

4-3-2017

## Recent Demographic Change in the Rio Grande Valley of Texas: The Importance of Domestic Migration

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### Recommended Citation

Ryabov, Igor, and Stephen Merino. 2017. "Recent Demographic Change in the Rio Grande Valley of Texas: The Importance of Domestic Migration." *Journal of Borderlands Studies* 32 (2): 211–31. <https://doi.org/10.1080/08865655.2016.1195704>.

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# **Recent Demographic Change in the Rio Grande Valley of Texas: The Importance of Domestic Migration**

## **Abstract**

The present study examines the role of domestic migration in a massive demographic change in the Rio Grande Valley (RGV) of Texas with a special focus on ethnic composition of migration flows. Specifically, using two datasets derived from the Current Population Survey (CPS) and American Community Survey (ACS), this project: (1) outlines demographic profiles of domestic inbound and outbound migrants; (2) identifies determinants of migration for different types of movers; and (3) predicts the change in the Index of Dissimilarity (IT) at the census-tract level in the RGV. Results indicate that: (1) compared to stayers, Anglos were overrepresented among all migrant categories in the RGV; (2) leavers were likely to be motivated by career/employment opportunities outside the Valley, while affordable housing in the Valley was the primary motivating factor for newcomers; (3) recently arrived Hispanic immigrants became more spatially segregated. The most important finding is that, compared to Hispanics, Anglos were not ‘pushed’ from the Valley by a growing Mexican-American population but became spatially more segregated.

## **Introduction**

Within a decade, Hispanics are projected to eclipse non-Hispanic whites as the largest race-ethnic group in Texas (Texas State Demographer Office, 2011). This demographic change is very much in the public eye due to the fact that Texas is the second largest state by population size in the country and, thus, any changes in its demographics can have a lasting impact on this nation's politics (Gray et al. 2012). Although the ongoing demographic change at the state level is an emergent topic of scholarly interest, little attention has been paid to the demographics of Texas counties that have already had Hispanic majority. The geographical focus of the present study is the Rio Grande Valley (RGV) of Texas located on the U.S.-Mexico border. The RGV is comprised of the four southernmost Texas counties – Cameron, Hidalgo, Starr and Willacy counties.

This region had a Hispanic majority for most of the twentieth century (Garza 2014). As the historical Census data show, the proportion of residents who were Hispanic grew steadily over the second half of the 20<sup>th</sup> century. In 1940 Hispanics accounted for little over 61% and in 1970 – 76% of all RGV population.<sup>1</sup> Today, more than 90% of the 1.3 million RGV residents are Hispanic.<sup>2</sup> The region is also notable for the significant population growth it has recently experienced. The total population of the four-county area grew from approximately 700,000 inhabitants in 1990 to more than 1.22 million in 2009. In other words, the RGV population increased by almost 75% during the past two decades. In contrast, the U.S. population has grown only 24% over the same period of time. The RGV is not only one of the fastest growing regions

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<sup>1</sup> Unfortunately, until 1980 the U.S. Census did not measure Hispanic origin directly. The estimate for 1970 is based on Spanish language usage, while the one for 1940 is based on the white population of Spanish mother tongue. It has long been noted that both the aforementioned Censuses significantly underestimated Hispanic population (Hernandez and Alvarez 1974).

<sup>2</sup> Unless other sources are specifically mentioned, here and hereafter our calculations of the components of demographic change in the RGV are based on American Community Survey (U.S. Census Bureau 2013).

in the U.S., but also one of the poorest. The region frequently leads the nation in unemployment and poverty and ranks near the bottom nationally in per capita income (Ryabov 2012; Salinas et al. 2013; Hedderson 1982).

The primary objective of the present study is to examine whether the recent Hispanic population growth in the RGV, fueled by massive immigration and natural increase, has been accompanied by the out-migration of non-Hispanics. While centering on the ethnic composition of migration flows, we also examine a series of questions related to domestic migration: (1) What are typical demographic profiles of domestic inbound and outbound migrants in the RGV; (2) Which factors determine the probability of migration for different types of movers (newcomers, leavers, and intraregional migrants); and (3) What reasons for moving are commonly cited by different types of domestic migrants (newcomers, leavers, and intraregional migrants). Answers to these questions are crucial for our understanding a range of factors associated with regional demographic change in the Valley (the term ‘Valley’ is interchangeably used with ‘RGV’, henceforth).<sup>3</sup> In what follows, we address theoretical questions related to the ‘white flight’ hypothesis, provide a brief overview of the components of demographic change in the RGV, state our research hypotheses, describe the empirical basis of the study, conduct individual- and census-tract-level analyses and interpret the results.

### **On the Validity of White Flight and Spatial Inequality**

In the second half of the 20<sup>th</sup> century, non-Hispanic whites as a group have tended to move to ‘whiter’ neighborhoods (Bayer, Fang, and McMillan 2014; Denton and Massey 1991;

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<sup>3</sup> Although the present study was designed to include international immigrants in its scope, we could not avail ourselves of a representative dataset on international migrants that contains detailed information on the key variables of interest. Unfortunately, the empirical basis of the study, Current Population Survey (CPS), albeit being a powerful information resource for studying domestic migration, significantly underestimates international migration (Passel, Cohn, and Gonzalez-Barrera 2013).

South, Crowder, and Chavez 2005), a phenomenon sometimes referred to as ‘white flight’. ‘White flight’ is a catchy phrase the validity of which is still hotly debated (for details see Armor 1980). The phenomenon is often seen as too simple to capture the complex processes of neighborhood change (Armor 1980; Frey 1979; Krysan 2002). Nevertheless, numerous studies conducted as far back as a half a century ago have provided strong support for the idea of the flight of non-Hispanic whites from racially integrated neighborhoods (cf., Birch et al. 1979; Duncan and Duncan 1957). Although prior research confirms that members of all major racial groups prefer to locate among neighbors of their own racial group (Clark 1992; Iceland 2004; Krysan and Farley 2002), the ‘white flight’ hypothesis argue that, compared to other major race groups in America, non-Hispanic whites have had far greater freedom to settle wherever their wealth enables them to purchase a home (Pais, South, and Crowder 2009; Wilkes and Iceland 2004). Moreover, studies of neighborhood racial preferences generally indicate that whites have a stronger preference for same-race neighbors than do members of other racial and ethnic groups, and strongly prefer Asians over blacks and Hispanics (Zubrinisky and Bobo 1996; Charles 2003). Even considering geographic factors alone, non-Hispanic whites have more opportunities to flee the growing diversity of some neighborhoods, areas and regions, by moving out of these geographical entities simply because ‘white’ neighborhoods, areas and regions still outnumber ‘non-white’ ones in this country.

While the original ‘white flight’ hypothesis (Duncan and Duncan 1957; Frey 1980) attributed self-segregation of non-Hispanic whites to the racial bias upheld by the majority of their community, more recent studies framed within this theoretical perspective (Ellen 2000; South et al. 2005) tend to emphasize other motivational and contextual factors underpinning white’s avoidance of minority neighborhoods. Recent studies in this line of research argue that

non-Hispanic whites are reluctant to move into neighborhoods with high concentrations of minorities because these neighborhoods are perceived to have a number of disadvantages such as high crime rates, low job opportunities, fewer amenities, and poor schools (Crowder 2000; Ellen 2000; South et al. 2005). Nowadays, white avoidance of minority neighborhoods is perceived by some observers (Crowder 2000; Ellen 2000; Pais et al. 2009) as avoidance of poverty and not as avoidance of racial minorities as such. Race, according to this perspective, serves as a proxy for neighborhood social class characteristics or quality. However, recent studies suggest that, while concerns over neighborhood quality have primacy, racial composition does indeed matter. Emerson, Chai, and Yancey (2001) used a factorial experiment on a national survey in which neighborhood characteristics *and* racial composition were randomized. Multivariate analyses revealed that whites expressed less willingness to buy a home in a neighborhood as the proportion of blacks (but not Asians or Hispanics) increased, net of the proxies of school quality, crime levels and housing values. In a replication of the study using the Houston Area Survey (Lewis, Emerson, and Klineberg 2011), the percentages of both blacks and Hispanics in a neighborhood had independent effects on whites' stated likelihood of buying a house, with a higher percentage in both cases predicting a lower likelihood. While Houston is demographically and historically distinct from the RGV, these findings do suggest that many white Texans may be inclined to avoid Hispanic neighborhoods, regardless of their quality.

With growing income inequality, the gains at the top of the wealth distribution apparently have allowed the affluent to segregate themselves from the poor (Lichter, Parisi, Taquino, and Grice 2010; Massey and Fischer 2003). Consequently, while analyzing neighborhood-level determinants of white flight, it is necessary include a complex of neighborhood characteristics and not only its racial and ethnic composition. Although neighborhood-level analyses are

obviously valuable, such analyses do not always relate to individual-level decisions to move. In fact, there are numerous factors motivating individuals to move. People move because of employment opportunities, life-cycle changes, financial limitations, etc. Consequently, in order to understand the process of neighborhood change, in general, and white flight, in particular, both the neighborhood context (in this case, its ethnic composition) and individual characteristics must be considered. Equally important to the current study is the fact that the bulk of previous research on this topic has focused predominantly on metropolitan areas. Indeed, some of America's most disadvantaged ethnic minority populations live in geographically isolated rural areas, including those on the U.S.-Mexican border (Frey and Farley, 1996; Lichter, Parisi, Taquino, and Grice 2010).

The study presented here is intended to advance current knowledge on neighborhood change, in general, and white flight, in particular, in the context of South Texas, a region where non-Hispanic whites have historically been a minority, albeit a privileged one. By examining change in the ethnic segregation at the neighborhood level in conjunction with the analysis of inbound and outbound migrants' socio-demographic profiles and migration decision-making at the individual-level, we provide a more complete assessment of the complex and contingent nature of white flight than has been offered in the past.

Our fundamental goal is to provide a place-based portrait of neighborhood-level ethnic segregation over the past two decades and inbound and outbound migration flows as well as internal flows within the Valley. Perhaps more importantly, this research aims to investigate recent macro- as well as micro- (or neighborhood-level) regional trends in ethnic segregation given that macro-regional aspect of racial residential segregation has been largely ignored in prior work. Recent scholarship suggests that macro-segregation is currently on the rise,

suggesting a reversal of a general pattern of geographic diffusion of minority populations throughout much of the twentieth century (Lichter, Parisi, and Taquino 2012). Ethnic groups are increasingly segregated over large regions, with predominately white regions, predominantly black regions, and so on (Frey and Farley 1996). Below we provide a brief outline of the recent demographic history of the RGV, a predominantly Hispanic region where patterns of concentrated poverty are known to overlap with patterns of ethnic segregation (Gonzalez-Barrera and Lopez 2013; Ryabov 2012; Salinas, Su and Al Snih 2013).

### **Geographic Setting of the Study**

The region is not only predominantly Hispanic, but is also characterized by persistent poverty and the low educational level of its population. The four border counties comprising the RGV are among the poorest in the nation with a traditional double digit unemployment rate.<sup>4</sup> Per capita income in the Valley was approximately \$13,500, which is about half the national level. According to the 2010 Census, the percentage of the adult population (25 years of age and over) without a high school diploma was almost 40% in the RGV, while the U.S. average is 14%.

As mentioned before, the RGV population grew by 75% from 1990 to 2009. According to our calculations based on the American Community Survey data, the natural increase in 1990-2009 for the four-county area comprising the RGV constituted approximately 360,000 persons. Additionally, our calculations indicate that net gain from domestic migration for the same period of time accounted for less than 1,000 persons. Consequently, the change in the RGV population which was due to natural increase and domestic migration for 1990-2010 constituted approximately 75% of the total population increase for this time period. Consequently, about

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<sup>4</sup> Here our calculations are based on the 2010 Census data.



25% of this increase was due exclusively to immigration.<sup>5</sup> The proximity to the border virtually and a pertinent immigration stream from Mexico ensures that the influences of Mexican culture and traditions are important.

In light of significant growth of Hispanic population in the Valley, there are two considerations related to domestic migration that have to be taken into account. First, although inbound and outbound migration flows were balanced – as mentioned above, the net domestic migration was for the period of two decades was negligible (only 1,000 or less than 0.01% of the population in 1990) – across these two contexts, the geographic origin of inbound and outbound migration streams differed within the Valley. Out of the four counties comprising the RGV, only Hidalgo County has consistently experienced more inbound domestic migration than outbound migration during the past two decades. Although the outflow of migrants from Hidalgo County during 1990-2009 was not negligible – 340,000 people – the number almost equal to the natural increase for the same period, a larger cohort (by about 30,000 individuals) replaced these leavers. A contributing factor to the in-migration flow can be the attractiveness of the RGV as a tourist destination. It is worth noting also a seasonal migration of Winter Texans, active retirees from the other regions of the continental U.S. who come to spend their winter in the tropical climate of the RGV. It has been estimated that every year over 100,000 Winter Texans temporary reside in the RGV which offers warm weather, proximity to Mexico (and its inexpensive medical and pharmaceutical services) and the beaches at South Padre Island (Martin, Hoppe, Larson and Leon 1987; Vincent and De Los Santos 1990). While the majority of Winter Texans come to visit the RGV during the cold season, with time some decide to settle there permanently.

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<sup>5</sup> Unfortunately, the scope of the present study is limited to domestic migration because we could not avail ourselves of a representative individual-level dataset that contain the key variables of interest on international migrants.

While Hidalgo county's population increased in part by adding domestic in-migrants over the past two decades, the other three RGV counties – Cameron, Starr and Willacy – were consistently losing residents due to out-migration. The population growth in these counties is explained only by natural increase and international migration. According to our calculations, out of 370,000 domestic migrants that Hidalgo County between 1990 and 2009, approximately 15% were from the other RGV counties (Cameron, Starr and Willacy). Furthermore, it is the McAllen-Edinburg-Mission SMA (Hidalgo County), the second fastest growing metropolitan area in the nation in the last two decades (Frey 2012), that is likely to draw significant migration flows from neighboring counties as well as from the less urbanized areas within Hidalgo county. This brings us to the second point to consider: the bulk of domestic migration in the RGV is comprised of within-county moves. According to our preliminary analysis using the ASEC dataset (not shown for parsimony), within-county migrants outnumbered both inbound and outbound migrants.<sup>6</sup>

According to the 'white flight' hypothesis, it is likely that a significant share of within-county moves were conducted by people who preferred to reside close to their co-ethnics. However, this fact is difficult to ascertain without the analysis of migration flows at the neighborhood level. The 'white flight' hypothesis suggests that non-Hispanic white residents may have responded to the explosion of Latino population and steady shrinkage of Non-Hispanic white population by: (1) leaving the RGV; or (2), moving to Anglo-majority neighborhoods within the RGV. It has to be noted that the decision of where to live involves the weighing of alternatives within the context of neighborhoods, so the percentage Hispanic in the RGV does not matter as much as the percentage Hispanic in a particular neighborhood. In other words,

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<sup>6</sup> The comparison of our calculations of migration flows in the RGV derived from the CPS's ASEC and ACS IPUMS reveals that the CPS underestimates within-country moves.

despite the growth of the percentage Hispanic in the Valley as a whole, some predominantly non-Hispanic neighborhoods may experience a decline in the percentage Hispanic. Consequently, in order to identify important caveats and nuances with respect to the conditions under which neighborhood change and ‘white flight’ occur in the Valley, it is important to supplement individual-level analyses of migration streams with neighborhood-level analyses of the change in ethnic composition as a function of neighborhood-level characteristics.

### **Research Hypotheses**

The data used in the present study allow for testing a number of hypotheses that prior theory suggests are strongly related either to the probability of moving. Based on the foregoing theoretical and contextual background, we posited two sets of hypotheses (*Ha* and *Hb*), *Ha* – one predicting the odds of out-migration of the Valley residents and the other – *Hb* – predicting change in ethnic segregation at the neighborhood level for the same time period.

*Ha1*: In light of growing Hispanic population in the region and consistent with the ‘white flight’ hypothesis (see above), we expect the odds of out-migration to be higher for non-Hispanics than for Hispanics.

*Ha2*: Given the continuous stream of immigrants from Mexico and the persistent social distance between old and new immigrants in the Valley (Binder Polinard and Wrinkle 1997; Jiménez 2010; Polinard, Wrinkle, and de la Garza 1984), we expect that the U.S.-born as well as naturalized citizens would be more prone to leave the Valley than non-citizens.

The following hypotheses predict the change in neighborhood ethnic segregation over the period of 1990-2010. It is worth mentioning that these hypotheses are based on the premise that numerical minorities are more spatially segregated than numerical majorities. Note that being a numerical minority is not a characteristic of being a minority group. Larger groups can often be

considered minority groups due to their lack of power (e.g., in South Africa). Being a numerical minority does not necessarily entail the subordinate position vis-à-vis the numerical majority group. In the context of the RGV, for example, being non-Hispanic does not mean to be subordinate to Hispanics. Despite the fact that non-Hispanic whites are numerical minority in the Valley, they were at one time overrepresented among elites in the Valley and exerted significant and economic political power (Montejano 1987).

*Hb1:* Consistent with the prediction of the ‘white flight’ hypothesis, we hypothesize that non-Hispanic whites are more likely to move away from locales with mainly Hispanic populations. Consequently, we expect that predominantly Hispanic neighborhoods would become more segregated over time.

*Hb2:* According to some spatial segregation models (Brick, Challinor, and Rosenblum 2011; Logan, Zhang, and Alba 2002), recent immigrants tend to settle in immigrant enclaves in proximity to their co-ethnics. Hence the outcome is segregation by immigrant status and by a degree of assimilation. Following from the above, we predict that ethnic segregation will be high in those neighborhoods that have higher concentrations of the foreign-born as well as Spanish speakers.

*Hb3:* National trends in residential segregation attest to an increase in segregation not only by ethnicity but by social class as well (Wilkes and Iceland 2004). Hence, we expect to find an association between the SES composition of the RGV neighborhoods and their segregation levels. Particularly, we expect that neighborhoods with higher concentrations of people living in poverty and with low educational attainment levels will experience higher levels of segregation.

## **Methodology**

*Data.* The empirical base of the present data included two datasets: one that used individuals and the other one that use census tracts as units of analysis. The individual-level file was derived from the Current Population Survey (CPS) (see Ruggles et al., 2010). The CPS provides data for individuals aged 15 years and older from a national probability sample of approximately 50,000-55,000 households (or details about the survey methodology see Noonan, Smith, and Corcoran, 2007). More specifically, this study made use of the Annual Social and Economic Supplement (ASEC, also known as March Supplement). Each March, the basic CPS sample and questionnaire are expanded for the ASEC. The sample is augmented to about 80,000 households with a double sample of Hispanic households. The questionnaire is expanded to include questions on an array of demographic and socioeconomic factors. The question on residence one year prior to the survey date provides information on current migration in the United States. Additionally, what makes the ASEC data particularly well suited for our purposes is that the data also identify the county in which a respondent resides. Our final sample size is 9,524. It is limited to individuals 25 years of age or over who resided in the RGV for some time between 1986 and 2013.

The specific data sources for the neighborhood-level analyses were the 5-year aggregate American Community Survey (ACS) and the full decennial tables of the 1990 Census. Both these sources use uniform geographic codes, which makes special analyses possible over decades despite the fact that census tract boundaries sometimes change. The ACS and Census data were merged into a uniform dataset, in which comparable data had been organized into the 1990 Census tract boundaries. Using the geographic identifiers, we were able to generate census-tract-level estimates for each indicator of interest to be included in the regression models. All variables were measured as of the time of the 1990 Census, except for the dependent variable –

the Index of Dissimilarity (ID) – the change in which had been measured over the period of 1990-2010.

*Missing Data.* In the CPS files small percentage of data were missing at random on a few variables. Missing values were imputed using the Markov Chain Monte Carlo (MCMC) technique, with results in the efficiency of the resulting estimates within 95% confidence interval (for more information on MCMC see Rubin 2004). The procedure requires that missing data are imputed in  $n$  data sets ( $n$  is the number of imputations required by the procedure). The number  $n$  depends on the amount of missing data per each variable (e.g.,  $n=5$  for income). Subsequently, parameter estimates from the analysis run on those  $n$  data set were averaged to obtain single parameter estimates.

*Measures.* The explanatory variable in this study used for individual-level analyses is migration status, or more exactly, change in the migration status. We examined the demographic profiles of individuals age 25 and older who arrived, left, stayed, or moved within the RGV between 1986 and 2013. Our definitions of leavers', 'stayers', and 'newcomers' are derived from the methodology developed by Fernandez et al. (2007). In brief, these groups were identified on the basis of two questions regarding residence 1 or 5 years ago. Newcomers were those who resided elsewhere a year or 5 years ago before becoming the RGV residents in any year within the study period (1986-2013). In contrast, individuals who were in 1986-2013 residents of any other country, except Cameron, Hidalgo, Starr and Willacy counties, but who lived earlier in the Valley were coded as leavers. Further, all those who lived continuously in the same house during 1986-2013 were coded as stayers. Finally, the last category – local migrants – includes those RGV residents who, during the study period, moved between and/or within the four counties comprising the Valley. Another dependent variable in the individual-level file is the

reasons for moving. Unfortunately, the information for this variable is not available for the 1990s, since this question had been included in the CPS ASEC only starting from 1999. Therefore, our analysis was conducted on a smaller sample (56% of the original sample). Because the original variable constructed by the CPS had 17 items, we conducted component analysis (not shown for the sake of parsimony) which helped us identify four groups of reasons: employment/career, family, housing and other reasons.

With regard to ethnic origin, we distinguished Mexican Americans, Hispanic of non-Mexican origin (hereafter, other Hispanics) and non-Hispanics (Anglo). Note that, because some of the categories have only a few cases (e.g., Cuban-Americans) and preliminary analyses (not shown for parsimony) observed no differences in a number of characteristics between Hispanics of different ethnic origins (except for Mexican Americans), we collapsed the aforementioned categories. Additionally, due to insignificant representation of blacks (3 cases) and Asians (10 cases) in the sample, we could not use race as an independent variable.

The rich CPS data allowed us controlling for other variables known from the literature to affect migration decisions. Drawing from prior research (Jacobsen and Levin 1997), we emphasize two caveats related to marital status of migrants: (1) family responsibilities play a significant role in the migration decision-making process; and (2) migration interrupts family life. Therefore, marital status which is represented by a series of dummies for married, separated/divorced, widowed and never married is included as a control variable. Educational attainment is used as a proxy for human capital or skills a person possesses.<sup>7</sup> Human capital achievements have a significant influence on job market competency, since they are the cognitive basis of labor market activities (Coleman 1988). Educational attainment was measured

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<sup>7</sup> Due to the fact that income and educational attainment are significantly correlated in the individual-level file, thus raising concern about heteroschedasticity, we did not include income as a measure of SES.

as a series of dummies contrasting individuals without high school or GED diploma, high school graduates or individuals with some college education, and individuals with college degrees (Bachelor's or higher). Also included are dummies for labor force participation, homeownership, citizenship status, gender (male) and age. Age was measured in years (minimum=25). The citizenship information in the CPS identifies respondents as U.S. natives, U.S. citizens through naturalization and non-citizens. The latter two groups comprise the foreign-born population. Consequently, we distinguished non-citizens from citizens. The former group was further broken into naturalized citizens and citizens by birth. Among the former, we further distinguished those whose parents and who themselves were born in the U.S. (usually considered 'third-plus generation') and the U.S.-born children of foreign-born parents ('second generation' – see Ryabov (2009) for more details).

The exploratory variable for the census-tract-level analyses is the change in the Index of Dissimilarity (ID) over the period of 1990-2010. The ID is perhaps the most commonly used measure of residential segregation in American social science since the 1950s. Based always on a comparison of two groups (e.g., non-Hispanic whites vs. Hispanics), this measure is very easy to interpret. The ID ranges from 0 to 1, and tells us the percentage of a given ethnic that would have to change its residential location in order to balance out the distribution of these groups across the geographic space. If Anglos were evenly settled across the entire the RGV, for example, their ID would be 0 (perfectly integrated). If Anglos only lived in census tracts that were 100% Anglo, and nowhere else, then their ID score would be 1 (perfectly segregated). Percentage Hispanic at beginning of the study period (in 1990) was used as a measure of the neighborhood ethnic composition. ID is a census-tract-level measure, that is, when calculating ID, census tracts were used as lower neighborhood units, while counties were used broader units.



Before proceeding any further, a few qualifications are in order. With few exceptions, we did not use the same dependent variables in the individual- and census-tract-level files. Our reasoning was as follows. Firstly, owing to a smaller sample size of the census-tract file relative to the individual-level file – quite reasonably, there are just fewer census tracts than individuals – only a limited number of effects can achieve acceptable levels of significance at the census tract level. Secondly and most importantly, some effects, such as marital status, are known in the literature on migration to affect individual's propensity to move but no relationship has been proposed between such effects and the level of ethnic segregation at the neighborhood level. Hence, only those effects in the census-tract-level file that can be inferred from literature deserve a meaningful interpretation. To sum up, there is not enough variance in the census tract file that can be partitioned further to make meaningless statistical inferences.

Given these considerations, we used the independent variables described below in the multivariate analysis at the census tract level. Percentages of native born citizens and Spanish speakers were included to monitor nativity status and a degree of socio-linguistic assimilation. Educational achievement was measured using the same dummy variables as in the individual-level file. Percentage of population living on income below the poverty level and average income per capita were included as measures of the neighborhood socioeconomic composition. We included two measures of income instead of one because household income strongly and negatively skewed. It is worth noting that both measures of income are adjusted for household size, a variable which can vary significantly from one neighborhood to another. The IPUMS poverty status variable uses the 1990 Census Bureau definition of poverty thresholds, adjusted for inflation. Poverty thresholds were applied on a national basis and were not adjusted for regional, state or local variations in the cost of living.

Compared with non-Hispanics, Hispanics are more likely to be employed in low-skill, low-wage employment sectors, such as agriculture and construction (Gonzalez-Barrera and Lopez 2013). In the context of recent demographic history of the RGV, the growth of Hispanic population has historically been spurred by agricultural employment, as the region is known to attract migrant farm workers from Mexico many of whom settled in crowded and unsanitary *colonias*. Consequently, we control for employment in agriculture and construction, as there are reasons to believe that occupational segregation can be correlated with residential segregation at the census tract level.

## RESULTS

*Descriptive Analysis – the Individual-Level Sample.* The demographic profiles of stayers (86.9% of the sample), leavers (2.1% of the sample), newcomers (2.4% of the sample) and local migrants (8.5% of the sample) are presented in Table 1. As our descriptive analyses show, the demographics of stayers were different in several important aspects. All migration status groups were predominantly Mexican-Americans. However, the percentage of Mexican-Americans was significantly higher among stayers (approximately 83%) than among migrants.<sup>8</sup> In contrast, non-Hispanics (Anglos) were overrepresented among leavers, local migrants and, especially, newcomers. Observe the magnitude of the difference between the percentage Anglo among stayers (13.2%) and newcomers (20.4%). Furthermore, the shares of Hispanics other than Mexican-Americans were higher among those who left the Valley or moved within the Valley than among those who stayed or came to reside in the Valley ( $p < 0.05$ ).

Although the majority of individuals among all migration status groups were those who themselves and whose parents were born in the U.S., the share of these individuals who often

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<sup>8</sup> Here and hereafter, our inferences about the disparities between migration status groups are based on the Bonferroni test for multiple means.

referred to as the ‘third-plus generation’ (Ryabov, 2009) was higher among leavers and newcomers than among stayers and local migrants ( $p < 0.05$ ). In contrast, compared to leavers and newcomers, stayers and local migrants had a significantly ( $p < 0.05$ ) higher proportion of individuals who were commonly considered second-generation immigrant, i.e. the U.S.-born whose parents were (or at least one parent was) foreign-born. The proportion of individuals with foreign citizenship was the highest among the stayers (19%) and the lowest among newcomers (11%), while leavers and local migrants scored somewhere in the middle (approximately 16%) on this indicator. Moreover, there were, at least, twice as many naturalized citizens among stayers and local migrants than among leavers and newcomers.

With respect to marital status, several commonalities were found among newcomers and stayers, on the one hand, and leavers and local migrants, on the other. Specifically, newcomers were as likely as stayers to be mostly married (69-70%) and equally unlikely to be never married (approximately 20%). Leavers and local migrants were also mostly married (61-62%) but the percentage married was significantly lower ( $p < 0.05$ ) among these groups than among stayers and newcomers. The never married also constituted larger proportions of leavers and local migrants than stayers and newcomers. Although the proportion of separated or divorced individuals was significantly higher among all migrant groups than among stayers, it was the highest among local migrants. In fact, local migrants were the only migrant group among whom the separated or divorced outnumbered the never married. Widowed individuals composed significantly higher share of stayers than migrants.

In terms of educational attainment, individuals with less than a high school education were overrepresented among stayers than among migrants. Newcomers were particularly less likely to include individuals who have not finished high school (32% versus 41% among

stayers). Further, the majority of newcomers and local migrants were high school graduates (the category includes those with some college education). The proportion of high school graduates was significantly ( $p < 0.05$ ) lower among stayers and leavers. Finally, individuals with a bachelor's degree or higher were overrepresented among leavers compared to those who stayed in the area and those who moved within the RGV. Labor force participation was significantly higher among leavers and local migrants than among stayers and newcomers, while migrants were less likely to be homeowners than stayers. Specifically, the percentage of homeowners among stayers was almost twice as higher as that among leavers (80% vs. 41%). In addition, the comparison of the migration status groups reveals a significant dispersion with respect to the average age. Newcomers were, on average, more than 13 older than leavers (54 vs. 41 years, respectively), while stayers and local migrants, respectively, 7 and 5 years older than leavers. Compared to those who did not change their place of residence during the study period, all migrants, including intraregional ones, had a higher proportion of males ( $p < 0.05$ ).

The next step of univariate analyses is the examination of reasons for migration. As mentioned above, due to the data unavailability, these analyses encompass a shorter period of time, roughly equivalent to the 2000s. The results are presented in Table 2. The proportion of outbound migrants who cited employment or career opportunities as the main motive behind their move was approximately 26%, the number which contrasts sharply with 6% of newcomers and 4% of local migrants citing the same reasons. Only 18% of newcomers cited family reasons, while the corresponding percentages for leavers and local migrants were, respectively, 38 and 42%. The vast majority of newcomers (73%) cited housing as the main reason for the move, whereas significantly smaller shares of leavers (35%) and local migrants (50%) did the same. Finally, other reasons were mentioned by much smaller percentages of migrants (less than 5% in

all categories).

*Multilevel Analysis – the Individual-Level Sample.* Below we model the odds of leaving the RGV (see Tables 3) while examining the effects of ethnicity, nativity and citizenship, marital status, SES, age and gender. The first model which tests the hypothesis *Ha1* consists only of ethnicity predictors – Non-Hispanic (Anglos) and Hispanic of non-Mexican ancestry (Mexican-American is the reference group). Model 1 demonstrates that both measures were significant in the predicted directions. Anglos and Other Hispanics (Hispanics of non-Mexican ancestry) are predicted to have significantly higher odds of out-migration ( $p < 0.05$ ) than Mexican-Americans. The effect of Other Hispanics will remain robust and significant ( $p < 0.001$ ) in all Table 3 models, while that of Anglos will fluctuate in both magnitude and significance in other models. In the full model of Table 3 the dummy variable for Anglos is significant at  $p < 0.001$  level, suggesting that, only after all predictors of out-migration are accounted for, Anglos are indeed more likely to leave the Valley than Mexican-Americans.

Model 2 of Table 3 tests the hypothesis *Ha2* which predicts effects of nativity and citizenship measures. The variable monitoring nativity of parents reveals that individuals with at least one foreign-born parent are not prone to leaving the area. As the subsequent models of Table 3 show, the effect of this variable is robust in the presence of multiple sets of controls ( $p < 0.001$ ). The odds of out-migration for the U.S. citizens and non-citizens are not significantly different in this model, but in models 4 and 5 of Table 3 they are. This suggests that the citizenship effect becomes fully manifest only with the extensive controls. The odds ratio for non-citizens is below 1 in the full model (model 5;  $p < 0.05$ ), implying that this group is unlikely to leave the area. The same is true about naturalized citizens, the effect for which is consistently significant ( $p < 0.001$ ) across all Table 3 models. In sum, it appears that, as compared to the

second generation plus U.S. citizens (the reference), all nativity status groups are less likely to be out-migrants in the RGV.

Moving to model 3 of Table 3 which includes dummies for marital status, one can see that the effect for separated/divorced is inconsistently significant. The coefficient for separated or divorced is significant at level in models 3 ( $p < 0.001$ ) and 5 (i.e., in the full model;  $p < 0.05$ ), but not in model 4 which adds SES factors. The odds ratio is above 1 for this group, suggesting that separated or divorced individuals were more likely to leave the RGV than those who were married (the reference). In contrast with the above, the widows/widowers were found to be less prone to migrate than the married (reference) in models 3 ( $p < 0.001$ ) and 4 ( $p < 0.05$ ). However, in the full model which includes gender and age, the ratio for the widowed is significantly higher than 1, which implies that being widowed is associated with higher chances of leaving the area than being married. The effect of being never married is not significant in model 3 but it gains in both magnitude and significance with the addition of subsequent sets of controls in models 4 ( $p < 0.05$ ) and 5 ( $p < 0.001$ ). The effect is negative (which corresponds to the ratio below 1), suggesting that never married individuals are more likely to stay than to leave.

Model 5 adds SES predictors all of which were significant at  $p < 0.05$  or  $p < 0.001$ . Particularly, higher odds of leaving the RGV are associated with having elementary (less than high school) education or having higher education (high school graduates are the reference group), being employed and being renter. Concerning the effect of employment, it should be noted that it becomes insignificant in the full model (model 6) which accounts for age and gender. The effect of homeownership is self-explicable – the homeowners have invested interest in the Valley, while the renters do not. A somewhat surprising finding came out with respect to the effect of education: the odds of leaving the Valley were found to be higher not only among

the most educated, but also among the least educated. What seems to be happening here (although there is no direct evidence supporting it) is that the RGV offers limited employment opportunities to both the best- and the least-educated segments of the local population. Finally, the effects of age and gender are added in model 5. Both effects are significant at  $p < 0.05$ . The association between age of a resident and his/her propensity to migrate is negative, suggestive that the younger the RGV resident was, the more likely his/her was to migrate. We also found that, compared to women, men were more likely to leave the RGV.

*Descriptive Analysis – the Census-Tract-Level Sample.* Weighted percentages (and the weighted mean in the case of per capita income) of the dependent and independent variables used in the subsequent multivariate census-tract-level analyses are presented in Table 4. Additionally, we show change in the percentage Hispanic which rose, on average, from 81% in 1990 to 90% in 2010. Across census tracts, it varied from about 20 to 100% in 2010. Further, the ID have changed a little over the past two decades – from 0.42 in 1990 to 0.41 in 2010. However, the change in the ID across census tracts was far from being uniform. The change in the ID ranged from a minor decline (less than 5%) to an increase of more than 20%. Across census tracts, the vast majority of residents were born in the U.S. (72%) and spoke Spanish at home (83%). The comparison of Tables 1 and 4 reveals a certain degree of similarity between the sample distributions due to educational achievement of individual- and census-tract-level files. In both cases, individuals who had not completed high school account approximately 41% of the adult population. However, compared to the individual-level data provided by the IPUMS, the percentages of high school graduates and individuals with higher education were, respectively, higher and lower in the census-tract file. This result may reflect not only discrepancy in the study period – the census-tract-level data were collected in 1990, while the

individual-level ones were averaged over 1986-2013, but also the peculiarities of the distribution of variables describing educational attainment across census tracts – the percentage of individuals with higher education is positively skewed in the census-tract-level file. We also found that approximately 35% of the RGV population happened to be below the federally defined poverty threshold in 1990, while the average income per capita was slightly below \$10,000. Observe a high degree of variation in the employment in Farming, Fishing, and Forestry (FFF) and construction across census tracts. While, on average, 3 and 7% of the adult labor force were employed in FFF and construction, correspondingly, in some census tracts the employment levels were as high as 33% in FFF and 86% in construction.

*Multilevel Analysis – the Census-Tract-Level Sample.* Table 5 shows OLS regression models predicting change in the Index of Dissimilarity (ID) across census tracts in the RGV. The first model has only one predictor – the share of Hispanics in the total population. The model is set to test the hypothesis *Hb1* according to which the proportion Hispanic in 1990 should be positively associated with the change in the ID over 1990-2010. Consistent with our prediction, the effect is significant ( $p < 0.05$ ) and positive in this and the following models of Table 5. Note that the magnitude of the effect increases with the addition of other independent variables in the subsequent models, suggesting a probability of the suppression effect in the absence of significant predictors. Designed to test the hypothesis *Hb2*, model 2 adds nativity status and the use of Spanish at home, a proxy of socio-linguistic assimilation. As expected, the results suggests that ethnic segregation was higher in those census tracts that had higher concentrations of the foreign born and Spanish speakers. The next two models of Table 5, models 3 and 4, test the hypothesis *Hb3* which predicts a relationship between neighborhood SES and ethnic composition. Education attainment variables were added in model 3, while income measures



were included in model 4. The effect for having low educational attainment (less than high school) is positive in model 3 ( $p < 0.001$ ) but become insignificant in the subsequent models of table 5, whereas the effect for highest educational level (bachelor's degree or higher) was negative ( $p < 0.001$ ) and robust in all Table 5 models. Hence, our findings suggest that the well-educated RGV residents tended to live in less segregated neighborhoods than the less educated individuals. Further, in model 4 both measures of income were in predicted directions. Firstly, the higher the concentration of poverty in a given neighborhood (here as well as above, we proxy census tracts for neighborhoods), the bigger the change in ethnic segregation. Secondly, the higher the per capita income in a given neighborhood, the less the likelihood of ethnic segregation. Finally, occupational variables – percentages of labor force in FFF and construction – were entered in model 5. None of these variables were significant.

### **Conclusion and Discussion**

The Hispanic population of the United States has experienced tremendous growth. Between 2000 and 2010, it grew by 43 percent (US Census Bureau 2011). This unprecedented growth is primarily due to massive immigration, rather than to natural increase (Ennis, Ríos-Vargas, and Albert 2011; Guzman 2001; Johnston, Karageorgis, and Light 2013). Most of this growth has occurred in places with a historically high concentration of Hispanics, such as the U.S.-Mexico border region. The border region has traditionally been the main port-of-entry for immigrants from Mexico and Central America (Gonzalez-Barrera and Lopez 2013; Guzman 2001; Hedderson 1982). Given that immigrants from Mexico still comprise the lion's share of all Hispanic immigrants, it is not surprising that the border region has documented a significant population increase in recent times (Brick, Challinor, and Rosenblum, 2011; Johnston et al. 2013; Salinas, Su, and Al Snih 2013).

The Rio Grande Valley (RGV) region of Texas located on the U.S.-Mexico border is the geographical locus of the present study. According to our estimates based on American Community Survey (ACS), the RGV is one of the fastest growing regions in the United States. Although immigration is likely to be a significant contributor to this growth (unfortunately, we were not able to ascertain this claim due to the unreliability of immigration data), domestic migration could have contributed to the population increase as well. The purpose of this study is twofold: to analyze recent trends in domestic migration and to predict change in the neighborhood ethnic composition across the RGV over the past two decades. Two datasets derived from the CPS and ACS were used, respectively: (1) to predict the odds of out-migration from the RGV as a function of ethnic background, immigrant generational status, marital status and socio-economic position; and (2) to evaluate relative importance of ethnic composition, socio-economic composition and other factors in determining the change in the Index of Dissimilarity (IT) at the census-tract level in the RGV. We also examined the self-reported reasons of migration among three different types of migrants in the RGV – leavers, newcomers and intraregional (local) migrants.

Our analyses of the inter-county migration flows based on the Census and ACS data revealed that: (1) the net domestic migration during the past two decades was mostly balanced, that is inbound and outbound migration flows in the RGV are of approximately equal size; (2) Hidalgo county had a strong in-migration surplus which was counterweighed by the negative net migration in from the other three counties comprising the RGV (Cameron, Starr and Willacy counties). Further, our individual-level analyses of migrants' demographic profiles, the odds of out-migration and reasons for the move showed that: (1) compared to non-migrants (stayers), non-Hispanics (Anglos) were overrepresented among all migrant categories in the RGV; (2)

leavers were likely to be motivated by career/employment opportunities outside the Valley, while affordable housing in the Valley was the primary motivating factor for newcomers; (3) not only Anglos, but also Hispanics of non-Mexican ancestry were more likely to leave the Valley than Mexican-Americans; (4) the odds of out-migration were also higher among the native born, separated/divorced, men, individuals with higher education and those without high school diploma. Our findings of the census-tract-level data demonstrated that: (1) those census tracts that were overwhelmingly Hispanic became more segregated over the study period (1990-2010); (2) recently arrived Hispanic immigrants became more spatially segregated; (3) neighborhood ethnic segregation was positively associated socioeconomic segregation.

It is too early draw a complete set of conclusions about many of the possible causes or effects of these findings – the present study has limitations that need to be mentioned. Firstly, our sample size is relatively small for the studies using the CPS (N=9,524). Due to unavailability of data for the whole study period, our analysis of the dominant reason for the move among different migration status groups were conducted on even smaller subsample of the original sample. Secondly, our study period is limited: our census-tract-level analyses encompass the period of past twenty years and the individual-level ones a period of between 1986 and 2013. Thirdly, the CPS data used in the present study significantly undercounted some groups of migrants (Passel, Cohn, and Gonzalez-Barrera 2013). These are criticisms that this project cannot address, but can be considered in future research, with larger samples and longer study periods. Further research using additional sources of data with larger samples would help establish a baseline for exploring potential future trends in migration and ethnic segregation in the region.

Nevertheless, we can say with confidence that, as compared to Hispanics, Anglos have had greater geographic mobility. Anglos were overrepresented not only among leavers, but also among newcomers and local migrants. They were not ‘pushed’ from the Valley by a growing Mexican-American population but became spatially more concentrated in a more ethnically diverse and affluent neighborhoods. Consequently, some RGV neighborhoods are becoming exclusively Mexican American, while others maintain a significant degree of ethnic diversity.

As stated above, over the past two decades the Valley, on the whole, has experienced a tremendous population growth. However, this growth was uneven. The majority of it occurred in Hidalgo County which contains one of the fastest growing MSA’s in the nation – McAllen-Edinburg-Mission MSA (Frey 2012). The population of this MSA more than doubled over the past two decades, while the population growth in the RGV as a whole was little less than 75%. The McAllen-Edinburg-Mission MSA is 80% Hispanic, while the percentage of Hispanic in the Valley as a whole is 90%.

In essence, the spatial inequality in the McAllen-Edinburg-Mission MSA places the area closer to the cities of the developing world (e.g., South Africa), with their more developed urban core and much less developed suburbs, rather than to a typical American metropolis. Indeed, the aforementioned metropolitan area retains economic vitality and remains ethnically diverse, while being surrounded by mono-ethnic and poverty-ridden ‘colonias’, local equivalents of Soweto in Johannesburg or favelas of Rio de Janeiro.

The outflow of domestic migrants from the RGV was compensated by a stream of inbound domestic migrants the demographics of which is somewhat different from the leavers. As compared to leavers, newcomers appear to be older, less educated and motivated by relatively low housing prices in the area. Of particular interest to future research can become an unyielding

stream of Winter Texans. The implications for the local economy are mainly positive: The RGV welcomes an influx of older non-Hispanic migrants because the Valley competes with other regions (e.g., Florida, California), successfully or not, for high-value real estate investment and affluent retirement communities.

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Table 1. Characteristics (Weighted Percentages) of Adult RGV Residents by Their Migration Status (1986-2013).

<b>Characteristic</b>	<b>(A) Stayers</b>	<b>(B) Leavers</b>	<b>(C) Newcomers</b>	<b>(D) Local Migrants</b>
<b><i>Ethnicity</i></b>				
Mexican-American	82.93 <sup>BCD</sup>	78.51 <sup>A</sup>	77.45 <sup>AD</sup>	79.08 <sup>AC</sup>
Non-Hispanic or Anglo	13.20 <sup>BCD</sup>	17.23 <sup>AC</sup>	20.36 <sup>ABD</sup>	16.77 <sup>AC</sup>
Hispanic of Non-Mexican Ancestry	3.87 <sup>BCD</sup>	4.26 <sup>AC</sup>	2.23 <sup>ABD</sup>	4.15 <sup>AC</sup>
<b><i>Nativity and Citizenship</i></b>				
Both Parents Are Native Born <sup>a</sup>	57.02 <sup>BC</sup>	67.23 <sup>ACD</sup>	72.45 <sup>ABD</sup>	58.08 <sup>BC</sup>
One or Both Parents Are Foreign Born <sup>a</sup>	16.85 <sup>BC</sup>	13.16 <sup>AD</sup>	13.81 <sup>AD</sup>	17.27 <sup>BC</sup>
Not a citizen <sup>b</sup>	19.34 <sup>BCD</sup>	16.70 <sup>AC</sup>	10.59 <sup>ABD</sup>	16.43 <sup>AC</sup>
Naturalized citizen <sup>b</sup>	6.80 <sup>BCD</sup>	2.87 <sup>AD</sup>	3.22 <sup>AD</sup>	8.29 <sup>ABC</sup>
<b><i>Marital Status</i></b>				
Married	69.28 <sup>BD</sup>	62.52 <sup>AC</sup>	69.50 <sup>BD</sup>	61.74 <sup>AC</sup>
Separated or Divorced	11.27 <sup>BCD</sup>	15.89 <sup>ACD</sup>	13.86 <sup>ABD</sup>	19.63 <sup>ABC</sup>
Widowed	7.53 <sup>BCD</sup>	4.45 <sup>AD</sup>	4.59 <sup>AD</sup>	3.68 <sup>ABC</sup>
Never Married	11.90 <sup>BD</sup>	17.14 <sup>ACD</sup>	12.03 <sup>BD</sup>	14.94 <sup>ABC</sup>
<b><i>Socioeconomic Status</i></b>				
Less than High School	41.19 <sup>BCD</sup>	36.82 <sup>AC</sup>	31.80 <sup>ABD</sup>	37.50 <sup>AC</sup>
High School or Some College	45.70 <sup>BCD</sup>	42.92 <sup>ACD</sup>	53.00 <sup>AB</sup>	51.95 <sup>AB</sup>
Bachelor's degree or higher	13.11 <sup>BCD</sup>	20.26 <sup>ACD</sup>	15.20 <sup>ABD</sup>	10.54 <sup>ABC</sup>
In Labor Force	58.71 <sup>BCD</sup>	67.88 <sup>AC</sup>	51.15 <sup>ABD</sup>	68.16 <sup>AC</sup>
Homeowner	80.34 <sup>BCD</sup>	41.20 <sup>ACD</sup>	51.28 <sup>ABD</sup>	43.46 <sup>ABC</sup>
<b><i>Other Controls</i></b>				
Average Age (25 or older) <sup>c</sup>	48.62 <sup>BCD</sup>	41.23 <sup>ACD</sup>	54.39 <sup>ABD</sup>	46.29 <sup>ABC</sup>
Gender (Male)	43.62 <sup>BCD</sup>	46.37 <sup>A</sup>	46.06 <sup>A</sup>	45.84 <sup>A</sup>
<b><i>Weighted Sample Size (Millions of Persons)</i></b>				
	44,757,701	1,087,648	1,259,366	4,384,701

Note: a- Respondent is born in the U.S.; b- Respondent is foreign born; c- Years.

The means marked with letters A, B, C and D are statistically significantly different at the 0.05 or lower level. These letters correspond to the migration status group from which a specific group differs significantly: A -Stayers, B- Leavers, C- Newcomers, D- Local Migrants. Statistical significance was tested using Bonferroni multiple means comparison procedure.

Table 2. Reasons for Migration (Weighted Percentages of Positive Responses), 1999-2013.

Migrants	Employment/Career	Family	Housing	Other
(A) Leavers	26.3 <sup>BC</sup>	37.5 <sup>BC</sup>	35.4 <sup>BC</sup>	0.8 <sup>BC</sup>
(B) Newcomers	6.3 <sup>AC</sup>	18.4 <sup>AC</sup>	72.5 <sup>AC</sup>	2.8 <sup>AC</sup>
(C) Local Migrants	3.8 <sup>AB</sup>	42.0 <sup>AB</sup>	49.6 <sup>AB</sup>	4.6 <sup>AB</sup>
All Migrants	10.2	34.8	51.7	3.3

The means marked with letters A, B and C are statistically significantly different at the 0.05 or lower level. These letters correspond to the migration status group from which a specific group differs significantly: A - Leavers, B- Newcomers, C- Local Migrants. Statistical significance was tested using Bonferroni's multiple mean comparison procedure.

Table 3. Logistic Regression Models Predicting the Odds Ratios (and Their Standard Errors in Parenthesis) of Out-Migration among the Adult RGV Residents (1986-2013).

<b>Variables</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>	<b>Model 5</b>
<b><i>Ethnicity</i></b>					
Non-Hispanic or Anglo	1.271 (0.098)*	1.140 (0.101)	1.157 (0.101)	1.205 (0.111)*	1.463 (0.114)***
Hispanic of Non-Mexican Ancestry	1.541 (0.163)***	1.548 (0.164)***	1.556 (0.164)***	1.557 (0.175)**	1.681 (0.177)***
<b><i>Nativity and Citizenship</i></b>					
One or Both Parents Are Foreign Born		0.580 (0.103)***	0.577 (0.103)***	0.645 (0.110)***	0.638 (0.111)***
Not a citizen		0.890 (0.084)	0.970 (0.084)	0.774 (0.093)**	0.824 (0.094)**
Naturalized citizen		0.371 (0.186)***	0.387 (0.187)***	0.529 (0.193)***	0.657 (0.195)**
<b><i>Marital Status</i></b>					
Separated or Divorced			1.533 (0.098)***	1.136 (0.104)	1.311 (0.107)**
Widowed			0.556 (0.173)***	0.657 (0.182)**	1.448 (0.196)*
Never Married			0.989 (0.082)	0.835 (0.086)**	0.568 (0.093)***
<b><i>Socioeconomic Status (SES)</i></b>					
Less than High School				1.257 (0.112)**	1.358 (0.114)***
Bachelor's degree or higher				1.867 (0.174)***	1.945 (0.176)***
Employed				1.306 (0.074)***	1.058 (0.078)
Homeowner				0.172 (0.069)***	0.198 (0.070)***
<b><i>Controls</i></b>					
Average Age					0.968 (0.003)**
Gender (Male)					1.165 (0.072)**
-2 Log likelihood	6,813	6,753	6,718	6,018	5,883

Note: All estimates are weighted and adjust for design effects. Reference categories: Nativity and Citizenship – Respondent and Both Parents Are Native Born; Marital Status – Married, Education – High School or Some College but no Bachelor's Degree; Employment Status – Not in Labor Force; Homeownership Status – Renter; Gender – Female.

\* $p < 0.1$ . \*\* $p < 0.05$ . \*\*\* $p < 0.01$

Table 4. Characteristics of RGV Census Tracts, 1990.

	<b>Weighted Percentage</b>	<b>Minimum</b>	<b>Maximum</b>
<b><i>Hispanic Population</i></b>			
1990	80.22	20.08	97.33
2010	91.68	19.14	100.00
<b><i>Dissimilarity Index</i></b>			
1990	0.42	0.19	0.78
2010	0.41	0.14	0.91
<b><i>Nativity and Assimilation</i></b>			
Native Born	72.30	32.08	96.93
Spanish Spoken at Home	83.08	27.95	100.00
<b><i>Education (Ages 25 and over)</i></b>			
Less than High School	41.71	3.37	68.90
High School or Some College but no Bachelor's Degree	54.06	12.91	71.77
Bachelor's degree or higher	4.23	0.00	33.51
<b><i>Income</i></b>			
Population in Poverty	34.99	5.09	100.00
Income per Capita <sup>a</sup>	9,975	1,384	31,755
<b><i>Occupation (Industry)</i></b>			
Farming, Fishing, and Forestry	2.85	0.00	32.97
Construction	6.59	0.00	86.42

Note: <sup>a</sup> –1990 U.S. Dollars.

Table 5. OLS Regression Coefficients (and Standard Errors in Parenthesis) of Predictors of the Index of Dissimilarity in the RGV Census Tracts (1990-2010).

<b>Variables</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>	<b>Model 5</b>
	0.215 (0.074)**	0.708 (0.059)***	0.761 (0.046)***	0.735 (0.042)***	0.741 (0.042)***
<b><i>Percentage Hispanic Nativity and Assimilation</i></b>					
Native Born		-0.309 (0.069)***	-0.134 (0.056)*	-0.160 (0.050)**	-0.177 (0.052)**
Spanish Spoken at Home		0.432 (0.045)***	0.317 (0.035)***	0.316 (0.032)***	0.309 (0.032)***
<b><i>Education</i></b>					
Less than High School			0.201 (0.042)***	0.016 (0.046)	0.029 (0.047)
Bachelor's degree or higher			-0.607 (0.121)***	-0.338 (0.127)***	-0.338 (0.129)**
<b><i>Income</i></b>					
Population in Poverty				0.172 (0.037)***	0.184 (0.038)***
Income per Capita <sup>a</sup>				-0.303 (0.096)***	-0.320 (0.098)***
<b><i>Occupation (Industry)</i></b>					
Farming, Fishing, and Forestry					-0.030 (0.065)
Construction					0.070 (0.044)
R Square	0.019	0.162	0.202	0.212	0.212
Nested F Test		61.435***	29.156***	38.922***	1.293

Note: All estimates are weighted by total resident population. All independent variables were measured in 1990. Reference categories: Native Born – Foreign Born; Education – High School or Some College but no Bachelor's Degree.

\* $p < 0.1$ . \*\* $p < 0.05$ . \*\*\* $p < 0.01$