The Effect of Disasters on Migration Destinations: Evidence from Hurricane Katrina

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Abstract

While post-disaster migration can move vulnerable populations from dangerous regions to relatively safe ones, little is known about the processes by which migrants select new homes. We utilize an econometric model of migrant flows to examine the characteristics of the destinations that attracted migrants leaving the New Orleans area following Hurricane Katrina in 2005 relative to migration behaviors in other years. We find an increase flow of migrants to large, nearby counties with a mixed effect of economic variables on migration. We generally do not find changes in the overall mix of migration, however, suggesting that disasters increase the magnitude of migration but not its direction.

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Introduction

Natural disasters can cause widespread destruction and weaken local economies. These impacts can lead to permanent migration away from disaster-affected areas. Such permanent, or even semi-permanent, migration induced by natural disasters has the potential to significantly reshape the distribution of national and global populations and economies (McIntosh 2008). Moreover, because migration moves people out of the path of some disasters, and potentially into the path of other ones, post-disaster migration has implications for the risks associated with future events (Gráda and O'Rourke 1997). Finally, the migration itself and the loss of community cohesion suggests the need for consideration of mental health support in communities that will receive large numbers of disaster migrants (Weber and Peek 2012).

Migration following disasters is well-documented for major events like Hurricane Katrina, the 2011 Tohoku earthquake/tsunami and subsequent Fukushima nuclear disaster, and the 2004 Indian Ocean tsunami. Because of the pressures placed on the affected population, disasters can cause migration among a wider portion of the population than those who migrate normally – i.e. in a non-disaster related context (Gray et al. 2014). While the propensity for disaster-affected populations to migrate is documented, less is known about the preferences that impact the destination of disaster-affiliated migrants.

Influences on migration decisions are generally framed in the context of "push" factors and "pull" factors. Push factors cause people to want to leave the origin while pull factors cause people to want to go to a specific destination. For example, high unemployment in the origin signals poor job prospects and is seen as a push factor for out-migration. Similarly, a low cost of living might pull people toward a particular destination.

The circumstances of a disaster, however, may shift the relative importance of various pull factors in attracting migrants. This could occur because preferences over these pull factors are dependent on the state in which the decision to migrate is made. *Alternatively, a disaster induces traditional non-migrants to move, and, if these people have different preferences than those who are traditional movers, then the overall destination of post-disaster migrants will shift.*

An understanding of these pull factors is important for crafting natural disaster recovery policies, understanding the likely evolution of disaster damages, and evaluating the prospects for repatriation. For example, if post-disaster migrants are credit-constrained and unable to move to the optimal location, government subsidies for relocation costs might be justified. If post-disaster migrants move to other areas that are at high risk of natural disasters, then the relocation costs will not mitigate future disaster losses and may actually increase future social costs related to natural disasters.

Hurricane Katrina, which struck New Orleans in 2005, provides an ideal case study to examine the factors that influence the destination of disaster migrants. Most residents of New Orleans evacuated prior to the Hurricane, and following the storm most remaining residents were evacuated by the Federal Emergency Management Agency (FEMA). All together, approximately 1.5 million people evacuated the New Orleans area which accounted for approximately 96% of New Orleans residents and 80% of residents surrounding the city (Groen and Polivka 2008; Elliott and Pais 2006). While a large number of evacuees were initially relocated to Houston by FEMA, Katrina evacuees relocated throughout the country. Nearly every state received FEMA funding for costs associated with supporting evacuees from Katrina.

Permanent migrants – as opposed to migrants that evenentually returned to the New Orleans area – were generally younger, more likely to have children, and more likely to be black (Groen and Polivka 2010). There was also an increased flow of migrants from neighboring communities in the years following Katrina compared to the years prior to Katrina indicating that the mirants which relocated to nearby communities were more likely to return than those further away (Fussell, Curtis, and DeWaard 2014).

In this paper, we examine the migration pull factors in terms of characteristics of the destinations of post-Katrina migration out of the New Orleans area by using data on the movement of IRS return filings between counties and a range of county-destination attributes. This paper contributes to the literature by estimating the relative importance of a range of factors in post-disaster relocation decisions. This work conveys a range of policy implications surrounding disasters and climate change. By identifying the characteristics that draw migrants following natural disasters, we increase the understanding of future migration patterns as disasters grow more frequent. Our consideration of distance in the relocation decision also highlights the extent to

which post-disaster migrants will be removed from similarly disaster-prone areas.

The rest of the paper proceeds as follows. In Section , we review the theoretical structure of migration decisions, in Section discuss our data sources, in Section present our estimating equations, and in Section present our results.

Conceptual Underpinnings

From an economic standpoint, migration decisions are based on households comparing their expected lifetime utility in their current location (the origin) to a location to which they could move (the destination) (Greenwood 1985; Greenwood 1975). Yun and Waldorf (2016) examine the decision about whether or not to migrate in an expected lifetime utility framework and focus on the extent to which Katrina induced migration by those who would not otherwise have migrated. The utility that a household expects to receive from living in a particular location depends on economic variables such as the wages and cost-of-living associated with an area, but also on non-economic variables such as environmental amenities, family and social ties, and perceptions about safety. A household will decide to migrate if the increase in expected lifetime utility obtained by moving from the origin to the destination exceeds the costs of moving. These costs include the financial costs associated with moving, as well as more abstract factors such as the social costs incurred by the move.

The decision to migrate is generally endogenous to migrant characteristics. Highly-skilled migrants who expect to receive large wage premiums are more likely to migrate than low-skilled workers (Borjas 1987). Similarly, migration is costly, Chiswick (1999) notes that those who are less credit-constrained are more able to afford the upfront costs associated with an optimal relocation decision.

Natural disasters, however, cause exogenous variation in the expected lifetime utility at the origin. For example, property damage would require repair costs in order to stay at the origin, and a weakened local economy would lower wages at the origin. Similarly, if a disaster causes households to update their beliefs

about the likelihood and severity of subsequent events, this could lower the expected utility of remaining in the origin. These effects would cause households to re-evaluate their location decisions and potentially choose to migrate due to the decreased expected life-time utility at their origin (Yun and Waldorf 2016).

In the event of major natural disasters like Hurricane Katrina and the Fukushima nuclear disaster, the push factors are relatively obvious; people leave the origin because of mandatory evacuation requirements, legal inability to return due to quarantines, loss of employment opportunities, etc. It is less obvious what draws migrants to particular locations following a disaster. One might be particularly concerned that post-disaster migrants are systematically different than those who choose to migrate under other circumstances. Disaster-related migrants, for example, might feel compelled to relocate more quickly or have less wealth with which to bear moving costs. Hence, they may not move to optimal locations in comparison to normal circumstances, or what Yun and Waldorf (2016) refer to as "double-victimization." Black et al. (2011) suggest that population movements due to disasters are typically short distance, though this conclusion seems to be counter to what happened in the aftermath of Hurricane Katrina.

Several variables have been suggested, and some tested, to explain the pull factors. Many of these are traditional in the gravity model literature of migration, such as wage and cost-of-living differentials, distance, moving costs, and general economic health of the destination (Borjas 1987; Rupasingha, Liu, and Partridge 2015). Broadening the analysis leads to consideration of amenities, family ties, racial/ethnic affinities, migration networks, and institutions (McKenzie and Rapoport 2010; Nifo and Vecchione 2014). The destination choice itself is dependent on the reason that drives the individual to migrate (Findlay 2011). One might conclude that short or long-run hazard vulnerability would be major considerations, but Black et al. (2011) and Fielding (2011) emphasize the primacy of socioeconomic over environmental variables in current migration decisions, though on the basis of only anecdotal information.

Such migration preferences need not be constant, however. The very push-factors that cause migrants to choose to move could shift their relative preferences for pull factors. For example, a hurricane that destroys residents'homes (a push-factor shock) could cause people to rethink their preferences over living in coastal communities. Similarly, because natural disasters can force rapid relocation rather than providing time to

search for new jobs or save money for transportation costs, migrants may sacrifice some pull factor preferences for a quicker transition.

Data

Our primary source of data is the Internal Revenue Service (IRS) Statistics of Income Division's migration data (Internal Revenue Service 2017). These data are based on year-to-year address changes reported on individual income tax returns filed with the IRS and aggregated up to the county level beginning in 1990. The data reports county-to-county flows of households, people, and income as proxied by number of returns filed, number of personal exemptions claimed, and total adjusted gross income. The county-to-county flows can be seen as either inflows or outflows depending on the county of interest. The IRS suppresses observations with fewer than 10 filers due to disclosure concerns and prior to 2004 the IRS did not distinguish between a non-disclosed observation and a true 0 observation. Because we cannot distinguish between a county-to-county pair which received between 1 and 9 filers from a county-to-county pair which did not receive any filers, we treat these potential non-disclosed counties as 0.

Given our focus on New Orleans, we restrict our interest to outflow migration from the parishes most severely affected by Hurricane Katrina in 2005. We define the population affected by Hurricane Katrina as those residing in Jefferson, Lafourche, Orleans, Plaquemines, St. Bernard, St. Charles, St. John The Baptist, St. Tammany, and Terrebonne Parishes.[1] These parishes constitute the New Orleans metro, as well as two surrounding Parishes which adjoin the metro area. While there was some migration between affected regions (i.e., moving from a county that was severely affected to one that was slightly less affected), we remove these migrants from our sample to facilitate a simpler interpretation of outflow migrants.

We aggregate annual migration flows to each destination county across the 9 highly-affected origin counties between 2000 and 2010. The result is an 11-year panel of population flows to the 3,095 destination counties.[2]

[1] While Louisiana is organized into parishes rather than counties, we will use the term counties throughout this paper to facilitate discussion of destination locations.

[2] There are 3,144 counties and county equivalents in the U.S. and affected counties are removed from the set of potential destination counties as well as any counties for which explanatory variables are unavailable.

There is a non-zero number of migrants to approximately 5.4% of the county-year observations in our dataset. In 2005, however, 13.8% of US counties received migrants from the affected area. With the exception of 2005, the number of migrants and the proportion of counties that receive migrants from New Orleans is relatively consistent over time.

Most migrants from the New Orleans area move to counties that are relatively close. Table 1 and 2 present the states and counties that received the greatest proportion of migrants from the New Orleans area in 2005. Each of the five states that received the most migrants from New Orleans area in the South, as are the ten most common destination counties. With the exception of Tangiphoa and Ascension parishes in Louisiana, each of the most common destination counties are within a metropolitan area.

We supplement the IRS migration data with a number of explanatory variables that might affect the relative attractiveness of a destination county. Unemployment rates are obtained from the Bureau of Labor Statistics (BLS) which reports annual labor force data by county (Bureau of Labor Statistics 2017a). This data includes the number of people in the labor force as well as the number of unemployed people, and unemployment rates are calculated from these values. Average annual wage data are obtained from the Quarterly Census of Wages provided by the BLS (Bureau of Labor Statistics 2017b). Both of these variables proxy for the labor market of a given county with the availability of jobs and their relative pay. Median monthly rents for 2-bedroom units are obtained from the Department of Housing and Urban Development (Department of Housing and Urban Development 2017). Rents are a measure of cost-of-living for a county. And finally, the metropolitan classification of each county is denoted using the rural-urban continuum codes from the United States Department of Agriculture Economic Research Services (United States Department of Agriculture Economic Research Service 2017).

Summary statistics for the relevant variables are provided in Table 3.

Methods

In order to understand how Hurricane Katrina affected migration we estimate a series of models of migration outflow from the affected counties. We adopt a traditional gravity model as our baseline model:

$$Y_{i,t} = \alpha + \gamma D_i + \beta_1 P_{i,t} + \beta_2 Katrina_t + \beta_{\mathbf{3}} \mathbf{X_{i,t}} + \varepsilon_{i,t}$$

where i indicates destination county, t denotes the year of interest, $Y_{i,t}$ is our dependent variable which captures migration flows from our previously defined New Orleans area, D_i is the Euclidean distance from the centroid of a county to the affected area, $P_{i,t}$ is a measure of population, $Katrina_t$ is an indicator for whether or not an observation corresponds to 2005, and $\mathbf{X_{i,t}}$ contains the relevant economic explanatory variables for destination county: unemployment rate, average annual wages, average monthly rent, and an indicator of metropolitan status of the county. Of particular interest is the coefficient associated with the $Katrina_t$ variable which would indicate how the out-migration was affected by the natural disaster.

We consider a set of dependent variables for our regressions, and estimate the model separately with each potential dependent variable. First, we consider the number of migrants to county i itself. Next, we consider the inverse hyperbolic sine of migrants to county i, which is comparable to the natural log and yields semi-elasticities. Next, because many counties receive no migrants at all we estimate a linear probability model in which $Y_{i,t}$ takes on a value of one if any migrants are observed moving to a particular county in a given year. Finally, we calculate the share of New Orleans' area migration that goes to each county.

The first two variables capture the intensive margin of migration, while the third measures the extensive margin. These models describe the distribution and magnitude of post-disaster migration. The final specification speaks to the mix of migration across potential destinations, holding constant the magnitude of migration flows.

Next, we focus on how the effect of each of the covariates on migration changed in 2005 relative to other years.

In order to do so, we modify the baseline gravity model by interacting each of our explanatory variables with our $Katrina_t$ variables:

$$\begin{aligned} Y_{i,t} =& \alpha + \gamma D_i + \beta_1 P_{i,t} + \beta_2 Katrina_t + \boldsymbol{\beta_3 X_{i,t}} + \gamma_k D_i \times Katrina_t + \\ & \beta_{1k} P_{i,t} \times Katrina_t + \boldsymbol{\beta_{3k} X_{i,t}} \times Katrina_t + \varepsilon_{i,t} \end{aligned} \tag{1}$$

The resulting interaction terms capture the change in preferences over each pull factor variable relative to the other years in our sample, when a major disaster did not strike New Orleans. If Hurricane Katrina shifted the relative importance of pull factors in the destination-selection process, we would expect these interaction terms to be statistically significant. Similarly, if these interaction terms are statistically indistinguishable from zero it suggests that migration was no different in 2005, for example, than it was in years that were not affected by Hurricane Katrina.

Results

In Table 4, we present the results of a series of OLS regressions related to the flow of migrants from the New Orleans area. In each column, we present a particular transformation of the flow of migrants from New Orleans to each destination county. Columns 1 and 2 correspond to the count of migrants and the inverse hyperbolic sine of migrant count, Column 3 relates to a dummy variable for whether or not a county had more than 10 migrants from any of the affected counties, and Column 4 is each county's share of all migrants leaving the New Orleans area.

In general, the results reflect relatively standard migration preferences. Counties that are large, or close to the New Orleans area are more likely to receive migrants than less populous counties or those that are far from southern Louisiana. Similarly, counties with lower unemployment and higher wages are more likely to receive migrants than counties with less robust economies, although we find no statistically significant effect

of a destination county's median rent on migration decisions. These effects are each true across each of the specifications.

When focusing on the intensive margin in 2005 (Columns 1 and 2), we primarily find an increased penalty on counties that are distant from New Orleans. While each additional hundred kilometers of distance resulted in a 2.3% decrease in the number of migrants to a county in the baseline, in 2005 the same marginal change in distance resulted in a 7.6% drop in migrants. In the inverse hyperbolic sine specification, we find impacts on the economic pull factors that are statistically distinct from their non-interacted counterparts. The interpretation of the changes in these economic variables are mixed. The positive coefficients on the unemployment rate and on median rent each indicate a reduction in the importance of economic considerations, although the positive impact on average pay suggests the opposite. There is also more migration towards larger counties relative to other years; a county with an additional million residents would receive 215% more migrants than a county with fewer residents in most years but in 2005 the differential would be closer to 300%. We find similar effects on the extensive margin (Column 3) in 2005. Distance and population are more important in determining whether or not a county receives any migrants from the New Orleans area, while there is mixed evidence of a differential impact from economic considerations.

The results are less clear when we focus on explaining the share of migrants who moved to each county (Column 4). In most years, the share of migrants tends to reflect the results from the intensive and extensive margin regressions. Large counties that are close to New Orleans that have strong economies receive a greater share of migrants than distant, small counties with weak economies. When we focus on the interaction terms, however, the only discernible change is in the effect of the unemployment rate. As with the other three regressions, and consistent with the idea that economic conditions matter less in the face of a natural disaster, the unemployment rate mattered less in 2005 than it did in other years. While a one percentage point increase in the unemployment rate reduced the share of New Orleans migrants to a county by about 0.2 percentage points, in 2005 counties with higher unemployment rates actually received a greater share of migrants from New Orleans than those with low unemployment rates. There is no statistically significant shift of migrants from distant counties towards close ones or from large counties to smaller ones.

A large number of residents of New Orleans were evacuated to Houston, Texas by FEMA. While many of these people eventually settled permanently in Houston, these movements may not signal a particular preference for Houston, but rather path-dependence in relocation. Because Houston is relatively populous and had a relatively strong economy in 2005, it could be biasing our results. One could imagine, for example, that the increased migration towards more populous counties in 2005 is actually driven by FEMA relocations to Harris County, rather than any particular preference for populous destinations. In Table 5, we present our regression results again, while omitting Harris County, Texas, from the set of possible destinations. The results are qualitatively similar to the full sample. For the baseline coefficients, we see small reductions in magnitude for population, distance, and average pay. Similarly, we generally see small reductions in magnitude for the 2005 interaction terms. Our general results, that greater numbers of migrants moved to nearby and populous counties in 2005 than in most years but that the distribution of migrants was largely unchanged, is robust to removing Houston, the primary destination of direct FEMA evacuees.

While Hurricane Katrina resulted in substantial increases in outflow migration, much of it to areas that were relatively likely to be affected by future hurricanes, the overall composition of migration remained relatively unchanged. Because people tend to migrate to close areas rather than distant ones, post-disaster migration is unlikely to be a panacea for natural hazards. Still, disaster-related migration may still result in some social benefits. People tend to migrate towards urban population centers rather than rural communities, so disasters may serve to accelerate the shift of populations towards cities, in which they may benefit from agglomeration effects and experience higher productivity.

Conclusion

This study has focused on the characteristics of the destinations of post-Katrina migrants from the New Orleans area using IRS data on the movement of tax exemptions in order to explain the pattern of out-migration. An understanding of the factors driving post-disaster migration is important both in planning for shifts in population and in assessing future damages from natural disasters.

In most years, migration away from the New Orleans area corresponds with traditional gravity model results. Migrants prefer close destinations to distant ones, and tend towards large, economically strong counties rather than rural ones with fewer economic prospects. This is true across a range of specifications describing outflow migration.

As natural disasters grow more frequent and more costly, disaster-related migration will increase. While migration away from high-risk regions could reduce future disaster losses, migrants tend to move to counties that suffer similar risk to the ones that they are leaving. Government policy could be used to incentive migration towards safer destinations that are further from the affected area, but in the absence of much policy interventions, migration is unlikely to lower the costs of future disasters.

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Tables and Figures

Table 1: Most Common State Destination for Migrants in 2005

State	Migrants	Percentage of Total
Texas	73,252	40.3%
Louisiana	45,014	24.8%
Georgia	14,480	7.96%
Mississippi	10,327	5.68%
Florida	5,951	3.27%

Table 2: Most Common County Destination for Migrants in 2005

FIPS	County	State	Migrants	Percentage of Total
48201	Harris	Texas	38,033	20.9%
22033	East Baton Rouge	Louisiana	14,291	7.86%
48113	Dallas	Texas	9,971	5.48%
48439	Tarrant	Texas	5,575	3.07%
22105	Tangipahoa	Louisiana	4,758	2.62%
22055	Lafayette	Louisiana	3,377	1.86%
48029	Bexar	Texas	3,114	1.71%
22005	Ascension	Louisiana	2,912	1.6%
13089	Dekalb	Georgia	2,783	1.53%
47157	Shelby	Tennessee	2,769	1.52%

Table 3: Summary Statistics

variable	mean	sd	min	max
Distance (Hundreds of Miles)	13.6542783	7.7857742	0.5729597	69.165578
Migrants from New Orleans	11.6515494	248.5658002	0.0000000	38033.000000
Unemplomet Rate	5.5964191	1.7244501	3.2300000	19.400000
In a Metro	0.3476575	0.4762336	0.0000000	1.000000
Average Annual Pay (Thousands of USD)	29.5532491	7.2867086	0.0000000	101.084000
Population (Millions)	0.0740929	0.2331340	0.0000000	7.421764
Unemployment Rate	6.0421604	2.6590955	1.3672343	28.840018

Table 4: Effect of Destination Characteristics on New Orleans Outflow Migration

	Dependent variable:			
	Flow	IHS	LP	Share
	(1)	(2)	(3)	(4)
Population (Millions)	101.203**	2.148***	0.395***	0.459**
	(44.498)	(0.490)	(0.100)	(0.198)
Distance (Hundreds of Kilometers)	−1.106***	−0.023***	−0.004***	−0.005***
	(0.261)	(0.003)	(0.001)	(0.001)
Unemployment Rate	−0.535***	−0.018***	−0.004***	−0.002***
	(0.167)	(0.003)	(0.001)	(0.001)
Average Pay	0.467**	0.016***	0.003***	0.002**
	(0.221)	(0.004)	(0.001)	(0.001)
Median Rent	−1.547	0.007	0.003	−0.006
	(1.556)	(0.015)	(0.003)	(0.007)
Non Metro	2.991	−0.060	−0.017*	0.014
	(3.605)	(0.048)	(0.010)	(0.016)
Year 2005	79.850	−1.109***	−0.217***	0.005
	(174.720)	(0.237)	(0.042)	(0.078)
Population X 2005	1,056.555	0.687**	0.006	0.176
	(777.624)	(0.344)	(0.037)	(0.254)
Distance X 2005	−7.474***	−0.053***	−0.009***	0.0003
	(1.719)	(0.004)	(0.001)	(0.001)
Unemployment Rate X 2005	10.183**	0.110***	0.020***	0.007***
	(3.995)	(0.017)	(0.003)	(0.002)
Average Pay X 2005	2.988	0.026***	0.004***	−0.0001
	(3.324)	(0.006)	(0.001)	(0.001)
Median Rent X 2005	−28.004	0.220***	0.045***	−0.010
	(32.920)	(0.031)	(0.006)	(0.013)
Non Metro X 2005	10.658	−0.439***	−0.083***	−0.007
	(33.114)	(0.062)	(0.013)	(0.008)
Constant	10.708*	0.009	−0.011	0.044*
	(5.663)	(0.109)	(0.023)	(0.025)
Observations	34,045	34,045	34,045	34,045
R^2	0.113	0.338	0.312	0.115
Adjusted R^2	0.112	0.337	0.311	0.115
Note:				*p<0.1; **p<0.05; ***p<0.01

Table 5: Effect of Destination Characteristics on New Orleans Outflow Migration - Excluding Houston

	Dependent variable:			
	Flow	IHS	LP	Share
	(1)	(2)	(3)	(4)
Population (Millions)	61.535^{***}	2.117^{***}	0.400^{***}	0.283^{***}
	(11.181)	(0.503)	(0.107)	(0.050)
Distance (Hundreds of Kilometers)	-0.996^{***}	-0.023^{***}	-0.004^{***}	-0.005^{***}
	(0.238)	(0.003)	(0.001)	(0.001)
Unemployment Rate	-0.531^{***}	-0.018^{***}	-0.004^{***}	-0.002^{***}
	(0.142)	(0.003)	(0.001)	(0.001)
Average Pay	0.393^{**}	0.016^{***}	0.003^{***}	0.002^{**}
	(0.159)	(0.004)	(0.001)	(0.001)
Median Rent	-0.101	0.008	0.003	0.0001
	(0.600)	(0.015)	(0.003)	(0.003)
Non Metro	0.503	-0.062	-0.017^{*}	0.003
	(2.225)	(0.049)	(0.010)	(0.010)
Year 2005	-60.751	-1.107^{***}	-0.215^{***}	-0.058^{***}
	(44.486)	(0.241)	(0.043)	(0.022)
Population X 2005	345.623^{**}	0.708^{*}	0.015	-0.059
	(154.226)	(0.371)	(0.041)	(0.047)
Distance X 2005	-6.433^{***}	-0.053^{***}	-0.009^{***}	0.0005
	(1.240)	(0.004)	(0.001)	(0.001)
Unemployment Rate X 2005	11.197^{***}	0.111^{***}	0.020^{***}	0.008^{***}
	(3.635)	(0.017)	(0.003)	(0.002)
Average Pay X 2005	3.012^{**}	0.026^{***}	0.004^{***}	0.0002
	(1.318)	(0.006)	(0.001)	(0.001)
Median Rent X 2005	4.545	0.219^{***}	0.044^{***}	0.002
	(5.200)	(0.032)	(0.006)	(0.002)
Non Metro X 2005	-15.917	-0.437^{***}	-0.083^{***}	-0.011^{*}
	(13.572)	(0.062)	(0.013)	(0.006)
Constant	7.150^{**}	0.006	-0.011	0.029^{*}
	(3.372)	(0.110)	(0.023)	(0.015)
Observations	34,034	34,034	34,034	34,034
R^2	0.092	0.327	0.308	0.077
Adjusted R^2	0.092	0.327	0.308	0.077
Note:				*p<0.1; **p<0.05; ***p<0.01