Information from the 2019 Annual Conference of the National Association of Government Defined Contribution Administrators (NAGDCA)

Murray Levison October 10, 2019

Attached you will find the agenda for the 2019 NAGDCA Annual Conference, as well as the slides for 17 sessions and a link to videos for two sessions.

If you only have time to look at the materials from a few sessions, I encourage you to review the following:

- 2. Introduction to Defined Contribution Plans page 55 of the materials
- 13. Keynote Shlomo Benartzi The Digital Fiduciary: Online Behavior and Retirement Success *page 197 of the materials*
- 14. Fiduciary Diligence, Best Practices, Lawsuits and Lessons Learned page 215 of the materials (I recommend you watch the one hour video to gain the most knowledge)

40th NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans

AGENDA

41st Annual Conference Hyatt Regency Seattle, Washington October 4-7, 2020



2019 NAGDCA ANNUAL CONFERENCE

AGENDA

September 8-11 Hyatt Regency New Orleans

Conference agenda is subject to change. All activities held on Level 2 of the Hyatt Regency New Orleans unless otherwise noted.

SUNDAY, SEPTEMBER 8

9:00 a.m. – 11:00 a.m. *Strand 10*

INFRE PRE-CONFERENCE WORKSHOP Managing Retirement Income: What your Employees, Family, Friends and Self Need to Know

Instructor: Kevin Seibert, CFP®, CEBS®, CRC®, Managing Director, Foundation for Retirement Education (InFRE)

Many of your employees are part of the 78 million baby boomers quickly approaching retirement. Will they be able to make informed decisions about when to retire and how to manage, protect and distribute the savings they have in your employer-sponsored retirement plan? Join us for this professional retirement income management education course attended by over 10,000 professionals nationwide that will help you understand why and how you need to help your preretirees transition from accumulating assets to one of the most important skills they will ever need to know: how to make their retirement savings last a lifetime.

In this session you will learn how to:

- Match types of monthly income with types of monthly expenses.
- Manage retirement savings so they are protected from retirement risks.
- Minimize taxes when taking distributions.
- Evaluate and prioritize options for closing retirement income gaps.
- Improve the length of time retirement savings can pay income.

P 5 3

NAGDCA Board Meeting

9:00 a.m. – 12:00 p.m. *Strand 7*

Registration Open

11:00 a.m. – 6:00 p.m. *Empire Foyer*

1:00 p.m. – 2:00 p.m. <i>Empire Ballroom C</i>	Intro to DO Moderator:	C Plans Matt Petersen, NAGDCA	
	Panelists:	Meghan Jacobson, J.P. Morgan Tom Mueller, Sanitation Districts of Los Angeles County - Retired	
	successful of plan. This se government with DC plan	the primary concepts related to achieving utcomes in a defined contribution ssion may be particularly beneficial to or industry professionals new to working s, or seasoned professionals interested te on the building blocks of expanding uccess.	
2:30 p.m. – 3:30 p.m.	Board/Co	mmittee Membership,	
Empire Ballroom C		ce & Best Practices	
	Moderator:	Rob Boehmer, State of Nevada	
	Panelists:	Gay Lynn Bath, University of Oregon Mike Golojuch, City and County of Honolulu	
		Julian Regan, Segal Marco Advisors	
	Proper plan oversight and operation is essential in maintaining governance on a governmental defined contribution plan. The most common form of plan governance involves the creation of a specialized board (or committee), usually appointed under the governing authority of the plan sponsor. This session is dedicated to assisting those that serve on or suppor a board or committee with their fiduciary and/or governance duties.		
	This session	will explore the following:	
	Committee	ee membership and Board makeup	
	Understa	nding fiduciary duty and responsibility	
	 Roles of staff 	the board versus roles of administrative	
	 Various b 	poard and sub-committee structures	
		ent management and plan design nce and oversight	
	the gover	a plan sponsor who changed the roles of rning board and the administrative staff essons learned	
	Utilizing I	board sub-committee structures	
	practices	the best practice checklist to analyze the that strengthen and make plans grow and n sponsor financial wellness	
¥2 P 6			

4:00 p.m. – 4:30 p.m.
4:00 p.m. – 4:30 p.m.
4:00 p.m. – 4:30 p.m.
Benchmarking Committee Meeting
Strand 6
4:30 p.m. – 5:00 p.m.
Legislative Committee Meeting
4:30 p.m. – 5:00 p.m.
Publications Committee Meeting
5:30 p.m. – 7:00 p.m.
President's Reception

MONDAY, SEPTEMBER 9

7:00 a.m. – 7:45 a.m. *Elite Hall, Level 1*

Elite Hall. Level 1

Conversation Café

Registration Open

Join your colleagues for buffet breakfast, coffee, and informal networking.

7:00 a.m. – 4:00 p.m. *Empire Foyer*

Conference Opening and Welcome

8:00 a.m. – 8:30 a.m. *Empire Ballroom A*

8:30 a.m. – 9:30 a.m. *Empire Ballroom A*

KEYNOTE SPEAKER



Matt Johnson, The Impossible Company

The Impossible Dream: How Storytelling Transforms Us

Technology, economics, politics, society: Every aspect of our world is changing faster than ever

before. And from multinational conglomerates to small boutiques, more organizations are at risk for failure than any point in history. We—companies, teams, and human beings—must change too. We know this. It's why we launch innovation programs, design change initiatives, and roll out new strategies. We all want to build a bridge to the future.

The good news: We know that we need to accelerate our ability to change. The bad news: Most of us are doing it wrong. Why? We've lost sight of the one thing that has consistently enabled humans to achieve the impossible. The thing that empowered us to build world wonders, land man on the moon, cure devastating disease, and so much more. It's not technology, money, strategy, or any other external resource. To change our world, we need to change the stories we tell ourselves—the stories that shape who we are.

In this keynote, Matt reveals the transformative power of story. Leveraging his experience as a published author and corporate storyteller, Matt explains how storytelling can be your bridge to a brighter future. Whether you're an organization facing disruption, a team in conflict, or a person feeling lost in your career, Matt's case studies and exercises will introduce you to the tools you need to write (and live) your new story.

9:30 a.m. – 9:45 a.m. Break

9:45 a.m. – 10:45 a.m.	Washington Update		
Empire Ballroom A	Moderator:	Cindy Rehmeier, MOSERS	
	Panelists:	Paul Beddoe, NAGDCA	
		Marilyn Collister, Empower Retirement	
		Jeannine Markoe Raymond, NASRA	

10:45 a.m. – 11:00 a.m. Break

11:00 a.m. – 12:00 p.m. CONCURRENT SESSIONS Offered One Time Only

Empire Ballroom B	Equity Investment Options	
Empire Ballroom B	Equity Investment Options	

Moderator: Mary Buonfiglio, State of North Carolina Panelists: Timothy Kearney, Voya Financial Shaun Murphy, LGIMA Jed Petty, Wellington Management Co. LLP

Equities can play a pivotal role in the long-term success of a retirement plan. This session will discuss what asset classes to include in a core lineup along with a review of available structures including mutual funds, collective investment trusts (CITs), and separate accounts.

This session will also include a review of current trends, best practices and other relevant topics including active versus passive investing, socially responsible screens such as ESG, alternative investments, private equity, and real estate.

 Empire Ballroom C
 Role of Fixed Income Investments in a

 Portfolio

Moderator: Jessica Sclafani, MFS Investment



		Management
	Panelists:	Matthew Condos, Lincoln Financial
		Group Charles Mansfield, ICMA-RC Anmol Sinha, PIMCO
	a portfolio from income in reti	investments can play several key roles in m minimizing market volatility to creating rement. The industry continues to focus e decumulation phase of retirement
	including Mon Fixed Annuitie benefits, restr session will al the benefits o	will discuss various fixed investments bey Market, Stable Value, Bonds, and es along with the associated potential ictions, and other things to consider. This lso explore the active/passive debate, f diversifying your portfolio beyond core ow income from bonds can be leveraged
Empire Ballroom D	Successful Moderator:	Communication Campaigns Una Morabito, MassMutual
	Panelists:	Lisa Kueng, Invesco Shannon McCarthy, Nationwide Brooke Rowden, MOSERS
	participants to part of their in a participant's on integrated	of retirement can be difficult for many o conceptualize because it is not a nmediate future. High competition for a attention and the emerging focus experiences can make developing mmunications campaigns difficult.
	best practices	n attendees will learn how to incorporate in each of these spaces to enable mpaigns that drive positive outcomes.
12:00 p.m. – 1:15 p.m. <i>Elite Hall, Level 1</i>	Opening L	uncheon
1:30 p.m. – 2:30 p.m.		ENT SESSIONS Tuesday afternoon
Empire Ballroom B	Fees and th Moderator:	e RFP Process Nancy Hilu, Hanson Bridgett, LLP
	Panelists:	Raechell Dickinson, Gwinnett County John Kendall, Nationwide Andrew Ness, Mercer
	be a cumbers	equest for Proposal (RFP) process can ome and lengthy process that many plan ad, but it is an essential best practice



for plan fiduciaries to follow on a regular basis. Many aspects of the RFP process are crucial to successfully selecting a recordkeeper, attaining competitive value for services, and executing and maintaining a successful contract.

This session will explore the following considerations in developing and executing a successful RFP and resources that can be leveraged to assist in this process:

- Understanding procurement guidelines, laws, and processes, and leveraging in-house procurement professionals
- Reviewing contract terms and investment liquidity restrictions
- Hiring an outside plan consultant to assist with the process
- Understanding what recordkeepers are looking for and providing the necessary clarity to be able to drive a competitive and robust proposal
- Dissecting the RFP components and understanding valuable and essential data sets (e.g., project overview, scope of work, minimum qualifications, investment, administration, cost questionnaires)
- Developing a comprehensive RFP timeline
- Understanding the evaluation process and finalist interview presentations
- Understanding contract negotiations: What can be negotiated and fine-tuned
- Navigating through the transition process to a new recordkeeper from start to finish
- Developing an effective communication plan to trigger participant engagement
- Understanding the protest process and how to build processes to defend the outcome

Empire Ballroom C How DB Plan Pressures Impact DC Plans

Moderator: Wendy Carter, Segal Consulting Panelists: Keith Brainard, NASRA

Gary Schlimgen, University of California Mike Welker, AndCo Consulting

For many, a key benefit of working in the public sector is the availability of a defined benefit plan that provides guaranteed monthly income in retirement. Across the country, many governmental plans are facing significant headwinds to sustain their defined benefit plan, such as market volatility, inconsistent employer contributions, inappropriate benefit policies, etc.

This session will review:

- The current state of governmental defined benefit plans
- A case study on how effectively partnering a defined benefit plan and a defined contribution plan can provide an attractive employee recruiting and retention tool, and reduce retirement benefit costs
- The role defined contribution plans may play in the future including a review of the various types of hybrid plans

Empire Ballroom DLeveraging Technology and Participant ToolsModerator:Tina Gaither, Gwinnett County

Panelists: Amy Heyel, Voya Financial Thomas Idzorek, Morningstar Investment Management LLC Heidi Munc, Nationwide

New technology continues to alter everything in our lives, including how participants track and manage their portfolios. As we age and the pace of our lives change, enhanced tools may become even more important in helping participants remain flexible and adaptive to change.

This session will explore:

- Trends in websites and mobile device tools and how they are being leveraged by participants
- How plans are leveraging data analytics efficiently to successfully improve participant outcomes
- How employers are leveraging technology to improve plan governance and oversight
- The role of cyber security as we leverage more sophisticated technologies
- 2:30 p.m. 3:00 p.m.

Break

3:00 p.m. – 4:00 p.m. *Empire Ballroom A*

GENERAL SESSION Cyber Security

Moderator:Keith Overly, Ohio Deferred
CompensationPanelists:Kelvin Coleman, National Cyber Security
Alliance
David Levine, Groom Law Group

Cyber security is simultaneously one of the most

pressing, and most confusing, topics in the defined contribution industry. Record keepers and asset managers must confront a global landscape of current and potential threats, while plans sponsors must understand how their industry partners are employing sound cyber security practices.

In this session, one of the nation's leading cyber security experts, Kelvin Coleman, Executive Director of the National Cyber Security Alliance, will give his assessment of the current state of this complex environment. He will be joined by one of the defined contribution industry's leading cyber security thinkers, David Levine of Groom Law Group, to distill the global picture down to what really matters to you. The result will be a session that bridges the gap between deep technical issues and practical solutions. It's something you certainly will not want to miss!

4:15 p.m. – 5:00 p.m. *Strand 4*

Leadership Awards' Photos

TUESDAY, SEPTEMBER 10

6:00 a.m. *Hotel Lobby, Level 1* Theresa Cruz Myers 5K Run Participants Meet

Registered runners only

6:30 a.m. *Canal Place Riverfront*

7:30 a.m. – 4:00 p.m. *Empire Foyer*

7:30 a.m. – 8:15 a.m. *Elite Hall, Level 1*

8:15 a.m. – 9:15 a.m. *Empire Ballroom A*

Theresa Cruz Myers 5K Run Begins Registered runners only

Registration Open

Conversation Café

Join your colleagues for buffet breakfast, coffee, and informal networking.

KEYNOTE SPEAKER



Dr. Shlomo Benartzi, Professor and Co-chair of the Behavioral Decision-Making Group at UCLA Anderson School of Management, and Senior Academic Advisor for

the Voya Behavioral Finance Institute for Innovation

The Digital Fiduciary: Online Behavior and Retirement Success

In this talk, acclaimed behavioral economist Shlomo Benartzi will reveal how we can apply the latest behavioral economics research to help participants achieve a secure retirement. In the digital age, retirement security often depends more on fast decisions made on smartphones (and the designs that influence them) than on investment performance. Benartzi will outline a series of studies showing how improved digital design can dramatically enhance participant decision-making and boost financial security. For instance:

- Enhancing the design of an auto-enrollment screen can boost the share of workers who personalize their enrollment by 9 percentage points. Those who personalize have a savings rate that's twice as high as those who don't.
- Raising online suggested savings rates up to 10 percent doesn't decrease plan enrollment but does increase savings.
- Measures of online decision-making style are closely correlated with projected income replacement in retirement.
- Benartzi will conclude by offering seven actionable steps for plan sponsors and advisors. It's no longer enough to worry about investment oversight. We now have a duty to also focus on how our digital designs can shape the decisions of participants, and how better design can lead to better outcomes.
- 9:15 a.m. 9:30 a.m. **Break**

9:30 a.m. – 10:30 a.m. SMALL GROUP DISCUSSIONS

Please check the bottom of your name badge for your group assignment.

Reflecting on the morning keynote presentation on behavioral economics, join your colleagues for a lively discuss on this and other hot topics. Don't miss out on this opportunity to connect with your peers, share best practices and learn from other's experiences.

- *Empire Ballroom C* Group 1 Moderator: Joe Carter, AndCo Consulting
- Empire Ballroom DGroup 2Moderator: Michael Consorte, SUNY

Strand 10	Group 3 Moderator: Brayton Connard, County of Monroe
Strand 11	Group 4 Moderator: Marty Flynn, Clark County Water Reclamation District
Strand 12	Group 5 Moderator: Barbara Healy, NFP Retirement
Bolden 6	Group 6 Moderator: Doug Miller, Suffolk County
10:30 a.m. – 10:45 a.m.	Break
10:45 a.m. – 11:45 a.m.	GOVERNMENT BREAKOUT SESSIONS BY ASSET SIZE Government members only
Bolden 5	Session #1: \$100 million or less Moderator: Darlene Malaney, Palm Beach County Clerk and Comptroller
Strand10B	Session #2: \$101 million - \$250 million Moderator: Beverly Freeman, Public Utility District #1 of Chelan County
Strand 10A	Session #3: \$251 million - \$499 million Moderator: AJ Padilla, City of Austin, TX
Bolden 6	Session #4: \$500 million - \$999 million Moderator: Polly Scott, Wyoming Retirement System
Strand 11	Session #5: \$1 billion - \$3 billion Moderator: Beth Conradson Cleary, City of Milwaukee
Strand 12	Session #6: > \$3 billion Moderator: Thomas Stephens, Commonwealth of Kentucky
10:45 a.m. – 12:00 p.m. <i>Empire Ballroom B</i>	Industry Members' Business Meeting Industry members only
12:00 p.m. – 4:00 p.m.	GUEST PROGRAM City Tour & Cruise Registered guests only
12:00 p.m. – 1:15 p.m. <i>Elite Hall, Level 1</i>	Government Members' Lunch and Business Meeting Government members only

1:15 p.m. – 1:30 p.m.

1:30 p.m. – 2:30 p.m. *Empire Ballroom A*

Break

GENERAL SESSION Fiduciary Diligence, Best Practices, Lawsuits and Lessons Learned

Moderator: Melanie Walker, Segal Consulting Panelists: Daniel Alexander, RetireAware Marla Kreindler, Morgan Lewis

It is essential for plan sponsors to understand their fiduciary duties in the context of our industry's current landscape, including the potential for conflicts of interest, to achieve the best results for your plans and to anticipate concerns they may face in the future. Given the recent wave of litigation against ERISA defined contribution plan fiduciaries, lessons can be learned on how to scrutinize plan costs and provider services in order for their plans to remain competitive and attractive to their participants. This session is dedicated to educating attendees about the current state of fiduciary issues facing defined contribution plans.

Our panel of experts will discuss the following topics:

- Understanding fiduciary duties and responsibilities
- Best practices for public plan fiduciaries
- How litigation against ERISA-covered defined contribution plans is impacting our industry
- How to identify and address the potential for conflicts of interest
- How keeping plan costs down may be generating new risks for plan sponsors
- What fiduciaries can do to protect plan assets

2:30 p.m. – 3:00 p.m. Break

3:00 p.m. – 4:00 p.m. **CONCURRENT SESSIONS**

Repeated from Monday afternoon

Empire Ballroom B Fees and the RFP Process Moderator: Nancy Hilu, Hanson Bridgett, LLP Panelists: Raechell Dickinson, Gwinnett County John Kendall, Nationwide Andrew Ness, Mercer

The formal Request for Proposal (RFP) process can be a cumbersome and lengthy process that many plan sponsors dread, but it is an essential best practice



for plan fiduciaries to follow on a regular basis. Many aspects of the RFP process are crucial to successfully selecting a recordkeeper, attaining competitive value for services, and executing and maintaining a successful contract.

This session will explore the following considerations in developing and executing a successful RFP and the resources that can be leveraged to assist in this process:

- Understanding procurement guidelines, laws, and processes, and leveraging in-house procurement professionals
- Reviewing contract terms and investment liquidity restrictions
- Hiring an outside plan consultant to assist with the process
- Understanding what recordkeepers are looking for and providing the necessary clarity to be able to drive a competitive and robust proposal
- Dissecting the RFP components and understanding valuable and essential data sets (e.g., project overview, scope of work, minimum qualifications, investment, administration, cost questionnaires)
- Developing a comprehensive RFP timeline
- Understanding the evaluation process and finalist interview presentations
- Understanding contract negotiations: What can be negotiated and fine-tuned
- Navigating through the transition process to a new recordkeeper from start to finish
- Developing an effective communication plan to trigger participant engagement
- Understanding the protest process and how to build processes to defend the outcome

Empire Ballroom C

How DB Plan Pressures Impact DC Plans

Moderator: Wendy Carter, Segal Consulting

Panelists: Keith Brainard, NASRA Gary Schlimgen, University of California Mike Welker, AndCo Consulting

For many, a key benefit of working in the public sector is the availability of a defined benefit plan that provides guaranteed monthly income in retirement. Across the country, many governmental plans are facing significant headwinds to sustain their defined benefit plan, such as market volatility, inconsistent employer contributions, inappropriate benefit policies, etc.

This session will review:

- The current state of governmental defined benefit plans
- A case study on how effectively partnering a defined benefit plan and a defined contribution plan can provide an attractive employee recruiting and retention too, and reduce retirement benefit costs
- The role defined contribution plans may play in the future including a review of the various types of hybrid plans

Empire Ballroom D	Leveraging	Technology and Participant Tools
	Moderator:	Tina Gaither, Gwinnett County

Panelists: Amy Heyel, Voya Financial Thomas Idzorek, Morningstar Investment Management Heidi Munc, Nationwide

New technology continues to alter everything in our lives, including how participants track and manage their portfolios. As we age and the pace of our lives change, enhanced tools may become even more important in helping participants remain flexible and adaptive to change.

This session will explore:

- Trends in websites and mobile device tools and how they are being leveraged by participants
- How plans are leveraging data analytics efficiently to successfully improve participant outcomes
- How employers are leveraging technology to improve plan governance and oversight
- The role of cyber security as we leverage more sophisticated technologies

OFF-SITE NETWORKING EVENT NAGDCA in NOLA

Join your fellow NAGDCA members in the French Quarter for an authentic New Orleans experience! Enjoy dinner, drinks, and a live jazz band as you

6:00 p.m. – 9:00 p.m. *Generations Hall* network with your colleagues at Generations Hall, a venue offering a glimpse of an era long ago.

Originally built as a sugar mill in the 1820s, Generations Hall showcases artwork depicting the rich history of New Orleans jazz by prominent artists George Schmidt and Xavier de Callataÿ. You won't want to miss this truly unique NAGDCA event!

Buses will run on a continuous loop between Generations Hall and the Hyatt starting at 6:00 p.m. The last bus will depart the event venue at 9:00 p.m.

WEDNESDAY, SEPTEMBER 11

7:30 a.m. – 8:15 a.m. *Elite Hall, Level 1*

Conversation Café

Registration Open

Join your colleagues for buffet breakfast, coffee, and informal networking.

7:30 a.m. – 10:30 a.m. *Empire Foyer*

Luggage Storage

7:30 a.m. – 1:00 p.m. *Strand 3*

7:30 a.m. – 8:15 a.m. *Strand 4*

8:15 a.m. – 8:30 a.m. *Empire Ballroom A*

8:30 a.m. – 9:30 a.m. *Empire Ballroom A*

Annual Conference Focus (

Annual Conference Focus Group By invitation only

Presentation of NAGDCA-Art Caple President's Award

KEYNOTE SPEAKER



Captain AI Fuentes, Retired FDNY Soaring with Eagles

The story of 9/11 hero Captain Al Fuentes of the FDNY Marine Division. Captain Fuentes, now retired, was buried in the rubble

of the World Trade Center for nearly two hours before being rescued by his fellow firefighters. Join us as Captain Fuentes shares his account of that fateful day in 2001. His story is one of sacrifice, survival and perseverance.

9:30 a.m. – 9:45 a.m.

Break



CONCURRENT SESSIONS

Offered One Time Only

Asset Allocation Techniques during the Empire Ballroom B **Accumulation Phase** Moderator: Thomas Anichini, GuidedChoice Panelists: Christopher Hamilton, Invesco Jeremy Stempien, QMA, Prudential Bridget Witzeman, Voya Financial The first question most participants have once they elect to defer to their retirement via a defined contribution plan is, "Where should I put my money?" Studies have shown that over 90 percent of long-term investment returns are attributable to decisions about one's asset allocation - NOT timing the market or stock picking. For many, this question is very daunting, and rightfully so. Asset allocation decisions can have nearly as much effect on the success of a plan as saving money in the first place. Taking on more risk requires some trade-offs but could be worth it. This session will discuss the importance of: Adopting a core investment line-up that assists • participants with making those decisions Establishing, measuring, and regularly evaluating a • plan's retirement glide path Evaluating fees versus performance Leveraging target date funds and/or asset • allocation services to provide robust asset allocation for plan participants Managed Accounts and the rise of "Robo Advisors" . and how they're providing comprehensive financial planning tools for plan participants and their families **Financial Wellness** Empire Ballroom C Moderator: Joe Saari, Financial Fitness Group Panelists: Jennifer Harmer, Lincoln Financial Group Kenje Mallot, Alight Solutions Polly Scott, Wyoming Retirement System Historically, wellness was comprised solely of physical health and plan sponsors focused on helping

employees improve their physical numbers (i.e., blood

P 19 📡

pressure, glucose and cholesterol). Today, a more holistic approach to wellness exists which includes financial health. For many, money is the biggest stress in their lives and impacts every part of their health – mind, body and spirit. Plan sponsors and recordkeepers are now striving to focus on employees' overall financial health through measures such as targeted communication campaigns and offering financial wellness scores.

This session will focus on:

- Plan level monitoring of plan health
- Incorporating financial wellness into overall wellness program
- Financial education for all stages of employee life (e.g. new regulations for student loan match option)

Retaining Retirees and Those Nearing Retirement

Moderator: Davetta Lee, State of Mississippi Panelists: Kathryn Berkenpas, ICMA-RC Andrea Needham, The Vanguard Group Gordon Tewell, Innovest Portfolio Solutions

Participants have spent decades preparing for the much-anticipated day they can retire. As that day approaches, participants typically experience anxiety on how to navigate the decision-making process to ensure a successful retirement. As a plan sponsor, retiree assets may represent a significant portion of plan assets and retaining those assets generally helps the plan as well as the participant. This session will provide guidance on helping participants navigate this phase of their lives.

This session will address:

- How to holistically view defined contribution assets with pension benefits (if available) including draw down strategies, DROP strategies, retirement income products and service.
- How to create successful targeted marketing campaigns and how data analytics can play a valuable role in successful campaigns.
- Pre-retirement education via targeted campaigns and workshop.
- How Social Security benefits, claiming decisions and health care costs impact most retirees.

Empire Ballroom D



How to keep retirees engaged after separation of service via retiree events. How fund houses and local brokers leverage their products and services to roll-over defined contribution assets to individual retirement accounts and other products. 10:45 a.m. - 11:00 a.m. Break CLOSING SESSION 11:00 a.m. – 12:00 p.m. Industry Innovations Empire Ballroom A Moderator: Jeffrey Snyder, The Morning Pulse Panelists: Josh Cohen, PGIM, The Investment Management Business of Prudential No slides. View the 59-David Ireland, State Street Global minute session video Advisors at https:// Dan Morrison, Empower Retirement Jake O'Shaughnessy, SageView www.youtube.com/ Advisory Group watch? v=4BaUCyCr4wU&list Where will the defined contribution industry be in 2025? The closing session of the conference will feature a =PLpHjXGJ3Cpanel of leaders in the industry sharing their forecasts mzRGhxVPVntFfX7cz and discussing innovative technologies, communication J8G44I&index=3

12:00 p.m. – 1:00 p.m. Strand 4

2020 Annual Conference Committee Meeting

strategies, products, investments and more.

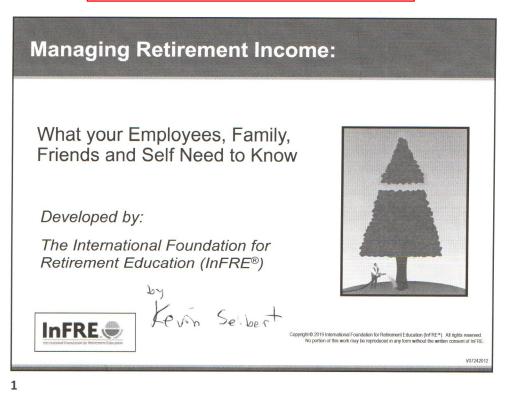
NAGDCA THANKS OUR 2019 ANNUAL CONFERENCE SPONSORS!

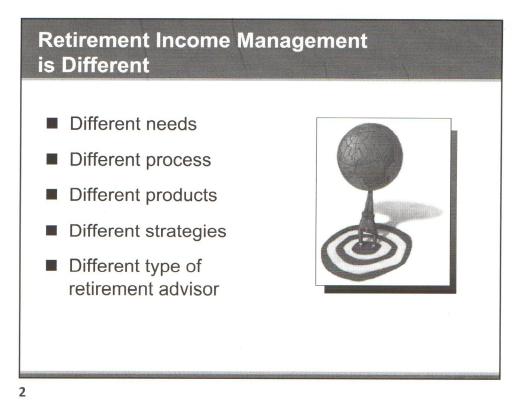
DIAMOND SPONSORS



The Retirement Income Management Process

This was an optional pre-conference session offered for an additional fee.





The New Retirement Environment Reality

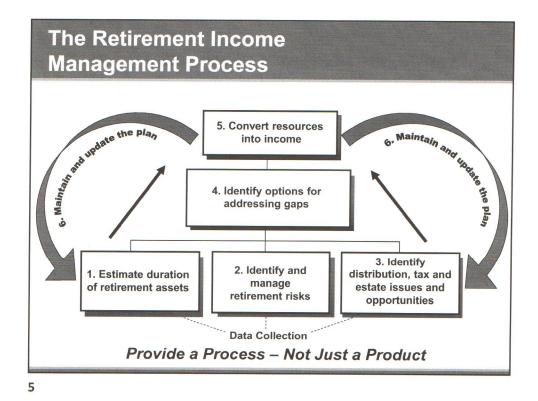


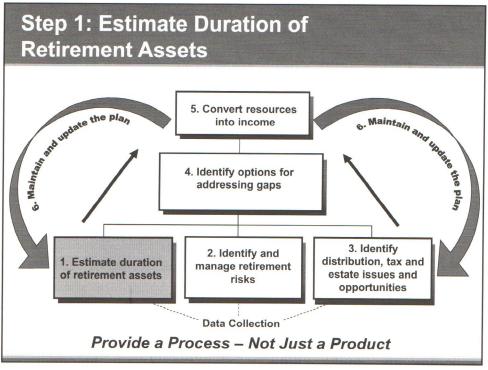
- Retirees need help creating a lifetime income stream
- Retirement assets must last over a longer period of time than in the past
- Pre-retirees and retirees need help managing retirement risks
- No "one size fits all" solution to retirement income management

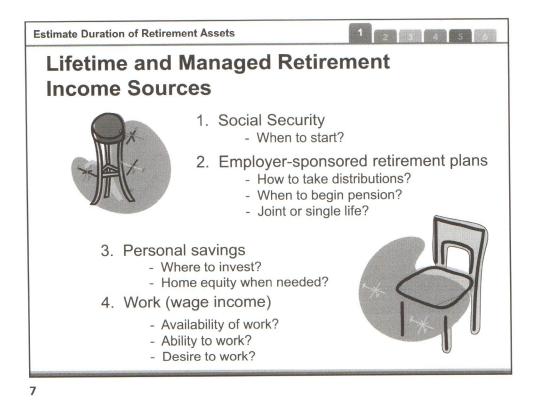
Helping Plan Participants Understand Retirement Income Planning Trade-offs

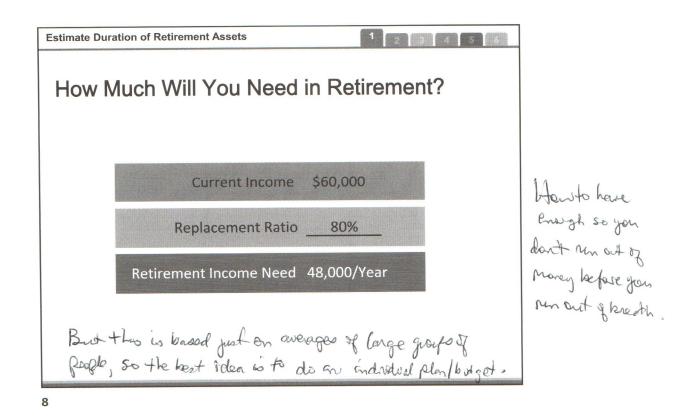
- Investing for preservation purchasing power
 vs conservation of capital
- Starting Social Security/pension/annuity earlier and taking less per month - vs - later and more per month
- Cost of health/long-term care insurance vs one illness that wipes out net worth
- Guaranteed lifetime income with associated product costs - vs - full control of retirement resources with risk of running out of money
- Working full-time for fewer years vs parttime for more years
- Planning on your own vs relying on expert advice

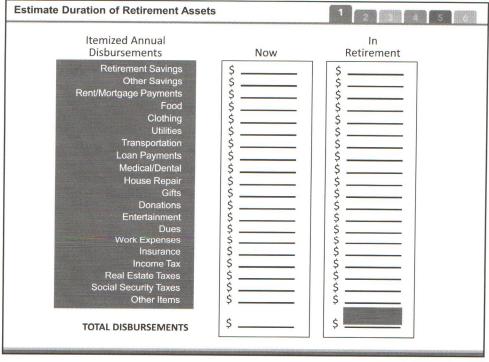


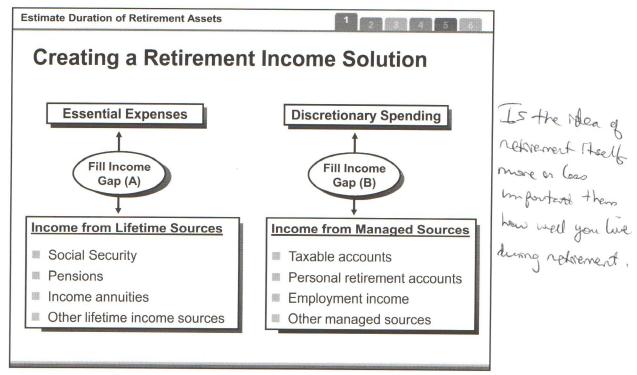


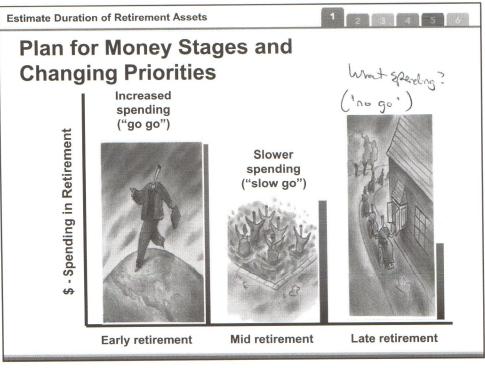


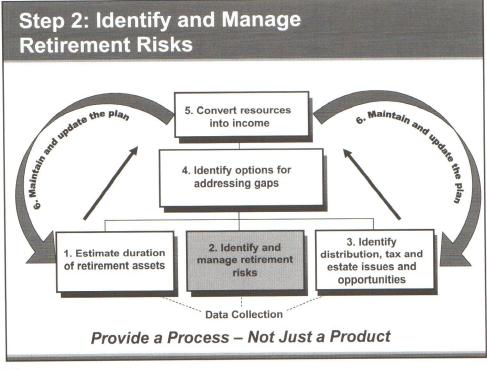


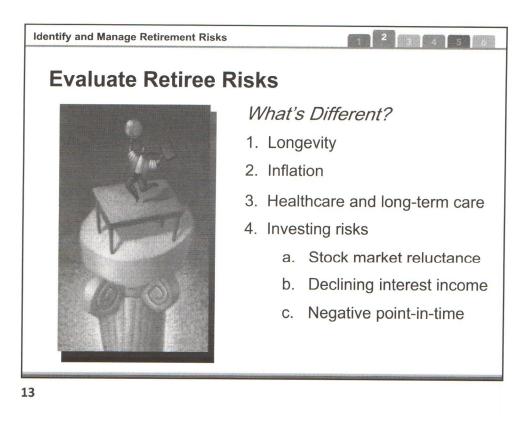


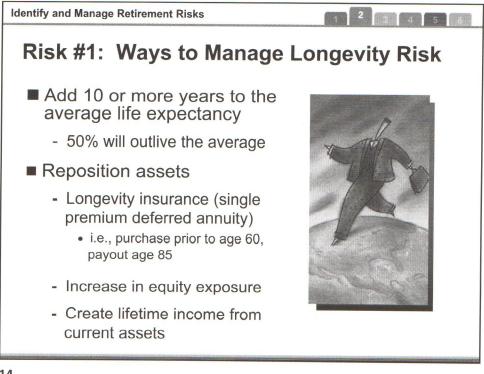


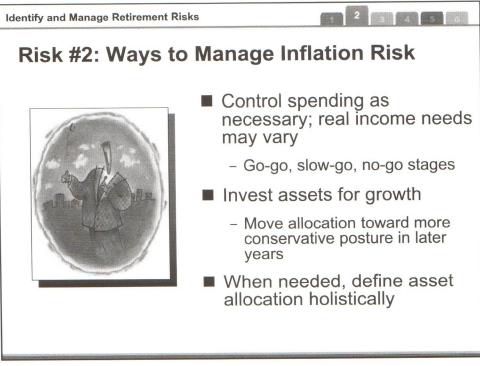


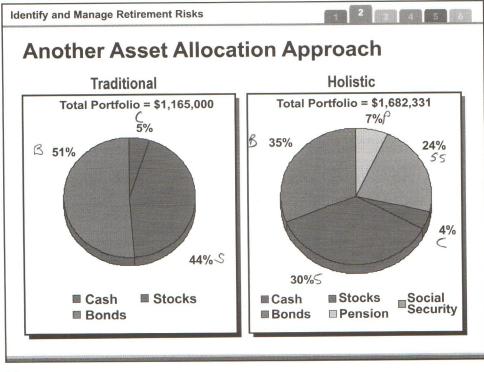


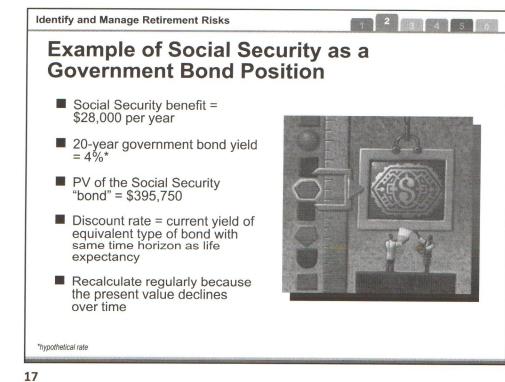


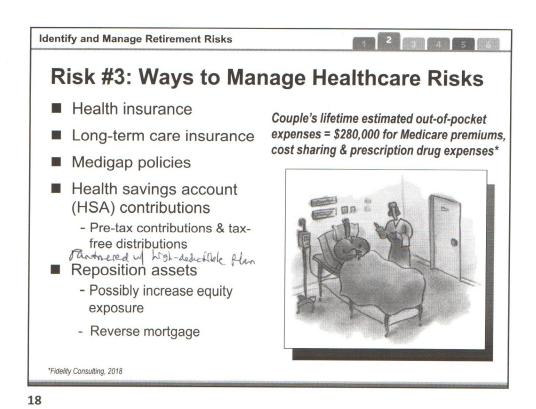


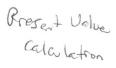




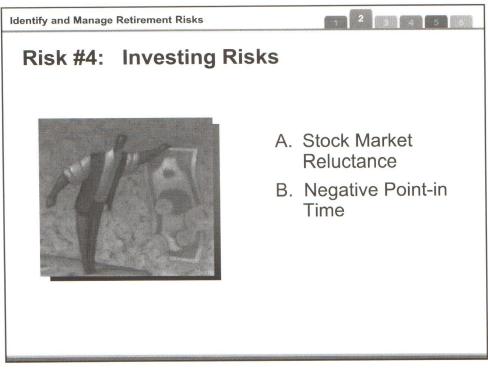




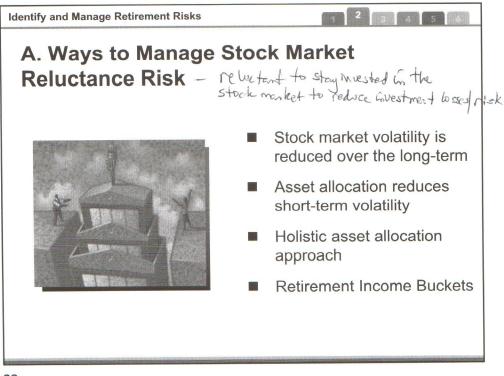


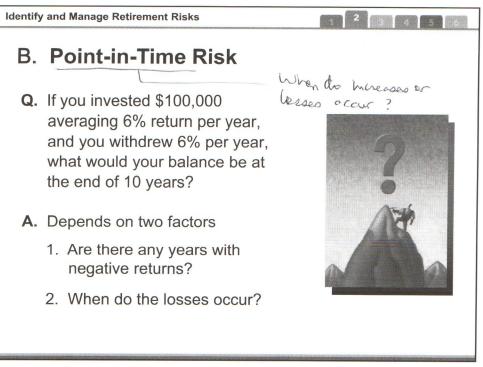


(c) 2019, the International Foundation for Retirement Education (InFRE®) www.infre.org









	Identify and Manage Retirement Risks			1 2 3 4 5 6
\$100,000 in Hypothetical Investment with Loss in Early Years				
	Year	Rate of Return	Withdrawal	Ending Balance
	1	-15%	\$6,000	\$79,900
	2	-10%	6,000	66,510
	3	10.63%	6,000	66,942
	4	10.63%	6,000	67,420
	5	10.63%	6,000	67,949
	6	10.63%	6,000	68,535
0	7	10.63%	6,000	69,182
pe careful	8	10.63%	6,000	69,898
when booking	9	10.63%	6,000	70,691
at overage returns.	10	10.63%	6,000	71,567
Be careful When booking at overage returns. First S-10 years in	Average ROR	6%		

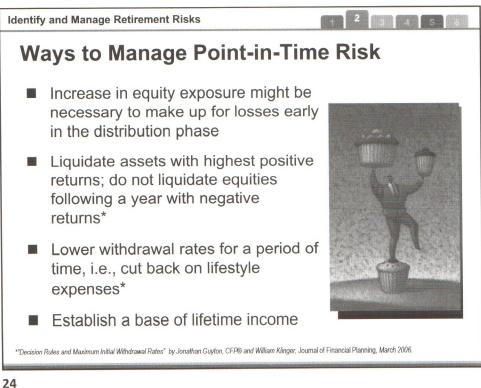
reforement to anothe 22

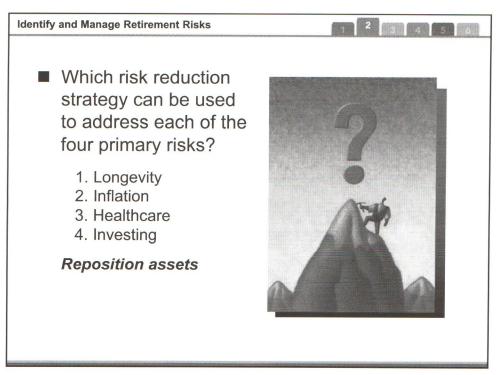
most called to merentain

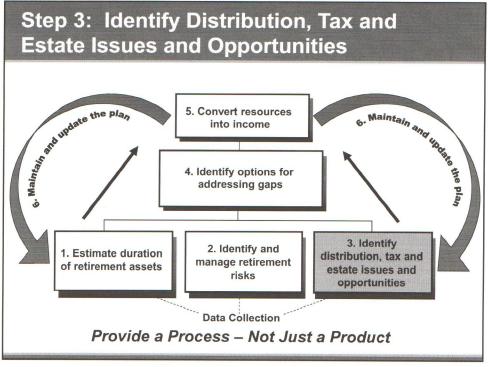
value of assets over time.

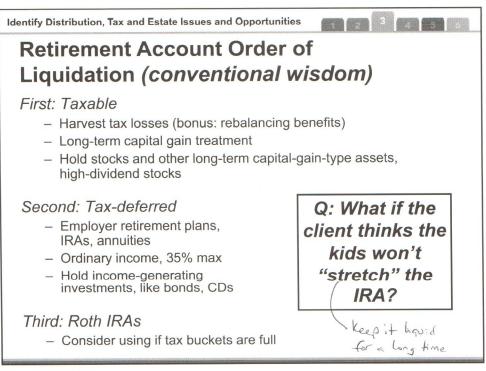
(c) 2019, the International Foundation for Retirement Education (InFRE®) www.infre.org

Identify and Manage Retirement Risks			1 2 3 4 5 6	
\$100,000 in Hypothetical Investment with Loss in Early Years				
Year	Rate of Return	Withdrawal	Ending Balance	
1	10.63%	\$6,000	\$103,922	
2	10.63%	6,000	108,409	
3	10.63%	6,000	113,295	
4	10.63%	6,000	118,770	
5	10.63%	6,000	124,680	
6	10.63%	6,000	131,296	
7	10.63%	6,000	138,615	
8	10.63%	6,000	146,712	
9	-15%	6,000	119,605	
10	-10%	6,000	102,245	
Average ROR	6%			

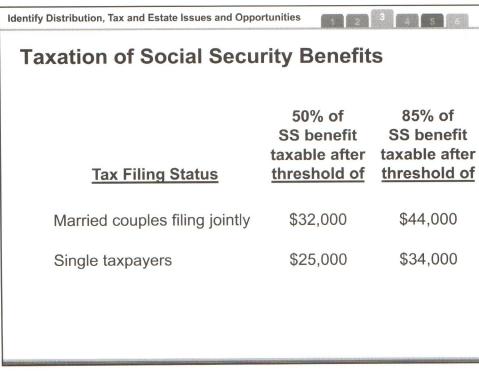


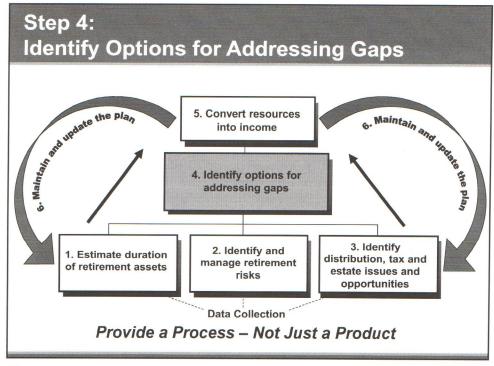


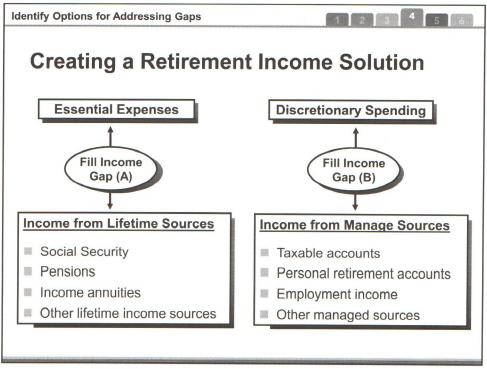


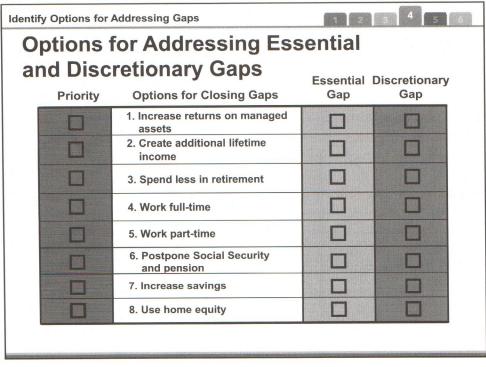


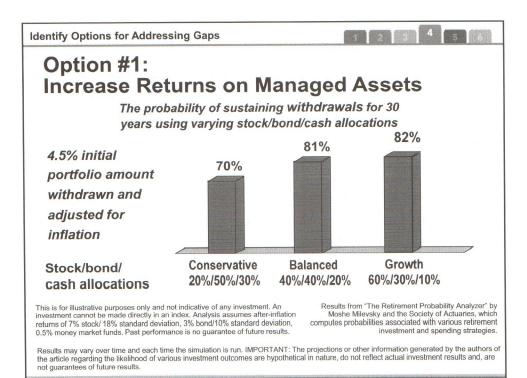


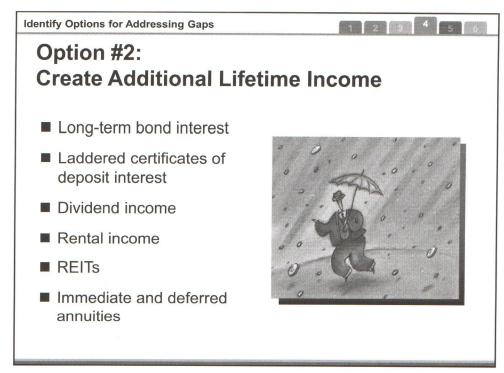






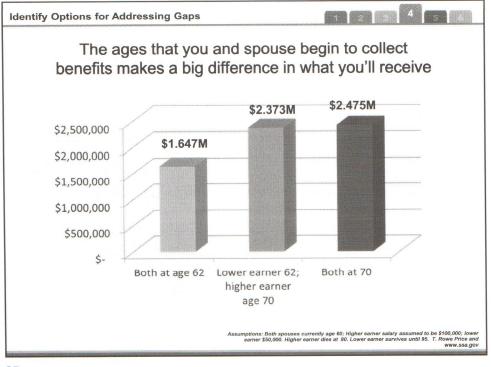


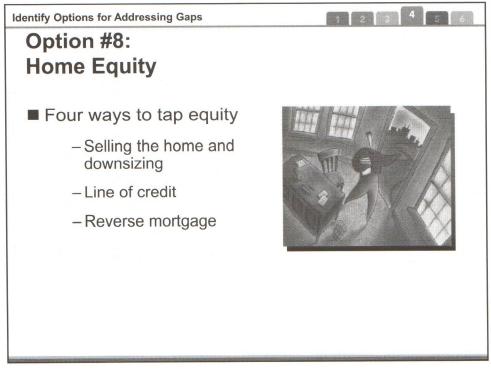


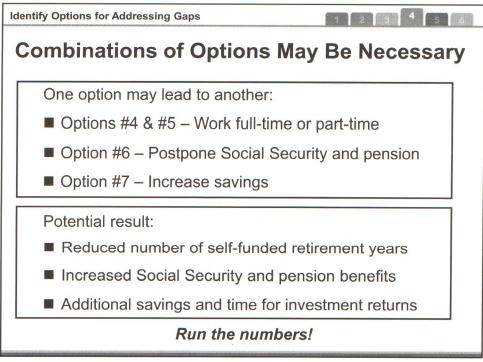


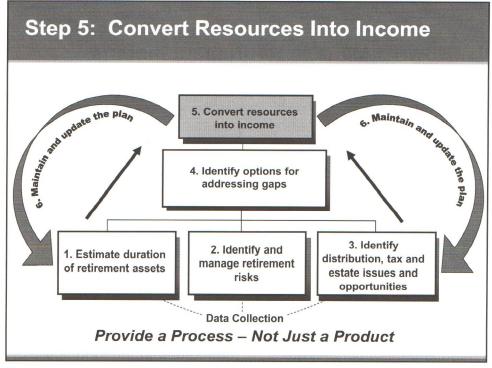
Source #6: Postpone Social Security a	and Pe	ension	
When to start:			
 Key factors to consider are health and longevity risks. 		Annual	I % of
Breakeven for age 62 and Full	Age	Benefit*	Amt
Retirement Age (FRA) benefits occurs around age 78.	62	\$14,000	70%
 For beneficiaries born after 1943, 8% increase for every year delay past FRA up until age 70. 	64	\$16,000	80%
 Potential reductions due to 	67	\$20,000	100%
employment and taxation of benefits.	70	\$24,800	124%
Impact on surviving spouse benefits.			

If have bergond 78, there's a hage benefit to delay

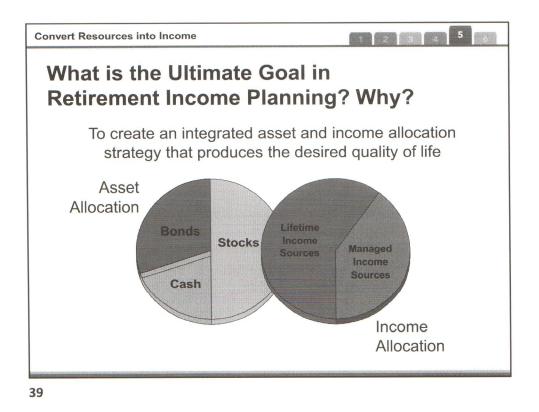


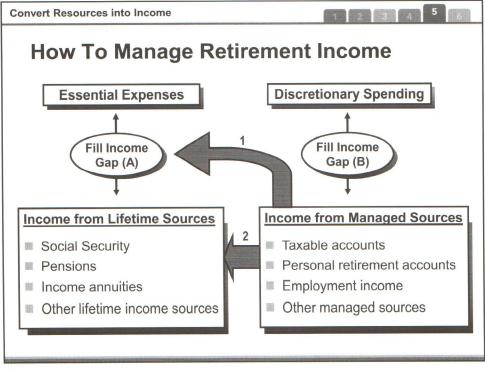


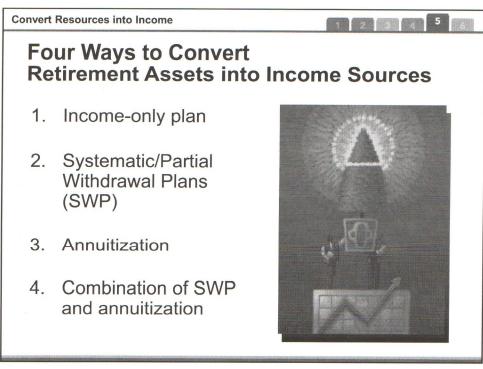


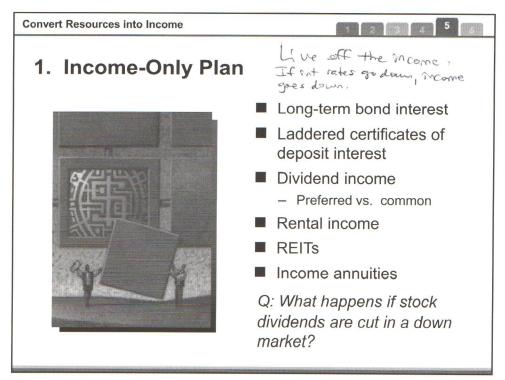


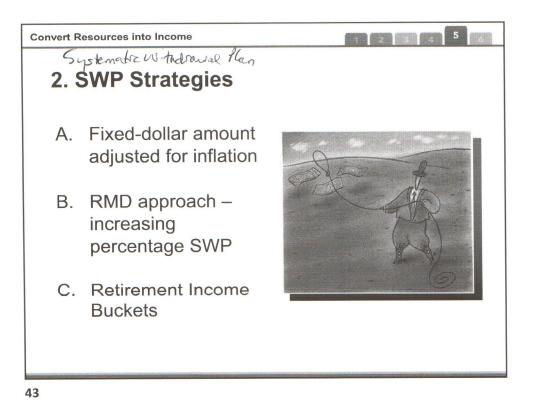


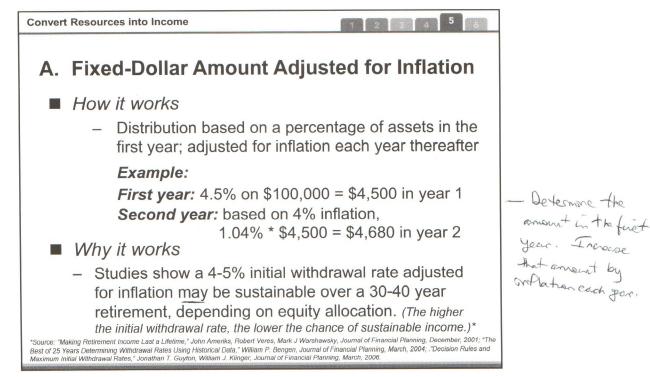




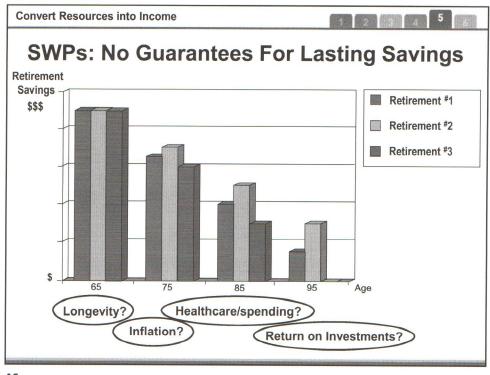




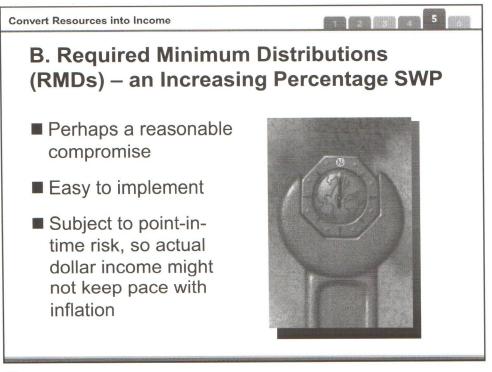


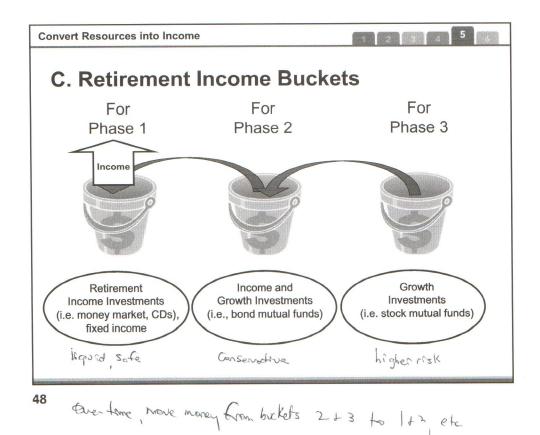


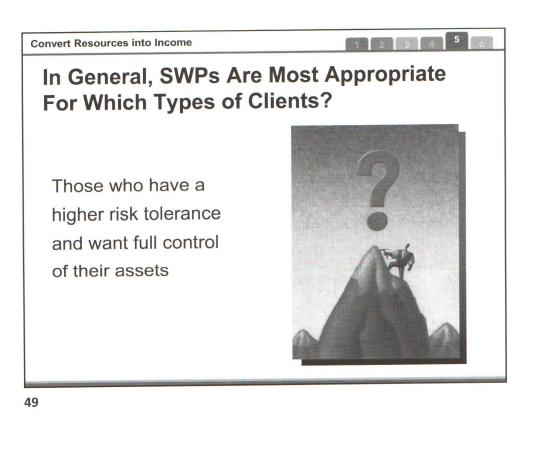
Convert Resourc	es into Incom	1 2	5						
-	Capital Requirements: First-Year Annual Income Amount								
Income Needed	Percenta 2%	ge Withdra 3%	wn in First Y	ear of Retir 5%	ement				
\$10,000	\$500,000	\$333,333	\$250,000	\$200,000	\$166,667				
\$20,000	\$1,000,000	\$666,667	\$500,000	\$400,000	\$333,333				
\$40,000	\$2,000,000	\$1,333,333	\$1,000,000	\$800,000	\$666,667				
\$60,000	\$3,000,000	\$2,000,000		\$1,200,000	\$1,000,000				
\$80,000	\$4,000,000	\$2,666,667	\$2,000,000	\$1,600,000	\$1,333,333				
\$100,000	\$5,000,000	\$3,333,333	\$2,500,000	\$2,000,000	\$1,666,667				
L									

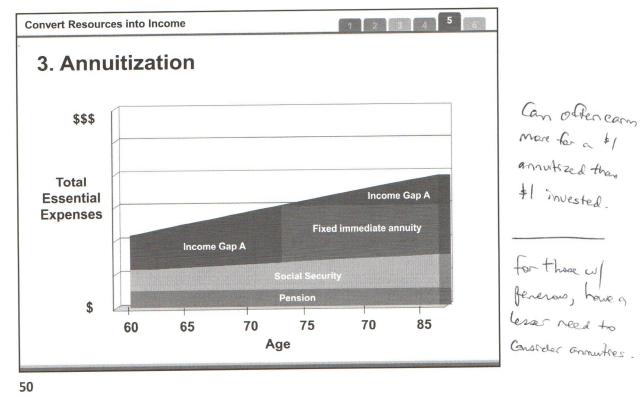


(c) 2019, the International Foundation for Retirement Education (InFRE®) www.infre.org

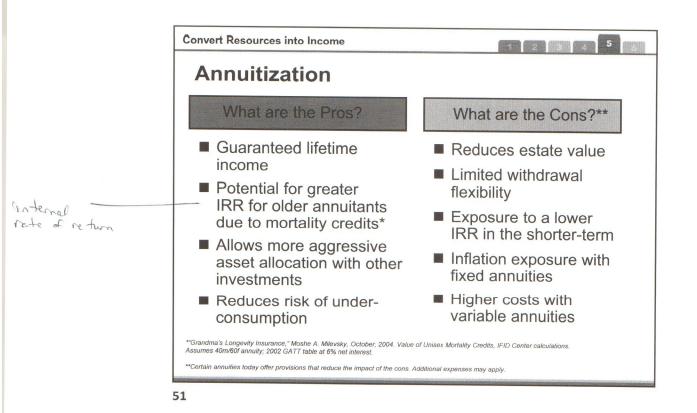


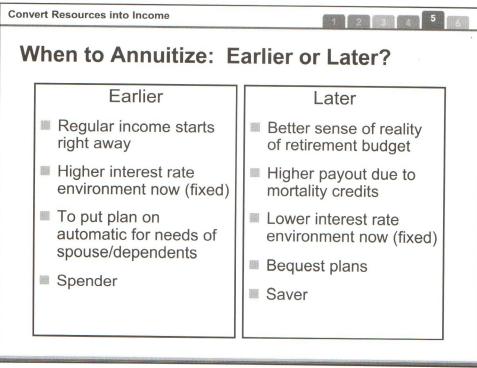


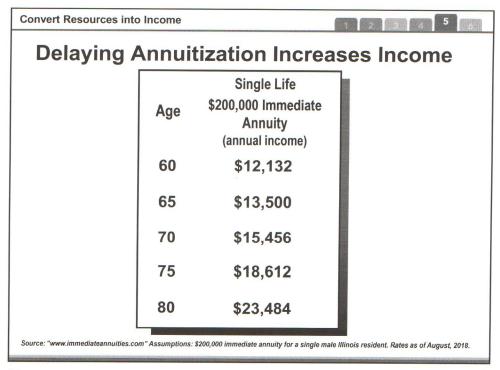


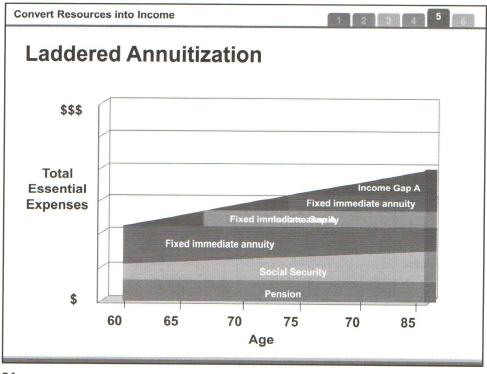


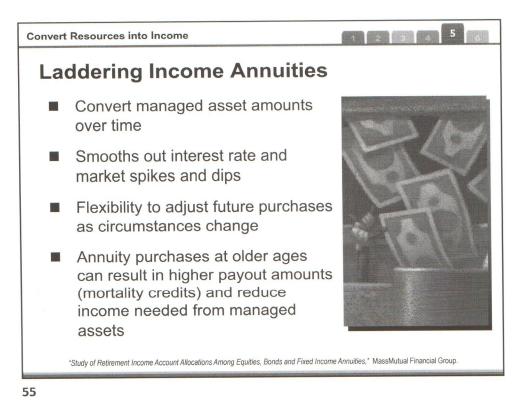
(c) 2019, the International Foundation for Retirement Education (InFRE®) www.infre.org

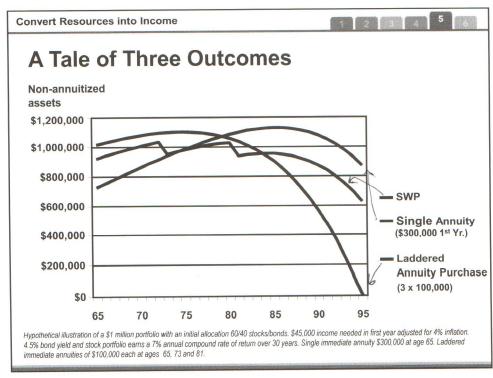


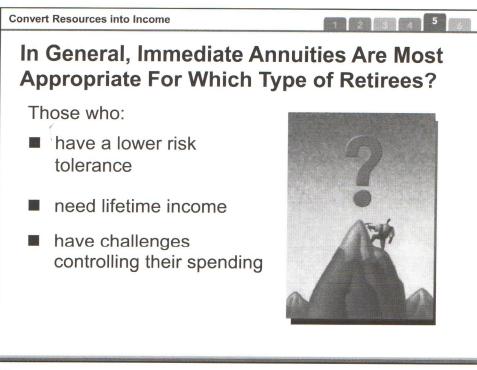




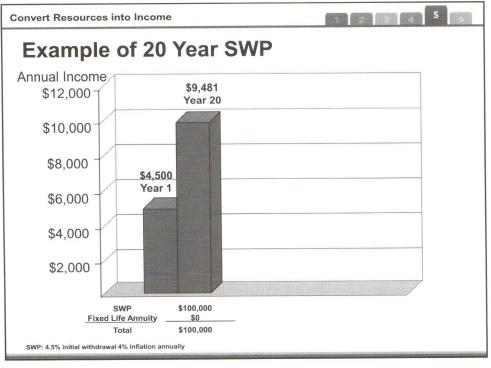


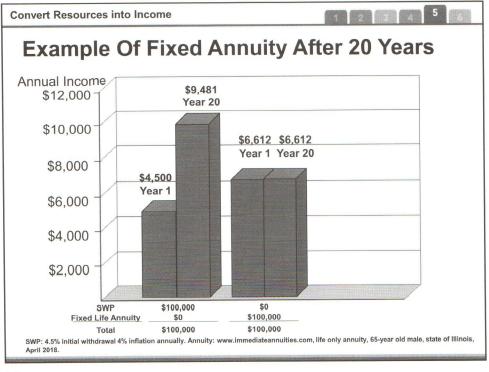




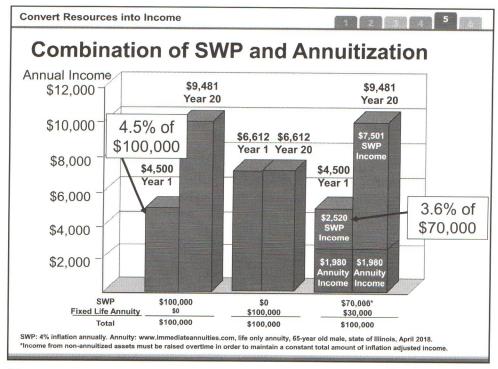


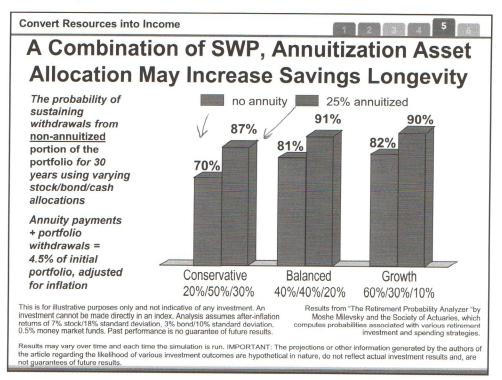
Convert Resources into Income							
4. Combination of SWP and Annuitization							
Comparing a SWP with Annuitized Income							
Fixed Dollar SWP	Fixed or Variable Immediate Annuity						
Ν	Υ						
Y	Ν						
Ν	Υ						
Ν	Y						
	P with Annuitiz Fixed <u>Dollar SWP</u> N Y N						

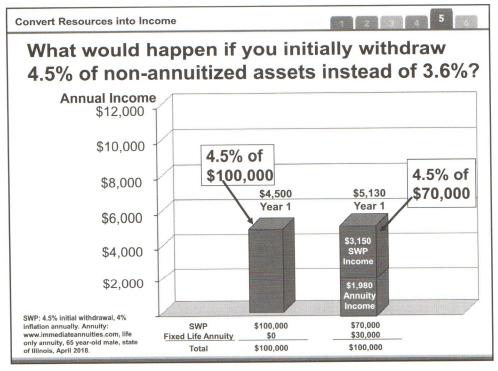


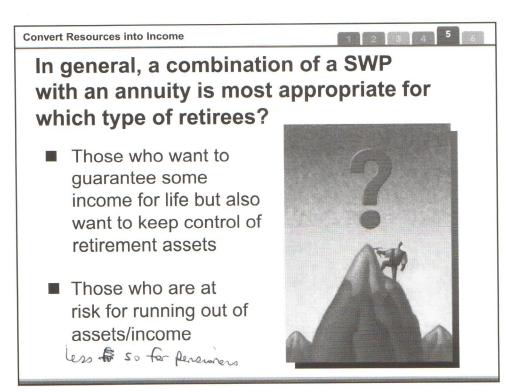


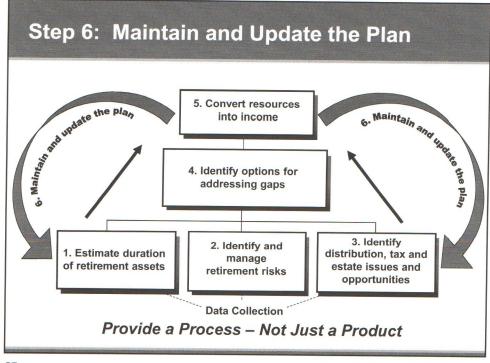


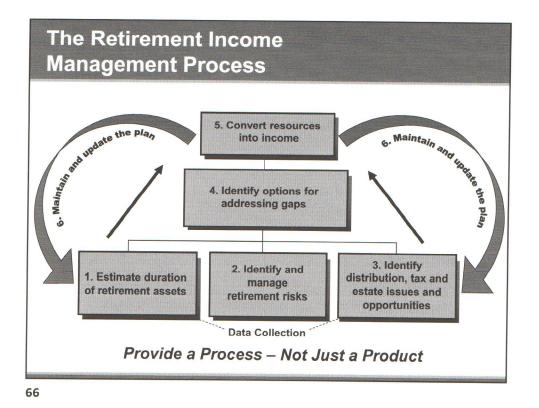




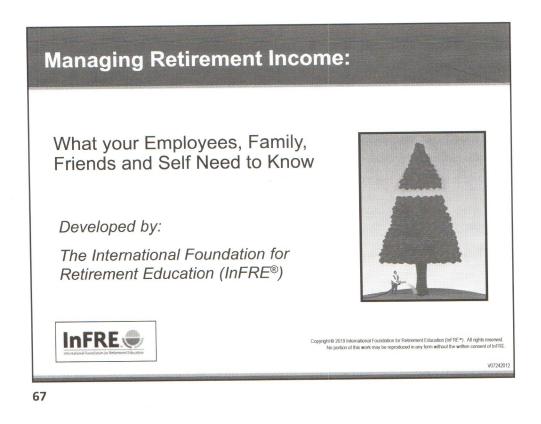








đ



CRC - Constal Referencent Counselor

Session CE Code - WHITE

(c) 2019, the International Foundation for Retirement Education (InFRE®) www.infre.org



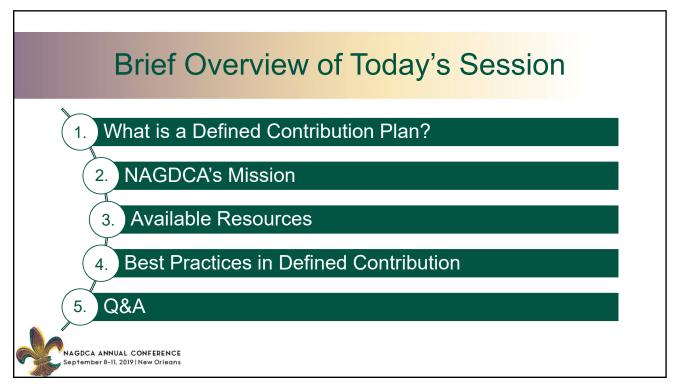
An Introduction to Government Defined Contribution Plans

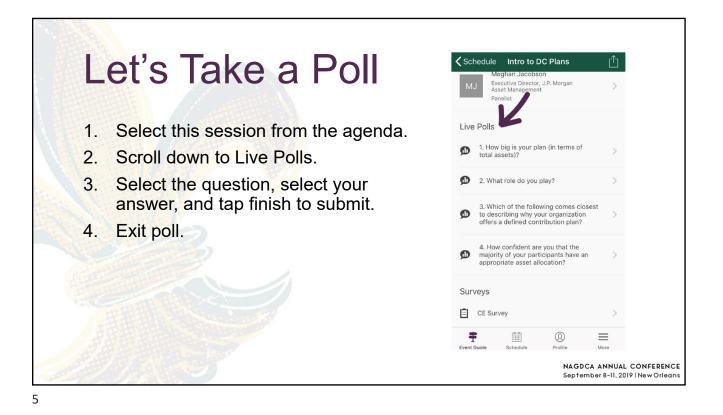
40th NAGDCA Annual Conference

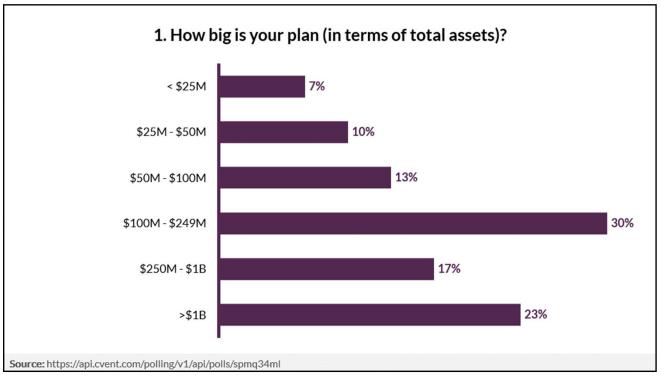
Matt Petersen, NAGDCA Executive Director Tom Mueller, Former NAGDCA President, LA County Sanitation Meghan Jacobson, CFA, Head of J.P. Morgan U.S. Insights Program

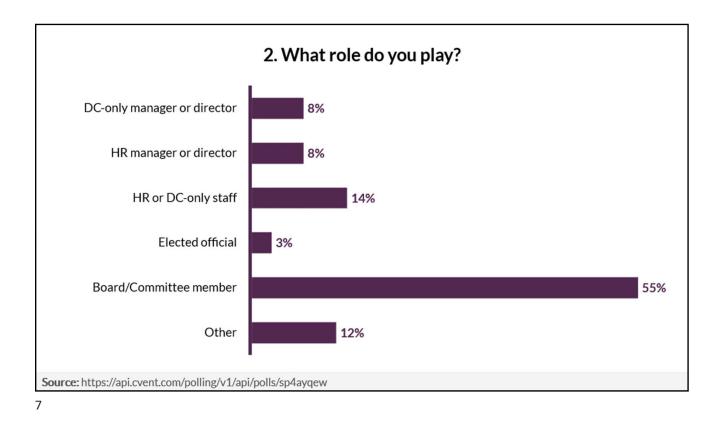


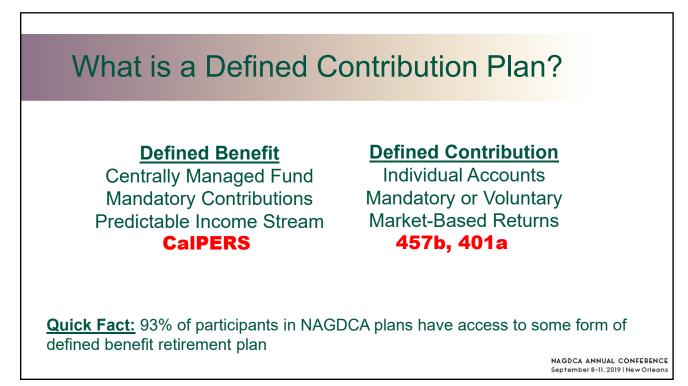


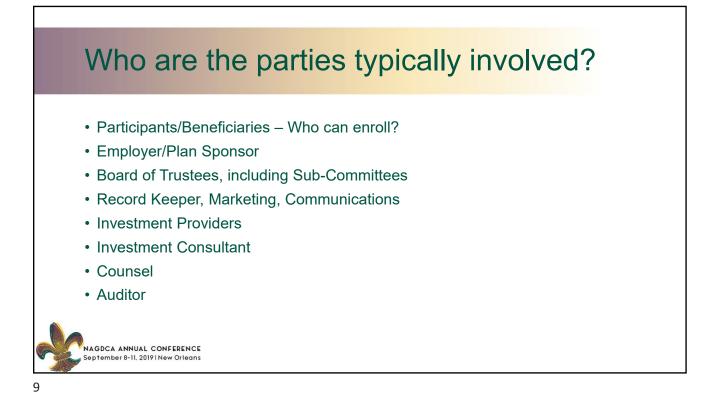






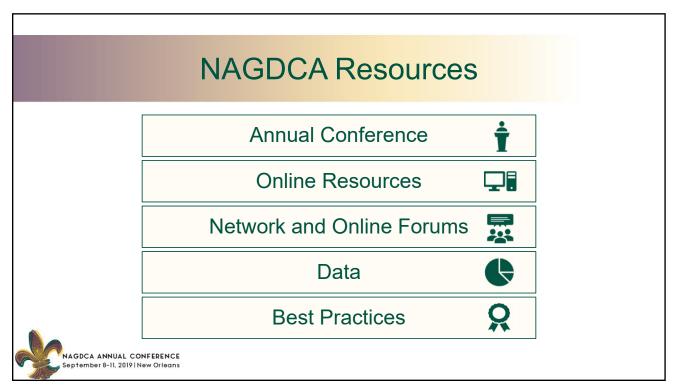










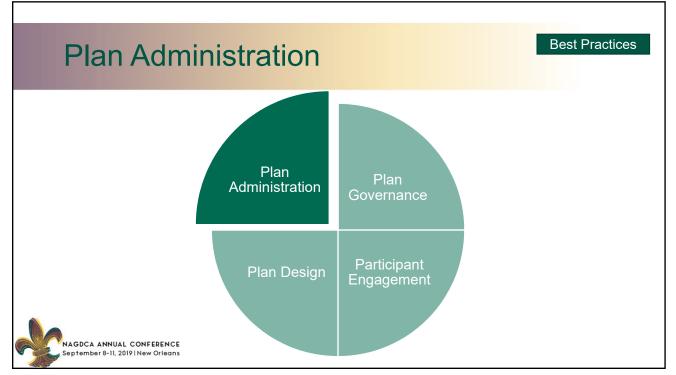


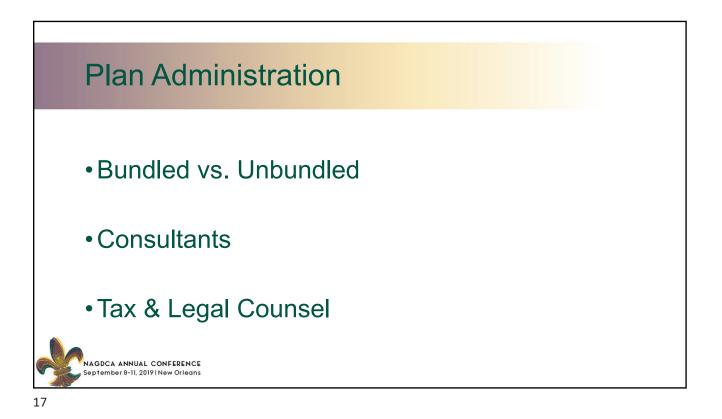




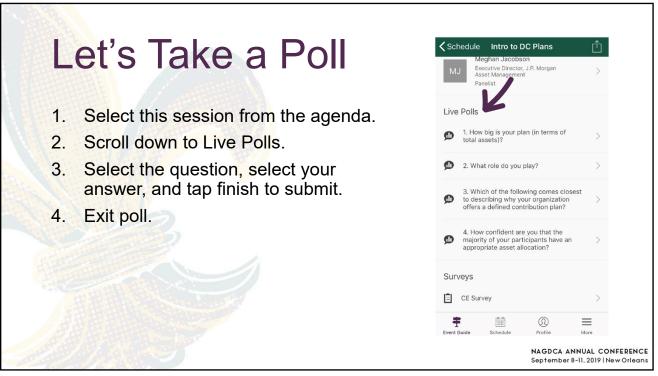


15

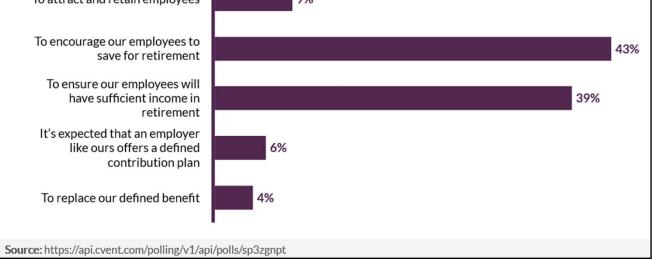


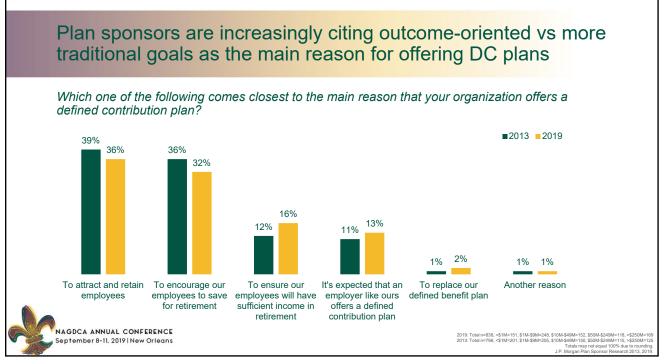


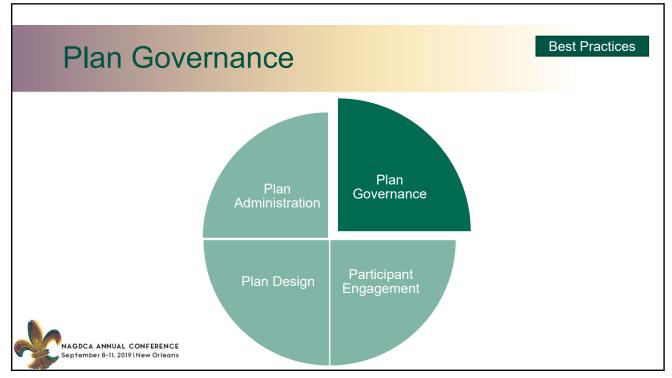




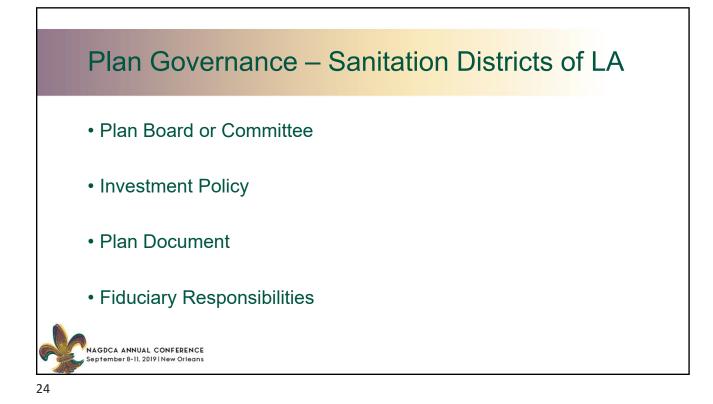
3. Which of the following comes closest to describing why your organization offers a defined contribution plan?



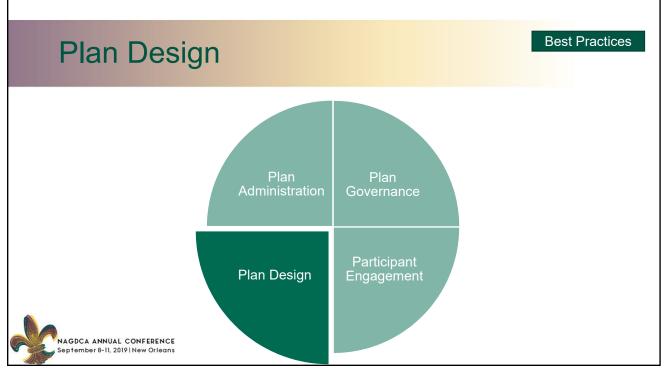




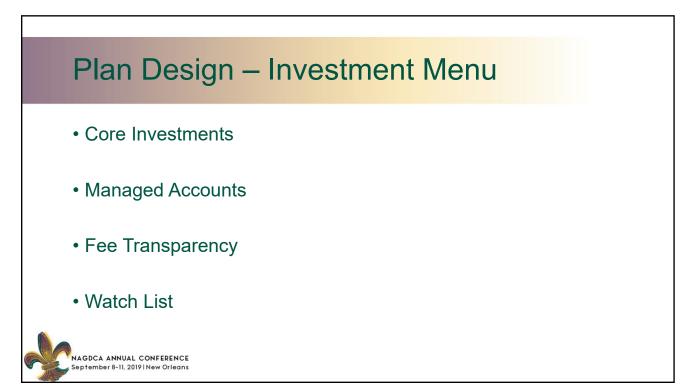




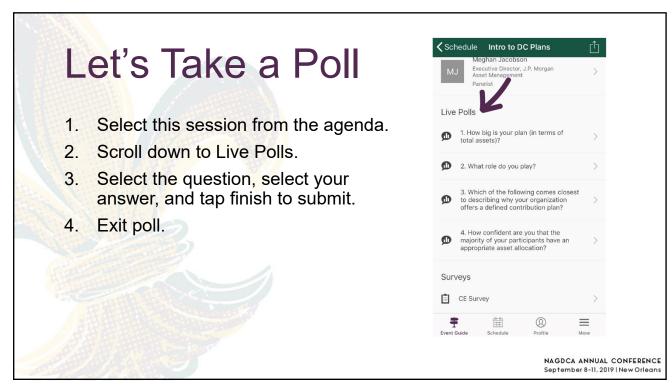


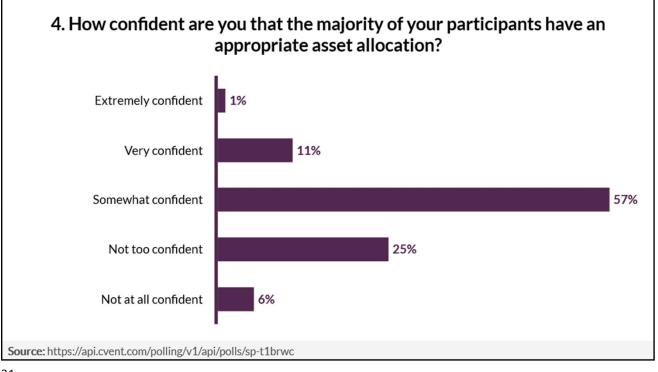




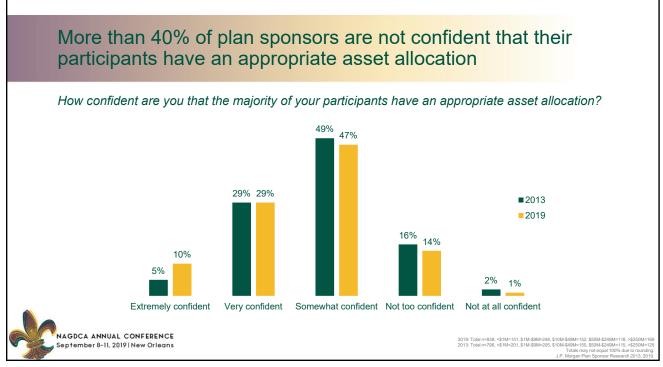


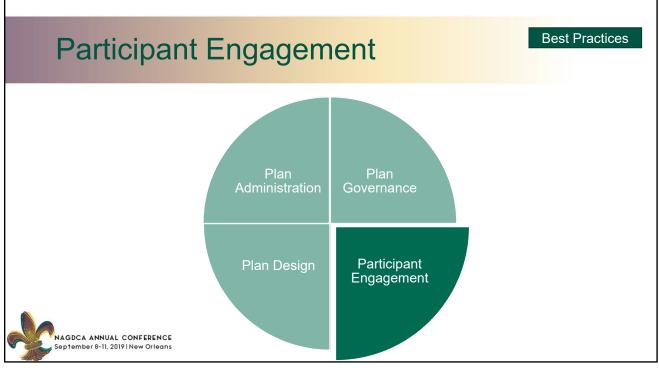






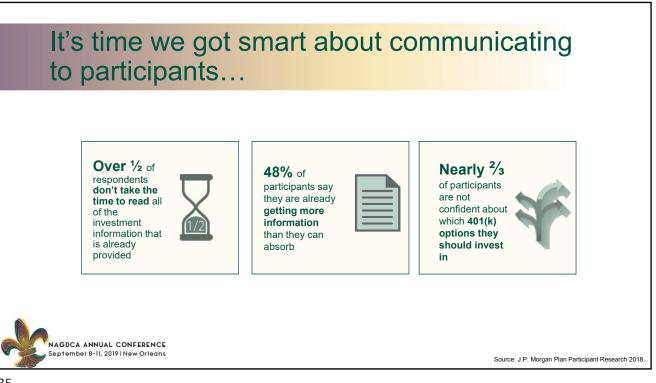




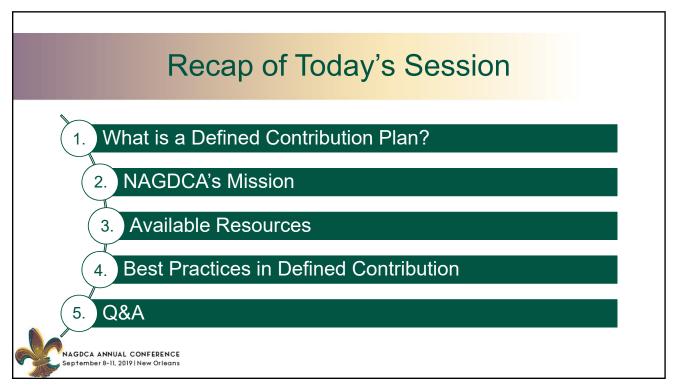


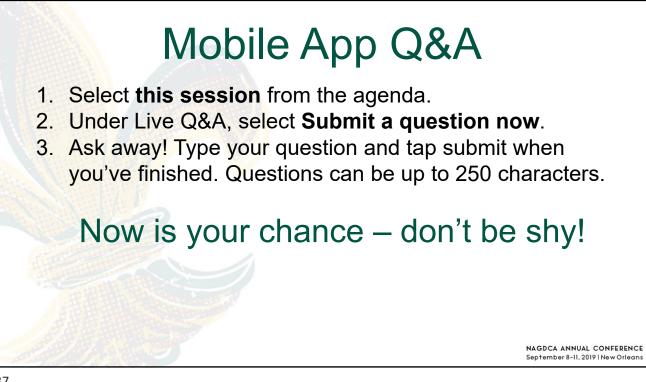
33













Board/Committee Membership, Governance & Best Practices

Moderator: Rob Boehmer – State of Nevada Panel:

- Gay Lynn Bath Oregon Public Universities Retirement Plans
- Julian Regan Segal Marco Advisors
- Mike Golojuch City and County of Honolulu







- Four by Position
 - Director, Department of Budget and Fiscal Services (BFS) Chair
 - Managing Director delegated to alternate, Chief Internal Control Div.
 - Director, Corporation Counsel
 - Director, Department of Human Resources (DHR)
 Each of these positions has an alternate
- Three Positions Elected Four year terms

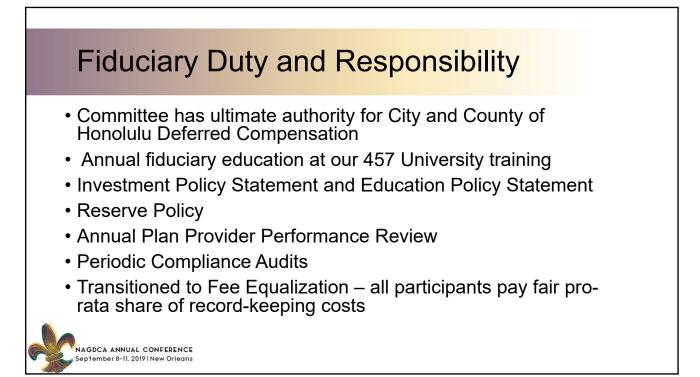
Two – Active Employees

One - Retiree

- Staff
 - BFS Administrative Services Officer
 - · Chief, DHR Benefits, Research, and Transactions Branch
 - Deputy Corporation Counsel

NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans



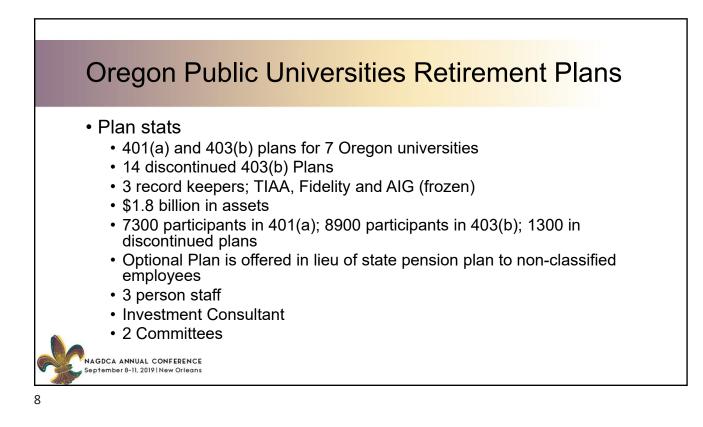


Role of Committee versus Staff

- Committee takes Action
 - What is best for the plan participants
 - · Continue to review best practices
- Staff Provides Input to Committee and Day-to-Day Activities







Oregon Public Universities Retirement Plans Committees

- Charter
 - Covers both Investment and Administration Committees
 - · Appointed by Board or duly appointed delegate
 - · No time limits
 - Criminal background check
 - Basic knowledge and understanding of the plan documents, investment policy statement, governing materials.
 - Quarterly meetings for each committee; annual joint meeting

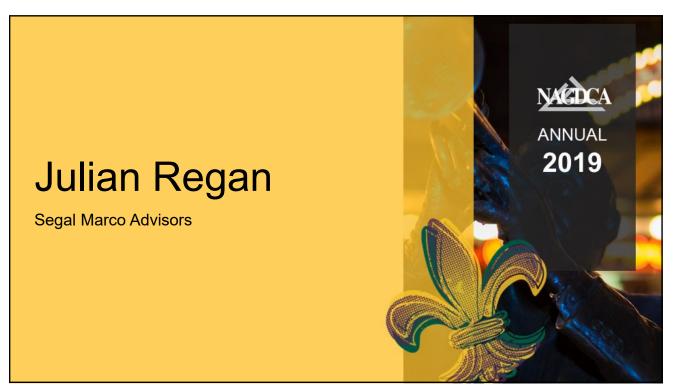


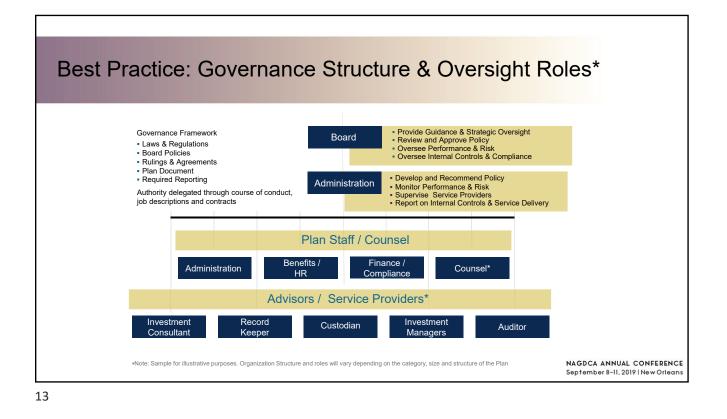
Administration Committee

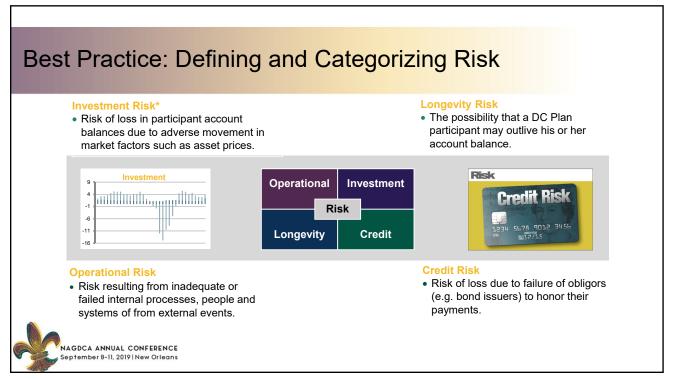
- Administration Committee
 - 9 members; Director is chair; benefit managers from each campus and 1 from shared services payroll
 - · No fiduciary duty; advisory role
 - Advise on:
 - interpretation of provisions of Plans;
 - · service agreements with vendors
 - administration of plans for exclusive benefit of participants;
 - specific obligations, responsibilities and duties required by the Plans;
 - eligibility of participants,
 - resolution of disputes,
 - · provide stewardship to the Board or its delegates

NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans

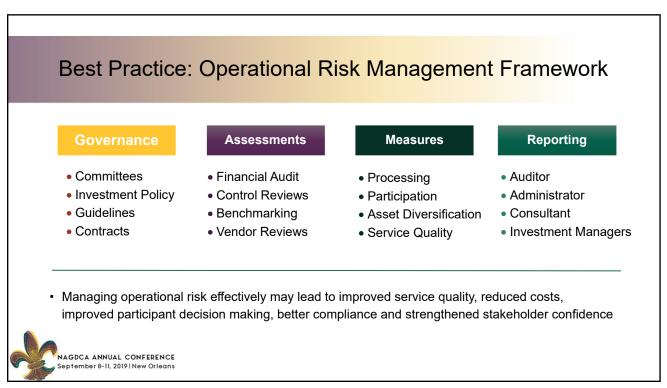








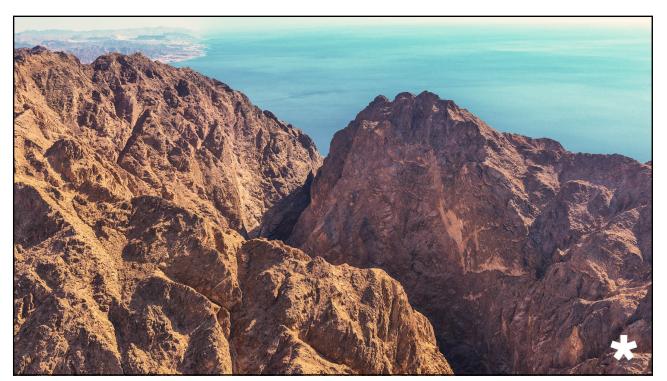


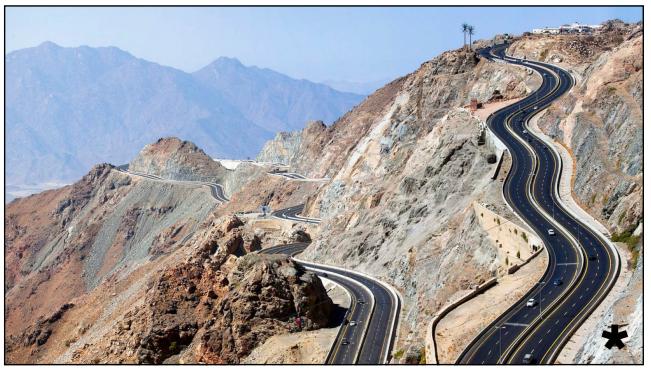




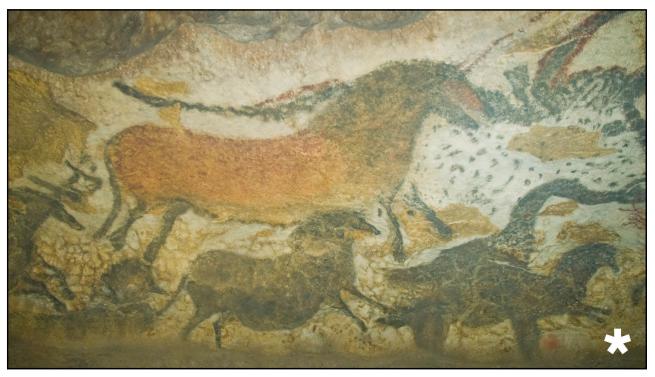
<section-header><list-item><list-item><list-item><list-item>



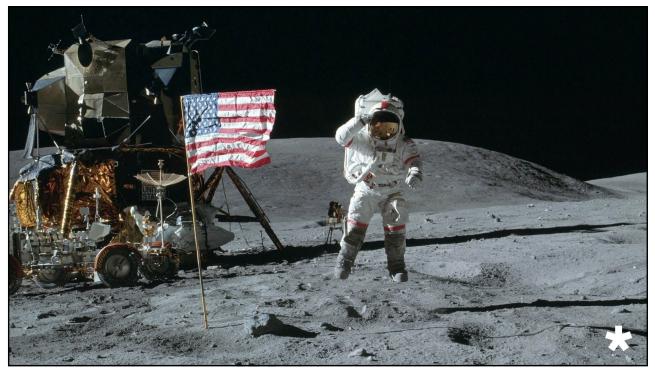






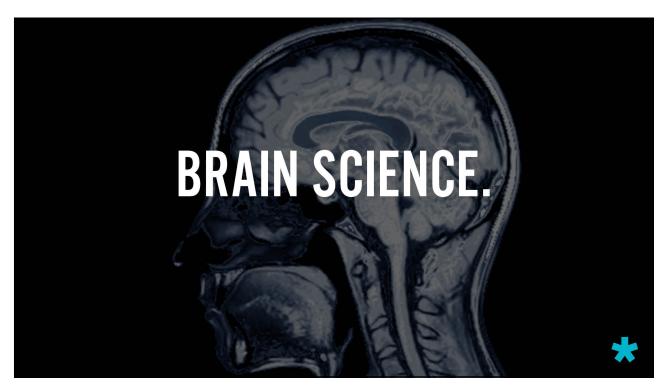




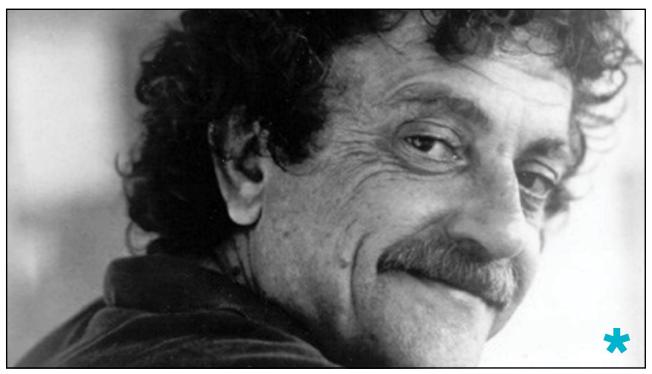


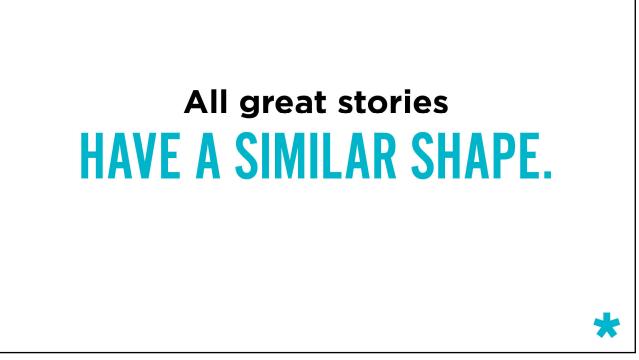


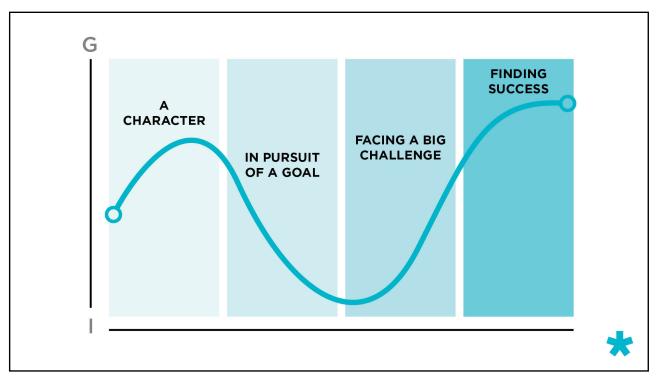
















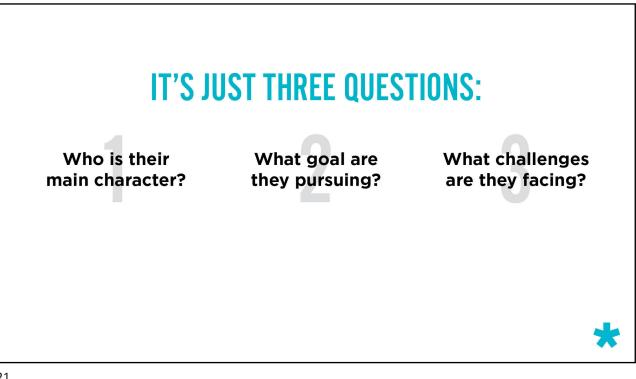






A NEW EL	A NEW ELEVATOR PITCH				
We make great computers.	VS.	In everything we do, we believ in challenging the status quo We believe in thinking different			
They're beautifully designed, simple to use, and user-friendly.	VS.	The way we challenge the status quo is by making our products beautifully designed, simple to use, and user-friendly.			
Want to buy one?	VS.	We just happen to make great computers. Want to buy one?			
		•			



















NAGDCA Affirmative Legislative Priorities

ROTH IMPROVEMENTS

- Allow Roth 457(b), 401(k), 401(a) and 403(b) plan participants to roll assets from Roth IRAs to these plans
- Exempt Roth contributions from RMD rules, as Roth IRA assets are presently exempt

ENHANCE DISTRIBUTION CHOICE

Allow QCDs from 457(b), 401(a), 401(k) and 403(b) plans, as is permitted from IRAs

1

ENHANCE ADMINISTRATIVE EFFICIENCY & PROMOTE SAVINGS

- Permit non-spousal beneficiaries to roll assets to 457(b), 401(k), 401(a) and 403(b) plans
- Eliminate the "first day of the month" requirement in 457(b) plans

ENHANCE INVESTMENT OPTIONS FOR 403(B) INVESTORS

Permit CITs and separate accounts as investment vehicles in 403(b) plans and deemed IRAs as in other governmental plans

> NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans

House Ways and Means Committee Gwen Moore (D-WI) Devin Nunes (R-CA) **Democratic Members** Dan Kildee (D-MI) Vern Buchanan (R-FL) Richard Neal, Chair (D-MA) Brendan Boyle (D-PA) Adrian Smith (R-NE) John Lewis (D-GA) Don Beyer (D-VA) Kenny Marchant (R-TX) Lloyd Doggett (D-TX) Dwight Evans (D-PA) Tom Reed (R-NY) Mike Thompson (D-CA) Brad Schneider (D-IL) Mike Kelly (R-PA) John Larson (D-CT) Tom Suozzi (D-NY) George Holding (R-NC) Earl Blumenauer (D-OR) Jimmy Panetta (D-CA) Jason Smith (R-MO) Ron Kind (D-WI) • Stephanie Murphy (D-FL) Tom Rice (R-SC) Bill Pascrell (D-NJ) Jimmy Gomez (D-CA) David Schweikert (R-AZ) Danny Davis (D-IL) Steven Horsford (D-NV) Jackie Walorski (R-IN) Linda Sanchez (D-CA) Darin LaHood (R-IL) Brian Higgins (D-NY) Brad Wenstrup (R-OH) **Republican Members:** Terri Sewell (D-AL) Kevin Brady, Ranking Member (R-TX) Suzan DelBene (D-WA) Judy Chu (D-CA) NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans 2



Market Outlook

Timothy F. Kearney, PhD Asset Allocation Strategist Voya Investment Management

n is proprietary and cannot be reproduced or distributed. Certain information may avestment Management ("Voya IM") considers reliable; Voya IM does not repres accurate or complete. Certain statements contained herein may constitute "project and-looking statements" which do not reflect actual results and are based primaril hypothetical set of assumptions to certain historical financial data. Actual results, fer materially from those in such statements. Any opinions, projections, forecasts ented herein are valid only as of the date of this document and are subject to chan n should be construed as (i) an offer to buy any security or (ii) a recommendation investing in, purchasing or selling any security. Voya IM assumes no obligation to auformation

es no obligation to u



NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans

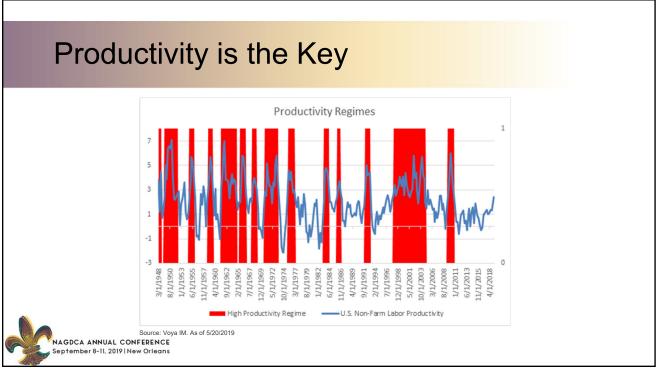
Historical Market Statistics, 1979-2018

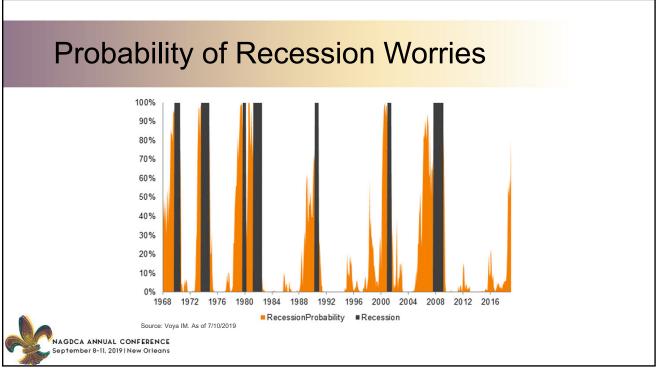
	Return	Volatility	Skewness	Kurtosis
S&P 500	5.8%	16.3%	-48.3%	101.0%
Russell 1000 Growth	5.7%	18.7%	-44.4%	65.3%
Russell 1000 Value	6.5%	15.9%	-52.1%	135.7%
MSCI U.S. Minimum Volatility	5.5%	11.6%	-62.1%	158.9%
Russell 3000	6.3%	16.8%	-54.3%	115.5%
Russell Midcap	7.6%	18.3%	-52.0%	109.7%
Russell 2000	5.5%	16.2%	-45.6%	93.7%
MSCI EAFE	4.3%	19.2%	-28.3%	16.6%
MSCI World	5.4%	16.1%	-57.9%	95.6%
MSCI EM	8.4%	27.3%	-46.4%	60.5%
MSCI ACWI	5.8%	16.8%	-60.1%	100.8%

storical	Ma	rke	et (Cor	re	lati	on	S , ′	197	79-	20	18
	S&P 500	Russell 1000 Growth	Russell 1000 Value	MSCI U.S. Minimum Volatility	Russell 3000	Russell Midcap	Russell 2000	MSCI EAFE	MSCI World	MSCI EM	MSCI ACWI	Bloomberg Commodity
S&P 500	1.00											
Russell 1000 Growth	0.96	1.00										
Russell 1000 Value	0.95	0.83	1.00									
MSCI U.S. Minimum Volatility	0.94	0.85	0.95	1.00								
Russell 3000	1.00	0.96	0.95	0.93	1.00							
Russell Midcap	0.95	0.92	0.92	0.90	0.97	1.00						
Russell 2000	0.83	0.83	0.80	0.77	0.88	0.92	1.00					
MSCI EAFE	0.67	0.64	0.65	0.63	0.68	0.66	0.60	1.00				
MSCI World	0.93	0.90	0.89	0.87	0.93	0.91	0.81	0.90	1.00			
MSCI EM	0.70	0.69	0.67	0.65	0.72	0.72	0.67	0.73	0.79	1.00		
MSCI ACWI	0.92	0.89	0.88	0.86	0.92	0.90	0.81	0.89	0.99	0.85	1.00	
Bloomberg Commodity	0.25	0.24	0.26	0.24	0.27	0.30	0.29	0.31	0.31	0.37	0.33	1.00

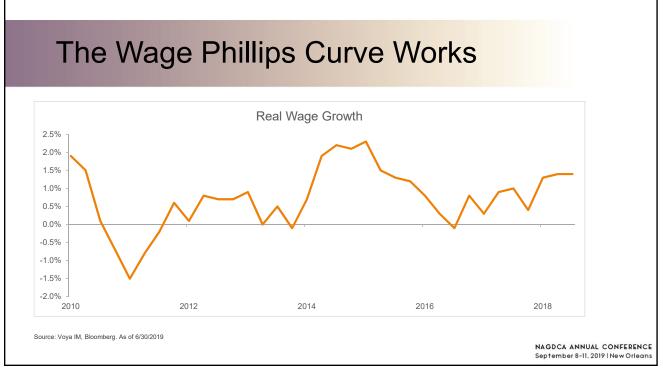
9/9/	2019
------	------

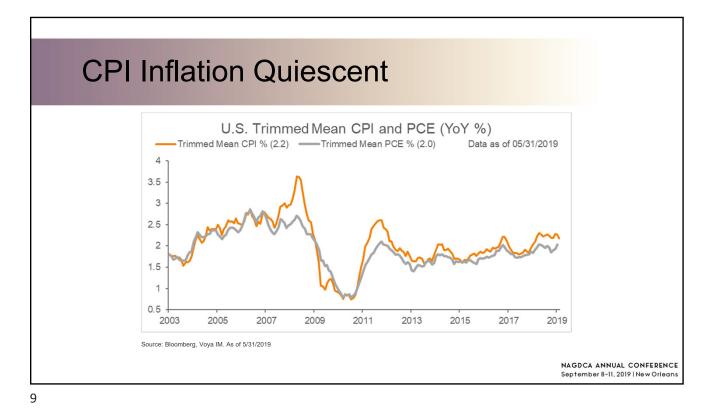
Investment	Themes
	Summary of 2019 SAA Investment Themes
Late Cycle + Fed Tightenin	g $ ightarrow$ Growth Uncertainty + Lower Visibility $ ightarrow$ Flexibility as Clarity Develops
Low Return World: Low or below average returns for most major asset classes.	Most of the strength of asset class returns has been extracted with strong post-GFC returns. Sustaining the past three years of robust profit growth as a percent of GDP is likely to be more challenging as late cycle pressures associated with higher financing and wage costs.
Less Visibility on Monetary Policy and Growth: Global ex US Economic slowdown persists with the US joining. US growth slows but remains above trend.	The Fed is trying to engineer a slowdown to trend growth from above trend. However, they do not have a good historical track record at doing so. Global earnings slowdown undermines the view on relative value in equity market multiples. US is slowing from a blistering pace, China is stimulating its economy but in a mild and controlled way and the ECB is withdrawing QE in spite of downside risks to growth. Equity markets may touch top and bottom of a wide trading range.
Credit Market Cycle Slowly Turning: Monetary policy rates are rising led by the US. Higher financing costs and interest expense exposes weaker corporate balance sheets.	Higher rates associated with tighter monetary policy are increasing corporate financing costs. However, the lag between credit cycle turning and a recession is long and varied; it can span years with several resets. Significant growth in IG debt outstanding and in covenant-lite issuance in the leverage loan market are potential areas of longer-term weakness.
Rate Cycle Peaking: US Monetary Policy has tightened over the past three years.	The Yield curve is flattening across all measures and real fed funds rates are now positive for the first time in the past decade. Probability of U.S. recession models are also rising from very low levels for the first time since 2015.

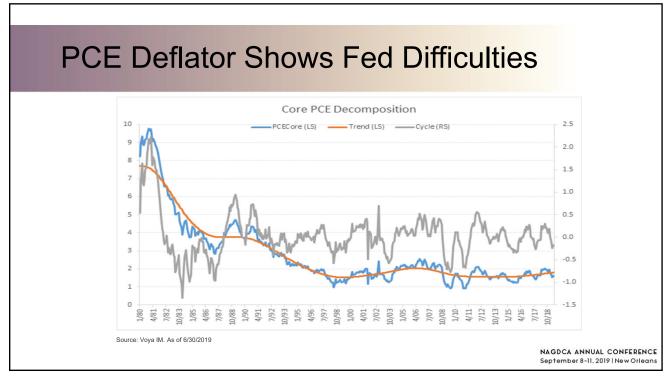


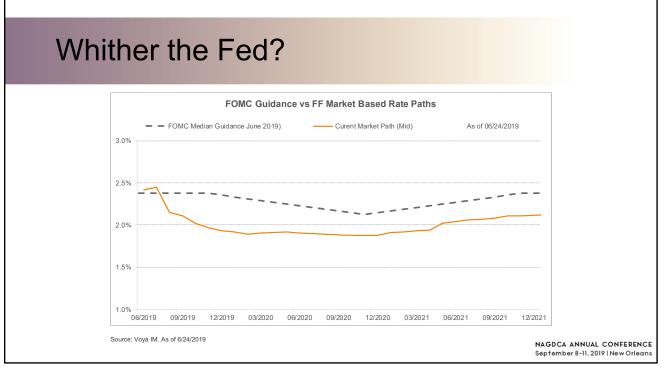


7









Modest Outlook

	Medium Term Forecast
GDP Growth	2.0%
Inflation (CPI-U)	2.2%
CPI ex Food and Energy	2.3%
Fed Funds Rate	3.0%
Ten-Year Treasury Yield	3.4%
S&P 500 Earnings Growth	5.5%
Savings Rate	8.1%

Source: Voya IM. As of 6/30/2019

NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans

Expected Returns, Volatilities

	Expected	d Returns				
Equity Index	Geometric Mean Return (%)	Arithmetic Mean Return (%)	Volatility (%)	Skewness	Kurtosis	Sharp Ratio
S&P 500	4.6	5.8	16.3	-0.48	1.0	0.18
Russell 1000 Growth	4.0	5.7	18.7	-0.44	0.7	0.15
Russell 1000 Value	5.4	6.5	15.9	-0.52	1.4	0.23
MSCI U.S. Minimum Volatility	4.9	5.5	11.6	-0.62	1.6	0.22
Russell 3000	5.0	6.3	16.8	-0.54	1.2	0.20
Russell Midcap	6.0	7.6	18.3	-0.52	1.1	0.25
Russell 2000	5.9	8.4	22.8	-0.55	1.2	0.24
MSCI EAFE	2.5	4.3	19.2	-0.28	0.2	0.08
MSCI World	4.2	5.4	16.1	-0.57	0.9	0.16
MSCI EM	4.7	8.4	27.3	-0.46	0.6	0.20
MSCI ACWI	4.4	5.8	16.9	-0.60	1.0	0.17
Bloomberg Commodity	2.6	3.8	15.6	-0.41	1.5	0.06

NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans

13

Equity Investment Options

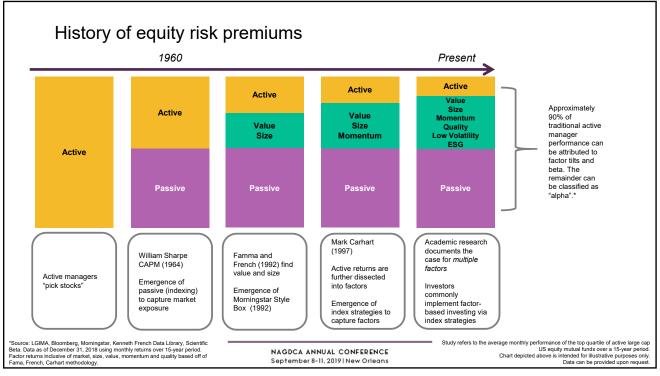
Shaun Murphy, CFA, LGIMA

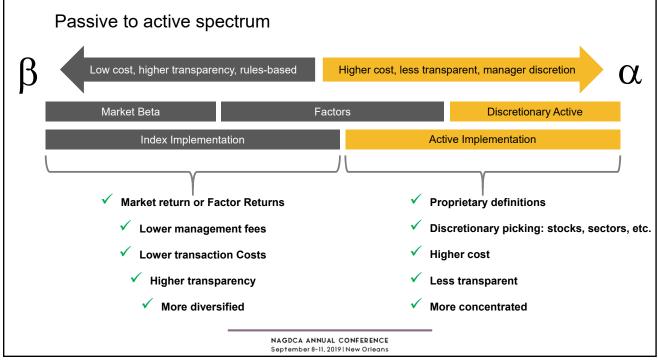
Case for Active vs. Passive & Investment Structures

"Legal & General" also seen as "we" throughout this presentation relates to Legal & General Investment Management America ("LGIMA"), an SEC registered investment advisor, Legal & General Investment Management ("LGIM"), an FCA authorized advisor, LGIM Asia an adviser registered with the Hong Kong Securities and Futures Commission and LGIM International ("LGIMI"), an FCA authorized advisor and SEC registered investment advisor. The foregoing presentation is for the services of only LGIMA.

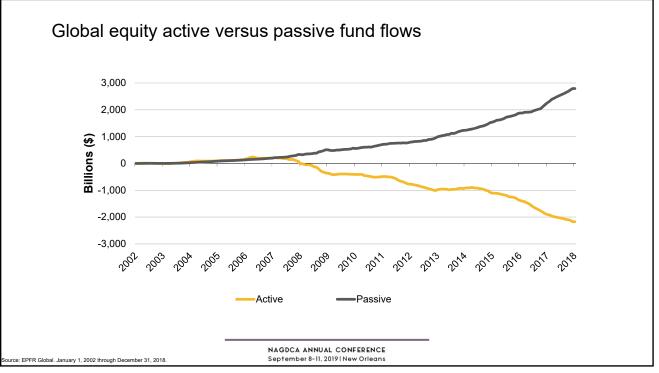
For more additional information regarding LGIMA, please see the Disclosure Section at the end of this presentation.



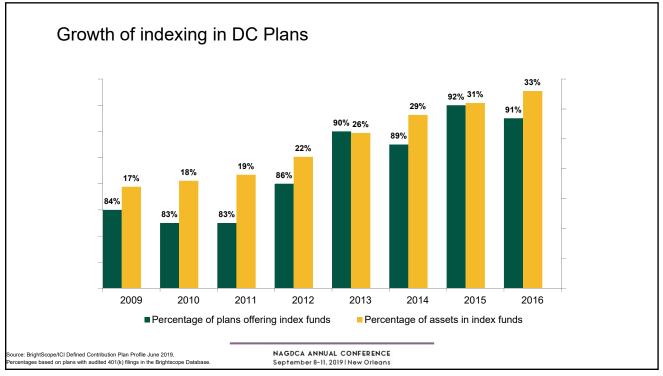


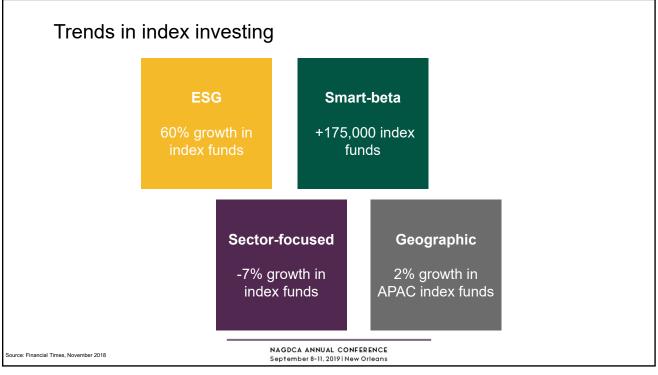


9/9/2019

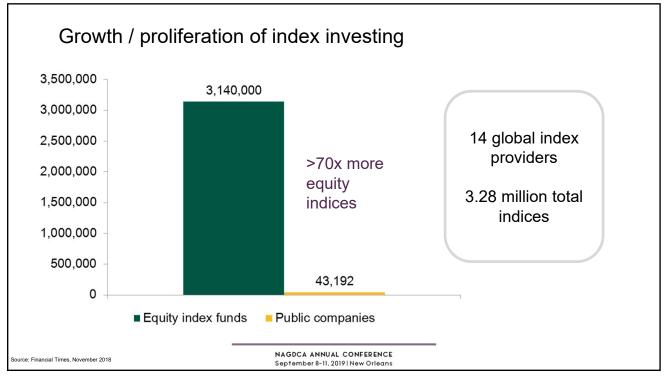






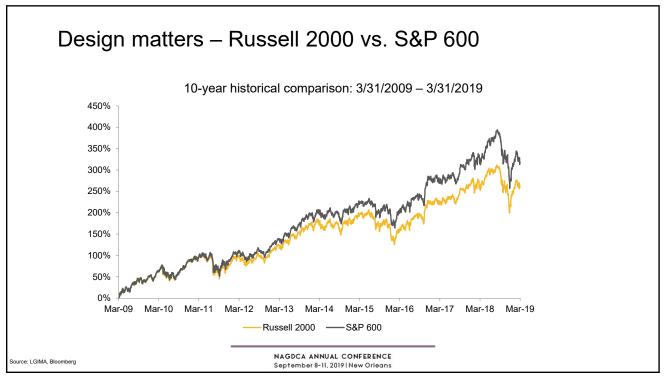


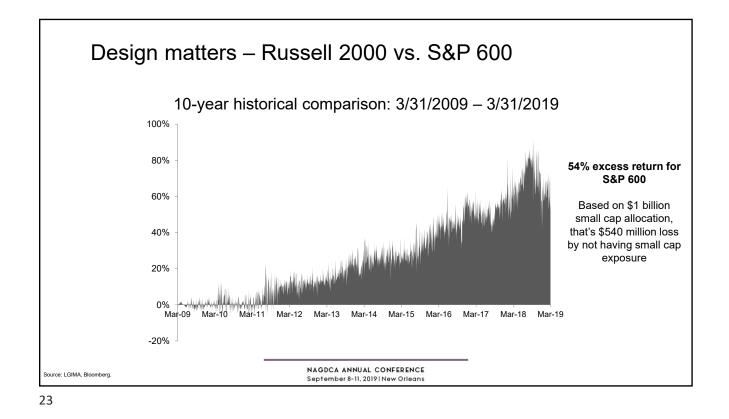


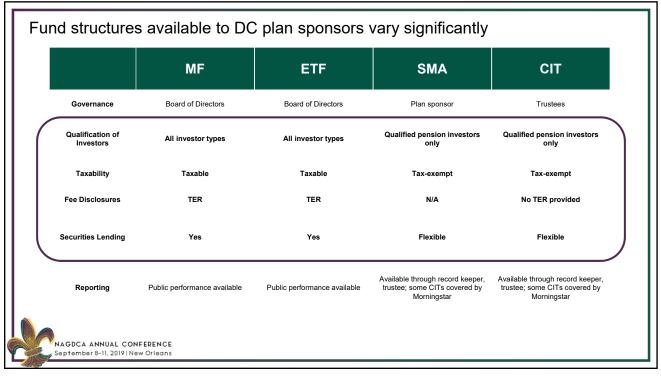


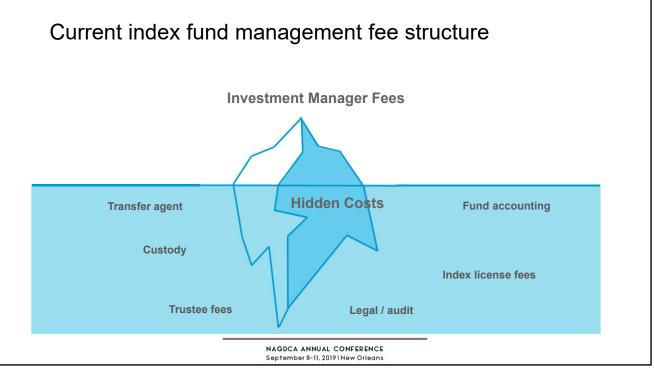
	Russell 2000	S&P 600
10-year correlation		99%
Weighting	Market Cap	Market Cap
Construction	Rules based	Committee governed
Market cap range	\$180 million to \$4.3 billion	\$350 million to \$1.6 billion
Annual turnover	12-16%	12-16%
Rebalancing frequency	Annual	No annual/semi annual rebalance
Reparation requercy	Annual	Quarterly share updates
	IPOs : Eligible initial public offerings (IPOs) are	IPOs : Initial public offerings should be seasoned for six to 12 months before being considered for addition to an index.
Notable eligibility requirements	added to Russell indexes at the end of each calendar quarter	Financial Viability: The sum of the most recent four consecutive quarters' as-reported earnings should be positive as should the most recent quarter.











Disclosure

The material in this presentation regarding Legal & General Investment Management America, Inc. ("LGIMA") is confidential, intended solely for the person to whom it has been delivered and may not be reproduced or distributed. The material provided is for informational purposes only as a one-on-one presentation, and is not intended as a solicitation to buy or sell any soluties or other financial instruments or to provide any investment advice or service. LGIMA does not guarantee the timeliness, sequence, accuracy or completeness of information included. The information contained in this presentation, including, without limitation, forward looking statements, portfolic construction and parameters, markets and instruments traded, and strategies employed, reflects LGIMA's views as of the date hereof and may be changed in response to LGIMA's perception of changing market conditions, or otherwise, without further notice to you. Accordingly, the information herein should not be relied on in making any investment decision, as an investment always carries with it the risk of loss and the vulnerability to changing economic, market or political conditions, including but not limited to changes in interest rates, issuer, credit and inflation risk, foreign exchange rates, securities prices, market indexes, operational or guarantee of future performance or that LGIMA's investment or risk management process will be successful.

In certain strategies, LGIMA might utilize derivative securities which inherently include a higher risk than other investments strategies. Investors should consider these risks with the understanding that the strategy may not be successful and work in all market conditions.

Reference to an index does not imply that an LGIMA portfolio will achieve returns, volatility or other results similar to the index. You cannot invest directly in an index, therefore, the composition of a benchmark index may not reflect the manner in which an LGIMA portfolio is constructed in relation to expected or achieved returns, investment holdings, portfolio guidelines, restrictions, sectors, correlations, concentrations, volatility, or tracking error targets, all of which are subject to change over time.

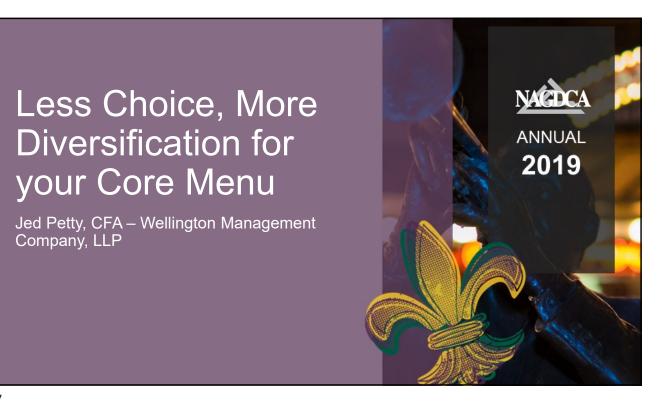
No representation or warranty is made to the reasonableness of the assumptions made or that all assumptions used to construct the performance provided have been stated or fully considered.

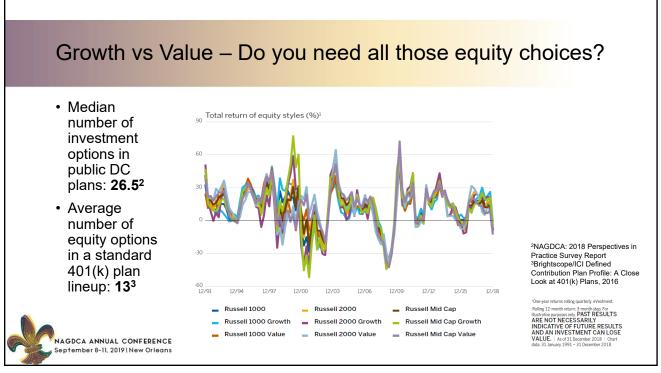
All LGIMA performance returns in this presentation are presented gross of fees, but are accompanied with an explanation of performance net of investment management fees.

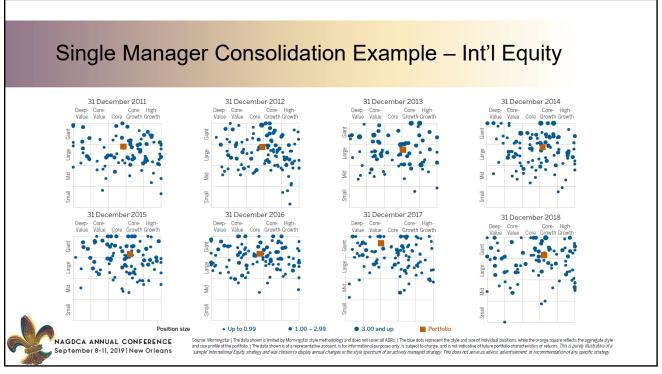
The presentation may also include performance that is based on simulated or hypothetical performance results that have certain inherent limitations. Unlike the results in an actual performance record, these results do not represent actual trading. Because these trades have not actually been executed, these results may have under- or over-compensated for the impact, if any, of certain market factors, such as lack of liquidity. Simulated or hypothetical trading programs in general are also subject to the fact that they are designed with the benefit of hindsight. No representation is being made that any account will or is likely to achieve profits or losses similar to these being shown.

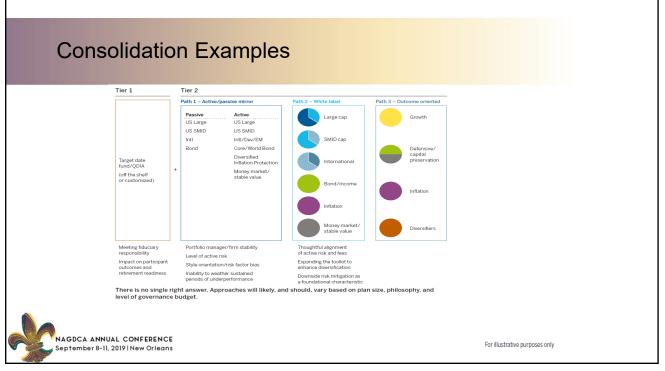
Information obtained from third party sources, although believed to be reliable, has not been independently verified by LGIMA and its accuracy or completeness cannot be guaranteed.

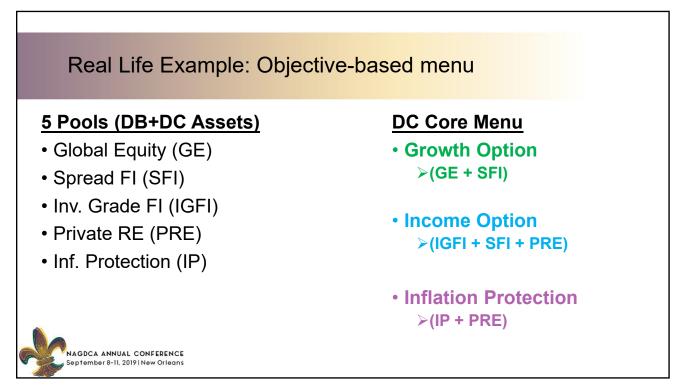
NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans

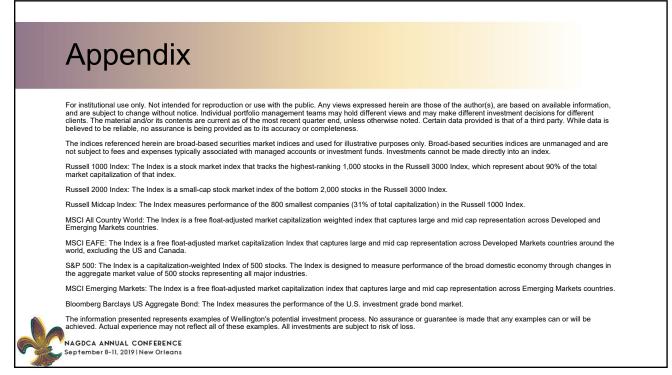




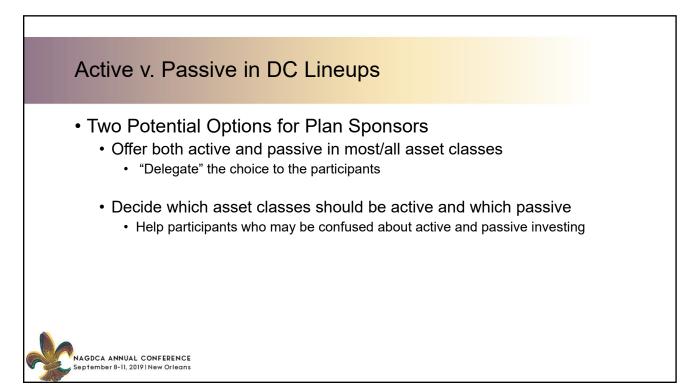


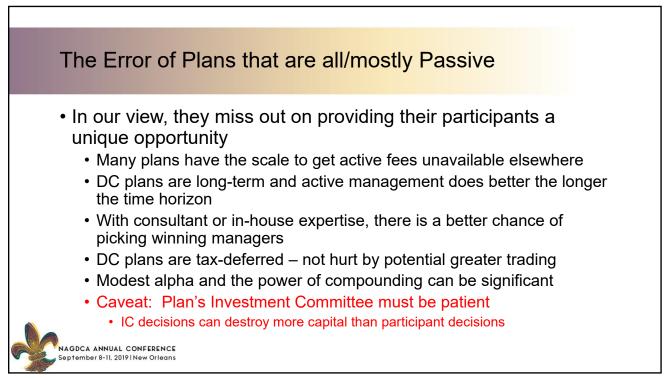


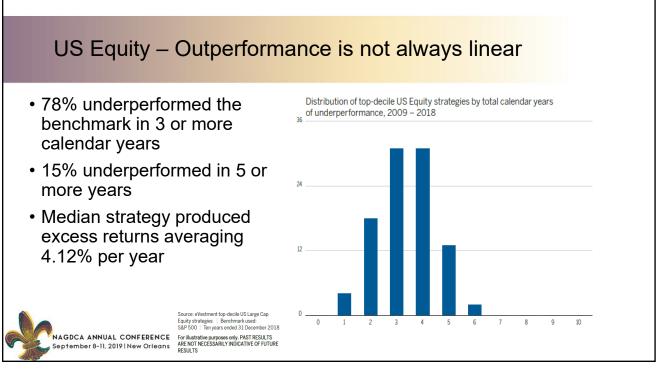


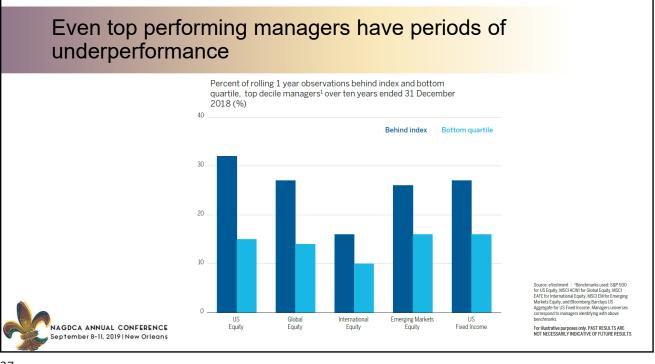












Active funds' success rates (%) by category SPIVA: S&P Dow Jones Indices

• Active success rates are extremely low across asset classes and regions.

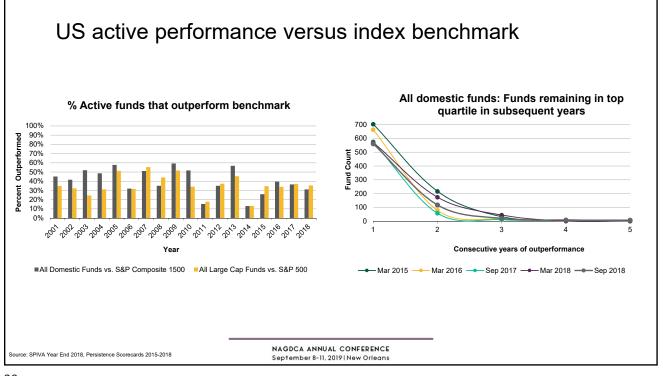
Category	10-Year (%)
All U.S. Large-Cap Funds	10.85
All U.S. Mid-Cap Funds	7.32
All U.S. Small-Cap Funds	6.64
International Funds	23.25
Emerging Markets Funds	13.75

NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans

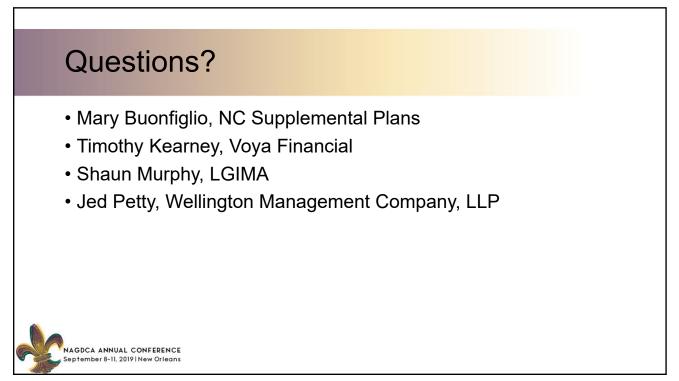
38

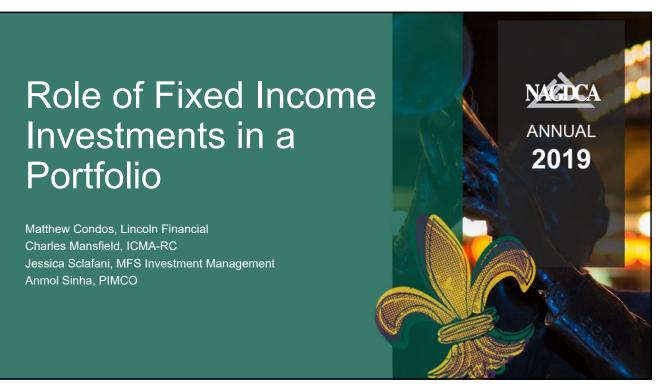
Source: S&P Dow Jones Indices LLC. Data as of June 30, 2018. Returns shown are annualized. Fees and costs are included in numbers

2019 NAGDCA Annual Conference - Equity Investment Options



39

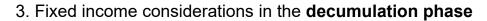


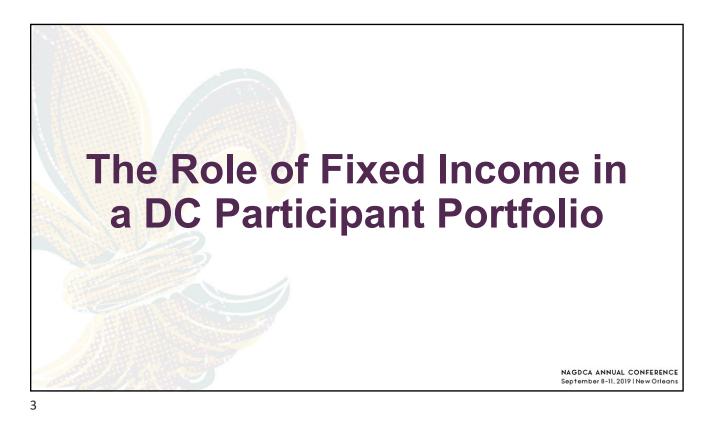


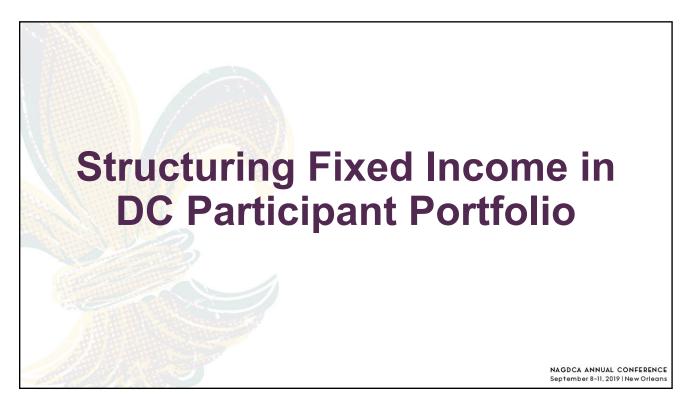
Role of Fixed Income Investments in a Portfolio

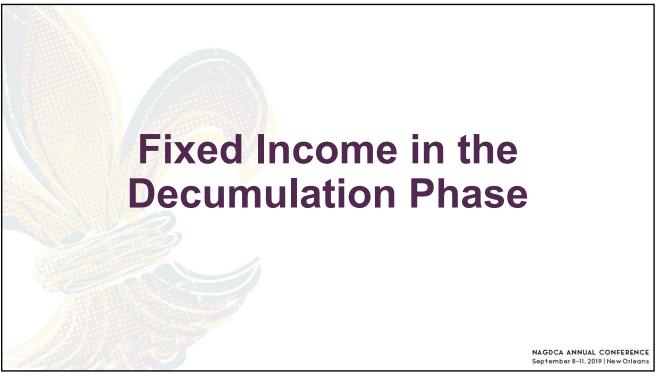
3 Key Themes

- 1. The role of fixed income in a DC participant portfolio
- 2. Structuring fixed income in a DC participant portfolio
 - (a) Core Menu
 - (b) Component of a multi-asset class or bundled solution

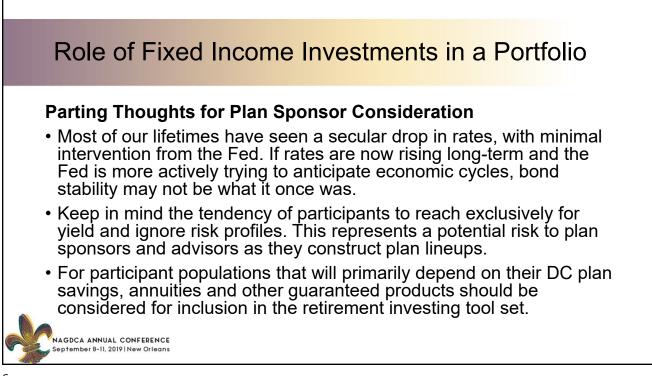












2019 NAGDCA Annual Conference - Role of Fixed Income Investments in a Portfolio



Successful Communications Campaigns

PANEL DISCUSSION SEPTEMBER 9, 2019 • 11 a.m. – 12 p.m.

Moderated by **Una Morabito -** Head of Client Management, MassMutual Workplace Solutions

Lisa Kueng - Director of Creative Campaigns, Invesco

Brooke Rowden - Defined Contribution Plans Education & Marketing Coordinator, *Missouri State Employees Retirement System*

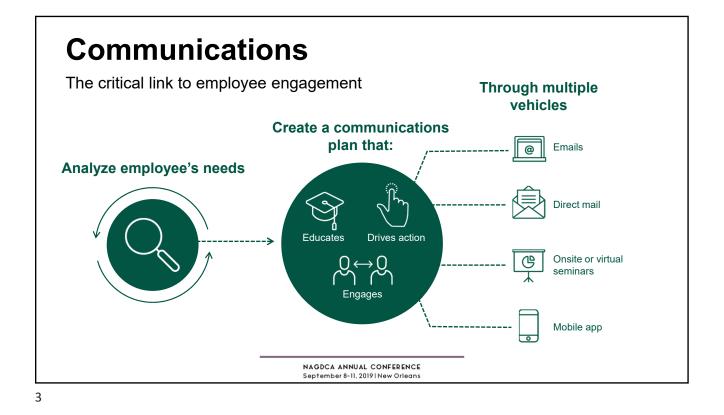
Shannon McCarthy - Brand Leader, Nationwide Retirement Plans

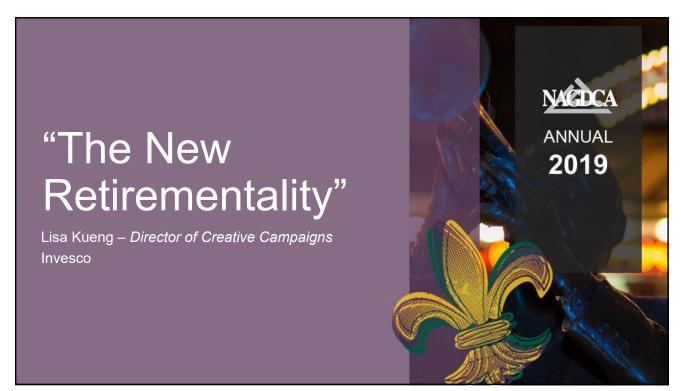


1



NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans

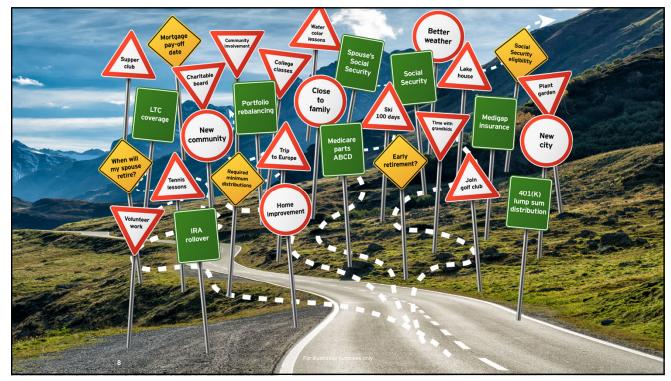






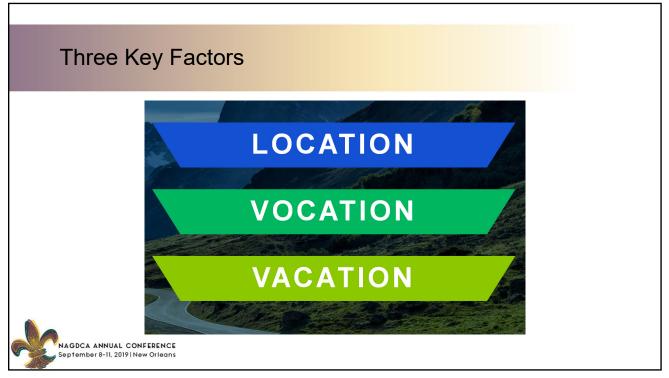












11









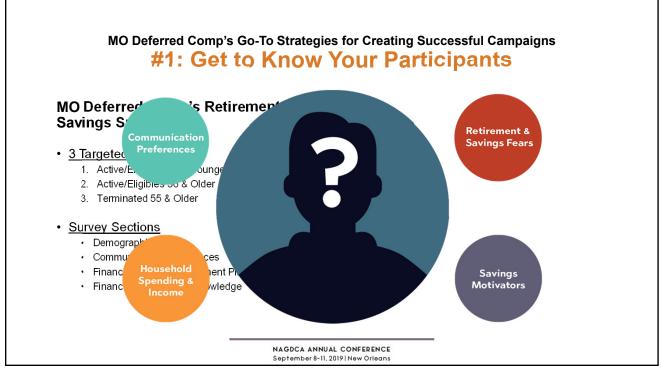
Go-To Strategies for Creating Successful Campaigns

Brooke Rowden – *Education & Marketing Coordinator* State of Missouri Deferred Compensation Plan (MOSERS)



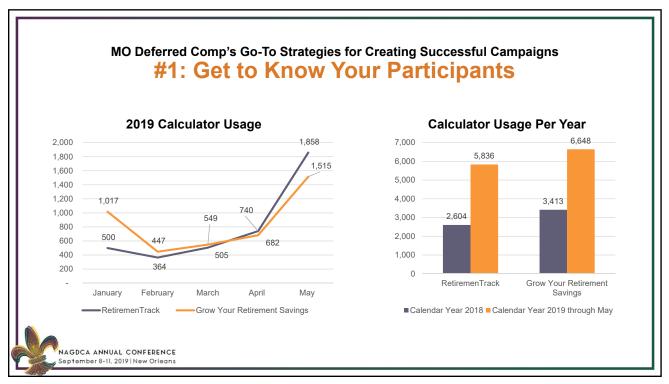


























NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans





ptember 8-11, 2019 New Orlea

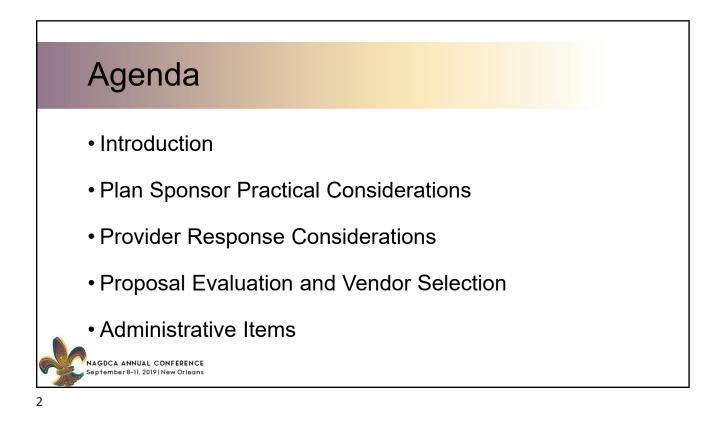


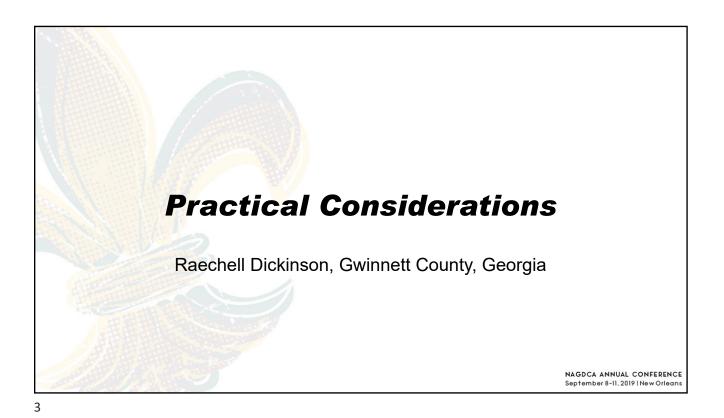




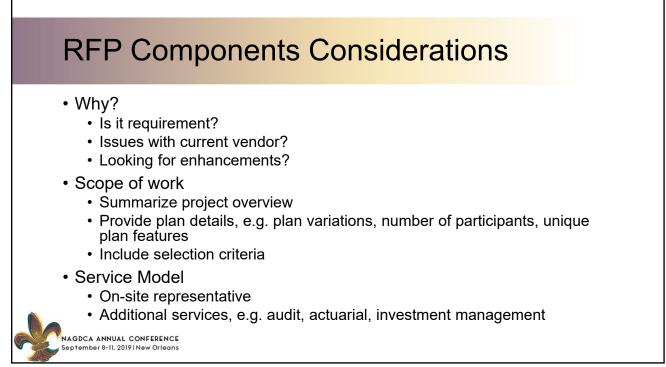


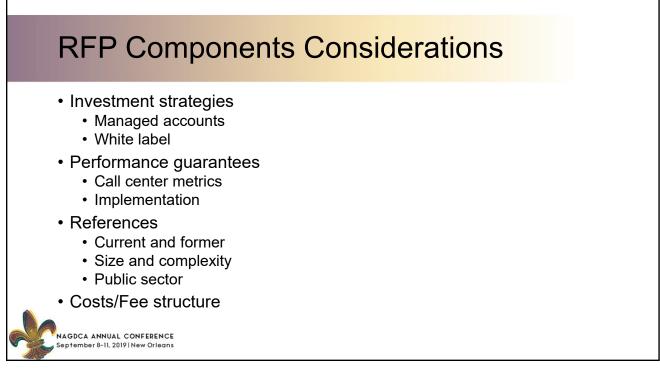






<section-header><section-header><section-header><section-header><list-item><list-item><list-item><list-item><list-item>

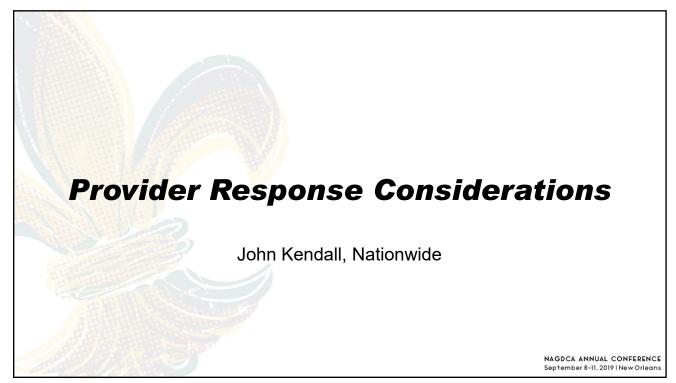


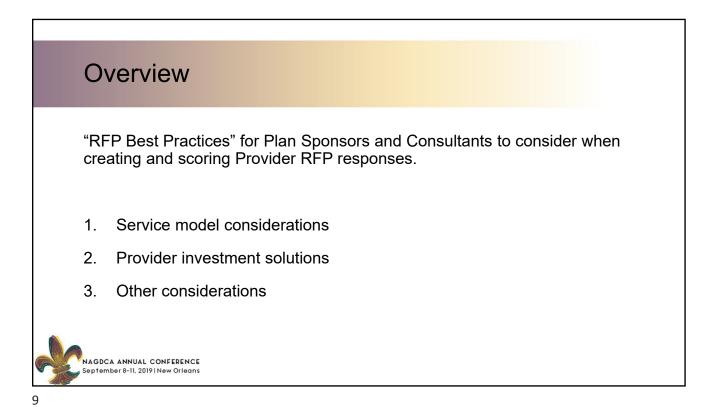


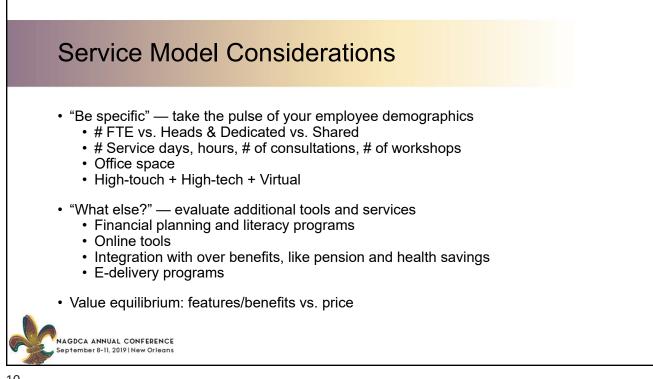
Timeline Considerations

- Procurement guidelines
- Pre-proposal conference
- Finalist meetings
- Contract negotiation
- Legal review
- Board approval
- Implementation

NAGDCA ANNUAL CONFERENCE September 8-11, 20191 New Orleans

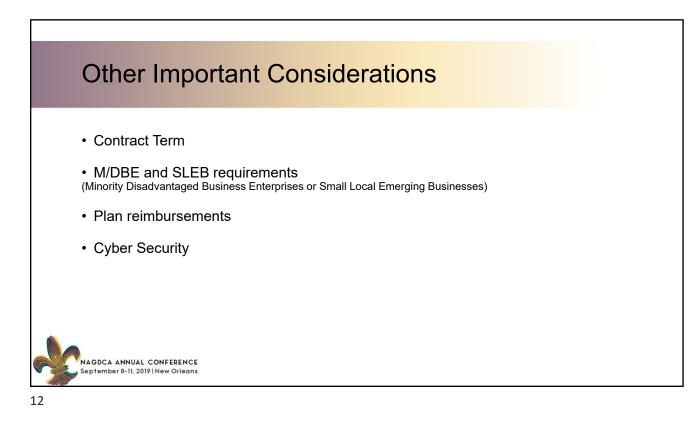


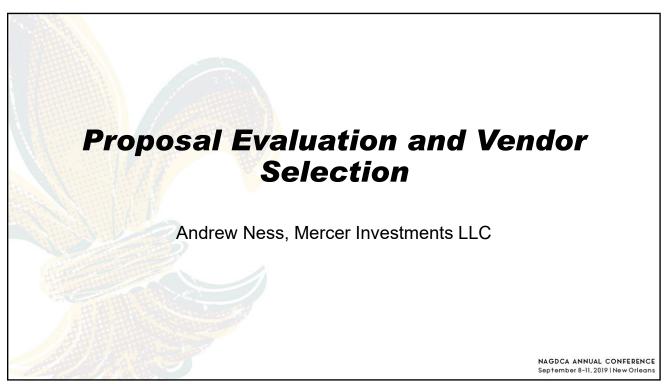


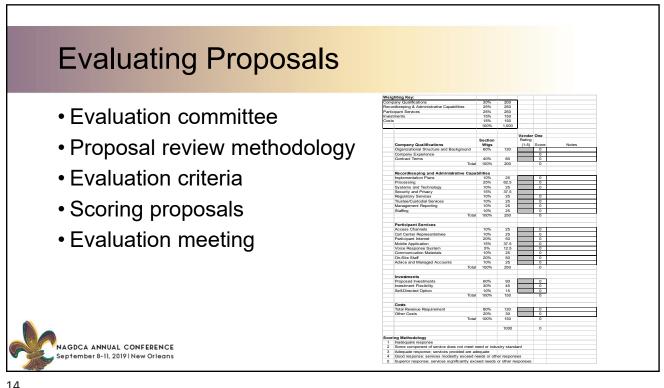


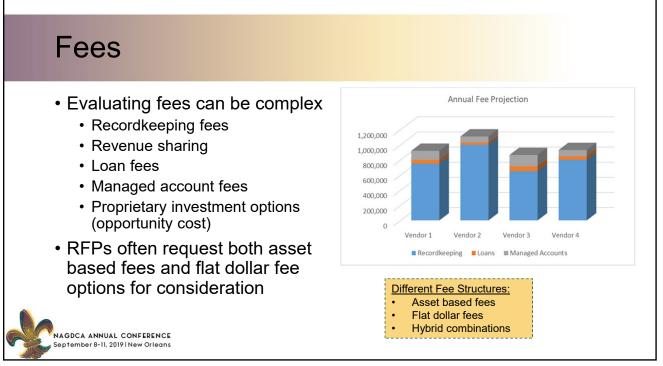


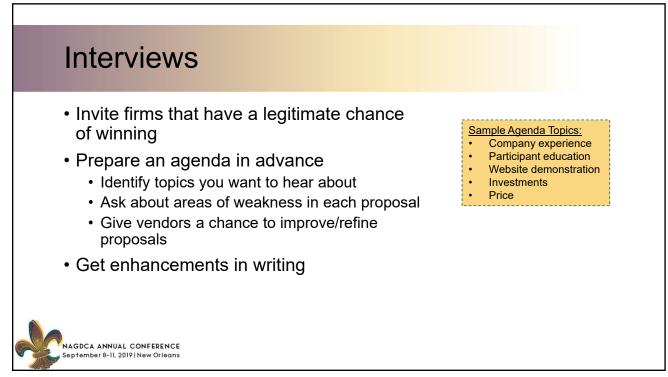


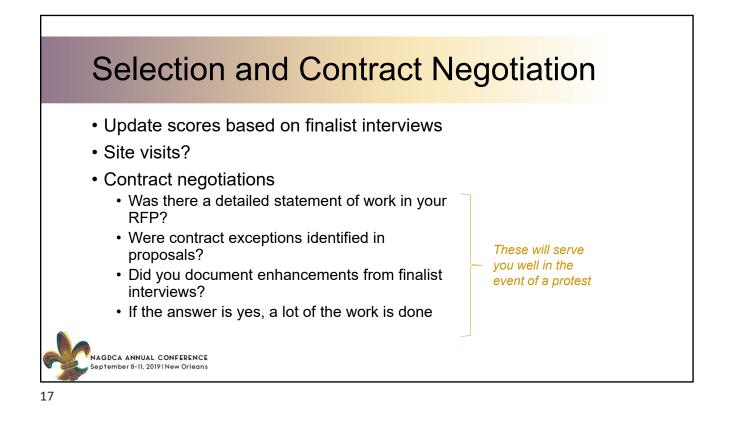


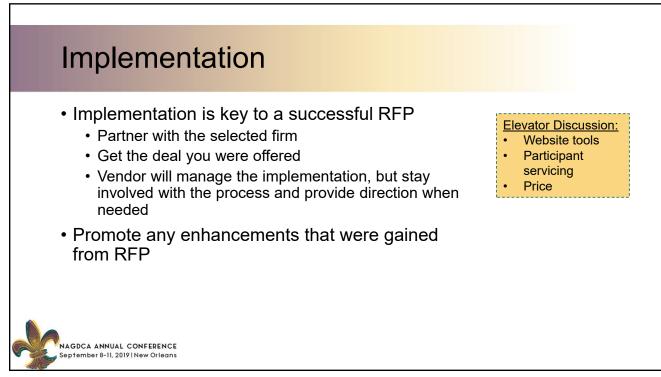


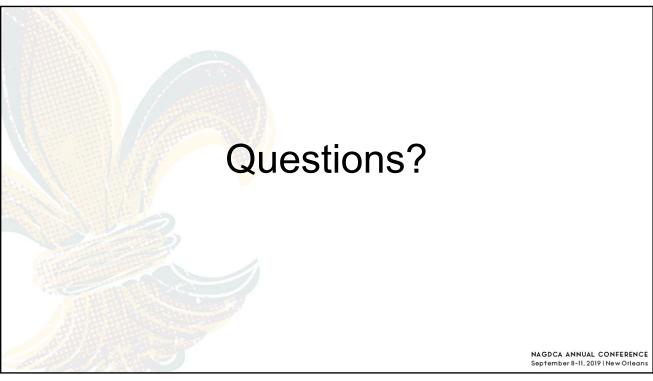




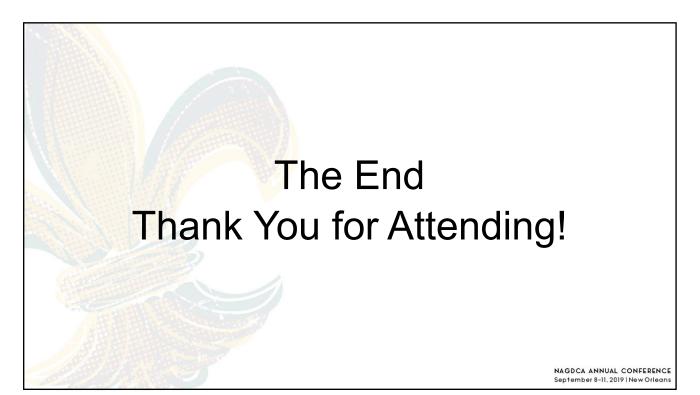












How DB Plan Pressures Affect DC Plans

Moderator, Wendy Carter Vice President and DC Director, Public Sector Segal Consulting

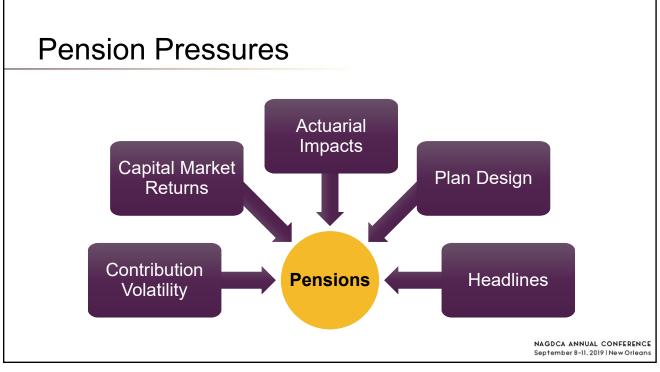


Mike Welker, CFA

President/CEO AndCo



Retirement	Landscape	9	
I	Pension ¹	DC ¹	Labor ²
Private Sector	\$3.02T	\$6.25T	126M
State/Local	\$4.20T	\$0.49T	20M
Federal	\$1.67T	\$0.57T	3M
Total	\$8.89T	\$7.31T	149M
¹ Financial Accounts of the United State ² Department of Labor; Bureau of Labor			NAGDCA ANNUAL CO



Sample GASB 68 Analysis

The table below contains the projection of long-term real returns for the Trust's Target Policy Allocation as required by GASB 67 & 68.

Asset Group	Long-Term Real Return ¹	Target Policy	Asset Group Contribution
Domestic Equity	7.50%	42.5%	3.19%
International Equity	8.50%	14.0%	1.19%
Domestic Bonds	2.50%	22%	0.55%
International Bonds	3.50%	2%	0.07%
Real Estate	4.50%	5%	0.23%
Alternative Assets ²	6.11%	14.5%	0.88%
		Total Real Return	6.11%

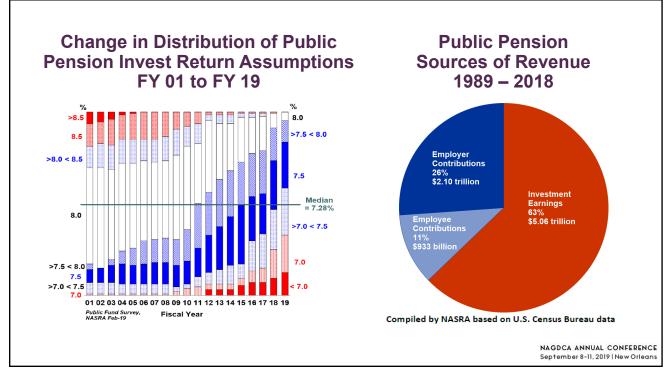
For illustrative purposes only.

The long-term real return expectations remove the 2.5% inflation rate embedded in each nominal return assumptions. The 14.5% Alternative Assets long-term real return assumption represents a relational combination of the remaining

2 85.5% of the policy target.

NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans



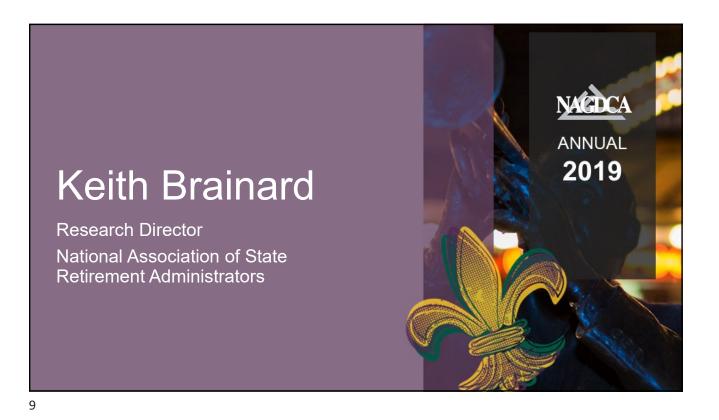


Plan	Coverage	EE Cont	ER Cont	Vesting	ERA/ NRA	Multiplier	Penalties
A	Hired pre 2003	11.13%	19.75%	10 yrs.	50 / 60	Y1-25: 3% Y25+: 1%	Age 50 – 55 1.7% Age 55 – 60 0.25%
В	Hired after 2003	11.13%	19.75%	10 yrs.	52 / 62	Y1-10: 2% Y10-30: 3% Y30+: 1%	5% per year
С	Hired after 2012	6.39%	19.75% + 5% Match	5 yrs.	52 / 62	2.41%	5% per year

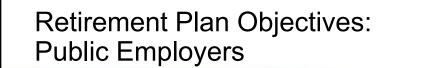
Success Factors

- Employer & Employee both contributing to retirement outcomes sharing risk
- The new structure has increased 457 contributions by employer and employees to supplement define benefit retirement. Analysis was done that with increasing 457 balances and moderate returns benefit from hybrid plan were similar to previous DB plan only.
- Increased funding level of the pension by 2.5% per year. Now close to 85% with sustained, constant contributions from the City.
- Portability of DC plan to meet the needs of today's workforce
- Employee group representation throughout process to ensure transparency, communication and overall involvement

For illustrative purposes only. There is no guarantee that other clients will experience similar results as various factors can cause actual outcomes to differ materially.



Future for DC Plans Holistic approach: DB and DC DC Plans need to be considered and utilized for sustainable retirements with Public plans Embrace automatic plan design features to overcome inertia Utilize education and tools to foster engagement and combat financial illiteracy Further leverage technology to provide participants a comprehensive retirement perspective



Public employers use retirement benefits to promote important human resources objectives:

- To attract and retain qualified employees who are needed to perform essential public services
- To promote an orderly turnover of workers

Retirement Plan Objectives: Public Employers

- Most public sector jobs are long-term in nature, or careeroriented
- Educators, public safety personnel, and other professional roles require a college degree and/or significant training
- Orderly turnover means employees are able to retire at an appropriate age and juncture in their career, which is an essential human resources objective

NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans

Retirement Plan Objectives: Public Employees

Public employees seek a competitive compensation package, including a decent retirement benefit

13

Retirement Plan Objectives: Taxpayers and Recipients of Public Services

Those who help fund the cost of retirement benefits for public employees, and those who rely on their services, expect those services to be provided in a cost-effective manner and at an annual cost that is reasonably stable and predictable.

> NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans

Retirement Plan Designs for Employees of State and Local Government

- A defined benefit plan traditionally has been the centerpiece of retirement benefits for employees of state and local government
- DB plans historically placed most or all risk on employers
- DB plans are changing
- More hybrid plans and more risk-sharing

NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans

15

Retirement Plan Designs for Employees of State and Local Government

- With some exceptions, defined contribution plans traditionally have served as supplemental retirement savings plans for public employees
- Such as through 403(b) and 457 plans
- DC plans serve as the primary retirement benefit for around 15 percent of public employees

Retirement Plan Designs for Employees of State and Local Government

- Hybrid plans traditionally have accounted for a very small portion of retirement benefits for public employees
- DB-DC and cash balance plans
- The use of hybrid plans has risen sharply in recent years

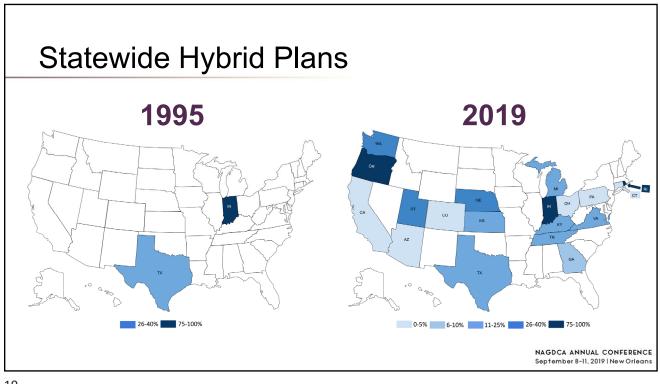
17

Examples of Risk-Sharing

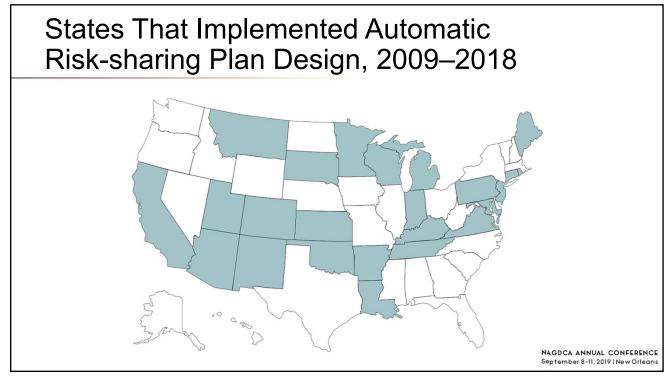
- Hybrid retirement plans
 - DB-DC
 - Cash balance
- Contingent or limited cost-of-living adjustments
- Flexible employee contribution rates
- Adjustable benefit levels

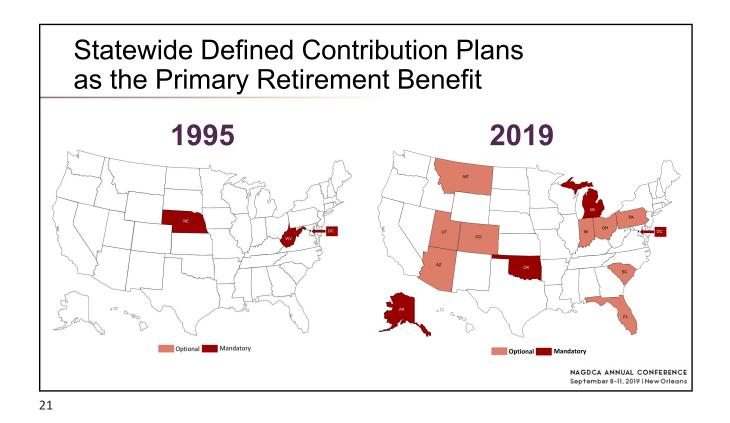
NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans

NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans



19





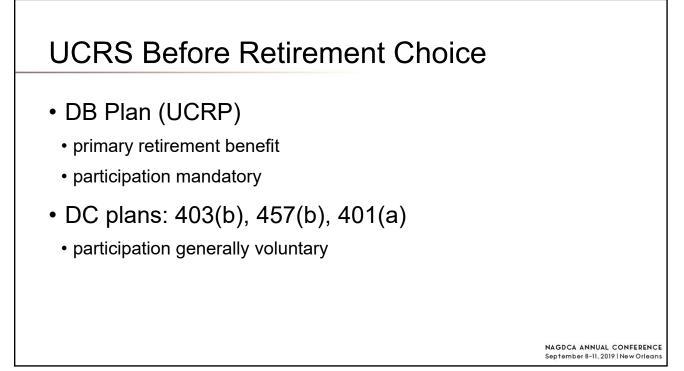
Concluding Thoughts
The public employee retirement benefit discussion has migrated from defined benefit vs. defined contribution, to one that seeks the optimal blend of both plan types to accommodate stakeholder interests.
Risk-sharing has become a central theme in retirement plan design.

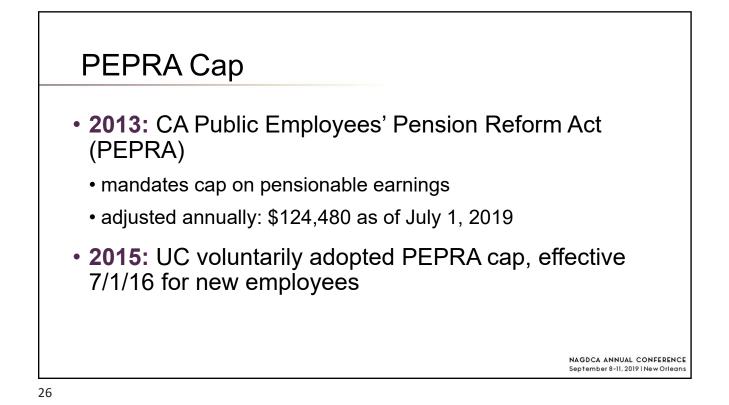
NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans

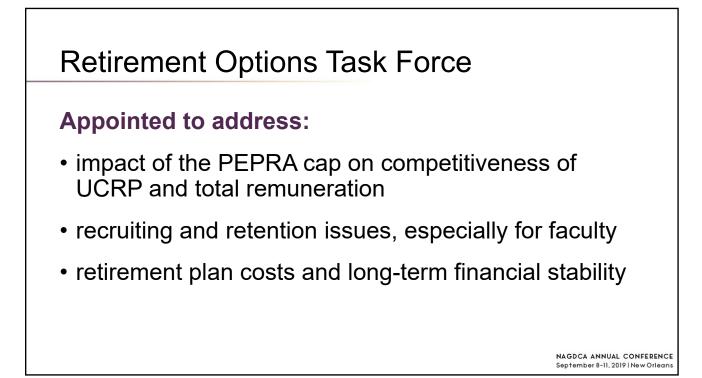


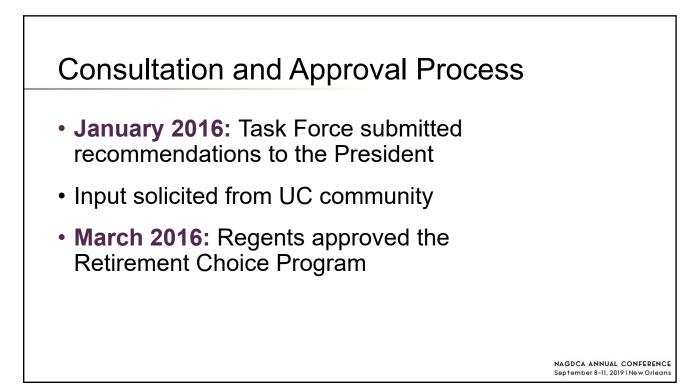
The University of California Retirement Choice Program

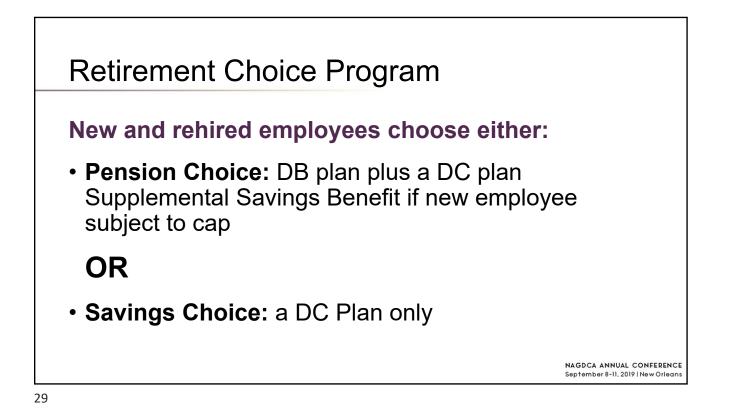
Partnering a defined benefit plan and a defined contribution plan can provide an attractive employee recruiting and retention tool, and reduce retirement benefit costs.











Pension Choice: DB Plan

- UCRP 2016 Tier benefit formula
- Covered pay subject to cap if new employee
- UC contribution = 8% + 6% to fund UCRP UAAL
- Employee contribution = 7%
- Benefits vested after 5 years; payable as early as age 55

Pension Choice: Supplemental Savings Benefit

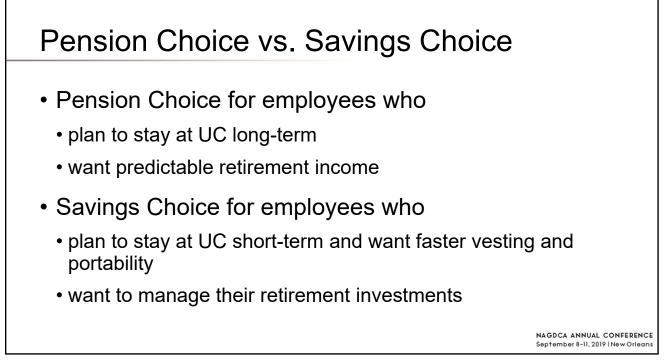
- UC contribution
 - for designated faculty = 5% of all pay
 - for staff / other academics = 3% of pay over cap
- Employee contribution = 7% of pay over cap
- Benefits vested after 5 years; payable at separation

31

Savings Choice

- UC contribution = 8% to employee accounts + 6% to fund UCRP UAAL
- Employee contribution = 7% of pay
- Benefits vested after 1 year; payable upon separation
- Second Choice Window

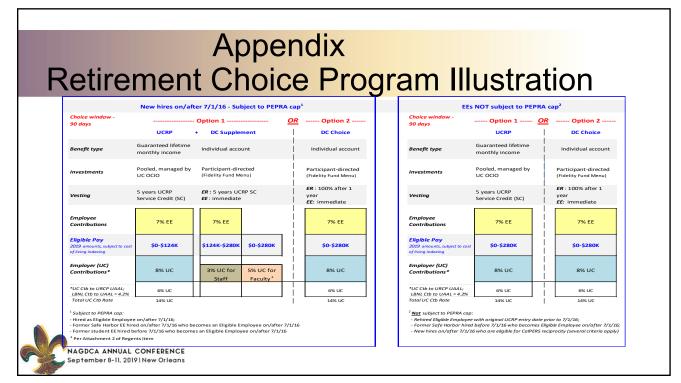
NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans



Employee Elections

- Election window: 90 days following hire
- Default: Pension Choice
- Election results:
 - Elected Pension Choice: 35%
 - Defaulted to Pension Choice: 28%
 - Elected Savings Choice: 37%



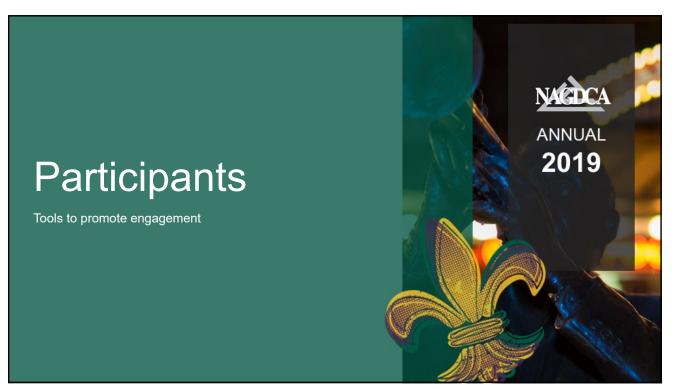


Leveraging Technology & Participant Tools

Heidi Munc, Nationwide Amy Heyel, Voya Financial Tom Idzorek, Morningstar Investment Management







Engaging with Retirement Plans

- Understanding what participants need from their plan
- Questions we can help them answer
- Supporting participants in their financial wellness journey



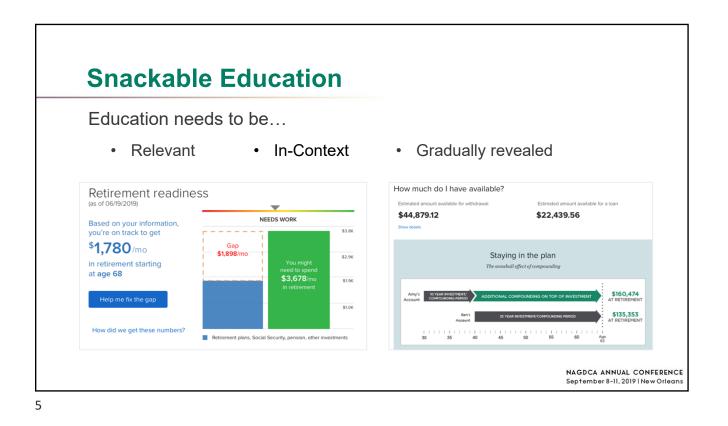
Simple Tasks

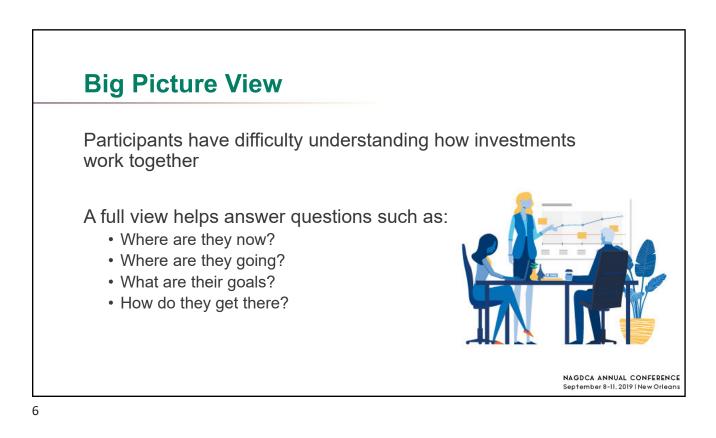
Online accounts are used to manage their non-transactional tasks

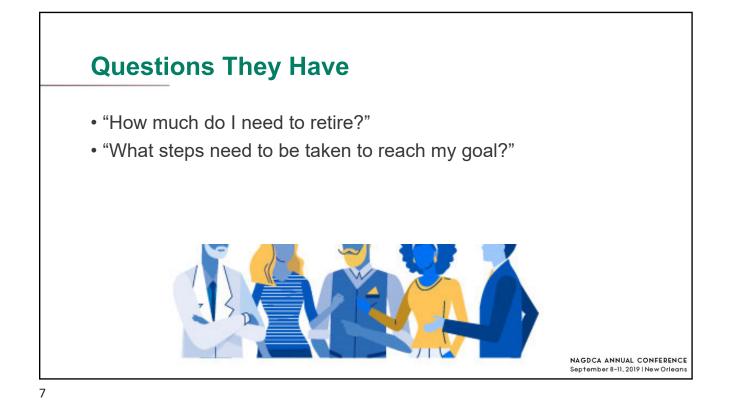
- Change beneficiary
- Update their contact information
- Review their account balance
- Look at the growth/decline of any investments

When it comes to making financial decisions, participants trust financial representatives to make them on their behalf.

> NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans

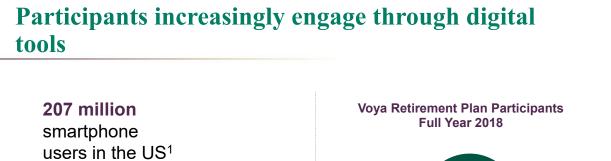




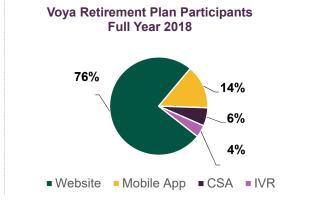








74% use online banking services²



1 https://www.statista.com/topics/2711/us-smartphone-market/ 2 Federal Reserve, "Consumers and Mobile Financial Services. (2015)



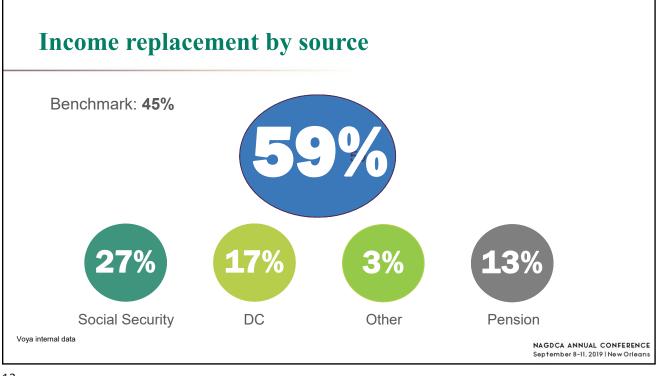
September 8-11, 2019 | New Orleans

11

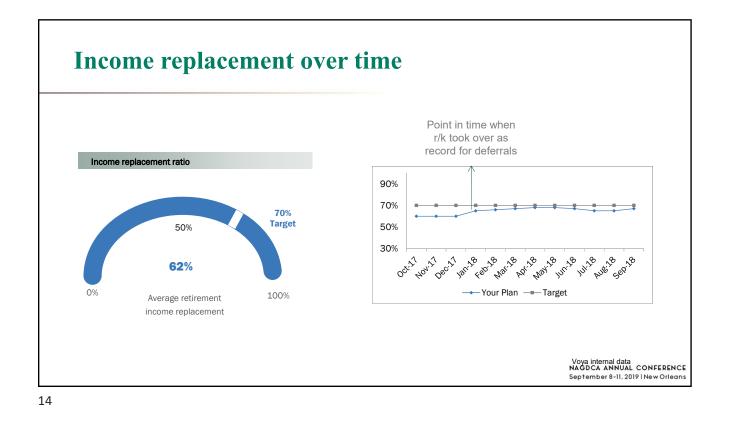
Comprehensive plan reporting requires data

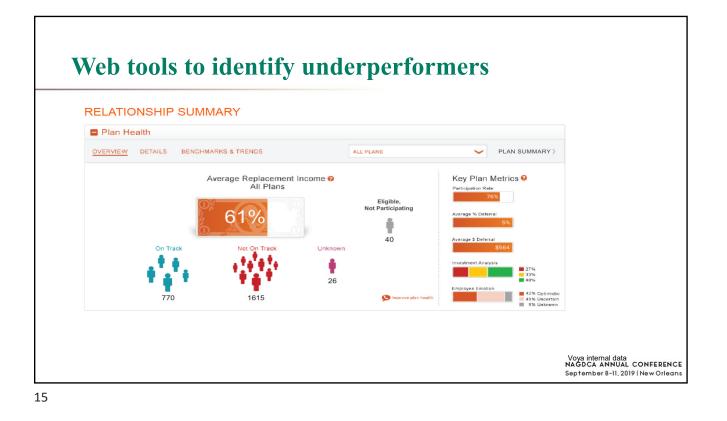
Data Requirement	Required for Metric	Plan Health Potential
Eligible population	Participation rate	Increase participation
Salary	Savings rate, Income replacement	Identify those not on track
Contribution rate change	Savings rate	Automation of increased savings
Email	Personalized messaging	Identify specific need per participant
Defined benefit	Holistic planning	Income replacement
Termination dates	Retention	Retiree strategy/spend down guidance

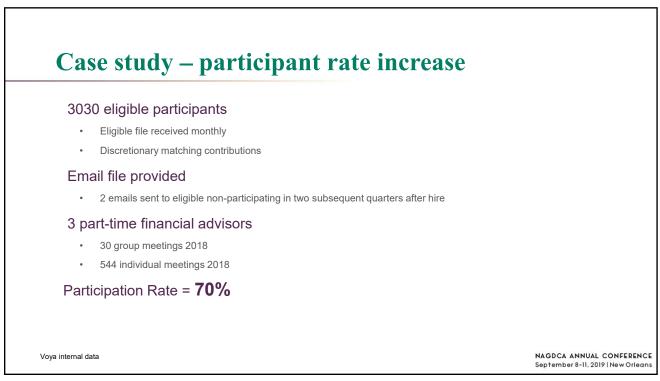
NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans

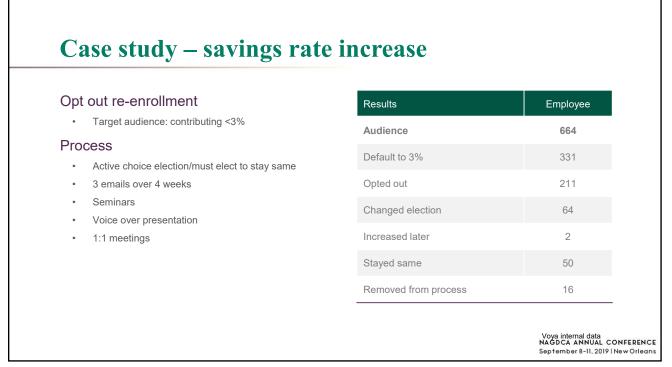


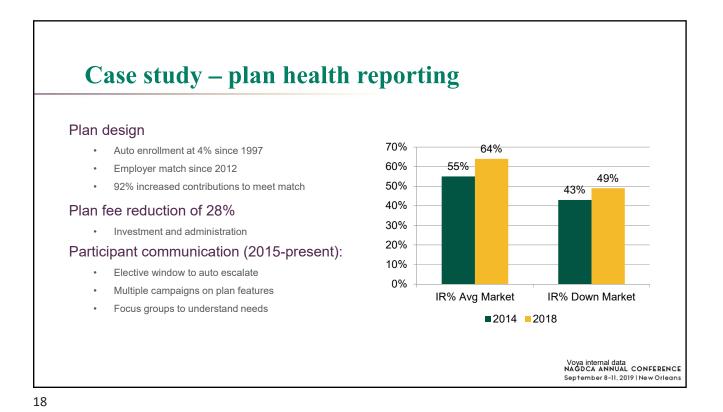


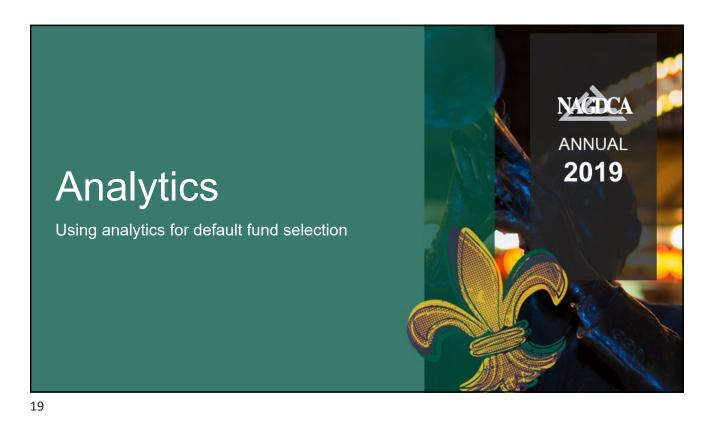


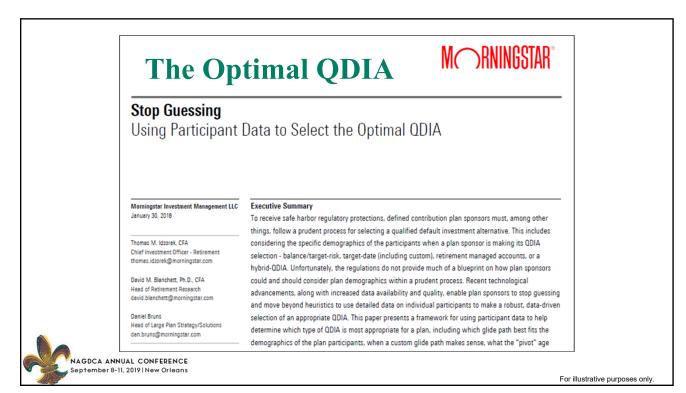


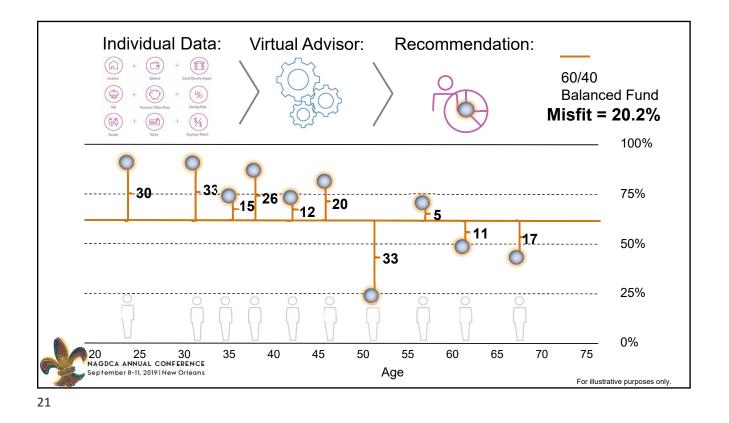


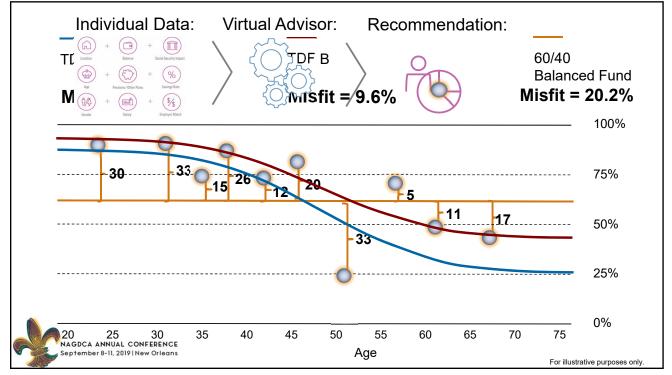


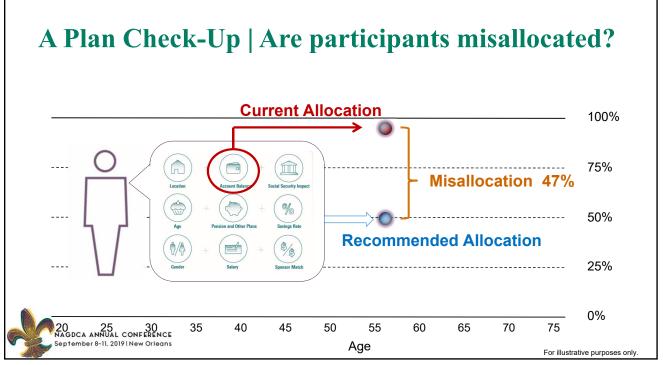


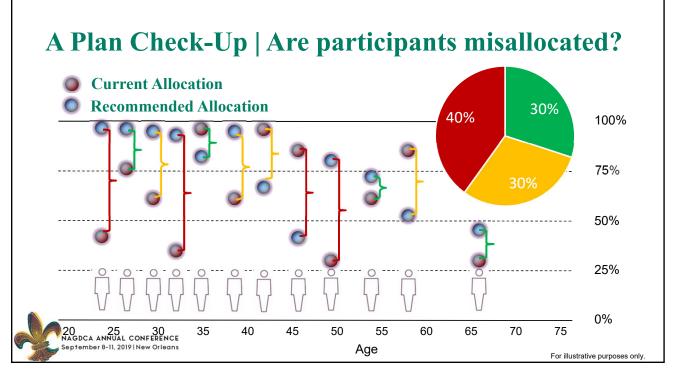


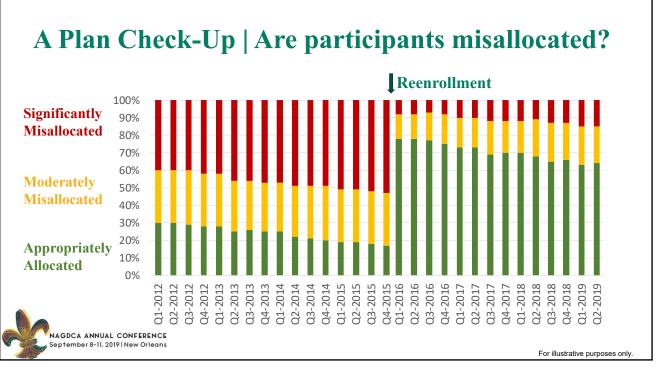




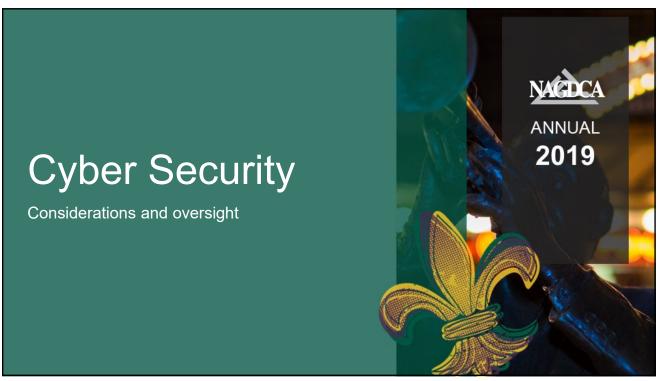


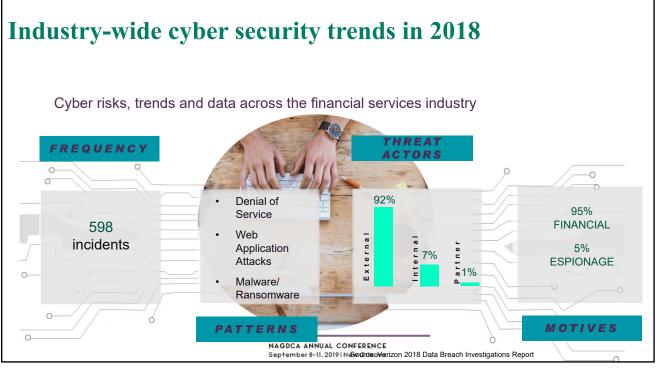




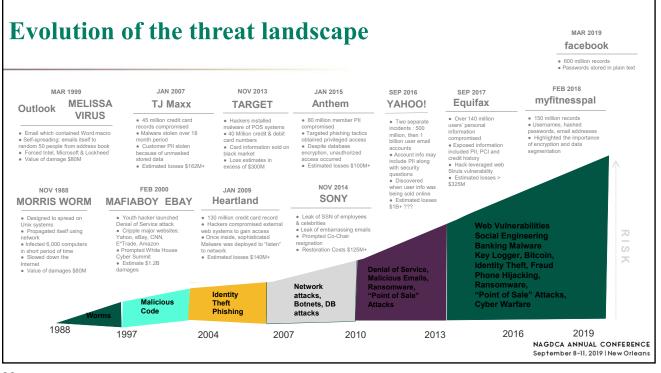


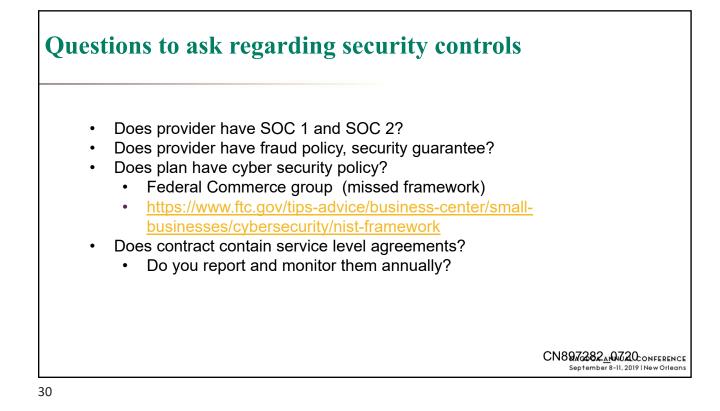












Disclosure

©2019 Morningstar Investment Management LLC All rights reserved. The Morningstar name and logo are registered marks of Morningstar, Inc. For information and/or illustrative purposes only. Not for public distribution. Morningstar Investment Management LLC is a registered investment adviser and subsidiary of Morningstar, Inc.

Opinions expressed are as of the current date; such opinions are subject to change without notice.

All investments involve risk, including the loss of principal. There can be no assurance that any financial strategy will be successful. Morningstar Investment Management does not guarantee that the results of their advice, recommendations or objectives of a strategy will be achieved.

This presentation contains certain forward-looking statements. Past performance does not guarantee future results.

Morningstar Investment Management LLC, a registered investment adviser and subsidiary of Morningstar, Inc., offers glide path comparisons of target date solutions to financial professionals or retirement plan sponsors. The products for comparison may be chosen by a retirement plan fiduciary or by Morningstar Investment Management. Morningstar Investment Compared to other funds in its peer group.

This service is provided for informational purposes only to assist the plan sponsor or other fiduciary in the determination of an appropriate glide path for their plan. The information, data, analyses, and opinions presented herein do not constitute investment advice, are provided solely for informational purposes and therefore are not an offer to buy or sell a security. Please note that references to specific securities or other investment options within this piece should not be considered an offer (as defined by the Securities and Exchange Act) to purchase or sell that specific investment. Morningstar Investment Management shall not be responsible for any trading decisions, damages, or other losses resulting from, or related to, the information, data, analyses or opinions or their use.

Particular investment options may not be appropriate investments for your plan, and there may be other investment options that are more suitable. The Morningstar glide path comparison should not be the only method by which an investment or a particular investment option is chosen for a plan. Morningstar Investment Management does not guarantee the results of the Morningstar glide path comparison or the objectives of a glide path selected based on this analysis will be achieved.

NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans

31

Disclosure

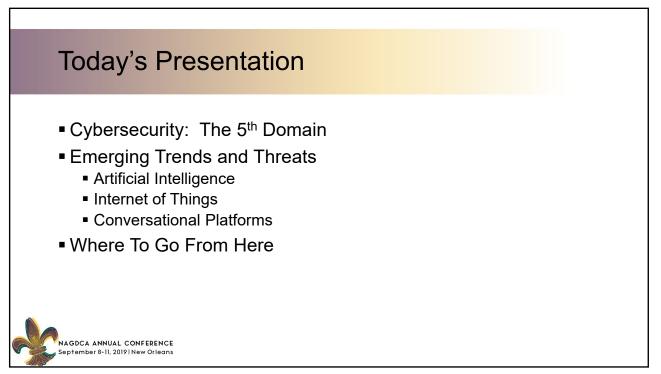
The information contained in this document is the proprietary material of Morningstar Investment Management. Reproduction, transcription, or other use, by any means, in whole or in part, without the prior written consent of Morningstar Investment Management, is prohibited. The information, data, and opinions shown herein and any related output generated includes proprietary information of Morningstar Investment Management and may not be copied or redistributed for any purpose. Morningstar Investment Management does not warrant this information to be accurate, complete, or timely and is not responsible for any damages or losses arising from the use of this information. Indexes are not available for direct investment.





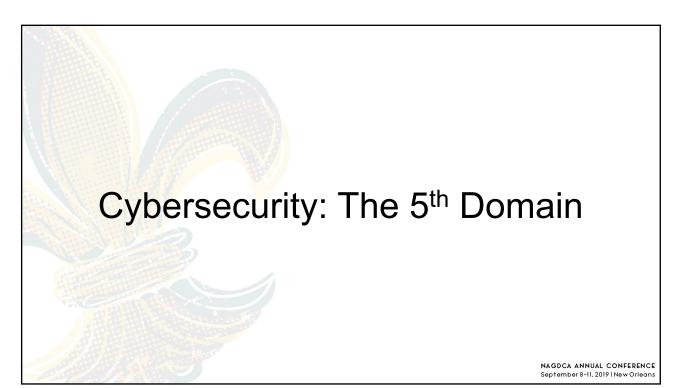
NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans

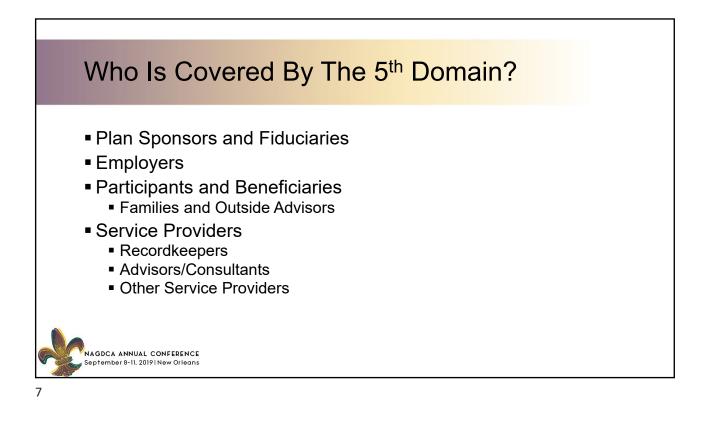












Emerging Trends That Impact DC Plans

- Artificial Intelligence
- Internet of Things
- Conversational Platforms



Artificial Intelligence

Technology that appears to emulate human performance typically by learning, coming to its own conclusions, appearing to understand complex content, engaging in natural dialogs with people, enhancing human cognitive performance (also known as cognitive computing) or replacing people on execution of nonroutine tasks.



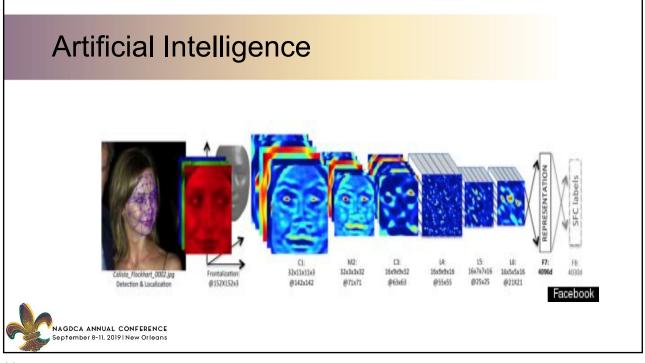
9

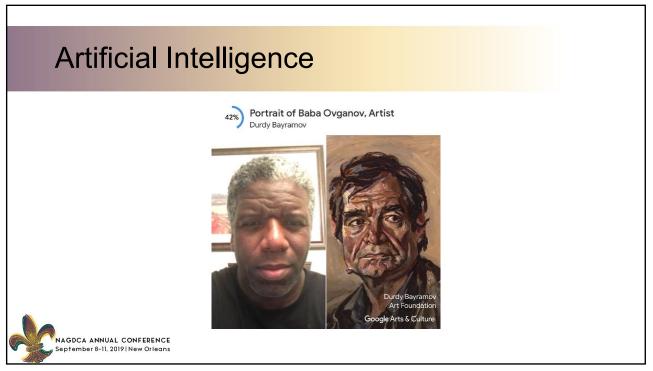
Artificial Intelligence

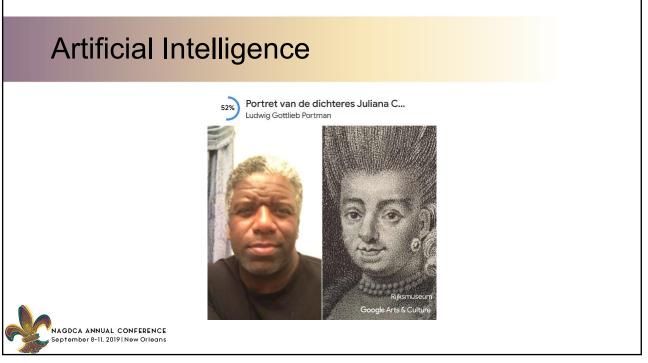
Every aspect of our lives will be transformed by Al and it could be the biggest event in the history of our civilization.

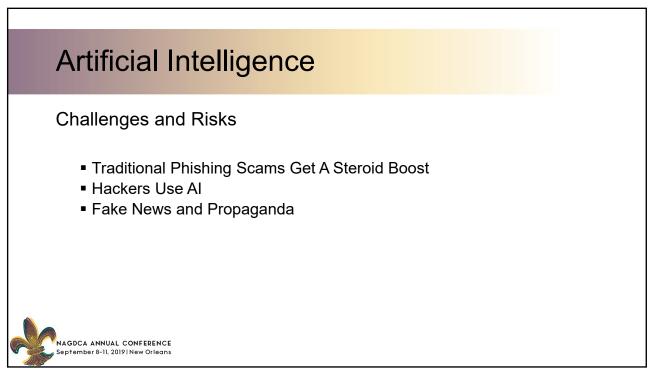
- Stephen Hawking

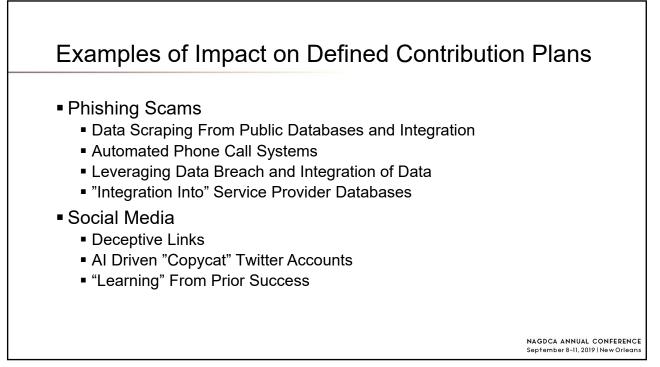
NAGDCA ANNUAL CONFERENCE September 8-11, 2019| New Orleans

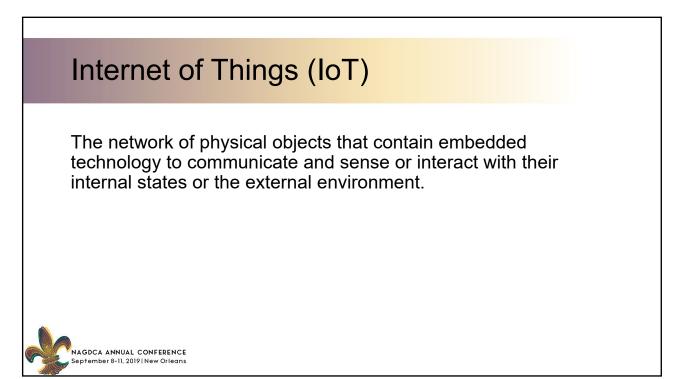


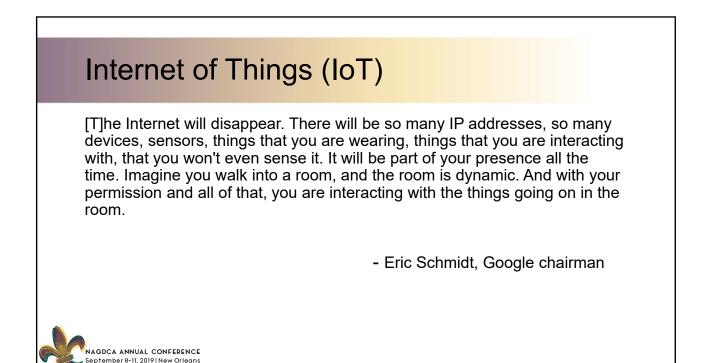




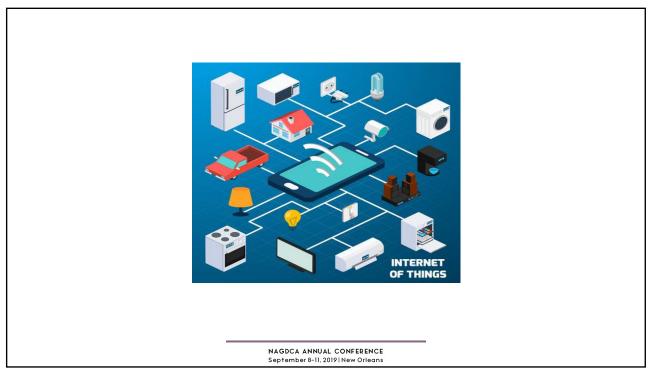


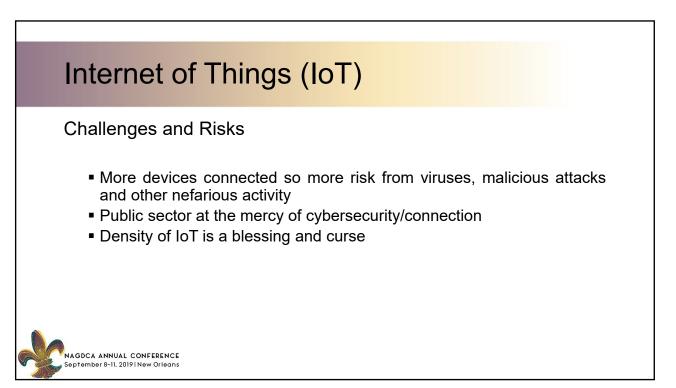


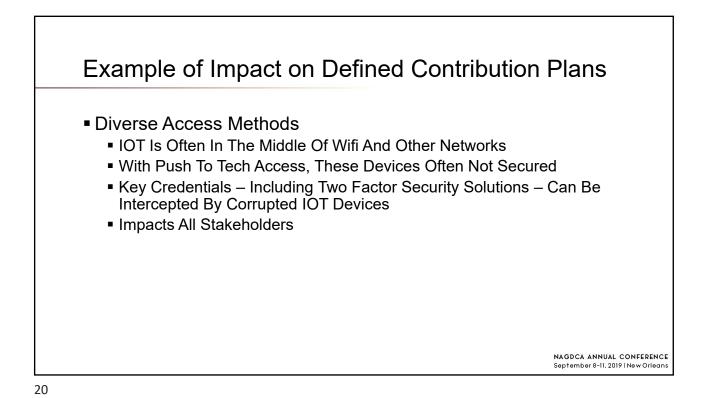


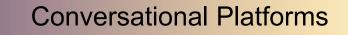


17



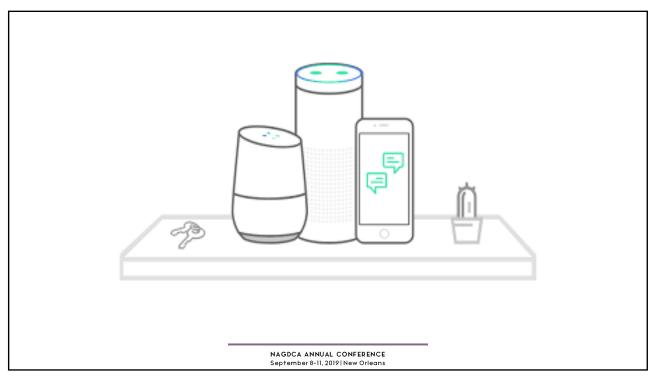




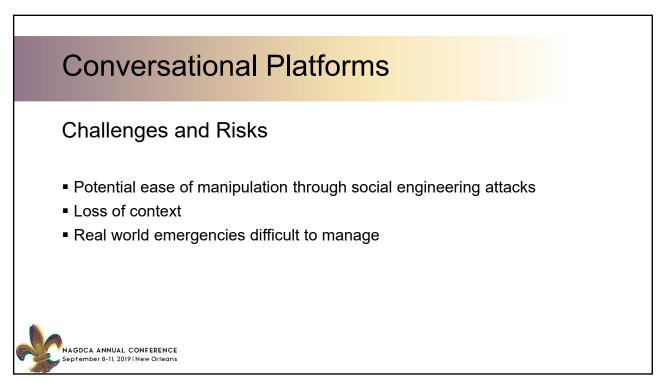


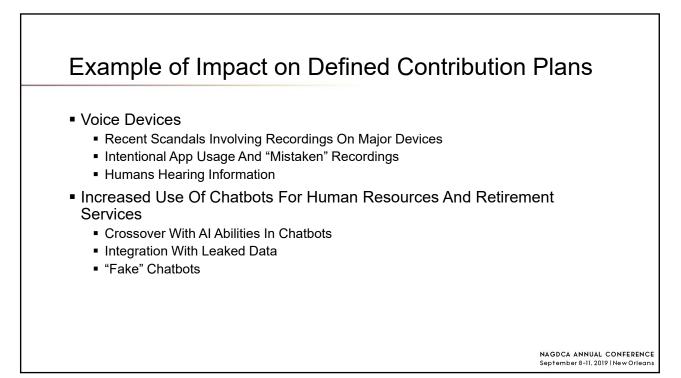
Conversational Platforms allow people to communicate with applications, websites and devices in everyday, humanlike natural language via voice, text, touch or gesture input.

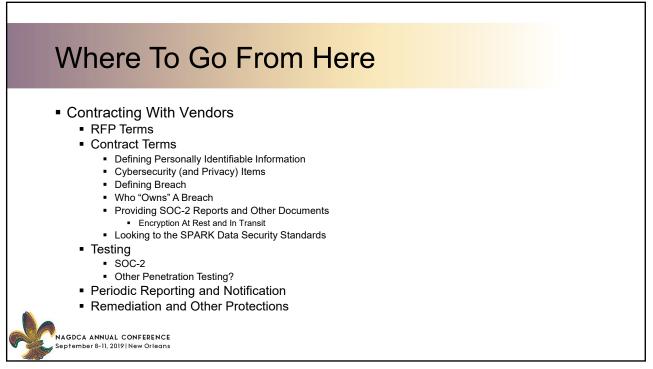




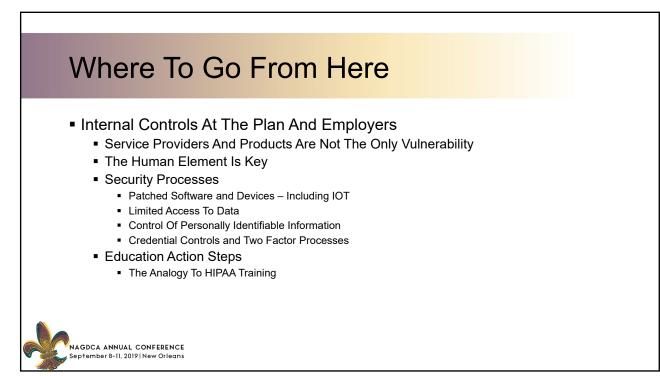




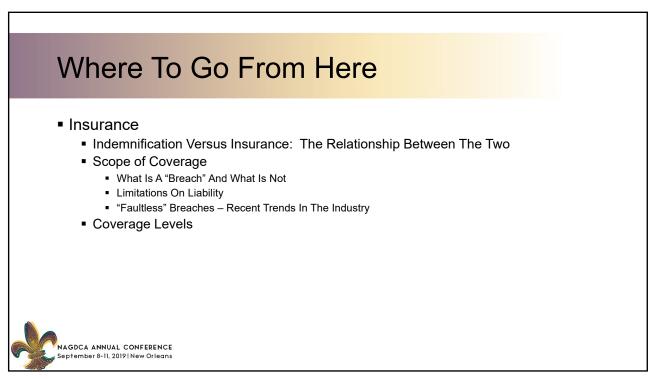


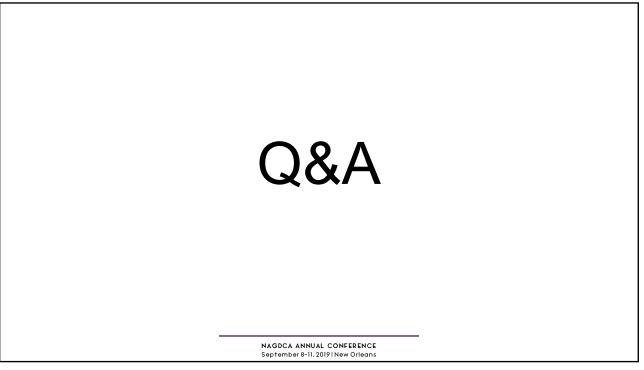


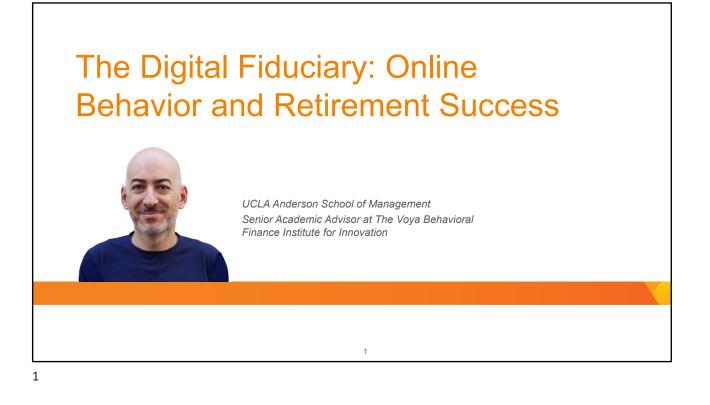














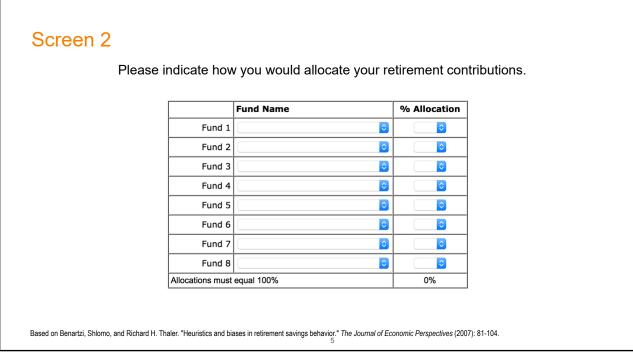


Screen 1

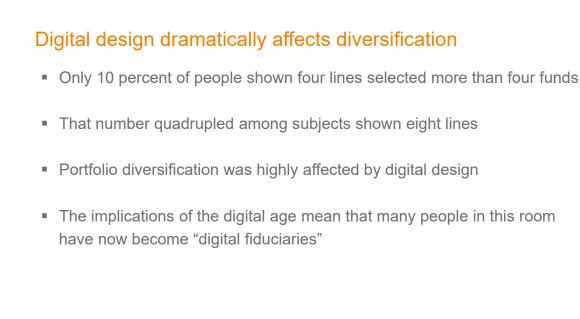
Please indicate how you would allocate your retirement contributions. You may choose up to four funds. If you would like to elect more than four funds, please click <u>here</u>.

	Fund Name	% Allocation
Fund 1		
Fund 2		
Fund 3		
Fund 4		
Allocations mu	st equal 100%	0%

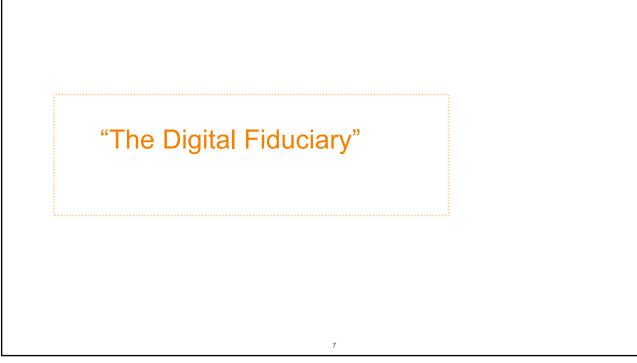
Based on Benartzi, Shlomo, and Richard H. Thaler. "Heuristics and biases in retirement savings behavior." The Journal of Economic Perspectives (2007): 81-104.

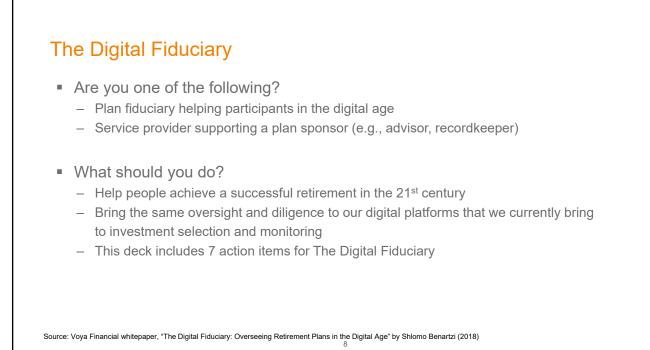


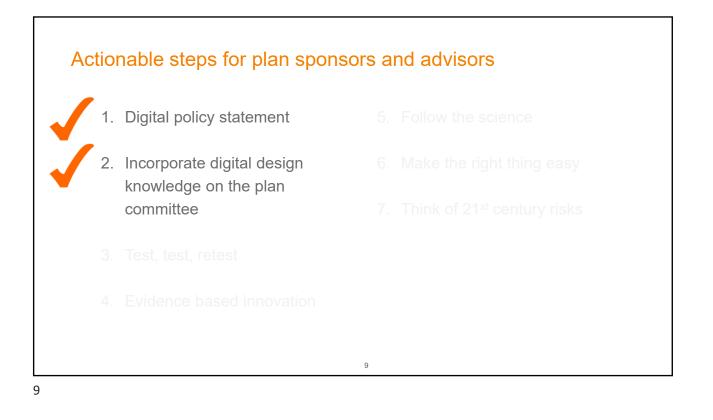


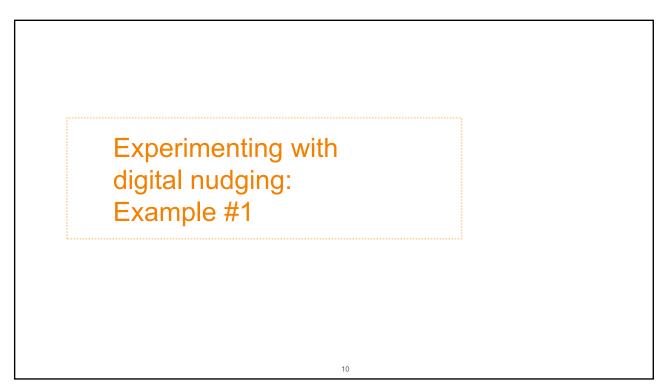


Based on Benartzi, Shlomo, and Richard H. Thaler. "Heuristics and biases in retirement savings behavior." The Journal of Economic Perspectives (2007): 81-104.





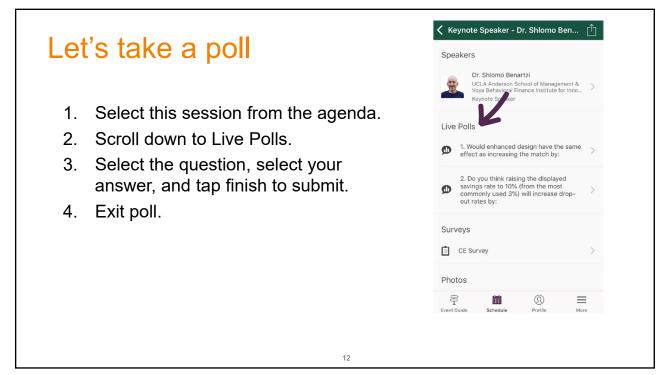


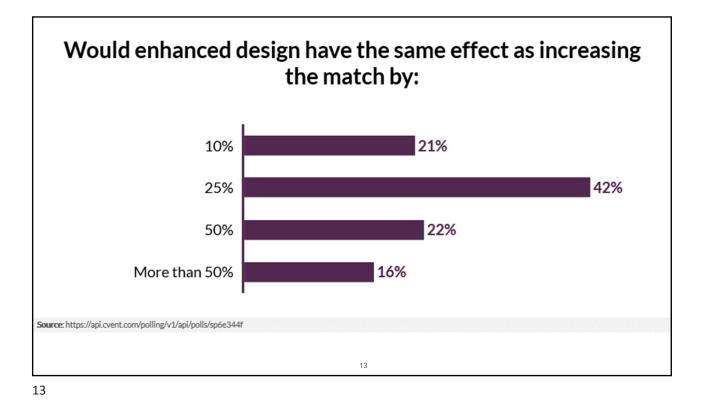


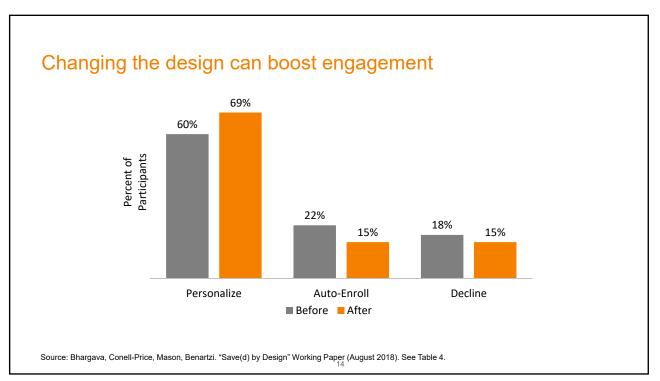


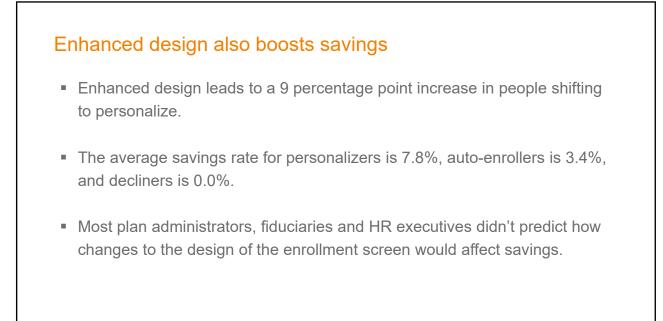
- To study the potential impact of design, we varied the use of colors, language used to describe each option, and the presence of additional information about plan details.
- We looked at the choices of employees across several hundred auto-enroll plans to either personalize plan elections, accept auto-enroll defaults, or decline enrollment.

Source: Bhargava, Conell-Price, Mason, Benartzi. "Save(d) by Design" Working Paper (August 2018).



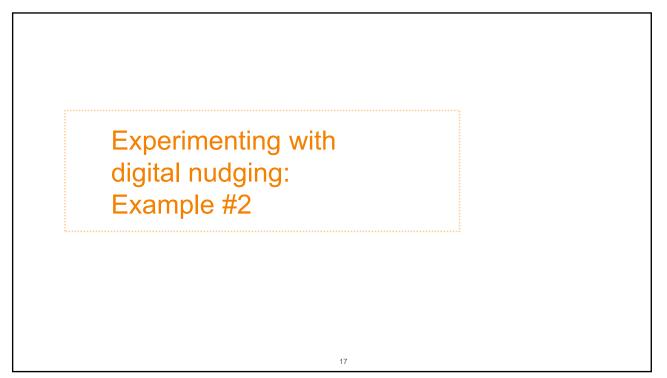


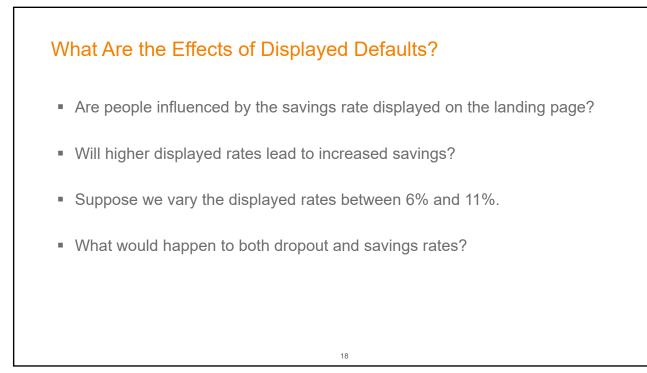


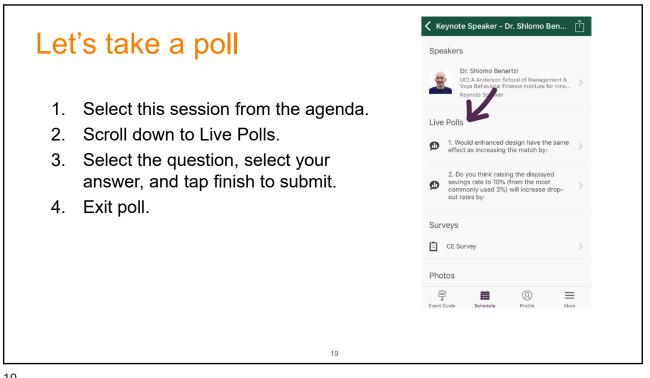


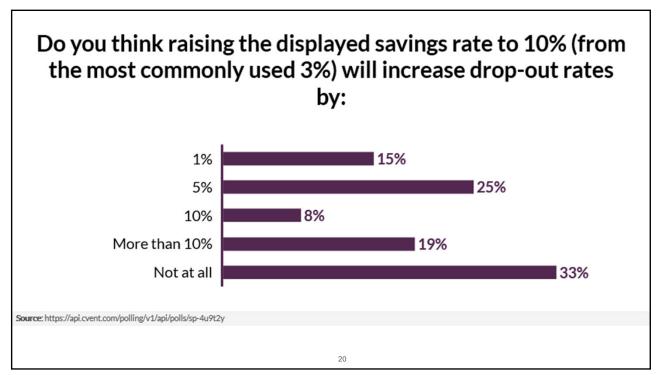
Source: Bhargava, Conell-Price, Mason, Benartzi. "Save(d) by Design" Working Paper (August 2018).







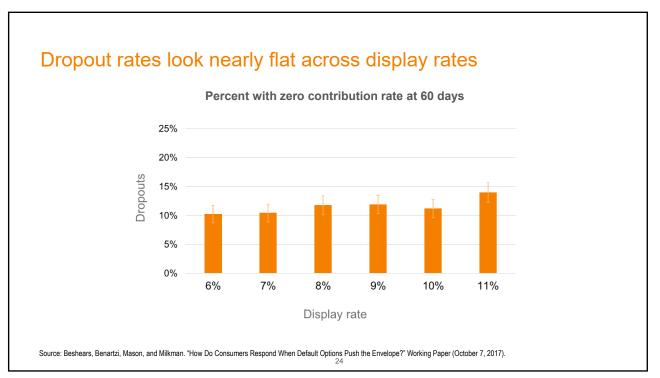


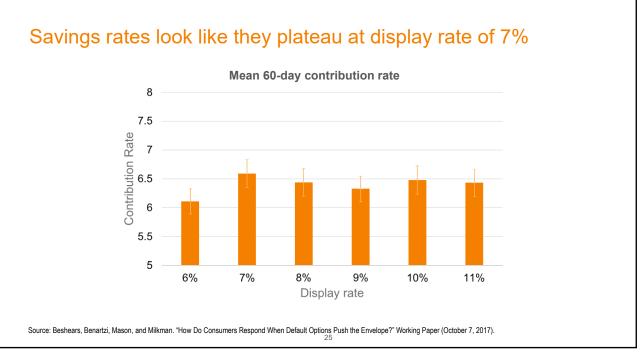


	9? / ¿Necesitas Ayuda? Steps to Save About My Plan Important Information	
ABOUT ME SET A GOAL	ENROLLMENT CHOICES REVIEW & CONFIRM	
	me in retirement could look like. and the savings amount selected below.	
You may h \$ 2,63 brows	4 \$2,917 \$283 of Security Retirement • How do we came up with your number?	
You can keep these numbers and enroll nov	Change my retriement goals y, or adjust them below to get closer to your goal.	
Select an amount from your paycheck:	Select an investment option:	
Copie integration remember since to a	A single investment that's professionally	
⊖ 6 [%] ⊕	managed and aligns with a retirement age of around 65.	
← 6% ↔ While \$125 in PRETAX dollars goes into your account per pay period, phy \$94 comes out of your take-home pay after taxes'	managed and aligns with a retirement	



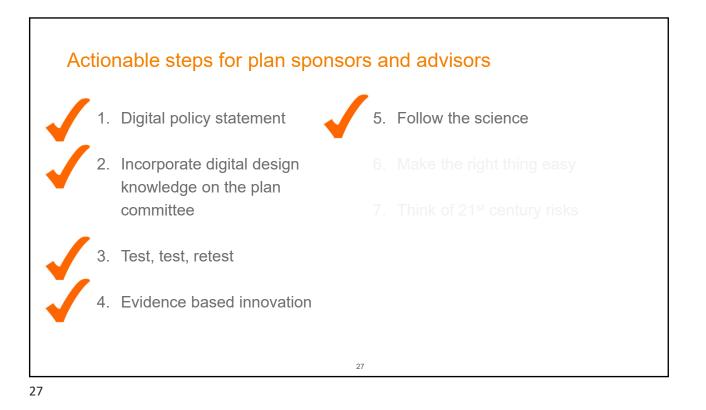


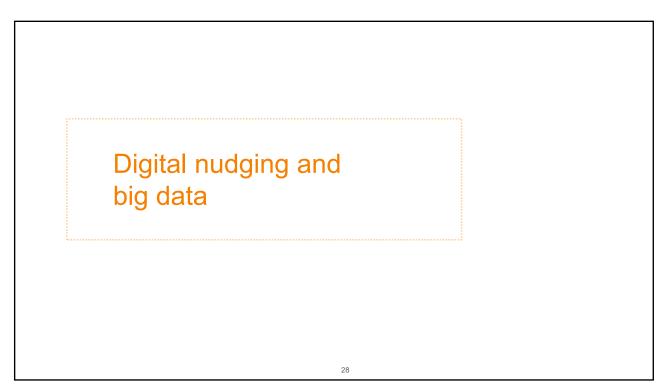


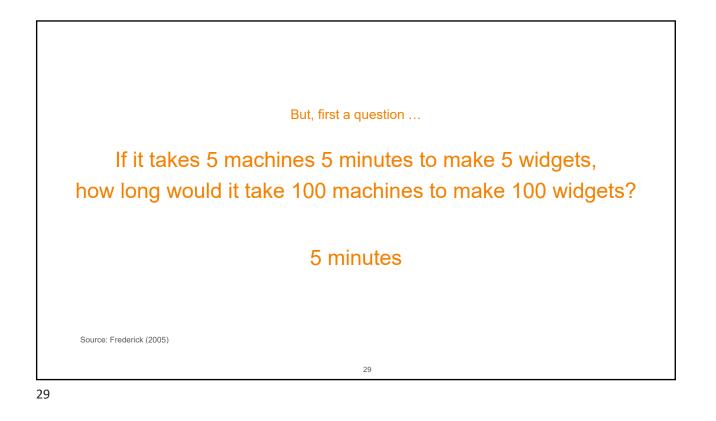


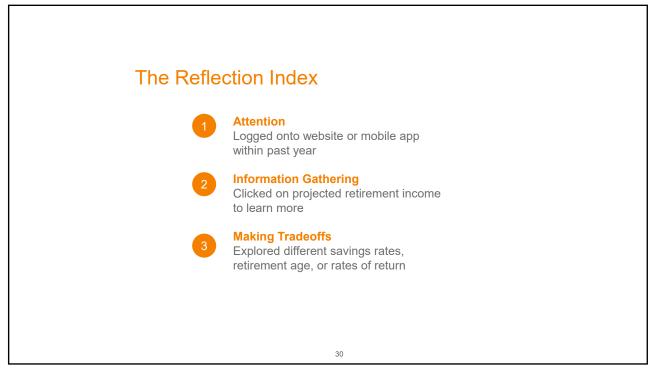


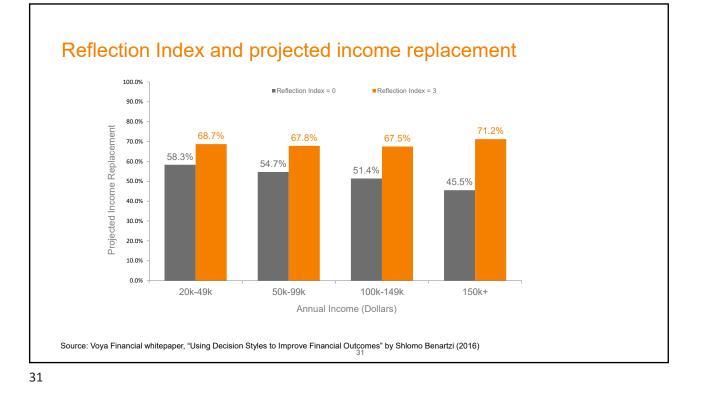


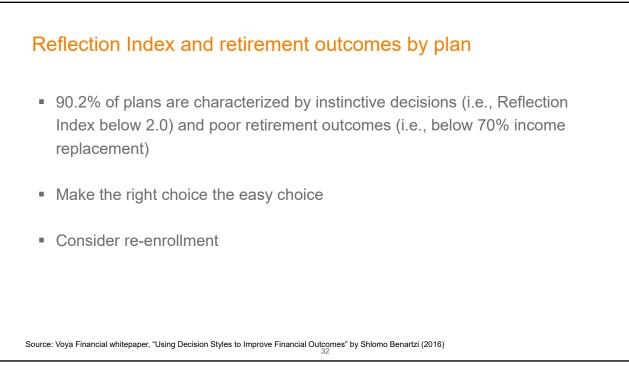


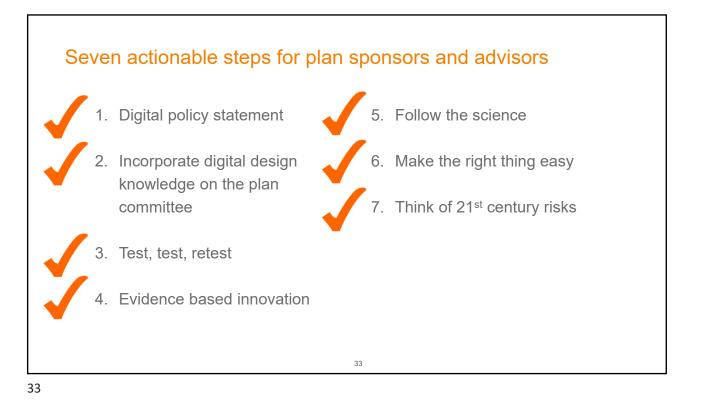










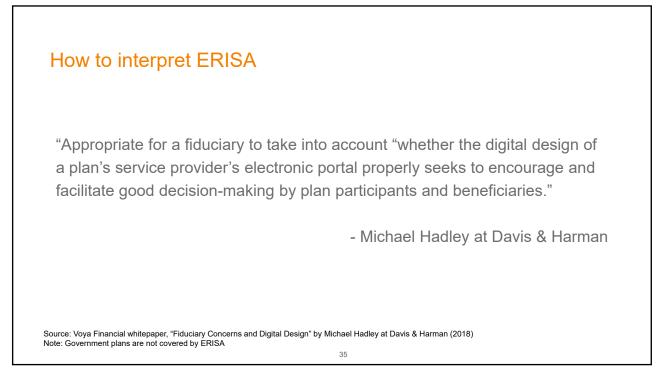


On ERISA 1974 Versus 2018

- While ERISA went into effect before the digital age, legislation contained a crucial provision that fiduciaries must act "with the care, skill, prudence, and diligence under the circumstances then prevailing."
- "Accordingly, even though no fiduciary in 1974 would have needed to consider the digital design of the plan's web portal, the fact that a substantial percentage of participant interactions are online is a circumstance that is now prevailing."

- Michael Hadley at Davis & Harman

Source: Voya Financial whitepaper, "Fiduciary Concerns and Digital Design" by Michael Hadley at Davis & Harman (2018) Note: Government plans are not covered by ERISA





2019 NAGDCA Annual Conference - Fiduciary Diligence, Best Practices, Lawsuits and Lessons Learned

View the session video at <u>https://</u> www.youtube.com/watch? v=Sja4hYc8cIo&list=PLpHjXGJ3CmzRGhxVPVntFfX7czJ8G44I&index=3&t=0s

Fiduciary Diligence, Best Practices, Lawsuits and Lessons Learned

Moderator: Melanie Walker, Segal Consulting Panelists:

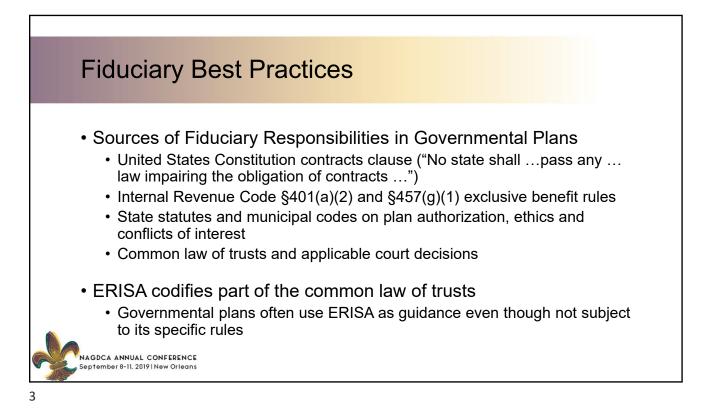
Daniel Alexander, RetireAware Marla Kreindler, Morgan, Lewis & Bockius, LLP

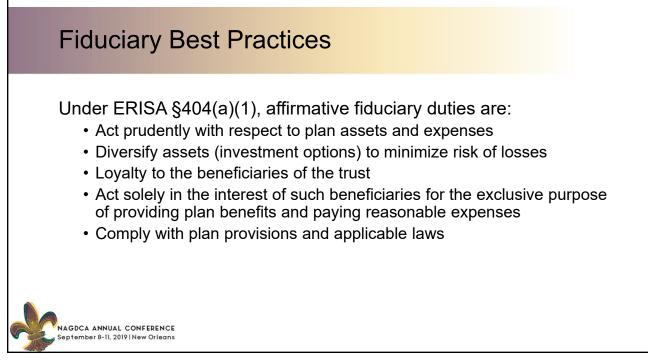


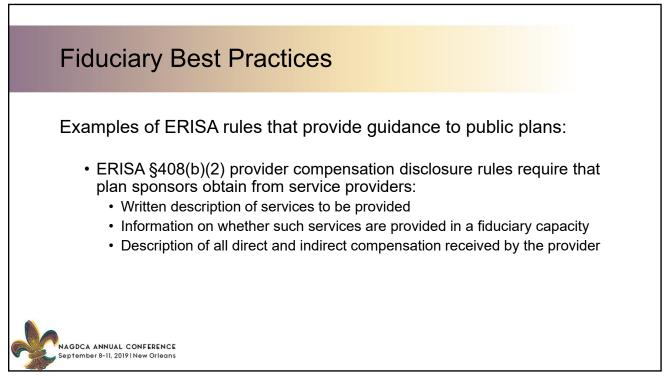


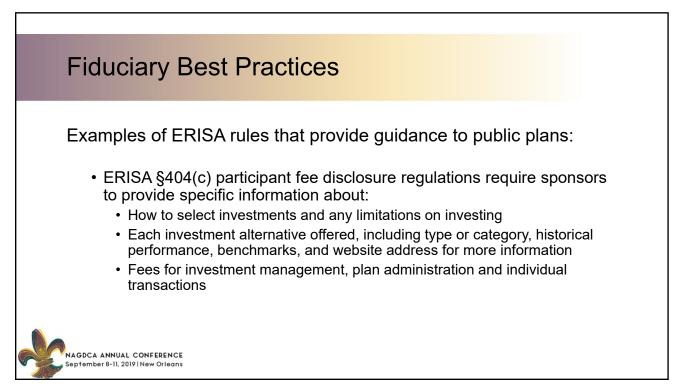
Senior Vice President, National Compliance Practice Segal Consulting

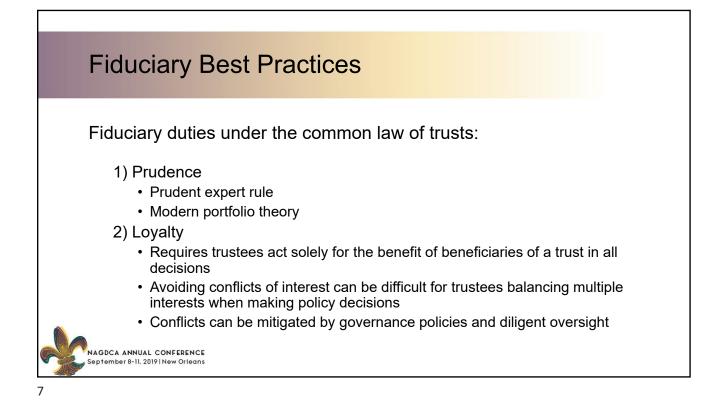






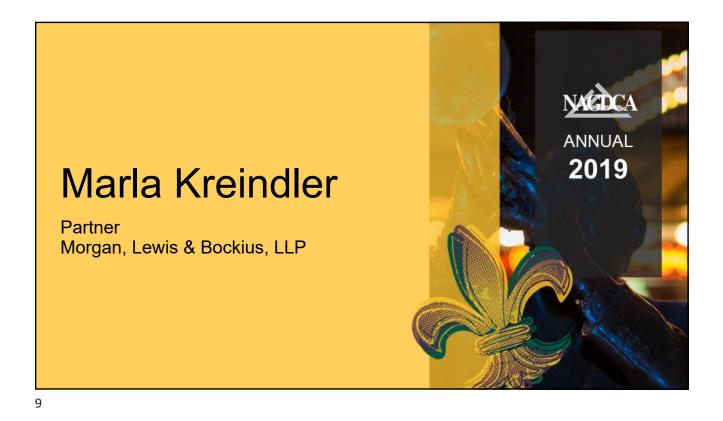








2019 NAGDCA Annual Conference - Fiduciary Diligence, Best Practices, Lawsuits and Lessons Learned

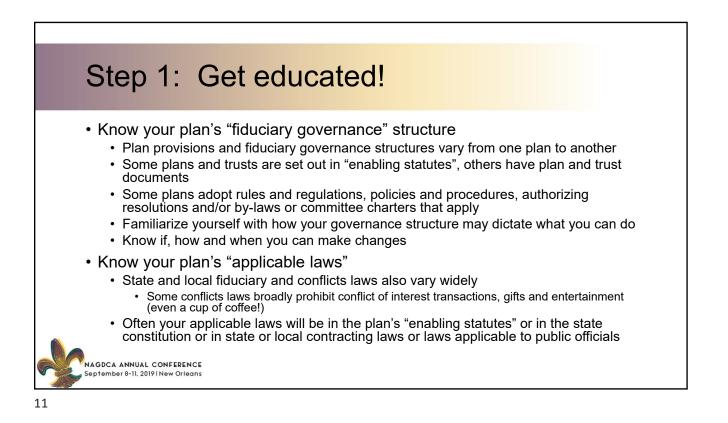


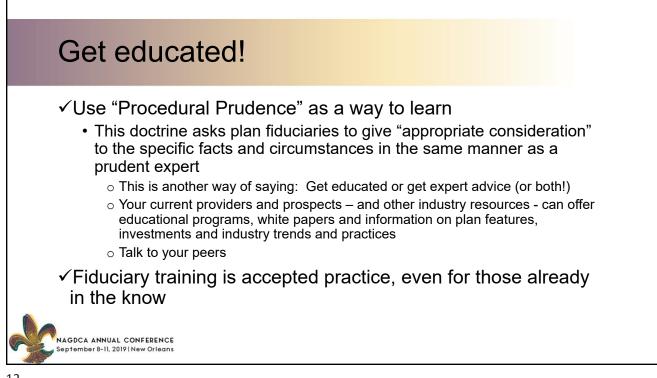
Fiduciary Diligence 1 – 2 – 3

- 1. Get educated
- 2. Consider your options
- 3. Apply what you have learned to achieve the best results for your participants

Make no assumptions!

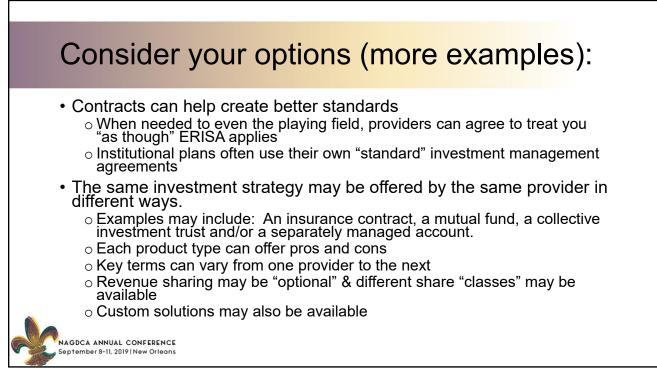
NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans

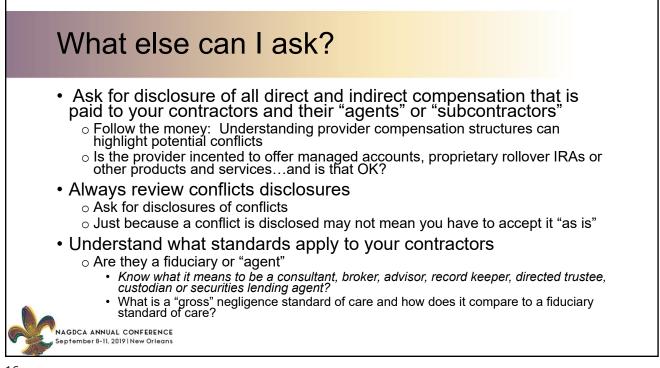


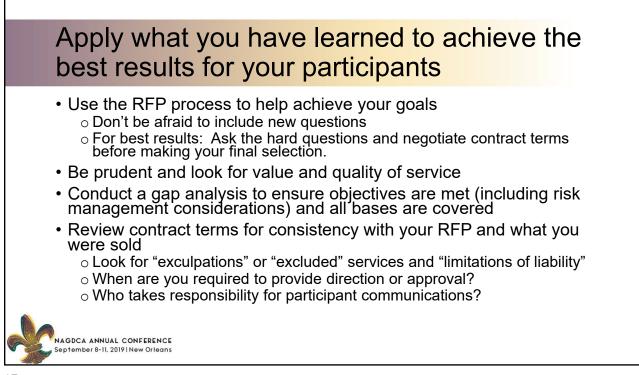


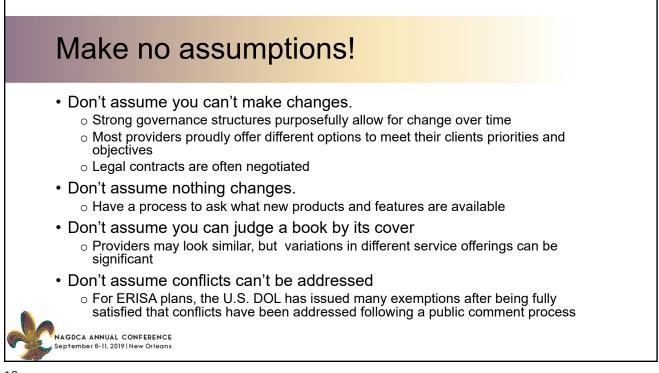


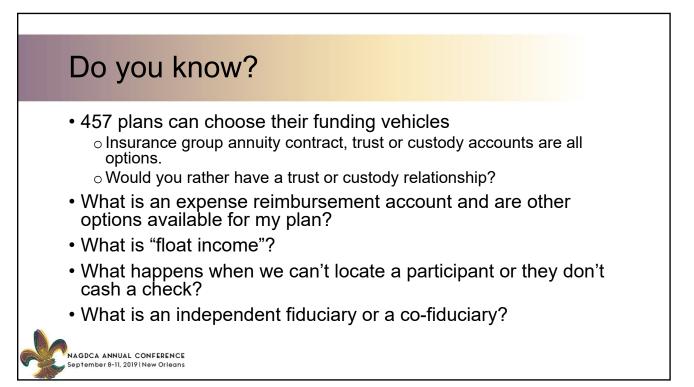
Different record keepers - and even the same record keeper - can offer different options for what you might consider the same type of products and services. Becord keeping platforms might be group annuity or insurance contract and/or administrative service and "mutual fund" platforms. Becord keepers offer bundled vs. unbundled/"open architecture" options. "Proprietary" and "non-proprietary" products are also available Participant advice and education is offered in many different ways. Investment education vs. individualized advice Seminars, webinars, call center or on line education and advance. Managed portfolios vs. managed accounts Opt-in (non-discretionary) vs. discretionary (aka fiduciary vs. non-fiduciary). Experts can help you navigate across different provider products and services. RFPs are a tool to help your better understand (and leverage) your options

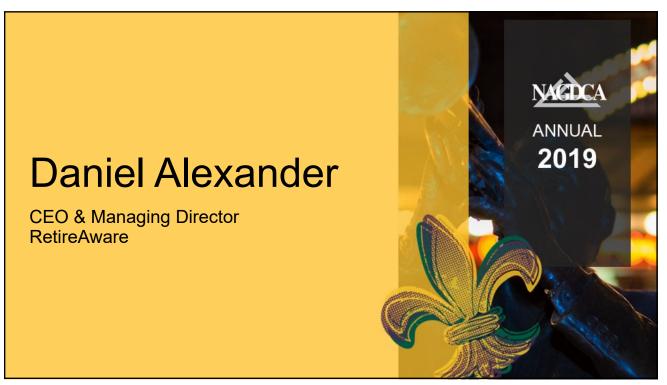


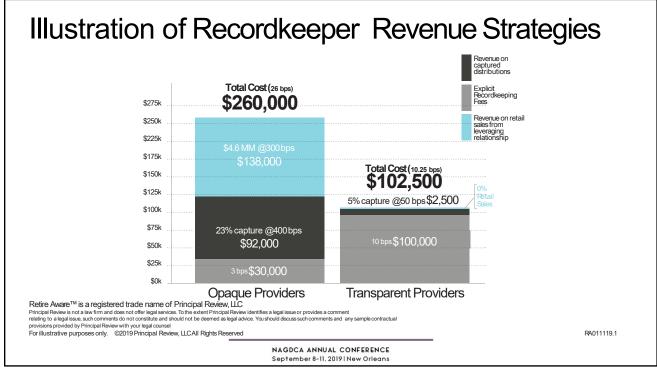




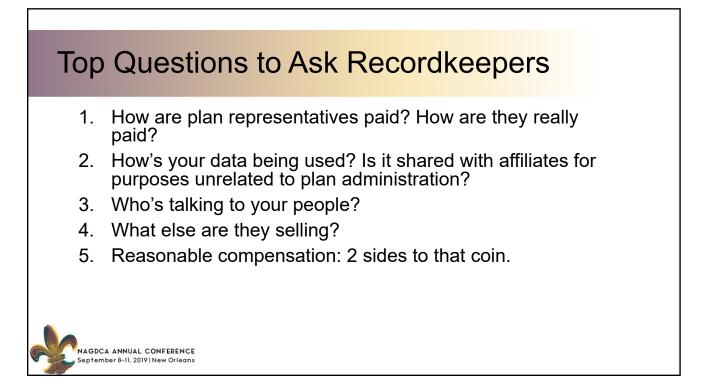


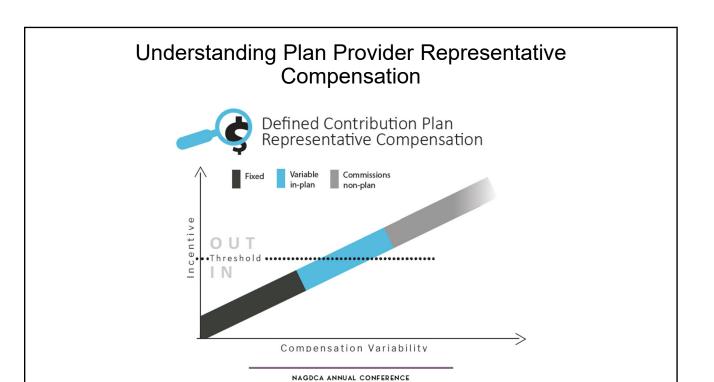




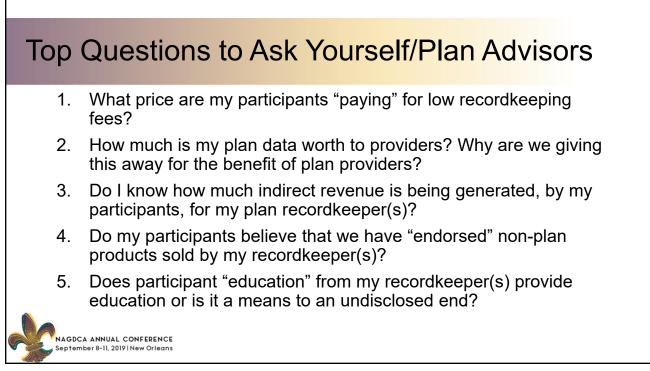


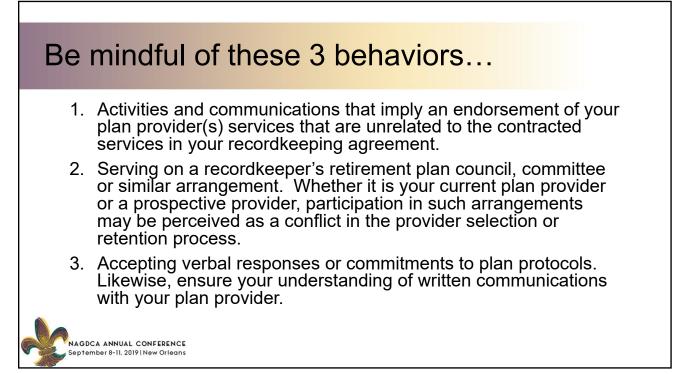
21

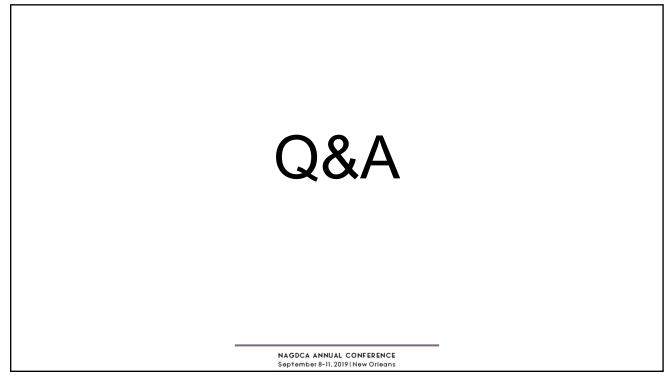




September 8-11, 2019 | New Orlean







2019 NAGDCA Annual Conference - Asset Allocation Techniques during the Accumulation Phase

Asset Allocation Techniques during the Accumulation Phase

Panelists:

Christopher Hamilton, Invesco Jeremy Stempien, QMA, Prudential Bridget Witzeman, Voya Financial Moderator: Tom Anichini, GuidedChoice



What we will cover today

Introduction to panel and why this topic matters

How lineup construction can assist with asset allocation decisions

Types of asset allocation

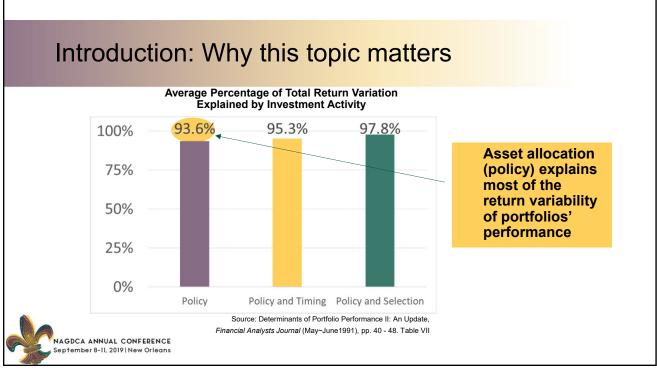
Asset allocation solutions

Establishing, evaluating, and measuring asset allocation solutions

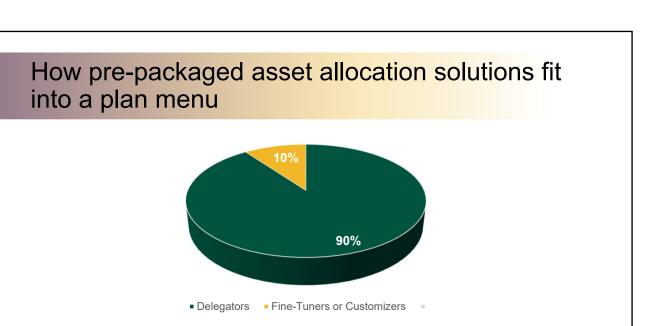
Key takeaways

NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans

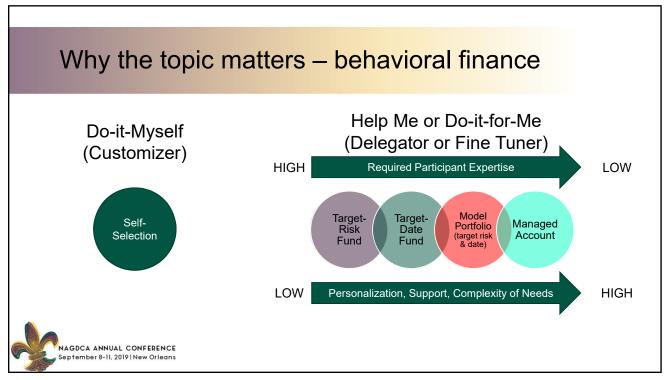




NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans

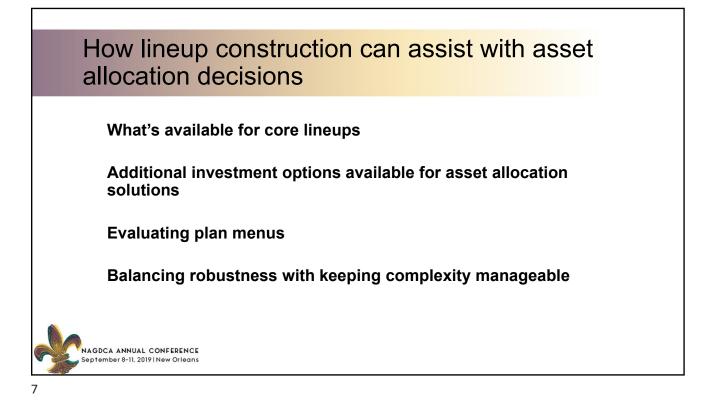


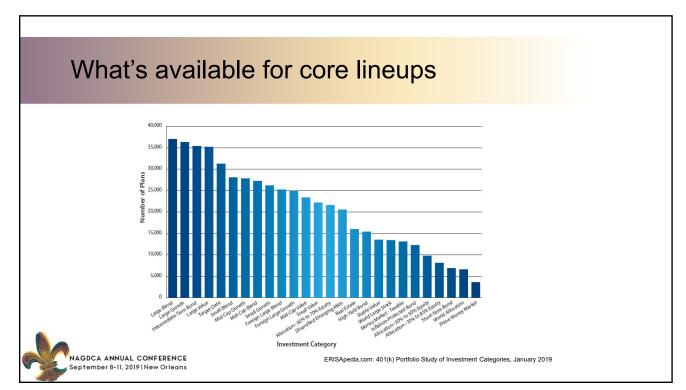
Source: Shlomo Benartzi with Roger Lewin, Save More Tomorrow: Practical Behavioral Finance Solutions to Improve 401(k) Plans (London: Penguin: 2012) p.187

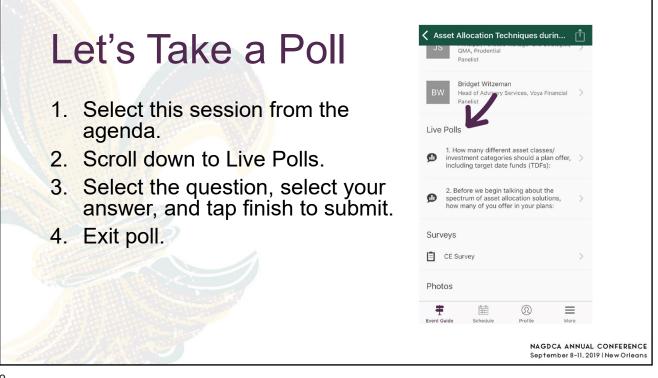


6

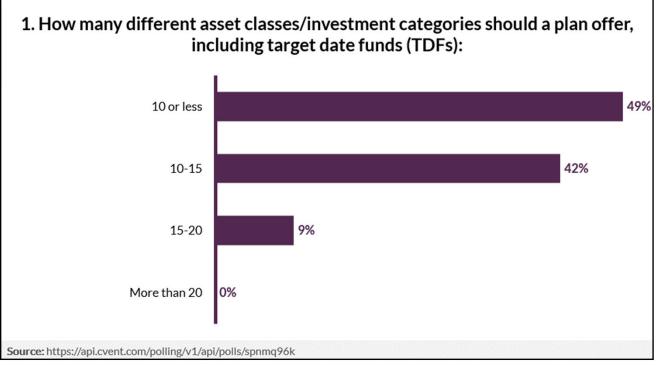


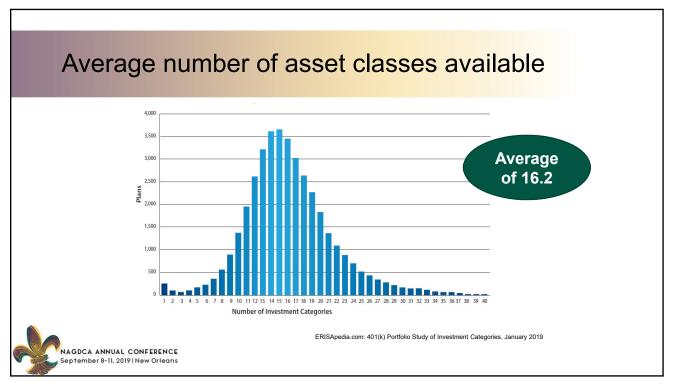


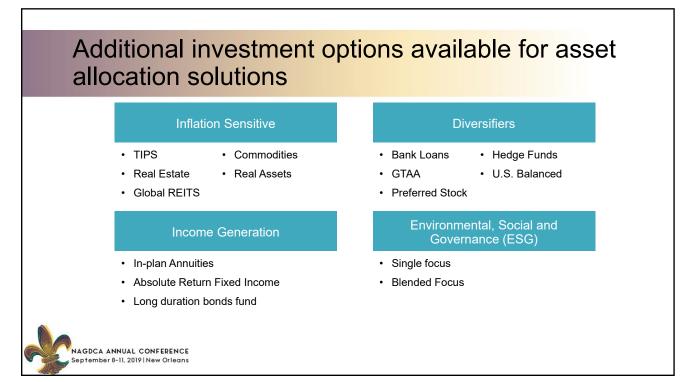


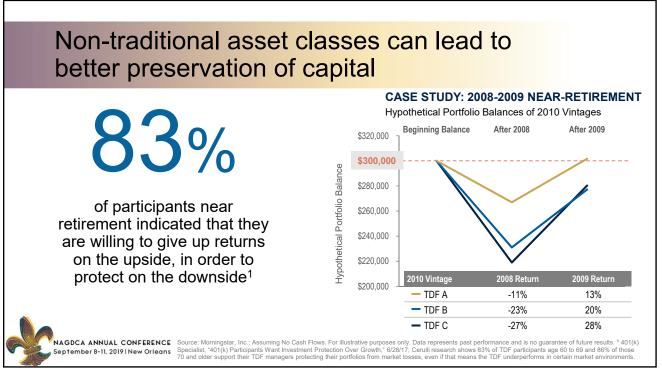


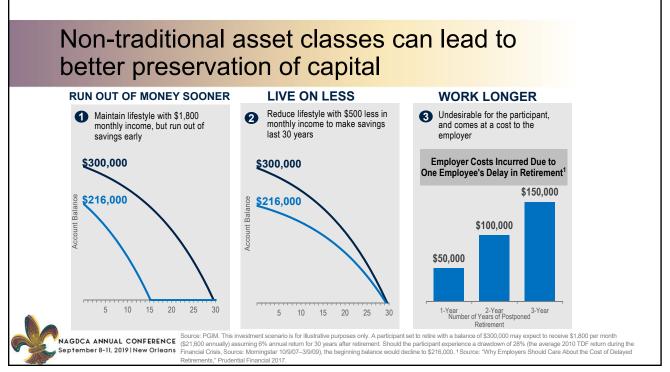


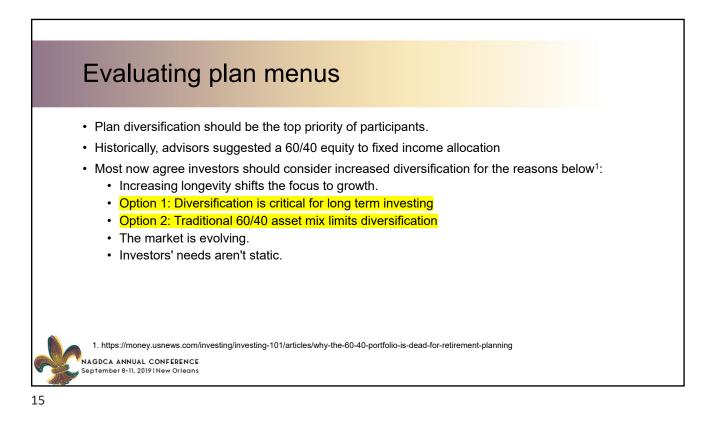






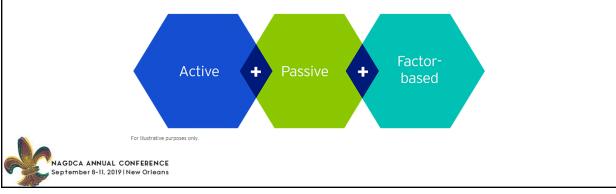


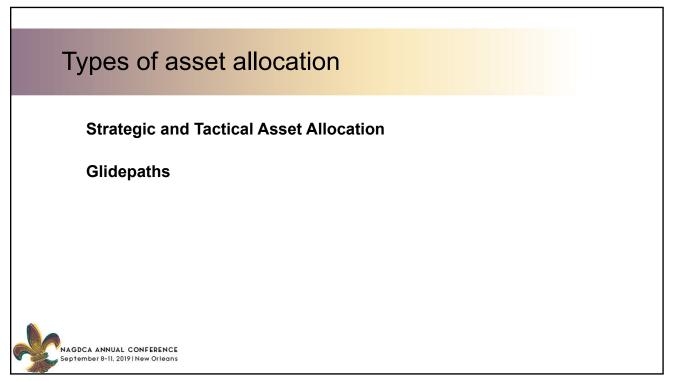




Balancing robustness with keeping complexity manageable

- Strategic allocations should be broadly diversified to meet client long-term investment objectives.
- Rather than solely focusing on traditional asset classes, allocations may also include alternatives to enhance diversification
- Diversification may also be improved, by blending active, passive and factor-based strategies.
- Factors are characteristics of securities such as value and quality that may help enhance returns.

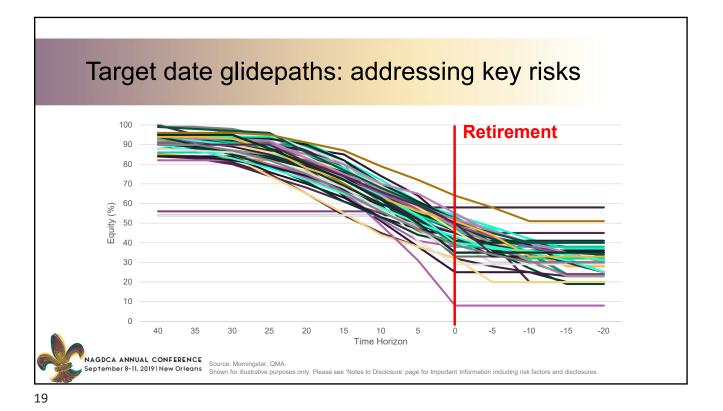


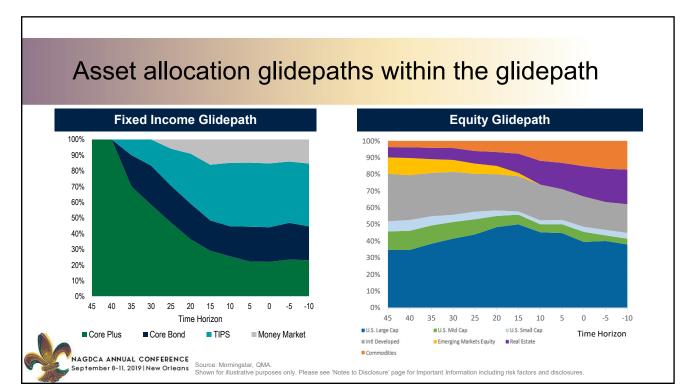


Types of asset allocation

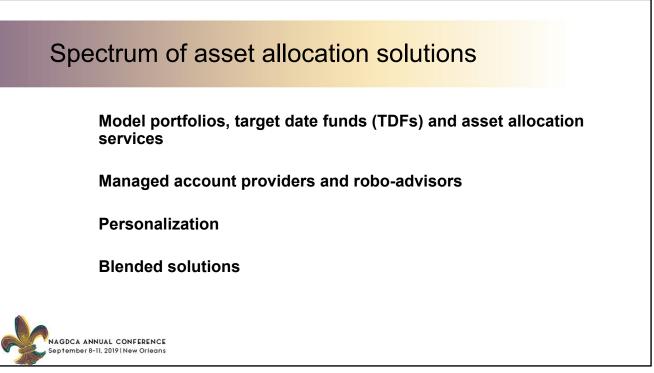
	Strategic Asset Allocation	Tactical Asset Allocation
Time Horizon	Long-term (ex: 10 years – indefinite)	Short-term (ex: days, weeks, months)
Policy Driver	Focus on long-term expectations with low emphasis on current market conditions	Focus strongly on current market conditions
Beliefs	Beta drivers and mean reversion	Alpha drivers with an ability to add incremental return through predicted shifts in market fundamentals
Opportunities	Long-term consistent relative performance	Market timing adds ability to add alpha (up/down markets)
Risks	Missing short-term alpha opportunities	Adversely adjusting risk characteristics at inopportune times

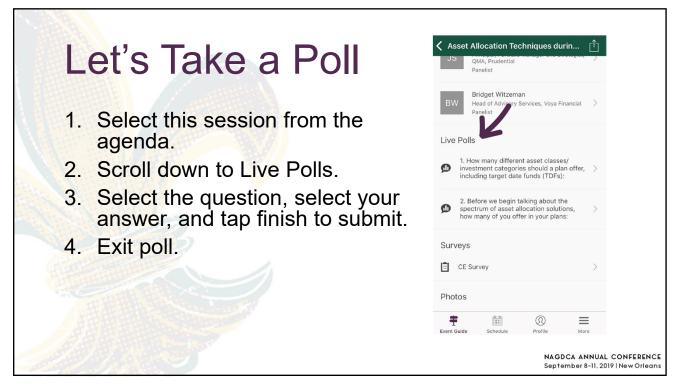
September 8-11, 2019 | New Orleans Source: UMA, Shown for illustrative purposes only. Please see 'Notes to Disclosure' page for Important Information including risk factors and disclosures.

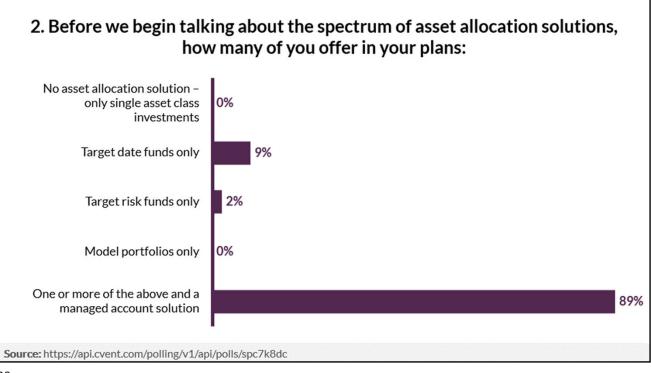


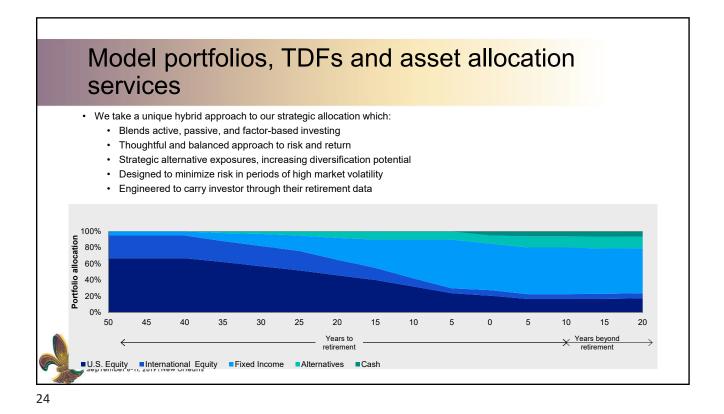






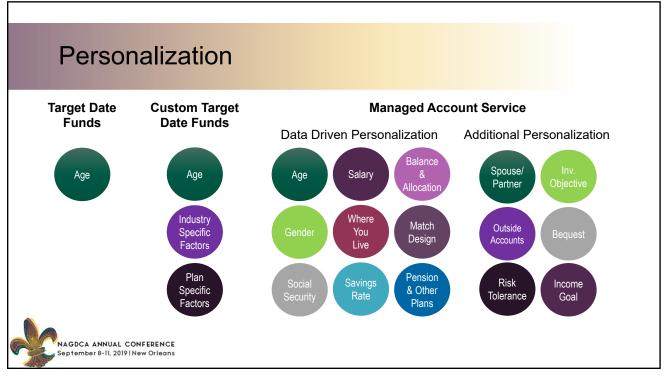


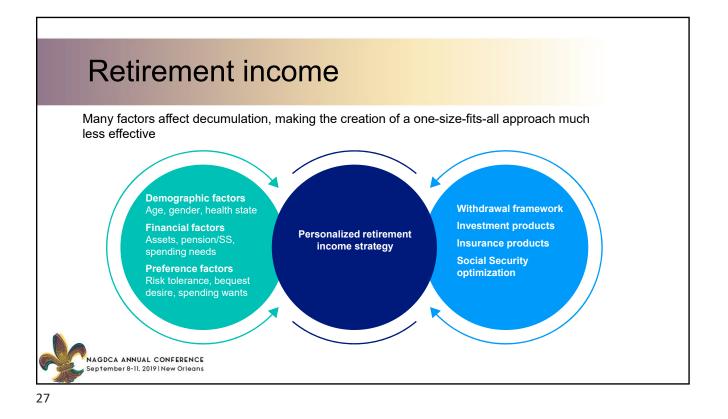


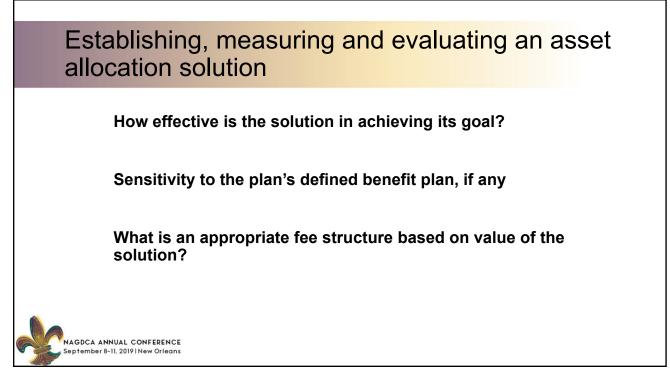


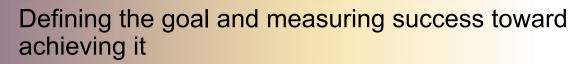
Managed account providers and robo-advisors

	Robo Advisor	Managed Account
Automatic rebalancing	✓	✓
Digital tools	✓	√
Personalization – sponsor provided data (including DB provided data)		V
Participant customization	Often limited	\checkmark
Integration with Plan web site		√
Drawdown planning and execution		✓
Phone or in person support		✓
Financial planning		✓
September 8-11, 2019 New Orleans		

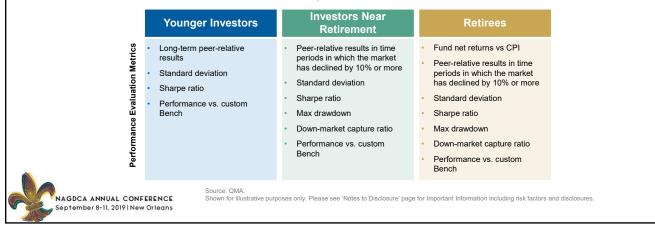


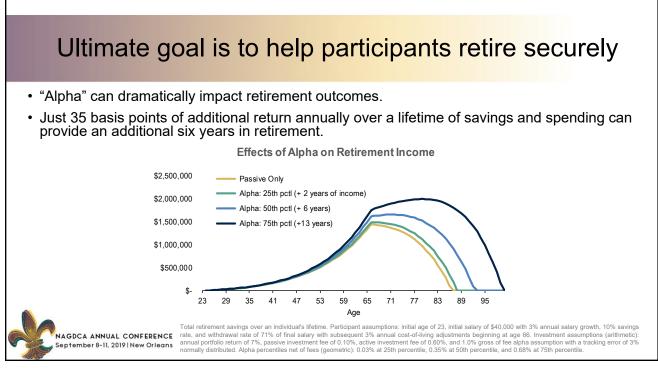


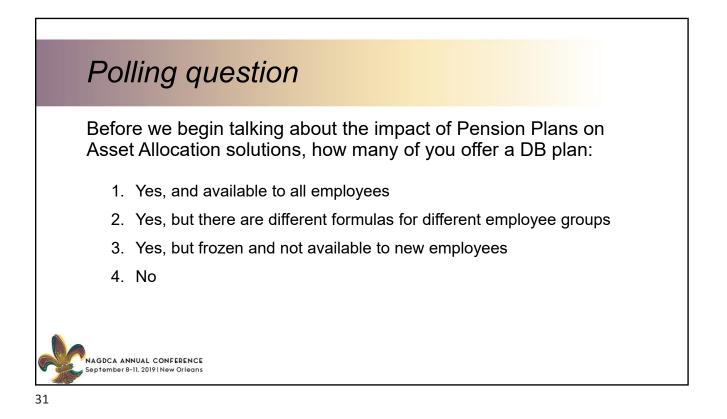


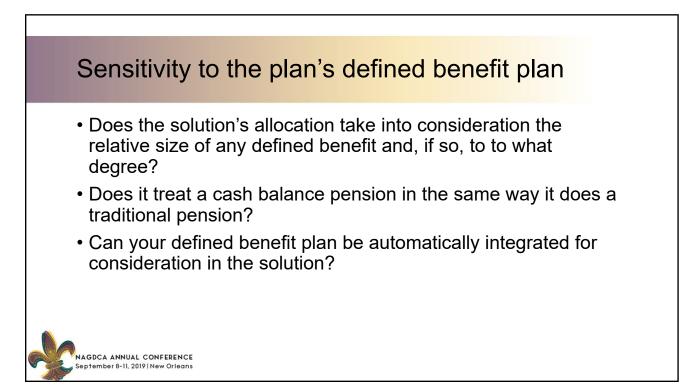


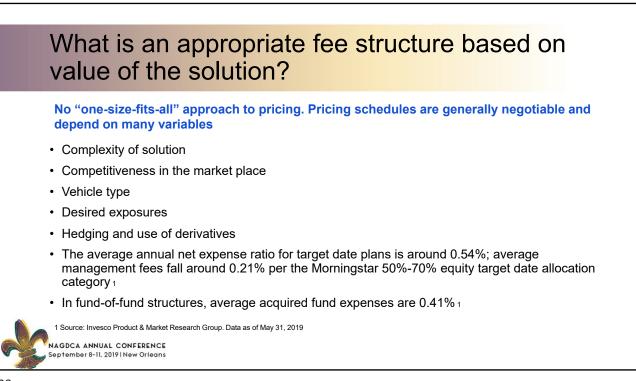
- Think about establishing objectives for different ages, or areas of a glidepath, including market value protection near retirement.
- Propose specific metrics and incorporating them in plan IPS.



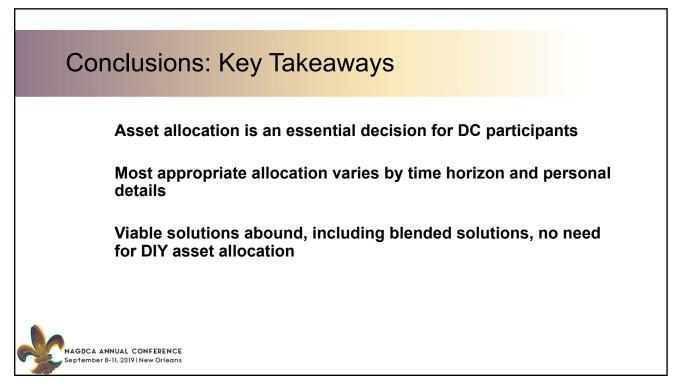




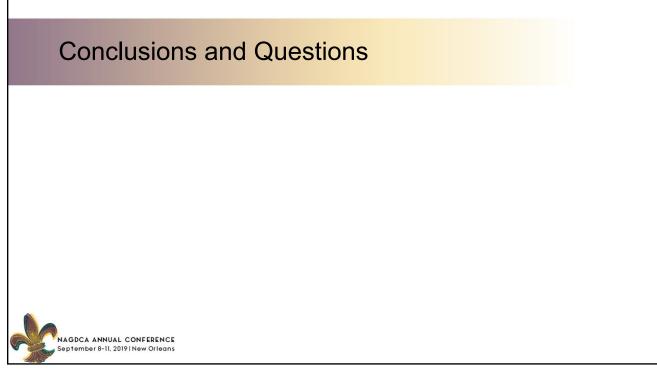












QMA Notes to Disclosure

Important Information

These materials represent the views, opinions and recommendations of the author(s) regarding economic conditions, asset classes, and strategies. Distribution of this information to any person other than the person to whom it was originally delivered is unauthorized, and any reproduction of these materials, in whole or in part, or the divulgence of any of the contents hereof, without prior consent of QMA LLC ("QMA") is prohibited. Certain information contained herein has been obtained from sources that QMA believes to be reliable as of the date presented; however, QMA cannot guarante the accuracy of such information, assure its completeness, or warrant that such information will not be changed. These materials are not intended as an offer or solicitation with respect to the purchase or sale of any security or other financial instrument or any investment management services and should not be used as the basis for any investment decision. No liability whatsoever is accepted for any loss (whether direct, indirect, or consequential) that may arise from any use of the information contained in or derived from this report. QMA and its affiliates may make investment decisions that are inconsistent with the views expressed herein, including for proprietary accounts of QMA or its affiliates.

These materials are for informational or educational purposes only. The information is not intended as investment advice and is not a recommendation about managing or investing assets. In providing these materials, QMA is not acting as your fiduciary.

The opinions expressed herein do not take into account individual client circumstances, objectives, or needs and are therefore are not intended to serve as investment recommendations. No determination has been made regarding the suitability of particular strategies to particular clients or prospects. The financial indices referenced herein is provided for informational purposes only. You cannot invest directly in an index. The statistical data regarding such indices has been obtained from sources believed to be reliable but has not been independently verified.

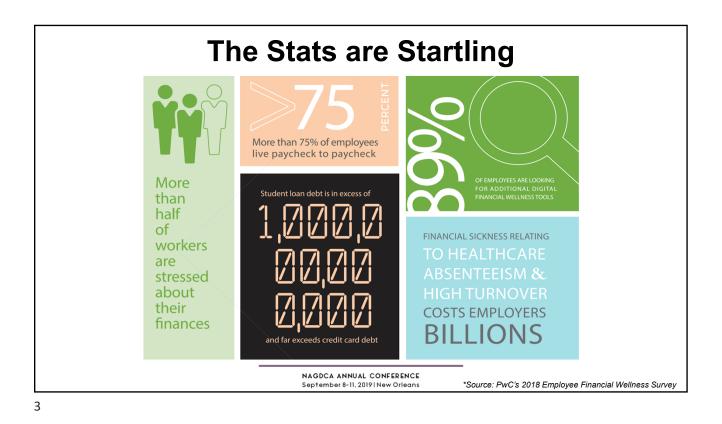
Certain information contained herein may constitute "forward-looking statements," (including observations about markets and industry and regulatory trends as of the original date of this document). Due to various risks and uncertainties, actual events or results may differ materially from those reflected or contemplated in such forward-looking statements. As a result, you should not rely on such forward-looking statements in making any decisions. No representation or warranty is made as to future performance or such forward-looking statements.

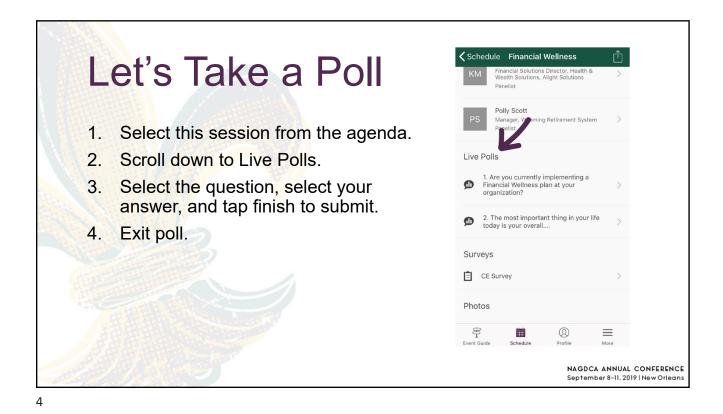
Copyright 2019 QMA. All rights reserved.

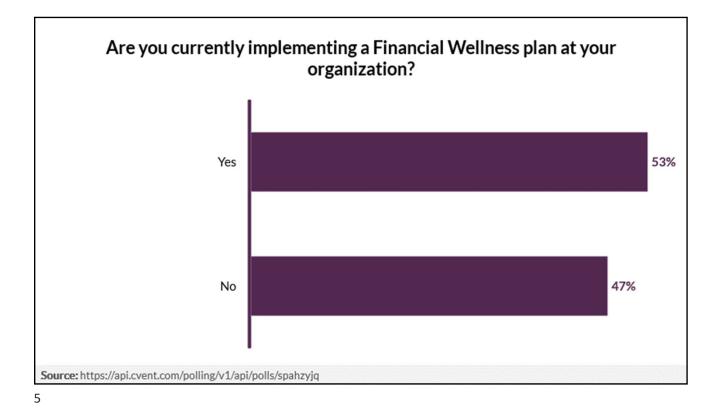
NAGDCA ANNUAL CONFERENCE September 8-11, 2019 New Orleans For plan sponsor use only. Not to be distributed to the public. CN 930069 0920



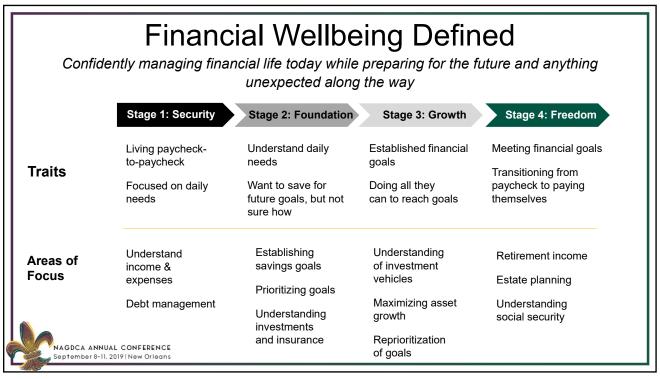




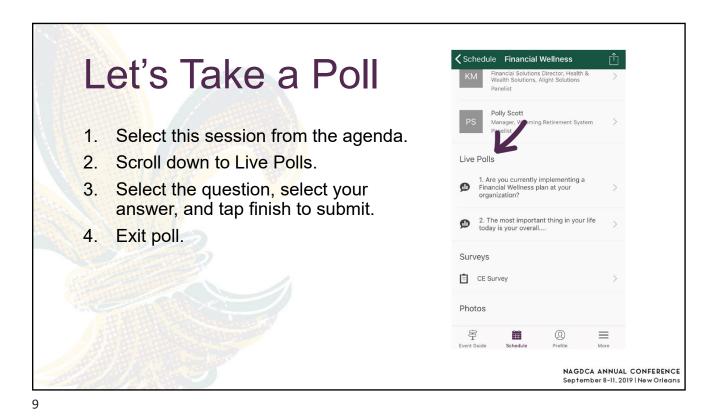


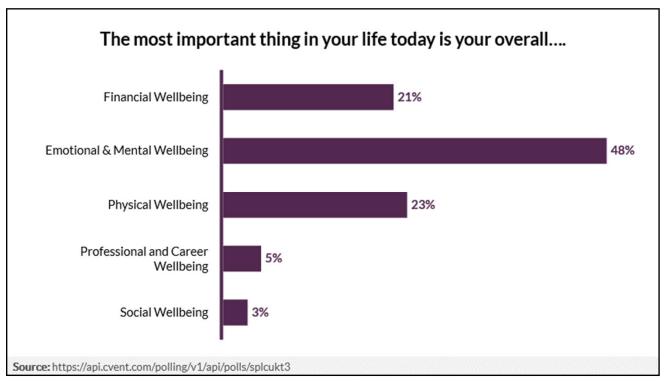




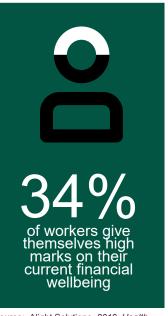


Who Ar	e Employ	ers Focus	ed Most (Dn?
Stage	Security	Foundation	Growth	Freedom
Percentage of workers ¹	31%	21%	37%	11%
Percentage of employers focused on this stage ²	35%	56%	8%	1%
		56% Iutions, 2019 Hot Topics in Retirer		NAGDCA ANNUAL CO September 8-11, 2019 IN



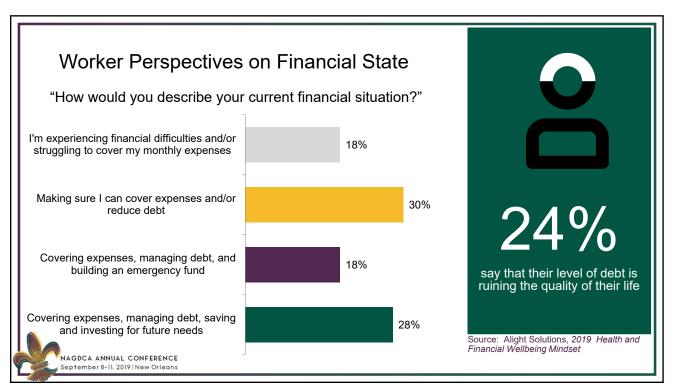


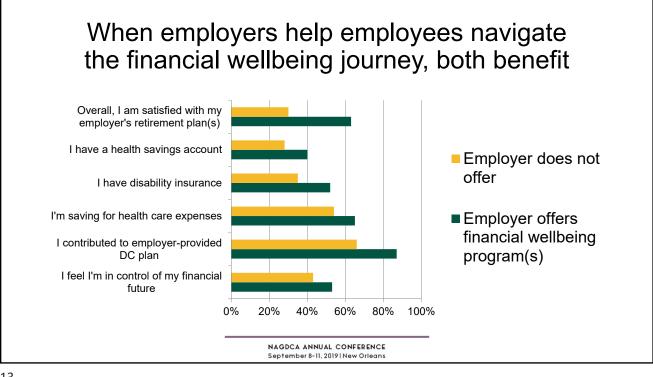
For each of the following attributes, please indicate how important it is in your personal life today?"					
	Overall	Centennials	Millennials	Gen X	Boomers
Financial wellbeing	75%	58%	74%	75%	77%
Emotional & mental wellbeing	74%	68%	72%	77%	74%
Physical wellbeing	71%	73%	67%	74%	76%
Professional and career wellbeing	55%	60%	61%	56%	44%
Social wellbeing	47%	44%	50%	47%	43%
			NAGDCA ANNUAL September 8-11, 201		

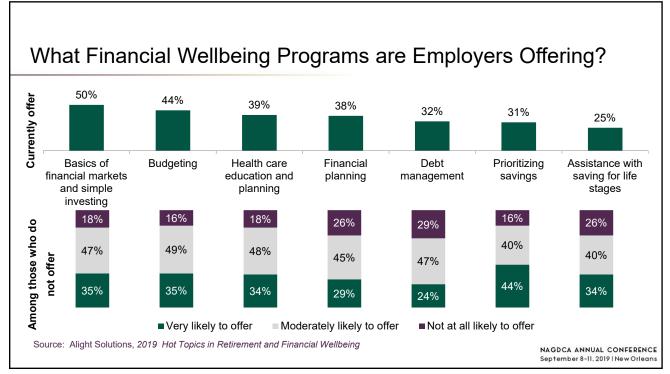


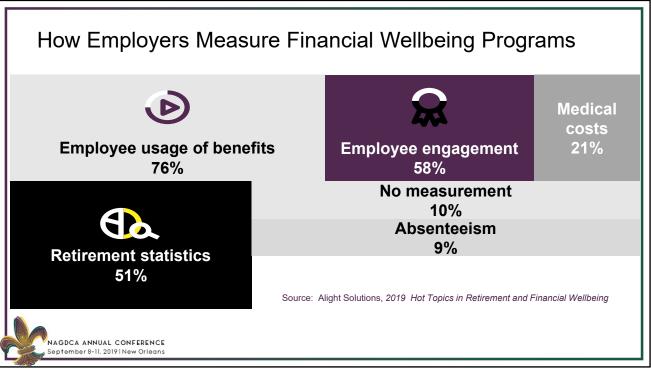
Source: Alight Solutions, 2019 Health and Financial Wellbeing Mindset

11









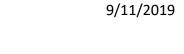


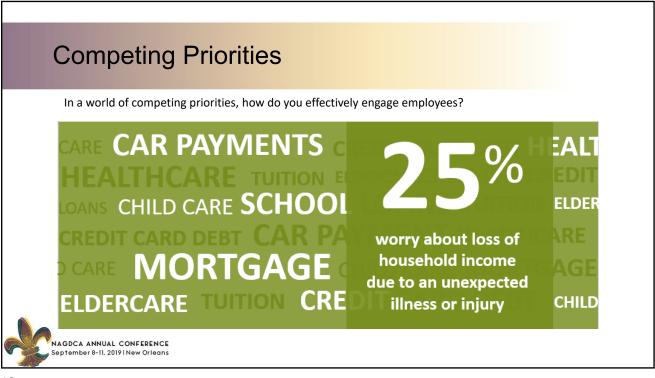


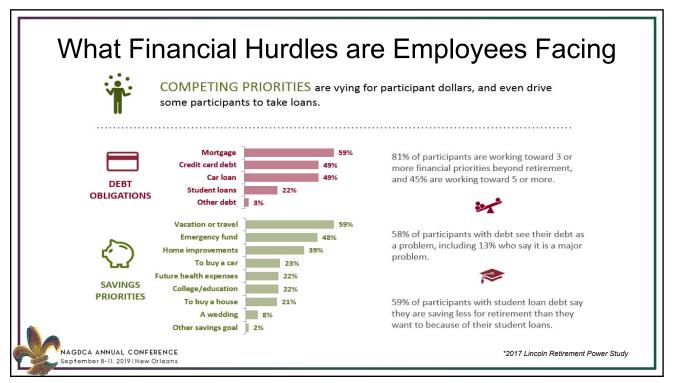


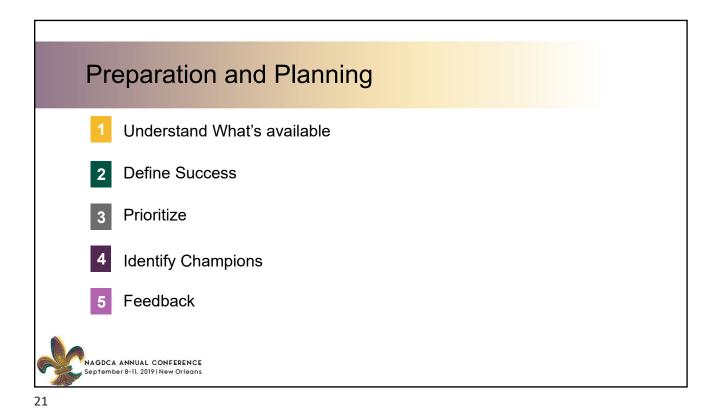


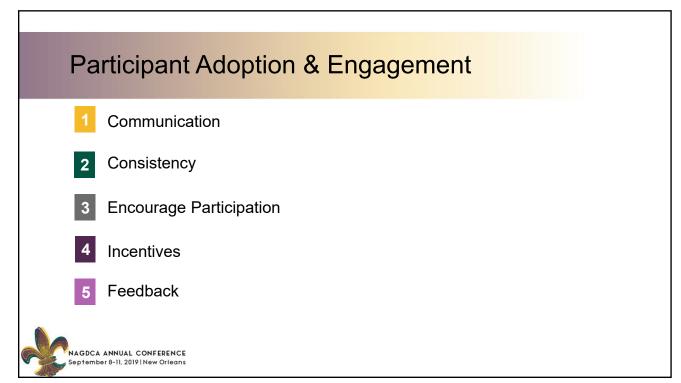


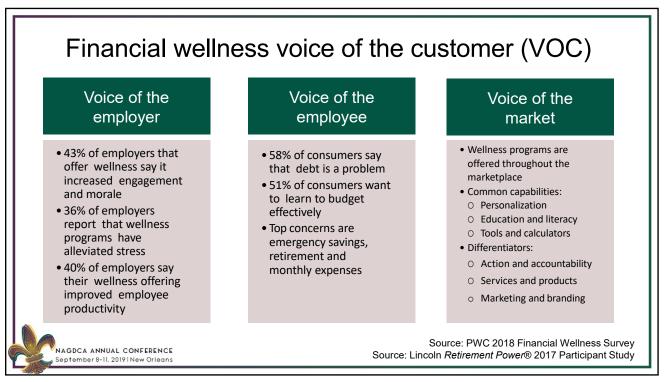




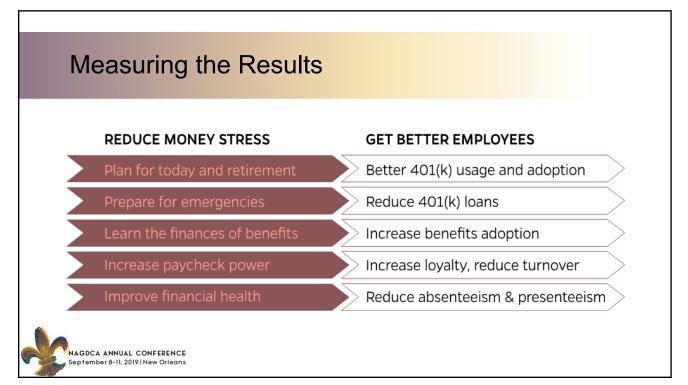




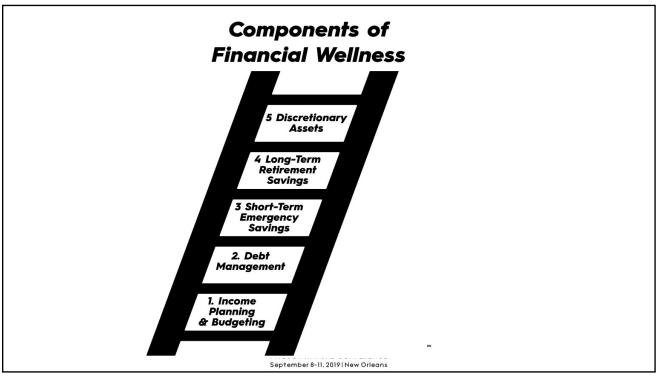


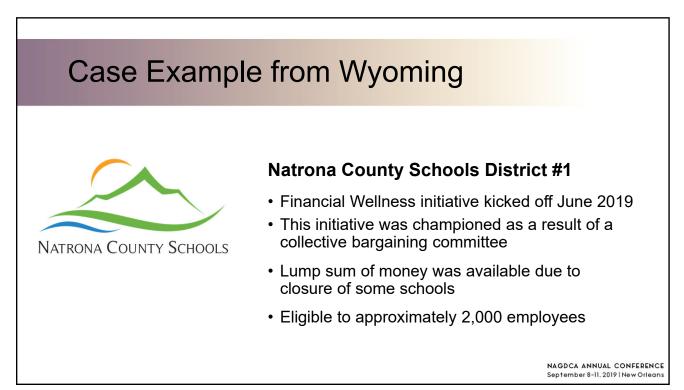


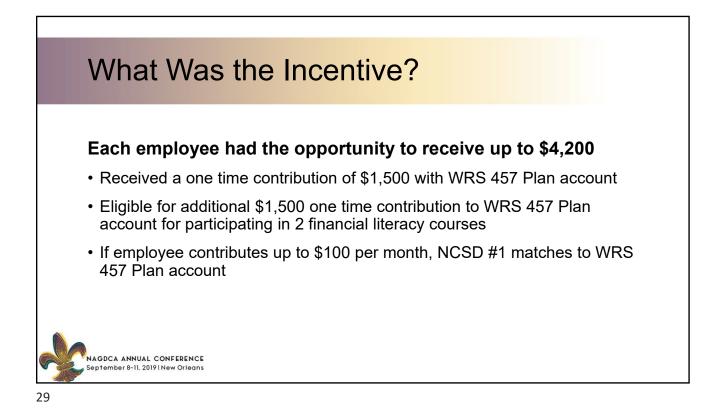


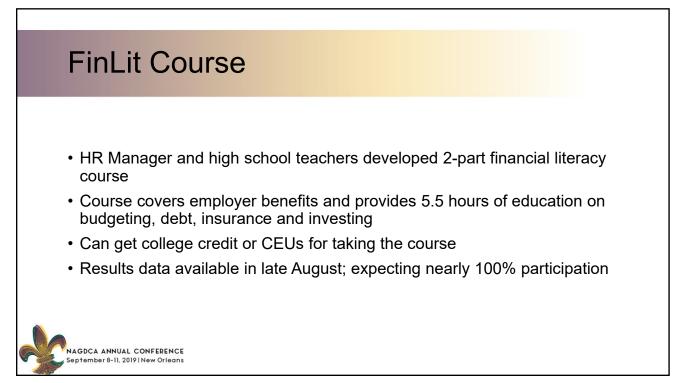


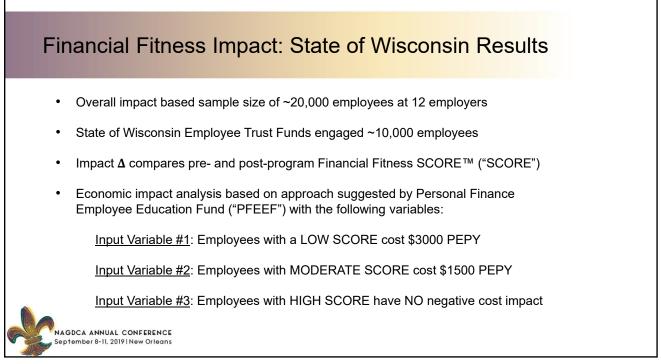




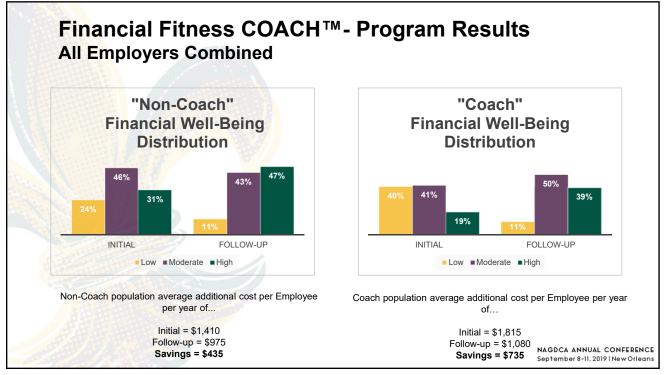


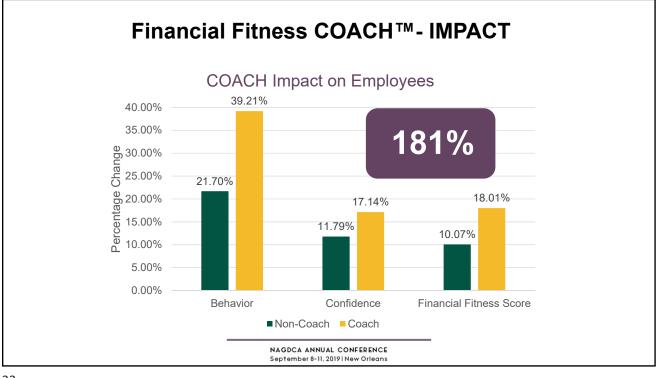


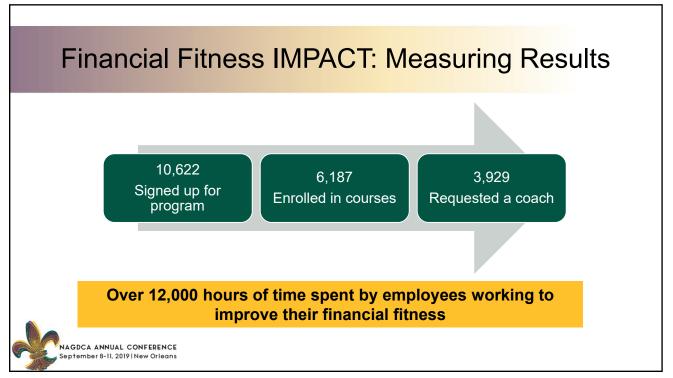




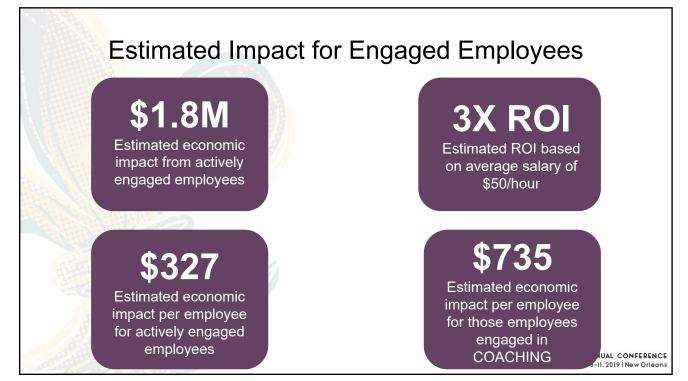
31

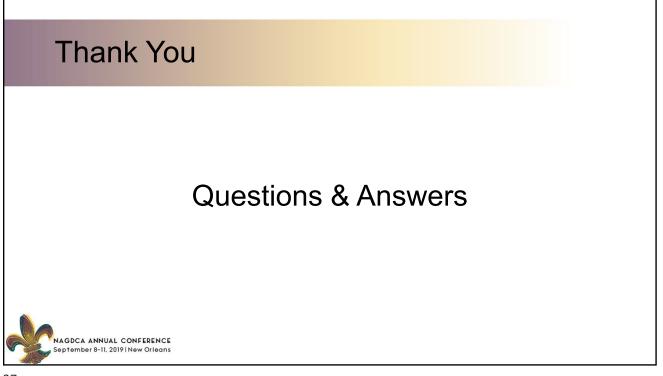












Retaining Retirees and Those Nearing Retirement

Moderator:

Davetta Lee, State of Mississippi

Panelists:

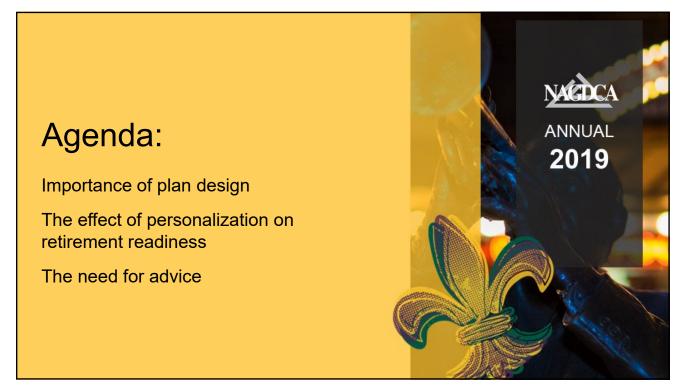
- Kathryn Berkenpas, ICMA-RC
- Andrea Needham, Vanguard
- Gordon Tewell, Innovest



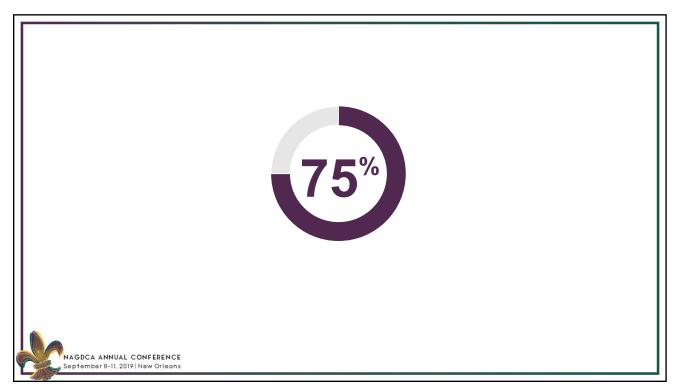
Andrea Needham

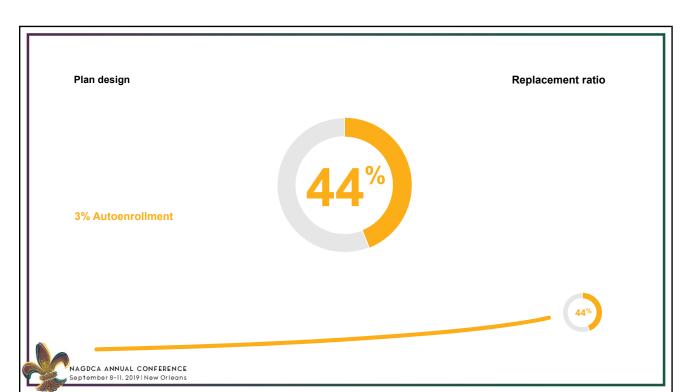
Head of Participant Intelligence, Vanguard participant Strategy and Development

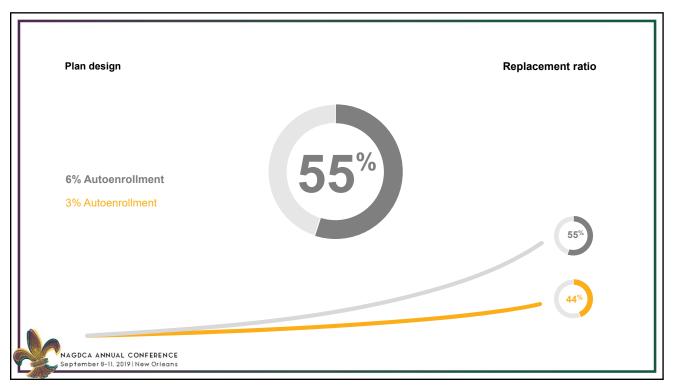


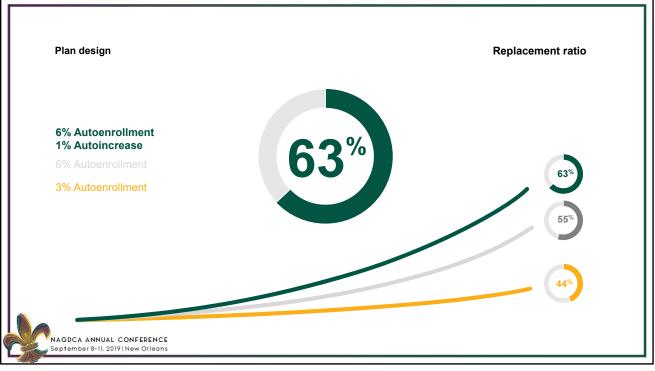




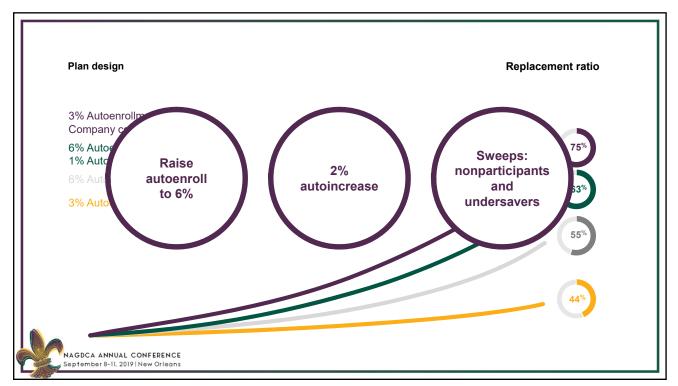


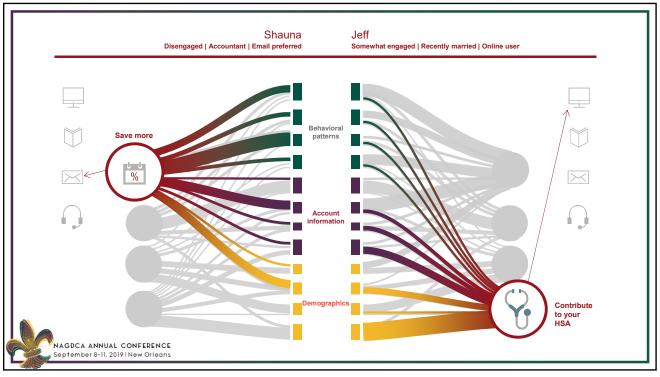


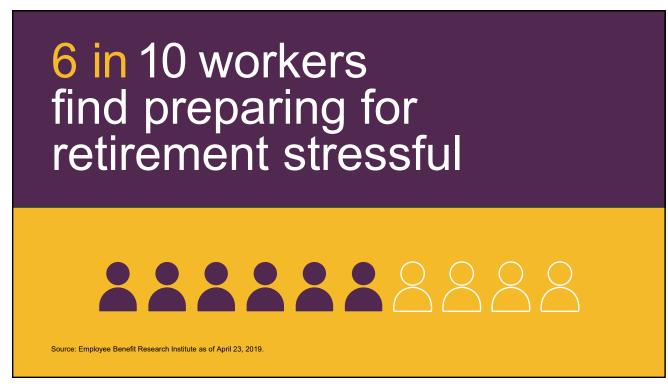


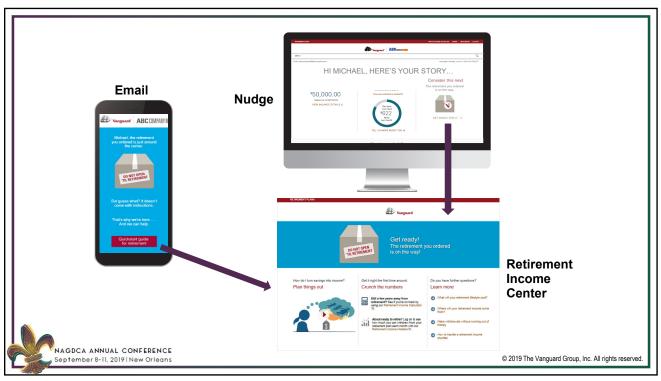


7

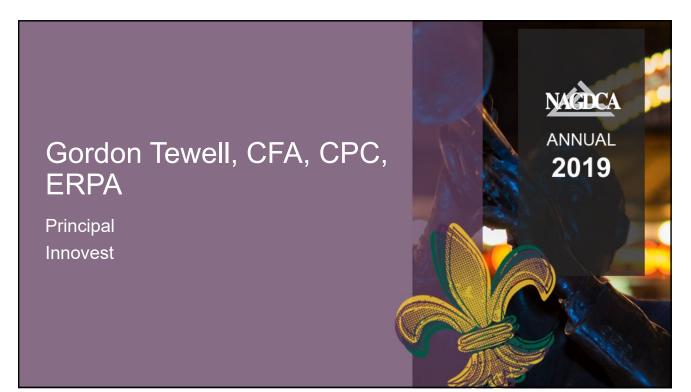


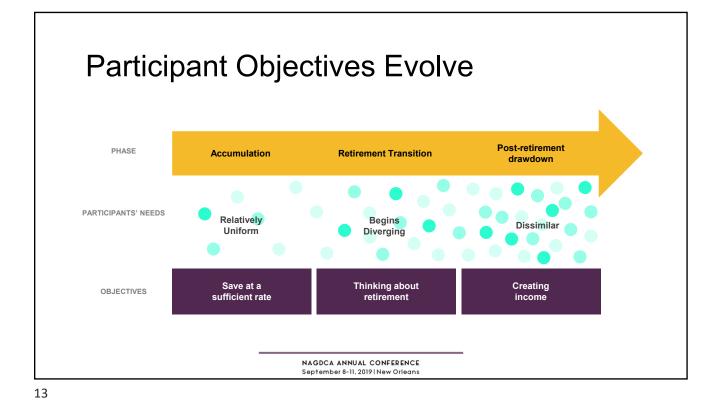


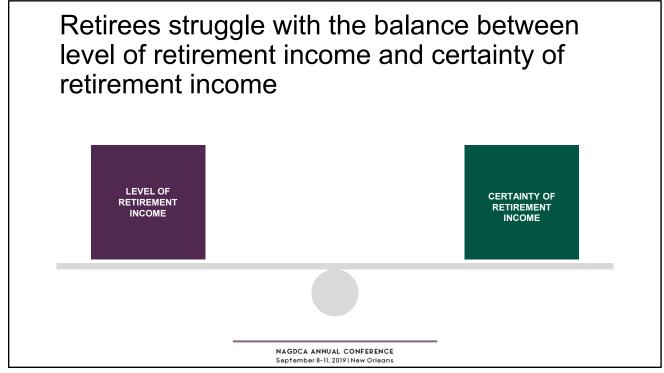


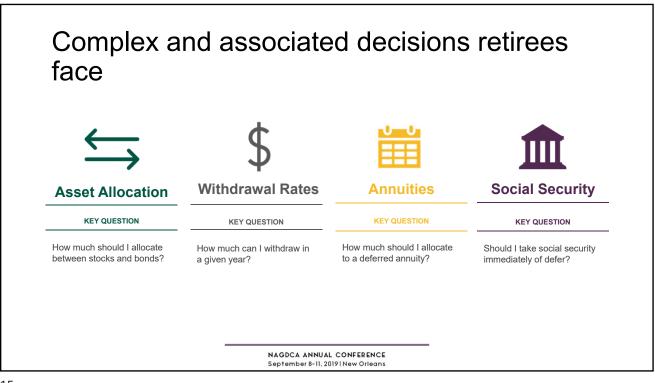


11









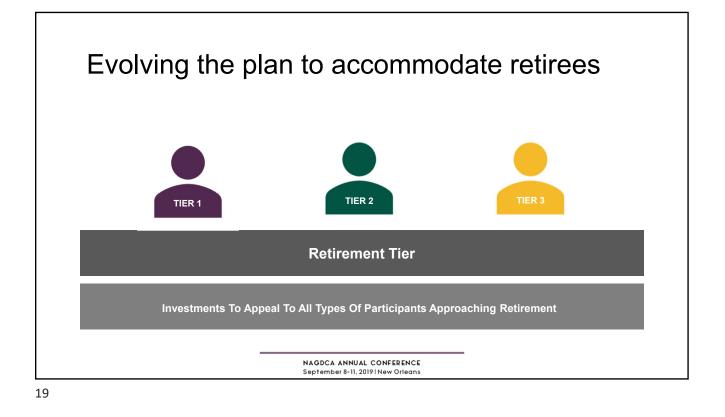


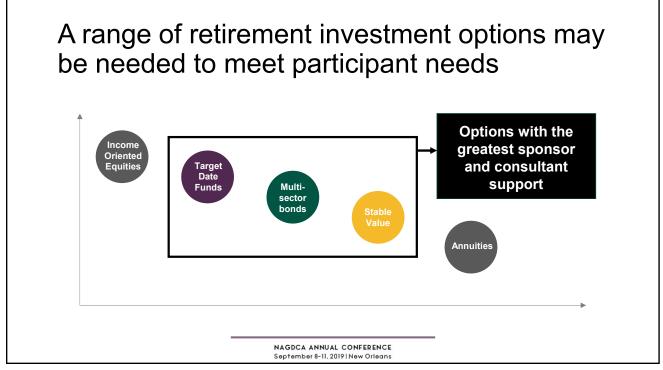
Ensure "Retiree friendly" withdrawal options are available

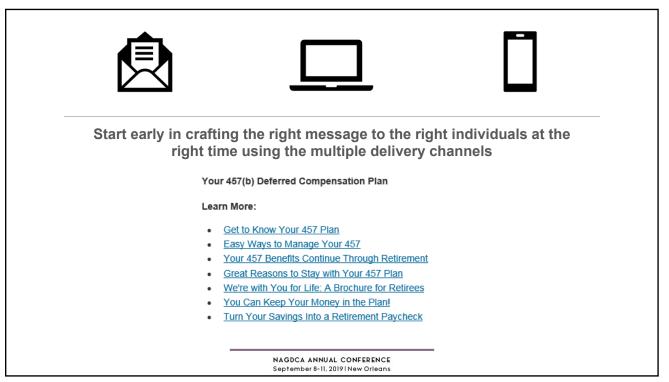
COMMON DC PLAN DISTRIBUT	ION OPTIONS	PREVALENCE	OBJECTIVE
Single Lump-Sum (entire balan Types of single lump-sums Cash-out Direct rollover to another e Direct rollover to an IRA or	mployer's DC plan	High	Aligns with forcing separated participants to exit the plan
Installment Payment Program A "systematic withdrawal p as a "systematic withdrawa "systematic withdrawal inv	Il also known as a	Medium	"Retiree-friendly" (i.e., aligns with plan sponsor who desire to retain separated participants in plan)
Partial Withdrawals		Medium	"Retiree-friendly"
Annuity or Guaranteed Minimu	n Withdrawal Product	Low	"Retiree-friendly"
_	NAGDCA ANNUAL CON September 8-11, 2019 Ne		

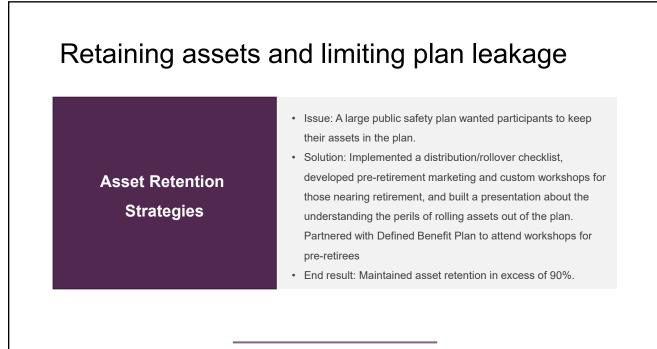
17



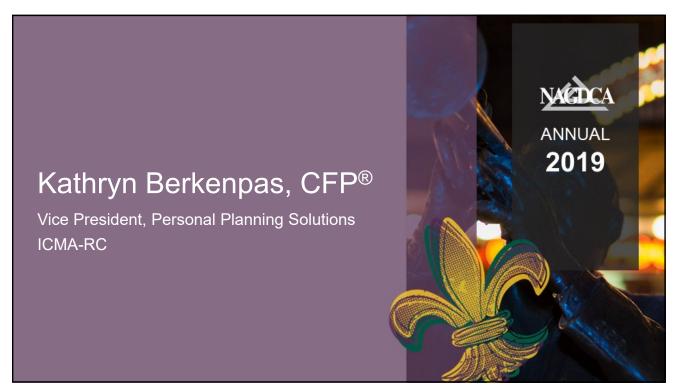






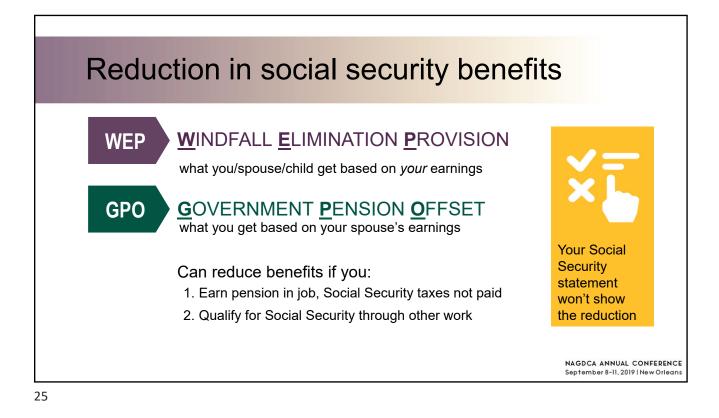


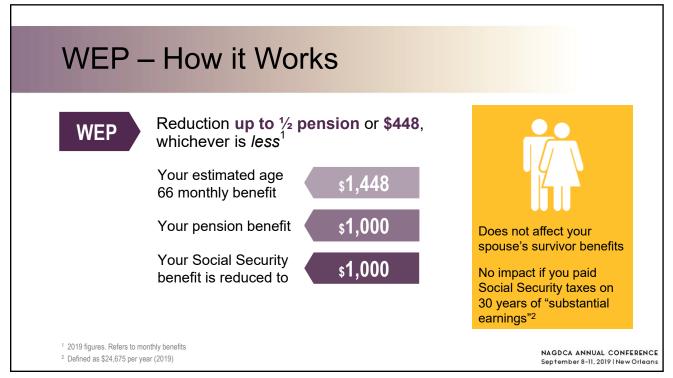
NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans



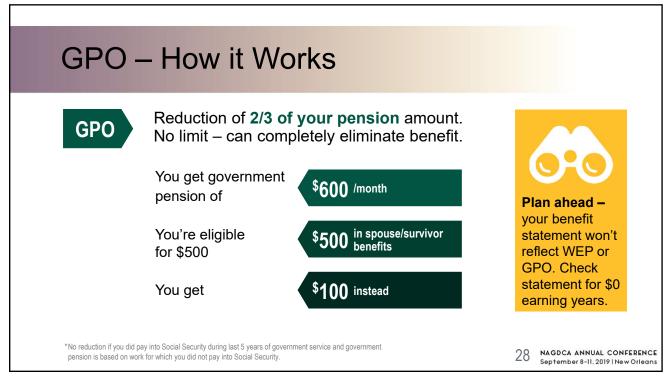
Γ

Social Securi	ty claiming s	trategies	
If You Start	Impact on Payments	Example of Monthly Benefit	
AGE 62 or before Full Retirement Age (FRA) ¹	Up to 25-30% less ²	\$1,000	
AGE 66-67 (FRA) ¹	Unreduced benefit	\$1,333	
After FRA UP TO AGE 70	About 8% more each year you delay up to age 70	\$1,760	
¹ Based on year of birth. FRA is age 66 for individuals t ² Also receive less if you start after age 62 but before y		ter. NAGDCA ANNU. September 8-11,	



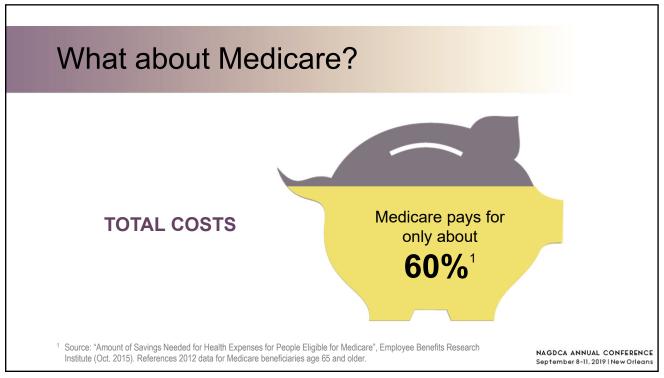


·· ,	Detailed Example		
AIME*	SOCIAL SECURITY BENEFIT WITHOUT WEP	SOCIAL SECURITY BENEFIT REDUCED BY WEP	
Up to \$895	\$806 (90% of \$895)	\$358 (40% of \$895)	िंड
\$895 - \$5,397	+\$1,441 (32% of \$4,502)	+\$1,441 (32% of \$4,502)	
Over \$5,397	+\$0	+\$0	WEP Impact: \$448 less
MONTHLY BENEFIT	= \$2,247	= \$1,799	Social Security benefits per month



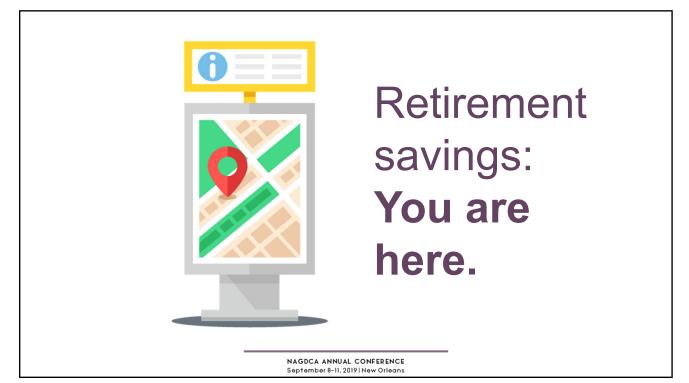


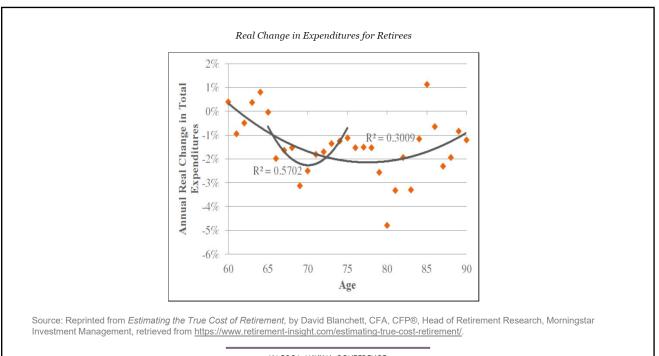






31





NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans

33



NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans







Dave, age 58 Occupation: Finance Director Status: Nearing Retirement



Vear	Dave	Early		Primary		Difference			
real		Dave (PIA=1500.0)	Annual Benefits	Cumulative Benefits	Dave (PIA=1500.0)	Annual Benefits	Cumulative Benefits	Difference	
2019	55	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2020	56	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2021	57	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2022	58	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2023	59	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2024	60	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2025	61	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2026	62	\$1,056	\$6,337	\$6,337	\$0	\$0	\$0	(\$6,337)	
2027	63	\$1,056	\$12,674	\$19,012	\$0	\$0	\$0	(\$19,012)	
2028	64	\$1,056	\$12,674	\$31,686	\$0	\$0	\$0	(\$31,686)	
2029	65	\$1,056	\$12,674	\$44,360	\$0	\$0	\$0	(\$44,360)	Campaning
2030	66	\$1,056	\$12,674	\$57,035	\$0	\$0	\$0	(\$57,035)	Comparing
2031	67	\$1,056	\$12,674	\$69,709	\$0	\$0	\$0	(\$69,709)	
2032	68	\$1,056	\$12,674	\$82,383	\$0	\$0	\$0	(\$82,383)	Social Securi
2033	69	\$1,056	\$12,674	\$95,058	\$1,690	\$20,280	\$20,280	(\$74,778)	Social Socuri
2034	70	\$1,056	\$12,674	\$107,732	\$1,690	\$20,280	\$40,560	(\$67,172)	Social Securi
2035	71	\$1,056	\$12,674	\$120,407	\$1,690	\$20,280	\$60,840	(\$59,567)	
2036	72	\$1,056	\$12,674	\$133,081	\$1,690	\$20,280	\$81,120	(\$51,961)	
2037	73	\$1,056	\$12,674	\$145,755	\$1,690	\$20,280	\$101,400	(\$44,355)	Strategies
2038	74	\$1,056	\$12,674	\$158,430	\$1,690	\$20,280	\$121,680	(\$36,750)	Olidiogiou
2039	75	\$1,056	\$12,674	\$171,104	\$1,690	\$20,280	\$141,960	(\$29,144)	-
2040	76	\$1,056	\$12,674	\$183,779	\$1,690	\$20,280	\$162,240	(\$21,539)	
2041	77	\$1,056	\$12,674	\$196,453	\$1,690	\$20,280	\$182,520	(\$13,933)	
2042	78	\$1,056	\$12,674	\$209,127	\$1,690	\$20,280	\$202,800	(\$6,327)	
				Break Ev	/en Point				
2043	79	\$1,056	\$12,674	\$221,802	\$1,690	\$20,280	\$223,080	\$1,278	
2044	80	\$1,056	\$12,674	\$234,476	\$1,690	\$20,280	\$243,360	\$8,884	
2045	81	\$1,056	\$12,674	\$247,151	\$1,690	\$20,280	\$263,640	\$16,489	
2046	82	\$1,056	\$12,674	\$259,825	\$1,690	\$20,280	\$283,920	\$24,095	
2047	83	\$1,056	\$5,281	\$265,106	\$1,690	\$8,450	\$292,370	\$27,264	

NAGDCA ANNUAL CONFERENCE September 8-11, 2019 | New Orleans

