
Geographic mobility and residential instability in impoverished rural Illinois places

Matt Foulkes

Department of Geography, University of Missouri, 8 Stewart Hall, Columbia, MO 65211, USA;
e-mail: foulkesm@missouri.edu

K Bruce Newbold

School of Geography and Geology, Burke Science Building, McMaster University, Hamilton,
Ontario L8S 4L8, Canada; e-mail: newbold@mcmaster.ca

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Abstract. Impoverished rural places are often depicted as immobile communities populated by less skilled, less educated nonmovers who have been left behind by selective out-migrants. Yet certain poor rural localities exhibit high rates of in-migration and residential mobility, an underresearched phenomenon not easily explained by conventional migration theory. The authors explore factors associated with high rates of geographic mobility in impoverished rural localities in Illinois. With the aid of place data from the 2000 Census, the authors test a hypothesized model of geographic mobility within rural impoverished Illinois places. In addition to factors commonly found in the residential mobility literature, such as age distribution, employment security, and life stage, the model also tests the effects of various indicators of housing costs and housing supply on geographic mobility rates in poor and nonpoor places. The results indicate that, after controlling for age structure and household type, accessible housing in the form of rental housing is strongly associated with high mobility rates, though the overall fit of the models is better for nonpoor places. These findings raise questions regarding whether geographic mobility in impoverished places behaves according to long-standing theory, and have implications for policies for tackling rural development, housing, and poverty issues.

Introduction

The migration literature has extensively documented the role of selective out-migration in creating and maintaining rural impoverished places (Cushing, 1999; Fuguitt et al, 1989; Lichter et al, 1992). In this process, younger, more educated adults move to larger urban areas leaving behind a less educated, older, and poorer community. This focus on out-migration implies that the community, left behind by the selective migrants receives little in-migration and is residentially stable. Recent studies have begun to question this assumption by exploring the role of the migration patterns of the poor in maintaining or creating poverty concentrations. A study at the macrolevel of US counties found that not only do the poor move as much as the nonpoor, but that the migration patterns of the poor combine with selective out-migration to reinforce poverty concentrations (Nord, 1998). Studies of rural homelessness in the United Kingdom have shown that homeless migrants move from cities to rural places in established homeless circuits based on service provision and social ties (Cloke et al, 2003; Wardhaugh, 1996). At the local scale, a series of case studies of rural New York communities found that certain impoverished communities received significant in-migration of poor families. Drawn by cheap housing, rather than economic opportunities, these migrants help to create impoverished places with high residential turnover. These case studies demonstrate the dramatic impact of poverty on in-migration and residential mobility at the community scale, and highlight the need for more research at the local level (Fitchen, 1991; 1994; 1995). What is unclear is why certain poor communities seem to attract movers and become places with high geographic mobility whereas others remain

relatively immobile. Although Fitchen's (1994; 1995) conclusions offer insightful hypotheses about the important role of affordable housing in drawing migrants, a more systematic analysis of geographic mobility in impoverished rural places is needed. Specifically, it is important to determine what characteristics impoverished, highly mobile, communities have in common with each other. Moreover, it is important to determine what sets them apart from nonpoor, highly mobile communities.

Theoretical background

Why study residential mobility and migration in impoverished areas? High residential mobility rates exist both in poor and in nonpoor rural communities, yet the impacts are different. Whereas high rates of residential mobility can be seen as a positive sign of growth in nonpoor communities, there is evidence that residential mobility and in-migration often exacerbate problems found in high-poverty rural communities. A high mobility rate can often create conflicts between long-term residents and recent in-migrants over issues such as care of personal property and community etiquette (Salamon and Tornatore, 1994). Although these problems exist in many communities experiencing migration, they may be worse in poor rural communities where there are fewer resources to help newcomers adjust. Also, high mobility in poor places can often worsen an already bleak educational setting. Poor schools (and their districts) face the challenge of constantly fluctuating enrolment, making attendance-planning difficult. More importantly, children who enter mid-year disrupt the structure of district-specific programs and destabilize the social climate of the classroom. Numerous studies (Astone and McLanahan, 1994; Coleman, 1988; Hagan et al, 1996; Haveman et al, 1991; Long, 1975; Scanlon and Devine, 2001; Straits, 1987; Wood et al, 1993) note the negative impact of high mobility on academic outcomes, because of the frequent disruption of a child's education. Adequate social service administration is critical in poor communities, yet high mobility rates make this administration difficult as migrants move in and out of agencies and their jurisdictions. Research also suggests that higher levels of residential mobility are associated with weaker social networks (Fitchen, 1994). Likewise, it is hypothesized that high mobility undermines a community's social capital, which is linked to positive educational outcomes and economic growth (Coleman, 1988; Goudy, 1990; Israel et al, 2001). Although studies have not found a consistent link between residential instability and community social capital (Israel et al, 2001), there is evidence that nonmobility and civic engagement are positively correlated (Irwin et al, 1999). Thus high residential mobility levels would harm poor places more than others as these typically have deficient social capital to start with. These facts suggest that highly mobile poor places face more challenges than do their non-mobile poor counterparts. From a societal perspective, poor places with high mobility may help to stigmatize and marginalize pressing problems of housing insecurity and rural homelessness (Cloke et al, 2003). Yet what is not known is what creates residential turnover in poor places.

The literature offers numerous explanations for the existence and maintenance of poor places. Human capital theories focus on how the limited education and skills of rural poor individuals reduce the value of their labor (Lichter et al, 1993). Economic organization explanations suggest that periphery sectors, which are less protected from competition and thus more vulnerable, are disproportionately located in rural areas (Lyson et al, 1993; McGranahan, 1983). Research has also investigated the role of class systems in sustaining rural poverty (Duncan, 1996), and how rural economic processes are embedded in social relations that help individuals negotiate the cycles of capitalism (Bloomquist et al, 1993). Yet despite the impact of residential mobility on poor communities and its possible

role in reinforcing poverty concentrations, research on rural poverty often overlooks in-migration and residential mobility in impoverished places.

Likewise, research on geographic mobility does not offer clear explanations for why individuals move to places with little economic opportunity. Migration research documents the process of selective out-migration, in which those with higher skill and educational levels leave rural areas for better job prospects in metro areas. Often coined the 'brain drain', the youngest and brightest move away, leaving a population that is older, less educated, and less skilled (Fuguitt et al, 1989; Lichter et al, 1992). Studies of selective out-migration are rooted in the human capital perspective, which views a move as an investment in oneself, and the neoclassical economics framework, which posits that regional differences in wages are equalized by the movement of labor from jobs with low wages to those with high wages (Cadwallader, 1992). Neither of these perspectives explains why the poor move as much as the nonpoor, or why they tend to move to other depressed areas (Nord, 1998). Also, these theories are constructed to explain moves between labor markets, yet many rural movers are moving within labor markets. These short-distance moves are classified as 'residential mobility' and are driven by different processes from those which drive long-distance migration. Housing issues, family changes, and neighborhood contextual variables become more important in these non-job-related moves (Clark, 1982), though in practice it can be difficult to distinguish between longer distance, economic-based moves and shorter distance, life-cycle-based moves. Yet studies of residential mobility traditionally focus on urban housing markets which may operate differently from rural housing markets. This urban bias has also led to a focus on out-migration from the depressed areas of a city, or on gentrification—the in-migration of affluent individuals into formerly depressed areas of a city and the subsequent displacement of long-time residents. Although rural areas are not immune to amenity-based migration or gentrification, there are many impoverished rural areas which experience high levels of mobility which are undergoing neither of these processes (Fitchen, 1995).

The purpose of this paper is, therefore, to explore the factors associated with geographic mobility in rural communities and to examine whether the underlying factors are different for poor rural communities versus nonpoor rural communities. First, the quantity and spatial distribution of mobility across poor and nonpoor rural places is discussed. Then, with the aid of data from the 2000 Census, regression models of geographic mobility are tested on poor and nonpoor rural places. The factors that impact mobility in poor rural places can then be compared with the significant factors for nonpoor places to see if different processes underlie mobility in poor communities.

Data and methods

With a focus on geographic mobility in impoverished rural localities, it is necessary to choose a data source that offers migration data for areas smaller than a county. Data from the 2000 Decennial Census satisfies this criterion, but the selection of rural areas poses a more difficult problem. Census rural places seem to be an ideal geographic unit in that they offer a clear distinction between rural and urban (a place is designated by the Census Bureau as 'rural' if it has a population below 2500) and typically match existing political boundaries of rural communities. Yet, data relating to rural places omit a large portion of the rural population (in Illinois, they omit 877 679 persons living in rural areas, or 58% of the total rural population) because of the large rural unincorporated areas that lie outside rural places. Despite this shortcoming, places remain the economic and social centers of rural areas. This study includes all census-defined places with populations of less than 2500. To ensure that the places selected are not small suburban communities in urbanized areas, the dataset was further limited to

places that have rural populations only. The resulting dataset is composed of 716 places, with a total population of 463 681. Although this analysis could be conducted for all places in the United States, limiting the analysis to Illinois allows us to draw upon ethnographic case studies conducted in highly mobile Illinois communities that were part of a larger research project (Foulkes, 2002). The focus on Illinois also avoids various regional influences that would have to be accounted for in a national analysis.

From these 716 rural places, impoverished places were selected by dividing these places into percentiles based upon poverty rate, which gave 178 rural places in the 75th poverty percentile (with poverty rates above 14.1%)—a group defined as ‘impoverished places’. This relatively low cutoff point (compared with other chronically poor areas in the USA) reflects the lower poverty rates (compared with urban areas) found in rural areas in Illinois, as well as the decline in poverty rates in the 1990s. Nevertheless, in the absence of a definitive notion of what level of poverty constitutes an ‘impoverished’ place, this method selects the poorest rural places in a relative sense, with poverty rates much higher than the overall state poverty rate of 10.7%, or the poverty rate of 9.8% for all rural Illinois places.

The data for this study were taken from the 2000 Census of Population and Housing long-form sample data, Summary Tape File 3A (US Bureau of the Census, 1991). The census provides two types of migration and residential mobility data, both of which were used. The first type records household moves with a one-year interval. These data originate from a question in which the respondent is asked when they moved into their current residence. This question is asked only of the head of household, and thus the data are incomplete because there is no record of different arrival times for different household residents. The data also provide no information about place of origin, making it impossible to differentiate between ‘residential mobility’ and ‘migration’. In the aggregated form released by the census, the data from this question are organized by ranges of years moved into residence. In this study we use the number of householders who moved into their current residence in the last year, converting this to a percentage by dividing by the number of occupied housing units, to account for differences in the number of households present in each rural place. The second type of data defines migration based upon the question regarding place of residence five years ago. The question is asked of each individual, and the data disaggregated by county and state of origin. The one-year and five-year measures each have their advantages and disadvantages. The one-year measure captures recent trends and may be more representative of actual mobility behavior in that households often move together. However, it conceals origin and is subject to short-term variations that can mask more general trends. The five-year measure captures long-term trends, but may underestimate the amount of in-migration and residential mobility in highly mobile places because migrants have come and gone within the time interval. It also leads to analysis that treats each mover as an independent decisionmaker, thus ignoring the reality that households move together. The use of both measures allows the examination of both short-term and long-term trends.

Whereas some descriptive statistics are broken down by origin, in the modeling portion of this study we do not distinguish between shorter distance, residential mobility and longer distance migration (though it is possible to determine whether movers changed counties with the five-year measure) for several reasons. First, the census provides only the 1995 *county* of residence and not the *place*. The use of the place as the unit of analysis means that the ratio of intercounty to intracounty moves will depend in part on the geographical position of the place within the county. This is also true of attempts to label moves between states, as a short-distance move to a place just over the state line could be erroneously labeled as ‘migration’.

Second, fieldwork in rural Illinois communities suggests that communities with high mobility rates receive movers from nearby areas (Foulkes, 2002). Likewise, analysis conducted by the authors (not presented here) has suggested that approximately 56% of moves in rural areas are within-county moves, regardless of poverty status. Third, ethnographic fieldwork in rural Illinois and upstate New York communities has suggested that longer distance, between-county moves are associated with non-job-related factors found in residential mobility theory and not with job-related migration. Moves between small communities are often precipitated by family changes and unstable housing situations, and are associated with low wages, job insecurity, and family dissolution—rather than with wage differentials across labor markets (Fitchen, 1995; Foulkes, 2002). Thus, even though place mobility rates count both within and between county moves, the models in this analysis rely heavily on theories of short-distance moving.

The focus on mobility raises questions about whether highly mobile communities are experiencing residential turnover (via equivalent levels of out-migration) or population growth. Unfortunately, out-migration data are not explicitly available in census data. Though it is difficult to identify residential turnover, it is unlikely that most impoverished rural places are experiencing population growth through large net migration, although for nonpoor rural places located in areas with high natural amenities, or near urban areas, this scenario is more feasible. Case studies conducted in two rural Illinois counties, and analyses of school district enrolment data (not shown), suggest that in most mobile places, high mobility levels indicate population turnover rather than growth (Foulkes, 2002). However, because of the lack of out-migration data, it is not possible to make statements linking high mobility either to population turnover or to population growth. The aggregated nature of the Census Summary File 3 data also prevents us determining how many of the in-migrants into a place are poor.⁽¹⁾ However, given that the poor move as much as the nonpoor, and that the poor move to other poor places (Nord, 1998; Nord et al, 1995), communities with both high mobility rates and high poverty rates are likely to be experiencing both in-migration and out-migration of the poor.

In this paper we first examine the amount and spatial extent of geographic mobility in rural Illinois. We then use descriptive statistics to compare the characteristics of places categorized by poverty and mobility levels. Finally, we introduce a model of geographic mobility in an effort to uncover which factors may have the most impact on geographic mobility rates for poor and nonpoor places.

Analysis

The prevalence and spatial distribution of high-mobility places

In-migration and residential mobility rates have traditionally been lower in rural areas than in urban areas, in part because of the lack of economic opportunities which attract long-distance migrants and in part because of there being a higher percentage of owner-occupied housing. In Illinois this pattern holds (see table 1, over), as rural places exhibit a lower within-county mobility rate (21%) than do urban places (29%) or places with mixed rural and urban populations (26%). For between-county moves, rural places had a similar migration rate to that of urban places (16% and 15%, respectively) and a lower rate than mixed rural and urban places (22%). Nevertheless, there are some rural places with high rates of in-migration or residential mobility.

⁽¹⁾ PUMS (Public-Use Microdata Samples) data would allow the identification of poverty among in-migrants and out-migrants, but the geographic definition would be constrained to the county (or aggregate counties) scales for rural areas.

Table 1. Mobility rates for different classifications of rural places (less than 2500 population).

Type of rural place	Number of rural places	Percentage of individuals who moved 1995–2000		Percentage of households which moved in 1999
		between counties	within counties	
Rural	717	0.16	0.21	0.14
Mixed	345	0.22	0.26	0.20
Urban	249	0.15	0.29	0.19
All places	1 311	0.17	0.27	0.19

For example, in 172 rural places (out of 716) over 25% of residents moved within the county between 1995 and 2000; 52 of these places had poverty rates greater than 75th poverty percentile of 14.1%. A total of 157 rural places exhibited rates of in-migration (that is, people moving in from outside the county) that exceeded 20%; of these, 46 had poverty rates above the 75th percentile. Interestingly, rural places that tended to have high residential mobility rates (as defined by the percentage of people who moved to the place from somewhere within the county) tended not to have high in-migration rates from outside the county (a significant Pearson's correlation coefficient of -0.322). One possible reason for this could be that the typical move into a place is highly dependent on the surrounding spatial arrangement of towns and cities. In other words, moves from settlements that are relatively near in rural areas might, nevertheless, cross county boundaries and thus qualify as 'migration' instead of 'residential mobility'. Also, places located at the edge of a county may receive a lot of short-distance migrants who, nevertheless, have crossed a county boundary. Visual analysis of choropleth maps (not shown) indicates that this is the likely cause of this negative correlation, and highlights how a county-based distinction between residential mobility and migration imposes an artificial, and sometimes misleading, constraint on mobility patterns in rural areas.

Despite the fact that some 'highly mobile' rural places are poor, there is not a clear relationship between mobility rates and poverty as none of the mobility measures is highly correlated with poverty (standard Pearson's correlation test). However, the linear correlation coefficients obscure an interesting trend between poverty and mobility. Analysis of scatter plots (not shown) indicated that at low levels of poverty there is a wide spread of mobility rates. As poverty increases this variability in mobility decreases, with mobility levels increasingly clustered at above-median levels.

Turning to the analysis of rural places, figure 1 shows the spatial distribution of these places. The four maps display the locations of the 714 rural places, divided into four poverty–mobility categories: nonpoor–nonmobile places; poor–nonmobile places; nonpoor–mobile places; and poor–mobile places. These four categories were created by dividing rural places into poor and nonpoor places, with poor places being defined as places with poverty rates greater than the 75th percentile of poverty (14.1%); and by dividing places into nonmobile and mobile places, with mobile places defined as places with mobility rates above the 75th percentile of mobility (40.7%). Cross-tabulation of these categories gave 41 nonpoor–nonmobile places; 115 nonpoor–mobile places; 115 poor–nonmobile places; and 63 poor–mobile places. Analysis of these categories allows exploration of whether poor–mobile communities differ from their poor–nonmobile counterparts as well as from other community types. In this case, mobility refers to the percentage of individuals who changed residence between 1995 and 2000—regardless of distance.

There appear to be two loose clusters of poor–mobile places: one is centered in west-central Illinois around the Illinois River valley; a second is in the southern tip of

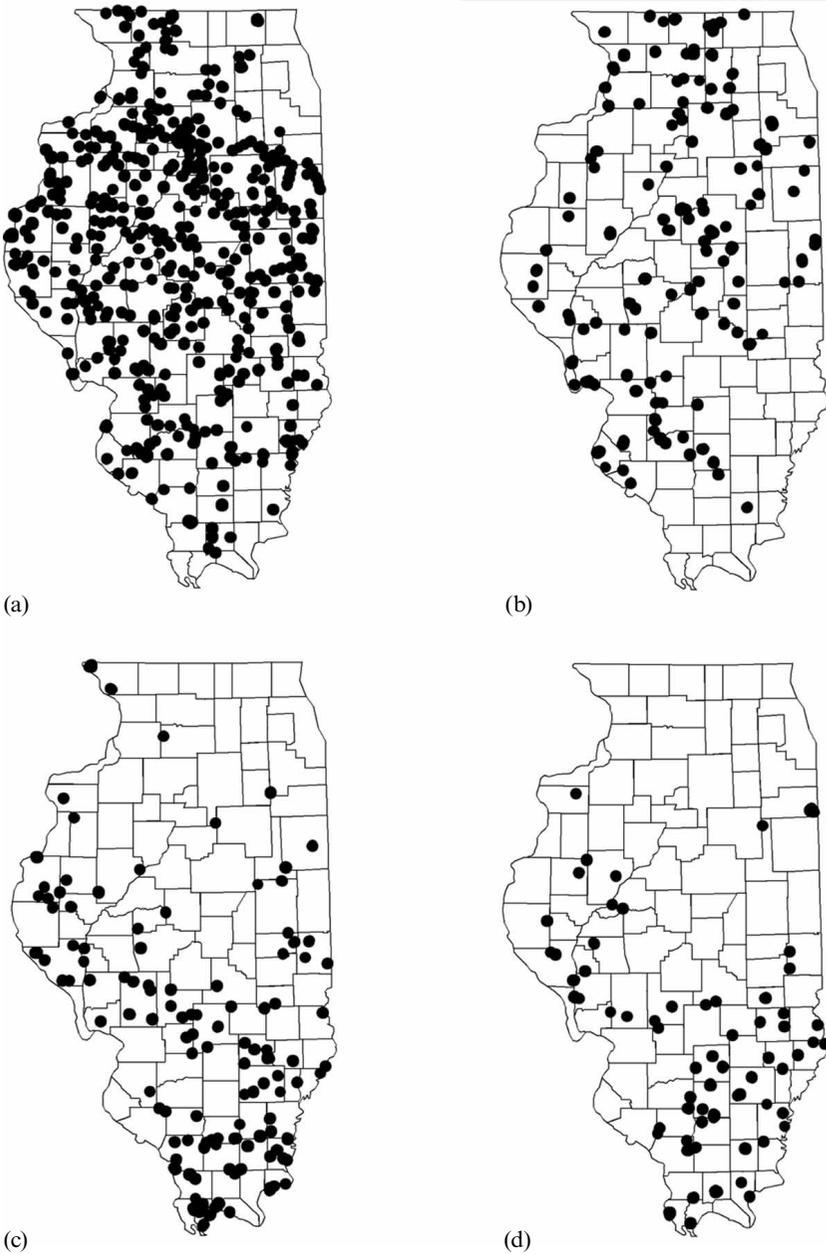


Figure 1. Illinois rural places by mobility and poverty categories: (a) nonpoor–nonmobile—421 places, (b) nonpoor–mobile—115 places, (c) poor–nonmobile—115 places, (d) poor–mobile—63 places

the state. These poor–mobile places are scattered amongst poor–nonmobile places, and follow a pattern that matches historical distributions of poverty in Illinois. Southern Illinois has historically had higher poverty levels than the rest of the state, thanks to its lack of economic opportunity. The region has suffered additional economic setbacks in the last thirty years as many of the region’s coal mines have moved operations to western states which supply cleaner-burning coal. Nonpoor–mobile places exhibit the opposite

spatial pattern: they are primarily located in the north and central areas and outside St Louis in the southwestern portion of the state. Nonpoor–nonmobile places appear to be scattered randomly throughout the state. These maps demonstrate that pockets of high mobility within poverty areas are highly local phenomena which vary widely within counties, reinforcing the need to consider small, subcounty geographic areas.

Analysis of factors associated with mobility

In order to identify factors associated with high geographic mobility rates, in this portion of the paper we use descriptive statistics and ordinary least squares (OLS) regression to determine the relationship between residential mobility rates and the factors hypothesized to impact these rates.

The literature suggests some factors that distinguish highly mobile impoverished communities from nonmobile communities. The two factors most often hypothesized to be associated with mobility are the supply of low-cost housing and the supply of low-wage, low-skill, jobs. Although Nord's (1998) analysis of net-migration patterns of poverty migrants at the county level established the importance of low-skill jobs and employment structure, housing costs seemed to have little impact on net-migration rates. However, Fitchen's (1994, 1995) case-study analysis of poverty in-migration into upstate New York communities suggests that low-cost housing—not employment opportunities—draws poor migrants to these communities. This is not necessarily a contradiction, as the two sets of analyses were at different scales. Although low-skill jobs and employment structure may be associated with net migration of the poor, at smaller scales individuals are likely to make decisions based on the housing and family reasons identified by Fitchen (1994; 1995). Given that the unit of analysis in this paper is the place, our focus is on housing accessibility as well as common economic and demographic measures.

Housing accessibility may be the key to understanding geographic mobility in poor areas. Fitchen's (1991; 1994; 1995) case studies suggest that poor places need to have an adequate supply of rental housing at relatively inexpensive rents in order to attract migrants. Rental housing is, by nature, more accessible because it has lower entry costs than does ownership and there is no requirement for a reliable credit history for a loan. Housing supply is represented by the percentage of the housing of a place that is rental and the percentage that is mobile homes. Mobile homes are typically owned rather than rented, but their low costs and the existence of many 'rent-to-own' arrangements make them accessible in poor rural areas—especially to poor migrants. Ethnographic case studies of rural Illinois communities suggest that most mobility occurs in these housing types, rather than in nonmobile homes, or in owner-occupied housing (Foulkes and Newbold, 2001). Housing affordability is also measured in terms of the percentage of rental housing that rents for less than US\$300 a month. Results from case studies in Illinois communities (Foulkes, 2002) suggest that rents of less than \$300 a month are an appropriate benchmark for inexpensive housing for this region in 1999.

In the migration literature it has long been recognized that employment is important in inducing migration and residential mobility. However, different employment factors may be at work in poor areas. Research suggests that job security can impact residential stability (Fitchen, 1994). Fitchen found that residential moves were often precipitated by job loss that resulted in an inability to afford rent payments. For this reason, the unemployment rate was included in our analysis. However, studies have suggested that poverty often results from the temporary nature of jobs, rather than from unemployment (Schiller, 1998). To explore whether the temporary/part-time nature of work impacts mobility, part-time employment was represented by the percentage of those employed and aged over 16 years who worked less than 48 weeks in 1999.

The employment structure of a place can also impact mobility rates (Nord, 1998): low-wage service and retail-sector jobs have the potential to attract migrants. Employment structure was captured by the percentage of employment in each sector.

In addition, demographics have long been the strongest predictor of mobility, as age is known to be a key factor in rates of migration and residential mobility (Long, 1988; 1992; Plane and Rogerson, 1994). The percentage of adults aged 18–29 years was included in the analysis, as this is the most mobile age group. The percentage of households with children aged under 18 years is also included, as the space requirements of larger families can induce local moves (Clark, 1982). The presence of Hispanics in rural Midwestern communities can indicate a mobile, transient labor force associated with agriculture, manufacturing, or food processing; this was included to discover whether the presence of Hispanics helps delineate mobile communities.

To explore whether there are differences in demographic, economic, and housing factors between the four mobility–poverty community types, place means for each factor were calculated for each place grouping (table 2). When the data are broken down in this way, a couple of trends become apparent. As expected, age factors are associated with higher mobility—regardless of poverty: people aged 18–29 years and households with children formed higher percentages in the two high-mobility categories. Other factors had higher means for high-poverty places, regardless of mobility levels. For instance,

Table 2. Mean characteristics of rural Illinois places by poverty and mobility category.

	Place category			
	nonpoor – nonmobile	nonpoor – mobile	poor – nonmobile	poor – mobile
Number of rural places	421	115	115	63
Mobility rate				
Five-year mobility rate	0.32	0.46	0.33	0.46
Poverty				
Poverty rate	0.07	0.07	0.21	0.23
Demographics				
Percentage aged 1–29 years	0.14	0.15	0.14	0.16
Percentage of households with children	0.32	0.37	0.32	0.35
Percentage Hispanic	0.01	0.02	0.01	0.01
Employment				
Unemployment rate	0.05	0.05	0.09	0.09
Percentage who worked <48 weeks	0.27	0.27	0.32	0.35
Farm employment (%)	0.03	0.02	0.03	0.02
Mining employment (%)	0.01	0.00	0.02	0.01
Construction employment (%)	0.07	0.08	0.07	0.07
Manufacturing employment (%)	0.21	0.20	0.20	0.20
Retail employment (%)	0.12	0.12	0.12	0.12
Service employment (%)	0.35	0.36	0.35	0.35
Housing supply				
Percentage of rental	0.17	0.21	0.20	0.25
Percentage of mobile homes	0.10	0.09	0.21	0.21
Percentage of housing built in last five years	0.05	0.09	0.05	0.06
Housing costs				
Percentage of rentals at less than \$300 a month	0.16	0.17	0.28	0.29

the mean percentage of those employed who worked only part of 1999 was higher for poor rural places regardless of mobility level. Mean unemployment rates followed this trend, with poor–mobile places and poor–nonmobile places both exhibiting mean unemployment rates of 9%, compared with the rate of the two nonpoor groups of 5%. Housing also varied by poverty status, with the mean percentage of housing comprising mobile homes and the percentage of rental housing that rents for under \$300 both being higher for poor places. Interestingly, the percentage of housing that was rental was higher for poor–mobile places than for the other place categories. This suggests that, although mobile homes and affordable housing are associated with poor areas, the supply of rental housing is a key factor associated with mobile communities. Also of note was the lack of variance across place type for each employment sector, suggesting that employment type is less associated with community type than with employment duration.

The previous analysis identified how classifications of mobility and poverty place types differed amongst common socioeconomic factors. It is also useful to uncover which factors are most associated with mobility in rural places. Multivariate regression models were run both on one-year and on five-year mobility rates to measure the relative impacts of different characteristics. Models were tested on poor and nonpoor places (defined by use of the 75th percentile of poverty, 14.1%) separately, so that it was possible to ascertain how factors affect poor and nonpoor places differently.

Regression models were tested on two different measures of geographic mobility. The first, the percentage of households who moved in the last year, provides a household-based measure that is useful for capturing short-term trends. The second measure was the percentage of all people who changed residence in the last five years regardless of origin. As discussed above, the results presented here do not distinguish between shorter distance residential mobility and longer distance migration for several reasons. In the one-year household-mobility measure, the data are not available broken down by origin. In the five-year individual-mobility measure, the distinction between residential mobility and migration is blurred by the location of a place within its county.⁽²⁾

Given that the effects of demographics and employment structure have been documented (Nord, 1998), models with these two categories of independent variables are presented first, as a baseline to compare with more complex specifications. In subsequent models, various measures of housing affordability and housing supply were added to test for their relative impacts on mobility.

Turning first to the one-year model (table 3), the percentage of individuals aged 18 to 29 years has a positive and significant effect on the mobility of a place in the baseline specifications, but loses its significance in later specifications. The percentage of households with children is highly significant in the positive direction for later specifications which include housing factors. For nonpoor places, both age measures are significant in predicting the mobility rate of a place, with higher percentages of young adults and families with children being associated with higher mobility rates. Employment factors hypothesized to be associated with mobility were added to the model next: both for poor and for nonpoor places these variables were not significant.⁽³⁾ Housing-supply factors were added next, and the percentages of households that were in rented accommodation and in mobile homes were highly significant for poor places in the positive direction. The significance of living in mobile homes is not

⁽²⁾ The regression models were also run for mobility measures disaggregated by within-county and between-county moves. The results of these models were similar to the results of the overall five-year mobility rate presented here.

⁽³⁾ Models that included percentages of persons in service and retail employment were initially attempted, but resulted in poorer model fits than those presented here.

Table 3. Results (standardized coefficients) of multivariate regression on one-year mobility rate, Illinois rural places.

Model specification	1	2	3	4	5	6
<i>Poor</i>						
Demographics						
Percentage aged 18–29 years	0.151*	0.154*	0.050	0.047	0.080	0.080
Percentage of households with children	0.106	0.108	0.194**	0.199**	0.188**	0.188*
Employment						
Percentage who worked <48 weeks		–0.071	–0.034	–0.033	–0.077	–0.077
Unemployment rate		0.085	0.037	0.034	0.059	0.059
Housing supply						
Percentage of rental			0.530**	0.534**	0.504**	0.504**
Percentage of mobile homes			0.280**	0.292**	0.284**	0.285**
Percentage of housing built in last five years				–0.028		–0.002
Housing costs						
Percentage of rentals less than \$300 a month					0.075	0.075
Adjusted R^2	0.026	0.024	0.330	0.327	0.346	0.342
F -statistic	3.3*	2.1	15.5**	13.3	14.2**	12.3**
N	177	177	177	177	174	174
<i>Nonpoor</i>						
Demographics						
Percentage aged 18–29 years	0.167**	0.164**	0.097*	0.096*	0.086*	0.085*
Percentage of households with children	0.110**	0.114**	0.108**	0.057	0.097*	0.052
Employment						
Percentage who worked <48 weeks		–0.006	–0.060	–0.034	–0.033	–0.010
Unemployment rate		0.060	0.009	0.025	–0.042	–0.021
Housing supply						
Percentage of rental			0.482**	0.485**	0.505**	0.506**
Percentage of mobile homes			0.011	–0.020	0.069	0.028
Percentage of housing built in last five years				0.243**		0.239**
Housing costs						
Percentage of rentals less than \$300 a month					–0.029	–0.013
Adjusted R^2	0.038	0.037	0.253	0.308	0.263	0.314
F -statistic	11.5**	6.2**	31.3**	35.0**	27.7**	31.1**
N	535	535	535	535	525	525

* Significant at $p \leq 0.05$; ** significant at $p \leq 0.01$.

surprising given the important role that these play in affordable housing in poor rural areas. For nonpoor places rental percentage was also significant, reflecting the importance of tenure in impacting mobility rates. However, the percentage of housing built between 1985 and 1990 was also significant for nonpoor places, suggesting that high mobility rates in these places are associated with housing growth. Surprisingly, affordability, as specified

here, was not significant either for poor or for nonplaces, suggesting that housing supply is more critical than housing costs in impacting mobility rates.

The models produced somewhat similar results for the five-year mobility measures (table 4). However, the differences between poor and nonpoor places were more striking. For poor places, only the percentage of households in rented housing was consistently significant across model specification. The percentage of people aged 18 to 29 years, and

Table 4. Results (standardized coefficients) of multivariate regression on five-year mobility rate, Illinois rural places.

Model specification	1	2	3	4	5	6
<i>Poor</i>						
Demographics						
Percentage aged 18–29 years	0.213**	0.206**	0.145*	0.155*	0.094	0.104
Percentage of households with children	0.065	0.064	0.142*	0.121	0.151*	0.135
Employment						
Percentage who worked <48 weeks		0.062	0.088	0.084	0.162*	0.156*
Unemployment rate		–0.022	–0.007	0.006	–0.051	–0.042
Housing supply						
Percentage of rental			0.427**	0.413**	0.410**	0.402**
Percentage of mobile homes			–0.026	–0.067	–0.040	–0.073
Percentage of housing built in last five years				0.099		0.076
Housing costs						
Percentage of rentals less than \$300 a month					–0.047	–0.042
Adjusted R^2	0.041	0.034	0.205	0.209	0.179	0.178
F -statistic	4.8**	2.6*	8.6**	7.7**	6.4**	5.7**
N	177	177	177	177	174	174
<i>Nonpoor</i>						
Demographics						
Percentage aged 18–29 years	0.172**	0.164**	0.119**	0.118**	0.145**	0.143**
Percentage of households with children	0.275**	0.274**	0.253**	0.183**	0.195**	0.124**
Employment						
Percentage who worked <48 weeks		0.037	–0.004	0.033	–0.030	0.006
Unemployment rate		–0.017	–0.024	–0.001	–0.063	–0.030
Housing supply						
Percentage of rental			0.336**	0.339**	0.346**	0.348**
Percentage of mobile homes			–0.101*	–0.145**	–0.065	–0.129**
Percentage of housing built in last five years				0.340**		0.373**
Housing costs						
Percentage of rentals less than \$300 a month					0.047	0.073
Adjusted R^2	0.106	0.103	0.227	0.334	0.194	0.321
F -statistic	32.6**	16.4**	27.1**	39.4**	19.0**	32.1**
N	535	535	535	535	525	525

* Significant at $p \leq 0.05$; ** significant at $p \leq 0.01$.

households with children were significant in some specifications, but became insignificant when all variables were entered. Part-year employment was also significant for fuller specifications, but only at the 0.05 level. When applied to nonpoor places, the models returned more significant factors. Nevertheless, employment and housing costs were not significant; instead, the percentage of households in rented accommodation and the percentage of houses built between 1985 and 1990 had the largest relative impacts on mobility rates. Curiously, the percentage of households living in mobile homes was negatively associated with the five-year mobility rate. This suggests that the new housing that appears to drive mobility in these places is not in the form of mobile homes.

Examining all models, some striking trends emerge. First, percentage of households in rented accommodation is the dominant factor across all models. This aspect of housing supply was the most important predictor of mobility rate regardless of specification. Also, for nonpoor places, the importance of new housing was notable, indicating that high mobility rates were associated with newly constructed housing. For poor places, only rental percentage had a consistent impact on mobility rates. The percentage of households in mobile homes and the percentage of households with children were significant predictors of one-year mobility rates, but were not significant in the five-year models. This is somewhat surprising given that the one-year mobility measures can fluctuate more over time and may be less responsive to the variables entered into the model. However, it is possible that the one-year measure better captures a class of frequent movers that would be somewhat obscured in the five-year measure, as multiple moves are only counted once over the five-year span. If this is true, then mobile homes may play an important role in housing this highly mobile segment of the population in poor rural communities.

Overall, the models for poor places had a poorer fit (as measured by F and R^2 values), regardless of specification, than those for nonpoor places. Instead of revealing a different set of factors associated with mobility, poor places showed fewer significant associations. In other words, the models revealed that, whereas the nonpoor places exhibited mostly expected associations, poor places followed few of the tendencies that would be expected from common theories of residential mobility and migration. Although migration in poor communities may exhibit more randomness, it is also just as likely that these model specifications do not adequately capture migration processes in poor areas. Factors such as social networks, chain migration, and proximity to employers offering low-skill, low-wage jobs may have larger impacts on mobility rates in poor areas.

Conclusion

In this paper we have sought to determine what factors are associated with high rates of in-migration in impoverished 'rural only' Illinois places. The descriptive results indicated that there were bigger distinctions between poor and nonpoor places than between nonmobile and mobile places. The exception was the percentage of housing that was rental, as this variable had distinct values for all four categorizations of rural places. The regression analysis reinforced this finding, as rental percentage was significant across model specifications both for poor and for nonpoor places. The lack of significance of housing affordability suggests that the supply of accessible housing is more important than affordability, although part of the result could be caused by the manner in which affordability was specified. Field research in rural Illinois has demonstrated that affordability is not the only measure of housing accessibility. Other barriers to renting housing, such as references, application fees, and credit checks—factors not measured in census data as they are instituted by landlords—create hierarchies of accessibility and can impact

migrant decisionmaking more than the actual rent (Foulkes, 2002). It is likely that housing accessibility in a community is determined both by the supply and by the costs of housing.

Also significant is the poor fit of the models when applied to poor places. Nonpoor places showed a better fit, with more variables being significant. However, the poor fit of the models for poor places indicates that traditional migration theories grounded in demographics and economics may not apply to poor areas. Ethnographic research into rural Illinois (Foukes, 2002) and upstate New York (Fitchen, 1994; 1995) suggests that places with few economic opportunities can become mobile places. Individual migration behavior in these places may be impacted more by factors such as housing pressure and family size—common variables found in residential mobility models. Yet it is unlikely that the aggregate measures used here could adequately reflect the complexity of migration decisions and the balancing acts between multiple inputs and incomplete knowledge. Future research is needed to examine migration in poor rural areas from the perspective of migrant decisionmaking.

Further insight into why poor–mobile places do not fit conventional migration theory may be gained from the spatial distribution of these places, which raises questions regarding the interaction of poor rural places. Concentrated in the south and southwestern part of the state, poor–mobile places are interspersed with poor–nonmobile places. Although we did not measure spatial interaction effects, the spatial arrangement of poor–mobile places, when coupled with the importance of rental housing, suggests that a network of poverty migration may exist in rural Illinois. In this network, places with an ample supply of rental housing serve as ‘catchments’ for poverty migrants who are moving within these depressed regions. In the larger research project from which this paper originated, the life course of poor rural migrants was also investigated and it was found that there was a segment of the rural poor who moved quite frequently. These short-distance movers oscillated between small towns on well-worn paths that were based on housing accessibility, past history, and social networks (Foulkes, 2002). If mobility in poor–mobile places is driven more by social networks than by job opportunities, this could explain the weak performance of traditional economic and demographic-based migration theory in explaining mobility rates in these areas. In this case, the application of other theories of migration, such as cumulative causation and systems theory, borrowed from the international literature (Massey, 1999), may be more appropriate in efforts to explain mobility in poor rural areas. These theories may more adequately capture how social ties interact with demographics, employment, and housing accessibility to raise mobility levels in poor places. More work, both at the community and at the individual level, is needed to explore these possible mobility networks.

The results also have implications for policies for rural development. First, impoverished communities with high percentages of rental housing are more likely to be facing the challenges brought about by residential instability. However, programs that seek to help communities to eliminate rental housing may just be relocating the affordable housing, and, by extension, the in-migration of the poor, to different communities. A better approach may be to design programs that help highly mobile, impoverished communities build the social capital that residential instability disrupts. In some cases, the larger numbers of newcomers can have a positive effect on the community (Ploch, 1980). Policies which help rural schools in poor–mobile communities deal with a constant fluctuating enrolment would also help build this social capital. Second, programs seeking to improve the economic situation of rural areas by encouraging growth in retail and service enterprises may have to recognize the residential instability associated with the poor communities that have these types of jobs. Given

the low skill requirements and low wages found in these sectors, it is not surprising that housing insecurity would accompany this type of development. Finally, the significance of the supply of rental housing highlights the well-documented problem of inadequate rural housing. Accessible housing for the rural poor exists mainly as rental housing which, by its nature, is more residentially unstable. The lack of affordable housing for the rural poor and near poor is a problem that needs more attention.

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