0.06*	0.17*	0.23*	0.31*	−0.01	0.01	0.15*	−0.30*	0.01	1.00

a. "Social contact measures" and "Ethnic identity" are centered at the mean.
*$p < .05$.

Table 3. OLS Regression Predicting Latino Adolescents' Future Obligation to Support the Family ($N = 552$).

	Model 1		Model 2		Model 3		Model 4	
	B	*SE B*	*B*	*SE B*	*B*	*SE B*	*B*	*SE B*
Location (base = Los Angeles)								
North Carolina–rural	0.25*	0.12	0.03	0.11	0.08	0.11	−0.02	0.09
North Carolina–urban	0.27***	0.08	0.11	0.07	0.16	0.10	0.07	0.08
Demographic characteristics								
Female			0.05	0.06	0.04	0.06	0.01	0.07
Age			−0.06	0.04	−0.06	0.04	−0.07	0.05
Foreign-born			0.12	0.10	0.13	0.09	0.13	0.09
Non-English at home			0.17**	0.07	0.15*	0.07	0.04	0.08
Living with both biological parents			−0.07	0.09	−0.06	0.08	−0.06	0.08
Number of siblings in household			0.02	0.03	0.02	0.03	0.03	0.03
Neither parent graduated high school			0.32***	0.08	0.33***	0.07	0.33***	0.07
Social contact[a]								
% Hispanic in school tract					0.19	0.23	0.47**	0.20
Ethnic discrimination					−0.58	0.48	−0.55	0.47
Ethnic identity[a]							0.17***	0.03
Constant	3.49***	0.04	4.13***	0.61	4.10***	0.62	4.38***	0.70
R^2	0.024		0.082		0.087		0.166	
N	552		552		552		552	

Note. *B* and *SE* estimates calculated using Stata's -mim- command based on Rubin's combination rules (1987). R^2 is calculated following Harel (2009).
a. "Social contact measures" and "Ethnic identity" are centered at the mean.
*$p < .10$. **$p < .05$. ***$p < .01$.

results that are rather unexpected given previous research. However, a strong sense of ethnic identity is positively related to family obligation.

Table 3 presents results from the multivariate analysis, where variables are entered into the model piecewise to examine how demographic characteristics, social context measures, and strength of the adolescent's ethnic identity explain the difference in family obligation between those in Los Angeles and North Carolina. Model 1 mimics results from our descriptive analysis: adolescents in urban North Carolina had significantly stronger endorsements of family obligation than their Angeleno peers (.27, $p < .01$), with the effect of residing in rural North Carolina approaching statistical significance (.25, $p = .08$). Additional tests (not shown) suggested that there was no significant difference between adolescents from rural and urban North Carolina with respect to family obligation. When demographic characteristics were added in Model 2, region of residence was no longer statistically significant. Foreign-born status completely reduces the significance of region of residence on family obligation (results not shown here), although variation in the

educational attainment of parents and language spoken at home remain significant factors after including all demographic variables in the model. Adolescents who spoke a non-English language at home had greater levels of predicted future family obligation (.17, $p < .05$), and those whose parents lacked a high school degree also had greater predicted levels of future support (.32, $p < .01$). Foreign-born status is not significantly associated with family obligation when other highly correlated traits, such as language spoken at home, are included in the model. Other characteristics, such as gender, age, or family structure, were also not significant predictors of family obligation.

In Model 3, we included the percent of Hispanic individuals who reside in the school census tract and the respondent's average reports of negative ethnic treatment as broad measures of social context. Neither of these measures was statistically significant, and other coefficients in the model did not substantially change with their inclusion. Finally, Model 4 included the strength of respondents' ethnic identity. In general, stronger perceptions of ethnic identity were associated with greater endorsements of family obligation (.17, $p < .01$). Parents' education also remained significantly associated with family obligation, but language spoken at home did not. Using a Sobel–Goodman test, we found that 46% of the direct effect of language use on family obligation was mediated by ethnic identity (results not shown here). This suggests that ethnic identification explained most of the variation in language use, a common indicator of acculturation.

In addition, the inclusion of respondent's ethnic identity in Model 4 changed the statistical significance and increased the magnitude of the effect of Hispanics in the school census tract (0.47, $p < .05$). These findings indicate a suppression effect of ethnic identity on co-ethnic concentration (Mackinnon, Krull, & Lockwood, 2000). Specifically, we see from the bivariate results (Table 2) that the correlation between co-ethnic concentration and ethnic identity was negative; suggesting that respondents who resided in areas with fewer Hispanics have a stronger sense of ethnic identity. However, from the bivariate correlations we also see that the relationship between ethnic identity and family obligation was positive. Thus, after controlling for the negative pathway by which percent Hispanic is associated with family obligation through ethnic identity, the effect of co-ethnic concentration on family obligation increased in size and is statistically significant.

Lastly, additional analyses were conducted to examine the interaction between adolescents' place of residence and demographic traits, social contact measures, and ethnic identity (results not shown here). With the exception of parents' education, interactions between demographic traits and respondent's place of residence were not significant. However, adolescents

living in rural North Carolina with poorly educated parents reported stronger endorsements of family obligation than their counterparts in urban North Carolina and Los Angeles. Findings were inconsistent with respect to social contact measures and ethnic identity. Co-ethnic concentration tended to *increase* feelings of family obligation among adolescents living in rural North Carolina, compared to elsewhere. However, strong ethnic identity was also associated with *weaker* family commitment among those in rural North Carolina, compared to peers in urban North Carolina. Finally, experiencing discrimination was associated with weaker family obligation among those in urban North Carolina, compared to peers in Los Angeles.

Conclusion

The geographic dispersion of Hispanics across the United States raises important questions about variation in the trajectories of assimilation and acculturation among Hispanic youth in new and old destinations. In this article, we first asked whether variation in an important cultural norm among Hispanic youth, family obligation, can be explained by differences in demographic composition, contextual measures, and ethnic identity. Findings from our analyses lend support to our first hypothesis that, indeed, Hispanic youth in North Carolina felt more obligated to assist their families in the future than those in Los Angeles. However, the largest and only significant difference was observed for respondents residing in urban North Carolina compared to their peers living in Los Angeles, a finding counter to our expectations that the largest difference would be between Angelenos and those living in rural North Carolina. Although unanticipated, these findings are supported by recent ethnographic work on Hispanics living in rural North Carolina (Marrow, 2011). Marrow finds that there is a substantial amount of social support available to newcomers in rural areas because of a greater sense of social connectedness between Whites and Hispanics. In fact, Hispanics repeatedly reported that the "friendliness" of neighbors was a major advantage to living in rural areas, even though wages tended to be lower and social services fewer than in urban areas (Marrow, 2011, p. 38). Our original expectation of differences between rural and urban Hispanics was based on the assumption that families in rural, isolated areas would rely more on one another in the absence of more widely available social support. However, given Marrow's insights, this finding may not be so surprising. In essence, Hispanics in rural North Carolina are as socially connected as those in urban areas—a difference that may largely influence the strength of family obligation.

In addition, our findings lend support to our second hypothesis that geographic variation in family obligation is largely explained by differences in

the demographic composition between the groups, a finding that is consistent with previous research on the socioeconomic attainment of Hispanic adults and children in old and new destinations (Crowley et al., 2006; Stamps & Bohon, 2006). In fact, all of the difference in mean levels of family obligation between adolescents residing in urban North Carolina and their Angeleno peers is due to demographic factors, suggesting that selection mechanisms that sort individuals into specific geographic destinations cannot be overlooked. In this instance, the greater share of first-generation immigrants and those who spoke a non-English language at home in urban North Carolina compared to Los Angeles contributed to the mean difference in levels of family obligation between the two locations. In addition, parents' lack of a high school education, the most basic and necessary of degrees in the U.S. labor market, was positively associated with future obligation. This finding is consistent with previous research suggesting that poor socioeconomic conditions of some ethnic minority groups leads to the development of strong family ties (Sarkisian & Gerstel, 2004; Sarkisian et al., 2007). Foreign born status, an indicator for the degree to which adolescents are socially distinct from their U.S.-born peers, was a significant predictor of family obligation. However, we found no significant association after other measures of acculturation such as language spoken at home are also included in the model. Household composition such as the number of coresident siblings or the presence of both biological parents was not significantly associated with adolescent's future support to the family. This is inconsistent with much of the established literature on the effects of family structure on parental care in later life (Lin, 2008; Matthews, 2002). However, it could suggest that family structure has no immediate influence on how children think about parental care. It may be that only when adolescents reach adulthood does the presence of siblings or the lifelong absence of a parent shape perceptions of family obligation.

Our results did not support our third hypothesis that certain aspects of the local context explain geographic variation in family obligation. After controlling for differences in the demographic composition between locations, we found no statistical significance for the correlation between social contact measures and family obligation. This contrasts previous research suggesting that co-ethnic concentration would be strongly associated with high levels of family obligation (Phinney et al., 2000). Future research using data with greater contextual variation may reveal additional effects.

Finally, our findings lend partial support to our fourth hypothesis that ethnic identity would mediate the demographic and contextual correlates of family obligation. In fact, ethnic identity only mediated the relationship between language use and family obligation. However, we did find evidence of a suppression effect; with the inclusion of ethnic identity, co-ethnic

concentration was positively and significantly correlated with adolescents' endorsements of family support. These findings suggest that without the inclusion of ethnic identity, the association between co-ethnic concentration and family obligation would be masked. This result points to a complex relationship between contextual environments, ethnic identity development, and attitudes toward family support. Previous scholars have noted how residing in areas with fewer co-ethnics leads to the development of stronger ethnic identity (Brown et al., 2007), but less well understood is how these factors interact to shape attitudes or behaviors that may be dependent on both. Future research should explore how other outcomes are also affected in this way.

This study highlights differences in the demographic composition between Hispanic youth and their families in new and old destinations, as well as variation in the local contexts that these individuals face and how it relates to family obligation. We find that demographic characteristics explain all of the geographic difference in family obligation, a finding that is consistent with previous research examining regional variation in indicators of socioeconomic attainment (Crowley et al., 2006; Stamps & Bohon, 2006). However, we also find that co-ethnic concentration, an important aspect of the local environment, is also positively correlated with adolescents' endorsement of future family support once we also control for the strength of ethnic identity. Our findings shed light on factors behind the growing observed differences among Hispanics residing in nontraditional destinations in the American South and more established settlements in Southern California. We also contrast an emerging distinction between Hispanics in rural versus urban America and advance previous work by examining factors contributing to geographic variation in cultural norms, rather than socioeconomic outcomes.

Our research has some limitations that can be overcome with greater investments into comparable long-term data collection efforts in both rural and urban areas as well as "old" and "new" immigrant reception contexts. The data we use are cross-sectional and thus can only explain associations between variables without making causal inferences. For example, individuals with strong levels of family obligation may prefer to live among those who share similar cultural beliefs, hence the direction of causality between co-ethnic concentration and family obligation may be bidirectional. Second, our sample size limits our ability to distinguish between the national origins of our respondents. However, our results remain robust in sensitivity analyses when we narrowed our sample to adolescents who identified as Mexican American only. Third, we do not include all social context factors that may be associated with family obligation. Yet it is likely that social and economic measures, such as neighborhood poverty, are linked to family obligation. We

recommend that future analysis with more geographic variation be utilized to explore how various combinations of contextual factors can influence family obligation. Finally, our results our taken from data that may not fully represent the Hispanic adolescent population in Los Angeles. However, comparisons with data from LA FANS, a representative study of all neighborhoods and households in Los Angeles County, suggest that the LA-SIAA sample of Hispanic students is similar on several demographic characteristics. Finally, we use data from North Carolina and Los Angeles only, neither of which is entirely representative of "old" or "new" destinations. That said, few data sources provide detailed, comparable data on Hispanic youth in different immigrant destinations. Although no city or state is able to capture the entirety of the new/old destination experience, North Carolina and Los Angeles are certainly good examples of such locations.

As the Hispanic population disperses throughout the United States, understanding regional variation in the acculturation and assimilation of Hispanics remains an important agenda for scholars. In particular, the link between family obligation and actual family assistance is an important reason why family scholars in particular should continue to investigate the demographic, contextual, and psychological factors that shape family obligation. As the share of later-life ethnic minorities and immigrants increases over the next decades, understanding how Hispanic children think about family assistance early on could provide insight into the social script of intergenerational obligation that scholars witness among Hispanic families over the life course.

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Notes

1. However, we tested for differences in average levels of family obligation across respondents who self-identified as Mexican/-American and who did not and found no difference between the groups. In addition, we included a dummy variable in our multivariate analysis for those respondents who self-reported as Mexican/-American, and the coefficient for the variable was not statistically significant. Finally, our multivariate results remained robust even after running the analysis separately for those who reported as Mexican/-American and those who did not. Our results are consistent with Sabogal et al.'s (1987) finding that despite national origin differences among Hispanics, individuals reported similar attitudes toward the family.
2. We initially included a measure of the percentage of Hispanic students at the respondent's school, but this was never statistically significant in any of our models. We therefore did not include this variable in our final analysis.
3. Although distinguishing between second- and third-generation would have been preferable, fewer than 4% of respondents in North Carolina reported as third generation; hence, we only distinguish between foreign-born and native-born respondents here.
4. Given the potential for separation within immigrant families (Hagan, Eschbach, & Rodriguez, 2008), we include both parents' educational attainment if reported, even if the respondent did not report residing with that parent.
5. Initially, we also included an indicator for parent's employment status but found very little variation on this variable and thus excluded it from our models. Ninety-six percent of students lived in households where at least one parent was employed.
6. In preliminary analyses, we entered the scales separately into the models. The size, direction, and significance of the scales were similar. In addition, exploratory factor analysis confirms a one-factor solution. We combined these scales in the final analysis.

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