BeFi Web Seminar for May 28, 2008

The Future is Now
Think about tomorrow today

by Ian Sheridan
Mass Mutual
The Future Is Now
Think about tomorrow today

Ian Sheridan
Corporate Vice President & Chief Marketing Officer
MassMutual Retirement Services
May 2008
Generational Shift: retirement needs

Today

- DC is not your parents retirement plan
- Social Security less certain
- Fewer defined benefit plans; more reliance on defined contribution plans
- Healthcare needs growing

Tomorrow
Questions….

In a world of exponential change how do we;

1. Engage savings behavior?
2. Design products & services to drive healthy outcomes? (plan health, customer loyalty, better lives, referral business)
3. In the future “tomorrow/today” why will “Your Firm” be a good choice for:
   - Advisors?
   - Plan Sponsors?
   - Participants?
One consideration: Understanding human behavior

- Inertia and Procrastination
- Mental Discounting
- Lack of Investment Knowledge
- Loss/Regret Aversion
- Choice Overload
What is the behavioral approach?

It's a holistic program of product and service features designed to help overcome the emotional and cognitive barriers to saving. It includes a mix of plan design options and communication.

= Forms + Plan Design + Product offering + Service Model + Communication Media Mix
Why is it important?

- People don’t always know what’s in their best interest.
- People often lack the will to act on behalf of their best interest.
How does it affect participants?

- People are biased towards inertia and procrastination.
- People prefer immediate gratification to delayed gratification.
- Losses hurt more than gains please.
- When they’re uncertain, people do what other people are doing.
- Increasing choice can lead to decision paralysis.
Participants were asked...

How much should you be saving for retirement?  
13.9%

How would you describe your current savings rate?  
68% said “too low”

Do you have any plans to make changes to your account?  
35% of “too lows” intended to increase, 12.5% actually did.

The Evolution of Communication

- Participation and deferral rates have not changed greatly over time.
- Information is not engagement.

Past
Inform Them
Educate Them
Help Them

Data
Guidance
Action
Behavioral Finance driving the industry

<table>
<thead>
<tr>
<th>Past</th>
<th>Present</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan Design</td>
<td>Basic</td>
<td>Hard Wired</td>
</tr>
<tr>
<td>Product</td>
<td>Standard</td>
<td>Adaptive Benefits</td>
</tr>
<tr>
<td>Investment</td>
<td>SDBA</td>
<td>Income</td>
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<tr>
<td>Communication</td>
<td>Information-based</td>
<td>Interactive Feedback</td>
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</tbody>
</table>

- Plan Design
- Product
- Investment
- Communication

- Basic
- Standard
- SDBA
- Information-based
- Consultative
- Automation
- Lifecycle Funds
- Make it Easy
- Hard Wired
- Adaptive Benefits
- Income
- Interactive Feedback
Enabling Savings

- Make positive outcomes easy or automatic
  - Enrollment
  - High savings rates and regular deferral increase
  - Diversification
- Make negative outcomes hard and more difficult
  - Not enrolling
  - Low savings rates
  - Lack of diversification
  - Loans
  - Early withdrawals
  - Cash distributions
Helping Them Get There: Auto-Features

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Automatic Enrollment (AE)</th>
<th>Automatic Deferral Increase (ADI)</th>
<th>Default to Target Date Investment Option</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Increase participation</td>
<td>• Increases participant savings</td>
<td>• Helps employees with little knowledge of investing</td>
</tr>
<tr>
<td></td>
<td>• Helps employees start saving sooner</td>
<td>• Helps hard-to-reach employees</td>
<td>• Greater return potential than stable value or money market options</td>
</tr>
<tr>
<td></td>
<td>• Helps hard-to-reach employees</td>
<td></td>
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<tr>
<td></td>
<td>• Can help with testing</td>
<td></td>
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</tr>
<tr>
<td>Best Practice</td>
<td>• Adopt a default deferral rate of 6% or higher</td>
<td>• Implement the service as “opt-out,” or “opt-in”</td>
<td>• Follow up with investment education for interested employees</td>
</tr>
<tr>
<td></td>
<td>• Implement AE for existing as well as new employees</td>
<td>• Recommend increases of 2% annually</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Include ADI</td>
<td></td>
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</tbody>
</table>

97% of automatically enrolled participants and 90% of automatically enrolled participants who opted out of the plan agreed that they were satisfied with the enrollment process.*

*Harris Interactive Research 2007
Think About Tomorrow Today

- Building communities on transaction sites
- Creating an environment of comfort for decision making
  - People like me
  - Building trust
- Changing the customer facing experience
  - One click decision making
  - Immediate feedback
- Engaging, entertaining and supporting
  - How am I doing?
  - Game-like
Helping Them Get There: Communication

Relevant, personalized, and easy-to-act-on messages through a variety of media.

Know your participant base:

- Participation rate
- Deferral rate
- Asset Allocation
- Account Activity
Give them the tools: e4℠

- Hand-held electronic device
- Enroll at the meeting
- See what others are doing
- Over 80% enrollment*
- 25% increase deferral*

*MM Company Records 2007
Give them the tools: Simplicity

- Express Lane℠ Enrollment
- Express Lane℠ Postcard at Employee Meetings
- Gap Mailing
- Simplicity is the key
Give them the tools: Campaigns

- Multiple touch-point
- Multiple media
- Easy tear off response card
- Imagery
- Plans switching to our Enrollment campaign increased enrollments by an average of ten percentage points.

Deposits from MassMutual participants are more than *two times* the industry average.*

*2007 Sterling Benchmark Study
Research and Communications

Helping you create new conversations

- MassMutual’s Center For Behavioral Research℠

http://www.massmutual.com/behavior
“Never doubt that a small group of committed people can change the world. Indeed it is the only thing that ever has.” Margret Meade

“It is not the strongest of the species that survives, nor the most intelligent, but the one most responsive to change.” Charles Darwin
BeFi Web Seminar for May 28, 2008

Attitudes of Baby Boomers Towards Retirement
How attitudes toward Change, Uncertainty, Risk and Expectations influence retirement preparedness

by Will Prest
Transamerica Retirement Management
2007 SecurePath℠ by Transamerica
C.U.R.E. Retirement Study

How attitudes toward Change, Uncertainty, Risk and Expectations influence retirement preparedness

A comprehensive consumer study commissioned by Transamerica Retirement Management, Inc., a provider of SecurePath by Transamerica

For Institutional Investor Use Only
About this study

• Survey goal – to understand how pre-retirees’ attitudes toward life change may influence their approach to retirement preparation

• Commissioned GfK Roper Public Affairs & Media to study the attitudes of pre-retirees toward change, risk and uncertainty in both financial and non-financial aspects of life

• September 2007 – national survey sampled approximately 2,000 working Americans age 50 and older (“Pre-retirees”)
Pre-retirees are overwhelmingly positive about their future, based on their ability to handle previous changes

- 65% feel they have handled change *better* as they have aged
- The same percentage are confident that – despite retirement uncertainty – everything will work out for the best
- On average, pre-retirees have experienced *more than eight* major life changes
- For six in ten, most of these changes have been *recent*
### Top 10 Pre-Retiree Life Experiences

1. Had a close family member or friend die (82%)
2. Changed jobs (73%)
3. Faced a period of financial difficulty (70%)
4. Bought a house (69%)
5. Got married or remarried (63%)
6. Moved to a new city, state or country (58%)
7. Changed careers (55%)
8. Lost a job (53%)
9. Had a child go off to college (53%)
10. Had a baby (52%)
Most pre-retirees have relatively modest goals for retirement

**Top Retirement Goals**

- Having a steady monthly income (90%)
- Having good health insurance (88%)
- Having enough money to get by (87%)
- Having enough money to pay for medical bills if I become sick (86%)
- Ensuring that my savings do not run out (86%)

Focus is on achieving *independence, security and comfort* with retirement savings
What has helped pre-retirees roll with life’s punches?

The following were beneficial when going through change.

- Having Information: 85
- Knowing you have options: 85
- Knowing that you can handle whatever comes: 84
- Having friends and family for support: 79
- Talking with others who have had the same experience: 66
- Having access to experts: 49
Financial Storm Clouds Could Threaten an Otherwise Sunny Retirement Forecast

- Despite their confidence about retirement, pre-retirees feel they have the least control over their finances and retirement plans.

- Nearly half are only moderately or not at all confident they will have enough money to get by in retirement.

- Two-thirds are unhappy with their retirement savings.
Plans for a stable retirement income could be on shaky ground.

- Despite warnings not to rely too heavily on Social Security, **pre-retirees cite Social Security benefits as the planned primary source of retirement income**

- Other sources for providing income in retirement fare even worse in the mix.

Many pre-retirees feel they do not fully understand investment vehicles and **even fewer are comfortable with risking retirement dollars in them**.
Low Tolerance for Risk May Actually Be Jeopardizing Some Workers’ Financial Future

- Financial philosophies of pre-retirees reflect an emphasis on savings and risk aversion
- Prior financial strife may be shaking confidence: Seven in 10 pre-retirees have already faced financial difficulty
- 62 percent prefer most of their savings be in guaranteed, safe investments, even if they don’t earn high returns
- Even when the necessary trade-off is made evident, 54 percent prefer less risk, even when faced with a lower return on investment
How personality can impact retirement transitions

- Everyone deals with change in different ways
- Need a fresh way of helping pre-retirees gain a greater insight on themselves
- Segmenting may also assist employers in better understanding how their employees view the retirement transition

Four distinct “change styles” emerged with an interesting correlation to investing behavior. Now we had a starting point for advising the individual groups.
Change Style 1: “Venturer”

Financial Philosophy: “Nothing ventured, nothing gained”
Potential Financial Pitfall: Overconfidence in level of preparedness

- 62% seek change in their lives, rather than look for consistency
- 48% are willing to place money in investments with greater risk
- More than eight in 10 feel they will be in control of their lives in retirement
- Nearly half prefer to be involved in their retirement planning rather than having the help of a financial advisor

19% of population, 54% male, 46% female, 58% married, 49% college degrees, Median HHI: $63K, Median HH Assets: $242K
Change Style 4: “Pursuer”

Financial Philosophy: “Pursue anything once”

Potential Financial Pitfall: So strongly crave change in hopes of better financial control, they may not have a clear plan

- Four in 10 seek change in their lives, rather than look for consistency
- Nearly half are not confident they will be able to live life the way they would like in retirement and only 29% feel they will have enough money to enjoy it
- Nearly half (46%) are not planning to retire

26% of population, 46% male, 54% female, 54% married
44% college degrees, Median HHI: $49K, Median HH Assets: $132K
Change Style 3: “Anchored”

Financial Philosophy: “Stay on the safe side”

Potential Financial Pitfall: Committed risk-avoidance may result in a false sense of preparedness

- 83% look for consistency in their lives rather than seek change
- Six in 10 report feeling at their worst when expecting change
- Only 40% believe they will have enough money to get by in retirement
- 65% plan to earn money following their retirement, some to meet everyday living expenses

21% of population, 40% male, 60% female, 59% married
42% college degrees, Median HHI: $52K, Median HH Assets: $167K
Change Style 2: “Adapter”

Financial Philosophy: “Take it as it comes”

Potential Financial Pitfall: May not be realizing financial potential

- Nearly half (46%) look for consistency in their lives rather than seek change
- Only one-third (35%) are more comfortable with guaranteed savings options for retirement than investments with risk
- Eight in 10 (83%) are confident they will handle retirement transition well
- More than half (56%) are confident they will have enough money to live the life they would like in retirement

33% of population, 55% male, 45% female, 62% married, 48% college degrees, Median HHI: $63K, Median HH Assets: $233K
Interpretations – Putting the Data to Use

• Generally speaking, pre-retirees seem to have two perceptions of retirement – a lifestyle perception and a financial-preparedness perception. While one is largely a function of the other, pre-retirees may not be reconciling them as they should.

• Core messages about relying on a variety of income sources in retirement – not just Social Security – may not be resonating as well as anticipated.

• For certain “change styles” – especially those that need to save more for retirement – avoidance of financial risk may actually add to the risk that they will not be able to realize the retirement lifestyle they desire.

• Pre-retirees still have significant gaps in their understanding of the investment vehicles that may be needed to provide steady income after they retire. There is an opportunity for stewards of pre-retirees to help them gain this understanding and help them prepare more fully.
Appendix: Methodology

- Transamerica Retirement Management, Inc., a provider of SecurePath by Transamerica, commissioned GfK Roper Public Affairs & Media to conduct a study about working Americans age 50 and over and their experiences with – and attitudes toward – change to help people gain important perspective into how their approach to transitions might affect the next important transition in their lives – retirement.

- A segmentation was then created to develop profiles of key styles that people have for balancing change, consistency and risk in their lives – and how this is often reflected in investment styles and financial preparation for retirement.

- The findings presented in the resulting report were based on 2,015 online interviews. Data were collected via an online panel from September 5 – September 19, 2007 and were weighted to the online population by age within sex, education, and region.
All investing involves risk. Investments are subject to market fluctuation and possible loss of principal. Consider an investment’s risk, charges and expenses before investing.

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BeFi Web Seminar for May 28, 2008
AARP's Approach to Helping Consumers Facing Financial Challenges

by Jon Dauphine & Jean Setzfeldn
AARP
Our Vision

A society in which everyone ages with dignity and purpose, and in which AARP helps people fulfill their goals and dreams.

Our Mission

AARP is dedicated to enhancing quality of life for all as we age. We lead positive social change and deliver value to members through information, advocacy and service.
AARP is the leading nonprofit, nonpartisan membership organization for people age 50 and over in the United States

- 39+ million members

- An office in every state, as well as the District of Columbia, the Virgin Islands, and Puerto Rico, and over 2,500 local chapters

- AARP, AARP Foundation, AARP Services, Inc.

- Total annual operating revenue of over $1 billion
AARP’s 10-Year Social Impact Agenda Helps Our 39 Million Members Maintain Independence, Choice and Control in Three Critical Areas:

Health Care
- Coverage and Quality
- Prescription Drugs
- Long Term Care
- State Health Reform

Financial Security
- Social Security
- Private Pensions
- Financial Literacy
- Workforce Initiatives

Livable Communities
- Housing
- Mobility
The Divided We Fail Platform

We believe:

All Americans should have access to affordable, quality health care.

- All Americans should have access to affordable health care, including prescription drugs, and these costs should not burden future generations.
- Wellness and prevention efforts, including changes in personal behavior, such as diet and exercise, should be top national priorities.
- Americans should have choices when it comes to long-term care.
The Divided We Fail Platform

We believe:

All Americans should have peace of mind about their financial security.

- Our children and grandchildren should have an adequate quality of life when they retire. Social Security must be strengthened without burdening future generations.

- Workers should be provided with financial incentives to save, should have access to effective retirement plans, and should be able to keep working and contributing to society regardless of age.

- Americans of all ages should have access to tools to manage their finances, and save for the future and better, easy-to-understand information to help them increase their financial literacy and manage their money wisely.
Behavioral Economics in Action at AARP

Problem:

Our members and the public find the financial marketplace to be overly complex, fear of making the wrong financial decisions results in no decision.
Behavioral Economics in Action at AARP

Solution:

AARP developed a set of Five Investment Principles for our members to follow as a baseline for saving and investing:

Low Fees, Simple Choices, Indexation, Diversification, Rebalancing

*These principles are incorporated in AARP’s consumer education resources, publications and guide the development of AARP’s products and services.*
Behavioral Economics in Action at AARP

**Solution:**

**Auto-IRA:**
Multi-year campaign to provide uncovered workers access to payroll deduction savings into IRAs, with mechanisms like auto-enrollment to maximize participation. Focus is on small to mid-size employers.

**Automatic 401(k):**
Outreach to encourage mid-size employers to adopt plan features proven to increase retirement savings among working Americans.

**Research:** AARP funds innovative research on consumer choice and behavior.
Additional Consumer Focused Efforts

- Making it easier for people to save and invest
  - “Save, Manage and Protect” consumer information
  - Retirement Readiness Review by AARP Financial
  - Building financial awareness through our publications (*Bulletin / Magazine*) and TV programs
  - Efforts aimed at promoting split tax refund savings / Saver’s Credit / 401k fees

- Helping low- and middle-income individuals maximize their resources
  - Reverse Mortgage Education Project
  - AARP Tax-Aide
Automatic 401k Education and Outreach

Automatic 401(k): Sample Activities

- Retirement Made Simpler Coalition – AARP, FINRA and RSP joint effort focused on educating small / mid-size firms about 401k auto-features (www.RetirementMadeSimpler.org)

- AARP’s state-based outreach – through communication and partnership outreach, raising awareness of the benefits of Auto-401k plans for employees and employers
Employee Sentiment Survey

• Of employees who had an Auto-enroll 401k plan, 97% of the surveyed employees were satisfied with the process of being automatically enrolled in the plan
  – 74% were very satisfied
  – 23% were somewhat satisfied
• Of employees surveyed who were automatically and currently enroll in the companies Automatic 401k plan:
  – 85% agreed that “Automatic enrollment has allowed you to start saving for retirement earlier than planned”
    • 62% strongly agreed
    • 23% somewhat agreed
  – 95% agreed that “Automatic enrollment has made saving for retirement easy”
    • 71% strongly agree
    • 24% somewhat agree
  – 98% agreed that “they are glad their company offers automatic enrollment”
    • 79% strongly agree
    • 19% somewhat agree
Auto-401k Print Ads

(Yes, we're serious about making retirement simpler.)

You ask many employees aren't saving enough for a secure retirement. How can America's corporate leaders help? Our simple solution to the automatic 401(k). Automatic 401(k) are easy to implement, and 66% of employees who currently have those plans are glad their company offered them. In fact, the right solution to the Financial Industry Regulatory Authority, AARP and the Retirement Security Project have teamed up to provide free, unbiased information to companies to help them implement a simple step to support employees' financial futures. To learn more, please visit RetirementMadeSimpler.org.

With a name like Automatic 401(k) Plans, you'd think they'd be easy to implement. (Turns out, they are.)

You ask automatic 401(k) are an easy way for employees to save for retirement. And with all the demands on HR managers these days, it's also good to know that a resource now exists to help make them easy to implement. At RetirementMadeSimpler.org you'll find a host of helpful, relevant and unbiased information, including stories of how other companies have successfully implemented automatic 401(k)s. All to help you help your employees save for retirement—starting now. And it all begins at RetirementMadeSimpler.org.
Offer your valuable employees an invaluable way to save for retirement.

It's easy with an Automatic 401(k) plan.

Employers can now help workers save for retirement — even those who don't think they can afford to save for retirement. By automating your 401(k), you can help your employees, especially women, minorities, and low-income employees, who historically have lower savings rates than other workers, save for retirement. Make it easy on yourself and your employees.

To learn more, visit aarp.org/auto401k.

HEALTH / FINANCES / CONNECTING / SAVING / ENJOYING
Additional Research


• Joint research completed December 2007 by AARP and American Council of Life Insurers

• Survey conducted by Mathew Greenwald & Associates with input from Eric Johnson Columbia University

• Phone survey field July 18 – August 19, 2007

• 800 retirees: 200 with employer provided pensions and 600 without

• Ages 60 to 75 with household financial assets of at least $50,000 (not including the value of their primary home or any DB pension plans)
Most retirees are very loss averse.

Suppose you were offered an opportunity where you had a 50% chance of winning $100 and a 50% chance of losing. Would you take that opportunity?
The loss averse are less willing to trade liquidity for other benefits.

Suppose there was a financial product that could provide you with monthly income that is guaranteed to last for the rest of [your life/your and your spouse’s lives]. However, the product would not allow you to withdraw any money other than these monthly payments. How likely would you be to give up the ability to withdraw your money whenever you wanted, if in exchange you were given the following? Would you be very likely, somewhat likely, not too likely, or not at all likely?

Percent very or somewhat likely to trade off liquidity

Certainty that you would not lose any money
- Total (n=800)
  - 42%
- Would not bet $10 (n=381)
  - 31%
- Would bet $10 or more (n=400)
  - 52%

Protection against a large stock market drop
- Total (n=800)
  - 40%
- Would not bet $10 (n=381)
  - 29%
- Would bet $10 or more (n=400)
  - 52%

Certainty about the rate of return
- Total (n=800)
  - 38%
- Would not bet $10 (n=381)
  - 29%
- Would bet $10 or more (n=400)
  - 46%

Certainty about monthly amount
- Total (n=800)
  - 34%
- Would not bet $10 (n=381)
  - 26%
- Would bet $10 or more (n=400)
  - 40%
Lower asset retirees think a guaranteed income product would increase their peace of mind.

If you had recurring monthly expenses that were not covered by your Social Security [and pension] income, how much, if at all, would a product like this add to your peace of mind?

<table>
<thead>
<tr>
<th>Category</th>
<th>A great deal</th>
<th>A fair amount</th>
<th>Total (n=800)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will live to 90s</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assets of $50,000-$149,999</td>
<td>23%</td>
<td>32%</td>
<td>55%</td>
</tr>
<tr>
<td>(n=39)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assets of $150,000+ (n=163)</td>
<td>9%</td>
<td>37%</td>
<td>46%</td>
</tr>
<tr>
<td>Will not live to 90s</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assets of $50,000-$149,999</td>
<td>33%</td>
<td>42%</td>
<td>75%</td>
</tr>
<tr>
<td>(n=99)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assets of $150,000+ (n=211)</td>
<td>15%</td>
<td>39%</td>
<td>54%</td>
</tr>
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BeFi Web Seminar for May 28, 2008
Improving Behavior for (Potentially!)
Better Individual Results:
Guiding Participants Along the Path

Deb Dupont
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Improving Behavior for (Potentially!) Better Individual Results: Guiding Participants Along the Path

Deb Dupont
Director, ING Institute for Retirement Research
May 28, 2008

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Behavioral Finance

- A (relatively) new discipline
- Defined Contribution Plans...
  - Importance for tomorrow’s retirees given social and economic changes... DB plans / Social Security
  - Retirement funding responsibility shift: employer to employee... potentially government to individual
  - Employee / participant behavior not “ideal”
- Behavior... motivation... solution
Why do people do what they do when it’s clearly detrimental to their long-term financial well-being?

WHAT CAN WE DO ABOUT IT?
### Participation Behavior... Motivation... Solution

<table>
<thead>
<tr>
<th>Defined Contribution Behavior</th>
<th>Reasons/Emotions Affecting Behavior</th>
<th>Potential Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Participant Behaviors</em></td>
<td><em>Communication (an ongoing process), not education (point in time)</em>... a robust, multi-tiered approach to building participant empowerment about their own futures and making them feel good about participation decisions.</td>
<td></td>
</tr>
<tr>
<td>• Failure to participate at all</td>
<td><em>Automatic enrollment</em>... making non-participation, rather than participation, the active decision.</td>
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</tr>
<tr>
<td>• Not maximizing contributions, or even contributing up to the level of an employer match</td>
<td><em>Automatic contribution increases</em>... tying incremental increases in contribution percentages to salary increase cycles.</td>
<td></td>
</tr>
<tr>
<td>• Not increasing contributions over time</td>
<td><em>Target-date or lifecycle funds</em>... making the investment decision to understand and act upon.</td>
<td></td>
</tr>
<tr>
<td><em>Reasons/Emotions Affecting Behavior</em></td>
<td><em>Free money</em>... an employer match.</td>
<td></td>
</tr>
<tr>
<td>• Perception of affordability, immediacy... more pressing demands on income; mental compartmentalization of financial decisions.</td>
<td><em>Other plan design considerations</em>... rollovers, loans, vesting schedules.</td>
<td></td>
</tr>
<tr>
<td>• Procrastination... good intentions about enrollment but failure to act; retirement may be a long way away.</td>
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</tr>
<tr>
<td>• Inertia... failure to increase contributions on a regular basis as salary increases.</td>
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</tr>
<tr>
<td>• Understanding... failure to grasp the benefits of DC participation, especially early, i.e., compounding of assets, tax deferral and taxable reduction of current income; in a match environment, many know that there's a match, but do not understand how it works.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Information overload and analysis paralysis... too many decisions to make, too many options to choose from and too confusing; it's easier to do nothing.</td>
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</table>

## Investment Behavior… Motivation… Solution

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<th>Reasons/Emotions Affecting Behavior</th>
<th>Potential Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Investment Behaviors</strong></td>
<td><strong>Inertia</strong>: not actively managing asset allocation; accepting conservative defaults.</td>
<td>Communication, not education... is again the crux of this dynamic, empowering participants with easier, intuitive and meaningful exploration of their options; making it simple to take actions and make appropriate decisions.</td>
</tr>
<tr>
<td></td>
<td><strong>Fear of loss</strong>: even at the expense of potential gain, can lead toward actions that result in selling low and buying high even when the investment allocation decisions.</td>
<td><strong>Lifecycle funds</strong>: can make investment decisions intuitive for participants who would otherwise either choose the most conservative investment path, attempt to market-time, or choose not to invest at all because it's just so complicated.</td>
</tr>
<tr>
<td></td>
<td><strong>Endorsement effect</strong>: gravitating toward what's familiar, i.e., company stock.</td>
<td><strong>Plan design</strong>: automatic enrollment into appropriate, age-based lifecycle funds versus conservative defaults or risk-based options that don't migrate over time (which could lead, in later years, to overly aggressive investment for participants who do not periodically rebalance or migrate to more conservative risk-based options).</td>
</tr>
<tr>
<td></td>
<td><strong>Heuristics/the law of averages</strong>: investing evenly across available asset classes or options rather than making a measured decision.</td>
<td><strong>Fund selection</strong>: not so many available options to overwhelm participants with complex allocation models and decisions, and not so few as to impede adequate diversification.</td>
</tr>
<tr>
<td></td>
<td><strong>Too much choice</strong>: and so participants tend to gravitate toward the extremes... purchasing company stock or choosing a safe and Stable Value route.</td>
<td><strong>Overconfidence</strong>: attempting to time markets; failing to consider the long-term nature of retirement investing; alternately, investing too aggressively (i.e., in company stock).</td>
</tr>
<tr>
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</tr>
</tbody>
</table>

You should consider the investment objectives, risks, and charges and expenses of the funds carefully before investing. Prospectuses containing this and other information about the funds can be obtained by contacting your local representative. Please read carefully before investing.

---

Theory abounds

BUT WHAT WOULD BE THE END RESULT FOR THE INDIVIDUAL?
Change Behaviors

1. INVEST EARLIER
2. INVEST MORE
3. (PRESUMABLY) BETTER ASSET ALLOCATION
Helping People

HAVE ENOUGH TO GET BY...
OR HAVE ENOUGH TO LIVE WELL
Typical “Ellen Early and Laggard Larry”

- Ellen ends up with more money… even stopping earlier
- They invest the same
- Time is ONE dimension… but also consider
  – How much does she contribute?
  – How does she invest?
- What does having more money than Larry mean for Ellen? Can she retire early? How “comfortable” is her own retirement?
Ellen (28) Starts Earlier than Larry

<table>
<thead>
<tr>
<th>Start Age</th>
<th>28</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contribution</td>
<td>3%</td>
</tr>
<tr>
<td>Investment Return</td>
<td>6%</td>
</tr>
<tr>
<td>Starting Salary</td>
<td>$40k/yr</td>
</tr>
<tr>
<td>Inflation</td>
<td>3%</td>
</tr>
<tr>
<td>Yearly Salary Increase</td>
<td>3%</td>
</tr>
</tbody>
</table>

![Bar chart](image)

<table>
<thead>
<tr>
<th></th>
<th>Age 55</th>
<th>Age 60</th>
<th>Age 65</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$120</td>
<td>$179</td>
<td>$259</td>
</tr>
</tbody>
</table>

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# Income Breakdown, Age 65

<table>
<thead>
<tr>
<th>Income Source</th>
<th>Annual Income</th>
<th>% of Pre Ret Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC Plan</td>
<td>$23,797</td>
<td>20%</td>
</tr>
<tr>
<td>Outside assets including DB Plan, Social Security, home equity and individual investments</td>
<td>$39,405</td>
<td>33%</td>
</tr>
<tr>
<td>Total Income</td>
<td>$63,202</td>
<td>53%</td>
</tr>
<tr>
<td>Subsidence Level</td>
<td>$71,645</td>
<td>60%</td>
</tr>
<tr>
<td>Disposable Income</td>
<td>($8,443)</td>
<td>(7%)</td>
</tr>
</tbody>
</table>

Income figures calculated using the Annuity 2000 Basic Mortality Table (unisex) with annual payments for a period certain equal to the indicated life expectancy.
Retirement Income, Age 65

Target Post-Retirement Income: 60%-80% of Pre-Retirement Income (~$120,000) (60% = $72K/yr)

Need to adjust lifestyle/spending downward to help cover income shortfall of $8K per year.

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What if we... Change Ellen’s Behaviors?

• She starts earlier, age 23 (earning, then, $34,000 per year)
• She invests more (a set amount of 4.5% vs. 3%)
• She invests differently, earning 9% vs. 6%
After Changes

<table>
<thead>
<tr>
<th>Age</th>
<th>Before Behavior Change</th>
<th>After Behavior Change</th>
<th>Improvement in Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>55</td>
<td>$120,480</td>
<td>$376,003</td>
<td>$255,523</td>
</tr>
<tr>
<td>60</td>
<td>$178,699</td>
<td>$604,565</td>
<td>$425,866</td>
</tr>
<tr>
<td>65</td>
<td>$259,391</td>
<td>$960,384</td>
<td>$700,993</td>
</tr>
</tbody>
</table>

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Better Behavior can Lead to Better Results

<table>
<thead>
<tr>
<th>Start Age</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start Age</td>
<td>28</td>
<td>23</td>
</tr>
<tr>
<td>Contribution</td>
<td>3%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Investment Return</td>
<td>6%</td>
<td>9%</td>
</tr>
</tbody>
</table>

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Ellen can Retire with Different Choices and Options

Disposable income of $55K per year allows choice and independence

Need to adjust lifestyle/spending downward to help cover income shortfall of $8K per year

This illustration is based on previous assumptions. It is not intended to imply the performance of any specific investment; doesn’t reflect the charges and expenses of any specific investment; nor does it reflect the payment of income taxes.
Early Retirement is a Possibility!

<table>
<thead>
<tr>
<th>Retire. Age</th>
<th>Disposable Income Before Behavior Change</th>
<th>Disposable Income After Behavior Change</th>
<th>Improvement in Annual Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>55</td>
<td>$(14,428)</td>
<td>$5,582</td>
<td>$20,280</td>
</tr>
<tr>
<td>60</td>
<td>$(12,667)</td>
<td>$23,423</td>
<td>$36,090</td>
</tr>
<tr>
<td>65</td>
<td>$(8,443)</td>
<td>$55,868</td>
<td>$64,311</td>
</tr>
</tbody>
</table>

Even at age 65, Income Shortfall

Disposable Income at 55!

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Interesting Consideration

**COMBINED BEHAVIORS CAN MAKE THE DIFFERENCE!**
Interesting Breakdown by Source:  
Need to look at the whole picture

Attribution analysis of improvement for the 65-year old

<table>
<thead>
<tr>
<th></th>
<th>Improvement by source (000s)</th>
<th>Portion of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Earlier Start Age</strong> (23 vs. 28)</td>
<td>$60</td>
<td>9%</td>
</tr>
<tr>
<td>+ <strong>Higher Contribution</strong> (4.5% vs. 3%)</td>
<td>$105</td>
<td>15%</td>
</tr>
<tr>
<td>+ <strong>Improved Return</strong> (9% vs. 6%)</td>
<td>$239</td>
<td>34%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$404</td>
<td>58%</td>
</tr>
<tr>
<td>+ <strong>Cross-Correlative Effect</strong> (all 3 factors working together)</td>
<td>$296</td>
<td>42%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$701</td>
<td>100%</td>
</tr>
</tbody>
</table>

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“TELL ME WHAT TO DO!”
HOLISTICALLY HELPING

Improving Behavior
Advice and Guidance

• Scary words for providers and plan sponsors
• *Helping* employees become participants
• *Helping* participants invest
Guiding Principles

• Overcome Inertia… making the active choice not to act
• Personal and Real
• Intuitive… not difficult
• Communicate, *rather than* Educate
  – Empower
  – Engage
• Adult learning: Multi-channel / touchpoint / media
Entwined Solutions Can Work Together

• Today…
  – Match
  – Automatic Enrollment, Escalation, Defaults
  – Intuitive Asset Allocation Solutions
  – Simplified Products
  – Streamlined Fund Menus
  – Intuitive Enrollment Devices
  – Personalized Advice, On-line, Managed Accounts

• New Wave: New Tactics of Engagement
  – Ongoing Study and Research
Thank You!
PRESENTED BY

Shlomo Benartzi
Co-Founder, BeFi
Associate Professor Co-chair of the Behavioral Decision Making Group
The Anderson School at UCLA

Warren Cormier
Co-Founder, BeFi
President, Boston Research Group