

Using the Cost Benefit Ratio for Each Successful Plan Participant to Measure 401(k) Plan Value

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Summary

Identifying and managing defined contribution plan costs can be very complex and often causes confusion among most plan sponsors. New cost disclosures this year under ERISA 408(b)(2) will help plan sponsors better understand the total costs their plan is paying, the scope of services provided, and whether or not the service provider is serving in any type of fiduciary role.

However, the key question still remains as to what represents the “value” in exchange for the costs for the plan? Benchmarking services are emerging that can compare the suite of services against costs to plans of similar size and complexity. However, this still does not answer the basic question about the true value proposition of the 401(k) or other defined contribution plan. Since defined contribution plans have replaced defined benefit pension plans as the main retirement savings vehicle for most Americans, it is proposed that ‘successful retirement’ be defined as the key metric to measure value of the defined contribution plans. Successful retirement can be measured on an actuarial basis, and can then be used to calculate the cost/benefit of each defined contribution plan.

Successful small plans with good cost/benefit ratios will on average have total annual costs of \$600 to \$1,100 for each successful participant. Successful mid-sized plans will on average have total annual costs of \$500 to \$900 for each successful participant. Successful large plans will on average have total annual costs of \$400 to \$750 for each successful participant. In all size categories unsuccessful plans will have costs 2-5 times higher. In terms of basis points, successful small plans with good cost/benefit ratios will on average have total annual costs of 1.50 to 2.50 basis points for each successful participant %. Successful mid-sized plans will on average have total annual costs of 1.20 to 2.00 basis points for each successful participant %. Successful large plans will on average have total annual costs of 1.00 to 1.60 basis points for each successful participant %. In all size categories unsuccessful plans will have basis point costs 2-5 times higher.

Identification of Plan Costs

There is no doubt that for years most plan sponsors and participants have not understood what their plan costs. Understanding fees and ensuring that they are reasonable is something that the Department of Labor (DOL) has spent years focusing on. The market environment, combined with the litigation environment, has put fees on the forefront of plan sponsors' minds. The 2012 upcoming 408(b)(2) plan sponsor fee disclosures and 404(a) participant disclosures are going to create a whole new discussion with plan sponsors. The discussion cannot be about fees only. It is also important to benchmark fees, services and outcomes. This fee discussion will make the delivery of tangible value of huge importance.

There is no legal requirement that plan sponsors find the lowest total fee. Instead, reasonableness should be assessed in light of the services received and outcomes delivered. Plans can have different needs based on complexity, number of participants, etc. Services should be evaluated in light of the needs of that particular plan, and most importantly, the measureable outcome for each participant.

Identification of Plan Value: Actuarial Calculation of Retirement Success

Defined benefit pension plan sponsors typically engage a variety of professionals, such as actuaries, outside consultants, and investment managers to help them determine funding requirements and manage plan assets. In contrast, for 401(k) plans the quality of plan investments is typically the single largest consideration for most defined contribution plan fiduciaries, *but it has the least impact, in the aggregate, on generating a successful retirement*. Far more important are plan design, including default strategies that take advantage of behavioral finance traits of most plan participants, adequate savings, appropriate asset allocation and ongoing actuarial assessment of the participant's asset/liability funding status.

The plan participant needs to know their account value, but they should have a greater focus on the amount of retirement income that they are on track to replace. The goal for each participant can be defined as replacing 70% of income as near as possible to their Social Security normal retirement age, and with the least amount of risk¹. They should understand, in simple terms, their funded status as determined by the plan trustee using reasonable actuarial assumption forecasts. If they are off track, the report should show what adjustment steps the trustee has taken to help restore their funded status. The actuarial method should be based on net of fee return estimates.

¹ Kasten, G. "The Defined Goal Retirement Plan," Journal of Pension Benefits, Autumn 2009, Vol. 17, No. 1, pp 23-44

Measurement of the Plan's Cost/Benefit Ratio

Two calculations can be done to determine the plan's cost/benefit ratio. The first is the total annual dollar cost for each successful plan participant. The total costs of the plan are measured in dollars and divided by the number of successful plan participants with funded ratios of 1.00 or higher. The calculation gives the annual cost in dollars for each successful participant.

$$\text{Total Dollar Cost for Each Successful Participant} = \frac{\text{Total \$ Cost of the Retirement Plan}}{\text{Number of Fully Funded Participants}}$$

The second calculation takes into account the total cost of the retirement plan from all sources expressed as basis points, and divides it by the percentage of fully funded participants in the plan. The calculation gives the annual cost in basis points for each successful participant.

$$\text{Basis Point Cost for Each Successful Participant} = \frac{\text{Total Basis Point Cost of the Retirement Plan}}{\% \text{ of Fully Funded Participants}}$$

A third calculation can be done to determine the "wasted" dollars consumed by the plan. The total costs of the plan are measured in dollars and multiplied by the fraction of unsuccessful plan participants with funded ratios of lower than 1.00. The amount of plan costs going towards unsuccessful participants is considered wasted, since the participant is failing.

$$\text{Wasted Dollars Consumed by the Plan} = \text{Total \$ Cost of the Retirement Plan} \times \text{Fraction of Unsuccessful Participants}$$

As plan sponsors focus more and more on visible fees, the successful retirement advisor must deliver visible and tangible value. The ability to deliver material improvements in the retirement readiness for most participants is the true measure of plan success. The increased tangible success rates result by combining "intelligent defaults" such as automatic enrollment, savings increases, appropriate portfolio selection, and portfolio rebalancing with ongoing discretionary trustee managed fiduciary and actuarial solution oversight. This approach allows the advisor to have a sustainable fiduciary business model with a clear value statement.

Examples of Plan Costs for Small, Mid-Sized and Large Size Plans

Small Plan Cost Analysis		Plan 1	Plan 2	Plan 3	Plan 4
\$ Assets		\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000
Participants		65	65	65	65
Average Account Size \$		\$38,462	\$38,462	\$38,462	\$38,462
Plan Administration \$		\$500	\$5,000	\$3,500	\$4,200
Underlying Investment Costs %		1.40%	0.50%	0.45%	0.90%
Trustee and Advisory Fees		0.25%	0.10%	0.65%	0.30%
Total Plan Costs \$		\$41,750	\$20,000	\$31,000	\$34,200
Total Plan Costs %		1.67%	0.80%	1.24%	1.37%
Mid Sized Plan Cost Analysis		Plan 1	Plan 2	Plan 3	Plan 4
\$ Assets		\$20,000,000	\$20,000,000	\$20,000,000	\$20,000,000
Participants		475	475	475	475
Average Account Size \$		\$42,105	\$42,105	\$42,105	\$42,105
Plan Administration \$		\$500	\$5,000	\$3,500	\$4,200
Underlying Investment Costs %		1.25%	0.50%	0.38%	0.90%
Trustee and Advisory Fees		0.20%	0.10%	0.55%	0.20%
Total Plan Costs \$		\$290,500	\$125,000	\$189,500	\$224,200
Total Plan Costs %		1.45%	0.63%	0.95%	1.12%
Large Size Plan Cost Analysis		Plan 1	Plan 2	Plan 3	Plan 4
\$ Assets		\$150,000,000	\$150,000,000	\$150,000,000	\$150,000,000
Participants		3500	3500	3500	3500
Average Account Size \$		\$42,857	\$42,857	\$42,857	\$42,857
Plan Administration \$		\$10,000	\$40,000	\$20,000	\$35,000
Underlying Investment Costs %		1.00%	0.42%	0.34%	0.65%
Trustee and Advisory Fees		0.20%	0.05%	0.40%	0.15%
Total Plan Costs \$		\$1,810,000	\$745,000	\$1,130,000	\$1,235,000
Total Plan Costs %		1.21%	0.50%	0.75%	0.82%

Historically it has been hard for plan sponsors to understand their total costs. Plan #2 in each of the size datasets is the least expensive under a fully transparent 408(b)(2) type total cost disclosure. In the past Plan #1 might appear to be the least costly to the plan sponsor since the visible administration fees are so much lower than the others and most of the true plan costs were buried in the assets. If the four plans were producing exactly the same outputs, the best cost/benefit value would lie with Plan #2, since the 408(b)(2) type cost is the least. Most plans are similar on generic outputs, such as statement timeliness, accuracy, website features, web tools/calculators and investment choices. Most have ignored whether or not the participants will be able to retire successfully.

Examples of Plan Services Required for Successful Outcomes

Small Plan Services and Outcomes	Plan 1	Plan 2	Plan 3	Plan 4
Plan Participation	75%	72%	81%	90%
Employee Deferral %	6.00%	5.50%	8.00%	4.00%
Employer Match %	3.00%	2.50%	3.00%	2.00%
Total Contribution %	9.00%	8.00%	11.00%	6.00%
Participants with Income Goal	0%	0%	90%	25%
Participants in Managed Accounts	5%	10%	85%	0%
Annual Plan Meeting Attendance	50%	50%	70%	30%
Participants Given Actuarial Solution	0%	20%	100%	10%
Mid Sized Plan Services and Outcomes	Plan 1	Plan 2	Plan 3	Plan 4
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Annual Plan Meeting Attendance	50%	50%	70%	30%
Participants Given Actuarial Solution	0%	20%	100%	10%
Large Size Plan Services and Outcomes	Plan 1	Plan 2	Plan 3	Plan 4
Plan Participation	75%	72%	81%	90%
Employee Deferral %	6.00%	5.50%	8.00%	4.00%
Employer Match %	3.00%	2.50%	3.00%	2.00%
Total Contribution %	9.00%	8.00%	11.00%	6.00%
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Participants in Managed Accounts	5%	10%	85%	0%
Annual Plan Meeting Attendance	50%	50%	70%	30%
Participants Given Actuarial Solution	0%	20%	100%	10%

The “401(k) of the Future” (Plan #3) will be built around specific services that have been shown to improve outcomes, rather than visible “bells and whistles” that do not improve outcomes. These would include default pathways to define the goal of income replacement (70% income replacement target), along with improvements in participation, savings rates, and escalators of savings in the plan. Better investment performance and appropriate participant investing based upon risk, age, funded status, and generally accepted investment theory are derived from a managed account. Yet none of these is an endpoint of a retirement plan. The endpoint is successful retirement. Since successful (or unsuccessful) retirement for most participants is still far into the future, we can use an accurate actuarial projection of asset/liability funded status as a measurable proxy for retirement success. This is given to all participants.

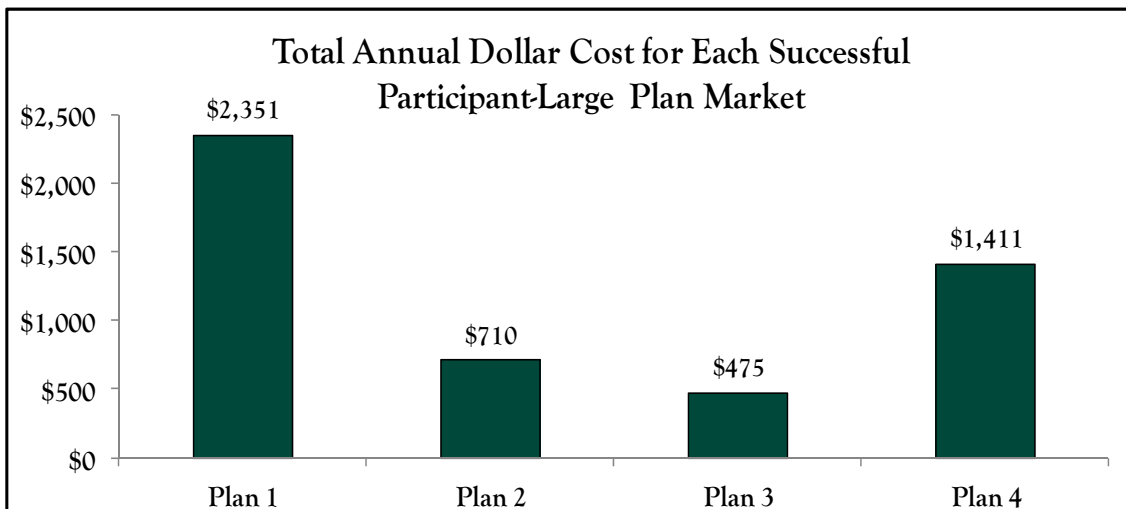
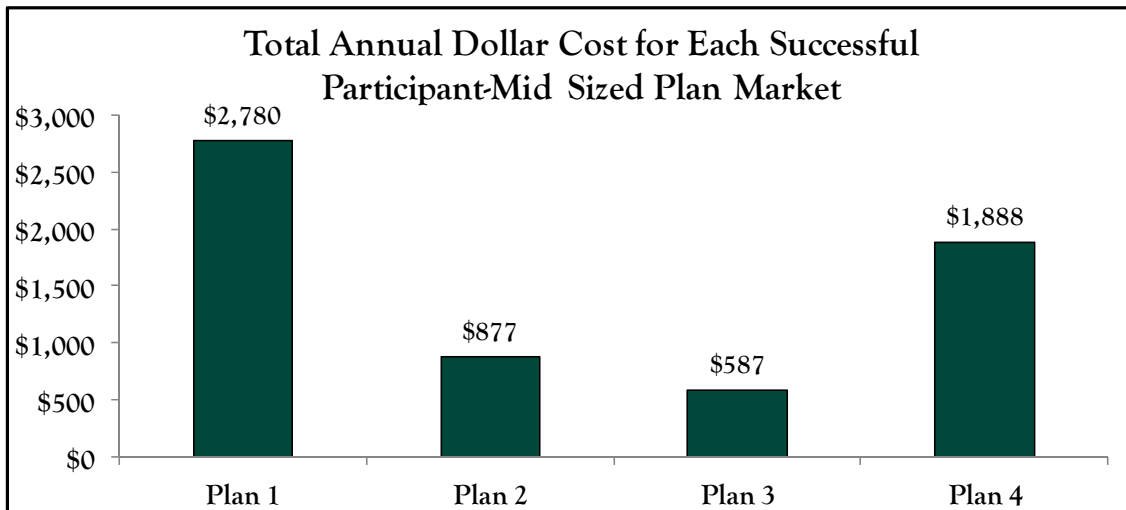
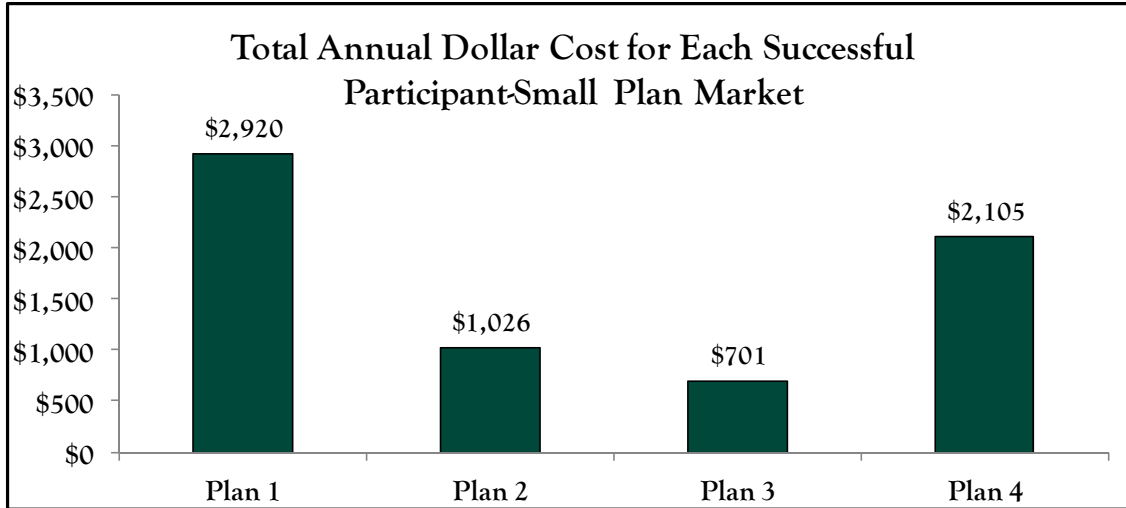
Examples of Improved Outcomes and Favorable Cost/Benefit Analysis

Small Plan Cost/Benefit Analysis		Plan 1	Plan 2	Plan 3	Plan 4
Participants with Fully Funded Benefit		22%	30%	68%	25%
Number of Fully Funded Participants		14	20	44	16
\$ Cost for Each Fully Funded Participant		\$2,920	\$1,026	\$701	\$2,105
Basis Point Cost for Each Fully Funded		7.59	2.67	1.82	5.47
\$ Cost per Capita Full Plan		\$642	\$308	\$477	\$526
Basis Point Cost per Capita Full Plan		2.57	1.23	1.91	2.10
"Wasted Dollars" = Spent on Failure		\$32,565	\$14,000	\$9,920	\$25,650
Mid Sized Plan Cost/Benefit Analysis		Plan 1	Plan 2	Plan 3	Plan 4
Participants with Fully Funded Benefit		22%	30%	68%	25%
Number of Fully Funded Participants		105	143	323	119
\$ Cost for Each Fully Funded Participant		\$2,780	\$877	\$587	\$1,888
Basis Point Cost for Each Fully Funded		6.60	2.08	1.39	4.48
\$ Cost per Capita Full Plan		\$612	\$263	\$399	\$472
Basis Point Cost per Capita Full Plan		3.06	1.32	1.99	2.36
"Wasted Dollars" = Spent on Failure		\$226,590	\$87,500	\$60,640	\$168,150
Large Size Plan Cost/Benefit Analysis		Plan 1	Plan 2	Plan 3	Plan 4
Participants with Fully Funded Benefit		22%	30%	68%	25%
Number of Fully Funded Participants		770	1050	2380	875
\$ Cost for Each Fully Funded Participant		\$2,351	\$710	\$475	\$1,411
Basis Point Cost for Each Fully Funded		5.48	1.66	1.11	3.29
\$ Cost per Capita Full Plan		\$517	\$213	\$323	\$353
Basis Point Cost per Capita Full Plan		3.45	1.42	2.15	2.35
"Wasted Dollars" = Spent on Failure		\$1,411,800	\$521,500	\$361,600	\$926,250

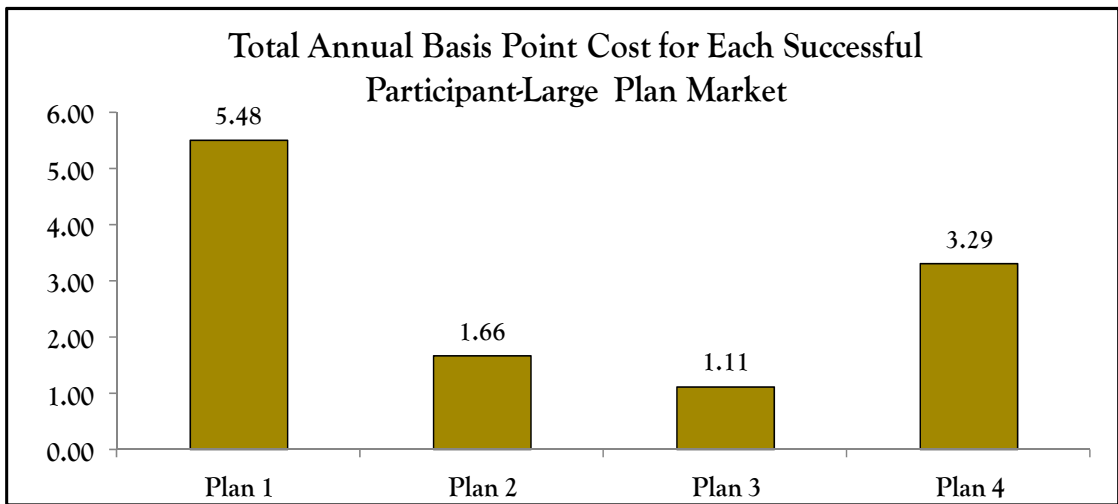
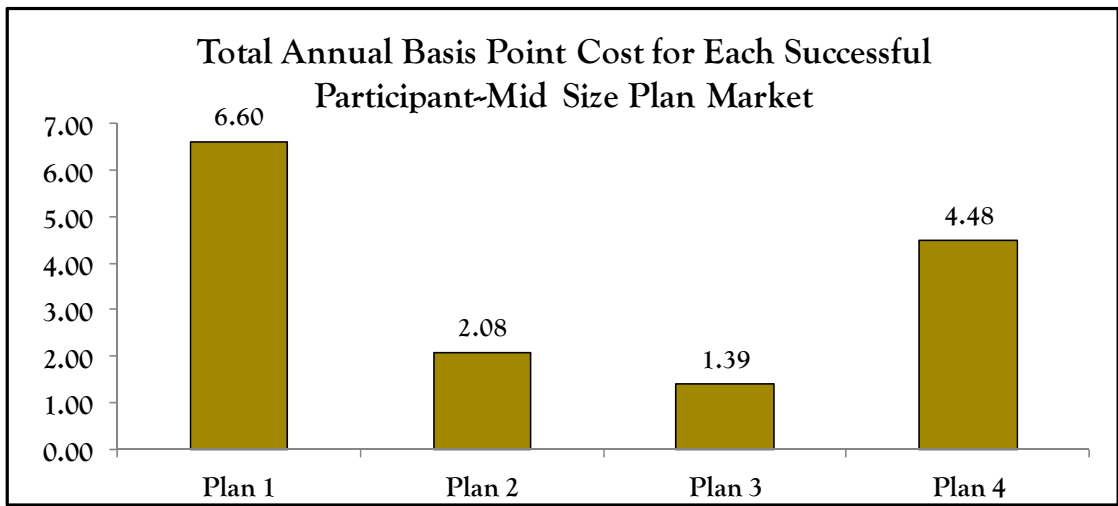
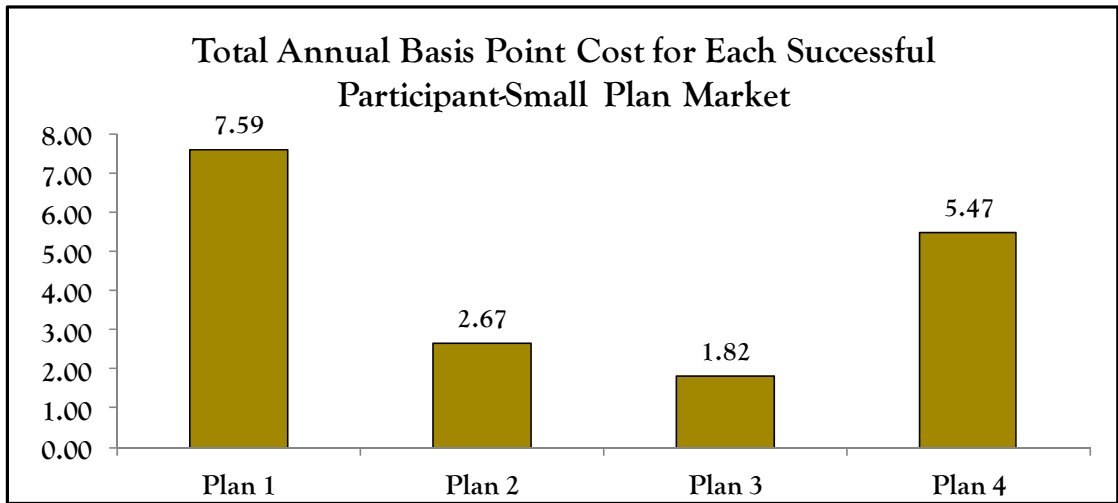
Plan #3 in each size dataset produces the best outcome on a cost adjusted basis. This process produces a fully funded plan participant for the least amount spent in total plan costs per capita. In terms of basis points, the fewest points are expended for each incremental 1% in successful participants. Plan #2 in the size datasets, which is in theory the least expensive on a straight 408(b)(2) type cost analysis, actually costs 45-50% more than plan #3 for each successful participant. Plan #1 is the most expensive, and costs over four times more than plan #3. Plan #3 wastes the fewest dollars per plan on failing participants.

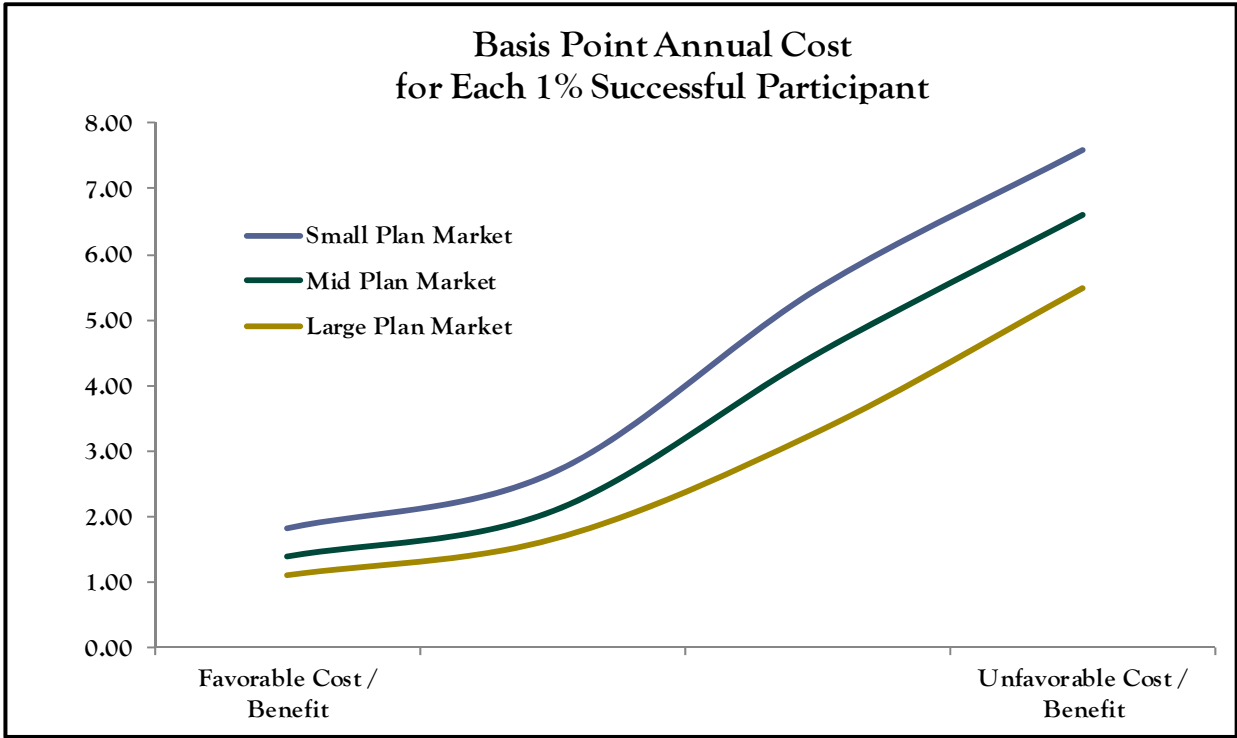
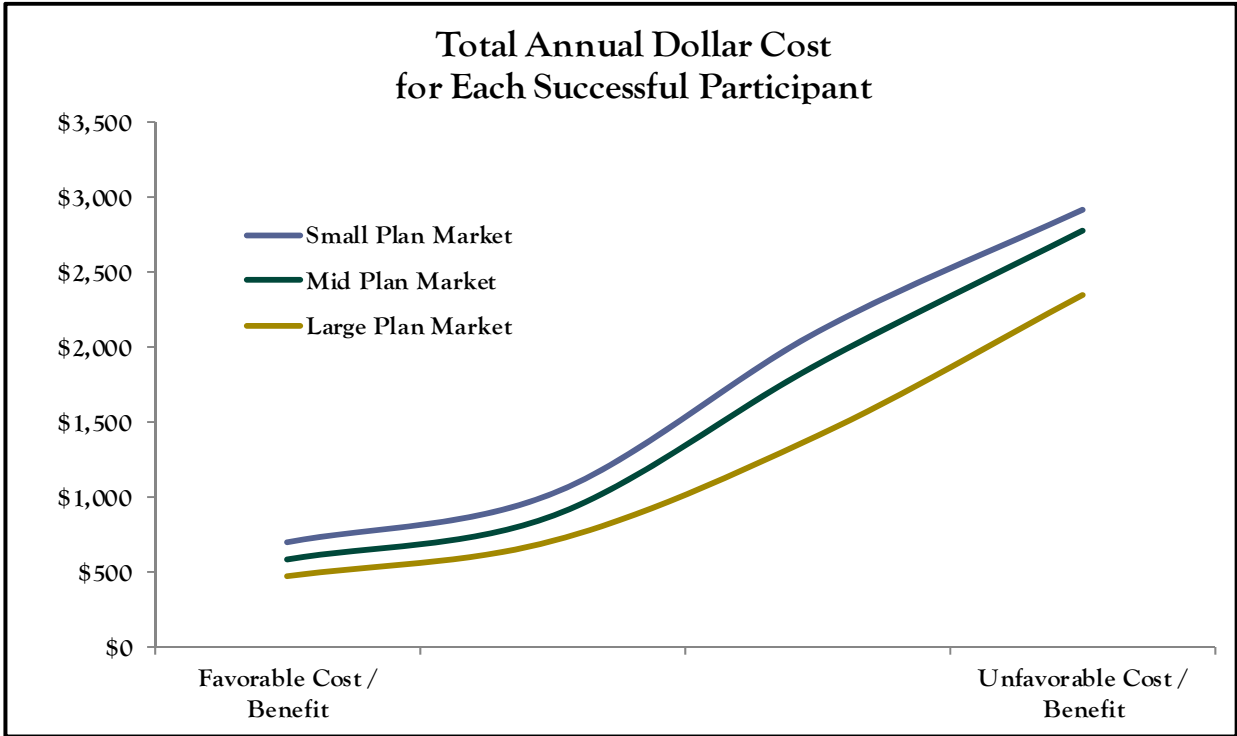
Examples of Cost/Benefit Ratios Ranges for the Small, Mid and Large Size Plans

The costs drop as the plans get larger due to greater economy of scale with regards to both investment costs and plan administration costs. Costs in dollars for each successful participant are shown below for small, mid and large sized plans. Plan #3 costs the fewest dollars per unit of success.



In terms of basis points, successful small plans with good cost/benefit ratios will on average have total annual costs of 1.50 to 2.50 basis points for each successful participant %. Successful mid-sized plans will on average have total annual costs of 1.20 to 2.00 basis points for each successful participant %. Successful large plans will on average have total annual costs of 1.00 to 1.60 basis points for each successful participant %. Unsuccessful plans will have basis point costs 2-5 times higher.





Conclusion

In 2012 the upcoming 408(b)(2) plan sponsor fee disclosures and 404(a) participant disclosures are going to create a whole new discussion with plan sponsors. The discussion cannot be about fees only. It is also important to benchmark fees, services and outcomes. This fee discussion will make the delivery of tangible value of huge importance.

The 401(k) industry almost exclusively focuses on the asset side of the equation rather than the whole equation looking at asset and liability. The industry focus is on higher investment performance, “better” managers, “better” mutual funds, “better” target date funds, greater diversification, lower fees, etc. None of these actions have any impact on the other side of the equation, the liability—which is the cost of retirement that the participant’s 401(k) plan must bear. In order to become fully funded, the asset should equal the liability, giving an asset/liability funded ratio of 1.00 or higher. The key to success is to simultaneously raise the asset and lower the liability.

No system can be effective and deliver much tangible value if only used by 5% to 10% of plan participants. A single digit utilization rate is found in most voluntary advice programs. Web based tools and calculators are used by a tiny handful of employees, but even fewer implement the advice. Without implementation no program can succeed. Using default pathways in a QDIA managed account format can produce very high acceptance rates among plan participants for an effective actuarial solution². The high implementation acceptance combined with much better actuarial funded ratios for most participants produces the best cost/benefit ratio for the total plan. This is the best measure of a plan’s cost effectiveness.

² Kasten, G. “Why the UnifiedPlan® Is So Effective in Improving Outcomes, © 2012 Unified Trust Company, NA
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