



**Comparison of USA-based Retirement Plans
and Their Investment Performance by
Datapath Limited**



Internship Report On

Comparison of USA-based Retirement Plans and Their Investment Performance by Datapath Limited

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Letter of Transmittal

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Subject: Submission of internship report on comparison of USA-based Retirement Plans and their investment performance by Datapath Limited.

Dear Sir,

Assalamualaikum, I'm delighted to present my internship report titled "Comparison of Retirement and Investment Performance by Datapath Ltd., as part of my Bachelor of Business Administration degree requirements. Working at Datapath Ltd. in Bangladesh has been a valuable experience, allowing me to understand the 401k retirement plan, loan processes, and monitoring methods thoroughly. Throughout this report, I've strived to cover relevant material and address key concerns according to your guidance. Your advice and support have been invaluable throughout this journey. I would appreciate it if you could take a moment to review the report and provide feedback on my performance.

Sincerely yours,

Jyotirmoy Roy

ID: 111192026

Bachelor of Business Administration

Acknowledgment

I extend my deepest thanks to everyone who helped me complete this report. Firstly, I'm grateful to God for granting me the ability to work diligently. I also want to acknowledge my parents for their unwavering support.

The report, titled "Comparison of USA-based Retirement Plan," was prepared as part of my BBA degree requirements. I received invaluable guidance, supervision, and cooperation from various individuals during its preparation.

Numerous people played a role in the creation of this report. I'd like to thank my academic supervisor, Muhammad Enamul Haque, an Assistant Professor at UIU Business School, for his continuous support and guidance.

I also want to express my appreciation to Saidur Rahman, the Workflow and Tax return Department Manager, and Ehsanul Bari, senior team leader, for their assistance and valuable suggestions. Additionally, I'm thankful to Tanvir Ahmed, the Team Leader of Tax Return, for providing me with essential training and helping me resolve any issues during my internship.

Lastly, I want to thank my fellow interns for their cooperation and insightful suggestions.

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Executive Summary

The primary motive behind the creation of the report is to analyze, compare, summarize, and draw conclusions by closely examining the trust accounting report of different retirement plans of Datapath Ltd. After starting a detailed examination using three different trust accounting reports and comparing them to industry benchmarks. The written explanations have been accompanied by numerical data interpretations, presented in graphical and tabular forms that extend to flow charts.

This report offers a comparative analysis of three retirement plans: AAA Industries, Interstate Bank, and Travis Association for the Blind Retirement Plan, focusing on their tax-deferred contributions and performance from 2018 to 2022, including Compound Annual Growth Rate (CAGR), mean return, and standard deviation. All three plans provide tax-deferred contributions, incentivizing employees to save for retirement with pre-tax income. AAA Industries Retirement Plan demonstrates steady growth with a reliable CAGR, consistent mean returns, and volatility insights through standard deviation. In addition, the Interstate Bank Retirement Plan exhibits robust growth with favorable CAGR, and stable mean returns, accompanied by risk assessment through standard deviation. Travis Association for the Blind Retirement Plan maintains consistent growth, satisfactory mean returns, and risk evaluation through standard deviation. These findings underline the significance of informed decision-making in retirement planning and highlight opportunities for participants to achieve their long-term financial objectives.

AAA Industry's Retirement Plan: Moderate volatility (10.74%) offers a balanced approach, appealing to investors seeking moderate risk with the potential for reasonable returns.

Interstate Bank SSB 401(k) Profit Sharing Plan & Trust: Lower volatility (8.54%) provides stability, attracting investors to prioritize consistent returns and risk mitigation.

Travis Association for the Blind Retirement Plan: High volatility (22.06%) presents elevated risk with the potential for higher gains but also significant losses. Suited for aggressive investors with higher risk tolerance and longer time horizons.

Ultimately, investors should align their choices with their risk tolerance, investment objectives, and time horizon. Conservative investors may prefer lower volatility plans, while those seeking higher returns may opt for higher volatility plans. Careful assessment of financial goals and risk appetite is crucial in selecting the most suitable retirement plan.

Chapter 1: Introduction

1.1 Origin of the report

This report has been produced as a requirement to consider the completion of the internship program at United International University's Bachelor of Business Administration Department. It is a mandatory part for all students to go through a four-month extensive internship program in a relevant organization to garner practical experience in the area of business operations before entering into the industry and being market-ready in order to successfully complete the BBA program. I have been assigned as an intern in the Business Unit under Finance Department of DataPath Ltd, Dhaka Branch. The office is situated near 300 feet Road, Rupayan Shopping Square, 1219 Sayem Sobhan Anvir Rd, Dhaka 1219. The topic of my internship report is "comparison of a USA-based Retirement Plan and its investment performance by an Outsourcing Company Datapath Ltd." I have been permitted to prepare the report on this topic by Mr. Muhammad Enamul Haque, Assistant Professor, BBA Department, SOBE of UIU.

1.2 Background of the report

Upon completion of the 120-credit Bachelor of Business Administration program at United International University, all students are required to create and deliver a report centered on a 3-month industrial placement. This situation motivates students to seek internships at companies relevant to their studies in order to acquire experience prior to entering the workforce. In the midst of obtaining hands-on experience through entry-level positions that do not demand much decision making ability, graduate students take advantage of this chance to adapt to the unique conditions of the organization. Exposure to the business world helps individuals start their career in the corporate environment and provides them with the confidence to handle unexpected situations. During this time, these anxious seniors can acquire the necessary soft skills. The majority of universities in Bangladesh that offer the BBA program require their students to successfully finish an internship. These internship programs launch the career opportunities for these students to pursue a professional business path. They receive essential training that they will apply to observe the practical application of the theoretical knowledge they have acquired from attending classes

during those 4 years. Students have the opportunity to understand how their academic knowledge is applicable in real-life situations by comparing it to practical scenarios.

1.3 Objects of the Report

The primary aim of this in-depth research is to assess the financial performance analysis of Datapath Ltd in comparison with other related company in Bangladesh. The data for this internship report was compiled using the retirement plans trust accounting financial reports, interviews with team members of the International Business Unit in the Trade Finance Department of the Dhaka Branch, Datapath Ltd. official website, and various articles from reputable newspapers.

The following mentioned goals are the objectives of this report:

1. To have knowledge of all aspects of the organization's activities.
2. To merge theoretical understanding with hands-on practice in several branches of Datapath Ltd.
3. To evaluate the condition or well-being of the company's financial situation.
4. To identify problems and suggest ways to enhance.

1.4 Scope & Limitations

Upon commencing my internship at Datapath, I quickly adopted a heightened sense of duty, approaching my tasks with increased earnestness. Previously, as a student, my responsibilities were solely personal; my academic performance impacted me alone. Contrastingly, in a corporate environment, the scope of accountability extends beyond individual to organizational responsibilities. In the professional realm, any lapse in duty can detrimentally affect the entire team's performance, for which one is directly accountable. For instance, an error I made in setting up a tax report configuration led to complications for my team. My role during the internship involves recruitment for the tax return and workflow departments. Since joining the Workflow team, I have been exposed to seven distinct project types, each critical to the departments and clients we serve. My duties encompass the preparation of various tax reports and returns. Prior to

beginning these tasks, our seasoned colleagues provided us with comprehensive training on accurate tax reporting and calculation methods. The majority of our tasks are facilitated by specialized software and websites developed by our company, underscoring the technological integration in our workflows.

During this internship period, I have so many responsibilities they are-

- Daily, I am required to consult my log to monitor and expedite the completion of crucial tasks and notes.
- I must scrutinize the client's Excel document for the Census file, ensuring accuracy in all details and calculations before incorporating it into the Relius software. Any discrepancies necessitate correction or re-submission to the client for completion.
- The preparation, filing, and logging of the 5500 form are mandatory. Following its review, it is imperative to forward it to the client and update the review log accordingly.
- I am tasked with processing the 1099R and B1 forms and subsequently submitting them for review. This involves accurately reporting clients' wages and tax figures.
- Utilizing Excel and Relius, I am responsible for creating an 8955SSA report and finalizing the file with Fort William's aid. Post-review, the file must be dispatched to the client.

Upon finalizing all daily tasks and work logs, updating my daily work progress spreadsheet and submitting it to my immediate supervisor is compulsory.

1.5 Methodology

My tenure as an intern was marked by focused and streamlined responsibilities. While it's understood that interns are not allocated overly significant or complex tasks, the internship program was designed to immerse us in essential functions and responsibilities. Operating under the guidance of various team members, each intern was tasked with specific duties, with the group leader assigning these responsibilities. Having a foundational knowledge of Relius, I was extensively trained on census data entry, verification, and the completion of forms 1099R, 5500, and 8955SSA. Our initial tasks involved the careful processing of 1099R forms, which, upon

approval by our instructor and senior staff, were submitted to clients. Ultimately, we engaged in completing the Census and validating the data in Relius software against actual project outcomes.

Technical Skills

My first internship in the business world as a student was a valuable experience. It helped me develop professionally and learn new technical skills. The training I received enhanced both my soft and hard skills. I gained proficiency in Excel and learned about the American tax filing process. Overall, it was a rewarding learning experience.

Time Management Skills

This term is widely used among us. After reading this, its meaning has changed for me. I must stick to my usual work schedule and make good use of every hour. Being punctual in submitting assignments and other tasks is very important. We often have tight deadlines to meet, so it's crucial to be on time. If we're late or notice any unusual behavior, we should inform our supervisors, especially in serious situations.

Technical Skills

On the initial day of training, we were equipped with the necessary tools and guidance to attain proficiency in Microsoft products. Individuals well-versed in computer information systems will possess an advantage. Moreover, comprehensive instruction was provided regarding the utilization of Excel, which was frequently employed in our tasks. Consequently, I have gained a heightened sense of comfort, productivity, and competence in navigating Microsoft programs. Through Excel usage, we encountered numerous regulations, functions, and expedited methods.

Communication

Communication poses a substantial challenge for all individuals in the workforce. Adjusting to a new work environment and effectively interacting with the entire team and external parties presents difficulty. Maintaining regular contact with team members and occasionally engaging with clients is essential. While I was introverted and reserved during my university years, I am confident in my ability to surmount these challenges now.

Limitation of Software Uses

During my internship, I encountered some software-related challenges. Specifically, our department has experienced a decrease in allocated Relius IDs. As a result, four of us are required to share a single Relius ID, significantly impeding our workflow speed.

Recommendations

□ Given that the majority of our tasks depend on the Relius software, I advocate for an expansion of the number of Relius IDs. I believe that an increase in Relius IDs is warranted as our workforce expands.

□ The software team should proactively address server issues to ensure proper functionality. For this investigation, I utilized both primary and secondary sources for data collection.

Primary materials involved monitoring the specified division and engaging directly with department supervisors. Additionally, data was gathered from employees and individual reflections.

Secondary Sources:

- IRS, RPF, and ERISA-related publications, anthologies, websites, etc.
- Previous reports have suggested effectiveness.

From the initial selection of the topic to the completion of the final report, the research requires a methodical approach. It involves identifying and gathering data sources, which must then undergo systematic categorization, evaluation, interpretation, and presentation. Additionally, crucial points need to be identified throughout this process.

Chapter 2: Company Overview

Organization Part

Background Of the Study

It is imperative for students to apply their theoretical knowledge in practical scenarios. Internships serve as an excellent avenue for translating classroom learning into real-world applications. Thus, participation in internships is integral for BBA students. In the contemporary corporate landscape, internships afford students the chance to acquire valuable supervised work experience and demonstrate their professional and personal growth potential. Such programs serve as a preparatory platform for students to enter the professional realm.

2.1 History of The Organization

July Business Services has entered a partnership with Data-path Ltd., a company based in Bangladesh, for outsourcing purposes. The corporation is solely owned by Jim Hudson and John Humphrey. In the United States, the retirement planning industry, including July Business Services, is dominated by a few firms. Data-path Limited established a small operation in Uttara in 2005, initially receiving payment for maintenance work equivalent to July's value. During July, the organization actively recruited highly qualified candidates to join the July Services team, starting with less than 10 employees and now employing 70 permanent staff members.

July Business Services is a trusted provider of retirement programs and other administrative services, offering tailored assistance to companies and financial institutions. Our consulting services aid in the inception and sustainable operation of ventures. With a history dating back to 1995, our clientele ranges from startups to renowned international corporations, despite our modest beginnings without clients or extensive resources.

2.2 Organization: At a Glance

Founding Partners:

In the early 1980s, while working towards his CPA certification, Jim Hudson began to specialize in retirement plans.

Forming a Solid Team:

During the period between 1996 and 2000, July experienced accelerated growth and the company expanded its workforce significantly. Key objectives were achieved, including:

- Establishment of an employee culture foundation.
- Enhanced service delivery efficiency.
- Formation of new business and client consulting teams.
- Creation of an ERISA consulting team.
- Dedicated distribution team.
- Promotion of Blake Willis to Partner & CAO.
- Recruitment and development of key personnel.
- Improvements in marketing and sales presence.

2.3 VISION & Mission

Vision

‘Is to become the best retirement plan administrator in the USA.’

MISSION

This aims to empower financial advisors and plan sponsors to select the optimal retirement plan solution aligning with the objectives of business owners and their employees. It offers responsive, impartial, and dependable services encompassing plan design, administration, recordkeeping, and consulting, thereby fostering retirement savings.

2.4 CORPORATE SLOGANS

The slogan of Datapath is Transform and Innovation.

MANAGEMENT ORGANIZATION STRUCTURE

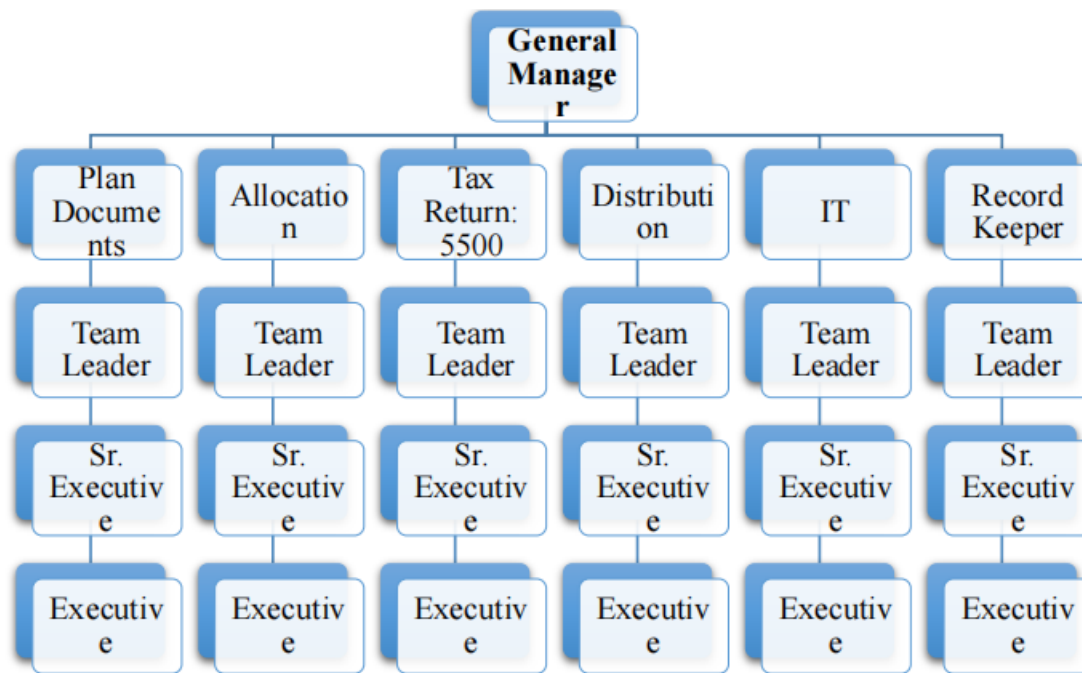


Figure 1- Organization Management Structure

2.5 Team of the Organization

Sales: They oversee DE convertible 401(k) retirement plans and collaborate with the HR department. Their responsibilities include managing firm compliance data representation and crafting sales proposals.

New Business: The company securely stores information in a database and guarantees its retrievability. Comprehensive company details are contained within this section.

ERISA Consulting: This section generates the plan document based on input from the sales and installation teams. Documentation for various plans such as profit-sharing, 401(k), and safe harbor plans, may extend to over forty pages, encompassing relevant regulations and standards. Its assurance lies in the accurate transmission of pertinent data to the appropriate divisions.



Recordkeeping: The department is tasked with monitoring the participants of the plan, along with their corresponding investment holdings and the plan's overall cash flow.

Accounting: This division fulfills all of Data Path's financial and accounting requirements, including maintaining stock records, compensating representatives, and providing financial clarification.

Software: This team develops the software essential for the functioning of the entire firm. Given Data Path's core focus on software development, this division holds significant importance.

Human Resource (HR): The Human Resources department oversees employee welfare and ensures workplace safety.

Distribution: This office manages the distribution of retirement fund assets to plan members and utilizes a program named "Relius" to execute their tasks and verify the accurate transfer of funds.

2.6 Industry Analysis

2.6.1 Outsourcing

Outsourcing refers to the practice wherein a firm delegate a portion of its operations to another entity. This strategy aims to enhance efficiency while reducing costs. Data Path Ltd, located in Bangladesh, operates as an outsourcing firm. In the United States, the Third-Party Administrator (TPA) market is intricate, necessitating recurrent hiring of specialized professionals. Given the high monthly salary requirement, many American corporations opt to outsource jobs to countries like Bangladesh, where labor costs are comparatively lower. This trend has improved employment opportunities for the youth in Bangladesh. Data Path, an established leader in TPA outsourcing, has capitalized on this practice for an extensive period.

2.6.2 Size/Trend/Maturity

The outsourcing industry is experiencing rapid growth, presenting significant opportunities for developing nations such as Bangladesh to thrive. Moreover, the Third Party Administrator (TPA) sector in the United States is flourishing. The increasing significance of outsourcing was not anticipated in the past, but recent developments suggest a positive shift. Many U.S. businesses are now outsourcing tasks previously handled internally, resulting in layoffs. Additionally, Data Path has acquired more TPA clients over the past year and expects to surpass 25 TPA clients by the end of the current year.

2.6.3 Technical factors

The technical expertise required for success in this field is complex and demands adaptability in technical skills and computer proficiency. Despite the large number of college graduates in Bangladesh, there is a deficiency in the requisite skills for success in the business sector. This industry utilizes specialized programs that are not commonly taught in educational institutions. Cross-training among experts and technicians is implemented to ensure all staff members acquire proficiency in using these programs.

2.6.4 Barriers to Entry

The industry presents significant barriers to entry, ranging from moderate to high. Breaking through these barriers and entering a new market often necessitates investment capital. The efficiency and competence of the workforce are crucial determinants of success. Establishing an IT firm similar to this requires the ability to attract and retain talented individuals.

2.6.5 Supplier & Buyer Bargaining Power

In this market, there is minimal indication of bargaining power exerted by suppliers and buyers. Clients, to whom we provide services, can be considered as buyers. Charges to customers are determined by the execution of plans. With numerous Third-Party Administrators (TPAs) operating, the service is often profitable, with international clients typically charged between \$250 to \$300 for each plan completion.

2.6.6 Threat of New Substitutes & Industry Rival

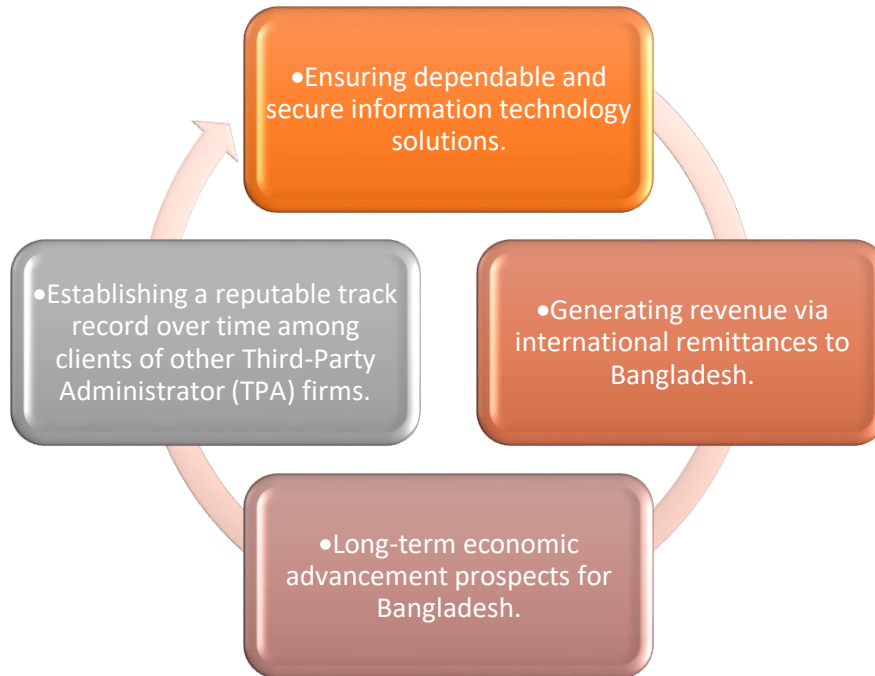
The sole plausible scenario for replacing this service would involve the entry of an entirely new company into the market. Notably, several key employees from Datapath departed to establish a competing firm named Fin Source. Beyond Bangladesh, countries such as India, Pakistan, and Sri Lanka are also engaged in similar outsourcing practices. Customers lack the incentive to switch providers unless they can find a comparable service elsewhere at a lower cost. While substitutes may be limited in Bangladesh presently, the potential influx of qualified individuals into the 401(k) industry could intensify competition shortly.

2.7 SWOT Analysis

2.7.1 Strengths

- Ensuring dependable and secure information technology solutions.
- Long-term economic advancement prospects for Bangladesh.
- Generating revenue via international remittances to Bangladesh.

- Establishing a reputable track record over time among clients of other Third-Party Administrator (TPA) firms.



2.7.2 Weakness

- Insufficient software training leads to prolonged onboarding of new staff.
- Subpar website and marketing initiatives.
- Escalating recruitment has resulted in a critical shortage of office space.

2.7.3 Opportunities

- Expanding job opportunities.
- Sustaining international partnerships with prominent overseas corporations.

- Expanding job opportunities.

- Sustaining international partnerships with prominent overseas corporations.

2.7.4 Threats

The service sector in Bangladesh lacks appeal and recognition, while certain established enterprises in the region are undergoing expansion.

Chapter 3: Financial Performance Analysis

3.1 A Solo Retirement Plan by Datapath

Background Information

Datapath specializes in managing various types of retirement plans, including solo plans, administrative-only plans, and daily plans.

Solo Plan

For self-employed individuals or small business owners with no other employees except themselves and their spouse, a retirement plan referred to as a "solo plan" (also known as "Solo 401(k)" or "Self-Employed 401(k)") may present the most advantageous option. This plan allows for potentially higher contribution limits compared to traditional 401(k) plans, as the individual can contribute both as an employer and an employee. Beginning in 2021, individuals under 50 years old can contribute up to \$58,000 annually to a solo plan, while those over 50 can contribute up to \$64,500. Apart from the generous contribution limits, pre-tax contributions to a solo plan serve to reduce annual taxable income, while investment gains within the plan remain tax-deferred until withdrawal during retirement. Overall, the solo plan is a popular choice among self-employed individuals and business owners aiming to maximize retirement savings while minimizing tax obligations.

Admin Only Plan

An Admin Only plan, also known as a "Retirement Plan for Certain Employees" or a "Top-Heavy Plan," is designed to benefit the business owner and key employees without extending benefits to other employees. This plan includes only a select group of highly compensated individuals, such as the business owner and top executives, excluding other employees from participation and benefits. Typically structured as a 401(k) or profit-sharing plan, these defined contribution plans require employer-only contributions and must adhere to specific tests to ensure contributions for key employees remain within established limits. While Admin-only plans can be advantageous for businesses with few key employees looking to maximize retirement savings, they are subject to

stringent Internal Revenue Code regulations. Businesses considering an Admin-Only plan should consult with a retirement plan specialist or financial advisor to determine suitability.

Daily Plan

Similar to an admin-only plan, the main distinction lies in its monthly maintenance to ensure daily updates of client personnel information. This facilitates the processing of our daily plans and other related tasks.

Process Step On a Solo Plan

This section of the report will detail the Solo Plan process, which comprises multiple components and involves collaboration across various departments to complete the plan systematically, described in a step-by-step manner.

Receiving Plan

Initially, the sales team obtains a plan from the clients, followed by a contract agreement while collecting the client's personal and project-specific details. Clients are then advised to consult with an IRS-certified advisor for verification of their information, including income and working hours. The advisor evaluates this data to recommend the most suitable financial system or money market for the client. Upon receiving this recommendation, the sales team drafts an agreement form, which is then forwarded to the July Business Service for further processing.

Checking Plan Eligibility

The installation team conducts a thorough review of the client's information to ensure it aligns with the necessary criteria, which include the presence of a certified advisor to guide plan creation, an accountant, and fulfillment of fund eligibility requirements. Upon verifying these prerequisites, the team proceeds to configure the system setup for the plan, implementing all essential systems to facilitate efficient team operation. Specifically, for the Solo plan, this setup includes the preparation of plan documents and the tax return form 5500 EZ.

Preparing Plan Documents

Within the Unify platform, a Plan Document folder is present in the account section, serving as the repository for all related documents, including the Cycle 3 plan documents. This section houses the signed plan documents and the year-end annual data, encapsulating all plan-related information. Additionally, it contains an Amendment file, which documents changes in participant information such as company name, Social Security Number, address, or sponsor name. Amendments are often made in response to changes in tax legislation, company adjustments, or to rectify issues in the original plan. Adjustments can typically be made by revising the plan document itself, and it is the plan administrator's duty to update the summary plan description following any changes. This folder also stores the signed amendment documents. Furthermore, specialized plans like Cash Balance and pension plans possess their unique documents.

Census Import

To prepare accurate tax reports for clients, it's essential to gather specific information including the client's Social Security Number (SSN), date of birth, dates of hire, rehire, termination, and address. This information is sourced from the Relius platform's employee information section. The process begins by selecting the relevant plan and a specific Data Exchange Request (DER) to import the designated CSV file, which then generates a report file and stores all entered information on the server. Errors in the census file are reflected in the DER, highlighting the importance of accuracy in preparing the census CSV file for re-importation into Relius. Even minor errors can necessitate restarting the process. For a small number of employees, manual correction of specific issues may be feasible, but with a larger group, resolving problems becomes significantly more complex. Once the census import is completed, the accruals team commences their work.

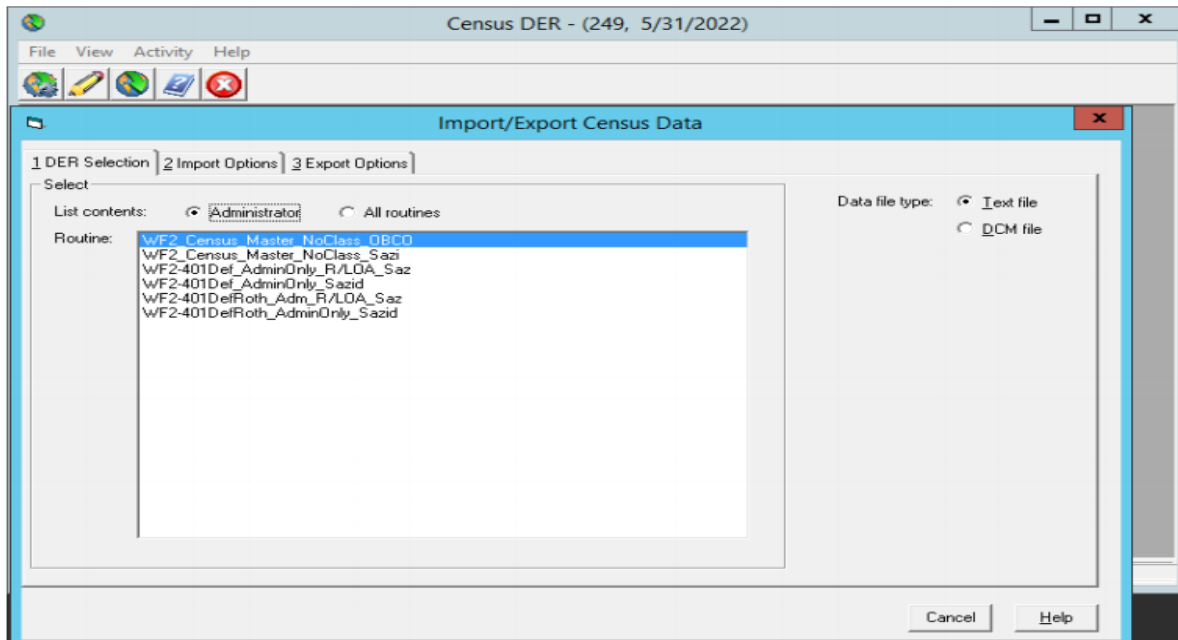


Figure 2-Relius Export Import

Accruals

The Accruals team processes plan data, determining benefits based on the participant's years of service, salary, and the plan's formula. In a Solo 401(k) plan, the pension fund's return constitutes pre-tax income. The accrual calculation incorporates employer and employee contributions, alongside investment earnings. For 2023, the Solo 401(k) has a contribution ceiling of \$61,000, rising to \$64,500 for those 50 and older. Employer contributions are capped at 25% of the participant's salary, with a \$100,000 salary allowing a \$25,000 employer contribution. Employees can contribute up to \$19,500, or \$26,000 post-50, with these amounts being pre-tax deductions. Additionally, investment gains on contributions enhance the plan's value over time.

Allocation Return

The Allocation Return team is responsible for compiling contribution reports and trust accounting reports. The contribution report entails calculating allocation compensation, profit sharing, salary deferral, and forfeiture. The initial step involves computing allocation compensation. Allocation compensation for asset-based fees is determined by multiplying the Assets Under

Management(AUM) by the fee percentage. For instance, if an investment advisor oversees a retirement plan with \$10 million in assets and charges a fee of 1% of AUM, the allocation compensation would be \$100,000.

Allocation compensation for flat fees is simply equal to the flat fee charged by the investment advisor. For instance, if an investment advisor charges a flat fee of \$5,000 for managing a retirement plan, the allocation compensation would be \$5,000.

Allocation compensation for performance-based fees is calculated by multiplying the difference between the investment returns and the benchmark returns by the performance fee percentage. For instance, if an investment advisor charges a performance fee of 20% and the retirement plan earns investment returns of 10% while the benchmark returns are 7%, the allocation compensation would be 0.6%.

Profit Sharing calculation-

Profit sharing within the retirement sector involves distributing a segment of the employer's profits to employees through a retirement plan. The calculation method for profit-sharing contributions varies based on the plan's specifications and the allocation approach selected by the employer.

Under the pro-rata contribution method, the employer allocates a percentage of each eligible employee's compensation to the plan. This percentage may be uniform across all employees or may differ based on factors such as job level.

The formula for determining contribution amounts is: $\text{Contribution amount} = \text{Total eligible compensation} \times \text{Pro-rata percentage}$.

For instance, if the employer contributes 5% of each eligible employee's compensation and the total eligible compensation for all employees is \$1,000,000, the contribution amount would be \$50,000.

Forfeiture calculation: When an employee departs from their position, any unearned employer or employee contributions are categorized as "forfeitures" and returned to the retirement plan. These forfeited funds may potentially cover the administrative costs of the remaining plan

members. Typically, the percentage of funds subject to forfeiture in most plans is minimal, and in some instances, there might be no such funds at all. The formula for calculating forfeiture allocation is: Forfeiture allocation = (Participant account balance / Total account balances) x Total forfeitures.

For example, if the total forfeitures in the plan amount to \$100,000 and the total account balances for all participants sum up to \$1,000,000, and a specific participant holds an account balance of \$50,000, their forfeiture allocation would be determined accordingly.

$$\text{Forfeiture allocation} = (\$50,000 / \$1,000,000) \times \$100,000 = \$5,000$$

Salary deferral- In the retirement sector, a salary deferral refers to an employee's contribution to a retirement plan, deducted from their gross pay before tax withholding. The benefits of salary deferrals in retirement plans encompass tax savings and enhanced retirement savings opportunities.

Tax savings: Salary deferral reduces employees' current taxable income, leading to potential reductions in income taxes.

Retirement savings: Deferrals are invested within the retirement plan, facilitating tax-free growth until distribution, thereby aiding in the accumulation of a larger retirement fund.

The formula for calculating salary deferrals in a retirement plan is: Salary deferral = Employee's gross pay x Deferral percentage. For instance, if an employee with a gross pay of \$50,000 annually chooses to defer 10% of their salary to the retirement plan, their salary deferral amount would be \$5,000.

Upon completion of the contribution report, the total company contribution for each employee is determined. This information is utilized by the tax return team to calculate the taxation return. Additionally, the contribution report process involves the preparation of the client's Trust accounting report.

Trust Accounting Report:

The Trust Accounting Report team conducts calculations for contribution report amounts and forfeitures. Subsequently, they compute the total income and expenses, verifying any transfers

within the company. After calculating all components, the team prepares the ending balance of the plan and determines the total receivable. These reports serve as crucial calculation components of the plan. Upon completion, the Allocation team assigns these reports to the Tax Return team for further processing.

Tax Return and Calculation

This stage constitutes a significant aspect of retirement planning, involving the calculation of tax obligations for participants' investment earnings. Various procedures apply depending on the type of plan involved. Tax forms such as 5500 EZ, 8955SSA, and Form 5500 are prepared, featuring a balance sheet detailing beginning and ending balances, service fees, income, transfer fees, and rollover fees. Certain requirements must be met for tax form preparation, such as participant account balances needing to be at least \$250,000 to qualify for tax payments.

Tax-deferred contributions:

Contributions made to a traditional 401(k) plan are tax-deferred, implying that they are exempt from income tax until withdrawn. The formula for determining the tax-deferred contribution amount is: $(\text{Contribution amount}) \times (\text{Marginal tax rate}) = \text{Tax-deferred contribution amount}$. For instance, if an individual contributes \$5,000 to their traditional 401(k) plan and their marginal tax rate is 22%, the tax-deferred contribution amount would be \$1,100. Consequently, the individual can defer \$1,100 in taxes by contributing \$5,000 to their 401(k) plan.

Early withdrawal penalties:

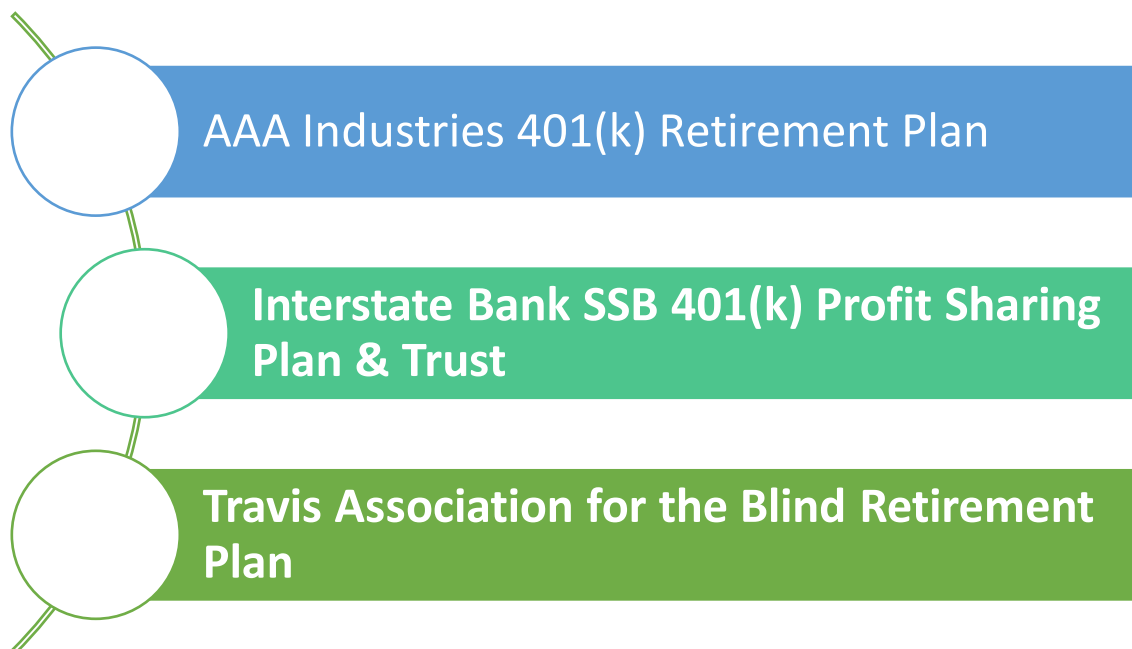
When an individual withdraws funds from their regular 401(k) plan before reaching the age of 59 and a half, they may be subject to both income tax and a 10% early withdrawal penalty. The total tax and penalty amount are calculated using the formula: $(\text{Withdrawn amount}) \times (\text{Marginal tax rate} + 10\%) = \text{Total tax and penalty amount}$. For instance, if an individual withdraws \$10,000 from their traditional 401(k) plan before the age of 59 and a half, and their marginal tax rate is 22%, the total tax and penalty amount would be \$3,200. Consequently, the individual would owe \$3,200 in taxes and penalties on the \$10,000 withdrawal. Upon completion of the tax form, it is sent to the client for review and signature.

Distribution

Upon conclusion of the process, the Distribution team transfers the investment profits to the client's account and conducts a thorough verification of the SSN and other pertinent information to ensure accurate transmission. Following verification, the Distribution team dispatches a confirmation email to the client's designated email address and updates all transaction records within the Relius platform.

3.2 Comparison of USA-based 401k Retirement Plan and Its Investment Performance.

This report delineates three distinct retirement schemes and assesses their investment efficacy. Additionally, it outlines the risk evaluations and yearly growth trends from 2018 to 2022 for each plan.



Relation between total contribution and total income:

In a 401(k)-retirement plan, the relationship between contributions and total income is significant. Contributions refer to the funds deposited into the 401(k) account by the individual and/or their employer, typically on a pre-tax basis. The total income, on the other hand, encompasses all earnings and gains generated within the 401(k) account, including contributions, investment returns, and employer matches.

Broadly speaking, the more an individual contributes to their 401(k) plan, the greater their total income within the account can potentially grow over time. This is because contributions serve as the foundation for investment growth within the plan. Additionally, employer matches, if available, can further boost the total income by augmenting the contributions made by the individual.

Furthermore, the performance of investments within the 401(k) plan also plays a crucial role in determining the total income. The returns generated by the investments, such as stocks, bonds, or mutual funds, contribute to the overall growth of the account.

Overall, the relationship between contributions and total income in a 401(k)-retirement plan underscores the importance of consistent contributions, prudent investment choices, and potential employer contributions in maximizing retirement savings and achieving long-term financial goals.

3.2.1 AAA Industries 401(k) Retirement Plan

Founded on the premise of delivering superior steel products and personalized customer service, AAA Industry Inc is a renowned supplier of Rolled Steel, Carbon Structure Steel, and Pre-painted Steel Coils (PPGI & PPGL). With a team boasting over three decades of expertise, we prioritize timely delivery of high-quality steel at competitive prices, tailored to each customer's specific requirements. Our commitment extends beyond mere product provision, as we collaborate closely with clients to address their logistical needs effectively.

Trust accounting report:

The Trust Accounting Report team conducts calculations for contribution report amounts and forfeitures, followed by tallying total income, and expenses, and verifying any transfer amounts within the company. Upon completion of these calculations, the team determines the ending balance of the plan and prepares the total receivable. These reports serve as crucial components of the plan's calculations. Upon completion, the Allocation team assigns them to the Tax Return team for further processing.

3.2.1.1 Tax-deferred contributions:

Contributions made to a traditional 401k plan are tax-deferred, meaning that they are not subject to income tax until they are withdrawn. The formula for calculating the tax-deferred contribution amount is:

$$\text{(Contribution amount)} \times \text{(Marginal tax rate)} = \text{Tax-deferred contribution amount}$$

An individual contributes \$68181.97 to their traditional 401k plan and their marginal tax rate is 22%, the tax-deferred contribution amount would be:

	2018	2019	2020	2021	2022
Total contribution	7%	8%	11%	-42%	32%
Total income	-4.43%	23%	12%	-2.51%	18%

In this plan, contributions play a significant role in generating profits for managing financial accounts. Contributions and income depend on each other. The more contributions individuals make to their 401(K) accounts, the larger the pool of assets under management, which can lead to higher profits or income for the institution involved. Here From 2018 to 2029 contributions increased by 8% the company got 23% profit for the contributions. In 2018, the total contribution to the 401(K) plan was 7%, indicating a decent contribution rate. However, the total income was -4.43%, which means there was a loss in the investment. Despite the contribution, the investment incurred a loss, possibly due to market downturns or poor investment choices.

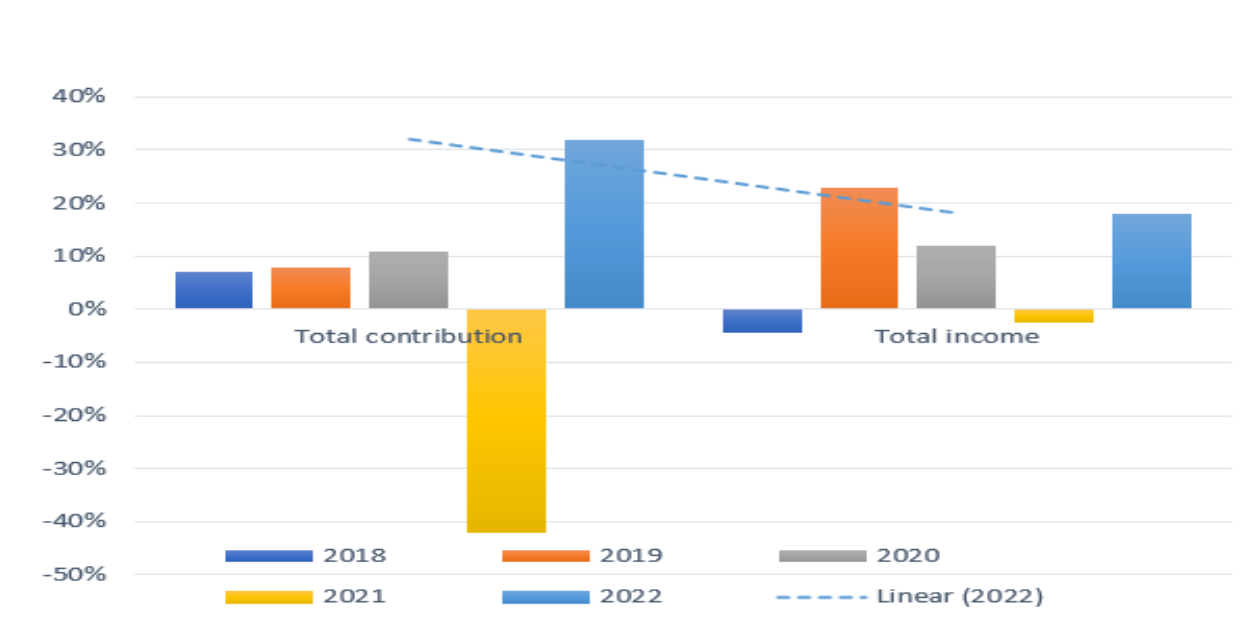


Figure: Tax deferred contribution

In 2019, the total contribution increased to 8%, showing a slight improvement in savings. The total income also rose significantly to 23%, indicating a healthy return on investment. This year showed positive growth in both contribution and income, reflecting a favorable investment environment.

The contribution increased further to 11% in 2020, demonstrating a commitment to saving for retirement. However, the total income experienced a slight dip to 12%, indicating a lower return compared to the previous year. Despite the lower return, the overall savings continued to grow steadily.

In 2021, there was a significant decrease in the total contribution to -42%, which is a concerning drop. This could be due to various reasons such as job loss, economic hardship, or a change in financial priorities. Additionally, the total income also experienced a decline to -2.51%, resulting in a loss. This year marked a challenging period for the retirement plan, with both contribution and income seeing negative trends.

Despite the setback in 2021, the total contribution bounced back remarkably to 32% in 2022, indicating a strong commitment to rebuilding the retirement savings. The total income also recovered, showing an increase of 18%. This year demonstrated a significant turnaround, with both

contribution and income experiencing substantial growth, possibly due to improved market conditions or strategic investment decisions.

Overall, the analysis shows varying trends in both total contribution and total income over the years, reflecting the dynamic nature of retirement planning and investment. It highlights the importance of consistent savings, prudent investment strategies, and resilience in the face of market fluctuations to ensure a secure retirement future.

3.2.1.2 Performance Analysis of AAA Industry's Retirement Plan

Firstly, we analyze the annual growth rate of a retirement plan. As I already mentioned an advisor suggested to us which money market would be the best option for this plan. According to the suggestion we invested in a money market like a mutual fund, U.S. Treasury Bonds, Corporate Bonds. For this selected plan we select a mutual fund. This plan begins in 2018 and 2018 its beginning balance is \$368985.89, ending balance in 2022 is 856814.16

Compound annual growth rate= (Ending value /beginning value)^(1/Number of Year)-1

$$= (856814.16 / 368985.89) ^ (1/5)-1$$

$$=18.35\%$$

A Compound Annual Growth Rate value of 18.35% means that an investment has experienced a positive average annual growth rate over a specific period. A negative CAGR value suggests that the investment has performed well over the period, and the investor may have earned money.

Let's analyze the annual growth rate and performance evaluation for the 401(K) retirement plan sequentially year by year:

2018 Annual Growth Rate: 12.15% In 2018, the 401(K) plan experienced a solid annual growth rate of 12.15%. This indicates positive performance and suggests that the investments within the plan performed well during the year. Investors likely saw decent returns on their contributions, contributing to the overall growth of their retirement savings. 2018 Annual Growth Rate: 12.15% In 2018, the 401(K) plan experienced a solid annual growth rate of 12.15%.



This indicates positive performance and suggests that the investments within the plan performed well during the year. Investors likely saw decent returns on their contributions, contributing to the overall growth of their retirement savings.

2019 Annual Growth Rate: 36.97%. The year 2019 saw a remarkable surge in the annual growth rate to 36.97%. This substantial growth indicates that the investments within the 401(K)-plan performed exceptionally well. Investors likely benefited from favorable market conditions or wise investment choices, resulting in significant growth in their retirement savings.

2020 Annual Growth Rate: 39.36%. Continuing the trend from the previous year, 2020 exhibited another impressive annual growth rate of 39.36%. Despite the challenges posed by the COVID-19 pandemic, the investments within the 401(K)-plan performed exceptionally well, delivering substantial returns to investors. This strong performance contributed significantly to the growth of retirement savings.

2021 Annual Growth Rate: 24.87%. Although slightly lower than the previous year, 2021 still saw a robust annual growth rate of 24.87%. Despite potential economic uncertainties, the investments within the 401(K)-plan continued to perform well, providing investors with solid returns and contributing to the overall growth of their retirement savings.

2022 Annual Growth Rate: 13.13%. In 2022, the annual growth rate moderated to 13.13%. While lower than the previous years, this growth rate still reflects positive performance within the 401(K)

plans. It suggests that despite potential market fluctuations or changing economic conditions, the investments within the plan continued to generate returns, albeit at a slightly slower pace.

Overall, the sequential analysis of the annual growth rate highlights consistent positive performance within the 401(K)-retirement plan over the years. Investors benefited from strong returns on their contributions, indicating effective management of investments and prudent decision-making. This steady growth contributed to the accumulation of retirement savings and demonstrates the effectiveness of the 401(K) plan in helping investors work toward their long-term financial goals.

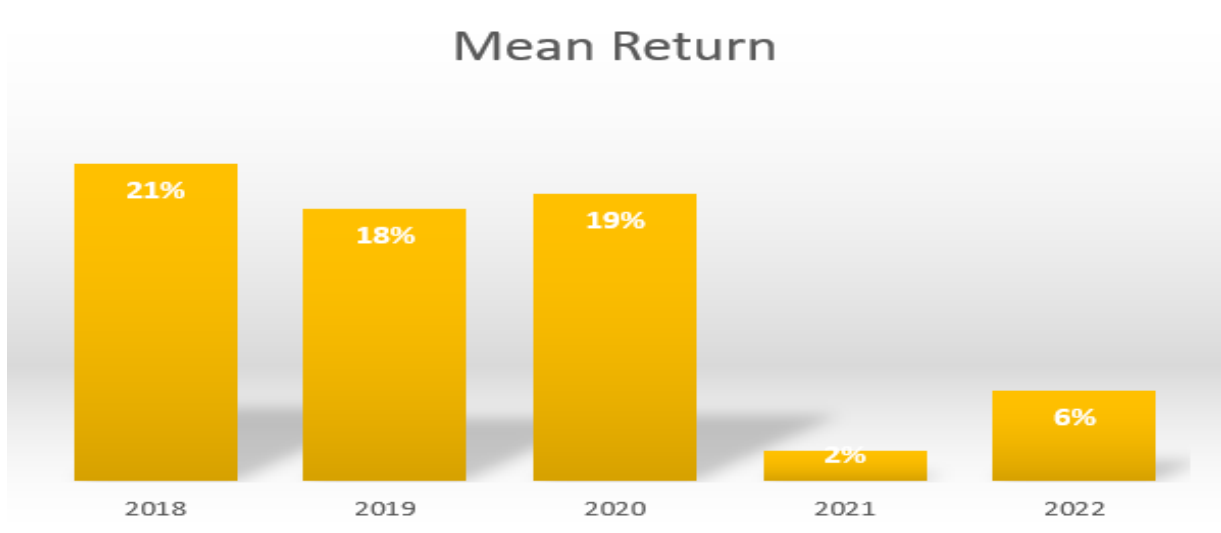
3.2.1.3 Mean Return

The mean return within a 401(k)-retirement plan denotes the average annual rate of return achieved on the investments maintained within the plan over a specified timeframe. This figure encapsulates the typical growth or decline in the value of assets held within the 401(k) account. Contributions made by employees, usually deducted pre-tax from their paychecks, feed into a selection of investment options available within the plan, encompassing a diverse range of assets such as stocks, bonds, mutual funds, and other financial instruments. The performance of these investments is contingent upon the broader fluctuations in the financial markets, influenced by factors like stock price movements, interest rate shifts, and broader economic trends. Employing diversification strategies is fundamental within 401(k) plans to mitigate risk, spreading investments across various sectors and asset classes to cushion against potential losses. Over time, contributions, alongside any employer matching contributions and investment returns, accrue through compounding, where generated earnings are reinvested to fuel further growth, yielding exponential results over extended periods. Regular monitoring and adjustment of the investment portfolio are recommended, allowing participants to realign their asset allocation in response to

evolving market conditions, risk tolerances, and financial objectives. In essence, the mean return serves as a pivotal indicator of the average performance of 401(k) investments, crucially influencing the trajectory of retirement savings accumulation. Through comprehensive understanding and prudent decision-making, participants can effectively navigate their 401(k) plans toward the realization of a financially secure retirement future.

Year	Mean Return
2018	21%
2019	18%
2020	19%
2021	2%
2022	6%

Standard Deviation: $\text{Sqrt}(18.46\% / (5-1)) = 10.7412$



The standard deviation, approximately 0.10741 or roughly 10.74%, quantifies the degree of variability or volatility in investment returns. A higher standard deviation suggests greater fluctuation in returns from year to year, indicative of heightened risk wherein larger losses or gains are probable. Risk analysis within the 401(k) industry often extends beyond standard deviation to encompass metrics like the Sharpe Ratio, Beta, and Value at Risk (VaR). These metrics serve as

valuable tools for investors and financial professionals to assess the risk associated with different investment options, aiding in informed decision-making regarding the composition of retirement portfolios.

3.2.2 Interstate Bank SSB 401(k) Profit Sharing Plan & Trust

On May 9, 1958, the Perryton Savings and Loan Association received its charter from the Texas Banking Commission under the Building and Loan Association Laws of the State of Texas, marking the realization of a community aspiration to promote industry, home construction, and savings accumulation. Reflecting its evolution beyond a local Savings & Loan, the institution changed its name to Interstate Savings and Loan Association in 1972, showcasing substantial growth evidenced by assets exceeding \$21 million by 1974 and the establishment of branches in Spearman and Canada, Texas. In 1997, recognizing the benefits for shareholders and customers, the charter transitioned to a Texas State Savings Bank Charter, accompanied by a name change to Interstate Bank, SSB, signifying a shift towards a more diversified, traditional commercial bank model tailored to better address community needs. This strategic transformation continued in 2004 with expansion into the Amarillo area through a loan production office, culminating in the opening of a full-service branch in October 2006, demonstrating a commitment to serving Amarillo's flourishing economy. With a dedicated team of seasoned, customer-centric bankers and qualified board members, Interstate Bank, SSB, remains deeply invested in meeting the financial needs of its customers and fostering growth within the communities it serves.

3.2.2.1 Tax-deferred contributions

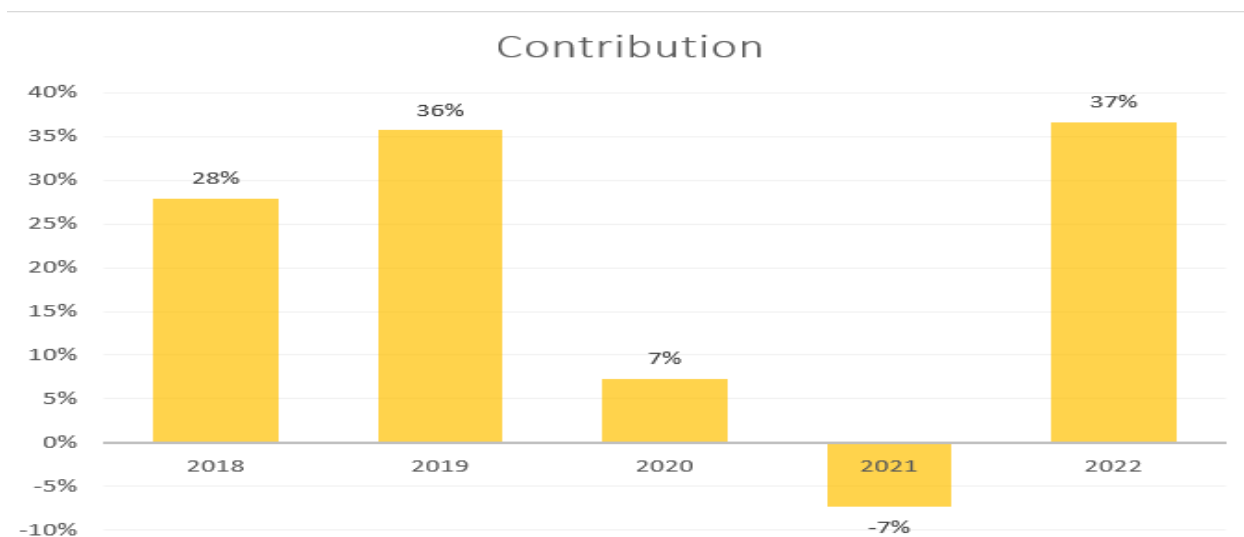
Contributions made to a traditional 401k plan are tax-deferred, meaning that they are not subject to income tax until they are withdrawn. The formula for calculating the tax-deferred contribution amount is:

(Contribution amount) x (Marginal tax rate) = Tax-deferred contribution amount

Individual contributions of 2018, 2019, 2020, 2021, and 2022 are 107,471.42, 137,438.35, 186,520.12, 200,046.51, and 185,419.38 to their traditional 401k plan and their marginal tax rate is 25%, the tax-deferred contribution amount would be:

Year	Contribution
2018	28%
2019	36%
2020	7%
2021	-7%
2022	37%

In 2018, the contribution to the 401(K)-retirement plan was relatively high at 28%. This indicates a strong commitment from participants to save for retirement, with a significant portion of their income being allocated towards their retirement accounts.



The contribution increased further in 2019 to 36%, reflecting continued dedication to retirement savings. This substantial increase suggests that participants may have experienced positive financial circumstances or recognized the importance of boosting their retirement funds. The contribution decreased significantly in 2020 to 7%. This decline could be attributed to various

factors such as economic uncertainty, financial hardships, or changes in employment status, leading participants to reduce their contributions to their 401(K) plans.

Interestingly, in 2021, the contribution rate dropped to -7%. This negative contribution indicates that participants withdrew more funds from their 401(K) accounts than they contributed during the year. This could be due to financial emergencies, unexpected expenses, or changes in financial priorities.

The contribution rebounded significantly in 2022, surging to 37%. This substantial increase suggests a renewed commitment to retirement savings, possibly driven by improved financial circumstances, proactive financial planning, or a desire to catch up on contributions after a period of reduced savings.

Overall, the year-by-year comparison of contributions to the 401(K)-retirement plan showcases fluctuations in participant behavior influenced by various economic, financial, and personal factors. While some years demonstrate strong dedication to saving for retirement, others reflect challenges or shifts in financial priorities. However, the significant rebound in contributions in 2022 indicates a positive trajectory toward bolstering retirement savings and underscores the importance of consistent, proactive retirement planning.

3.2.2.2 Performance Analysis of Interstate Bank SSB 401(k) Profit Sharing Plan & Trust

Upon conducting an analysis of the retirement plan's performance, we opted to diversify investments based on advice from a financial advisor, selecting a money market option that included U.S. Treasury Bonds alongside other vehicles such as mutual funds and corporate bonds. Initiated in 2018 with an initial balance of \$1,330,884.69, the plan concluded in 2022 with an ending balance of \$1,836,817.81. Calculating the compound annual growth rate (CAGR) using the formula, the resultant value of 7.22% signifies a positive average annual growth rate achieved by the investment in U.S. Treasury Bonds over the five years. This metric indicates consistent growth, reflecting the success of the investment strategy employed. Furthermore, a positive CAGR affirms

the investment's performance, indicating capital appreciation and demonstrating the ability to generate returns exceeding the initial investment amount.

Year	Annual return
2018	-14.00%
2019	25.00%
2020	26.00%
2021	9.00%
2022	-13.00%

Let's analyze the annual return and performance evaluation for the Interstate Bank SSB 401(k) Profit Sharing Plan & Trust retirement plan sequentially year by year:

In 2018, the retirement plan experienced a negative annual return of -14.00%. This indicates a loss in investment value during the year, possibly influenced by market downturns or adverse economic conditions. Participants would have seen a decrease in the value of their retirement accounts.

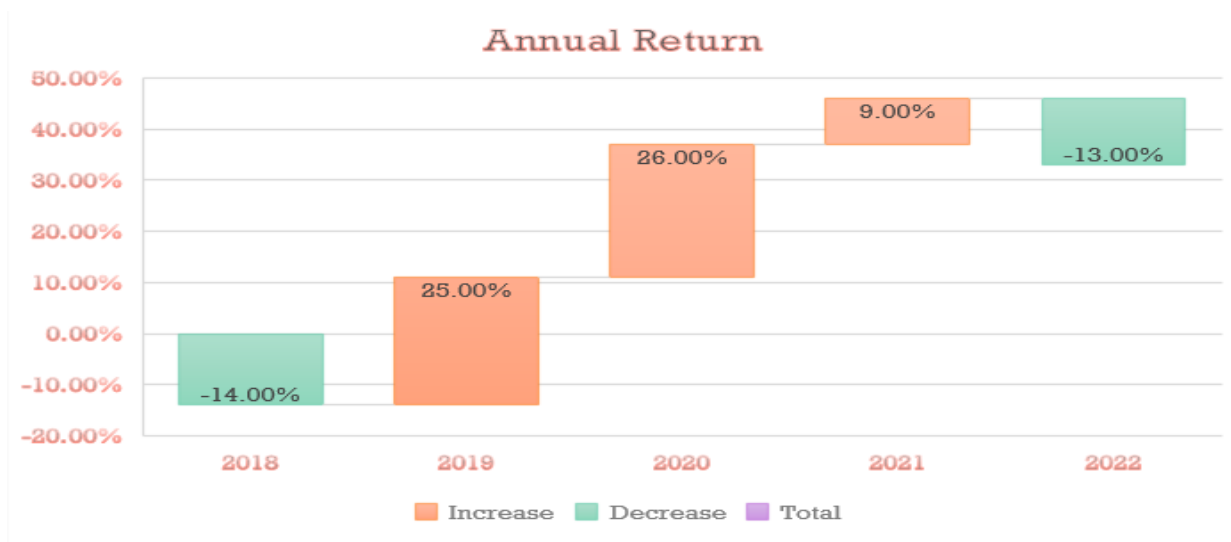
The following year, 2019, saw a significant rebound in performance with a positive annual return of 25.00%. This indicates a strong recovery from the previous year's losses, with investments experiencing substantial growth. Participants likely benefited from improved market conditions and successful investment strategies.

Continuing the positive trend, 2020 recorded another impressive annual return of 26.00%. This indicates sustained growth in the retirement plan's investments, with participants experiencing further gains in the value of their accounts. Successful investment decisions and favorable market conditions likely contributed to this robust performance.

While slightly lower than the previous years, 2021 still saw a positive annual return of 9.00%. This indicates continued growth in the retirement plan's investments, albeit at a more moderate pace. Participants would have seen incremental increases in the value of their accounts, contributing to the overall growth of their retirement savings.

Unfortunately, in 2022, the retirement plan experienced a negative annual return of -13.00%. This signifies a decline in investment value during the year, potentially influenced by market volatility or economic challenges. Participants may have experienced losses in the value of their retirement accounts.

Overall, the sequential analysis of the annual returns highlights fluctuations in performance within the Interstate Bank SSB 401(k) Profit Sharing Plan & Trust retirement plan over the specified period. While some years saw strong positive returns, others experienced negative returns, underscoring the importance of diversification and risk management in retirement planning. Participants need to stay informed about market developments and regularly review their investment allocations to ensure alignment with their long-term financial goals.



3.2.2.3 Mean Return

Let's describe the mean return evaluation for the Interstate Bank SSB 401(k) Profit Sharing Plan & Trust retirement plan sequentially year by year:

In 2018, the retirement plan incurred a negative mean return of -21%. This indicates a significant loss in the average return on investments within the plan during the year. Participants likely experienced a decrease in the overall value of their retirement accounts, reflecting challenging market conditions or unfavorable investment performance.

The subsequent year, 2019, saw a positive mean return of 18%. This signifies a turnaround in performance, with investments within the retirement plan generating significant average returns.

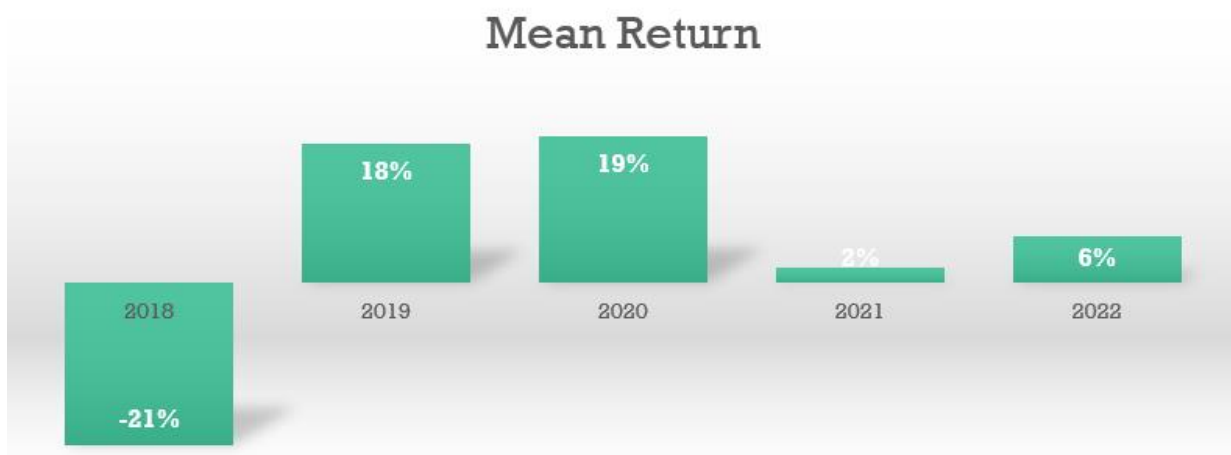
Participants would have experienced growth in the value of their accounts, likely benefiting from improved market conditions and successful investment strategies.

Year	Mean Return
2018	-21%
2019	18%
2020	19%
2021	2%
2022	6%

Continuing the positive trend, 2020 recorded a mean return of 19%. This indicates sustained growth in the average return on investments within the retirement plan. Participants experienced further increases in the overall value of their accounts, driven by favorable market conditions and effective investment decisions.

In 2021, the mean return decreased to 2%. While still positive, this represents a moderation in the average return compared to previous years. Participants saw more modest growth in the value of their accounts, likely influenced by slower market growth or changes in investment performance.

The retirement plan experienced a mean return of 6% in 2022. This indicates a return to stronger average performance compared to the previous year. Participants witnessed increased growth in the overall value of their accounts, reflecting improved market conditions or more favorable investment outcomes.



Overall, the sequential evaluation of mean returns highlights fluctuations in performance within the Interstate Bank SSB 401(k) Profit Sharing Plan & Trust retirement plan over the specified period. While some years exhibited strong positive returns, others experienced more modest growth or even negative returns, emphasizing the importance of diversification and prudent investment management in navigating market volatility and achieving long-term financial goals.

Standard Deviation: $\text{Sqrt}(11.67\% / (5-1))$

$=8.54\%$

The standard deviation, approximately 8.54%, reflects the level of variability or volatility present in investment returns, suggesting significant annual fluctuations. A higher standard deviation indicates heightened risk, increasing the probability of experiencing notable gains or losses in any given year. Within the domain of 401(k) investments, supplementary risk assessment methodologies such as the Sharpe Ratio, Beta, and Value at Risk (VaR) are employed to comprehensively evaluate investment risk. These analytical tools assist investors and financial professionals in thoroughly assessing various investment opportunities and making informed decisions regarding their retirement portfolios.

3.2.3 Travis Association for the Blind Retirement Plan

The TRAVIS ASSOCIATION FOR THE BLIND RETIREMENT PLAN, categorized as a Defined Contribution Plan, establishes individual accounts for participants wherein defined contributions are made by the participant, employer, or both. Through mechanisms like Qualified Domestic Relations Orders (QDROs), alternate payees may be awarded a portion of a participant's account balance, usually as a percentage or specific dollar amount, with the plan creating a separate account for the alternate payee. This arrangement typically allows the alternate payee to access investment opportunities akin to other plan participants and may offer options for immediate lump sum distributions or transfers to qualified tax accounts, such as Individual Retirement Accounts (IRAs). However, it is advisable for alternate payees to seek guidance from tax professionals before initiating transfers or withdrawals to fully comprehend potential tax implications. Notable

features of the plan include its classification as a Profit-Sharing Plan, permitting participant-directed investment choices, and operating as 401(k) plan allowing employees to defer compensation or receive cash. Additionally, it facilitates employee and employer contributions, allocates contributions to separate accounts, and may employ default investment arrangements for participants who do not direct asset allocation.

3.2.3.1 Tax-deferred contributions

Contributions to a traditional 401(k) plan are tax-deferred, indicating that they are exempt from income tax until withdrawal. The tax-deferred contribution amount can be computed using the formula: (Contribution amount) x (Marginal tax rate). For instance, if an individual contributes \$1,083,794.82, \$1,756,245.28, \$2,404,805.43, \$1,547,882.09, and \$1,431,353.34 in the years 2018 through 2022 respectively, with a marginal tax rate of 20%, the tax-deferred contribution amount can be calculated accordingly.

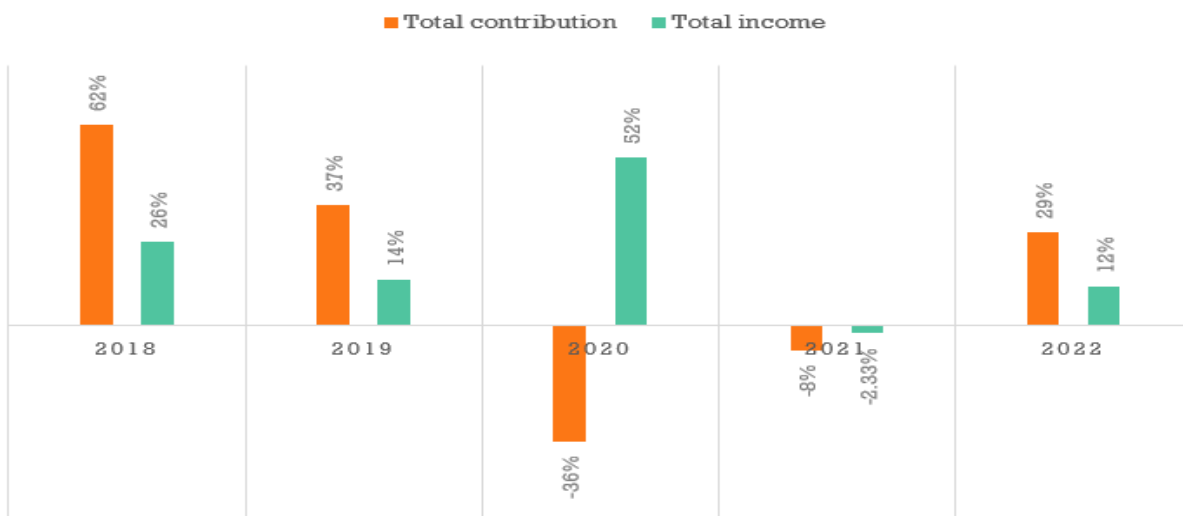
Column1	2018	2019	2020	2021	2022
Total contribution	62%	37%	-36%	-8%	29%
Total income	26%	14%	52%	-2.33%	12%

For the Travis Association for the Blind Retirement Plan, analyzing the relationship between total contributions and total income from 2018 to 2022 reveals how contributions and income fluctuated over the years, impacting the overall health and growth of the retirement plan.

The plan saw a significant total contribution of 62%, coupled with a total income of 26%. This year marked a robust phase of contributions significantly outpacing the income, suggesting an aggressive investment or funding strategy that likely aimed to capitalize on favorable market conditions or to rapidly increase the plan's assets. Total contributions decreased to 37%, while total income was at 14%. Although both contributions and income saw a reduction compared to 2018, the plan continued to experience positive growth. The decrease in contributions relative to the previous year might reflect a more conservative strategy or adjustments based on market outlooks, whereas the positive income indicates continuing profitability from investments.

In 2020 year presented a notable challenge with total contributions at -36%, contrasted with a significant increase in total income to 52%. The negative contribution rate suggests withdrawals or reduced contributions possibly due to economic challenges or strategic reallocations. However, the substantial increase in income highlights effective investment strategies or market recoveries that benefitted the plan's assets, offsetting the negative contributions.

The plan encountered in the year 2021 slight retrenchment with contributions at -8% and total income dropping to -2.33%. This suggests a period of contraction, where both contributions and income were negative, reflecting potential market volatilities or strategic reductions in plan funding. Despite the downturn, the relatively small magnitude of these percentages indicates a level of resilience or conservative strategies aimed at minimizing losses.



Recovery appears to be underway with contributions rising to 29% and income at 12%. This positive turnaround signifies a return to growth strategies, with contributions and income both increasing. The plan's ability to navigate through the previous years' challenges and return to a positive trajectory is indicative of effective management and adaptation to market conditions.

Throughout the five years, the Travis Association for the Blind Retirement Plan experienced significant fluctuations in contributions and income, reflecting a dynamic approach to managing

contributions, withdrawals, and investment strategies in response to varying market and economic conditions.

3.2.3.2 Performance Analysis of Retirement Plan

Based on guidance from a financial advisor, we diversified our retirement plan by investing in various options, including U.S. Treasury Bonds, mutual funds, and corporate bonds, departing from our initial analysis focused solely on annual growth rates. Commencing in 2018 with an initial balance of \$1,369,104.11, our chosen strategy concluded in 2022 with an ending balance of \$7,015,765.76, reflecting the efficacy of our diversified investment approach in achieving significant growth over the specified period.

Compound annual growth rate= (Ending value /beginning value) ^{^(1/Number of Year)-1}

$$= (\$7,015,765.76 / \$1,369,104.11) ^{(1/5)} - 1$$

$$= 38.65 \%$$

A compound annual growth rate (CAGR) of 38.65% indicates that the investment in the maturity fund has experienced a positive average annual growth rate over the specified period, in this case, from 2018 to 2022. This means that on average, the investment has grown by approximately 38.65 % each year during this period.

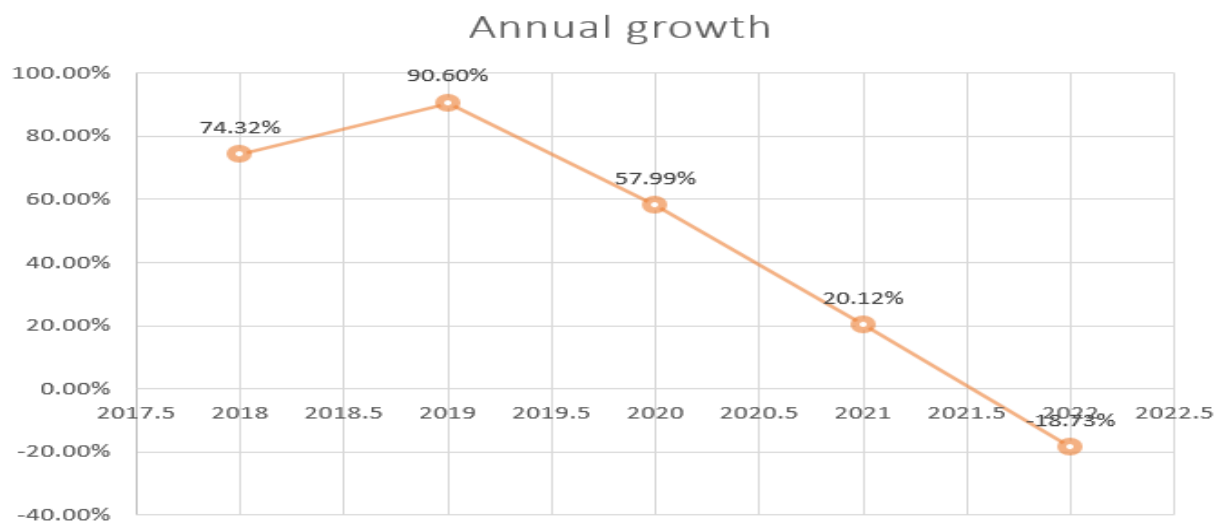
Year	Annual growth
2018	74.32%
2019	90.60%
2020	57.99%
2021	20.12%
2022	-18.73%

In 2018, the 401(K)-retirement plan experienced an impressive annual growth rate of 74.32%. This substantial growth suggests strong performance and likely indicates successful investment decisions or favorable market conditions during the year. Investors would have seen significant increases in the value of their retirement savings. The following year, 2019, saw an even higher annual growth rate of 90.60%, demonstrating continued exceptional performance within the

401(K) plans. This substantial growth reflects sustained positive momentum in investments and likely contributed to substantial wealth accumulation for participants. Despite potential challenges posed by the COVID-19 pandemic, the 401(K)-retirement plan maintained robust growth in 2020 with an annual growth rate of 57.99%. This impressive performance indicates resilience in the face of market volatility and underscores the effectiveness of the investment strategy employed within the plan.

While slightly lower than the previous years, the 401(K) plan still achieved a solid annual growth rate of 20.12% in 2021. This growth reflects continued positive performance, albeit at a more moderate pace, likely influenced by evolving market conditions and investment dynamics. In 2022, the 401(K)-retirement plan experienced a negative annual growth rate of -18.73%. This decline in value indicates a challenging year for the plan, potentially due to adverse market conditions, economic factors, or shifts in investment strategy. While this represents a setback, it's important to consider it within the context of the plan's overall performance over the years.

Overall, the sequential analysis of the annual growth rates highlights the fluctuating yet generally positive performance of the 401(K)-retirement plan over the specified period. Despite occasional downturns, the plan demonstrated resilience and generated significant growth, contributing to the accumulation of retirement savings for participants.



3.2.3.3 Mean Return

The Travis Association for the Blind Retirement Plan showcased a dynamic pattern in its mean return rates over five years, demonstrating both substantial growth and notable declines. Here's an evaluation of its performance from 2018 to 2022:

The plan kicked off with an impressive mean return of 29%. This robust growth set a positive tone for the initial year, suggesting effective investment strategies and favorable market conditions that benefited the plan's assets significantly.

Year	Mean Return
2018	29%
2019	45.74%
2020	13%
2021	-24.74%
2022	64%

Building on the previous year's momentum, the plan's year 2019 mean return escalated to 45.74%. This remarkable increase indicates an exceptional period of performance, likely driven by strategic asset allocation and market gains that outperformed expectations, providing substantial growth in plan assets.

In the year 2020, The mean returns moderated to 13%, reflecting a decrease in growth rate compared to the high of 2019. While still positive, this return suggests a normalization of growth or a more cautious approach amidst potentially volatile market conditions, yet it demonstrates the plan's ability to maintain profitability.

The plan experienced 2021, its first downturn in this period with a mean return of -24.74%. This significant drop highlights a challenging year, potentially due to adverse market conditions, strategic misalignments, or external economic factors affecting investment outcomes. It underscores the risks inherent in investing and the impact of market fluctuations on returns.

A striking rebound occurred, with the mean return soaring to 64%. This extraordinary recovery signifies a remarkable turnaround, possibly attributed to strategic adjustments, market recoveries,

or successful investments that capitalized on favorable conditions. It demonstrates the plan's resilience and capacity to recover from setbacks, achieving substantial growth.

Throughout the five years, the Travis Association for the Blind Retirement Plan's mean return rates reflected a volatile yet ultimately rewarding journey. The plan navigated through various market conditions, illustrating the complexities of managing a retirement plan's investment strategies to optimize growth and mitigate risks.



Standard Deviation: $\text{Sqrt}(77.89\% / (5-1))$
 $=22.06\%$

A standard deviation of approximately 22.06% highlights significant fluctuations in investment returns, indicating a pronounced annual volatility. This level of variability suggests a heightened risk profile, as it points to the potential for both considerable gains and losses within any given year. Within the context of 401k investments, tools like the Sharpe Ratio, Beta, and Value at Risk (VAR) are employed for a thorough risk assessment. These analytical instruments enable both investors and financial professionals to judiciously evaluate diverse investment choices, thereby facilitating informed decision-making for retirement savings strategies.

3.2.4 Findings from the Analysis

The standard deviation is a critical measure of risk and volatility in investment returns, reflecting the extent to which returns vary from the average over a given period. When comparing the three

retirement plans based on their standard deviations, we observe significant differences in their risk profiles:

AAA Industry's Retirement Plan: This plan has a standard deviation of approximately 10.74%, indicating a moderate level of volatility in investment returns. This suggests that while there is some fluctuation in returns from year to year, the extent of variability is relatively contained compared to more volatile investments.

Interstate Bank SSB 401(k) Profit Sharing Plan & Trust: With a standard deviation of approximately 8.54%, this plan shows lower volatility in investment returns than the AAA Industry's plan. This indicates a lower level of risk, as the returns are expected to be more consistent from year to year, reducing the likelihood of experiencing significant losses.

Travis Association for the Blind Retirement Plan: This plan has a standard deviation of approximately 22.06%, which is substantially higher than the other two plans. This high level of volatility suggests a much higher risk profile, with significant fluctuations in returns from year to year. While this may offer the potential for higher gains, it also increases the risk of considerable losses.

Plan Name	Standard Deviation
AAA Industries 401(k) Retirement Plan	10.74%
Interstate Bank SSB 401(k) Profit Sharing Plan & Trust	8.58%
Travis Association for the Blind Retirement Plan	22.06%

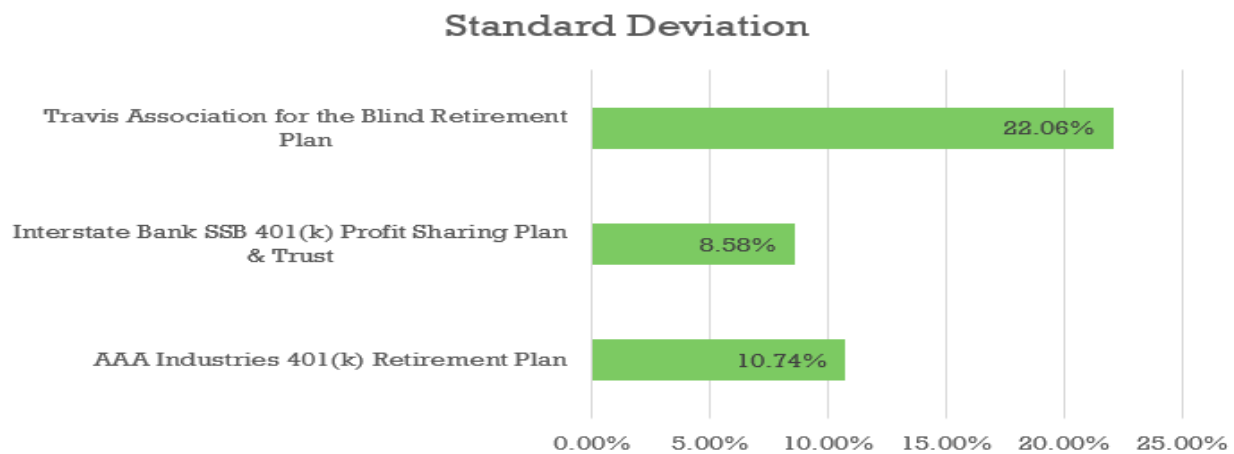
Determining which plan is "better" largely depends on the individual investor's risk tolerance, investment objectives, and time horizon.

For Conservative Investors: The Interstate Bank SSB 401(k) Profit Sharing Plan & Trust, with the lowest standard deviation (8.54%), would likely be more suitable for conservative investors who

prefer stability and are risk averse. This plan offers a more predictable return pattern, making it a safer choice for those nearing retirement or preferring minimal risk.

For Moderate Risk Tolerance: Investors with a moderate risk tolerance might prefer the AAA Industry's Retirement Plan, which balances a moderate level of risk with the potential for reasonable returns. Its standard deviation of 10.74% suggests moderate volatility, suitable for those willing to accept some fluctuations in returns for potentially higher gains.

For Aggressive Investors: The Travis Association for the Blind Retirement Plan, with a high standard deviation of 22.06%, could be more appealing to aggressive investors who are willing to accept higher volatility for the chance of achieving substantial gains. This plan might be suitable for investors with a long-term investment horizon and a higher capacity to absorb losses.



Chapter 4: Recommendation & Conclusion

4.1 Future and Recommendation

In this analysis, we explore the strategic planning, performance outcomes, and risk evaluations associated with the plan, focusing on its annual returns, Compound Annual Growth Rate (CAGR), mean return, and standard deviation. The findings reveal that the plan experienced satisfactory growth from 2018 to 2020. However, the advent of COVID-19 marked a downturn in growth rates alongside an uptick in standard deviation, suggesting increased volatility. Nonetheless, there is optimism for a resurgence in growth, as indicated by a tentative recovery in 2022.

The financial sector is susceptible to various challenges, including systematic and unsystematic risks, disparities, and a general deficiency in investor knowledge. Specifically, within the 401(k) sector, a prevalent issue is the tendency of investors to adopt either overly conservative or aggressive investment strategies. Such conservatism can lead to inadequate returns, potentially failing to meet retirement objectives due to an overreliance on lower-risk options like bonds or money market funds. Conversely, overly aggressive investment choices, such as individual stocks or high-risk mutual funds, can introduce significant volatility and losses. To mitigate these issues, it is imperative to engage in transparent communication with clients about the investment process and potential risks, thereby fostering trust. Additionally, minimizing the fees and expenses associated with 401(k) plans can enhance the overall returns for participants, thereby increasing the attractiveness of our offerings to prospective clients.

4.2 Conclusion

This document presents a comprehensive analysis of the performance and security associated with a 401(k) plan, delving into the complex interplay of challenges and opportunities encountered during an internship experience. Throughout the internship, a wide range of experiences were observed, contributing to a deepened understanding of the 401(k) industry. The initial section provides valuable insights into the company, enhancing our comprehension of the sector's intricacies.

Comparing the three retirement plans based solely on their standard deviations might not provide a complete picture of which plan is better because it depends on various factors including individual risk tolerance, investment goals, and time horizon. However, generally speaking: AAA Industry's Retirement Plan: This plan has a moderate level of volatility, indicating some fluctuation in returns but relatively contained variability. It could be suitable for individuals who seek a balance between risk and potential returns and are comfortable with moderate fluctuations in their retirement savings. Interstate Bank SSB 401(k) Profit Sharing Plan & Trust: With a lower standard deviation, this plan exhibits lower volatility in returns compared to the AAA Industry's plan. It may be more appropriate for conservative investors who prioritize stability and consistent returns over potential high gains. Travis Association for the Blind Retirement Plan: This plan has the highest standard deviation, indicating significant fluctuations in returns from year to year. While it might offer the potential for higher gains, it also comes with higher risk. It could be suitable for investors with a higher risk tolerance and a longer time horizon who are willing to endure periods of volatility for potentially greater returns.

Ultimately, the "better" plan depends on the individual's risk tolerance, investment objectives, and time horizon. A conservative investor may prefer the Interstate Bank SSB 401(k) Profit Sharing Plan & Trust for its stability, while a more aggressive investor may be attracted to the Travis Association for the Blind Retirement Plan for its potential for higher gains, despite the higher risk. It's essential for individuals to assess their own financial situation and investment preferences before deciding which plan is best for them.

A recurrent challenge within 401(k) management is the propensity for investors to either over-engage in risky investments or exhibit excessive caution, both of which can lead to significant financial repercussions and contribute to market instability. The paper advocates for investment firms to adopt a strategy of transparency, providing comprehensive information to clients about the investment process to mitigate potential misunderstandings and build trust. Additionally, by reducing operational costs, firms can enhance their profitability and expand their market presence.

Ultimately, this analysis serves as an invaluable tool for financial institutions aiming to refine their 401(k) offerings and attract a broader client base. It underscores the importance of informed investment strategies, client education, and cost efficiency as pillars for the successful administration of 401(k) plans.

4.3 References

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