
TAKING THE WHEEL

Getting ABQ from here ... to there

*Trends in Housing and Transportation
in the Albuquerque Metropolitan Area*

**ULI New Mexico District Council
District Chair, Bruce Stidworthy**

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Executive Director, Dewey V. Cave**

The Mid-Region Council of Governments provides planning services for the counties of Bernalillo, Valencia, Torrance, and Sandoval in the areas of transportation, agriculture, workforce development, employment growth, land-use, water, and economic development. Founded in 1969, the mission of MRCOG is to strengthen individual communities by identifying and initiating regional planning strategies through open dialogue and collaboration between the member governments. MRCOG serves as the metropolitan planning organization for the Albuquerque Metropolitan Planning Area and is responsible for identifying transportation planning priorities and programming federal transportation funds throughout the region. Much of the work contained in this document was performed under the mission of the metropolitan planning organization.

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Executive Summary

Recent research and national studies describe an evolving set of preferences in housing choice and travel behavior. Headlines declare the “end of the suburbs” and the “fall of cars,”ⁱ giving the impression that lifestyle changes are dramatic and uncompromising. What is not clear is how universally behavior is changing, particularly among the young adults who comprise the Millennial generation, and whether these national studies should carry much weight in less traditionally-urban markets such as Albuquerque.

This report considers three main points:

- 1) Housing preferences are evolving and travel behavior is evolving. But the changes are nuanced.
- 2) Albuquerque area residents demonstrate much of the same behavior and state similar preferences as residents from across the country. Policy-makers and stakeholders should pay attention to national market research; it applies here as well.
- 3) Local policy must respond to these trends by investing in more than just vehicle infrastructure and create a broader range of built environments through housing and land use policies that promote flexibility and choice.

Housing demands and transportation behavior is evolving. Led by Millennials there is increased demand for mixed-use housing in more urban settings and for alternative modes of transportation, though not all Millennials desire the same things. The key difference is that a higher portion of Millennials indicate a preference for these options than previous generations. A closer investigation of this research also indicates a more nuanced understanding of Millennials than simply a generation that wants to live downtown, does not care about homeownership, and does not want to drive. Rather, Millennials desire the amenities of central cities but many maintain a desire for space and privacy, would like to own a home eventually but do not view homeownership as the essential financial investment it once was, and see the value in owning cars but prefer not to rely on them for all trips.

Local data demonstrates that Albuquerque area residents share many housing demands and travel behaviors with other Americans. Albuquerque area residents express a desire for greater transportation options than presently available: less than one-third of Albuquerque area residents are satisfied with the existing transportation system, while more than half identified transit investments as the region’s greatest need. The demand for greater transportation options coincides with behavioral changes in modes of travel. In particular, per capita driving fell both national and locally for nine years in a row between 2004 and 2013, and the average Albuquerque resident now drives 10 percent fewer miles per day than a decade ago.

Albuquerque area residents of all ages also view elements of urban living as increasingly desirable and demonstrate many of the same evolving lifestyle demands as the rest of the nation. Much has been written about young professionals and the Millennial generation, who indeed indicate in both national research and local questionnaires a greater preference for

urban lifestyles and housing options than other generations. While 71 percent of Millennials in the Albuquerque metropolitan area profess a desire to live in urban or semi-urban settings, it is important to note that a majority of respondents of all ages express interest in more urban settings.

Local policy must respond to these trends. Albuquerque cannot—and should not—try to completely emulate the built environments of the country’s largest major metropolitan areas. The Albuquerque metro area is less dense than many of its peers, further reinforcing a car-dependent lifestyle. However, the region continues to languish economically while neighboring communities thrive. Local policy-makers must take inspiration from these places and invest in alternative modes of transportation and create policies that enable a broader range of amenities and housing options. Doing so is critical to attracting and retaining young professionals, preparing the region for changing demographics, and satisfying widely-held desires for greater housing and transportation options. While not everyone aspires to be a city-dweller, the young professionals and others who do seek out more urban lifestyles often choose to do so in other markets altogether.

Introduction

Let's start with some rhetorical questions. Are travel behavior and housing preferences changing? Absolutely, but cars aren't going away anytime soon. Are the lifestyles of Millennials fundamentally different than previous generations? Not fundamentally. But there are important shifts at the margins, and when one considers the sheer numerical size of the generation those subtle shifts will have very large impacts.

Over the last five years an enormous body of literature has examined changing housing preferences and transportation behavior. Discussion of the demands of Millennials, those born between 1982 and the year 2000, has become almost passé. Too often, however, the nuanced nature of shifting demands is lost. Blanket statements about the desirability of downtowns and the decline of auto travel are countered by proclamations that the decline in interest in single-family housing is merely a fad and that Millennials too will demand suburban-style homes once they marry and have children. The absence of local data (until now) also means that these discussions are inherently speculative.

This report brings this national discussion to the local level by considering a few important questions for the Albuquerque metropolitan area:

- Is this national research reflected in the opinions and behavior of local residents?
- How do evolving demands and preferences compare to locally available housing and transportation options?
- How should these changes inform policy?

The discussion of housing and transportation preferences and policy is critical given the region's economic circumstances. After decades of continual growth, since 2010 the state of New Mexico has experienced one of the slowest rates of population increase in the nation. As a result of the Great Recession, more people have left the state than moved in over the last few years, and Albuquerque has fared only slightly better than the state in overall population dynamics. The issue is most pressing among professionals with at least a Bachelor's degree, with one study showing 2.5 percent leaving the state in 2013 alone.ⁱⁱ

It is outside the scope of this report to suggest economic remedies for the Albuquerque metropolitan area or comprehensive solutions to the patterns of out-migration. However, decisions about where to live are strongly influenced by lifestyle, and lifestyle demands are changing. It is by understanding current behavior and investigating preferences that the region can attempt to address its needs into the future.

Albuquerque today is a car-centric place. In 2014, 89 percent of commuting trips took place by private vehicle, and 80 percent by individuals driving alone. These numbers are above the national

Generations Defined

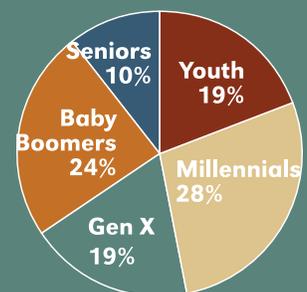
Millennials
born 1982 - 2000
16 to 34 years of age
2014 population: 249,000

Gen Xers
born 1965 - 1981
35 to 51 years of age
2014 population: 168,000

Baby Boomers
born 1946 - 1964
52 to 70 years of age
2014 population: 217,000

Youth: born after 2000
Seniors: born before 1946

Albuquerque MSA, 2014



Total Population: 905,000

“...decisions about where to live are strongly influenced by lifestyle, and lifestyle demands are changing.”

average, where 86 percent of commuting trips take place by private vehicle and 76.5 percent by individuals driving alone. This behavior is informed by land use and development patterns that make driving the only practical option for many trips. Yet public transit usage has surged, and Albuquerque is well above national averages in bicycle commuting and the extent of its trails network, suggesting there is demand for more than just vehicle travel.

Albuquerque is also noteworthy for the higher percentage of residents living in single-family housing than the nation overall. But like the rest of the country, there is an increasing number of renter-occupied households and growing demand for multi-family housing. As demographics change and the Albuquerque region witnesses a larger share of households without children, it will be important to consider whether local housing demands are adequately being met. Changing preferences add an additional layer of complexity to this discussion as Millennials demonstrate a greater desire for urban and mixed-use lifestyle options than previous generations.

Structure of Report

Housing preferences and transportation behavior are highly inter-related, and both will be discussed in this document. The first chapter begins by examining current housing conditions in the Albuquerque area, including variables such as housing type, household composition, owner versus renter status, and renter characteristics. The chapter will review national research on housing and lifestyle preferences and the differences in demands by generation, as well as changing household composition patterns. The chapter will conclude with a review of local data and analysis of local policy ideas for broadening available options and meeting future housing demands.

The second chapter will review transportation trends and changing travel behavior patterns, including increased preferences for non-auto modes and the particularly dramatic changes in behavior among Millennials. It will also examine local transportation data to understand how behavior varies by factors such as place of residence and age, as well as data on stated preferences and consideration of public demands for infrastructure investments. The chapter will conclude with brief recommendations about how to expand transportation choice in the Albuquerque area.

Discussion on Sources

This document pulls from a range of national and local research. These include stated preference surveys as well as observed behavior in national household travel surveys. This document also draws heavily from research into future demands for housing, analysis of changing travel patterns, and whether these changes will persist over time. Studies

from the Urban Land Institute—including *America in 2013*, *America in 2015*, and *Gen Y and Housing*—are particularly useful in understanding differences in preferences among generations. Such national-scale analysis is complemented by local surveys and questionnaires that shed light on the behavior and desires of residents of the Albuquerque area. Local research was conducted by the Mid-Region Council of Governments as part of the *Futures 2040 Metropolitan Transportation Plan*, and by the City of Albuquerque and Bernalillo County as part of the update to the City-County Comprehensive Plan.

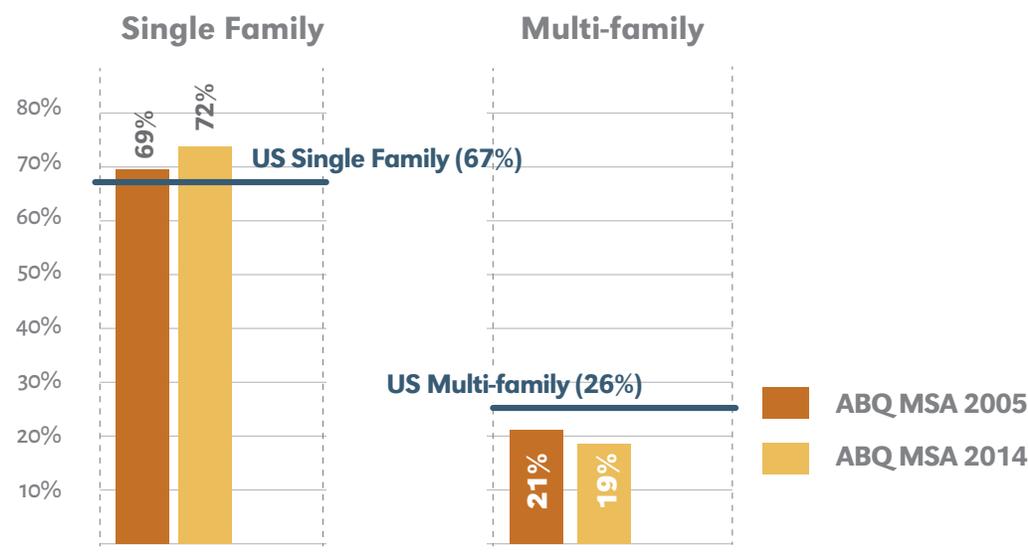
CHAPTER 1

Housing and Lifestyle Trends

The national housing market changed significantly in the years following the Great Recession. According to the Demand Institute, shrinking household sizes, stagnant wages, and lower levels of disposable income mean greater demand for rental and multi-family housing options. The Demand Institute also identifies an oversupply of single-family homes for sale, although some of these units have been occupied by renters. Other national research finds not only changes in the housing market, but important though subtle shifts in stated housing preferences, particularly among Millennials. Taken together, these trends suggest that owning a suburban-style single-family home is becoming less desirable in a post-recession economy.ⁱⁱⁱ This chapter delves further into this notion through the exploration of both national and local data.

“...owning a suburban-style single-family home is becoming less desirable in a post-recession economy.”

Figure 1.1 Housing Type, US and ABQ MSA* iv



Source: U.S. Census Bureau American Community Survey, 1-Year Data, 2005 and 2014

* The Albuquerque Metropolitan Statistical Area (MSA) is comprised of Bernalillo, Sandoval, Torrance, and Valencia counties. US rates did not change between 2005 and 2014.

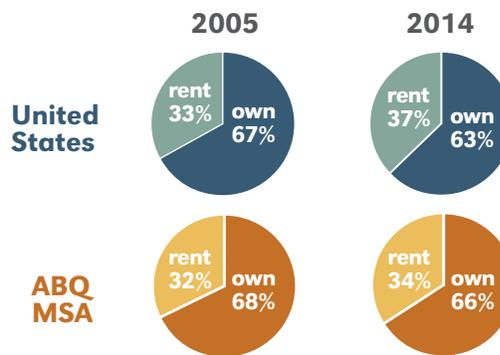
Albuquerque’s built environment is dominated by low-density single-family housing. As a result, Albuquerque ranks relatively high in indices of sprawl and dependency on single-occupancy vehicles.^v Driven largely by the explosion of suburban-style homes in the years leading up to the Great Recession, the percent share of single-family housing in the Albuquerque metropolitan area increased from 69 percent



to 72 percent from 2005 to 2014, while the percent of units that are multi-family decreased from 21 to 19 percent (see Figure 1.2). These shifts run counter to the nation overall, where single-family and multi-family housing units grew at approximately the same rate over the last decade. As a result, a disproportionately high number of Albuquerque area residents live in single-family housing and a disproportionately low number live in multi-family housing. Compared to the US overall, Albuquerque is so under-represented in multi-family housing that for the metro area to align with national averages, the next 30,000 housing units constructed would all need to be multi-family.

“...Albuquerque is so under-represented in multi-family housing that for the metro area to align with national averages, the next 30,000 housing units constructed would all need to be multi-family.”

Figure 1.2 Owner-occupied vs. Renter-occupied Housing

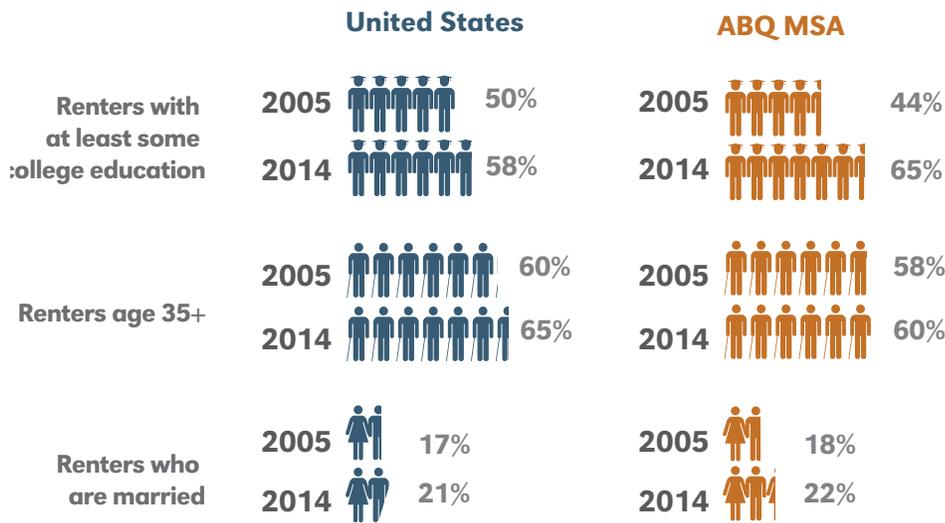


Source: U.S. Census Bureau American Community Survey, 1-Year Data, 2005 and 2014

A noteworthy change in the housing landscape at both the national and local levels can be found among renters, as a group historically thought to be younger, lower income, and less established professionally is evolving. A review of the characteristics of renters reveals that **not only are renters a growing share of all households, but renters today are increasingly older and more likely to be married than a decade ago**, despite the fact that marriage rates are declining across the general US population. Renters today are also significantly more likely to be part of a professional class of workers with at least some college education.

Over the last decade, the national number of owner-occupied housing units (about 74 million) did not change, while the number of renter-

Figure 1.3 Renter Characteristics, US and ABQ MSA



Source: U.S. Census Bureau American Community Survey, 1-Year Data, 2005 and 2014

occupied households increased by 6.5 million (growing from 33 percent of all units to 37 percent) from 2005 to 2014. In short, while the Albuquerque area is over-represented in single-family housing compared to the US overall, the general trend toward increased renter-occupied housing can be observed across both geographies.

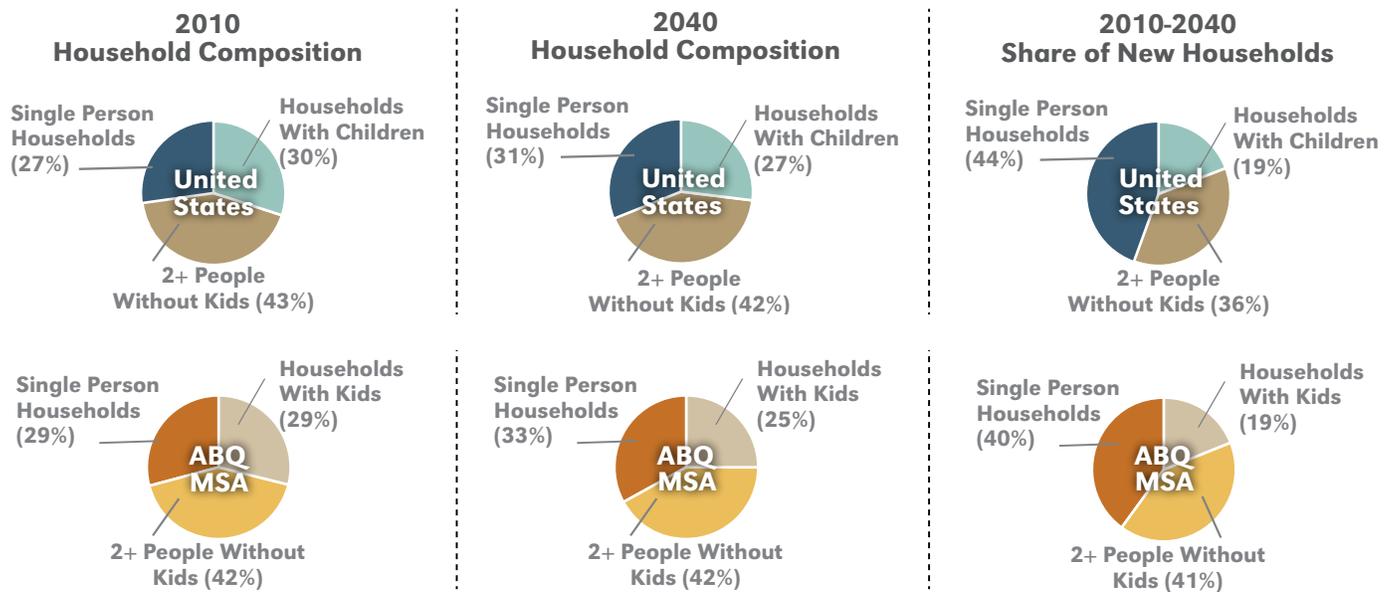
In response to these trends there has been some growth in renter-oriented multi-family housing starts in recent years. Between 2000 and 2009, there were on average 779 multi-family units permitted for construction per year. From 2010 to 2014, a time when the overall number of housing units permitted for construction fell dramatically, the average number of new multi-family units grew to 926 per year, and reached 1,347 in 2014. An important question, therefore, is whether the recent demand for multi-family housing constitutes a trend, or if it is merely a function of Albuquerque’s slow recovery from the Great Recession and whether demand for suburban-style single-family housing will resume once the region’s economy recovers.^{vi}

Renters today are older, more educated, and more likely to be married than a decade ago.

Future Housing Needs

Shifts in housing type and owner-renter status, along with the changing preferences, are increasingly viewed as part of a larger movement away from large lot (i.e. greater than one-sixth of an acre) auto-oriented residential housing (or classic “suburban”) models.^{vii} Less well-understood is that many of the shifts in housing demand will be informed by demographics and family size. In early 2015, University of Arizona scholar and real estate expert Arthur C. Nelson assessed future housing demands for the Albuquerque metropolitan area and found that

Figure 1.4 Current and Projected Household Composition, United States and ABQ MSA



Source: Arthur C. Nelson, presentation to Greater Albuquerque Association of Realtors, April 16, 2015

a highly disproportionate share of growth will take place in the form of households consisting of either one individual or two adults and zero children.^{viii} Nelson’s projections indicate that by 2040 the share of households with children will shrink from 29 percent to 25 percent, while the share of households consisting of one person will increase from 29 percent to 33 percent. Thought of another way, there will be 187,000 additional households without children by 2040, or 81 percent of new households, compared to 43,000 more households with children.

“...the current housing stock may not make sense given expected future household composition patterns and housing demands.”

The implications of these shifts are substantial. Detached single-family households comprise 72 percent of the Albuquerque metropolitan area housing stock and are considered to be favored by nuclear families of adults with children. Housing construction that took place over the two decades leading up to the Great Recession reflected this conventional wisdom and was comprised largely of single-family homes. Nelson contends that in fact too much housing of that type, particularly detached housing in residential subdivisions, was constructed and that the homes that are retaining their value the best are those located in areas with higher mixes of uses. Nelson and others further contend that the current housing stock may not make sense given expected future household composition patterns and housing demands.^{ix}

The Albuquerque market is beginning to respond with the development of senior-oriented and multi-family housing projects.^x However, the share of the population in the metro area that is 65 years or older will grow from 12 to 21 percent by 2040, indicating there is substantial room for growth among these smaller housing types.^{xi} When the increasing



numbers of one and two-person households is considered alongside the growth in renter-occupied units, it stands to reason that there will be an increase in demand for small-lot single-family units (i.e., 6,000 square-foot and below), townhouses, and multi-family units of various sizes for a broader range of target markets.^{xii}

Changing Preferences and the Millennial Generation

Part of the shift toward smaller household sizes and lower rates of homeownership is the result of changing consumer preferences, particularly among the Millennial generation. Numerous studies have identified clear changes in behavior and preferences among Millennials; however, other studies have questioned the extent to which these preferences are in fact a function of age and economics rather than true structural changes with lasting impacts. It is therefore worth briefly reviewing the research and understanding its meaning and implications.

Millennials number nearly 80 million Americans, including 249,000 Millennials in the four counties in the Albuquerque MSA, and surpass Baby Boomers as the largest age group in the country. They represent the next generation of professionals and as ULI puts it, Millennials are the “(l)argest source of new demand for rental housing and first-time home purchases,” making their preferences highly influential on the real estate market.^{xiii} Millennials also embody the economic potential of the recovery from the Great Recession—a time when the number of US households actually dropped.^{xiv} Surveys indicate that approximately one-fifth of Millennials live at home with their parents, meaning 16.5 million people nationally could move into independent housing in coming years.

There are almost 250,000 Millennials in the Albuquerque metro area. They represent the ‘largest source of new demand for rental housing and first time homebuyers.’

In addition to the size of the market, the attention paid to Millennials has much to do with recent studies revealing traveler behavior patterns and lifestyle preferences that differ in important ways from previous generations. And when you are talking about 80 million Americans, even small changes can have dramatic impacts.^{xv}

Millennial behavior is frequently described as follows:

- The generation most likely to live in rental housing and cities.
- Most Millennials are unmarried and without children; household formation takes place at a later age than previous generations.
- Known for a desire to use alternative modes of transportation.
- Change jobs more frequently than previous generations.
- Most expect to move to a near city in the near future.
- Many demonstrate a willingness to move to a new place before finding a job.

General statements like these are sometimes taken to mean that all Millennials seek transient urban lifestyles. There is some truth to these stereotypes, and as we shall see there are important behavioral differences relative to other generations. However, it is clear that Millennials are not a monolithic group. Although a high number (83 percent) own cars,^{xvi} there is also a strong desire to utilize other means of transportation when possible: on at least a weekly basis, 48 percent take utilitarian walking trips, 22 percent use public transit, and 15 percent travel by bicycle.^{xvii} Millennials are more than four times more likely to use transit than Gen Xers (18 percent compared with four percent), and twice as likely as Baby Boomers.^{xviii} Millennials also place far greater value in having transportation options available to them, in particular the desire for increased transit service, greater walkability, more bicycle infrastructure, and a general desire to utilize cars less than other generations (see Figure 1-6).^{xix} More on travel behavior patterns can be found in the following chapter.



Much of the discussion on Millennials and changing housing preferences in general has revolved around the increased attractiveness of urban housing and downtown areas in particular. Here it is important to consider that not all Millennials share a preference for urban living; consistently, **just under 40 percent of Millennials express a desire to live in an urban environment, meaning that young adults do not universally consider themselves urban dwellers. But Millennials do declare a desire to live in urban settings at a much higher rate than other generations.**

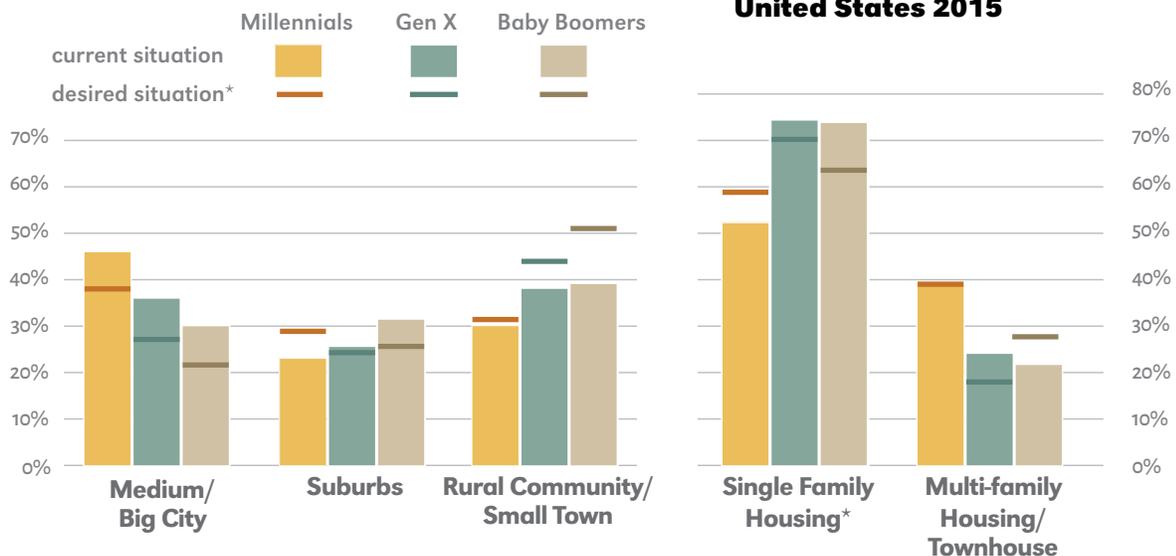
When compared to other generations, Millennials are the group most likely to live in large or medium cities (46 percent compared to 36 percent overall), the most likely to desire to live in large or medium cities in the future (38 percent compared to 29 percent overall), and, by a considerable margin, the least likely to prefer rural or small town settings. It is also true that slightly more Millennials desire to live in suburban settings in the future than currently do. Among all generations there is less desire to live in medium or big cities than the actual number of residents of those communities, indicating that the perceived quiet and tranquility of suburban and small town settings still hold strong interest.

“...Millennials are the group most likely to live in large or medium cities [...], and most likely to desire to live in large or medium cities in the future...”

To add further nuance to the discussion of preferences, there is strong interest among Millennials for single-family housing. ULI and the Demand Institute both found that around 60 percent of Millennials indicate a desire to live in traditional single-family housing in the future,^{xx} compared to around half of Millennials who currently do.^{xxi} A majority

Figure 1.5

A. Housing Location Preference by Generation, United States 2015 **B. Housing Type Preference by Generation, United States 2015**



* desired situation among “movers” (i.e. those likely to move in the near future)

Source: America in 2015, A ULI Survey of Views on Housing, Transportation and Community

Study Conclusions Sometimes Vary Depending on Who's Asking and Why

A range of additional studies on Millennials has been conducted. However, not all of these studies provide truly meaningful insights. For example, a study by Transportation for America identified public transit services as an essential component for attracting and retaining young workers, and that 66 percent of respondents indicate that access to quality public transportation is a major criterion for choosing a place to live. Yet the survey results reflect the views of Millennials already living in ten major US cities, raising the question of whether urban Millennials self-select environments that support their lifestyles and hold different values than Millennials who choose not to live in cities.

Similarly, a survey by the National Association of Realtors found that 66 percent of Millennials say they want to live in suburbs and only 10 percent in cities; however, this survey only queried recent homebuyers and those who intend to buy in the next three years, perhaps skewing the results towards those already interested in suburban housing.

also indicate they expect to own a house in the future. However, fewer Millennials view homeownership as a good investment compared to Gen Xers (74 percent versus 86 percent), and a relatively high number (30 percent) expect to be renters well into the future.^{xxii}

Particularly noteworthy are housing preferences among those likely to move in the near future (seen in Figure 1-4 in the “Among Movers” rows). Millennials plan on moving at the highest rates and generally indicate similar future housing preferences to current conditions. It should be noted that slightly higher percentages indicate a desire to live in single-family housing and to live in the suburbs than currently do. Yet an equal percentage of Millennials express a desire to live in multi-family housing or townhouses in the future as the percentage that currently do, indicating the demand for alternatives to detached single-family housing is likely to persist. Perhaps most noteworthy is the relative lack of desire among Millennials to live in rural or small town settings compared to previous generations, indicating that proximity to urban areas, if not urban areas themselves, is an important consideration in housing location for young adults. Whereas 51 percent of Baby Boomers and 44 percent of Gen Xers indicate a desire to live in rural areas or small town, less than one-third of Millennials express the same desire.

Taken together, **the findings indicate that Millennials hold a stronger desire for urban settings and lower demand for single-family housing than other generations, though these preferences are still held by a minority of young adults.** But perhaps the clearest differences can be found in lifestyle preferences. While Gen Xers and Baby Boomers demonstrate general approval of existing housing conditions, Millennials demonstrate greater interest in more diverse communities (more than three quarters state a preference for neighborhoods with a diversity of residents and housing types) and the lowest level of satisfaction with available housing options. Substantially higher numbers indicate both a desire to use their cars less and to bike more, and a greater number of Millennials report engaging in walking or biking trips on a weekly basis than other generations. Perhaps most tellingly, Millennials are most likely to consider access to public transit and the walkability of a community to be top priorities (see Figure 1-6). Millennials also demonstrate higher preferences for aspects of urban living, such as housing close to recreational opportunities and a mix of shops and amenities.^{xxiii}



Figure 1.6 Opinions on Housing Market and Lifestyle Preferences, United States, 2015

Opinions on Housing Market	Millennials	Gen X	Baby Boomers
Buying as Good Home Investment	74%	86%	71%
Likelihood of Moving	73%	42%	37%
Preference for Diversity of Residents	76%	72%	61%
Satisfaction with Housing Options	77%	80%	93%
Lifestyle Preferences	Millennials	Gen X	Baby Boomers
Shopping & Entertainment w/in short walk or drive	43%	36%	43%
Medical Services w/in short walk or drive	50%	40%	52%
Walking or Biking Trip (at least weekly)	47%	38%	36%
Desire to Use Car Less	63%	44%	49%
Public Transit - top or high priority in housing choice	39%	25%	29%
Walkability - top or high priority in housing choice	54%	45%	49%
Desire for More Bike Lanes	54%	48%	46%
Outdoor recreation/exercise in neighborhood	43%	35%	31%

Source: *America in 2015, A ULI Survey of Views on Housing, Transportation and Community*

Gen Xers and Baby Boomers

Given that they grew up in the era of suburban expansion and urban depopulation, it is not surprising that Gen Xers have the most traditional views of housing. They are the generation most likely to live in single-family housing and to seek out single-family housing in the future. They are also, by far, the generation most likely to view homeownership as a good investment. Relative to other age groups, Gen Xers appear the most content to rely on private vehicles and the most ambivalent about transit and pedestrian travel options.

There are more than 76 million Baby Boomers in the US and 217,000 in the Albuquerque area, and their sheer numbers indicate the members of this generation will also exert significant influence on the housing market. The challenge is that, while Millennials demonstrate somewhat

“...Gen Xers appear the most content to rely on private vehicles and the most ambivalent about transit and pedestrian travel options.”

unique preferences and Gen Xers nationwide appear to demand future housing conditions that resemble their current options, there is greater uncertainty about future housing needs for Baby Boomers. In particular, there are somewhat contradictory findings that retired Baby Boomers have a strong preference for aging in place and remaining in their current homes (only 37 percent indicate they are likely to move in the next five years),^{xxiv} while other studies reveal a desire to downsize to smaller units.^{xxv}

Among those likely to move, however, Baby Boomers demonstrate a greater demand for alternatives to detached single-family housing (28 percent) than present housing distribution patterns might suggest (currently 21 percent of Baby Boomers live in something other than detached single-family housing).^{xxvi} The housing fates of Millennials and Baby Boomers may also be somewhat interrelated. The Nielson research group observes that: “With lower Millennial homeownership rates and a preference for city living, Boomers could face problems downsizing” due to a lack of market demand for their existing homes. There are therefore legitimate questions about whether suitable alternative housing options for retirees exist, and whether Baby Boomers who do want to downsize will even be able to do so.

“Urban Burbs”

It is because Millennials and college-educated young professionals live in urban areas at a higher rate than other generations that “for the first time since the 1920s growth in U.S. cities outpaces growth outside of them.”^{xxvii} Yet not everyone is convinced this trend will continue. One hypothesis contends that major US cities are drawing young professionals because of job opportunities, but stagnant wages mean many individuals are unable to build the savings necessary to make the jump to homeownership (generally in the suburbs). By this line of thinking, many Millennials may not be able to move from renter to owner status any time soon, whether they want to or not.^{xxviii} And to be clear, Millennials’ preference for urban lifestyles should be thought of



as relative: they demonstrate decidedly stronger preferences for multi-family housing and urban environments than previous generations, but these preferences are held by less than half of all Millennials.

The relative preference can be better understood when considering what it is exactly that Millennials (and a growing number of Gen Xers and Baby Boomers) find appealing about urban areas: the presence of mixed-use development and easy access to “service amenities,” such as music venues, theaters, bars, and gyms. According to University of Pennsylvania researchers, **it is not that there is a new demand for service amenities among young adults, but there is greater demand to live in close proximity to these places that makes the growth of urban areas likely to continue for some time.**^{xxxix} The Nielsen report, “Millennials: Breaking the Myths,” similarly asserts that the metropolitan areas with the greatest concentration of Millennials are those “combining urban convenience with an exciting art and music scene.”

Adults of all ages regularly express a desire for elements of urban living, if not a preference for cities themselves. In fact, suburbs such as those described by noted New Urbanist Peter Calthorpe as “urban burbs” can be appealing to Millennials and other adults interested in access to the amenities of large cities.^{xxx} According to one analysis from *The Atlantic*, “it appears that what many Millennials want when picking out a place to raise a family isn’t a city per se, but rather the perks that are traditionally associated with living in a city: restaurants, shops, and grocery stores within walking distance, easy access to public transportation.”^{xxxi} The challenge is that truly walkable places with access to amenities most frequently exist in urban cores. That shortage of walkable mixed-use communities can also drive up housing prices as homes in walkable locations are shown to have higher resale values than homes in less walkable neighborhoods.^{xxxii}

The Demand Institute concludes that Millennials are “still seeking the American Dream” and that single-family housing and suburban communities will play an enormous role in meeting household demands of young families for many years to come. However, **“the ideal suburban location for Millennials may not be the same as it was for previous generations. Communities that can offer the best of urban living (e.g., convenience and walkability) with the best of suburban living (e.g., good schools and more space) will thrive in the coming decade.”**^{xxxiii}

Leigh Gallagher of *Fortune* contends that we are going to see the “end of the suburbs” as we know it and the real demand is for walkable mixed-use neighborhoods. Though these have been more commonly found in urban settings, there is no reason they could not be found in suburban settings as well. In other words, in successful and thriving communities in the future there may not be a binary choice of city or

Common Preferences but Unrealistic Expectations

Stated preferences—especially when posed as simple desires rather than requiring tradeoffs—demonstrate that **some of the urban amenities commonly associated with Millennials are shared by other generations.** For example, 55 percent of Millennials prefer having public transportation options; but so do 52 percent of Baby Boomers and 51 percent of overall respondents. Preferences for public transportation options are, perhaps not surprisingly, highest among urban residents (69 percent), renters (62 percent), and those living in medium-sized cities (61 percent).

Americans also want places that don’t really exist; when asked not to prioritize but simply state their interests, respondents overall indicated strong desires for a short drive to work, school, and medical services (71 percent), places with good pedestrian infrastructure (70 percent), short drives to shopping (66 percent) and recreation (64 percent) and convenient access to public transportation (52 percent). Yet the most desirable trait of all—lots of space between themselves and their neighbors (72 percent)—is contradictory to most other preferences. More meaningfully, **when residents are asked to make tradeoffs, a clear majority indicate willingness to trade home size for a shorter commuter (61 percent compared to 34 percent).**

Source: ULI, *America in 2013*

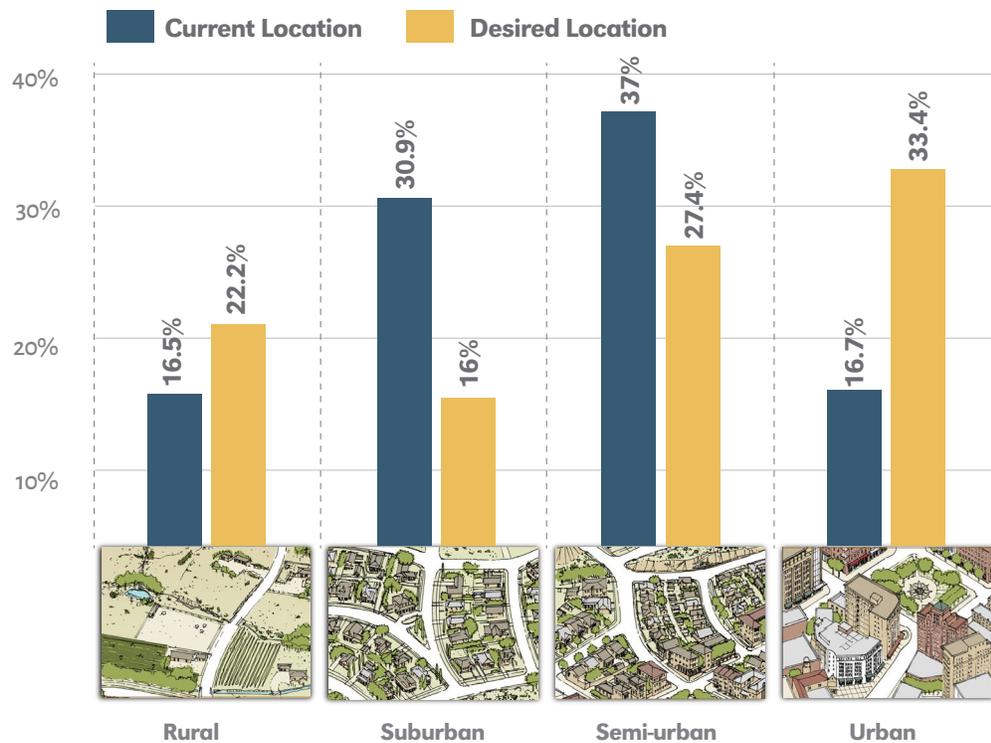
suburb. Rather, the desire for urban living and denser single-family housing can be compatible, and it will be increasingly possible to find suburbs with urban elements. That said, suburbs will need to evolve to remain competitive through mixed-housing neighborhoods, featuring some single-family housing, with enough density to support public transit and nearby commercial activity.^{xxxiv}

Local Housing Preferences

The previous section reviewed national research on housing preferences. Fortunately, these studies are no longer the only sources of information on evolving housing demands at the local level. Questionnaires conducted as part of the public outreach processes for the *Futures 2040 Metropolitan Transportation Plan (MTP)* and the *Albuquerque-Bernalillo County Comprehensive Plan* update contain important insights into the perspectives of Albuquerque area residents and whether local preferences align with national trends.^{xxxv}

The 2040 MTP questionnaire (sample = 1,371) asked respondents to identify their current and desired housing options and revealed something of a mismatch between housing supply and demand. Figure

Figure 1.7 Housing Location Preferences, ABQ Metro Area, 2014



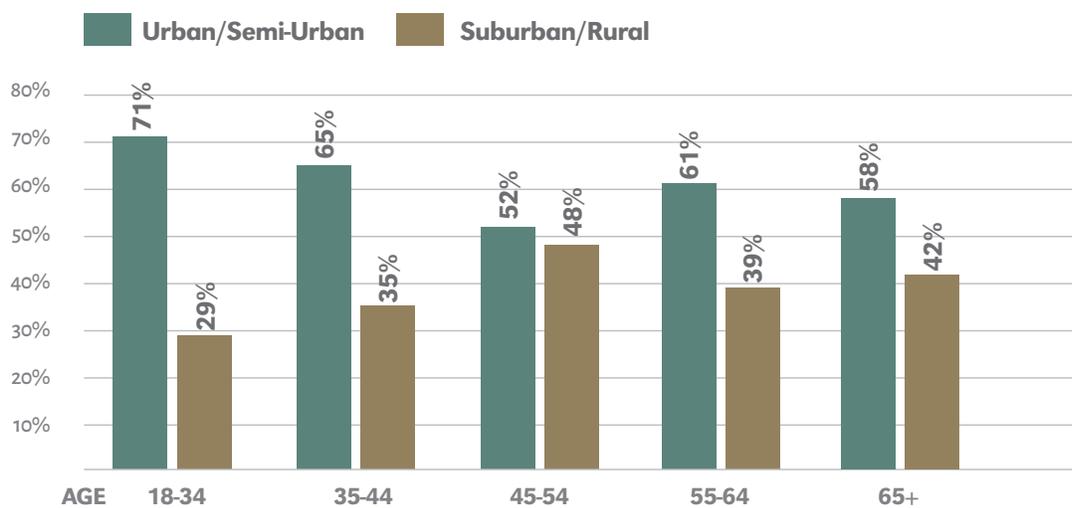
Source: 2040 MTP Questionnaire, MRCOG, 2014

1-7 demonstrates responses based on written descriptions and visual depictions of four land use contexts: rural, suburban, semi-urban, and urban. The results indicate that **far more respondents live in suburban settings than would like to in the future** (31 percent compared to 16 percent). Conversely, **far fewer individuals reside in urban settings today than would like to in the future** (17 percent compared to 33 percent). The desire for rural lifestyles in New Mexico remains strong, despite the state’s increasingly urban population; 22 percent of individuals would like to live in a rural setting in the future compared to 16.5 percent who currently do.

“...far more respondents live in suburban settings than would like to in the future...”

Housing preferences by age group are also illuminating. Particularly noteworthy is the fact that preference for more urban living, based on combined responses for urban and semi-urban land use contexts, was shared by a majority of respondents of all age groups (61 percent).

Figure 1.8 Housing Location Preferences by Age Group, ABQ Metro Area, 2014



Source: 2040 MTP Questionnaire, MRCOG, 2014



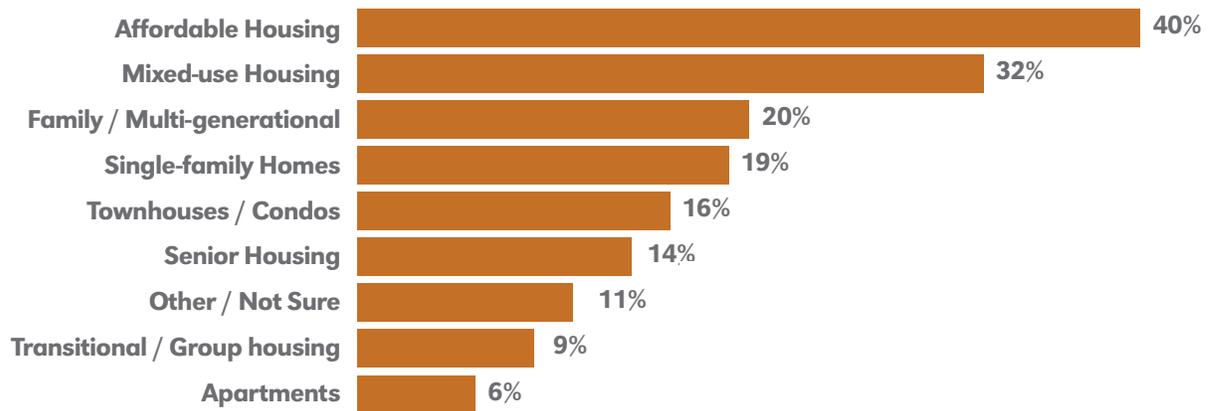
“...preference for more urban living, based on combined responses for urban and semi-urban land use contexts, was shared by a majority of respondents of all age groups (61 percent).”

Millennials in the Albuquerque metropolitan area indicate the greatest desire to live in semi-urban or urban settings (71 percent), while respondents 45 to 54 years of age are the group least inclined to prefer urban settings (52 percent).

Though the MTP questionnaire did not ask respondents why they prefer the locations they do, the stated preferences are remarkably similar to national survey results, suggesting explanations can be drawn from those larger studies. In particular, it is the access to amenities that seem most appealing, whether it is within downtowns and true urban neighborhoods, or transit-oriented mixed-use communities.

The Community Vision Survey, conducted as part of the update to the *Albuquerque Bernalillo County Comprehensive Plan* (sample = 1,119) also reveals important insights into perceived housing needs in the metropolitan area. Respondents were asked to name the top two most pressing housing needs. While 40 percent indicate affordable housing and 32 percent identify a greater need for mixed-use, only 19 percent cite a need for additional single-family housing, a seeming acknowledgement of the need to diversify the region’s housing options. Interesting to note is the identification of a variety of alternatives to single-family housing, including multi-generational housing, townhouses or condos, and senior housing, but clear ambivalence towards traditional apartment-style housing.

Figure 1.9 Stated Housing Needs in Albuquerque/Bernalillo County, 2015



Source: Community Vision Survey, City of Albuquerque, 2015

Note: Respondents were allowed to name more than one priority and as such the responses do not equal 100 percent.

Analysis & Discussion

It does indeed appear that housing demands in Albuquerque are shifting in ways that mirror national trends and that the behavior of Millennials will help drive these changes. The shifts are not wholesale and future demand for suburban housing will persist. Nor do all Millennials desire the same thing. But changing demands are significant enough to require new approaches to development and more flexible housing and land use policies. Given the size of the market, even marginal changes in preference among Millennials, the next generation of entrants into the housing market, will have dramatic impacts. If as expected two-thirds of Millennials select suburban housing, as opposed to 80 percent of Baby Boomers, the result will be a greater demand for other housing products than those which dominate the market today.

While Millennials want to live in urban settings and multi-family housing at higher rates than previous generations, the increased desire for access to amenities and for elements of urban lifestyles is shared by many Albuquerque residents. Yet easy access to service amenities in the Albuquerque area is somewhat limited, and it does not appear that demand is being met as there are more people that desire mixed-use walkable communities than currently live in them.

Stagnant wages and the lingering impacts of the Great Recession are also forcing at least some Millennials to bring new thinking and new set of values to the housing market. Renting is increasingly common and homeownership, though still seen as a good investment by a majority of Millennials, does not carry quite the same cachet as it did for Gen Xers. During a presentation in Albuquerque, ULI senior resident fellow Maureen McAvey asked rhetorically: “Can you can rent the American dream?” With dropping homeownership rates and greater willingness to live in multi-family and mixed-use settings, the dream of a detached single-family home in a suburban subdivision is not as pervasive as it once was.^{xxxvi}

The impacts of these trends extend beyond transportation and housing considerations. According to a report from the City Observatory, the college-educated Millennials that are moving disproportionately to inner-city neighborhoods and city centers are driving urban revitalization in many markets. These migration patterns are important indicators of the desirability of a place and can help fuel economic growth as firms locate closer to local talent.^{xxxvii} The implication is that places that do not offer at least some urban or semi-urban options will not be as competitive in the coming decades.

Walkscore

The desire to be close to amenities is affirmed by the fact that apartment dwellers are willing to pay a premium to live in areas that are considered accessible. Data from the 1st quarter 2014 occupancy and rent survey conducted by the Apartment Association of New Mexico was combined with local walk, bike, and transit scores obtained from www.walkscore.com.

Walkscore.com is an online tool that measures the accessibility of places to destinations such as shopping, parks, and schools. This analysis revealed that the average rent per square foot in the Albuquerque market is:

- **24 percent** higher in areas with a high walk score
- **24 percent** higher in areas with a high bike score
- **26 percent** higher in areas with a high transit score

The findings, when coupled with the local preference survey results, demonstrate that Albuquerque residents are quite literally willing to put their money where their mouths are.

Policy Options

Nelson uses the term “value planning” to describe walkable communities with a mix of uses and a range of housing options, and contends that enough people want to live in mixed use communities where they can walk and bike to errands that if all new development in the Albuquerque metropolitan area met those descriptions it would take decades before the demand comes close to being met.^{xxxviii} Yet not all places can be walkable. In his book *Walkable City*, Jeff Speck urges us to effectively pick our battles and focus our making walkable places where the right ingredients exist.^{xxxix} The key, again, is finding opportunities to expand choice.

The general purpose of the policy options described below is to increase the range of housing options so that new development helps address the mismatch in available housing versus projected needs. The brief suggestions presented here do not represent a how-to guide or contain specific design recommendations, but are intended to connect changing household composition and lifestyle preferences to plausible policies that could be pursued in the Albuquerque metro area.

Mixed-use and Flexible Zoning

Mixed-use and flexible zoning entails land use patterns that support the coexistence of residential and commercial uses either within the same building or on adjacent lots. Such a mix of land uses are most appropriate in activity centers and along or near corridors supported by frequent transit service. Local jurisdictions should work to identify nodes where greater density is possible in suburban communities. Mixed-use development not only supports transit and walkable communities, but can also increase value for existing homes by improving access to amenities. Flexible zoning should also allow for more workforce and senior housing.

Incentives for Mixed-use Multi-family Housing

The Albuquerque metropolitan area lags behind the rest of the nation in multi-family housing supply, and the evidence suggests that Albuquerque area residents recognize this fact and support additional multi-family housing construction. But residents clearly prefer mixed-use forms of housing rather than typical apartment complexes. **Incentives for mixed-use multi-family housing** could include expedited approvals, reduced fees, and other measures that reduce the costs in time and money associated with multi-family development.

Accessory Dwelling Units

Small secondary housing units, or **accessory dwelling units (ADUs)**, provide a means for reinvesting in existing communities and increasing housing choice, particularly in locations with higher levels of walkability and access to transit. ADUs promote age and income diversity in neighborhoods, and create flexibility that may remove the need for individuals and families to move to other neighborhoods as they reach new life phases.

Public sector entities could provide incentives for increased development—both residential and commercial—near public transit investments. **Transit-oriented development** policies should be viewed as more than supporting transit ridership; they are a means of creating more sustainable development patterns and pedestrian-friendly communities. Complementary policies include **reducing or eliminating parking requirements in activity centers** and near major transit station areas, such as the New Mexico Rail Runner Express or bus rapid transit. Reducing the amount of space dedicated for residential and commercial parking promotes the kinds of mixed-use walkable areas that are appealing to Albuquerque residents of all ages. Policies that relax parking requirements may not make sense in all locations—access to many parts of the Albuquerque metropolitan area is largely vehicle dependent and likely to stay that way—but vehicle ownership rates are decreasing and demand for travel by alternative modes is increasing (discussed in the following chapter), suggesting that parking does not need to be provided at the same levels that it has in the past.

Incentives for **redevelopment and infill**, including on under-utilized parking lots, provides an opportunity to make use of existing roadway and utilities infrastructure and support mixed-use and walkable communities. Infill can be more expensive for developers, but incentives can help offset the costs and there are many positive externalities, including reduced driving, lower emissions, and savings on transportation costs. These efforts could be focused in activity centers and along major transportation corridors that have the roadway capacity and public transit to support such development.

Transit-oriented Development

Reducing or Eliminating Parking Requirements in Activity Centers

Redevelopment and Infill

CHAPTER 2

Trends in Transportation

For decades, the average American traveled greater distances every year than they had the year before. Vehicle ownership rates continued to increase and it appeared that the appetite for vehicle travel was insatiable. But in the mid-2000s vehicle travel peaked and individual behavior slowly began to change. At first it was assumed that travel behavior differences were purely a function of a struggling economy. Only now is it becoming apparent that those changes are more structural in nature.

As described in Chapter 1, across the United States there is renewed interest in urban living and a migration to metropolitan areas in general. Accompanying these population shifts are changing lifestyles and increased preference for walkable, mixed-use neighborhoods and access to alternative modes of transportation. These changes do not reflect a universal shift in American travel patterns. Private vehicles remain by far the most common mode of travel, but the long-term trends have changed such that driving will likely decrease over time and trips by other modes will increase. This chapter examines these trends at both the national and local levels, including variations in local travel behavior by age and place of residence, as well as desired improvements to the local transportation system.

“Private vehicles remain by far the most common mode of travel, but the long-term trends have changed such that driving will likely decrease over time and trips by other modes will increase.”

National Trends

The clearest indicator of changing transportation patterns is the decline in per capita vehicle miles traveled (VMT), a trend that began several years before the Great Recession and continued even after the economy began to recover. Total annual VMT and VMT per capita grew by nearly two percent per year for several decades, and by the mid-2000s, the average American drove more than 10,000 miles per

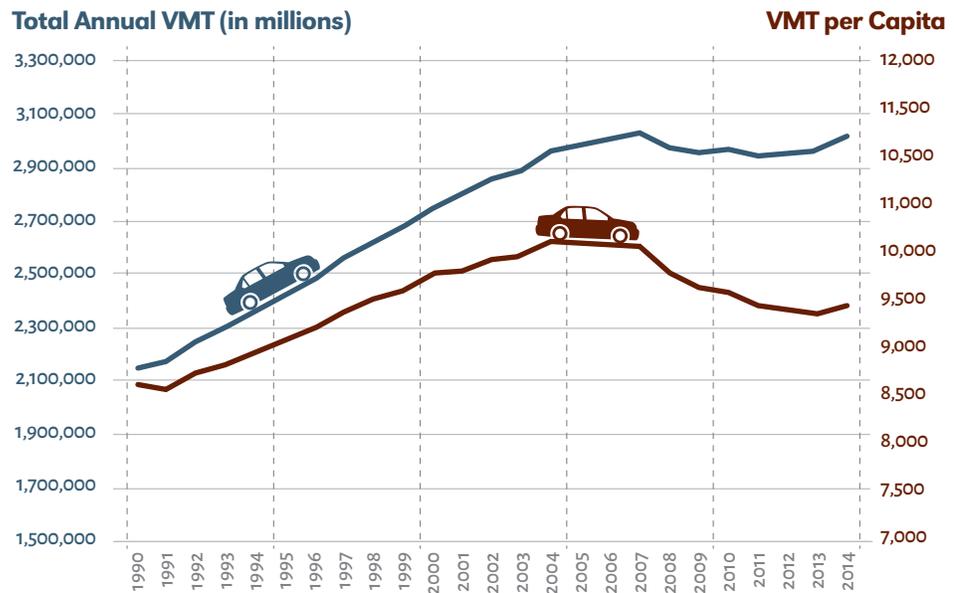


year. However, beginning in 2005, per capita VMT fell every year for nine consecutive years before increasing slightly in 2014 (see Figure 2-1).⁴ Even with decreases in gas prices and a rise in economic activity, per capita driving levels are still at rates not seen since 1998.

Figure 2.1 shows that overall VMT and VMT per capita have begun to follow different trajectories. VMT growth, which is historically a function of the economy, has resumed following the recession. Per capita VMT has continued on a downward path. Indeed, the last several years indicate that economic growth can occur without substantial increases in personal driving.

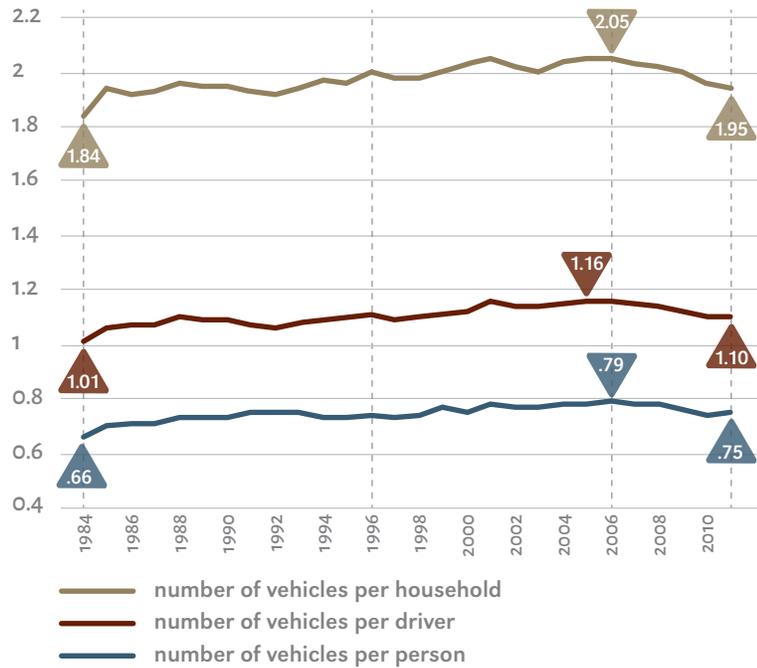
Americans' relationship to the private vehicle is changing in important ways. Vehicle ownership rates, which had increased for decades and had grown at higher rates than overall population growth, peaked

Figure 2.1 Total VMT and VMT Per Capita, United States 1990-2014



Source: Federal Highway Administration; US Census Bureau



Figure 2.2 Registered Vehicles, United States, 1984-2011

Source: Michael Sivak, "Has Motorization in the US Peaked?" University of Michigan Transportation Research Institute, July 2013

in roughly 2005 and also began decreasing several years before the Great Recession. Figure 2-2 demonstrates that the number of registered vehicles per household, per licensed driver, and nationwide per capita all fell by roughly five percent from their peaks in the mid-2000s to 2011. The practical implication is that each year there are fewer new drivers, and some households that had relied on multiple cars are now relying on only one car or none.^{xii}

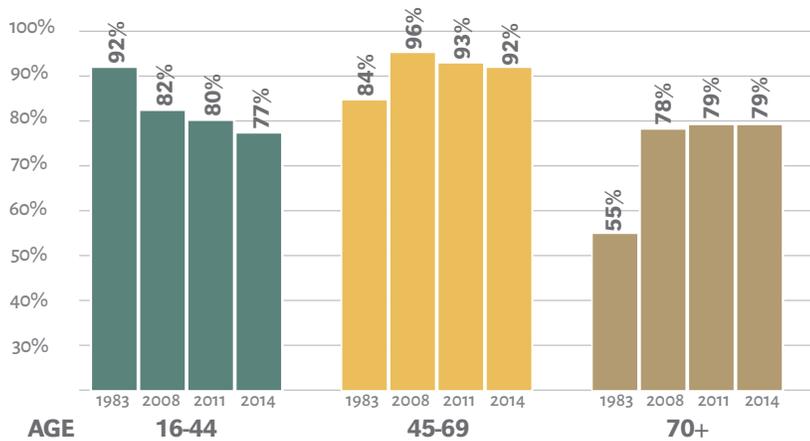
Meanwhile, the percentage of young persons *without* driver's licenses has increased substantially over time. Perhaps most remarkably, there are currently the fewest 16 year-olds with driver's licenses than at any time since the 1960s, a fact that is being credited to the recession and the financial burden of car ownership relative to wages, lifestyle preferences and the changing nature of social interaction, and the growing interest in more sustainable forms of transportation.^{xiii}

Figure 2-3 reveals that the percentage of 18 to 44 year-olds without licenses fell by a small margin between 1983 and 2008, but fell more dramatically in the midst of the Great Recession. Importantly, the percentage of young adults with driver's licenses continued to fall even after the economy began to recover. The percentage of adults 45 and older with driver's licenses increased dramatically between 1983 and 2008, but has remained mostly steady in the years during and after the Great Recession. It is for these reasons that University of Michigan

"...the number of registered vehicles per household, per licensed driver, and nationwide per capita all fell by roughly five percent from their peaks in the mid-2000s to 2011."



Figure 2.3 Percentage of Individuals with Driver’s License by Age



Source: Michael Sivak and Brandon Schoettle, “Recent Decreases in the Proportion of Persons with a Driving License Across all Age Groups” University of Michigan Transportation Research Institute, January 2016

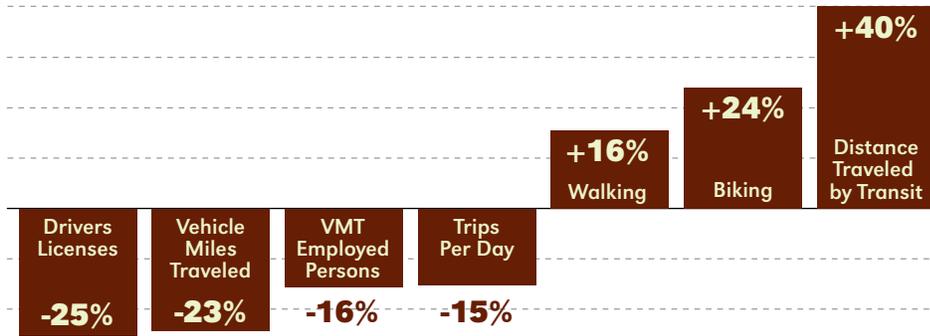
transportation scholar Michael Sivak has speculated that we may have reached “peak motorization.”^{xliv}

“Though per capita driving is down among all ages, the demographic group that is spurring many of these changes is Millennials.”

Though per capita driving is down among all ages, the demographic group that is spurring many of these changes is Millennials.^{xiv} Studies based on National Household Travel Surveys found that **Millennials not only utilize alternative modes at a higher rate than other generations, but also at a higher rate than persons of the same age did one decade earlier.**^{xvii} Compared to 16-34 year-olds in 2001, 16-34 year-olds in 2009 took 15 percent fewer total trips but 24 percent more bike trips and 16 percent more walking trips. At the same time, vehicle miles traveled decreased by 23 percent and distances traveled by transit *increased* by 40 percent (see Figure 2-4).

The reasons Millennials engage in different travel behavior are varied. Common explanations include a values shift away from private vehicle ownership and the long commutes associated with suburban life, and new relationships to technology that make alternative modes easier to use and more conducive to social interaction.^{xlviii} Economic conditions

Figure 2.4 Change in Behavior among 16-34 Year-olds, United States, 2001 vs. 2009



Source: National Household Travel Survey, 2001 and 2009, U.S. Department of Transportation

also play a role in the behavior of young adults, as Millennials have been particularly affected by underemployment and stagnant wages, perhaps reducing their ability to purchase vehicles. However, the drop in VMT was shared across income categories and was not simply a function of different economic conditions. From 2001 to 2009, VMT decreased by 16 percent among employed young persons, and individuals living in “households with annual incomes of over \$70,000 increased their use of public transit by 100 percent, biking by 122 percent, and walking by 37 percent.”^{xlviii}

“...the drop in VMT was shared across income categories and was not simply a function of different economic conditions.”

Transportation Trends in the Albuquerque Metropolitan Area

Local transportation data reveal similar patterns to the nation overall as per capita VMT rose for decades before reaching its peak in 2004. **Whereas the average resident traveled more than 24 miles per day one decade ago, that number has declined by 10 percent through 2014, with the average resident now traveling about 22 miles per day.** And similar to national trends, the shift began several years before the Great Recession.

During the same time span that per capita driving fell, transit ridership surged. From 2004 to 2012, transit ridership grew by 82 percent to surpass 14 million annual trips across all services—a rate several times higher than that of population growth. Not only are Albuquerque area residents utilizing transit more, the distances individuals are traveling via transit has increased dramatically, suggesting important shifts in the way people are using transit. From 2004 to 2012, transit passenger miles traveled increased by 367 percent, one of the highest rates of increase in the country.¹ The biggest sources of new ridership and

longer-distance trips are the New Mexico Rail Runner Express, which carries approximately 3,500 passengers a day a distance of more than 40 miles per trip; the introduction of the ABQ Ride Rapid Ride system; and policies to provide free transit passes to UNM and CNM students, faculty, and staff.

Travel Behavior among Albuquerque Area Residents

Recent data collection efforts provide important insights into transportation values and behavior in the Albuquerque area. These include the Mid-Region Travel Survey, which asked participants to record their actual travel behavior on a given weekday, and questionnaires which allowed respondents to state their opinions on the existing transportation system and desired transportation investments.

From November 2013 to January 2014, nearly 2,500 households (and more than 5,000 individuals) from across the Albuquerque Metropolitan Planning Area (AMPA), including Bernalillo, Sandoval, and Valencia Counties, participated in the Mid-Region Travel Survey.ⁱ The comprehensive random sample study was conducted to understand travel behavior and to better anticipate future needs, and marked the first time in more than twenty years that day-to-day travel characteristics

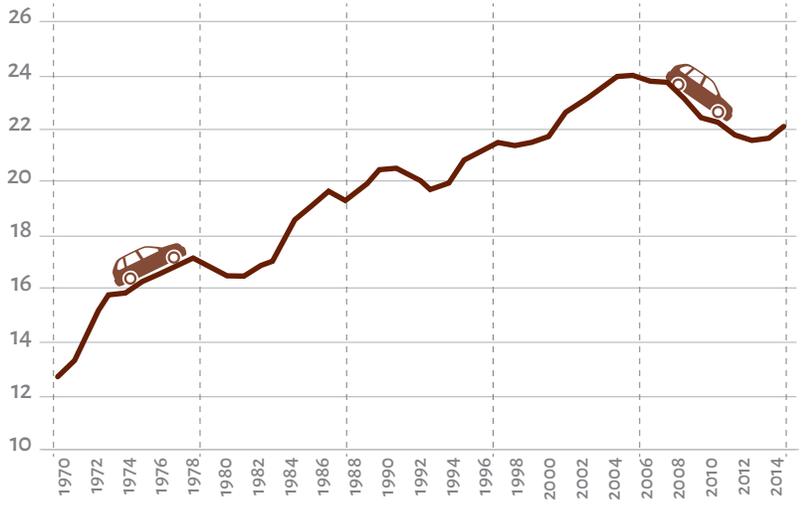
Figure 2.5 Summary Statistics, AMPA, 2004-2012

	2004	2012	Percent Change
Total Population	691,758	875,061	+26%
Total Vehicle Miles Traveled	16,735,195	18,966,203	+13%
Daily Vehicle Miles Traveled Per Capita	24.2	21.7	-10%
Total Transit Ridership	7,823,498	14,277,115	+82%
Total Transit Passenger Miles Traveled	21,477,415	100,245,174	+367%

Source: Mid-Region Council of Governments

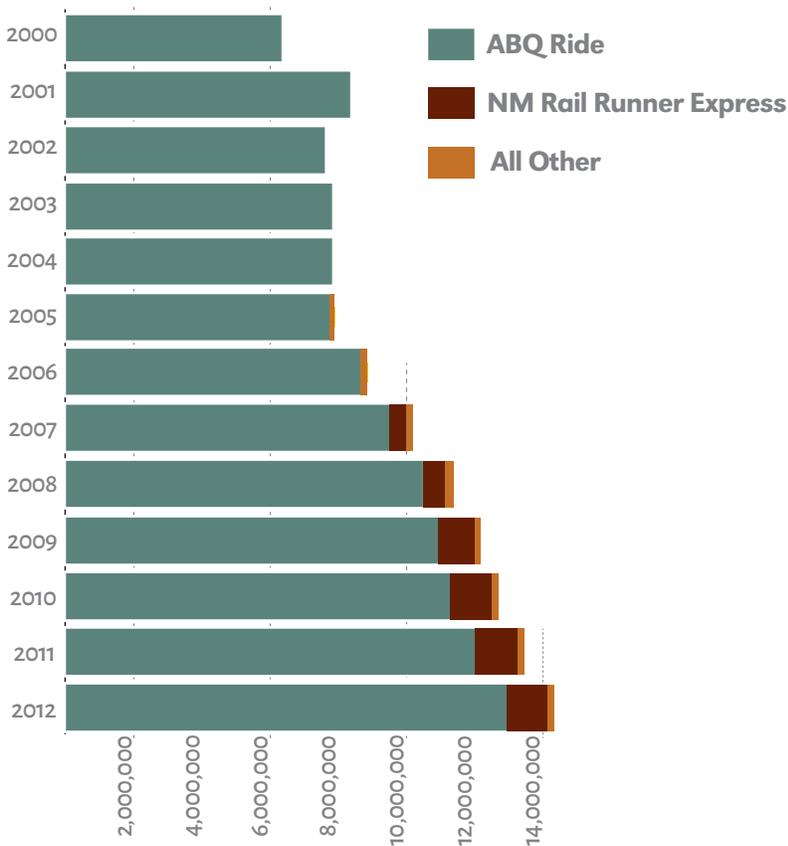


Figure 2.6 Daily VMT Per Capita, AMPA, 1970-2014



Source: Mid-Region Council of Governments

Figure 2.7 Annual Transit Ridership by Service Provider



Source: ABQ Ride, Rio Metro Regional Transit District, 2000 to 2012

During the same time span that per capita driving fell, transit ridership grew at a far higher rate than population.



around the region were analyzed. Such surveys offer a unique opportunity to understand how traveler behavior varies according to factors such as household size, age, income, and place of residence.

The survey revealed that Albuquerque area residents follow many national trends in travel behavior. Particularly noteworthy is the fact that **Millennials travel just over 22 miles per day, or about 37 percent fewer miles than Gen Xers at the time of the survey.** Millennials also travel the shortest distances for individual trips, though Baby Boomers also tend to travel short distances, due in part to the fact that not as many of them are commuting to work or giving children rides to and from school. Gen Xers in the Albuquerque area take the most trips and travel greater distances on average than other generations (see Figure 2-8), which is to be expected, given that they are in their prime working and child-rearing years.

“In keeping with national trends, Millennials [in the Albuquerque area] bike, walk, and utilize public transit at higher rates than other generations.”

In keeping with national trends, Millennials bike, walk, and utilize public transit at higher rates than other generations. In total, 14 percent of all trips by Millennials are taken by biking, walking, or public transit, compared to less than 11 percent of trips by Gen Xers and Baby Boomers (see Figure 2-9).

Travel behavior varies considerably by county as proximity to jobs and services plays a significant role in average trip lengths and total distances traveled in the Albuquerque area. Despite taking the greatest number of daily trips, Bernalillo County residents age 16 years or older on average travel about 23 miles per day across all modes. By comparison, Sandoval and Valencia County residents, who typically live greater distances from employment and retail sites, travel 33 miles per day and 40 miles per day respectively (see Figure 2-10).

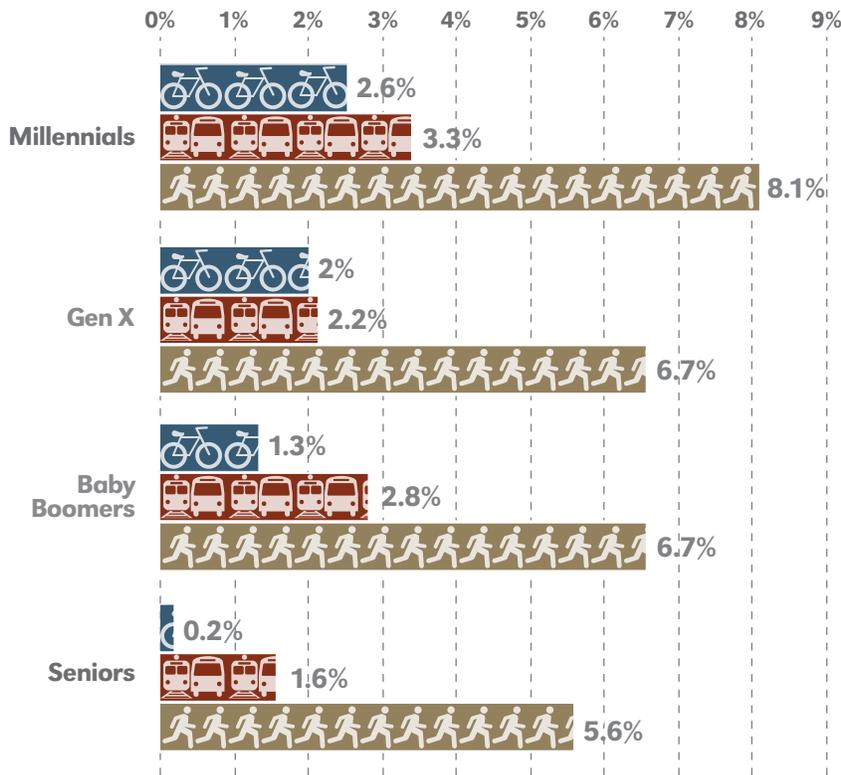
The highest percentage of biking, walking, and transit trips are taken by Bernalillo County residents. However, even Bernalillo County residents take fewer trips by non-auto modes than the national average; slightly more than eight percent of trips by Bernalillo County residents were

Figure 2.8 Travel Characteristics by Generation, AMPA, 2014

Age Group	Number of Trips per Day	Average Distance (Miles)	Distance per Trip (Miles)
Millennials (16-31)	3.7	22.8	6.5
Gen X (32-49)	4.5	37.3	8.4
Boomers (50-67)	4.0	25.9	7.5
All Ages (incl. children and seniors)	3.6	24.8	7.2

Source: Mid-Region Travel Survey, MRCOG, 2014

Figure 2.9 Alternative Mode Share by Generation, AMPA, 2014



Source: Mid-Region Travel Survey, MRCOG, 2014

walking trips, while 11 percent of trips nationwide are walking trips. Bernalillo County residents do take more trips by bicycle than the average American (two percent of all trips compared to one percent).^{lii}

The Mid-Region Travel Survey results also reflect the important and growing role that transit plays in the Albuquerque area. Prior to the completion of the survey, the only data available on non-auto travel behavior came from the American Community Survey commuting data, which tracks mode of travel to work only. Commuting by public transit

“The Mid-Region Travel Survey results reflect the important and growing role that transit plays in the Albuquerque area.”

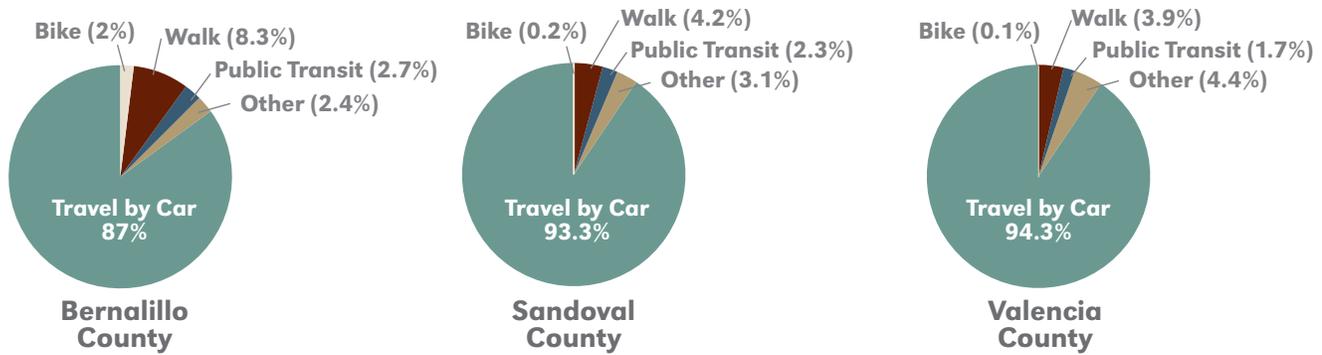
comprises 1.7 percent of trips in Bernalillo County, 1.4 percent of trips in Sandoval County, and 1.5 percent of trips in Valencia County. However, the *total* percentage of trips taken by transit by residents in each county is actually much higher than the commuting data, suggesting large numbers of trips for educational and recreational purposes (see Figure 2-10). The length of transit trips made by Sandoval and Valencia County residents (more than 18 miles and 20 miles on average per trip, respectively) demonstrates the benefits the New Mexico Rail Runner Express provides in terms of long-distance travel options across the region.

Figure 2.10 Travel Frequency and Distance by County, 2014

Travel Measure	Bernalillo	Sandoval	Valencia
Daily Trips per Person	3.81	3.68	3.55
Total Distance per Person (miles)	22.8	32.6	40.4
Average Vehicle Trip (miles)	6.6	8.9	11.1
Average Transit Trip (miles)	6.6	18.4	20.6

Source: Mid-Region Travel Survey, MRCOG, 2014

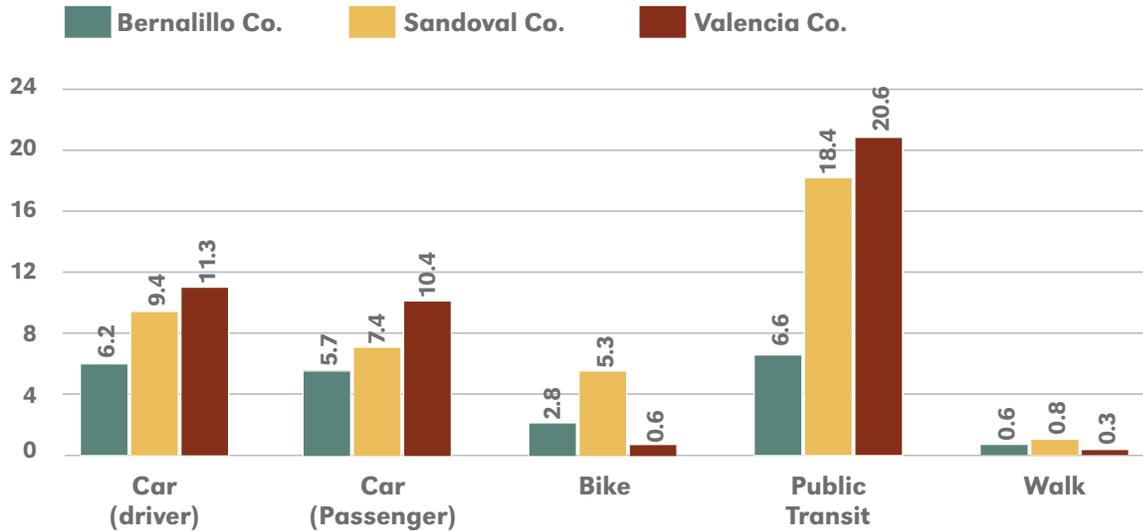
Figure 2.11 Alternative Mode Share by County, 2014



Source: Mid-Region Travel Survey, MRCOG, 2014



Figure 2.12 Average Trip Length in Miles by Mode and County, 2014



Source: Mid-Region Travel Survey, MRCOG, 2014

Transportation Preferences in the Albuquerque Metropolitan Area

Satisfaction Levels

In contrast to the Mid-Region Travel Survey, which observed actual behavior, the 2040 MTP questionnaire was designed to gather individuals' opinions about transportation needs, including levels of satisfaction with the current transportation system. The questionnaire was open from October 2013 through January 2014 and generated 1,371 responses.

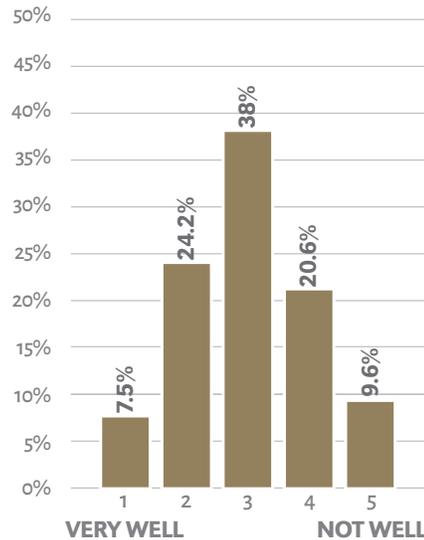
The questionnaire revealed that many Albuquerque area residents do not feel their transportation needs are being met. Stated satisfaction levels formed an almost perfect bell curve, with the highest number of participants expressing a neutral opinion on the transportation system (38 percent). Overall, 31.7 percent of respondents indicate the system meets their needs either "well" or "very well," while a combined 30.2 percent feel the system does not meet their needs (either responding "not well" or "not well at all"). More revealing were responses by age. While more than 41 percent of seniors (aged 65 years and older) view the transportation system favorably, younger respondents were less positive; only a quarter of 18 to 34 year-olds indicate their needs are met, the lowest of any age group by a significant margin.

"...many Albuquerque area residents do not feel their transportation needs are being met."

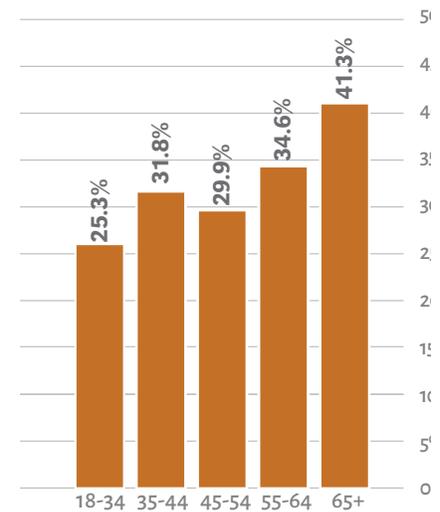
Satisfaction levels also vary greatly depending on the perceptions of respondents. For example:

- Respondents who feel they have many options for daily travel are substantially more likely to express satisfaction (42.6 percent) with the transportation system than those who feel they have few options (24.8 percent).
- Those who view congestion as serious are far less likely to express satisfaction with the transportation system (18.6 percent) than those who view congestion as not serious (39.1 percent).

Figure 2.13
A. How Well Does the Transportation System Meet Your Needs? (All Respondents)

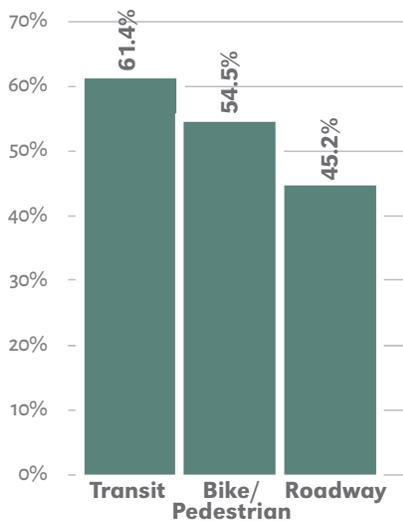
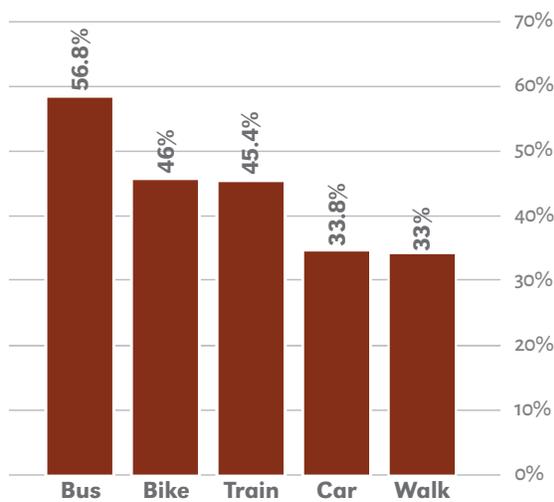


B. Percentage of Respondent Who Rate Transportation System as Favorable by Age Group



Source: 2040 MTP Questionnaire, MRCOG, 2014



Figure 2.14**A. Transportation Strategies Listed as Top-Priority, City of Albuquerque, 2015****B. Desired Transportation Improvements, AMPA, 2014**

Source A: Community Vision Survey, City of Albuquerque, 2015

Source B: 2040 MTP Questionnaire, MRCOG, 2014

Note: Respondents in both surveys were allowed to name more than one priority and as such the responses do not equal 100 percent.

Desired Improvements

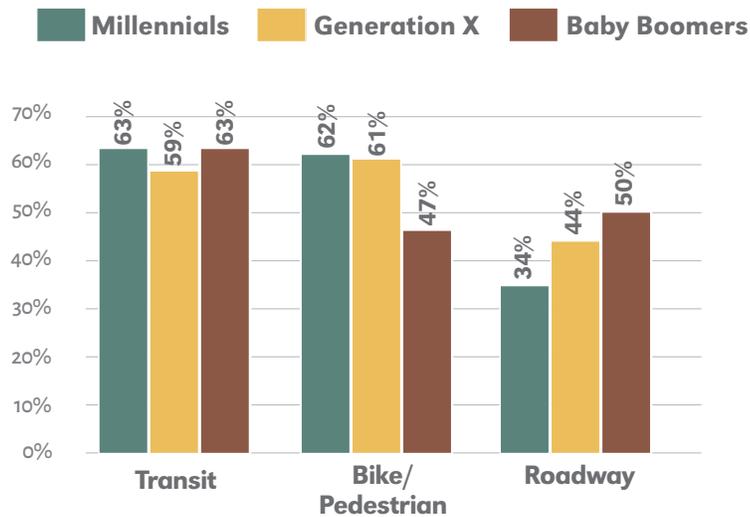
The Community Vision Survey provides important insights into the types of transportation investments that residents would like to see and how those preferences vary by age. Respondents were asked to name their top two priorities out of seven listed items for how the City of Albuquerque should focus its future transportation investments. In general, respondents conveyed a greater desire for improvements to public transit and to pedestrian and bicycle infrastructure than for roadway improvements: 61 percent of respondents believe additional investments in public transit is among their top priorities, compared with 54 percent of investments in pedestrian/bicycle infrastructure and 45 percent in roadway improvements (see Figure 2-14 A).^{liii} This means that despite the fact that more than 85 percent of all trips in Bernalillo County take place by private vehicle, more than half of respondents believe that non-auto modes should receive the highest priority for transportation dollars.

The results from the Community Vision Survey are reinforced by similar findings from the 2040 MTP questionnaire. Figure 2-14 B demonstrates that the modes most commonly identified as needing improvements among MTP questionnaire respondents are also non-auto modes, with transit cited more than 50 percent of the time. Taken together, the

“...despite the fact that more than 85 percent of all trips in Bernalillo County take place by private vehicle, more than half of respondents believe that non-auto modes should receive the highest priority for transportation dollars.”



Figure 2.15 Transportation Priorities by Generation, Bernalillo County, 2015



Source: Community Vision Survey, City of Albuquerque, 2015

Note: Respondents were allowed to name more than one priority and as such the responses do not equal 100 percent.

two questionnaires demonstrate a strong desire for a greater range of transportation options, and public transit in particular.

Assessing results by age group (see Figure 2-15) highlights contrasts among generations in terms of value placed on alternative mode and roadway investments. In particular, Millennials value investments in bicycle and pedestrian infrastructure at the highest rates: 62 percent believe pedestrian or bicycle infrastructure is among their top priorities, compared with 47 percent of Baby Boomers. **Nearly two-thirds of Millennials did not identify any roadway strategies among their top two priorities.** Conversely, Baby Boomers are most likely to view roadway improvements as a top priority. Support for transit investments is the highest among all modes and is consistent across age groups.

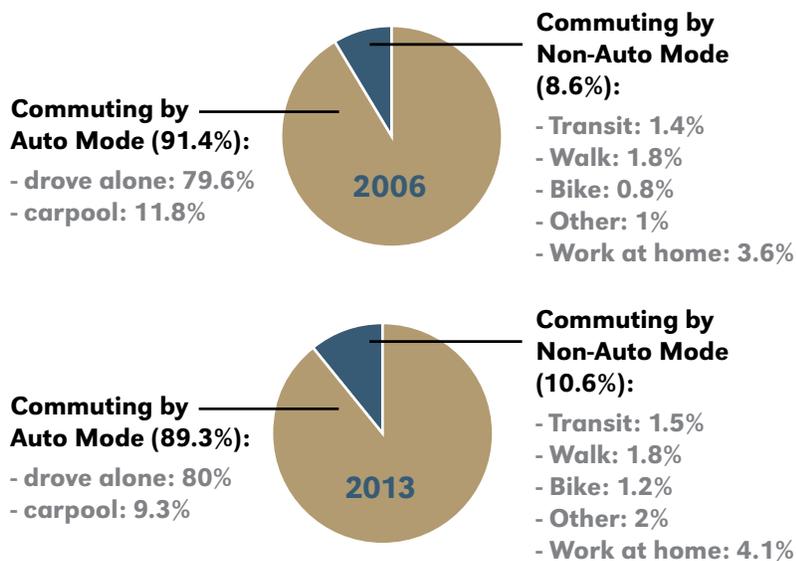
Can Changing Behavior be Observed?

The surveys and questionnaires raise important questions, including whether stated preferences translate to behavior, and whether any changes will be sustained over time. While further household surveys must be conducted to observe the full spectrum of travel behavior over time, some conclusions can be drawn from a review of the American Community Survey data on commuting, and comparisons between ACS data and the Mid-Region Travel Survey.

A report from MRCOG, “Commuting Characteristics in the Albuquerque Metropolitan Area,” analyzed data from 2006 to 2013 and found that commuting by alternative modes has increased by modest amounts in some locations, while commuting by single-occupancy vehicles decreased from 91.4 to 89.3 percent from 2006 to 2013. The shift places Albuquerque among the top 15 regions in the US for largest decrease in auto commuting by percentage points.^{iv} In particular, there has been a noteworthy rise in commuting by transit for residents of Sandoval County (including Rio Rancho) and Valencia County, coinciding with the introduction of the New Mexico Rail Runner Express and reflecting the newfound transit options for residents of these areas.

However, the decrease in auto commuting is due more to a significant drop in carpooling (from 11.8 to 9.3 percent) than any other factor. (The increase, though minor, in work at home behavior is another contributing factor worth tracking.) Such shifts in travel patterns are relatively common across the country and indicative of employment

Figure 2.16 Commuting by Travel Mode, ABQ MSA, 2006 and 2013



Source: Census Bureau, American Community Survey, 1-Year Data, 2006 and 2013

sprawl, the increasing dispersion of jobs across a region, as much or more than residential sprawl.

When taken together, the ACS (commuting trips only) and household travel survey data (all trips) indicate that a **disproportionate percentage of non-work trips are completed by alternate modes of transportation**. This reflects different behaviors for university-bound students and professionals in more urban areas taking walking trips for coffee or lunch. It may also indicate that when time is less of a factor, individuals are more willing to travel by means other than private vehicle.

The decrease in overall auto commuting can have benefits in terms of reduced congestion and lower emissions. However, the fact that the percentage of drive alone commuting trips has remained constant or increased over time indicates that there have not yet been fundamental shifts in one of the most common and recurring types of trips, even if there is growing evidence of evolving travel preferences and demand for a greater range of transportation options.

Are Behavioral Changes Long-term Phenomena?

A common critique of the focus on Millennial transportation behavior is that differences among generations can be explained by life cycle. That is, as Millennials age and form families, their behavior will come to resemble that of Gen Xers. However, a number of societal factors will impact travel behavior in different ways in the future. For example, from 1970 to 2012, the age of marriage increased from 23 to 29 for men and 21 to 27 for women, and the age of first child for women increased from 21 to 26. These factors would merely delay the changes in travel behavior associated with child-rearing, yet other factors are also at play. The numbers of individuals living alone and overall birth rates have fallen, directly contributing to declines in vehicle ownership rates and per capita driving.^{lv}

A study from University of North Carolina planning scholar Noreen McDonald considers the impacts of lifestyle-related demographic shifts, changing attitudes, along with the general decline in travel demand, and attempts to quantify the impact of each of these factors on Millennial behavior.^{lvi} McDonald concludes that **10 to 25 percent of the decrease in driving among Millennials is a result of life cycle and economic circumstance**. That is to say, lower employment rates, delayed marriage and child-rearing, and delayed homeownership are responsible for a small part of the lower rates of driving, and that overall average driving rates are likely to rise somewhat as Millennials move into a different phase of their life cycles. That shift has merely been delayed.

However, a significantly greater share of the decrease in driving (35 to 50 percent) is due to factors specific to Millennial-generation values, such as attitudes about driving and preference for “virtual mobility” (i.e., online shopping and social media). In other words, values and changing behavior have a greater impact than demographic circumstances and will likely persist even as young adults move to different stages in their life cycle. **The remaining difference in driving levels (about 40 percent) is due to a “general dampening of travel demand” that affected all age groups.**^{lvii}

“...values and changing behavior have a greater impact than demographic circumstances...”

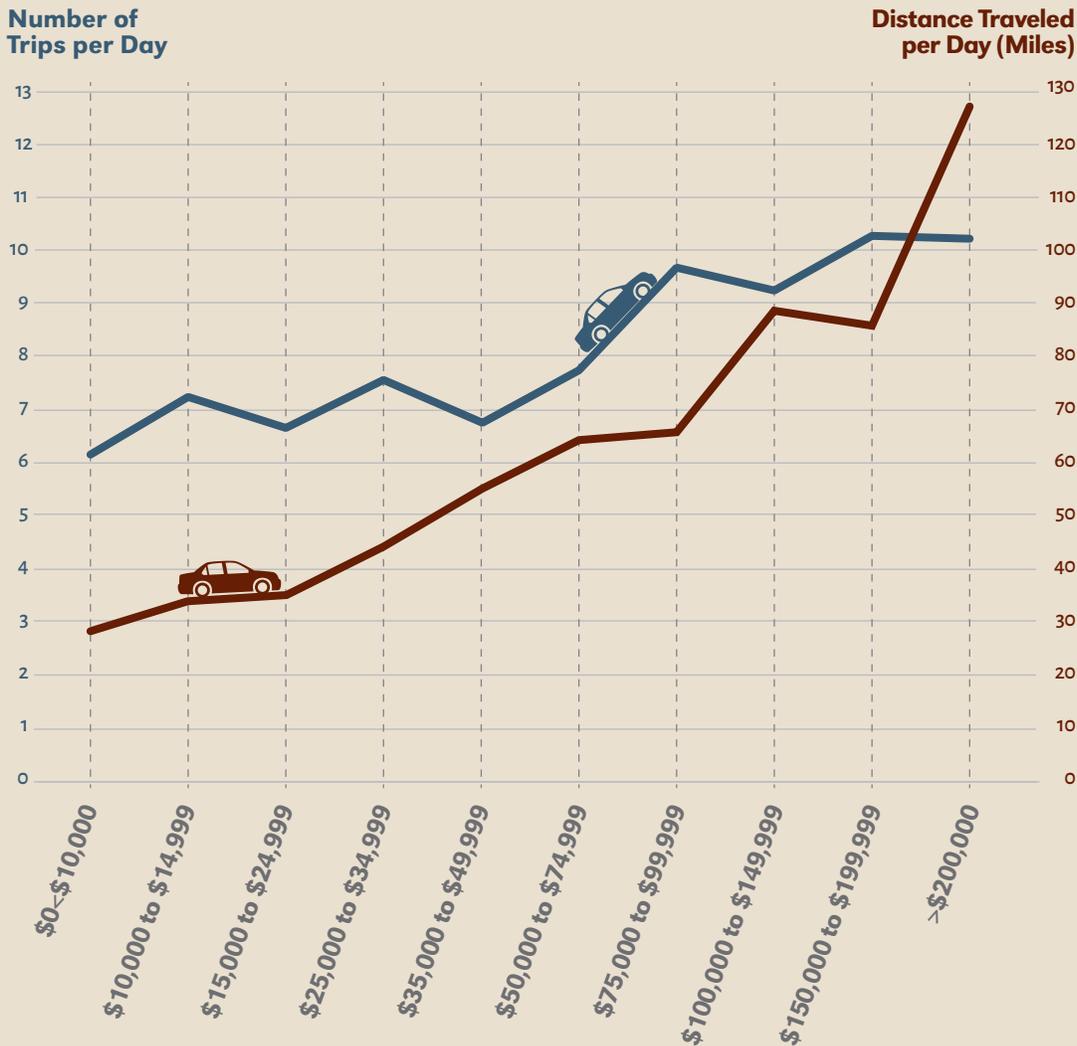
McDonald’s analysis indicates that Millennials may travel greater distances in the future than they do today, but would still travel shorter overall distances than Gen Xers currently do. What is more, those increases as Millennials age may be offset by declining travel across all generations, meaning total driving may not increase significantly over time either. At the same time, economic circumstances and changing values are lengthening the amount of time Millennials may engage in current behaviors.

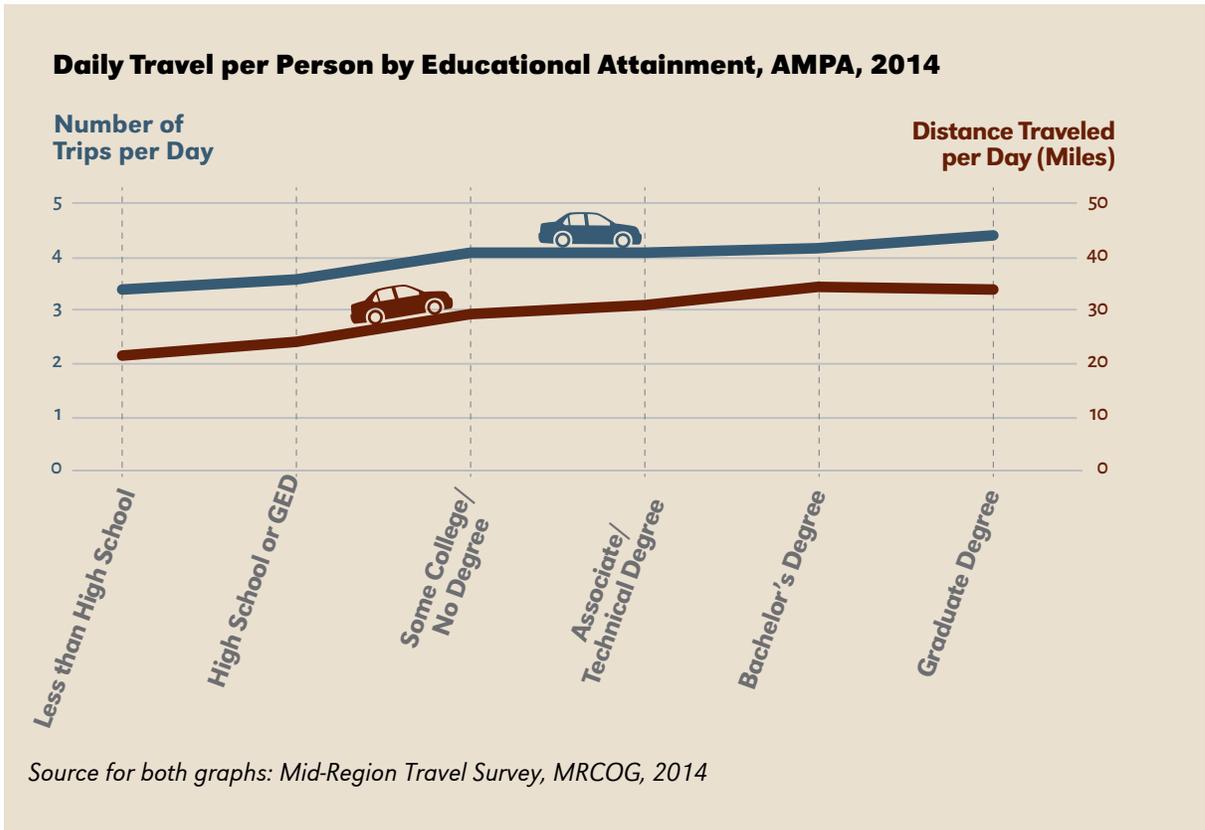
Other factors related to demographics and household composition signify that changing travel patterns are likely to persist, particularly in the Albuquerque area. As the region’s residents age a smaller percentage will be active in the workforce, resulting in a decreasing share of trips taken during the peak commuting periods. Another important demographic shift, the increase in the number of households without children, will also impact travel behavior long-term as travel demands are lower for one-person and two-person households.

Other Findings

Albuquerque area residents follow nationally observed trends when it comes to travel behavior by income and educational attainment. In particular, the number of trips taken and travel distances increase as both education and income rise. In the case of **income**, daily trips increase steadily as income rises, while distances traveled increases at a rate that is exponential. Travel distances increase with **educational attainment** to a certain point, then fall for individuals with a post-graduate degree. The number of trips taken per day also increases as educational attainment rises, meaning that although individuals with graduate degrees take the most trips, they do not travel the greatest distances.

Daily Household Travel Characteristics by Household Income, AMPA, 2014





Analysis & Discussion

“...greater options directly impact our perceptions and levels of satisfaction with the transportation system...”

While the Albuquerque metro area is a car-dominated place, behavior is changing and there is a clear demand for additional travel options. The fact that young residents in particular are unsatisfied with the transportation system is particularly important. Yet providing increased travel options can be politically and financially challenging. Transportation funding is tight, and it can be hard to entertain the notion that investments in alternative modes of travel make sense when gas is cheap and we’re stuck in traffic. At the same time it is important to remember that just because other options aren’t utilized at the same rate as vehicle travel does not mean that those other modes do not play a critical role in residents’ ability to access employment opportunities and basic services. As we can observe from the questionnaire data, greater options directly impact our perceptions and levels of satisfaction with the transportation system and are consistent with research on the desirability of communities with aspects of urban living.

Part of meeting these needs involves a change in thinking. Like the mismatch between available and desired housing, the transportation system does not align well with preferred modes of travel. And like housing policy, transportation policy should meet the evolving needs of travelers in the Albuquerque metro area through the provision of a wide range of travel options. In fact, addressing the transportation challenges is intertwined with meeting housing needs. The built environment in much of the metropolitan area makes travel by means other than private vehicles difficult. Providing new options should be done strategically in locations where surrounding land use is compatible and supports mixed-use, walkable communities.

Transportation infrastructure projects should not be thought of as overnight solutions, but as long-term investments in the form and function of a community and as essential ingredients in creating a competitive and vibrant economy. It is not that new transit services or bike lanes by themselves will keep young professionals in Albuquerque. Nor will investments in a network of premium transit services make congestion disappear. But they are a means of providing additional transportation choices and supporting a broad range of lifestyles. Emerging travel behavior also happens to be more sustainable: fewer vehicle miles traveled and greater use of alternative modes results in less wear and tear on our roads and lower emissions levels.

None of this is to say that policymakers should anticipate a region without cars. There is some evidence that VMT and vehicle ownership rates are increasing with the dramatic fall of gas prices in 2014 and 2015. Yet it does not appear that rates will approach the highs of the mid-2000s. Rather, a “decoupling” is now taking place in which VMT and gross domestic product, which had historically grown in high correlation to each other, are now diverging. Instead, in recent years

GDP growth has far outpaced that of VMT, meaning that even if VMT increases over time, it will not need to grow at historical rates to support the region's economy. Rather, it is possible to grow in ways that do not depend exclusively on single-occupancy vehicle travel.^{lviii}

Policy Options

To meet the needs of Albuquerque residents long-term, the Albuquerque area must work to increase transportation choices. Important steps have been taken to support additional transportation options across the Albuquerque area, meaning the most important step to meeting travel needs of Albuquerque area residents is to **strengthen existing policies**.

- Public transit opportunities continue to expand with the receipt of a \$69 million grant through the Federal Transit Administration's Small Starts program and the anticipated development of Albuquerque Rapid Transit (ART) along Central Ave, and potential expansion along the University Blvd corridor serving UNM, CNM, and the Sunport.
- The City of Albuquerque and Bernalillo County passed Complete Streets ordinances and now routinely examine opportunities to add bicycle lanes and improve pedestrian conditions in locations where there is more roadway capacity than is required.
- The *Albuquerque Bernalillo County Comprehensive Plan* update is strengthening policy support for transit investments and the routine accommodation of pedestrians and bicyclists.
- Bike share is set to expand from a downtown pilot project to other parts of the metro area, and possibly Santa Fe, under the stewardship of the Rio Metro Regional Transit District.
- The *Futures 2040 Metropolitan Transportation Plan*, approved in April 2015, marks an important shift toward increased emphasis on roadway maintenance and preservation. This shift is as much

Strengthen Existing Policies



pragmatic due to limited funding as it is strategic, but such a financial reality is consistent with investing in existing communities.

- The Metropolitan Transportation Board (MTB), the policy-making body for the Albuquerque Metropolitan Planning Area and the entity that approves the programming of federal transportation dollars in the region, took several important steps in emphasizing multimodal investments. Since 2010, the board has set aside 25 percent of the region’s sub-allocated money (about \$5 million per year) for major transit projects, and established mode share goals in which 20 percent of all vehicle trips along a priority transit network should be taken by transit by 2040. Funds are being applied to support the ART.^{lix}
- The MTB approved the Long Range Transportation System (LRTS) Guide, which provides street design guidelines that vary based on the surrounding land use context and the roadway function and that explicitly consider all modes. The City of Albuquerque is updating the Development Process Manual with many elements of the LRTS Guide.

These policies and investments must be expanded upon. Additional funding is needed not just for capital projects but public transit operations, maintenance, and security. The taxing authority of the Rio Metro Regional Transit District, which currently levies a 1/8-cent GRT to support the Rail Runner and other transit services, is one possibility. Strengthening these policies also requires something less tangible: strong support from policy-makers and a will to think differently. The vocal resistance heard in public meetings for the ART demonstrates that although support for transit exists in the abstract, individual projects and changing the dynamics of the region’s transportation system can be incredibly challenging.

Fix-It-First Policies Expanding choices also involves some reconsideration of transportation investments and priorities. An increasing number of departments of transportation, including the state of California, and local jurisdictions across the country, are adopting **fix-it-first policies** that focus on maintenance and repairing existing roads as the highest priority for spending. According to Smart Growth America, “this approach reduces maintenance costs later (and) supports business and residential investment in areas already served by transportation infrastructure.” In other words, investing in the transportation system we already have promotes development in more sustainable ways. Smart Growth America further contends:

(T)he bias toward building highways to provide new capacity encourages growth in undeveloped areas rather than in existing centers and corridors. This induced development on parcels near new roads increases travel. In turn, this leads to a failure of new capacity to actually reduce traffic congestion and increases harmful

vehicle emissions. Additionally, new roads will eventually need to be maintained, adding to the existing maintenance backlog.^{ix}

Some roads in the Albuquerque metropolitan area are at or above capacity, meaning there are more vehicles than the road was intended to handle. Expanding capacity in these situations may make sense. However, falling levels of VMT per capita also means that many roads, particularly across Albuquerque's eastside, experience traffic volumes more than 25 percent below the levels of 10 or 15 years ago. In areas of population and employment growth, future congestion levels may not be as severe as once thought. As a result, agencies can rethink how infrastructure dollars are spent and over time many roads can be reconfigured to make travel by other modes of travel safer and more practical.

Similarly, agencies should reexamine the ways they think about the impacts of new development. **Traffic impact analyses** generally consider the additional levels of vehicle travel associated with new developments using conditions observed in stand-alone developments in suburban settings. As a result, many analyses overestimate the traffic impacts of infill development projects given that customers have a higher likelihood of accessing them by bus, bike, or walking. At the same time, we must come to terms with the idea that congestion may be a desirable thing in some areas and is an inevitable function of places people want to be. For example, consider main streets, where high volumes of slow traveling vehicles often translates to higher visibility for store owners and the opportunity for more customers.

Providing additional options means not only investing in non-auto modes, but **embracing new technology** to meet travel challenges. Autonomous vehicles and ridesharing services are likely to play increased roles in everyday travel in the near future. These technologies can be forces for good by improving safety and, particularly in the case of ridesharing, reducing overall transportation costs through decreased reliance on single-occupancy vehicles. Research on the impacts of ridesharing on travel behavior finds that users treat Uber, Lyft, as well as bike share services as a complementary modes of travel that do not individually supplant other behavior, but create greater flexibility and freedom of travel choice.^{ixi} If the role of public transit is to improve mobility across the region, transit providers could look for opportunities to link bus and rail transit with bike share and car-sharing services such as Uber to support connections to regular services.

Public agencies and major employers around the region could also pool their resources to create meaningful **travel demand management programs**. Travel demand management involves a series of strategies designed to reduce single-occupancy vehicle usage during the peak periods. It can mean taking vehicle trips off the road altogether by shifting travel to alternatives modes or promoting telecommuting

Traffic Impact Analyses

Embracing New Technology

Travel Demand Management Policies

**Supportive
Land Use Policies**

and carpooling, or shifting trips to other times of the day to lessen congestion during the peak travel periods. Existing programs at ABQ Ride and the Rio Metro Regional Transit District could be consolidated and expanded into a regional program to promote ridesharing and carpooling, generate shared parking agreements that reduce the amount of space devoted to surface parking, and promote incentives from employers such as flexible schedules.

Formal and concerted efforts to expand transportation options also require **supportive land use policies**, such as those described in the previous Chapter 1. The reality is that transit is only viable with density of housing and concentrations of activity centers, and streets designs that are friendly to pedestrians will only change behavior if there are places to walk to. It is important to reiterate that such policies do not make sense everywhere, but if we are serious about expanding choice, some places within the metropolitan area must be given the opportunity to evolve.

END NOTES

- ⁱ Gallagher, Leigh. *The End of the Suburbs*, New York: Portfolio/Penguin, 2013; Schwartz, Samuel, I. *Street Smart: The Rise of Cities and the Fall of Cars*, New York: Public Affairs, 2015
- ⁱⁱ Bruce Krasnow, "Research finds exodus of young, educated is stunting state's growth" *The Santa Fe New Mexican*, November 22, 2015
- ⁱⁱⁱ Demand Institute, "The Shifting Nature of US Housing Demand," May 2012, p. 6-8
- ^{iv} American Community Survey 1-year data. The remaining housing units include mobile home and "other" housing units, as defined by the Census Bureau.
- ^v Smart Growth America, "Measuring Sprawl 2014," April 2014. Albuquerque ranks 126 out of 221 metropolitan areas in the Sprawl Index, where #221 is most sprawling and #1 is least. Albuquerque ranks disproportionately high among metropolitan areas of similar size.
- ^{vi} Further clouding this discussion is that fact that apartments are older on average than single family homes, and that apartment supply needs to keep up with both obsolescence and replacement as well as growth and new demand.
- ^{vii} Nelson, Arthur C. *Reshaping Metropolitan America*, Island Press, 2013
- ^{viii} These projections are based on slightly different numbers than those developed by UNM Geospatial and Population Studies and contained in the *Futures 2040 Metropolitan Transportation Plan*, MRCOG, 2015.
- ^{ix} Source: Arthur C. Nelson, presentation to Greater Albuquerque Association of Realtors, April 16, 2015; Gallagher, Leigh. *The End of the Suburbs*, New York: Portfolio/Penguin, 2013
- ^x Stephanie Guzman, "Titan Development breaks ground on 85,000 SF project in NE heights," *Albuquerque Business First*, February 26, 2016; Stephanie Guzman, "No surprise here: Apartment rents increasing in Albuquerque," *Albuquerque Business First*, February 1, 2016
- ^{xi} The Albuquerque Metropolitan Statistical Area comprises Bernalillo, Sandoval, Torrance, and Valencia Counties. 2040 growth projections developed by University of New Mexico Bureau of Business and Economic Research's Geospatial Population Studies Group in November 2012.
- ^{xii} Nelson, Arthur C. *Reshaping Metropolitan America*, Island Press, 2013
- ^{xiii} Urban Land Institute, "Gen Y and Housing," May 2015, p. 6
- ^{xiv} According to the Urban Land Institute, "from second quarter 2004 to second quarter 2014, the nation's homeownership rate dropped 4.6 percent." "Gen Y and Housing," p. 6
- ^{xv} Urban Land Institute, "Gen Y and Housing," p. 2
- ^{xvi} Urban Land Institute, "Gen Y and Housing,"
- ^{xvii} Demand Institute, "Millennials and Their Homes: Still Seeking the American Dream," summary of findings from 2013 Demand Institute Housing & Community Survey
- ^{xviii} Urban Land Institute, "America in 2013"
- ^{xix} Urban Land Institute, "America in 2015," June 2015
- ^{xx} In the "Gen Y and Housing" survey, 62 percent identified a desire to live in single-family housing; In the Demand Institute "Housing & Community Survey 2013" 62 percent identified a desire to live in single-family housing; in "America in 2015" 59 percent identified a desire to live in single-family housing.
- ^{xxi} Urban Land Institute. "Gen Y and Housing." Hidden in the data on current housing location is that approximately one-fifth of Millennials live at home (i.e. with parents or other family members). Individuals living at home inflate the percentage who live in single-family housing. Many Millennials are likely to become renter before they purchase homes, meaning many more may transition to non-single-family housing in the short to medium-term.
- ^{xxii} Urban Land Institute. "Gen Y and Housing," p. 23
- ^{xxiii} Smart growth, or compact development communities, are defined in the Urban Land Institute survey as places that offer shorter commute but smaller home, close to shops, restaurants, and offices, mix of incomes, available public transportation, and a mix of housing types.
- ^{xxiv} American Association of Retired People, "Aging in Place," December 2011
- ^{xxv} Demand Institute, "The Shifting Nature of US Housing Demand," May 2012, p. 8
- ^{xxvi} Urban Land Institute, "America in 2015." In this survey, 37 percent of Baby Boomers indicate they are likely to move in the next five years.
- ^{xxvii} The Nielsen Company, "Millennials Prefer Cities to Suburbs, Subways to Driveways," March 4, 2014. News release for report titled "Millennials: Breaking the Myths."
- ^{xxviii} Pinsker, Joe, "Young Americans, Yearning for the Suburbs, Stuck in the Cities," *The Atlantic*, January 27, 2015
- ^{xxix} Research by Victor Couture and Jessie Handbury of the University of Pennsylvania cited in "The Real Source of America's Urban Revival," Eric Jaffe, *CityLab*, February 23, 2016
- ^{xxx} Pinsker, Joe, "Young Americans, Yearning for the Suburbs, Stuck in the Cities," *The Atlantic*, January 27, 2015
- ^{xxxi} Pinsker, Joe, "Young Americans, Yearning for the Suburbs, Stuck in the Cities," *The Atlantic*, January 27, 2015
- ^{xxxii} CEOs for Cities, "Walking the Walk," August 2009
- ^{xxxiii} Demand Institute, "Millennials and Their Homes: Still Seeking the American Dream," summary of findings from 2013 Demand Institute

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- ^{xxxiv} Gallagher, Leigh. *The End of the Suburbs*, New York: Portfolio/Penguin, 2013
- ^{xxxv} Both of these efforts were voluntary stated preference surveys with the majority of responses completed electronically.
- ^{xxxvi} Presentation by Maureen McAvey given during an event for Urban Land Institute New Mexico on October 26, 2015, called “Emerging Trends in Real Estate, Annual Trends 2016”
- ^{xxxvii} City Observatory, “City Report: The Young and Restless and the Nation’s Cities,” October 2014
- ^{xxxviii} Presentation by Arthur C. Nelson to Greater Albuquerque Association of Realtors, April 16, 2015
- ^{xxxix} Speck, Jeff. *Walkable City*, New York: Farrar, Straus and Giroux, 2012, p. 253
- ^{xl} Federal Highway Administration, Traffic Volume Data; US Census Bureau
- ^{xli} University of Michigan Transportation Research institute, cited in, Jordan Weissman, “The Dramatic 30-Year Decline of Young Drivers (In 1 Chart),” *The Atlantic*, July 20, 2012
- ^{xlii} This chart is a recreation of one contained in: Michael Sivak, “Has Motorization in the US Peaked?” University of Michigan Transportation Research Institute, July 2013
- ^{xliiii} FHWA, Laura Bliss, “America Has the Fewest 16-Year-Old Drivers Since the 1960s,” *CityLab*, April 6, 2016, <http://www.citylab.com/commute/2016/04/america-fewest-16-year-old-drivers-1960s/477135/>
- ^{xliv} Sivak, Michael, “Has Motorization in the US peaked? Part 2: Use of Light-Duty Vehicles,” University of Michigan Transportation Research Institute, July 2013
- ^{xlv} McDonald, Noreen C., “Are Millennials Really the ‘Go-Nowhere’ Generation?” *Journal of the American Planning Association*, Volume 81, Issue 2, Spring 2015, p. 90-103
- ^{xlvi} The research discussed in this paragraph is based on analysis of National Household Travel Surveys (NHTS), conducted approximately every eight years. The NHTS allows for comparison of behavior among age groups at different points in time.
- ^{xlvii} Frontier Group and U.S. PIRG, “Transportation and the New Generation: Why Young People are Driving Less and What it Means for Transportation Policy,” April 2012
- ^{xlviii} Frontier Group and U.S. PIRG, “Transportation and the New Generation: Why Young People are Driving Less and What it Means for Transportation Policy,” April 2012
- ^{xlix} The Albuquerque Metropolitan Planning Area consists of all Bernalillo and Valencia Counties, and the southern portion of Sandoval County including the city of Rio Rancho. These numbers were provided for the 2040 Metropolitan Transportation Plan, which uses 2012 as a base year.
- ^l Frontier Group and US PIRG, “Transportation in Transition,” November 2014
- ^{li} To ensure meaningful analysis, MRCOG oversampled in Sandoval and Valencia Counties, meaning respondents from those counties formed a larger percentage than the population share (Bernalillo sample = 1,658 households; Sandoval sample = 464 households; Valencia sample = 349 households). This disproportionate sampling allows more meaningful analysis of travel behavior by residents of those counties, and far better understanding of how travel behavior varies from county to county.
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- ^{liiii} Since respondents could name multiple priorities, the percentages sum to more than 100.
- ^{liv} McKenzie, Brian, “Who Drives to Work? Commuting by Automobile in the United States: 2013,” Census Bureau American Community Survey Reports, August 2015
- ^{lv} Research from Steven Polzin of the Center for Urban Transportation Research at the University of South Florida, cited in “The 10 Biggest Factors Changing Millennial Driving Habits,” by Eric Jaffe, *The Atlantic*, November 14, 2014
- ^{lvi} McDonald, Noreen C., “Are Millennials Really the ‘Go-Nowhere’ Generation?” *Journal of the American Planning Association*, Volume 81, Issue 2, Spring 2015, p. 90-103. McDonald’s analysis is based on National Household Travel Surveys from 1995, 2001, and 2009 and compares behavior among the same age sets at different points in time.
- ^{lvii} McDonald, Noreen C., “Are Millennials Really the ‘Go-Nowhere’ Generation?” *Journal of the American Planning Association*, Spring 2015
- ^{lviii} Center for Clean Air Policy, “Growing Wealthier: Smart Growth, Climate Change and Prosperity,” January 2011
- ^{lix} Despite the fact that less than three percent of all trips in Bernalillo County are made by public transit, the mode share goals are realistic because they are geographically targeted. For example, some portions of Central Ave already witness more than 20 percent of trips being taken by public transit.
- ^{lx} Smart Growth America website, <http://www.smartgrowthamerica.org/guides/smart-growth-at-the-state-and-local-level/transportation/adopt-a-fix-it-first-approach/> Accessed February 21, 2016
- ^{lxi} American Public Transportation Association, “Shared Mobility and the Transformation of Public Transit,” March 2016

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