

TRANSPORTATION OPTIONS IN RURAL COMMUNITIES:
THE COSTS OF TRAVEL FOR LOW-INCOME POPULATIONS IN ALACHUA COUNTY

By

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To Mom and Dad

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Abstract of Thesis Presented to the Graduate School
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On average, American families spend more on transportation than on health care, education, or food—and usually all three combined. Transportation is the second-largest expense—after housing—for an average family. The combined costs of transportation and housing accounted for 52% of the average family’s budget in 2003 (McCann, 2005). High transportation costs can be particularly burdensome on low-income families. Those earning less than \$13,000 pay an average of 42% of their income for the purchase, operation, and maintenance of their automobiles alone (STTP, 2006).

This thesis focuses specifically on the burdens facing by rural, low-income families residing in Alachua County public housing trying to seek mobility in an automobile-dominated landscape. A case study of Alachua County transportation solutions to link residents of outlying cities to Gainesville provides insight into what types of programs have been successful in the past. Personal interviews focused on determining daily travel habits, common transportation-related problems, impacts on other areas of life such as food purchasing and cost burden, and possible solutions. Problems in some projects have been a lack of community input and participation. Specifically, this research seeks to account for problems faced by needy

populations through engaging a dimension of Alachua County's transportation disadvantaged in a dialogue regarding their transportation problems and needs.

Overall, most respondents in this study view automobiles as a necessity. Most of those without an automobile aspire to have one. A car is a symbol of freedom, especially for those who grew up relying on others. When moving to rural areas, many respondents accept the inevitability of driving. Several respondents note the drive until you qualify type of tradeoff that comes with cheaper housing in the country. Despite the freedom that owning an automobile symbolizes, high gas prices emphasize the fact that freedom is conditional. High transportation costs create hard choices. Most people give up freedom of mobility. Many others give up more serious things, such as their health. Even if respondents do not perceive themselves as personally affected by high gas prices, there is universal agreement that high gas prices create hardship for others. However, as gas prices increase, respondents report an increased willingness to utilize alternative forms of transportation.

No easy solution exists to solving the transportation problems of low-income rural residents. Several solutions are proposed in this study. Childcare would assist single parents by freeing up daytime schedules to allow for full work days. Providing job training could help low-skilled workers gain additional education necessary to receiving a job. Transportation services should incorporate a mobility strategy to link people from their place of residence to services and employment in other cities. Services should be offered at a reasonable cost to users. Coordination must occur among various local government agencies. Planning should involve a participatory strategy to gain public support. Education about the costs of automobile ownership should be a component of the process.

Further research could examine housing and transportation affordability in rural areas as compared to urban areas, including issues such as the amount of additional transportation expenditures, the amount of wealth lost by lack of access to jobs, and additional cost of groceries. Additional research could also link the hardships faced by those with lack of transportation with their access to nutritious food and doctors. Case studies should be conducted in order to determine the types of transportation solutions that are beneficial and proven to work for rural communities.

CHAPTER 1 INTRODUCTION

An important aspect of social equity in transportation planning deals with transportation expenses and the intense burden that automobiles place on low-income households. On average, transportation is the second-largest expense—after housing—for families. Costs are rising in general, and low-income and working families are having trouble keeping up. Real income has been declining while gas and other consumer prices are increasing. From 1990 to 2000, the combined costs of transportation and housing increased from 41.7% to 52.4% of median income, while the percentage change in incomes was only 0.3%, adjusted for inflation (Haas, Dawkins & Casey, 2006). Urban form and spatial patterns often make car ownership essential. The ensuing increase in car ownership has increased transportation costs among those with a yearly income of less than \$10,000 by 57% between 1992 and 2000 (Canby, 2003). The mismatch of job location and the placement of low-income housing creates long commutes and increased transportation costs precisely for those households that cannot afford it.

While the average household in the United States spends about 20% of their yearly expenditures on transportation, the lowest quintile spends up to 42% on transportation (STTP, 2006). Furthermore, the necessity of owning one or more vehicles places home-ownership out of reach for many low-income families, and the households prevented from purchasing a home due to transportation costs are further punished by the depreciating value of automobiles over time. For example, the disparity between investments in housing or vehicles can be demonstrated by the variance in what occurs to an investment of \$30,000 over a period of 10 years: “\$30,000 invested in owning a car can be expected to result in just \$3,000 in equity while investing \$30,000 in owning a house on average yields more than \$13,000 in equity” (STTP, 2006). Low-income households are also forced to cut expenditures in areas such as education; the percentage

of household members with college educations is significantly lower than higher-income households. Low-income families spend less on entertainment and cultural opportunities.

Furthermore, residents of spatially segregated areas—especially low-income households lacking a car—face many barriers that are transportation-related. Lack of mobility—the capacity, capability, and opportunity to move—is a contributing factor to the difficulties many rural residents face in finding and keeping a job. Difficulties are especially evident in the large proportion of low-income populations in rural areas without the means to pay for transportation (Maggeid, 1982). The low-density, dispersed form of rural communities makes viable transportation necessary in order to reach churches, markets and grocery stores, and jobs (Gillis, 1989).

Some solutions exist, though no consensus exists how to fix the transportation-housing problem. Devajyoti (2004) suggests that jobs need to be relocated into central cities, low-income residents need to move closer to the wealth of suburban jobs, and transportation needs to be more successful in serving suburban populations. More concretely, Barbara Lipman’s (2006) report for the Center for Housing Policy suggests reducing the costs of commuting by car by implementing policies to “encourage car sharing or make car ownership more accessible and affordable (through subsidized loans or insurance, for example)” (p. 18). Increasing ease of access to jobs for low-income populations improves the likelihood of wealth accumulation.

But the issue is daunting, and these suggestions do not offer long-term solutions to the transportation-housing problem. One-third of the American population is transportation disadvantaged. This figure includes more than 32 million elderly citizens—a number that will only increase as the Baby Boomer generation reaches retirement age. The U.S. Census Bureau predicts that there will be 62 million people above the age of 65 by 2025 (Bailey, 2004). Not all

low-income and transportation-disadvantaged households are centralized within cities. Since the quality of public transit correlates directly with density, the availability of mass transit is insufficient in sprawling urban areas. With an aging population and gas prices inevitably rising, the transportation-housing problem will not disappear.

This paper focuses specifically on the burdens endured by very low-income families living in public housing trying to seek mobility in an automobile-dominated landscape. Research will focus on low-income households residing in Alachua County Housing Authority public housing in five rural communities in Alachua County, Florida. Income thresholds for residents are based on HUD specifications—a family of four, for example, must earn \$29,900 or less per year. Personal interviews will focus on determining daily travel habits, common transportation-related problems, impacts on other areas of life such as food purchasing and cost burden, and possible solutions. A case study of Alachua County transportation solutions to link residents of outlying cities to Gainesville will provide insight into what types of programs have been successful in the past. Problems in some projects have been a lack of community input and ownership. This research seeks to account for problems faced by needy populations through engaging a dimension of Alachua County's transportation disadvantaged in a dialogue regarding their transportation problems and needs. A more complete understanding of the problems and possible solutions facing Alachua County's low-income residents will assist decision-makers in more adequately addressing transportation needs in the future.

CHAPTER 2 LITERATURE REVIEW

Transportation mobility is a necessity. Access to jobs, doctor's appointments, education, shopping, and recreation all require the ability to travel. In turn, the ability to effectively travel allows people to accumulate wealth by providing access to employment. Transportation should be a tool to help people travel where they need to go. Unfortunately, for many low-income families across the United States, it becomes a burden. Transportation costs have risen dramatically in the last several decades. The average family now spends about 20% of its income on transportation alone. Working families making between \$20,000 and \$50,000 face an increased burden—they spend nearly 30% per year for transportation (Lipman, 2006). This chapter enumerates the transportation-related issues faced by low-income households across the United States in order to determine universal themes regarding the overbearing costs of transportation.

Population Loss in Cities and Growth of the Suburbs

Cities throughout the United States—particularly old, industrial cities located in the Northeast and Midwest—have been facing disinvestment and population loss for about half a century. After World War II, large numbers of mostly white families took the opportunity of cheap mortgages in the suburbs and vacated the city (Bonham, Spilka & Restorfer, 2002). The dream of owning a single-family home with a yard seemed a more ideal place to raise a family than the chaotic, crime-ridden city. Even though the suburban dream played a significant role in decentralization, the policy decisions of the Federal government also impacted families. Without the massive financial subsidies provided through mortgage assistance and the construction of highways, the flight from the cities would have been much more difficult (Bonham et al., 2002).

Thus, the reasons for disinvestment in cities are numerous. Three trends—industry moving out of the city, population migration to the suburbs, and urban decentralization—have caused massive population loss (Bonham et al., 2002). Many cities throughout the Northeast and Midwest—Detroit, Pittsburgh, Buffalo, and Philadelphia, for example—relied on labor-intensive industry to supply numerous jobs to their populations. When industry relocated outside of the city, many workers were forced to follow or face joblessness (Bonham et al., 2002). For example, between 1979 and 1987, the City of Milwaukee lost almost 30,000 jobs. In the same time period, Milwaukee suburbs gained more than 36,000 jobs (Rosenbloom, 1992). Those that remained in the cities frequently encountered dislocation due to urban renewal programs. Though supposedly initiated to improve cities, urban renewal often created vacant land in locations that once housed residents before the program forced them to move (Bonham et al., 2002). According to Eisenberg (2004), the transformation of America’s economic structure from an industrial to a service economy, the availability of mortgage credit, technological advances, and consumer demand all contributed to the increasing prominence of the suburbs (p. 3). Additional incentives to leave the city for the suburbs included better schools, more space, and less crime.

Because the demand for low-skilled, poorly educated labor has dramatically decreased with the diminishing amount of industrial jobs located in the city, the overwhelming proportion of low-income populations face a perpetuating cycle of joblessness. According to Peter Hall (2002), joblessness presents a paradox. While some low-skilled jobs still existed in cities, “the qualifications had been raised, they were somewhat insecure, and many blacks would no longer do them because they felt that they would lose their self-respect. Besides, for members of the underclass, illegal activities were more interesting and profitable” (p. 455). And so the cycle

continued—children grew up in households without the example of a working adult, never learning the importance of work (Hall, 2002).

Most workers living in the suburbs now commute to other locations in the suburbs—not the city (Bonham et al., 2002). In the minds of many Americans, the dream is still to obtain wealth, leave the city, and move to the suburbs. In the last 20 years or so, the trend of moving to the suburbs has become apparent in populations of higher-income minority groups, with increasing populations of African-Americans, Latinos, and Asian immigrants taking residence in the inner-ring suburbs (Bonham et al., 2002). Because successful minority families are abandoning the cities, those that remain are increasingly isolated in disadvantaged communities, segregated by race and class (Bonham et al., 2002).

For these reasons, many cities are in a state of crisis. Detroit, St. Louis, Cleveland, Pittsburgh, and Chicago lost an average of 37% of their populations between 1960 and 1990. In the same period, the suburban population of these cities increased by an average of 32% (Bonham et al., 2002). In most instances, suburban job centers locate within moderate- to high-income neighborhoods with higher housing costs. These neighborhoods are frequently comprised of low density single-family homes (Haas, Sanchez & Dawkins, 2006). Urban form in the suburbs was dictated by a separation of uses, making automobile ownership practically mandatory in many locations. In turn, accommodating the automobile in policy and planning became common (Eisenberg, 2004).

Commuting Costs

Between 1960 and 1980, in keeping with population loss in center cities, 83% of jobs growth was in the suburbs (Rosenbloom, 1992; Hughes, 1995). Eisenberg (2004) cites commutes of two hours or more in many metropolitan areas. In Atlanta, the average commuter drives more than 34 miles a day to and from work (Eisenberg, 2004). Most commuting trips now occur from

suburb-to-suburb, not suburb to central city. By 1980, about five million Americans commuted from the central city to the suburbs, and 5.6% of those trips were by transit, despite inherent difficulties in using public transit in suburban areas. In the same year, less than 2% of suburb-to-suburb commuting was by transit (Rosenbloom, 1992). Since private, single-occupant automobiles are the most common form of commuting, a central city resident without a car has extremely limited regional mobility.

Average commuting distances have increased over time. Between 1980 and 1997, vehicle miles traveled increased by 68%, meaning less time for everything else, including leisure and families. According to a HUD study, suburban households drive 3300 more miles a year than urban dwellers (as cited in Eisenberg, 2004). Job dispersal especially affects low-skilled workers with low levels of mobility. In fact, low-income households are less than one-sixth as likely to own a vehicle as higher income households (Sanchez, 1999). Furthermore, because of the increasing commonality of long commutes, unemployed low-income inner-city residents are forced to compete with a much larger radius of workers (Schell, 2000).

Congestion has many byproducts, including wasted time and fuel. The total cost of congestion, which accounts for the amount of wasted time and fuel, is \$707 per traveler in urban areas (Schrank & Lomax, 2007). Costs are rising—in 2005, the total cost of congestion was about \$78.2 billion in the 437 urban areas, compared to \$73.1 billion in 2004 (Schrank & Lomax, 2007). In 2005, the average amount of wasted fuel per traveler in 437 study areas was 26 gallons, or 2.9 billion gallons total (Schrank & Lomax, 2007).

Research has revealed some of the negative physical effects of spending time in congestion, including increased blood pressure (Handy, 2006). Research has also linked increased driving levels to obesity. One study in Atlanta found that “each additional hour of

driving per day was associated with a 6% increase in the probability of being obese” (Frank, Andresen, & Schmid, 2004). Drivers stuck in congestion are exposed to elevated environmental hazards, including air pollutants such as carbon monoxide and particulate matter (Handy, 2006). Highway travel can be life or death. In 2002, more than 42,000 fatalities were linked to highway travel, and almost 3 million people were injured in highway crashes (Handy, 2006).

Housing and Transportation Affordability

But commuting costs are not the only costs of transportation. On average, American families spend more on transportation than on health care, education, or food—and usually all three combined. Transportation is the second-largest expense—after housing—for a given family. The combined costs of transportation and housing accounted for 52% of the average family’s budget in 2003 (McCann, 2005). Households making moderate incomes spend 25 to 38% of their wages on energy alone—utilities and gasoline combined (Bernstein, Haas, Heffernan, Markarewicz, Scheu & Star, 2007). When fuel prices increase, costs are even greater. Policies often fail to account for the expenditures of most families who have “no choice but to spend heavily on transportation, in part because of decades of inadequate investment in public transit” (Canby, 2003, p. 4). High transportation costs can be particularly burdensome on low-income families. Those earning less than \$13,000 in annual income pay 42% of that income for the purchase, operation, and maintenance of their automobiles (STTP, 2006).

Housing costs by themselves are not insignificant. Households are considered cost burdened if housing and related costs exceed 30% of gross income. By 2005, at least 13 million families in America paid more than half their income for housing and more than 4 million of these families worked full-time jobs (Lipman, 2005). In contrast with dominant stereotypes, these households include teachers, police officers, firefighters, and service workers, and most are homeowners living in the suburbs. Higher income households may face housing cost burdens

due to having children, wanting to live closer to good schools, illnesses, or divorce. Forty-seven percent of cost burdened households are families with children, and about half have two wage earners. Twenty percent are single females with children, 13% are married couples with two income earners. Twenty-three percent did not finish high school (Lipman, 2005).

The numbers simply do not add up. In 2003, in order to afford a two-bedroom apartment at 30% or less of income, a worker would have to earn \$15.21 per hour. A retail sales worker and a janitor earn an average of \$8.82 and \$8.98 respectively, effectively placing affordability out of reach for many low-skilled workers (Lipman, 2005). Disturbingly, working households with children are more likely to face a greater housing cost burden since household size is an important factor. For example, a three-person household earning \$22,000 per year and spending 50% on housing would only be left with \$306 per person per month; a single person would have \$916 left over each month (Lipman, 2005). Some of the sacrifices made by households with a high housing cost burden include spending an average of \$1,189 less on food, \$978 less on healthcare and insurance, and \$5,227 less on transportation, among other items (Lipman, 2005).

McCann (2005) quantifies what rising fuel costs mean for household transportation expenditures. For example, if gasoline prices rise by 30%, the ensuing costs would equate to more than the typical household spends annually “on prescription drugs and medicines (\$312), dental services (\$311), fresh fruits and vegetables, and more than a month of utilities and phone service” (p. 5). According to Lipman (2005), cutbacks in family spending on food can have dire consequences: “Even when parents try to protect their children, by skimping on food so their children don’t go without, for example, the resulting problems for parents, such as depression, place children at higher risk for health and psychological problems” (p. 13). Children in households facing food insecurity are more likely to have worse health physically and mentally,

be deficient in vitamins and minerals, develop learning disorders and behavioral problems, and be underweight or undernourished. Already, low-income households spend less in every expenditure category (McCann, 2005). Low-income households are also forced to cut expenditures in areas such as education—percentage of household members with college educations is significantly lower than higher-income households. Low-income families spend less on entertainment and cultural opportunities. In all, low-income households spend about three times more per year on transportation than on retirement, pensions, and Social Security, and about five times less in these areas than higher-income households (McCann, 2005).

Furthermore, real income has been declining while gas and other consumer prices are increasing. From 1990 to 2000, the combined costs of transportation and housing increase from 41.7% to 52.4% of median income, while the percentage change in incomes was only 0.3%, adjusted for inflation (Haas, Dawkins & Casey, 2006). Food, clothing, and housing are considered the three basic necessities, according to the Bureau of Labor Statistics—remarkably, transportation is not, regardless of the level of importance it plays in allowing people to get to work, school, the doctor, and the grocery store. From 1992 to 2003, housing costs rose by 3.6%, but transportation rose by a significant 8.8% (McCann, 2005).

For too long, housing costs alone have been the sole consideration in determining affordability. Perhaps now more than ever before, households choose to live further from jobs, and the urban form in many locations necessitates increased automobile use, even for everyday errands and taking children to school. The interaction between housing, location choice, and transportation costs provide a clearer measure of affordability than housing cost alone. Energy and transportation costs, though infrequently considered, make up a significant proportion of spending. For low-income households making \$10,000 to \$20,000 a year, the combined costs of

energy, transportation, and housing “leaves less than \$1,000 per month for food, healthcare, phone, education, housekeeping supplies, and many other items that range from every day basics to savings for retirement” (Bernstein et al., 2007, p. 4).

High transportation costs inhibit many low-income families from pursuing home ownership, education, or other wealth-gaining ventures that could assist them in upward mobility. According to Canby (2003), the necessity of owning one or more vehicles “is placing home-ownership out of reach for many low-income families, effectively restricting access to the single most effective tool for increasing family wealth” (p. 1). Low-income households prevented from purchasing a home due to transportation costs are further punished by the depreciating value of automobiles over time, and “as a result, spending on vehicles erodes wealth, while spending on housing can build it” (Canby, 2003, p. 5). Take, for example, a demonstration of what happens to \$10,000 over a period of 10 years for a household that invests in a home instead of a car: “The homeowner can realize a return of more than \$4,730 in equity...the car owner receives equity of less than \$1,000—just \$910, on average” (Canby, 2003, p. 5).

However, households with access to public transportation are able to spend considerably less on transportation costs, especially as gas prices increase. Living in a small, efficient residence near transit can provide a reduction in costs from a large, inefficient residence in the exurbs. In turn, households in areas with high transit access have more income to spend locally on goods and services other than gasoline. High transit use also correlates with low automobile ownership and use, creating even greater expendable income for families by eliminating the most significant transportation expenditure for a given household. For example, while Tampa and Miami do not rank highest in a list of cities in terms of housing costs, the two cities are the least

affordable in the United States when housing costs are considered in conjunction with transportation costs. Similarly, areas with high housing costs such as San Francisco, San Diego, Honolulu, Boston, New York, and Washington, D.C. are not necessarily the most expensive when transportation costs are considered together with housing costs (McCann, 2005). Urban form characteristics—density, block size, transit connectivity, amenities, presence of jobs—greatly influence the number of vehicles and frequency of use necessary for a given household (Bernstein et al., 2007).

Transportation costs and opportunities for work vary by location. While housing in exurban communities is generally affordable, transportation costs are extremely high—the average distance from the central city is 31 miles. On average, exurban residents spend 23% of their income on transportation, and those earning \$20,000 to \$50,000 spend 30 to 40% (Bernstein et al., 2007). Housing and transportation in inner-ring suburbs costs about 59% of average incomes. In addition to a high frequency of unemployment and poverty, many residents of inner-ring suburbs have single-family homes but low rates of car ownership, proximity to the central city but a lack of neighborhood services and employment centers (Bernstein et al., 2007). In a case study of the Minneapolis-St. Paul region, the Center for Transit-Oriented Development (CTOD) and the Center for Neighborhood Technology (CND) (2006) found that only central city neighborhoods in the region were affordable to low-income families making less than 50% of median income. The authors cite proximity to better transit service, access to more jobs, and availability of lower priced housing created more affordability for households (p. 11).

Not all low-income and transportation disadvantaged households are centralized within cities. Unreliable, fragmented transportation systems are a significant contributing factor to poverty. The quality of public transit correlates directly with density—precisely the reason why

mass transit is insufficient in sprawling suburban areas, where housing densities are very low, at less than five units per acre. According to Canby (2003), the “average American family living in a highly decentralized metropolitan area pays roughly \$1,300 more per year in transportation expenses” (p. 5). The increase in car ownership has increased transportation costs among those with a yearly income of less than \$10,000 by 57% between 1992 and 2000.

A significant problem is the fact that most households are not fully aware of the significant expenditures required for transportation. There is more to choosing a home than travel time and housing characteristics, and price. Households with limited budgets need to consider the impact of moving to a community that will require making higher transportation expenditures and purchasing additional vehicles. An extra automobile could cost at least an additional \$4,000 per year (CTOD & CND, 2006).

Social Equity: Housing, Jobs, and Transportation

Because of the large percentage of income needed for both housing and transportation, families face complex decisions about residential location. Is it better to have a newer home or a better school? A transit-oriented neighborhood or single-family home? Commute by automobile or transit? Less expensive housing or closer proximity to jobs? In the United States, the highest percentage of job growth occurs in the suburbs, while most affordable housing is in central cities, inner-ring suburbs, and exurban locations. Households must weigh paying the costs of commuting versus the costs of housing.

Unfortunately for low-income families struggling to keep up with transportation costs, use of transit and carpooling is continually falling. According to the U.S. Census, the percentage of work trips made by using public transit fell from 12.6% in 1960 to 4.7% in 2000. Conversely, reliance on the private automobile for work trips rose from 66.9% to 87.9% (as cited in Pucher & Renne, 2003). Ferguson (1997) observed the decline in carpooling from 1970 to 1990. He found

that decreasing densities, sprawling urban fabric, rising family incomes, smaller families, and female labor force participation were some of the most salient trends in the decline of carpooling. The study found that diminishing real marginal fuel costs explained one-third of reduced carpooling in the United States from 1970 to 1990 (Ferguson, 1997).

According to 2001 National Household Travel Survey (NHTS) data, automobile ownership has expanded to 91.7% of the United States population; 58.5% own two or more vehicles (as cited in Pucher & Renne, 2003). Less than half of all Americans live within a quarter mile of a transit stop (Canby, 2003). Lack of automobile ownership disproportionately affects the poor. Nearly 27% of households earning less than \$20,000 per year have no automobile. The remaining households with a car will use it to make about 75% of their trips. Automobiles are heavily utilized by everyone able to own one. The urban form of sprawling metropolitan areas in the United States, though certainly not the sole cause of automobile use, is probably the most important one.

Thus, transit ridership, even among low-income households, comprises a tiny portion of all trips. Public transportation is significantly less efficient than automobile travel. For example, in the 28 largest metropolitan areas in the United States, the average commute by automobile took about 20 minutes less and covered a distance nearly two miles greater than commutes by public transportation (Haas, Dawkins & Casey, 2006). However, public transportation has monetary benefit for users. Commuting on public transportation costs between \$800 and \$1,500 per worker per year, while the total cost of owning and operating a vehicle—including insurance, maintenance, registration, fuel, and payments—costs an average of \$6,000 per year (Canby, 2003).

Taking into account transportation disadvantaged households further demonstrates discrepancies in mode choice, residential location, and affordability. One-third of the American population is transportation disadvantaged (Bailey, 2004). The transportation disadvantaged include children, the elderly, people with disabilities, poor people, women, and rural residents, including 56 million children under the driving age, 32 million senior citizens with diminished driving ability, and 24 million people with disabilities required to depend on transit, paratransit, or expensive private transportation services (STTP, 2006). Furthermore, 90% of former welfare recipients do not have access to a car, thus perpetuating a cycle of job turnover and poverty. Both welfare recipients and other low-income populations are disproportionately young, single minority females with children, without a college education, with health limitations, and without dual household incomes (Garasky, Fletcher, and Jensen, 2006).

The number of senior citizens will only increase as the Baby Boomer generation reaches retirement age. The U.S. Census Bureau predicts that there will be 62 million people above the age of 65 by 2025 (Bailey, 2004). Declining health, safety concerns, and lack of access to a vehicle are some of the reasons causing more than one-fifth of Americans 65 and older not to drive. Non-drivers make 15% fewer trips to the doctor, 59% fewer shopping and restaurant trips, and 65% fewer trips for social, family, and religious activities (Bailey, 2004). Lack of adequate transportation decreases mobility for elderly Americans, particularly those living in sprawling suburban or rural areas without a car. According to Bailey (2004), “more than 50% of non-drivers age 65 and older—or 3.6 million Americans—stay home on any given day partially because they lack transportation options.” Livable communities with biking, walking, and transit options increase mobility for elderly Americans. However, many in this population cannot use

public transportation services due to health issues. Many are forced to get a ride with others or use paratransit or specialized transportation services.

Lack of an automobile requires provision of alternative forms of transportation, but the options are not always adequate. The literature discussing housing, jobs, and transportation has enumerated several often overlapping theories to explain problems of social equity in the United States spatial structure. The theories—spatial mismatch, drive until you qualify, jobs-housing balance, and location efficiency—will be described in this section, along with transportation issues faced by rural populations.

Spatial Mismatch and Drive Until You Qualify

Both the spatial mismatch hypothesis and the drive until you qualify phenomenon deal with the spatial segregation of jobs from affordable housing. In 1964, John Kain first introduced the concept of spatial mismatch to explain problems associated with racial discrimination among inner-city blacks (Arnott, 1998). Spatial mismatch deals with the fact that jobs requiring lower education levels are leaving the center city, rendering vast numbers of low-income residents unemployed or facing increasing levels of poverty (Blumenberg & Ong, 1997). Essentially, spatial mismatch contends that fewer jobs exist per worker in black areas than in white areas, leaving many black workers with lower wages, longer commutes, and greater difficulty in obtaining jobs than their white counterparts (Ihlanfeldt & Sjoquist, 1998). The ability to secure mortgages poses an additional problem for families in determining residential locations. Working families seeking low-cost homeownership face the dilemma of drive until you qualify (Lipman, 2006). Workers desiring homeownership often sacrifice proximity to their jobs and subsequently face increased transportation commuting costs.

Several important factors contribute to the existence of spatial mismatch. High-growth job markets are generally concentrated in the suburbs, far from black neighborhoods. Racial

discrimination against blacks prevents them from obtaining housing and mortgages in job-rich locations. Additionally, blacks face difficulties gaining information about job openings, customers and employers discriminate against them, and poor transportation connections exist to job-rich areas (Ihlanfeldt & Sjoquist, 1998). Spatial mismatch limits the range of jobs available to low-income inner-city residents due to the limited distance carless residents are able to travel for commuting (McQuaid, Greig & Adams, 2001). Physical distance and lack of accessibility become employment barriers (Ihlanfeldt & Sjoquist, 1998). Schell's (2000) study of poverty in Philadelphia revealed that affordable housing in the region is located almost entirely within the city, where car ownership is low and public transit use high. Most residents have no means to access suburban jobs because high-growth areas are located away from transit hubs and corridors. The prevalence of spatial mismatch varies by metropolitan area. Higher levels of spatial mismatch are found in areas with frequent housing segregation and poor transportation options for workers living in the city and commuting to the suburbs (Ihlanfeldt & Sjoquist, 1998).

Some researchers argue that spatial mismatch is more accurately an "automobile mismatch" that encourages inequity and lack of opportunity (Garasky, et al., 2006). Furthermore, Arnott (1998) describes the difficulty in linking jobs and *poor* households, not necessarily black ones. Ihlanfeldt & Sjoquist (1998) also conclude that spatial mismatch in its contemporary state applies more to low-skilled, low-income workers regardless of race. Ong and Miller (2005) find that transportation mismatch is a more important disadvantage than spatial isolation for understanding commuting among low-income city dwellers. Travel characteristics in a given neighborhood are determined by the built environment, and travel options for the transportation disadvantaged are severely limited in communities primarily structured for automobiles.

According to Steiner & Fischman (forthcoming), without an automobile, the transportation disadvantaged will either “depend upon others to drive them to their activities or travel by transit, bicycle or walking and put their personal safety and security at risk or they will be prevented from participating in activities of daily living.” The disadvantages of being carless are not unique to a particular race.

Many workers seeking homeownership settle in exurban areas due to increased housing affordability. According to Berube, Singer, Wilson, and Frey (2006), exurbs can be defined as “communities located on the urban fringe that have at least 20% of their workers commuting to jobs in an urbanized area, exhibit low housing density, and have relatively high population growth” (p. 1). Exurbs lie beyond the suburbs at the urban-rural periphery. According to Lipman (2006), “within metropolitan areas, housing costs tend to fall as one moves further away from employment centers” (p. 5). Much exurban growth is fueled by the drive until you qualify phenomenon that sends middle-income families to fringe locations in search of affordable new homes in limited supply elsewhere (Berube, et al., 2006). Exurban areas far from employment centers contain less expensive, larger, or better-quality housing. However, with any distance further than a 12-to-15-mile commute, the increased transportation costs outweigh savings on housing (Lipman, 2006). While housing prices diminish with longer distances, transportation costs increase significantly.

Public transportation often cannot meet the needs of carless residents seeking employment in job-rich suburban locations. In suburban areas, public transportation service is often infrequent, unreliable, and limited in area. Commuting time is often lengthy and unpredictable (Arnott, 1998). Commutes by public transportation in Los Angeles were 75% longer than for those traveling by automobile (Taylor & Ong, 1995). Workers depending on

public transit face problems accessing jobs, especially when jobs are located in suburban areas. For example, one study demonstrated that 41% of work absences by recently-hired welfare recipients were caused by transportation-related problems (Holzer & Wissoker, 2001). The study also found that suburban employment locations not accessible by transit were associated with higher levels of absenteeism. Reliable transportation and improved job accessibility for workers can make the difference in keeping or losing a job.

Living in a job-rich neighborhood increases the likelihood that workers will be employed locally, an important consideration for both spatial mismatch and drive until you qualify. Increasing ease of access to jobs by low-income populations improves the likelihood of wealth accumulation. The prevalence of spatial mismatch and the drive until you qualify phenomenon are essentially both functions of poor workers residing in locations spatially distinct from their work locations. Lack of adequate transportation, inability to obtain affordable housing, or discrimination in job markets all play roles in perpetuating the spatial segregation of housing and jobs for low-income workers. Furthermore, as will be described in the next section, rural households also face spatial challenges in reaching work. Most rural communities have few job opportunities for local residents. In the same way as inner-city or exurban residents, many rural workers must commute long distances in order to reach job-rich locations, creating inherent affordability problems.

Jobs-Housing Balance

The jobs-housing balance refers to the ratio of residents and jobs in an area. A ratio of one means the area is balanced (Levinson, 1998). The jobs-housing balance and spatial mismatch are closely connected—the jobs-housing balance effectively measures spatial mismatch. According to Cervero (1989), the imbalance of housing and job location forces workers to reside

further from their jobs than they prefer due to affordability issues. Longer commutes result from areas with substantially more housing than jobs (Horner, 2007).

The jobs-housing balance is difficult to measure. Peng (1997) found that both businesses and residents co-locate to reduce commuting. While the dispersed employment in suburban locations can reduce commutes, it also increases VMT for other trip purposes (Litman, 2005; Peng, 1997). Those who live and work outside a city center tend to drive significantly more annual miles than those living closer to the city (Litman, 2005). Furthermore, while a region might be balanced in terms of housing and jobs, individual neighborhoods may not. In some instances, a local balance of housing and jobs does not necessarily mean that residents are locally employed, as one study found in Mountain View and Walnut Creek, California (Cervero, 1989).

Cervero (1989) identifies five forces that shape the jobs-housing imbalance: fiscal and exclusionary zoning, growth moratoria, worker earnings and housing cost mismatches, two wage-earner households, and job turnover. In two-worker households, for example, households may find difficulty locating close to the workplaces of both jobholders (Levine, 1998). Job uncertainty also plays a role in long commutes because a worker with an unstable job cannot be expected to move every time they start a new job (Ma & Banister, 2006).

According to Lipman (2005), a common practice for households is to reduce housing costs by enduring longer commutes. Working families spend 77 cents on transportation for every dollar decrease in housing costs, demonstrating the difficult choice between affordable housing far from jobs or expensive housing in closer proximity. In a study of 28 Metropolitan areas, Haas et al. (2006) found that expenditures on housing are higher in more densely-developed areas within close proximity to jobs, while expenditures on transportation are lower, suggesting a tradeoff between housing costs and accessibility to jobs. But long commutes overly burden low-

income households. A study by Blumenberg and Ong (1997) showed that welfare recipients with long commutes must contend with both increased travel time and less net earnings than those working near home. Another study by Blumenberg and Ong (1998) demonstrated that better access to jobs decreases commuting distance, and employers do not compensate workers making long commutes. In turn, workers commuting from far away earn less than those with better job access due to increased transportation costs. Lack of reliable transportation and lower wages can cause high turnover rates, perpetuating the cycle of low pay.

Cervero (1989) found that cost and availability of housing are among the most important factors influencing residential locations of suburban workers in the San Francisco Bay Area. Still, affordability is not necessarily the only factor households consider when purchasing a home. Residential density, house size, lot size, school districts, and other individual preferences influence location decisions. Higher-income households with greater residential options and expendable income historically tend to prefer low residential densities far from work, though the trend may be changing due to increased energy costs (Holtzclaw et al, 2002). Increasing the supply of housing near employment centers represents location efficiency by reducing the overall cost of travel, especially to suburban employment locations (Levine, 1998).

Workers face a choice between accessibility to downtown jobs and larger homes in the suburbs. Increasing urban sprawl and suburban congestion will renew the cycle of imbalance if left unchecked (Peng, 1997). Densification and infill is a solution to improving the jobs-housing balance. In contrast to the heavy industry of America's industrial era, present-day non-polluting office sites have no business being separated from residences. In fact, Cervero (1989) points out that "congestion produced by the jobs-housing imbalance is one of the most serious public nuisances today" (p. 145). Since an improved jobs-housing balance is associated with shorter

commutes (Murray 2003; Levinson, 1998), encouraging more affordable housing in close proximity to jobs will reduce congestion by encouraging alternative modes of transportation, conserve energy by reducing VMT, and enhance environmental quality (Cervero, 1989). Modifying land use regulations and encouraging affordable housing in suburban areas will help to improve jobs-housing balance, increase job accessibility for working families, and decrease discrimination (Cervero, 1989).

Location Efficiency

In light of variables associated with travel patterns and residential location, the concept of location efficiency seeks to obtain a more accurate picture of transportation and housing affordability. According to Holtzclaw et al. (2002), location efficiency is a method to value neighborhoods in terms of household transportation expenditures. In a simplified definition, location efficiency deals with the proximity of homes to transit systems. There are three key components of location efficiency—density, transit accessibility, and pedestrian friendliness (Dittmar & Ohland, 2004). The location efficiency hypothesis contends that automobile ownership and driving decrease with proximity to trip destinations, and trips by nonautomotive means increase (Holtzclaw et al., 2002). Proximity to transit increases overall affordability of housing and transportation for households, allowing them to accumulate greater wealth and subsequently contribute greater wealth back into the community. Currently, only about 6 million households live within a half mile of a transit station. However, that number is predicted to increase. In the next 25 years, demand for housing near fixed-guideway transit is likely to increase by as much as a quarter of all new households, or 14.6 million households (CTOD, 2004). Location Efficiency has an important connection with Location Efficient Mortgages (LEM), or mortgages that assist homeowners in communities with good transit access and walkability with the goal of saving from reduced transportation costs. Determining the statistical

relationship of variables such as automobile ownership and driving to a spatial context allows for adequate provision of an LEM to allow households to decrease their transportation costs and increase the amount of income they allocate to mortgage payments (Holtzclaw et al., 2002).

One methodology for determining location efficiency was developed by CTOD and CND. Their Affordability Index calculates the true affordability of owning a home based on combined costs of transportation, market value, and location. The Affordability Index “can help households assess which neighborhoods in a region are most affordable, and it can help policymakers determine where resources should be focused to enhance affordability” (p. 2). Household transportation costs are considered by costs of automobile ownership, automobile use, and transit use. In order to determine affordability, the index calculates the sum of average housing costs plus average transportation costs for a neighborhood divided by average neighborhood income.

Models for estimating household transportation costs use a combination of income and household size. The Federal Highway Administration developed several indicators to determine automobile costs, including depreciation, insurance, financing, state fees, fuel, maintenance, repairs, use, and vehicle age. According to these indicators, the average costs of owning an automobile are \$5,068, and usage costs are 9 cents per mile (Haas et al., 2008). Additional factors named by Holtzclaw et al. (2002) that may affect location efficiency include “age and attractiveness of the central city; differences in attitude toward driving and public transit; differences in the cost of living, or of owning and operating a vehicle; cost or quality of transit; highway congestion and travel times; government or private programs to encourage use of transit or carpooling; and climate” (p. 20).

Urban form has a significant bearing on gasoline consumption and automobile ownership. Characteristics such as an arterial grid, curvilinear streets, and disconnected *cul de sacs* dominate in the suburbs (Newman & Kenworthy, 1995). Edge cities connected by freeways encourage widespread use of automobiles. One study found that residents of American cities consumed nearly twice as much gasoline per capita as Australians, nearly four times as much as the more compact European cities and ten times that of three compact westernized Asian cities, Hong Kong, Singapore and Tokyo (Newman & Kenworthy, 1989). Findings in the study suggest that driving is reduced 30% every time density doubles (Newman & Kenworthy, 1989). Litman (2005) found that residents of central locations drive 20 to 40% less and are two to four times more likely to use multi-modal transportation options than suburban residents. Shorter commutes, nearby services, and more options for travel combine to create variations in urban travel patterns. Rural residents are the most likely to drive and the least likely to use alternative modes of transportation.

Density and transit account for a large proportion of variation in VMT per household. A study of traffic analysis zones and census tracts in the San Francisco Bay Area developed indicators that influence VMT, including household size, auto ownership, income, weighted jobs within 30 minutes, dissimilarity of the zone's major land use from its neighbors, and the balance of land uses within the zone within a half mile (as cited in Holtzclaw et al., 2002). Indicators for automobile ownership included household size, income, weighted jobs within 30 minutes, dissimilarity of the zone's major land use from its neighbors, the balance of land uses within the zone, and population density (as cited in Holtzclaw et al., 2002). One study found that automobile commutes decrease as employment density increases, and increased employment density tends to support commuting by transit and ridesharing (Litman, 2005). An increase in

density—not just residential, but also the number of destinations nearby—creates shorter trips. Transit use, local shopping, job availability, a good pedestrian environment and slow vehicle speeds usually coincide with high residential density.

Clustering different uses together can decrease automobile ownership and use and increase the viability of other types of transportation. In urban areas, such a process involves infill, improving connectivity, and encouraging walking and transit. Suburban areas can encourage downtown centers and encourage walkability. Rural areas can create village centers and provide basic accommodations for walking and transit service (Litman, 2005). Clustering provides a useful method for promoting travel alternatives—combining schools, stores, parks and other commonly-used services within residential neighborhoods and employment centers are ways to discourage automobile use. Litman (2005) draws several additional conclusions about the effects of land use factors on travel behavior, including the following:

Per capita automobile travel tends to decline with increasing population and employment density; per capita automobile travel tends to decline with increased land use mix and connected street networks; per capita automobile travel tends to decline in areas with attractive and safe streets that accommodate pedestrian and bicycle travel, and where buildings are connected to sidewalks rather than set back behind parking lots; larger and higher-density commercial centers tend to have lower rates of automobile commuting because they tend to support better travel choices (more transit, ridesharing, better pedestrian facilities, etc.) and amenities such as cafes and shops; per capita automobile travel tends to decline with the presence of a strong, competitive transit system (p. 33).

Haas et al. (2008) suggest creating environments that reduce automobile ownership and use and increase transit use. Increasing the prevalence of transit-oriented developments may be the answer. In order for transit service to be viable and encourage ridership, it must carefully consider the needs of the local population. Transit should service desirable locations, include nearby affordable housing, entertainment, and employment centers. Service must be frequent and interconnections should be accommodated (CTOD, 2004). While many might assume that

nearby transit availability might drive up housing prices, CTOD (2004) found that median incomes of households located near transit tend to be lower than those of households in the larger metro region, suggesting that overall affordability does not necessarily suffer. Furthermore, higher-income households are less likely to use transit. Lower-income households are more likely to choose residences near transit (Haas et al., 2008). Homeownership rates are lower in transit zones than in other locations within the metropolitan region—31% versus 66%. Car ownership rates are also lower, at an average of 0.9 cars versus 1.6 cars in the remaining region. Rates of commuting by automobile are nearly 30% lower in transit zones (CTOD, 2004). Households in transit zones are less likely to have children and more likely to live alone or in couples. The elderly population above age 65 is more likely to live in transit zones than other locations.

Solutions

Transportation does not have to be a burden. According to Eisenberg (2004), when used correctly and efficiently, transportation “protects national security, fosters economic prosperity, preserves and enhances the environment, builds and strengthens communities, and connects people across the distances both great and small” (p. 2). Some solutions exist, though research on the subject appears to be uncertain how to fix the transportation-housing problem. Devajyoti (2004) suggests that jobs need to be relocated into central cities, low-income residents need to move closer to the wealth of suburban jobs, and transportation needs to be more successful in serving suburban populations. More concretely, Barbara Lipman’s (2006) report for the Center for Housing Policy suggests reducing the costs of commuting by car by implementing policies to “encourage car sharing or make car ownership more accessible and affordable (through subsidized loans or insurance, for example)” (p. 18). McCann (2005) suggests owning fewer vehicles and increasing transit use—households with one vehicle or less and above average

transit use spend an average of 10% of their incomes on transportation (p. 14). Hughes (1995) and Ihlanfeldt & Sjoquist (1998) suggest implementing a mobility strategy that reconnects the ghetto, once a job-rich location with affordable housing, to opportunities elsewhere. In this way,

City residents get access to economic opportunity without sacrificing community networks such as extended family and institutional affiliations. Suburban employers get access to the entry-level workers who are hard to find in suburban labor markets. City governments retain voters who have received the benefits of the strategy. Suburban governments get a reduction in housing development pressures driven by the increasing labor demand (p. 288).

More beneficial long-term solutions include eliminating housing, job, and mortgage discrimination, improving the job skills of low-skilled workers, and balancing the unequal distribution of jobs (Ihlanfeldt & Sjoquist, 1998).

Garaksy, Fletcher, and Jensen (2006), Hughes (1995), and Schell (2000) suggest expanding options by extending transit service, encouraging ride sharing and vanpooling, and providing subsidies for automobile purchase and insurance. Blumenberg and Ong (1998) suggest similar solutions for inner-city workers to reach suburban employment. They also suggest offering support services such as a guaranteed ride-home for unforeseen emergencies or flexible child-care hours. Schell (2000) suggests decreasing the amount of free parking available to encourage transit use. Free, untaxed parking in the United States may influence commuting by automobile, much as free transit passes to workers in Japan encourages public transit use (Ma & Banister, 2006). Since automobiles are ubiquitous in most American households, alternative modes of transit must offer greater utility or convenience than an automobile in order to encourage mode switch. Making driving more expensive and implementing policies to encourage other modes of transportation are two ways to curb driving (Handy, 2006). In terms of carpooling, Ferguson (1997) found that parking fees and road pricing both likely have a positive effect on carpooling. Furthermore, carpooling provides more flexibility than public transit or

other non-motorized forms of transportation. Carpooling remains an excellent way to improve air quality, decrease traffic congestion, and save money for travelers (Ferguson, 1997).

Several other factors are important to consider. Blumenberg and Schweitzer (2006) question the viability of offering expanded transportation options to low-income households. They suggest that reverse commute options may not be effective for serving low-income populations because low-income riders are less likely to ride long distances. A study in St. Louis found that low-income workers tolerated a commute of about one hour only for jobs that paid well (Forlaw, 1998). Childcare is another serious concern. Many parents—even those without accessibility problems, such as higher-skilled white females—have a limited commuting range and decreased job prospects due to the need to provide childcare (Madden, 1981). Blumenberg and Schweitzer (2006) suggest that extending hours of service may not be beneficial since many low-income transit users travel during peak periods; those with non-standard work schedules may fear using transit in the dark.

Rural Transportation

Transportation accessibility in rural areas is a significant social equity issue. According to a United States Department of Agriculture (USDA) (2005) report, 92.7% of rural households had access to a car in 2000. However, many rural counties had a high rate of carlessness, indicating that lack of a vehicle was significantly more concentrated in some areas than others, especially in regions such as the South, Appalachia, the Southwest, and Alaska. Rural residents without automobiles face cycles of poverty and increased reliance on public transportation. Furthermore, 40% of rural residents have no access to public transportation, and 28% of those existing systems offer only limited service (USDA Economic Research Service, 2005). Mobility issues for transportation disadvantaged individuals are a persistent problem in areas lacking public

transportation. Rural households without an automobile are disproportionately the poor and elderly (Gillis, 1989).

Transportation problems for rural households are creating a tremendous drain on already-burdened individuals. According to Wilkinson (1999), negative social conditions can interfere with individual well-being, so provisions must be adequate to meet sustenance needs—otherwise people will not be free from the primary struggle for survival. Transportation and mobility issues can be a huge problem for families—sustenance needs include not only adequate food but also physiological needs like jobs, housing, income, and other services. A dispersed, carless rural household faces difficulties reaching employment, health services, and educational opportunities only available in more urban areas. Access to jobs to provide income is necessary for the well-being of rural residents, but even those able to afford to purchase a vehicle may not be able to pay to keep it running. High transportation costs may cause many families to make sacrifices in other areas, such as purchasing food—a supposedly “primary” need.

According to Wilkinson (1999), rural areas are often associated with the lack of jobs, services, and incomes that comprise material well-being. Rural residents, faced with a mounting lack of resources, must either learn to live without them or look outside the local community for the resources they need. Findings of many studies show that rural residents often travel great distances and to multiple centers to meet their needs for work, trade, education, health services, recreation, and government services. Rural communities further decrease individual well-being due to their lack of an urban form that encourages physical activity. The combination of factors such as high automobile dependence, unhealthy diets, and lack of walkability contribute to the prevalence of obesity and related diseases (Sallis & Glanz, 2006).

Residents of rural areas—especially low-income households lacking a car—face many barriers that are transportation-related. Lack of mobility, or the capacity, capability, and opportunity to move, is a contributing factor to the difficulties many rural residents face in finding and keeping a job. Difficulties are especially evident in the large proportion of low-income populations in rural areas without the means to pay for transportation (Maggeid, 1982). Gillis (1989) reaches similar conclusions about mobility in rural areas. The low-density, dispersed form of rural communities makes viable transportation necessary in order to reach churches, markets and grocery stores, and jobs.

Several studies provide insights into the problems facing many rural households. A study of rural residents in Arkansas found that many residents lacked local employment options, often due to inadequate transportation—64% reported having no transportation to major industries located 5 to 25 miles away. While these residents had no desire to move to a location with better opportunities, many reported that lack of jobs could drive them to it (Maggeid, 1982). According to a survey of rural employers in Minnesota, 30% claimed that transportation was a principal barrier to hiring former welfare recipients (Owen, Shelton, Stevens, Nelson-Christinedaughter, Roy & Heineman, 2000). Even if rural residents have a vehicle, reliability becomes an issue. Furthermore, one study in rural Iowa found that only one in four welfare recipients, if they owned a car, had it properly registered (Fletcher & Jensen, 2000). Garasky, Fletcher & Jensen (2006) discuss the gravity of transportation problems for low-income rural residents in Iowa:

Nearly half (48%) of the low-income respondents experienced a financial transportation hardship in the past 12 months such as neglecting vehicle repairs, lacking money for gasoline, allowing insurance to lapse, missing a car payment, and/or having a vehicle repossessed. Less than one in four of the high-income respondents reported such problems (p. 74).

An employment center in a rural region is likely to draw from an extensive geographic area. For example, Gillis (1989) reports that many rural industries draw workers from up to 50 miles away. While he considers the highway system a critical link to connecting the labor force with jobs, Maggeid (1982) points out that automobiles owned by low-income households often lack insurance and are inadequate for long commutes and interstate highway travel.

Other barriers to work include long commute distances, lack of educational service, lack of available childcare, and lack of public transportation. A reported 75% of rural respondents in one study lacked transportation options because they lived in areas not served by public transportation (Redlener, Brito, Johnson & Grant, 2007). Lack of transportation in rural areas inhibits income generation, effectively restricting low-income families from moving into middle-income brackets. Even households with only one vehicle may be transportation disadvantaged due to the fact that about 87% of rural residents get to work by private automobiles (Maggeid, 1982). Other family members in one-car households are left stranded while the vehicle-user works.

Transit providers in rural areas face many difficulties in supplying service to low-density areas. Even when public transportation is available, it is twice as likely to be demand-responsive rather than fixed-route (Twadell & Emerine, 2007). Since the majority of rural residents own cars, transportation providers offer less service choices than the past. While company-based carpooling and vanpooling programs are becoming more prominent to assist commuters, many demographic segments—the elderly, the young, the disabled, the poor, one-car households, and those with no driver's license, for example—are severely disadvantaged without automobile access (Kidder, 1989). The transportation disadvantaged are primarily the groups driving

demand for transit in rural areas. Kidder (1989) discusses some of the problems of service provision in rural areas.

First, the demand is less efficiently located. Rather than living along a few corridors with high levels of repeated demands, rural residents may be scattered over a wide area, with very low density of population...The transit dependent are less likely to be predominantly low-income and more likely to have physical limitations that require a higher level of personal attention in solving their mobility problems. The demand tends to be sporadic since trips are not repeated as often as in urban areas. In urban areas an important portion of the transit demand comes from the repetitive journey to work. In rural areas more people use their own or other cars to get to work, and the public transportation needs are more for shopping, appointments, and recreation (p. 132).

The cost of service provision is high and significantly less cost effective in rural areas. Special funding is required to subsidize the high costs of transit provision. Demand is less frequent, trips are less consolidated, and trips per person may be lower (Kidder, 1989). In order to mitigate high costs, demand-responsive agencies often have strict eligibility requirements and trip purposes for riders.

So, there are two solutions—residents must move, or transportation must become less expensive. A community is unable to function adequately without achieving individual and social well-being for its residents. Rural municipalities with little tax base are unlikely to be able to afford many improvements alone. Coordination is necessary, and available resources must not be wasted. Those implementing services need to be sure to ask people what they want and not assume to be fully aware of all the mobility issues facing rural residents. The truth is that many residents of rural communities leave in order to meet their daily needs (Wilkinson, 1999). Clearly something needs to be done in order to increase mobility and offered services for residents in rural areas. However, the task is not a simple one.

Fixed-route service is often unfeasible in rural areas. Instead, agencies should pursue alternative forms of transit, such as ride-sharing, demand response transit, and car-sharing

(Twadell & Emerine, 2007). Rosenbloom (1992) chronicles the successes of reverse commute transportation provision in the United States. Successful measures include decreasing the need for transfers and time spent on a bus, providing feeder services to major employment centers, and encouraging employment centers to establish new bus service with direct routes between workers and jobs. For rural areas, Sutton (1988) details various community transportation strategies, including community vanpools, demand-response transit, and car service, including informal ridesharing, organized carpools, and drivers recruited by local agencies.

Summary

On average, transportation is the second-largest expense—after housing—for families. Costs are rising in general, and low-income and working families are having trouble keeping up. Real income has been declining while gas and other consumer prices are increasing. Urban form and spatial patterns often make car ownership essential. The mismatch of job location and the placement of low-income housing creates long commutes and increases transportation costs precisely for those households that can least afford it. Low-income households are also forced to cut expenditures in areas such as education—percentage of household members with college educations is significantly lower than higher-income households. In all, low-income households spend about three times more per year on transportation than on retirement, pensions, and Social Security, and about five times less in these areas than higher-income households (McCann, 2005).

Residents of rural areas—especially low-income households lacking a car—face many barriers that are transportation-related. Lack of mobility, or the capacity, capability, and opportunity to move, is a contributing factor to the difficulties many rural residents face in finding and keeping a job. Difficulties are especially evident in the large proportion of low-income populations in rural areas without the means to pay for transportation (Maggeid, 1982).

Gillis (1989) reaches similar conclusions about mobility in rural areas. The low-density, dispersed form of rural communities makes viable transportation necessary in order to reach churches, markets and grocery stores, and jobs.

Furthermore, living in a job-rich neighborhood increases the likelihood that workers will be employed locally, an important consideration for both spatial mismatch and drive until you qualify. Increasing ease of access to jobs by low-income populations improve the likelihood of wealth accumulation. The prevalence of spatial mismatch and the drive until you qualify phenomenon are essentially both functions of poor workers residing in locations spatially distinct from their work locations. Lack of adequate transportation, inability to obtain affordable housing, or discrimination in job markets all play roles in perpetuating the spatial segregation of housing and jobs for low-income workers. Most rural communities have few job opportunities for local residents. In the same way as inner-city or exurban residents, many rural workers must commute long distances in order to reach job-rich locations, creating inherent affordability problems.

Well-designed service provision to low-income rural dwellers can greatly enhance mobility and encourage job retention and wealth accumulation. The problems are grave, but coordinated solutions can provide much-needed assistance. Successful transportation options involve a system that provides mobility for users. Incentives must be implemented to use the service, especially if it is to be used as anything but a last-resort option. Suggestions for the literature also provide useful recommendations in relation to the case of Alachua County. Garaksy, Fletcher, and Jensen (2006), Hughes (1995), and Schell (2000) suggest expanding options by extending transit service, encouraging ride sharing and vanpooling, and providing subsidies for automobile purchase and insurance. Blumenberg and Ong (1998) suggest offering

support services such as a guaranteed ride-home for unforeseen emergencies. Increasing ease of access to jobs for low-income populations improves the likelihood of wealth accumulation and overcoming cycles of poverty.

CHAPTER 3 METHODOLOGY

This paper focuses specifically on the burdens endured by rural, low-income families residing in public housing trying to seek mobility in an automobile-dominated landscape. Research focuses on low-income households residing in Alachua County Housing Authority housing in five rural communities in Alachua County, Florida. Income thresholds for residents are based on HUD specifications—a family of four, for example, must earn \$29,900 or less per year. Alachua County provides a unique location for this study due to its geography; the five rural communities form a hub-and-spoke link with the City of Gainesville. Each outlying city is approximately the same distance to Gainesville as the others. Similar geographical location is beneficial to this study because requirements for transportation are similar in each of the cities. However, information provided by respondent interviews reveals differences in each location. Therefore, the study population reveals differences among the outlying cities while still making generalizations about Alachua County as a whole.

This research used a case study methodology of Alachua County that involved the collection and analysis of four types of data: (1) review of planning existing local planning documents; (2) GIS analysis of Census and other related data; (3) interviews with local officials regarding previous attempts to provide transportation to low-income residents in outlying cities of Alachua County; and (4) case studies of five public housing projects in five outlying communities in Alachua County.

Data Collection and Analysis

First, local planning documents, such as the Alachua County Comprehensive Plan, the Transportation Disadvantaged Service Plan, and Department of Transportation studies were reviewed to understand the policies and program options for transit to these communities. These

documents revealed information about travel patterns in Alachua County. Local comprehensive plans reveal the extent to which existing policies lack specificity and are too narrow in scope. Without successful local policies, transportation provision for rural residents will be extremely difficult.

Demographic information for Alachua County, including population, income, age, number of available vehicles, mode of transportation to work, and length of commute was collected in order to gain an understanding of Alachua County trends. Demographic information for mapping was obtained from the U.S. Census Bureau 2000 Decennial Census, and more updated information for tables was obtained from the U.S. Census Bureau 2007 American Community Survey (ACS). Though beneficial due to its recent release, the lack of detail in the ACS was insufficient for mapping purposes.

Information gained from Census data and local plans was supplemented with interviews with seven local officials in order to gain a more comprehensive picture of transportation issues in the study area. Officials represented local agencies such as Alachua County, the Gainesville MPO, and the Workforce Board. Interviews specifically focus on opinions and insights derived from seven local officials dealing with transportation and poverty issues. The interviews revealed specific transportation-related problems as well as past and current solutions implemented by Alachua County and community-based organizations to assist transportation disadvantaged individuals.

Finally, the case studies of five public housing projects in five outlying communities utilized a stratified sampling methodology among low-income residents residing in public housing in Alachua County. This case study was conducted in order to gain an understanding of transportation-related issues faced by rural public housing residents. The case study approach

was chosen in order to give a more complete understanding of the problems and possible solutions facing Alachua County's low-income residents. Accurate knowledge of such issues will assist decision-makers in more adequately addressing transportation needs in the future.

A total of 42 semi-structured open-ended personal interviews focusing on issues regarding transportation in rural communities were conducted with residents of Alachua County Housing Authority projects in five rural communities in Alachua County—Alachua, Archer, Hawthorne, Newberry, and Waldo. Interviews were conducted on five separate days—one day for each rural community. The days of interviewing were randomly selected in order to gain the perspective of a cross-section of residents living in each of the communities. The margin of error of the sample population is 11% at a 95% confidence interval. All participants in the research study were informed of the goals of the research and asked to sign a consent form.

Interviews focused on determining daily travel habits, common transportation-related problems, impacts on other areas of life such as food purchasing and cost burden, and types of solutions they deem most viable. Some interviews were more in-depth and yielded more information than others, depending on both the interviewee's willingness to answer questions and interviewer discretion. Overall, the response rate was very high. Most residents, if able to do so at the time, were very willing to discuss transportation issues. For many, transportation challenges presented a very real drain on financial resources, and therefore a topic many had frequently considered recently. As shown in Table 3-1, a total of 21% of the 203 Alachua County Housing Authority units in outlying cities were represented in the study.

Information obtained from interviews was organized and analyzed. Interview subject matter was sorted into a table based on location of interview, respondent name, and content. Comments were then sorted by content into 15 categories. Categories included mode of travel,

Table 3-1. Completed Interviews

Rural Community	Day of Interview	Total Units	Number of Refusals	Number Not Home	Number Skipped	Percent of Interviews Completed	Percent of Units Surveyed
Waldo	Saturday	20	5	7	0	72%	40%
Hawthorne	Wednesday	40	2	26	3	82%	23%
Archer	Friday	30	3	6	15	67%	20%
Newberry	Tuesday	33	5	10	10	53%	24%
Alachua	Sunday	80	3	6	60	79%	14%
Total		203	18	55	88	70%	21%

automobile availability, employment, work location, vehicle reliability, preferred grocery purchase location, and viability of various transportation solutions. Determining the level of commonality in the transportation issues facing Alachua County residents revealed the usefulness of transportation solutions such as public transportation, carpooling, and park and ride.

The benefits to the interviewee include the opportunity to express their opinions about the transportation issues they face. Responses may assist local decision-makers in developing alternatives that may improve residents' transportation options. Several limitations of this study include the fact that the housing units surveyed were not randomized. Additionally, time limitations prohibited obtaining a greater number of interviews for this study. Future studies should include a larger sample population.

CHAPTER 4 OVERVIEW OF ALACHUA COUNTY

Alachua County, Florida is not immune to transportation problems. Alachua County is located in North Central Florida and is surrounded by Marion, Levy, Gilchrist, Columbia, Union, and Bradford Counties. Estimates from 2007 show that Alachua County's population is about 252,000 (BEBR, 2008). Alachua County is comprised of eight incorporated cities. Figure 4-1 depicts each of these municipalities. Gainesville, Florida is the County seat, home of the University of Florida, and the largest job-generator in Alachua County. Gainesville's current population is estimated at 125,000, about half of the total County population. The University of Florida's student population is 52,000, and it is the largest single employer in Alachua County. In contrast, many outlying rural communities have little to no job opportunities, with the exception of the City of Alachua (G. Monahan, personal communication, October 17, 2008). Of particular concern in this project are the five outlying rural communities in which the Alachua County Housing Authority owns properties available to low-income residents—Alachua, Archer, Hawthorne, Newberry, and Waldo. The number of units in each community varies roughly by population. Alachua has 80, Archer has 30, Hawthorne has 40, Newberry has 33, and Waldo has 20. This chapter provides an overview of both Alachua County demographic characteristics and transportation services offered in Alachua County rural communities.

Alachua County Demographic Characteristics

An overview of Alachua County population estimates for Gainesville and outlying communities is provided in Table 4-1 and Figure 4-3. Alachua County's eight rural communities have a combined population of 22,846. The largest is Alachua, with an estimated population of 8,742. The population density pattern in the remaining unincorporated areas is low (see Figure 4-2). Demographic data in this chapter was obtained from the United States Census Bureau's 2007

American Community Survey (ACS). ACS data is only available for Gainesville, Alachua County, and Florida. Detailed information about the small rural communities in Alachua County is only available from the 2000 Decennial Census. Maps of demographic information use data from the 2000 Decennial Census in order to depict this greater level of detail.

A multi-modal corridor study of Alachua County conducted in 2005 by the Florida Department of Transportation (FDOT) (2005) found that the average bicycle user travels 1.7 miles to get to their destination, the average pedestrian travels one mile to reach their destination, and the average transit user walks less than a quarter mile (.19 miles) to the bus stop to access the bus. The study also found that about 13% of employed respondents live in High Springs, Alachua, Hawthorne, Newberry, or Archer. Another FDOT (2001) study found that more than 65% of Alachua County households have at least two cars, and the majority of respondents in the study traveled by automobile. Transit use was higher than the rest of the nation—5.6% used transit for non-work purposes, including school trips.

Transportation issues are part of the cycle of poverty for many low-income families living in Alachua County, as can be seen in the relatively large number of households below the poverty level and lacking an automobile, shown in Figure 4-4, Figure 4-5, and Table 4-2. Both Gainesville and Alachua County have a higher percentage of households without a vehicle than households in the rest of Florida. Poor households are unlikely to increase their wealth without adequate transportation; they cannot work if they have no means to travel there. Transportation is a major expense for many low-income households in Alachua County, especially with the cost of housing going up. Table 4-3 shows that Alachua County's proportion of households earning less than \$25,000 is 10% higher than the state average. In all, Alachua County workers earn about \$8,000 less than the average Florida median income—only \$38,243 compared to \$46,602.



Figure 4-1. Alachua County Incorporated Cities

Alachua County Population Density

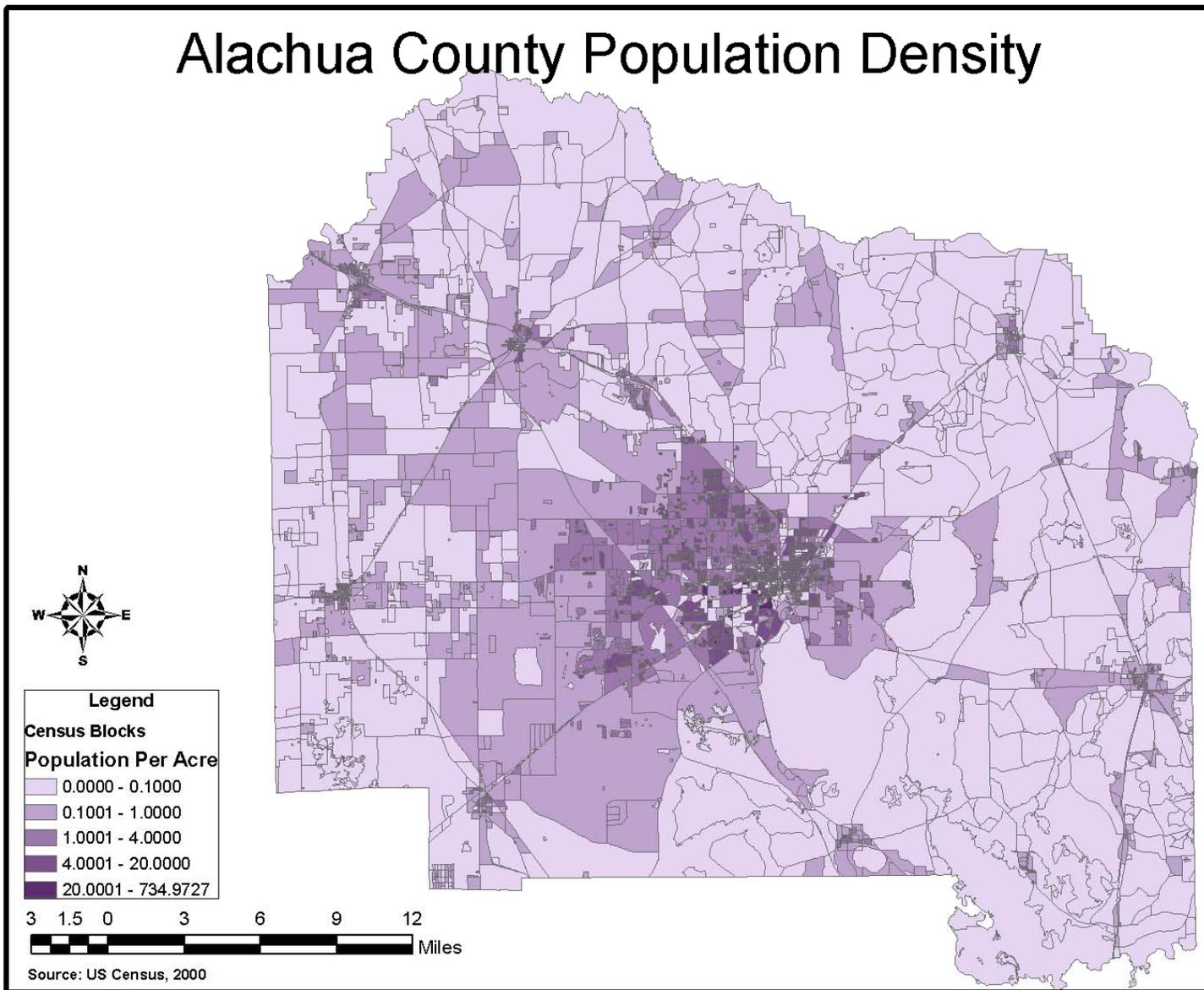


Figure 4-2. Alachua County Population Density

Table 4-1. Alachua County Population Estimates

POPULATION – ALACHUA COUNTY CITIES

Community	2000 Census	2008 Estimates	% Change
Gainesville	95,447	124,491	30.4%
Alachua	6,098	8,742	43.4%
High Springs	3,863	4,855	25.7%
Newberry	3,316	4,914	48.2%
Archer	1,289	1,225	-5.0%
Hawthorne	1,415	1,436	1.5%
Waldo	821	836	1.8%
Micanopy	653	636	-2.6%
Lacrosse	143	202	41.3%
Unincorporated	104,910	105,051	0.1%
TOTAL	217,955	252,388	15.8%

Source: US Census Bureau, BEBR

Table 4-2. Vehicle Availability Distribution

Geographic Area	Number of Vehicles Available			
	Zero	One	Two	Three or More
Gainesville	9.3%	45.9%	33.1%	11.7%
Alachua County	7.0%	41.0%	36.5%	15.5%
Florida	6.4%	39.7%	39.0%	14.9%

Source: U.S. Census Bureau American Community Survey, 2007

Table 4-3. Household Income Distribution

Geographic Area	\$0-\$9,999	\$10,000-\$14,999	\$15,000-\$24,999	\$25,000-\$34,999	\$35,000-\$49,999	\$50,000-\$74,999	\$75,000 & Over
Gainesville	19.5%	8.4%	16.5%	12.2%	13.9%	13.0%	16.6%
Alachua County	14.0%	6.9%	14.2%	11.8%	13.3%	15.5%	24.3%
Florida	7.3%	5.8%	12.0%	12.3%	15.9%	19.1%	27.7%

Source: U.S. Census Bureau American Community Survey, 2007

Alachua County Housing Density

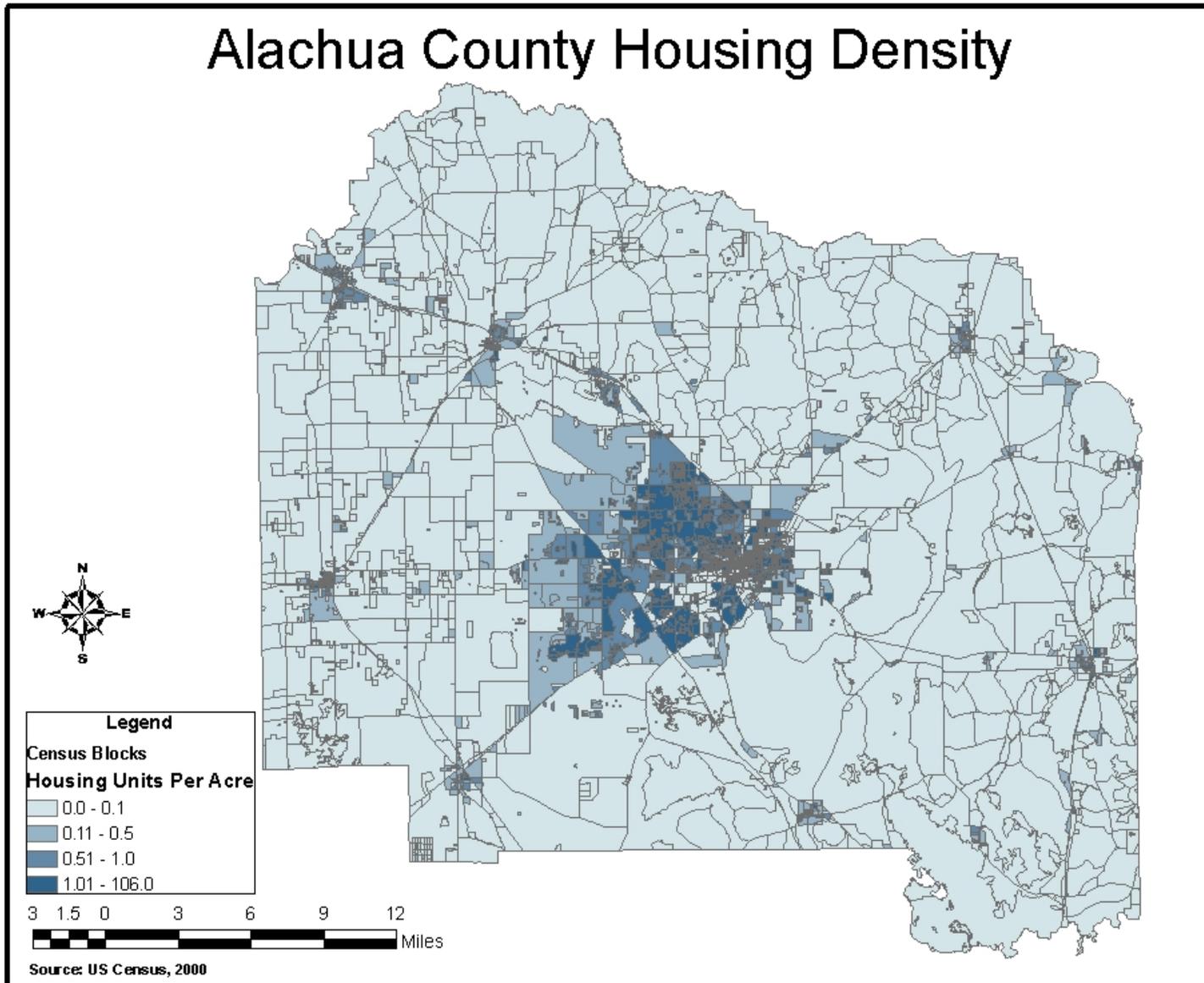


Figure 4-3. Alachua County Housing Density

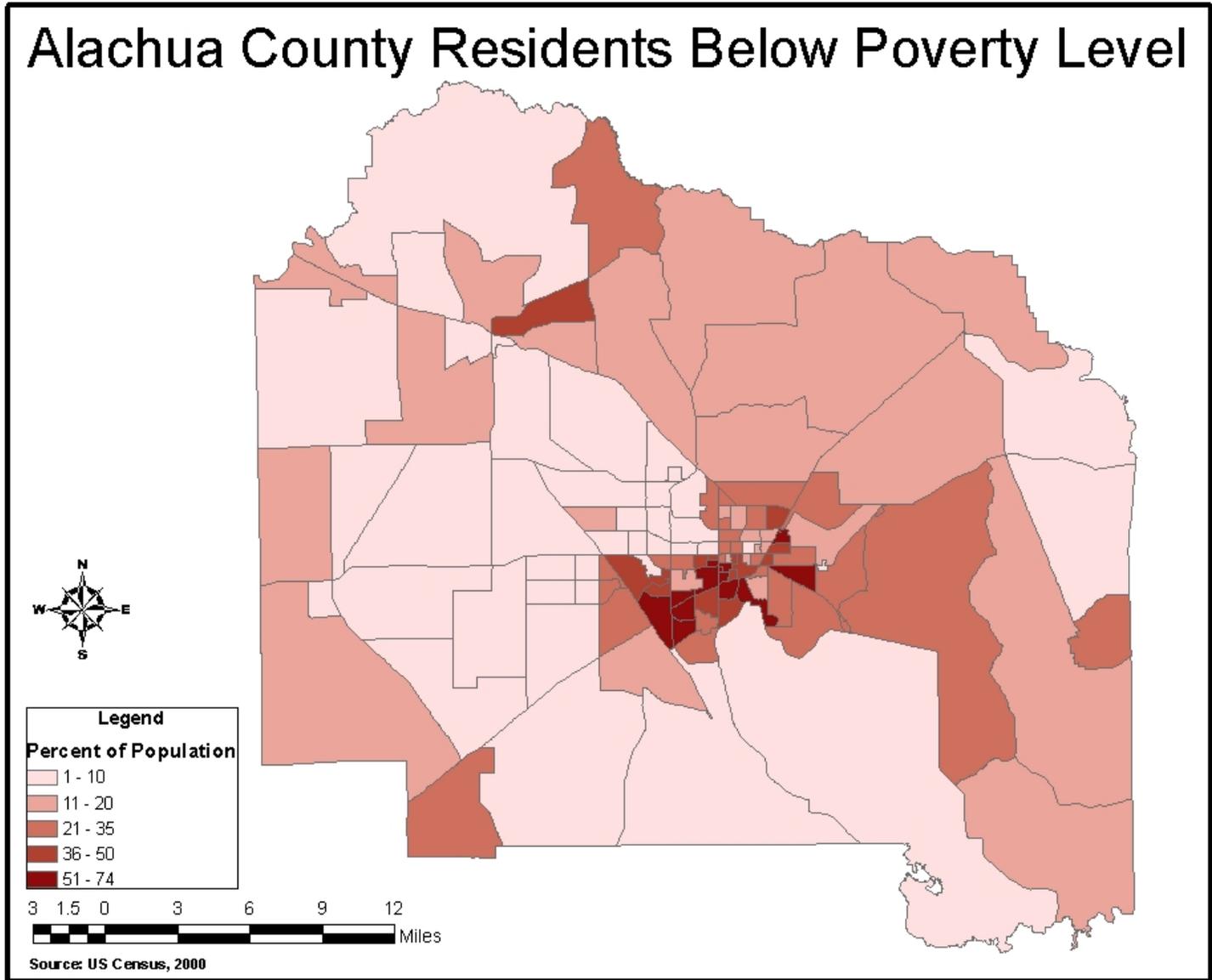


Figure 4-4. Poverty Level

Households with No Vehicle Access

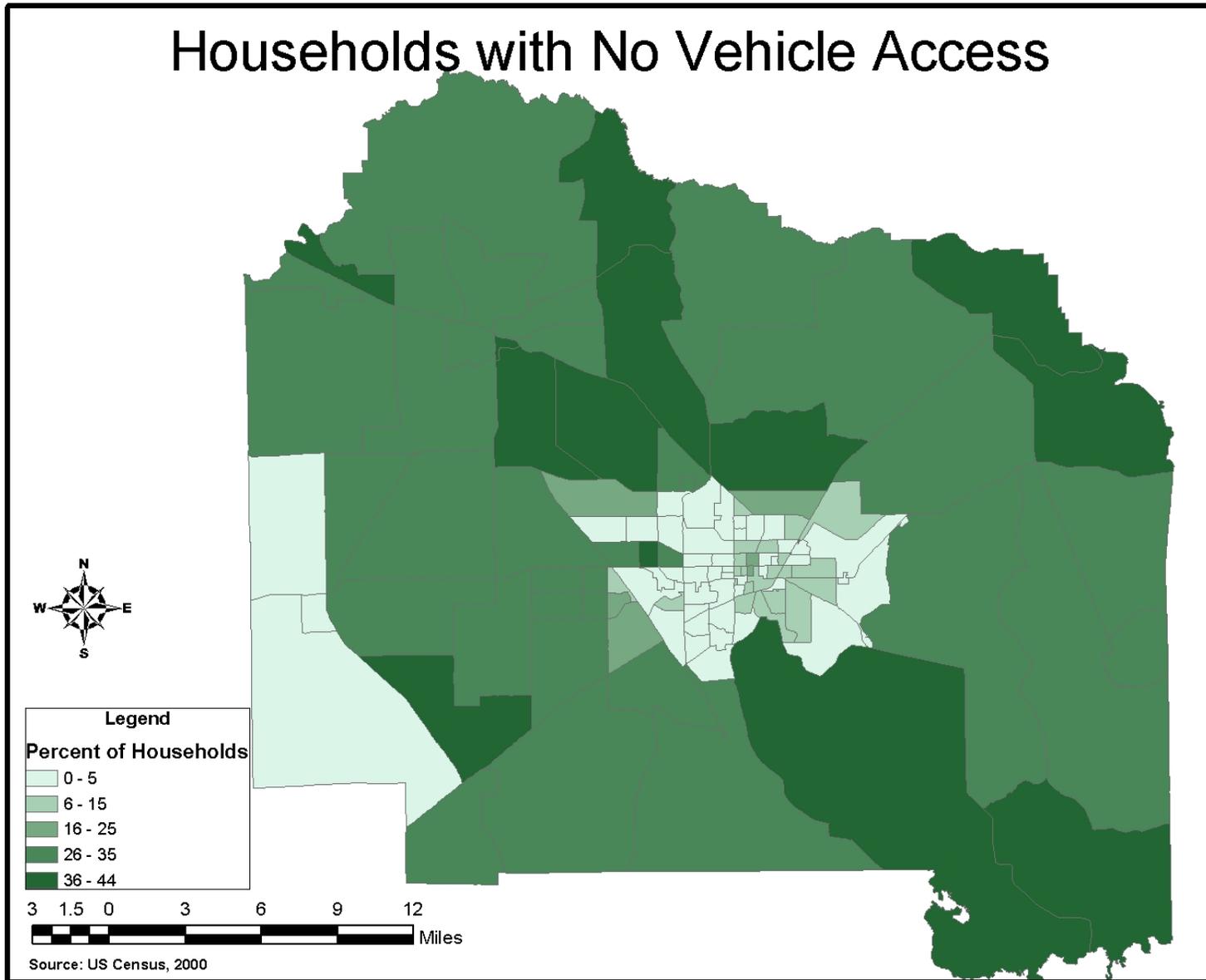


Figure 4-5. Vehicle Ownership

Alachua County has a smaller population above 65 and under 18 to contend with than the remainder of Florida, perhaps easing some difficulties of transportation provision for transportation disadvantaged populations. Table 4-4, Figure 4-6, and Figure 4-7 depict population and age distribution in Alachua County, specifically those under 18 and more than 65 years old. Table 4-5 demonstrates that Alachua County's employed labor force is on par with the remainder of the state, at 94%.

An important problem among low-income families with cars is lack of proper registration and insurance, and sometimes lack of a valid driver's license. Often, people who are least able to pay own vehicles that frequently break down, get poor gas mileage, or have no carpooling options. As soon as many low-income families have enough money, they will usually buy a car. In addition to being a necessity for many households, owning an automobile is a status symbol, usually perceived as a higher priority than buying a house (G. Monahan, personal communication, October 17, 2008). In Alachua County, as in many other locations, automobiles comprise the most common commute mode, as shown in Table 4-6 and Figure 4-8. Figure 4-8 shows that the pattern of high automobile usage is consistent across Alachua County with the exception of the areas near Downtown Gainesville and the University of Florida. Figure 4-9 illustrates those who commute to work by transit. Transit represents a larger proportion of commuting trips in Gainesville and Alachua County than in the remainder of Florida.

High gas prices in 2008 negatively affected Alachua County's low-income households. Households, forced to pay transportation costs to keep their jobs, cut back on other goods and services, such as food and medicine. Low-income families eat less nutritious food; they do not go to the dentist; and they do not visit the doctor until health becomes an issue serious enough to visit the emergency room (J. Skelly, personal communication, October 8, 2008). Many families

Table 4-4. Population and Age Distribution

Geographic Area	Age				
	0 – 17	18 – 24	25 – 44	45 – 64	65+
Gainesville	14.9%	33.2%	26.5%	16.7%	8.7%
Alachua County	18.9%	23.0%	26.2%	21.9%	10.0%
Florida	22.3%	8.8%	26.7%	25.4%	16.9%

Source: U.S. Census Bureau American Community Survey, 2007

Table 4-5. Labor Force Participation

Geographic Area	Percentage of Total Population in Labor Force	Percentage of Labor Force Employed	Percentage of Labor Force Unemployed
Gainesville	61.5%	92.6%	7.4%
Alachua County	64.7%	94.1%	5.9%
Florida	61.8%	94.1%	5.9%

Source: U.S. Census Bureau American Community Survey, 2007

Table 4-6. Journey-to-Work Mode Split

Geographic Area	Travel Mode						
	Drive Alone	Carpool	Public Transit	Motorcycle	Walk or Bike	Other	Work at Home
Gainesville	76.5%	12.4%	3.1%	0.7%	5.7%	0.2%	1.4%
Alachua County	76.2%	12.3%	2.6%	0.6%	5.3%	0.3%	2.7%
Florida	79.6%	10.9%	1.9%	0.3%	2.2%	1.2%	4.0%

Source: U.S. Census Bureau American Community Survey, 2007

Alachua County Population Under 18

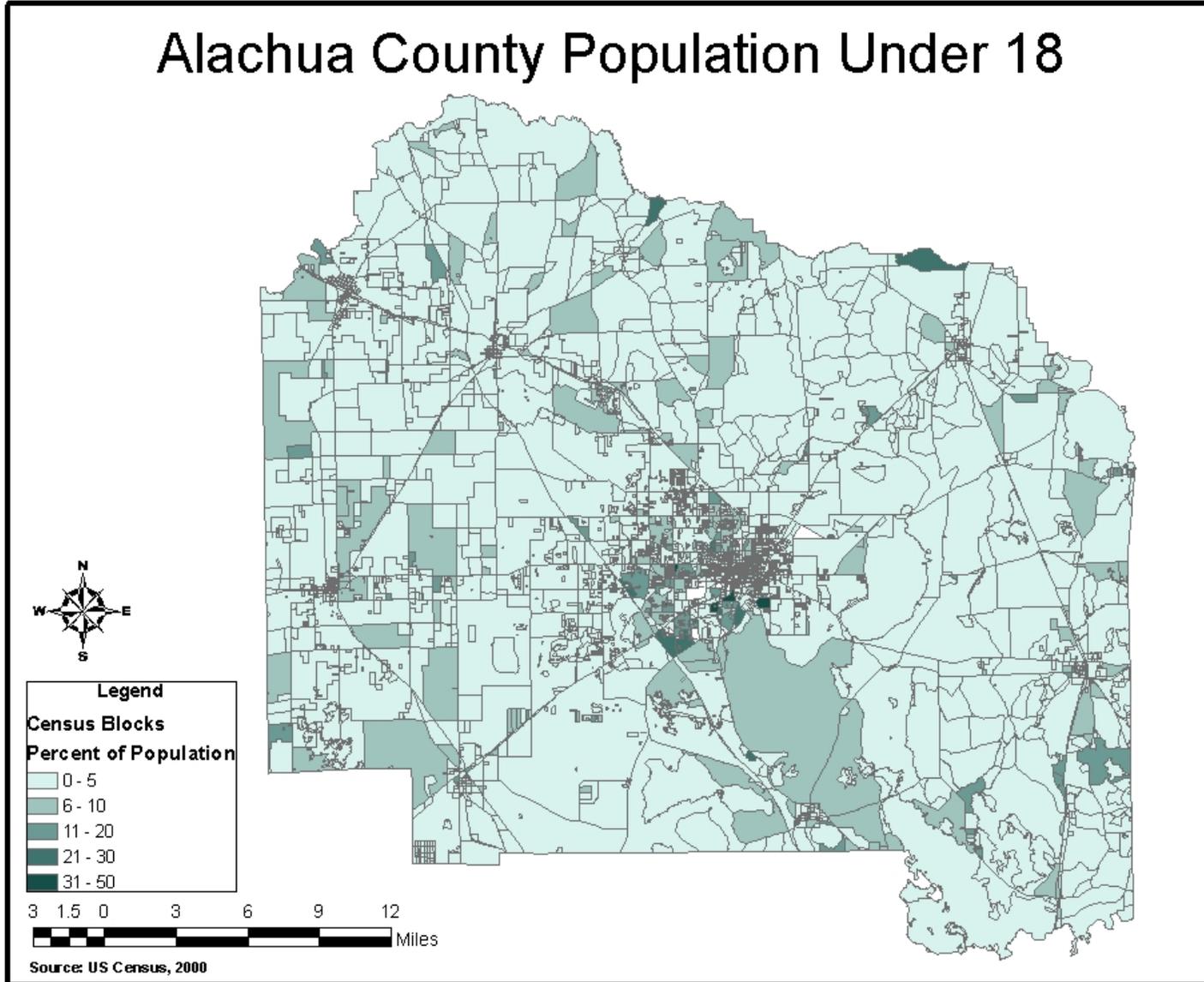


Figure 4-6. Alachua County Youth Population

Alachua County Population Age 65 and Above

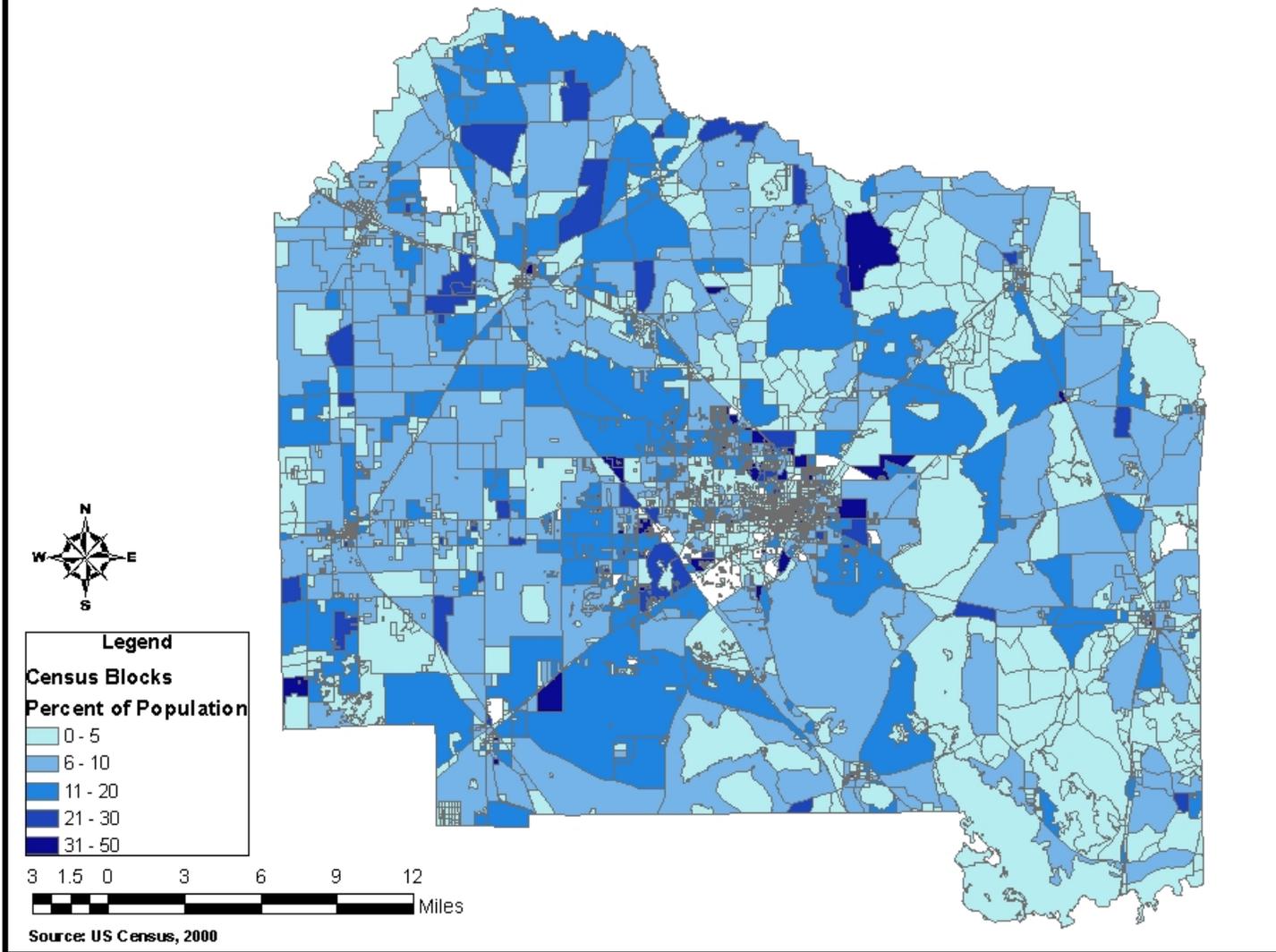


Figure 4-7. Alachua County Elderly Population

Commute Mode by Car, Van, or Truck

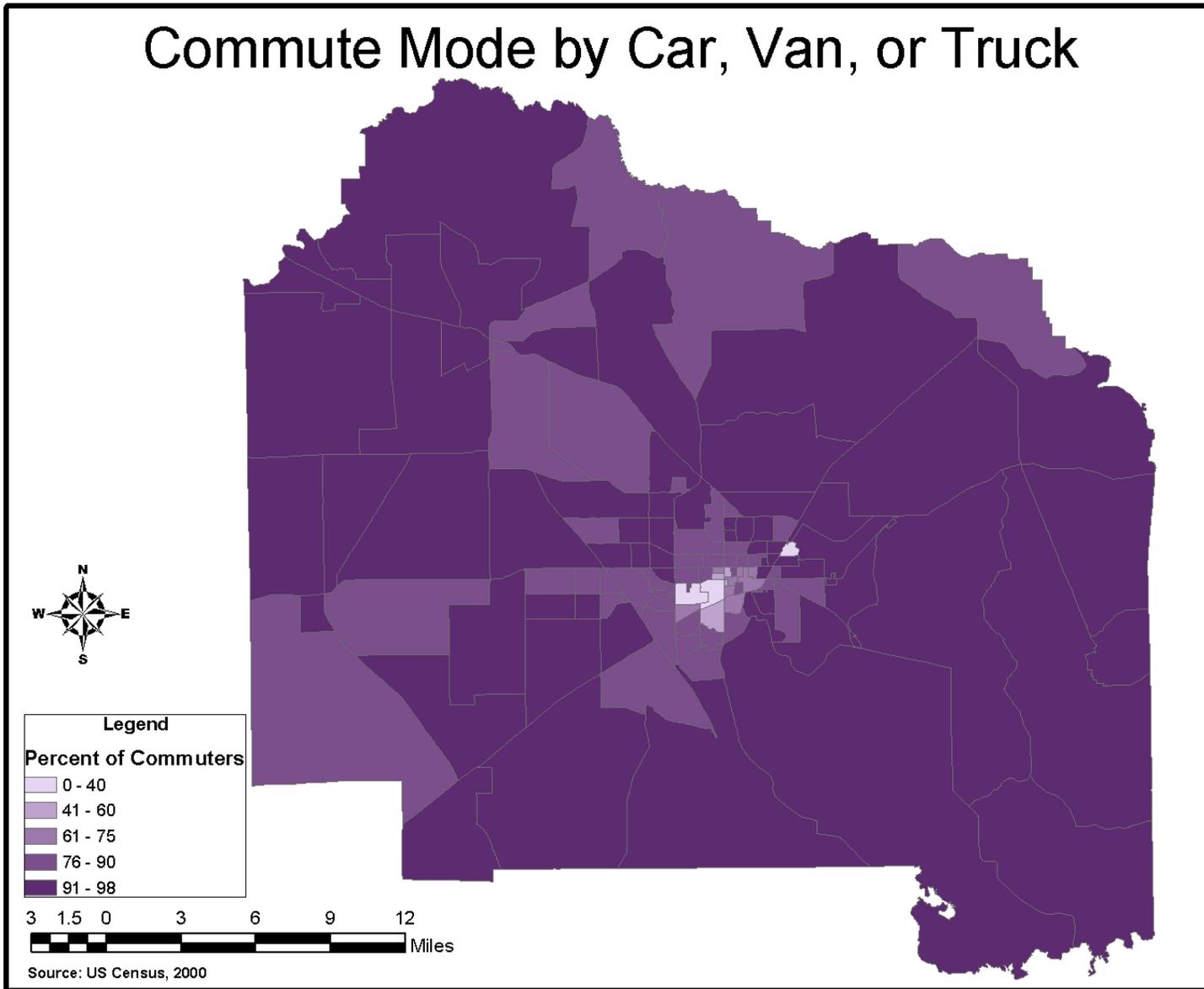


Figure 4-8. Percent of Commuters Traveling by Car, Van, or Truck

Commute Mode by Transit

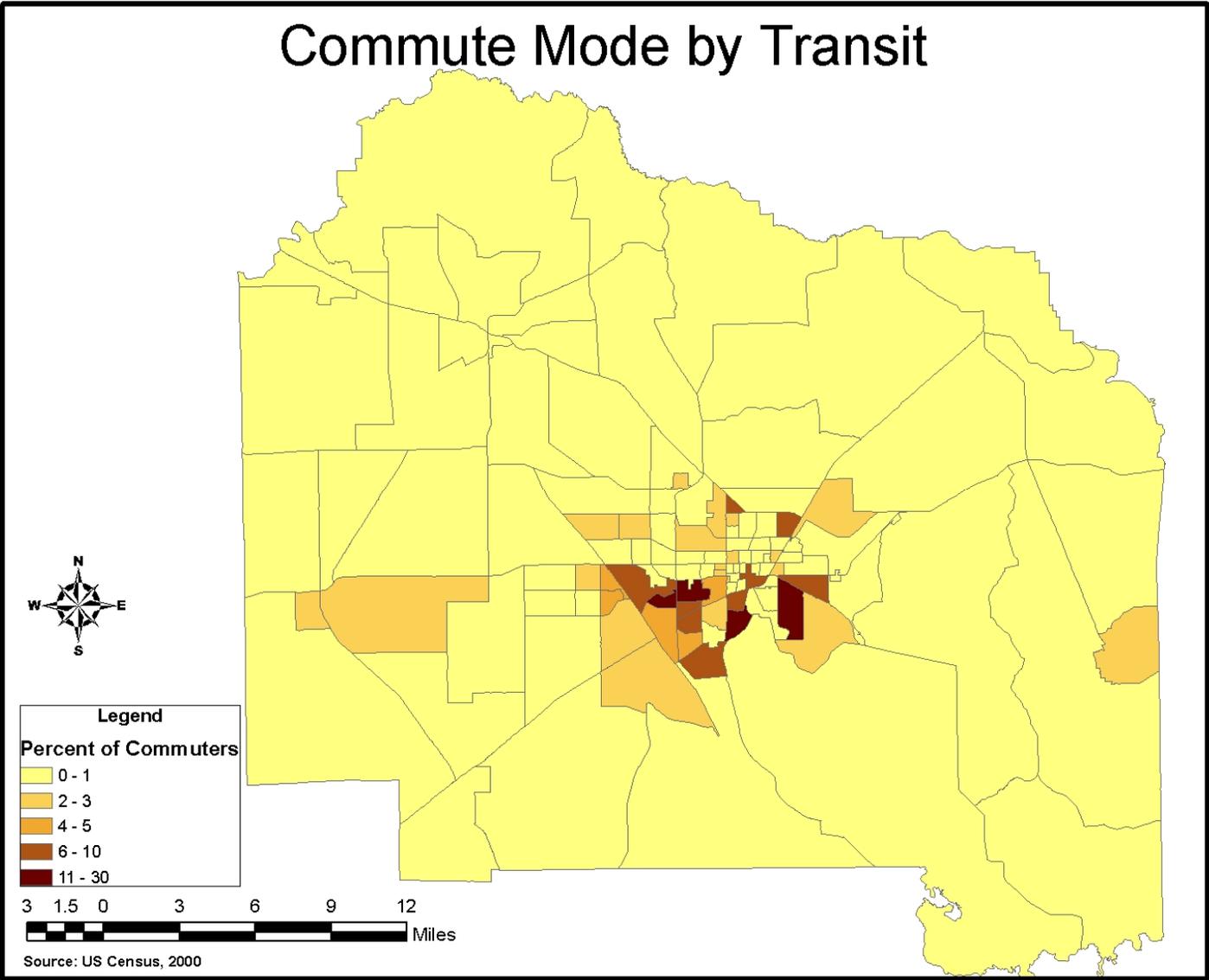


Figure 4-9. Percent of Commuters Traveling by Transit

make the choice between gas and eating. Even getting to the grocery store can be a problem—the City of Waldo, for example, has no grocery store. Even in communities with grocery stores, those lacking an automobile have difficulty transporting large loads of groceries back to their homes without some type of assistance.

Often employers have a prejudice against carpooling. For example, even if two employees work in the same company, if Joe's getting a ride with John, and John's out sick, then Joe doesn't have a ride. Two people are out instead of one because the sick person has the car, and thus the means to get to work (J. Skelly, personal communication, October 8, 2008). If an employer finds out in an interview that a potential employee does not have a vehicle or driver's license, that likely puts the job-seeker out of contention. Particularly in service-oriented jobs—jobs with positions often filled by low-income populations—employers are going to be ones that are the most intolerant of lack of reliable transportation. Employers do not want to put a lot of effort into training a helper in a particular trade when they do not think the person is going to stay on the job more than a month or two (J. Skelly, personal communication, October 8, 2008).

Though Alachua County, and Gainesville especially, have a significantly higher level of work trips by transit than the rest of Florida, the Alachua County Comprehensive Plan makes surprisingly few provisions for transit. Existing policies are often narrow in scope or lacking in specificity. Table 4-7 presents a summary of transit provisions in local plans. Transportation issues and congestion mitigation should be a particular focus in the future, especially when considering the differences in commute times from 2000 to 2007. Nine percent fewer workers had commutes less than 20 minutes in 2007, as depicted in Table 4-8 and Table 4-9. Furthermore, Figure 4-10, and Figure 4-11 reveal lengthier commutes faced by those living in outlying areas of Alachua County compared to those residing near Gainesville due to distance

and lack of good capacity roads. Thus, mobility for residents of Alachua County’s outlying communities is an important consideration.

Table 4-7. Alachua County Comprehensive Plan

<i>ALACHUA COUNTY COMPREHENSIVE PLAN: TRANSIT ISSUES</i>
Future Land Use Element
Policy 1.3.9.2: Multi-family development in the Medium-High Density and High Density Residential land use categories shall provide bus shelters
Policy 2.5.4: Development at Archer Road and 34th Street shall include an area for an RTS shelter and parking area designated for park and ride passengers. The shelter shall be provided and the parking designated at such time as RTS officials determine it is needed
Policy 2.5.6: At Tower Road and 24th Avenue, comfortable, multi-functional space shall be provided for transit riders waiting for buses
Policy 2.5.6: At Tower Road and 24th Avenue, bicycle storage shall be required with particular emphasis accorded the need for park and ride bicycle storage for transit riders
Policy 3.2.4: All Neighborhood, Community, and Regional shopping centers shall include bus bays and bus shelters
Policy 3.5.1: Regional Shopping Centers shall be served by mass transportation routes and shall be designed to accommodate mass transit, bicycles, and pedestrians
Policy 5.4.1: Civic and government facilities, including future branch libraries, should be located on transit routes
Policy 5.4.5: Major health facilities should be accessible by mass transit
Policy 8.5.5: Coordinate with the MTPo and the City of Gainesville to establish a Bus Rapid Transit system connecting east Gainesville with centers of employment and commerce (Plan East Gainesville)
Transportation Mobility Element
Policy 1.1.5a: Ride sharing promotion and assistance (contingent upon funding) from FDOT in terms of assistance for the RTS and park and ride lots
Policy 1.2.5: TCEA mitigation strategies, including construction of bus shelters or stations
Policy 1.2.5: TCEA mitigation strategies, including construction of bus turn-out facilities
Policy 1.2.5: TCEA mitigation strategies, including provisions for bus pass programs for employees/residents
Policy 1.2.5: TCEA mitigation strategies, including payments to the RTS to increase frequencies or extend service
Policy 1.2.5: TCEA mitigation strategies, including provision of ride-sharing or van-pooling programs
Policy 1.2.6: Measure effectiveness of TCEA through criteria including an increase in bus ridership, an increase in number of transit routes and/or transit frequencies
Policy 3.1.1: Receive pertinent data from Alachua County to enhance planning for the RTS service area in the unincorporated portion of the County.
Policy 3.2.2: Support the operation of paratransit services in unincorporated Alachua County to provide 24-hour ambulatory and wheelchair service on a demand-responsive basis within available financial resources
Policy 3.3.1: Coordinate with the City of Gainesville to establish future mass transit rights-of-way and/or corridors (such as exclusive mass transit lanes). Alachua County shall protect such future rights-of-way through its development review process.
Policy 3.6.1: Mass transit, and other measures such as van or car pooling and provision with the private sector of park and ride facilities, shall be developed as a part of Transportation Demand Management strategies to maintain or improve levels of service on roadway segments through non-capital intensive means
Policy 3.6.2: Coordination between Alachua County and RTS regarding transit issues and transportation disadvantaged programs

Table 4-8. Travel Time to Work (2000)

Geographic Area	Travel Time in Minutes (percent of workers)				
	0-9	10-19	20-29	30-44	45+
Gainesville	18.6%	49.6%	18.2%	7.7%	5.9%
Alachua County	14.6%	40.1%	23.4%	14.2%	7.8%
Florida	11.2%	30.0%	21.6%	22.3%	14.9%

Source: U.S. Census Bureau Decennial Census, 2000

Table 4-9. Travel Time to Work (2007)

Geographic Area	Travel Time in Minutes (percent of workers)				
	0-9	10-19	20-29	30-44	45+
Gainesville	10.8%	35.4%	23.1%	18.7%	12.1%
Alachua County	12.1%	33.8%	22.6%	19.0%	12.5%
Florida	11.2%	28.0%	21.9%	23.3%	15.6%

Source: U.S. Census Bureau American Community Survey, 2007

Commute Time Greater Than 30 Minutes

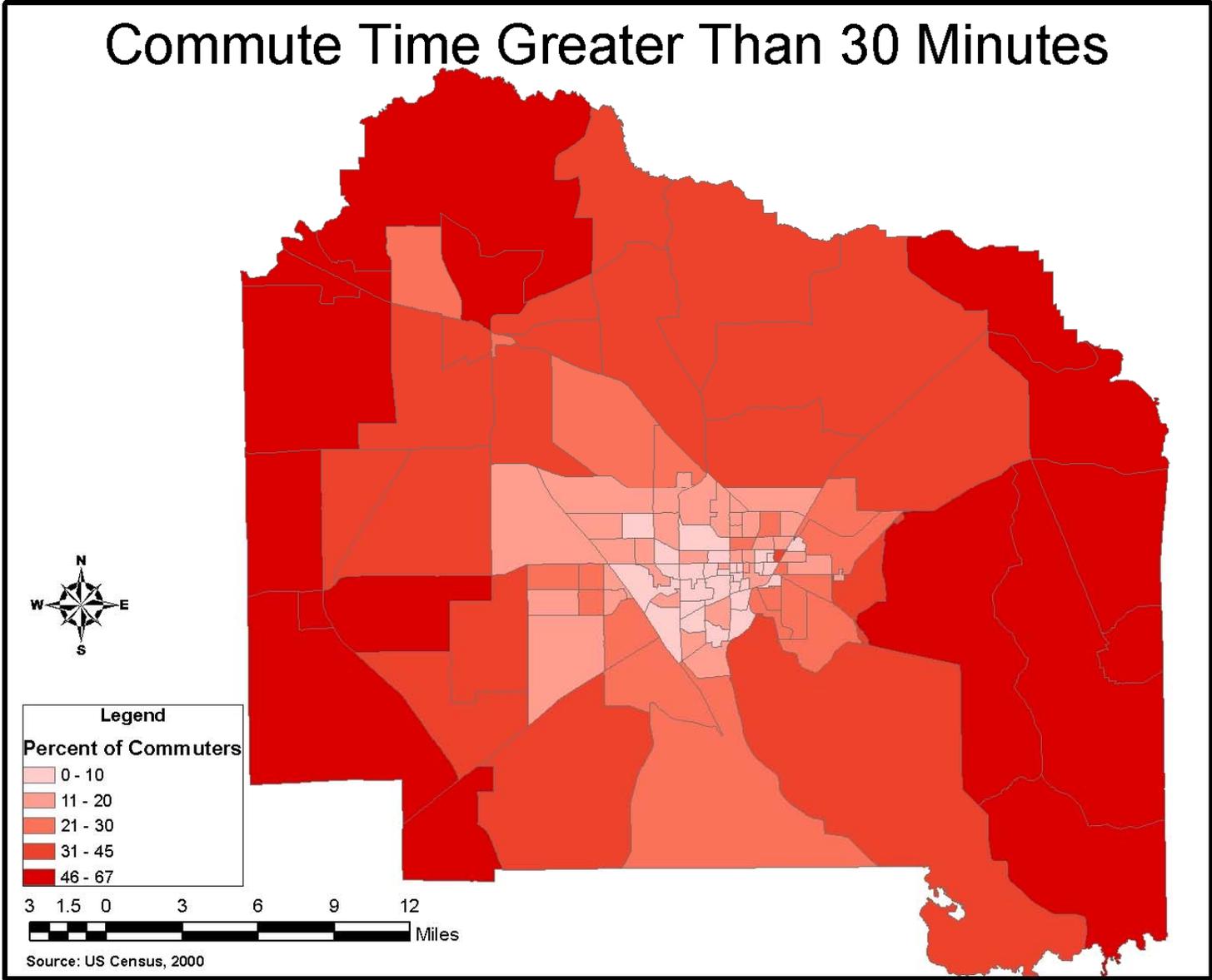


Figure 4-10. Commute Time Greater than 30 Minutes

Commute Time Greater Than 45 Minutes

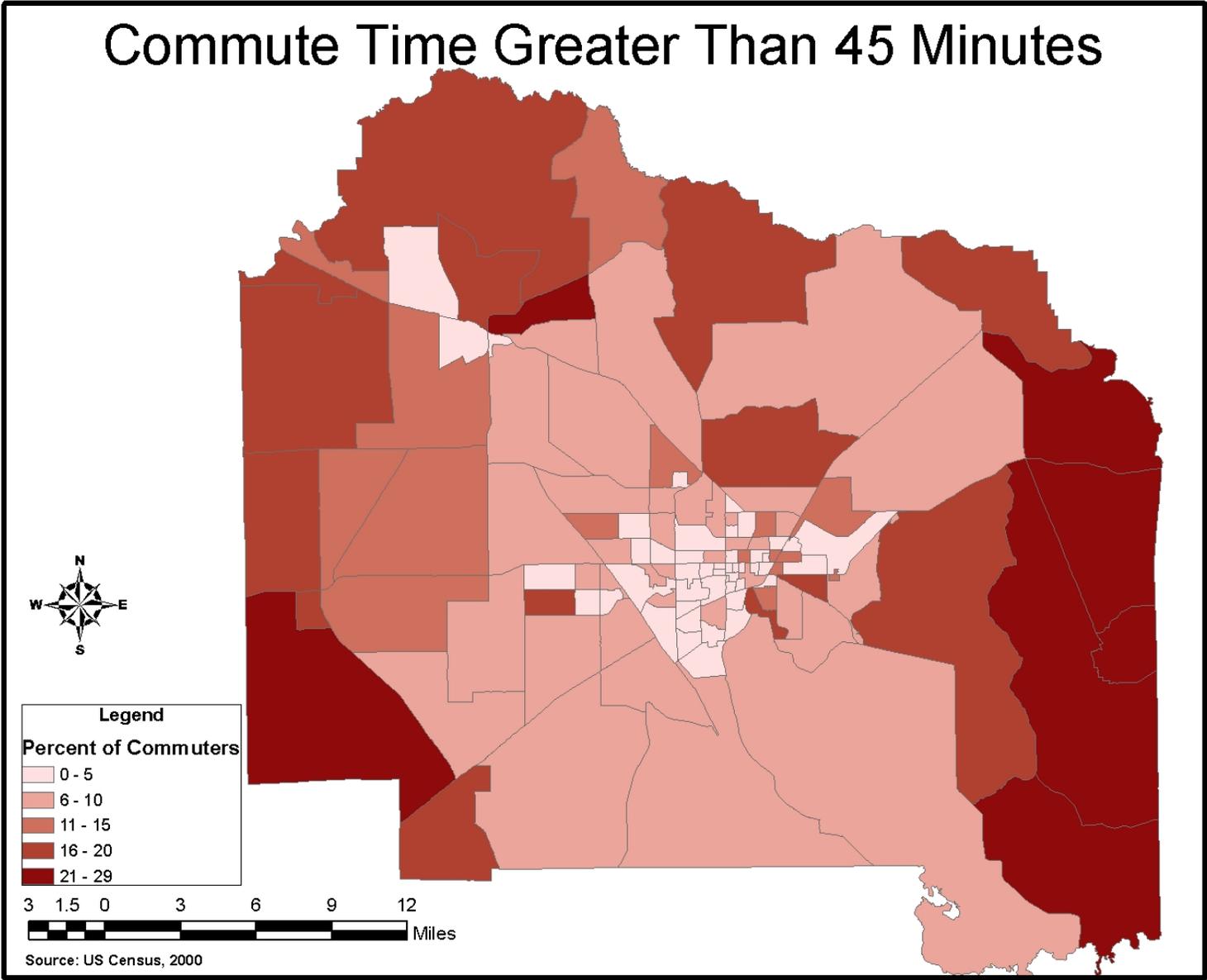


Figure 4-11. Commute Time Greater than 45 Minutes

Alachua County Transportation Services in Rural Communities

In the past and presently, Alachua County—through both governmental and community-based initiatives—has made attempts to increase the mobility of populations living in the outlying communities. Some programs have been more successful than others, and many are subject to the volatility of government funding. The following section chronicles transportation services offered in Alachua County rural communities.

Demand Response Public Transportation Service

The State of Florida's Transportation Disadvantaged (TD) Program is a demand-response public transportation service that covers all of Alachua County. Alachua County receives funding from the State to provide transportation services to the low-income, elderly, and disabled—basically people who cannot transport themselves or have no other means of transportation. Funding supports medical, shopping, and education-related trips. Medical trips receive priority because Alachua County only receives a certain amount of money each month to fund trips. Therefore, if there is unusually high demand one month, dialysis and chemotherapy patients will not be left stranded because someone else went to the mall. The priorities are put into effect only when money is tight (L. Godfrey, personal communication, November 13, 2008). Table 4-12 shows that Alachua County's TD population comprised about 37% of all residents in 2007, a number higher than the national average. This occurrence may be due to the unique nature of local conditions in Alachua County—specifically the large number of students attending the University of Florida and Santa Fe College. Table 4-13 shows the number of trips taken by purpose. Medical trips comprise the majority of trips.

Table 4-12. Alachua County TD Population in 2007

Demographics	Number	Percentage
Total County Population/Percent of State Total	240,800	13.44%
Potential TD Population/Percent of County Total	89,389	37.12%
UDPHC/Percent of TD Passengers Served	3,090	3.46%

Source: Florida Commission for the Transportation Disadvantaged

Table 4-13. Alachua County Demand Response Passenger Trip Purposes

Passenger Trips by Trip Purpose	2006	2007	Percent Change
Medical	96,199	104,241	8.36%
Employment	104,429	68,908	-34.01%
Education/Training/Daycare	19,080	21,115	10.67%
Nutritional	4,125	1,447	-64.92%
Life-Sustaining/Other	68,520	15,877	-76.83%
Total Trips	292,353	211,588	-27.63%

Source: Florida Commission for the Transportation Disadvantaged

MV Transportation is responsible for providing demand response service in Alachua County for both TD trips and Medicaid trips. Medicaid trips are only provided for Medicaid beneficiaries. In order to determine eligibility for the TD Program, MV Transportation mails potential clients an application, which tries to ascertain if the household owns and uses a vehicle. The application also determines age, income, number of people living in the household, whether or not a family member has a vehicle, and whether or not the potential client has the physical capability to use fixed route services. Applications are denied if the applicant has a vehicle or has an income higher than the poverty level. The purpose of the TD Program is to serve as a last-resort method of transportation.

MV Transportation normally does not deny trips to any qualifying passengers unless there's a continual issue, such as a client who is a constant no-show or makes a large number of

cancellations. For the most part, MV Transportation will not penalize riders, but no-shows do hurt them because they waste time, gas, and other client's time to attempt to pickup someone who does not show up (H. Perez & D. Simpson, personal communication, November 21, 2008).

In order to receive service, a user can call up to 14 days in advance. The latest they can call is 5 p.m. on the day before the ride is needed in order to schedule a pick-up. Take, for example, a client with a 9 a.m. appointment. According to specifications in the Transportation Disadvantaged Service Plan, if they live in Alachua County areas outside the City of Gainesville, they are picked up an hour and a half or less before the appointment. The soonest the client can be picked up is an hour after their scheduled appointment time. So, with a 9 a.m. appointment, the client will be picked up no earlier than 7:30 a.m., and the earliest they could be picked up from their appointment would be 10 a.m. to return home. For people that live in the County, it is against the rules of the Transportation Disadvantaged Service Plan to keep them on board for more than 90 minutes. For people who live in the city, it is against the rule to keep them for over an hour (H. Perez & D. Simpson, personal communication, November 21, 2008). Perhaps more than anything else, the transportation disadvantaged sacrifice the time and freedom to move around as someone with a car would (M. Crawford, personal interview, December 3, 2008).

Paying for the \$3 copay price—recently increased from \$2—places a burden on many users. Many riders have very limited financial resources, especially those who need dialysis, chemotherapy, and those with Alzheimer's. Under those conditions they cannot work, though they may get a disability check. A senior citizen, for example, may be on limited income of about \$800 per month. However, it could take about \$300 from a limited budget to heat a home during winter or to cool it in summer (M. Crawford, personal interview, December 3, 2008). Then they still have to pay rent. The numbers do not add up. Patients often have to choose

between eating and going to dialysis. On a busy day, MV Transportation will provide about 560 trips. However, since people get their Disability and Social Security checks at the beginning of the month, the number of trips people take diminishes to about 425 per day by the end of the month (H. Perez & D. Simpson, personal communication, November 21, 2008). Trips originating in Gainesville comprise the bulk of total ridership. A survey of ridership by jurisdiction for October 2008 revealed that 1,224 of 10,063 total trips originated in rural areas of Alachua County. As shown in Table 4-14, the destination of approximately two-thirds of these trips was Gainesville.

Table 4-14. MV Transportation Ridership by Jurisdiction

MV Transportation Ridership, October 2008			
Origin	Destination		Total
	Rural	Gainesville	
Rural	418	806	1224
Gainesville	775	8064	8839
Total Trips	1193	8870	10063

Source: MV Transportation

When money gets short, clients will not travel unless it is a necessity. They will try to find a ride through neighbors and relatives, if their health permits it. Another option is to not make the trip at all. It also puts more elderly drivers on the road—paying \$6 for a round trip forces some clients to drive even though it might be unsafe for them to do so. Shopping also becomes complicated. Users are not permitted to bring large loads of bags onto the bus. Therefore, some clients will use the demand response system to go to the grocery store, but they get someone else to pick them up. At the \$3 rate, it becomes more expensive to go once a week to get two bags of groceries. People try to arrange some other way to get home (H. Perez & D. Simpson, personal communication, November 21, 2008). In contrast, some people ride the system all the time. They use it as a social activity, since many clients use the system frequently.

Some clients, especially seniors, have ended up dating or becoming friends because of the system (L. Godfrey, personal communication, November 13, 2008).

Feedback regarding the system is both positive and negative. Complaints might include a late trip, not getting to appointment on time, or driver courtesy (H. Perez & D. Simpson, personal communication, November 21, 2008). On-time performance is generally lower for MV Transportation during pickup for return trips. Still, MV Transportation has one of the highest on-time performance rates in the state, though there is always room for improvement. Alachua County's demand-response public transportation system provides a lifeline for many County residents. Without it, many low-income and disabled residents would have no other means to travel to necessary locations.

The Dignity Project

The Dignity Project, a community-based organization in Gainesville, began in 1998. The program was initially designed to give high-school dropouts a second chance by providing them with technical skills to fix automobiles, while at the same time providing free automobiles to needy families in Alachua County. Currently, the Dignity Project includes volunteers and interns from the University of Florida, Santa Fe College, and high schools in Gainesville and Alachua County. In the first nine years of the program, more than 645 cars were donated to needy families.

The Dignity Project receives cars donated from people in the community. FloridaWorks, the Alachua and Bradford County Workforce Board, pays for 66 cars each year to be given to low-income families. The funding provides for the cost of these repairs, including parts and labor. To be eligible for the cars, potential recipients have to be working, a parent, and earn less than 200% of the poverty rate. Potential recipients are not permitted to have another car. They must have a valid driver's license, proof of insurance, and demonstrate sufficient income to

afford automobile upkeep. Referrals are screened by FloridaWorks, and then their name goes on a waiting list. Sometimes the Dignity Project might have exactly what is needed immediately, but other times—such as if there is a large family in need of a minivan—families will remain on the waiting list until the needed vehicle is donated and repaired. However, completing 66 vehicles in one year equates to completing more than one per week, so the waiting list usually is not very long (R. Selvester, personal communication, November 10, 2008). Though the vehicles are only expected to last about six months to one year, the program provides an important intermediary step for poverty-stricken households.

Other people who may not qualify for the free cars provided through the FloridaWorks program can purchase other vehicles repaired by the Dignity Project at low cost—usually about \$500 to \$2500. Though a red car might have a blue door, it allows low-income families an opportunity to improve their lives. The Dignity Project provides low-income families with an important intermediate step to improving their mobility.

Archer Shuttle

The Archer Shuttle began in 2004 and lasted a total of four years. It made one morning and one afternoon trip. The Archer Shuttle made three stops in the City of Archer in the morning, and dropped people off at three locations in Gainesville that were major Regional Transit System (RTS) route connections—Butler Plaza, Shands, and the Downtown Transfer Station. In the evening, the Archer Shuttle picked people up at the three Gainesville stops starting in Downtown Gainesville at 5:30 p.m. and traveled directly back to Archer, arriving about 6:15 p.m. (J. Skelly, personal communication, October 8, 2008).

The Archer Shuttle was a twelve-passenger bus that was wheelchair-lift equipped. The ridership started out fairly low in the first three to six months, but it developed to the point where there were about 8 to 10 passengers riding in and riding back at the height of ridership. Overall,

the Archer Shuttle worked well. Ideas at the beginning included making a loop around Alachua County, or at least going to Newberry. However, in order to make a viable, employment-oriented service, the transportation needed to travel into Gainesville quickly and return back to Archer fairly directly. If it was raining, or if a rider had grocery bags to carry, the driver could take them directly to their house for an extra \$.50 charge (J. Skelly, personal communication, October 8, 2008).

The first two years of service were funded through a HUD grant for poverty-reduction projects in Archer. When asked what would assist with poverty reduction in Archer, residents responded with four solutions, one of which was transportation to employment. The costs were about \$30,000 a year. After the HUD grant ended, the City of Archer partnered with FDOT to keep it running. During the four years of operation, Archer never paid for anything. The first two years were free rides, and passengers in the last two years paid \$1 per trip. At the end of four years, the City of Archer was unwilling to enter into a cost-sharing agreement to keep the Archer Shuttle running, and the program ended. Twelve miles might as well be 50 if you don't have a car (J. Skelly, personal communication, October 8, 2008).

City of Alachua Transit System (CATS)

CATS began operation in September 2006 and ended in October 2008. The idea for the system arose from the City of Alachua's recruitment of distribution centers and other major employers into the area. The original intent of the route was to get people in East Gainesville—largely a group of low-income workers—to the distribution centers and employment sites. The system also served to transport Alachua residents into Gainesville for employment, medical appointments, and shopping. The system cost about three times as much to run as the Archer Shuttle—a total of about \$90,000 per year, though they did run more service between the

outlying community and Gainesville. Each trip cost riders \$2. Additional goals of CATS included achieving 30 riders per day and alleviating traffic congestion on the 441 corridor.

A significant problem with CATS was the lack of input they received from the community. In its first incarnation, CATS had only a limited number of stops. According to John Skelly, Director of Poverty Reduction for Alachua County, those in charge of the system did not review where their stops were or the timing of them until about a year and a half into the system (personal communication, October 8, 2008). The system was notable for the places where it did not stop. For example, while it stopped at the centrally located Hitchcock's Grocery Store in Alachua, it did not stop at Alachua County Housing Authority housing located about a mile and a half away. If potential users had a car to get to Hitchcock's, they would probably drive to Gainesville instead (R. Selvester, personal communication, November 10, 2008). Furthermore, the first stop in Gainesville, at the Alachua County Health Department, was at 5:50 a.m. This timing likely proved difficult for potential users with school-aged children who needed to go work after their children were already on the way to school. John Skelly provided an anecdotal example of how route structure did not cater to user's needs:

A driver did tell me about one woman who lived right here in this neighborhood, but the bus was leaving at like 5:45 a.m. and she was afraid to sit out in front here in the dark at 5:45 in the morning. So she was walking downtown to catch the bus. It was safer to sit downtown at the bus transfer place. So there was this fairly older woman walking downtown, she caught the bus, and would ride out to Alachua. She worked at Hunter Marine. The closest dropoff point was Hitchcock's Grocery Store, which is about a mile from Hunter Marine (personal communication, October 8, 2008).

Perhaps because CATS planners were made aware of some of these problems, CATS revised their schedule to include many additional stops. While this was beneficial in getting users where they needed to go, it also may have caused a deal of confusion, especially since the change occurred long after the initiation of CATS. Ridership in some of the slowest months still

equated to only one or two riders per day. In these months, subsidies per passenger trip equaled more than \$100. For the duration of the CATS service, there was a great disparity between revenues, ridership, and expenses.

Finally, in a nation where people are already disinclined to take public transportation, the CATS service did not seem to provide any incentives for use. Alachua County already provides the TD program that picks riders up at their doors and takes them directly where they want to go. What is the incentive to use a less convenient fixed-route service if you can go door-to-door? (L. Godfrey, personal communication, November 13, 2008). Despite what it could have been, CATS represented a lack of coordination and community involvement that proved costly to both taxpayers and, in the end, to those who really needed such a service.

Greenride

Greenride is an online carpool matching service that seeks to link members of the community making similar commutes. The program was sparked in 2007 from discussion among the Poverty Reduction Advisory Board regarding the three barriers to employment—childcare, housing, and transportation (R. Selvester, personal communication, November 10, 2008). Instead of developing a complicated transit scheme, the board decided to support the introduction of a carpooling program that would have little capital cost. Users register online and fill out information about their travel plans and commuting schedule. Registered users do not have to provide their phone number or any other details unless they choose to do so.

Unfortunately, people are not necessarily eager to inconvenience themselves to begin carpooling unless they have a good reason to do so. Unless it will save a good deal of money, many commuters may not be eager to change their lifestyle and lose the flexibility that comes with having a personal vehicle. Many people who own automobiles may not be desperate enough that they need someone else to help with gas. Furthermore, carpoolers may be a little

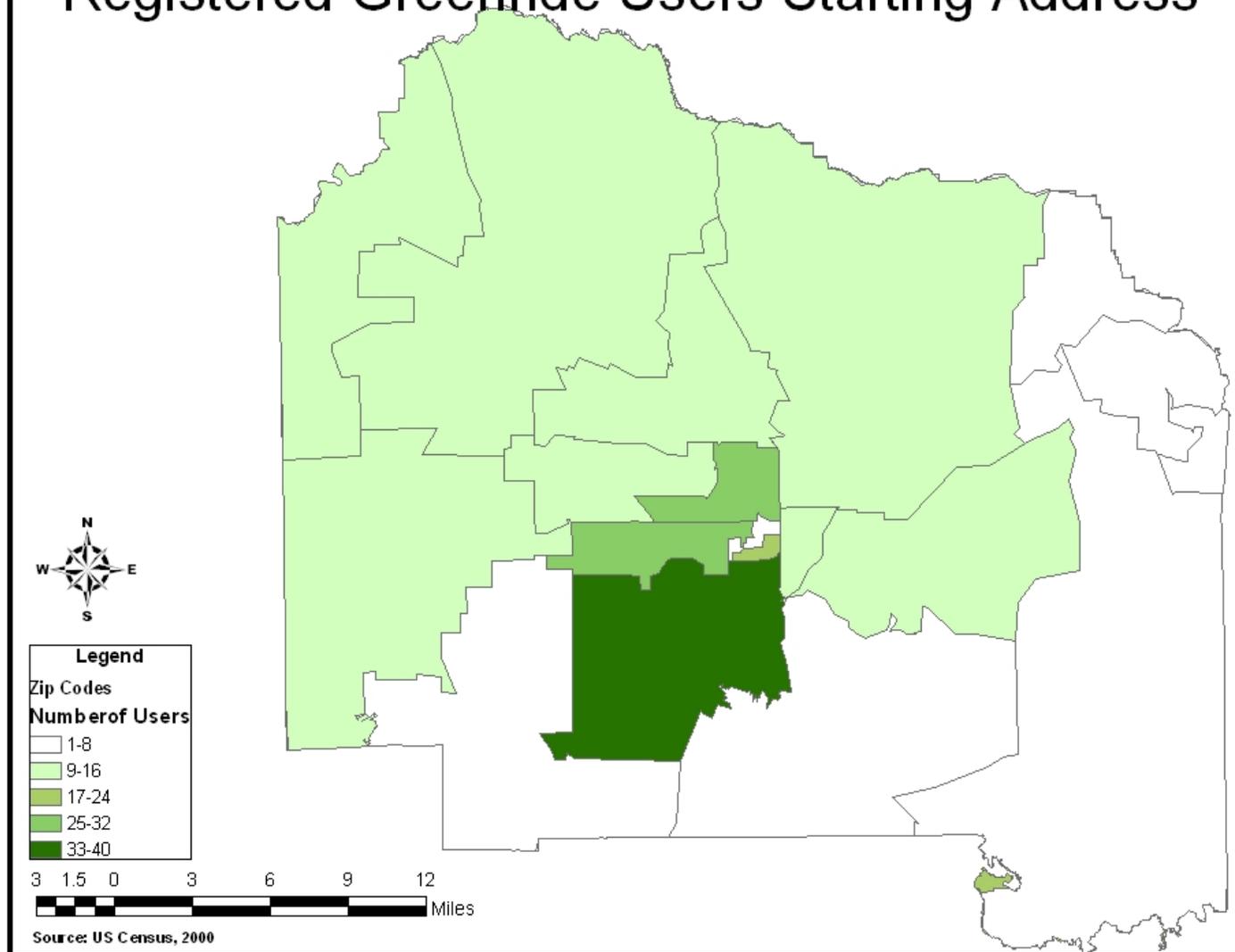
apprehensive of meeting somebody online (R. Selvester, personal communication, November 10, 2008). Additionally, potential carpoolers may not be willing to take extra time to pick someone else up, or work shifts may not coordinate.

As of November 2008, the program had 310 registered users. The most common starting address for users was SW Gainesville, while the most common ending locations were West Gainesville and Downtown Gainesville. Figure 4-12 and Figure 4-13 depict these locations. The actual number of functional matches was not available, but the number likely is low. Proper promotion and incentives to use the program are key. Making large employers aware of the program should be an effective way to increase use of the program. At large employment centers, employees may not know all of their coworkers. It might turn out that a coworker lives right around the corner, and both parties could save money by taking one car to work instead of two. Furthermore, a larger number of registered users—probably close to 1,000—is necessary to make the system viable (R. Selvester, personal communication, November 10, 2008). In places where carpooling is successful, carpoolers benefit from incentives such as special parking spots or gift cards. With improved awareness of and incentives to use the program, Greenride could become a viable option for Alachua County and surrounding area residents.

Deviated Fixed Route

Alachua County's Deviated Fixed Route service is scheduled to begin around the end of January, 2009. The service is being developed to assist rural residents who have no alternative transportation (B. Hinson, personal communication, December 5, 2008). The \$198,000 FDOT grant that funds the program specifies that the route cannot serve anyone residing within Gainesville city limits. Anyone living outside Gainesville city limits is eligible to use the service, not just the elderly or TD populations. The service will cost riders \$1 per trip (B. Hinson, personal communication, December 5, 2008).

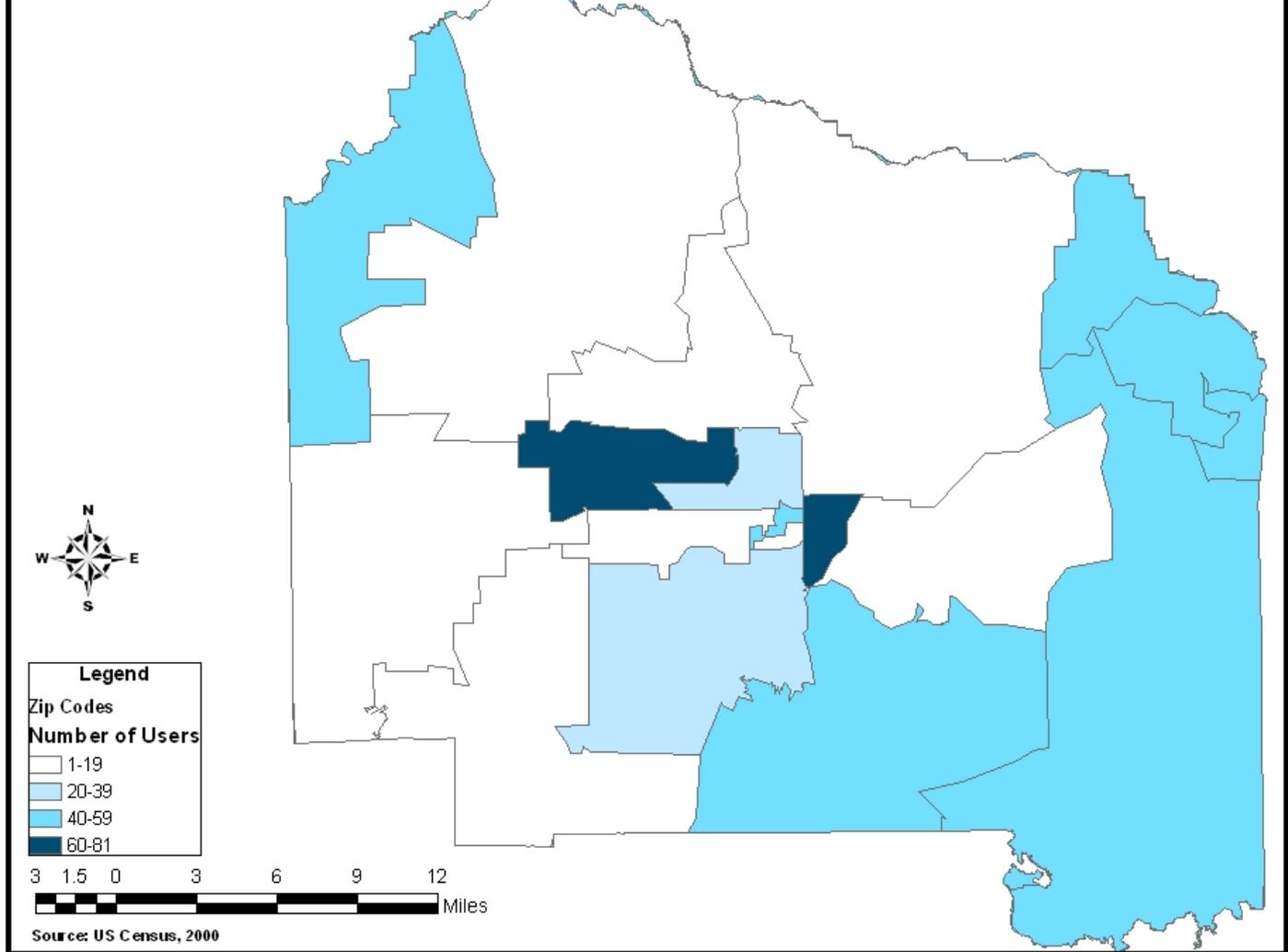
Registered Greenride Users Starting Address



Source: FloridaWorks

Figure 4-12. Greenride Users by Starting Address

Registered Greenride Users Destination Address



Source: FloridaWorks

Figure 4-13. Greenride Users by Destination Address

Currently, MV Transportation, the service provider for the Deviated Fixed Route, is still in the process of developing the routes. MV Transportation has been studying ridership in Alachua County in order to determine what cities will be most viable for service. Phase I of the program will include three fixed routes operating on alternating days that will deviate $\frac{3}{4}$ of a mile off the fixed route for riders who call ahead. The three routes will serve east, west, and north Alachua County respectively. For example, route one and two may run Monday, Wednesday, and Friday, and route three may run Tuesday, Thursday, and Saturday. The route will run six days a week and no more than 10 hours a day. If the service is successful, more grant money will be secured to increase the service. The route serving Alachua and High Springs is identified as the most important due to jobs located along the US-441 corridor (H. Perez & D. Simpson, personal communication, November 21, 2008).

Depending on their limitations, MV Transportation will try to encourage people to use the Deviated Fixed Route instead of the regular demand response service. Most likely the riding time will be longer on the route. If riders have a doctor's appointment, they will probably use Medicaid to go directly there. The fixed route only takes users to designated locations, such as the Downtown Station in the City of Gainesville. A large ridership is necessary for the success and continuation of the program. Proper promotion is an important element of the success of the deviated fixed route.

Currently, Alachua County has plans to build a senior center at US-441 and NW 53rd Avenue. The senior center will be a place where the elderly can go to get meals and socialize. The current senior center provides transportation services, and the Center for Independent Living stresses that a successful center needs adequate transportation (L. Godfrey, personal

communication, November 13, 2008). The Deviated Fixed Route will provide a reliable means of transportation for senior citizens in outlying areas to visit the center.

Some potential problems exist that will affect the success of the route. First, Alachua County and MV Transportation have no plans to survey any communities or potential riders due to lack of funds. Additionally, advertising and promotion may prove difficult. Still, as a for-profit provider, MV Transportation has a vested interest in making the system successful in order to keep the contract. Alachua County should strive to have riders use the most cost efficient system possible in order to cut down on the costs of providing demand response service.

Summary

Providing mobility for Alachua County residents is an important concern. Previous and current programs in Alachua County have attempted a variety of solutions in order provide transportation links for residents, including demand response, shuttle service, carpooling, and automobile provision. This overview reveals that the most successful programs incorporate input from the potential users of the system before its implementation and during the course of its operation. Residents must buy in to a program in order for it to be successful. Table 4-15 provides a summary of each program discussed in this chapter.

Table 4-15. Alachua County Transportation Options

Summary of Alachua County Transportation Options				
	Status	Target Population	Sponsor	Method
TD Program	Active	Low-income, elderly, disabled	Alachua County	Demand response
The Dignity Project	Active	Low-income	Community-based; some funding from FloridaWorks	Provide free and low-cost automobiles
Archer Shuttle	Discontinued	Low-income commuters	HUD, FDOT	Van shuttle
CATS	Discontinued	Low-income, unemployed	City of Alachua	Public transportation
Greenride	Active	Unemployed	FloridaWorks	Carpooling
Deviated Fixed Route	Not Yet Initiated	Rural Alachua County residents	FDOT	Public transportation and demand response

CHAPTER 5 RESULTS

This paper focuses specifically on the burdens facing rural, low-income families residing in public housing trying to seek mobility in an automobile-dominated landscape. Interviews of Alachua County Housing Authority residents located in five rural communities in Alachua County were conducted in order to gain an understanding of transportation-related issues they face. Interviews focused on determining daily travel habits, common transportation-related problems, impacts on other areas of life such as food purchasing and cost burden, and possible solutions. In all, a total of 21% of the 203 Alachua County Housing Authority units in outlying communities were represented in the study.

Accessibility assessment

Many respondents dislike the fact that the rural community in which they reside lacks the amenities of Gainesville. Based on observation and comments, residents of the larger rural communities are better off, as shown in Table 5-1. In Waldo, the smallest of the rural communities surveyed, residents must travel outside the city for nearly all services. In contrast, Alachua, the largest of the communities, has a considerably larger proportion of services nearby. While Alachua residents still lacked amenities, they also had better access to schools, doctor's offices, and local employment than residents in other outlying communities. During the interviewing process, respondents were asked to name missing amenities from their community of residence. Particularly concerning is the reported lack of medical facilities in Waldo, Hawthorne, Archer, and Newberry.

Table 5-1. Accessibility Analysis According to Respondents

	Reported Lacking Amenities				
	Waldo	Hawthorne	Archer	Newberry	Alachua
Adequate grocery store	X		X		
Doctor's offices	X	X	X	X	
Dentist (or no dentist accepting Medicaid)		X	X		
Pharmacy	X		X		
Middle School	X		X		
High School	X		X		
Adequate shopping (including Wal-Mart)	X	X	X	X	X
Cleaner/Laundromat	X		X		
Bank	X				
Hairdresser			X	X	
Government assistance offices, food charities, and HR Services		X	X	X	X
Sufficient entertainment (movies, restaurants, etc.)		X		X	X

Vehicle Access

Many respondents living in outlying rural communities in Alachua County do not have reliable personal transportation. Lack of reliable transportation affects respondents in many ways, from completing everyday errands to access to jobs. Thirty-eight percent of respondents—16 people—reported not having a vehicle available in the household. All 16 of those without a vehicle reported getting rides with others, as seen in Table 5-2. Eight respondents reported walking or using MV Transportation to get around in addition to getting rides with others. Furthermore, owning a vehicle does not necessarily mean respondents have reliable transportation. Of those with vehicles, 31% reported having problems with vehicle reliability. These figures suggest an inherent lack of dependable transportation among 57% of respondents. Table 5-3 and Table 5-4 depict vehicle availability and reliability reported by respondents.

Table 5-2. Mode of Travel for Respondents Lacking Automobiles

	Mode of Travel by Those Without Vehicle Access			
	Gets Rides with Others Only	Gets Rides with Others and Walks	Gets Rides with Others and Uses MV Transportation	Total
Waldo	2	1	0	3
Hawthorne	0	2	2	4
Archer	0	1	1	2
Newberry	4	0	0	4
Alachua	2	0	1	3
	8	4	4	16

Table 5-3. Vehicle Availability

	Car Currently Available in Household			
	Yes	No	Total	Percent Without Vehicle
Waldo	5	3	8	38%
Hawthorne	5	4	9	44%
Archer	4	2	6	33%
Newberry	4	4	8	50%
Alachua	8	3	11	27%
	26	16	42	38%

Table 5-4. Vehicle Reliability

	Reliable Vehicle in Household			
	Yes	No	Total	Percent with Unreliable Vehicle
Waldo	4	1	5	20%
Hawthorne	3	2	5	40%
Archer	3	1	4	25%
Newberry	2	2	4	50%
Alachua	6	2	8	25%
	18	8	26	31%

Employment

Consensus from respondents is that many more people would have jobs if it were easier to get to them. Those who are currently unemployed but seeking work realize that Gainesville is the place where job opportunities exist. Unfortunately, joblessness is prevalent among respondents and their families. As shown in Table 5-5, 56% of all respondents and their families

are currently unemployed, though some of these responses include those who are disabled, retired, or otherwise unable to work. Table 5-6 shows that among those currently employed, 65% work outside their community of residence, suggesting lack of local job access and the necessity for reliable transportation. For those without adequate transportation, looking for a job is extremely difficult. Table 5-7 demonstrates that vehicle availability does not necessarily relate to employment. Forty-one percent of respondents both work and have a vehicle, while 37% do not work and do not have a vehicle.

Table 5-5. Household Employment

	Member of Household Currently Employed			Percent Unemployed
	Yes	No	Total	
Waldo	5	3	8	38%
Hawthorne	3	6	9	67%
Archer	3	3	6	50%
Newberry	2	5	7	71%
Alachua	5	6	11	55%
	18	23	41	56%

Table 5-6. Location of Employment

	Work in City of Residence			Percent Employed Out of Town
	Yes	No	Total	
Waldo	2	2	4	50%
Hawthorne	1	2	3	67%
Archer	1	2	3	67%
Newberry	0	2	2	100%
Alachua	2	3	5	60%
	6	11	17	65%

Table 5-7. Employment and Vehicle Availability Cross Tabulation

	Employment and Vehicle Availability								
	Employed with Available Vehicle	Percent Employed with Available Vehicle	Employed without Available Vehicle	Percent Employed without Available Vehicle	Unemployed with Available Vehicle	Percent Unemployed with Available Vehicle	Unemployed without Available Vehicle	Percent Unemployed without Available Vehicle	Total
Waldo	4	50%	1	13%	1	13%	2	25%	8
Hawthorne	3	33%	0	0%	2	22%	4	44%	9
Archer	3	50%	0	0%	1	17%	2	33%	6
Newberry	2	29%	0	0%	1	14%	4	57%	7
Alachua	5	45%	0	0%	3	27%	3	27%	11
	17	41%	1	2%	8	20%	15	37%	41

Sacrificed Mobility

High gas prices in 2008 had an extremely negative effect among respondents almost universally. Table 5-9 demonstrates skyrocketing gasoline prices facing Americans during 2008. The summer months were particularly difficult for many respondents, though prices at the end of 2008 offered them some reprieve. Even those without vehicles reported greater difficulty securing rides with others when gas prices were high. A full 90% of respondents reduced some aspect of their normal mobility due to high gas prices, as can be seen in Table 5-8. Depending on individual financial situations, sacrificed mobility took on different forms. Some respondents switched modes of transportation to a more fuel efficient vehicle if one was available in the household. Some started carpooling. Many respondents reported not leaving the house unless it was necessary in order to conserve gasoline for necessary trips. Respondents reported more severe mobility-related consequences such as missing scheduled doctor’s appointments. Some had to call in to work because of lack of gas money to get there. Others would not visit with out-of-town family as frequently. Some had to miss family-related events such as children or grandchildren’s sports games. Others neglected shopping trips.

Table 5-8. Respondent Reported Sacrificed Mobility

	Sacrificed Mobility Due to Lack of Adequate Transportation or High Costs			Percent with Sacrificed Mobility
	Yes	No	Total	
Waldo	6	2	8	75%
Hawthorne	8	1	9	89%
Archer	6	0	6	100%
Newberry	8	0	8	100%
Alachua	10	1	11	91%
	38	4	42	90%

Table 5-9. Average Retail Gasoline Prices, 2007 and 2008

Motor Gasoline Retail Prices (2007-2008)	
Year	U.S. City Average Retail Price (U.S. Dollars)
2007 January	2.32
2007 February	2.33
2007 March	2.64
2007 April	2.91
2007 May	3.18
2007 June	3.10
2007 July	3.01
2007 August	2.83
2007 September	2.84
2007 October	2.84
2007 November	3.12
2007 December	3.07
2007 Average	2.85
2008 January	3.10
2008 February	3.08
2008 March	3.31
2008 April	3.49
2008 May	3.81
2008 June	4.12
2008 July	4.14
2008 August	3.84
2008 September	3.75
2008 October	3.23
2008 November	2.21
2008 December	1.74
2008 Average	3.32

Source: Energy Information Administration (2009)

Difficulty Paying Necessary Expenses

Necessary bill payments proved troublesome for many respondents. As shown in Table 5-10, 64% of respondents reported problems with making on-time payments, especially when gas prices were high. Many missed car payments, were late with rent, or had trouble buying groceries. Many also missed utility payments and consequently had their electricity, gas, or water shut off. Furthermore, this figure does not include those respondents who were forced to cut back in other areas in order to save money for these necessary expenses. Especially when gas prices

were high in 2008, gasoline became another bill to pile on top of already-overwhelming expenses.

Table 5-10. Respondent Difficulty Paying Expenses

	Difficulty Paying Necessary Expenses			Percent with Difficulty Paying Necessary Expenses
	Yes	No	Total	
Waldo	6	2	8	75%
Hawthorne	8	1	9	89%
Archer	3	3	6	50%
Newberry	5	3	8	63%
Alachua	5	6	11	45%
	27	15	42	64%

Additional Difficulties and Sacrifices

Respondents recognized that paying for transportation—especially when gas prices were high—caused them to make many difficult choices in their daily lives. Table 5-11 summarizes the difficult choices that respondents had to make, most often in order to pay for high transportation costs. The summary table also includes, for example, those who chose to pay utilities over other necessary payments or those who made groceries a priority over other types of purchases. For example, one respondent in Archer had her furniture repossessed; though she had enough money at the time to get it back, she opted to purchase groceries instead. The work and transportation link was reiterated many times by respondents. Those seeking employment faced many difficulties finding work without a car. Furthermore, two respondents reported losing their job due to not having adequate transportation to work. One respondent was late too often due to carpooling, while the other had her car repossessed and lost her job when the person she was carpooling with fell ill. Difficult choices between seemingly-essential daily activities were commonplace in the lives of many respondents. Paying for transportation costs was one of many tradeoffs, though high gasoline prices were a significant contributor to hardship.

Table 5-11. Reported Additional Difficulties and Sacrifices

Difficulties, Sacrifices, or Changes to Daily Activities Due to Lack of Transportation or High Transportation Costs	Number of Respondents
CHANGES TO TRAVEL PATTERNS	
Increased Trip Chaining and Fewer Individual Trips	13
Stayed Home More	8
Switched to More Fuel-Efficient Vehicle	4
Increased Walking	4
Harder to Get Rides with Others	3
Giving Rides to Reliant Family Members	3
Not Making Trip if Unable to Get a Ride	2
Carpooling	1
Stranded During Workday without Vehicle	1
BILLS AND EXPENSES	
Paying Utilities	13
Problems Purchasing Groceries	13
Increased Budgeting	3
Making Car Payments	2
Paying for Vehicle Repairs	2
Purchasing	2
Paying for Prescriptions	2
No Money to Pay for Rides with Others	2
Borrowed Money	1
Furniture Repossessed	1
Purchasing Diapers	1
IMPACTS IN OTHER AREAS	
Missed Family and School-Related Events	7
Missed Doctor Appointments	6
Hard to Get Work without Transportation	4
Lost Job	2
Changed Churches	1
EXTRAS	
Stopped Eating Out	2
Unable to Purchase Toys or Spend Extra Money on Children	2
Getting Nails Done	2
Entertainment	1
Cigarettes	1

Sacrificing utility payments, increased trip chaining, fewer overall trips, and problems purchasing groceries were the most prevalent problems cited by respondents. Groceries are a particular concern. For about one-third of respondents, high gasoline prices affected eating

habits. Respondents were either not able to buy the food they needed, not able to shop at the grocery stores they desired, or were generally unable to buy any extras like snacks or more expensive meat. Though this research did not consider specific changes in eating habits, it is fair to assume that nutrition likely suffered as families more frequently focused on purchasing inexpensive food in grocery stores.

Moving for Improved Access

Table 5-12 summarizes respondent willingness to move for improved access to services and employment. Sixteen respondents discussed the possibility of moving to Gainesville in order to increase proximity to needed amenities. Of that number, 13 were against the idea. Reasons given included fear of drugs, traffic, the opinion that their current residence was better for raising children, or a preference for the peace of the country. Only three of 16 would consider actually moving to Gainesville. Two of that number expressed desire to move but fear the ability to find affordable housing. Only one of the 16 actually has concrete plans to move to Gainesville. Since many residents do not consider moving an option, increased mobility in their current places of residence appears to be the only viable option for connecting residents to necessary services and amenities located elsewhere.

Table 5-12. Respondent Willingness to Move

Willing to Move to Gainesville for Better Access to Amenities			
Yes	No	Total	Percent Willing to Relocate
3	13	16	19%

Access to Groceries

Many residents do not have easy access to grocery stores. The vast majority of respondents in Waldo and Archer shop outside of town for groceries; respondents claimed that the local stores do not have the selection they need and the prices are too high. With the exception of residents of Alachua, the vast majority of respondents—64%—preferred shopping

at a grocery store outside their community of residence, as shown in Table 5-13. Even when including the Alachua figures, 45% of respondents would rather shop at a grocery store outside their community—usually stores in Gainesville, which are generally considered to be cheaper and better. In this situation, transportation again becomes an issue. Respondents living in outlying communities generally must drive to the grocery store or rely on someone else to take them there. Residents in Newberry and Hawthorne expressed that they will walk to the grocery store if necessary. However, the walk in Hawthorne requires respondents in that community to walk a circuitous route around an overpass, an especially difficult feat for older people and women with small children.

Table 5-13. Preferred Grocery Store Location

	Preferred Grocery Store Located in Community of Residence			Percent Preferring External Grocery Store
	Yes	No	Total	
Waldo	0	3	3	100%
Hawthorne	2	2	4	50%
Archer	0	3	3	100%
Newberry	3	1	4	25%
Alachua	7	1	8	13%
	12	10	22	45%

Park and Ride

More than any other form of alternative transportation solution, respondents doubted the viability of park and ride. In this study, based on present transportation options in Alachua County, park and ride was defined as driving from the community of residence to a hypothetical Gainesville park and ride facility. Several held the opinion that if someone had a car, they would prefer to simply drive to their destination. Michael from Waldo had a prescient opinion about the viability of park and ride. If he has time available, he will drive to Gainesville, park at a large shopping center such as Wal-Mart, and use public transportation for the remainder of his trips

because he can purchase an all-day bus pass cheaply. His opinion of the viability of park and ride is that it's a time issue. If someone is on a tight schedule, they likely will not want to take extra time to catch the bus. As Michael responded, "I only do it when I have a lot of time." Essentially, there are locations for people to park and ride already if they choose to. Table 5-14 summarizes respondent opinion about park and ride.

Table 5-14. Respondent Opinion about Park and Ride

	Park and Ride is a Viable Transportation Solution				
	Yes	No	Not Sure	Total	Percent Responding "Yes"
Waldo	0	4	2	6	0%
Hawthorne	1	1	2	4	25%
Archer	0	3	0	3	0%
Newberry	0	1	0	1	0%
Alachua	0	2	1	3	0%
	1	11	5	17	6%

Public Transportation

Of all alternative transportation solutions, bus service was generally agreed upon as being the most likely to succeed. Table 5-15 demonstrates that 83% of respondents said they thought public transportation of some sort was a viable solution. Several respondents stated they would rather ride the bus than pay for gas; therefore, if gas prices rise as drastically as they did in 2008, many respondents would likely be pushed to use a bus. In the present, many respondents said a bus would help them personally, though others said they would only use it in an emergency. Almost universally, respondents said they thought a bus would help others. Quite a few people expressed that the presence of a bus would help them to be able to look for a job in Gainesville. Without a car and access to local jobs, their options are severely limited. One respondent in Archer stated that because those using the bus are unlikely to have a good job or much cash flow, fare prices need to be reasonable—no more than \$2 per trip. The same respondent thought bus

service should run until at least 10 p.m. in order to gain the most riders. Interestingly, this respondent saw public transportation as a wealth-building tool. She made the point that people might use the bus in order to save enough money to purchase their own vehicle. The general consensus of respondents in this study is that for a viable bus service to exist, the route structure and schedule must conform to the needs of the system’s users—otherwise it will not survive.

Table 5-15. Respondent Opinion about Public Transportation

	Public Transportation is a Viable Transportation Solution				
	Yes	No	Not Sure	Total	Percent Responding "Yes"
Waldo	5	1	2	8	63%
Hawthorne	8	0	1	9	89%
Archer	5	0	1	6	83%
Newberry	8	0	0	8	100%
Alachua	7	0	2	9	78%
	33	1	6	40	83%

CATS

The CATS system in Alachua provides insight into what users are looking for in a public transportation system. Only one respondent in Alachua, Rashidha, had ever used the system. She used the route once or twice per week to do errands in Gainesville. Another respondent had a daughter who had tried to use it a few times. Two people had never even heard about the system.

Several complaints were prevalent:

- Trips were not frequent enough. Respondents wanted to see more than just two trips per day. One respondent wanted the bus to come every two hours; another thought it should come at least three times per day.
- The first trip in the morning was too early.
- The last trip in the afternoon returned too early. Riders had a difficult time making it back to the bus stop in time to catch the route home. Rashidha reported that she had to ask her sister for a ride home on multiple occasions because she missed her home connection.
- A general lack of advertising and information about the route.

- People had to walk too far to catch the route.

The failure of the CATS system stresses the importance of taking user needs into account when designing a route. Asking users what they need is essential to maintaining ridership as well as helping people get where they need to go.

Carpooling

Opinions about carpooling were fairly split among respondents, according to Table 5-16. About 40% considered it a viable solution. Most respondents recognize the benefits of carpooling if it is convenient for both carpoolers. Many people stated they know people who carpool because they work right down the street from each other. However, most people do not want to wait for others. If they own their own vehicle, they want to have the full independence and freedom that comes along with it. They do not want to have to stop with other people to run errands. They do not want to be bothered with adhering to someone else’s schedule. However, some also recognize the cost saving aspect of carpooling and would do so if necessary. In keeping with Ferguson’s (1997) study, the prevalence of carpooling would likely increase with a rise in gas prices.

Table 5-16. Respondent Opinion about Carpooling

	Carpooling is a Viable Transportation Solution				
	Yes	No	Not Sure	Total	Percent Responding "Yes"
Waldo	2	3	1	6	33%
Hawthorne	4	1	0	5	80%
Archer	0	3	2	5	0%
Newberry	1	2	1	4	25%
Alachua	5	4	1	10	50%
	12	13	5	30	40%

Summary

Overall, cars are viewed as a necessity by most respondents. Most of those without an automobile aspire to have one. A car is a symbol of freedom, especially for those who grew up

relying on others. When moving to rural areas, many respondents accept the inevitability of driving. According to Sophia from Archer, “If you don’t have a car, you are through.” Several respondents noted the drive until you qualify-type tradeoff that comes with cheaper housing in the country. For example, Ruthie from Newberry knew when she moved there that her transportation costs were going to increase. As she put it, “Sometimes you have to weigh the good with the bad.” Despite the freedom that owning an automobile has come to symbolize, high gas prices highlight the fact that freedom is conditional. High transportation costs create hard choices. Most people gave up freedom of mobility. Many others gave up more serious things, such as their health. As Al from Waldo stated rather pointedly, “It was either gas or McDonald’s.” Both Al and Sophia stated that times were very hard, and they were about ready to give up when gas prices were high in 2008. For those with and without a car, reliance on family members was important for nearly all respondents. If a car breaks down, if a bus is missed, if someone lacks the gas money to drive home from work—respondents report that local family members were always there to assist them. Some, however, realized a limit to family obligations—those family members have bills to pay themselves.

Transportation costs and lack of adequate mobility create many problems for the well-being of respondents in this study. Even if respondents did not perceive themselves as personally affected by high gas prices, there was universal agreement that high gas prices were hard on people. With the nearly-inevitable rise of gas prices in the future, viable solutions must be available for this population in order to assist in wealth accumulation and overall poverty reduction.

CHAPTER 6 DISCUSSION

The results of this study reveal that public housing residents in rural communities face many transportation-related barriers. Lack of mobility—combined with the limited availability of services in rural communities—are contributing factors to the difficulties many rural residents face in meeting daily needs. Households lacking a car are especially vulnerable. Means of mobility for these households are often unreliable and costly. Several strategies, however, will assist in easing problems of mobility and accessibility for respondents in this study.

Accessibility Assessment

An assessment of available amenities in each rural community in this study reveals the extent to which some residents rely on services located outside their place of residence. Interviews with respondents revealed that Waldo residents had the least access to amenities, while Alachua residents had the most access. An assessment of number and types of businesses in Table 6-1 and Table 6-2 reveals this to be the case. Generally, the population in each rural community was proportional to the number of businesses.

Table 6-1. Rural Community Businesses

Community	Number of Businesses	Number of Business Types	2008 Population Estimates
Waldo	10	9	836
Hawthorne	54	42	1,436
Archer	74	60	1,225
Newberry	221	136	4,914
Alachua	482	253	8,742

Source: InfoUSA 2007 and US Census Bureau

Recommendations

Low-income Alachua County residents are burdened by high transportation costs. However, many are forced to pay because families are unlikely to generate income if they cannot

Table 6-2. Accessibility Assessment

Accessibility Assessment: Actual Amenities					
Business Type	Waldo	Hawthorne	Archer	Newberry	Alachua
Grocery Store	N	Y	Y	Y	Y
Clinic	N	N	N	N	Y
Physician	N	Y	Y	Y	Y
Church	Y	Y	Y	Y	Y
Post Office	Y	Y	N	Y	Y
Dialysis	N	N	N	N	Y
Dentist	N	Y	N	Y	Y
Child Care	N	Y	Y	Y	Y
Fire Department	N	N	Y	Y	Y
Pharmacy	N	N	N	Y	Y
Library	N	Y	Y	Y	Y
School	N	Y	Y	Y	Y
Clothing-Retail	N	N	N	Y	Y
Cleaner/Laundromat	N	N	Y	Y	Y
Health Club	N	Y	N	Y	Y
Bank	N	Y	Y	Y	Y
Hairdresser/Salon	N	Y	Y	Y	Y
Government Offices	N	Y	Y	Y	Y
Restaurant	N	Y	Y	Y	Y

Source: InfoUSA 2007

get to work. Well-designed service provision to low-income rural dwellers can greatly enhance mobility and encourage job retention and wealth accumulation. The problems are difficult to solve, but coordinated solutions can provide much-needed assistance. In Alachua County, successful transportation options likely involve a spoke system that provides mobility for users and also does not cost them great amounts of time. Incentives must be implemented to use the service, especially if it is to be used as anything but a last-resort option. Suggestions for the literature also provide useful recommendations in relation to the case of Alachua County. Garaksy, Fletcher, and Jensen (2006), Hughes (1995), and Schell (2000) suggest expanding options by extending transit service, encouraging ride sharing and vanpooling, and providing subsidies for automobile purchase and insurance. Blumenberg and Ong (1998) suggest offering support services such as a guaranteed ride-home for unforeseen emergencies.

Additional resources could augment the mobility of Alachua County's rural dwellers. Several are not as obviously transportation-related as others. For example, providing some form of after-school childcare would assist single parents by freeing up daytime schedules to allow for full work days. Currently, job opportunities for single parents without childcare are limited due to time restrictions that require parents to be home after school to look after their children. Additionally, providing job training could help low-skilled workers gain additional education necessary to receive a job.

Intergovernmental coordination is necessary. Programs are much less likely to be successful with the combined expertise of various government agencies. For example, the Alachua County Housing Authority could coordinate with both FloridaWorks and Alachua County Community Support Services in order to provide job training for residents. Furthermore, these agencies could coordinate to provide after-school child care for residents. Training and education could be performed on-site to allow for greater accessibility for Alachua County Housing Authority residents. These agencies could also unite to help residents meet daily needs, such as obtaining groceries. For example, local agencies could organize a delivery service with local grocery stores in order to provide groceries for the elderly and other residents lacking a vehicle.

Transportation strategies should focus on mobility. According to the results of this study, most respondents are not willing to change their residential location. The solution, then, is making it easier for people to get from their present location to services and employment in other cities. In order for services to be viable, however, those who will be using transportation services need to be involved in planning them. The Alachua County case study reveals that a top-down approach is not necessarily the most successful means of providing public transportation. Extra

effort needs to be extended to create a participatory approach to public transportation planning. Additionally, any public transportation provided from outlying communities into Gainesville must coordinate with the Regional Transit System (RTS) in order to provide good connectivity for system users.

Without public support and intergovernmental coordination, services cannot be viable. Education should be a component of the process. Families need to realize that car ownership is a significant drain on family resources. If low-income residents of Alachua County more fully understand the costs associated with car ownership, they will likely be more receptive to alternative forms of transportation. Furthermore, public transportation must be provided at a reasonable price for users. Finally, as gas prices increased, respondents reported an increased willingness to utilize alternative forms of transportation. If gas prices rise again, this population will likely be receptive to proposed solutions.

Generally, park and ride lots should be less of a focus within the City of Gainesville for the type of resident interviewed in this study. If people have a car, they generally prefer to drive the entire distance to their destination. Potential park and ride locations already exist if automobile owners choose to make use of them. Still, despite respondent comments, it is important to note the unique set of circumstances presented the presence of the University of Florida in Alachua County. For any of those commuting to the university or the adjacent Shands and VA hospitals, park and ride lots make more sense due to the difficulty and expense of parking on campus.

While the respondents in this study were solely public housing residents, other low-income rural residents face many of the same issues. Transportation costs can become overwhelming for all households struggling to make ends meet. No easy solution exists to

solving the transportation problems of low-income rural residents. But the struggles are real. Public participation and intergovernmental coordination are necessary to meet the needs of this population. Mobility and accessibility to goods and services are necessary to the well-being of low-income rural residents. Adequate transportation and programming—such as child care, job training, and education—can augment both wealth accumulation and personal health of low-income rural dwellers.

CHAPTER 7 CONCLUSIONS AND FURTHER RESEARCH RECOMMENDATIONS

Conclusion

On average, transportation is the second-largest expense—after housing—for families. Costs are rising in general, and low-income and working families are having trouble keeping up. Real income has been declining while gas and other consumer prices are increasing. Urban form and spatial patterns often make car ownership essential. The mismatch of job location and low-income housing creates long commutes and increased transportation costs precisely for those households that cannot afford it.

This thesis focuses specifically on the burdens facing rural, low-income families in Alachua County seeking mobility in an automobile-dominated landscape. Specifically, it seeks to account for problems faced by needy populations through engaging a dimension of Alachua County's transportation disadvantaged in a dialogue regarding their transportation problems and needs. An overview of Alachua County transportation solutions to link residents of outlying communities to Gainesville provides insight into what types of programs have been successful in the past. Providing mobility for Alachua County residents is an important concern. Previous and current programs in Alachua County have attempted a variety of solutions in order provide transportation links for residents, including demand response, shuttle service, carpooling, and automobile provision. Successful programs incorporate input from the potential users of the system before its implementation and during the course of its operation.

In this study, a total of 42 semi-structured open-ended personal interviews focusing on issues regarding transportation in rural communities were conducted with residents of Alachua County Housing Authority projects in five rural communities in Alachua County—Alachua, Archer, Hawthorne, Newberry, and Waldo. Interviews focused on determining daily travel

habits, common transportation-related problems, impacts on other areas of life such as food purchasing and cost burden, and types of solutions they deem most viable. Some interviews were more in-depth and yielded more information than others, depending on both the interviewee's willingness to answer questions and interviewer discretion.

Residents of rural communities—especially low-income households lacking a car—face many barriers that are transportation-related. The results of this study reveal that public housing residents in rural communities face many transportation-related barriers. Lack of mobility—combined with the limited availability of services in rural communities—are contributing factors to the difficulties many rural residents face in meeting daily needs. Households lacking a car are especially vulnerable. Means of mobility for these households are often unreliable and costly. Still, most respondents in this study view automobiles as a necessity. Most of those without an automobile aspire to have one. A car is a symbol of freedom, especially for those who grew up relying on others. When moving to rural areas, many respondents accept the inevitability of driving. Several respondents noted the drive until you qualify type of tradeoff that comes with cheaper housing in the country.

Despite the freedom that owning an automobile has come to symbolize, high gas prices drive home the fact that freedom is conditional. High transportation costs created hard choices. Most people gave up freedom of mobility. Many others gave up more serious things, such as their health. Even if respondents did not perceive themselves as personally affected by high gas prices, there was universal agreement that high gas prices created hardship for others. However, as gas prices increased, respondents reported an increased willingness to utilize alternative forms of transportation. For those with and without a car, reliance on family members was important for nearly all respondents. If a car breaks down, if a bus is missed, if someone lacks the gas

money to drive home from work—respondents report that local family members were always there to assist them. Some, however, realized a limit to family obligations—those family members have bills to pay themselves.

No easy solution exists to solving the transportation problems of low-income rural residents. Several solutions were proposed in this study, including childcare, job training, and intergovernmental coordination. Transportation services should incorporate a mobility strategy to and be offered at a reasonable cost to users. Planning should involve a participatory strategy to both educate and gain public support.

Further Research Recommendations

Currently, research on rural communities and their link to nearby urban areas is lacking. For the rural residents of Alachua County, living in outlying communities often involves a conscious choice to do so. Further research could examine those choices and compare the conditions of low-income housing in urban areas with the conditions in rural areas. Furthermore, housing and transportation affordability in rural areas needs additional attention. Research could examine the amount of money spent to live in rural areas as opposed to better-connected urban areas. For example, further research could examine the amount of additional transportation expenditures, the amount of wealth lost by lack of access to jobs, and additional cost of groceries.

Since the health of those living in rural areas is also likely to suffer, further studies could link the hardships faced by those with lack of transportation with their access to nutritious food and doctors. A study could compare differences in health level among those with access to reliable transportation and those without it. An additional area of research dealing with the differences between those with and without access to reliable transportation is employment. A

study could track the job acquisition rates among currently unemployed rural residents with and without reliable transportation.

Finally, when rural transportation alternatives are implemented, systems need to work for those who will be using them. Case studies should be conducted in order to determine the types of transportation solutions that are beneficial and proven to work for rural communities. The case studies should include information from pre-planning stages, including any public and stakeholder involvement processes. Developing an understanding of best practices in select rural communities will assist in serving a greater number of rural residents throughout the nation.

APPENDIX A
SAMPLE INTERVIEW QUESTIONS

I want to begin by getting an idea of how you routinely travel in your daily life.

Related questions:

For example, how do you and your family travel to: work, school, the doctor, or to run errands?

How often do you travel to these activities?

Where is your job located?

By what mode of transportation do you currently get there?

How long does it take you to get there?

Do you have a car?

If yes:

Do you have insurance?

Do you have a valid driver's license?

How reliable is it?

How much do you spend on repairs and gas?

If no:

How much do you pay for a trip to go places?

Do you have a car, or do you have *access* to a car?

Do you have a valid driver's license? If no, why not?

If you borrow a car, do they charge you for it? Do you have to put gas in it?

Would you ride a bike if you could?

I want to get an idea of what kind of transportation-related problems you routinely face. What problems do you have getting where you want to go?

If work related:

Have you ever lost a job due to lack of transportation?

Have you ever had to unwillingly change jobs due to lack of transportation?

Have you ever moved or thought about moving so you would have better access to a higher-paying job?

If non-work related:

Have you missed school functions for children?

Have you missed medical exams or appointments because of lack of transportation?

What are your perceptions about problems that friends and neighbors are having right now getting where they want to go?

Next, I want to get an idea of how transportation impacts other areas of your life.

Related questions:

Have high costs of gasoline and the current economic climate limited where you can go?

Do you have trouble paying rent or buying groceries, etc?

If you don't work, would you work if you had transportation?

If you had better transportation, what changes would you make in your life?

How does transportation affect the way you eat?

How do you get a big load of groceries home?

What have you had to give up because of higher gas prices?

Is it recreation for your kids?

Food?

Have you ever avoided going to school functions for your children?

Have you missed medical exams or appointments because of lack of transportation?

Has the gas issue made you more mindful of doing errands in one trip?

If you don't have transportation, what things do you do so that it doesn't matter? (Mail rent and utility bills, walk to the store).

Do you have everything you need nearby?

How do you figure out how to pay for gas?

We've talked about how you travel and some of the problems that you face in getting where you want to go. I want to get your opinion about some possible solutions.

Related questions:

Would you use public transportation if it was available?

Would you park at a location in Gainesville and take the bus the rest of the way to work?

Would you participate in a carpool or vanpool program?

How often would you use such services and how much would you be willing to pay for them?

Would you be more willing to use alternative forms of transportation if you had a guaranteed ride home?

Would you be more willing to use alternative forms of transportation if there was a shuttle bus to nearby shopping or other locations from your place of work?

Are there any issues you'd like to talk about that we haven't touched on today?

APPENDIX B
RESPONDENT COMMENTS

Waldo

Respondent Name	Response
	Means of transportation in daily life
Gladys	Ride with family
	No car
	Hardly ever goes to Gainesville
	Goes to doctor every three months
	Walks 5-10 minutes to work at Waldo Community School
	Goes to Acorn Clinic in Brooker
Ellis	Works about 7 miles away
	Goes to Gainesville for services not available in Waldo
Angela	Drives usually
	Van currently disabled due to missing payment (program for first-time buyers--disabled 4 days after a missed payment)
	Currently getting rides by son's truck
	Currently out of work
Michael	Travels by car, has had few problems with it
	Does odd jobs
Al	Works at Hardee's and Wendy's (9-4, 5-10!)...walks to work
	Mother uses MV Transportation, now carpools a lot...can't drive stickshift (Al's truck is stick)
	Brothers and sisters travel by school bus and activity bus to Hawthorne
	Only family member with a car, but doesn't use it much because he works a lot and "I don't really have anywhere to go"
	In Waldo, can walk pretty much everything
	Once rode bike from Gainesville to Waldo for work because of gas prices
Pearl	Used to live in Waldo, visiting mom
	Mom pays someone to take her places...stressful sometimes.
	Lives with niece and nephew
	Takes MV for medical appointments
	Gets along decently despite living in the outskirts
	Guesses mom spends about \$100 a month on about five or six rides a month.
	Most people work in Gainesville
No Name	Uses car to get to work and take kids to school
Mildred	Used to work at the local library and walked there
	Pay someone to come and take her to pay monthly bills and get groceries
	Transportation-related problems
Gladys	Sometimes has to cancel doctor's appointments due to ride cancelling
	Hard to get to store
	Pays \$10, \$15 for rides
	Often has to miss granddaughter's basketball games
	Daughter has to make car payments every week--sometimes car shut off
	Lives near a lot of family
	Daughter buys her groceries in Gainesville or Starke
	Doubts making changes with better transportation

	Concerns about drug dealing in Gainesville--would not move
	Rent price is going up from \$340 to \$550 a month
Ellis	Drives to work
	Used to spend \$30 per week in gas, now \$15 or so
	Car was currently in shop, but has a backup
	Problems making car payments
	Will get groceries in Waldo, but also goes to Starke and Hawthorne
Angela	Has often has transmission problems with vehicle--can't afford to fix
	Has to choose to fix car or make car payments...has to choose to make the payments at this point
	Used to paying \$5 for half tank of gas; saving money was and is hard
	Only one income
	Gave up buying new clothes
	Got divorce and moved back to Waldo right as gas prices were rising
	Thought about moving--but wanted to be closer to family because of her kids
	Lost job due to being late from carpooling
	Shops in Hawthorne for groceries; wishes Dollar General would sell groceries
	Would eat better if grocery store was closer; would save her a lot of trips out of town
	Walks to pay utility bills, shopping, kids to school
	Maintenance of vehicle is the hardest thing
Michael	No major transportation problems to speak of
	Drove a different, slightly more fuel efficient vehicle when gas prices were very high
	Made fewer, larger grocery trips
	Less driving around with high gas prices
	Stayed home more when gas prices were high
Al	Family had a hard time with high gas prices
	Grandmother stopped visiting so much due to high gas prices
	Brother and sisters had a hard time getting to sports practice
	Family is from Gainesville, moved to Waldo in 2003...more peaceful, fewer problems
	Car in driveway has a full tank, ready for when gas prices go back up
	Times when family had to go without in order to get where they needed to go...practices, get together
	Mother was a school bus driver....had to either take her to work or she would have to carpool
	Groceries in the house were a priority "thank god for deals at wal-mart"
	"About six months ago, times was very hard. I didn't think we could pull through."
	Shop at Super Wal-mart in Starke, make one big trip usually with his truck
Pearl	Pretty common for people to ask for money for rides...they'll say "I don't have much gas"...they do need money for gas
	Younger people might not have a car, older people might not have enough money for gas. You put gas in your car, but it's limited...it can only go so far, either that week or that month
	When gas prices were high, people hardly went anywhere

	People getting rides with others had to pay double when gas prices were high, up to about \$20 for a ride from Waldo to Gainesville or Starke. Doesn't even include what you buy when you get there
	Mother calls someone and pays them to take her grocery shopping
	Pearl's daughter and nephew will take their grandmother places, but they need the gas money too. "A car don't run on air."
	Mother cannot afford a car. Older lady on a fixed income.
	Church will sometimes take her places for free.
	Rent now above \$600 per month. Only makes \$674 from SSI. Has no money to pay for transportation
No Name	Gas prices did not really affect him
	Prefers to raise kids in the country, concerned about drugs in Gainesville
	Transportation is necessary for bettering yourself
	Many people in rural areas depend on friends and family
Mildred	Has medical problems that make getting around harder than before
	Started walking to work because of high gas prices
	"I'd rather smoke than drive"--made that choice
	Likes to go to Super Wal-Mart in Starke
	Friends, neighbors and family transportation-related problems
Gladys	Complaining about not having gas to get places
	Lot of handicapped people
	High charges for rides from neighbors--one man charged \$20, and then extra for any stops
	Knows family and friends who have moved to Gainesville
	Just about everyone drives to work in Gainesville
	Neighbor had water shut off because she needed to buy gas instead of paying bill
	Some people catch Greyhound to go to Gainesville
	Money to fix cars is a problem--many households need two cars
Ellis	Know people who have lost jobs, had hours cut
	Heard talk about people wanting to move
Michael	Willing to give rides to neighbors if they need it "Too many cars around here to be stranded"
	Recognizes that people without a car have it hard
Al	People were making a lot of hard choices with high gas prices, like feeding children.."It was either gas or McDonald's"
Mildred	Many people walk where they need to go
	Very difficult to not have a car in a rural area
	Solutions
Gladys	Bus--used to have a bus years ago (fare was about \$1.50); now, "whatever they charge, I have to pay"
	Has not heard of deviated fixed route
	Park and ride might work if it saved people money
	Lot of people don't want to ride with other people--give excuses about having to make a lot of stops "Just the way peoples is around here"; think their cars are better than everyone else's
	Does not use MV; particular about who she rides with
Ellis	Thinks bus would cost too much; Greyhound costs \$10; thinks \$3 would be a reasonable fair

	Park and ride a possibility for people who work in places with bad parking situations
	Would not carpool--works late sometimes, has other things to do; not an option
Angela	Doesn't like carpooling because she doesn't want to feel like a burden on anyone; does it when necessary or if someone needs her help; likes freedom of driving herself; don't want people knowing business
	Would use bus only as a last resort
	Does not think people would use park and ride (they could do that now)
Michael	Would not carpool "I'm going when I'm going and I come back when I come back...don't need no riders"
	Thinks shuttle bus could be helpful and people would take it if it was available "still go to Alachua and Archer"
	Would take the bus if absolutely necessary
	Goes into Gainesville, takes his car, and uses RTS (PARK AND RIDE!)...less expensive that way "I can ride the bus all day that way for \$2"
	Opinion of park and ride: "It's a time issue" ...if you don't have a lot of time, you don't want to catch the bus "I only do it when I have a lot of time"
Al	Need a shuttle bus to go to Gainesville
	Park and ride more viable when gas prices are high
Pearl	City bus to run to Gainesville, bus stop at Sunoco
	Service to assist elderly by coming out in a car and taking them directly where they need to go
	Community carpooling, especially to help elderly
	Would be willing to carpool. Doesn't understand opinions of neighbors.
	Does not think park and ride would work; people would rather drive the whole way
No Name	Community-based carpooling or bus system with a bus station for users; allows for an element of regulation
	Pooling money to give people transportation
Mildred	Doesn't think people would use bus; people could only go to where the bus takes them
	Found bus system in Gainesville hard to understand when she used to live there

Hawthorne

Respondent Name	Response
	Means of transportation in daily life
Rockell	Uses car
	Kids go to school in Hawthorne
	Works in NW Gainesville, about an hour drive
Shakela	Drives
	Works at Tacachale in Gainesville
No Name (1)	No car
	Walks to nearby things
	Gets rides with mother to places further away
	Out of work

	Lives with sons
	Travels to Gainesville once or twice per week for dental appointments
Wanda	No longer works due to health
	Uses car when not broken down
	Goes to doctor in Gainesville once per week
	Gets rides from son when car is broken down
	43 years old; lived in same house since she was 5; lives by herself
No Name (2)	Family uses car
	Car breaks down a lot and can only go about 30 mph currently
	Lot of health problems in family
	27 years old; has 5 children
	Not supposed to walk much due to health problems
Brenda	She and husband both out of work
	Doesn't work
	No car
	Friends take her places
	Only needs to go to Gainesville on the 1st of the month or to take son to doctor
	Charge \$15 or \$20 for a ride to Gainesville
No Name (3)	Calls MV Transportation sometimes if can't get a ride to other places
	Walks kids to school
	Get rides from boyfriend
	Doesn't drive
	Doesn't work
	Travels to Gainesville 2 to 3 times per week for doctor's appointments and paying bills
Angela	Gets rides with neighbors if boyfriend can't give her a ride
	Uses car
	Works as school bus driver in Hawthorne
	Husband works in Gainesville
Lealer	Owens two cars
	Uses MV Transportation, happy with it
	Goes to the hairdresser every two weeks
	75 years old
	Also gets rides with daughter
	Daughter gets her groceries
	Used to travel to Gainesville often, but not anymore; calls MV Transportation to go to the Health Department in Gainesville; sometimes every three months, less when she is healthy
	Transportation-related problems
Rockell	Started riding motorcycle to save gas
	Does not use motorcycle regularly because of weather
	Had to carpool with friend when car broken down
	Had trouble paying utility bills with high gas prices
Shakela	People charge \$5 to \$10 for a ride to Hitchcock's grocery store in town
No Name (1)	With high gas prices, spent \$100 every two weeks on gas
	Gas became an extra expense, hard to pay
	Car broke for one month, spent \$20 every day for a ride to work in Gainesville
	Hard to find a job without a car
	Neighbor would charge \$5 or \$10 in gas money to go to Gainesville

	Mother comes from Archer to pick her up, gets rides with her for the most part
	More people would not give her a ride when gas prices were high
	Likes that she can walk to everything in Hawthorne
	Most people need to go to Gainesville at least a few times a week
	Easier to get a job with better transportation--more options
	Would not move to Gainesville--too full, concerned about drugs
	Walks to pay bills and has mother pay ones that need to be paid in Gainesville
	Hopes gas prices stay down
Wanda	Sometimes misses doctor appointments when car is broken down
	Neighbors charge \$5 just to go to the grocery store
	"Didn't go nowhere" when gas prices were high; often wanted to go shopping
	Cannot walk far due to physical limitations
	On food stamps--lowered to \$14; would rather eat than drive
	Does not have problems paying rent
No Name (2)	Even relatives ask for money to give rides
	Charge \$20 to go to Gainesville
	Used to be able to fill tank with \$10
	No job opportunities in Hawthorne; small towns need more jobs so people don't have to drive so far
	Cheaper to live in Hawthorne, but more expensive for transportation costs
	If you travel to Gainesville for work, still have to be back in time to pick up kids from school
	A lot of traffic in Gainesville trying to get back to Hawthorne on time
	Hard to pay for prescriptions
	People carpooling charge \$20 per PERSON
	Hard to cross busy streets with kids when walking in Hawthorne
	Has had problems with dishonest car dealerships
	"Without family, it's very hard"...but recognizes they have bills to pay too
No Name (3)	Doesn't have a job due to lack of transportation; been unemployed two years
	When gas prices were higher, made fewer trips to Gainesville
	Would make stops on the way home instead of making more trips
Angela	Used car with cheaper gas (other one takes premium) when gas prices were high
	Wouldn't do extra things or make extra trips when gas prices were high
	Go to church in High Springs; switched temporarily to a church in Gainesville when prices were high
	Need to pay bills and shop in Gainesville and go to the Super Wal-Mart
	Weren't able to pay whole utility bill some months
	Family decided to use only one car when gas prices were high
	Sometimes wouldn't go places if had no gas; reserved gas for work trips
Lealer	Goes to emergency room when health gets bad
	Hard to pay utility bills sometimes
	Sends bills right away after getting paid
	Wants to go to the mall sometimes, but can't go
	Hard to pay the increased fare from MV Transportation--\$3 each way
	A lot of people work in Gainesville
	Friends, neighbors and family transportation-related problems
Rockell	Trouble paying utility bills
	Trouble buying diapers

Shakela	Most people couldn't balance gas for the car and food for kids
	Many had to call into work because they couldn't afford gas
	Doesn't know anyone who lost their job due to calling in
No Name (1)	Most people afraid to drive, almost always out of gas
	Borrowed a friend's car, and her trip literally cost \$20 each way
	Most people work a regular schedule because of their kids--need to be home when they're home
Wanda	People being able to get to the store, into Gainesville, and pay bills
	Most people have to go to Gainesville to pay bills and buy groceries
	Travel to Winn Dixie, Food Lion, and Wal-Mart in Gainesville
	Hitchcock's grocery store doesn't have everything, and prices are going up
Angela	Complained about not having gas
	Borrowing money to get gas
Lealer	Hard to keep money when gas prices were high; not so much talk now
	Solutions
Rockell	Willing to carpool when gas prices are high
	Would take a bus from Hawthorne if available
	Thinks some would park and ride
Shakela	Thinks a lot of people carpool
	Thinks people would use a bus from Hawthorne to Gainesville
	Bus to Gainesville would help people get to work and save on gas
No Name (1)	Bus to Gainesville would help--cheaper than getting rides
	Doubts PNR would work, most people with a car wouldn't switch to a bus
	Archer Shuttle helped a lot of people
Wanda	Thinks many people would ride a minibus
	Many people carpool
	Most kids walk to school; should have a bus or van to get them there on a rainy day
	Thinks people would park and ride
	Would park and ride if RTS went where she needed to go (behind North Florida Regional Hospital)
No Name (2)	City buses would be a big help
	Help with utility reconnect fees; should allow a grace period for payment and should put small unpaid amounts on the next month's bill
	Has PNR before, but still have to be home to pick up kids; if one is sick, need to be able to get home quickly
Brenda	Thinks people would use a bus from Hawthorne to Gainesville
No Name (3)	Bus would help a lot, especially for work
	Tried to carpool, but hasn't worked--hard to find someone leaving at the same time
Angela	A bus would have to run good hours
	Husband and a coworker carpool
	People in really small places need help getting to town
	Local transportation for elderly needed, especially for people without kids to take them places
Lealer	A bus would help people get to work in Gainesville

Archer

Respondent Name	Response
	Means of transportation in daily life
Sophia	Uses car
	Works at UF in Gainesville
	Has four kids
Anna	Drives to work
	Walks around Archer
	Works in Dixie County
	Car currently broken down
	Takes daughter to school at SFC and uses her vehicle during the day
	Does not go into Gainesville often--daughter picks up groceries, etc. on her drive home
	Rides bike with granddaughter, but roads are dangerous for bikes
No Name (1)	Uses car
	Not currently working--son diagnosed with leukemmia
	No problems with car breaking down
	Have to go into Gainesville for doctor's appointments 3 times per week, and more if her son isn't doing well
	Gets groceries in Gainesville
No Name (2)	Pays to get rides
	No car
	\$20 for a ride to Gainesville
	Needs to go to Gainesville about twice per month
	Walks to stores in town
	Gets a ride to Hitchcock's in Newberry
No Name (3)	Gets ride with mom to school at Santa Fe
	Mom has to drop her off more than an hour early so she can be back at work on time in Gainesville
	Aunt lives in property--works in Gainesville
	Aunt has four children
	Watches Aunt's children in Archer on weekends
	Has taken MV Transportation to get to school and back
No Name (4)	Uses car
	Husband works in Archer
	Volunteers in various locations
	Goes to Gainesville 4 or 5 times per month
	Transportation-related problems
Sophia	Gas became a significant extra bill in the house
	Furniture got repossessed
	Hard to squeeze money for food and other things
	Lower gas is a nice break
	Tried to pay whatever she could
	Put off a lot of things for gas--took money from other places to pay for it
	Shops for groceries in Gainesville
	No problems with car breaking down
	Was paying \$318 biweekly for a rental car at one point
Worth the money to have a car in order to be guaranteed transportation	

	Refused to lose job due to not having a car
	Gainesville doesn't have the privacy and space of Archer
	"If you don't have a car, you are through."
	With high gas prices, "I was about ready to give up."
	Has stayed with mother in Gainesville in the past because she lives right by Sophia's work
	Only does errands on Friday because she needs to get her paycheck
	A lot of people would have jobs if it was easier to get to them
	Often sees people waiting to try to get rides back to Archer (at Tower Square, etc)
	When furniture was about to be repossessed, had the option to pay \$152 to keep it--decided it was more important to buy groceries instead
Anna	When gas was high, stopped using one car
	Daughter picks things up on the way home
	Cut back on everything inessential
	Had to watch carefully about all spending
	Incorporated a weekly gas budget
	Wasn't able to visit sons in Jacksonville when gas prices were higher
	Lives on SSI income--sometimes couldn't go to work because of gas
	Daughter's school a priority--would rather miss work than have her miss school
	Arranges to work on days daughter has school
	Regarding driving, "To me, it's very expensive."--high insurance costs, etc
	Needs to use a car during work, hard to do without a vehicle
No Name (1)	Increase in gas prices caused her to stop eating out so much--pack lunch for trips to Gainesville now
	Groceries effected--wouldn't buy extra snacks and couldn't eat out as much
	Cancer Foundation helped providing some gas money
	Gas was a necessity
	Refused to miss son's doctor appointments--would wait until the appointment to do errands and do them all in one trip
	Has missed meetings and school events for daughter because of no gas
	Once could not pick up fiance from work in Gainesville due to no gas, he had to stay the night at a relative's house
	Missed taking son to his home school teacher once
	Wouldn't live in Gainesville because not a good place to raise children--more peace, serenity and moral values in Archer
	Can take care of everything on west side of Gainesville
No Name (2)	Gets a lot of groceries in one trip
	Paid \$25 or \$30 to go to Gainesville when gas prices were high
	Expensive bills due to high energy costs
	One month had to get utility assistance from the Community Action Agency--couldn't pay and live on a fixed income
	Doesn't go out much--usually goes to elderly center in Archer when she does
	Daughters work in Gainesville
	Has easier access to transportation when daughters are off work on weekends
No Name (3)	Aunt would ask for gas money to get to work
	Gas prices cause family to go without extras--on drive up to Georgia, not allowed to buy any food
	Costs \$5 to get to Santa Fe, and can cost \$10 or \$20 to get to Gainesville

	Sometimes wants to go get nails done but has no way to get there
	Sometimes Aunt does not have gas money to pick her up to watch her kids
No Name (4)	When car has broken down (hasn't happened often), did not make trip
	"Bad times" when gas prices were high
	Has had problems paying bills
	Buys groceries whenever passing a store
	Mails bills
	Friends, neighbors and family transportation-related problems
Anna	Friends and neighbors carpooled
	Had to prioritize activities
	Had to do without things
	A lot of people don't have cars and get into a rut with no job
	People don't think they can live without convenience
No Name (1)	Everybody griping about gas
	Not able to be as flexible as normal
No Name (2)	People having a hard time--knows someone who spent \$100 per week traveling from Bronson to Gainesville
	Solutions
Sophia	Would have used Archer Shuttle only if absolutely necessary
	Would not carpool--works 5 p.m. to 1 a.m., hard to find people with same schedule
	Would not PNR--too afraid to leave car
Anna	People need transportation
	Has taken Archer Shuttle, bus have to go when it goes
	Took bus a lot in Jacksonville
	When living in Gainesville, bus routes oriented to students--had to make sure she was in walking distance of things she needed
	Unsure about PNR because people are so independent about their cars-- "People want to do what they want to do when they want to do it."
	Places need to develop transportation choices, but doesn't necessarily think people are open to alternative solutions
No Name (1)	Thinks very affordable transit from Archer to Gainesville would help people without a car
	Likely, if people don't have a car then they don't have a good job or much cash flow--fares should be no more than \$2 per trip
	Bus should run until 10 p.m.
	Thinks Archer should have a community center for teens to bring more people to the area
	Would not carpool--hate to be committed to someone else, takes long enough to get her own stuff done
	Would give rides to people if they needed it
	Would not PNR
No Name (2)	Bus to Gainesville would help people
	Thinks \$5 round trip would be a reasonable fare
	Some people who work at the same place and need to go at the same time do carpool
	Quite a few people used Archer Shuttle
No Name (3)	A bus would be good for people
	Fares would have to be reasonable

	Thinks Aunt and family would use bus, especially when they don't have gas money
No Name (4)	Never used Archer Shuttle because didn't know when it came
	Thinks having another bus would help
	Doesn't know anyone to carpool with
	Would only need to go to Tower Road on bus
	Would not want to wait around to catch the bus--just wants to come home
	Would prefer to use bus instead of paying for gas

Newberry

Respondent Name	Response
	Means of transportation in daily life
Mary Ann	Uses car
	Walks nearby
	Does not work--disabled
	Has to call someone for rides when car is broken, but hard because doesn't have much family
	Just got a new car, running well so far--"You have to have transportation here."
	Old car was in bad shape, couldn't make it to Gainesville
	Has used MV Transportation to reach doctor's appointments; sometimes late
	Amount people charged for rides depended on gas and where she needed to go
	Shops for groceries at Save-a-Lot (for a quick trip) or at Hitchcock's
Paulette	Shares car with mom
	Kids go to school in Trenton--used to live there
	Works in Trenton
	Mom has to be at work early--drops her off and then drops the kids off at school
	When car breaks down, tries to pay someone or doesn't make trip
	No one can work or go to school if car is broken
	Kids doctor's appointments are in Gainesville
	Sometimes walks to Hitchcock's
Yolanda	Car was repossessed about two months ago
	Either has to bum a ride or pay--about \$20 each way to Gainesville
	Aunt lives in Gainesville--will sometimes give her a ride home
	Worked in Gainesville at McDonald's on Archer Rd
	Walks to grocery store and pushes cart back--shops at Hitchcock's or Dollar General
	Kids walk or bike to school
Florence	Doesn't work
	No car
	Goes to doctor in Gainesville about once a week
	Gets rides with sister--\$10 for a ride to Gainesville
	Gets groceries in Newberry--sister takes her, \$2
Rosie	Gets rides with friends
	Does not work
	Goes to Alachua to buy groceries--\$20 for a ride there
	Buys a bunch of groceries at once
Johnnie	No car

	Does not work
	Daughter rides bike to school; a friend drives her on rainy days
	Pays people for rides
	Has to pay bills in Gainesville
Ruthie	Has a van
	Pays neighbor to take kids to school
	Works at Oak Hammock in Gainesville--has to leave at 6:30 a.m.
No Name	No bus service for kids
	Uses van or walks
	Kids walk or ride bikes--could be late or get hurt
	Transportation-related problems
Mary Ann	When gas prices were high, didn't go anywhere
	Had to save gas for necessary things--only appointments and groceries
	Had to give up all extras and extra trips
	Groceries: gave up expensive meat, had to eat cheaper things--sometimes just sandwiches
	Had problems paying utilities--get cut off right away
	Went to Catholic Charities Bureau and other services, but they only help once a year
	Would not move to Gainesville--concerned about drugs and disrespectful children in Gainesville, worried about raising kids there
	A lot of low-income places in Gainesville are really bad
	Quiter in Newberry--"At least drugs aren't in front of my house."
Paulette	Gas prices affected her a lot--has to drive kids far for school
	Gas became a bill; all costs when up
	Had to cancel of a lot of doctor's appointments and work
	Doesn't go many unnecessary places
Yolanda	Had problems getting to work--had to quit job at McDonald's because person she was getting a ride with fell ill
	Plans to get a new car with tax return--something affordable where she does not need to make payments
	Had to make choices about groceries vs. gas
	High gas affected every aspect of life
	Still has to come up with \$1000 per month for bills
	Car is a necessity out here
	Used to live in Gainesville--no congestion in Newberry, likes it better
Florence	With high gas prices, couldn't go many places because people would charge too much
	A lot of people would not take her places
	At one point, had to go to physical therapist in Gainesville 3 times per week; at \$20 each time, it became very expensive
	Likes to make a lot of stops when she is in Gainesville
Rosie	Can't get to shopping and entertainment
	Not much for kids to do in Newberry
	Would not move to Gainesville--concerned about traffic, wrecks; used to the country
	Needs to go back and forth to Gainesville to go to doctor's appointments
	With high gas prices, had to start getting groceries in Newberry
	When people turned her down for rides, wouldn't make trip

	Uses MV--often late, wait too long for rides home
Johnnie	With high gas prices, people would charge \$25 to \$30 for the ride and to wait for her to do all her errands; now \$20
	Groceries: pays people to go to Hitchcock's; gets everything at one time; if she runs out of something, will walk there
	With high gas prices, often didn't have the money to pay people for rides; when she had money, people would take her--if not, she couldn't make trip and would have to wait until she could scrape up the money to go somewhere
	Will sometimes have to pay for two separate trips from people
	No school bus for kids, very hard when it's raining
	Because of the high cost for rides, didn't have as much money for bills or to give to kids--affected everything
	If someone with a car is going to the store, will ask others without transportation if they need anything
Ruthie	Had to cut back on groceries and necessities--couldn't buy snacks for kids
	Couldn't get nails done, cut back on cell phone bill and cable bill
	Always close to getting utilities shut off; gas did get shut off once
	Used to take kids out to eat on paydays--can't do that anymore; can't buy toys for kids
	Can only buy necessities
	Son plays football--missed some games because of gas
	Can't go to the movies or get out of the house
	Makes stops after work in Gainesville, doesn't make extra trips
	Dollar General and Hitchcock's are close by--walks sometimes
	Transmission broke on old car--had to get new car immediately to not miss work
	If she misses work, her kids miss a meal
	Mails utilities
	Moved to Newberry because it's better for kids--lower teacher-student ratio
	Knew transportation would be more expensive in Newberry, but she needed something affordable--"But sometimes you have to weigh the good with the bad."
No Name	High gas--had to cut back, less entertainment for kids
	Sometimes had problems paying water bill
	Shops at whatever grocery stores offer best bargains
	If she doesn't have gas money, will shop closer to home
	Thinks Newberry is better for kids--"It's not about me right now, it's about my kids."
	Cheaper in Newberry
	Need more activities for kids
	Will give people rides if she's going somewhere
Friends, neighbors and family transportation-related problems	
Mary Ann	Stuck; had to preserve little gas they had for emergencies and necessary trips
Paulette	Had problems with cars breaking down
Yolanda	All costs going up--food, rent, etc.
	Have to have a car to live out here
Rosie	With high gas prices, people started riding bikes to get around
	A lot of people lost their jobs
Johnnie	Everybody talking about high gas prices--hard for everybody
Ruthie	Those on fixed income only go into town when they have to

	Solutions
Mary Ann	Bus would help people--should come every hour, or at least in the morning and afternoon
	Some people work normal hours, but not many
	Will give neighborhood kids a ride when bringing son to school
Paulette	Taxis charge extra if they have to come from Gainesville
	Bus would help
	Does not think carpooling is a good solution--most people are not going in the same direction
Yolanda	Need a bus going to Gainesville or Chiefland
	No local cab companies
	Choice to be either stuck in Gainesville or stuck in Newberry
	Does not think carpooling is an option--"People around here are so selfish." People always think you want something from them.
Florence	Bus to Gainesville would help--would use it
Rosie	Bus would help a lot--daily, maybe four trips per day
	Thinks 50 cent fare is reasonable, would not use if cost more; disabled fare should be 25 cents
	Knows people who carpool because it is convenient--work down the street from each other
	Does not think PNR would work--too much traffic, waste too much time
Johnnie	Bus would help--would use it
	Thinks \$1.50 or so is a fair price
Ruthie	Would use bus--\$1.50 or \$2 a fair price, better than filling up car
	Carpools with adopted mom almost everyday--she helps out with gas
No Name	Bus to Gainesville would help--son goes to Terwiliger
	Kids need more reliable transportation to school

Alachua

Respondent Name	Response
	Means of transportation in daily life
Freddie	Two children ride bus to school
	Uses car, works in Gainesville--20 min. drive
	No car problems
	Schools very close by
	Can get pretty much everything done in Alachua except entertainment
Antoinetta	Uses car
	Out of work, looking for job in Gainesville
	Walks to take kids to doctor in town
Sarah	Uses one vehicle
	Does not work
	Gets groceries at Hitchcock's
	Goes to doctor in Gainesville
Tonyetta	Uses car
	Works at UF
	Gets groceries in Alachua; other shopping at Wal-Mart
	Car is about to break down, plans to fix with next paycheck

James	Uses car
	Does not travel very far
	Goes to High Springs for errands
	On a fixed income, not much money left for shopping
No Name	Uses car, family has one
	Does not work, but husband has a job in Gainesville
	Shops for groceries at Food Lion in Alachua
Bernice	Takes MV Transportation to doctor in Gainesville
	No car
	Calls brother-in-law to get rides to do errands, does most in Alachua, about \$5
	Has to go to Gainesville to pay rent
	Shops at Hitchcock's and tries to buy whatever is on sale
	Can't walk far due to health
Ebony	Doesn't have car, gets rides with friends
	About to purchase first car
	Does most errands in Alachua; goes to Wal-Mart in Gainesville
	Buys groceries at Food Lion; they have pretty much everything
	Not currently working; trying to get a job at Wal-Mart Supercenter
Rashidha	Has a car
	No problems with it breaking down
	Works in Alachua, about 5 min. away
	Does everything in Alachua except clothes shopping
	Buys groceries at Hitchcock's; have everything except cheap meat--goes to Gainesville for it
Mary	Gets rides with sister; pays a neighbor when she has money
	\$5 to Hitchcock's, \$10 to High Springs, \$20 to Gainesville (\$30 if they have to wait for you to do errands)
	Currently not working, wants to look for a job in Gainesville
Bianca	Has a car
	Works in Alachua, about 3 or 4 min. away
	Goes to Gainesville for shopping and entertainment
	Recently put in a doctor's office in Alachua, used to have to go to Gainesville
	Goes to Gainesville 3 or 4 times per week
	Drives one child to school, other takes bus
	Buys groceries at Hitchcock's; have everything she needs
	Transportation-related problems
Freddie	With high gas, only drove when needed, no extra riding around
	Only went to grocery stores, doctor, work
	Shops at Food Lion and Hitchcock's in town
	No problems with bills
Antoinetta	Doesn't want to raise kids in Gainesville--more control of them in Alachua
	With high gas, cut back on a lot of things
	Had to reschedule appointments and make them all for the same day
	Missed a lot of appointments
	Kids couldn't go anywhere
	Light bills very expensive, had problems paying with high gas
	Gas became another bill
	Often could barely eat--has 7 kids
Not many low-skill jobs in Alachua	

	Work schedules in Alachua often don't work out for people with kids
Sarah	With high gas, started walking to grocery store, drug store
	To go to Gainesville, would have to scrape up gas money
	Missed doctor's appointments
	Always made sure to pay house bills before anything else
	Had problems with car breaking down--currently broken down and she doesn't have money to fix it
	With broken car, uses daughter's car in between her work schedule
Tonyetta	Utility prices very high, had lights turned off twice
	Son had whole in shoes for a long time, no money to buy new stuff kids needed due to high gas prices (shoes, underwear)
	When it started getting cold, had jackets donated for kids
	Works overnight at UF and then has a part time job after that--with high gas prices, couldn't keep coming back and forth to Alachua; most times would get Aunt to pick up daughter at Westwood and bring her back to Alachua
	Daughter had to transfer out of Honors Program at Westwood Middle because Tonyetta had a hard time picking her up--bus took her in morning only; not doing nearly as well at new school--recently got into a fight
	Had to make a lot of hard choices--prescriptions vs. gas, groceries vs. lights
James	Bad with high gas prices, wanted to go a lot of places and couldn't
	Didn't have problems paying utilities, but had little money left over
	No problems with car breaking down--"Good thing, because I wouldn't have the money to fix it."
No Name	With high gas prices, took \$50 or \$60 to fill up vehicle, husband has long commute
	Gas became another bill; already expensive to buy diapers for her twins
	Had to be careful about how many diapers used--only change twins when necessary
	Left stranded while husband has car; boring, but usually busy with kids
	Walks to appointments for kids, but has to cancel if it's raining
	Cheaper to live in Alachua, but has thought about moving to Gainesville; husband would like to be in biking distance to work, but afraid rent would be too high
	With high gas prices, "You can't really go nowhere."
	Everything getting more expensive
	Doesn't work in order to take care of kids; if she worked, then she would have to pay for daycare instead--not worth it
Bernice	High gas did not really affect her
	Does not buy groceries in bulk--only what she can afford at the time
	Brother-in-law available pretty much whenever to take her places
Ebony	With high gas, put off taking trips
	Would not want to bother people to give her a ride
	Would make a bunch of trips at once when she could get a ride
	Moved to Alachua because it was cheaper
	Plans to move to Gainesville in Section 8 housing
Rashidha	In Gainesville, plans to use car only when necessary and RTS rest of the time
	Bad with high gas prices; had to borrow money, set aside money for gas, make a budget
	Had trouble paying bills and groceries

	Couldn't go out of town when she wanted to
Mary	Getting rides with people is too expensive
	If she has no money to pay people, walks or does not make trip
	With higher gas prices, people charged more to go places
	Would get turned down or wouldn't get a ride unless she had money to pay
	Majority of jobs in Alachua at 441 and I-75, about a two-mile walk; probably would get fired if it was too cold or raining, etc.
	Had problems paying utility bills and getting to the Community Action Agency in Gainesville for assistance
Bianca	Considered moving to Gainesville, but it's hard to find a place to live
	With higher gas prices, had to save to be able to go places
	Sometimes had to choose between gas or cable bill
	Made buying food for family her first priority
	Friends, neighbors and family transportation-related problems
Freddie	People like to hang out and ride around for fun, couldn't do that anymore
Antoinetta	Had trouble going back and forth to Gainesville
	Doesn't know a lot of people working; some without transportation work nearby
	People without rides have to walk places
Tonyetta	People couldn't pay for medications, do not have insurance
James	"Everything went up sky high."--paying for gas and food prices very hard
	Minimum wage not enough to pay for everything
No Name	No one made unnecessary trips
Bernice	People didn't have a lot of money to go places, would only go where necessary
Ebony	Would have to wait for paychecks to come before buying gas
	Doesn't know anyone who had to sacrifice utilities and food, etc.
Mary	People couldn't afford to put gas in their cars
Bianca	Couldn't go out and do things with family
	People with SUVs couldn't really drive places; wish they had more economical cars
	Solutions
Freddie	Used to work at Dollar General, saw 3 or 4 people at a time getting on CATS
	Would not carpool--works at TV20 in Gainesville, doesn't know anyone else who works nearby
Antoinetta	CATS--2 trips per day not enough
	Sometimes hard to get back in time to catch CATS home
	Daughter tried to use CATS, but it didn't end up working out
	Needs to make more trips, at least 3 times per day
	First trip was too early, couldn't have kids waiting at the bus stop at 5 a.m.
	People don't necessarily have a 9-5 schedule
	Used to carpool to appointments and grocery store in Gainesville to save gas; worked ok, but when someone was done with their errands, they were ready to go home
	Still carpools sometimes
Daughter has PNR before, but still a long way to drive just to get to Gainesville	
Sarah	Never used CATS--didn't know schedule, lack of info, lack of advertising, left too early in the morning and came back too early in the evening; people needed later times

	Carpooling depends on the type of person; people particular about their cars
	Would use bus in an emergency if car broke down
Tonyetta	Never used CATS--"Not like the city bus." Doesn't know anyone else who used it
	Would not carpool--doesn't really know neighbors and works odd hours
James	Did not know about CATS
	Would not carpool
No Name	Did not know about CATS
	Thinks people would use a bus to save money
	Husband would carpool if he knew someone who worked near him
	Does not think PNR would work
Bernice	Bus would help people get places, especially the elderly
	Transportation needs to be available at a reasonable price
	No taxis in Alachua
	Need a place to call and get transportation around Alachua
Ebony	Need an effective bus route; people had to walk too far to get to CATS
	MV Transportation works fine for people with Medicaid
	Need a bus within Alachua to get downtown
	Used to carpool when working at Wal-Mart on 13th St. in Gainesville
	For PNR, if you drive to Gainesville, you might as well go the whole way
Rashidha	Used CATS; not better than a car
	Used CATS for errands in Gainesville once or twice a week
	Schedule sometimes worked and sometimes didn't; had to call sister if she missed her home connection
	Other people said it takes too long, had to wake up too early to use it, a lot of people (not her) had to walk too far to catch it
	Would not carpool
Mary	Would use bus to go to Gainesville to try to get a job
	More people would try to get a job if there was a bus
Bianca	Would ride with other people and carpool (trade weeks of driving) to do errands in Gainesville
	CATS bus should come more often, maybe every two hours
	CATS came too early and there were not enough trips
	A couple of dollars is a fair price

APPENDIX C
RESPONDENT COMMENTS TABLES

	Mode of Travel	Car Currently Available in Household	Currently Employed	Location of Work	Reliable Vehicle	Cost for Rides to Gainesville
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Waldo	No car, gets rides, walks to work	No	Yes	Waldo 7 Miles from Waldo		\$10 to \$15
	Car	Yes	Yes		Yes	
	Car	Yes	No		No	
	Car	Yes	Yes	Various	Yes	
	Has car, uses only when necessary; walks to work and around Waldo; mother uses MV; younger siblings use school bus	Yes	Yes	Waldo	Yes	
	No car, gets rides	No	No			\$20
	Car	Yes	Yes		Yes	
	No car, gets rides, used to walk to work when had that job	No	No			

Hawthorne	Car	Yes	Yes	Gainesville	Yes	\$5 to \$10
	Car	Yes	Yes	Gainesville	Yes	(local)
	No car; walks nearby, gets rides	No	No			\$5 or \$10
	Car, gets rides	Yes	No		No	\$5 (local)
	Car	Yes	No		No	\$20
	No car, gets rides, uses MV	No	No			
	No car, walks, gets rides	No	No			
	Car	Yes	Yes	Hawthorne	Yes	
	No car, uses MV, gets rides	No	No			

	Mode of Travel	Car Currently Available in Household	Currently Employed	Location of Work	Reliable Vehicle	Cost for Rides to Gainesville
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Archer	Car	Yes	Yes	Gainesville	Yes	
	Car	Yes	Yes	Dixie County	No	
	Car	Yes	No		Yes	
	No car, gets rides, walks around Archer	No	No			\$20
	No car, gets rides, uses MV	No	No			\$10 to \$20
	Car	Yes	Yes	Archer	Yes	
Newberry	Car	Yes	No		No	
	Shares car	Yes	Yes	Trenton	No	
	Car repossessed, gets rides, children walk or ride bikes to school	No	No			\$40
	No car, gets rides	No	No			\$10
	No car, gets rides	No	No			\$20
	No car, gets rides, daughter rides bike to school	No	No			
	Car	Yes	Yes	Gainesville	Yes	\$20
Car, children walk or ride bikes to school	Yes			Yes		
Alachua	Car; children use school bus	Yes	Yes	Gainesville	Yes	
	Car	Yes	No		Yes	
	Car	Yes	No		No	
	Car	Yes	Yes	Gainesville	No	
	Car	Yes	No		Yes	
	Car	Yes	Yes	Gainesville	Yes	
	No car, uses MV or gets rides	No	No			\$5 (local)
	No car, gets rides	No	No			\$5 (local)
	Car	Yes	Yes	Alachua	Yes	
	No car, gets rides	No	No			\$20, \$5 (local)
Car	Yes	Yes	Alachua	Yes		

	Preferred Grocery Purchase Location	Would move to Gainesville for Better Access	Sacrificed Mobility due to Lack of Adequate Transportation or High Costs	Trouble Paying Necessary Expenses	Difficult Choices and Sacrifices
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Waldo	Gainesville, Starke, Starke, Hawthorne	No	Yes	Yes	Cancelled doctor's appointments, missed granddaughter's basketball games
			No	Yes	Car payments
	Hawthorne	No	Yes	Yes	Chooses between fixing car or making payments on it; new clothes; lost job due to being late from carpooling; better food
			Yes	No	Drove a more fuel-efficient vehicle; fewer, larger grocery trips; stayed home more
	No	Yes	Yes	Yes	Grandmother stopped visiting as much; brother and sister difficulty in getting home from sports practice; groceries were a priority over gas
		No	No	No	Harder to get rides from people
Yes	Yes	Yes	Yes	Started walking more; chose to pay for cigarettes over gas	

Hawthorne	Hawthorne	No	Yes	Yes	Started riding motorcycle to save gas; started carpooling; trouble paying utilities
			No	No	
	Hawthorne	No	Yes	Yes	Hard to find a job without a car; harder to find rides
			Yes	Yes	Missed doctor's appointments; stayed home more; chose to eat rather than drive
	Gainesville		Yes	Yes	
			Yes	Yes	
			Yes	Yes	Hard to find a job; concerned about being able to pick up kids from school; prescriptions
			Yes		No job due to lack of transportation; made fewer trips
Gainesville		Yes	Yes	Made fewer trips; changed churches to one closer; used more fuel-efficient car	
		Yes	Yes	Hard to pay utilities; shopping; goes to emergency room when health gets bad	

	Preferred Grocery Purchase Location	Would move to Gainesville for Better Access	Sacrificed Mobility due to Lack of Adequate Transportation or High Costs	Trouble Paying Necessary Expenses	Difficult Choices and Sacrifices
Archer	Gainesville	No	Yes	Yes	<p>Furniture repossessed--chose to use money to buy groceries instead of getting it back; hard to pay for food; took money from other places to pay for gas; refused to quit job due to not having a car; stays home a lot</p> <p>Used more fuel-efficient car; cut back on everything inessential; wasn't able to visit sons in Jacksonville; Sometimes had to choose getting daughter to school over going to work</p> <p>Stopped eating out; wouldn't buy extra snacks for kids; missed meeting and school events for daughter; refused to miss son's doctor appointments; once missed taking son to home school teacher; once could not pick up fiance from work</p> <p>Gets groceries in one trip; missed utility payment; stays home a lot</p> <p>Can't get nails done; Aunt has problems picking her up to babysit</p> <p>Sometimes would not make trip; problems paying bills</p>
	Gainesville		Yes	No	
	Gainesville	No	Yes	No	
			Yes	Yes	
			Yes	No	
			Yes	Yes	
Newberry	Newberry	No	Yes	Yes	<p>Stayed home; only went to appointments and to buy groceries; had to eat cheaper things; problems paying utility bills</p> <p>Doesn't go unnecessary places; cancelled doctor's appointments and work</p> <p>Lost job due to lack of transportation; chose between buying groceries and gas</p> <p>Couldn't go many places; cut back on going to physical therapist</p> <p>Couldn't go many places; started buying groceries locally</p> <p>Often didn't have money to pay for rides; didn't have enough money for bills or to give kids for spending money;</p> <p>Cut back on groceries; couldn't get nails done; cut back on cell phone and cable bill; trouble paying all bills; can't take kids out to eat or buy toys; missed son's football games; can't miss work or kids miss a meal</p> <p>Cut back on entertainment; problems paying water bill; shops at grocery stores offering best bargains or close to home if she has no gas money</p>
			Yes	No	
	Newberry	No	Yes	Yes	
	Newberry		Yes	No	
	Alachua	No	Yes	No	
	Newberry		Yes	Yes	
		No	Yes	Yes	
		No	Yes	Yes	

	Preferred Grocery Purchase Location	Would move to Gainesville for Better Access	Sacrificed Mobility due to Lack of Adequate Transportation or High Costs	Trouble Paying Necessary Expenses	Difficult Choices and Sacrifices
Alachua	Alachua		Yes	No	Would drive only when needed--groceries, doctor, work; stayed home more;
	Gainesville	No	Yes	Yes	Missed a lot of doctor's appointments; now schedules all appointments for the same day; difficulty paying utility bill; has 7 kids and barely eats
	Alachua		Yes	No	Started walking to do errands; missed doctor's appointments; pays house bills first; car currently broken down and doesn't have money to fix it
	Alachua		Yes Yes	Yes No	Trouble paying utility bills; no money for new clothes, shoes, and underwear for children; needed donated jackets for children; had to take daughter out of Honors Program at Westwood Middle in Gainesville because she couldn't pick her up there anymore-- Alachua school not nearly as good; chooses between prescriptions, gas, groceries, and utilities
	Alachua	Yes	Yes No	No No	Stayed home a lot; not much money left over after all bills payed Hard to buy diapers for children--only change when necessary; left stranded during day while husband has car; walks to do errands; doesn't work to care for kids, would have to pay for daycare otherwise
	Alachua	Yes	Yes	Yes	Only buys the groceries she can afford at a particular time Put off trips; would try to make many stops at once; did not want to bother people for rides;
	Alachua		Yes	No	Had to borrow money and set aside money for gas; Stayed home more
			Yes	Yes	Hard to pay for rides; if she has no money, either walks or does not make trip; too far to walk to jobs at I-75 and US-441; problems paying utilities
	Alachua	Yes	Yes	Yes	Hard to save money to go places; chose between gas or cable bill; chose groceries as first priority for her family

	Public Transportation	Carpool	Park and Ride	Acceptable Fare Per Trip
Waldo	Yes Maybe Maybe Yes Yes Yes Yes No	No Maybe No No Yes Yes	Maybe No No Maybe No	\$3
Hawthorne	Yes Yes Yes Yes Yes Yes Maybe Yes	Yes Yes Yes No Yes	Maybe No Yes Maybe	
Archer	Maybe Yes Yes Yes Yes Yes	No Maybe No Maybe No	No No No	\$2 \$2.50
Newberry	Yes Yes Yes Yes Yes Yes Yes	No No Maybe Yes	No	\$0.50 \$1.50 \$2
Alachua	Maybe Yes Maybe Yes Yes Yes Yes Yes	No Yes Maybe No No Yes Yes No Yes Yes	Maybe No No	\$2

APPENDIX D
ACCESSIBILITY ASSESSMENT

BUSINESS TYPE BY CITY		
WALDO	HAWTHORNE	ARCHER
Automobile & Truck Brokers (Whol)	Air Conditioning Contractors & Systems	Air Conditioning Contractors & Systems
Clergy	Apartments	Air Make-Up Heaters (Wholesale)
Electric Contractors	Automobile Repairing & Service	Apartments
Fence Contractors	Banks	Architects
Hardware-Retail	Beauty Salons	Associations
Pay Telephones & Booths Equipment & Svc	Bingo Games	Attorneys
Pianos	Caterers	Auctioneers
Post Offices	Child Care Service	Automobile Dealers-Used Cars
Storage-Household & Commercial	Churches	Automobile Parts & Supplies-Retail-New
	City Government-Executive Offices	Automobile Repairing & Service
	Concrete Contractors	Banks
	Convenience Stores	Bathroom Remodeling
	Cosmetics & Perfumes-Retail	Beauty Salons
	Counter Tops	Billiard Equipment & Supplies (Whol)
	County Government-Public Health Programs	Business Services NEC
	Dentists	Cash Registers & Supplies (Wholesale)
	Florists-Retail	Child Care Service
	Furniture-Dealers-Retail	Churches
	Gift Shops	Cleaners
	Grocers-Retail	Convenience Stores
	Health Clubs Studios & Gymnasiums	Draperies & Curtains-Retail/Custom Made
	Interior Decorators Design & Consultants	Electric Contractors
	Libraries-Public	Entertainment Producers
	Locks & Locksmiths	Feed-Dealers (Wholesale)
	Museums	Fence (Wholesale)
	Nonclassified Establishments	Fire Departments
	Physicians & Surgeons	Glass-Auto Plate & Window & Etc
	Post Offices	Government Offices-City, Village & Twp
	Real Estate	Grocers-Retail
	Restaurants	Gun Safety & Marksmanship Instruction
	Schools	Hardware-Retail

	Senior Citizens Service	Home Builders
	Social Service & Welfare Organizations	Home Improvements
	Surveyors-Land	House Cleaning
	Tanks & Tank Components (Manufacturers)	Landscape Contractors
	Tax Return Preparation & Filing	Lawn & Grounds Maintenance
	Telephone Equipment & Systems-Svc/Repair	Libraries-Public
	Title Companies	Machine Shops (Mfrs)
	Trailers-Automobile Utility Sports Etc	Nonclassified Establishments
	Variety Stores	Painters
	Video Tapes & Discs-Renting & Leasing	Periodicals-Publishing & Printing (Mfrs)
	Website Design Service	Pet Boarding & Sitting
		Physicians & Surgeons
		Pizza
		Printing Equipment-Repairing
		Publishers-Book (Mfrs)
		Real Estate
		Restaurants
		Roofing Contractors
		Schools-Universities & Colleges Academic
		Senior Citizens Service
		Social Service & Welfare Organizations
		Storage-Household & Commercial
		Swimming Pool Contrs Dealers & Designers
		Swimming Pool Coping Plastering & Tiling
		Thrift Shops
		Timber & Timberland Companies (Whol)
		Tree Service
		Variety Stores
		Veterinarians

BUSINESS TYPE BY CITY	
NEWBERRY	ALACHUA
Accountants	Accountants
Accounting & Bookkeeping General Svc	Accounting & Bookkeeping General Svc
Acupuncture	Acoustical Contractors
Air Conditioning Contractors & Systems	Advertising-Agencies & Counselors
Animal Shows & Organizations	Air Conditioning Contractors & Systems
Apartments	All Terrain Vehicles
Appliances-Household-Major-Repairing	Alternators & Generators-Automotive-Rpr
Archery Instruction	Animal Hospitals
Automobile Body-Repairing & Painting	Animals-Laboratory Use
Automobile Dealers-Used Cars	Antiques-Dealers
Automobile Lubrication Service	Apartments
Automobile Parts & Supplies-Retail-New	Architects
Automobile Parts & Supplies-Wholesale	Art Instruction & Schools
Automobile Repairing & Service	Artists Materials & Supplies
Bakers-Retail	Associations
Banks	Attorneys
Barbers	Automobile Body-Repairing & Painting
Beauty Salons	Automobile Dealers-Used Cars
Book Dealers-Retail	Automobile Parts & Supplies-Retail-New
Broadcasting Companies	Automobile Renting
Building Contractors	Automobile Repairing & Service
Buildings-Portable	Automobile Transporters & Drive-Away Co
Cabinet Makers	Banks
Cabinets	Barbers
Carpet & Rug Cleaners	Bars
Carpet & Rug Dealers-New	Baseball Sports Cards & Memorabilia
Chambers of Commerce	Beauty Salons
Child Care Service	Biological Products (Manufacturers)
Chimney & Fireplace Cleaning Build/Rpr	Biotechnology Products & Services
Chiropractors DC	Boat Dealers Sales & Service
Churches	Boat Transporting

City Government-Executive Offices	Boats-Manufacturers
City Govt-Regulation/Adm-Comms/Utilities	Book Dealers-Retail
Civil Defense Agencies	Boxes-Corrugated & Fiber (Wholesale)
Computer Software	Bridal Shops
Computers-System Designers & Consultants	Building Contractors
Concrete Products (Wholesale)	Burial Vaults (Wholesale)
Convenience Stores	Business Management Consultants
Dairies (Milk)	Business Records & Documents-Storage
Demolition Contractors	Cabinet Makers
Dentists	Cabinets
Electric Contractors	Candy & Confectionery-Retail
Electric Motors-Controls-Wholesale	Canvas-Wholesale
Engineers	Car Washing & Polishing
Farms	Carpet & Rug Cleaners
Feed-Dealers (Wholesale)	Caterers
Fire Departments	Cellular Telephones (Services)
Funeral Directors	Cellular Telephones-Equipment & Supls
Furniture-Dealers-Retail	Chambers of Commerce
Gas-Liquefied Petro-Bttld/Bulk (Whol)	Check Cashing Service
General Contractors	Chemicals (Wholesale)
Gourmet Shops	Chemicals-Manufacturers
Government Offices-City, Village & Twp	Child Care Service
Government Offices-State	Chiropractors DC
Grading Contractors	Churches
Grocers-Retail	City Government-Executive Offices
Guns & Gunsmiths	City Govt-Regulation/Adm-Comms/Utilities
Hardware-Retail	Cleaners
Health Clubs Studios & Gymnasiums	Clinics
Heat Pumps	Clothing-Retail
Heating Contractors	Clubs
Holding Companies (Non-Bank)	Cocktail Lounges
Home Builders	Commercial Printing NEC (Mfrs)
Hotels & Motels	Computer & Equipment Dealers
Human Resource Consultants	Computer Software
Industrial Equipment & Supplies (Whol)	Computers-Service & Repair

Insulation Contractors-Cold & Heat	Concrete Contractors
Insurance	Concrete Prods-Ex Block & Brick (Mfrs)
Landscape Contractors	Consignment Shops
Laundries	Construction Companies
Laundries-Self Service	Convenience Stores
Lawn Mowers	Credit Unions
Libraries-Public	Dental Equipment & Supplies-Mfrs
Limousine Service	Dentists
Liquors-Retail	Detectives-Private
Loans	Dialysis
Mailing & Shipping Services	Doors-Garage
Manufacturers	Education Centers
Massage Therapists	Electric Contractors
Meat Packers (Mfrs)	Electronic Equipment & Supplies-Mfrs
Music & Live Entertainment	Electronic Equipment & Supplies-Retail
Nonclassified Establishments	Electronic-Mfrs Representatives (Whol)
Nurseries-Plants Trees & Etc-Wholesale	Employment Service-Employee Leasing
Office Buildings & Parks	Engineers-Consulting
Parking Area/Lots Maintenance & Marking	Engineers-Environmental
Parks	Environmental & Ecological Services
Paving Contractors	Exporters (Whol)
Pest Control	Farm Supplies (Wholesale)
Pet Boarding & Sitting	Fence Contractors
Pet Services	Fiber Glass Fabricators (Mfrs)
Pharmacies	Fiber Optics
Photographers-Portrait	Fill Contractors
Physical Therapy Equipment-Manufacturers	Financial Planning Consultants
Physicians & Surgeons	Fire Departments
Plumbing Contractors	Floor Laying Refinishing & Resurfacing
Plumbing Fixtures & Supplies-New-Retail	Floors-Contractors & Builders
Post Offices	Florists-Retail
Ranches	Forensic Consultants
Ready-Mixed Concrete-Manufacturers	Freight-Traffic Service
Real Estate	Fruits & Vegetables-Wholesale
Real Estate Developers	Fund Raising Counselors & Organizations

Real Estate Loans	Furniture-Repairing & Refinishing
Real Estate Management	Garbage Collection
Rehabilitation Services	General Contractors
Rental Agencies	General Merchandise-Wholesale
Repair Shops & Related Services NEC	Gift Shops
Restaurants	Glass-Auto Plate & Window & Etc
Restaurants-Food Delivery	Glass-Stained & Leaded
Roofing Contractors	Golf Courses-Public
Roofing Materials	Government Offices-City, Village & Twp
Satellite Equipment & Systems-Retail	Government Offices-State
Schools	Grocers-Retail
Screen Printing (Mfrs)	Hardware-Retail
Second Hand Stores	Health & Diet Foods-Retail
Shock Absorbers	Health Clubs Studios & Gymnasiums
Spas-Beauty & Day	Health Services
Stables	Heating Contractors
State Government-Public Health Programs	Home Builders
Storage-Household & Commercial	Hospital Equipment & Supplies (Whol)
Swimming Pool Contrs Dealers & Designers	Hotels & Motels
Swimming Pool Coping Plastering & Tiling	Housewares-Retail
Tapes (Wholesale)	Housing Authorities
Tax Return Preparation & Filing	Insulation Contractors-Cold & Heat
Thrift Shops	Insurance
Title Companies	Insurance Adjusters
Tractor-Dealers (Wholesale)	Interior Decorators Design & Consultants
Tree Service	Irrigation Systems & Equipment (Whol)
Truck Renting & Leasing	Janitor Service
Trucking-Heavy Hauling	Laboratories
Variety Stores	Laboratories-Medical
Veterinarians	Laboratories-Research & Development
Video Tapes & Discs-Renting & Leasing	Landscape Contractors
Wedding Supplies & Services	Lawn Mowers
Welding	Lawn Mowers-Sharpeneing & Repairing
Western Apparel	Libraries-Public
Window Replacement	Lighting Fixtures-Retail

	Loans
	Lubricants-Synthetic (Wholesale)
	Lumber-Manufacturers
	Mailing & Shipping Services
	Manufacturers
	Manufacturing-Augers & Trenchers
	Marble-Natural (Wholesale)
	Marketing Consultants
	Marketing Programs & Services
	Martial Arts Instruction
	Massage Therapists
	Metals-Precious Sheet Wire Tubing (Whol)
	Mobile Homes-Parks & Communities
	Mobile Homes-Transporting
	Motorcycle Instruction
	Motorcycles-Customizing
	Mufflers & Exhaust Systems-Engine
	Music Instruction-Instrumental
	News Dealers
	Newspapers (Publishers/Mfrs)
	Nonclassified Establishments
	Non-Profit Organizations
	Notaries-Public
	Nurserymen
	Oil & Gas Producers
	Optical Goods-Retail
	Organizations
	Painters
	Parks
	Paving Contractors
	Pawnbrokers
	Pest Control
	Pharmaceutical Products-Wholesale
	Pharmacies
	Physical Therapists

	Physicians & Surgeons
	Physicians & Surgeons Equip & Supls-Whol
	Physicians Assistants
	Pianos-Tuning Repairing & Refinishing
	Plastering Contractors
	Police Departments
	Post Offices
	Printers (Mfrs)
	Publishers (Mfrs)
	Ranches
	Real Estate
	Real Estate Developers
	Real Estate Inspection
	Real Estate Loans
	Real Estate Management
	Recreational Vehicle Parks
	Recreational Vehicles
	Rehabilitation Services
	Research Service
	Restaurant Flue Cleaning
	Restaurants
	Road Building Contractors
	Roof Maintenance
	Roofing Contractors
	Schools
	Schools-Nursery & Kindergarten Academic
	Scientists-Consulting
	Security Control Equip & Systems-Whol
	Services NEC
	Sheds-Tool & Utility
	Shoe & Boot Repairing
	Social Service & Welfare Organizations
	Sod & Sodding Service
	Sporting Goods-Retail
	Sprinklers-Garden & Lawn-Retail

	Stables
	State Government-Agricultural Programs
	State Government-Finance & Taxation
	State Government-Legal Counsel
	State Government-Public Health Programs
	State Government-Public Health Programs
	State Govt-Correctional Institutions
	Steel-Distributors & Warehouses (Whol)
	Storage-Household & Commercial
	Surgical Appliances-Manufacturers
	Surveyors-Land
	Surveyors-Land
	Swimming Pool Equipment & Supls-Retail
	Tailors
	Tanning Salons
	Tanning Salons
	Tax Return Preparation & Filing
	Tile-Ceramic-Contractors & Dealers
	Tire-Dealers-Retail
	Title Companies
	Transmissions-Automobile
	Travel Agencies & Bureaus
	Tree Service
	Truck Accessories (Wholesale)
	Truck Renting & Leasing
	Truck-Dealers-Used
	Trucking-Heavy Hauling
	Truck-Repairing & Service
	T-Shirts-Wholesale
	Uniforms
	Upholsterers
	Utility Contractors
	Variety Stores
	Veterans' & Military Organizations
	Veterinarians

	Video Production & Taping Service
	Video Tapes & Discs-Renting & Leasing
	Warehouses-Mini & Self Storage
	Water Softening Equipment Svc & Supls
	Water Well Drilling & Service
	Welding
	Well Drilling
	Wheel Chair Lifts & Ramps (Wholesale)
	Wood-Household Furn-Ex Upholstered (Mfr)
	Woodworkers
	Wrecker Service
	X-Ray Apparatus & Supplies (Wholesale)

Source: InfoUSA 2007

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BIOGRAPHICAL SKETCH

Cristina Barone is currently pursuing a Master of Arts in Urban and Regional Planning at the University of Florida in Gainesville, FL. She received a Bachelor of Arts in English from the University of Florida in 2007. Cristina has been involved in the Gainesville community in many different capacities over the course of the last six years. She worked as a planning intern for the Regional Transit System, the Shimberg Center for Housing Studies, and the City of Gainesville Neighborhood Improvement Department. She served as a member of the Downtown Redevelopment Advisory Board. She also volunteered at the Alachua County Crisis Center as a phone counselor and crisis intervention trainer. Upon graduating, she hopes move to San Francisco, CA.