

## Changes in retirement and the retirement spending smile

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Michael Kitces | Pinnacle Advisory Group | 26 May 2014

Most retirement research assumes that retirees spending from a portfolio will seek to maintain a "real" inflation-adjusted standard of living throughout their retirement, just as they implicitly would have if their portfolio had been paid out as a steady pension with an annual cost-of-living adjustment. However, despite the simplicity of this assumption, retirement research has increasingly shown that retirees actually experience a decline in real spending through their retirement, as the early "go-go" years transition to less active "slow-go" years and then finally wind down in a series of "no-go" years with little discretionary spending.

In a new study contributing to the literature on this subject, "Estimating the True Cost of Retirement", David Blanchett of Morningstar finds that in reality, real retiree spending decreases slowly in the early years, more rapidly in the middle years, and then less slowly in the final years, in a path that looks less like a slow and steady decline and more like a "retirement spending smile". Implicit in these results is an acknowledgement that, despite common fears, even the uptick of health care expenses in a retiree's later years is not enough to offset all the other spending decreases that tend to occur as retirees transition into the no-go years and other discretionary expenses fall significantly.

The implications of this research are not only that practitioners should be more cognisant to assume some level of real spending decreases throughout retirement (Blanchett's research suggests this may be especially true for more affluent retirees who tend to have more discretionary spending that winds down over time), but also that the traditional research may be somewhat overestimating the amount of funds needed to retire in the first place, as a lower average spending level across all the retirement years means it simply may not take quite as much to retire as is typically assumed or modeled in a typical financial plan.

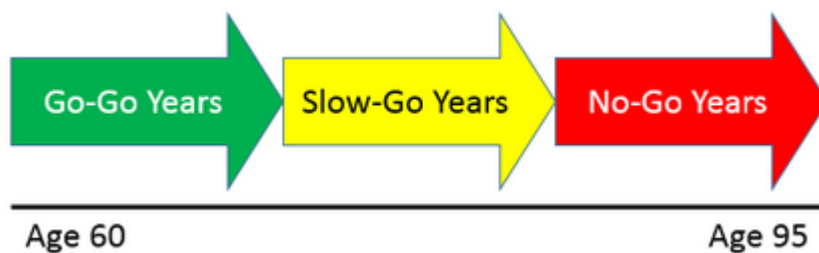
### SPENDING TRENDS IN RETIREMENT

A classic assumption for most retirement research is that retirees will try to maintain a consistent standard of living, which in economic terms means they will need a real inflation-adjusted stream of cash flows to support their retirement lifestyles. This research assumption dates back not only to [Bill Bengen's safe withdrawal rate "4% rule" studies](#) (which assumed retirees maintain a steady inflation adjusted standard of living) but arguably originates in the lifetime income stream it is intended to replace. After all, if drawing on a pension with cost-of-living adjustments leads to a steady inflation-adjusted stream of income throughout

retirement, shouldn't portfolio-based retirement spending cash flows do the same?

Yet this assumption of steady spending is not necessarily supported by all.

Michael Stein, author of "The Prosperous Retirement" first popularised the concept of a three-phase retirement – the Go-Go years, the Slow-Go years, and the No-Go years. The approach was relatively straightforward. Early retirement is represented by the "Go-Go" years and is characterized by an active phase, that may include a continuation of a lifestyle similar to pre-retirement, but with more time for spending and "extra" activities like travel. The "Slow-Go" years are when health and energy begin to decline a bit, resulting in some spending reductions as the budget for activities like travel or even just eating out begin to decline. The "No-Go" years are characterised by an almost total shutdown of activity-related spending, as consumption decreases to just the core expenditures needed to maintain the household.



While this three-phases-of-retirement approach seems a reasonable way to characterise a retiree's discretionary expenditures – albeit with some uncertainty about when a retiree will transition from one phase to the next, as it may be contingent on rather abrupt health events, rather than a slow and steady decline – it leaves open one of the key concerns regarding late-retirement spending in particular, being expenditures on health care. Even the US Bureau of Labor Statistics, which tracks consumer expenditures over time in order to construct the baskets used to measure the Consumer Price Index (CPI) itself, has recognised that spending for the elderly looks "different" to that of the general public. Thus, for instance, the construction of CPI-E (for elderly) includes a lower weighting to food and beverages and also transportation, and a much higher weighting to medical care, than the standard CPI-U measure.

Which raises the fundamental question – are increases for health care expenditures in the later years more or less than the decreases in other discretionary spending categories as retirees move through the slow-go and into the no-go years? In other words, when the spending categories that increase are matched against the ones that decrease, is the net result that, on average, retiree spending still rises with the general level of inflation over time? Or, does it go up even faster (because the health costs overwhelm)? Or, does it actually begin to slowly decrease as more and more discretionary spending ceases as the years go by?

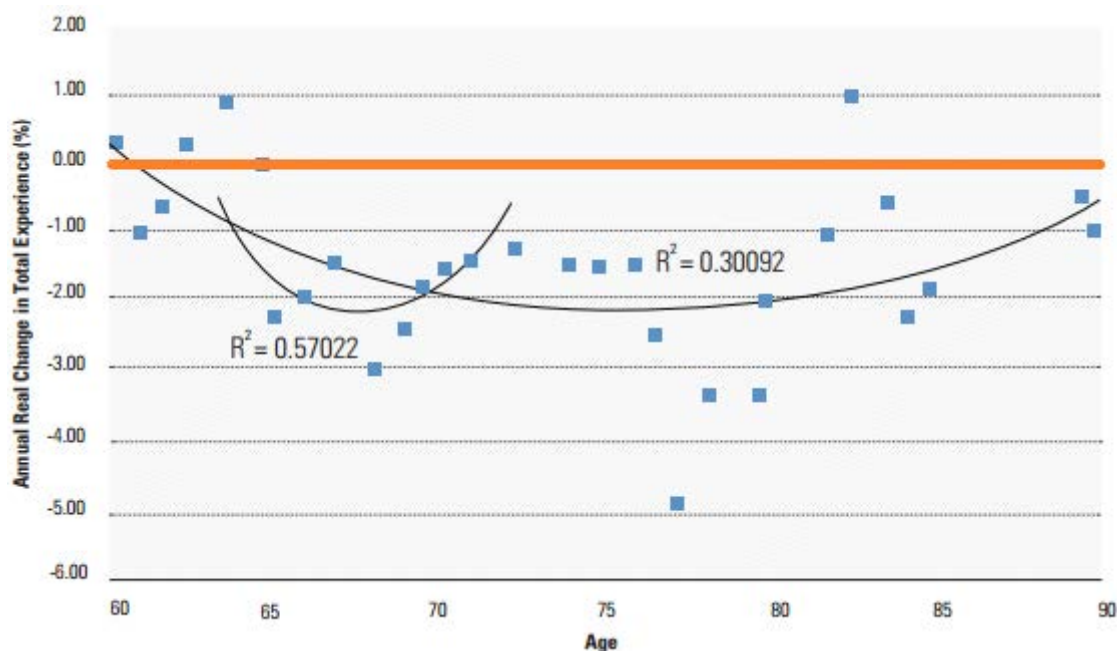
## THE RETIREMENT SPENDING SMILE

In the latest research in this category, a new working paper from Morningstar head of retirement research David Blanchett entitled "Estimating the True Cost of Retirement" similarly found that real retirement spending decreases through much of retirement – but with a notable upturn at the end that makes retirement spending look somewhat like a smile.

The data is drawn not from the BLS' Consumer Expenditure Survey, but primarily from RAND Health and Retirement Study (HRS) data which, unlike the BLS' survey, includes some longitudinal data (i.e. follows particular households over time).

Figure 2 shows the "retirement spending smile" of Blanchett's research – or what was actually a "mini-smile" from age 65 to 75, and a broader smile that spans all the way from age 60 to age 90, based on the best-fit regression equations that fit the available data (the blue dots). Notably, the horizontal orange line represents the 0% line for real (inflation-adjusted) spending growth. If the assumptions of the safe withdrawal rate research were correct, the blue spending dots (and the associated best-fit regression) should hover around this horizontal line. Instead, the results show not only a "curve" to retirement spending (rather than just a flat or declining line), but the smile also spends virtually all of its time below the 0% line. In other words, the reality seems to be that retirees actually decrease their real retirement spending throughout almost all of their retirement, with annual decreases of 1% per year that accelerate to 2% per year through the Slow-Go years before turning upwards (but not positive!) to 'mere' 1% per year declines again by the end of retirement.

Figure 2: Annual real change in consumption retirees



Source: Morningstar

Delving further into the data, Blanchett also examined, from age 65–75 in particular (the data was too limited to cover the whole age 60–90 span), the spending behaviors of four "sets" of households: those who matched their spending reasonably to their household net worth (either by being high–spenders with a high net worth, or low–spenders with a lower net worth), and those whose spending was "mismatched" (either high–spenders with a low net worth, or low–spenders with a higher net worth). The results are shown in Figure 3.

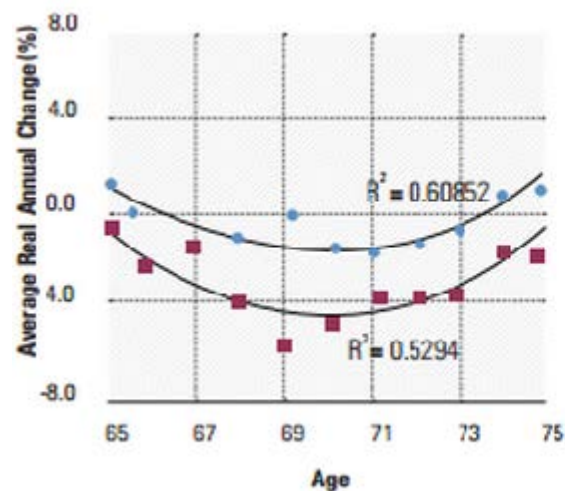
The age 65–75 retirement spending smile is clearly evident amongst the households that 'reasonably' match their spending to their net worth.

Overall, though, the higher net worth households have a retirement spending smile that sits entirely below the 0% line. In other words, the more affluent retirees (presumably with more discretionary spending) decrease their spending on average throughout this time horizon, just by a more and then less rapid pace (while the lower net worth households, which theoretically have less flexible budgets, finish much closer to where they start).

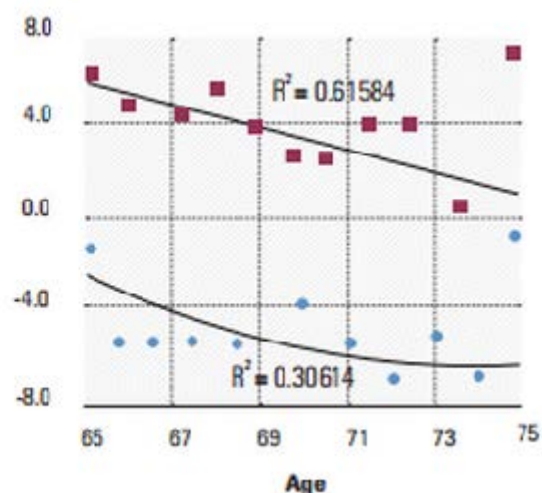
In the case of the mismatched households, a different trend emerges. Households spending far beyond their means not surprisingly experience an accelerating pace of spending cuts (their spending changes are below the 0% line and fall further below over time). However, households that spend far less than their net worth experience significant increases in their spending (starting at a real rate of almost 6% per year!) and continue to increase their spending throughout the first 10 years (albeit at a slower pace of increase).

**Figure 3: The impact of the amount of consumption and net worth on the average real change in consumption**

Panel A: Matched spending & high net worth



Panel B: Mismatched spending & net worth



Source: Morningstar

Overall, the results suggest that retiree spending is flexible throughout retirement, especially for higher net worth households (where even with the retirement spending smile, it all sits below the 0% line). Across the full span of retirement, the broader data suggests that the "smile upturn" in a retiree's mid-70s turns downwards again as the retiree moves further into the Slow-Go years. To the extent that spending does tick upwards a bit at the end (ostensibly as health care expenses being to have more of an impact), the outcome is still a decrease in retirement spending, merely at a less-dramatic pace of decline. For most of retirement, the only question is whether real retirement spending is decreasing at a pace of 1% per year, or closer to 2% per year instead! (Note: Given an average level of inflation closer to 3% for retirees, these real spending declines would mean that nominal spending still increases throughout retirement, just at a more modest pace as real spending declines are partially offset by positive inflation adjustments in the remaining categories.)

#### **IMPLICATIONS FOR RETIREMENT PLANNING**

While the Blanchett study adds to a growing base of studies suggesting that retiree expenses do in fact decline through most of retirement – especially for those more affluent retirees with greater discretionary expenses who are more likely to be the clients of financial planners – it is one of the first to delve so carefully into longitudinal data, and to examine the more nuanced counterbalancing effects of what appear to be decreases in discretionary spending offset (but not fully) by increases in health care spending in later years. Unfortunately, the data set was still too limited for the detailed breakout of different matched or mismatched spending styles throughout retirement, but the results nonetheless appear to be quite consistent in showing a steady decrease in spending at some pace throughout retirement. The only question is just how quickly spending decreases are occurring.

In turn, this study suggests that even clients (or their advisers) who fear that health care expenditures may rise in the later retirement years should still be assuming some decrease in retirement spending throughout much of retirement.

Unfortunately, the ability to model this in retirement planning software is still limited. No package (at least that I'm aware of!) is able to fully model Blanchett's retirement spending smile, although some tools can at least show the impact of an assumed 1% per year annual decrease in real retirement spending. We might assume an "extra" downwards bump of another 5% to 10% onetime decrease in spending (in addition to -1% per year) in the client's mid-to-late 70s to signify the low point (i.e., the fastest rate of spending declines) in the spending smile.

Yet another approach might be to skip the annual decreases, and step retirement spending downwards by decade. For instance, a 5% to 10% real cut at age 70, another 10% to 20% cut at age 80, and a final 5% to 10% cut at age 90 (the greatest cut in the middle again signifying the trough of the retirement spending smile).

Nonetheless, the bottom line of the Blanchett study is that it clearly reinforces that

practitioners should be assuming some level of spending cuts for most clients in retirement, especially for married couples who would also likely experience additional spending declines in later years when at least one spouse is likely to have passed away. While that doesn't diminish the importance of managing unknown health (and long-term care) concerns, and maintain a contingency for such expenses, the reality appears that, for most retirees, the impact of such rising expenses in the final years is still not enough to offset the general level of decline in retirement expenditures that occur as retirees transition from Go-Go to Slow-Go and finally to No-Go years. And the difference is not trivial – Blanchett's research suggests that, once these adjustments are taken into account, retirees may need as much as 20% less to retire than what traditional models have assumed.

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