Are Retirees Falling Short?
Reconciling the Conflicting Evidence

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Will people have enough in retirement? Research offers conflicting answers.

Retirement preparedness is either:

• A big problem
  o Target replacement rate study using SCF
  o Target replacement rate study using HRS

or

• A small problem
  o Optimal savings model
  o Initial retirement consumption
While preparedness is controversial, trends in wealth accumulation over time are not.

Stable wealth-to-income ratios show declining preparedness because:

• Life expectancy has increased;

• Social Security replacement rates are declining;

• Plans have shifted from defined benefit (not in SCF) to defined contribution plans (included in SCF);

• Out-of-pocket health care costs are increasing; and

• Real interest rates are at record lows.
Let’s look first at the “big problem” studies, which rely on target replacement rates.
NRRI finds half of working-age households are “at risk” of falling short in retirement.

Percent of Households “At Risk” at Age 65 by Age Group, 2007, 2010, and 2013

<table>
<thead>
<tr>
<th>Age group</th>
<th>2007</th>
<th>2010</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>44%</td>
<td>53%</td>
<td>52%</td>
</tr>
<tr>
<td>30-39</td>
<td>53</td>
<td>62</td>
<td>59</td>
</tr>
<tr>
<td>40-49</td>
<td>47</td>
<td>55</td>
<td>54</td>
</tr>
<tr>
<td>50-59</td>
<td>32</td>
<td>44</td>
<td>44</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations.
A similar analysis, using the HRS, arrived at the same conclusion.

Percent of All Households Falling Short of Target by Age at Retirement, Base Case and with a Reverse Mortgage

Research on optimal savings tells a similar story for those age 51-61 in 1992…

<table>
<thead>
<tr>
<th>Age group</th>
<th>1992 NRRI</th>
<th>Optimal savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>All groups</td>
<td>36</td>
<td>--</td>
</tr>
<tr>
<td>51-61</td>
<td>19</td>
<td>16</td>
</tr>
</tbody>
</table>

Note: The NRRI result for 2004 is for households age 50-58.

Source: Authors’ calculations; and Scholz, Seshadri, and Khitatrakun (2006).
...but a much different story for those age 51-61 in 2004.

Percent ‘At Risk’: NRRI versus ‘Optimal Saving,’ 1992 and 2004

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All groups</td>
<td>36</td>
<td>--</td>
<td>43</td>
<td>--</td>
</tr>
<tr>
<td>51-61</td>
<td>19</td>
<td>16</td>
<td>35</td>
<td>5</td>
</tr>
</tbody>
</table>

Note: The NRRI result for 2004 is for households age 50-58.

Source: Authors’ calculations; Scholz, Seshadri, and Khitatrakun (2006); and Scholz and Seshadri (2007).
Differences are driven by two assumptions: (1) consumption when children leave…

Illustrative Consumption by Age, SSK and NRRI as Percent of Income

Source: Authors’ illustration.
Illustrative Consumption by Age, SSK and NRRI as Percent of Income

...and (2) consumption in retirement.

Source: Authors’ illustration.
When the NRRI is adjusted to match these two assumptions, the results are very similar.

Percentage of Households Age 51-61 At Risk, 2004

- Original NRRI: 35.3%
- NRRI adjusted for optimal drawdown: 24.3%
- NRRI adjusted for optimal drawdown + children: 11.5%
- Scholz and Sesadri (2007): 9.0%

Source: Authors’ calculations.
What does existing evidence tell us about the assumptions in the optimal savings model?

- Retirement consumption
  - Scholz, Seshadri, and Khitatrakun assume an intertemporal elasticity of substitution of 0.33. Financial planners generally assume 0, at least until advanced ages.
  - Under SSK model, households run out of money by around age 88. But mortality data indicate at least one member of an older married couple has a 40-percent chance of reaching age 90.

- Children
  - Coe and Webb find evidence that married households increase their per capita consumption when their kids leave home.
  - And many parents of adult children say that they find the expenses associated with children don’t ever actually stop.
Another way to see if retirees have enough is to look at household consumption.

Hurd and Rohwedder find that, right after retirement, household consumption declines by only 1-6 percent.

- Data source: HRS’s *Consumption and Activities Mail Survey*
A key question is whether households can sustain these initial levels of consumption.

Three tests:

1. Do the sample households have enough to maintain their spending in the first year of retirement throughout their lives?

2. What happens to their actual spending as they age?

3. Do the households with insufficient resources reduce their consumption more than those with sufficient resources?
Only 30 percent can maintain consumption, even if they tap home equity.

Mean Income and Spending by Income Decile at Time of Retirement for Hurd-Rohwedder Sample of CAMS Households

Source: Authors’ calculations.
As they age, retirees cut their consumption a lot, unlike older households not yet retired.

Median Respondent Spending by CAMS Retirement Status for Respondents Age 50 to 70

<table>
<thead>
<tr>
<th>Observation period</th>
<th>Not retired at time $t$, retired at time $t+1$, and thereafter</th>
<th>Not retired throughout</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Consumption</td>
<td>Sample size</td>
</tr>
<tr>
<td>$t$</td>
<td>24,600</td>
<td>279</td>
</tr>
<tr>
<td>$t+1$</td>
<td>25,300</td>
<td>279</td>
</tr>
<tr>
<td>$t+2$</td>
<td>21,000</td>
<td>208</td>
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<tr>
<td>$t+3$</td>
<td>21,000</td>
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<tr>
<td>$t+4$</td>
<td>19,500</td>
<td>123</td>
</tr>
<tr>
<td>$t+5$</td>
<td>18,000</td>
<td>71</td>
</tr>
</tbody>
</table>

Percent change

- From $t$ to $t+1$: 2.8% decrease
- From $t$ to $t+5$: -26.8% decrease

*Source:* Authors’ calculations.
Over time, those with a saving shortfall cut their consumption more than those without.

Median Respondent Spending by CAMS Retirement Status for Respondents Age 50 to 70

<table>
<thead>
<tr>
<th>Observation period</th>
<th>Not retired at time $t$, retired at $t+1$ and thereafter</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Insufficient Sample size</td>
<td>Sufficient Sample size</td>
</tr>
<tr>
<td>$t$</td>
<td>25,600</td>
<td>147</td>
</tr>
<tr>
<td>$t+1$</td>
<td>28,500</td>
<td>147</td>
</tr>
<tr>
<td>$t+2$</td>
<td>21,000</td>
<td>115</td>
</tr>
<tr>
<td>$t+3$</td>
<td>20,900</td>
<td>95</td>
</tr>
<tr>
<td>$t+4$</td>
<td>18,700</td>
<td>60</td>
</tr>
<tr>
<td>$t+5$</td>
<td>18,000</td>
<td>33</td>
</tr>
</tbody>
</table>

Percent change

- From $t$ to $t+1$: 11.3\% to -10.6\%
- From $t$ to $t+5$: -29.7\% to -18.3\%

*Source: Authors’ calculations.*
Conclusion

• The National Retirement Risk Index shows that half of households are “at risk” of falling short in retirement.

• In contrast, the optimal savings research finds no problem due to assumed consumption in retirement and when kids leave.

• Other research shows that retirees initially can keep their consumption up. But, they appear unable to maintain it.

• In the end, perhaps the most convincing evidence involves no modelling at all: a simple comparison of wealth-to-income ratios suggests we should be worried.