



Life Expectancy Analysis: Estate Planning Tool of the Future Is Here Now

Insight into a client's specific life expectancy provides an estate planner with an invaluable key to figuring out what tool or technique or combination will be most appropriate and most suitable for *that* particular client.

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"Estate Planning is the accumulation, conservation, and distribution of an estate in the manner that most efficiently and effectively accomplishes a client's objectives."¹ Yet, in the past planners had a difficult, if not impossible task of quantifying and measuring an *actual* client's needs at death or retirement because they had no realistic way of measuring *when* death was likely to occur or, stated another way, how long a client was likely to live. Life expectancy is one of the single most important assumptions practitioners must use in the creation of plans—and yet for any *specific* client—we haven't a modicum of training or experience as to how to arrive at a reasonable estimation of that number.

What good are all the online or commercially available calculators and estate planning software packages (even the famed *Number-Cruncher*), if the key assump-

tion and input that planners are starting with is incorrect? Until recently, it's all been guesswork. We've never known or checked or had good reason to believe that the actual mortalities of our clients will in any way approximate the mortality assumptions we've used (which were all too often almost—when it comes to an *individual* client—"pulled out of the air").

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What if ...

How would *your* planning—and the tools and techniques you use, or the way you use them—differ if you could determine, within a narrow range of years, how long *your* client would live? What if you had a tool that would provide you with a customized longevity report that cost-effectively evaluated the medical information for a *specific* client—say, Mr. X who is age 64.7 years—and could assess a median life expectancy² at age 78.4 (i.e., a life expectancy of 13.7 years)?

What changes in planning would you make if you knew that your client's life expectancy was, say, 31% shorter than the median life expectancy for an "average individual" of your client's age and gender? Could you plan better for longevity risk if you could more accurately define it? What risk mitigation strategies would you use if you could eliminate the guessing as to a given client's life expectancy? Would the ability to better

ascertain a client's expected longevity enhance your ability to demonstrate (and if necessary defend) the needs analysis you have performed and the suitability of your recommendations? Would third-party expert input as to life expectancy help fulfill your duty of care and add credibility and assurance to your recommendations?

How would it help your *client* to understand the urgency and significance of action and preparation if he or she knew his or her *specific* life expectancy? If clients could see and understand their longevity odds, could they make better decisions with regard to the choice of financial tools and techniques? What if the report also highlighted the medical factors that could have a positive or negative impact on a client's longevity curve, i.e., what positive change in behavior³ could help to *extend* his or her life expectancy (and perhaps enhance life *quality*); would that information help the client make better life choices?

All these things are not only currently possible; they are now available to professionals and their clients on a cost-efficient and time-sensitive basis. The short-hand term being used for the process is Life Expectancy Analysis ("L.E.")⁴

What an L.E. is

An L.E. is a scientific assessment of expected life span based on the medical and family history as well as personal lifestyle and social habits of a *specific* client. It is a combination of medical information and actuarial and statistical analysis designed to assess the relevance and significance of risk associated with various impairments and translate that into meaningful life expectancy numbers. Life expectancies,⁵ typically done on clients age 60 or older,⁶ are generated by assessing these three major factors and correlating the findings

with actuarially-generated mortality tables.

The life expectancy analysis process involves a sensitive weighing of dozens (and in more sophisticated analysis, hundreds) of data points which are translated into debits and credits which then are used to ascertain how a specific client's life expectancy is likely to play out in terms of a median (e.g., years and months) and how it will differ—if at all—from other similar age and gender lives.

Typically performed by professionals with experience in life and health underwriting, the L.E. has been used in the past mainly for the life settlement community to help investors represented by life settlement companies determine potential payback/profit likelihood scenarios. But today, L.E.s have become a unique and invaluable tool for estate planners in a multiplicity of situations.

The L.E. report, while varying in format from company to company,⁷ typically provides information⁸ that depends in level of detail upon the price paid for the report and the mortality-based transactional purpose for which it is to be used. For estate and financial planning purposes, it will typically be sufficient to obtain a mortality rating which compares the individual's life expectancy to a cohort⁹ of similar persons and provides an expectancy estimate and gives a percentage (e.g., 85%) spread of probability of dying sooner or living longer than that given number of years.

How does it work?

The L.E. report, while varying in format from company to company in general will work like this:

- As a preliminary, information about a client's functional status and medical, family, and

personal history must be gathered.¹⁰ That information can be collected by the life expectancy company itself¹¹ or by a comprehensive phone interview with the client, and/or by obtaining what are called APSs (Attending Physician Statements) or APQs (Attending Physician Questionnaires) from doctors, a clinic, or hospital.¹²

- Data is immediately verified with respect to Social Security number and date of birth.
- A medical "abstractor"¹³ pre-screens, reviews and highlights the medical record using a proprietary underwriting manual, and forwards findings and the records to an underwriter. The abstractor confirms both that the data is current and that the records are for the correct person. Pertinent records, diagnostic test results, and clinical records are highlighted based on underwriting manual guidelines.
- The abstractor supplies the underwriter with a worksheet containing the "debts and credits" culled from the records as well as comments.
- The underwriter will then focus on those problems most likely to affect survival. Among the facts typically examined are the individual's gender and build (i.e., height and weight), family medical history (father, mother, siblings, and children), "social habits" (tobacco, alcohol, drugs, and level of exercise and social activity and travel), cardio, cerebro, and peripheral vascular issues, pulmonary problems, renal and genitourinary, gastrointestinal, hematological, cancer, neurological/psychiatric, orthopedic/rheumatologic, autoimmune, disorders of thinking

and emotion, and others.

Emphasis is placed on what is likely to cause the individual to die sooner rather than later.

- At 21st Services which I visited (there are five major L.E. providers: 21st, Fasano, AVS, EMSI and ISC Services), unlike some others in the field, the underwriting process involves a proprietary “rules-based”¹⁴ underwriting system. The underwriter fills out a “lead sheet,” a nine-page work paper based on his or her findings in the medical records. After the review in the next step, the items noted on that lead sheet are entered into a computer-based debit/credit underwriting model.
- The records and worksheet are re-reviewed by a team leader or other senior underwriter (or if the work was done by a senior level underwriter, it is signed off by that person).¹⁵ Regular and random audits are also performed at all levels.
- Debits and credits are at this point entered into the software program which will generate a final result.
- Ratings are assigned. Generally 100% mortality is a standard rating. “Standard” means that the individual has no significant problems and that he or she will likely survive to the age which most persons of the same gender, age, and smoking status will attain. A lower percent mortality means the person is likely to survive a longer period. A higher percent mortality means the person is likely to survive a shorter time.¹⁶
- One L.E. company, to ensure accuracy, objectivity and consistency, uses a proprietary diagnostic system capable of analyzing and quantifying

more than 200 data points.

The debits and credits are applied against the mortality tables to produce a mortality multiplier and mortality curve. The interplay between medical conditions¹⁷ and how various debits and credits drive the mortality multiplier may be built into system logic along with features such as the erosion of debits and credits¹⁸ over time (“age-based debiting”), the impact of time elapsed since onset of a condition (“elapsed time debiting”), mortality credits, co-morbidity logic, and debits and credits impacted by functionality.

- A Life Expectancy report is then issued which will show mortality as a median life expectancy and in some cases also note the percentile of probability of those dying before and after that median. The report will also verify the subject of the L.E., list the key factors that comprised the basis for the L.E., state the median L.E., and in some cases provide a mortality curve reaching out until all the persons in the client’s cohort are presumed to have died.
- The L.E. company will then scan and electronically archive the complete file for permanent storage.

Behind the scenes of this carefully managed and cross-checked process in at least one L.E. company is a Medical Advisory Board, composed of nationally and internationally-renowned physicians who are board certified in the disciplines of geriatrics, oncology, nephrology, cardiology, neurology, endocrinology, and infectious diseases. Some of the members of this board also have expertise in public health and epidemiology within their fields.

This enables the L.E. company to draw on their knowledge of, and experience with, the cutting-edge research and treatments in their respective fields which can be essential in calculating expected longevity. These authorities are used to help the L.E. company better understand and incorporate—from over 200 possible impairments or gradations of impairments—the latest predictive relevance of each. L.E. companies also have close working associations with actuarial consultants with a strong knowledge of mortality statistics.

How an L. E. differs from making assumptions from a life expectancy table. The table in Exhibit 1 is based on four government mortality tables¹⁹ and on an actual L.E. performed by one of the leading L.E. companies. It compares key estimations based on a general population with—in the column on the far right—an analysis of the life expectancy of a specific individual age 64.7. (The input for the four government life expectancy tables was age 65.)

The table in Exhibit 1 illustrates first that the expectancy for a *specific* individual can (and often will) vary *considerably* from any estimation from a general population pool.²⁰ The government’s annuity table, for instance, shows a person age 65 can be expected to live another 21 years—to age 86. But based on the actual person’s L.E., he could expect to live only another 13.7 years—to age 78.4. Second, planners should note that for retirement planning, Social Security purposes, and many other needs, use of any of the government’s tables, although convenient and readily accessible, would have yielded what is likely to be a very wrong place from which to start planning for this particular client.

Life expectancy analysis now practical!

The state of the art²¹ is just that, art. It is not certain. But it is customized, based on the latest and previously unavailable scientific data and on advanced statistical analysis. In short, it's a *much* better starting point to begin the assumptions underlying any estate planning product, tool, or technique based on or affected by a client's longevity. L.E. companies are now providing such reports in considerable detail to planners for around \$400.²²

Why not get it for free? It is true that there are several "longevity calculators" that can be found online and quickly completed. These calculators are easy to use, and in fact entertaining. But from a professional advisor's viewpoint, the essential question must be, "*How accurate, reliable, and credible are these calculators in predicting a client's life expectancy?*"

Try them and spreadsheet the results. You will find that the answers will be far from even approaching consistency of results. Life expectancies may vary by a decade or more! The reasons for such variability are obvious:²³

- The calculators do not use the same parameters for making the estimates.
- Although they all include some lifestyle modalities, they don't all use the same ones.²⁴
- It is not clear how various factors are weighted, but it's likely that they are not all weighted the same.
- Most importantly, universally lacking is an input for *detailed medical history*. The medical questions asked are superficial.

Furthermore, there is no "trapping" factor that filters out a self-serving or wish-fulfilling answer. For instance, if a person subcon-

siously wanted to obtain a report which generates a *longer* life expectancy, it would be relatively easy to fool the calculator and enter responses that will generate a longer lifespan.²⁵ (One calculator even generates "applause" when a "healthy" answer is given.) In fact, it's easy to do a "do-over," and keep doing-over until one gets what is felt to be a "desirable" longevity prediction.

It's also easy to respond to a different calculator and go with the one that gives the most desirable result. So there is a lack of both professional detailed analysis and rigorous objectivity. The result is worse than meaningless as a guide to planning and certainly not defensible. Absent scientifically reviewed information about a specific calculator's accuracy, it can only be regarded by an estate planning professional as entertainment and marketing rather than as the basis for taking estate planning actions and implementing tools and techniques related to a person's specific longevity.

Lifestyle,²⁶ diet, safety measures, wealth and income, and mental and physical activity level are all very important in predicting longevity.²⁷ But without a thorough and professional evaluation and analysis of documented medical facts,²⁸ the single most important basis for a life expectancy determination is absent.²⁹

How knowledge of life expectancy affects the tools and techniques of estate planning

When a person lives *longer* than expected, a situation termed "longevity risk" is created that will affect many of the tools and techniques of estate planning. When a person dies *prior* to expected survival, that event is called "mortality risk." Death *earlier* than anticipated is also a major estate planning problem. Both longevity and mortality risk must be

understood and anticipated to the extent possible by estate planners, and an L.E. is an important step in the selection and use of appropriate tools, techniques, and strategies.

As you read the questions below, think of how much more accurate, appropriate, and defensible your responses and how much more effective the tools, techniques, and strategies you implement would be *if* you had an L.E. for your client.

Retirement planning.

- "Will my client's wealth last as long as my client?"
- "How much money will my client need at retirement?"
- "How long will that money have to last?"
- "When should my client start taking Social Security benefits?" (Should my client start taking Social Security *before* full retirement age?)³⁰
- "Should my client be considering an annuity?"
- "Should my client insist that his/her agent investigate a substandard annuity and can an L.E. help to bargain for a better rate or higher income?"
- "When should my client start making withdrawals from an annuity or qualified plan or IRA?"
- "Should my client take a lump sum rather than annuity payments from the retirement plan?"
- "Should I recommend my client retire (earlier) (later) knowing his/her life expectancy?"
- "Can my client afford to (afford not to) make significant charitable gifts now?"
- "Is the concept of 'pension maximization' a viable consideration in my client's situation?"

EXHIBIT 1 Life Expectancies

	Sec. 1.401(a)(9) (2002)	90 CM (1990)	80CNSMT (1980)	Sec. 1.72 (1983)	21 st Services*
Additional Life Expectancy (Years)	21	17.2	16.5	20	13.7
Age at Expectancy	86	82.2	81.5	85.5	78.4

* The author wishes to acknowledge 21st Services (www.21stpartners.com) who generously provided me with a customized comprehensive evaluation and walked me through the entire life expectancy process. 21st is one of several companies that provide life expectancy evaluations to investment institutions. Life expectancy estimates have been provided mainly by five major underwriter firms (the other well-known L.E. companies are AVS, Fasano, EMSI, and ISC), but newer firms have recently entered the market.

- “If my client has to go into a nursing home,³¹ what terms—based on *his/her* life expectancy—are reasonable, and at what point do the economics no longer make sense?”
- “Should my client’s relatively short life expectancy be viewed positively as a signal (‘permission’?) to use more income/capital currently?”
- “Should my client’s money be invested in securities with maturities that more closely match his/her lifespan probabilities?”

Life insurance planning.

- “Should my client be converting his term insurance to some type of permanent coverage?”
- “Should the conversion be done now or at some later date?”
- “Should my client who has health problems purchase credit life insurance at the time he/she is applying for a loan/mortgage?”³²
- “Should my client, who has health problems, buy all the association/group term coverage possible?”

- “Should a term policy be cancelled and a second-to-die policy be obtained?”
- “Does my client’s (short) (long) life expectancy indicate the desirability/appropriateness of a different type of insurance policy/portfolio?”
- “Should my client be purchasing term or permanent coverage?”
- “Should my client buy the life insurance he’s contemplating—even though he’ll have to pay a rating?”
- “How should I react—when my client asks me to plan for her to live to age X?”

Long-term care planning.

- “Is there a realistic need for long-term care insurance, i.e., how likely is my client to live to an age where protecting assets for the survivor of a couple and/or for future generations is important?”
- “How much money is my client likely to need—based on his probable life expectancy?”

Life settlement planning.

- “Should my client ‘hold’ (retain) or ‘fold’ (get rid of)

currently owned life insurance?”³³

- “What is the impact on the hold-fold decision if the client’s life expectancy was much (shorter) (longer) than he thought?”

Financial planning.

- “Taking into consideration my client’s life expectancy, is his/her portfolio properly balanced for income/growth?”
- “Should my client be making shorter term higher income-producing investments?”

Estate planning.

- “Given my client’s (short) (long) life expectancy, how time-critical is it to draft the documents, get them signed, and otherwise complete the contemplated plan?”
- “What changes should be made in the plan knowing how (short) (long) my client is likely to live?”
- “How long will assets in a trust have to last to provide for an adult child? A spouse?”
- “Over how many years is an estate likely to appreciate during my client’s lifetime—and

how large is the estate (and estate tax burden) likely to be?”

- “What is the likelihood that my client will survive the term of the grantor retained annuity trust (‘GRAT’) or qualified personal residence trust (‘QPRT’) I am setting up?”
- “What is the viability of a self-canceling installment note (‘SCIN’) or private annuity in the light of my client’s probable life expectancy?”
- “What are the economics of a life estate? Remainder interest? Annuity interest?”
- “Should my client accelerate a gift-giving program?”

Charitable planning.

- “Would a gift annuity make sense for my client?”
- “How much payback can my client anticipate from a charitable remainder annuity trust (‘CRAT’) or charitable remainder unitrust (‘CRUT’)?”

Buy-sell planning.

- “How should I structure this buy-sell and what logical assumptions about the survivorship of the owners should I make in drafting it?”

Divorce planning.

- “Is the split-up of pension assets entirely unfair to one of the parties?” (Is the longevity assumed grossly misleading so that the actuarial calculations improperly divide assets?)³⁴

How accurate will the L.E. be?

How close will the L.E. be to reality in a given case? Remember, the L.E. is more guideline than gospel. As to the accuracy in a *specific* person’s situation, a number of factors must be considered. First, the L.E. business is in its relative infancy,³⁵ with most companies having less

than 15 years experience so it is impossible to really know with certainty how accurate any of the companies are.³⁶ There is essentially no long-term track record upon which to check. Second, the data base upon which conclusions are drawn is relatively small. (However, at least one L.E. company is continually expanding beyond its own data and incorporating the results of rapidly growing external sources such as publicly available government source information such as Social Security or Medicare.)

Third, to date, the major clients of L.E. companies have been life settlement companies and what they want to know is how soon the client will die³⁷ (and for their investors, the sooner the better). Skeptics and cynics will ask the question, “Will results be skewed by the natural tendency to tell buyers of the service what they want to hear?”³⁸ Others may question if a “fudge factor” is built in to protect the L.E. company. It is important to recognize that there are several L.E. competitors and if one company’s numbers are significantly out of line with others—and prove to be consistently wrong—that company would quickly be abandoned by the highly sophisticated profit-oriented life settlement companies who use more than one L.E. (typically at least two or three on every case) as well as by the other parties who use them over time.

The key, however, beyond an actuarially sound approach to gathering and interpreting highly complex medical and other personal information on the subject of the L.E. is that the L.E. company’s ethics, integrity, objectivity, and systematic bias safeguards will all play a significant part in how the final numbers are determined and how accurate they will be. Furthermore, it is to be expected that an accurate prediction with respect to any

one life is much more difficult and less likely than a prediction using a large number of lives (i.e., the “law of large numbers”)—which of course is what both life insurers and life settlement companies base their financial analysis on.

And finally, an L.E. is not static, i.e., medical treatments and medical technology and consumer education can change. A person’s environmental health conditions can change. An L.E. that is “accurate” today may not be accurate three years from now.³⁹ So estate planning professionals using L.E.s must understand both their outstanding potential and their limitations.

Where can I find more information on a specific L. E. company?

L.E. providers may have significant disclosure/reporting obligations in the states in which they operate. An L.E. provider may be required to register and provide detailed information about various aspects of their business. These reports are public information, and can be obtained from the state insurance department.

Florida is an example of a state that requires L.E. providers to submit detailed registration statements about the entity’s structure, personnel, operations and methodology, including a review of historical data as well as an assessment of the company’s performance in life expectancy modeling.⁴⁰ Unregistered life expectancy providers cannot be used in Florida, regardless of an individual’s state of residence. Here is a snapshot of the kind of information that can be gleaned from an L.E. provider’s registration statement in Florida:

- Organizational documents, certificate of status, by-laws.
- Business plan operations, anti-fraud plan, location of books and records.

- Detailed biographical affidavit on management and ownership.
- Information on “agreements” to provide L.E.s to providers and/or brokers.
- Certified audit by nationally recognized actuarial firm of all life expectancies for the previous five years.⁴¹

How will the client react to ‘knowing when’?

Will clients want to know *their* life expectancy? The availability of an L.E. is such a relatively new phenomenon. To my knowledge, there are no studies on how people will react. But from personal experience, I can say that the *anticipation* of the knowledge accelerates the heart and that, having read the report, the L.E. becomes a hard to ignore or forget “anchor number” that—even though enveloped in a range and couched in terms of probability—keenly focuses the mind.

People are likely to accept the “good” (“bad”) news and interpret, react to, and assimilate the bottom lines of an L.E. (and to thoughts of and discussions on death) the way they have lived their lives up to that point.⁴² There will be fear (or relief or perhaps disbelief or shock⁴³ or joy), conscious (and subconscious) reaction. For some, it will be the incentive (excuse?) to exercise choices that will increase their happiness and productivity, and

accelerate the giving and sharing they’ve been putting off. Some will see it as information they *need* to know—even if it is, perhaps, information they didn’t *want* to know. Some will say they *like* to know things. The bottom line is that this information will be assimilated by different clients in differing ways over differing periods of time.⁴⁴

An important—if not major—factor in client reaction will be the knowledge and sensitivity and training (or lack thereof) of the planning professional. Working with clients, practitioners must use this new tool and the knowledge it brings in a caring and careful way.⁴⁵

Conclusion

There is now a better way to do what estate planners do. Insight into a client’s specific life expectancy provides a planning professional with an invaluable key to figuring out what tool or technique or combination will be most appropriate and what techniques will be the most suitable for *that* particular client. The great value of an L.E. is in how it is applied, integrated, and used on a client’s behalf in a customized manner. Using an L.E. will make better decisions possible and enable a plan to be better tailored—and more credible to the client—than ever before possible. Furthermore, an L.E. will give the client information that may help move him, her, or them beyond denial and

into realizing the extent of a planning problem and the urgency of action.

What questions would you ask a client and what would you recommend to your client if you could know “when”? A client who has vocally expressed complaints of aches and pains over the course of a professional relationship may be on the positive side of the life expectancy curve and live far *beyond* the average person’s expected life span. Conversely, many clients in *seemingly* good health are far *below* the standard curve for life expectancy—and will not survive anywhere near either the average or the hoped for length of life. But without an L.E., neither the planner nor the client has any way of knowing or planning for it.

Better and more complete information leads to better decisions—in some cases *much* better decisions. Obtaining an L.E. may not be quite as good as a crystal ball—it can’t predict a client’s exact date of death—but it may be the next best thing. Certainly, it is a reality tool leading to a more accurate starting point than has ever previously been available and is one that no sophisticated estate/eldercare/charitable/trust/divorce planner can now afford to ignore! ■

- 1 Leimberg, *Tools and Techniques of Estate Planning* (14th edition, National Underwriter Company). The author thanks Jeff Pennell and James Magner for their comments and insight.
- 2 Median life expectancy is the point at which half of a group of individuals with a given client's same health profile would still be living. It is an average rather than a prediction. It is based on a pool of people of an actual client's age and gender.
- 3 The leading causes of death in the U.S. in descending order of occurrence are heart disease, cancer, stroke, accidents, and diabetes Mellitus. To some extent, changes in behavior, life style, and proper medication can affect all of these. The quality of health care, level of physical and mental activity, nutrition, and exercise can in some instances vastly expand life expectancy. For instance, a person with hypertension or high blood pressure can increase life expectancy by increasing physical activity and making dietary changes such as eating more fruits, vegetables, and low-fat dairy products and by decreasing fats, red meats, sweets, and sodium—as well as by increasing the frequency of medical intervention and maintaining the proper medical treatment. People who have a family history of longevity, lead a vigorous lifestyle, and demonstrate excellent exercise tolerance generally tend to live longer than their peers. Some studies show that people of higher net worth in certain geographic locations who have better access to both health care and health care education are likely to live longer. The credibility and weight given to those studies is likely to vary from company to company (and perhaps even from underwriter to underwriter in some companies). To date, most L.E. companies have been doing analysis on mainly high net worth individuals. This, of course, will now be “fine-tuned” as the demand for L.E. information increases beyond the traditional ages.
- 4 Some also call this life expectancy evaluation.
- 5 According to Paul A. Seigert, President and CEO, Insurance Studies Institute and co-author of the *Tools and Techniques of Life Settlement Planning*, “Life expectancy” (“L.E.”) is an actuarial calculation and is best represented in formulaic form. An LE is a determination of the average future lifetime of someone currently at age x , and is typically denoted by the symbol e_x . In formula form, life expectancy is:

$$e_x = \sum_{t=1}^{\infty} t p_x + .5$$

where $t p_x$ is the probability of living from age x to age $x+t$, and includes calculations through the end of the assumed mortality table (age $x=\infty$), which is some age greater than 100 for all recent tables. Another way of viewing the life expectancy is this: if 1,000 people were alive at age x , then roughly half of them would still be alive at their life expectancy, or age $x + e_x$, or roughly half would also have died. While this is a reasonable analogy—a 50/50 chance to live to one's life expectancy—the theoretical calculation does differ from this by a few months due to the actual shape of the mortality curve so that slightly more than 50% of a population will typically die before their life expectancy is reached. This is particularly noticeable for older ages and/or mortality assessed with impairment ratings. See “Mortality Considerations and Their Effect on Portfolio Valuations,” March, 2008, by Ed Mohoric, FSA, MAAA and Robert O. Kinney, M.D., FLMI.

- 6 Some companies are going as low as age

40 in certain cases, but most currently concentrate on the senior ages. It is likely, however, that L.E. companies will be going lower in age as planning professionals learn more about their services and demand for their products increases.

- 7 It is quite possible for different L.E. companies to report significantly different (months or even years) expectancies (longer or shorter) due to (1) missed or absent data, (2) differing interpretation of medical examination results, (3) differing determination of the severity of a person's illness, and (4) differences in the presumptions of the actuarial impacts of various medical problems, i.e., in the conversion of rated debits to months of life expectancy.
- 8 Although most L.E. companies focus on older (age 65 and up) individuals, a few will now do evaluations on individuals younger than 60.
- 9 As used here, a cohort is a group of subjects of the same age studied from a statistical/demographic characteristic viewpoint, i.e., their health and mortality.
- 10 Records generally will preferably be current within one year from the date of review. Five years of medical records are generally obtained. The client's “initial intake” and history and physical performed when a person initially visits a new doctor are studied in detail as are social habits such as alcohol and tobacco use. The L.E. company will want more comprehensive and older information on “events” such as a heart attack or diagnosis of cancer.
- 11 The process can start, depending on the life expectancy company, by fax, overnight carrier, mail, or over the Internet. Not all life settlement companies will offer individual services to noninstitutional sources.
- 12 Medical Records Information Form and Authorizations for Disclosure of Protected Health Information (“HIPPA”) must be obtained.
- 13 An abstractor is a person with insurance underwriting experience or a person with medical expertise, such as a fourth-year medical student, nurse, physician's assistant, or in some cases medical doctors.
- 14 “Rules-based” means that the underwriting system is designed to grade every medical disease in the same manner in order to achieve a high degree of objectivity and repeatability, i.e., the system will evaluate and rate everyone with a given impairment profile in a consistent manner. This should be compared with a “subjective overlay” approach where the underwriter's individual judgment will much more greatly affect the bottom line (but may differ widely from underwriter to underwriter and possibly from case to case). (I am not suggesting or making a value judgment on either approach.)
- 15 Some underwriters will have clearance to sign off on their own work in limited circumstances, based on the size and complexity of the records. Otherwise, without clearance, underwriters will pass their work onto a Senior Underwriter, the Chief Underwriting Officer, Medical Director, or Underwriting Manager for final review.
- 16 Dr. Barry Reed, co-author of *Tools and Techniques of Life Settlement Planning* (to be published late in 2008 by The National Underwriter Company).
- 17 There is a concept known as “co-morbid” conditions (e.g., a person has a history of both coronary and diabetic conditions) which together have an impact on longevity that is likely to be greater than the sum of the two individually, i.e., the death rates are higher when there is a combination of these two con-

ditions. In other words, the person's risk profile “accumulates.”

- 18 According to Dr. Barry Reed in *Tools and Techniques of Life Settlement Planning*, “The final sum of the credits and debits is linked to the percent mortality which allows for calculating survival of different ages, genders and smoking status based on all medical problems identified. Persons who are sicker are assigned more debits. Credits are assigned for problems which have been minimized. Examples are well controlled uncomplicated diabetics or a person who has coronary artery disease but who has had coronary artery bypass surgery or an angioplasty.” Some individuals, due to their typical relative affluence, better nutrition, high quality health care, and other positive characteristics, often live longer than previously actuarially projected.
- 19 Figures courtesy of NumberCruncher Software (www.leimberg.com).
- 20 According to reports from The New York Times, The National Center for Health Statistics puts the average American life expectancy at 77.8 years. However, gender, race, health, genetics, lifestyle choices, and even socioeconomic status will have a great impact on the reality in a *specific* situation.
- 21 A life expectancy estimate is just that, an estimate and cannot and does not represent that a given individual will die on or near a projected date. It should be taken more as guidance than as gospel. It merely establishes a client-specific date and range of probability of death. For instance, the report might show, based on the population of a group with a medical profile identical to the client, the likely life expectancy curve of the client as compared to the standard curve and show that the expectancy for 85% of the people with a profile identical to the specific client is between the ages of 69 and 87 and that the median life expectancy for the client is 78.4.
- 22 The most comprehensive analysis performed by 21st Services, for example, is currently \$400. Its least expensive is in the \$100 range. Most companies' L.E.s run from \$300 to \$750.
- 23 Dr. Charlotte Lee, Medical Director for 21st Services.
- 24 A few take into account one's engagement in activities such as teeth flossing while others consider such safety issues as using seat belts.
- 25 It is important that no documented medical history be ignored, regardless of whether it will lengthen or shorten a person's LE. The goal should not be either “long” or “short” but rather to be as accurate as possible given the relatively young state of the life expectancy art.
- 26 “Yes, I know there are sites where one can enter such information as how many beers you drink, whether you smoke, how fat you are, that you drive your car without the seat belt buckled...But I have a variety of medical conditions and can't seem to find any expectancy information.” Reader comment quoted by columnist Scott Burns, Boston Globe (12/1/07).
- 27 It's also important to ask how lifestyle factors affect the ultimate life expectancy prediction or how valid they are in drawing conclusions about the long-term impact of these behaviors.
- 28 One online calculator never asked if the individual taking the “test” had been diagnosed with cancer or some other such serious life shortening factor. It's unlikely that any of these online models are based on any sound evidence or any model of multiple variable analysis that puts all the factors together with the proper weight given to each (and to combinations of issues). Nor is it probable that any are based on any substantial real data.

- 29 However, online lifespan calculators do have some benefit for the client personally, that of creating more awareness of the importance of health and lifestyle. For example, someone who has never had a cholesterol check before might be prompted (scared?) into a medical check-up and analysis. Certainly, online calculators drive home the undisputed (except perhaps by tobacco companies) fact that smoking is a major factor in shortening life expectancy—if in no other way than by asking the question, “Do you smoke?” Likewise, online calculators that ask about seatbelt usage remind users of the importance of buckling up.
- 30 Full retirement age (“FRA”) is 65 for persons born before 1938, gradually increasing to 67 for those born in 1960 and later. Early retirement results in a reduced Social Security benefit. The question is, will that monthly reduction in amount be more than offset by the additional years of benefits—if the client dies at age 70, or even age 75? On the other hand, suppose the probability is that the client’s death will not occur until after age 80 or 85. The longer the expected lifespan, the more it makes sense to defer collecting Social Security benefits until at or even after age 65. Overall payments should be actuarially equivalent regardless of whether a person takes reduced benefits but gets them longer or waits and gets full benefits over a shorter number of years. The real world fallacy in that basic assumption is that it is assumed (wrongly in all too many cases) that the client will live an “average” life expectancy. There are, of course, other factors that must enter into the decision-making process, including: (1) a client’s income from earnings while working may be adequate, and a deferral will increase benefits when the income from Social Security is needed more; and (2) more benefits may be subject to income tax—and therefore lost—if they are received while the client is still receiving income from working, and a deferral of benefits results in an increase in the benefit payable to a widow(er). See Rose, “An Examination of Delaying Social Security Retirement Benefits,” J. Financial Services Professionals, p. 65 (May 2008).
- 31 Consider how much better a nursing home company could price its “products” if an L.E. could be obtained on potential clients, and perhaps both parties could benefit because—for a relatively small cost—the price could be adjusted to more accurately reflect reality. New nursing home options could be much more competitively priced—if based on an individual applicant’s realistic longevity.
- 32 From the viewpoint of the insurance company, an L.E. would help to decide if such coverage should be offered and issued.
- 33 See S. Leimberg, M. Weinberg, B. Weinberg, and C. Callahan, “Life Settlements: How to Know When to Hold and When to Fold,” 35 ETPL 3 (Aug. 2008).
- 34 It is common in a divorce situation for a court to determine the present value of the worker’s pension and other retirement benefits and award the nonworker divorcing spouse a lump-sum interest in cash or other property. This is called the immediate offset method. The spouse receives an interest in other property owned by the parties equal to the interest in the covered employee’s pension benefit, while the pension holder retains full ownership rights to the retirement benefits. The primary advantage of this method, according to the book, *Tools and Techniques of Divorce Planning*, is that “it completely resolves the issue of dividing the pension at the time of the divorce. The benefits are divided, and each party walks away with their respective portion at the time of the divorce. By using this method all issues are immediately resolved, thereby eliminat-
- ing the possibility of future litigation.” The problem is the blind assumption that the pension holder will live long enough to collect his/her pension; the present value of future benefits must be calculated using actuarial assumptions relative to the pension holder’s expected life span. Those actuarial assumptions measure the probability that the pension holder will reach retirement age, thus entitling him/her to benefits and the length of time beyond his/her retirement date that benefits are expected to be received. But what happens if the pension holder dies prematurely—at least prematurely according to the mortality table being used to compute life expectancy? Clearly, the non-working spouse—at the time of divorce—would have received an interest in the retirement benefits which, due to the premature death of the pension holder, were never actually received by the pension holder. The pension holder ends up having to trade current dollars for future dollars which bear a great risk of never being received.
- 35 It is likely that as the business matures in terms of “look-back” records and has greater history tracking the actual results of a given age population, L.E. companies will learn more and become more precise on estimates. Currently, according to James Magner, co-author of *Tools and Techniques of Life Settlement Planning*, there is no generally accepted method for reporting actual experience, nor are there any independent audit services for the industry to use when tracking and reporting actual deaths versus estimated deaths. But this will probably change and in the future, mandatory reporting to state regulators across the country is highly likely.
- 36 The older and more established firms track actual deaths of the people for whom they have issued estimated L.E. reports and can use those statistics to check and update their methodology. But even within this narrow configuration, L.E. estimates have varied—in some cases widely—illustrating that the industry process is—overall—still somewhat an art rather than a thoroughly repeatable and demonstrable science.
- 37 The average life expectancy of a person selling life insurance to a life settlement company approximates ten years.
- 38 James Magner in *Tools and Techniques of Life Settlement Planning* points out that, “Because older-age underwriting and mortality on life settlements is evolving daily, careful practitioners should ask whether the provider’s L.E.s have been independently verified by an actuarial consulting firm. The accuracy and reliability of life expectancy reports is the subject of some controversy within the settlement industry. According to published reports, a top executive of a major provider allegedly put pressure on an underwriting company to shorten life expectancy reports, and allegedly sent a gift to its then-chief underwriter. See D.M. Bayston, ‘Life Settlement Risks—Lessons from the Sub-Prime Mortgage Market,’ October 23, 2007, See also <http://www.milliman.com/expertise/life-financial/publications/published/pdfs/life-settlement-mortality-considerations-PA-03-01-08.pdf>”
- 39 Because an L.E. is a snapshot picture, at some point (say, every three years), professionals may consider obtaining “follow-up” L.E.s—just as they now review later balance sheets and profit-and-loss statements. Also, knowing the L.E. is created to provide an estimate as to longevity expectancy at a specific period of time should alert the planner to yet another advantage; in many cases, the report itself will note actions the client can take to change the future. For instance, by exercising more vigorously, losing weight, changing diet (e.g., greater avoidance of trans-fats or restricting sugar intake), stopping smoking, or taking a prescribed course of medicine, it may be possible for the client to prevent or delay the progression of a problem—and thereby positively affect either the time remaining and/or significantly enhance the quality as well as the length of that time. The L.E. can be viewed as an opportunity and “call to action” on many positive levels.
- 40 The list of life expectancy providers currently registered with the state of Florida can be found at: www.flor.com/sp/Viaticals/RegisteredLifeExpectProv.htm.
- 41 See www.flor.com/pdf/LEP_allforms.pdf.
- 42 See Pennell, “Pennell on Death and Dying,” LISI Estate Planning Newsletter #811 (4/12/05); Leimberg, “Death-Sensitization for the Estate Planner,” J. Am. Soc’y of Chartered Life Underwriters (J. Soc’y of Financial Services Professionals), 1976; “Dying and Death—What Every Financial Services Professional Needs to Know,” LISI Estate Planning Newsletter #806 (3/29/05). The works of the following individuals will be of great help: Thomas L. Shaffer, Ignace Lepp, Simonne deBeauvoir, E. Kubler-Ross, Stewart Alsop, Jack Lynch, Ed Schlesinger, and Gerald Graffner; these are particularly helpful on the psychology of death and dying. Three additional books are Plotnick and Leimberg, *How to Settle an Estate*; Armstrong and Donahue, *On Your Own*; and Caine, *Being a Widow*. The first is available by calling 610-924-0515. All of these are also available from www.amazon.com. See also Gayden Metcalfe and Charlotte Hays, *Being Dead Is No Excuse: The Official Southern Ladies Guide to Hosting the Perfect Funeral*, \$13.57 at www.amazon.com; Charles Meyer (Episcopal priest and first director of pastoral care at St. David’s, 1980), *A Good Death—Challenges, Choices and Care Options*, \$6.95, at St. David’s Medical Center gift shop, Austin, TX; 512-340-4372 (3/29/05); Charles Meyer, *Surviving Death*, Twenty-third Publications, second printing, 1988 ISBN 0-89622-364-7, \$9.95, at St. David’s Medical Center gift shop, Austin, TX; 512-340-4372 (3/29/05). See also Ernest Becker, *The Denial of Death*, New York: The Free Press, 1973; Lawrence Bugen, *Death and Dying: Theory, Research and Practice*, Dubuque, IA: William C. Brown Publishers, 1979; Earl E. Shelp and Ronald H. Sunderland, *AIDS and the Church*, Philadelphia: The Westminster Press, 1987; Karl Slaikeu, *Crisis Intervention: A Handbook for Practice and Research*, Boston: Allyn and Bacon, 1983; Karl Slaikeu and Steve Lawhead, *Up From The Ashes: How to Survive and Grow Through Personal Crisis*, Grand Rapids, MI: Zondervan Publishing House, 1987. Other resources include: Joan Timmerman, Widowed Persons Service, AARP, 1909 K Street, N.W., Washington, D.C. 20049; National Hospice Office, Suite 307, 1901 North Fort Meyer Dr., Arlington VA 22209; The Living Bank, P.O. Box 6725, Houston TX 77265; “As Long as There Is Life” (film), The Hospice Institute, 765 Prospect St., New Haven, CT 06511; Society for the Right to Die, 250 West 57th St., New York, NY 10107.
- 43 I was surprised to find that a condition I thought would be a life-shortening factor was judged as relatively benign. I also learned that some medical conditions—while sounding and seeming life shortening—are “standard for age.” On the other hand, a seemingly innocuous medical problem was considered much more of a “debit.” In many cases, a client’s doctor will not apprise a patient of the life span implications of a condition or more likely the combination of conditions that have a greater effect than would be expected from the sum of the parts. Furthermore, I found out that each year a person survives

may lessen the impact of certain medical conditions. For instance, a heart condition may be less of a problem as a person ages—and therefore the debits assigned to it will be given less of a weight. The L.E. brings a new perspective to these things.

⁴⁴ This is much like the classic stages through which a dying person passes and survivors react—denial, anger, bargaining, depression, and acceptance, discussed in the classic text, *Death and Dying* by Elizabeth Kubler-Ross.

⁴⁵ Hopefully, L.E. companies will provide some “partnering” assistance to professionals not only in identifying how an L.E. can be used as a planning tool but also in interpreting results and tactfully and appropriately explaining their implications to clients.

