Reconsidering Black (and White) Migration to the South:
A Model and Measure of the Temporal Dynamics of Migration Flows

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ABSTRACT

Using a recent extension of increment-decrement multiregional life tables, we derive county-level estimates of both black and white *migrants' expected time of residence* in southern U.S. counties for each decade over the 1970-2000 period. Place-based descriptive research shows that negative net-migration in the South reversed course in the 1960s, leading to a "Great Return Migration" in subsequent decades. However, to date, no formal demographic studies have examined how long these migrants ultimately remained in the South. This oversight is potentially consequential since the mechanisms by which migration might have shaped social and economic life in the South, e.g., selection, depend not just on the size of migration flows, but also on their temporal stability, a key structural factor in theories of social disorganization. This research thus offers a new and innovative approach for reexamining what is arguably one of the most important demographic shifts in recent U.S. history.

ABSTRACT

In his paper, "The New Great Migration: Black Americans' Return to the South, 1965-2000," Frey (2004:2) notes that the U.S. South "has developed into a regional magnet for blacks" and whites in recent decades. His assertion comes on the heels of more than 30 years of research documenting, what Campbell et al. (1974:515) called, a substantial "'return' migration" to the South. Findings from descriptive research are unambiguous. By the mid- to late-1970s, the South had experienced a net-migration reversal (Cromartie and Stack 1989; Long and Hansen 1977; McHugh 1987, 1988; Robinson 1990). Gone were the days of negative net-migration, a remnant of white emigration (Alexander 2005; Long and Hansen 1975) and the Great Migration of nearly six million blacks out of the South in the early 1900s and, again, after World War II (Tolnay 2003). A new era had dawned, marked by economic growth in the South relative to the Midwest and Northeast (Greenwood 1981), the dismantling of Jim Crow, and the call to return home (broadly defined) to one's cultural and familial roots in the South (Stack 1996).

The role of this migration reversal in shaping social and economic life in the South is a topic of debate (Curtis 2009; Curtis and DeWaard 2011); however, research suggests that compositional changes to local labor markets and populations, in conjunction with migrants' selectivity, likely contributed to overall reductions in racial stratification and inequality in the region (Curtis in press; Kornrich 2009; Lieberson 1980; Lieberson and Wilkinson 1976). Much of this research is based on ideas from group-threat theory (Blalock 1967), that migration to the South should be described and its effects assessed with respect to the *size* of flows and, relatedly, changes in the relative *sizes* of the black and white populations in receiving areas (Frey 1998, 2001, 2004). Yet, in addition to group size, theories of social disorganization emphasize another key "structural" factor,[1] the *stability* of groups in places, which is characterized in the literature as essentially "a temporal process" (Sampson and Groves 1989:777; Shaw and McKay 1942; Sutherland 1934).

In what follows, we provide a descriptive portrait of the temporal dynamics of black and white migration flows to southern counties. In contrast to previous research, which analyzes changes in the absolute and relative size of migration flows to the South, we summarize the temporal stability of these flows in southern counties. Using a multiregional "bridge" model (DeWaard in press), we exploit the systems-oriented nature of county-to-county migration flows in the lower 48 states to generate a set of conditional period life expectancies for each southern county. These estimates summarize the average amount of time (in years) that black and white migrants from the non-South could be expected to live in each southern county over their lifetime assuming that the prevailing rates of age- and origin-destination specific migration in each of the four census periods between 1970 and 2000 remained constant. These durations, which we call *migrants' expected time of residence*, generate new insights on the migration of blacks and whites to the South in recent decades, and also raise new questions for future research about the role of the temporal dynamics of migration flows in shaping social and economic life in the region.

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[1] In social disorganization theory, the term *structural* is used more or less synonymously with *place*.

BACKGROUND

Southern Expansion

The second half of the twentieth century experienced profound economic and demographic changes. Cities in the Northeast and Midwest that had previously attracted black and white migrants from the South 50 years earlier began to experience rapid economic change. With deindustrialization, blue-collar workers in many cities were hit especially hard (Kasarda 1995). The employment and earnings potentials of both black and white workers, especially men, were substantially undercut given the spatial mismatch between jobs and workers. Moreover, entrenched legacies of residential segregation in many cities, the "structural lynchpin" of U.S. racial domination (Massey and Denton 1993; Pettigrew 1979:114), meant that these changes had a more damaging impact on the black community, which some have tied to a cultural shift evidenced by declining rates of black marriage, the feminization and juvenilization of poverty, and the emergence of a black underclass (Pearce 1970; Wilson 1987).

While the Northeast and Midwest regions of the United States were declining, the South was expanding. Manufacturing and service industries in the South were growing, and a solid middle class was burgeoning. Economic growth, coupled with the dismantling of Jim Crow, provided a strong incentive for former emigrants from the South and their descendants to return home to the region (Adelman et al. 2010; McHugh 1988), and also encouraged "primary" migrants with no ties to the region to embark on a first migration to the South (Tolnay 2003:210). For many transplants to the South, a "call to home" has been said to characterize the set of familial and cultural bonds to the region (Stack 1996), which catalyzed return migration and also generated "channelized" flows between specific sending and receiving places that would persist into the twenty-first century (Frey 2001, 2004; McHugh 1987:175).

These push and pull factors contributed to an overall net-migration reversal in the South. The origins of this reversal can be located as early as the late 1950s for whites (Long and Hansen 1975) and the late 1960s for blacks (Ayers 1974; Campbell et al. 1974; Lee 1974). According to McHugh (1987), only two out of 14 states in the South (Maryland and Texas) and the District of Columbia experienced positive black net-migration between 1965 and 1970. By 1980, however, all but four states (Alabama, Arkansas, Louisiana, and Mississippi) and the District of Columbia reversed course, posting positive black net-migration for the first time in recent decades. In both absolute and relative terms, this migration reversal was much more pronounced among whites (Long and Hansen 1975). Nonetheless, these patterns "accelerated dramatically" for blacks and whites going into the 1990s (Frey 1998:1), resulting in positive black and white net-migration for the South as whole. These trends, Frey (2001, 2004) has argued, have served to further reinforce the South's entrenched black-white demographic profile.

Frey (2004:1) termed the above net-migration reversal as a "New Great Migration." Although this label expresses a connection to and, in many ways, transition from the Great Migration of blacks out of the region 50 years earlier, it should not be taken literally. In a historical context,

the idea of blacks *returning* to the South is about both actual and imagined familial and cultural bonds to the region. Cromartie and Stack (1989:309) observed that many black migrants to the South were not actually born in the region, and were engaged in processes of returning "home" (broadly defined) to the "communities of their grand-parents and parents, often to the locales of their childhood" and, in many cases, after their own retirement (Longino and Smith 1991).

Consider the example of Mary Louis Jones, who was interviewed as part of an article appearing in the *New York Times* on black return migration to the South (Ayers 1974). Raised in Detroit, Jones spent her childhood summers with family in the South. After finishing school, she moved to the South, to Montgomery, her mother's childhood home. Her experiences are not unique. Stories of this sort are recounted in Stack's (1996), *Call to Home: African-Americans Reclaim the Rural South*, and also in numerous fictional accounts (Murari 1980). Moreover, these stories are not outdated historical relics, and continue to be evoked in recent scholarly and popular works (Bilefsky 2011). Many of the insights generated about return migration (broadly conceived) to the South are not limited to the experiences of black migrants. As Alexander (2005:665) noted, there was also "a strong and significant counter-stream before the heralded turnaround of the 1970s, particularly for southern whites" (see also Berry 2000).

Accompanying descriptive research on this net-migration reversal in the South, scholars have also investigated the role of these migration patterns in shaping social and economic life in the region. Curtis (in press), for example, found that both total poverty levels and the black-white poverty gap in the South declined considerably between 1970 and 2000, due in part to the fact that migrants are typically positively selected on education and human capital (DaVanzo 1976; Frey 2004; Lieberson and Wilkinson 1976; Long and Hansen 1977). These migration patterns could also have changed the racial balance of black and white populations in the South (Curtis and DeWaard 2011), and further contributed to a racial restructuring and glutting of local labor queues (Lieberson 1980; Kornrich 2009; Reskin 1991).

The Temporal Dynamics of Migration

While the above line of research is important for understanding the contribution of migration to, for example, aggravating and/or ameliorating racial inequality in the South, the argument of this paper is that these efforts are premature. Research on the effects of migration in shaping social and economic life in the South is grounded theoretically in group-threat theory (Blalock 1967), which suggests that any effects of migration to the South are felt with respect to the *size* of migration flows, and in any corresponding changes in the relative *sizes* of the black and white populations in receiving areas. Critically, early theories of social disorganization also stressed another important "structural" factor, the *stability* of groups in places, which is described in the literature as inherently "a temporal process" (Sampson and Groves 1989:777; Shaw and McKay 1942; Sutherland 1934). The primary aim of this paper is to provide one of the first place-based descriptive portraits of the temporal dynamics of black and white migration flows to the South.

Despite the fact that the sizes of the black and white populations in the South increased over time on account of positive net-migration (Frey 1998, 2001),[2] in the process, receiving areas in the South experienced varying levels of population turnover (Frey 2004; Lee 1974; Long and Hansen 1975; McHugh 1987; Perry et al. 2001), which, *on balance*, resulted in net-population growth. This is where descriptive research on place-based patterns of migration to the South ends, and the work in the current paper begins. Given the "weakness[es] of net migration as a measure of geographical mobility" (Rogers 1990:284), we exploit the systems-oriented nature of migration flows to, and population turnover in, the South to summarize the "holding power" of receiving areas in explicitly temporal terms (Herting et al. 1997:268; Mabougunje 1970), what DeWaard and Raymer (2012:544) called the "temporal dynamics" of migration flows (see also DeWaard in press).

Place-based descriptive work on migration to the South has failed to address a fundamental issue which underlies current debates on the potential social and economic implications of these population-level movements, namely whether these migrations were ultimately long- or short-term. That the temporal dynamics of migration to the South have not been examined in place-based descriptive work to date is a potentially significant omission since theories of social disorganization have long cited the "stability" of populations as one of three structural factors which shape the very "social fabric" of places by structuring opportunities for local residents to recognize and interact with one another in constructive ways (Sampson and Groves 1989:780), and also contributing to variation in these "contact situation(s)" across time and space (Cook 1962:74; Pettigrew 1998).

While our work is new, it ultimately has roots in earlier research on the axiom of cumulative inertia (McGinnis 1968; McGinnis and Pilger 1963; Morrison 1967; Myers et al. 1967; Roseman 1971; Toney 1976). This is the idea that an individual's time of residence in a locale lowers the probability of emigration, and, thereby, contributes to a reduction in population turnover at the level of place (Herting et al. 1997; Land 1969). Our work in this paper is an extension of this idea. Rather than focusing on individuals, e.g., see Falk et al. (2004), we exploit the age- and origin-destination structure of migration flows to produce a place-based temporal measure of migration in southern counties. We do this using a multiregional (Rogers 1975, 2995; Schoen 1988) population model, recently extended by DeWaard (in press), to generate a variant of conditional period life expectancy for black and white migrants in southern counties for each decade over the 1970-2000 period. This quantity, termed *migrants' expected time of residence* (DeWaard in press; DeWaard and Raymer 2012), offers a new and innovative glimpse into the temporal dynamics of black and white migration flows to South. Our work aims inform to how future work conceptualizes and assesses the role of migration in shaping social and economic life in the South in ways beyond changes in the size of migration flows to the region and rooted in migrant stability in place.

Expectations

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[2] This is not to ignore the roles of fertility and mortality.

Against the backdrop of existing place-based research on the net-migration patterns of both blacks and whites in the South, we present a set of expectations about how our results might look if the temporal dynamics of migration flows to the region were comparable to net-migration patterns. We likewise draw from migration theory and other empirical evidence to inform our expectations.

First, we anticipate that black and white migrants' expected time of residence in the South would have changed over time, particularly after the 1970s, when the "New Great Migration" was more or less in full swing (Frey 2004:1). We further anticipate that the direction of these changes over time would most likely have favored increases in black and white migrants' expected time of residence in the South, given Frey's (1998:1) assertion that migration to the region had "accelerated dramatically" by the 1990s, a product of considerable economic expansion and opportunities in the South relative to the Midwest and Northeast (Greenwood 1981; Kasarda 1995).

Second, we expect that migrants' expected time of residence in the South will be longer for black migrants as compared to white migrants. In migration theory, migration patterns can be understood as an aggregate manifestation of households' aversions to uncertainty and risk (Massey et al. 1998), primarily in sending regions (Stark and Bloom 1985), but not excluding receiving areas (Todaro 1976). Recent work on the temporal dynamics of international migration suggests that migrants typically reside for longer when the cost of the move was higher. For example, migrants resided for longer periods of time in receiving countries to which they migrated with greater risks attached (DeWaard in press), e.g., uncertainty in obtaining employment. Accordingly, Alexander's (2005:654) observation that white migrants to the South "did not have to travel long distances,…face discrimination… [and] were not in extreme poverty," leads us to expect that black migrants' expected time of residence in the South would be higher than white migrants given the potentially and comparatively greater risks associated with these movements.

Third, regarding the respective spatial distributions and concentrations of black and white migrants' expected time of residence across southern counties, prior descriptive work on net-migration patterns suggests increased spatial clustering over time (McHugh 1987). Accordingly, we expect the highest times of residence for black migrants to be clustered in the lower South, extending up and through the Mississippi Delta (Frey 2001; Longino and Smith 1991; McHugh 1987). Our expectation for white migrants is to see relatively stronger spatial clustering among counties in and around Appalachia (Alexander 2005).

Fourth, we likewise expect to see variation in migrants' expected time of residence by age group similarly for black and white migrants. The measure of migrants' expected time of residence derived and analyzed in this paper is a variant of conditional period life expectancy. As a result, it is more strongly influenced by events, e.g., migration, at younger versus older ages (DeWaard in press). Accordingly, while we should see that overall trends in migrants' expected time of residence are driven by the migration patterns of working-age (15-64) migrants relative to migrants of retirement-age (65+), we also expect to see greater volatility in

the times of residence among the former since the migration patterns of working-age migrants are more closely linked to labor market conditions (Beale and Fuguitt 2008; Campbell et al. 1974; Frey 2004; Long and Hansen 1973; Rogers and Castro 1981; Rogers and Raymer 2008).

Our final expectation is that sending region also matters. Recalling our earlier discussion of the push-factors associated with the Midwest and Northeast regions of the United States (Kasarda 1995; Massey and Denton 1993; Wilson 1987), we expect that black and white migrants from these regions would have considerably more in the way of motivation to both establish and maintain permanent roots in the South relative to migrants from the West. That said, because distance is a proxy for various costs and risks associated with migration (DeWaard et al. 2012; Greenwood 1997; Zipf 1946), it is possible that any variation in migrants' expected time of residence in southern counties by sending region (Midwest and Northwest versus West) might not emerge. In effect, we also anticipate that the role of push-factors in the Midwest and Northeast may be offset by the relatively higher costs and risks associated with migrating from the West, which, as we noted above, have been tied to longer durations of residence in studies of international migration (DeWaard in press).

ANALYTICAL APPROACH

Place-based descriptive research on black and white net-migration in the South is problematic because it confounds very different migration propensities that are age- and origin-destination specific (Ledent 1981; Philipov and Rogers 1981). Keyfitz (1977:14-18) called this the "aggregate bias" problem, which Rogers (1990:286) later termed a "uniregional fallacy." The problem boils down to the fact that migration is inherently a dynamic process, and, so, requires both models and measures that exploit the interconnected and systems-oriented nature of migration flows (DeWaard and Raymer 2012; Fawcett 1989; Kritz et al. 1992; Mabogunje 1978). Multiregional population models provide one such tool for doing so (Rogers 1975; 1995; Schoen 1988).

Below, we describe a recent variant of multiregional model (DeWaard in press), which exploits the age- and origin-destination structure of migration flows among counties in the contiguous United States to produce estimates of black and white migrants' expected time of residence in southern counties. These quantities summarize the average number of years that a migrant from the non-South could be expected to live in a southern county over the course of her life given the prevailing rates of age- and origin-destination specific migration observed in any one of four census periods (detailed below).

A Multiregional "Bridge" Model

Following the specifications recently proposed by DeWaard (in press), we use a multiregional bridge model to summarize the temporal dynamics of black and white migration in southern counties. Migrants' expected time (years) of residence in southern receiving county j, $e_x^{\sim jj}$, is

defined as the average number of years that a person living outside of *j*, in any non-southern county, at exact age *x* could be expected to live in *j* over the course of their life above age *x*.[3]

$$e_x^{\sim jj} = \frac{T_x^{\sim jj}}{{}^j l_x^{\sim j}}, \quad \sim j \notin \text{South} \tag{1}$$

As in standard multiregional models (Rogers 1975, 1995; Schoen 1988), $T_x^{\sim jj}$ is the number of person-years lived in southern receiving county *j* beyond age *x* by migrants, as defined above. However, unlike in standard multiregional models, where the denominator in (1) includes the set of all *potential* migrants to *j*, $l_x^{\sim j}$, the main innovation of a multiregional bridge model is to capture only *actual* migrants to *j*. Thus, ${}^j l_x^{\sim j}$ is a count of persons who, at age *x*, live outside of southern receiving country *j*, in any non-southern county, and migrate to *j* at least once above age *x*, i.e., at any age and from any sending county.

Research on black and white net-migration in the South focuses only on the *direct* migration connections between places. Our work further considers the various *indirect* linkages between counties. For example, suppose that we wished to estimate the average time of residence lived by black migrants from the non-South in Fulton County, Georgia, where Atlanta is located. In a multiregional model, one not only tracks the direct migration connections between counties, e.g., between Cook County, Illinois, where Chicago is located, and Fulton County, but also each of the indirect connections between places, e.g., between Cook County and Fulton County *via* Montgomery County, Alabama. Of course, one need not stop here. For instance, one could also consider the indirect connection between Cook and Fulton Counties via multiple intermediary destinations, e.g., Montgomery County, followed by DeKalb County, Georgia (east of Atlanta), and, finally, to Fulton County. Thus, the logic of multiregional models is to exploit the age- and origin-destination structure an entire *system* of migration flows. As we discuss, in our case, we exploit the entire system of county-to-county migration flows in order to produce estimates of migrants' expected time of residence in (1) for each southern county.

To generate these quantities, we follow the migration (and mortality) transitions of a synthetic cohort of persons who begin their lives at age *x* outside of each southern receiving county *j*, in any non-southern county. In a multiregional bridge model, the population dynamics governing these movements are the same as in standard multiregional models, e.g., see Palloni (2001):

$$\mathbf{l}(\mathbf{x} + \mathbf{n}) = \mathbf{l}(\mathbf{x})\mathbf{Q}(\mathbf{x}) \tag{2}$$

The key difference between a multiregional bridge model and standard multiregional models lies in the specifications of the $\mathbf{l}(\mathbf{x})$ vectors of survivors to each age *x* and $\mathbf{Q}(\mathbf{x})$ matrices of age-specific county-to-county transition probabilities.[4]

$$\mathbf{l}(\mathbf{x}) = \begin{bmatrix} l_x^d & l_x^k & \cdots & l_x^i & l_x^{j'} & l_x^{i'} & \cdots & l_x^{k'} & l_x^{d'} \end{bmatrix} \qquad (3)$$

$$\mathbf{Q}(\mathbf{x}) = \begin{bmatrix}
1 & 0 & \cdots & 0 & 0 & 0 & \cdots & 0 & 0 \\
q_x^{kd} & q_x^{kk} & \cdots & q_x^{ki} & q_x^{kj} & 0 & \cdots & 0 & 0 \\
\vdots & \vdots & \ddots & \vdots & \vdots & 0 & \iddots & \vdots & \vdots \\
q_x^{id} & q_x^{ik} & \cdots & q_x^{ii} & q_x^{ij} & 0 & \cdots & 0 & 0 \\
0 & 0 & \cdots & 0 & q_x^{jj} & q_x^{ji} & \cdots & q_x^{jk} & q_x^{jd} \\
0 & 0 & \cdots & 0 & q_x^{ij} & q_x^{ii} & \cdots & q_x^{ik} & q_x^{id} \\
\vdots & \vdots & \iddots & 0 & \vdots & \vdots & \ddots & \vdots & \vdots \\
0 & 0 & \cdots & 0 & q_x^{kj} & q_x^{ki} & \cdots & q_x^{kk} & q_x^{kd} \\
0 & 0 & \cdots & 0 & 0 & 0 & \cdots & 0 & 1
\end{bmatrix} \qquad (4)$$

The inputs in (3) and (4) are assembled and the model in (2) is run for each southern receiving county j, one at a time. In each $\mathbf{l}(\mathbf{x})$ vector, l_x^i ($i=1,2,…,k$) is a count of persons in county i at the start of the age interval x to $x+n$ who have never migrated to southern receiving county j prior to age x. And $l_x^{i'}$ is a count of persons in i who have migrated to southern receiving county j at least once prior to age x. To accommodate mortality, l_x^d, is a count of persons who have died by age x without having migrated to southern receiving county j. And $l_x^{d'}$ is a count of persons who died by age x and migrated to receiving county j at least once (regardless of whether they were living in j upon dying).

In standard multiregional models, we "start" a hypothetical birth cohort in each non-southern sending county in (3) at exact age zero. The sizes of these starting populations, l_0^i ($i=1,2,…,k$ for $i \notin$ South) is arbitrary, but, like in standard multiregional models, these are assumed constant. We then permit persons from non-southern sending counties to migrate (and die). At each age x, these transitions are governed by the county-to-county transition probabilities, shown in (4). For example, q_x^{ij}, is the probability of migrating from county i to county j between the ages of x and $x+n$. In examining the $\mathbf{l}(\mathbf{x})$ vectors and $\mathbf{Q}(\mathbf{x})$ matrices, in a multiregional bridge model, it is clear that we are essentially treating southern receiving country j as a *pseudo-absorbing*.[5] That is, as persons migrate to southern receiving county j from non-southern sending counties, they are absorbed into a parallel system comprised of persons who, at one or more ages prior to age x, migrated to j at least once during the course of their lives.[6]

Working our way through each age interval, a multiregional bridge model has the convenient feature of providing a count of any/all persons who have ever migrated to southern receiving

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[5] Again, the multiregional bridge model is estimated for each and every southern receiving county j, one at a time.
[6] This is shown in the lower-right quadrant of the matrices in (4); hence, the label, multiregional *bridge* model.

county *j* by closing out the multiregional life table and counting up the number of persons who have died and also migrated to *j* at some point (age) during their lives.

$$^{j}l_x^{\sim j} = l_\infty^{d'} \tag{5}$$

where ∞ is the closing age in the multiregional life table.

The quantity in (5) is a count of actual (versus potential) migrants to southern receiving county *j*, and allows us to arrive at estimates of migrants expected time of residence in *j*, $e_x^{\sim jj}$, detailed earlier in (1). One then repeats this process, i.e., estimates a separate model, for each southern receiving county. In our analysis, we do this for blacks and whites separately and in each of the four census periods detailed below.

County-to-County Migration Flow Data

The data in this study are taken from the U.S. Census' county-to-county migration flow files, disaggregated by age and race, for four census periods: 1965-1970, 1975-1980, 1985-1990 and 1995-2000. Hereafter, we refer to each census period by the closing year, e.g., the 1995-2000 period is referred to as the year 2000. Any given record from any of these files summarizes the size of the migration flow from sending county *i* to receiving county *j* between the ages of *x* and *x+5* in a given census period for blacks and whites separately.[7] The data are adjusted to reflect county boundaries in 1970.[8] In all, we analyze 1,310,757,120 potential flows through migration and to death.[9] [10]

While we look to exploit the systems-oriented nature of these flows with respect to their age- and origin-destination structure, as detailed earlier, we also wish to preserve local variability within the South. Thus, we do not aggregate up to larger aerial units, e.g., MSAs or states, and, instead, focus our analysis on southern counties. If, as we suggest in the conclusion of this paper, one potential extension of our work is to incorporate the measure of migrants' expected time of residence in southern counties into explanatory models to gauge the effects of migration on racial inequality in the region (Beggs et al. 1997; Curtis and DeWaard 2011), then the utility of providing a more local "eco-metric" cannot be understated (Raudenbush and Sampson 1999). Thus, the county-level is viewed here as an appropriate starting point.

Finally, in the following section, we employ two selection criteria when presenting our results. First, our summaries are limited to southern counties for which $^{j}l_x^{\sim j} > 0$ in the multiregional bridge model. In essence, this requires that southern counties experienced some (any) volume

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[7] In the data, *x ≥ 5* in five-year increments.
[8] County boundaries definitions are taken from the National Historic Geographic Information System (NHGIS).
[9] 1,310,757,120 = 3,104 sending counties X 3,104 receiving counties (including for *i=j*) + death X 17 five-year age intervals (note, the data begin at age five) X 4 census periods X 2 race groups (blacks and whites).
[10] Mortality data are taken from National Vital Statistics Reports in 1970, 1980, 1990, and 2000, as provided by the Centers for Disease Control and Prevention

of migration.[11] Second, consistent with previous research on net-migration in the South, black and white migrants' expected time of residence is reported for southern counties with a total population greater than 1,000 blacks and whites (Fuguitt and Beale 1978), respectively, in the given census period. This ensures that the results presented are purged to some extent of any noise due to migration probabilities calculated with small denominators, i.e., small population at risk of migrating.[12]

RESULTS

Migrants' Expected Time of Residence: Magnitude, Change, and Black-White Differences

Our first expectation is that black and white migrants' expected time of residence in southern counties changed after the 1970s; moreover, given the trends in the net-migration patterns of blacks and whites, we anticipate that these expected times of residence should have increased over time. We examine if this intuition is borne out in our estimates in Figure 1.

-----FIGURE 1 ABOUT HERE-----

Figure 1 displays the estimates of both black and white migrants' expected time of residence, averaged across all southern counties, for each census period from 1970-2000. The error bars displayed correspond to ± 1 standard deviations to provide a sense of the distributions of these quantities by race in each period.

A number of observations can be made about the estimates displayed in Figure 1. First, as we expected from previous research on net-migration in the South during this time, there is a fairly pronounced increase in both black and white migrants' expected time of residence in the South between 1970 and 1980. Substantively, this is consistent with the idea that there was a certain draw of the South during this period, especially for blacks, resulting in what appears to be a new migration regime which attracted migrants to the region who effectively set up relatively longer-term roots than in earlier decades. This is consistent with our second expectation that relocating to the South could have been a risk-aversion strategy for blacks and whites (Stark and Bloom 1985). However, as we noted earlier, the costs and risks associated with migrating to South were arguably less for whites than blacks (Alexander 2005); thus, the key takeaway is that black migrants' ultimately stayed for longer in the southern counties than whites (at least prior to 2000) to recoup the costs associated with relocating to the South (DeWaard in press).

For white migrants, this migration regime looks to have remained about in place through the year 2000. The same is not true for black migrants. Between 1980 and 1990, black migrants'

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[11] It also ensures that the quantities in (1) are defined.

[12] This criterion does not significantly change our results, nor does it change our substantive conclusions in any way, and is merely a noise reduction strategy. In implementing this criterion, we are thinking primarily about those in applied settings who may be interested in using the measure of migrants' expected time of residence as a local planning tool, and so wish to be cautious about the potential for artifacts in the data due to small population sizes.

and white migrants' expected time of residence in southern counties declined by -3.51% and -5.03%, respectively. Between 1990 and 2000, the corresponding changes were -17.20% and 3.08%, respectively. Recall from our earlier discussion of the literature that a large decline in migrants' expected time of residence is suggestive of greater population-level instability—i.e., greater population churning and less "holding power" of places (Herting et al. 1997:268). Thus, despite the fact that the size of the black population increased during this time, due in part to substantial in-migration (Frey 2001, 2004), by the year 2000, the transiency of black migrants was at an all-time high relative to the migration regime of the 1980s and 1990s. In temporal terms, the "New Great Migration" of blacks to the South became much more tenuous by the end of the twentieth century (Frey 2004:1).

In Table 1, we display these changes by race over time in single-difference OLS models, as well as between blacks and whites over time in difference-in-difference OLS models. Estimates of both absolute and percentage change in black and white migrants' expected time of residence in southern counties are provided. Additionally, as one could debate an appropriate reference period, we provide two sets of estimates, one with 1970 as the reference period and the other with the previous census decade as the reference period.

-----TABLE 1 ABOUT HERE-----

Taking 1970 as the baseline, black migrants' expected time of residence in southern counties declined by -1.76 years, or -7.53%, over the period. As seen in Figure 1, much of this decline was confined to the 2000 period. White migrants' expected time of residence declined only between 1980 and 1990 by -1.03 years, and increased over the full 1970-2000 period by 1.85 years, or 10.10%.

At the bottom of Table 1, we further investigate the difference between changes in black and white migrants' expected time of residence over time. Note that a negative sign indicates black disadvantage relative to whites. In 1970, black migrants' resided for an average of 1.54 years longer in the South than white migrants, as shown in Figure 1. By 1980, the gap between blacks and whites widened in favor of blacks by 0.76 years, an increase of 2.91%. This gap in favor of blacks continued to widen in 1990, although the pace of this divergence slowed. Despite these trends, by the year 2000, black migrants were at a disadvantage relative to whites by roughly two years. Consistent with the figure, by 2000, the pace of change in black migrants' expected time of residence was well behind that of white migrants by -3.60 years (-16.01%) or -4.49 years (-19.67%) depending on the reference period.

Clearly, the key driver of these changes was the shift in the migration regime of blacks, not whites. As we discuss later, there are a number of explanations which lend themselves to this result. Perhaps the South became less of a draw for blacks in recent decades (Murari 1980). Push factors in other U.S. regions could likewise have abated. A third explanation is a bit more involved, and encompasses the idea that, while the appeal of the South had not changed, the prevailing migration regime was increasingly one of significant intra-regional migration. Thus, while black migrants may have remained in the South, by 2000, they no longer remained in a

given southern county as long as in prior decades, but, instead, migrated internally within the region.

Spatial Clustering Within the South

In Figure 1, we also saw that there is more variation across counties in the South with respect to black migrants' expected time of residence relative to whites. This suggests the possibly of greater spatial concentration and clustering in the distribution of black migrants' expected time of residence, again relative to whites. To examine the evidence for this, our third expectation, we display in Figure 2 a snapshot of these distributions in 1970 and 2000. We highlight the top quartile of each distribution in each map.

-----FIGURE 2 ABOUT HERE-----

In 1970, southern counties in which black migrants' could be expected to live for longest were located in smaller clusters throughout the South. For whites, the distribution was much more concentrated in the northern portions of the East South-Central and South Atlantic sub-regions, as defined by the U.S. Census Bureau. [13] By the year 2000, the degree of spatial clustering in the distribution of black migrants' expected years of residence increased, as anticipated; however, for whites, the extent of spatial clustering decreased somewhat.[14] This persistent clustering is interesting for the reason that it shows very little in the way of overlap between the highest times of residence in the distributions of black and white migrants' expected time of residence In essence, those counties, and clusters of counties, in which black migrants' typically reside for longest are not the same as those for white migrants, and vice versa.

If, as we noted early on, the decline in black migrants' expected years of residence in the South signifies population instability, with potentially negative ramifications for the "social fabric" of local communities in the South (Sampson and Groves 1989:780), Figure 3 suggests the potential for heterogeneity in these processes might unfold. Alexander (2005:653), for example, noted that a "transient migrant stream can inhibit the development of migrant community…[and will] almost always draw at least some sort of antipathy from both long-term settlers and other local residents alike." If, as theories social disorganization suggest, the temporal stability of groups in places is ultimately consequential for local processes, e.g., cohesion and inter-group dynamics (Bursick 1988; Crutchfield et al. 1982; Sampson 1984; Sampson and Groves 1989; Shaw and McKay 1942; Sutherland 1934), then our findings raise important questions about how changes and differential clustering in black and white migrants' expected time of residence might have differentially affected social and economic life in the South over both time and space.

Disaggregations by Age Group and Sending Region

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[13] In 1970, the Moran's *I* statistic (Cliff and Ord 1981) was 0.584* and 0.422* for black and white migrants, respectively.
[14] In 2000, *I*= 0.602* for black migrants and *I* =0.367* for white migrants.

Thus far, the results presented above provide a portrait of black and white migrants' expected time of residence in southern counties each census period from 1970 to 2000, in terms of long-term temporal trends, racial differences, and spatial patterns. In this section, we consider two disaggregations of these quantities, by age group (15-64 and 65+) and sending region (Midwest, Northeast and West).

Early on, we noted that migrants' expected time of residence is a variant of a conditional period life expectancy at age *x*. Thus, demographically speaking, the trends discussed above are driven more heavily by changes in the migration regimes of working-age (15-64) versus retirement-age (65+) migrants (Rogers and Castro 1981; DeWaard in press; Rogers and Raymer 2008). We show this to be the case in in Figure 3 and Table 2.

-----FIGURE 3 ABOUT HERE-----
-----TABLE 2 ABOUT HERE-----

Between the ages of 15 and 64, the expected years of residence for black and white migrants follows a similar pattern as in Figure 1 and Table 1. By 1980, black migrants' expected years of residence between the ages of 15 and 64 increased by 2.55 years relative to 1970, and another 0.22 years by 1990. However, by 2000, we see a substantial decline on the order of 16%-28%, depending on the reference category. In contrast, white migrants' expected time of residence changed no more than 1.05 years over the four-decade period, and increased in 2000. Further investigation of black-white differences over time reveals a similar pattern as in Table 1, with the gap favoring black migrants prior to the year 2000, followed by a reversal and widening of the racial gap in favor of whites.

Demographically speaking, the degree of correspondence between the patterns observed for working-age migrants is not surprising. Persons who migrate from the non-South to the South at a younger age have potentially more years of life to be lived in the South. Substantively, this result is also not surprising. Labor and, more generally, economic migration is a central theme in migration theory (Massey et al. 1998; Todaro 1976). The black-white gap, however, suggests the possibly of different incentives for black and white migrants of working-age, perhaps consistent with dual labor market explanations of migration (Lieberson 1980; Piore 1979).

While the migration regime of retirement-age migrants is not driving the overall trends seen in Figure 1 and Table 1, it is noteworthy that retirement- age black migrants' expected years of residence declined one decade earlier in 1990. A comparable decline in the migration regime for white migrants of retirement age is not observed. This finding is noteworthy as it suggests that retirement-age migrants are potentially the trend-setters. Our earlier expectation was that working-age migrants' expected time of residence would exhibit greater volatility relative to retirement-age migrants because the migration patterns of the former are thought to be more closely connected to labor market conditions and the associated economic cycles (Beale and Fuguitt 2008; Campbell et al. 1974; Frey 2004; Long and Hansen 1973). While the magnitude of the percentage changes in Table 2 are consistent with our expectation, one of the unexpected

take away points from these results is the one-decade earlier decline in migrants' expected time of residence among black migrants of retirement age.

Retirement-age migrants are often materially better off relative to migrants of working age (Wiseman and Roseman 1979). They are also more likely to respond to less "developed health and social service systems" in the South by emigrating, e.g., back to the Midwest or Northeast, when faced with key life changes, e.g., widowhood, illness, and end-of-life decisions (Longino and Smith 1991:S127). Although we must exercise some caution in interpreting our results in a truly cohort-fashion given the limited period-nature of the measure derived in this paper, our findings are at least consistent with the general idea of cohort-driven change, discussed in the next section.

Our final expectation was that sending region matters. We anticipated that black and white migrants from the Midwest and Northeast would have experienced a relatively pronounced set of push-factors than respective migrants from the West. We also though to consider research on gravity models of migration, which has consistently documented that geographic distance is a fairly reliable proxy for the costs and risks associated with migration (DeWaard et al. 2012; Greenwood 1997; Zipf 1946). As such, there might be more of a premium on migration from the West. We examine the evidence for these ideas in Figure 4 and Table 3.

-----*FIGURE 4 ABOUT HERE*-----
-----*TABLE 3 ABOUT HERE*-----

Though consistent with the intuition that push-factors in the Midwest and Northeast might be offset by the costs associated with migrating from the West, it is perhaps surprising to see little in the way of differences in black and white migrants' expected time of residence by sending region. An apparent truism in research on the migration of blacks and whites to the South in the latter half of the twentieth century is that sending region matters a great deal (McHugh 1987). Relative to the West region, for example, the Midwest and Northeast regions were in considerable economic free-fall during the period in question (Kasarda 1995). Migration theory suggests that these changes, in conjunction with residential segregation (Massey and Denton 1993), should have pushed blacks out of the Midwest and Northeast regions. While this may be so, our results demonstrate that these push factors did not necessarily result in relatively more long-term migrations to the South.

In general, we observe very similar patterns by sending region. For both blacks and whites, the prevailing migration regimes in 1970 were replaced by a new regime in 1980. For whites, this regime looks to have remained largely in place through the year 2000; however, for blacks, the expected time of residence fell to about 18.5 years, regardless of sending region. Black-white differences in migrants' expected time of residence are also comparable across sending regions. Regardless of sending region, we observe the same black-white crossover in the year 2000. In Table 3, in triple-difference models (results not shown), we further tested each estimate for the Midwest and Northeast against the corresponding estimate for the West. In all 72 comparisons, none were statistically significant. This suggests that any changes in migrants' expected years of

residence, as well as black-white differences in these changes, are not differentially produced by sending region.

On the surface, this result may appear to fly in the face of migration theory and the litany of empirical work in this area suggesting that sending region matters (McHugh 1987). However, when one considers the nuts and bolts of the measure used in this paper, this conflict is more apparent than real. In recalling that our conceptual and methodological strategy is to exploit the systems-oriented nature of migration flows, one need realize that sending region is merely a point of entry into a broader migration regime of "interacting elements, their attributes, and their relationships….in a special environment" (Mabogunje 1970:4). In this sense, our findings with respect to sending region are not only understandable, and, in many ways, should have been anticipated at the outset given our methodological approach.

SUMMARY AND DISCUSSION

In this paper, we presented a temporal measure of black and white migrants' expected time of residence in southern counties in each decade during the 1970-2000 period, disaggregated by age group and sending region. The following are the primary findings of this paper. First, by our temporal measure of migration, although it is evident that the "New Great Migration" shifted in character for black and white migrants about equally between 1970 and 1980 (Frey 2004:1), by the year 2000, black migrants' expected time of residence in the South had fallen considerably. Additionally, the black-white gap in these changes over time, which had favored black migrants by nearly one year, became a four-year deficit.

Although we cannot be sure given the descriptive nature of this paper, there are a number of potential explanations for this finding. First, push-factors in other U.S. regions could have begun to wane by the year 2000. Second, early nostalgia for the South and the desire to return home (broadly conceived) could have faded in light of persistent racial segregation and inequality in the region (Murari 1980), despite the fact that key black-white gaps narrowed over time (Curtis in press). Third, it could also be the case that neither push- nor pull-factors abated, but, rather, that the "holding power" *of any given county* in the South declined over time in the presence of increased intra-regional migration by the year 2000 (Herting et al. 1997:268).

The third explanation above is also consistent with the small increase in the spatial clustering in the distribution of black migrants' expected time of residence. We showed earlier in Figure 2 that counties in which black migrants' could be expected to live for longest became increasingly concentrated around cities such as Jackson, Mississippi, Birmingham, Alabama, and Little Rock, Arkansas. With respect to the distribution of white migrants' expected time of residence, the extent of spatial clustering diminished slightly overtime, with new clusters emerging by the year 2000 in southern Florida and western Texas. Our results are generally consistent with previous work on net-migration (McHugh 1987), and raise important questions about both temporal and spatial variation in the link between migration to the South and social and economic conditions in the region (Curtis and DeWaard 2011; O'Connell 2012).

We also examined two disaggregations of migrants' expected time of residence by age group and sending region. Though our results are driven by the migration patterns of working-age (versus retirement-age) migrants, as they should be, we saw in Figure 3 the interesting result that the expected time of residence among black migrants of working age fell by over 17% in 1990, a full decade earlier than the comparable decline for working-age migrants. Though we must exercise caution in interpreting this result in strict cohort fashion, e.g., as an example of cohort-driven change, our results speak to the continued importance of attending to the age-structure of migration patterns (Beale and Fuguitt 2008; Longino and Smith 1991; Rogers and Castro 1981), and, in the process, seeing migration as a highly heterogeneous process.

Throughout this paper, we have tried to emphasize the advantages of a systems-oriented approach. For example, as shown earlier in Figure 4 and Table 3, our results actually demonstrate that sending regions matter very little when the larger system migration flows is analyzed in its entirety. We observed no significant differences by race or between blacks and whites in changes in migrants' expected time of residence in the South by sending region. On the surface, this result seems at odds with prior research (McHugh 1987). However, we noted early on that prior research on net-migration only examined the *direct* migration connections between counties. Our approach was to also examine all *indirect* connections. In doing so, we saw that, while the system of black and white migration flows changed between 1970 and 1980, and again between 1990 and 2000 for black migrants, these migration regimes were effectively stable across sending region.

In closing, there are at least two main limitations of the work in this paper. First, bracketing issues of data availability, the measure of migrants' expected time of residence is a period, versus, cohort measure. This means that our results are sensitive to period shocks. Given the existing data limitations, our approach was to construct this measure for four periods with the idea that these would provide enough time points to generate a portrait of the underlying temporal dynamics of migration flows to the South. Of course, clearly, period measures are not cohort measures. Thus, our result should be interpreted cautiously with this limitation in mind.

The second main limitation with the work in this paper is our emphasis on county-to-county, migration. We know from earlier research that additional factors, such as county of birth, play an important role in migration transitions in the United States (Eldridge 1965). Although the multiregional bridge model used in this paper provides an innovative way to summarize the temporal dynamics of migration flows to the South, future research should consider ways to extend this model using cross-classified data by, for example, previous and next county of residence *and* county of birth, and develop a template for doing so that likewise incorporates additional micro-data (Curtis in press; Falk et al. 2004).

In general, the work in this paper provides a descriptive portrait of black and white migration to the South in a way not seen before in previous research. As we noted at the outset, our work is an extension of earlier work on the axiom of cumulative inertia (McGinnis 1968; McGinnis and Pilger 1963; Morrison 1967; Myers et al. 1967; Roseman 1971; Toney 1976). It also has a strong

theoretical basis in theories of social disorganization (Sampson and Groves 1989:777; Shaw and McKay 1942; Sutherland 1934). We hope that our efforts will encourage greater consideration of the temporal dynamics of migration flows in descriptive accounts of migration patterns and in assessments of their effects in future research.

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Table 1. Change in Migrants' Expected Years of Residence in Southern Counties, 1970-2000

Black Migrants, Change over Census Decades

| | Reference Period | | | | |
| | 1970 | | | Previous Decade | |
	Abs. Diff.	Pct. Diff.		Abs. Diff.	Pct. Diff.
1980	3.12*	15.73*		3.12*	15.73*
1990	2.24*	11.67*		-0.89*	-3.51*
2000	-1.76*	-7.53*		-3.99*	-17.20*

White Migrants, Change over Census Decades

| | Reference Period | | | | |
| | 1970 | | | Previous Decade | |
	Abs. Diff.	Pct. Diff.		Abs. Diff.	Pct. Diff.
1980	2.37*	12.46*		2.37*	12.46*
1990	1.35*	6.81*		-1.03*	-5.03*
2000	1.85*	10.10*		0.50*	3.08*

Black-White Migrants, Change over Census Decades

| | Reference Period | | | | |
| | 1970 | | | Previous Decade | |
	Abs. Diff.	Pct. Diff.		Abs. Diff.	Pct. Diff.
1980	0.76*	2.91*		0.76*	2.91*
1990	0.89*	4.55*		0.13	1.60
2000	-3.60*	-16.01*		-4.49*	-19.67*

Notes:

The first two blocks of estimates are difference estimates. The last block contains difference-in-differences estimates, with a negative sign indicating black disadvantage (i.e., larger decline in migrants' expected years of residence) relative to whites over time.

* $p < 0.05$

Table 2. Change in Migrants' Expected Years of Residence in Southern Counties by Age Group, 1970-2000

Panel A. Ages 15-64

Black Migrants, Change over Census Decades

| | Reference Period | | | |
| | 1970 | | Previous Decade | |
	Abs. Diff.	Pct. Diff.	Abs. Diff.	Pct. Diff.
1980	2.55*	15.12*	2.55*	15.12*
1990	2.76*	17.39*	0.22	1.97
2000	-2.73*	-15.50*	-5.49*	-28.02*

White Migrants, Change over Census Decades

| | Reference Period | | | |
| | 1970 | | Previous Decade | |
	Abs. Diff.	Pct. Diff.	Abs. Diff.	Pct. Diff.
1980	1.05*	6.32*	1.05*	6.32*
1990	0.79*	4.85*	-0.26*	-1.38*
2000	0.82*	5.39*	0.03	0.51

Black-White Migrants, Change over Census Decades

| | Reference Period | | | |
| | 1970 | | Previous Decade | |
	Abs. Diff.	Pct. Diff.	Abs. Diff.	Pct. Diff.
1980	1.49*	8.28*	1.49*	8.28*
1990	1.97*	11.96*	0.48†	3.40*
2000	-3.56*	-19.82*	-5.52*	-28.38*

Panel B. Ages 65+

Black Migrants, Change over Census Decades

| | Reference Period | | | |
| | 1970 | | Previous Decade | |
	Abs. Diff.	Pct. Diff.	Abs. Diff.	Pct. Diff.
1980	0.69*	8.43*	0.69*	8.43*
1990	-0.89*	-10.32*	-1.58*	-17.29*
2000	-0.83*	-7.23*	0.06	3.44*

White Migrants, Change over Census Decades

| | Reference Period | | | |
| | 1970 | | Previous Decade | |
	Abs. Diff.	Pct. Diff.	Abs. Diff.	Pct. Diff.
1980	0.74*	8.89*	0.74*	8.89*
1990	0.31*	3.80*	-0.43*	-4.68*
2000	0.70*	11.08*	0.39*	7.02*

Black-White Migrants, Change over Census Decades

| | Reference Period | | | |
| | 1970 | | Previous Decade | |
	Abs. Diff.	Pct. Diff.	Abs. Diff.	Pct. Diff.
1980	-0.05	-0.42	-0.05	-0.42
1990	-1.21*	13.60*	-1.16*	-13.24*
2000	-1.53*	16.49*	-0.32*	-3.34*

Notes:

The first two blocks of estimates are difference estimates. The last block contains difference-in-differences estimates, with a negative sign indicating black disadvantage (i.e., larger decline in migrants' expected years of residence) relative to whites over time.

† $p < 0.10$, * $p < 0.05$

Table 3. Change in Migrants' Expected Years of Residence by Sending Region, 1970-2000

Panel A. Midwest[a]

Black Migrants, Change over Census Decades

| | Reference Period | | | |
| | 1970 | | Previous Decade | |
	Abs. Diff.	Pct. Diff.	Abs. Diff.	Pct. Diff.
1980	2.89*	14.44*	2.89*	14.44*
1990	2.12*	11.12*	-0.77*	-2.90*
2000	-1.89*	-8.25*	-4.02*	-17.43*

White Migrants, Change over Census Decades

| | Reference Period | | | |
| | 1970 | | Previous Decade | |
	Abs. Diff.	Pct. Diff.	Abs. Diff.	Pct. Diff.
1980	2.34*	12.26*	2.34*	12.26*
1990	1.29*	6.45*	-1.05*	-5.17*
2000	1.80*	9.87*	0.51*	3.21*

Black-White Migrants, Change over Census Decades

| | Reference Period | | | |
| | 1970 | | Previous Decade | |
	Abs. Diff.	Pct. Diff.	Abs. Diff.	Pct. Diff.
1980	0.55*	1.94	0.55*	1.94
1990	0.83*	4.39*	0.28	2.40†
2000	-3.70*	-16.50*	-4.53*	-20.00*

Panel B. Northeast[a]

Black Migrants, Change over Census Decades

| | Reference Period | | | |
| | 1970 | | Previous Decade | |
	Abs. Diff.	Pct. Diff.	Abs. Diff.	Pct. Diff.
1980	3.21*	16.19*	3.21*	16.19*
1990	2.39*	12.19*	-0.82*	-3.44*
2000	-1.93*	-8.67*	-4.32*	-18.60*

White Migrants, Change over Census Decades

| | Reference Period | | | |
| | 1970 | | Previous Decade | |
	Abs. Diff.	Pct. Diff.	Abs. Diff.	Pct. Diff.
1980	2.30*	12.10*	2.30*	12.10*
1990	1.16*	5.85*	-1.14*	-5.57*
2000	1.85*	10.17*	0.69*	4.09*

Black-White Migrants, Change over Census Decades

| | Reference Period | | | |
| | 1970 | | Previous Decade | |
	Abs. Diff.	Pct. Diff.	Abs. Diff.	Pct. Diff.
1980	0.92*	3.65*	0.92*	3.65*
1990	1.23*	5.99*	0.31	2.26†
2000	-3.79*	-17.11*	-5.02*	-21.79*

Panel C. West

Black Migrants, Change over Census Decades

| | Reference Period | | | |
| | 1970 | | Previous Decade | |
	Abs. Diff.	Pct. Diff.	Abs. Diff.	Pct. Diff.
1980	2.92*	14.78*	2.92*	14.78*
1990	2.10*	11.16*	-0.82*	-3.16*
2000	-2.04*	-8.68*	-4.14*	-17.85*

White Migrants, Change over Census Decades

| | Reference Period | | | |
| | 1970 | | Previous Decade | |
	Abs. Diff.	Pct. Diff.	Abs. Diff.	Pct. Diff.
1980	2.21*	11.66*	2.21*	11.66*
1990	1.14*	5.75*	-1.07*	-5.29*
2000	1.72*	9.50*	0.57*	3.54*

Black-White Migrants, Change over Census Decades

| | Reference Period | | | |
| | 1970 | | Previous Decade | |
	Abs. Diff.	Pct. Diff.	Abs. Diff.	Pct. Diff.
1980	0.71*	2.79*	0.71*	2.79*
1990	0.95*	5.11*	0.25	2.25†
2000	-3.76*	-16.60*	-4.71*	-20.66*

Notes:

The first two blocks of estimates are difference estimates. The last block contains difference-in-differences estimates, with a negative sign indicating black disadvantage (i.e., larger decline in migrants' expected years of residence) relative to whites over time.

[a] Each of the estimates below was tested against corresponding estimates for the West in a triple difference model (results not shown). In each case, there was no statistically significant difference.

† $p < 0.10$, * $p < 0.05$

Figure 1. Migrants' Expected Years of Residence Averaged Across Southern Counties, 1970-2000
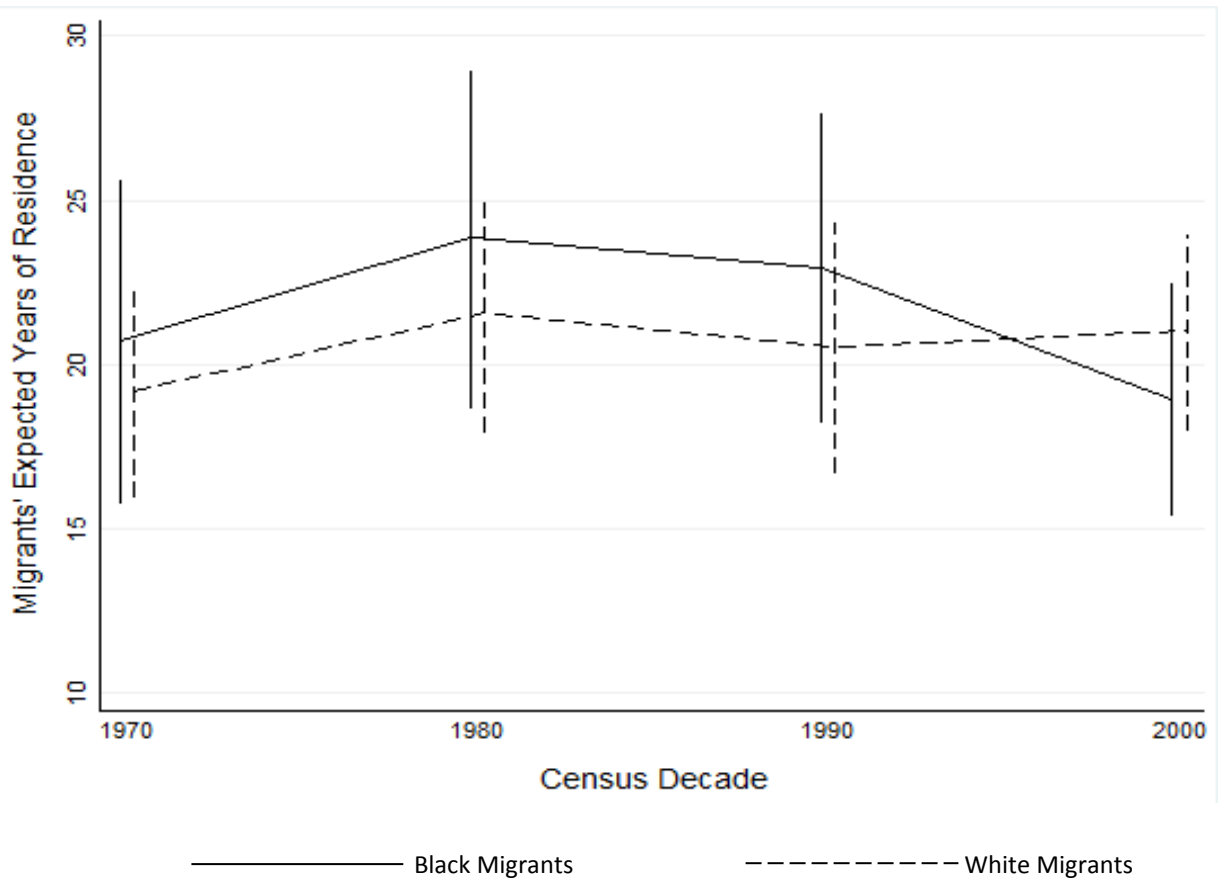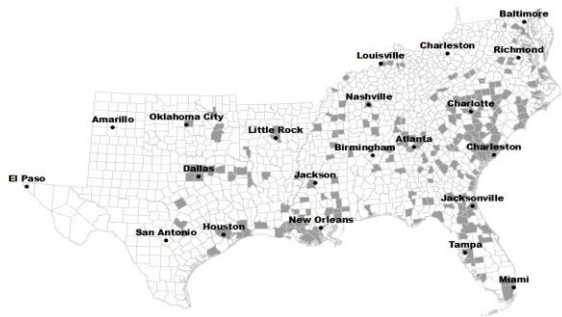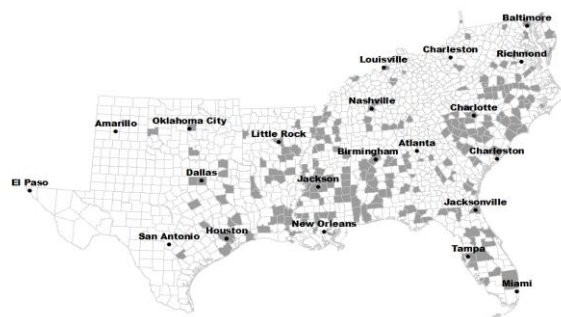
Figure 2. Black and White Migrants' Expected Years of Residence in Southern Counties: 1970-2000
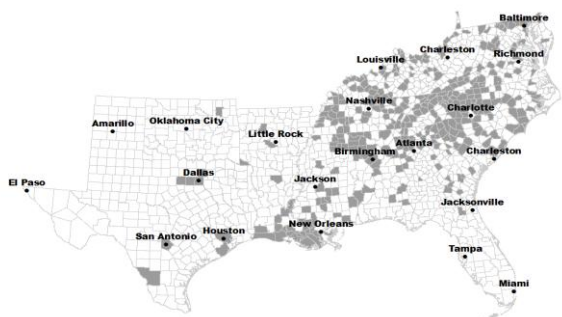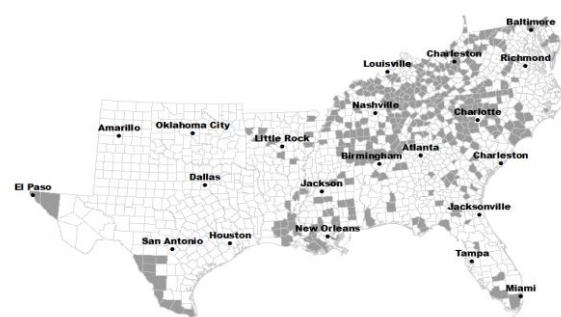
Black Migrants, 1970

Black Migrants, 2000

White Migrants, 1970

White Migrants, 2000

Top quartile of distribution of migrants' expected time of residence in given census decade

Bottom 75% of distribution of migrants' expected time of residence in given census decade or excluded from analysis

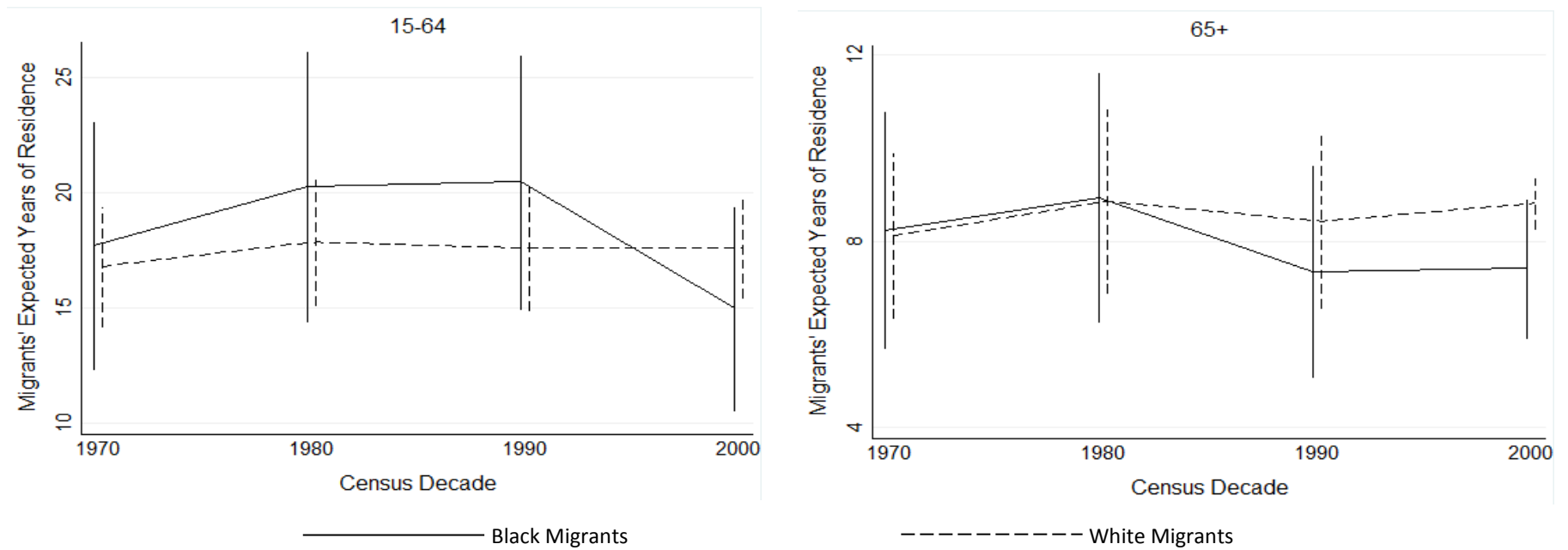**Figure 3. Migrants' Expected Years of Residence in Southern Counties by Age Group, 1970-2000**

Figure 4. Migrants' Expected Years of Residence in Southern Counties by Sending Region, 1970-2000