Retirement planning guidelines: a Delphi study of financial planners and educators

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Abstract

Retirement planning guidelines were determined using a Delphi research design among 188 financial planners and educators. Consensus was found for using a 4% inflation rate, an 8.5% rate of return on investments, and a replacement ratio of 70–89% of current income when making retirement projections. Nine-tenths of the experts agreed that families should have achieved 50–60% of their retirement savings goal by age 50 and 85–90% by age 60. Regarding asset allocation, over 60% felt it was prudent to start moving toward more conservative investments about 3–5 years before retirement. Recommendations were developed on the proportion of growth-oriented equities to hold at various points prior to and after retiring. While the level of consensus was high, occupational and gender differences were noted. © 2001 Elsevier Science Inc. All rights reserved.

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1. Introduction

The convergence of several demographic and economic trends have created great interest among the financial community and the general population alike in planning for that period of life called retirement. The vast numbers of aging baby boomers and longer retirement periods due to increased longevity have raised questions about financial preparedness for retirement and the survival of the Social Security system. In addition, employment issues that affect the value of retirement plans such as corporate downsizing and the growing use of defined contribution plans rather than defined benefit plans (Employee Benefit Research Institute [EBRI], 2000a) have increasingly shifted responsibility for financial well-being in retirement from employers to individuals and families.

The past two decades have produced a tremendous proliferation of financial publications, programs, software/web sites, and advisors eager to provide investors with financial information and services. Retirement planning has been a key area of emphasis for the relatively new profession of financial planners. According to the Certified Financial Planner Board of Standards (1999), 85% of those people who engage the services of a financial planner seek professional assistance because they want help with retirement planning. In addition, many institutions of higher education are now offering degree and certificate programs for students interested in pursuing careers in this growing field. At the end of 2000, 122 colleges and universities offer 169 programs that are registered by the CFP Board, allowing students of these programs to take the CFP™ Certification Exam that includes retirement planning as one of the major topics (CFP Board of Standards, 2000). Starting with the November 2001 exam, a target 18% of this exam will test retirement knowledge. Other universities and programs offer studies and certifications for financial planners and human resource professionals that are focused even more specifically on retirement issues.

The importance of retirement planning for the well-being of families and individuals as well as for the economy and society, coupled with the growth of the financial advisory and educational establishment, provide fertile research questions. Interestingly, numerous studies have looked at whether or not individuals are financially prepared for retirement, but the financial community has just started to seriously question the meaning of the term "retirement." Based on Census data, (Hobbs & Damon, 1996), the average retirement age has dropped from 67 to 62 over the last decade and could go as low as age 60. But there is strong survey and antidotal evidence that retirement does not equal "quit working" for a large portion of the population (National Center for Women and Retirement Research, 2000). Gustman, Mitchell and Steinmeier (1995) report that there is no consensus in the literature regarding the definition of retirement. If we do not understand what retirement means to individuals, how can we judge whether the population is financially prepared? This one issue underscores the importance of gathering information, both qualitative information such as goals and risk tolerances and quantitative data, before completing a capital needs analysis to determine what clients need to do in order to successfully meet their retirement goals.

While there are various methods of computing retirement needs for families and individuals, these models are based on a common set of assumptions:

- Retirement age
- Inflation rate
- Rate of return on investments before and after retirement
- Tax bracket before and after retirement
- Life expectancy
- Level of annual expenditures required during retirement

These assumptions are incorporated into models used by financial planners, computer calculators, and software programs to assess the required savings needed to meet one's retirement goals. The actual assumptions made regarding inflation and investment rates, retirement age, longevity, and the cost of living during retirement make a very large difference in determining how much must be saved to meet a retirement goal. For example, an individual whose projected retirement needs are $50,000 annually in today's dollars will need to save about $15,800 annually assuming 1) no current retirement assets, 2) 30 years to save until retirement, 3) 20 years of retirement, 4) 9% return on investments before and after retirement, and 5) 4% inflation before and after retirement. The annual savings requirement drops about 50% to approximately $7,950 by just raising the investment return to 10% and dropping the inflation rate to 3%.

Based on the importance of these assumptions, this research asks several questions previous studies have not addressed. Are there basic retirement planning guidelines that financial planners and educators tend to recommend in their work? How much agreement or consensus exists regarding these guidelines? Can a consensus be developed by facilitating communication between planners and educators? This research effort was embarked upon in an effort to find answers to these questions.

2. Review of the literature

There is much research interest in how well Americans are preparing for the future. For example, a Retirement Confidence Survey (RCS) designed to monitor savings, investing, and planning behaviors and attitudes among a representative sample of U.S. workers has been conducted annually during the last ten years. Even with the robust economy the past few years, the 2000 RCS reported that retirement confidence in the U.S. had remained virtually unchanged. Although 26% of the workers were very confident and 47% were somewhat confident about having adequate resources to live comfortably in retirement, the RCS researchers feared that some of this confidence might be overstated or based on false hopes given some of their other research findings. The majority of respondents able to provide a number reported having less than $50,000 accumulated for retirement with almost one-fourth having less than $10,000, and only 16% reported having $100,000 or more accumulated in total retirement funds. Results using the survey's Retirement Readiness Rating instrument indicated that approximately 30% of the respondents scored in the poor or very poor ranges with regard to preparedness (Employee Benefit Research Institute, 2000b).

Other research has documented similar negative results regarding retirement preparation, especially among members of the baby-boom generation. An econometric model using accumulations and allocations constructed by Kotlikoff and Auerbach (1994) projected that

baby boomers were not saving at a rate that would allow them to maintain their preretirement level of consumption after retiring, concluding that the baby boomers' financial preparation was poor. Mitchell and Moore (1998) reported that the median married couple at age 55 owned financial assets, excluding their pension plan, of only $73,000 and that this level of savings was insufficient to fund 20 years or more of retirement expenses at preretirement living standards. Concern over the lack of participation in 401(k) plans was noted by Bassett, Fleming, and Rodrigues (1998) who reported that over one-third of employees eligible to participate declined to do so.

Not all research has reached such negative conclusions. Studies by Easterlin, Schaeffer and Macunovich (1993) and the Congressional Budget Office (1993) concluded that baby boomers would generally be better off in retirement than their parents, and the American Association of Retired Persons (1994) concluded that baby boomers would be better off in retirement than the elderly had been in 1990. Each of these studies cautioned that there would be unevenness in the financial well-being of baby boomers during retirement with certain subgroups being less well off than current retirees or their parents.

In studies more related to the assumptions used in the capital needs analysis, researchers including England (1988), Palmer (1994), and McGill, Brown, Haley, and Schieber (1996) have focused on replacement rates or the ratio of income required to provide retirement living expenses divided by preretirement income. Rates vary depending on the components and sophistication in measurement but range from 55 to 80%. The replacement rates recommended for lower income individuals and families are higher than those who are more affluent. Replacement ratios are often used in a retirement needs analysis in lieu of more accurate expenditure data.

In a significant evaluation of retirement needs assumptions, Tacchino and Saltzman (1999) challenged the presumption that expenditures are constant throughout the retirement years. They present evidence that individuals continue to save during the early years of retirement and that spending patterns voluntarily decline over the retirement period. They suggest that retirement needs analyses should incorporate this information into the models to avoid overstating the amount required to meet one's retirement goals.

Work has also been done in the area of retirement age and asset allocation before and during retirement. Recent work by Montalto, Yuh, and Hanna (2000) indicates that planned retirement age increases as people get older, reinforcing the need to revisit the retirement needs analysis periodically. Others have investigated the relative importance of various factors (e.g., Social Security, pensions, and health status) that might affect retirement age (Samwick, 1998; Uccello, 1998).

A large body of literature exists regarding the relationship between asset allocation and investment time horizon. Some of this work supports the strategy generally offered by financial practitioners that longer investment horizons should be associated with more equities while shorter investment horizons require larger portions of fixed income products (Bierman, 1997; Bodie, Merton, & Samuelson, 1992; Butler & Domian, 1991; Thaler & Williamson, 1994; Thorley, 1995). However, several papers by Samuelson (1989, 1990, 1994) and Kritzman (1994) indicate that asset allocation for an individual should be independent of time horizon. Bierman (1998) and Olsen and Khaki (1998) present evidence that supports either increasing or decreasing equity positions with changing time horizons,

while Levy and Gunthorpe (1993) and Hodges, Taylor, and Yoder (1997) argue that equities should consume a smaller position in one's portfolio as time horizons increase.

While a body of research does exist regarding replacement ratios, retirement age, and asset allocation that can be applied to the analysis of retirement needs, the literature does not address the other assumptions included in the capital needs model. In addition, the existing research on asset allocation leaves much uncertainty. Therefore, this paper will explore the guidelines financial planners use and financial educators recommend in addition to other important retirement planning considerations, goals that may conflict with successful retirement planning, guidelines for meeting retirement needs, and asset allocation guidelines.

3. Objectives and methodology

The major objectives of this research study were:

(1) To ascertain retirement planning considerations and guidelines from a panel of financial experts comprised of both planners and educators
(2) To determine if a consensus of opinion existed or could be established regarding these considerations and guidelines
(3) To determine what differences in opinions might exist between occupational and gender subgroups in the panel of experts

Although it is important to acknowledge that guidelines should be reviewed in terms of the contextual situation including such factors as economic conditions, personal goals, and the individual's or family's financial status and life-cycle stage, this research sought to determine baseline norms for retirement planning issues through a consensus-developing process. This study was part of a broader project whose goal was to identify and refine a set of benchmarks and ratios for assessing financial well-being. Funding for the project was provided by a small grant from the CFP Board.

The study utilized a Delphi research methodology whereby a panel of experts was queried in a sequential set of mailed-out questionnaires designed to facilitate consensus-building. The Delphi process, as described by Linstone and Turoff (1975), is a way of focusing and organizing communication among individuals such "that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem" (p. 3). A conventional Delphi study according to Linstone and Turoff is described as follows:

> A small monitor team designs a questionnaire which is sent to a larger respondent group. After the questionnaire is returned, the monitor team summarizes the results and, based upon the results, develops a new questionnaire for the responding group. The respondent group is usually given at least one opportunity to reevaluate its original answers based upon examination of the group response (p. 5).

The Delphi methodology is attributed to the Rand Corporation where it was developed in the 1950s to study defense-oriented issues. Although this method has not been used in financial planning research, variants of the methodology have since been applied to complex problems in a relatively wide array of disciplines.

In the present study, a three-person research team of personal finance educators, who are

also all CFP™ certificants, identified financial guidelines and recommendations from existing educational and research literature. Their findings were then reviewed by an advisory committee comprised of five CFP™ practitioners and one additional university educator with an interest in financial planning. The advisory committee also reviewed and had input regarding the sampling technique and research design proposed for the study.

Invitations were extended to 400 financial planners randomly selected from a national listing of CFP™ professionals and 340 financial educators selected from the membership of the Association for Financial Counseling and Planning Educators (AFCPE) in 1994 asking them to participate in the project. Both practitioners and educators were included in the sample because of the importance of industry involvement in professional education. Since educators train students to work in industry, it is important that educators and practitioners agree upon the basic concepts that define a profession. While there could be overlap between the CFP™ certificants who are largely practitioners and AFCPE members who are primarily university educators, it was quite small. An initial acceptance rate of 38% was achieved with 122 financial planners and 159 educators agreeing to participate.

In keeping with the Delphi protocol, four separate mailed questionnaires distributed over several months were sent to these participants. Round One featured an open-ended questionnaire that asked for input from the expert panel regarding the following 20 financial concepts identified in the literature:

- Diversification between and within investment types
- Asset allocation appropriate for life cycle stage and goals
- Extent and adequacy of regular savings/investing program
- Cash reserves and liquidity
- Exposure to insolvency
- Debt safety level
- Housing expense relative to income level
- Tax burden
- Inflation protection
- Frequency of financial review
- Specificity of financial goals
- Progress toward goal attainment
- Adequacy of life insurance coverage
- Adequacy of disability insurance coverage
- Adequacy of property insurance coverage
- Protection from liability exposure
- Adequacy of medical insurance coverage
- Adequacy of long-term care coverage
- Adequacy of retirement planning given life cycle stage and goals
- Adequacy of estate planning

Participants were asked to list factors they felt were important in assessing the financial well-being of individuals and families for each of these areas.

Based on the open-ended responses from Round One, the research team developed two separate closed-end questionnaires that comprised Round Two. The decision to split Round

Two into two halves was made in order to keep the questionnaire length short enough to encourage participation. Results from Round Two, where there was not a general consensus, were then summarized by the research team and reported back to the participants on the Round Three questionnaire. In accordance with the recommended protocol for the Delphi method, this allowed the participants an opportunity to reevaluate their answers based on the group results. In Round Three, the participants were asked to rate their level of agreement with summary statements that had emerged from Round Two results on a 5-point Likert scale where 1 = definitely do not agree, 2 = do not agree, 3 = uncertain, 4 = agree, and 5 = strongly agree. These scaled responses allowed differences to be tested between the occupational and gender subgroups.

In the analyses of the data, we used Exploratory Factor Analysis and ANOVAs for continuous variables and Frequencies and chi-square to handle categorical variables. Comparisons of means and frequencies were based for the most part on gender and occupations. Separate exploratory factor analyses were performed on the responses to two sets of items. The intention was to determine whether there were global concepts (Tabachnick & Fidell, 1996) that might be embedded within each set of items that might be identified for future research endeavors. In Round Two, participants rated the "importance of factors to consider when planning for retirement," which contained 13 items and the "likelihood of goals being perceived as more important than (therefore, in conflict with) retirement planning for the typical family," which contained six items. In both analyses, we used a Principal Components extraction method with Varimax rotation. These analyses were performed on ratings made by the participants on 5-point Likert scales. When frequency information is reported from the ratings on the Likert scales, percentages may be reported in a truncated manner in terms of the percentages of participants who agreed, disagreed, and were uncertain. However, the means and medians reported in this paper from the Likert scales reflect all five response categories.

Findings from 188 participants who responded to retirement questions in Round Two and/or Round Three of the study are reported in this paper. Of the 188 respondents, 113 (60%) were educators and 75 (40%) were planners. There were more males than females, 55% versus 45%, respectively. A significant relationship between gender and occupation existed in the sample with planners predominantly being male (77%) and educators predominantly being female (59%) [χ^2 (1, N = 188) = 25.71, p < .000]. There was also a significant difference in the educational level of the two occupational subgroups. As might be expected, the planners were more likely to have received bachelor degrees whereas the educators were more likely to have received advanced degrees, particularly at the doctoral level [χ^2 (5, N = 188) = 49.74, p < .000].

4. Research findings

4.1. Retirement planning considerations

In Round Two, the panel of experts was asked to rate the importance of a number of factors to consider when planning for retirement on a 5-point Likert scale where 1 = very

Table 1
Important considerations when planning for retirement

Consideration	Top Three Frequency	Mean Rating*	Median Rating	Modal Rating
Available income sources	103	4.7	5	5
Availability of a vested pension plan	88	4.6	5	5
Availability of tax-deferred plans	64	4.4	4	4
Availability of employer matching for building retirement funds	46	4.4	5	5
Availability of profit-sharing plan	19	4.3	4	4
Need to meet other conflicting goals (especially children's education)	41	4.1	4	4
Eligibility for social security	31	4.0	4	4
Past job stability and changes	17	3.8	4	4
Potential to continue working on a part-time basis	12	3.6	4	4
Need to change career	3	3.4	3	3
Potential for a life insurance buy-out	0	3.0	3	3
Potential for receiving an inheritance	4	3.0	4	3
Potential for use of reverse mortgage	1	2.8	3	3

* Rating scale: 1 = very important, 2 = unimportant, 3 = uncertain, 4 = important, 5 = very important.

unimportant, 2 = unimportant, 3 = uncertain, 4 = important, and 5 = very important. The list of considerations was developed from responses given to an open-ended question asked in Round One. The mean, median and modal ratings for these considerations are presented in Table 1. In addition to rating each, the participants were asked to identify the three considerations that they believed were most important overall. The frequency with which each consideration was listed in the top three is also included in Table 1. The factors that were considered as most important to the panel of experts were available income sources, availability of a vested pension plan, availability of tax-deferred plans, and availability of employer matching for building retirement funds.

An exploratory factor analysis was performed on the ratings of the above considerations when planning for retirement to determine whether there were any global concepts among the 13 items. In the initial analysis, three factors were observed with Eigen values that exceeded 1.0. Factor loadings are presented in Table 2. Factor 1, which was named "Availability of Income Sources," had an Eigen value of 3.9 and explained 30% of the variance. This factor included the following retirement considerations: availability of profit sharing plan, vested pension plan, tax-deferred plans, employer matching, and income sources. The mean rating for Factor 1 was 4.5 on the 5-point Likert scale for importance. The mean ratings on this factor differed significantly ($p < .01$) by gender with higher importance assigned to this component by women than men. The second factor, which was named "Needs and Changes," had an Eigen value of 1.4 and explained 11% of the variance. Factor 2 was comprised of career change needs, past job stability/changes, and conflicting goals. The mean rating of the overall panel was 3.8 on this factor with women again assigning significantly ($p < .05$) higher importance than men to these retirement considerations. The third factor was a weak one, having an Eigen value of 0.7 and explaining only 5% of the

Table 2
Component loadings of retirement planning considerations

Considerations	Factor 1 Availability of Income Sources	Factor 2 Needs & Changes	Factor 3 Potential Resources
Availability of:			
Profit-sharing plan	.80	.10	.01
Vested pension plan	.76	.15	.10
Tax-deferred plan	.73	.13	.11
Employer matching funds	.69	.34	.10
Income sources	.59	.15	.13
Need to change careers	.11	.88	.29
Past job stability/changes	.24	.49	.15
Need to meet other conflicting goals	.32	.46	.14
Potential for:			
Reverse mortgage usage	.01	−.04	.62
Life-insurance buyout	−.05	.23	.62
Part-time employment	.19	.28	.53
Social security eligibility	.29	.13	.40
Inheritance availability	.10	.15	.38
Eigen value	3.9	1.4	0.7
% of variance	30.0	11.1	5.0

variance. This factor was named "Potential Resources" and included the following retirement considerations: reverse mortgages, insurance buyouts, part-time employment, social security eligibility, and inheritances. The mean rating on Factor 3 on the overall panel was 3.3. In this case, the mean rating was significantly ($p < .05$) higher for educators than planners.

4.2. Conflicting goals

In Round Two, respondents were asked to rate other goals on the likelihood that they might be perceived as more important than retirement planning for the typical family. Again a 5-point scale was used with 1 = very unlikely, 2 = unlikely, 3 = uncertain, 4 = likely, and 5 = very likely. The mean ratings of the panel for these goals are presented in Table 3. Children's education received the highest mean rating, indicating it was perceived as the most likely goal to conflict with retirement planning. The other goal with a relatively high

Table 3
Other goals that potentially conflict with retirement planning

Goal	Mean Rating*	Median	Mode
College education for children	4.5	5	5
Maintenance of current standard of living	4.3	4	4
Better house or second home	3.7	4	4
Vacation and travel	3.6	4	4
Resources to change career	3.3	3	3
Estate preservation	3.0	3	3

  * Rating scale: 1 = very unlikely, 2 = unlikely, 3 = uncertain, 4 = likely, 5 = very likely.

probability of negatively impacting retirement planning was maintenance of current living standards. When the ratings for these goals where factor analyzed, two factors emerged. These two factors were named "Maintaining the Good Life" and "Future Security." The first one had an Eigen value of 1.5 and explained 26% of the variance. This "Good Life" factor included the following goals: vacations and travel, better house or second home, and maintenance of current living standard. The mean rating on this factor for the overall panel of experts was 3.9. The "Future Security" factor had an Eigen value of only 0.8 and explained 13% of the variance. The goals included in this factor included the need to change careers, preserve one's estate, and pay for children's college education. This factor's mean was 3.6 for the entire panel, with educators rating this factor significantly ($p < .05$) higher than planners.

4.3. Retirement needs assumptions

Two key planning assumptions used in retirement needs analyses are the expected rates of inflation and investment return. When asked about the appropriate rate of inflation to use for retirement planning, Round Two respondents reported a range of 2–10% with the mean being 4.3%. The most common response was 4% inflation, indicated by 35% of the respondents. Slightly less than one-fourth of the experts said 5%, while 14% said 3% inflation. When asked how they decided on the rate to use, almost seven-tenths of the participants said they used an average rate over time as their assumed inflation rate for retirement planning. One-fourth indicated they used their client's preference, and 6% said they used the current rate of inflation.

In Round Three, the participants were asked to rate their agreement on a 5-point Likert scale with the following two statements:

(1) The rate of inflation used for retirement planning should be based on an average rate of inflation over time.
(2) Four percentage is currently an appropriate rate of inflation to use in retirement planning projections.

The mean ratings for these two statements were 4.3 and 3.8, respectively. Approximately nine-tenths of the experts agreed with the first statement, while 4% disagreed, and 6% were uncertain. Although the mean rating was lower for the second statement, almost three-fourths of the participants agreed at some level with this statement; 12% disagreed and 15% were uncertain. Based on long-term inflation data from Ibbotson Associates (2000), participants were consistent in their responses. Over the period from 1926 to 1999, inflation has averaged 3% annually; however, the most recent 20-year period has averaged 4% annually. Looking at 20-year rolling periods starting with 1960, there are several that produce average annual rates of inflation of 5–6%.

Regarding expected investment returns, the recommended rate for retirement planning reported in Round Two ranged from 2 to 12% with both the median and modal responses being 8%. When asked how the investment rate of return was determined, respondents said that this rate was based on factors such as the historical rate of return; the type of assets in a portfolio; client preferences, risk tolerances, and timeframe; inflation; and taxes. In Round

Three, the panel of experts overwhelmingly agreed (94%) that inflation and taxes should be considered when projecting investment return for retirement planning purposes, resulting in a mean rating of 4.5 on the 5-point scale. There was a similar percentage (95%) who agreed that the investment rate of return used in retirement planning should be based on client preferences, risk tolerance, and time frame as well as on the historical rate of return on assets in the client's portfolio; the mean rating on this statement was also 4.5. Only 2% of the experts disagreed with these two planning assumptions.

In Round Three, the mean annual rate of investment return deemed appropriate for retirement planning purposes before inflation and taxes are taken into account was 8.5% for overall investments. This was a little higher than the comparable mean in Round Two. For specific asset classes, the means in Round Three were 4.3% for cash equivalents, 10.4% for stocks, 7.1% for bonds, and 6.9% for real estate. The rate of return thought to be appropriate for cash equivalents differed significantly ($p < .05$) between the two occupational groups. In this case, the difference between planners and educators was qualified by interaction between gender and occupation with female educators reporting higher return rates than either male or female planners.

Ibbotson Associates (2000) data provide benchmark returns for three of the above asset classes. Between 1926 and 1999 large company stocks, long-term corporate bonds, and U.S. treasury bills (cash) averaged annual returns of 13%, 6%, and 4%, respectively. Over the most recent 20 years, annual returns for all three asset classes have been higher than over the longer term at 18%, 11%, and 7%, respectively.

4.4. Guidelines for meeting retirement income needs

In Round Two, over one-half (56%) of the experts reported that they recommended a percentage of current expenses to estimate postretirement needs. The mean reported for this benchmark was 74% with the median being 75%. Because there were a number of low percentages reported, the research team decided to reask this question in Round Three using a closed-end format. The majority of the experts (81%) felt that amounts ranging from 70 to 89% of current expenses were useful in estimating postretirement needs. A few more of the experts selected 70–79% rather than 80–89% of expenses—42% and 39% of the experts, respectively.

According to Round Two participants, the mean percentages of retirement needs the typical individual/family should have achieved by various ages were as follows: at age 30, 18%; at age 40, 37%; at age 50, 59%; at age 60, 85%; at age 65, 96%; and at age 70, 99%. All of these means were significantly ($p < .001$) different from each other. The percentage of total needs recommended for retirement by age 70 differed significantly ($p < .05$) by gender with the men's responses averaging 100% and the women's averaging 96%, respectively.

Based on the Round Two responses, four benchmarks regarding the percentage of overall retirement savings that should be achieved by certain preretirement age levels were developed. These were included in the Round Three questionnaire for the experts to rate in terms of their agreement. The mean ratings and distribution of agreement, disagreement, and uncertainty regarding these recommended benchmarks are presented in Table 4. The major-

Table 4
Level of agreement with recommended retirement savings goals by age

Recommended Guideline	Mean Rating*	% of Experts Responding		
		Agree	Uncertain	Disagree
By age 60, individuals/families should have achieved 85–90% of their retirement savings goal	4.4	94	4	2
By age 50, individuals/families should have achieved 50–60% of their retirement savings goal	4.2	90	7	3
By age 40, individuals/families should have achieved 30–40% of their retirement savings goal	3.9	78	18	4
By age 30, individuals/families should have achieved 10–20% of their retirement savings goal	3.7	68	15	17

* Rating scale: 1 = definitely do not agree, 2 = do not agree, 3 = uncertain, 4 = agree, 5 = strongly agree.

ity of the experts agreed with each of these benchmarks. As might be expected, there was less consensus among the experts regarding the percentage of retirement savings that should be achieved at younger ages than at older ages. More than nine-tenths of the experts agreed with the benchmarks for 50 and 60 year old individuals while approximately two-thirds agreed with the benchmark for 30-year old individuals.

4.5. Timing and asset allocations guidelines

In Round Two, respondents were asked when they thought it was prudent for the average preretiree to begin moving their investments to more conservative investments as they approached their planned retirement target date. The frequency of the panel's responses were as follows: never, 21%; one year before retirement, 5%; three years before retirement, 27%; five years before retirement, 34%; seven years before retirement, 7%; and ten years before retirement, 6%. This indicated that over six-tenths of the participants thought it was prudent to move toward more conservative investments about three-to-five years before retirement. However, over one-fifth thought it was never prudent to do this. There was a significant ($p <$ .001) difference between the occupational groups on this matter with educators recommending an earlier move to conservative investments than planners.

In Round Two, the participants were also asked what percentage of assets they thought should be placed in growth-oriented equities based on an individual's proximity to retirement acknowledging that norms would need to be adjusted based on factors such as a person's risk tolerance and income needs. The mean percentages of assets in growth-oriented equities recommended by the panel based on proximity to retirement were as follows: 15 years before retirement, 69%; 10 years before, 62%; 5 years before, 51%; at retirement, 40%; 5 years after retirement, 33%; 10 years after, 28%; and 15 years after, 25%. Significant differences based on occupation existed for the recommended levels both for 10 years and 15 years after retirement. In both cases, planners recommended higher mean percentages in growth-oriented equities than the educators.

When the panel of experts was asked in Round Three to indicate their level of agreement with whether the declining pattern of growth-oriented investments specified in the previous

paragraph was appropriate for preretirees and retirees, the mean response was 3.4 on the 5-point scale. There was a significant ($p < .05$) difference between the means of the occupational groups on this issue with planners expressing less agreement than educators. When asked what percentage of investments should be kept in growth-oriented investments during retirement, the mean percentage recommended by the panel of experts was 31% with the median being 25%. There was again a significant ($p < .01$) difference in the means based on occupation with the planners recommending 36% and the educators recommending 26%.

The panel did not generally agree with the advice that an investor should maintain stock holdings in his/her portfolio equal to "100 minus his/her age." The mean rating on this statement was 2.7 with only 29% agreeing with this statement. Almost one-half (45%) disagreed with this often-quoted rule of thumb and more than one-fourth (26%) were uncertain. Planners rated this piece of advice significantly ($p < .05$) lower on the 5-point scale than did the educators.

5. Summary and conclusions

This study determined that there was a relatively high level of consensus among the financial experts regarding general retirement planning guidelines. There was more agreement on the guidelines for planning assumptions and meeting retirement needs than about timing and asset allocation. A strong consensus was found for using a 4% inflation rate, a 8.5% rate of return on investments, and a replacement ratio of 70–89% of current income when making retirement projections. Over nine-tenths of the experts agreed that individuals and families should have achieved 50–60% of their retirement savings goal by age 50 and 85–90% by age 60. Although the majority (60%) of the experts agreed that it was prudent to start moving portfolio holdings toward more conservative investments about 3–5 years before retirement, the planners recommended that the repositioning occur in closer proximity to retirement than the educators. Planners also recommended that a significantly higher proportion of growth-oriented assets be held during retirement than educators. There were few differences in the study's findings based on the gender of the experts.

In conclusion, this project has contributed new knowledge and information that should be incorporated into the curriculum and educational materials designed for retirement education programs and personal finance classes. As with much research, the results of this project raised as many questions for future research as it provided answers. On the guidelines where there was a high level of agreement, it would be useful to know how the advice stacks up against the reality of what families and individuals are actually doing. For example, it would be interesting to determine how many 50-years olds have actually achieved 50–60% of their retirement savings goal or how many retirees currently hold growth-oriented equities in the recommended proportions suggested by the panel. Furthermore, it would be of value to find out what guidelines people tend to have in their heads regarding retirement planning and how well these match up with those of the experts.

Acknowledgments

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