

# **THE RV CONSUMER**

By

Richard T. Curtin

Richard T. Curtin • Director, Surveys of Consumers • University of Michigan  
Survey Research Center • P.O. Box 1248 • Ann Arbor, Michigan 48106  
Phone: (734) 763-5224 • Fax: (734) 764-3488 • E-mail: [curtin@umich.edu](mailto:curtin@umich.edu)



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## INTRODUCTION AND SUMMARY OF FINDINGS

### 1997 National Survey

This report summarizes the findings from the fifth national survey of recreation vehicle ownership sponsored by the Recreation Vehicle Industry Association. The national surveys have been conducted at approximately four-year intervals since 1980 by the Survey Research Center at the University of Michigan. The 1997 survey included 3,002 completed interviews conducted from November 1996 to April 1997. The sample was scientifically chosen to be representative of all U.S. households. Each household in the U.S. had an equal chance of being selected, and the demographic and economic characteristics of the households as well as their geographic locations were represented in the sample in the same proportion as in the actual population.

Mac Bryan of the Recreation Vehicle Industry Association guided the development of this research. This survey as well as the prior surveys conducted since 1980 have greatly benefitted from his many contributions. The 1997 survey project also benefitted from the contributions of Chris Morrison of the Recreation Vehicle Industry Association. The RVIA Marketing Committee actively guided and made important contributions to each stage of the project's development. Special thanks are due to its chairman, Jim Baxter (Coachmen), as well as John Leja (Foremost), Dan Morrison (Jayco), Carl Pletcher (Norcold), Rose Spoolman (Onan), and Tom Walworth (Statistical Surveys). The Committee on Excellence of the GO RVing Coalition also played an important role in the design and support of this survey project.

## Summary of Findings

The findings from the 1997 survey can be summarized as follows:

- A recreation vehicle was owned by one-in-ten vehicle owning households in the United States as of mid 1997. The strong and enduring appeal of the RV lifestyle was reflected in the stable proportion of households that have owned RVs during the past twenty years. Although the recent gain in ownership was small, the 1997 survey recorded the highest RV ownership rate during the past two decades.
- The actual number of households that owned RVs in 1997 rose to the highest level ever recorded, amounting to nearly nine million owners. This represented a 5% gain in the number of owners since 1993, and a gain of 18% since 1984.
- The 1997 survey recorded gains in the ownership of motorhomes, travel trailers, and folding camping trailers. The gains in motorhomes and folding camping trailers brought their ownership rates to the highest levels ever recorded. The recent gain in the ownership of travel trailers made this type of RV the most commonly owned, displacing the van conversion from the top spot. The only type of RV that recorded sustained declines over the past decade was the slide-in truck camper.
- The typical RV owner in 1997 was 48 years old, had an income of \$47,000, and was married. Motorhome owners were older, and the least likely to still have children under 18 living at home. Folding camping trailer owners were typically the youngest, and the most likely to have children living at home. The 1997 survey recorded ownership gains in the Midwest and South.
- Consistent with previous survey results, differences in RV ownership rates showed greater variation across age subgroups than any other demographic characteristic. The RV ownership rate rose consistently by about three percentage points for each successive ten-year age bracket until age 65. Among householders aged 55 to 64, an impressive 16.4% owned some type of RV in 1997. Importantly, the baby boom cohort is now moving into the age ranges where ownership reached its highest rates.
- Across the different types of RVs, the age at which peak ownership rates were reached was the oldest for motorhome owners (65 to 74), followed by van conversions (55 to 64) and

folding camping trailers (45 to 54). Importantly, the ownership of travel trailers reached a high plateau even earlier (age 35 to 44) and then remained at that same high level for a longer period (until age 55 to 64).

- The ownership of RVs generally increased with household income, although the differences across income groups were smaller than across age subgroups. The highest ownership rates were among upper-middle income households (from \$35 to \$75 thousand dollars).
- One-in-three RVs were purchased new by their current owners. This represents an increase above the 1993 level, returning the share of vehicles purchased new to the same high level recorded in 1988. The majority of current owners reported that they purchased their RV used, and the majority of those RVs were purchased directly from the prior owner rather than through dealerships.
- The median age at the time of purchase of used RVs was 9.8 years. A significant number of these used RVs were relatively new (one-in-four were under five years old), and a surprising number were quite old (nearly one-in-six were 20 or more years old).
- The median age of all RVs currently owned by households was 12.1 years. The long useful life of RVs was confirmed by the fact that nearly one-in-four RVs now in use were 20 or more years old.
- Half of all RV owners purchased their current RV during the past four years, with the mean length of ownership of their current RV somewhat longer, at nearly six years. While a substantial number of households have owned their RV for ten years or longer (about one-in-five), an even larger proportion have owned their current RV less than three years (nearly one-in-three). Overall, the data continue to suggest that current owners were quite active purchasers, trading and upgrading their RV. The data also suggest that there is a substantial turnover in market participants, with new market entrants replacing those that exit.
- An important aspect of consumers' decisions to remain RV owners involves how frequent they use their RVs, which in turn influences their judgements about the economic value (or cost) of continued ownership. Current RV owners that intended to purchase another RV in the future used their RV about three times more frequently than owners that did not plan a replacement purchase. More importantly, households that planned purchases of new RVs were the most frequent users, about 32 days per year. Promoting even modest increases in the use of RVs

could provide substantial returns: moving from one to two weeks per year corresponded to the difference between not wanting to make another RV purchase and the intention to buy a used RV, and moving to four weeks of use was associated with the intention to buy a new RV.

- Nearly two-thirds of all current owners plan to purchase another RV in the future. Among current owners that planned replacement purchases, about four-in-ten intended to purchase a new rather than a used RV. Planned purchases of new RVs were more frequent among older owners (almost half of those over 55) and higher incomes (half of those with incomes of \$50,000 or more).
- There were as many former RV owners as current RV owners in 1997. Many of these former owners, however, expect their exit from the market to be temporary since they expressed intentions to purchase another RV in the future.
- Overall, one-in-five households have owned an RV in the past or currently own an RV. Importantly, a substantial number of the former owners only recently sold their RV without making a replacement purchase by the time of the survey. Of all former owners, 30% sold their RV within the past four years.
- The age and income profiles of former RV owners are remarkably similar to current owners. The only exception was that former owners were more likely to have very low incomes (less than \$15,000), largely reflecting the lower incomes among elderly former owners.
- Current owners and former owners differed significantly in marital status. Former owners were three times as likely to be divorced or widowed as current owners.
- One-in-four former RV owners intended to purchase another RV in the future, indicating that their departure from the market was expected to be temporary. The younger the former owner, the more likely they expected to make another purchase. Among former owners that intended to purchase another RV, about one-in-four expected to purchase a new RV. Importantly, former owners expected to purchase the RV sooner than either current owners or first time buyers.
- Among households that had never owned an RV in the past, about one-in-seven expressed an interest to purchase an RV in the future. Although very few consumers older than age 55 expressed an intention to purchase an RV, first time buyers were nearly as common among

those aged 35 to 54 (17%) as among those under age 35 (20%).

- RV owners voiced a considerable degree of satisfaction with nearly all aspects of the repair and maintenance services performed on their RVs. About nine-in-ten RV owners reported that they received polite and courteous service, that the services were completed in a reasonable amount of time, and that problems were fixed right the first time. Compared with their experiences with other household vehicles, RV owners were least satisfied with the availability of emergency repair services while traveling. Even in this area, however, seven-in-ten reported that they were as satisfied with the emergency repair services available for their RVs.
- Satisfaction with repair and maintenance services did vary by the type of RV they owned, the age of the RV, whether it was purchased new or used, and if purchased used, whether it was purchased from a dealer or directly from the prior owner. Travel trailer owners reported relatively greater satisfaction with repair and maintenance services than owners of other types of RVs. Somewhat lower satisfaction levels were particularly evident among those owners that purchased their RVs used directly from the prior owner.
- RV owners were also asked about their satisfaction with the reliability and quality of the features in their RVs. Despite a demanding comparative standard—how the RV component compared to similar items in their homes—three-in-four RV owners reported as much or greater satisfaction with the reliability of the appliances as well as the electrical, plumbing, heating and cooling systems. Strongly influenced by the age of the RV, somewhat lower levels of satisfaction were reported with the quality and style of the furniture, decor, and the overall quality of the materials used in the construction. However, even for these items, the overall level of satisfaction was only marginally lower, with about two-in-three owners satisfied.
- The age of the RV had a significant impact on the level of satisfaction with all of the component systems, with owners of older RVs being less satisfied with the furniture and decor as well as the quality of the materials used in construction. Given that the typical used RV was about ten years old at the time of purchase, this result is not very surprising. Importantly, lower satisfaction levels in these areas were also concentrated among owners that purchased their used RV directly from the prior owner.
- A full assessment of satisfaction with RVs can not be limited to the characteristics of the unit itself, but must also include an assessment of the owner's satisfaction with the facilities available for their use while traveling. The survey found that more than three-in-four RV

owners were satisfied with campgrounds and RV parks compared with the facilities available at hotels and motels. Higher levels of satisfaction were expressed for the value for the dollar, the attractiveness of the facilities, and the amount of space available for personal use. The items rated lower were the availability of places to stay while traveling and the availability of amenities such as pools, campground stores, and laundry facilities.

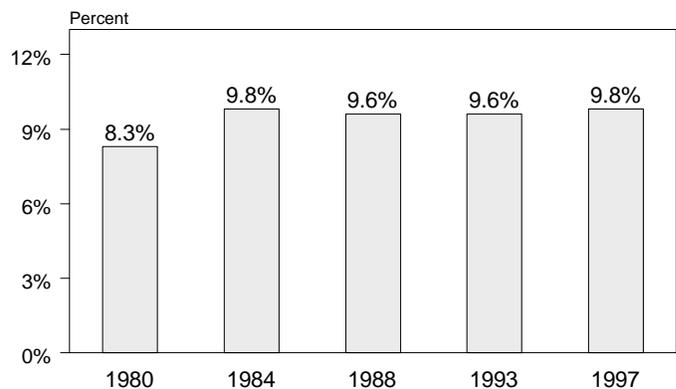
- The largest differences in satisfaction levels for campgrounds and RV parks corresponded to the income of the RV owners. Households with higher incomes voiced less satisfaction on nearly every aspect of campgrounds and RV parks. While the substantial appeal of campgrounds for lower income households is certainly a positive factor, the falloff in satisfaction among higher income households may reflect, in part, the difficulty of attracting and retaining higher income households in the RV market. Importantly, the data indicate that the higher costs associated with providing more upscale facilities and amenities may raise, not lower, the value placed on these facilities by this important market segment.
- The aging of the baby boomers means that there will be a significant increase in the numbers of consumers in the prime RV owning age range. From 1997 to 2010, the number of householders aged 55 to 64 will grow by 8.0 million, amounting to an increase of 63% in the number of households in this age group. A gain of 6.1 million households will be recorded among those aged 45 to 54, an increase of 32%. Importantly, these large gains will be among the age ranges that have traditionally recorded the highest RV ownership rates.
- Projections of future RV ownership levels were based on the assumption that the age-specific RV ownership rates would remain unchanged as the baby boom population ages. The best case projections assume that all other factors will remain constant except for the impact of the changing age distribution of the population. As with any long term estimates of consumer demand, these projections must be treated with caution. The projections are only meant to illustrate the potential impact from the aging of the baby boom population.
- The projections indicate that the ownership rate will rise from 9.8% in 1997 to 10.4% in the year 2010. Although the increase in the percentage rate may seem small, this increase means that the number of households that own an RV will rise from 8.6 million in 1997 to 10.4 million in the year 2010. This represents an impressive gain of 21% in the number of RV owning households. During the past decade the number of households that owned RVs grew by approximately 100 thousand per year; over the next decade, with constant age-specific ownership rates, the growth was projected to average nearly 140 thousand per year.

## 1. CURRENT OWNERSHIP OF RVs

### Overall Trends in Ownership

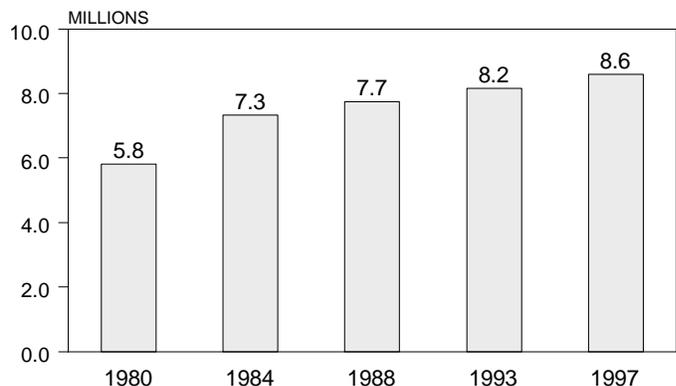
A recreation vehicle was owned by one of every ten vehicle owning households in the United States as of mid 1997. The data indicate that the proportion of households that reported that they currently owned some type of recreation vehicle has remained remarkably stable since 1984 (see Chart 1.1). The strong and enduring appeal of the RV lifestyle is clearly confirmed by these ownership data. Although small, the 1997 increase meant that the RV ownership rate regained the highest level recorded during the past two decades.

**CHART 1.1**  
**HOUSEHOLD OWNERSHIP OF RVs**



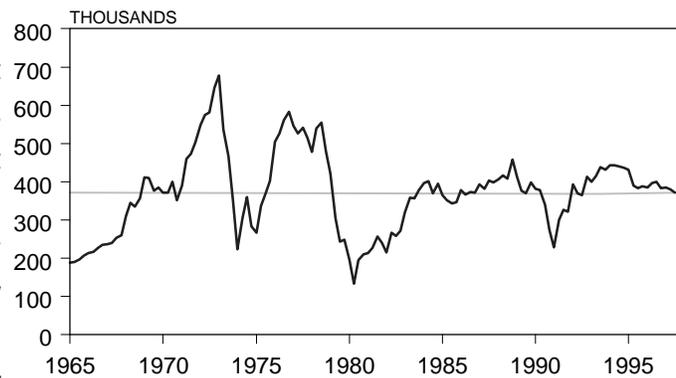
Since ownership rates are percentages of the vehicle owning population, the actual number of households that own RVs has grown along with the absolute number of households. While the overall ownership rate has remained largely unchanged since 1984, the number of owners has continued to increase (see Chart 1.2). By 1997, there were about 8.6 million households that owned an RV. This represented a 5% gain from the number of RV owners recorded in 1993, and a cumulative gain of 18% since 1984. Overall, the number of U.S. households that own an RV has grown by an average of 100,000 per year since 1984.

**CHART 1.2**  
**NUMBER OF HOUSEHOLDS THAT OWN RVs**



The overall stability in the RV ownership rate mirrors the aggregate RV industry delivery data. From 1983 to 1997, RV sales have hovered closely around the long term average annual sales rate of about 371 thousand units (shown by the horizontal line in Chart 1.3). Perhaps just as important as the enduring strength in sales has been the stability in demand over the past ten years. In sharp contrast to the 1970's and early 1980's, when RV sales fluctuated sharply from its all time peak (1972) to its all time low (1980), the recent trend in RV sales has been accompanied by much less year-to-year variability, as well as much smaller peak-to-trough changes corresponding to economy wide recessions.

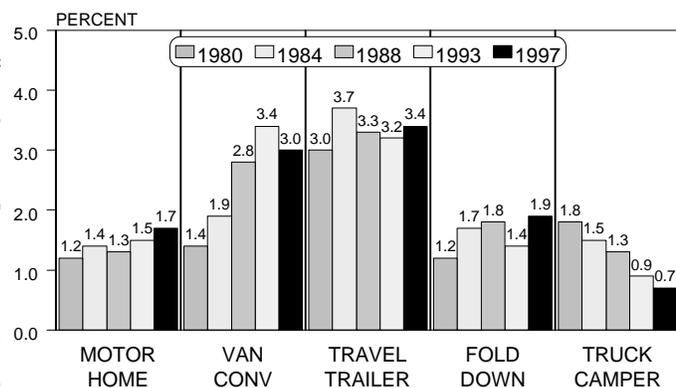
**CHART 1.3**  
**RV DELIVERIES (QUARTERLY DATA, SAAR)**



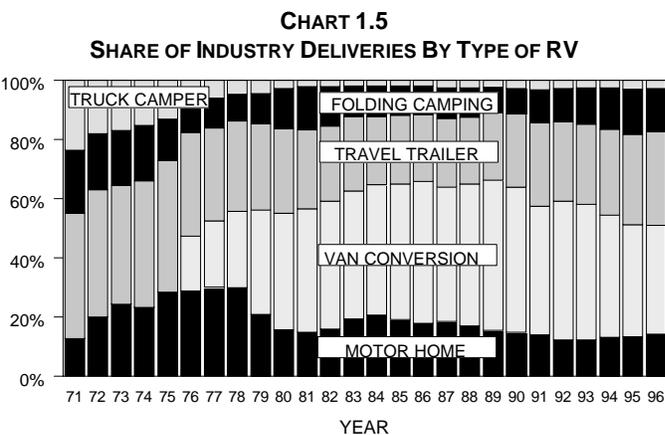
**Types of RVs Owned**

The types of RVs owned by U.S. households continued to shift even as the overall RV ownership rate remained stable (see Chart 1.4). The 1997 survey recorded gains in the ownership of motorhomes, travel trailers, and folding camping trailers, while the ownership of van conversions and slide-in truck campers declined. The gains in motorhomes and folding camping trailers brought their ownership rates to the highest levels recorded. Over the entire period, the largest sustained changes have been the consistent decline in the ownership rate for slide-in truck campers, and despite the small 1997 loss, the substantial increase in the ownership of van conversions.

**CHART 1.4**  
**HOUSEHOLD OWNERSHIP BY TYPE OF RV**



The industry data on shares of RV deliveries by type of unit parallel the ownership data from the household survey (see Chart 1.5). The critical difference between the two data sources is that the household survey data provides information on the net cumulative stock of RVs that are still in use by households, while the data on RV deliveries represent the yearly gross additions to the overall stock of the various types of RVs. Thus, the difference between the two data sources involves the number of RVs are taken out of service. It can be expected that the different types of RVs have different scrappage rates, with motorhomes and travel trailers likely to have the lowest annual scrappage rates.



Along with the greater stability in sales of new RVs, the market for new RVs will benefit from the need to replace aging units. It can be anticipated that the large number of RVs produced in the 1970's will be retired at increasing rates in the near term. The large stock of 1970's RVs not only provided consumers with an ample selection of used units, but the large supply of used units also acted to restrain prices. Similarly, as these 1970's units are increasingly scrapped, the stock of used units will shrink and cause the prices of used units to rise. As a result, future demand for new RVs will benefit from both declines in the number of used units as well as from the relative increase in used prices. Given that motorhomes and travel trailers accounted for a large share of the record 1970's sales, the largest impact can be expected in those market segments.



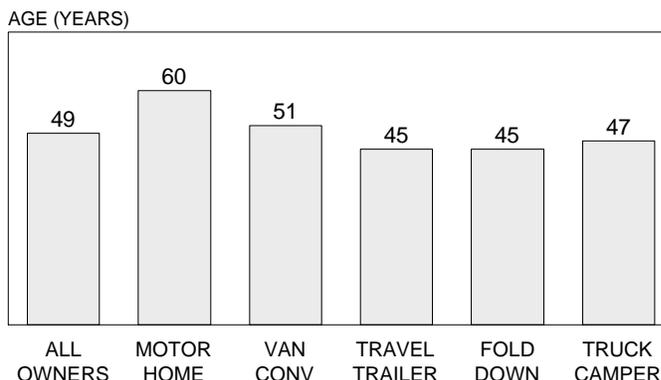
## 2. DEMOGRAPHIC CHARACTERISTICS OF RV OWNERS

### Demographic Profile

The typical RV owner was 49 years old in 1997, had an income of \$47,000, was currently married, and had no children under 18 years of age still living at home. Residents of the Western region were the most likely to own an RV.

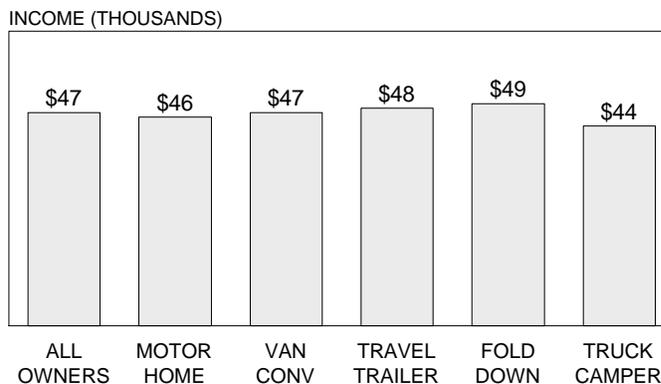
The median age of an RV owner in 1997 was just one year older in 1997 (49 years old) than recorded in the 1993 survey (48 years old). Motorhome owners were typically the oldest, with a median age of 60 (see Chart 2.1). The median age of van conversion owners was nearly 10 years younger, with the rest of RV owners another five years younger still. There was very little difference in the median ages of travel trailers (conventional and fifth wheels), folding camping trailers, and truck campers, all typically about 45 years old.

**CHART 2.1  
MEDIAN AGE OF RV OWNERS**

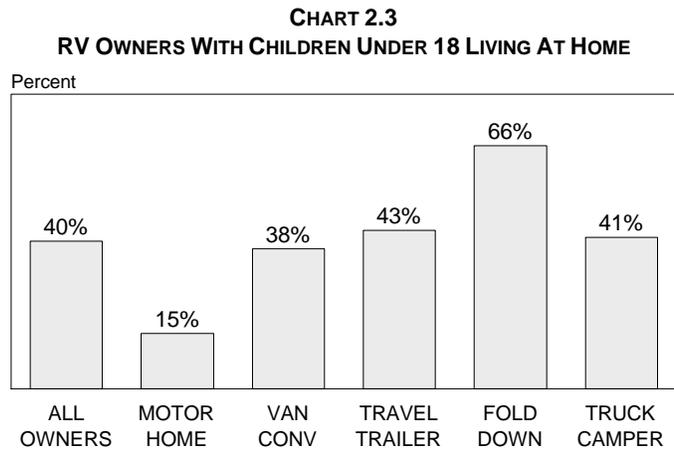


Compared with the significant differences in the age of owners, the average income of RV owners varied very little by the type of RV that was owned. The average income for all owners was \$47,000 in 1997 (up from \$39,000 in 1993). Importantly, the income level of RV households was 25% higher than the median for all households (\$37,000). The average incomes for owners of motorhomes, van conversions, travel trailers, and folding camping trailers were all within two thousand dollars of the overall mean (see Chart 2.2). Owners of truck campers had the lowest average income, but the difference from the overall mean was small. Interestingly, owners of travel trailers and folding camping trailers were typically younger and had higher average incomes than other RV owners.

**CHART 2.2  
MEAN INCOME OF RV OWNERS**

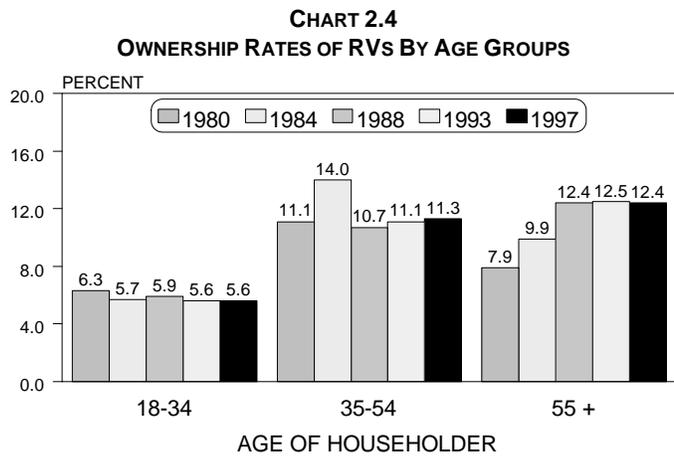


Perhaps the most commonly shared demographic characteristic of RV owners is their marital status. Eighty-five percent of all RV owners were currently married in 1997 (the same as in 1993). Although nearly all RV owners were currently married, just 40% had children under 18 years of age still living at home. Consistent with differences in the age of owners, motorhome owners were the least likely to have children living at home (just 15%). The proportion with children at home was quite similar for all of the other types of RVs (about 40%), except for owners of folding camping trailers—two-thirds of these owners still had young children living at home.

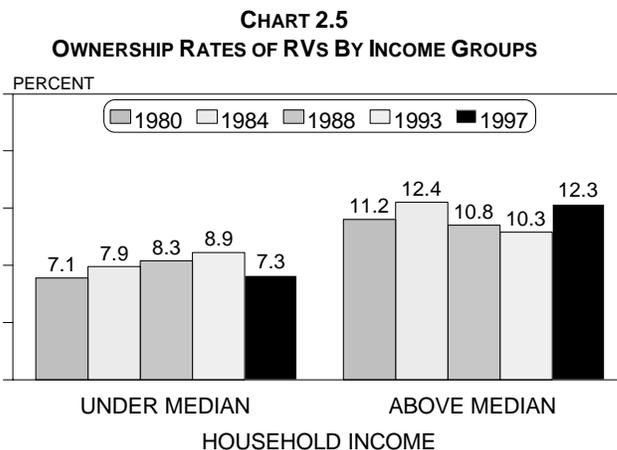


**Demographic Changes Over Time**

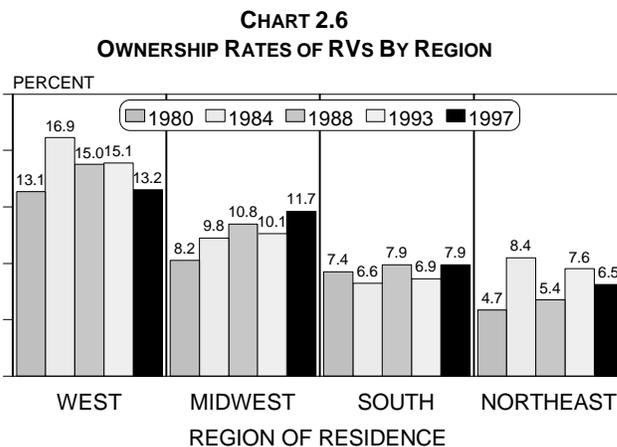
The RV ownership rates by age groups have remained remarkably constant over the past decade (see Chart 2.4). For each of the broadly defined age subgroups, RV ownership rates have remained largely unchanged since the 1988 survey. The overall gain in RV ownership recorded from 1980 to 1988 was mainly due to a rise in the ownership rate among those aged 55 or older, which has remained unchanged since then at that higher level. Importantly, the 1997 survey indicates continued strength among the middle age group, mainly representing the baby boom generation. In addition, the small slide in RV ownership among those under age 35 ended in the 1997 survey.



Somewhat larger changes have been recorded over time in ownership rates among income subgroups (see Chart 2.5). Prior to the 1997 survey, RV ownership rates have gradually increased among households with below median incomes, and posted small declines among higher income households. The 1997 data indicate a reversal in that pattern, with ownership gains among households with incomes above the median, and declines among lower income households. Although higher income households were always more likely to own RVs, the differences in ownership rates were somewhat larger in the 1997 survey than in any of the prior measurements.



The 1997 survey recorded small regional shifts in RV ownership rates over time. Somewhat fewer residents of the Western and Northeastern regions owned RVs in 1997, while ownership gains were recorded in the Midwest and South (see Chart 2.6). Despite the small decline among residents of the Western region, RV ownership rates remained higher in this region than any other. Residents of the Midwest, however, significantly narrowed the gap, with their ownership rate rising to within one and a half percentage points of the West. More importantly, over the past decade the surveys have recorded repeated small declines in RV ownership rates among residents of the West, as well as repeated small increase among Midwesterners. Although RV ownership rates among residents of the South have not changed significantly, the 1997 ownership rate is the highest that has been recorded. Among residents of the Northeast, RV ownership rates have shown the most variation over the years, with the data providing little indication about its overall trend.

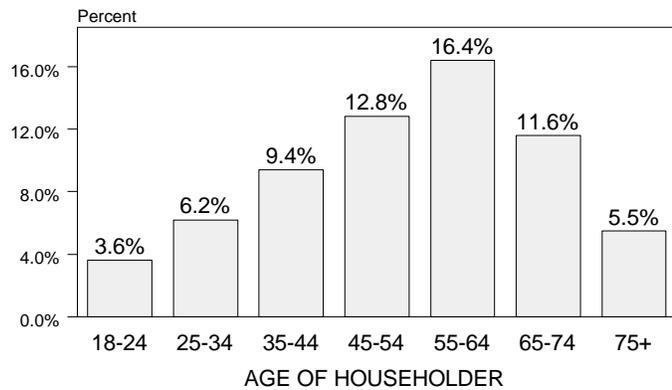


### 1997 Ownership Rates By Age Groups

Age is the most important demographic characteristic that shapes RV ownership patterns. Differences in RV ownership rates show greater variation across age groups than income groups, educational groups, or by regions. The cycle of ownership is well documented and did not differ in the 1997 survey from the earlier measurements: RV ownership rises along with age until reaching a peak just prior to retirement years, and then declines in latter years.

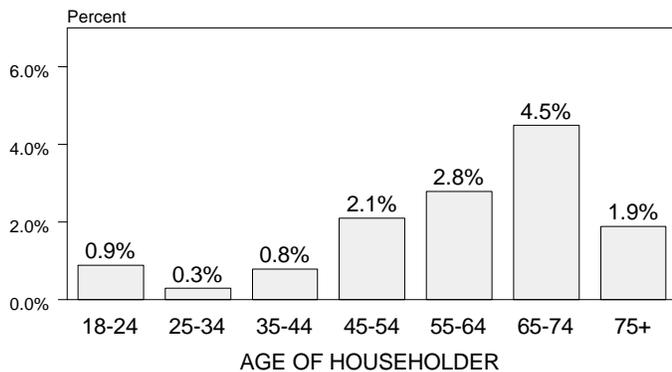
From an ownership rate of 3.6% among those under age 25 in 1997, the ownership of any type of an RV rose to a peak of 16.4% among householders aged 55 to 64. Interestingly, RV ownership rates rose rather steadily from the youngest age group to households in their pre-retirement years, increasing by about three percentage points for each successive ten-year age bracket (see Chart 2.7). The decline in ownership rates after age 65 was somewhat more rapid, falling by about five percentage points among those aged 65 to 74, and then by an additional six percentage points among householders aged 75 or older.

**CHART 2.7  
RV OWNERSHIP RATES BY AGE GROUPS**



Ownership of motorhomes rose sharply after age 45 and reached a peak among householders in their early retirement years (see Chart 2.8). From an ownership rate of less than 1% among those under age 45, the rate more than doubled among those aged 45 to 64—ranging between 2% and 3%. Unlike age profiles for all other types of RVs, which typically decline after age 65, the ownership of motorhomes reached its peak rate among householders aged 65 to 74. Even though motorhome ownership rates fell significantly among those aged 75 or older, it still remained at about twice the rate recorded

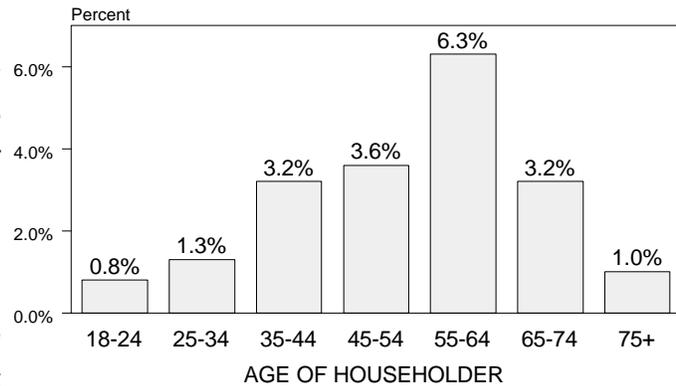
**CHART 2.8  
MOTORHOME OWNERSHIP BY AGE**



among householders under age 45.

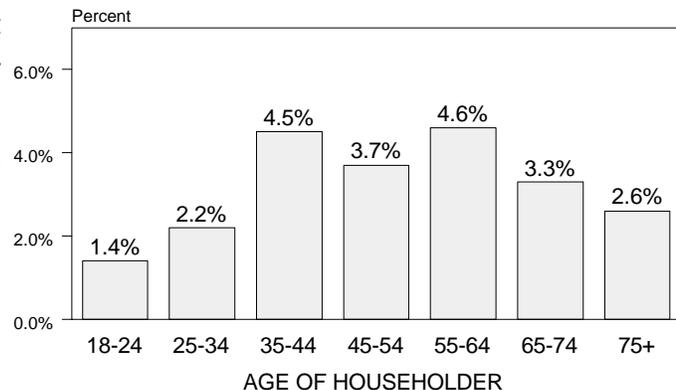
The age profile for van conversion owners was similar to motorhomes, but shifted more toward the younger ages (see Chart 2.9). In comparison to motorhomes, the ownership of van conversions posted sharp gains at an earlier age (at age 35 to 44 rather than 45 to 54 for motorhome owners), as well as reached its peak ownership rate among younger households (at age 55 to 64 rather than from 65 to 74 for motorhome owners). Whereas the ownership rate for motorhomes was highest in the years immediately following retirement, the ownership rate for van conversions was highest just prior to retirement. Importantly, van conversions were owned more frequently than motorhomes until retirement; after age 65, motorhome ownership rates were considerably higher. For example, among those aged 75 and older, the ownership rate for motorhomes was about twice as high as for van conversions (1.9% versus 1%).

**CHART 2.9**  
**VAN CONVERSION OWNERSHIP BY AGE**



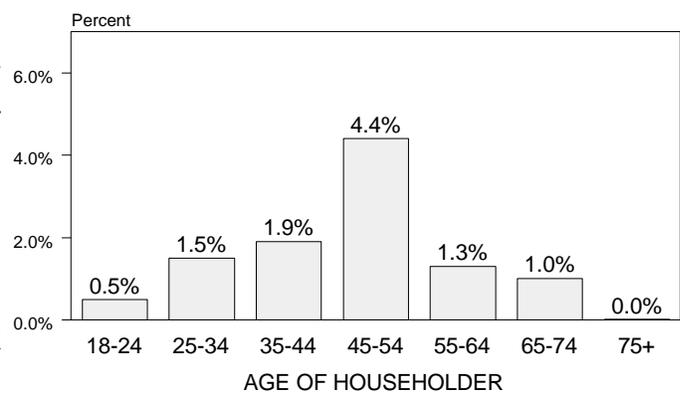
The data on ownership rates for travel trailers (which combines conventional travel trailers and fifth-wheels) indicate a substantial gain at relatively early ages as well as relatively small declines among older households (see Chart 2.10). More importantly, unlike the patterns for motorhomes and van conversions which are dominated by peak ownership rates within a rather narrow age range, the ownership of travel trailers remains at high levels for a comparatively broad age range. For travel trailers, the ownership rate rose sharply, doubling by age 35 from the prior ten years, and remained at that higher ownership level until retirement. Just as important, the ownership of travel trailers declined very slowly after age 65, more slowly than any other type of RV. Indeed, among RV owners aged 75 or older, the most common type of unit owned was a travel trailer.

**CHART 2.10**  
**OWNERSHIP OF TRAVEL TRAILERS BY AGE**



The age profile of folding camping trailer owners indicates a high concentration of owners aged 45 to 54 (see Chart 2.11). Folding camping trailers were about half as likely to be owned by households that were either younger or older. Younger households, however, were more likely to own folding camping trailers than older households, especially after age 65.

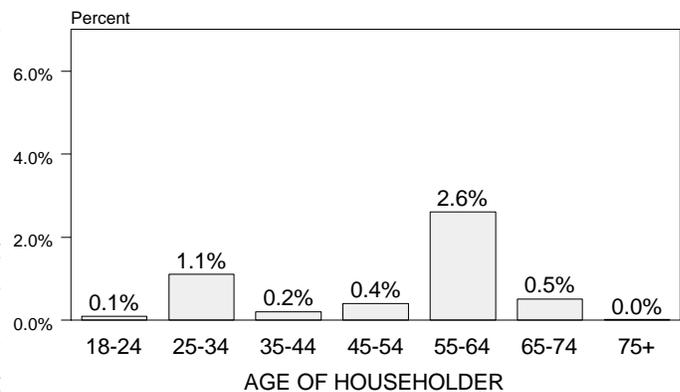
**CHART 2.11**  
**OWNERSHIP OF FOLDING CAMPING TRAILERS BY AGE**



It is interesting to note that when folding camping trailers are combined with the travel trailer group, these units reach their peak ownership rate among those aged 45 to 54 (8.1%), followed by van conversions from age 55 to 64 (6.3%), and then motorhomes among those aged 65 to 74 (4.5%). It is this progression of ownership rates that establishes the characteristic age profile across all types of RVs.

The ownership of slide-in truck campers was not only uncommon among all households, but the ownership of these units was also infrequent among nearly all age groups with just one exception. The ownership of these units was highest among those aged 55 to 64 (2.6%). The only other age group that the ownership rate rose above one-half percent was among those aged 25 to 34, and even for them ownership was just barely above 1% (see Chart 2.12). Given the recent surge in the popularity of large pickups, the growing stock of vehicles that could support these units may well point toward the revival of slide-in truck camper sales in the coming years.

**CHART 2.12**  
**OWNERSHIP OF SLIDE-IN TRUCK CAMPERS BY AGE**

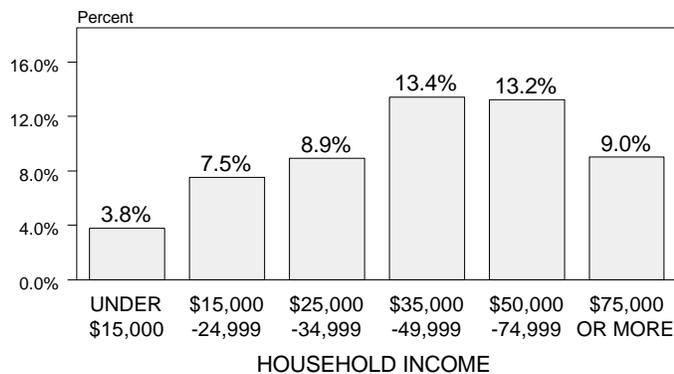


### 1997 Ownership Rates By Income Groups

RV ownership rates show a distinctive profile across income subgroups, although the differences in ownership rates are not as large as across age subgroups. The likelihood that a household will own an RV generally increases with income up to the point where income reaches just above the median level (which was about \$35 thousand across all households). The highest 1997 ownership rates for RVs were recorded among upper middle-income households—from \$35 to \$75 thousand dollars (see Chart 2.13). Among the highest income households, those with incomes above \$75 thousand dollars, the ownership rate declines.

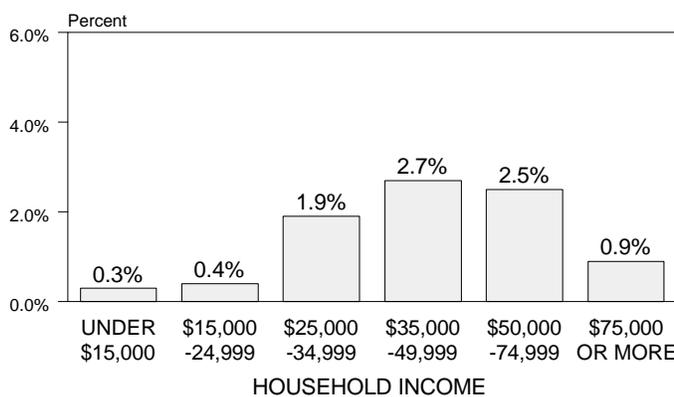
In fact, households with incomes just under median income (\$25 to \$35 thousand dollar range) were just as likely to own an RV as households with incomes of \$75,000 or more in 1997. Chiefly, the relatively high ownership rate among lower income households reflects the ownership of RVs among households in their retirement years.

**CHART 2.13**  
**RV OWNERSHIP RATES BY INCOME GROUP**



Ownership of motorhomes showed the same income profile that characterized the ownership of all types of RVs. Given that motorhomes generally cost more than any other type of RV, the similarity in the income profile of motorhome owners indicates that income constraints do not represent the primary factor shaping ownership, especially among the highest income households. The highest ownership rates were among household just above median incomes (see Chart 2.14). Similar to all other types of RVs, ownership rates for motorhomes were somewhat lower among the highest income households. The sharp gain in ownership rates in the \$25 to \$35 thousand dollar income range largely reflected the retirement incomes among older households. Ownership rates were quite comparable across the broad upper middle income groups—from incomes of \$35 to \$75 thousand. Above \$75,000, less than half as many households owned a motorhome.

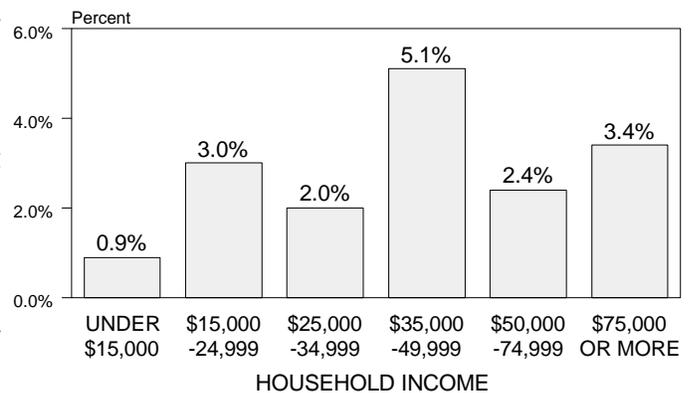
**CHART 2.14**  
**MOTORHOME OWNERSHIP BY INCOME**



The income profile of ownership rates for van conversions shows few systematic differences across the broad range of household incomes.

The most notable exception was that van conversion ownership rates were significantly higher among households with incomes of \$35 to \$50 thousand dollars (see Chart 2.15). Aside from the much higher ownership rate at just above median income, the ownership of van conversions was widespread from incomes of just \$15 thousand to \$75 thousand or more. While the prevalence of ownership among lower income households was shared by other types of RVs, the comparative strength in ownership among households with incomes above \$75 thousand was a more distinctive characteristic of van conversions. Moreover, as with motorhomes, the income profile of van conversion owners indicates that factors other than household income are likely to play a more decisive role.

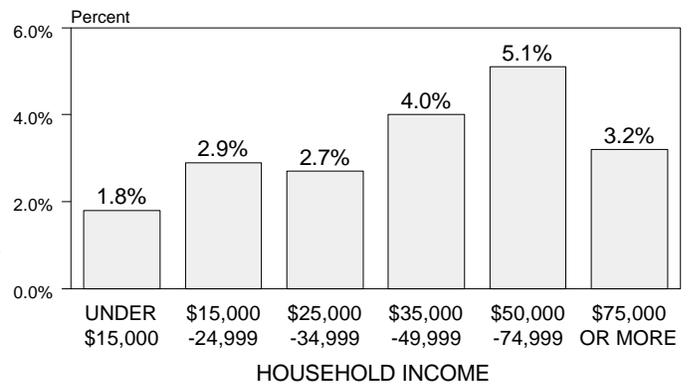
**CHART 2.15**  
**VAN CONVERSION OWNERSHIP BY INCOME**



The ownership of conventional travel trailers and fifth-wheels rose along with income, reaching a peak ownership rate among households with incomes of \$50 to \$75 thousand dollars (see Chart 2.16). Importantly, travel trailers were the most common type of RV to be owned by the lowest income group (under \$15 thousand), primarily due to the prevalence of ownership among retired households.

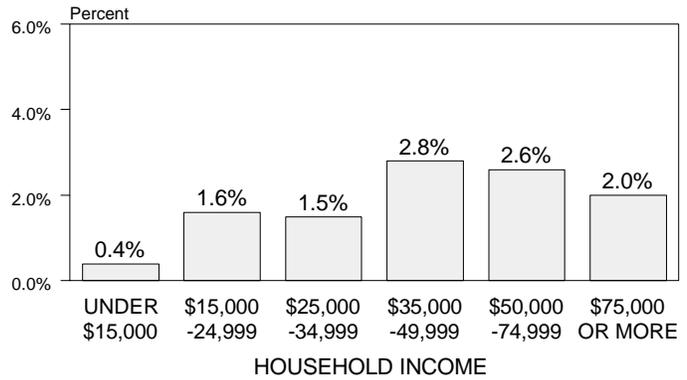
At the opposite end of the income distribution, among households with incomes above \$75 thousand dollars, travel trailers were owned more frequently than motorhomes. Only van conversions were owned slightly more frequently by the highest income group—3.4% compared with 3.2% for travel trailers. Overall, one strength of the market for travel trailers is that they appeal to the broadest range of income groups, and thereby harbor the broadest range of potential for future growth.

**CHART 2.16**  
**OWNERSHIP OF TRAVEL TRAILERS BY INCOME**



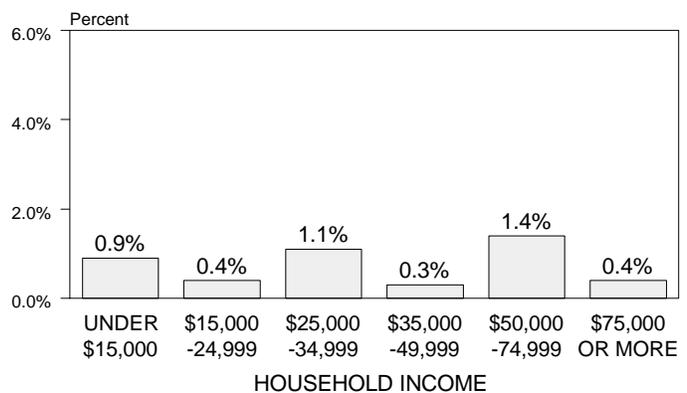
The ownership of folding camping trailers showed less variation across income subgroups than travel trailers, motorhomes or van conversion vehicles. Ownership rates for folding camping trailers peak at 2.8% among households with incomes just above the median (see Chart 2.17). Importantly, the decline in ownership rates is quite small at higher incomes, even among households with incomes of \$75 thousand or more. The comparative strength of the folding camping trailer market in the top half of the income distribution is an important positive factor for future sales of folding camping trailers as well as a favorable indicator of the potential of these owners to move toward travel trailers and motorhomes over time.

**CHART 2.17**  
**OWNERSHIP OF FOLDING CAMPING TRAILERS BY INCOME**



Slide-in truck campers showed little systematic variation across income groups (see Chart 2.18). This lack of correspondence may simply reflect the relative infrequency of ownership within any income subgroup. The ownership of pickups, however, is also widespread across all income groups, so the correspondingly small variation in ownership of slide-in truck campers may in part simply reflect the demographics of pickup truck ownership.

**CHART 2.18**  
**OWNERSHIP OF SLIDE-IN TRUCK CAMPERS BY INCOME**

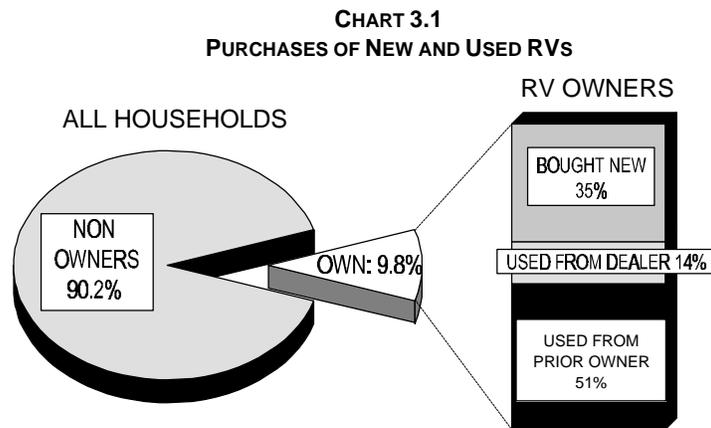




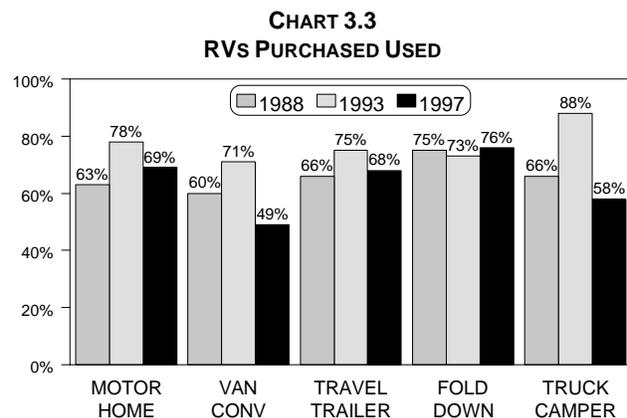
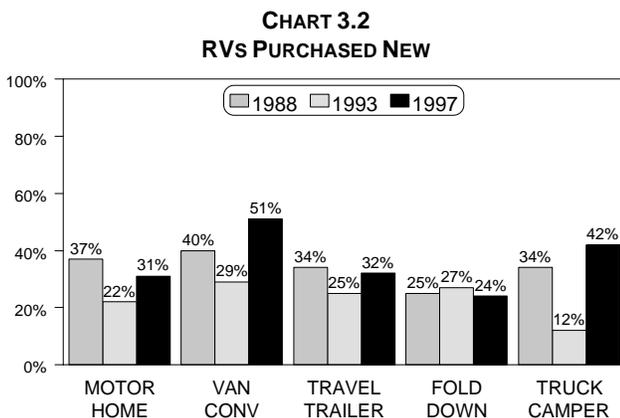
### 3. PURCHASES OF NEW AND USED RVs

#### Purchase Trends

Among all RV owners in 1997, just over one-in-three RVs were purchased new by their current owners (see Chart 3.1). Importantly, the proportion of RV owners that purchased their unit new rebounded in 1997 to 35% up from 25% in 1993, regaining the same high level that was recorded in 1988 when 34% reported that their RVs were purchased new. This shift may reflect overall conditions in the national economy, as the surveys conducted in both 1988 and 1997 followed five years of economic expansion. Of the two-thirds of all RVs that were purchased used, the majority were purchased directly from their prior owner. Among all RVs, just 14% were purchased used from RV dealerships, amounting to only 22% of all used purchases.

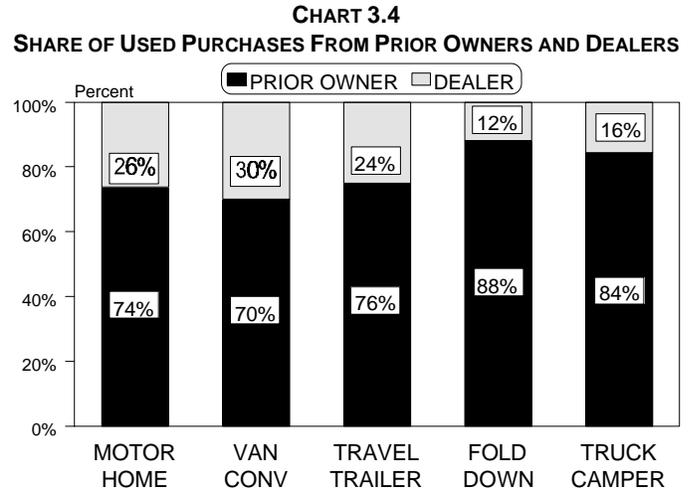


The increase in the share of RVs that were purchased new was widespread across all types of RVs (see Charts 3.2 and 3.3). The proportion of current owners that purchased their units new was larger for van conversions than for motorhomes or travel trailers.



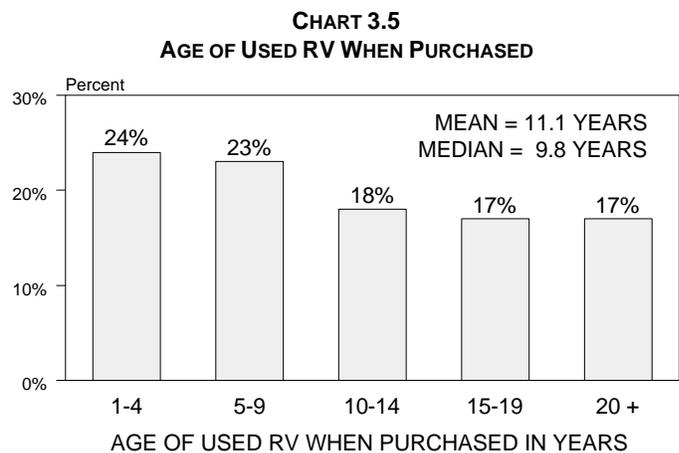
### Source of Used RV Purchases

Current owners that purchased their RVs used were asked whether they purchased the unit from a dealership or directly from the prior owner. Of all used RV purchases, just over one-in-five units were purchased used from an RV dealership. The proportion of current owners that purchased their used RVs from dealerships varied by type of RV (see Chart 3.4). One-in-four used motorhomes and travel trailers were purchased from dealers, and three of ten used van conversions were purchased from dealers. In comparison, about half as many used folding camping trailers—one-in-eight—were purchased from dealers. Overall, the data indicate that the majority of used RVs, of every type, were purchased directly from the prior owner.



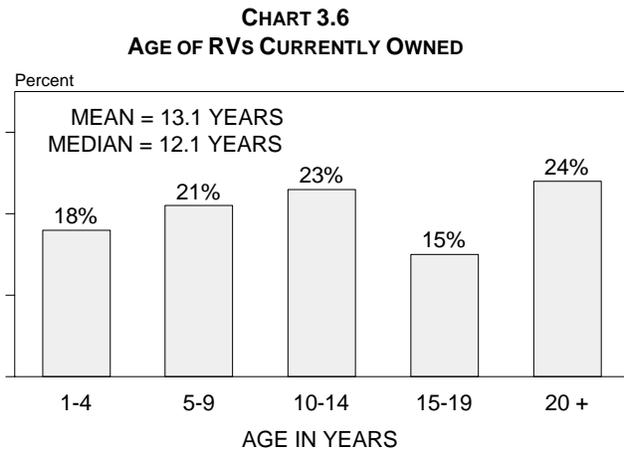
### Age of Used RV at Purchase

Among current owners that purchased their RV used, the typical RV was nearly ten years old at the time of purchase. To be sure, there was a considerable amount of dispersion in the age of used RVs, with about one-in-four used RV purchases that were four years old or less. At the other extreme, about one-in-three used RVs were already 15 years or older at the time of purchase, and one-in-six RVs were 20 or more years old when purchased (see Chart 3.5). The highly active used market in RVs of 15 years or more in age certainly attests to the durability of the units as well as their attractiveness to consumers. This also indicates, however, that a substantial share of the units purchased used do not provide the benefits of the developments in design and engineering incorporated during the past decade, and may suffer from uneven maintenance and repair over their long history of use.



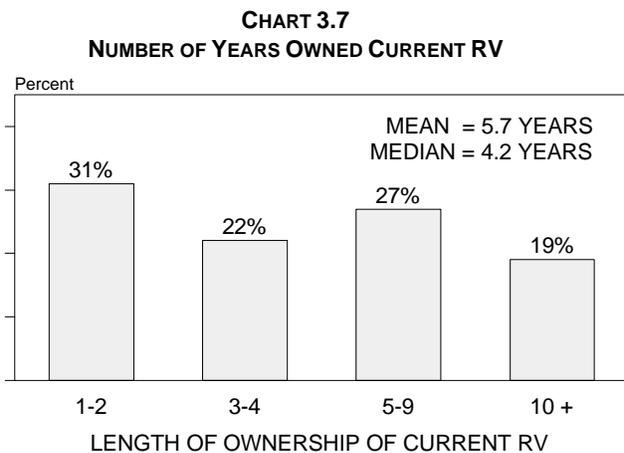
### Age of RVs Currently Owned

The average age of all RVs, counting both units that were purchased new as well as those purchased used, was 13.1 years old in the 1997 survey, calculating the age from the model year of manufacture. Of all RVs currently in use, 18% were four years old or less, while the typical (median) RV was about 12 years old (see Chart 3.6). The long life of RVs is confirmed by the fact that nearly one-in-four were 20 or more years old, and four-in-ten were 15 or more years old. The large number of RVs that are still in use after 20 years attests to the remarkable durability of these products.



### Length of Ownership of Current RV

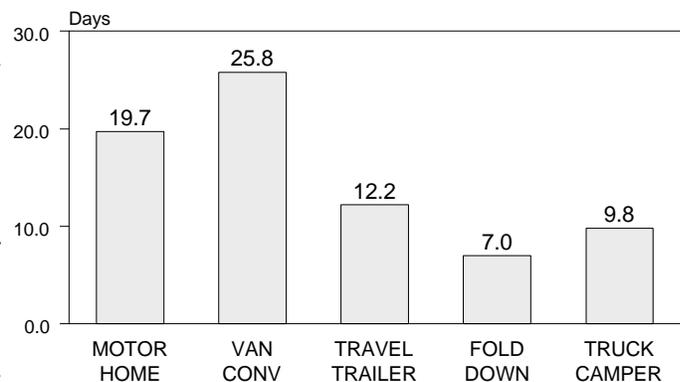
Half of all RV owners purchased their current RV during the past four years, with the mean length of ownership of the RV somewhat longer, nearly six years (see Chart 3.7). Although a substantial number of households have owned their current RV for ten years or longer (about one-in-five), an even larger proportion had purchased their current RV within the past two years (nearly one-in-three). Overall, the data suggest that current owners were quite active purchasers, trading and upgrading RVs as their circumstances changed. Although the current survey did not obtain information on how many years the current owners had continuously owned some type of RV, the data suggest an ongoing ownership turnover, with new market entrants replacing those that exit. Indeed, the large number of recent purchases among current owners is mirrored by a correspondingly substantial number of former owners that only just recently exited the market, as will be discussed in the next section.



### Frequency of RV Use

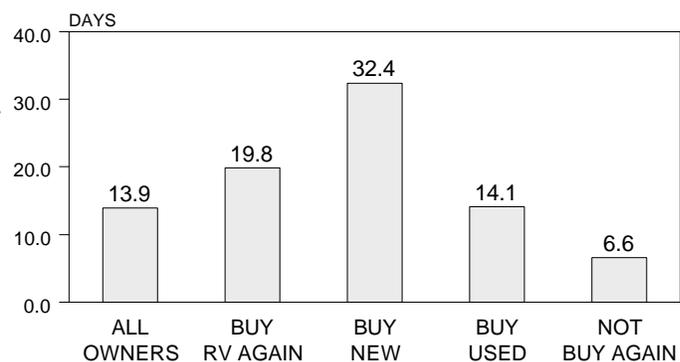
The extent of RV use was measured by the total number of days the RV was used on overnight trips during the prior twelve months. The typical number of days that RVs were used was two weeks (a median of 13.9 days). The types of RV that were used most frequently were motorhomes and van conversions, which had a typical use of around three to four weeks per year (see Chart 3.8). Travel trailers were used by their owners for nearly two weeks per year, while folding camping trailers were used by their owners for one week per year. In each case, the total number of days was typically spread over one or more trips taken by the owner.

**CHART 3.8**  
**MEDIAN DAYS RV WAS USED DURING PAST 12 MONTHS**



Prior research has shown that the frequency that owners used their RVs has an important impact on their future purchase intentions. Actual usage patterns reflected differences in perceptions of time constraints, as well as travel and recreation opportunities, which in turn influenced their judgements about the value for the dollar that the ownership of RVs provided their families.

**CHART 3.9**  
**DAYS RV USED AND FUTURE BUYING INTENTIONS**



The relationship between actual use of RVs and intentions to purchase another RV in the future was again clearly demonstrated in the 1997 survey (see Chart 3.9). Owners that intended to purchase another RV in the future reported a median use of 19.8 days, compared with just 6.6 days of use by owners that did not plan another purchase. More importantly, households that planned purchases of new RVs were the heaviest users—typically using their RVs for about a month. In comparison, owners that expected to purchase a used RV in the future used their current RV for about half that number of days per year, or about two weeks.

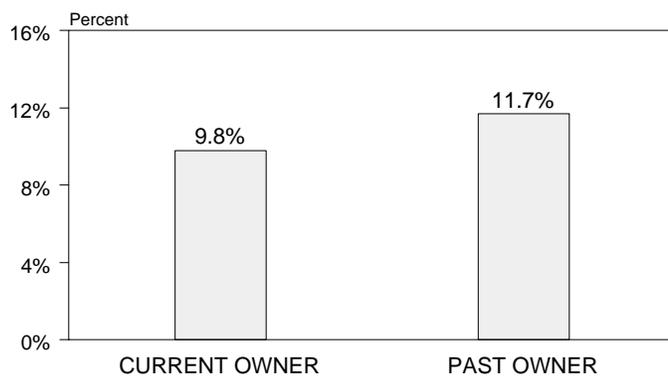
## 4. PRIOR OWNERSHIP OF RVs

### Ownership Turnover

Although people’s commitment to the RV lifestyle persists throughout their lives, there is a considerable degree of turnover in the ownership of RVs over the course of their lives. Households that did not currently own any type of RV were asked whether they had owned one in the past that they had sold. Among all households in the 1997 survey, 11.7% reported that they had once owned an RV—a slightly higher proportion of households than currently own an RV (see Chart 4.1). Overall, the data indicate the widespread appeal of RVs, as one-in-five households have ownership experience.

Some of the turnover simply represents the expected life-cycle course, or results from changes in family situations, and some reflects a normal pattern of a temporary exit before reentry.

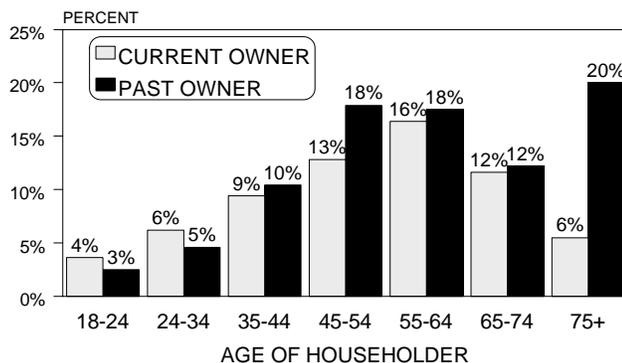
**CHART 4.1**  
**CURRENT AND PAST OWNERSHIP OF RVs**



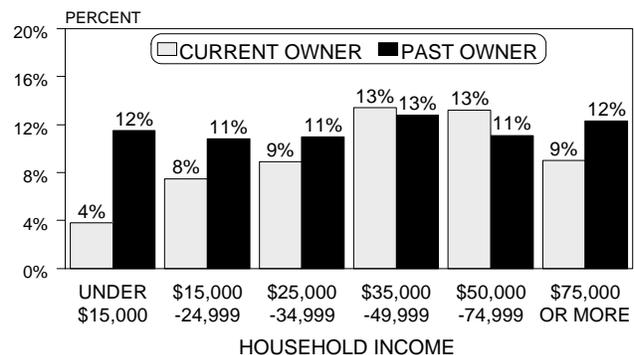
### Demographic Characteristics of Prior Owners

The age profile of former RV owners is quite similar to current owners (see Chart 4.2). The single most striking exception, not surprisingly, is among the oldest households—those currently 75 years or older. Aside from this exception, the data indicate that turnover is as likely at all ages; that

**CHART 4.2**  
**CURRENT AND PAST RV OWNERSHIP BY AGE**



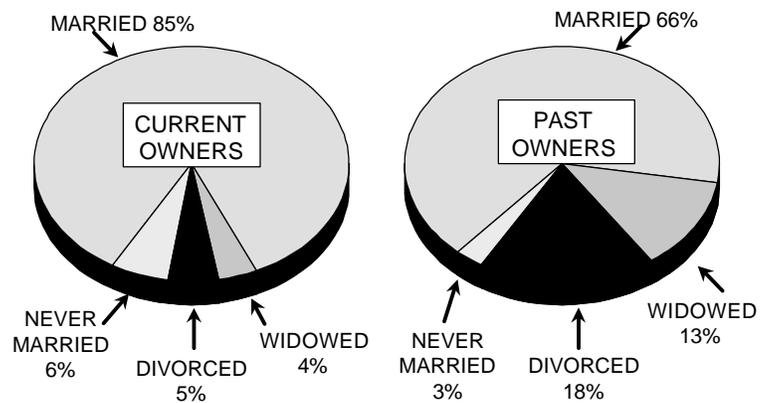
**CHART 4.3**  
**CURRENT AND PAST RV OWNERSHIP BY INCOME**



is, movement out of the market is not primarily age dependent. Therefore, the turnover is a common occurrence across all ages. The income profile of former owners also points toward the same conclusion: all income groups show approximately the same likelihood of leaving the market (see Chart 4.3). To be sure, past ownership was more common among households that currently had low incomes (their income was likely to have been higher when they owned an RV).

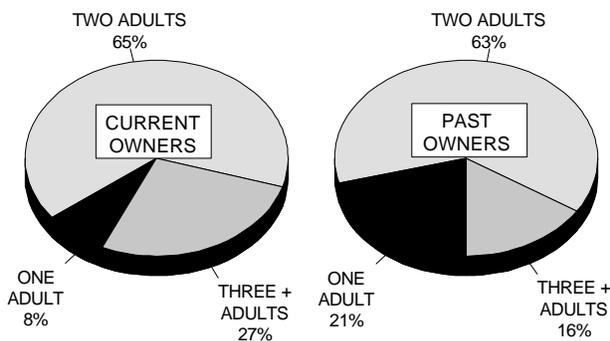
Current and former RV owners differed significantly on marital status. Current owners were much more likely to be married than former owners (85% vs. 66%). Changes in marital status and other aspects of their family situation have been found to be linked to changes in the ownership of RVs. In the 1997 survey, former owners were three times as likely to be divorced or separated (5% vs. 18%) and three times more likely to have become widowed (4% vs. 13%). Together, nearly one of every three former owners were either now divorced or widowed compared with less than one-in-ten current RV owners that were divorced or widowed (see Chart 4.4).

**CHART 4.4**  
**MARITAL STATUS OF CURRENT AND PAST RV OWNERS**

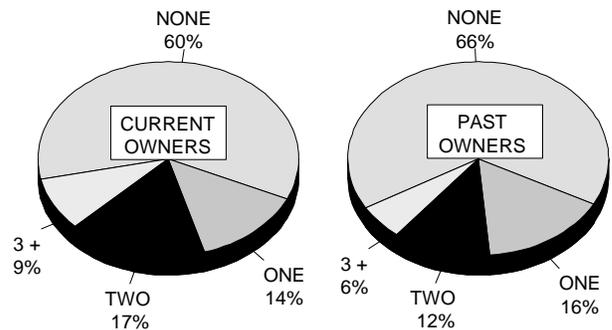


Although about equal proportions of current and former RV owners live in two-adult households (see Chart 4.5), current owners were much less likely to be in single-adult households than former owners (8% vs. 21%) and more likely to live in households with three or more adults (27% vs. 16%).

**CHART 4.5**  
**NUMBER OF ADULTS IN HOUSEHOLDS OF CURRENT AND FORMER RV OWNERS**



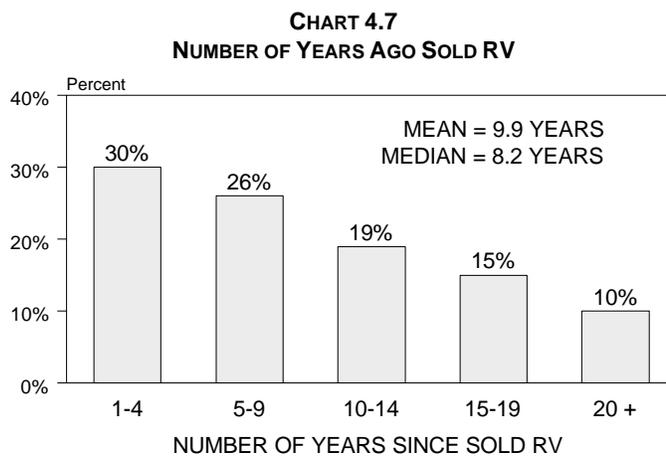
**CHART 4.6**  
**NUMBER OF CHILDREN IN HOUSEHOLD OF CURRENT AND FORMER RV OWNERS**



vs. 16%). These shifts reflect both the greater prevalence of divorced and widowed former RV owners as well as fewer adult children still living at home. Most current as well as former owners did not have any children under 18 still living at home (see Chart 4.6). Current owners, however, were more likely to have children under age 18 still living at home than former owners (40% vs.34%), and current owners were more likely to have two or more children still living at home than former owners (26% vs. 18%).

### Length of Non-Ownership

Although half of all former owners sold their RV about eight years ago, a significant number of them only recently sold the unit (see Chart 4.7). Nearly a third of all former owners sold their RV within the past five years, indicating a substantial amount of recent turnover. While it is unlikely that former owners who sold their vehicle 15 or 20 years ago will reenter the market, those households that sold their RV in the past five years or so represent prime prospects for making another RV purchase.



Perhaps more importantly, fewer near term losses would result in a greatly expanded overall market. For example, if half of those that sold their RV during the past four years could have been retained in the market, the total proportion of households that owned RVs would rise from the current 9.8% to 11.6%, which would amount to a gain of 18% in the number of owners. Importantly, the only way to accommodate such a gain would be for the overall stock of RV to be increased by new units. Even if only a third of these recent sellers were retained, the overall increase in ownership would amount to a sizable 12% gain.



## 5. RV PURCHASE INTENTIONS

### Assessing Market Potential

To assess the potential for future RV sales, all households in the 1997 survey were asked about whether they planned to purchase an RV in the future, whether the RV would be purchased new or used, and when they intended on making the purchase. The likelihood of a future purchase varied significantly by whether the household currently owned an RV, whether they had owned an RV in the past but not currently, or whether they had never previously owned an RV. The strong appeal of the RV lifestyle was reflected in the widespread intention of current owners to purchase another RV. Significant numbers of past owners also expressed their intentions to reenter the market. Although households that have never owned an RV were the least likely to express purchase intentions, it is this subgroup that defines the overall potential for market expansion.

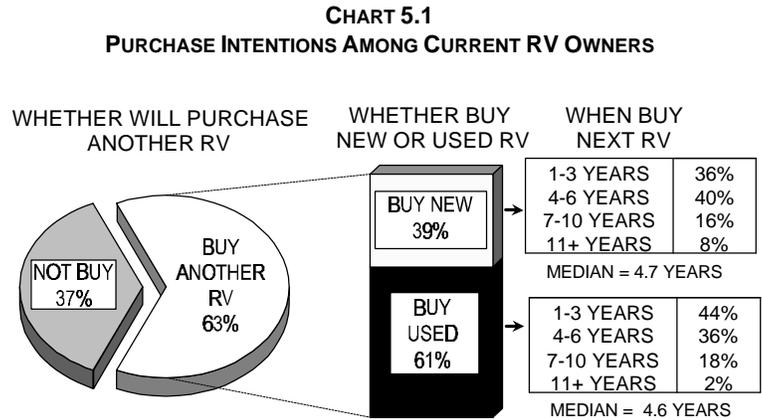
In assessing the overall market potential, there are several crucial factors to take into account. First, the size of the subgroup must be considered along with the percent of the subgroup that intends to purchase. Current and former owners are about as numerous, together amounting to about 20% of all households, while the number of households that have never owned an RV is by far the largest, accounting for 80% of all households. As a result, when the purchase intentions data are summed across all three groups to represent "all households," the data are most heavily weighted by the "never owned" subgroup.

Second, when assessing the purchase intentions across all households it is important to recognize that the three groups differ markedly in their demonstrated commitment to RV ownership, and thus the likelihood that they will actually make the purchase. Accordingly, more weight must be given to current owners, followed by prior owners, and far less to the expressed intentions of the "never owned" subgroup.

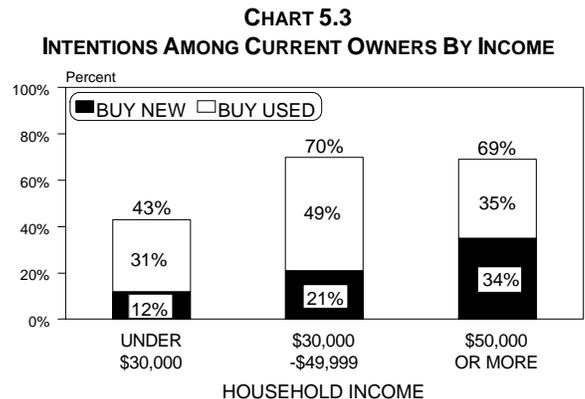
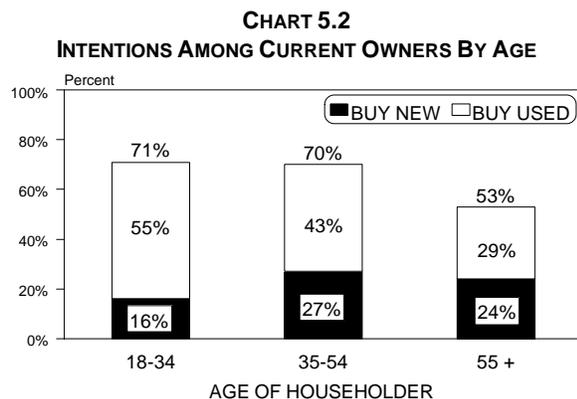
Third, in assessing the potential of these purchase intentions, consideration must be given to both aspects of the expressed purchase plan: whether it would be a new or used RV, and the timing of the expected purchase. The purpose of these questions was both to gauge the sales potential during the next few years, as well as to estimate the potential extent of interest in future RV ownership.

### Purchase Intentions Among Current RV Owners

Nearly two-thirds of all current RV owners expected to purchase another RV to replace their current unit (see Chart 5.1). Among current owners that intended a replacement purchase, nearly four-in-ten owners expected to purchase a new RV, with one-third that planned to make the purchase in one to three years. Using the data in Chart 5.1 (and subsequent charts), more detailed subgroup calculations can be made. For example, the proportion of current owners that expect to make a new RV purchase within one to three years is:  $8.8\% = .63 * .39 * .36$ . In comparison, about twice as many current owners plan a used RV purchase within that same time period:  $16.9\% = .63 * .61 * .44$ .

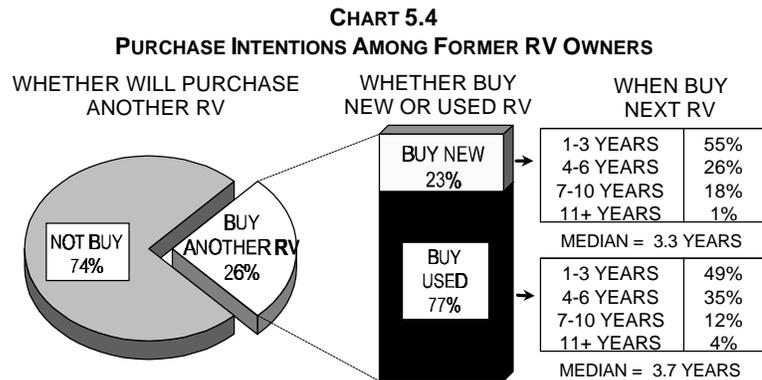


Overall purchase intentions among current owners generally declined with age and increased with income. Younger RV owners, however, primarily intend to purchase used RVs. In comparison, although fewer older owners plan to purchase another RV, a greater share of those purchases will be new RVs. Indeed, the new unit share of purchases doubles from the youngest to the oldest age groups, from 23% among those under 35 (16% out of 71%) to 45% among those over 55 years old (24% out of 53%). Current owners with higher incomes were not only more likely to plan another purchase, but were also more likely to intend to buy a new RV. Two-thirds of all current owners with incomes of \$50,000 or more intended to purchase another RV, with half planning a new purchase. Although as many in the middle income group planned to purchase another RV, just under one-third planned to purchase the RV new (21% out of 70%).

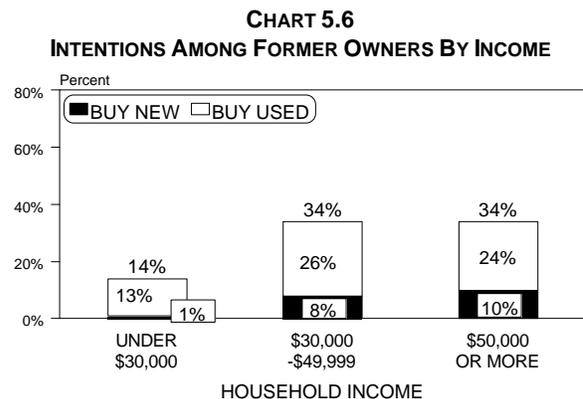
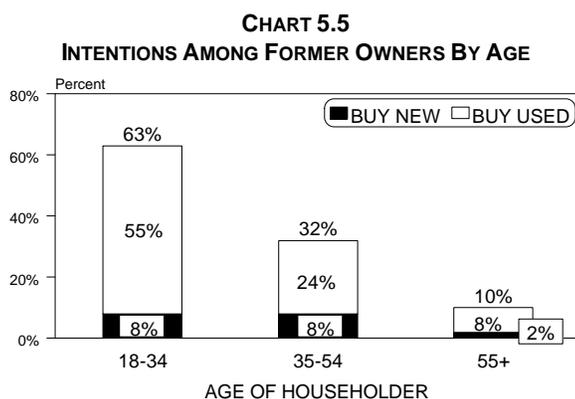


### Purchase Intentions Among Former RV Owners

Among former RV owners, one-in-four intended to purchase another RV in the future. Among those former owners that intended to make another purchase, one-in-four planned on purchasing a new RV, with half of the new purchases planned within one to three years (see Chart 5.4). Although former owners less frequently planned new purchases, among those that did plan to buy, they expected to make these purchases sooner than current owners. Overall, the number of former owners that intended to make a new RV purchase during the next three years was 3.3% (.26 \* .23 \* .55), which is smaller than the 8.8% for current owners but nonetheless still represents a substantial potential market. Compared with current owners, a greater share of former owners planned to purchase used units—9.8% planned used purchases in one to three years.



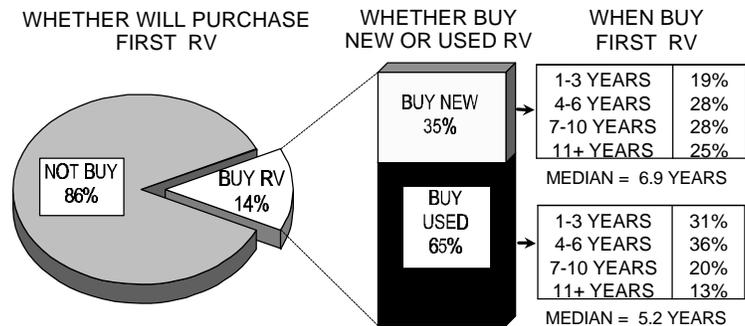
Reentry into the RV market is highly related to the age of the former owner (see Chart 5.5). Former owners under age 35 were more than six times as likely to plan another RV purchase than former owners aged 55 or older. Although only a small share of former owners under 35 intend to purchase a new RV, their reentry into the market will help to improve new sales prospects both now as well as in the future (rising prices for used units makes the price of new RVs more attractive, and the only way to expand the overall stock of RVs is by the addition of new RVs). Although the intention to reenter the RV market did not increase along with income above the median level, the proportion that expected to purchase a new RV did rise marginally (see Chart 5.6).



### Purchase Intentions Among New Market Entrants

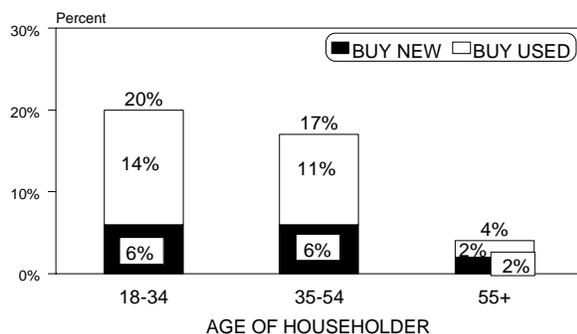
Among households that have never owned an RV in the past, about one-in-seven expressed an interest in the purchase of an RV in the future (see Chart 5.7). Although one-third planned to purchase new RVs, these new market entrants did not expect to make these purchases as soon as either current or former owners—the median was 6.9 years compared with 3.3 years for former owners and 4.7 for current owners. As a result, new RV purchases during the next one to three years were planned by just 0.9% of this subgroup. Although this was well below the other groups, this subgroup is about four times the size of the other two combined.

**CHART 5.7**  
**PURCHASE INTENTIONS AMONG NEW MARKET ENTRANTS**

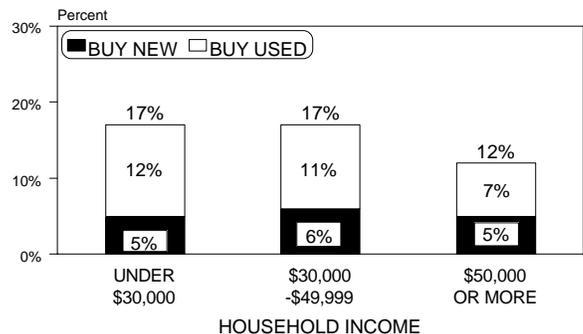


Very few consumers who were age 55 or older expressed intentions to make a first time purchase of an RV (see Chart 5.8). Importantly, first time purchase intentions remained quite strong up to age 55, with the baby boom generation as likely to express the intention to purchase a new RV as those in the youngest age group. New vehicle purchases among first time buyers were reported as frequently at all income levels, although intentions to purchase used RVs were somewhat higher among lower income households (see Chart 5.9).

**CHART 5.8**  
**INTENTIONS AMONG NEW ENTRANTS BY AGE**

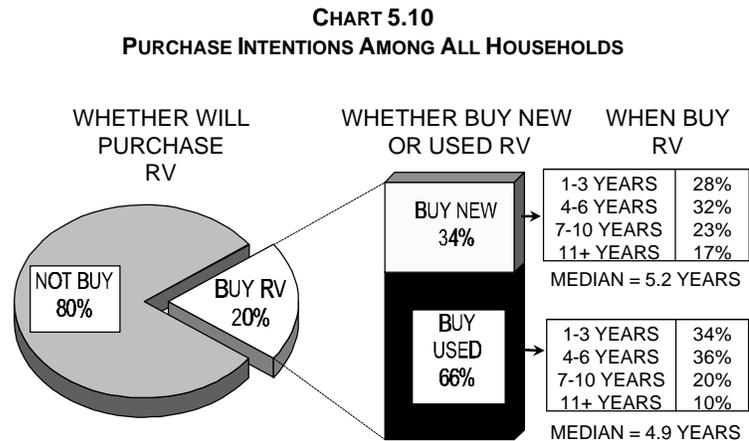


**CHART 5.9**  
**INTENTIONS AMONG NEW ENTRANTS BY INCOME**

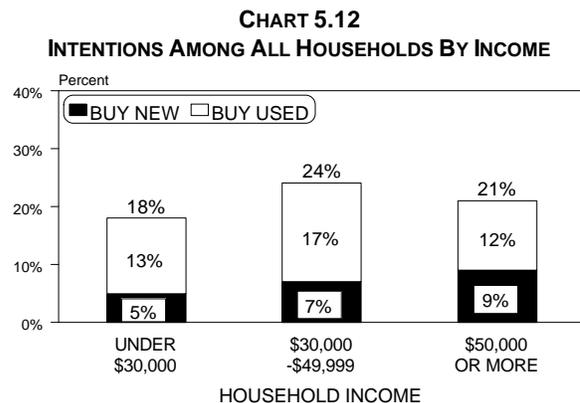
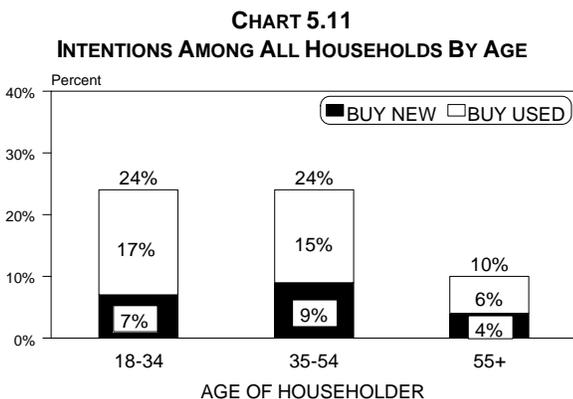


### Purchase Intentions Among All Households

When summed across all households, including current and former owners as well as new market entrants, one-in-five households expressed an intention to purchase an RV (see Chart 5.10). Overall, planned purchases of new RVs within the next three years were reported by 1.9% of all households. Current owners accounted for 44% of the total, former owners 20%, and new market entrants accounted for 36%. Purchases of used RVs within the next three years were planned by 4.5%, with current RV owners accounting for 36% of the total, former owners 25%, and new market entrants accounting for 39% of the total planned used RV purchases within the next one to three years. These calculations assume that the fulfillment rates of these purchase intentions are as equally likely among current and former owners as well as new market entrants. Since it is likely that fulfillment rates are highest among current owners and lowest for new market entrants, these calculations would underestimate the share of the market accounted for by current owners.



Overall RV purchase intentions were equally as prevalent among those under age 35 as well as among the baby boom age groups (see Chart 5.11). Importantly, those aged 35 to 54, primarily those in the baby boom generation, were somewhat more likely to plan new RV purchases. Intentions to purchase new RVs increased with income, with the highest income group nearly twice as likely to plan a new RV purchase than the lowest (see Chart 5.12).





## 6. SATISFACTION WITH RV MAINTENANCE, FEATURES, AND CAMPGROUNDS

### Satisfaction Measures

RV owners were asked about their satisfaction with repair and maintenance services on their RV, with the appliances, furniture, decor and the construction of their RV, and with campgrounds and RV parks they visit. To interpret these data, it is important to note several critical aspects of satisfaction measures. First, a person's sense of satisfaction always represents the outcome of a comparative judgement. Product satisfaction, for example, represents the outcome of an evaluation of its features and performance compared with an expected standard. Consequently, differences in satisfaction ratings can result from either differences in product performance or from differences in the expected performance standard. Rising satisfaction levels, for example, result when product performance rises faster than expected performance standards.

Second, survey questions that do not make the evaluative criteria explicit simply leave the choice of which criteria to use to the respondent. Questions such as "How satisfied are you with your RV?" allow the respondent to use any frame of reference they think is appropriate for making the judgement. This does not mean that such a question is not useful; it may even seem that it is preferred since it allows the individual to use the comparative yardstick that they believe is most relevant. The results from such questions, however, are difficult to interpret since the basis on which the judgements were made is unknown. More importantly, there is no straightforward way to translate the results from such questions into product development or marketing plans.

Third, the best comparative standard to use in a satisfaction question is one that is both widely used by consumers as well as provides sufficient information to manufacturers on which to base product development and marketing decisions. For many of the components of RVs, consumers have a broad range of experiences on which to base comparative judgements. For example, the repair and maintenance of household vehicles, the reliability of home heating and cooling systems, or the reliability of household appliances. Performance standards are learned through experience, and most of consumers' experiences come from using the same or similar type of components in other situations.

In some cases, the experiences are nearly identical, such as having engine repairs and maintenance performed on RVs and household vehicles. Indeed, some types of maintenance and repairs on RVs may be performed by the same facility that the owner takes their other household vehicles. More generally, the expectations that owners have about the services provided by RV dealerships are shaped by their experiences with obtaining similar services on their other household vehicles. These experiences form standards that RV owners use to judge whether RV dealerships are open at convenient hours, provide courteous service, can fix problems in a reasonable amount

of time, and provide a comparable value for the dollar.

For some RV components this standard of comparison may appear to be unduly strict. After all, does anyone really expect the same type of performance from appliances in the home as in an RV that routinely travel at highway speeds, with the appliances repeatedly jarred by potholes and other off-road hazards? While some allowances may well have been made when making their judgements, the simple fact is that RV owners have no other more relevant information to judge the performance of a microwave in their RV, for example, than their experiences with the one in their home. To be sure, the appliances in their home and in their RV are likely to differ in many important aspects, such as the size or built-in features or options. For this reason, the satisfaction questions focused on assessments of the reliability of the appliances rather than their features. While reliability may be quite vulnerable to a rugged road life, it is a basic and critical element for RV owners: the plumbing system may not provide all the comforts of home, but it should be reliable.

A full assessment of satisfaction with RVs can not be limited to the characteristics of the unit itself, but must also include an assessment of owners' satisfaction with the facilities for their use when traveling. Satisfaction with campgrounds and RV parks represent an important aspect of any overall assessment. While these facilities are quite different from motels, they do share a large number of common characteristics, such as their availability, cleanliness, the amenities offered on site, and the sense of personal security while staying at the facility. Using these basic characteristics, RV owners were asked to rate campgrounds and RV parks compared to staying at motels. Just as with the other satisfaction measures, this comparison standard was chosen because it was the most likely source of information that RV owners' based their changing expectations about campground facilities.

It should also be emphasized that rather than an absolute level of satisfaction, the questions asked for relative judgements—whether they were more, the same, or less satisfied than with the standard used for comparison. While it may be tempting to judge the results by the numbers that replied they were more satisfied with the RV, it should be noted that those who replied that they were as satisfied as with the comparison standard also represent favorable replies. Indeed, the very purpose of the questions was to determine which areas met owners expectations, and which areas represented barriers or sources of dissatisfaction. That owners were as satisfied with repair services provided by RV dealers as for their other vehicles, or as satisfied with the reliability of the appliances in their RV as in their home, certainly do not represent problem areas. When owners express less satisfaction with their RV than for the comparable services or products, however, it does indicate a potential problem area.

Finally, the reader is cautioned not to compare satisfaction levels on one component of the RV experience to another due to their inherent differences. The purpose of the research was to analyze each component separately, and to identify which areas, if improved, would offer the greatest marginal gains in consumer satisfaction with the RV experience.

### Repair and Maintenance Services

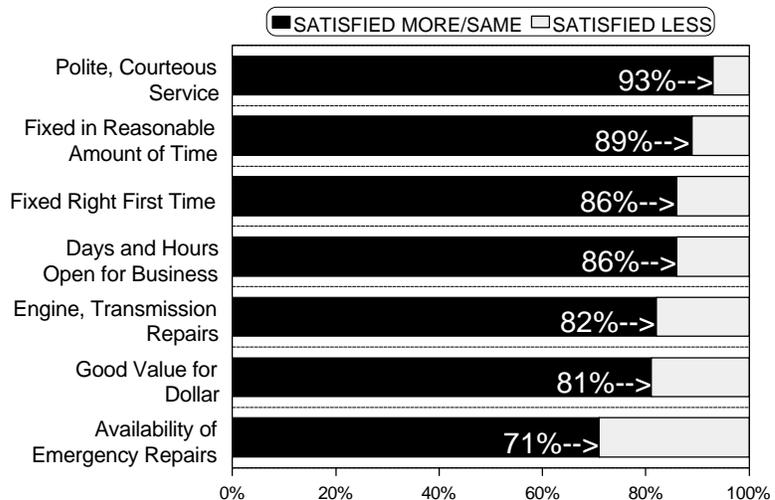
RV owners were asked to rate their satisfaction with various aspects of the repair and maintenance services they had performed on their RVs compared with their experiences with other household vehicles. The questions were:

The next several questions are about how you rate the repair and maintenance services on your RV **compared with getting repair and maintenance services on your other household vehicles**. First, what about getting it “fixed right the first time?” Would you say you are much more satisfied with getting your RV fixed right the first time, somewhat more satisfied, equally satisfied, somewhat less satisfied, or much less satisfied with getting your RV fixed right the first time?

- a. Fixed right the first time?
- b. Getting the repairs done in a reasonable amount of time?
- c. Value for the dollar of the service and repairs you received?
- d. Polite, courteous service?
- e. Days and hours the facility is open for business?
- f. Availability of emergency repair services when traveling?
- g. Engine and transmission maintenance and repairs? (Asked about motorized RVs only)

In response, RV owners voiced a considerable degree of satisfaction with nearly all aspects of the repair and maintenance services performed on their RVs. Among all owners, 93% reported that they were equally or more satisfied with the courtesy shown to them when getting maintenance and repairs on their RVs. Nearly as many were as satisfied with the amount of time required for repairs, the ability of the service personnel to fix problems correctly the first time, and the hours the facility was open for business (see Chart 6.1). Just over eight-in-ten motorhome and van conversion owners were satisfied with the work on their engines and transmissions. The item owners voiced the least satisfaction with was the availability of emergency repairs when traveling—which is not surprising given the near universal availability of

**CHART 6.1**  
**SATISFACTION WITH RV MAINTENANCE & REPAIRS**  
**COMPARED WITH OTHER HOUSEHOLD VEHICLES**



places to have cars repaired.

Chart 6.2 shows the responses separately for the different types of RVs, the age of the RV, and whether the RV was purchased new, and if purchased used, whether the RV was purchased from a dealer or from the prior owner. Overall, the data indicate few differences in these assessments. While some repair and maintenance services are common to all types of RVs, many maintenance needs are specific to the particular type of RV. Owners of motorized RVs were somewhat less likely to be satisfied with getting their RV fixed right the first time, and were also somewhat less likely to report satisfaction with the value for the dollar of the repair and maintenance services.

The need for maintenance may be greater for older RVs than for newer units, and the required parts may not be as readily available. Owners of newer RVs did report somewhat greater satisfaction with getting the unit fixed correctly the first time and for engine repairs, but the differences were small. RVs purchased new meant that the owner did not inherit any past (and uncorrected) problems, and the unit may have been continuously maintained by the same dealer. Those that purchased their used RV from dealers reported generally higher satisfaction rating than owners who purchased their RV from the prior owner, with the largest difference on maintenance and repairs of the engine and transmission.

**CHART 6.2**  
**SATISFACTION WITH REPAIR AND MAINTENANCE BY TYPE, AGE, AND HOW RV WAS PURCHASED**  
**(PERCENT AS SATISFIED OR MORE SATISFIED COMPARED WITH SERVICE ON OTHER VEHICLES)**

	TYPE OF RV				AGE OF RV		HOW PURCHASED RV		
	Motor Home	Van Conv	Travel Trailer	Fold Camp	1 - 5 Years	6 or More	New	Used from ...	
								Dealer	Prior Owner
Polite, Courteous Service	90%	88%	93%	99%	87%	95%	88%	94%	98%
Fixed in a Reasonable Amount of Time	89%	70%	98%	84%	87%	89%	90%	94%	86%
Fixed Right the First Time	76%	81%	93%	88%	88%	84%	82%	94%	87%
Days and Hours Open For Business	95%	95%	73%	89%	81%	87%	84%	85%	89%
Engine, Transmission Repairs	82%	81%	--	--	88%	80%	84%	88%	77%
Good Value for the dollar	69%	77%	89%	91%	81%	80%	80%	87%	80%
Availability of Emergency repairs	71%	72%	69%	78%	75%	69%	66%	67%	76%

### RV Features and Construction

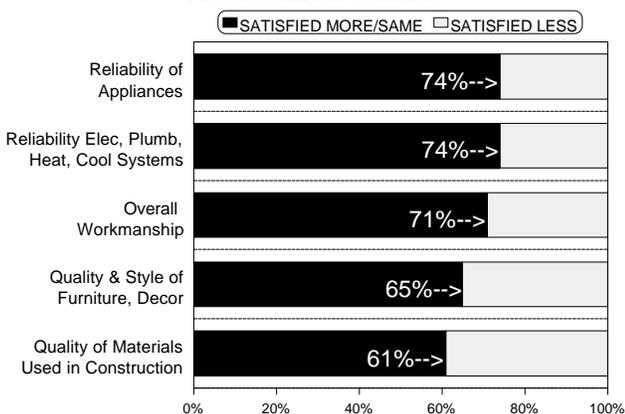
RVs contain a wide array of component systems as varied as those found in the typical home, ranging from electrical, plumbing, heating and cooling systems to appliances and furniture. Given that many of these components are identical in function to those in their homes, it is rather natural that consumers would base their evaluations on similar items in their homes, even though these components must operate under much more demanding conditions in RVs. Although RV owners may well take these higher demands into account, it is still likely that these comparisons represent a strict standard. The questions were:

Now, I would like to ask you about how you rate the various parts of your RV **compared with similar items in your home**. First, what about the reliability of the appliances? Would you say you are much more satisfied with the reliability of the appliances in your RV, somewhat more satisfied, equally satisfied, somewhat less satisfied, or much less satisfied with the reliability of the appliances in your RV?

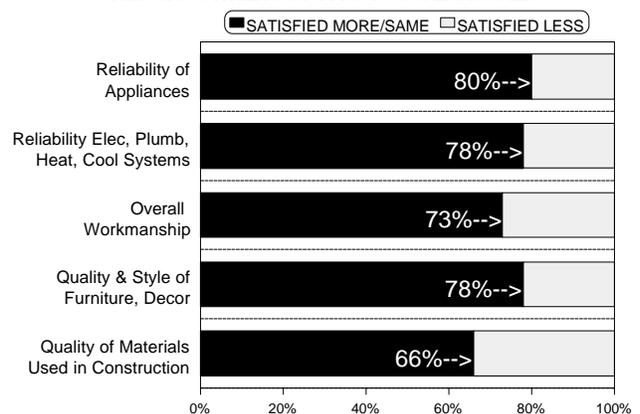
- a. Reliability of the appliances?
- b. Reliability of the electrical, plumbing, heating and cooling systems?
- c. Quality and style of the furniture and decor?
- d. Quality of the materials used in the construction?
- e. Overall workmanship?

Overall, owners reported widespread satisfaction with the various component systems in their RV. As might be expected, those with relatively newer RVs reported markedly higher overall satisfaction levels than owners of older RVs (see Chart 6.3 and Chart 6.4 below).

**CHART 6.3**  
**SATISFACTION WITH RV FEATURES & CONSTRUCTION**  
**COMPARED WITH SIMILAR ITEMS IN HOME**  
**AMONG ALL RV OWNERS**



**CHART 6.4**  
**SATISFACTION WITH RV FEATURES & CONSTRUCTION**  
**COMPARED WITH SIMILAR ITEMS IN HOME**  
**AMONG OWNERS OF RVs 1 - 5 YEARS OLD**



Despite the demanding comparative standard, three-in-four of all RV owners reported as much or greater satisfaction with the reliability of the appliances in their RV as in their current home. Those that owned newer RVs (five years old or less) this figure rose to 80% (see Charts 6.3 and 6.4). Similarly, very high satisfaction levels for electrical, plumbing, heating, and cooling systems as well as for overall workmanship were reported—by seven-in-ten owners. Again, satisfaction levels among those that owned newer RVs were slightly higher than among those with older RVs.

Two-thirds of all owners were satisfied with the furniture and decor in their RV, with owners of newer RVs much more satisfied. When asked to rate the construction materials and workmanship in their RV, six-in-ten owners of older RVs responded that they were as satisfied or more satisfied than with their current home. These differences in furniture and decor readings between newer and older RVs may simply be due to wear-and-tear on older vehicles or changing consumer tastes, whereas the greater satisfaction with the quality of construction materials and overall workmanship in newer RVs more directly reflects product improvements by manufacturers.

Regardless of the current age of the RV, owners that purchased their RV new were more satisfied with all of its features and its construction than those that purchased the unit used either from a dealer or the prior owner. Further, owners that purchased their RV from the prior owner were less satisfied with its overall workmanship, its furniture and decor, and the quality of materials used in its construction, reflecting generally older RVs at the time of purchase.

**CHART 6.5**  
**SATISFACTION WITH RV FEATURES & CONSTRUCTION BY TYPE, AGE, AND HOW RV WAS PURCHASED**  
**(PERCENT AS SATISFIED OR MORE SATISFIED COMPARED WITH SIMILAR ITEMS IN THE HOME)**

	TYPE OF RV				AGE OF RV		HOW PURCHASED RV		
	Motor Home	Van Conv	Travel Trailer	Fold Camp	1 - 5 Years	6 or More	New	Used from ...	
								Dealer	Prior Owner
Reliability of Appliances	69%	61%	78%	70%	80%	71%	80%	66%	70%
Reliability of Elec, Plumb, Heat, Cool Systems	69%	69%	72%	82%	78%	71%	84%	63%	70%
Overall Workmanship	61%	80%	67%	76%	73%	69%	75%	73%	68%
Quality and Style of Furniture and Decor	64%	98%	58%	58%	78%	61%	79%	66%	56%
Quality of Materials Used In Construction	58%	87%	57%	58%	66%	59%	66%	64%	57%

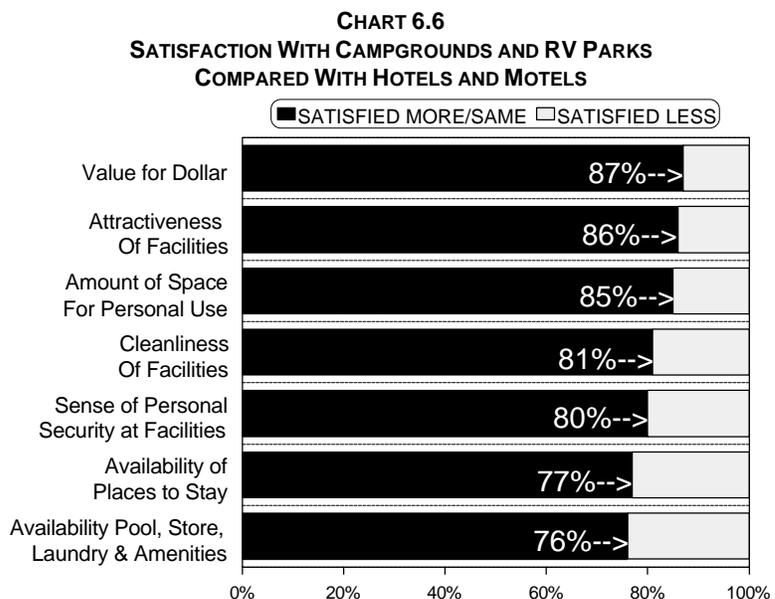
### Campgrounds and RV Parks

While there are important aspects of the RV lifestyle that can not be duplicated by the use of hotels and motels, these facilities represent a common standard that owners can use to judge facilities at campgrounds and RV parks. The underlying issue is not whether hotels and motels represent the competition for travelers, but that these facilities set a comparative standard by which campgrounds and RV parks are evaluated. The questions were:

Now, I would like you to rate campgrounds and RV parks **compared with hotels or motels you could stay at while traveling**. First, what about the availability of places to stay? Would you say you are much more satisfied with the availability of places to stay in your RV, somewhat more satisfied, equally satisfied, somewhat less satisfied, or much less satisfied with places to stay in your RV?

- a. Availability of places to stay
- b. Availability of things like a pool, a store, laundry and other amenities
- c. Value for the dollar of places to stay
- d. Amount of space provided for your personal use
- e. Attractiveness of the facility
- f. Cleanliness of the facility
- g. Sense of personal security at the facility

More than three-in-four RV owners voiced their satisfaction with each of the aspects of campgrounds and RV parks (see Chart 6.6). The greatest satisfaction was reported for the value for the dollar that campgrounds and RV parks provide in comparison with hotels and motels. The overall attractiveness of the facilities and the amount of personal space were also highly rated, closely followed by high ratings for cleanliness and the sense of personal security while staying at these facilities. The least highly rated items were the number of campgrounds that were available for their use while traveling, and the availability of a variety of amenities, such as a pool, a camp



store, and laundry facilities.

Van conversion owners were somewhat less likely to voice satisfaction with the attractiveness of the facilities, with their sense of personal security, and the availability of amenities (see Chart 6.6). In contrast, motorhome owners generally voiced greater satisfaction levels with nearly all aspects of campgrounds and RV parks.

The largest differences in these satisfaction ratings corresponded to the income of the household. Higher income households voiced much less satisfaction with campgrounds and RV parks on every dimension covered by the questions (see Chart 6.7). The proportion of RV owners with household incomes above \$50,000 that were satisfied was twenty or more percentage points lower than for households with incomes below \$30,000 for the attractiveness of the facilities (77% vs. 98%), the sense of personal security (68% vs. 90%), the availability of amenities (61% vs. 86%), and the availability of places for them to stay (68% vs. 90%). Clearly, campgrounds and RV parks now hold much greater appeal for lower income households, and may indicate an underlying problem in attracting and retaining high income households in the RV market. More upscale facilities and amenities need to be offered by campgrounds and RV parks to attract this important market segment. Importantly, the comparatively high ratings for value for the dollar could support the higher costs required to provide these facilities.

**CHART 6.7**  
**SATISFACTION WITH CAMPGROUNDS AND RV PARKS BY TYPE, HOUSEHOLDER AGE AND HOUSEHOLD INCOME**  
**(PERCENT AS SATISFIED OR MORE SATISFIED COMPARED WITH SIMILAR FEATURES IN HOTELS AND MOTELS)**

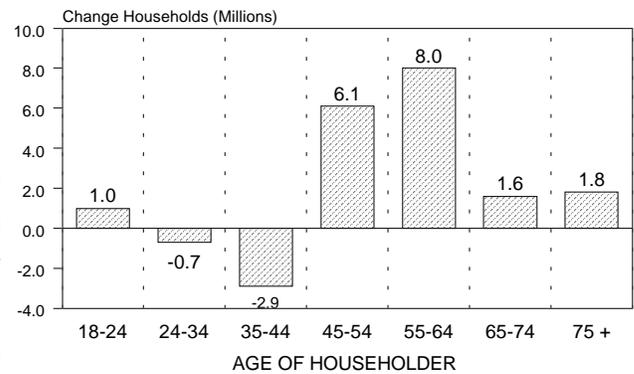
	TYPE OF RV				AGE OF HOUSEHOLDER			INCOME (THOUS)		
	Motor Home	Van Conv	Travel Trailer	Fold Camp	18 - 34	35- 54	55 +	Less \$30	\$30- \$49	\$50 More
Value for the Dollar	92%	91%	85%	88%	92%	82%	90%	95%	84%	85%
Attractiveness of the Facilities	86%	71%	88%	84%	93%	87%	80%	98%	92%	77%
Amount of Space for Personal Use	89%	83%	81%	87%	84%	85%	87%	89%	91%	80%
Cleanliness of the Facility	87%	76%	83%	75%	79%	80%	83%	89%	81%	75%
Sense of Personal Security at Facilities	89%	66%	79%	82%	70%	77%	88%	90%	87%	68%
Availability of Places to Stay	79%	82%	78%	76%	80%	73%	82%	95%	83%	65%
Availability of Pool, Store, Laundry & Amenities	76%	71%	74%	82%	72%	75%	79%	86%	87%	61%

## 7. POTENTIAL GROWTH IN RV OWNERSHIP

### Baby Boom Generation

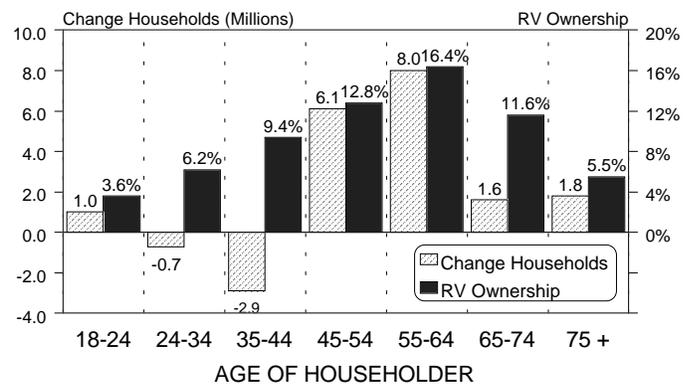
The ongoing change in the age distribution of the population means that more consumers will enter the age range in which the highest RV ownership rates are recorded. During the next decade, the baby-boom cohort, those born in the twenty years from 1947 to 1967, represents the potential for substantial growth in RV demand (see Chart 7.1). From 1997 to 2010, the number of householders 55 to 64 years old will increase from 12.7 million to 20.7 million. The gain of 8.0 million for this age group represents an extraordinary increase of 62.5%. For householders 45 to 54 years old the gain will be 6.1 million, moving from 19.2 to 25.3 million households (an increase of 31.8%). The largest decline from 1997 to 2010 will be among households 35 to 44 years old, falling from 23.5 to 20.6 million, a decline of 12.5%.

**CHART 7.1**  
**CHANGE IN NUMBER OF HOUSEHOLDS FROM 1997 TO 2010**  
**BY AGE SUBGROUPS**



The largest gains in households correspond to the age ranges that have the highest RV ownership rates. Chart 7.2 combines the data on the change in the number of households within each age group with the RV ownership rates for 1997. The gains in the number of households as well as the RV ownership rates are highest among householders aged 45 to 64. Although the number of householders over age 65 will post much smaller gains from 1997 to 2010, the data, nonetheless, indicates positive prospects for growth. In contrast, the declines in the number 24 to 44 years old means that for the absolute number of RVs owned by this age group to remain unchanged, the ownership rate would need to increase above the 1997 levels.

**CHART 7.2**  
**RELATIONSHIP BETWEEN RV OWNERSHIP RATES AND**  
**CHANGE IN NUMBER OF HOUSEHOLDS FROM 1997 TO 2010**



## Estimation Procedures and Assumptions

The procedure used to estimate future RV ownership was straightforward. First, Census estimates of the growth in the number of households by age subgroups formed the base for the calculations. Second, the number of RV owning households was estimated for each age subgroup. The final step was to sum the age specific ownership levels to determine the overall household ownership of RVs. As with any long term estimates of growth in consumer demand, the resulting projections must be treated with caution. They illustrate the potential impact of changes in the age distribution of the population on future demand for RVs. Needless to say, the projections depend on the validity of the assumptions. In general, the assumptions were chosen so that the projections could be viewed as the base case—that is, the situation in which all other factors were held constant except for the impact of the change in the age distribution. Of course, some of those other factors will change, and consequently influence the actual growth in RV demand. Judgements about prospective changes in those other factors then represent deviations from the base case estimates.

The projected number of households was based on data provided by the U.S. Census Bureau (see Chart 7.3). The total number of households was estimated to grow by 14.9% between 1997 and 2010. As already noted, the largest gains are projected for householders between 45 and 64 years of age. Of the total increase of 14.9 million households, the gain among those aged 45 to 64 (14.1 million) will nearly equal the entire increase. Householders over age 65 were projected to increase by 3.4 million households by 2010. In contrast, sharp declines were projected among younger age groups, with the actual number of householders aged 25 to 44 expected to drop by 3.7 million.

**CHART 7.3**  
**ESTIMATED NUMBER OF HOUSEHOLDS BY AGE OF HOUSEHOLDER**  
**(MILLIONS)**

AGE	1995	1997	2000	2005	2010
18-24	4.826	4.700	4.966	5.399	5.724
25-34	18.783	18.159	17.045	16.547	17.425
35-44	22.756	23.517	23.914	22.560	20.581
45-54	17.723	19.179	21.210	23.923	25.283
55-64	12.331	12.735	14.002	17.331	20.693
65-74	11.849	11.682	11.446	11.597	13.298
75 +	9.454	9.993	10.663	11.462	11.821
Total	97.722	99.965	103.246	108.819	114.825

The estimates represent a baseline forecast in that the age-specific RV ownership rates observed in 1997 were assumed to remain unchanged throughout the forecast period. Clearly, if as consumers age, they purchase RVs more or less frequently than among today's consumers, the baseline forecast will under or over estimate the actual results. In particular, this baseline estimate

assumes that as the baby boom generation ages they will purchase RVs at the same rate as the earlier generation.

The same procedures were also used to estimate the growth in ownership of each of the major types of RVs. As a result, the base estimates also assume that the market shares for each type of RV by age groups will remain constant over time. The estimates of growth by type of RV thus assume that new product innovations or changing tastes, for example, do not result in a departure in product shares from what was observed by similar age subgroups in the 1997 survey. This does not mean that the shares of the different types of RVs are assumed to remain unchanged, but that the change in shares will follow the same age profile as observed at present. The estimates would fail to capture, however, an increasing (or decreasing) share of travel trailers, for example, within any specific age subgroup over time. While the assumption of unchanged shares provides a useful baseline for the estimates, it is likely that ownership shares by RV type may show more variation over time than the overall proportion of households that own RVs. Consequently, the growth estimates for the individual types of RVs should be treated with even more caution than the estimates for the growth in the overall RV market.

Because the Census projects are for all households, and the RV ownership rates have typically

been presented as a share of all vehicle owning households, an adjustment was needed to make the two series compatible. The adjustment factor was simply the combination of the age-specific vehicle ownership rate and the age-specific RV ownership rate. For example, the proportion of households that own any type of car or light truck was 87.9% in 1997 and the RV ownership rate among vehicle households was 9.8%, thus the total adjustment factor was

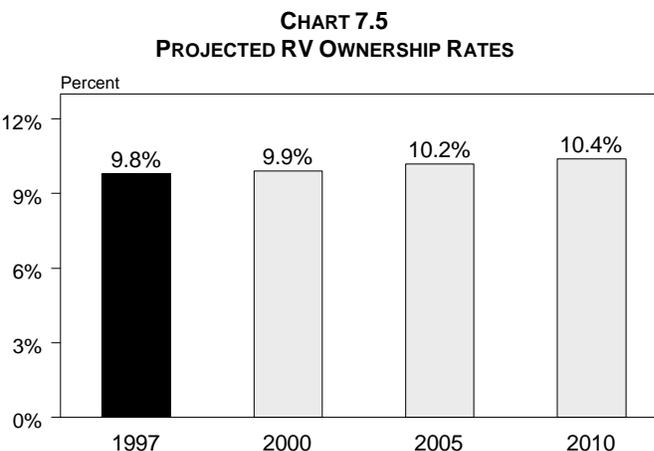
8.61% (.879 \* .098 = .861). The adjustment factors that were used for each type of RV within each age group are shown in Chart 7.4. The final estimates of ownership rates were then converted back from the “all household” base to the vehicle-owning household base for ease of comparison with the ownership figures as usually calculated.

**CHART 7.4**  
**ADJUSTMENT FACTORS FOR ESTIMATING RV OWNER HOUSEHOLDS**

AGE	Type of RV					
	All RVs	Motor Home	Van Conv	Travel Trailer	Fold Camp	Truck Camp
18-24	.030	.008	.007	.012	.004	.001
25-34	.055	.003	.012	.019	.013	.010
35-44	.084	.007	.029	.040	.017	.002
45-54	.113	.019	.032	.033	.039	.004
55-64	.144	.025	.055	.040	.011	.023
65-74	.097	.038	.027	.028	.008	.004
75 +	.036	.013	.007	.017	.000	.000

### Estimates of Growth in RV Ownership

The base case estimate is that 10.4% of all vehicle owning households by the year 2010 will own some type of RV (see Chart 7.5). The gain in ownership rates will increase rather steadily over the next decade, although a somewhat higher gain was recorded from 2000 to 2005 than in either the five prior years or the five later years (a gain of 0.3 versus 0.2 percentage points). Although the increase in ownership rates may seem rather small, the gain is substantial in terms of the absolute number of households that own RVs, which will be documented next. Moreover, it must be remembered that the base case projections assumed that age-specific ownership rates would remain unchanged; it was only through shifts in the age distribution of the population that the overall ownership rate grows.



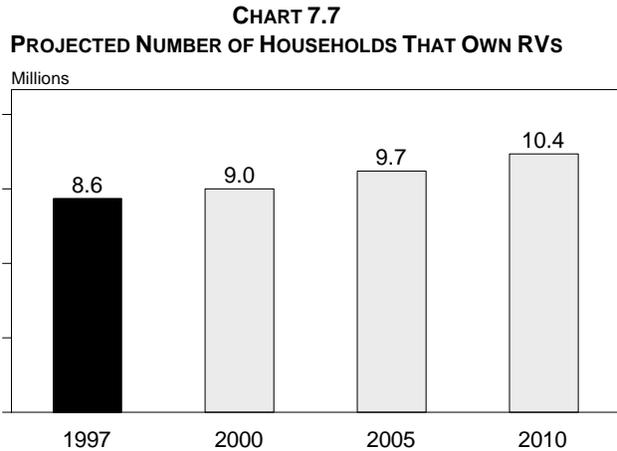
The details of the base case projections are given in Chart 7.6. All types of RVs participated in the overall growth trend. Motorhomes and van conversions showed continued growth over the entire horizon of the forecast, while travel trailers and folding camping trailers reached peak ownership levels in the middle of the next decade. (Note that in Chart 7.7, the 1997 data represent the survey's actual ownership rates, the data for 2000, 2005, and 2010 were all estimated as well as the 1995 figures—a backward “forecast” was used to assess the adequacy of the procedures as well as to provide for growth estimates by five year periods.) Also note that the sum of the ownership rates over all types of RVs is larger than the overall ownership rate due to households that own more than one type of RV.

**CHART 7.6  
RV OWNERSHIP RATES AMONG VEHICLE OWNING HOUSEHOLDS**

	1995	1997	2000	2005	2010
Any RV	9.7%	9.8%	9.9%	10.2%	10.4%
Motorhome	1.7%	1.7%	1.7%	1.8%	1.9%
Van Conv	2.9%	3.0%	3.0%	3.1%	3.2%
Travel Trailer	3.4%	3.4%	3.4%	3.5%	3.4%
Fold Camper	1.8%	1.9%	1.9%	1.9%	1.9%
Truck Camper	0.7%	0.7%	0.7%	0.8%	0.8%

The number of households that own at least one RV was projected to rise from 8.6 million in 1997 to 10.4 million in 2010 (see Chart 7.7).

This gain amounts to a remarkable 21% increase in the number of households that own RVs. In comparison, over the same time period the absolute number of households was projected to grow by 15%. The much faster growth in RV households was due to the impact from the baby boom generation moving into the age ranges that have the highest ownership rates. The estimates do depend, however, on the baby boom generation adopting the higher ownership levels that correspond to the age groups that they will be entering over the next decade.



The details of the projected number of households that own any RV as well as the projected number that own each type of RV is given in

Chart 7.8. (Note the coincidence: the proportion of all vehicle owning households projected to own an RV in 2010 was 10.4%, and the absolute number of owners was 10.4 million. This simply reflects the embedded estimate that by 2010 there will be 100 million vehicle owning households.) For each type of RV, the number of owner households is projected to increase throughout the entire time period. As noted earlier, changes in shares of each type of RV

**CHART 7.8**  
**NUMBER OF HOUSEHOLDS THAT OWN RVs (MILLIONS)**

	1995	1997	2000	2005	2010
Any RV	8.4	8.6	9.0	9.7	10.4
Motorhome	1.4	1.5	1.6	1.7	1.9
Van Conv	2.5	2.6	2.7	3.0	3.2
Travel Trailer	2.9	3.0	3.1	3.3	3.5
Fold Camper	1.6	1.6	1.7	1.9	1.9
Truck Camper	0.6	0.6	0.7	0.7	0.8

were assumed to remain unchanged within age subgroups. Any shift in preferences across the various types of RVs would have a significant impact on the projected totals by type of RV. Using the estimated total for “any RV,” a variety of different share assumptions could be used to devise estimates that differed from the base case projections.



## **SURVEY METHODOLOGY**

### **Surveys of Consumers**

The Surveys of Consumers is conducted by the Survey Research Center at the University of Michigan. The Surveys of Consumers were initiated in 1946, one of the first projects established at the Survey Research Center. The monthly surveys provide regular assessments of consumer attitudes and expectations, as well as detailed information on the financial characteristics of households, and are used to evaluate economic trends and prospects. Results from these surveys are used by a wide range of analysts in both the private and public sectors, and are included in the Leading Indicator Composite Index published by the U.S. Department of Commerce.

The Survey Research Center conducts multidisciplinary studies of large populations, organizations, and special segments of society. Its interests include the properties of mass publics, social aggregates, organized and structured social units, and the behavior of individuals in various social roles and settings. The Survey Research Center maintains the facilities and resources to carry out such large-scale research enterprises. Because the Center's survey results are widely sought and used to provide a basis for evaluating important policy issues and for predicting the probable effects of various policy alternatives, the scientific validity of survey results is a critical consideration that has guided the development of the Center's survey activities.

### **Sample Design**

The sample was scientifically designed to be representative of all private households in the coterminous United States. Each household had an equal probability of being selected for the study. As a result, households in all regions of the country, as well as among all economic, social, and demographic groups were represented in the sample in the same proportion as in the actual population.

The questions used in this study were developed based on the Survey Research Center's conventions and standards that used structural and visual techniques to produce questionnaires that are clear, reliable, and easy for interviewers to use accurately. Interviews were conducted from the Ann Arbor telephone facility using the latest computer assisted interviewing technology. Prior to analysis, the data were subjected to multiple checks to insure its quality and accuracy. The computer

assisted programs provide the interviewers with immediate on-line feedback on correct procedures, consistency checks, and definitions of terms.

Many of the questions used in the 1997 study were identical to those used in earlier surveys, and capitalize on the extensive experience gained from past surveys. Some questions were especially designed for the 1997 survey, however, and were subjected to rigorous pretesting and development. Of particular importance for the measurement of change were the questions and information used to determine the types of RVs owned by consumers. Respondents were asked to identify the type of RV that they owned, its size, the number of people the RV could accommodate for overnight travel, if it was a motorhome or van conversion the respondents were asked to identify the make and model, and if necessary whether certain features were present. The motorhome classification required the presence of built-in sleeping spaces as well as other life support systems (kitchen and cooking facilities, bathroom facilities, etc.). Units that had permanent built-in sleeping space suitable for overnight travel but no other support system were classified as van conversions. If a respondent identified a van as a conversion vehicle, but it did not include any permanent built-in sleeping spaces, it was excluded from the RV study.

### **CENSUS REGION DEFINITIONS**

#### **NORTHEAST**

Connecticut  
Maine  
Massachusetts  
New Hampshire  
New Jersey  
New York  
Pennsylvania  
Rhode Island  
Vermont

#### **NORTH CENTRAL**

Illinois  
Indiana  
Iowa  
Kansas  
Michigan  
Minnesota  
Missouri  
Nebraska  
North Dakota  
Ohio  
South Dakota  
Wisconsin

#### **SOUTH**

Alabama  
Arkansas  
Delaware  
Dist. of Columbia  
Florida  
Georgia  
Kentucky  
Louisiana  
Maryland  
Mississippi  
North Carolina  
Oklahoma  
South Carolina  
Tennessee  
Texas  
Virginia  
West Virginia

#### **WEST**

Alaska  
Arizona  
California  
Colorado  
Hawaii  
Idaho  
Montana  
Nevada  
New Mexico  
Oregon  
Utah  
Washington  
Wyoming