Successes and Failures of Affluent Investors: Some Lessons From Vanguard Planning Clients

Vanguard Investment Counseling & Research



Executive summary. In this study we examined 55,000 client records from Vanguard's financial planning database for the period 2000–2006. With median financial assets of approximately \$1 million, clients of Vanguard Financial Planning Services represent an affluent subset of all investors. However, an analysis of their portfolios and financial situations reveals several facts that have broader implications for how investors in general prepare for retirement.

Investors aren't planning until late in the game. One of our most important findings is that the vast majority of clients sought planning assistance with little or no time left before their desired retirement date. Fewer than 15% of the clients who contacted Vanguard for advice were more than ten years away from their planned retirement.

Investors hold a high concentration of cash. Among the 55,000 portfolios included in the analysis, the average allocation to cash was 29.5%. Even the wealthiest clients—those with \$2 million or more in total financial assets—held on average more than 25% of their assets in taxable or tax-exempt cash investments, typically money market accounts.

Investors are broadly diversified. Overall, on average these clients' portfolios were allocated 29.5% to cash, 22.9% to bonds, and 47.6% to stocks. Average portfolio holdings showed some slight variations across both age and gender. Investors with retirement pensions allocated 2% to 3% more to stocks than those without a pension. The overall distribution of stock allocations has a normal bell-curve shape, with few individuals choosing extremely risky or extremely conservative portfolios.

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Investors could improve their portfolios' tax-efficiency. Clients held a substantial portion of their taxable portfolios—on average, 54%—in relatively tax-inefficient instruments, including taxable cash, taxable bonds, and actively managed equity funds. For these investors, attention to tax-efficiency might notably enhance aftertax results.

Women allocate slightly less to stocks than men. On average, single women had stock allocations approximately 5 percentage points smaller than those of single men. Even this small difference, over many years, could lead to significantly lower total returns for the women, though with less risk.

A majority of Vanguard planning clients are adequately prepared for retirement. The median retired 65-year-old client had financial assets equivalent to 20 times annual expenditures, and thus probably could finance all future spending from assets alone. Clients who were still working at that age were close behind, with an asset-to-expense ratio of 17. At the median, clients of all ages and all retirement statuses reported total spending—including taxes, loan payments, and living expenses—that was less than their adjusted gross income.

Introduction

How well or poorly Americans are prepared for retirement has been a subject of growing concern for a number of years. The size of the baby boom generation, born between 1946 and 1964, is approximately 77 million, the oldest of whom are now entering their 60s. Based on traditional norms, for these individuals retirement is fast approaching.

The size of this demographic, along with the debate surrounding Social Security reform, the decline of defined benefit pension plans and retiree health care plans, and the poor savings rates reported for many Americans, has contributed to an ever-increasing focus on the state of retirement-readiness in the United States.

Still, much remains unknown about the financial status of investors currently nearing and entering retirement. How prepared are they financially? What mistakes are they making? How could they be helped? In the literature on retirement, there are few good sources of information to answer these questions.

Vanguard has been providing financial planning services to clients since 1996. More than ten years of experience and a large client base give us a unique perspective on how Vanguard investors retire. This report summarizes and analyzes the data we have gathered in the process of preparing financial plans for our clients. It covers basic demographics, portfolio allocation, asset location, and retirement preparedness.

The data used in this study

Our information comes from a large set of clients who requested a financial plan from Vanguard between September 17, 2000, and February 22, 2006. At its fullest, this group includes 55,059 clients. However, in most of the report, we focus on a subset consisting of 36,053 clients who provided the most extensive information. The subset excludes about 19,000 clients in the larger group who did not provide complete information on expenses, income, and planned retirement dates.

The data we examined represent the clients' financial situation before they received any planning advice. In other words, we are looking at the balance sheet and reported cash flows for clients before they obtained or acted on guidance from Vanguard.¹ The clients supplied this information either on a printed questionnaire or simply by providing current copies of account statements to Vanguard's planning staff. After the data were entered into Vanguard's proprietary electronic planning system, they were reviewed by the clients, and therefore are believed to be highly accurate. It's important to note that our research is based on anonymous, aggregate statistics.

Throughout this report, the data shown in text and charts are derived from the subset of approximately 36,000 clients, unless we specify otherwise.

Basic characteristics of the client population

For purposes of targeted analysis, we separated the client population into six groups according to age and retirement status. Our highest-level age categorization breaks out three groups: those under age 55, those age 55–64, and those age 65 or older. For clients who

had a spouse or partner (hereafter simply referred to as "spouse"), we based the age classification on whichever of the two was older.

Each of the three age groups was subdivided into retiree and pre-retiree categories. We categorized clients as "retired" if they reported themselves so, or if there were 60 or fewer calendar days between the client's planned retirement date and the creation date of the financial planning record in Vanguard's electronic system.

Figure 1, on page 4, presents the basic demographic information on the sample of retirement planning clients. As it turned out, the age categories divide the sample very roughly into thirds. The youngest clients account for 26.3% percent; about four-fifths (83%) of them were not retired. The middle group—aged 55 to 64—accounts for 40.7% of the population, roughly equally divided between nonretired and retired clients. Among the final 33.0% of clients, those 65 or older, the vast majority (nearly 85%) were retired.

Data in Rows 4–7 of Figure 1 provide important additional information on the income, expenses, and assets of each group. The data underscore that our sample of retirement planning clients is drawn from a highly affluent segment of the U.S. population. According to the U.S. Census Bureau,² median household income in 2004 was \$44,389. In our data, median household income was \$104,800—more than twice the U.S. average. In addition, according to the Federal Reserve Board's Survey of Consumer Finances,³ in 2004 the median U.S. family with any financial assets held assets worth a total of \$23,000. In our sample, the median level of financial wealth is \$984,100.

¹ Just over 10,000 clients have more than one service agreement in the database, indicating ongoing, periodic advice interactions; we intend to examine these repeat interactions in a subsequent analysis.

² Found at www.census.gov/prod/2005pubs/p60-229.pdf (Table 1, page 4).

³ Found at www.federalreserve.gov/Pubs/oss/oss2/2004/bull0206.pdf (Table 5B, page 14).

Row	Characteristic	Age 54 or under		Age 55–64		Age 65 or over		
		Not retired	Retired	Not retired	Retired	Not retired	Retired	Al
1.	Count	7,869	1,608	7,491	7,160	1,820	10,105	36,053
2.	Percentage of total	21.8%	4.5%	20.8%	19.9%	5.0%	28.0%	100.0%
3.	Percentage of age group	83.0%	17.0%	51.1%	48.9%	15.3%	84.7%	100.0%
4.	Median pre-tax earnings	\$150,000	\$25,000	\$105,000	\$24,000	\$69,263	\$18,000	\$51,600
5.	Median adjusted gross income (AGI)	\$164,800	\$108,400	\$127,400	\$84,100	\$118,800	\$75,000	\$104,800
6.	Median total expenses	\$104,554	\$78,434	\$85,740	\$66,100	\$85,074	\$61,000	\$76,000
7.	Median assets	\$840,300	\$1,166,400	\$1,005,200	\$1,037,550	\$1,038,950	\$998,000	\$984,100
8.	Percentage with loans	61.5%	44.5%	53.3%	44.1%	39.6%	24.3%	44.1%
9.	Percentage with current pension	4.9%	12.9%	22.8%	48.3%	39.2%	59.9%	34.7%
10.	Percentage expecting retirement pension	19.3%	13.1%	41.6%	48.7%	46.4%	60.0%	42.3%
11.	Percentage with current work	91.8%	44.1%	83.2%	29.8%	72.7%	13.9%	52.8%
12.	Percentage expecting to work in retirement	15.7%	NA	18.8%	NA	13.4%	NA	_
13.	Average age	46.5	47.8	59.0	60.4	67.5	71.9	60.1
14.	Percentage of males*	80.7%	61.5%	81.9%	80.2%	77.4%	76.6%	78.7%
15.	Percentage with spouse in plan	80.6%	65.2%	83.8%	79.8%	84.0%	76.4%	79.4%

*Not all clients provided data on gender.

Source: Vanguard.

The data on income and expenses reveal a uniform trend across the age categories: Not only do retirees report lower gross incomes, but they also report significantly lower expenses. Across all three groups, median total expenses (including all reported spending, all reported loans, and total taxes) among retirees were 20% to 30% lower than among the working population. In part this may be a selection effect: Given otherwise very similar individuals, the one who is comfortable spending less money may be more likely to retire. Interestingly, only the retirees in the youngest group appear to be significantly wealthier than their nonretired counterparts in the same age group.

The data in Rows 8–12 provide further details about several important aspects of the clients' finances. All age groups included many clients who said they were still working in retirement or expected to do so. A large number of retired individuals over age 55 reported receiving some pension income.

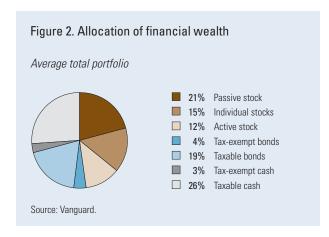


Figure 3. Overall average asset allocations by demographic characteristics

52.6%	14.6%	32.8%
47.8	23.5	28.6
43.4	28.6	27.9
38.5%	22.0%	39.5%
41.6	25.7	32.7
44.3	25.9	29.7
48.9	23.7	27.3
52.0	20.5	27.4
52.3	18.5	29.1
48.3	17.3	34.2
48.0%	21.1%	30.9%
45.7	20.9	33.4
46.5	22.5	31.0
46.8	23.4	29.7
48.4	23.8	27.7
48.9	24.6	26.3
47.5%	22.9%	29.5%
	47.8 43.4 38.5% 41.6 44.3 48.9 52.0 52.3 48.3 48.0% 45.7 46.5 46.8 48.4	47.8 23.5 43.4 28.6 38.5% 22.0% 41.6 25.7 44.3 25.9 48.9 23.7 52.0 20.5 52.3 18.5 48.3 17.3 48.0% 21.1% 45.7 20.9 46.5 22.5 46.8 23.4 48.4 23.8

and the exclusion of assets categorized as "Other."

Asset allocation

Figure 2 shows the average overall allocation of the portfolios held by our broad sample of 55,000 investors.4 Their portfolio holdings have been classified into eight categories:

- 1. Taxable cash: Money market funds, bank accounts, and short-duration certificates of deposit.
- 2. Tax-exempt cash: Tax-exempt money market funds.
- 3. Taxable bonds: All individual taxable bonds, bond funds, and long-duration CDs.
- 4. Tax-exempt bonds: Individual municipal bonds, municipal bond funds, and tax-deferred savings bonds.
- 5. Active stock: Equity funds that are actively managed.
- 6. Passive stock: Indexed equity funds.
- 7. Individual stocks: Individual stock holdings.

The data show that the average allocation to cash, encompassing both taxable and tax-exempt holdings, was a remarkable 29%. As Figure 3 illustrates, even the wealthiest clients—those with \$2 million or more in total financial assets—held more than 25% of their portfolios in cash, on average. Typically these investments were in money market accounts.

Overall equity allocations constituted 48% of assets. These Vanguard investors had only 12% of their portfolios (less than a third of their overall equity allocations) in actively managed stock funds; they held larger portions in index funds and in individual stocks. Bond allocations totaled 23% of the average portfolio, with the vast majority held in the form of taxable bonds.

⁴ This analysis excludes stock options and company stock plans that are not 401(k)s in computing portfolio holdings.

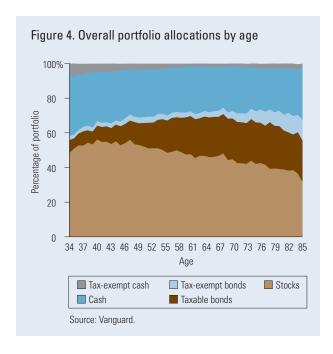


Figure 3 breaks the allocations down across several demographic variables. Stock allocations show a weak negative correspondence to age: Investors under age 55 held 52.6% of their assets in stocks, while those 65 or over allocated only 43.4% to stocks.

This age pattern is further illustrated in Figure 4, which shows how overall asset allocations change with the age of the investors. The average equity allocation declines from over 56% at age 40 to 31% at age 85. The large concentration in cash is clear across the age spectrum.

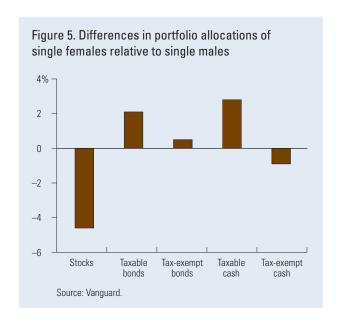
Why so much cash?

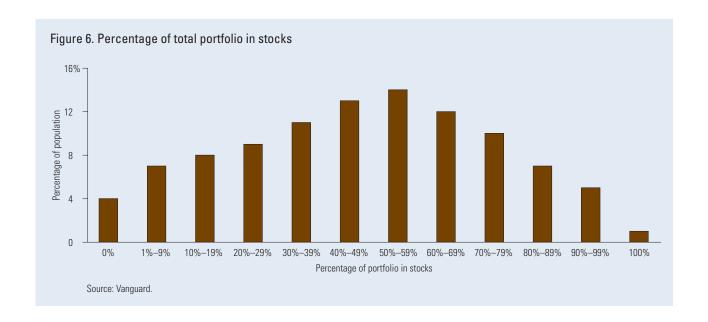
It's certainly prudent to hold some level of cash to be ready for emergencies or for anticipated short-term expenditures. However, the proportion of cash held by clients in our sample was surprisingly large. Possibly a selection issue is involved: Clients may come to Vanguard for investment advice precisely because they are holding a large cash position and need guidance about how to deploy it. Indeed, discussions with Vanguard staff suggest that many clients do seek advice after receiving a large cash infusion, such as a lump-sum rollover from a retirement plan, an inheritance, or an insurance benefit.

Nevertheless, it seems plain that these investors could benefit from alternatives to cash investments. Electing to use a diversified, balanced mutual fund for much of the wealth now allocated to cash should not dramatically increase short-term risk and could result in significantly higher expected returns.

Differences in equity allocations by sex

On average, the unmarried women in our sample held stock allocations about 5 percentage points smaller than those of single men. The women instead had higher holdings of both taxable bonds and taxable cash.



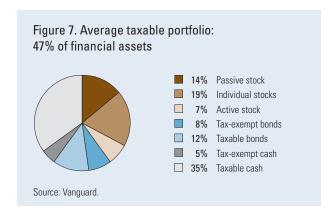


While such a difference seems small, it can, over long periods, significantly affect portfolio outcomes. For example, if stocks should return, on average, 7 percentage points more annually than the bond/cash combination substituted by single females, the women would earn 35 basis points (7% x 5%) less than the men each year. Over many years, this could result in lower total accumulations for women, albeit with less volatility risk.

Extreme allocations

In addition to examining average portfolio allocations, we looked at the overall distribution of allocations. This distribution is potentially important, as the fact that the average portfolio is about 50% equities could result from half the population being all in stocks while the other half holds none.

As Figure 6 shows, the reality was much less dramatic. Here we see a clear bell shape, with very few households at the extremes. The data suggest that in terms of asset classes, individual investors generally hold well-diversified portfolios, reflecting a wide range of risk exposures.

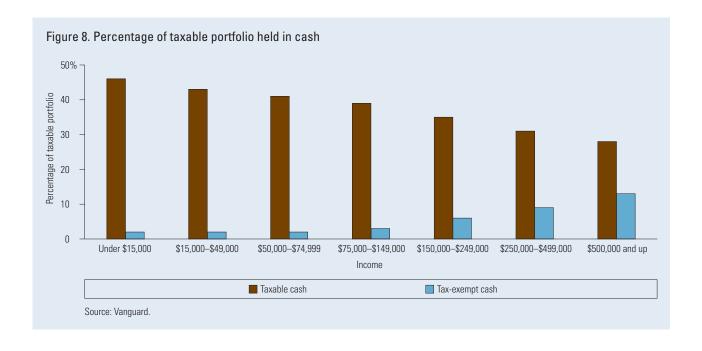


Taxable and tax-deferred portfolios

On average, the client households held 47% of their financial assets in taxable individual, joint, or trust accounts, and the remaining 53% in tax-deferred accounts such as IRAs or 401(k)s. We found a number of differences in the way assets were allocated within each category.

As shown in Figure 7, taxable accounts were dominated by cash to an even larger extent than the overall household portfolios. Approximately 40% of the average taxable portfolio was held in cash, and this did not vary significantly with income (Figure 8). If these clients in fact needed to hold so much cash for strategic, long-term reasons, then many would have benefited from shifting it into nontaxable accounts. Given income levels in this sample, such a move would likely reduce income taxes significantly for most working, and many retired, clients.

Likewise, many investors would be able to improve their after-tax returns by moving their holdings of taxable bonds into tax-deferred accounts while shifting indexed equity positions to their taxable accounts. Finally, actively managed equity funds—many of which distribute large amounts of taxable income each year—are more efficiently held in tax-deferred accounts.



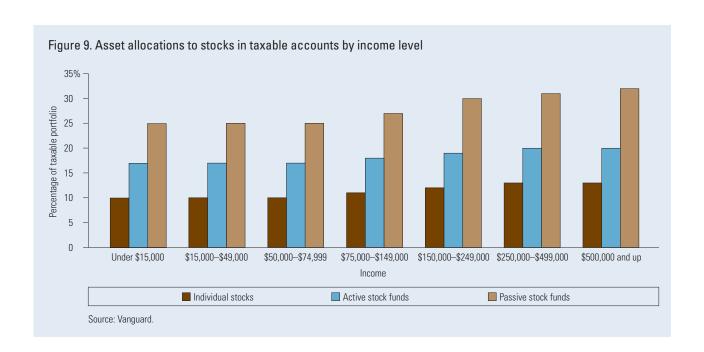
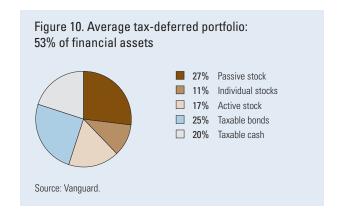
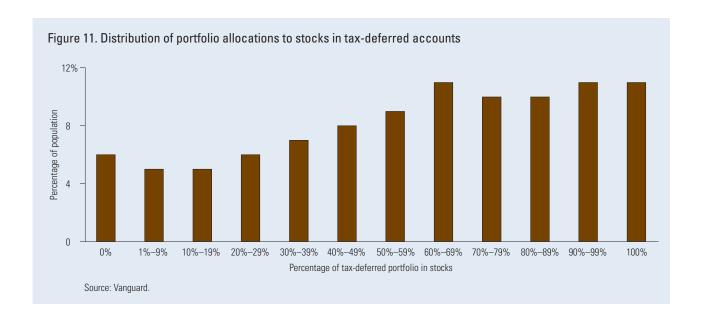


Figure 9 shows the allocations to equity types within taxable accounts according to the clients' income. Clients with incomes of \$150,000 and up tended to allocate somewhat more to indexed investments in these accounts.

The clients' tax-deferred accounts, in general, were dominated by stocks, which made up about 55% of these portfolios on average. As Figure 10 shows, the stock holdings within tax-deferred accounts were roughly three parts passive exposure (index funds), two parts active exposure (actively managed funds), and one part individual securities, on average. The data reveal a weak relationship to income (higher-income individuals held more stock), but the general pattern was similar across income groups.





The distribution of equity allocations within tax-deferred accounts (Figure 11) was notably different from the bell shape of the overall distribution. It was much flatter, with a significant number of individuals at the extreme ends of the distribution. Fully 11% of clients held stocks exclusively, while 6% held no stock at all. Almost exactly half of the clients held 60% or more of their tax-deferred balance in stocks.

Retirement-readiness

Preparation for retirement is perhaps the major reason most people hold an investment portfolio. But what does it mean to be "prepared"? For an individual client, a highly accurate picture of retirement preparedness can be assembled using customized and personal standards. At the aggregate level, however, determining whether clients are prepared for retirement is more difficult, as goals and standards may vary dramatically from household to household.

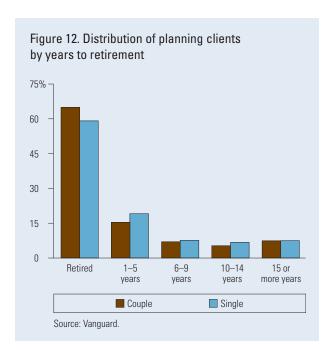
Years to retirement

Figure 12 shows the distribution of our clients by the number of years (if any) remaining before their intended retirement. For those not already retired, the chart reflects the period between the first planning contact with Vanguard and the client's desired retirement date.

These data show that when they came to Vanguard for planning assistance, 65% of the couples and nearly 60% of the singles either had already retired or were within a year of it. Fewer than 15% of clients had ten years or more to go before their desired retirement dates.

While planning late is better than never, it's obvious that such a delayed start severely hampers the chance for a new financial strategy to have a meaningful impact. At a late stage in the game, if the investor is not already on target, financial strategies—such as altering asset allocations or reallocating assets to better manage tax liabilities—are unlikely to suffice

on their own to achieve retirement goals. Real changes in behavior—such as radical adjustments to saving or spending, a return to work, or significant changes in lifestyle expectations—may also be required. Although the majority of these clients appeared basically on track, planning earlier would likely have improved outcomes for many of them.

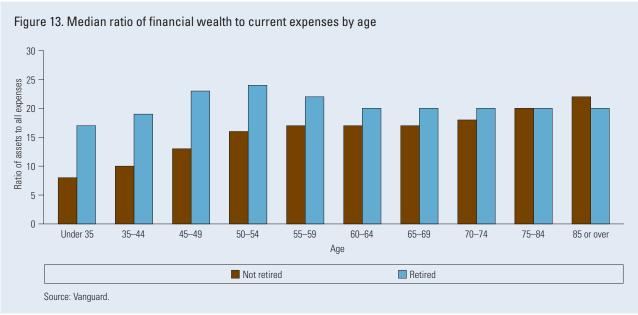


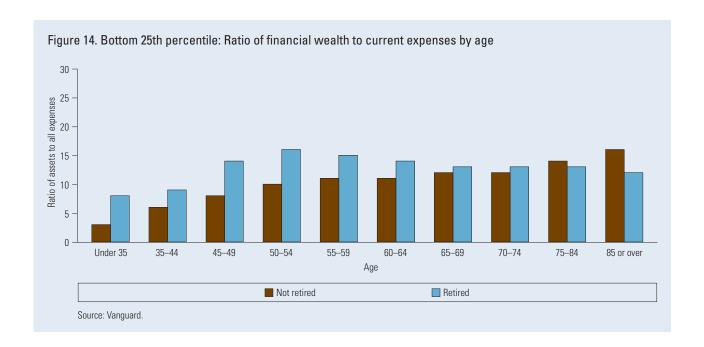
Ratio of assets to expenses

One objective measure of the adequacy of savings is the level of accumulated wealth measured relative to levels of expenditures. Figure 13 presents this information and shows clear patterns related to client age.

Younger sample members had relatively little in the way of assets relative to their expenses. On the other hand, among retired clients over age 60, the ratio of accumulated financial assets to the total expenditure of the household was around 20, and remained quite stable with increasing age. Independently of other factors, these data suggest that the median retired sample member was well-prepared for retirement. Assuming a 30-year investment horizon, investors are routinely advised to spend no more than 3% to 5% of their investment portfolios each year. An asset-to-expense ratio of 20 means that expenses amount to 5% of the portfolio's value.

If these assets were the only resources owned by sample members, one might characterize the 5% spending level as aggressive. But almost all retirees will receive some Social Security benefit, and, as was shown in Figure 1, a majority of the retired clients in our sample had additional private pension income.



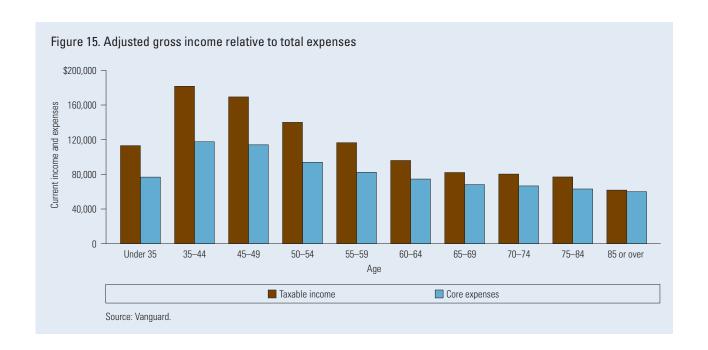


At younger ages, there were large differences in the asset-to-expense ratio between those still working and those who had retired. However, after age 55, the difference between retirees and non-retirees narrows to two to three times annual expenses. To attain the same level of financial security as the retired members of the sample, the pre-retirees would need to either increase saving or reduce expenditures.

For example, the median level of expenditures among 65-year-old retirees was roughly \$55,000. If the median 65-year-old pre-retiree, who had an asset-to-expense ratio of 17, desired to retire with that ratio at 20 (which was its median level among the retirees aged 60 and above in our sample) he or she would need to do one of three things: accumulate assets to offset an additional three years' worth of expenses at the current level

(raising the ratio from 17 to 20); reduce expenses by 15% (17/0.85 is 20); or—what's most likely—implement some combination of the two. Working an additional year and saving aggressively could allow the pre-retiree to accumulate assets offsetting another year's worth of expenses, raising his or her asset-to-expense ratio to 18. Then only a 10% reduction in expenses would be required to get the rest of the way.

While the median retiree in our sample appears to be in solid financial health, this is not the case for all individuals in the sample. Figure 14 uses the same framework to look at the bottom 25% of the distribution of wealth-to-expenses ratios. When we do so, we find a picture that is more worrisome.



Here, we see that across the age distribution, the bottom quarter of savers has done far less well in terms of accumulating assets sufficient for their expenses. Among the retirees, asset-to-expense ratios of 13 or so mean that total spending is roughly equivalent to 8% of their portfolio. Again, many retirees have other resources, so this group was not necessarily in dire financial straits—though certainly they would not be able to sustain their current level of expenditures based on their assets alone.

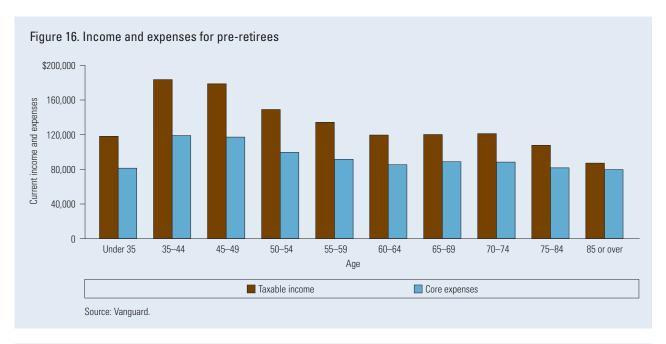
Ratio of income to expenditures

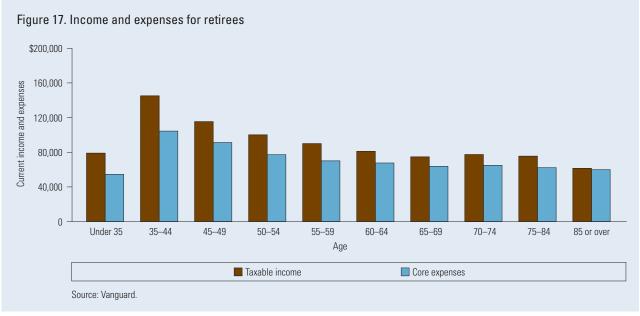
Another important measure of financial security is income relative to expenditures. Figure 15 shows median pre-tax income relative to clients' reported core expenditures. In our sample, median taxable incomes were highest among individuals in their late 30s and early 40s. Of course, this is partly attributable to the higher proportion of retirees in the later age groups. Another interesting aspect of the chart is that median expenses were highest among 35- to 49-year-olds, and a bit lower for those aged 50 to 64.

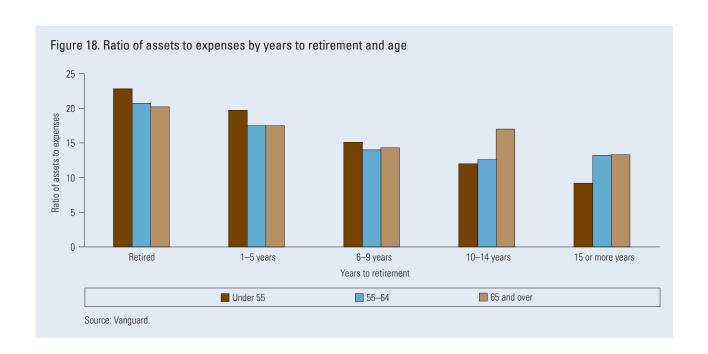
Current expenses among clients aged 65 and up showed little or no variation. At the median, across age groups, the clients in our sample spent less than their gross incomes. This implies that at least on average, there was little or no drawdown of wealth to fund expenditures, suggesting once again that most of these clients were financially very well-positioned.

The income/expense picture differed when retirees and pre-retirees were examined separately (see Figures 16 and 17, on page 14). Among retirees, median taxable income was far closer to median expenditures. Within each age group, median taxable income was lower for retirees than pre-retirees; however, even among retirees, taxable income was greater than core expenditures. All retiree age groups over 55 showed very similar levels of median current expenditures.

Finally, there was a clear relationship between the level of accumulated assets and the number of years remaining until retirement. As suggested by the data shown earlier, in Figure 13, the median retired client across all age groups reported financial assets amounting to approximately 20 times annual expenditures (the ratio was slightly higher for retirees in younger age groups). In general, the more distant the client's projected retirement, the lower the level of accumulated wealth relative to expenditures, as illustrated in Figure 18, though the pattern breaks down somewhat for individuals over the age of 65 with 10–14 more years till retirement, and for those over age 55 with 15 or more years till retirement.

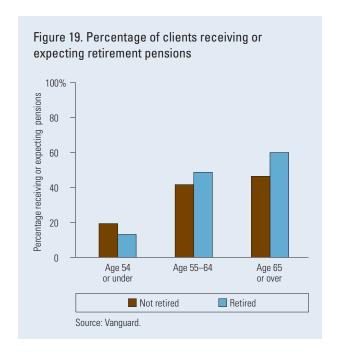




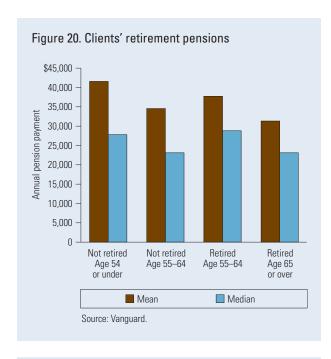


Pension income

Much has been said about the changing role of pensions in retirees' financial picture. Information from our sample provides some indication of the size and role of these benefits, and also of how things may change going forward. In this group, a large number of individuals over age 55 received or expected to receive a retirement pension. Figure 19 shows the percentage of retired clients who were receiving a pension, along with the percentage of pre-retirees in the same age group who were expecting one. Older investors, whether retired or not, were significantly more likely to have a pension than younger ones. Among those clients who had retired, 60% of those age 65 and over reported having pension income, compared with approximately 49% and 13%, respectively, for the two younger groups. Pre-retirees under age 55 were less than half as likely as older investors to possess or anticipate pension payments.5



⁵ We note that the majority of younger respondents were not retired, and the academic literature has documented that younger individuals are less aware of their retirement benefits than older people. We do not know to what extent ignorance of pension benefits, as opposed to absence of such benefits, may have influenced our results.



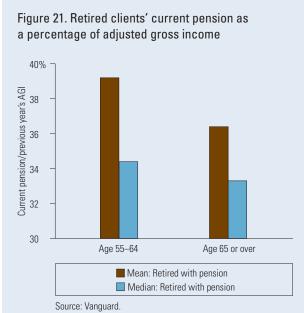
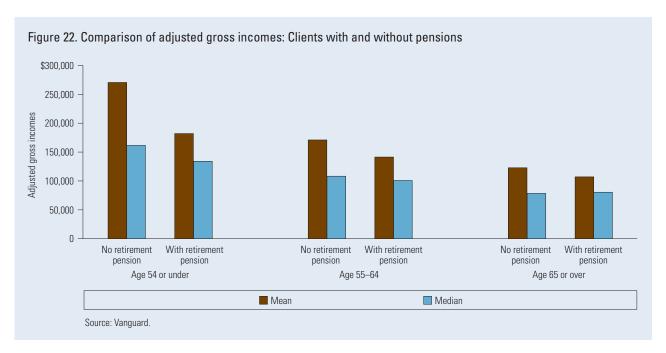
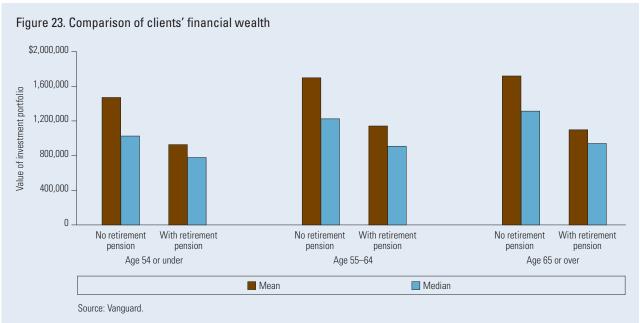
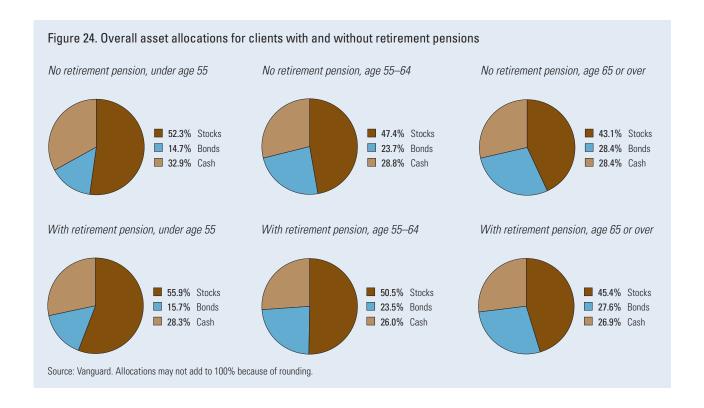


Figure 20 shows the size of clients' retirement pensions. The mean (average) income levels were higher than the median amounts, indicating the presence of some very large pensions that skewed the averages upward. Median pensions (those in the middle of the distribution) were approximately \$2,000 per month across all three age categories. And for retired clients 55 and older, median pension payments made up about one-third of the prior year's adjusted gross income (Figure 21).

Among the clients in our sample, the presence or absence of a pension appeared to be associated with some other aspects of household financial arrangements. Figures 22 and 23 compare total income and financial wealth for investors of different ages and retirement status. Clients without pensions had both higher incomes and larger investment portfolio balances than those with pensions. In essence, clients without pensions appear to have accumulated greater personal wealth. As a group, these clients also had 2%-3% less invested in equities, and slightly more allocated to cash, than the clients with pensions (Figure 24, on page 18). While these differences in allocation are small, they do suggest that the presence of a pension may increase risk tolerance in the financial portfolio; such behavior is consistent with a theory that pension income is perceived as having fixedincome-like characteristics.







Conclusions

The information gleaned from Vanguard's planning clients provides some important insights into the behavior of relatively affluent individuals as they enter retirement.

A striking finding was that a large majority of these clients waited until they were very near retirement to seek planning assistance. Even though most appeared to have adequate assets to support their retirement years, planning earlier would have improved outcomes for many of them.

Perhaps unsurprisingly, spending levels relative to both income and financial assets appeared modest in this group of relatively well-to-do households. In general, these investors appeared well-prepared for retirement, and they seemed to be following prudent, well-diversified investment strategies even before receiving any portfolio advice from Vanguard. Across both taxable and tax-deferred portfolios, the investors displayed much greater diversification across broad asset classes than is typically found in studies that focus on a single account or type of account.

One area of concern is the presence of large levels of cash in client portfolios, although there is reason to believe that many of these investors sought Vanguard's help precisely because they had acquired a sizable cash holding and wanted guidance in deploying it. It is also evident that many investors might improve their results by taking steps to reduce the tax burden on their assets. By shifting highly taxed asset classes into tax-preferred vehicles, these investors could potentially achieve better after-tax returns.

The data suggest that, although pension income remains significant in the financial picture of investors over age 55, younger investors will likely enter retirement with larger pools of financial assets to manage, rather than pensions. Even before recent declines in the prevalence of corporate pensions, investors without pensions may have taken it upon themselves to accumulate larger asset balances for retirement. Thus, the disappearance of pensions is likely to be offset by other forms of savings.

Finally, it bears reiterating that the individuals whose data we examined are among the wealthiest of investors nationwide, and these findings should not necessarily be generalized to the overall population. That said, the extent to which these investors have done well (for example, by maintaining diversification and keeping spending levels modest) as well as the areas in which they could improve (such as reducing cash allocations and taking steps to minimize taxes) may present useful models and lessons for all investors.



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