Impact of Baby Boomers on U.S. Travel, 1969 to 2009

Nancy McGuckin
Travel Behavior Analyst
Jana Lynott
AARP Public Policy Institute

The Baby Boom Generation has been the demographic engine fueling much of the growth in travel over the past 40 years—both in the number of travelers and in the amount of travel per person. The historic growth in vehicle travel generated economic, spatial, and cultural changes that are still being felt today. This Insight on the Issues offers one perspective on the role of the population bubble known as the baby boomers on U.S. travel, as described through four decades of travel data. It then offers recommendations on public and private investments needed to ensure the future mobility of boomers as they age.

Summary

The Baby Boom Generation (born between 1946 and 1964) has been the demographic engine fueling much of the growth in travel over the past 40 years—both in the number of travelers and in the amount of travel per person. The historic growth in vehicle travel generated economic, spatial, and cultural changes that are still being felt today.

By all measures of travel, people in the baby boomer age cohort have traditionally traveled more than their counterparts in other age groups. Baby boomers in each survey year traveled more miles per day than people of other ages (see figure 1).

Baby boomers started driving at a young age, and both young men and women entered the workforce with more education than previous generations. When the baby boomers started building families, they acquired “his” and “hers” cars, spread a housing boom to the suburban fringes, and, with the advent of dual-earner families, exhibited a strong reliance on “outsourced” household support, such as day care and eating out, that required travel. As a result, during the past four decades, the number of

![Figure 1](source: National Household Travel Survey data series.)
vehicles nearly tripled, travel rates more than doubled, and total vehicle miles of travel grew at more than twice the rate of population growth. Since 1977, travel for household maintenance trips (nonwork) grew fivefold.

New Patterns of Travel

Recently the historic pattern of year-over-year increases in vehicle miles of travel has shifted, and researchers and policymakers wonder if the recent declines indicate a historic turning point or are simply a product of the economic downturn that will rebound when the economy recovers.

Many factors may play a role in the current decline in overall travel rates. Some are measurable, such as increased gas prices and unemployment, and some are less certain, such as the effect of electronic communications technology (Internet shopping and work at home) on travel. At the same time, the baby boomers are starting to move into the empty-nest and retirement stages of their lives, typified by lower overall travel rates.

Accompanying an overall decline in miles traveled, the baby boomers, after decades of high vehicle use, may be shifting some of their travel to other means. Vehicle travel for the baby boomers increased greatly in the 1980s and early 1990s, and then started to decline after 1995. The trends in transit use show a steady increase in the number of transit trips per person as the Baby Boom Generation ages, and a noticeable increase in 2009.

One type of travel that has seen astonishing growth and can be expected to continue to grow is travel to access medical services (see figure 7). While the distance traveled for the average trip to access medical services has remained about the same for the past three decades, the number of medical trips has skyrocketed.¹

Conclusions

As the baby boomers move into retirement, there are enduring questions about how they will travel, how much, for what purposes, and by what means. Important issues related to revenue forecasts, commuting and congestion, safety and air quality, and mobility for an aging populace all hinge on the behavior of this important and mobile generation. Understanding the past helps us divine the future as we struggle to understand how boomers differ from previous generations of older Americans, and how their habits, culture, and constraints will influence their travel going forward.

Just as boomers have changed the country’s travel patterns over the past 40 years, they will influence the broad range of senior transportation strategies employed to address the travel needs of older adults today and tomorrow. Many baby boomers have lived their entire lives in the suburbs—born and raised there, raised their children there, and most will age in place there. The place where people live as they age is critical to the kind of support networks and mobility options available to them at home.

To meet their evolving transportation needs, both public and private investments will be needed, as well as continued research in new technologies and individual mobility planning.

About the Data Set

The National Household Travel Survey (NHTS) data series is a unique and invaluable source of information on trends in travel by people in the United States. The household, person, and travel data for 1977, 1983, 1990, 1995, 2001, and 2009 were directly analyzed for this
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report; information from the earliest survey in 1969 is available only in published documents and used when those data are available. As a cross-sectional survey, the NHTS offers a series of snapshots that can be assembled to create a picture of important trends in travel over the past four decades. In addition, data from the U.S. Census and the Bureau of Labor Statistics were used as needed. People born between 1946 and 1964 are identified as baby boomers, and only people aged 16 and older are included in this analysis, unless otherwise stated.

When the first survey was conducted in 1969, the oldest baby boomers were 23 years old. When the latest survey was conducted in 2009, the oldest baby boomers were 63 years old. Much has changed in those 40 years. Since the first survey, the number of vehicle miles of travel (VMT) in the United States increased by twice the rate of the population, licensing among both women and men became nearly universal, and vehicle ownership soared.

Historic Patterns of Travel

The number of people aged 16 and older in the United States grew by 72 percent (more than 100 million people) between 1969 and 2009, while the number of workers and drivers doubled, and the number of vehicles nearly tripled. In the same period, the number of miles that an average person traveled on any given day increased by more than 15 miles per person per day, while the vehicle miles generated by the average household increased by 20 miles per household per day.2

By all measures of travel, people in the baby boomer age cohort have traditionally traveled more than their counterparts in other age groups. Baby boomers in each survey year traveled more miles per day than people of other ages (see figure 1).

When they were younger, baby boomers traveled more than older people, and now that they are older, they travel more than younger people. In 1983, when the baby boomers were 19 to 38 years old, they averaged 30 percent more miles than older cohorts. When the boomers were 37 to 56 years old, they traveled 51 miles a day on average, 28 percent more than other ages. In 2009, for the first time, overall travel declined for all age groups. Even with the overall declines, baby boomers (who were 45 to 63 in 2009) traveled 17 percent more miles than all other ages.

One of the reasons the Baby Boom Generation added so much to daily travel is that the number of workers increased—due to both greater numbers of working-age people and an unprecedented increase in women’s participation in the workforce (see figure 2).

Understanding travel demand traditionally depends upon understanding

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The flow between workers, their residences, and their workplaces defines peak travel demand, often resulting in congestion in the morning and evening, which, in turn, influences the design of the transportation infrastructure, particularly the corridors served by transit.

The number of work trips per worker has remained virtually the same for both men and women over the four decades of the NHTS study—about 350 a year. However, the 80 percent increase in the number of commuters from the baby boom workforce combined with a 30 percent increase in the average commute distance led to a doubling of miles for work travel between 1977 and 2009.

Recent trends show a natural attrition of baby boomers out of the workforce as they age into retirement or, more recently, join the ranks of the unemployed. Commuting in America II noted that the 1990s would be seen as the turning point that signaled the end of the worker boom. Going forward, workers will still be added as the population grows, but not at the same rate as in the past few decades. What effect the change in workforce growth will have on peak period travel demand, congestion, and related issues remains to be seen.

Household Type

The type of household people live in—how many people, how many workers, and whether children are present—has historically determined the amount and type of travel generated by that household. The baby boomers led the shift from single-earner to dual-earner households (figure 3), and acronyms like DINKs were coined in the 1980s to describe a new norm.

In 1977, there were about 45 million households with two adults, of which 17 million (about 38 percent) were dual-earner households. By 2001, the number of two-adult households with two workers had doubled to 33 million, and in more than half of all two-adult households, both people were employed. In 2009, however, the number of dual-earner households fell to 23 million, the same proportion as in 1977 (38 percent). Many more two-person households now are composed of retired couples. In 2009, almost 30 percent of households with two adults had no workers.

The growth in two-worker two-car households was one of the major shifts in travel demographics over the past four decades (figure 3). The dual-earner two-car household is very common now, and household vehicles are often thought of as “his” and “hers.” But in 1969, just 30 percent of two-adult households had two or more vehicles; in 2009, 77 percent had two or more vehicles. As a result of this shift, the number of household vehicles nearly doubled between 1977 and 2009.

Figure 3
Number of Dual-Earner Households and the Percent with Two or More Vehicles

Source: National Household Travel Survey data series.
Throughout their lives, the majority of baby boomers lived in nuclear family households as part of a couple with one or more children under 21 years old (figure 4). However, even through the 1980s and 1990s, a strong minority of households did not include children. In those decades, couples without children accounted for a quarter of baby boomer households, and single people another 10 percent. In the most recent data, people living as couples without children represented the majority of baby boomer households for the first time, as the baby boomers move into the empty-nest stage of life.

Because household type is so entwined with how much and why people travel, changes in living arrangements by large population groups can affect the amount and type of travel. For example, we can compare changes in household type over the decades to the amount of travel those types of households generated. The majority of baby boomers have shifted to living in couple households without children, increasing that household type by 54 percent compared with 1977. People in couple households account for 44 percent of the increase in VMT between 1977 and 2009 (see figure 5).

Most of the VMT growth came from another household type: couples with children. While only 25 percent more people were living as part of a couple with children in 2009 compared with 1977, they contributed nearly twice as much VMT per person as people in couple households—43 percent of the total increase in VMT.

At the other extreme, the number of people in single-person households has increased by 33 percent since 1977. But people who live alone are a relatively small percentage of the overall population (14 percent), and they contributed even less to the growth in VMT. A majority of single-person households are people over the age of 65, predominantly female, who have the lowest rates of travel.

As the baby boomer cohort ages, retired couples and single-person households are growing faster than households with children. One out of five baby boomer women never had a child, and fewer than

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**Figure 4**

Percent of Baby Boomers Living in Different Household Types by Year and (Age of Boomers)

<table>
<thead>
<tr>
<th>Year and Age of Boomers</th>
<th>Couples w/Children</th>
<th>Couples w/out Children</th>
<th>Single Person</th>
<th>Single Parent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977 (ages 16-32)</td>
<td>61.1</td>
<td>24.1</td>
<td>6.7</td>
<td>8.1</td>
</tr>
<tr>
<td>1990 (ages 26-45)</td>
<td>58.9</td>
<td>26.2</td>
<td>9.9</td>
<td>5.1</td>
</tr>
<tr>
<td>1995 (ages 31-50)</td>
<td>60.4</td>
<td>24.9</td>
<td>10.2</td>
<td>4.6</td>
</tr>
<tr>
<td>2001 (ages 37-56)</td>
<td>53.3</td>
<td>32.3</td>
<td>10.6</td>
<td>3.8</td>
</tr>
<tr>
<td>2009 (ages 45-64)</td>
<td>51.5</td>
<td>30.4</td>
<td>15.8</td>
<td>2.4</td>
</tr>
</tbody>
</table>

Source: National Household Travel Survey data series.
20 percent of baby boomers lived with a child under 18 at home in 2009. More recently, new extended family types are emerging, as young adult children of baby boomer parents move back home after college and more middle-aged people are caring for, even living with, an aging parent. Although these types of households have grown rapidly in the past few years, they are still a very small percentage and have yet to have a measurable impact on overall travel.

**Trends in the Purpose of Travel**

The changing roles of men and women in and outside the home during the 1980s and 1990s influenced boomer travel. When dual-earner households started to have children, travel for nonwork purposes began to grow at an unprecedented rate. With both parents out of the house in paid work, women struggled with dual roles (worker and homemaker/mother) and not enough time.

“Work trips” are often considered mandatory travel and all other trips somewhat discretionary, but shopping for groceries, taking children to and from school, and many other daily tasks are necessary for families to function. These “maintenance” activities fall somewhere between mandatory and discretionary and motivate a vast portion of daily travel, including eating out or...
grabbing a meal to serve at home, pet care, and other errands and shopping.

Attempts to understand the tremendous growth in nonwork travel during the 1990s led researchers to add detail to the description of these trips—which complicates trend analysis. For example, according to the NHTS data series, the average household ate out once a week in 1977 compared to more than four times a week in 2009, but the latter includes “getting a meal” to eat at home as well as going out to eat in a restaurant. In 1977, travel to pick up a prepared meal to eat at home was uncommon and not separately identified.

But during the 1980s and 1990s, as baby boomer women spent more time in paid labor and started families, the market provided many goods and services that formerly were done at home. The shift from traditional household-based tasks to “outsourced” goods and services that required travel contributed to the fivefold increase in maintenance trips since 1977 (see figure 6). More recently the growth in maintenance travel has leveled off, and much of the recent decline in VMT comes from a decline in maintenance travel. Contributing to this change could be a decline in errands such as going to the video store or dry cleaners, and the growth of big-box retailers that house many types of goods and services under one roof. It also reflects boomers becoming empty nesters.

According to the U.S. Census Bureau, the last of the baby boomers are in their peak spending years. People aged 45 to 49 historically spend the most money on all consumer goods, and this age cohort was at historic highs in 2009—24 percent of the population. The number of people in their peak spending years will decline until 2022. Coupled with other economic and technological changes, the shift of the baby boomers out of their peak spending years to empty nest and retirement will exert downward pressure on travel rates for maintenance activities.

One type of travel that has seen astonishing growth and can be expected to continue growing is travel to access medical services. While the distance traveled for the average trip to access medical services.

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**Figure 6**

Total Travel by Trip Purpose for the Population Age 5+, 1977 to 2009

![Graph showing total travel by trip purpose for the population age 5+, 1977 to 2009.](source: National Household Travel Survey data series.)
medical services has remained about the same for the past three decades, the number of medical trips has skyrocketed (see figure 7). Trip making for medical purposes has outpaced population growth, a trend observed among those aged 50 and older, as well as among those under 50. This may be due to the trend toward increasing specialization and outpatient care. It suggests that changes in the delivery of medical care have increased the amount of time spent traveling to medical appointments. While we don’t understand all the reasons that may be causing this increase in medically related travel, it may affect the schedules and pocketbooks of American families as working parents take time off work to transport either children or elderly family members to a growing number of appointments.

The phenomenon of increased travel to access medical services (which includes doctors, dentists, labs, x-rays, physical therapy, pharmacy, and other specialists) seems to have exploded in the 1990s, and more recently tapered off. The more recent trend could reflect the recent downturn in the economy. Between 2007 and 2009 an estimated 9.3 million American adults lost their health insurance coverage due to unemployment, a reduction in hours leading to a loss of insurance, or increased premiums leading workers to decline the offer of coverage. About nine times as many Americans lost health insurance coverage in this latest recession as in the recession of 2001.11

### Trends in the Type of Transportation Mode

The choice in the type of transportation mode is of great interest to researchers and policymakers. Important infrastructure financing policies depend on the amount of vehicle travel and therefore the overall amount of motor-vehicle fuel used.12 And while the 2009 NHTS and other measures show a decline in total travel, travel by vehicle declined more than other means of travel, such as transit.

The baby boomers, after decades of high vehicle use, may be shifting some of their travel to other means.13 Figure 8 shows the trends in per capita private vehicle use and per capita transit use from 1977 to 2009 for the baby boomer cohort. Vehicle travel for the baby boomers increased greatly in the 1980s and early 1990s, and then started to decline after 1995. The trends in transit use show a steady increase in the number of transit trips per person as the Baby Boom Generation ages, and a noticeable increase in 2009. Note that transit use by all ages increased during the 2008–2009 NHTS data collection period, as the economic recession was beginning and gas prices first spiked up to four dollars a gallon. The long-term forecast of travel by different modes will be a subject of continuing scrutiny.
Some of the current shift to alternate forms of travel may be an echo of an earlier time. The baby boomers were young during the oil embargo of the 1970s, which brought price controls, rationing, and a quadrupling of gas prices in just a few months. Many people were left stranded by gasoline shortages, leading to a two-year decline in U.S. petroleum consumption following the 1973 oil embargo. Volatility in oil prices, coupled with a social examination of U.S. dependence on foreign oil, continued throughout the 1970s. During that period, many baby boomers turned to alternate forms of transportation—motorcycles, mopeds, and bicycles were popular. Interestingly, there is renewed interest in these modes among boomers. A surge in motorcycle fatalities has prompted special studies by the National Highway Transportation Safety Administration, which related the increase in fatalities in part to an increase in the number of motorcycle riders over the age of 40. And Traffic Safety Facts notes that the average age of bicyclists killed and injured in traffic crashes has risen in the past decade from 32 in 1998 to 41 in 2008 (for fatalities) and 24 in 1998 to 31 in 2008 (for injuries). While boomer travel by bicycle is still less than 1 percent of their total travel (as measured by the percentage of trips taken), boomers’ share of trips by bike increased 64 percent between 2001 and 2009. Boomers took more than 800 million trips by bicycle in 2009.

However, even with the growth in transit use and a revival of motorcycle or bicycle use, most baby boomers will continue to be dependent on automobiles as they age. The evolution of the automobile provides a prime example of the boomers’ life cycle impact. Station wagons became the vogue among boomers’ parents in the 1950s, when cars were marketed for...
larger families and recreational sightseeing. When baby boomers were having their own children, the updated version—minivans—came on the market. In the early to mid-1990s, sport utility vehicles were introduced for boomers entering the empty-nest phase and interested in recreation. The next stage in this progression, some say, is a car/van marketed for its safety features for any age, but able to compensate for the health conditions commonly associated with older age, such as diminished range of motion, decreased peripheral vision, and slower response time.

Vehicle technology is improving rapidly, and may help older drivers safely continue driving. Currently, some cars can “see” behind, park themselves, and warn if another vehicle is too close. In-vehicle navigation helps identify residential streets and exits, and driver assistance technology continues to improve. Researchers are developing technologies that enhance the capacity to detect a potential collision and even alert the driver of fatigue or distraction. Google is now test-driving autonomous vehicles. Given how baby boomers have embraced technology in nearly every dimension of their lives, vehicle technology that helps them to continue driving will undoubtedly find a market.

**Location Choice**

A major trend of the last half-century is the growth of urban areas. The urban population has more than doubled since 1950 (increasing 130 percent), while the population in rural areas—those not incorporated into nearby urban areas—has grown only 8 percent (see figure 9). Urban areas expanded to encompass huge tracts of formerly rural land for sprawling housing developments far from the city centers.

The suburbs, which were originally bedroom communities for employment centers downtown, now contain more than half of the U.S. population and more jobs than central cities. As the suburbs grew, commercial and industrial parks moved from inside to outside the city. The shift in population and employment from dense urban centers to less dense suburban areas may be one of the fundamental reasons for the baby boomers’ increased travel.

The lower population density is a product of fewer people per household, larger house and lot sizes, and suburban sprawl. According to the U.S. Census, in 1970 the average number of people in a household was 3.1, compared with 2.6 in 2010—in that period families shrank by 17 percent. In the same period the average home size grew from 1,385 square feet to 2,059—an increase of nearly 50 percent.

Many baby boomers have lived their entire lives in the suburbs—born and raised there, raised their children there, and most will age in place there. The
place where people live as they age is critical to the kind of support networks and mobility options available to them at home. Currently, the vast majority (83 percent) of baby boomers live in suburban and small towns or rural areas.

Different people find different factors important when choosing a home location. People who are working indicate that convenience to work is important, people who have children in school care about the quality of the schools, and as people age they care about being close to friends and family. And although most people will age in place, there is movement around the age of retirement.20

Baby boomers’ choices about whether to move after they retire, and, if so, where and when, are entwined with the economy and housing market, the desire to continue working if possible, and their family situations. But policymakers are carefully watching whether the baby boomers who chose to move will consider transportation issues in making their decision.

**Conclusions and Policy Recommendations**

The Baby Boom Generation has been analyzed and written about as it overcrowded schools, competed for jobs, stimulated trends in housing, childcare, and family life, and now continues its influence as it enters the empty-nest and retirement stages of life.

As the baby boomers move into retirement, there are enduring questions about how they will travel, how much, for what purposes, and by what means. Important issues related to revenue forecasts, commuting and congestion, safety and air quality, and mobility for an aging populace all hinge on the behavior of this important and mobile generation. Understanding the past helps us divine the future as we struggle to understand how boomers differ from previous generations of older Americans, and how their habits, culture, and constraints will influence their travel going forward.

Just as boomers have changed the country’s travel patterns over the past 40 years, they will influence the broad range of senior transportation strategies employed to address the travel needs of older adults today and tomorrow. To meet their evolving transportation needs, both public and private investments will be needed, as well as continued research in new technologies and individual mobility planning.

The way these services and technologies and are marketed will undoubtedly have to change for a generation responsible for an era of unprecedented national mobility. Technologies and services will need to be for everyone, without the stigma of being for older people. Driver education, including instruction on the application and use of in-vehicle technology, will need to be marketed as lifelong learning. Public transportation providers will need to recognize this generation’s desire to maintain its mobile lifestyle; provide midday, evening, and weekend service; and ensure that system information is disseminated using font sizes that can be read by those with aging eyesight, whether via print or electronic media.

The applied research community should continue to explore technology solutions applicable to older drivers and transit users, as well as technologies that reduce the demand for travel. Additional research is needed to better understand the usability and safety of various in-vehicle technologies for older drivers, to determine which technologies actually aid driving and which merely distract the
driver. Demonstration programs could showcase creative use of technology, such as global positioning systems and Google Transit, to improve older travelers’ use and navigation of the transit system. Successful intelligent transportation systems applications, such as accurate, real-time bus information that includes next arrival time and seat availability, may be one way to entice baby boomers out of their vehicles and offer a real solution when it is no longer safe to drive. Electronic communications technology may be able to replace travel for shopping, some medical services, and many social activities.

To address the explosion in trip making for medical purposes, the health care industry must strive for better care coordination. This is especially important for older adults, who as a group have more medical issues and thus more appointments. Coordinating multiple medical visits affects family caregivers who provide transportation for their loved ones. Many boomers today find themselves in the dual roles of raising their teenage children and caring for an older parent, all while still engaged in the workforce. In the future, these same boomers may be in a position of relying on their children, friends, or the public sector for transportation. Being able to schedule multiple appointments at the same facility on the same day can reduce the overall demand for travel, and free up time that would otherwise be spent in duplicative travel. Better coordination would also reduce the cost of transportation services provided by the public sector.

Given the sheer size of this cohort, it may not be possible for the public sector to fully address boomers’ travel challenges. Just as boomers have been encouraged to conduct financial planning for their retirement, they may realize the benefits of personal mobility planning. They should understand the cost of owning and maintaining a vehicle and redirect this investment toward alternative transportation when driving is no longer an option.

To help older people transition from driving, there is an opportunity for public–private partnerships to develop new transportation services that approximate the convenience of auto travel, such as discounted or subsidized taxi rides, carpooling services to match drivers and nondrivers, and a variety of shuttle-type services. These types of services may be particularly applicable for baby boomers who age in place in suburban, rural, or even smaller city settings not well served by public transportation.

Over the longer term, land use planners and state and local policymakers can make public transportation more accessible to an aging population by encouraging mixed-use development around rail and bus station areas. This could enable older residents to remain in their communities, perhaps in smaller homes, and increase their access to transit and other community services. This transit-oriented development (TOD) should be appropriately scaled for the setting and may take the form of high density such as found in Arlington County, Virginia’s transit corridors or low to moderate density as exemplified by La Crosse, Wisconsin’s downtown, mixed-use transit center. Policymakers can help to ensure that equitable TOD is built by adopting and implementing policies that support the creation of affordable and inclusive housing units and walkable communities.

No single solution will address the myriad mobility challenges of an aging population. A variety of individual choices, as well as public, private, and nonprofit investment tailored to the needs and desires of boomers, will help them sustain their quality of life as they age.
References

General Background Resources:


Census and Transportation Historical Data:


Endnotes

1 The NHTS defines a trip as one-way travel between an origin and destination. It then assigns a purpose (reason for travel) for each trip. A trip to home after completing an activity is assigned to the activity that was the main reason the subject was away from home. If one of the purposes was work, the return trip home is assigned a work purpose, even if the subject made incidental trips on the way home. If there were multiple purposes for being away from home and work was not one of them, the activity on which the person spent the most time while away from home is assigned the main purpose for the return trip home. To illustrate, travel from one’s home to a doctor’s appointment to home would be recorded as two medical trips. Travel from one’s home to a doctor’s appointment made on the way to work, then returning home after work, would be recorded as one medical trip and two work-related trips.


3 Ibid., table 24.


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12. Federal motor vehicle fuel taxes have been the primary means of paying for highway maintenance and construction since 1956, when the Highway Trust Fund was created. Currently, the federal tax is 18.4 cents per gallon. States impose their own gasoline taxes on top of the federal tax to fund transportation projects.


