

**Should I Stay or Should I Go Now -
The Effects of Community Satisfaction on
the Decision to Stay or Move**

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ABSTRACT

Why do some people stay in locations while others move? While most research has examined the factors which encourage people to move to new locations, we focus our research on the effects of satisfaction with individuals' current location on the decision to stay or to move. To do so, we examine the relative effects of three kinds of factors: (1) satisfaction with community or place-based factors such as aesthetic appeal, outdoor space and recreational amenities, artistic and cultural amenities, the ability to meet people and make friends; (2) community economic conditions; and (3) individual-level demographic factors such as income, human capital, and age. Our findings indicate that place-based factors, in particular the beauty and physical appeal of the current location and the ability to meet people and make friends, explain more of the desire to stay than does community economic conditions or individual demographic characteristics.

Key words: Community satisfaction, Migration, Mover, Stayer

JEL: R23, Z1

INTRODUCTION

Economists, demographers and social scientists have long sought to identify the factors that shape the migration of people across regions and the factors that shape the location choices of individuals. Economics' research on individual location choice has been framed largely by Tiebout's (1956) classic contribution. Tiebout's model framed individual location choice as a mechanism by which individuals access an optimal bundle of services and taxes. Instead of trying to change the provision of local goods and services, people "vote with their feet," moving to a region that maximizes their individual utility. As a result, migration serves a market-like process whereby individuals seek out the communities that best fit their preferences.

Following Tiebout, there has been a strong focus on the factors that shape the decision to move to new locations. Empirical studies in this tradition have found income levels, job supply and housing market conditions to be key factors in explaining the decision to move (Tiebout, 1956; Herzog and Schlottmann, 1986; Whisler et al., 2008). Others (Rosen, 1979; Roback, 1982) later expanded the basic Tiebout framework to include quality-of-life factors, treating them as residuals, in other words, the part of migration not explained by increases in wages or decreases in land rent must be due to regional differences in quality-of-life. Later research in this area broadened the focus from the question of why people leave regions towards those factors that actually attract individuals, particularly highly-mobile workers, to certain kinds of regions (Glaeser et al., 2001; Florida, 2002; Gottlieb and Joseph, 2006).

Research by behavioral psychologists has focused on the role of regional characteristics (Wolpert, 1965; Landale and Guest, 1985; De Jong and Fawcett, 1982). This research finds that the likelihood for individual migration depends on the individual's current fit with their current location and the real or perceived quality-of-life of alternative locations.

Most research on individual migration and location choice focuses on the factors that shape in-migration and the choice of "new" locations. Our research flips the question around so to speak, and focuses on the factors that affect the intentions of individuals to stay in their current location. It probes the effects of three classes of factors - individual demographic characteristics, local economic conditions and the supply of public goods, and community or place-based characteristics that shape community satisfaction on the decision to stay or to move. To examine the effects of these factors, it employs data from a large scale survey sample of individuals from the Gallup Organization. The survey asked a series of key questions about the desire of individuals to stay in their current location or to move to a new one. It also asked questions related to community satisfaction overall and various dimensions of community satisfaction including place-based factors such as artistic and cultural amenities, outdoor recreation, the aesthetics or beauty of locations, the supply of public goods, and the ability to meet people and make friends. The survey also asked questions about the economic conditions and public goods provision of individuals' locations as well as collecting detailed demographic data on survey respondents.

THEORY AND CONCEPTS

Economists have long sought to identify the factors that influence migration patterns and individual location choice, primarily based on perceived economic rewards that result from geographic movements. Tiebout (1956) seminally argued that instead of making attempts to change the already existing situation in a region, individuals vote with their feet and locate in the community that offers the bundle of public services and taxes they like best. In the same way that an individual satisfies the demand for private goods by purchasing them at the market, the demand for public services will be satisfied by moving to region with the appropriate selection of taxes and services, and that this in the end would create a market-like solution to the local public goods problem. In other word, migration becomes a solution for people to find their fit.

In traditional economics literature, migration is considered the adjustment of disequilibria within various markets – for labor, jobs, housing, etc. – across space. A vast literature has tried to explain the driving forces behind this constant re-allocation of the population, often with a focus on the final destination point. In the human capital model (Sjaastad, 1962) an individual takes the expected future benefits and costs into account, and makes the move if the expected benefits exceed the costs. The disequilibrium model predicts that in order to maximize utility, individuals tend to move to regions where the real wage is relatively high. This implies that regions with a higher real wage level have a positive net migration. Due to changes in labor supply the regional wage level decreases in regions with positive net migration and increases in regions attributed with negative net migration. The migration process ceases when the real wage among the regions is equal (Greenwood, 1973; Thirlwall, 1966).

However, despite the theoretical claim that migration reduces regional wage disparities, the gap both within and between earnings across regions have increased over time. Furthermore, Census data on migration indicate that between 30 and 40 million Americans change their place of residence each year.

Rosen (1979) and Roback (1982) note that amenities and increases in quality-of-life compensate for lower wages and increased housing values when migration takes place. In other words, when making locational choices individuals are likely willing to accept a lower wage or higher cost of housing in exchange for an increase in the overall quality of life. Blomqvist *et al.* (1988) demonstrate that these tradeoffs are evident for movements both within and across regions.

A considerable body of research has explored the relationship between particular quality of life factors and migration across regions from many different angles. Gyourko and Tracy (1991) show that fiscal conditions and local leadership as well as regional environmental amenities are important. In 2001, Glaeser et al. analyzed the importance of consumer and personal service industries such as restaurants, theatres, and museums, recasting urban regions as “consumer cities.” Simultaneously, Lloyd and Clark (2001) stressed the role of lifestyle – in the form of entertainment, nightlife, culture, and so on – and demonstrated how the city functions as an entertainment machine. Florida (2002) introduced the role of openness, tolerance and low barriers to entry, and argued for their importance in the location choices of highly-skilled, creative class workers.

Much of this research has also demonstrated how place-based factors are evaluated differently by various population groups. For example, locational preferences are conditioned by life-stage factors such as investment in human capital (Becker, 1993) or marriage (Mincer, 1978; Graves and Linneman, 1979). Rogers (1988) and Pandit (1997) both highlight the relation between age and migration

patterns. Edlund (2005) argues for a gender effect in migration patterns, where both greater labor market and marriage market prospects (due to the greater presence of high-income males) leads to over-representation of women in large cities in the Western world and under-representation in rural regions. Traditional economics has also developed so-called mover-stayer models (Blumen et al., 1955) to separate the population in two groups – those with a higher likelihood to move from those who are more probable to stay put. Individuals with a higher propensity to migrate tend to be young and highly educated since both are expected to get higher returns from migration. Older and married individuals tend to have higher costs related to migration, and therefore are more likely to belong to the stayer group.

While most of these studies of inter-regional migration consider the factors that attract groups of individuals toward particular destinations, there is also a line of research that focuses on the attributes of the departure regions. Herzog and Schlottmann (1986) analyzing the extent to which the metrics employed in the *Places Rated Almanac* publication statistically correlated with out-migration choices in US metropolitan regions, finding that housing, crime, education and recreation opportunities were important considerations. Whisler et al. (2008) work from the same published dataset for a later year but stratify the results according to life-stages. The authors find that among the quality of life factors, the presence of cultural and recreational amenities lowers the out-migration rates of young, college-educated groups, while safety and climate are the primary retentive factors for older, college-educated groups.

Behavioral science researchers argue that the subjective perceptions of migrants themselves are also important determinants of individual location choice. Wolpert (1965) argues that individual-level behavioral traits are critical to understanding migration patterns. He suggests that there are three critical

dimensions to understanding migration behavior: the utility that individuals' realize from their current location and anticipate realizing from possible alternative locations, the constraints under which they receive information about both the current location (e.g. biased by spatial and social proximities) and alternative locations; as well as personal characteristics – age, race, income, education, occupation, and so on. The individual's ability to get objective information and thus form attitudes about other places is invariably limited and filtered by the perception of the current location and its surroundings. Moreover, the fact that these attitudes are further complicated by individual traits and life-stage factors, results in a situation where the subjects in this analysis are as heterogeneous as the places they choose between. As a result, any research into migration decision-making must acknowledge that location-based attitudes and choices are formed within the highly personal setting of lived experience. It is both difficult and problematic to use some fixed criteria about the quality of life within regions to explain migration behavior without accounting for how these factors are individually perceived. It is critical therefore that these perceptions, captured in terms of satisfaction level, be understood with respect to migration choices.

Rossi (1955) studied residential moves of families and concluded that the most important factors were housing and income. The drive was to find a house in a place that fit their needs, but only as far as their income would allow. So, in a way it was dissatisfaction that motivated the move rather than the search for something better. Cutrona et al. (2006) show how negative neighborhood characteristics (e.g. levels of poverty or unemployment) cause depression and affect the formation of bonds between people. While this work does not address migration directly, it highlights how place-based characteristics shape individuals attitudes about places, and can do so to a greater extent than individual characteristics such as income,

education, and personal status. Landale and Guest (1985) question the explanatory power of highly subjective variables and caution that people are influenced as much by their web of social relationships as the attitudes and preferences they profess in making location decisions. The work by Putnam (2000) has also highlighted the role of social capital, social engagement and the role of trust.

There is also a considerable literature on the psychological dimensions of location choice. De Jong and Fawcett (1982) analyze the content of the migration decision, rather than the dynamics of the actual choice itself. They state that place utility should be a function of both personal goals as well as the expectancy to attain those in other places, as understood in a larger socio-economic context. Haberkorn (1981) extensively analyzed the migration decision process decomposed in several stages: the estimated challenge, the search for and weighing of alternative locations, as well as considerations of current commitments and the outcomes of the final decision.

Generally speaking, there is a cleavage between economics and psychological approaches to individual location choice. Economists focus in the main on the interaction between individual characteristics, such as income and local characteristics like job opportunities, housing prices, taxes, and the provision of public goods, while psychologists emphasize the fit between individual needs and the subjective characteristics of places. Economists also focus more on the decision to move to a new location, while psychologists and behavioral scientists look more closely at the conditions of the current location.

Our research examines the relative role played by both economic and psychological factors in individual location decisions. Our approach builds on that of Herzog and Schlottmann (1986) and Whisler et al. (2008) the relationships between individuals' satisfaction with their current location and how that affects the

decision to stay or move. We consider both the decision to stay as well as to move as elements of individual location choice. Our research uses data from a large-scale survey sample to examine the decision to stay or to move in light of three classes of factors – individual-level demographic characteristics such as income, education, age and so on; economic characteristics of locations such as job opportunities and housing costs, and factors that affect community-satisfaction

METHODOLOGY AND CONCEPTS

Our research examines these issues through a statistical analysis of a large scale survey sample of from the Gallup Organization. The total survey covered roughly 28,000 people across some 8,000 communities nationwide. The sample reflected a full range of incomes, occupations, ages, races and ethnicities, household types, sexual orientations and education levels. The response rate was 70.3 percent. However, not all questions were answered by these respondents. Taking the factors we are concerned with here – questions related to the decision to stay or move, and those concerned with community characteristics had a had a response rate of 50.7 percent.

VARIABLES

Dependent variable: The dependent variable measures the *stated likelihood to stay*. Specifically, it is based on the survey question: “How likely are you to continue to live in the city or area where you live?” Responses were ranked on a 1-5 Likert scale, where 1=not at all likely, and 5 =extremely likely.

Independent Variables:

The survey enables us to probe three sets of dependent variables.

Dimensions of Community Satisfaction: The first are factors related to community satisfaction. A series were designed to gauge the various dimensions of community satisfaction (see Table 1 below). All questions were phrased as “How would you rate the city or area where you live on?”, and response categories were based on a 5 point Likert scale where 1 =very bad and 5 =very good (see Table 1)

Community Economic Conditions: The survey also asked questions about community economic conditions, including job opportunities, current economic conditions, and future economic conditions. These questions were phased the same as the community satisfaction questions detailed above (see Table 1).

(Table 1 about here)

Table 1: Descriptive Statistics for Variables

	N	Minimum	Maximum	Mean	Std. Deviation
Likelihood to stay	27883	1.00	5.00	4.1034	1.12929
Quality of the public schools	25864	1.00	5.00	3.6134	1.16157
Quality of colleges and universities	24080	1.00	5.00	4.0271	1.06522
Cultural opportunities	26627	1.00	5.00	3.5187	1.28798
Job opportunities in your field	23031	1.00	5.00	3.2566	1.26616
Religious institutions that meet your needs	23798	1.00	5.00	4.2738	.96947
A good place to meet people and make friends	27057	1.00	5.00	3.6985	1.07935
Vibrant nightlife	24270	1.00	5.00	3.1283	1.31075
Affordable housing	26875	1.00	5.00	3.0516	1.22739
Public transportation	25429	1.00	5.00	2.7204	1.30981

Being able to get from place to place with little traffic	27589	1.00	5.00	3.3216	1.27764
Quality health care	27197	1.00	5.00	3.9594	1.07518
Climate	27508	1.00	5.00	3.7368	.98232
Air quality	27330	1.00	5.00	3.8005	1.05466
Beauty or physical setting	27577	1.00	5.00	4.0645	1.01423
Outdoor parks, playgrounds, and trails	27360	1.00	5.00	4.1402	1.00367
Current economic conditions	27482	1.00	5.00	3.3266	.97825
Future economic conditions*	27734	1.00	3.00	2.0106	.71772
Valid N (listwise)	13983				

*Future economic conditions were ranked on a 1 to 3 scale

Research Methods

We use a multivariate statistical techniques to examine the relative effects of individual- and community-level factors on community satisfaction as outlined above. We run an ordered logit given the structure of the data, in particular the fact that the dependent variable is based on a 1-to-5 Lickert scale. We will present the results from the overall ordered logit estimation (Table 2), and also the marginal effects for each of the different city satisfaction rank outcomes.

Full data on individual demographic and economic characteristics were reported for only 2029 observations. We thus run the regressions with and without these variables and compare the results (descriptive statistics for the reduced sample in Appendix 1). Table 3 illustrates the results with control variables and Table 4 the results without.

FINDINGS

We now report the findings for our multivariate analysis of the factors associated with the likelihood to stay. Table 2 presents the results of the ordered logit estimations. The variables are classified in four major groups: economic security, basic services, openness and social capital, and aesthetics, with or without control variables included. The inclusion of control variables reduces the sample significantly because of the lower number of responses to questions relating to those variables. Therefore, we run the same regressions a second time excluding the control variables. Our discussion of the results reflects the results from the ordered logit with control variables included.

Table 2 summarizes the results from the overall ordered logit regression. Also, since the individual characteristics variables reduce the sample-size considerably, we report for both with and without these variables and check for any differences or inconsistencies.

(Table 2 about here)

Table 2: Results for Ordered Logit Regressions (dependent variable: rank of likelihood to stay)

	Ordered logit with control variables	Ordered logit without controls
Quality of Public Schools	.15392*** (3.40)	.16305*** (9.86)
Quality of colleges and universities	.06132 (1.17)	.04552** (2.31)
Cultural Opportunities	-.09268* (-1.75)	.00024 (0.01)
Job opportunities in your field	.10785** (2.24)	.07458*** (4.10)
Religious institutions that meet your need	.16126*** (3.06)	.18860*** (9.53)
A good place to meet and make friends	.32862*** (5.68)	.32660*** (14.99)
Vibrant nightlife	-.02389 (-0.49)	-.04590** (-2.46)
Affordable housing	.02209 (0.53)	.06125*** (3.82)

Public Transportation	-.01148 (-0.28)	-.07017*** (-4.64)
Being able to get from place to place with little traffic	.23068*** (5.41)	.1952*** (12.06)
Quality health care	.04511 (0.90)	.03810** (1.99)
Climate	.11334** (2.08)	.16525*** (8.06)
Air quality	.00590 (0.11)	.08963*** (4.38)
Beauty or physical setting	.43219*** (7.30)	.30257*** (13.69)
Outdoor activity	.04197 (0.73)	.05797*** (2.73)
Current economic conditions	.10878* (1.73)	.18059*** (7.78)
Future economic conditions	.10752 (1.54)	.10051*** (3.94)
Age	.09891** (2.47)	
Gender	.21942** (2.44)	
Marital Status	-.06251** (-2.00)	
Education level	.09109*** (2.70)	
Children, under age of 3	-.17004 (-1.04)	
Children, age 3-7	.22493* (1.81)	
Income	-.07558** (-2.40)	
Own or rent	-.44915*** (-2.80)	
How long have you lived at this residence	.07312 (1.24)	
Urbanicity	-.07285 (-0.98)	
Observations	2029	14189
R2/Pseudo R2	0.1327	0.1281
Prob > chi2	0.000	0.000

z-statistics in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Given the large number of observations, it is not surprising to see that most variables turn out to be significant. We focus on the z-values in our analysis, since there are certain scaling variation among the variables, to examine the relative strength of the different explanatory factors. The strongest variables in both regressions (with and without control variables) are the beauty or physical setting, a good place to meet and make friends as well as being able to get from place to place. Earlier research have shown the importance of beauty for community satisfaction (Florida et al., 2009), and these results indicate that the physical setting also is of

importance for the likelihood of staying. The social factor, meeting and make friends, indicates that social capital play an important role in migration decisions. The high score of for the congestion factor is also interesting. Congestion is a major problem faced in bigger cities today. An effective infrastructure, with little time spent on commuting, seems to be of relative importance for the decision to stay or move. The relatively low Pseudo R2 values are likely affected to some degree by the low variance of likelihood to stay rank, given most respondents state they are likely to stay. However, it should be noted that the pseudo R2 is not comparable to the R2 of an OLS regression, and the pseudo R2 cannot be interpreted as a “goodness to fit”-measure in the same way as the R2 value from an OLS. It is worth noting that the pseudo R2 value differs very little between the two regressions (with or without control variables). This indicates that community characteristics tend to explain a lot more than individual characteristics when it comes to migration decisions. If we re-run the ordered logit regression, letting only individual characteristics explain the likelihood to stay, the pseudo R2 gets reduced to 0.0223.

To derive more information about the estimated coefficients for each of the possible outcomes (likelihood to stay 1-5), we now move on to the marginal effects, both with individual control variables (Table 3) and without them (Table 4) . These tables present the derivatives as well as the z-score values. We once more focus on the z-scores to discuss the relative strength of the explanatory variables in the estimations of the models where we include the individual characteristics control variables.

(Table 3 about here)

Table 3: Ordered Logit Regression Results with Control Variables – Marginal Effects (dependent variable: rank of likelihood to stay)

How would you rate the city or area where you live on ...	$\frac{\partial \Pr(y = 1)}{\partial x}$	$\frac{\partial \Pr(y = 2)}{\partial x}$	$\frac{\partial \Pr(y = 3)}{\partial x}$	$\frac{\partial \Pr(y = 4)}{\partial x}$	$\frac{\partial \Pr(y = 5)}{\partial x}$
Quality of Public Schools	-0.00361*** (-3.23)	-0.00654*** (-3.29)	-0.01383*** (-3.34)	-0.01427*** (-3.28)	.03826*** (3.40)
Quality of colleges and universities	-0.00144 (-1.16)	-0.0026 (-1.16)	-0.00551 (-1.16)	-0.00569 (-1.16)	.01524 (1.17)
Cultural Opportunities	.00218* (1.73)	.00394* (1.74)	.00832* (1.75)	.00859* (1.74)	-.02303* (-1.75)
Job opportunities in your field	-.00253** (-2.19)	-.00459** (-2.21)	-.00969** (-2.22)	-.01000** (-2.21)	.02680** (2.24)
Religious institutions that meet your need	-.00379*** (-2.93)	-.00686*** (-2.98)	-.01449*** (-3.02)	-.01495*** (-2.97)	.04008*** (3.06)
A good place to meet and make friends	-.00771*** (-4.99)	-.01397*** (-5.20)	-.02952*** (-5.41)	-.03047*** (-5.21)	.08168*** (5.68)
Vibrant nightlife	.00056 (0.49)	.00102 (0.49)	.00215 (0.49)	.00222 (0.49)	-.00594 (-0.49)
Affordable housing	-.00052 (-0.53)	-.00094 (-0.53)	-.00198 (-0.53)	-.00205 (-0.53)	.00549 (0.53)
Public Transportation	.00027 (0.28)	.00049 (0.28)	.00103 (0.28)	.00106 (0.28)	-.00285 (-0.28)
Being able to get from place to place with little traffic	-.00541*** (-4.81)	-.00981*** (-5.01)	-.02072*** (-5.19)	-.02139*** (-4.97)	.05733*** (5.41)
Quality health care	-.00106 (-0.90)	-.00192 (-0.90)	-.00405 (-0.90)	-.00418 (-0.90)	.01121 (0.90)
Climate	-.00266** (-2.03)	-.00482** (-2.05)	-.01018** (-2.07)	-.01051** (-2.05)	.02817** (2.08)
Air quality	-.00014 (-0.11)	-.00025 (-0.11)	-.00053 (-0.11)	-.00055 (-0.11)	.00147 (0.11)
Beauty or physical setting	-.01014*** (-5.98)	-.01837*** (-6.38)	-.03882*** (-6.78)	-.04008*** (-6.34)	.10742*** (7.30)
Outdoor activity	-.00099 (-0.73)	-.00178 (-0.73)	-.00377 (-0.73)	-.00389 (-0.73)	.01043 (0.73)
Current economic conditions	-.00255* (-1.71)	-.00462* (-1.71)	-.00977* (-1.72)	-.01009* (-1.72)	.02704* (1.73)
Future economic conditions	-.0025 (-1.53)	-.00457 (-1.53)	-.00966 (-1.53)	-.00997 (-1.53)	.02672 (1.54)
Age	-.00232** (-2.40)	-.00420** (-2.42)	-.00888** (-2.45)	-.00917** (-2.42)	.02458** (2.47)
Gender	-.00515** (-2.37)	-.00933** (-2.40)	-.01971** (-2.42)	-.02035** (-2.39)	.05454** (2.44)
Marital Status	.00147** (1.97)	.00266** (1.98)	.00561** (1.98)	.00580** (1.98)	-.01554** (-2.00)
Education level	-.00214*** (-2.62)	-.00387*** (-2.65)	-.00818*** (-2.67)	-.00845*** (-2.64)	.02264*** (2.70)
Children, under age of 3	.00399 (1.03)	.00723 (1.03)	.01527 (1.03)	.01577 (1.03)	-.04226 (-1.04)
Children, age 3-7	-.00528* (-1.78)	-.00956* (-1.79)	-.02020* (-1.80)	-.02086* (-1.79)	.05591* (1.81)
Income	.00177** (2.34)	.00321** (2.36)	.00679** (2.38)	.00701** (2.36)	-.01878** (-2.40)
Own or rent	.01054*** (2.71)	.01910*** (2.74)	.04035*** (2.76)	.04165*** (2.74)	-.11163*** (-2.80)
How long have you lived at this residence	-.00172 (-1.23)	-.00311 (-1.24)	-.00657 (-1.24)	-.00678 (-1.24)	.01817 (1.24)
Urbanicity	.00171 (0.98)	.00310 (0.98)	.00654 (0.98)	.00676 (0.98)	-.01811 (-0.98)

z-values within brackets. *** indicate significance at the 1 percent level, ** at the 5 percent level and * at the 10 percent level.

(Table 4 about here)

Table 4: Ordered Logit Regression Results without Control Variables – Marginal Effects (dependent variable: rank of likelihood to stay)

How would you rate the city or area where you live on ...	$\frac{\partial \Pr(y = 1)}{\partial x}$	$\frac{\partial \Pr(y = 2)}{\partial x}$	$\frac{\partial \Pr(y = 3)}{\partial x}$	$\frac{\partial \Pr(y = 4)}{\partial x}$	$\frac{\partial \Pr(y = 5)}{\partial x}$
Quality of Public Schools	-.00360*** (-9.24)	-.00706*** (-9.49)	-.01568*** (-9.67)	-.01385*** (-9.40)	.04018*** (9.86)
Quality of colleges and universities	-.00101** (-2.30)	-.00197** (-2.30)	-.00438** (-2.31)	-.00387** (-2.30)	.01122** (2.31)
Cultural Opportunities	-5.29e-06 (-0.01)	-.00001 (-0.01)	-.00002 (-0.01)	-.00002 (-0.01)	.00006 (0.01)
Job opportunities in your field	-.00165*** (-4.05)	-.00323*** (-4.08)	-.00717*** (-4.09)	-.00633*** (-4.07)	.01838*** (4.10)
Religious institutions that meet your need	-.00417*** (-8.97)	-.00816*** (-9.22)	-.01813*** (-9.38)	-.01602*** (-9.09)	.04648*** (9.53)
A good place to meet and make friends	-.00721*** (-13.00)	-.01414*** (-13.77)	-.03140*** (-14.39)	-.02774*** (-13.50)	.08049*** (14.99)
Vibrant nightlife	.00101** (2.45)	.00199** (2.45)	.00441** (2.45)	.00390** (2.45)	-.01131** (-2.46)
Affordable housing	-.00135*** (-3.78)	-.00265*** (-3.80)	-.00589*** (-3.81)	-.00520*** (-3.80)	.01509*** (3.82)
Public Transportation	.00155*** (4.57)	.00304*** (4.60)	.00675*** (4.62)	.00596*** (4.59)	-.01729*** (-4.64)
Being able to get from place to place with little traffic	-.00431*** (-10.96)	-.00844*** (-11.43)	-.01876*** (-11.75)	-.01657*** (-11.21)	.048010*** (12.05)
Quality health care	-.00084** (-1.98)	-.00165** (-1.98)	-.00366** (-1.98)	-.00324** (-1.98)	.00939** (1.99)
Climate	-.00365*** (-7.71)	-.00715** (-7.84)	-.01589*** (-7.96)	-.01403*** (-7.81)	.04073*** (8.06)
Air quality	-.00198*** (-4.32)	-.00388*** (-4.35)	-.00862*** (-4.36)	-.00761*** (-4.33)	.02209*** (4.38)
Beauty or physical setting	-.00668*** (-12.17)	-.01310*** (-12.77)	-.02909*** (-13.20)	-.02570*** (-12.55)	.07457*** (13.70)
Outdoor activity	-.00128*** (-2.72)	-.00251*** (-2.72)	-.00557*** (-2.72)	-.00492*** (-2.72)	.01429*** (2.73)
Current economic conditions	-.00399*** (-7.45)	-.00782*** (-7.60)	-.01736*** (-7.70)	-.01534*** (-7.54)	.04451*** (7.78)
Future economic conditions	-.0022*** (-3.89)	-.00435*** (-3.91)	-.00966*** (-3.92)	-.00854*** (-3.91)	.02478*** (3.94)

z-values within brackets. *** indicate significance at the 1 percent level, ** at the 5 percent level and * at the 10 percent level.

Community-level Characteristics:

Generally speaking the z-values indicate relatively strong explanatory power from the community characteristics variables. While more or less all of them are significant when no individual characteristics control variables are included (Table 4), we can see that they become relatively weaker by the inclusion of e.g. age,

education levels and the own or rent variable. We summarize our findings here by the variables with largest z-values.

Beauty and physical setting: This variable asked respondents specific for their rating of the beauty or physical setting of their current location. The z-value was consistently one of the highest (ranging from 5.98 to 7.30 with control variables, and 12.17 to 13.70 without control variables), and the coefficient was significant across all levels of likelihood to stay. This result is also in line with the Florida et al. (2009) who showed that beauty and physical setting is highly related to community satisfaction.

The ability to meet people and make friends: Another strong variable was the ability to meet people and make friends, with a z-values of 4.99-5.68 (with control variables) or 13.00-14.99 (without control variables). This is in line with earlier research on the importance of social networks for community attachment and satisfaction by behavioral psychologists and sociologists, but a factor seldom included in economics migration studies. This result is in line with earlier research by Landale and Guest (1985) and Putnam (2000), who all stress the importance of social relations.

Being able to get around: Being able to get from one place to another with little traffic was also a factor that was significant and relatively influential within the model (with z-values of 4.81-5.41 or 10.96-12.05). Transportation exerts significant costs both in terms of time and money. Congestion intensifies both of these costs, thus affecting the way that individuals access other amenities offered by the community.

Schools: The quality of public schools was also of importance in order to explain the likelihood to stay and significant across all levels of likelihood to stay (z-values of 3.23-3.40 or 9.24-9.86). However, availability of higher education was not significant when control variables were included, and only significant at the 5 percent level without controls. We re-ran the regression and split the file according to age to try to isolate college-age populations, but the variable for higher education remained insignificant with control variables, and only significant at the 10 percent level without control variables.

Religious Institutions: Having access to religious institutions that meet the individuals' need was significant at the 0.01 level, from low to high likelihood to stay (z-values of 2.93 to 3.06 or 8.97 to 9.53. It may be that religious institutions is somewhat related to the variable, meet people and make friends, especially in locations with higher levels of religiosity. We ran a correlation analysis between the two, which turned out significant with a correlation coefficient of 0.48. This indicates that they are related, but that they do not include exactly the same information. We also re-ran the regression as an OLS, checking for collinearity effects, but the VIF values turned out to be at an acceptable level.

Climate: Climate is a factor often considered important for migration patterns. In this context it was significant at the 0.05 level with control variables, and at the 0.01 level without controls. The z-values ranged from 2.03 to 2.08 or 7.71 to 8.01.

Insignificant Variables

The following factors were weakly significant or insignificant in the analysis when control variables were included (Table 3). Among community level factors, these included availability of cultural opportunities (significant at the 0.1 level), air quality, access to outdoor parks, playgrounds and trails, availability of quality health care, and nightlife. In the case of the nightlife variable, we re-ran the regressions splitting the file according to different age cohorts, but nightlife availability was not significantly related to the likelihood to stay among younger age cohorts.

Community-Level Economic Factors: We now turn to the results for community level economic factors such as job opportunities, current economic and future economic conditions.

Job Opportunities: This variable was the strongest of the three, being significant at the 0.05 level with control variables included, with z-values ranging from 2.19 to 2.24 or 4.05 to 4.10. In other words, the variable for job opportunities, while related to the likelihood to stay, was not one of the more important factors. This result is somewhat surprising, since job opportunities are often seen to be a key factor in individual mobility.

Current Economic Conditions: This variable was significant at the 0.1 level, and with a low level of effect (z-values of 1.71 to 1.73 or 7.45 to 7.78.). This is somewhat surprising, since earlier studies (Florida et al., 2009) have shown that current economic conditions have a strong impact on the overall community satisfaction. However, our analysis here indicates that it has little influence on the decisions to stay or move.

Future economic conditions: This variable was insignificant when control variables were included. We find this surprising as well, since one may expect prospects for the future to have an impact on the decision to stay or move, but the results indicate that this is not the case. We also tested for collinearity effects with other variables in an OLS regression, but once more the VIF values excluded that this variable includes the same information as the other explanatory variables in the regression.

Individual-Level Characteristics

The results from our ordered logit regression with control variables (Table 3) indicate that individual characteristics have considerably less influence on the likelihood to stay, than community characteristics.

Education Levels: Education level was positive and significant at the 0.01 level, with z-values ranging from 2.62 to 2.70. It seems therefore, that despite the conventional wisdom that highly-educated individuals are among the most likely movers, they don't always see themselves that way. The fact that highly-educated individuals have a greater propensity to move, despite their stated intentions to continue living in their current community, may result from their often moving for unforeseen employment opportunities.

Marital Status: Marital status was also significant in this context, at the .05 level (z-values of 1.97 to 2.00). As might be expected, married couples are more likely to be rooted in their current location whereas singles are less likely to indicate an intention to stay. This finding may not indicate location preferences so much as the greater

constraints that face married couples in comparison to singles when making locational choices. When married couples choose to move, they are often faced with the challenge of finding a new location that provides equivalent or superior lifestyle and job opportunities for each partner. A single person typically need only take their own situation into account when considering the choice to migrate.

Income: Average income was significantly related with the likelihood to stay at the 0.05 level, with lower income individuals indicating a greater likelihood to stay in their current community. Owing to financial and associated mobility constraints, low income individuals may have inadequate information about alternative locations or simply not have the resources to make a move. Alternatively, low income residents may indicate a greater propensity to remain in place because of the various social ties and support services present within their current community – resources that are particularly important to marginalized groups.

Housing Tenure: Of all the personal characteristics that may affect propensity to stay in the model, housing tenure has the strongest influence (consistently with a 0.01 significance across all levels of likelihood to stay), with owners more likely to indicate a likelihood to remain in their current community. This finding is of course not surprising given the fact that purchasing a home, *ipso facto*, indicates a commitment to that location for a duration time. Furthermore, homeownership can constrain relocation choices when there is a significant slowdown in housing market turnover as has been witnessed during the most recent downturn.

Gender: Although gender is not as significant as other personal characteristics in explaining intentions to move or stay (at the .05 level), women expressed a greater intention to stay in their current location.

Insignificant variables:

The following factors were insignificant or only weakly significant: length of stay in the current residence, level of urbanicity and having children under age 3 in the household. However, having children between the age 3-7 was significant at the 0.1 level. This indicates that as the children grow older, the more likely the household is to stay.

CONCLUSIONS

Our research has examined individual location choice- that is the decision to stay or to move – in light of three classes of factors – individual economic and demographic characteristics, community economic conditions and factors related to community satisfaction with quality of life.

To do so, we employed a series of ordered logit regression analyses on data from a large scale survey of individuals from the Gallup Organization. Our findings suggest that community quality-of- life characteristics matter considerably more than either community economic conditions or individual economic or demographic factors in the decision to stay. The findings of our regressions indicate that two factors – beauty or physical setting and the ability to meet people and make friends - have the largest relative effect on the likelihood for individuals to state their preference is to stay in their current location. Other factors which affect the

likelihood to want to stay include the ability to get around the community without too much traffic, school quality, religious institutions, and climate. Turning to community level economic factors, job opportunities had the greatest effect on individual location choice, but considerably less than the two highest - “meet people and make friends” and “beauty and physical setting” - and about the same as “religious institutions.” The variables for current and future economic conditions explained very little.

Generally speaking the findings suggest that factors associated with community-level satisfaction are more important to individual location choice than community-level economic conditions or individual-level economic or demographic factors. Our research shows the need to pay more attention on the role of the current location in general on the decision to move. Where many studies of individual location choice and of migration focus on the characteristics of “new” locations, our research suggest there is a good deal be to learned from looking at the interplay between community-level satisfaction or quality of place and the desire to stay versus the decision to move. Our research suggests that a fuller understanding of individual location choice and of migration requires a dynamic understanding of the role of community-level factors in mitigating the interplay of pull and push factors. These community level factors, as we have seen, play a considerably larger role than either community-level economic factors or individual-level demographic characteristics. Interestingly, these quality of place factors would appear to be more amenable to shaping via public policy than the other two. This suggests that more research is needed on quality of place and how it effects the “fit” between individuals and their communities.

REFERENCES:

- Becker, G. (1993) *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*, Chicago: The University Press of Chicago
- Blomquist, G. C., Berger, M. C., Hoehn, J. P. (1988) New Estimates of Quality of Life in Urban Areas, *The American Economic Review*, 78:1, pp 89-107
- Blumen I., Kogan, M., McCarthy, P. J. (1955) *The Industrial Mobility of Labor as a Probability Process* *Cornell Studies in Industrial and Labor Relations*, Cornell University Press, Ithaca, NY (1955)
- Clark, D. E., Hunter, W. J. (1992) The impact of economic opportunity, amenities and fiscal factors on age-specific migration rates, *Journal of Regional Science*, 32, pp 349-365.
- Clark, T. N., Lloyd, R., Wong, K. K., Jain, P. (2002) Amenities Drive Urban Growth, *Journal of Urban Affairs*, 24:5: 493-515.
- Cramér, H. (1946) *Mathematical Methods of Statistics*, Princeton, NJ: Princeton University Press
- Cutrona, C. E., Wallace, G., Wesner, K. A. (2006) Neighborhood Characteristics and Depression, *Current Directions in Psychological Science*, Vol 15(4), pp 188-192
- Diener, E. (1984) Subjective Well-Being, *Psychological Bulletin*, Vol 95(3), pp 542-575
- Diener, E. (1999) Subjective Well-Being: Three Decades of Progress, *Psychological Bulletin*, Vol 125(2), pp 276-302
- Edlund, L. (2005) Sex and the City, *Scandinavian Journal of Economics*, 107(1), pp 25-44
- Fawcett, J. T., De Jong, G. F. (1982) Reasons for moving and migration behavior, in *U.N. ESCAP, National Migration Surveys*, Vol 10, New York: United Nations.
- Florida, R. (2002) *The Rise of the Creative Class*, New York: Basic Books.
- Glaeser, E. L., Kolko, J., Saiz, A. (2001) Consumer City, *Journal of Economic Geography*, 1:27-50.
- Gottlieb, P. D., Joseph, G. (2006) College-to-Work Migration of Technology Graduates and Holders of Doctorates within the United States, *Journal of Regional Science*, 46(4), pp 627-659
- Graves, P. E. (1979) A life-cycle empirical analysis of migration and climate, by race, *Journal of Urban Economics*, 6, pp 135-147.

- Graves, P. E. Linneman, P. (1979) Household migration: Theoretical and empirical results, *Journal of Urban Economics*, 6, pp 383-404.
- Graves, P. E. (1983) Migration with a composite amenity: The role of rents, *Journal of Regional Science*, 23, pp 541-546
- Greenwood, M. J. (1973) Urban economic growth and migration: Their interaction, *Environment and Behavior* A, 5, pp 91-112
- Gyourko, J. & Tracy, J. (1991) The Structure of Local Public Finance and the Quality of Life, *Journal of Political Economy*, 99, pp 774-806
- Herzog, H., Schlottmann, A. (1986) The metro rating game: What can be learned from recent migrants), *Growth and Change*, 17, pp 37-50
- Haberkorn, G. (1981) "The migration decision-making process: Some social-psychological considerations", in *Migration Decision Making*, De Jong, G. F., Gardner, R. W. (eds), New York: Pergamon
- Landale, N. S., Guest, A. M. (1985) Constraints, satisfaction, and residential mobility: Spere's model reconsidered, *Demography*, 22, pp 199-222
- Lloyd, R. Clark, T. N. (2001) The city as an entertainment machine, In *Research in urban sociology*, 6, *Critical perspectives on urban redevelopment*, ed Fox Gatham, K. 357-78, Oxford: JAI/Elsevier.
- McCann, P. (2001), *Urban and Regional Economics*, Oxford University Press, New York
- Mincer, J. (1978), "Family Migration Decisions", *The Journal of Political Economy*, 86:5, pp 749-773
- Pandit, K. (1997) Cohort and period effects in U.S. migration: How demographic and economic cycles influence the migration schedule, *Annals of the Association of American Geographers*, 87(3), pp 439-450
- Putnam, R. (2000) *Bowling Alone: The Collapse and Revival of American Community*, New York: Simon and Schuster.
- Rogers, A. (1988) Age patterns of elderly migration: An international comparison, *Demography*, 25(3), pp355-370
- Rosen, S. (1979) "Wage-based indexes of urban quality of life", in *Current Issues in Urban Economics*, (eds) P. Mieszkowski, P., Straszheim, M., Baltimore: Johns Hopkins University.
- Rossi, P. (1955) *Why families move*, New York: The Free Press
- Roback, J. (1982), "Wages, Rents, and the Quality of Life", *The Journal of Political Economy*, 90:6, pp 1257-1278

Sjaastad, L.A. (1962) The costs and returns of human migration. *Journal of Political Economy*, 70(1), pp 80-93.

Tiebout, C. M. (1956) A Pure Theory of Local Expenditures, *The Journal of Political Economy*, 64:2, pp 416-424

Thirlwall, A. P. (1966) Migration and regional unemployment, *Westminister Bank Review*, November, pp 31-44

Whisler, R. L., Waldorf, B. S., Mulligan, G. F., Plane, D. A. (2008) Quality of Life and the migration of the College-Educated: A Life-Course Approach, *Growth and Change*, 39(1), pp 58-94

Wolpert, J. (1965) Behavioral aspects of the decision to migrate, *Papers and Proceedings of the Regional Science Association*, 15, pp 159-169

APPENDIX 1:

Table 1: Descriptive Statistics for Variables – Reduced sample

	N	Minimum	Maximum	Mean	Std. Deviation
Likelihood to stay	27883	1.00	5.00	4.0808	1.14500
Quality of the public schools	25864	1.00	5.00	3.5993	1.14940
Quality of colleges and universities	24080	1.00	5.00	3.9261	1.09439
Cultural opportunities	26627	1.00	5.00	3.4584	1.29323
Job opportunities in your field	23031	1.00	5.00	3.2632	1.24935
Religious institutions that meet your needs	23798	1.00	5.00	4.2119	.97018
A good place to meet people and make friends	27057	1.00	5.00	3.5840	1.09799
Vibrant nightlife	24270	1.00	5.00	3.0483	1.29771
Affordable housing	26875	1.00	5.00	3.0601	1.22125
Public transportation	25429	1.00	5.00	2.6067	1.28067
Being able to get from place to place with little traffic	27589	1.00	5.00	3.3159	1.29185
Quality health care	27197	1.00	5.00	3.9285	1.08936
Climate	27508	1.00	5.00	3.6964	.99282
Air quality	27330	1.00	5.00	3.8167	1.06026
Beauty or physical setting	27577	1.00	5.00	4.0177	1.02228
Outdoor parks, playgrounds, and trails	27360	1.00	5.00	4.1060	1.00153
Current economic conditions	27482	1.00	5.00	3.3307	.99086
Future economic conditions*	27734	1.00	3.00	1.9921	.72565
Valid N (listwise)	2029				

*Future economic conditions were ranked on a 1 to 3 scale