#### Relative deprivation and Black return migration to the South

## Chenoa Flippen University of Pennsylvania Population Research Center

Studies of internal migration within the U.S. tend to focus on the potential gains resulting from migration to the *absolute* position of individuals and families. Typically following a human capital approach, most studies view internal migration decisions as driven by a cost-benefit calculation where individuals move if expected economic returns, generally earnings, are higher at destination than origin (Sjaastad 1962). Research in developing countries and international migration, however, has highlighted that migration is not only driven by absolute considerations but also by the *relative* position of individuals (Quinn 2006; Stark & Wang 2000). According to this perspective, the decision to migrate can be triggered by expected improvements in a person's social position relative to their peers, even in the absence of absolute gains. Relative deprivation explanations, however, have not been directly applied to processes of internal migration within the U.S. This is particularly problematic since studies have found fairly minor absolute financial gains from migration, especially among minorities (Tienda & Wilson 1992), despite considerable internal population redistribution.<sup>1</sup>

Accordingly, this study elaborates and empirically tests a relative deprivation explanation of the internal mobility of Black men in the United States. Understanding the mechanisms motivating the internal migration of Blacks has gained relevance in recent years owing to significant changes in patterns of Black population distribution (Adelman et al. 2000). Specifically, the 1990s witnessed a major increase in the movement of blacks to the South, which has been dubbed the "new" great migration (Frey 2004). In fact, during the 1990s the South registered a net gain in black migration from all three other regions in the United States, a major reversal of a 35 year old trend. The mechanisms behind these trends and what they portend for the social position of Blacks, however, have received only minor attention (Falk et al. 2004).

Our empirical analysis focuses on two dimensions of relative deprivation that we argue are central to migration decisions: earnings and housing. We estimate the effect of migration on both absolute and relative measures of each outcome. We formulate models that take into account two sources of selection bias: into migration and into employment/homeownership. In addition, we distinguish between migration moves according to region of origin and destination to assess whether the gains from migration vary according to the direction of the move. Overall we show the significant gains in relative position associated with migration among Blacks and highlight that these gains are particularly pronounced in North-South migration. The analysis lends support to a perspective that views the return migration of Blacks to the South not necessarily as a cultural trend but as part of a general process of social mobility.

#### Data and methods

Data for the analysis come from the public use 5 percent samples of the 2000 Census. We use the smallest geographic unit publicly available, namely the comparable PUMAs, to define migration

<sup>&</sup>lt;sup>1</sup> Other gains to Black migration, particularly to the South, have been noted, such as lower unemployment, segregation, and exposure to violent crime (Crowder et al. 2001).

indicators and local area socioeconomic conditions. The analysis is restricted to Black men aged 25 to 64 in 2000. Analyses of housing values are restricted to household heads.

The dependent variables in the analysis include both absolute and relative indicators of earnings and housing values.

## Absolute indicators:

- Total personal earnings: income earned from wages or a person's own business or farm for the previous year
- Housing value: value of owner-occupied housing unit

## **Relative indicators:**

- Relative earnings position: percent of local population with lower earnings.
- Local housing costs/personal income ratio (to facilitate the comparison across metropolitan areas, which differ in housing stock in addition to prices, local housing costs are defined as the average price for homes, detached or attached, less than 10 years old with 3 or more bedrooms).
- Relative housing position: percent of local population with lower housing values.

The main explanatory variable in the analysis is internal migrant status. Migrants are identified by the question on residence 5 years prior to the census; migrants comprise those residing in a different PUMA<sup>2</sup> 5 years before the Census. In addition we distinguish between 5 types of migration moves: North-North, North-South, South-South, South-North, and other. This distinction captures the extent to which the absolute and relative gains of migration vary by origin and destination.

Additional explanatory variables include a battery of both individual level, destination, and origin area characteristics. Individual characteristics include: years of education, labor force experience, marital status, household head status (for earning models), disability status, and nativity. Local area indicators include median wages and the share of local residents who are black, foreign-born, unemployed, and in professional occupations.

## Statistical specification

Estimates of the earning and housing gains resulting from migration suffer from two potential sources of selection bias. First, individuals are not randomly selected into migration. Second, since earning and housing values are observed only for those in the labor market or owning a home there is also non-random sorting into labor force participation and homeownership. Our statistical specification takes these two sample selection processes into consideration. The methodology follows the formal presentation by Tunali (1986) and applied to the case of migration by Tienda and Wilson (1992) and to the case of elderly care by Wolf and Soldo (1994). Briefly, in our case the correction involves a two-step procedure. First we estimate a bivariate probit model jointly predicting the likelihood of migration and labor force participation/homeownership propensities that are then included as predictors in a second step that estimates absolute and relative earnings/housing values equations. One advantage of this specification is that by modeling the likelihood of a move in the first state, it allows to us to elaborate not only on the consequences but also on the socioeconomic determinants of migration,

<sup>&</sup>lt;sup>2</sup> The geographic unit of analysis combines metropolitan areas with consistent 1995-2000 PUMAs for those not residing in a metropolitan areas. Migrants are defined as individuals residing in a different metropolitan area or consistent PUMA in 1995 (see IPUMS site for the definition of consistent PUMAs) <u>http://usa.ipums.org/usa/volii/conspuma.shtml</u>

labor force participation, and homeownership. A formal presentation of the model will be included in the full paper.

#### **Preliminary results**

Table 1 reports descriptive results for the main variables in our analysis. Over 12 percent of Black men changed consolidated PUMAs between 1995 and 2000. There is considerable mobility within Northern and Southern regions as 3.1 and 4.5 percent actually moved within each region, respectively. Consistent with national redistribution trends, as many as 2 percent of all Black men moved from the North to the South, while only 0.9 percent moved in the opposite direction. As expected, migration coincides with labor force participation. Results show that the share of Black men in the labor market is 77 and 85 percent among stayers and migrants, respectively.

There is also some evidence of absolute and relative gains to migration. Migrants reported higher average earnings than non-migrants, \$33,976 compared to \$33,312. The housing costs/income ratio is also lower among migrants (9.6) than non-migrants (10.2), indicating an improvement in relative purchasing power. There are virtually no differences overall in relative earnings position, as both migrants and non-migrants are on average at the 41<sup>st</sup> percentile of metropolitan earnings.

A more nuanced description emerges in Table 2 that distinguishes the absolute and relative gains to migration according to region of origin and destination. In all cases, migrants exhibit higher rates of labor force participation irrespective of destination. There are important differences, however, in earnings according to direction of the move with interesting variation depending on whether we focus on absolute or relative income.

Black men staying in the North earned on average \$37,123, the average value of a standardized house was 11.8 times their earnings, and they fell at the 39.8<sup>th</sup> percentile of local earnings. Those moving within the North averaged considerably higher absolute and relative earnings compared to Northern stayers. Average earnings among North-North migrants were \$40,108, the housing/income ratio was only 10.8, and they fell in the 41.5<sup>th</sup> percentile. So there appears to be both absolute and relative gains associated with moves within the North.

Even more illuminating is the comparison of Northern stayers with North-South movers. In this case movers actually average *less* in absolute earnings (\$34,410) than non-movers (\$37,123). However, this absolute decline is offset by improvements in relative position. Again, for Northern stayers the housing costs/income ratio is 11.8 and they fall at the 39.8<sup>th</sup> percentile of earnings. Among North-South movers the housing costs/income ratio is considerably lower, 10.8, and they are in the 42.4<sup>th</sup> percentile of earnings.

When we consider the case of migration within the South, we see very little differences between movers and stayers, suggesting no payoff to migration other than higher labor force participation. However, comparing Southern stayers with South-North movers we can identify a pattern that is opposite from the North-South pattern. Those who stayed in the South actually earn less than those moving North, \$29,986 relative to \$34,546. However, the relative position of movers to the North actually deteriorates. The housing cost/income ratio is 8.8 and average position in the earnings continuum is at the 42.4<sup>th</sup> percentile among Southern stayers. However, among those moving South-North the housing cost/income ratio is 11.5 and they fall at the 37.5<sup>th</sup> percentile in earnings.

Table 3 reports similar calculations for housing indicators. Contrary to employment, migrants are considerably less likely to own a home than non-migrants (36.6 relative to 60.9 percent). There are

many possible sources for this disparity, including the disruption that migration entails to more permanent settlement and the higher likelihood of future geographic mobility among recent movers. However, among those owning a home, there are considerable gains to migration in both absolute home values and relative housing position. Specifically, average housing values are \$107,363 among stayers relative to \$143,207 among movers. In addition, migrants are higher up in the continuum of housing vales than non-migrants, falling at the 49.2<sup>nd</sup> percentile relative to the 36.5<sup>th</sup> percentile.

As in the case of earnings though, there are substantive differences depending on the direction of the move. Table 4 shows that across the board movers are less likely than stayers to own a home. Among homeowners, however, the absolute and relative gains in housing values vary across regions. For Northern Black men, migrants within the region average housing values of \$191,250 and fall in the 47.2<sup>nd</sup> percentile in housing values. For Northern blacks who do not move, housing values average only \$143,698 and that fall considerably lower, at the 31.6<sup>th</sup> percentile, in the housing value distribution. In other words, movers within the North experience both absolute and relative gains as compared to stayers. In contrast, North-South movers experience an absolute deterioration in their housing values (\$132,524 compared to \$143,698 among Northern stayers) but considerable improvement in their relative housing position, with their position rising from the 31.6<sup>th</sup> percentile to the 55<sup>th</sup> percentile. This reflects the greater affordability of housing in the South.

Black men originating in the South also experience both absolute and relative gains if they move within the region. Average housing values increase from \$82,350 to \$108,251 and their position in the value continuum rises from the 39.7<sup>th</sup> to the 48.1<sup>st</sup> percentile. Different consequences emerge from South-North moves. For this group, the likelihood of homeownership decreases more dramatically than for any other group. Only 23 percent of South-North movers purchased a home prior to the census (relative to 41 percent for North-South movers). The absolute value of the house for movers increases considerably to \$159,491 on average. However, their relative position in the housing market remains almost unchanged at the 41<sup>st</sup> percentile.

Together the descriptive analysis documents the importance of separating absolute and relative position for understanding the economic gains associated with internal migration among Black men. It also highlights that these gains vary dramatically according to region of origin and direction of the move. The complex articulation between absolute and relative gains appears to be a driving force behind the increasing movement of Blacks to the South.

#### Multivariate results

Following our statistical specification the multivariate analysis is separated into two sections. The first part models the joint likelihood of migration and labor force participation/homeownership and the second part models the absolute and relative gains to migration.

a- Migration and labor force participation decisions

Table 5a reports results from bivariate probit models predicting migration and labor force participation decisions according to personal demographic characteristics and local area conditions. Consistent with previous research on migration, moves tends to occur at younger ages, with the likelihood of migrating declining in a nearly linear fashion with age. While migration propensities do not differ by nativity, they are higher among those with at least a college education.

Only two local area characteristics significantly affect migration propensities, percent black and living in a metropolitan area. First, results show that as the percentage of the local Black population

increases, the likelihood of migration decreases (-0.025), suggesting that residence in an environment with sizeable co-ethnic population might provide cultural and personal benefits that extend beyond economic considerations. Residents of metropolitan areas are also less likely than their non-metropolitan counterparts to move. None of the market indicators considered, such as average wages, unemployment rate, or housing conditions, significantly influenced migration decisions. Likewise, while it has been suggested that one impetus behind Black migration patterns is a crowding-out by immigrants, especially Hispanics (Borjas 2006; Card & DiNardo 2009), we find that the share of the population that is foreign born exerts no significant effect on migration decisions. These results hold even when we include controls for the change in the foreign born population between 1990 and 2000 in Model 2.

Table 5b reports estimates for the models predicting labor force participation. Being a migrant significantly increases the likelihood of being in the labor force (.317). However, the effects vary by type of migration. Labor force processes significantly undergird the movement from South to the North or to other Southern locations. However, they are less of a consideration in movements from the North; in particular the North-South movement does not significantly increase the likelihood of labor force participation (Models 3 and 4). This highlights that is not necessarily lack of employment opportunities in the North that drives out-migration to the South.

Demographic characteristics affect labor force participation in the expected direction. Greater labor market experience, being married, household head status as well as being foreign born have positive effect on labor force participation while being disabled has a negative impact. Similarly, those with college or more education are significantly more likely to be in the labor force than their less educated peers. Contrary to the migration model though, labor force status is closely associated with local area conditions. Higher average wages and a higher share of the population in professional occupations positively correlate with being employed, while the area unemployment rate has a negative impact. Similarl to the migration decision though, labor force decisions are connected to the proportion of the area population that is Black and foreign born. In both cases, having a larger Black or foreign born population facilitates labor force participation. Moreover, increases in the percent Black and foreign born from 1990 to 2000 (Models 2 and 4) also positively affect the likelihood of being in the labor force. Contrary to perspectives that stress competition between immigrants and other groups results suggest that foreign-born and Black populations respond to similar incentives and that larger area economic conditions drive the employment patterns.

b- Absolute and relative gains

Table 6 reports the OLS models predicting absolute and relative earnings indicators, including control for selection into migration and labor force participation. Model 1 shows that there are statistically significant absolute gains in earnings for those migrating internally within the U.S. (.033). However, results vary considerably according to region of origin and destination. Model 2 shows no discernable gains to those migrating South-North; the coefficient is actually negative. Statistically significant gains are registered for South-South, North-South, and North-North migration, however. The largest effect is registered for North-North moves followed by North-South. The opposing effect of moving North versus moving South between 1995-2000 on absolute earnings certainly undergirds the changing direction of Black internal migration in recent years.

The difference is actually more telling when we examine relative deprivation. Models 3 and 5 show that migration significantly improves the relative social position of Black men. Migrants have a lower housing costs/earnings ratio (-.062) and also fall higher in the earnings distribution (.870) than

non-migrants. However, the effects move in opposite directions according to the type of move. Those moving South-North have seen their social standing deteriorate both in terms of housing costs/earnings ratio (-.099) and their position in the earnings distribution (-1.875). On the other hand, for those moving North-South their social standing improves significantly. The same can be said, with variation, for the other moves, South-South and North-North. Again the disparate outcomes between North-South vs. South-North migration underlie changes in population distribution.

The effect of demographic characteristics is consistent across models irrespective of whether we consider absolute or relative position. Those with greater labor force experience, who are married, and are household heads have higher absolute earnings and exhibit a higher social standing than comparable peers. Disabled individuals and immigrants, on the other hand, exhibit lower earnings and social position.

There is more variability in the effects of local area conditions. Richer areas in terms of average wages have a positive effect on absolute earnings but also increase relative deprivation leading to a deterioration of social position. There is a cost to residing in areas with higher black representation in terms of absolute earnings, but the effect is not present for relative outcomes. The share of the population that is foreign born has opposing effects on the social standing of Blacks. On the one hand, blacks in areas with a large foreign population are higher up on the earnings distribution, but they are slightly lower in the occupational distribution.

#### Additional analyses

The final paper will also include a similar analysis of the absolute and relative housing position of Black men and its association with migration. Preliminary tabulations support the importance of relative deprivation for understanding internal migration and in particular the reversal of the South-North flow for Black men. The paper will conclude with implications of the findings for a better understanding of internal migration dynamics and an agenda for further research.

#### References

- Adelman, Robert M., Chris Morett, and Stewart E. Tolnay. 2000. Homeward bound: The return migration of Southern-born black women, 1940 to 1990. *Sociological Spectrum* 20: 433-2000.
- Borjas, George. 2006. Native internal migration and the labor market impact of immigration. *Journal of Human Resources* 41: 221-258.
- Card, David and John DiNardo. 2009. Do immigrant inflows lead to native outflows? *American Economic Review* 90: 360-367.
- Crowder, Kyle, Stewart E. Tolnay and Robert M. Adelman. 2001. Intermetropolitan migration and locational improvement for African American males, 1970-1990.
- Falk, William W., Larry L. Hunt, and Mathew O. Hunt. 2004. Return migrations of African-Americans to the South: Reclaiming a land of promise, going home, or both? *Rural Sociology* 69: 490-509.
- Frey, William. 2004. The New Great Migration: Black Americans' Return to the South: 1965-2000. Living Cities Census Series. Washington DC: The Brookings Institute.
- Quinn, Michael. 2006. Relative deprivation, wage differentials and Mexican migration. *Review of Development and Economics* 10: 135-153.
- Robinson, Isaac. 1990. The relative impact of migration type on the reversal of black out-migration from the South. *Sociological Spectrum* 10: 373-386.
- Sjaastad, Larry A. 1962. The costs and returns of human migration. Journal of Political Economy 70S: 80-93.
- Stark, Oded and You Qiang Wang. 2000. A theory of migration as a response to relative deprivation. *German Economic Review* 1: 131-143.
- Tienda, Marta and Franklin D. Wilson. 1992. Migration and the earnings of Hispanic men. *American Sociological Review* 57: 661-678.
- Tunali, Insan. 1986. A general structure for models of double-selection and an application to a joint migration/earnings process with remigration. *Research in Labor Economics* 8: 235-82.
- Wolff, Douglas A. and Beth J. and Soldo. 1994. Married women's allocation of time to employment and care of elderly parents. *Journal of Human Resources* 29: 1259-1276.

	Total Stayer		Stayers	rs Migrants	
% Movers 1995-2000	12.4				
- North - North	3.1				
- North - South	2.0				
- South - South	4.5				
- South - North	0.9				
- Other	1.9				
% in Labor Force	78.2		77.2		85.1
Average Earnings	\$ 33,402	\$	33,312	\$	33,976
(S.D.)	(32,274)		(31,909)		(34,514)
House/Income ratio	10.1		10.2		9.6
(S.D.)	(0.8)		(15.9)		(14.0)
Relative Earnings (a)	41.1		41.1		41.0
N	298,178		261,116		37,062

Table 1: Migration, labor force participation and earnings among Black men

(a) Percent of area's population with lower earnings

		Stayers		Migrants					
				North-	North-	South-	South-		
	North	South	Other	North	South	South	North	Other	
% in Labor Force	76.7	77.7	80.5	84.8	82.3	85.4	85.6	87.3	
Average Earnings	\$ 37,123	\$ 29,986	\$ 33,483	\$ 40,108	\$ 34,410	\$ 29,852	\$ 34,546	\$ 33,333	
(S.D.)	(34,635)	(29,019)	(31,167)	(41,322)	(36,707)	(28,151)	(32,407)	(33,502)	
House/Income ratio	11.8	8.8	10.1	10.8	8.3	8.6	11.5	10.6	
(S.D.)	(19.1)	(12.3)	(15.5)	(15.9)	(11.6)	(12.0)	(16.8)	(15.3)	
Relative Earnings (a)	39.8	42.4	40.0	41.5	42.4	41.3	37.5	39.9	
N (a) Percent of area's pop	115,444	132,048	13,624	9,113	6,043	13,490	2,551	5,865	

Table 2: Migration.	labor force partic	ipation, and earnin	has by type of move	e among Black men

(a) Percent of area's population with lower earnings

	Total	Stayers	Migrants
% Movers 1995-2000	12.5		
- North - North	3.0		
- North - South	2.1		
- South - South	4.5		
- South - North	0.8		
- Other	2.1		
% Owner	57.9	60.9	36.6
Average Housing Value	\$ 110,198	\$ 107,363	\$ 143,207
(S.D.)	(98,963)	(96,856)	(115,837)
Relative Housing Value (a)	37.5	36.5	49.2
Ν	189,019	165,380	23,639

Table 3: Migration, home ownership, and housing values among Black men

(a) Percent of area's population with lower housing values

(b) Restricted to household heads

		Stayers				Migrants		
	North	South	Other	North- North	North- South	South- South	South- North	Other
% Owner	54.2	66.7	58.3	38.2	41.0	36.5	23.2	35.1
Average Housing Value (b) (S.D.)	\$ 143,698 (113,136)	\$82,350 (74,655)	\$ 117,574 (98,728)	\$ 191,250 (138,628)	\$ 132,524 (108,132)	\$ 108,251 (86,878)	\$ 159,491 (118,885)	\$ 155,203 (112,957)
Relative Housing Value (a)	31.6	39.7	37.1	47.2	55.0	48.1	41.0	50.2
N	70,167	86,057	9,156	5,644	4,060	8,469	1,547	3,919

Table 4: Migration.	home ownership, and	d housing values b	v destination amond	Black men
Takie II Ingradieli	nonio onnoi onip, an	a neading talate a	, accumation annong	

(a) Percent of area's population with lower housing values

(b) Restricted to household heads

	Model	Model 2		
Demographic characteristics				
Age	-0.045 **	(0.004)	-0.044 **	(0.004)
Age squared	0.000 **	(0.000)	0.000 **	(0.000)
Foreign-born	0.031	(0.089)	0.030	(0.083)
Educational attainment (ref: colleage or	more)			
Less than high school	-0.514 **	(0.039)	-0.516 **	(0.041)
High school + some college	-0.321 **	(0.025)	-0.322 **	(0.026)
Socioeconomic conditions at local area	of origin in 1990			
Average wages	0.000	(0.000)	0.000	(0.000)
% Black	-0.025 **	(0.005)	-0.026 **	(0.005)
% Foreign born	-0.010	(0.012)	-0.012	(0.015)
% Unemployed	-0.034	(0.068)	-0.021	(0.067)
% Owner occupied housing	-0.012	(0.017)	-0.013	(0.017)
% Professional	0.005	(0.035)	0.006	(0.034)
Median housing values	0.000	(0.000)	0.000	(0.000)
Metro area (vs. nonmetro area)	-0.376 *	(0.215)	-0.374 *	(0.217)
Change in socioeconomic conditions at l	local area of origin	between 199	0_2000	
Percent Black			0.020	(0.029)
Percent foreign-Born			0.006	(0.027)
Intercept	2.677 **	(1.398)	2.601 *	(1.410)

# Table 5a: Bivariate probit models predicting migration

\* p < .10 \*\* p < .05

	Model	1	Model	Model 2		3	Model 4	
Migration status								
Migrant	0.317 *	(0.178)	0.305 **	(0.149)				
South-North					0.296 *	(0.164)	0.303 **	(0.143)
South-South					0.317 **	(0.167)	0.314 **	(0.148)
North-South					0.182	(0.166)	0.175	(0.146)
North-North					0.269	(0.165)	0.272 *	(0.143)
Other					0.322 **	(0.154)	0.297 **	(0.133)
Demographic characteristics								
Labor force experience	0.009 **	(0.003)	0.009 **	(0.002)	0.009 **	(0.002)	0.009 **	(0.002)
- squared	-0.001 **	(0.000)	-0.001 **	(0.000)	-0.001 **	(0.000)	-0.001 **	(0.000)
Married	0.442 **	(0.008)	0.441 **	(0.008)	0.442 **	(0.008)	0.442 **	(0.008)
household head	0.396 **	(0.011)	0.396 **	(0.010)	0.397 **	(0.011)	0.397 **	(0.010)
Disabled	-0.177 **	(0.021)	-0.177 **	(0.021)	-0.177 **	(0.020)	-0.178 **	(0.021)
Foreign-born	0.176 **	(0.032)	0.179 **	(0.035)	0.178 **	(0.032)	0.181 **	(0.034)
Educational attainment (ref: colleage o	or more)							
Less than high school	-0.662 **	(0.031)	-0.663 **	(0.030)	-0.666 **	(0.031)	-0.666 **	(0.030)
High school + some college	-0.291 **	(0.020)	-0.290 **	(0.019)	-0.293 **	(0.020)	-0.292 **	(0.019)
Socioeconomic conditions at local area	a of residence in 2	000						
Average wages	0.000 *	(0.000)	0.000 *	(0.000)	0.000 *	(0.000)	0.000 *	(0.000)
% Black	0.004 **	(0.001)	0.003 **	(0.001)	0.004 **	(0.001)	0.003 **	(0.001)
% Foreign-Born	0.002 **	(0.001)	0.000	(0.001)	0.002 **	(0.001)	-0.001	(0.001)
% Unemployed	-0.134 **	(0.015)	-0.121 **	(0.016)	-0.135 **	(0.015)	-0.121 **	(0.016)
% Professional	0.007 **	(0.003)	0.007 **	(0.003)	0.007 **	(0.003)	0.007 **	(0.003)
Metro area (vs. nonmetro area)	0.037	(0.029)	0.036	(0.027)	0.035	(0.028)	0.034	(0.027)
Change in socioeconomic conditions at	t local area of rest	idence betwee	n 1990_2000					
% Black			0.006 *	(0.004)			0.007 *	(0.004)
% Foreign-Born			0.014 **	(0.004)			0.014 **	(0.004)
Intercept	1.342 **	(0.136)	1.308 **	(0.132)	1.358 **	(0.129)	1.319 **	(0.130)
rho	-0.112 *	(0.098)	-0.107	(0.082)	-0.092 *	(0.089)	-0.091 *	(0.078)

### Table 5b: Bivariate probit models predicting labor force participation

Dependent variable	Abso	Absolute Earnings (log)			Home price/earnings ratio (log)				Percent below personal earnings			
-	Model 1		Model 2		Mode	3	Model 4		Model 5		Mode	16
Migration status												
Migrant	0.033 ** (0	.007)			-0.062 **	(0.014)			0.870 **	(0.289)		
South-North			-0.029	(0.018)			0.099 **	(0.035)			-1.875 **	(0.513)
South-South			0.021 **	(0.010)			-0.119 **	(0.024)			0.710 *	(0.391)
North-South			0.043 **	(0.015)			-0.119 **	(0.027)			1.486 **	(0.513)
North-North			0.070 **	(0.013)			-0.024	(0.021)			1.627 **	(0.430)
Other			0.002	(0.015)			0.014	(0.028)			-0.130	<b>(</b> 0.559 <b>)</b>
Demographic character	ristics											
Labor force exp.	0.022 ** (0	.001)	0.022 **	(0.001)	-0.019 **	(0.002)	-0.018 **	(0.002)	0.996 **	(0.032)	0.988 **	(0.033)
- squared	0.000 ** (0	.000)	0.000 **	(0.000)	0.000 **	(0.000)	0.000 **	(0.000)	-0.019 **	(0.001)	-0.019 **	(0.001)
Married	0.258 ** (0	.010)	0.256 **	(0.010)	-0.274 **	(0.012)	-0.273 **	(0.012)	9.359 **	(0.312)	9.332 **	(0.317)
household head	0.307 ** (0	.008)	0.306 **	(0.008)	-0.321 **	(0.010)	-0.320 **	(0.009)	10.523 **	(0.267)	10.500 **	(0.269)
Disabled	-0.078 ** (0	.006)	-0.078 **	(0.006)	0.081 **	(0.006)	0.080 **	(0.006)	-2.857 **	(0.183)	-2.839 **	(0.184)
Foreign-born	-0.087 ** (0	.015)	-0.088 **	(0.015)	0.047 *	(0.028)	0.048 *	(0.027)	-3.833 **	(0.675)	-3.867 **	(0.682)
Educational attainmen	t (ref: college or	more)										
Less than high S.	-0.789 ** (0	.016)	-0.787 **	(0.016)	0.839 **	(0.021)	0.842 **	(0.021)	-29.730 **	(0.535)	-29.717 **	(0.551)
High S some col.	-0.458 ** (0	.008)	-0.457 **	(0.009)	0.486 **	(0.013)	0.489 **	(0.013)	-18.156 **	(0.351)	-18.163 **	(0.359)
Socioeconomic conditio	ons at local area	of reside	nce in 2000	1								
Average wages	0.000 ** (0	.000)	0.000 **	(0.000)	0.000 **	(0.000)	0.000 **	(0.000)	0.000 **	(0.000)	0.000 **	(0.000)
% Black	-0.002 ** (0	.001)	-0.002 **	(0.001)	-0.002	(0.002)	-0.001	(0.002)	0.011	(0.020)	0.006	(0.021)
% foreign-Born	0.001 (0	.001)	0.001	(0.001)	0.002	(0.002)	0.002	(0.002)	0.221 **	(0.033)	0.221 **	(0.032)
% Unemployed	-0.013 (0	.008)	-0.013	(0.008)	0.051 **	(0.020)	0.043 **	(0.019)	-0.377	(0.345)	-0.340	(0.347)
% professional	-0.003 (0	.002)	-0.003	(0.002)	-0.007	(0.006)	-0.008	(0.006)	-0.246 **	(0.056)	-0.237 **	(0.057)
Metropolitan area	-0.013 (0	.013)	-0.013	(0.013)	0.022	(0.046)	0.032	(0.045)	-12.649 **	(0.384)	-12.700 **	(0.387)
Selection controls												
lambda_mig	•	.025)	0.103 **	(0.026)	-0.247 **	(0.061)	-0.260 **	(0.063)	1.760 *	(0.976)	1.843 *	(1.000)
lambda_emp	•	.042)	0.233 **	(0.043)	-0.308 **	(0.050)	-0.297 **	(0.049)	11.127 **	(1.489)	10.951 **	(1.506)
Intercept	9.248 ** (0	.051)	9.257 **	(0.052)	1.776 **	(0.116)	1.817 **	(0.116)	49.341 **	(2.164)	49.397 **	(2.180)

## Table 6: OLS results predicting absolute and relative earnings controlling for selection into migration and labor force participation