Personal Finance: Another Perspective

Retirement 3: Employer Qualified Plans

Updated 2020/03/17

Objectives
A. Understand Employer Qualified Retirement Plans
B. Understand Defined Benefit Plans
C. Understand Defined Contribution Plans
D. Understand Plans and Strategies for Employer Qualified Plans

## Case Study

## Data

- Bill, married with two kids, will be graduating in April with his bachelors degree, and has two similar offers from companies both located in San Francisco, California. Both companies are companies he would be content to stay with for 30 years. Company A has a 401 k with a $100 \%$ match up to $4 \%$ of his salary.
Company B has a 401 k with no match, but a Defined Benefit Plan with the formula based on average salary, a factor of $1.5 \%$, and years of service up to 30 years.
Calculations/Application:
- A. Assuming the salary is $\$ 50,000$ for either firm, which has the more attractive retirement package for Bill?
- B. Can Bill participate in other retirement plans?


## A. Understand Employer Qualified Retirement Plans

- Why do companies set up retirement plans?
- Competition
- Tax shelters
- Personal retirement for the owners
- Personal retirement for the employees
- Other reasons
- What are the requirements for setting up retirement plans?
- Generally stable and available cash flow
- Willingness to fulfill financial reporting


## Employer Qualified Plans (continued)

## Two Kinds of

Employer Qualified Plans (EQPs)

Employer Funded
Pension Plans

Employer Sponsored Retirement Plans
(Defined Benefit Plans) (Defined Contribution Plans)

## Employer Qualified Plans (continued)

| Characteristics: | Defined Benefit | Defined <br> Contribution |
| :---: | :---: | :---: |
| Employers contribution: | Actuarially determined | Specified by formula |
| Benefit amount: | Certain | Uncertain |
| benefits funded |  |  |
| Types of Plans: | Defined Benefit Pension | Profit Sharing ESOP |
|  | Cash Balance | Stock Bonus |
|  | Pension | Target Benefit |
|  |  | Money Purchase |

IRC $=$ Internal Revenue Code Employee Contribution

## Employer Qualified Plans: Business Forms

|  | Defined BenefitPlans |  | Defined Contribution Plans |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Discretionary Contribution |  |  | Fixed Contribution |  | Employee Contribution |  |  |  |
|  | Defined Benefit | Cash <br> Balance | Profit <br> Shaing | Stock <br> Bonus <br> ESOP | Money <br> Purchase | Targt <br> Benefit | Thirit Savings | $\begin{aligned} & \text { Section } \\ & \text { 401k } \\ & \text { Provisions } \end{aligned}$ | $\begin{aligned} & \mathrm{TSA} \\ & 403 \mathrm{~B} \end{aligned}$ | 457 Plan | $\begin{gathered} \text { SIMPIE } \\ \text { and } \\ \text { SEPPRA } \end{gathered}$ |
| CCorp. | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes |
| SCorp. | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | Yes |
| Prof. Corp. | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes |
| Partnership | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | No | No | Yes |
| Sole Prop. | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | No | No | Yes |
| Tax-exempt | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Public School | Yes | Yes | Yes | No | Yes | Yes | Yes | No | Yes | Yes | Yes |
| SL Goot. | Yes | Yes | Yes | No | Yes | Yes | Yes | No | No | Yes | Yes |

Employer Qualified Plans (continued)

- Funding limits are set in IRS Code 415 which limits the maximum individual funded benefit in 2020

| IRS Limits : | Defined <br> Benefit | Defined <br> Contribution |
| :---: | :---: | :---: |
| Participant | $100 \%$ or | $100 \%$ or |
|  | $\$ 230,000$ | $\$ 57,000$ |
|  | (indexed) | (indexed) |
| Employer | if less | Amount less |
|  | Necessary to | $25 \%$ of all |
| Participants |  |  |
|  | Fund Compensation | Compensation |

## Employer Qualified Plans (continued)

- There has been a shift in EQPs
- With defined benefit plans, the risk of funding a specific amount each year is with the company
- With defined contribution plans, the risk of funding a specific amount each year is with the employee
- We are seeing fewer defined benefit plans as well as a reduction in the benefits from these plans
- Defined benefit plans have dropped from a high of 175,000 plans in 1983 to less than 44,867 in 2014
- Risk has been essentially shifted from the company to the employee

Employer Qualified Plans (continued)

- Key benefits to EQPs
- Employer contributions are tax-deductible to the employer and are not taxable to the employee in the year given
- Earnings are tax deferred to the participant until retirement


Employer Qualified Plans (continued)

- What are the numbers of the different Qualified Retirement Plans?

Graph E1g. Number of Pension Plans by type of plan, 1975-2014


SOURCE: Form 5500 filings with the U.S. Department of Labor.

- Source: Private Pension Plan Bulleting Historical Table and Graphs 1975-2014, Employee Benefits Security Administration, Dept. of Labor. "https://www.dol.gov/sites/default/files/ebsa/researchers/statistics/retirement-bulletins/private-pension-plan-bulletin-historical-tables-and-graphs.pdf


## B. Understand Defined Benefit Plans

- What is a defined benefit plan (DBP)?
- A retirement plan funded entirely by the employer in which the payout amount is guaranteed. Benefits are based on: a benefit formula, the definition of compensation, and full retirement age
- What are the characteristics of a DBP?
- Employees do not contribute and bear no risk
- Employees receive a "promise" of a defined payout at retirement, which is based on a benefit formula
- What are the main types of DBP?
- Defined Benefit Pension Plan
- Cash Balance Plan


## Defined Benefit Pension Plans

- A Defined Benefit Pension Plan is a DBP where payments are based on a benefit payout formula
- This formula is based on your salary, years worked and a company determined factor to calculate how much you will get each year
- Example for XYZ corporation:
- Calculate average of five highest annual salaries within the last ten years
- Multiply final "average" salary by a company determined factor of $1.5 \%$, and
- Multiple this by years in service (to a max of 33)
- For XYZ Corporation: $\$ 60,000 \mathrm{x} .015 \times 25$
years $=\$ 22,500$ or $37.5 \%$ of final salary


## Defined Benefit Pension Plans (continued)

- Advantages
- Employees do not contribute and bear no risk
- Benefits may be extended to spouse
- Some plans provide $30 \%$ to $70 \%$ of final salary
- Disadvantages
- Benefits are considered taxable income
- Firms can change policies even after you retire
- Vesting is required and a lack of portability
- Most do not provide for inflation (no COLA)
- Many plans are unfunded, meaning payments are made out of current company earnings


## Cash-Balance Plans

- What are Cash-Balance plans?
- A type of DBP in which provides specific annual employer contribution (generally 4-7\%) each year, plus a low but guaranteed rate of investment earnings
- How is this different from a DCP?
- Accounts grow at a predetermined rate, regardless of how much is in the account
- Employees do not make any investment decisions


## Cash-Balance Plans (continued)

- Advantages
- Employees do not contribute, benefits are easier to track, and maximum benefit is the lesser of $100 \%$ of compensation or $\$ 230,000$ in 2020
- The investment rate of return is low but constant
- Plans are portable, and cheaper for the company
- Plans may be used to eliminate a traditional defined benefit plan by an employer
- Disadvantages
- Actual payouts may be less than the basic defined benefit plans
- Costly for employers to maintain this type of plan


## Defined Benefit Plan: Distribution/Payout Options

(Example: BYU Defined Benefit Plan)

- Distribution relates to how long you will receive benefits, whether and how much your spouse receives after you die, and the guaranteed period for which you will receive benefits. There are 4 main distribution options:

1. Life Annuities (guaranteed for the "certain" period)

- Life annuity
- 10 year Certain \& Life, 15 year Certain \& Life, 20 year Certain \& Life

2. Joint and Survivor Annuities (percent relates to the amount the spouse receives

- Joint \& Survivor 100 percent Annuity (10 year certain)
- Joint \& Survivor 75 percent Annuity (10 year certain)
- Joint \& Survivor 50 percent Annuity (10 year certain)


## Distribution/Payout Options

3. Special Joint and Survivor Annuity (if there is a death in the marriage the benefit decreases)

- Special Joint \& Survivor two-thirds annuity (10 year certain)

4. Qualified Joint \& Survivor Annuity (same as the 50\% option with no term certain)

- Qualified Joint \& Survivor Annuity (50\% and no term certain)
- Note that if you choose options that have certain payments for longer periods of time, the amount received each month will be less.
- If an employee dies prior to retirement, generally the surviving spouse is restricted to QJSA option.

Important Questions to ask when Considering Defined Benefit Plans
What questions should you ask?

- What salary is your pension based: average compensation, final year's salary, or some other amount?
- What is the vesting period?
- What is the formula for calculating benefits?
- What's the normal retirement age? What happens to your pension amount if you retire sooner?
- Is there any advantage to working past age 65?
- Is there a cost of living adjustment (COLA) for inflation?

Questions

- Do you understand Defined Benefit Plans?


## C. Understand Defined Contribution Plans

- What is a Defined Contribution Plan (DCP)?
- A retirement plan where the employer contributes a specific amount to the employee's retirement funds while the employee is working and then has no responsibilities once the employee retires
- What are the characteristics of a DCP?
- Employer contributes to a fund, and then has no additional obligation when the employee retires
- Employee may also contribute to the fund
- Pension is determined by how much is invested by both the employer and employee, and how fast it grows


## Defined Contribution Plans (continued)

- Defined Contribution plans may be three types:
- 1. Discretionary contribution plans
- Contributions are at employer discretion
- Profit Sharing Plan
- Stock Bonus or ESOP Plan
- Money Purchase plan
- 2. Fixed contribution plans
- Contributions are fixed by the employer.

Examples are:

- Thrift and Savings plans
- Target benefit plan
- 3. Employee contribution plans (salary reduction)


## Defined Contribution Plans (continued)

- Different types of defined contribution plans?
- 1. Discretionary Contribution Plans
- Profit Sharing Plans
- Plan where employer contributions vary year-to-year depending on firm profitability (it may be zero if the firm is not profitable in that year)
- Stock Bonus Plan
- Plan where employer contributions are made with employer shares of stock. Employee stock ownership plans (ESOPs) and leveraged ESOPs (LESOPs) are the most common


## Defined Contribution Plans (continued)

- Money Purchase Plans
- Plan where employer contributes a percentage of employee salary each year, not dependent on company profits
- Employees do not contribute


## Defined Contribution Plans (continued)

## 2. Fixed Contribution Plans

- Thrift /Savings Plans (TSP)
- Plan where employer matches a percentage of employee contributions to a specific amount (i.e., free money). This program is for employees of federal civil service
- Target Benefit Plan
- Defined contribution plans that establish a required contribution level to meet a specific target level of benefits at retirement


## Defined Contribution Plans (continued)

- 3. Employee Contribution or Salary Reduction Plans
- Employees contribute before tax dollars reducing their taxable income
- Earnings accumulate tax deferred
- 74 million active employees and 89 million total participate in defined contribution ( $401 \mathrm{k}, 403 \mathrm{~b}$, etc.) plans in 2010
- $95 \%$ of 401(k) plans have matching contributions in 2012


## Defined Contribution Plans (continued)

- Types of Employee or Salary Reduction Plans
- 401k Plans or Roth 401k Plans
- Plan where employees contribute a percent of salary up to a specified amount (\$19,500 in 2020). Employers may contribute a matching amount (free money) to encourage participation
- 403b Plans or Roth 403(b) Plans (also called Tax Sheltered Annuities)
- Same as 401 k but for non-profit tax-exempt companies and institutions (i.e., schools)
- 457 Plans
- Same as 401 k but for state and municipal workers and tax-exempt organizations


## Defined Contribution Plans (continued)

- What are the differences between Roth 401k/403b Plans and traditional salary reduction plans?
- Roth Plans are after tax, with no tax deferral
- Distributions of contributions can be made without penalty and without tax after 5 years
- Roth plans do not have mandatory distributions (if they are rolled over into Roth IRAs at retirement)
- Matching employer contributions with Roth plans go into traditional plans (not Roth plans)
- Roth plans allow you to save more money for retirement (taxes are paid outside the vehicle)


## Defined Contribution Plans (continued)

- Salary Reduction Plans
- Employees direct the funds into different financial asset options including:
- Mutual funds, index funds, fixed income, equities, money market funds, and GICs (guaranteed investment contracts)
- Companies have their list of approved investment assets
- Employees choose where to invest their assets subject to the company list
- Employees are not allowed to invest outside of approved investment assets


## Defined Contribution Plans (continued)

- Advantages to Employees
- Offer strong growth potential, greater sense of control and portability, and tax advantages from tax deferred contribution/earnings or tax-elimination with Roth Plans
- Disadvantages to employees
- No guarantee of actual amounts available at retirement as risk is shifted from the employer to the employee
- Advantages to Employers
- Easier to administer, less government regulation, greater investment choice, and shifts investment decisions to employee
- Disadvantages
- Takes time and resources to administer

| Type of Plans : | Defined Benefit |  | Defined Contribution: Discretionary and Employee |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Defined Benefit | Cash Balance | Profit Sharing | Money Purchase | Roth/Trad. 403 (b) | Roth/Trad. 401 (k) |
| Plan Features | Plan funded by employer and payout is a "promise." There is no funding by the employee. Payout is a function of the company factor, years of service, and average salary | Employer contributes 4-7\% each year which grows at a predetermined rate. There is no contribution by the employee | Employer funded and generally based on firm profitability. <br> Allows employer restricted coverage and control over when the money will be withdrawn | Employer funds a percentage of salary each year regardless of firm profitability. <br> Allows employer restricted coverage and controlover when the money will be withdrawn | Employee funded with possible company match. Traditional has employees contribute pre-tax dollars which reduce current taxable income, while Roth employees contribute after-tax dollars. Traditional converts LT capital gains to ordinary income | Employee funded with possible company match. Traditional has employees contribute pre-tax dollars which reduce current taxable income, while Roth employees contribute after-tax dollars. Traditional converts LT capital gains to ordinary income |
| Contribution limits | No contribution by the employee. Employer IRS contribution limits apply | No contribution by the employee. Employer IRS contribution limits apply | Employer may contribute $25 \%$ of compensation up to $\$ 55,000$. <br> Contributions are discretionary by the employer within IRS limits | Employer may contribute $25 \%$ of compensation up to $\$ 55,000$. Employer contributions are percentage of annual salary determined in plan documents | Employees can defer up to $\$ 18,500$ of annual salary, with a $\$ 6,000$ catch up if over age 50 | Employees can defer up to $\$ 18,500$ of annual salary, with a $\$ 6,000$ catch up if over age 50 |
| Who contributes | Employer | Employer | Employer | Employer | Employer and employee | Employer and employee |
| Vesting | No vesting unless stay with the company until retirement |  | Vesting schedules allowed | Vesting schedules allowed | $100 \%$ for employee contributions, and vesting schedule allowed for employer contributions | 100\% for employee contributions, and vesting schedule allowed for employer contributions |
| Loan Privileges | No | No | No | No | Yes | Yes |
| Distributions | No distributions until retirement | No distributions until retirement | Distributions before age 59.5 subject to a $10 \%$ penalty tax, and ordinary income. Required min. distributions at age 70.5 | Distributions before age 59.5 subject to a $10 \%$ penalty tax, and ordinary income. Required min. distributions at age 70.5 | Distributions before age 59.5 subject to a $10 \%$ penalty tax, and ordinary income. Required min. distributions at age 70.5 for traditional plans | Distributions before age 59.5 subject to a $10 \%$ penalty tax, and ordinary income. Required min. distributions at age 70.5 for traditional plans |

## Defined Contribution Plans (continued)

$>$ Thoughts on Defined Benefit/Contribution Plans

- $75 \%$ of plan balances are invested in equities
- Mutual funds still provide bulk of investment opportunities, although some firms are forming brokerage links for stocks
- Most plans typically provide $10+$ options
> Important questions to ask:
- What are annual or administration expenses?
- Are there any transfer fees to go from one fund to another?
- How often can I reallocate my assets? Costs?


## Defined Contribution Plans (continued)

- What is vesting?
- Vesting is the process whereby funds contributed by the employer actually become the property of the employee.
- What is the vesting schedule of most plans?
- $100 \%$ of employee contributions/deferrals are vested immediately
- Generally vesting schedules apply only to employer contributions, i.e., $60 \%$ after 2 years, $80 \%$ after 3 years, and $100 \%$ after 4 years


## Defined Contribution Plans (continued)

- Matching contribution must vest according to the respective cliff or graded schedules:

401k Vesting 403b Vesting
Year Cliff Graded Cliff Graded

| 1. | $0 \%$ | $0 \%$ | 0 | 0 |
| :--- | :---: | :---: | :---: | :---: |
| 2. | 0 | 20 | 0 | 0 |
| 3. | 100 | 40 | 0 | 20 |
| 4. | 100 | 60 | 0 | 40 |
| 5. | 100 | 80 | 100 | 60 |
| 6. | 100 | 100 | 100 | 80 |
| 7. | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ |

## Tax Considerations

- What are the tax considerations of DCPs?
- All retirement income, including capital gains, are taxed as ordinary income when distributed
- $10 \%$ penalty rule applies for early withdrawals before $591 / 2$, with some exceptions
- There is a $20 \%$ withholding requirement
- Certain loan provisions may apply
- Mandatory annual distributions begins after age $70^{1 / 2}$


## Defined Contribution Plans (continued)

- Required minimum distributions must begin by April $1^{\text {st }}$ of the year following age $70^{1 / 2}$.
- The distribution is the account balance on Dec. 31 of the previous year (age 69) divided by the life expectancy from the table below. There is a $50 \%$ penalty on minimum distributions not taken.

Uniform Table

| Age | Life Expectancy (LE) | Age | LE |
| :---: | :---: | :--- | :--- |
| 70 | 27.4 | 75 | 22.9 |
| 71 | 26.5 | 76 | 22.0 |
| 72 | 25.6 | 77 | 21.2 |
| 73 | 24.7 | 78 | 20.3 |
| 74 | 23.8 | 79 | 19.5 |

## Payout/Distribution Options?

- What are my four payout or distribution options for defined contribution plans?
- Payout/distribution options are ways the employee can receive your money at retirement
- 1. Lump Sum Distribution or as Needed
- Benefits
- Take the money out as you need it
- Can invest/gift/use it elsewhere
- Risks
- Plans only allow distributions every 3 months
- Taxes are incurred immediately
- If not plan well, may not have sufficient money for retirement


## Payout/Distribution Options (continued)

- 2. Purchase of an Immediate Annuity
- Use DCP to purchase an immediate annuity (You can purchase this contract either from your retirement Plan provider or from others outside the Plan)
- Benefits
- Stable payments usually for life
- Useful for planning and tax purposes
- Risks
- Generally no cost of living adjustment
- Tax is due on amount received each year


## Payout/Distribution Options (continued)

- 3. Take Periodic Payments
- Benefits
- Can plan for regular payments at regular intervals. Can ensure that payments are available for a specific period of time
- Payments may be large
- Risks
- No assurance of lifetime income
- Tax rate may be high due to the amount of money withdrawn


## Payout/Distribution Options (continued)

- 4. Roll it into an IRA Rollover (Be careful and don't touch the funds)
- Benefits
- You can defer taxes until you withdraw the funds
- You can direct investment to different assets and asset classes
- You can continue to enjoy tax-deferred growth
- Risks
- There is no guarantee that funds will last a lifetime
- You must begin withdrawals at $701 / 2$ or $50 \%$ penalty is incurred

Important Questions to ask when Considering Defined Contribution Plans

- Questions for Defined Contribution Plans?
- Do you have a match?
- How much is it?
- How soon until I can contribute to get the match?
- What is the vesting period for the match?
- What is the normal retirement age?
- Is there any advantage to working past age 65 ?

Questions

- Do you understand Defined Contribution Plans?
D. Understand some Plans and Strategies for Employer Qualified Plans
- As you put your Retirement Plan together, it is important to think through some plans and strategies. Examples include:


## Plans and Strategies for EQPs (continued)

- Plans and Strategies Accumulation
- Live on a budget, save $20 \%$, always get the company match
- Save $20 \%$ of every dollar, $15 \%$ into your Roth $401 \mathrm{k}, 3 \%$ for other goals, and $2 \%$ for children's mission and education
- Invest in Roth accounts while young and when rates are low. Use these to target your tax rate in retirement (to a low level)
- Even though you don't know future tax rates, maximize investments in Roth's as you are saving more for retirement


## Plans and Strategies for EQPs (continued)

- Plans and Strategies

Retirement

- Calculate a minimum level of retirement income, and annuitize that amount (if you have sufficient assets). The process is:
- a. Calc. Social Security and defined benefit plan(s)
- b. Determine minimum amount needed to live on
- c. Take a percentage of EQP assets to purchase an immediate annuity to give you the minimum amount needed to have your acceptable level of income
- Have both Roth and traditional retirement assets so you can target your tax rates in retirement
- Donate assets from your traditional $401 \mathrm{k} / 403 \mathrm{~b}$ to pay tithes and offerings to eliminate your capital gains


## Plans and Strategies for EQPs (continued)

- Plans and Strategies


## Distribution

- Have taxable (tax now), Roth (rarely taxed) and traditional (taxes later) to target tax rate in retirement
- Set a target tax rate, then pull traditional assets up to that amount, then Roth assets afterwards to reduce taxes
- Make sure to pay your Required Minimum Distributions
- During your later years, i.e., during missions, transfer money from your tax-deferred to tax-eliminated accounts. Use this time to move assets into Roth accounts with as little tax consequences as possible
- After age 70.5, donate assets from your traditional $401 \mathrm{k} / 403 \mathrm{~b}$ to pay tithes and offerings, to eliminate your capital gains and to fulfill your RMD amounts


## Review of Objectives

A. Do you understand Employer Qualified

Retirement Plans?
B. Do you understand Defined Benefit Plans?
C. Do you understand Defined Contribution Plans?
D. Do you understand plans and strategies for employer qualified plans?

Case Study \#1
Data

- Bill, married with two kids, will be graduating in April with his bachelors degree, and has two similar offers from companies both located in San Francisco, California. Both companies are companies he would be content to stay with for 30 years. Company A has a 401 k with a $100 \%$ match up to $4 \%$ of his salary. Company B has a 401 k with no match, but a Defined Benefit Plan with the formula based on average salary, a factor of $1.5 \%$, and years of service up to 30 years.
Calculations/Application:
- A. Assuming the salary is $\$ 50,000$ for either firm, which has the more attractive retirement package for Bill?
- B. Can Bill participate in other retirement plans?


## Case Study \#1 Answer

Calculations/Applications:

- A. This is a difficult question to answer, and which depends on : 1. Bill, 2. Bill's forecast for the company, and 3. Bill's view of company policy.
- 1. Bill. How long is he planning to be with either company? Is he going back to graduate school soon? How portable is the defined benefit plan? The answer to this question is really based on the assumptions that Bill has regarding how long he plans to stay with either company. Since a defined benefit plan generally requires you to stay for an extended period, that benefit will only be valuable if Bill is committed for a long period of time.


## Case Study \#1 Answer

- 2. Bill's forecast for the company. Is the company viable, particularly company B ? Will company B be around for as long as Bill wants them to? Are the products of both companies viable?
- 3. Bill's view of company policy. Will either company change its retirement policies after Bill retires? Have the companies historically taken good care of their employees? Are the plans consistent with similar companies? What is Company B's defined benefit formula? If Bill stays until retirement at $B$, what is the annual benefit? Assuming a reasonable interest rate, what is the present value of the annual benefit to Bill? What is the value of the company match over the same period?

Case Study \#1 Answer

- B. Bill can have other plans, as long as his salary is below specific IRS determined limits. Based on the information provided, he could also invest in either a Roth or traditional IRA, or if he had a small business, he may be able to invest in a small business plan such as a SEPIRA.

Case Study \#2
Data:

- Greg is 50 years old and has been working for 10 years with a company that has a defined benefit plan. The formula is the five highest annual salary years within the last ten years multiplied by a company determined factor of $1.5 \%$, times years in service (to a maximum of 33 ). Assuming Greg stays with the company until his retirement at age 65 , an assuming his highest five years annual salaries average $\$ 60,000$.
Calculations:
- A. How much can Greg expect to receive annually at retirement?
- B. What is the percent of his final 5 year average salary?


## Case Study \#2 Answer

- A. Greg can expect to receive:
- $\$ 60,000 \times .015 \times 25$ years $=\$ 22,500$
- B. This is $\$ 22,500 / \$ 60,000$ or $37.5 \%$ of his final salary

Case Study \#3
Data:

- Bill is 55 and plans to retire in 10 years. He is working for a company with a Tax Sheltered Annuity (TSA or 403b Plan).
Calculations
- A. How much can he contribute into his company's Roth 403b plan in 2020 ?
- B. If is company has a matching program, what impact will that have on Bill's contribution?


## Case Study \#3 Answer

- A. Contribution limits for the $401(\mathrm{k})$, Roth 401(k), 403(b), Roth 403(b), and 457 Plan annual contribution limits are:

| Year | Contribution Limit | Catch Up Contr. |
| :---: | :---: | :---: |
| 2018 | 18,500 | 6,000 |
| 2019 | 19,000 | 6,000 |
| 2020 | 19,500 | 6,500 |

Since Bill is over 50 years old, he could contribute $\$ 19,500$ plus a $\$ 6,500$ catch up contribution in 2020 for a total of $\$ 26,000$
B. The company match will have no impact on the amount that Bill can contribute

## Case Study \#4

## Data:

- Bill retired on his $60^{\text {th }}$ birthday and did not use any of his traditional IRA balances. On December 31 ${ }^{\text {st }}$ of his $69^{\text {th }}$ year, he had $\$ 450,000$ in his 401 k plan.
Calculations:
- A. How much would he be required to take out of his account the next year, i.e. the year he turns 70 $1 / 2$ ? (use the table below)
- B. How much would he be required to take out if this was a Roth 401 k ?

| Age |  |  | Life Expectancy (LE) |  |
| :---: | :---: | :---: | :---: | :---: |
| 70 | 27.4 |  | Age | LE |
| 72 | 25.6 | 73 | 26.5 |  |

## Case Study \#4 Answers

- A. From the table, his life expectance is at age 70 is 27.4. Bill will be required to take a distribution of his 401k plan of $\$ 450,000 / 27.4$ or:
- $\$ 16,423$ the next year.
- B. If this was a Roth 401 k , he would still have to take the required distributions. However, if once he retired, he rolled his Roth 401 k over to a Roth IRA, there would be no required distributions
- The tax rules have yet to catch up with the retirement vehicles

Case Study \#5
Data:

- Sam just got out of school and has already begun his retirement program. He has invested enough in his 401 k plan to the match, and has found out that the company has a Roth 401 k plan as an option. He is discussing with a friend the benefits of the Roth 401k versus the Traditional 401k.
Application:
a. Which vehicle, the Roth or traditional 401 k should Sam select and why?
b. What are Sam's assumptions that would impact his choice of retirement vehicle?


## Case Study \#5 Answers

a. Which vehicle Sam chooses should be based on his vision, goals, objectives, and assumptions for the future
b. His assumptions should relate to 8 key areas:

1. Does he need the tax break now?

- If the reduction in AGI is important for him to reduce his current tax bill, then he would likely choose the traditional

2. Does he have the money to pay the taxes now?

- If he has additional money to invest for retirement, you can invest more in the Roth than the traditional. That is because he pays taxes on the Roth money outside of your retirement account. OF MANAGEMENT


## Case Study \#5 Answers

3. Does he have a possible need for principle?

- If he may need money in the account (just in case), with the Roth he can take out principle after 5 years without penalty or taxes, as principle has already been taxed. He cannot, however, take out earnings and interest without penalty.

4. Does he expect your tax rates to rise in retirement?

- If he expects tax rate to be higher (lower) in retirement, the Roth (traditional) is preferred. Make sure he takes into account his child tax and other credits when determining his current tax rates.

Case Study \#5 Answers

- 5. Does he want to have more saved at retirement?
- If he wants more money at retirement, use the Roth since he pays retirement taxes with non-retirement money, i.e., he is saving more for retirement

6. Does he want to avoid RMDs (required minimum distributions)?

- With tax-deferred accounts, he is required to take out a required minimum distribution each year after age 69. If not, her penalty is $50 \%$ of the RMDs

7. Does he want to leave money to heirs without major tax or other problems?

- With Roth's' the taxes are already paid so it is much easier from a tax basis to leave these to heirs.


## Case Study \#5 Answers

- 8. Does he want to be able to target his tax rate in retirement. If he wants to target his tax rate in retirement, he should have a balance of his assets in tax-now accounts (brokerage, banks, and mutual fund companies), tax-deferred accounts (traditional 401k, 403b and IRA accounts), and tax-never accounts (Roth IRA and Roth 401k accounts). This way he can pull out assets from his tax-now and tax-deferred accounts up to his targeted tax rate, and anything beyond, he takes from his tax-never accounts, enabling him to target his tax rate in retirement..

