



**Segmenting the Middle Market:
RETIREMENT RISKS AND SOLUTIONS
PHASE I REPORT**

April 2009

Prepared for:

Society of Actuaries

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Segmenting the Middle Market: RETIREMENT RISKS AND SOLUTIONS PHASE I

Segmenting the Market for Retirement Risks and Solutions: Middle Market Segmentation

PREFACE

Results of this study and recent economic developments

The analysis of this study is based on data from the Survey of Consumer Finances, as of 2004 (the most recent version of the survey available). Results of the analysis have been compared with other research using data from the Health and Retirement Study, and the data bases underlying such research are generally at least four years old because of the time required to do the survey, release the data and publish it. The last two years have been an extremely volatile and difficult time in the United States economy. Readers of this report will probably wonder how the values presented in it may have changed due to declines in housing and security values.

Average housing values have dropped in value over the past two years, and continue to show average year over year declines of approximately 20% (as of November 2008). The impact of the decline upon this analysis is mitigated by the increase in housing values from 2004 to 2006. During 2008 and 2009, there were also major declines in US equity markets, and this has had a huge impact on 401(k) and IRA balances. The impact on different individuals varies depending on their balance and investment choices. This issue has a much larger impact on those in the middle affluent segment than the middle mass, since those in the middle mass have relatively low financial assets, and many of them will not be invested in the securities that have been affected.

The impact also varies greatly by individual situation and general geographic locale. The decline in housing values will have a significant impact on those in both middle mass and middle affluent segments as much of their assets are nonfinancial and housing is the largest portion of these assets. Economic

changes also affect the potential to use housing values to help finance retirement since it is much more difficult to obtain mortgage loans, and in many areas, it is difficult to sell housing, even at depressed values. For individuals seeking to buy a retirement home, it may be a time of great opportunity. Others bought second and third houses in the last few years for investment purposes and used easy to obtain mortgages to secure financing for these additional houses. The strategy was to let the house prices rise and then sell them to build assets. The financial crisis has had a devastating impact on this approach.

Job loss has also been a problem in 2008 and 2009, and because many people had heavy mortgage obligations on their homes, there have been a high number of foreclosures. To the extent that households are affected by foreclosures, it can have a ruinous impact on retirement plans.

The economic conditions also impact different forms of income. For those who have lost jobs or have businesses, income from work is adversely affected. Social Security income is unaffected, and defined benefit plan pensions from ongoing plans are not affected either. When plans are frozen, the expected income for future retirees is often reduced, but much more for those who will retire far into the future. Some forms of Investment income are likely to be down significantly in the short term. Overall, Social Security increases in importance in the total picture.

The results from the Survey of Consumer Finances based on 2007 data were released since the analysis for this study. Unfortunately, these survey results also do not reflect the economic realities of 2009. The 2007 survey shows median income was little changed from the 2004 survey. Median net worth increased 17.7%; however, the most significant increases occurred among the high net worth and the most significant decreases occurred among the low net worth categories, both of which categories heavily fall beyond the range of this analysis. Asset growth and subsequent decrease since the 2007 survey suggest that 2004 values may be one of the better estimates. In summary, the analysis in this report remains valid.

Table of Contents

INTRODUCTION	1
PROJECT APPROACH AND ANALYSIS	2
MIDDLE INCOME RETIREMENT MARKET SEGMENTATION - SUMMARY	5
MIDDLE MASS MARKET SEGMENT PROFILES	9
Middle Mass, 55 to 64, Married Households	9
Middle Mass, 55 to 64, Single Female Households	10
Middle Mass, 55 to 64, Single Male Households	11
Middle Mass, 65 to 74, Married Households	12
Middle Mass, 65 to 74, Single Female Households	13
Middle Mass, 65 to 74, Single Male Households	14
Middle Affluent, 55 to 64, Married Households	15
Middle Affluent, 55 to 64, Single Female Households	16
Middle Affluent, 55 to 64, Single Male Households	17
Middle Affluent, 65 to 74, Married Households	18
Middle Affluent, 65 to 74, Single Female Households	19
Middle Affluent, 65 to 74, Single Male Households	20
ADDITIONAL CONSIDERATIONS - RETIREMENT ISSUES AND RISKS	22
DECISION PROCESSES FOR RETIREMENT INCOME	33
CONCLUSIONS	34
BIBLIOGRAPHY	37
APPENDICES	40
A: Treatment of Asset and Income - Survey of Consumer Finances	
B: Household Distribution Tables	

Segmenting the Market for Retirement Risks and Solutions: Middle Market Segmentation

ACKNOWLEDGEMENTS

The authors of this report would like to acknowledge the funding support provided by the Society of Actuaries Committee on Post Retirement Needs and Risks. They also express their appreciation for the advice and guidance provided by the Project Oversight Group recruited for this effort: Carol Bogosian, Chair, Steve Cooperstein, Betty Meredith, Anna Rappaport, Zenaida Samaniego, Steve Vernon, and Steven Siegel.

INTRODUCTION

The Society of Actuaries' Committee on Post-Retirement Needs & Risks has focused prior research on the development of a "retirement needs framework" and a deeper understanding of the risks faced by households approaching and in retirement. The objectives of this research effort are to further the Committee's work by defining relevant and actionable consumer segments among middle-income / mid-level net worth households (Phase I), and also to define decision processes which could lead to a set of answers or "solutions" which address the retirement risks faced by each segment (Phase II). A second objective of Phase II is to provide insight regarding the nature of the risks faced by varying segments of consumers, and also the potential for innovative solutions which address those retirement risks. The SOA requested that the research focus on households headed by 50 to 75 year olds, and with net worth between \$50,000 and \$1,000,000.

Our approach to the research began with the understanding, based on prior research, that the retirement experience for consumers is diverse. Based on

relative preparedness, as well as other family and household characteristics, this diversity will likely lead to distinct needs for various market segments and, as a result, the need for distinct retirement solutions. Even among the broad “middle market,” as defined above, there are distinguishable segments. Our belief is that at the core of the development of successful retirement solutions will be the need to understand these consumer segments, and pair that understanding with appropriate advice, products, and services.

The specific middle market, as defined for this research, represents approximately 60% of all households either approaching or currently in retirement (it excludes 25% with less wealth and 15% with more). It specifically includes:

- 32 Million Households
- 28% of total U.S. households
- The 25th to 85th percentiles of all households (as measured by income)

PROJECT APPROACH AND ANALYSIS

A key first step in this research effort was to develop a set of consumer profiles that would be sufficiently detailed so as to allow both consumers and advisors to readily identify households belonging in each segment. Milliman drew upon its existing research (specifically, additional analysis and definition of segments within the Lower Affluent and Middle / Mass market segments of Milliman’s 2006 research on Retirement Income markets) and other relevant publicly available research (*see attached Bibliography, p.37*).

While the anticipated level of net worth as households approach the traditional retirement years (age 65 and above) is often used to define consumer segments, in isolation it provides too narrow a definition. A given household’s decision processes are going to depend on the desired retirement standard of living, for

which income at retirement is a reasonable proxy. Within the dimension of net worth, retirement decisions will likely vary based on not only the total amount of net worth, but also how much of the net worth is from retirement accounts (e.g., IRAs, Keogh accounts, and employer-sponsored plans) and other financial assets versus non-financial assets such as net home and business equity. Finally, Social Security benefits are extremely important to the middle market segments, and the level of these benefits can be significantly influenced by the age at which initial claims are made.

Other household characteristics and retirement risks are also likely to be critical variables in determining actionable segments and associated sub-segments. In fact, a review of the literature clarifies that several other household and family characteristics must be taken into account in the development of a robust and actionable market segmentation. In particular, the Health and Retirement Study (HRS), sponsored by the U.S. Department of Health and Human Services, the National Institute on Aging, and the National Institutes of Health provides one of the few longitudinal perspectives on the factors that shape retirement experiences for consumers. Specifically, the HRS shows the dramatic impact that health, household status (married/partnered, single) and major life events have on income and wealth and, in turn, retirement. The Society of Actuaries' 2007 Risks and Processes of Retirement Survey Report also provides important background information on households' awareness of, and preparation for, the risks they are likely to face as they approach retirement. The Center for Retirement Research at Boston College, and its National Retirement Risk Index, provides particular insights on the differences in retirement preparedness by age group, and also regarding the assessment and impact of health care risks. Finally, the Social Security administration publishes data on sources of retirement income and this can be used to help explore more refinement in types of income.

Milliman conducted a comprehensive review of these sources and other literature available from both academic and industry sources in reviewing additional variables that could influence the definition of relevant segments. The primary source for income and net worth information was the Federal Reserve Board's Survey of Consumer Finances, 2004. Other studies confirmed the effect of employment status, marital status, and other household status (e.g., existence of dependents, health status, gender and age) in determining a useful segmentation construct.

Our review of existing research, surveys, and available data required that the boundaries of the middle market be broadened slightly to include households headed by 45 to 75 year olds, and with net worth between approximately \$50,000 and \$1,100,000. An analysis of characteristics for all households in this middle market cohort shows marked differences in the key determinants of "retirement readiness," along the following dimensions:

- Initial wealth level, measured by
 - Current income
 - Current net worth
- Household Type
 - Married
 - Single (including Divorced and Widowed) - Female
 - Single (including Divorced and Widowed) - Male
- Age
 - Pre-retirement years (typically prior to age 65)
 - Retirement years (post age 65)

We compared the results of our segmentation with other surveys that have focused on retirement, in particular the HRS survey. We specifically compared the findings of the HRS regarding income and wealth for consistency with our findings. There were important definitional differences between the two studies.

Specifically, information contained in the latest available HRS report provides income averages (from 2002), rather than the median income information we obtained from the Survey of Consumer Finances (2004). However, in comparing both the income and net worth information, and adjusting for differences in age group definitions, there appears to be a clear consistency between the two surveys. In particular, we noted that the HRS emphasizes the enormous variations in income and wealth as a critical differentiator between households. As will be discussed below, this is a primary segmentation criterion proposed in this research.

With this background, a segmentation scheme was developed that was designed to satisfy several key criteria; specifically, it defines segments that are: 1) identifiable, 2) reasonably distinct in risk profile, 3) “actionable”, i.e., have needs that can be addressed by a specific set of solutions, and 4) are “verifiable”, i.e., have distinctions that are easily observed using publicly available data.

MIDDLE INCOME RETIREMENT MARKET SEGMENTATION - SUMMARY

The segmentation defines twelve segments of the middle market population. The details and a profile of each of the twelve segments, including household characteristics and the boundaries of each segment, are defined in the summary tables that follow.

The total middle market is divided into two broad classes: 1) Six “Middle Mass” Market Segments; and 2) “Six Middle Affluent” Market Segments. The total number of households in each broad class and the defining characteristics of each are:

(# of Households - Thousands)

Total Middle Market Households: **32,209**

(Ages 45 to 74; \$50k to \$1,000k Net Worth;
25th to 85th percentile of all households)

Six segments profile the “Middle Mass” households:

Total “Middle Mass” Households: **26,841**
(25th to 75th percentile of all households)

Six segments profile the “Middle Affluent” households:

Total “Middle Affluent” Households: **5,368**
(75th to 85th percentile of all households)

It is important to have an agreed-upon definition of retirement for purposes of the analysis. Many experts have observed that, out of necessity, “retirement” will continue to involve “employment.” And the reality is that “retirement” truly occurs, for any given household, at the point where a household’s primary focus switches from accumulating assets to using those assets to supplement its income so as to maintain a desired standard of living. As such, retirement will obviously occur at different ages based on a given household’s particular circumstances. However, in order to focus on households’ financial status leading up to and subsequent to this “retirement” event, we have narrowed the definition of our segments to 55-64 year-olds and 65-74 year olds. And in order to avoid confusion regarding stages or phases of retirement, we define our segments using these simple age categories and household type. This does not change our view that the universe of middle market households faced with retirement issues includes those aged 45-54; however, the financial conditions and decision alternatives come into clearer focus for those age groups where “retirement” most often occurs.

The following four tables summarize the segments by age, household type, current income and net worth characteristics, and number of households for all

twelve segments, broken into the two wealth classifications: Middle Mass and Middle Affluent. The segments have been numbered for ease of reference in subsequent discussions.

Summary of “Middle Mass” Segments - 55 to 64 year-olds

	<i>Married (#1)</i>	<i>Single Female(#2)</i>	<i>Single Male(#3)</i>
Number of Households	5.2 Million	2.5 Million	1.4 Million
Median Income	\$75,000	\$28,000	\$41,000
Est. Median Net Worth	\$348,000	\$111,000	\$125,000

Summary of “Middle Mass” Segments - 65 to 74 year-olds

	<i>Married (#4)</i>	<i>Single Female(#5)</i>	<i>Single Male(#6)</i>
Number of Households	3 Million	1.9 Million	0.9 Million
Median Income	\$45,000	\$18,000	\$25,000
Est. Median Net Worth	\$285,000	\$130,000	\$130,000

Summary of “Middle Affluent” Segments - 55 to 64 year-olds

	<i>Married (#7)</i>	<i>Single Female(#8)</i>	<i>Single Male(#9)</i>
Number of Households	1.0 Million	0.5 Million	0.3 Million
Median Income	\$132,000	\$58,000	\$79,000
Est. Median Net Worth	\$1,300,000	\$415,000	\$465,000

Summary of “Middle Affluent” Segments - 65 to 74 year-olds

	<i>Married(#10)</i>	<i>Single Female(#11)</i>	<i>Single Male(#12)</i>
Number of Households	0.6 Million	0.4 Million	0.2 Million
Median Income	\$93,000	\$43,000	\$54,000
Est. Median Net Worth	\$1,100,000	\$480,000	\$490,000

Please refer to Appendix A for a more detailed explanation of the treatment of asset and income values (as expressed in the above tables) from the Federal Reserve Board’s Survey of Consumer Finances (2004).

MIDDLE MASS MARKET - SEGMENT PROFILES

The segments comprising the six Middle Mass segments are defined in the following discussion of their key differentiators and background. Please note that the discussions below which relate age 55 to 64 segments' to age 65 to 74 segments' characteristics involve different cohorts of individuals and thus some of the comparative implications drawn involve other factors as well. This is most important in terms of retirement implications as longevity increases and defined benefit pensions are replaced by defined contribution plans.

SEGMENT #1: MIDDLE MASS, 55 TO 64, MARRIED HOUSEHOLDS

The 5.2 million households in this segment, representing approximately 16% of the total middle income market, are defined by the following key differentiators:

Household Type:	Married
Household Head Age:	55 to 64
Median Income:	\$75,000
- Income Range:	\$47,000 to \$118,000
Est. Median Net Worth:	\$348,000
- Net Non-Financial Assets:	\$240,000
- Financial Assets:	\$108,000

These households are often two-earner households in their peak earnings years, although incomes are relatively modest. As noted above, some households in this age group may have reached a phase of retirement. Also of note is the fact that over two-thirds of household net worth is comprised of non-financial assets,

most likely home equity. We will see in reviewing older segments that the composition of net worth becomes more balanced between financial and non-financial assets as households age; however, non-financial assets continue to dominate their overall savings. These income and asset characteristics will have important implications for retirement risks and potential solutions.

SEGMENT #2: MIDDLE MASS, 55 TO 64, SINGLE FEMALE HOUSEHOLDS

These 2.5 million households represent approximately 8% of the total middle income market, and are defined by the following key criteria:

Household Type:	Single
Household Head Age:	55 to 64
Median Income:	\$28,000
- Income Range:	\$18,000 to \$52,000
Est. Median Net Worth:	\$111,000
- Net Non-Financial Assets:	\$75,000
- Financial Assets:	\$36,000

The households in this segment are also in their peak earnings years. For this segment, approximately 68% of household net worth is comprised of non-financial assets, again likely home equity. The relatively modest levels of income and net worth will pose significant retirement challenges as these households enter retirement. Specific attention will need to be given to the deployment of non-financial assets, as they dominate overall net worth.

SEGMENT #3: MIDDLE MASS, 55 TO 64, SINGLE MALE HOUSEHOLDS

These 1.4 million households represent approximately 4% of the total middle income market:

Household Type:	Single
Household Head Age:	55 to 64
Median Income:	\$41,000
- Income Range:	\$25,000 to \$71,000
Est. Median Net Worth:	\$125,000
- Net Non-Financial Assets:	\$89,000
- Financial Assets:	\$36,000

Single male households demonstrate a similar pattern, as compared to single female households in this age group, in terms of incomes and net worth. Specifically, approximately 71% of net worth is comprised of non-financial assets (likely home equity). Our review of data for younger age groups (45 to 54 year olds), also showed that net worth increases substantially for 55 to 64 year old households (\$125,000, as compared to \$73,000 for 45 to 54 year olds). Again, non-financial assets continue to dominate overall net worth. However, it should be noted that modest levels of income and net worth levels for this segment will pose significant retirement challenges, and specific thought will need to be given to the deployment of non-financial assets.

SEGMENT #4: MIDDLE MASS, 65 TO 74, MARRIED HOUSEHOLDS

Three million households comprise this segment, representing approximately 9% of the total middle income market. The criteria defining this segment include:

Household Type:	Married
Household Head Age:	65 to 74
Median Income:	\$45,000
- Income Range:	\$28,000 to \$81,000
Est. Median Net Worth:	\$285,000
- Net Non-Financial Assets:	\$185,000
- Financial Assets:	\$100,000

These households continue earning income from various sources, including part-time work, Social Security, employer provided pensions, and asset-based income. As compared to 55 to 64 year-old Middle Mass households, it is clear that while income declines as earners have reached retirement status, for this segment, so has net worth, and by a significant amount (18% lower as compared to 55 to 64 year-olds). This phenomenon may be attributable to the costs of having had to support children (including college expenses), and other dependents (e.g., elderly parents), and also may result from poor decisions regarding the utilization of retirement assets in the early years of retirement. Also of note is the fact that roughly two-thirds of household net worth continues to be comprised of non-financial assets, most likely home equity. Without significant income sources from Social Security and private pensions, it is likely that consumers in this segment will need to tap home equity as a source of retirement income.

SEGMENT #5: MIDDLE MASS, 65 TO 74, SINGLE FEMALE HOUSEHOLDS

These 1.9 million households represent approximately 6% of the total middle income market, and are defined as follows:

Household Type:	Single
Household Head Age:	65 to 74
Median Income:	\$18,000
- Income Range:	\$11,000 to \$35,000
Est. Median Net Worth:	\$130,000
- Net Non-Financial Assets:	\$85,000
- Financial Assets:	\$45,000

The relatively low income levels for this segment are reflective of the single earner status and retirement status of these households and a continuation of the comparatively lower pre-retirement income levels for single households. However, contrary to what was observed for Middle Mass married households, there is a significant increase in net worth for single females (as compared to the 55 to 64 age group). This may be attributable to fewer children present in these households, or perhaps an inheritance received from the loss of a spouse. The composition of their net worth is similar to that for Middle Mass married 65 to 74 year-old households, with about 65% of household net worth from non-financial assets (likely home equity). A significant portion of net income for households in this segment is likely from Social Security and perhaps some private pensions, but tapping into home equity may also be a requirement for this segment.

SEGMENT #6: MIDDLE MASS, 65 TO 74, SINGLE MALE HOUSEHOLDS

These 900,000 households represent approximately 3% of the total middle income market:

Household Type:	Single
Household Head Age:	65 to 74
Median Income:	\$25,000
- Income Range:	\$14,000 to \$51,000
Est. Median Net Worth:	\$130,000
- Net Non-Financial Assets:	\$88,000
- Financial Assets:	\$42,000

The characteristics of Middle Mass single male age 65 to 74 households are similar in many respects to those for single female age 65 to 74 households. While some consideration was given to potentially consolidating the two groups as one segment, the significant differences that exist in the life expectancies of the two groups provide sufficient differentiating factors such that each needs to be considered separately by providers of retirement solutions.

MIDDLE AFFLUENT MARKET - SEGMENT PROFILES

Our discussion now shifts to the remaining six segments, representing the “middle affluent” households. The following discussion profiles the key differentiators and background for these more affluent segments.

SEGMENT #7: MIDDLE AFFLUENT, 55 TO 64, MARRIED HOUSEHOLDS

The one million households in this segment represent approximately 3% of the total middle income market, and are defined by the following key criteria:

Household Type:	Married
Household Head Age:	55 to 64
Median Income:	\$132,000
- Income Range:	\$107,000 to \$151,000
Est. Median Net Worth:	\$1,300,000
- Net Non-Financial Assets:	\$884,000
- Financial Assets:	\$416,000

As with Middle Mass married households, these households are often two earners in their peak earnings years, or at least a very close to it (a closer inspection of younger ages shows that the true “peak” occurs for 45 to 54 year olds). A significant portion of net worth, approximately 68%, is comprised of non-financial assets, likely home equity, but also in these cases including equity in small businesses and other assets (e.g., vehicles, collectibles, art, etc). These households, more than any other in the middle market, will have the wherewithal to consider a variety of retirement objectives. Their needs, as a result, are likely to be more complex and require a broader variety of solutions as part of an effective retirement plan.

SEGMENT #8: MIDDLE AFFLUENT, 55 TO 64, SINGLE FEMALE HOUSEHOLDS

These 500,000 households represent approximately 1.5% of the total middle income market and are defined by the following key differentiators:

Household Type:	Single
Household Head Age:	55 to 64
Median Income:	\$58,000
- Income Range:	\$52,000 to \$71,000
Est. Median Net Worth:	\$415,000
- Net Non-Financial Assets:	\$299,000
- Financial Assets:	\$116,000

As is the case for the married Middle Affluent 55 to 64 year-olds, incomes for single females actually peak somewhere between ages 45 to 54; however, 55 to 64 year olds continue to earn a reasonable income (although only 44% of the income earned by married middle affluent households). Single female middle affluent households, like other segments, have a high percentage of net worth comprised of non-financial assets (72%). A clear strategy for tapping financial assets, in conjunction with other sources of guaranteed income (e.g., pensions, Social Security), will need to be supplemented with a roadmap for deployment of non-financial assets. Provision for long-term care contingencies should receive specific attention.

SEGMENT #9: MIDDLE AFFLUENT, 55 TO 64, SINGLE MALE HOUSEHOLDS

300,000 households, somewhat less than 1% of the total middle income market, represent this segment:

Household Type:	Single
Household Head Age:	55 to 64
Median Income:	\$79,000
- Income Range:	\$71,000 to \$95,000
Est. Median Net Worth:	\$465,000
- Net Non-Financial Assets:	\$349,000
- Financial Assets:	\$116,000

Single male Middle Affluent 55 to 64 households demonstrate similar patterns as for the single female Middle Affluent, although the income range is at a substantially higher amount. The data suggest that single females are better savers for their respective relative incomes. Specifically, while median income for single males is 36% higher than for single females, median net worth is only 12% higher. Income patterns over time are also similar to those for single females, with incomes peaking for single Middle Affluent males between ages 45 and 54, but continuing at a healthy level into the next decade. Incomes for single Middle Affluent males are 60% of the income for comparable married Middle Affluent households. For the single male Middle Affluent, over 76% of net worth is comprised of non-financial assets, the highest for any segment. As for single females, strategies that effectively tap financial assets will need to be supplemented with plans to deploy non-financial assets. These requirements will likely involve a broader product set to build an effective retirement solution.

SEGMENT #10: MIDDLE AFFLUENT, 65 TO 74, MARRIED HOUSEHOLDS

600,000 households comprise this segment, representing roughly 2% of the total middle income market. Other criteria defining this segment include:

Household Type:	Married
Household Head Age:	65 to 74
Median Income:	\$93,000
- Income Range:	\$81,000 to \$110,000
Est. Median Net Worth:	\$1,100,000
- Net Non-Financial Assets:	\$690,000
- Financial Assets:	\$410,000

These are the second wealthiest households of all middle income segments, as measured by net worth. They continue to earn considerable income from various sources, including part-time work, pensions, and asset-based income (though 30% lower than that for the 55 to 64 year-old, married Middle Affluent.) The composition of net worth for these households has shifted to an increased share in financial assets. (From over 68% non-financial assets for the 55 to 64 year-olds, to just over 62% for 65 to 74 year-old married Middle Affluent.) Most likely, business equity is being converted to financial assets. It is interesting to note that, as with the pattern seen for married Middle Mass households, median net worth for age 65 to 74 married Middle Affluent households actually declines as compared to 55 to 64 year-olds. As noted earlier, this decline may be attributable to the costs of having had to support children (including college expenses) and other dependents (e.g., elderly parents), and also may result from the utilization of retirement assets in the early years of retirement.

SEGMENT #11: MIDDLE AFFLUENT, 65 TO 74, SINGLE FEMALE HOUSEHOLDS

400,000 households represent this small segment of the total middle income market, representing roughly 1% of the total. The other distinctions are as follows:

Household Type:	Single
Household Head Age:	65 to 74
Median Income:	\$43,000
- Income Range:	\$33,000 to \$48,000
Est. Median Net Worth:	\$480,000
- Net Non-Financial Assets:	\$320,000
- Financial Assets:	\$160,000

Single female 65 to 74 year-old Middle Affluent households are considerably wealthier than their Middle Mass counterparts (\$43,000 in median income for Middle Affluent vs. \$18,000 for Middle Mass); however, their income levels remain at relatively modest levels and are 33% lower than the median income level for comparable 55 to 64 year-old households. Consistent with the trend seen for married 65 to 74 year-old Middle Affluent as compared to married 55 to 64 year-old Middle Affluent, as single female Middle Affluent households move into retirement, their net worth composition shows movement toward financial assets vs. non-financial assets. Specifically, only two thirds of assets are non-financial, versus approximately 72% for the comparable 55 to 64 year-old households. It should also be noted that, at the same time this shift is occurring, there is also an increase in median household net worth. Net worth increases almost 16%, from \$415,000 for single female 55 to 64 year-old Middle Affluent

households to \$480,000 for their 65 to 74 year-old counterparts.

SEGMENT #12: MIDDLE AFFLUENT, 65 TO 74, SINGLE MALE HOUSEHOLDS

The smallest of all the segments, these 200,000 households represent approximately 0.5% of the total middle income market:

Household Type:	Single
Household Head Age:	65 to 74
Median Income:	\$54,000
- Income Range:	\$46,000 to \$65,000
Est. Median Net Worth:	\$490,000
- Net Non-Financial Assets:	\$340,000
- Financial Assets:	\$150,000

As with single female 65 to 74 year-old Middle Affluent households, single male households are considerably wealthier than their Middle Mass counterparts (\$54,000 in median income for single male Middle Affluent vs. \$25,000 for Middle Mass). However, their median income is 32% lower than the median income level for comparable 55 to 64 year-old households. Also consistent with single female 65 to 74 year-old Middle Affluent households, even though incomes decline as compared to 55 to 64 year-old comparable households, median net worth continues to grow, from \$465,000 for the 55 to 64 year-olds to \$490,000 for this segment, although the increase (at 5%) is not as pronounced as for single female 65 to 74 year-old Middle Affluent.

SEGMENTATION – SUMMARY CONCLUSIONS

It is essential to fully consider the dramatic disparities in wealth accumulation and income levels that have developed over the past several decades in order to understand the differences among Middle Income market segments. In reviewing the overarching patterns across the twelve segments we find that, normalizing for age and household type, current income levels are 1.7 to 1.9 times as high and net worth is roughly 3.8 to 3.9 times as high for Middle Affluent households relative to comparable Middle Mass households. These disparities exist just among Middle Income households as defined above. Even greater disparities exist when considering “Affluent” households (the top 15% as measured by income).

In fact, it appears that pre-retirement income level is a primary determinant of both current and future overall wealth characteristics. Net worth generally accumulates until the point of retirement, at which time households deploy an asset utilization strategy to tap that net worth for income purposes. The composition of net worth also changes as households with substantial assets begin to shift dollars to financial assets and out of non-financial assets. As for income, while median levels drop for both Middle Mass and Middle Affluent households once they reach typical retirement ages, the reduction for Middle Mass households is roughly 45% versus only 35% for Middle Affluent households.

These dynamics have dramatic implications for the retirement risks and needs for each segment, and also for the potential solutions that can address those needs and risks. The Middle Affluent segments, depending on their relative spending, are likely to have the financial resources to consider a broader variety of retirement objectives and associated issues and risks. Middle Mass households will likely be focused on the core issue of funding an adequate retirement income. Middle Mass Households, in particular, will look to Social Security as a

crucial part of their retirement security. In addition to effectively deploying their assets, a likely solution may involve delayed retirement or some type of employment transition, either continuing full-time to part-time work, or a career change to a lower-paying job at retirement. Control over the timing of retirement will be a particularly important consideration for Middle Mass households.

ADDITIONAL CONSIDERATIONS - RETIREMENT ISSUES AND RISKS

A critical next step in the development of actionable retirement segments and profiles for Middle Income households is to consider additional retirement issues, risks, and needs that must be addressed. These additional considerations, in effect, develop a complete retirement profile for a particular household and for households with similar issues and risks, and provide the basis for development of additional sub-segments. The Society of Actuaries' continuing "Risks and Processes Survey Report", and also its summary of "Post Retirement Risks: Changing Needs and Resources" provide numerous insights regarding these risks.

Issues and risks are similar for many segments (in particular, most of the same issues are faced by all age 55 to 64 households, and a different set of issues is applicable for all retired households). However, optimal solutions will likely differ because each set of risks and needs has a different impact based on a given household's financial circumstances and their preferences.

The issues are best captured by considering varying levels of retirement readiness across a spectrum of risk considerations. These may stem from outcomes related to a variety of risks, including:

1. Health status and greater health care costs than planned for
2. Life expectancy - Living longer than expected / shorter than expected

3. Poor planning and unrealistic expectations, including existing risk coverage and advice
4. Inflation
5. Long-term care costs
6. Loss of employment / forced early retirement
7. Loss of or inability to find post-retirement “bridge job”
8. Failure to fully realize expected benefits from employer’s pension plan / other private pensions
9. Public policy change
10. Death of a spouse
11. Other change in marital status
12. Loss of ability to live independently
13. Unexpected needs of dependents
14. Change in housing needs
15. Financial literacy
16. Liquidity needs
17. Bequest goals and objectives

Many consumers have not focused on, or have misconceptions about, many of these risks, which makes explicit consideration of them all the more important in developing an effective retirement plan for each market segment. Among those who have focused on the risks, they may not have the tools or knowledge to deal with them effectively. The following summarizes the key considerations for each risk:

Health Status

Health status clearly has a primary impact on longevity risk and life expectancy, potential health care costs, need for health care coverage, and potential long-term care expenses. Addressing health risks is a combination of working to

maintain health status and securing appropriate health insurance coverage. While consumers' number one concern about retirement is the ability to afford health care and coverage, the explicit consideration of health status as part of the evaluation of these risks does not always occur, and even when it does, there may not be good market solutions to address needs. For people in poor health and not yet Medicare eligible, health coverage can be extremely expensive and may not be available. Health status has a significant impact on household income, wealth accumulation, and exposure to other retirement risks. It is a primary consideration in the development of an effective retirement plan. It can be an important driver in determining the age when one can afford to retire.

Life Expectancy

There is ample evidence that current retirees and pre-retirees do not fully understand the realities of life expectancy and its relationship to longevity risk. Both retirees and pre-retirees consistently underestimate their life expectancy. If they have done any planning, almost half of pre-retirees assume for financial planning purposes that they will live to a certain age, rather than recognizing the possibility of a range of ages at death.

Poor Planning

The SOA's 2007 Risks and Process of Retirement Survey indicates that both pre-retirees and retirees either have or will take significant steps in terms of eliminating consumer debt, and also increase saving, as a means of managing their finances in retirement. Unfortunately, this is not reflected in current savings rate or consumption patterns, particularly as defined contribution plans are replacing defined benefit plans. (It should be noted that some debt arises as a result of unforeseen events, such as illness, job loss, auto accidents, or storms damaging housing.) Surveys also show that retired households, in particular, downplay the importance of insurance products as a risk management tool in

retirement. Many also do not appreciate the length of time they might need resources to last, and spend without appreciating that they might be shrinking their asset base too drastically too soon. Risks include overly conservative investing, overly risky investing, and poor diversification of investments. It is important that households consider asset allocation strategies incorporating the level of fixed income sources they expect from Social Security and other pension sources.

Many households also include inadequate provision for risk coverage once in retirement status. There are several possible explanations for inadequate risk coverage including a short planning horizon, failure to focus on risk, different preferences, lack of advice and/or inappropriate advice. Obtaining appropriate advice, especially as it pertains to investment and insurance products, will be a critical activity in helping middle income households prepare for retirement. However, it should be pointed out that there is “no agreed on right answer” and advisors will differ in the solutions they recommend. The lack of agreement among experts on the right answers is one of the reasons that Phase II of this project is important.

Inflation

Consumers are aware of inflation's impact on their standard of living in retirement. Approximately 57% of retirees and 63% of pre-retirees are very or somewhat concerned about keeping up with inflation. And fully two-thirds (retirees) to three-quarters (pre-retirees) of households think inflation will have a significant impact on their retirement needs. Women express higher levels of concern than men about inflation (62% very or somewhat concerned vs. 51% for men). However, awareness of inflation does not mean that it has been planned for. There is significant evidence that many people do not understand the time value of money, and for them planning for inflation is a daunting challenge.

Long-term Healthcare Costs

Consumers cite the potential for long term healthcare costs as a primary retirement concern. In fact, 52% of retirees and 63% of pre-retirees are very or somewhat concerned that they might not have enough money to pay for a long stay in a nursing home or for a long period of nursing care at home. This is the third highest concern among pre-retirees and the second highest among retirees. In 1999, 20% of people over age 65 were functionally disabled or required some form of long-term care, which implies a much higher probability of needing long-term care services sometime during retirement (*Public Misperceptions About Retirement Security*; LIMRA International, Society of Actuaries, and Matthew Greenwald & Associates, 2005). Most long term care is provided informally by family members or friends, but many people will need care on a paid basis, at home or in an institutional setting. Medicaid is currently a major payor for such services for those without assets, but only after assets are effectively used up. One of the key questions in planning for retirement is how to evaluate whether long term care insurance should be purchased, and who should buy it, and how much. As with annuitization, there is no standard agreed upon answer to this question.

Loss of Employment / Forced Early Retirement/ No Post-Retirement Job

Recent research shows that pre-retirees expect to work beyond the age at which those now retired did. Thirty-six percent of pre-retirees expect to retire after age 65, and 28% say retirement “does not apply”. However, over half of current retirees retired prior to age 60. While there may be a desire to work later, thereby delaying retirement, the reality is that many will be forced to retire or may need to retire because of health problems, layoffs, or other employment difficulties. This is often referred to as “premature retirement risk.” One of the methods that can be used to address this risk is to keep skills up to date. This will not help in all cases, but where jobs are lost, it increases the chances of

securing another job. The Retirement Confidence Survey shows that, consistently, four out of ten retirees have stated that they retired earlier than planned.

This risk includes not only the loss of current employment but also the failure to secure an intended job once retired. Sixty-eight percent of pre-retirees expect to work in retirement, while only 32% of current retirees have actually worked after retirement. Considering that many retirees are forced to retire because of their or their spouse's or other dependent's health problems, it is likely that not all those who are planning to work in retirement will be able to do so.

Failure to fully realize expected benefits from Employer's Pension Plan / Other Private Pensions

There are several issues related to retirement planning and employer pension plans. At the simplest level, individuals often overestimate how much money they may receive from an employer defined benefit pension plan (at the same time they underestimate the importance of Social Security). Traditional plan benefits are greatest when people work until the full benefit retirement age while covered by the plan. Changing jobs earlier once benefits are vested does not mean forfeiture of benefits, but it means that the benefit earned will be based on what has been earned prior to the time of job change. It is important that these benefits be preserved for retirement use, but sometimes they are spent too early.

There are added risks when pension plans are frozen or terminated, and many companies have taken this path in the recent past. Often when a plan is frozen, it is replaced by a defined contribution plan. While it is clear that the conversion of pension plans from defined benefit to defined contribution lessens the risk for an employer, it does result in greater retirement risk being shifted to the employee. Many employers offer some grandfathering or added transition benefits to employees near retirement age at the time of freezing plans or

changing benefit formulas. When a pension plan is terminated, benefits can be paid out as lump sums, annuities purchased, or, if assets are not adequate to meet benefit obligations covered by plan guarantees, the obligation may be turned over to the Federal Pension Benefit Guarantee Corporation. If assets were inadequate to cover all plan benefits, individuals with benefits greater than the insured amount will lose some benefits. For those whose benefits are annuitized, there is a future financial solvency risk with insurers who typically issue annuity contracts in a pension plan annuity buyout. This may be covered by a state guarantee fund.

Many of today's retirees have defined benefit income today, but this will decline in the future. According to the Employee Benefit Research Institute's analysis of the U.S. Census Bureau March 2007 Current Population Survey, the percentage of males over age 50 receiving pensions or employer-based retirement annuities is as follows:

Age	Percentage Receiving Pensions and Annuities
56 - 60	14.8
61 - 64	29.5
65 - 67	37.6
68 - 70	41.3
71 - 75	47.0
76 - 79	46.6
80 +	49.6

The largest percentage of workers in the future will have assets in a defined contribution plan. While approximately 40% of private employer workers were covered by a defined benefit plan in 1983, only about 15% were covered in

2007.¹ However, the vast majority of public employer plans remain defined benefit.

Public Policy Changes

Social Security and Medicare financial soundness continue to be very important issues for the U.S. budget. Medicare issues are much more difficult than those confronting Social Security. A wide range of proposals have been discussed for many years, and some change in both programs is inevitable in the long run. There seems to be relatively little risk of major benefit changes in Social Security for current retirees and those near retirement age, but it is very unclear what the risks are for future retirees. The situation for Medicare is much less clear.

Another potential policy change that may be driven by record U.S. budget deficits is the possibility of increased taxes. The current administration has promised tax cuts to middle and lower income Americans; however, the eventual need for government revenues could result in certain types of retirement benefits requiring higher taxes.

Death of a Spouse

Death of a spouse, for both pre-retirees and retirees, is one of the most significant changes in family status, and one that has profound implications for retirement planning. Loss of income from the spouse is an obvious risk; however, for certain households, the result may be the loss of a caregiver for a dependent, or the loss of financial literacy if one spouse had been responsible for most financial issues. Surprisingly, surveys show a lack of awareness of the

¹ Approximately 46% of private sector employees participated in pension plans in 1983 and 42% in 2007 (U.S. Bureau of Labor Statistics, *Current Population Survey*). Approximately 88% participated in some

potential financial impacts of loss of a spouse. In the 2007 SOA Post-Retirement Risks survey, only approximately two in ten consumers (both pre-retirees and retirees) believe they would be worse off financially if their spouse were to die first, and only one in ten believe their spouse would be worse off if they were to die first. In fact, while some people will not be worse off financially, many will be. Women are particularly exposed to a drop in economic status in conjunction with widowhood. According to the survey report, more than four out of ten widows over age 65 have no significant income other than Social Security.

Other Changes in Marital Status

Marriage or divorce, regardless of when they occur in life, creates a need to reevaluate financial and potential retirement risks in light of the altered household characteristics. They will, by definition, have effects on both public and private benefit entitlements. A divorce will normally mean a splitting of household assets and lower household income for one or both partners. A divorce may also affect decisions about when and how to apply for Social Security benefits.

Loss of ability to live independently

An increasing number of consumers need assistance to live independently in their current housing environment. While this risk often does not entail the need for a total change in housing, it does result in the need for increased care and the expenses associated with that care. The type of assistance needed varies greatly from minimal assistance to around-the-clock care. Some situations can be partially dealt with by modifying the home environment to accommodate wheelchairs, etc. Typically brought on by illnesses, accidents, or other disabilities, the impacts of this risk on a household's financial situation are

form of defined benefit plan in 1983, but only 36% did in 2007 (U.S. Board of Governors of the Federal Reserve System, *Survey of Consumer Finances*).

significant.

Unexpected needs of dependents

Both pre-retirees and retirees have the possibility of being part of the “sandwich generation”, i.e., providing support and/or care for both younger and older dependents. Regardless of the number of dependents, changes in obligations for support of these dependents or requests for help from family members can have a significant impact on retirement planning and overall risks. Individuals who are nearing retirement age or in retirement need to ensure that they conserve assets for themselves and not jeopardize their own situation by providing too much help to family members.

Changes in housing needs

Both pre-retirees and retirees expect to remain in their own homes throughout their retirement; however, many recognize that they may have to rely on alternative housing arrangements at some point. Many people can stay in their own homes, but different homes than they lived in earlier. Issues surrounding housing include stairs, requirements for snow removal, yard work and maintenance, etc. A wide range of housing options is available and includes traditional independent free standing houses, condominiums and apartments, senior communities that offer independent living, assisted living and nursing homes. The rise of assisted living centers has raised the need to plan for these potential expenses. Interestingly, pre-retirees have higher expectations of needing housing modifications, assistance, or the need to move to a new housing environment than do current retirees. A majority of both groups increasingly see these changes as an important retirement event.

Financial Literacy

Relative understanding of financial services and insurance products is a critical consideration and differentiator in considering the level of appropriate risk and types of risk coverage for both pre-retirees and retirees. Several surveys have shown a dramatic lack of understanding of basic financial risks and products. A significant part of the population lack basic math skills. Research regarding behavioral finance also shows that people are very influenced by default options and “nudges.” There is research that finds that planning improves this understanding and, in fact, leads to higher savings and higher wealth. The evidence about whether education leads to increased action and savings is mixed, and the reality is that many households will have limited financial education as they approach retirement. Therefore, financial literacy and discipline levels will be a critical consideration in the development of a retirement plan. In the case of married couples, there are special considerations where one is knowledgeable and the other is not.

Liquidity Needs

The risk considerations outlined above lead to differing needs for choices of investments, savings and insurance products. Given the shorter time horizon for performance of investments and the need to be able to access wealth in the case of emergencies, households either in or approaching retirement are likely to have a greater need for liquidity. However, liquid assets typically offer lower returns. A careful consideration of the optimal level of liquid assets is important in developing an effective retirement plan.

Bequest Goals / Objectives

Households, both pre-retirees and retirees, have differing goals and objectives regarding leaving bequests to heirs or charities. Some households will consider

funding of these bequests as an essential expense, i.e., one as important as food, housing and transportation. Others will view a bequest as a purely discretionary expense. Funding of any bequest will occur only if all other essential and discretionary expenses have been covered. Obviously, the existence and age of dependents are likely to play a significant role in shaping a given household's bequest objectives.

DECISION PROCESSES FOR RETIREMENT

As detailed above, a given household's pre-retirement income and net worth are likely to have the most significant impact on the types of decisions it will face approaching retirement. This understanding of a given household's financial foundation must be supplemented with a full vetting of specific retirement issues and risks that result from specific household characteristics and other additional considerations, as summarized in the previous section. Specifically, a detailed understanding of assets and income (including specific types), as well as risk profiles and existing risk coverage, will be needed in order to prioritize and analyze the decisions that each household will face.

The next phase of research on Middle Income households' retirement will examine:

- The context for and appropriate decision processes used in considering retirement risks.
- Specific decision steps for development of effective retirement strategies.
- Incorporation of retirement risks into the decision-making process.
- Potential solutions that fit with each household segment and sub-segment.

CONCLUSIONS

The retirement realities of the Middle Income market will be shaped by the diverse characteristics of what many have, heretofore, considered a monolithic population. In addition to current income and wealth characteristics, today's Middle Income households will need to consider and manage a broader set of retirement issues and risks than did prior generations. Most notably, they will need to take far greater responsibility for planning their retirement. Factors they need to consider include:

- As a group, they will likely live longer than any prior generation.
- As a group, they will be healthier than prior generations, but will also have greater responsibility for their own health care and long-term care expenses. Many will experience major health costs.
- Many of them will likely stay employed in some fashion, either out of desire or necessity.
- A majority of them will not have defined benefit pensions to provide a guaranteed income stream, and more than likely not enough saved to provide the level of expenditures they have been accustomed to while employed.
- Compared to prior generations, relatively more of their wealth is in housing. For many of them, the current concentration of wealth in the form of non-financial assets will likely need to be converted to income sources.
- Social Security will continue to be very important to them.

We have identified twelve distinct segments characterized by:

- Overall wealth and income
- Age group (55 to 64, and 65 to 74), and
- Household type (married, single female, single male)

(Please note: Our original definition of the middle income market included 45 to 54 year-olds. These households represent 45% of the total 32.2 million households reviewed. As noted above, in order to provide better focus on households' financial status leading up to and subsequent to "retirement", we have narrowed the definition of our segments to 55-64 year-olds and 65-74 year-olds.)

The six Middle Mass segments (excluding 45 to 54 year-olds) represent 46% of the 32.2 million total Middle Income market households, and roughly 38% of the total net worth. Over half of these households are married, with the largest group (5.2 million) being married households aged 55 to 64. These households are likely to have relatively simple needs and a modest base of wealth from which to plan their retirement. They will need sound advice from either product providers or other financial sources in order to achieve their retirement aspirations. The 6.7 million single households will likely have a primary focus on generating sufficient retirement income and on providing for health care and other retirement contingencies. Optimal retirement solutions for Middle Mass households will incorporate specific household characteristics (e.g., health status, retirement literacy, specific retirement objectives) while maximizing the efficient use of assets and other income sources.

The six Middle Affluent market segments represents only 9% of the total Middle Income market households, but almost 28% of the total net worth. Again, over half of these households are married (1.6 million in total). These households are likely to have relatively significant amounts of net worth (\$1.1 million +) and reasonable income amounts, even in retirement. These households are likely to have the wherewithal to pursue a variety of objectives in retirement, including specifying clear objectives for bequests. The 1.4 million single Middle Affluent households will also have an adequate base of wealth from which to plan their retirement. All Middle Affluent households will expect relatively sophisticated, expert advice, and will likely consider a broader variety of potential retirement

solutions from product providers and financial advisors. Optimal retirement solutions for Middle Affluent households will also incorporate specific household characteristics (e.g., health status, retirement literacy, specific retirement objectives), but are also likely to include a specific focus on achievement of aspirational goals tied to discretionary spending (vacation homes, other retirement activities). As a result, the necessary decision-making processes for Middle Affluent households will likely have additional steps and iterations in order to achieve their retirement goals.

BIBLIOGRAPHY

- Abkemeier, Noel, Douglas J. Bennett & Brent Hamann. 2006. "Target Marketing: The Watchwords for Capturing Retirement Income Opportunities.
- American Savings Education Council & AARP. 2008. "Preparing for their Future – A Look at the Financial State of Gen X and Gen Y."
- Ameriks, John & Ren Liqian. 2008. "Generating Guaranteed Income: Understanding Income Annuities." Vanguard Investment Counseling & Research
- Babbel, David and Craig Merrill. 2007. "Investing Your Lump Sum at Retirement." Wharton Financial Institutions Center
- Behling, Ellie. 2008. "Annuity Assets Expected to Increase." Cerulli Quantitative Update: Annuities and Insurance 2008
- Bertaut, Carol and Martha Starr-McCluer. 2000 "Household Portfolios in the United States Board of Governors of the Federal Reserve System Finance and Economics Discussion Series." 2000-26.
- Bledsoe, Ryan M. and Gehard Fries. 2002. "Editing the 2001 Survey of Consumer Finances." Proceedings of the Section on Survey Research Methods, 2002 Annual Meetings of the American Statistical Association, New York
- Bucks, Brian K., Arthur B. Kennichell & Kevin B. Moore. 2006. "Recent Changes in U.S. Family Finances: Evidence from the 2001 and 2004 Survey of Consumer Finances." Federal Reserve Bulletin
- *Business Wire*. 2008. "Tax-Deferral Key to Generating Retirement Savings, Providing Additional Retirement Income."
- Castille, Chip. 2007. "Warning: Longevity May be Hazardous to Your Health." Barclays Global Investors
- Castille, Chip. 2008. "How to Deliver a One-Two Punch – Knock out asset Allocation Risk with Target-Date Funds." Barclays Global Investors
- Castille, Chip. 2008. "Reality Check. Facing the Facts about Adequate Retirement Income." Barclays Global Investors
- Chen, Peng and James X. Xiong. 2008. "Adding the Income Dimension. A New Framework Allows Advisors to Fully Examine a Portfolio's Sustainable Income Levels and the Risks of it Coming Up Short." *Morningstar Advisor*
- Cohen, Jonathan, Matthew H. Scanlan and Matthew O'Hara. 2008. "The Future Shock of Retirement." *Investment Insights. The Journal of Investing*
- Cowell, Michael, Ruth Helman, Anna Rappaport, Steven Siegel and John Turner. 2008. "2007 Risks and Process of Retirement Survey Report. Key Findings and Issues: Understanding and Managing the Risks of Retirement." Society of Actuaries
- Gale, William, J. Mark Iwry, David C. John and Lina Walker. 2008. "Increasing Annuitization in 401(k) Plans with Automatic Trial Income." The Retirement Security Project
- Gottschalck, Alfred O. 2008. "Net Worth and the Assets of Households." U.S. Census Bureau
- Greenwald, Mathew & Associates, Inc. and Employee Benefit Research Institute. 2007. "2007 Risks and Process of Retirement Survey Report of Findings." Society of Actuaries
- Greenwald, Mathew and MetLife Mature Market Institute. 2005. "The MetLife Retirement Income Decisions Study: The Silent Generation Speaks." MetLife Mature Market Institute

- Helman, Ruth, Mathew Greenwald, Jack VanDerhei, Craig Copeland. 2008. "The 2008 Retirement Confidence Survey: Americans Much More Worried About Retirement, Health Costs a Big Concern." Employee Benefit Research Institute – Issue Brief No. 316
- Hewitt. 2008. "Hewitt Study Reveals Widening Gap Between Retirement Needs and Employee Saving Behaviors." *Business Wire*
- Hounsell, Cindy. 2008. "The Female Factor 2008 – Why Women Are At Greater Financial Risk in Retirement and How Annuities Can Help." Americans for Secure Retirement
- Ibbotson Associates, Inc. 2007. "Retirement Portfolio and Variable Annuity and Guaranteed Minimum Withdrawal Benefit (VA+GMWB)."
- Idzorek, Tom. 2008. "Lifetime Asset Allocations: Methodologies for Target Maturity Funds." Ibbotson
- JPMorgan Chase & Co. 2007. "JPMorgan Asset Management White Paper Finds Critical Factors Have Been Overlooked In the Design of Some Target Date Funds."
- Kennickell, Arthur B. 2002. "Demographic Shifts in the Distribution of Wealth, 1992 to 1998: Evidence from the Survey of Consumer Finances," paper presented at the 2002 Annual Meetings of the International Association for Research in Income and Wealth
- Kennickell, Arthur B. 2003. "A Rolling Tide: Changes in the Distribution of Wealth in the U.S., 1989-2001."
- Kennickell, Arthur B. 2003. "Reordering the Darkness: Application and Effort and Unit Nonresponse in the Survey of Consumer Finances." Proceedings of the Section on Survey Research Methods, Annual Meetings of the American Statistical Association, San Francisco
- Li, Jane, Robert Del Col, Lisa Burns and Jim Graves. 2007. "A Process-Centered Approach to Retirement Income. Easy Practices for Institutions and Their Advisors." FundQuest Incorporated
- MetLife Mature Market Institute. 2007. "Highlights of the MetLife Study of Boomers: Ready to Launch."
- MetLife Mature Market Institute. 2008. "Family Matters: Retirement Preparation Tips for Different Family Types."
- MetLife Mature Market Institute. 2008. "MetLife Retirement Income 1Q Study. A Survey of Pre-Retiree Knowledge of Financial Retirement Issues."
- MetLife Mature Market Institute. 2008. "The MetLife Family Matters Study: Examining the Effect of Varying Family Structures on Retirement Planning."
- Prudential Financial's Four Pillars of Retirement Series. 2007. "Behavioral Risk in The Retirement Red Zone."
- Prudential's Four Pillars of Retirement Series. 2008. "Retirement Income: The Value of Guarantees."
- RBC Wealth Management. 2008. "Social Security Fundamentals – Guidelines for Making Well-Informed Decisions."
- Smith, Paul, David Love and Lucy McNair. 2007. "Do Households Have Enough Wealth for Retirement?" Social Science Research Network
- Society of Actuaries. 2007. "Post-Retirement Risks: Changing Needs & Reserves."
- Sondergeld, Eric. 2003. "Retirement Planning Software."
- Sun Life Financial – Perspectives Retirement Lifestyles. 2007. "The Expense Reality – What Lessons Pre-Retirees Can Draw From the Experiences of Today's Retiree"

- The Urban Institute. 2008. "Retirement Security."
- U.S. Census Bureau. 2008. "American Fact Finder: American Community Survey."
- U.S. Census Bureau. 2006. "America's Families and Living Arrangements."
- VanDerhei, Jack. 2006. "Measuring Retirement Income Adequacy: Calculating Realistic Income Replacement Rates." Employee Benefit Research Institute – Issue Brief No. 297
- Winograd, Bernard and Christine Marcks. 2008. "The Future of Retirement in the United States." Prudential's Four Pillars of Retirement Series

APPENDICES

A: Treatment of Asset and Income Values - Survey of Consumer Finances

The income and asset values shown in this report are based on the Federal Reserve Board's Survey of Consumer Finances, 2004. The following table shows how key items are treated and value, i.e. what is included and excluded from the values:

	Treatment in income	Treatment in assets	Comments
Social Security	Included once benefits are claimed; at reported income amounts	No value is included	Note that in some other research, values of future Social Security benefits are estimated and included in retirement assets; some studies using HRS data
DB Pensions	Included once benefits are claimed if paid in the form of life or certain income	No value is included for future pension payments; If benefits are paid as lump sum, they are included in assets after payment	Note that in some other research, values of future pension benefits are estimated and included in retirement assets; e.g. some studies using HRS data

	Treatment in income	Treatment in assets	Comments
Financial investments	Dividends and interest included in income	Asset values included	Note that capital gains are not reflected in income, but instead increase asset values
Housing values	None	Current value based on net equity in primary residence and other property	Changes in values are not reflected in income, but change asset values
Tax deferred investments	Required minimum distributions are included as income	Current value	No adjustment is made for future taxes due

B: Household Distribution Tables

Household Financial Information by Age, and Marital Status-- Source: Federal Reserve Bank Survey of Consumer Finances (2004), U.S. Census Bureau

*In Thousands of Dollars

Category	Age of head	Mean	Median	Percentiles														
				50th	55th	60th	65th	70th	75th	80th	85th	90th	92.5th	95th	96th	97.5th	98th	99th
Income	45-54	94.40	61.10	61.18	68.70	77.49	87.54	99.66	114.54	133.98	160.82	202.37	234.08	283.84	313.70	381.52	418.83	525.92
	55-64	100.30	54.40	54.49	62.53	72.00	83.40	97.19	114.66	138.03	171.31	224.18	267.70	335.92	380.39	474.10	520.00	704.45
	65-74	59.60	33.30	33.35	38.17	43.80	50.48	58.80	68.98	82.49	101.85	132.54	157.51	197.22	221.30	274.85	307.93	420.07
	75 or more	40.90	23.70	23.75	27.02	30.84	35.45	41.01	48.03	57.10	69.99	90.48	106.72	133.40	148.83	184.50	204.43	272.23
Net Worth	45-54	542.70	144.70	145.01	177.66	218.49	270.79	340.00	433.06	567.26	777.85	1,151.98	1,497.39	2,091.72	2,469.40	3,477.34	4,016.82	6,212.91
	55-64	843.80	248.70	249.22	301.87	369.32	453.97	564.39	711.41	925.02	1,255.56	1,841.01	2,342.54	3,239.07	3,799.21	5,287.97	6,079.45	9,256.08
	65-74	690.90	190.10	190.54	232.69	285.26	352.95	440.51	559.67	732.98	1,001.53	1,483.73	1,916.91	2,630.99	3,154.59	4,331.50	5,122.04	7,591.13
	75 or more	528.10	163.10	163.47	198.39	240.73	293.21	363.45	457.84	589.99	794.91	1,162.51	1,476.14	2,023.98	2,368.03	3,270.30	3,749.93	5,663.60
Financial Assets	45-54	227.70	38.60	38.78	49.06	62.23	79.90	103.80	137.29	188.38	271.09	431.53	578.65	853.30	1,027.58	1,506.75	1,832.29	3,015.88
	55-64	387.60	78.00	78.19	97.65	122.63	155.48	199.53	261.06	350.65	498.29	772.41	1,024.65	1,479.03	1,776.72	2,580.08	3,013.18	4,835.85
	65-74	334.70	36.10	36.27	47.24	61.63	81.48	109.62	149.53	213.45	322.16	538.25	742.75	1,156.01	1,426.04	2,197.34	2,727.17	4,780.30
	75 or more	250.70	38.80	38.98	49.57	63.30	81.75	107.15	142.48	198.12	289.38	458.54	625.28	924.01	1,137.76	1,700.22	2,018.53	3,339.02
Non-financial Assets	45-54	468.10	184.50	185.02	219.34	260.18	312.06	377.23	462.12	579.67	756.89	1,054.35	1,312.95	1,739.21	2,005.42	2,620.42	3,026.07	4,218.77
	55-64	606.20	226.30	226.88	269.81	322.12	388.49	472.35	583.19	735.43	966.86	1,364.17	1,706.10	2,259.62	2,638.73	3,503.58	3,957.26	5,770.39
	65-74	424.20	161.10	161.51	191.67	229.84	274.49	334.17	410.77	519.55	680.93	956.45	1,193.24	1,576.61	1,838.61	2,432.12	2,740.33	3,971.48
	75 or more	329.70	137.10	137.43	161.96	191.95	228.44	274.94	333.83	417.90	541.05	747.19	922.25	1,196.37	1,389.89	1,802.71	2,072.83	2,866.35
Any Assets	45-54	667.70	234.90	235.51	281.69	338.43	409.37	500.57	622.41	792.65	1,045.26	1,490.34	1,878.39	2,497.50	2,941.75	3,918.12	4,552.64	6,515.59
	55-64	954.30	351.20	352.32	419.10	502.03	604.39	736.57	909.40	1,153.83	1,511.51	2,139.81	2,685.19	3,562.22	4,167.84	5,548.40	6,274.77	9,176.57
	65-74	732.20	233.20	233.85	282.80	341.50	416.87	514.35	646.40	832.49	1,118.09	1,606.82	2,051.25	2,802.34	3,278.28	4,507.75	5,173.59	7,791.33
	75 or more	552.00	185.20	185.70	223.22	269.42	327.25	401.90	501.64	642.13	856.27	1,229.60	1,545.83	2,096.74	2,436.22	3,329.01	3,794.46	5,646.12
Debt	45-54	128.80	83.20	83.32	93.62	105.33	119.01	135.86	156.35	182.83	219.10	276.11	319.89	387.68	427.20	519.02	562.14	717.64
	55-64	113.60	48.00	48.10	56.67	66.95	79.82	95.61	116.29	144.27	187.17	259.91	317.75	410.96	480.00	626.38	701.59	1,005.48
	65-74	64.20	25.00	25.06	29.68	35.53	42.44	51.43	63.19	79.38	104.11	144.74	180.69	238.52	278.02	375.06	421.35	599.40
	75 or more	54.00	15.40	15.45	18.82	23.00	28.36	35.29	44.75	58.43	79.37	117.48	150.11	205.66	245.71	345.00	402.70	599.40

B: Household Distribution Tables

*In Thousands of Dollars

Income by Category	Age of head	Mean	Median	50th	55th	60th	65th	70th	75th	Percentiles									
										80th	85th	90th	92.5th	95th	96th	97.5th	98th	99th	
Type of Household:																			
Family household																			
Married																			
	45 to 54 years	107.29	89.02	89.09	96.06	103.85	112.52	122.50	134.39	148.85	167.36	194.55	214.46	242.54	257.73	293.64	309.58	365.33	
	55 to 64 years	94.09	74.53	74.60	81.27	88.57	96.90	106.60	118.06	132.35	151.17	178.71	198.74	228.87	245.51	283.52	301.43	362.69	
	65 years and over	53.77	37.13	37.20	41.39	46.22	51.72	58.36	66.38	76.65	90.70	111.71	127.42	152.83	166.89	199.84	215.42	271.26	
	65 to 74 years	65.42	45.17	45.25	50.37	56.23	63.07	70.94	80.88	93.23	110.14	136.02	155.83	185.96	203.26	243.56	262.96	331.39	
	75 years and over	42.21	31.15	31.19	34.36	37.96	42.10	46.92	52.64	60.11	69.88	84.67	95.46	112.02	121.56	142.79	154.16	189.99	
Male householder																			
	45 to 54 years	76.26	63.00	63.07	68.09	73.71	79.95	87.12	95.41	105.97	119.40	138.84	153.20	173.98	185.42	211.23	223.33	264.11	
	55 to 64 years	66.87	52.75	52.79	57.53	62.81	68.73	75.73	84.00	94.21	107.68	127.50	141.80	163.22	176.06	201.98	216.74	257.24	
	65 years and over	38.22	26.28	26.31	29.30	32.71	36.60	41.38	47.13	54.42	64.62	79.71	91.48	109.04	119.41	142.75	153.02	195.77	
	65 to 74 years	46.50	31.96	32.00	35.66	39.87	44.63	50.27	57.44	66.28	78.44	96.87	111.01	132.69	144.86	173.08	188.79	233.05	
	75 years and over	30.00	22.04	22.07	24.34	26.91	29.85	33.22	37.45	42.73	49.81	60.47	67.91	80.24	86.71	102.63	109.03	133.31	
Female householder, not married																			
	45 to 54 years	52.69	41.30	41.36	45.17	49.31	54.03	59.60	66.17	74.40	85.18	101.00	112.50	130.05	139.63	161.40	171.08	205.77	
	55 to 64 years	46.20	34.58	34.62	38.06	41.96	46.41	51.49	57.78	65.70	76.21	91.84	103.35	120.68	131.00	153.54	164.21	201.05	
	65 years and over	26.41	17.23	17.26	19.35	21.77	24.59	28.01	32.10	37.51	44.95	56.28	65.32	78.85	86.45	105.09	114.24	146.70	
	65 to 74 years	32.13	20.95	20.98	23.54	26.50	29.94	33.97	39.10	45.65	54.58	68.34	79.33	95.68	105.37	127.28	139.51	177.49	
	75 years and over	20.73	14.45	14.47	16.10	17.92	20.05	22.55	25.62	29.55	34.87	43.09	49.30	58.39	64.36	76.68	83.01	104.01	
Nonfamily household																			
Male householder																			
	45 to 54 years	60.66	45.88	45.95	50.43	55.54	61.20	67.90	75.99	86.07	99.55	119.40	134.40	156.61	168.78	197.54	210.58	257.37	
	55 to 64 years	53.19	38.41	38.47	42.52	47.15	52.41	58.70	66.23	75.81	88.61	107.99	122.40	144.25	157.50	186.45	200.39	249.02	
	65 years and over	30.40	19.14	19.16	21.62	24.42	27.78	31.68	36.62	43.03	51.72	65.77	76.55	92.56	103.06	125.43	137.77	177.21	
	65 to 74 years	36.99	23.28	23.31	26.28	29.71	33.70	38.56	44.56	52.26	63.13	80.27	92.45	113.02	124.94	151.77	167.25	216.00	
	75 years and over	23.87	16.05	16.08	17.98	20.14	22.62	25.61	29.27	33.97	40.45	50.36	57.82	69.00	76.52	90.91	100.00	126.25	
Female householder																			
	45 to 54 years	43.96	30.57	30.61	34.04	37.94	42.48	47.81	54.31	62.66	74.04	91.26	104.11	123.74	135.75	161.98	174.29	218.30	
	55 to 64 years	38.55	25.59	25.64	28.68	32.18	36.20	41.15	47.14	54.81	65.49	81.87	93.80	113.07	124.29	149.44	163.62	208.24	
	65 years and over	22.03	12.75	12.77	14.54	16.64	19.12	22.07	25.90	30.86	37.72	48.79	57.83	71.27	80.11	100.00	108.27	140.38	
	65 to 74 years	26.81	15.51	15.54	17.69	20.21	23.23	26.86	31.40	37.42	45.90	59.40	70.24	86.24	96.73	118.44	131.33	175.16	
	75 years and over	17.30	10.70	10.72	12.13	13.72	15.60	17.89	20.66	24.38	29.57	37.62	44.02	53.26	59.81	73.18	80.73	104.38	