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STATE OF COLORADO
RETIREMENT PLAN COMMITTEE
DEFINED CONTRIBUTION PLAN RECORDKEEPING ANALYSIS
MULTIPLE VS. SINGLE PROVIDERS

The following analysis covers each of the topical categories discussed and requested to be reviewed by the Committee and various stakeholders regarding structuring of plan recordkeeping assignments among multiple recordkeepers or a single recordkeeper.

1. BACKGROUND INFORMATION

Before we get started on the analysis of recordkeeping methodologies, we will first describe the three primary responsibilities that plan sponsors and fiduciaries have with regards to the management and oversight of retirement plans and then the three types of plan recordkeepers.

A. Plan Sponsor Responsibilities.

There are three primary duties or responsibilities of the plan sponsor:

1. Plan Design
2. Plan Operations - Recordkeeping
3. Plan Investment Management

1. Plan Design. The design of the plan includes determining the various rules by which participants will be able to participate in the plan, for example:

- Eligibility and participation
- Contributions types (employer / employee)
- Contribution amounts or limits
- Investment choice (number of and types of investments).
- Distribution rules
  - Type of distribution (loans, withdrawals, termination)
  - Form of distribution (lump sums, periodic payments, annuities)
  - Timing of distribution (when the distribution is available)

The various federal regulations provide overall parameters around plan design options so the range of plan features in defined contribution plans are not limitless. With regard to investment choice, the vast majority of plans have provided participants a range of investment choices among which they may select.

2. Plan Operations – Recordkeeping. The plan sponsor is responsible for managing the participant recordkeeping function. The actual task of participant recordkeeping is almost universally outsourced to a third party provider (mutual fund company, insurance company, financial services company, or other recordkeeping organization).

The recordkeeping function is primarily an accounting and database maintenance function. The recordkeeper maintains the participants account balances, processes participant transactions such

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as contributions, distributions, investment transactions, loans and withdrawals, provides participant statements, and other information access through web or phone based services. The recordkeeper also provides reporting and information access to the plan sponsor.

3. **Plan Investment Management**. The plan sponsor and/or its fiduciary committee are responsible for the management and oversight of the investment funds offered in the plan. The plan sponsor or committee is responsible for the following primary areas:

- Determination of the types of investments to be offered
- The number of investment choices to be offered
- The selection and ongoing monitoring and maintenance of the plan's investment offering to its participants

B. <u>Types of Plan Recordkeepers</u>.
The common terms used for the types of plan recordkeepers are as follows:

1. Unbundled or Third Party Recordkeeper
2. Bundled Recordkeeper
3. Open Architecture (Partially Bundled)

1. **Unbundled Recordkeeper.** The term "unbundled" used to mean a recordkeeper that exclusively provided recordkeeping services and no other services, such as investment custody, participant education, and investment funds. In today's marketplace most unbundled providers have adopted partially bundled or open architecture approach. Most unbundled recordkeepers provide all services either directly or indirectly through alliances or systems platforms.

   Great West is a provider that could be viewed as an unbundled provider; however they are an open architecture recordkeeper providing a complete service package and an open investment platform.

2. **Bundled Recordkeeper.** Similarly, the term "bundled" used to mean a recordkeeper that only offered their services in a complete bundle, that is to say all services were provided by the bundled provider including the investment services. In that case, the bundled provider had their own mutual fund family or insurance annuity products or both. This approach to recordkeeping has diminished substantially over the last 10 to 15 years.

   Most, if not all of the bundled recordkeepers, have had to open their investment platforms to allow plans sponsors to choose investment products from the broad mutual fund marketplace. For example, two of your current 401(a) Plan providers, ICMA and Hartford, have their own mutual fund products; however, they offer an open architecture approach and allow their clients to use other mutual fund products. Thus ICMA and Hartford could offer a bundled only solution; however, the market place has demanded investment flexibility and virtually all providers in today's market are "open architecture" or "partially bundled".

   Plan sponsor demand for investment flexibility drove the bundled recordkeepers to become partially bundled or open architecture as described below. While the bundled format is much more profitable to the bundled provider, it is much more costly to the plan sponsor and their participants. In addition, the bundled approach could potentially put a plan sponsor in a position where they could not fulfill their fiduciary responsibility with respect to the plan.

3. **Open Architecture or Partially Bundled**. The Open Architecture provider provides all services to the plan, but uses an open investment platform. That is, they allow the use of many different fund family investment products, not just their own. This provides the plan sponsor with a flexible investment approach allowing almost complete access to the investment market place. This approach evolved over the years as the demand for investment flexibility grew during the early and mid 1990's.

   At this point in time, virtually all of the providers who were formerly referred to as unbundled or bundled now offer their services in an open architecture or partially bundled environment. Thus, plan sponsors can achieve a high degree of investment flexibility through a single recordkeeper.

   For example, all of your current recordkeepers can and do offer investment products from other investment fund providers. In most cases you can have the same investment funds on each platform. If a recordkeeper does not have the fund you want, in many cases they can add it by executing a trading agreement with the fund provider and then add the fund onto their own platform (this process typically takes around 60 to 90 days).

   Each of your current providers (Great West, Hartford, and ICMA) could be viewed as open architecture or partially bundled recordkeepers. Great West's lineage is more from the unbundled world, and Hartford and ICMA could be viewed as coming more from the bundled world. However, each of them would now be viewed as open architecture or partially bundled in that you have a high degree of investment flexibility in any of their recordkeeping platforms with many different fund families available on each platform.

   There was a period from the late 1980's and into the early 1990's where bundled providers offered only their own investment funds. This caused some plan sponsors to consider multiple recordkeepers. Nevertheless, the multi-recordkeeper environment was rare to non-existent among private sector plan sponsors who were governed by the fiduciary standards of the Employee Retirement Security Act of 1974 as amended (ERISA). The provider marketplace quickly accommodated their desire and need for investment flexibility. However, among plan sponsors that were either completely or partially exempt from ERISA, such as the governmental, educational, and not for profit 403(b) type environments, the multiple provider approach was at one time more prevalent, particularly among smaller plan sponsors. This has changed over the years and now 87% of the respondents to the NAGDCA survey report a single recordkeeper environment.

II. PLAN RECORDKEEPING ANALYSIS – MULTIPLE VS. SINGLE RECORDKEEPER

Summary of Multiple Recordkeeper and Single Recordkeeper Operational Environments.
For purposes of the descriptions below, we will address the multiple and single recordkeeper environments as they exist today. In the past, the multiple recordkeeper environment existed primarily to provide participants with greater investment flexibility than was available in fully bundled proprietary fund environments. As discussed above, this is no longer the case and recordkeeper investment offerings are generally very robust and flexible.

Multiple Recordkeeper. A multiple recordkeeper environment is one in which more than one recordkeeper provides services to the eligible participants of a single plan. The State of Colorado 401(a) Defined Contribution Plan is an example of a multiple recordkeeper environment in which Great West, Hartford, and ICMA all provide services to participants in the 401(a) Plan.

Single Recordkeeper. A single recordkeeper environment has one recordkeeper providing services to the plan participants. The State of Colorado 457 Plan is an example of a single recordkeeper environment.

A. Plan Sponsor Experience – Multiple Recordkeeper vs. Single Recordkeeper. Recordkeeping and management of recordkeeping relationships is primarily process based. For the plan sponsor in a multiple recordkeeper environment, they will have to repeat each process the number of times that they have recordkeepers. For example, the plan sponsor must manage:

- Multiple plan reporting processes
- Multiple plan audits
- Management multiple plan recordkeeper relationships
- Multiple plan budgets
- Establish multiple systems interfaces between the plan sponsor and each of the recordkeepers
- Manage and resolve system interface and data quality issues with multiple providers using different systems and process
- Manage and schedule multiple plan recordkeepers sales representative meetings presentations, and communication and education programs
- Each payroll period the contributions of participants must be remitted by the plan sponsor to the recordkeeper for investment in the plan
- Each process must be performed and audited

For every process that the sponsor has to perform for a plan, they must perform that process the number of times that they have separate recordkeepers. In addition, where plan level reporting is required, they must consolidate the information of all of these processes and all of the plan recordkeepers into a single report in order to be able to report at the plan level.

In a single recordkeeper environment, the plan sponsor performs all the plan processes only one time and must interface with only one recordkeeper and manage only one system interface.

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The multiple recordkeeper environment has a greater degree of sponsor overhead burden and a lesser degree of control over service quality and consistency of participant communication and messaging.

The single recordkeeper environment provides the opposite outcome with lower sponsor overhead burden and greater control over the quality of the service and consistency of participant communication and messaging. The sponsor has more time to manage each process, establish quality control processes with the recordkeeper and resolve data management issues more efficiently with the single recordkeeper.

The cost element will be discussed below as most plans pass the majority of the costs to the participants in one form or another. However, the element of cost management is total program cost, which is controlled in the bidding process. The single recordkeeper environment provides the greatest degree of purchasing power to the plan sponsor and ultimately to the participants. Plan asset size has a direct impact on pricing. If the plan assets are spread among several recordkeepers the cost of the programs go up. Consolidating the plan assets and participant base to a single recordkeeper provides the lowest cost structure.

B. **<u>Plan Participant's Experience</u>**. In general, a plan participant has few responsibilities with regard to participating in a retirement savings plan. The participant must decide the following:

- Whether or not to enroll in the plan
- How much to save in the plan
- Which investments to select in the plan
- Whether or not to take in-service distributions (where available)
- To manage their investments in the plan
- What to do with their plan investments when they leave or retire
- And in a multiple recordkeeper environment, which recordkeeper platform to choose

On the surface, the addition of multiple recordkeepers adds the last question on the list, and that is which plan recordkeeper to select to participate in their program? The underlying plan features are the same with each recordkeeper. The only apparent difference between the various plan recordkeepers to a participant is in the investment line-up. A less apparent difference is the program cost.

However, it is important to note that the plan sponsor can choose to have virtually the same funds available on each recordkeepers' platform. That is to say, a plan sponsor could normalize the investment menus among the various recordkeepers. Alternatively a plan sponsor can have virtually all of the fund offerings in a multiple recordkeeper environment on a single menu in a single recordkeeper environment.

The Participants Choice of Recordkeepers. Thus a participant is actually choosing a recordkeeper, not on the basis of their direct responsibilities or services – recordkeeping, but on one or two things, the investment menu (which could be normalized across recordkeepers) and how well they like the recordkeeper sales representative.

The basic recordkeeping services provided to participants are participant statements, electronic access to information about their account over the web or the phone, and participant communication and education materials. For the most part these services are fairly commoditized and the participant is not actually using these services until after they become a participant on the recordkeeping platform.

Thus the participant is making a decision to hire a recordkeeper, not on the recordkeepers skills or abilities (which are difficult for a participant to evaluate), not on the costs of the program (which are also not easy for the participant to decipher), but on the basis of a recordkeeper sales representatives presentation. The other factor that comes into play is the investment choices or investment menu. However, as noted above, this factor can actually be eliminated by the plan sponsor by normalizing the menu's across recordkeepers.

Plan Costs. One of the key elements of a plan that directly impacts the participants retirement outcomes are plan costs. This one element is often overlooked or not communicated when participants are selecting among multiple providers. Sometimes the direct costs or fees are noted, but the indirect investment costs or recordkeeper revenue re-allowance costs are often left out of the discussion. This will be addressed directly below in the Cost Implications section.

C. Cost Implications

Recordkeeping costs are for the most part paid for by the plan participants through the plan investments. The plan investments are predominantly mutual funds which have an expense ratio which is the primary cost of investing. Imbedded in the expense ratio is a recordkeeping offset fee, which is commonly, called revenue sharing. Before we go further, we will start at the beginning and address the fundamental costs of plan recordkeeping.

1. Plan Recordkeeping Cost

Plan Recordkeeping - a Process Based Function. Plan recordkeeping is essentially a process based accounting function in which individual participant records are maintained on a system data base. That data base system and the supporting software also provide reporting to the participants on a regular basis and provide information access to the participants and plan sponsor over the web or phone.

Plan Recordkeeping Cost Allocation. From a cost accounting standpoint, the recordkeeper has certain overhead costs that are allocated to its various plans/clients. For a given plan, the number of processes that must be performed on a repetitive basis regardless of the size of the plan:

- Payroll data loads – periodically throughout each month
- Distribution processing – daily sweep
- Loan processing – daily sweep
- Withdrawal processing – daily sweep
- Daily trade processing – daily
- Participant statements – usually quarterly
- Plan reporting processes – monthly, quarterly, and annually
- Tax reporting processes – Annually
- Applicable compliance reporting processes – typically annually

These periodic processes impact the overall cost of the plan. The recordkeeping process must be performed whether there are 10 participants or 10,000 participants. In a multiple recordkeeper environment, these processes are multiplied by the number of recordkeepers involved. In the State of Colorado 401(a) Plan, all of the regular recordkeeping processes are being performed by a multiple of three times.

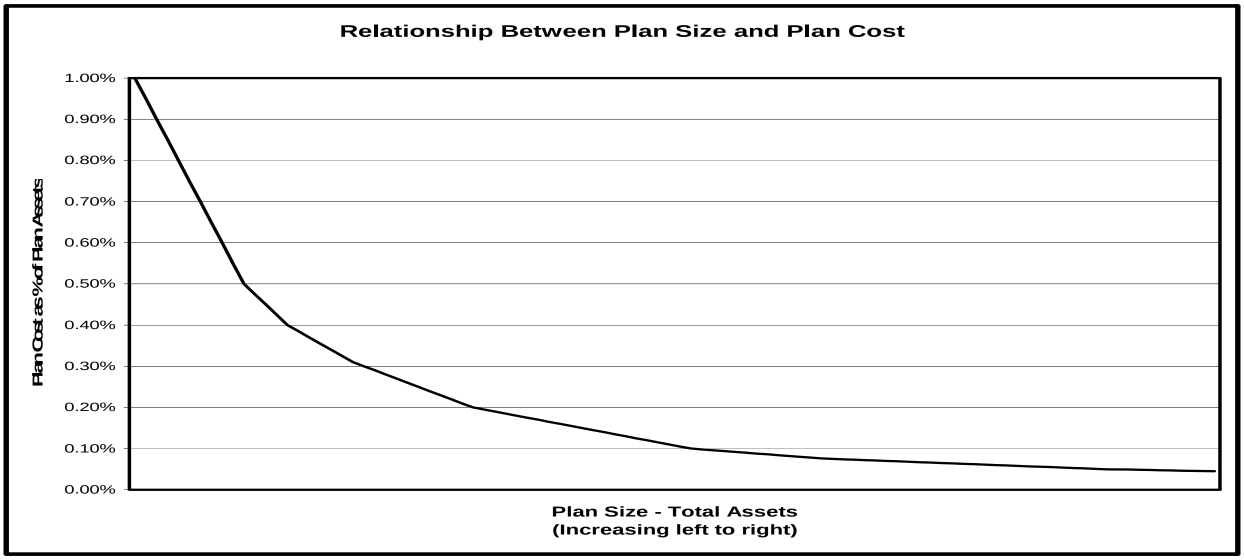
The larger the number of participants impacts certain relatively lower cost items such as disk space storage for data, computer processing time, and postage. However, the specific processes of the plan must be performed, reviewed, checked, and audited.

The cost of the repetitive processes must be covered and ultimately allocated to participants either in direct fees or in indirect asset based fees. The fewer the participants, the higher the cost per participant needs to be to cover the cost of the plan recordkeeping. The greater the number of participants, the lower the cost per participant will be. This is because each of the process or overhead based costs is allocated over a much larger number of participants.

2. How do Plan Recordkeeper Costs Impact Participants?
Ultimately, plan participants pay for the cost of recordkeeping. Participants pay for plan costs in a combination of methods, through direct or per participant fees that are charged to their accounts and indirect fees within the investment products. For example, a recordkeeper might charge $28 per participant per year charge quarterly at $7 per quarter. In addition, the investment products, as noted above, have an explicit expense ratio which includes a revenue sharing amount that the investment fund pays to the recordkeeper. Some plans use the investment fees exclusively to pay for plan fees, others use per participant fees or a combination of the two.

In the case of plan recordkeeping costs, the size of the plan both in terms of the number of participants and the amount of plan assets impacts the cost burden of the participant. Obviously the allocation of overhead is smaller per participant when there are more participants and/or more plan assets over which to allocate the cost.

3. Relationship Between Recordkeeper Costs and Plan Size. When bidding recordkeepers for plan recordkeeping services one of the first things that they ask for is the plan asset size and participants counts. The recordkeepers bids are directly proportional to the plan size with an inverse relationship between plan size and plan cost. The smaller plans have higher per participant and/or asset based fees (recordkeeper fund revenue re-allowances). On larger plans these fees are lower. The table below displays the relationship.



The chart above displays the general relationship between plan size and fees. Fees include both direct participant fees and indirect asset based fees. Other factors including the number of participants and the average account balances also contribute to the relationship in the table above.

4. **Investment Fund Fee Examples**. An example in the State of Colorado's program of how plan size impacts fees is found in the mutual fund costs. For example, Great West provides services to thousands of participants and over $380 million in plan assets over the various plans it administers, the 457 Plan, the frozen Match Plan, and the 401(a) Defined Contribution Plan. Hartford and ICMA provide services to the 401(a) Plan with a little over $5 million and $3 million respectively. All three providers offer an S&P 500 index fund. Great West offers a low cost institutional product Vanguard Institutional S&P 500 Index at 0.05% or 5 basis points. Hartford offers the SSGA S&P 500 Index product at 0.16% or 16 basis points. ICMA offers the Vantagepoint S&P 500 Index at 0.25% or 25 basis points. The Hartford offering is 3 times the cost of the Great West offering, and the ICMA offering is 5 times the cost of the Great West offering. The two providers with smaller assets have higher average costs per participant and accordingly cannot afford to use the lowest cost products.

   Another example, when essentially the same product is being used, is in the large cap growth investment option. Both Great West and Hartford use the American Funds Growth Fund of America investment product, however, Great West uses the R5 share class and Hartford uses the R4 share class. The R5 share class used by Great West has an expense ratio of 0.35% or 35 basis points. The R5 share class provides 0.05% or 5 basis points of revenue share to the recordkeeper. The R4 share class used by Hartford has an expense ratio of 0.65 or 65 basis points. The cost of the R4 product is 0.30% or 30 basis points higher than the R5. The R4 share class provides a revenue share of 0.35% or 35 basis points to the recordkeeper. The difference in the two products is the 0.30% revenue share addition. The products are essentially the same except for their expense ratios. The product with the lower expense ratio provides a higher rate of return to the participant and less revenue share to the recordkeeper.

These examples demonstrate only one thing; that the recordkeeper with the larger number of participants and plan assets can spread their costs over a larger asset base, and/or participant base resulting in lower cost to the participant. To the degree that there is more than one recordkeeper the costs of the plan participants are relatively higher because those same costs are spread among a small participant base or asset base. If Great West had $3million in plan assets and a relatively smaller number of participants, their costs would be higher per participant and would require greater revenue sharing or investment costs to support the recordkeeping burden. The examples above do not demonstrate that one recordkeeper is better than another or that one recordkeeper is inherently more expensive than another. They simply demonstrate that the larger the number of participants and/or plan assets in a plan the lower the cost per participant or the cost as a percentage of plan assets.

5. **Plan Sponsor Cost Allocations.** Many governmental plan sponsors allocate their overhead burden to the overall cost of the program. As noted above, the multiple recordkeeper environment requires more overhead burden due to the repetition of services for each plan. The participant effectively bears the burden of the additional costs of the multiple recordkeeper environment as it is passed on in the form of higher direct and or indirect fees.

6. **Cost Implications Summary**

Plan Operating and Administrative Costs – Recordkeeper. As noted above, the costs to the participants are higher in a multiple recordkeeper environment since the process costs of the plan are amortized over fewer participants. The cost is felt in either or both higher direct per participant fees and / or indirect investment costs (recordkeeper revenue re-allowances) required to cover the higher recordkeeping costs.

Plan Operating and Administrative Costs – Internal. Also as noted above the internal staff time and over head are increased as a result of having to repeat the processes for multiple plan recordkeeping relationships. If this cost is allocated to the plan the participants bear another form of cost burden as a result of the multiple recordkeeper environment.

Other Fees, Legal, Audit and Investment Consulting Fees. Service provider fees are typically greater in a multiple recordkeeper environment due to the number of contracts to review, negotiate and administer the number of financial reports or processes to audit.

Investment consultant fees are typically related to the number of funds in the investment menu. The decision as to the number of funds to offer in a plan is not directly tied to the number of recordkeepers involved. For example, a multiple recordkeeper environment could be consolidated to a single recordkeeper environment, but all the same investment funds maintained. In that case, the participant investment choices would be the same and the investment consultant's job remains basically the same. In the event a plan sponsor decided to eliminate redundant or duplicative funds the investment consulting fees would generally be reduced.

Impact of Revenue Sharing (Recordkeeper Revenue Re-Allowance Fees) on Investment Management Fees. Investment management fees as commonly referred to are the investment expense ratios of the investment funds. The expense ratio generally consists of the money manager fee, the mutual fund administration cost, and the revenue sharing to the recordkeeper (revenue re-allowance fee). The investment expense ratios are typically lower in a single recordkeeper environment than a multiple recordkeeper because the recordkeeping cost burden as a percentage of plan assets is lower. Thus the revenue share burden is lower. To the degree that the cost of recordkeeping is lower, the plan can use the lower cost expense ratio products.

The table below displays the cost components of a sample mutual fund with different share classes, reflecting different revenue sharing (recordkeeper revenue re-allowances).

	Share Class 1	Share Class 2	Share Class 3	Share Class 4	Share Class 5
Mutual Fund Administration and Investment Management Fee	0.30%	0.30%	0.30%	0.30%	0.30%
Revenue share / Revenue Reallownace to recordkeeper	0.65%	0.50%	0.35%	0.25%	0.05%
Total Expense Ratio	0.95%	0.80%	0.65%	0.55%	0.35%

The expense ratio goes up or down based on the revenue share (recordkeeper re-allowance fee). In this case the management fee is a constant 0.30% or 30 basis points and the only change is the revenue share. If the recordkeeper has a higher cost, a higher re-allowance fee is used. For example, if the recordkeeper requires 0.35% of plan assets, then the Share Class 3 version of the product would be used. If they required only 0.05% then the Share Class 5 version would be used. Thus the lower the recordkeeper's cost, the lower the revenue sharing required and the lower investment expense to the participant.

Impact of Investment Fees on Investment Returns. The table below displays the impact of the expense ratio on the participants return. The expense ratio is subtracted from the gross return of the fund and the participant receives the net return after expense ratio.

	Share Class 1	Share Class 2	Share Class 3	Share Class 4	Share Class 5
Sample Gross Total Rate of Return	12.00%	12.00%	12.00%	12.00%	12.00%
Total Expense Ratio	0.95%	0.80%	0.65%	0.55%	0.35%
Net Return to Investor / Participant	11.05%	11.20%	11.35%	11.45%	11.65%

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As you can see, the lower the expense ratio, the greater the return to the participant. From the participant's perspective, if recordkeeping costs are lower, the cost of the plan is lower, the cost of investing is lower and they receive more money in retirement.

Impact of Investment Management Fees on Participant Account Growth. The impact of additional investment expense caused by higher recordkeeping costs can be significant to the participant. For example, assume a participant earning $40,000 per year and saving 6% of pay. Annual pay increases occur at an average inflation rate of 3.5%. The participant starts saving in the plan at age 30 and retires at age 65. The difference between a return based on the table above between share class 3 and share class 5 is only 0.30% or 30 basis points. **However, that translates to over $85,000 in the account balance at retirement.**

Other things being equal, the cost of the plan has the single biggest impact on the participant's retirement experience.

D. <u>Fiduciary and Investment Implications</u>

Background information.
Private sector plans are subject to ERISA and thus their fiduciaries are bound to the ERISA standards as summarized below:

- Always act in the best interests of plan participants and beneficiaries
- Manage plan investments and costs
- Fulfill fiduciary responsibilities as under the Prudent Expert standard

<u>Fiduciaries are Responsible for:</u>
- Construction of investment menu
- Selection of investments
- Prudent monitoring of plan:
  - Investments
  - Plan operations and management
  - Investment and operating costs
- Making investment related decisions on maintaining the investment menu

In the governmental sector and the not for profit sector, ERISA does not apply directly. Not for profit sector plans (403(b) plans) are soon to be subject to similar regulation as the private sector. The governmental sector fiduciary regulations vary by State; however, they generally have similar standards under general fiduciary law with regard to managing the plan in the interests of the participant or beneficiaries of the plan.

Plan cost management and investment cost management would generally fall under the plan fiduciaries responsibilities. State laws may limit the control that a fiduciary may exercise over a plan.

State Laws Relating to Recordkeeping Structure. Some States have passed laws which require a multiple recordkeeper environment for certain plan types. However, the reason used in the past was to provide the participants more choice. That choice was thought to be greater investment flexibility.

In years past when many recordkeeping vendors provided only their own investment funds, investment flexibility may have been a reasonable consideration.

However, the recordkeeping community has changed dramatically over the last 10 to 15 years. As noted previously, most recordkeepers offer an open architecture investment platform. The number of funds, and fund families available on a recordkeepers platform are typically hundreds of fund families and thousands of funds. In addition, the plan recordkeepers may offer what is called a mutual fund window or self directed account, which allows participants access to thousands of funds in addition to the funds in the plans core investment line-up.

Plan recordkeeping costs and their impact on plan investment costs and other participant costs are perhaps the most important factor for fiduciaries to consider when considering multiple versus single recordkeeper environments.

Certain State Laws Inconsistent with Current Recordkeeping Environment. The recordkeeping marketplace has evolved dramatically over the years as noted above. The major recordkeepers offer open architecture investment structures and access to virtually any fund family in the market place. States that require multiple recordkeepers for certain governmental plans no longer need to do so to achieve investment flexibility. The multiple recordkeeper structure creates higher cost structures and negatively impacts the participant's ability to accumulate assets for retirement.

1. Plan Fiduciary Investment and Governance Considerations.

Investment Fund Oversight. The plan fiduciary is generally responsible for the selection and implementation of the fund menu. However, in many smaller plans, the recordkeepers often implement their own investment menu, effectively usurping the investment responsibility from the fiduciary committee. If and when the committee reasserts itself in the overview and management of the investments they may run into conflicts with the plan recordkeeper in a higher cost multiple vendor environment.

For example, the committee determines that a fund should be replaced and identifies candidates for replacement. The committee selects a fund that it wants to implement that it has on one of the larger plans, but the recordkeeper of the smaller plan will not allow the committee to implement the desired fund at the share class cost that they have selected. The recordkeeper gives as the reason that it can not implement that particular product because the revenue re-allowance that the recordkeeper will receive is too small. The recordkeeper requires that you use either a higher cost share class with a higher revenue re-allowance to the recordkeeper or another fund that has a higher fee re-allowance. Thus the higher cost plan forces the fiduciaries to behave in an inconsistent manner among the various providers. One provider can accommodate the lower cost product because of economies of scale (larger number of participants and assets) and the other cannot because they do not have the same economies of scale in the plan.

The example above is a common one and occurs within the current multiple recordkeeper environment for the State of Colorado 401(a) Defined Contribution Plan. This is not the fault of the recordkeeper, but rather the multiple recordkeeper environment. To force the recordkeeper with the smaller assets to use the lower cost funds impacts the profitability of their engagement.

2. Investment Menu Construction – Asset Classes and Fund Types.

Again, this is another area where the plan sponsor (committee) should exercise its responsibility and control the menu construction. However, at the start-up of small plans, the vendors often times implement their own version of the menu. Recordkeepers sometimes balk when the plan sponsor wants to eliminate a series of products that the recordkeeper has put in. This may be particularly true where the recordkeeper has placed their own investment products in the investment menu since the recordkeepers business affiliate (their mutual fund family) receives compensation from the management fee portion of the investment expense ratio of the product.

For example, if the product expense ratio is 1.05% and of that amount the revenue share re-allowance is 0.35%, the recordkeeping arm of the business receives 0.35% and the investment arm of the business receives 0.70%. Some recordkeepers that offer their own investment products may be more reluctant to allow the removal of their fund for another fund that revenue shares the same amount.

3. Default Funds

If multiple recordkeeper arrangements exist, there are many investment platform issues to be resolved as noted directly above. Another of those is which fund to use as the default fund. The committee / plan fiduciaries may want to use the same default fund across the platforms. Again, for the reasons noted above in the prior examples, there may be conflicts with the recordkeeper.

4. Fiduciary and Investment Implications – Conclusions

From a fiduciary perspective, there is no reason to maintain multiple recordkeepers. A single vendor can be contracted with for lower overall plan costs with greater investment flexibility. Investment menu consistency can be created for all participants. The single provider platform removes cost inconsistencies and provides the best overall cost structure to the participants and allows the greatest investment flexibility and control to the plan sponsor and fiduciary committee. From the investment menu structure the number and types (asset classes) of investment funds to the cost or share classes available, the lower cost environment provides the plan sponsor with the most flexibility to manage plan investments and structure the investment menu with the participant's best interests in mind.

The State of Colorado has experienced most of the issues noted above. If the larger provider Great West was in the position of the smallest providers, its cost structure would prevent it from offering the low cost products which the State of Colorado now enjoys on the Great West recordkeeping platform. The examples listed above regarding the S&P 500 Index Fund and / or the American Funds Growth Fund of America product are examples of the impact of the multiple recordkeeper environment on plan costs. The smaller recordkeepers cannot offer the same products as the larger recordkeeper because they do not have sufficient plan assets and participant base to amortize their cost as competitively.

E. Plan Oversight – One Committee Per Plan or One Committee Over All Plans/Vendors.

This was a topic that was requested to be addressed. From a plan oversight perspective, having one committee to monitor all defined contribution plans is the norm and the most effective method.

For example, in most environments a single recordkeeper provides recordkeeping services to the plan or plans of the sponsor. Participants have the same investment choices for their various accounts. In the State of Colorado's Plan environment, Great West provides services to the 457 Plan, the 401(a) frozen Match Account and the 401(a) Defined Contribution Plan. It is also the norm for plan participants to have the same investment choices for each of their accounts and manage them consistently across the plans. If three different committees existed, one for each plan, it would be redundant in terms of operating costs and may end up with inconsistent outcomes from committee to committee. Similarly, to have separate investment committees in a multiple recordkeeper environment, that is one for each recordkeeper on the same plan would also be redundant, expensive and likely result in inconsistent outcomes.

From both a cost and governance standpoint the single governance committee to manage all defined contribution plans is the most efficient and consistent method. It is not uncommon to see a different committee responsible for the management of the defined benefit plan, but the norm is to have the same committee manage the defined contribution plans for the general employee population.

F. Market Data Regarding Governmental Plans Multiple Recordkeeper versus Single Recordkeeper Structure.

The most recent survey of the National Association of Government Defined Contribution Administrators (NAGDCA) included a total of 99 plan respondents to the question of how many recordkeepers provided service to their plans. Of the 99 plan respondents, there were 63 State plans represented from 37 separate States (including one plan from the District of Columbia). All other plan respondents were various municipalities, counties, or municipal or county districts.

- 59 out of 63, or 94% of State plans used a single recordkeeper. Only 4 out of 63 State plans represented used multiple recordkeepers.
- Of the non-State plans 27 of 36 or 75% used a single recordkeeper approach.
- 86 out of the total of 99 or 87% of plans reported used a single recordkeeper.

This is consistent with our own observations in the not for profit, educational, and non-State governmental sector. Among our own non-State governmental clients, 81% use single recordkeepers and 19% use multiple recordkeepers.

Of the 28 recordkeeper bid projects, for governmental plans, we have conducted over the last few years, the outcome was 22 (or 78%) single recordkeepers and 6 (22%) multiple recordkeepers. Of the 22 single recordkeeper outcomes, 10 were consolidations from multiple recordkeepers to a single recordkeeper. Of the 6 multiple recordkeeper outcomes, all of them retained the same recordkeepers they started with and simply ended up negotiating new pricing.

Of the 16 plans that had multiple recordkeepers prior to the RFP, 10 (62%) moved to a single recordkeeper environment.

G. Other Market Place Trends

Numbers of Funds Offered.
The number of investment funds offered in plans has changed over the years, however investment menu construction has normalized to a degree and we typically see between 12 to 18 funds depending on how many age or risk based products are offered and the number of asset classes in which index funds are offered. The table below displays the median number of funds offered based on survey data for the private sector and public sector. It also displays the actual number of funds offered by each of the plan recordkeepers at the State of Colorado.

	Private Sector	**NAGDCA**	**Great West**	**Hartford**	**ICMA**
Median Number of Funds from Survey / Actual in Plans	15	16	15	14	15

Open Architecture / Partially Bundled Arrangements
In addition, the majority of plans in the private and public sector have moved to an open architecture or partially bundled recordkeeping environment where the participants have access to funds from multiple fund families and are not constrained to a single investment provider fund family. In the NAGDCA survey approximately 90% of the plans offered multiple fund families.

The table below displays the number of fund families represented in each of the State of Colorado's 401(a) Defined Contribution Plan recordkeeper menus.

	Great West	**Hartford**	**ICMA**
Number of fund families represented	11	11	6

Each of the providers has an open architecture / partially bundled style investment menu.

H. Other Topics.

State of Colorado Investment Fund Structure.
The investment structure for each of the recordkeepers is generally similar, with each recordkeeper offering the following asset classes (with minor exceptions).

Fixed Income Investments:
- Stable Value
- Intermediate Bond

Equity Investments:
- Large Cap Value, Blend, and Growth
- Mid Cap Value, Growth
- Small Cap Value, Growth
- International Value and Growth

The table below displays the asset classes offered in each of the recordkeeper's investment menus using an investment style box methodology.

	Great West			Hartford			ICMA		
Stable Value	Colorado Stable Value Fund			SEI Stable Value			Plus Stable Value		
Intermdiate Bond	Vanguard Total Bond Index			Hartford Total Return Bond			PIMCO Total Return Bond		
Equity Funds	**Value**	**Core/Blend**	**Growth**	**Value**	**Core/Blend**	**Growth**	**Value**	**Core/Blend**	**Growth**
Large Cap	Hotchkis Wiley Instl	Vanguard Institutional Index (S&P 500)	American Funds Growth Fund of America R5	Hotchkis Wiley Large Cap Value A	Davis New York Venture A / SSGA S&P 500 Fund	American Funds Growth Fund of America R4	Vantagepoint Equity Income / American Century Value	Vantagepoint 500 Stk (S&P 500 Index)	Vantagepoint Growth
Mid Cap	Artisan Mid Cap Value		Munder Mid Cap Core Growth Y	Artisan Mid Cap Value		Munder Mid Cap Core Growth A			Rainier Small Mid Cap Growth
Small Cap	Veracity Small Cap Value		TCM Small Cap Growth	American Beacon Small Cap Value		Baron Small Cap	T. Rowe Price Small Cap Val	Fidelity Small Cap	
International	Dodge & Cox International Stock		American Funds EuroPacific Fund A			Hartford Intl Cap App			Fidelity Diversified Intl.
Risk Based Porfolios									
20% Eq / 80% Fx							Yes 25% Eq / 75% Fx		
40% Eq / 60% Fx	Yes			Yes			Yes		
60% Eq / 40% Fx	Yes			Yes			Yes		
80% Eq / 20% Fx	Yes			Yes 75% Eq / 25% Fx			Yes		
100% Eq / 0% Fx							Yes		

The highlighted boxes indicate traditional asset classes that would normally be slotted. We would recommend a search for an International Value fund for both the Hartford and ICMA programs. We might also recommend a search in the Mid Cap Value section for the ICMA program.

With regard to the Risk Based Portfolios, each of the providers offers adequate risk reward profile diversification. The three center portfolios ranging in 20% increments from 40% equity to 80% equity provide adequate diversification. The lower risk allocations of 40% equity or less typically draw low participant utilization. This is the case within the State of Colorado participants as well with allocations in the 1% range going to the lower risk offerings.

Depending on Committee philosophy, additional index offerings might be considered, particularly in the small cap and international categories.

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Default Options
The Pension Protection Act of 2006 provided guidance for plan sponsors regarding default options, particularly for those participants in auto enrollment plans. That piece of legislation added or extended the fiduciary safe harbor features of ERISA 404(c) by adding a Qualifying Default Investment Alternative provision. While ERISA does not directly apply in this situation, it does provide a useful framework for considering trends in default investments.

The three primary approaches that were approved for use as default investment funds were:
- Target Age Based Asset Allocation Funds
- Balanced Funds or Risk Based Asset Allocation Funds
- Managed Accounts.

Of those three options, the first two have been the most popular as most plans offer one or the other feature and it does not add additional cost to the plan. In some cases the managed account solution adds additional cost.

With respect to the programs available at the State of Colorado, we would recommend the Risk Based models as the default investment alternative with the 60% equity and 40% fixed alternative being the selected default in each plan. Each plan offers a model that is approximately 60% equity and 40% fixed income allocation.

Participant Communications and Education Services – Multiple vs. Single Recordkeeper
Educational Materials. In the multiple recordkeeper environment, each recordkeeper has their own communications and educational materials. Thus the plan participants may receive different messaging based on the plan recordkeeper. The plan sponsor may attempt to influence consistent messaging, but unless all three recordkeepers use the same material, the educational messaging will be somewhat inconsistent.

Onsite Employee Meetings. In a multiple recordkeeper environment, the primary purpose for the vendors' onsite meetings is to recruit participants. All of the recordkeepers are competing with each other for the same participants and each others participants. This is another decision that the participant has to make, which recordkeeper.

In the single recordkeeper environment, the plan sponsor can contract more effectively with the recordkeeper over the number of meeting days and the sponsor can have a consistent message sent to the participant base with the focus on educating the participants about the benefits of the plan.

I. Pros and Cons of Single versus Multiple Recordkeepers.

Description	Single Recordkeeper	Multiple Recordkeeper
Program Costs:	Pro	Con
• Plan Recordkeeper Cost	Pro	Con
• Plan Investment Costs	Pro	Con
• Internal Overhead Cost	Pro	Con
• Fee Negotiation Leverage / Purchasing Power	Pro	Con
• External Service Provider Costs • Legal, audit, investment consultant	Pro	Con
Investment Flexibility Choice	Neutral	Neutral
Investment Communication	Pro	Con
Overall Participant Communications - Consistent Messaging	Pro	Con
Participant Onsite Meetings:		
• Participant Understanding	Pro	Con
• Number of Meeting Days	Pro	Con
Administrative Complexity	Pro	Con
Administrative Process Consistency	Pro	Con
Participant Decision Making Complexity	Pro	Con
Fiduciary Management Issues	Pro	Con
Operational Compliance (Providers in Compliance with Plan Provisions	Pro	Con
Plan Document Maintenance	Pro	Con
Data Management	Pro	Con

J. Stakeholder Implications

If the program was converted to a single recordkeeper environment, we believe the impact on stakeholders would be as follows:

1. Recordkeepers

There are currently three recordkeepers involved with the plan. If the plan was consolidated down to one recordkeeper it would be prudent to put the business out to a bidding process. In that event at least two and perhaps all three of the current recordkeepers may lose their business relationship with the State of Colorado 401(a) Defined Contribution Plan.

However, one of the current vendors might be awarded the bid in which case they would be positively impacted by the change.

2. Participants:

Investment Flexibility Would be Neutral. The Plan Sponsor could add additional funds to the core investment menu if desired. Alternatively, the plan sponsor could continue to offer a self directed account wherein participants could access thousands of funds in addition to the core investment menu

Investment Cost. Investment costs would be improved due to lower overhead burden and lower recordkeeper revenue re-allowance requirements. This would primarily be a positive for the participants in the smaller programs.

Total Plan Costs. Total plan costs in the form of administrative fees and investment fees would be lower in a single plan environment, primarily for the participants moving from the smaller provider relationships to the larger single provider relationship.

Participant Plan Education. Participants should be positively impacted by a more focused communication and education process. Confusion regarding the number of recordkeepers and which program to choose would be eliminated. Participant education could be more focused on how to use the plan, the overall benefits of the plan, etc, rather than each of the vendors merely competing for the participants to join their respective program.

3. **Plan Sponsor:**

   Internal Overhead Burden. Plan Recordkeeper consolidation would reduce plan management burden, time, and costs.

4. **Plan Purchasing Power and Negotiating Leverage**. In an RFP process in which both the 457 and 401(a) Plans could be bid to a single recordkeeper, the greatest possible purchasing power is achieved because of the combined size of the overall plans. This gives the plan sponsor the most pricing power and leverage to negotiate price, service agreement terms, and service levels.

5. **Other Service Providers.** Plan operational and administrative complexity are reduced in a single recordkeeper environment thus the overhead burden of the various service providers to the plan, accountants, legal, investment consultants etc. may be reduced. This could result in lower service fees commensurate with the reduced workload.

6. **Investment Committee:**

   Investment Fund Monitoring. The plan Investment Committee impact may be neutral, in relation to the work involved monitoring plan investments, depending upon how many investment funds are utilized in a single recordkeeper environment.

   Fiduciary Investment Control and Flexibility. This aspect of the plan fiduciary / Investment Committee responsibility is likely to be improved. Ability to use the best priced investment products is enhanced in a single recordkeeper environment.

7. **State Residents / Taxpayers**

   To the degree that internal overhead burden for plan management is not passed on to participants and is covered by State budgets which are funded by taxpayers, there may be some deminimis savings.

K. Summary of Recommendations.

1. **Single or Multiple Recordkeeper**. We recommend moving to a single recordkeeper platform. As we understand it, this would require a change in current State statutes. The reasons for the recommendation are noted throughout the document and are summarized below:
    - Lower participant recordkeeping costs
    - Lower participant investment costs
    - Lower internal plan management overhead
    - Simplified administration
    - Increased purchasing power and negotiating leverage with a single recordkeeper, benefiting plan participants in terms of costs, service commitments and consistent plan communications
    - Ability to focus participant communications on plan features and benefits and how to use the plan effectively
    - Quality control enhancement
    - Increased plan management efficiency
    - Investment flexibility preserved. Several years ago, when recordkeepers only offered their own investment products, it made sense to offer more recordkeepers to expand investment choice. However, over the last 10 to 15 years the recordkeeper market place has evolved to the point where they all offer open architecture investment approaches with hundreds of fund families and potentially thousands of fund choices. It is our experience that if there is a fund that a committee wants to utilize and the recordkeeper does not have it on their trading platform, they can usually get it added within 90 days. The selection process for a plan recordkeeper should focus on those qualified recordkeepers that can best meet the needs of the plan, including investment flexibility
    - Enhanced ability for the plan fiduciaries to manage the plan investments at optimal costs on behalf of all plan participants.

    Lastly, as demonstrated by the market data provided in the NAGDCA survey, 94% of State plans are single recordkeeper environments and 86% of all governmental plan sponsor respondents in the NAGDCA survey utilize a single recordkeeper approach.

2. **Default Investment Alternative**. In the event of any default investor, we recommend the asset allocation fund product in place with a 60% equity and 40% fixed income allocation. Each of the current providers has such an option. If at some point in the future, the committee should decide to implement an auto-enrollment plan feature we would recommend consideration of a Target Retirement year type product as the default fund.

3. **With regard to the current investment programs of the current multiple recordkeepers we recommend the following structural changes:**

    - Add the International Value category to the Hartford and ICMA recordkeeping platforms
    - Add a Mid Cap Value fund to the ICMA program
    - We also recommend that the committee consider additional index offerings, particularly for the International category and the Domestic Small Cap category.

This report is respectfully submitted by Arnerich Massena & Associates. Please do not hesitate to contact me with any questions.

Best regards,

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