Reality Retirement Planning: A New Paradigm for an Old Science

by Ty Bernicke, CFP®

Executive Summary

- Traditional retirement planning assumes that a household's expenditures will increase a certain amount each year throughout retirement. Yet data from the U.S. Bureau of Labor's Consumer Expenditure Survey show that household expenditures actually decline as retirees age. Consequently, under traditional retirement planning, consumers tend to oversave for retirement, underspend in their early years of retirement, or postpone retirement.
- "Reality" retirement planning assumes that a household's real spending will decrease incrementally throughout retirement. The result is that clients can make more realistic retirement saving assumptions and will be able to retire sooner.
- The paper analyzes the Consumer Expenditure Survey data to determine whether people are spending less voluntarily as they age or out of financial necessity or generational differences. The conclusion is that reduced spending is voluntary.
- Using Monte Carlo simulation, the paper runs hypothetical retirement income projections comparing traditional retirement planning and reality retirement planning. Under the traditional approach, the couple's nest egg would appear to be depleted by age 80. Under the reality approach, the nest egg at age 80 would be over $2 million.
- Such dramatic differences not only have implications for retirement planning, but for related issues such as estate, tax, and investment planning.

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Would you like to implement an income planning technique that could help clients retire sooner, travel more, and spend more time enjoying their hobbies? This technique does not involve a magic investment or an unknown tax loophole. Instead, it simply requires making advancements to traditional retirement planning techniques. These advancements include adjusting spending estimates to reflect the U.S. Bureau of Labor's Consumer Expenditure Survey, ultimately enabling consumers to develop projections that more accurately reflect their financial standing during retirement.

The dramatically different spending tendencies between my firm's younger and older retired clients served as the catalyst for this study. Many of our younger retirees had problems spending within the income parameters of their retirement plans, while the majority of our older retirees were spending far less than what they could afford. It is my opinion that these spending tendencies hold the key to a much larger picture, which includes creating more realistic retirement projections by making adjustments to the traditional retirement planning approach.

Traditional retirement income planning generally assumes that a household's expenditures during retirement increase by a certain percentage each year to reflect historical inflation rates. This type of planning usually results in increasingly higher withdrawals from the retiree's nest egg to help sustain inflation-adjusted expenses throughout retirement.

Reality retirement planning is similar to the traditional approach in that it increases spending for inflation. This strategy differs from the traditional approach because it assumes that a household's real spending needs *decrease* incrementally throughout retirement. Reality retirement planning is like a tug-of-war match, with inflation pulling spending needs up and human nature's tendencies pulling spending back down. Ultimately, this tug of war more accurately depicts the average American's spending patterns throughout retirement.

There are many supplemental sources confirming the inverse relationship between age and spending. One source is the U.S. Bureau of Labor's Consumer Expenditure Survey. Table 1 summarizes the results of this survey.

TABLE 1

2002 Consumer Expenditure Survey

	Age			
	45–54	55–64	65–74	75+
Apparel and Services	$2,029	$1,791	$1,252	$674
Entertainment	$2,565	$2,297	$1,371	$896
Food and Alcohol	$6,693	$5,979	$4,803	$3,446
Health Care	$2,550	$3,007	$3,588	$3,584
Housing	$15,476	$13,831	$10,052	$8,252
Transportation	$9,173	$8,449	$5,731	$3,178
Miscellaneous	$4,939	$4,138	$3,593	$3,028
Personal Insurance and Pensions	$5,323	$4,838	$1,853	$696
Total Average Annual Expenditures	$48,748	$44,330	$32,243	$23,759

Source: United States Dept. of Labor, Bureau of Labor Statistics, *Consumer Expenditure Survey, 2002*.

The 2002 Consumer Expenditure Survey illustrates a 27 percent reduction in average annual expenditures between the 55–64 age group and the 65–74 age group. It also reveals a 26 percent reduction in expenditures between the 65–74 age group and the 75+ age group. You will notice that these reductions in total expenditures can be attributed to decreased spending in every major category with the exception of health care expenditures, which tend to increase among adults before eventually stabilizing between the 65–74 and 75+ age groups.

While the U.S. Bureau of Labor's Consumer Expenditure Survey can be a useful resource for obtaining a basic understanding of spending patterns, these statistics do have limitations. One limitation of this data includes the potential absence of long-term care costs. For example, a person in a nursing home is unlikely to participate in a survey from the Bureau of Labor Statistics. This would give the health-care-expenditures category artificially low average expenses.

Another shortcoming is the broad range of ages included within the various age groups: the U.S. Bureau of Labor Statistics only publishes average expenditures for ten-year age groupings. Harry S. Dent, Jr.'s book, *The Roaring 2000s* (1998), more narrowly defines Consumer Expenditure Survey data into five-year age groupings. Estimates from Dent's book, adjusted for cost-of-living changes, are summarized in Table 2.

TABLE 2

Consumer Expenditure Survey Broken Down into 5-Year Age Groups

Age	Average Annual Expenditures	Spending Decrease
55–59	$45,862	—
60–64	$38,218	16.7%
65–69	$32,103	16.0%
70–74	$27,517	14.3%
75+	$21,402	22.2%

Source: H.S. Dent Foundation, adapted from *The Roaring 2000s* by Harry S. Dent, Jr., 1998.

Please note the numbers listed above are expenditure estimations from the graph on page 37 of *The Roaring 2000s*, adjusted to reflect a 2.87 percent cost-of-living adjustment from 1989 to 2004.

Although the estimates vary slightly between Tables 1 and 2, both tables reveal a serious flaw in traditional retirement planning strategies. Traditional retirement planning assumes that as retirees age, they continue having the same real spending needs; however, both Tables 1 and 2 reveal the inverse relationship between age and real expenditures. For example, the 75-and-older age group spends close to 50 percent less than the 55–59 age group. Incorporating this data into the traditional approach to retirement planning would have a large impact on retirement projection outcomes.

Most of this research corresponds with an article by Tacchino and Saltzman (1999), which concludes that the current models used for retirement planning overstate the amount of financial resources needed for retirement. Moreover, I agree with their contention that incorporating consumer expenditure survey data into the retirement planning process will create a more realistic retirement plan.

Before incorporating decreased spending into the planning process, it is necessary to address some potential conflicts with this procedure. The first potential conflict to explore will help determine whether these changes happen voluntarily or out of necessity. We will also address whether these patterns can be attributed to spending differences among the generations analyzed.

Voluntary Reductions in Spending?

To analyze whether spending decreases happen voluntarily or out of necessity, it is important to address income and net worth changes for different age groups. Research conducted by Tacchino and Saltzman indicates that those 75 and over spend less than 65- to 74-year-olds, despite maintaining similar levels of income. Ultimately, this information would imply that lower spending happens voluntarily rather than out of necessity.

While this analysis appears to offer a logical conclusion, one could argue that many retirees liquidate investments and other assets for income when they retire, which may not show up as income upon liquidation. These assets could include nonqualified certificates of deposit, mutual funds with low or no gains, Roth IRAs, and any other after-tax asset with little or no appreciation. Therefore, it would be possible for a consumer's income to stay consistent while expenditures drop. Further analysis of the Census Bureau's Household Economic Study of Median Net Worth addresses this idea, and is summarized in Table 3. This table separates net worth results into quintiles based on the income levels of the households surveyed. Essentially, the purpose of this table is to determine whether shrinking assets could be blamed for lower expenditures among aging households.

TABLE 3

Median Net Worth by Age and Household Income Quintile

	Age			
	55–64	65–69	70–74	75+
Lowest Income Quintile: Median Net Worth	$21,000	$32,000	$43,230	$46,266
Second Income Quintile: Median Net Worth	$51,875	$104,800	$113,893	$116,166
Third Income Quintile: Median Net Worth	$100,700	$155,319	$201,563	$226,263
Fourth Income Quintile: Median Net Worth	$157,775	$222,918	$312,877	$322,785
Fifth Income Quintile: Median Net Worth	$316,542	$449,800	$452,992	$569,000

Source: United States Census Bureau, *Net Worth and Asset Ownership of Households: 1998 and 2000*

Table 3 illustrates that the median net worth for households increases with age for every income quintile analyzed. If net worth is increasing and spending is decreasing one could surmise the decreases in spending happen voluntarily rather than out of necessity. This analysis, coupled with Tacchino and Saltzman's income research, provides strong evidence that people spend less, by choice, as their age increases.

While there appears to be strong evidence supporting voluntary reductions in spending, one could contend that

these spending changes could be attributed to generational differences. For instance, individuals who grew up in the Depression era might tend to spend less than other generations due to hardships that might have affected them in childhood. Analyzing 2002 consumer expenditure data alone would not reveal whether an average household's expenditures have been decreasing throughout time. To analyze this possibility, one can compare 1984 statistics with current statistics. By using two sets of data, one can see how Depression-era babies and other generations were spending 20 years ago, and compare those numbers with how generations are spending now.

Table 4 illustrates the average spending of different age groups based on 1984 and 2004 Consumer Expenditure Survey results. To analyze this information accurately, it is important to adjust the ages accordingly. A 45- to 54-year-old in 1984 would be in the 65–74 age group in 2004, and a 55- to 64-year-old would be in the 75+ age group. The 55- to 64-year-old group was spending $43,013 (after inflation adjustments) in 1984. This same group (now the 75+ age group) is spending closer to $24,781 today. The 45- to 54-year-old group was spending $52,746 (after inflation adjustments) 20 years ago, and they are spending $33,630 (65–74 age group) today. Despite different generational spending percentage decreases, Table 4 shows that every generation decreases spending dramatically as age increases throughout retirement. These voluntary non-generational decreases in spending can be addressed in the retirement planning process with a few adjustments to the traditional retirement planning approach.

TABLE 4

1984 Versus 2004 Consumer Expenditure Surveys

	Age			
	45–54	55–64	65–74	75+
2004 Average Annual Expenditures*	$50,845	$46,237	$33,630	$24,781
1984 Average Annual Expenditures**	$52,746	$43,013	$29,119	$20,443

Source: United States Dept. of Labor, Bureau of Labor Statistics, Consumer Expenditure Survey, 1984 & 2002.
*The 2002 consumer expenditure survey data was increased to reflect 2003's inflation rate.
**1984 statistics adjusted for inflation.

Hypothetical Retirement Income Projections

Table 5 illustrates the fundamental difference between traditional retirement planning and reality retirement planning by stressing the importance of reasonable withdrawals from retirement accounts. A Monte Carlo simulation, which calculates the probability of maintaining sufficient income throughout retirement, accompanies this hypothetical projection. The following set of assumptions was used to contrast these differences.

- Husband's age: 55
- Wife's age: 55
- Husband's desired retirement age: 55
- Wife's desired retirement age: 55
- Husband's life expectancy: 30 years
- Wife's life expectancy: 30 years
- Inflation rate: 3 percent
- Annual expenditures: $60,000
- Husband's estimated Social Security at age 62: $12,000, increasing at 2 percent a year
- Wife's estimated Social Security at 62: $12,000, increasing at 2 percent a year
- Total 401(k) investments: $800,000
- Hypothetical rate of return on the 401(k): 8 percent
- The necessary withdrawals are deducted from the 401(k) balance annually to help sustain the consumer's estimated expenditures. Required minimum distributions have been excluded from this illustration to focus on the amounts necessary to cover the retirees' expenditures.
- Distributions are used to cover the shortage of income for spending needs and taxes.

- Average tax rate: 15.3 percent (before age 62), 9.6 percent (after age 62). The average tax rate was calculated based on combined federal and state income tax. The state tax used in this calculation is Wisconsin's. The standard deduction and personal exemptions were included in the calculation of the average tax rate. The average tax rate stays consistent throughout retirement, with the assumption that the tax regulations will increase at a similar pace with inflation.
- The "Spending Needs" column listed under "Reality" income planning averages the five-year decreases listed in Table 2. The data from the Bureau of Labor Statistics stops at age 75, so from ages 75–85, the spending remains static except for inflationary adjustments.
- The Monte Carlo analysis runs a total of 5,000 hypothetical projections. Silver Financial Planner uses a 7 percent standard deviation on an 8 percent rate of return, with 95 percent of all values falling between –6 percent and 22 percent. The failure ratios of these projections indicate the likelihood of the consumers depleting their nest egg before age 85.

Traditional Retirement Planning Results

With the traditional approach, the total expenditures go up by three percent every year to help the consumers' spending keep pace with inflation. At age 62, Social Security starts. The Social Security income reduces the amount needed for distributions from the 401(k). The investment column summarizes the annual distribution's impact on the $800,000 401(k). The inflation-adjusted expenditures cause withdrawals that gradually reduce the consumers' nest egg until it is completely gone at age 80. A 87 percent failure ratio with the Monte Carlo simulation illustrates a very low probability that the clients will successfully reach their retirement goals. The consumers would have to make some life-altering changes to get below a 10 percent failure ratio with their Monte Carlo simulation. The consumers could choose to work an extra seven years, or decrease their initial gross income by approximately $12,000 a year. Both alternatives would have a dramatic impact on their quality of life in their early retirement years.

Reality Retirement Planning Approach

All assumptions used in the reality retirement planning part of Table 5 are consistent with traditional planning with one exception: the consumers' "Spending Needs" column decreases annually to correspond with the percentages listed in Table 2. This column averages the five-year numbers listed in Table 2 to more accurately reflect a gradual reduction in spending by consumers. Under these assumptions, the consumers die at age 85 with $2,364,871 in their 401(k) plan (less taxes paid on unused required minimum distributions from 401(k) withdrawals). Their Monte Carlo analysis indicates a zero percent failure ratio as the reality retirement planning approach enables the consumers to realize retirement seven years earlier than the traditional approach.

TABLE 5

Traditional Versus Reality Income Planning

	Traditional			Reality		
Age	Spending Needs	Distributions	401(k) Balance	Spending Needs	Distributions	401(k) Balance
55	$60,000	$70,168	$791,024	$60,000	$70,168	$791,024
56	$61,800	$72,273	$779,141	$59,740	$69,983	$781,533
57	$63,654	$74,441	$764,052	$59,410	$69,735	$771,530
58	$65,563	$76,673	$745,435	$59,007	$69,410	$761,065
59	$67,530	$78,974	$722,935	$58,526	$69,003	$750,186
60	$69,556	$81,343	$696,172	$57,963	$68,507	$738,952
61	$71,643	$83,784	$664,729	$57,792	$68,448	$726,881
62	$73,792	$53,620	$662,141	$57,558	$35,648	$747,956
63	$76,006	$55,509	$657,381	$57,257	$34,756	$771,645
64	$78,286	$57,460	$650,212	$56,887	$33,774	$798,250
65	$80,634	$59,475	$640,374	$56,444	$32,701	$828,100
66	$83,054	$61,557	$627,583	$56,476	$32,142	$860,919
67	$85,545	$63,706	$611,534	$56,460	$31,516	$897,014
68	$88,112	$65,927	$591,891	$56,391	$30,822	$936,719
69	$90,755	$68,220	$568,292	$56,268	$30,055	$980,398
70	$93,478	$70,589	$540,341	$56,068	$37,419	$1,027,695
71	$96,282	$73,034	$507,611	$55,201	$40,312	$1,079,175
72	$99,170	$75,506	$469,636	$54,213	$43,425	$1,135,512
73	$102,145	$78,168	$425,911	$53,115	$46,773	$1,197,474
74	$105,210	$80,862	$375,886	$51,903	$50,152	$1,265,588
75	$108,366	$83,643	$318,967	$50,570	$54,008	$1,340,365
76	$111,617	$86,514	$254,508	$52,088	$58,153	$1,419,385
77	$114,966	$89,480	$181,808	$53,650	$62,296	$1,502,913
78	$118,415	$92,541	$100,108	$55,260	$67,059	$1,591,144
79	$121,967	$95,701	$8,586	$56,918	$71,783	$1,684,373
80	$125,626	$8,916		$58,625	$76,807	$1,782,865
81	$129,395			$60,384	$82,147	$1,886,897
82	$133,277			$62,195	$87,815	$1,996,762
83	$137,275			$64,061	$93,211	$2,112,847
84	$141,393			$65,983	$99,536	$2,235,404
85	$145,635			$67,963	$105,450	$2,364,871
	Monte Carlo Simulation Results					
	Traditional Planning — Failure Ratio 87%			Reality Planning — Failure Ratio 0%		

Source: *Silver Financial Planner* Version 3.7g; Moneytree Software, Ltd., 2002.

The differences between the traditional retirement planning approach and the reality retirement planning approach are substantial. The traditional approach tends to indicate a much later retirement or decreased spending potential in early retirement years. This approach also gives the average American household an unrealistic view of their future by overstating what they need for savings to achieve their financial goals.

Reality retirement planning more accurately portrays the spending habits of the average American household. Incorporating these statistics into a client's financial plans can give a more accurate retirement projection. This advancement may hold the key to helping consumers realize more accurate projections on when they can retire and how much they need to fund this event.

Further Benefits of Reality Retirement Planning

In addition to helping consumers more accurately predict their income needs, this research can have large implications in other areas of retirement planning. More accurate projections can enable a consumer to determine the appropriate steps required to achieve specific goals in estate planning, tax reduction planning, and investment management. Listed below are a few of an infinite number of potential examples.

Estate planning. Knowing the spending patterns of a consumer would allow the average individual to more accurately predict the size of his or her future estate. Larger estates typically require different planning strategies from smaller estates. Table 5 shows the wide variation in projected estate size. The traditional approach projects that the consumers will deplete their nest egg by age 80. The reality retirement planning approach indicates retirees will have $2,364,871 in their nest egg at age 80 (less taxes paid on unused required minimum distributions from 401(k) withdrawals). Having the ability to forecast these future events could allow planners to take advantage of sophisticated gift and estate tax avoidance strategies as well as numerous other estate planning techniques.

Tax planning. Knowing the approximate size and timing of investment income could be useful information when developing a consumer's tax reduction strategy. The reality retirement planning approach tends to project lower distributions from retirement accounts in consumers' later retirement years. If these distributions are projected to come from taxable retirement plans, this could require a different tax reduction strategy. In Table 5, the traditional approach illustrates 401(k) distributions of $78,168 at age 73, while the reality approach illustrates investment withdrawals of $46,773. These large discrepancies would almost certainly dictate different projected tax rates. The changes in projected tax rates could alter the way a consumer spends, saves, and distributes money from retirement accounts.

Investment management. Investment management is another area of financial planning that is highly dependent on a consumer's anticipated future expenditures. Reality retirement planning has the tendency to require larger inflation-adjusted distributions early in retirement, with incremental decreases throughout a consumer's retirement years. This type of foresight would most likely determine a different asset allocation than what the traditional approach would suggest.

Conclusion

The inverse relationship between age and spending has serious implications for traditional retirement planning. To address these concerns, sophisticated strategies should be considered if accuracy is important. Reality retirement planning accommodates spending differences by deviating from normal retirement planning procedures. This advancement may hold the key to helping consumers realize more accurate projections on when they can retire and how much they need to fund this event. Any change that strays from the norm is typically met with skepticism and objection; however, it is change and only change that can advance a profession.

References

Dent, Jr., Harry S. 1998. *The Roaring 2000s*. NY: Simon & Schuster. 37.

Silver Financial Planner Version 3.7.g: Moneytree Software, Ltd., 2002.

Tacchino, Kenn and Cynthia Saltzman. 1999. "Do Accumulation Models Over-state What's Needed to Retire?" *Journal of Financial Planning* 9, 2 (February): 62–73.

United States Census Bureau. 2002. "Net Worth and Asset

Ownership of Households: 1998 and 2000." *Household Economic Studies* May: 70–88.

United States Department of Labor. "2002 Consumer Expenditure Survey." Bureau Of Labor Statistics.