Driving Miss Daisy: Women as Passengers

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About the data source: 2009 NHTS

- Over 150,000 households
- Over 300,000 people
- Over one-million travel day trips
- 20 State and MPO add-ons
- RDD and CPO sample
- 40 years of travel data—1969 to 2009

For Each Vehicle:
- Make
- Model
- Age (year)
- How long owned*
- Odometer readings

For Each Household:
- Number of people
- Number of drivers
- Number of workers
- Number of vehicles
- Income

For Each Person:
- Age
- Sex
- Driver status
- Worker Status
- Annual Miles

Daily Travel Data:
- Origin and Destination address (for add-ons)
- Time trip started and ended
- Distance
- Means of transportation:
  1. vehicle type
  2. if household vehicle, which one
  3. if transit, wait time
  4. if transit, access and egress mode*
- Detailed purpose*
- Number of passengers on trip:
- Most recent trip for non-travelers (date)*
New data items of interest include:

- Whether non-drivers ever drove
- Whether non-travelers would like to get out more, and date of their last trip
- Work at home/flexible arrival times
- New section detailing children’s travel to school (Safe Routes to School)
- Internet shopping and deliveries
- Enhanced geographic descriptors for land-use/transport analysis
- Case study data (from add-ons):
  - Expanded disability questions
  - Details of walk and bike activity
  - Residential choice
New perspectives on women’s travel
(from preliminary 2009 NHTS):

- Women 65+ are traveling at historically high rates
- Baby boomer women (50-65) seem to be closing the gap between men and women’s vehicle travel rates
- Women continue to travel more miles in multi-occupant vehicles, and occupancy rises with age
- Driving cessation doubles each decade after age 65, and women have twice the rates of men
- Older women who don’t drive have very low mobility and wish to get out more
As people age they drive fewer miles…

Annual VMT per Driver by Age Class

Source: NHTS data series
But women drivers aged 65 and older are traveling at historically high rates…

- Men’s vehicle travel seems to be leveling off
- While women’s vehicle travel continues to grow
- Younger cohorts have different travel than current elderly

Annual VMT per Driver for Ages 65 and Older

Source: NHTS data series
Early indications are that new cohorts of older women may be narrowing the gap between men and women’s vehicle travel…

Source: NHTS data series
Interestingly, women of all ages ‘let’ men drive on shared trips….

Source 2001 NHTS: who is driving when a husband and wife travel together
While women *drive* fewer miles they travel *more* vehicle miles in multi-occupant trips...

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driver Miles</td>
<td>1411.0</td>
<td>863.8</td>
</tr>
<tr>
<td>Miles in SOV</td>
<td>875.3</td>
<td>536.0</td>
</tr>
<tr>
<td>Miles in MOV</td>
<td>1031.8</td>
<td>1076.3</td>
</tr>
<tr>
<td>Total PMT in</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicles</td>
<td>1907.2</td>
<td>1612.4</td>
</tr>
</tbody>
</table>

Source: 2009 NHTS, Men and Women 16+
As women age, they more often drive with others…

And some interesting research has linked this to safer driving…

Source: 2009 NHTS, women driving on vehicle trips
Of all non-drivers over 65, three-quarters are women …

Source: 2009 NHTS
But increasing longevity means many seniors will age past driving...

Source: 2009 NHTS
Over a quarter of women 65 and older do not drive.

Nearly half live with no other driver in the household, inc. 40% who live alone.

These women are highly dependant on family and friends for rides.

Source: 2009 NHTS
Trends in travel by non-driving women 65+ show a growing reliance on POV…

Source: NHTS data series
Many older non-driving women do not have access to transit…

Source: 2001 NHTS

Percent of Households with a Non-Driving Women 65+ Located More than 1/2 Mile from Closest Bus line

- White
- Asian
- African-American
- Hisp

Percent of HHs

Source: 2001 NHTS
The majority live in the suburbs…

Where Non-Driving Older Women Live

- Urban: 26%
- Rural: 16%
- Suburban: 58%

Source: 2001 NHTS
Non-Driving older women live in poorer households...

<table>
<thead>
<tr>
<th>All</th>
<th>African-Amer.</th>
<th>Hispanic</th>
<th>Asian</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>$27,596</td>
<td>$15,358</td>
<td>$33,237</td>
<td>$38,011</td>
<td>$29,161</td>
</tr>
<tr>
<td>$52,716</td>
<td>$37,084</td>
<td>$37,024</td>
<td>$54,227</td>
<td>$57,196</td>
</tr>
</tbody>
</table>

Est. Mean Income of HHs that include a woman 65+ that does not drive

Est. Mean Income of HHs that do not include a woman 65+ who does not drive

Source: 2001 NHTS
Although non-drivers tend to live in larger families...

<table>
<thead>
<tr>
<th>HH Size of Women 65+ who Don’t Drive</th>
<th>One Person</th>
<th>Two Person</th>
<th>Three Person</th>
<th>Four or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>HH Size of Women 65+</td>
<td>41.8%</td>
<td>42.5%</td>
<td>9.1%</td>
<td>6.6%</td>
</tr>
<tr>
<td></td>
<td>39.9%</td>
<td>31.2%</td>
<td>15.8%</td>
<td>13.1%</td>
</tr>
</tbody>
</table>

Source: 2009 NHTS
Nearly half live in households with no other drivers…

Are there Drivers in Households of Non-Driving Women 65+?

<table>
<thead>
<tr>
<th>Within Household Size:</th>
<th>One Person HH</th>
<th>Two Person</th>
<th>Three Person</th>
<th>Four or more</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Drivers in HH</td>
<td>100.0%</td>
<td>17.6%</td>
<td>7.8%</td>
<td>6.6%</td>
<td>47.5%</td>
</tr>
<tr>
<td>At least one Driver in HH</td>
<td>0.0%</td>
<td>82.4%</td>
<td>92.2%</td>
<td>93.4%</td>
<td>52.5%</td>
</tr>
<tr>
<td>Percent of All</td>
<td>39.9%</td>
<td>31.2%</td>
<td>15.8%</td>
<td>13.1%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Source: 2009 NHTS
So many older women who don’t drive depend heavily on non-household members…

Vehicle Occupancy Characteristics of Women 65 and older

<table>
<thead>
<tr>
<th></th>
<th>Women Drivers as Drivers</th>
<th>Women Drivers as Passengers</th>
<th>Non-Driver Pass Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Person (SOV)</td>
<td>76.9%</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>All Family Members</td>
<td>9.9%</td>
<td>78.5%</td>
<td>62.4%</td>
</tr>
<tr>
<td>Non-Family members</td>
<td>13.2%</td>
<td>19.5%</td>
<td>36.5%</td>
</tr>
</tbody>
</table>

Source: 2009 NHTS
Suburbanization + Aging in place + Cohort growth = Massive planning challenge

Source: 2009 NHTS and US Census projections

Cohort Growth in Drivers and Non-Drivers 65+

33 million non-drivers

Source: 2009 NHTS and US Census projections
A picture in words:

If there is a face of the isolated non-driving older woman she is a suburban white woman, who lives alone after her husband has died or divorced

She has never taken transit and/or lives too far from transit

Call and ride service is scary: they tell her she has to schedule a three hour window for pick-up at the destination and she is afraid to be out for so long.

She’s too frail to walk or places are too far. The sidewalk is uneven and she is afraid she will fall.

She depends on her friends and relatives for ride (but hates to ask).
What to do? Some ideas…

- Plan for non-drivers as part of the built environment
- Include providing transport to non-driving elders as part of high school community service hours
- Expand taxi voucher systems to help provide door to door service
- Special demand-response 24-hour ‘senior shuttle’ in suburban communities
- Extending driving years through in-vehicle and ITS technology