# Retirement Plan Basics—Day 1

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## What Do You Want to Get Out of the Course?

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## Retirement Plans Have Risks

- Insufficient contributions?
- High expenses?
- Poor investment performance?
- Longevity?

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## Who Bears the Risks?

| | |
|---|---|
| • Social Security | Plan sponsor/You |
| • Defined Benefit Plans | Plan sponsor = Employer |
| • Defined Contribution Plans | Individual employee/retiree |
| • Hybrid and Variable DB Plans | Attempt to share risk between ER and EE (employer and employee) |

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# Total Rewards


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# Group Discussion:

Why do organizations sponsor Retirement Plans?

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# Why Offer Benefits?

**Employer Needs**

- Attract/retain employees
- Enhance growth/performance
- Lower cost and risk
- Concern for EE welfare

**Employee Needs**

- Financial security
- Union Demands
- Work/life balance

**Market Forces**

- Competition
- Governance pressures
- Merger and Acquisitions
- Globalization

**Demographic Forces**

- Increased job mobility
- Shortage of skilled workers
- Aging workforce
- Changing retirement patterns

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# Some Goals of a Retirement Plan

- Provide income in retirement
- Accumulate a large pot of money
- Provide peace of mind/security
- Motivate staff
- Provide benefits at lower cost
- Downsize
- Open lines of promotion
- Satisfy union demands
- Etc.

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## Retirement INCOME Goals

- Maintain preretirement standard of living
- 70% to 90% of pre-retirement income
  - Don't need to spend for:
    - Social Security taxes [FICA]
    - Work-related expenses and taxes
    - Saving for retirement
    - House
    - Children's education
  - But medical costs are much larger

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## Sources of Retirement Income

- "Three-legged stool"
  - Social Security
  - Employer-sponsored:
    - Pension plan
    - Savings plan [with matching contribution?]
  - Personal savings

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## Sources of Retirement Income

- "Three-legged stool"
  - Social Security
  - Employer-sponsored:
    - Pension plan
    - Savings plan [with matching contribution?]
  - Personal savings
- New fourth leg?
  - Back to work . . .

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## Qualified Retirement Plans

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## Qualified Retirement Plans

"Qualified" retirement plans are defined by their tax status and valued for their tax benefits. Understanding qualified plans means being able to describe the requirements that tax law puts on them.

RPA 1
Module 2
Objective 2

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## IRS Requirements

- Written plan
- Separate asset trust
- Non-discrimination
  - Coverage
  - Participation
  - Benefit accrual
- Vesting
- Funding
- Distribution rules
  - Qualified joint and survivor plan (QJSA)
  - Qualified preretirement survivor annuity (QPSA)
- Anti alienation
  - Qualified domestic relations order(QDRO)
- Merger/asset transfer

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## Advantages of a Qualified Plan

- Employ**ER** can deduct contributions
- Contributions not taxable to employ**EE**
- Trust earnings are tax exempt
- Tax on benefits paid to EE often at lower postretirement rate

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## Why Does the IRS Care?

- IRS-Internal Revenue Service
- It's "their" money
  - A tax expenditure
- They don't want to use tax dollars to discriminate in favor of the highly paid

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# Possible Areas of Discrimination

- Who the plan covers
  - Highly compensated—Others
  - Union—Nonunion
  - Full time—Part time
  - Separate lines of business
  - Leased employees
- When you participate
  - Age (min or max)
  - Service
  - Waiting period
- Eligibility for benefits
  - Vesting
  - Retirement
  - Death
- Amount of benefits
  - Benefit formula
  - Definition of compensation
  - How benefits are earned
  - DB vs. DC
- How benefits are paid
  - Lump-sum settlement
  - Various annuity forms
- When and how the plan is funded
  - Funding method
  - Isolation of assets
  - Investment of assets

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# Key Laws

- Internal Revenue Code
- ERISA: Employee Retirement Income Security Act of 1974
  - The key law for pension plans
  - Amended many times
- MPPAA: Multiemployer Pension Plan Amendments Act of 1979
- PPA: Pension Protection Act of 2006
- MEPRA: Multiemployer Pension Reform Act of 2014
- Secure Act 1.0 of 2019
- CARES Act: Coronavirus Aid, Relief and Economic Security Act of 2020
- ARPA: American Rescue Plan Act of 2021
- Secure Act 2.0 of 2022
- Many more minor changes over ~40 years
  - Including much guidance from IRS, DOL (Department of Labor), PBGC (Pension Benefit Guaranty Corporation)

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## Types of Sponsors

Single, Multiemployer, or Multiple Employer
Union or Non-Union
Public or Private
For Profit, Not-for-Profit, Church
Large or Small

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## Poll

What type of employer plan do you represent?

A. Single employer
B. Multiple employer
C. Multi employer
D. Church/non-profit
E. Government

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## Types of Regulation

| | |
|---|---|
| • Private plans | ERISA |
| • Public (gov't.) | Not subject to ERISA |
| • Church plans | ERISA optional |
| • Non-Qualified | Not funded |

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## Types of Retirement Plans

- Defined Benefit Plan ("DB")
- Defined Contribution Plan ("DC")
- Hybrid Plan
  - "DB Plan" that looks like a "DC Plan"
  - "DC Plan" that looks like a "DB Plan"
- Variable DB Plan
  - Benefits fluctuate with investments

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# Poll

What type of retirement plan(s) do you offer?
(Choose all that apply.)

A. DB
B. DC
C. Hybrid
D. Variable DB Plan

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# Defined Benefit Plans



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## Defined Benefit Plans

Although less common today than in the past, it's important to understand the basic features of defined benefit plans and their relative advantages and disadvantages as a source of retirement funding.

RPA 1
Module 3
Objective 1

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## Defined Benefit Plans (DB)

- Plan defines ***benefit at retirement***
  - Plan does NOT define the cost
  - Cost is determined actuarially
- Goal: Provide predictable ***income*** in retirement
  - Security

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## The Traditional DB Plan

- Benefit based on service, pay, and age
- Paid as periodic payments for life
- Funded via a separate asset trust
- Employer typically pays full cost
- Subject to many ERISA, IRS, DOL (Department of Labor) rules

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## Principal Design Features

- Who is eligible: Coverage
- How to get into the plan: Eligibility
- If you quit: Vesting
- How benefits are earned
- When benefits are payable
- How benefits are paid
- Bells and Whistles (Additional benefits)

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# Coverage

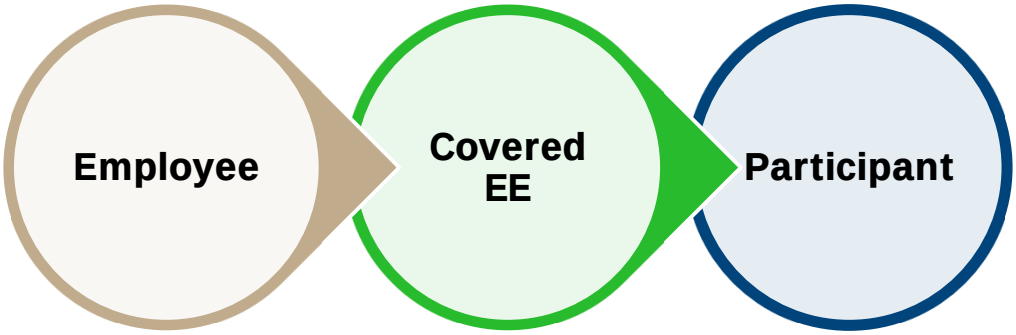
- Coverage deals with WHO is eligible to participate in a plan
  - (Being covered does not mean a person is yet a participant)





# Eligibility

- Eligibility deals with the requirements a Covered person must meet to actually become a Participant



## Vesting

- You earn some benefit
- But you can lose it
- Vesting determines when your benefit becomes non-forfeitable





## Service Is Used to Determine

- If/when you get into the plan (participate)
- The amount of your benefit
- When you may lose benefits
- When you vest
- When you are eligible for benefits
- Different measures for different purposes

## How Benefits Are Earned

- Some kind of Formula
- Typically reflect
  - Service
  - Pay
  - Age
  - Contribution rates (negotiated plans)
- Accrual rules (no backloading)
- Benefits must not discriminate

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## Service for Benefit Amount

- **Benefit service** typically based on normal work schedule
  - *i.e.*, 1800 hours = One year
  - At least pro rata service if 1,000 hours or more
  - Elapsed time
- Other service may be counted
  - Past service
  - Military service
  - Carry over
  - Reciprocity service
  - Disability
  - Strike/Layoff
- Can limit total service for benefits

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## Sample Benefit Formulas

| | |
|---|---|
| • Flat amount | $500 per month |
| • Non-pay related | $100/month x yrs of service |
| • Career average pay | 1.0% of each year's pay |
| • Final average pay (FAP) | 1.0% x FAP x yrs of svc |
| • Related to contribution | Multiemployer plans |
| • Minimum benefits | Not less than |

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## FAP Benefit Example

Benefit Formula

1% x Service x Five-year final average pay

Calculation

| | |
|---|---|
| Benefit percent | 1% |
| x Years of Service | 15 |
| x Average of last five years pay | $50,000 |
| = Annual benefit of | $ 7,500 |

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# Integration With Soc. Sec. (Permitted Disparity)



- Benefit formula is coordinated with Social Security
- Sample formula
  - 1.0% x service x FAP +
  - 0.5% x service x FAP above Covered Compensation*
    - (*$101,974 for a person reaching age 67 in 2025)
- Benefit from plan is larger % of pay for higher paid EEs
- Because benefit from Soc Sec is smaller % of pay for higher paid EEs

*Covered Compensation is the 35-year average of the soc. sec. maximum wage bases ending in the calendar year in which the employee attains Soc. Sec. NRA (Normal Retirement Age)

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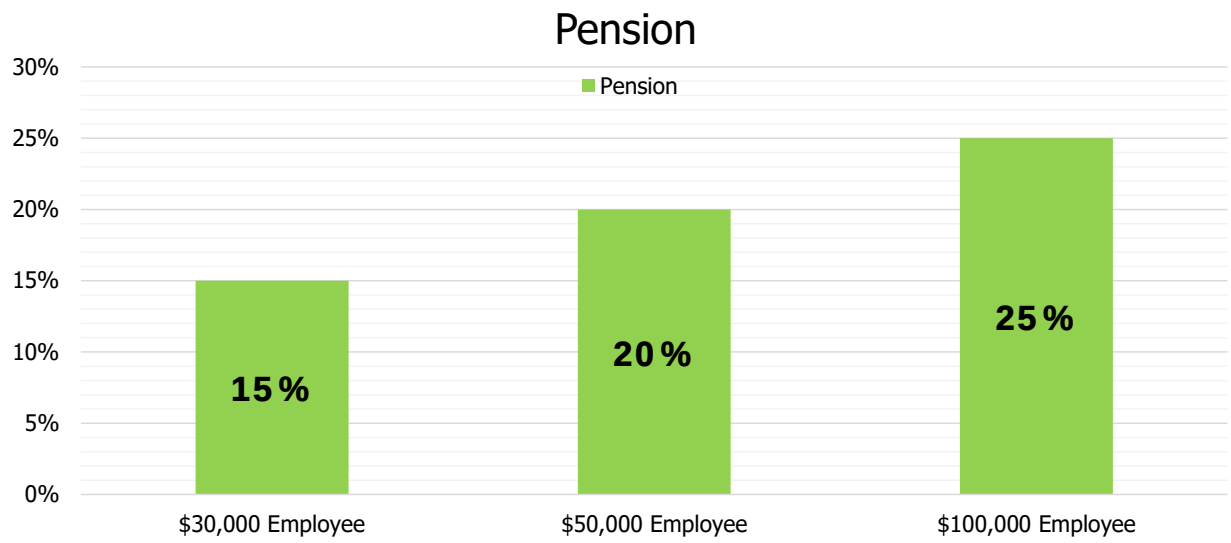
# Integration Example Benefit at Age 65 (as a % of Final Pay)



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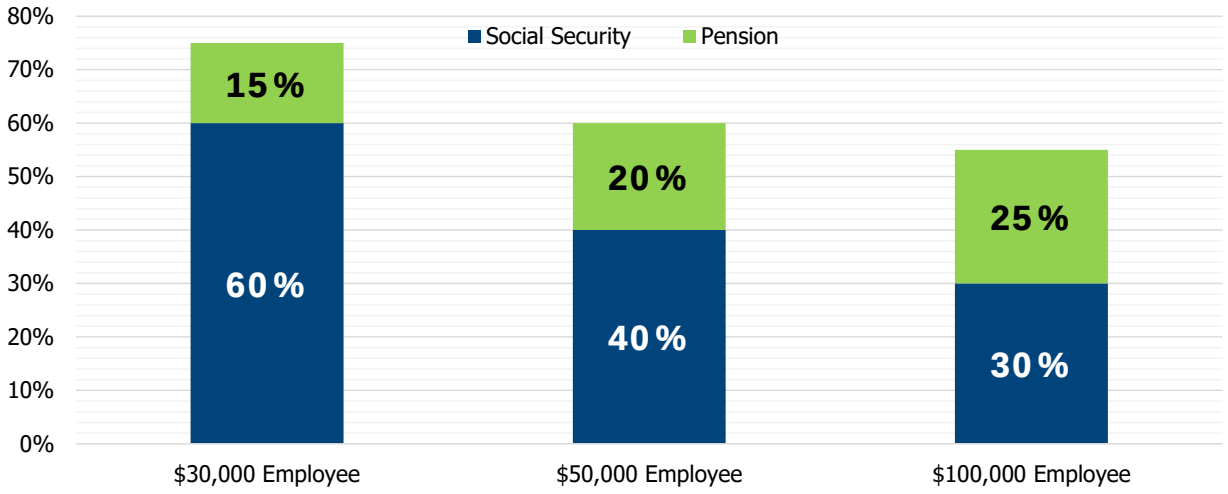
# Integration Example
## Benefit at Age 65 (as a % of Final Pay)

DB Plans

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# Compensation

DB Plans

- Must be nondiscriminatory
  - Base pay
  - Overtime
  - 401(k) contributions
  - Other
  - Bonus
  - Commissions
  - 125 contributions
- There are safe-harbor definitions
- Can use other definitions but must not favor highly compensated employees

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## Average Pay

- Final average pay
  - Typically, three or five-year average
    - *i.e.*, Highest consecutive five years in last ten
  - Most common in traditional DB plans
- Career average pay
  - Benefit based on pay earned each year
  - Less common in traditional DB plans
  - Some advantages
    - Ad hoc updates allows cost control

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## When Benefits Are Payable

- Normal retirement
- Early retirement
- Disability retirement
- Postponed retirement
- After terminating with vesting
- Maximum age

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# Normal Retirement Age (NRA)

- Eligibility
  - Later of age 65 or fifth ***anniversary of participation***
    - Oldest age allowed under ERISA
  - Other ages
    - Age 65 (*i.e.*, No service requirement)
    - Lower age (IRS sometimes needs proof why)
  - Note: Soc Sec NRA is increased to 67
- Amount of benefit
  - Full benefit as determined by benefit formula

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# Early Retirement

- Eligibility
  - Prior to Normal Retirement
  - Minimum Age (*e.g.*, 55)
  - Minimum service (*e.g.*, ten yrs of svc)
  - Termination of employment
  - Rule of *n* [*e.g.*, 80; Or 80 with min. age]
- Amount of benefit
  - Benefit is usually reduced because it is expected to be paid for a longer period of time

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DB Plans

# Sample Early Retirement Adjustments

| Retirement Age | Actuarial | Social Security | Flat 5% |
|---|---|---|---|
| Age 65 | 100% | 86.7 | 100% |
| Age 62 | 72% | 70 | 85% |
| Age 60 | 58% | -- | 75% |
| Age 55 | 36% | -- | 50% |

*Soc. Sec. NRA for retirement in 2025 is age 65

Common employee complaint:

*"I can't retire now because of the 'penalty' for retiring early."*

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DB Plans

# Sample Early Retirement Adjustments

| Retirement Age | Actuarial | Social Security | Flat 5% | None |
|---|---|---|---|---|
| Age 65 | 100% | 86.7 | 100% | 100% |
| Age 62 | 72% | 70 | 85% | 100% |
| Age 60 | 58% | -- | 75% | 100% |
| Age 55 | 36% | -- | 50% | 100% |

*Soc. Sec. NRA for retirement in 2025 is age 65

- When does the sponsor want employees to retire?
- Anything greater than actuarial reduction is subsidized

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## Special Retirement

- Eligibility, *e.g.*,
  - 30 and out
  - Rule of n [*e.g.*, 80, 85]
- Amount of Benefit
  - Special benefit formula
  - Sometimes, full benefit with no reduction





## Postponed Retirement

- Definition
  - Retirement after normal retirement age
- Amount of Benefit
  - Suspend benefits while working
  - Actuarial adjustment (increase)
  - Continue to accrue service and pay increases
  - Larger of actuarial increase or additional accruals or
  - Both

## Phased Retirement

- PPA '06
  - Allows preretirement distributions after age 62
  - Must be bona fide phased retirement program
  - Uncommon
  - Other workarounds
- U.S. Office of Personnel Management published final rules for government employees in 2014





## How Benefits Are Paid

- Automatic
  - Lifetime payments
  - Qualified joint and survivor

**PPA requires 50% and 75% J&S (Joint-and-Survivor) Options**

- Optional
  - J&S with Pop-up
  - SS Level Income
  - Lump sum
  - Lifetime with certain period
  - COLA
  - Involuntary cashout
- Amount of benefit
  - Actuarial Equivalence
  - Special rules for lump sums: Certain funding level required

# Suspension of Benefits

- If employee works beyond NRA
- If retiree is reemployed
  - Before Normal Retirement
    - Can suspend benefit
      - Heinz case prohibits expansion of types of postretirement work that result in suspension of accrued early-retirement benefits
    - Not considered a forfeiture of an accrued benefit
  - After Normal Retirement
    - Multiemployer plan can suspend for work in the same industry, trade or craft and geographic region
    - Later benefit must be actuarially equivalent
  - Must send suspension-of-benefit notice





# Other Retirement Benefits

Bridge benefit

"13th" check

Other retiree increases

# Disability Benefits

- Eligibility
  - Disabled (definition?)
  - Service requirement
- Benefit
  - If no ER-provided long-term disability [LTD] benefits
    - Pension benefit beginning at disability eligibility date
  - If LTD benefits available
    - May continue to accrue benefits while disabled
    - Pension benefit commences at normal retirement date
  - Sometimes treated as vested termination





# Pre-Retirement Death Benefit

- Eligibility
  - Death after becoming vested
  - Surviving "spouse" (one year marriage requirement)
- Benefit
  - Qualified Pre-retirement Survivor Annuity (QPSA)
  - Payable at participant's earliest retirement age
  - Benefit that would have been payable if
    - Participant left plan
    - Survived to earliest retirement date
    - Retired with a 50% J&S benefit
    - Died the next day

# QPSA Benefit—Example

- Employee dies at 40 with vested benefit. Spouse is 37
  1. Accrued benefit (payable at age 65) $500
  2. Adjust for 50% J&S 92%
  3. J&S ben that would have been paid at EE age 65 $460
  4. 50% to spouse $230
- Plan allows early retirement at age 55 with ten years of service
  5. Adjustment if spouse elects earlier retirement (when EE would have been 55) 40%
  6. Net benefit at spouse age 52 $92





# Death Benefit—Other

## Eligibility

- Death before retirement
- Death in retirement
- In the line of duty

## Benefit

- Return of contributions
- Lump sum (*e.g.*, $5,000 burial exp.)
- Survivor income

# Funding

- Ensure that Defined Benefit Plans have sufficient assets to meet future obligations
- Major Legislative changes
  - ERISA (1974)—Establish Minimum Standards
  - Pension Protection Act (2006)—Enhanced funding requirements and transparency
  - MAP-21 (2012)—Provided Funding relief





# Single Employer Pension Plans

- Minimum Funding Standards
  - The Pension Protection Act (PPA) established stricter minimum funding standards to ensure that pension plans are adequately funded.
  - Plan sponsors must make contributions that meet or exceed minimum required contributions determined under Section 430 of IRC (Internal Revenue Code)
    - With assistance of plan Actuary
  - Required Contributions must be made at least on a quarterly basis if there is a funding shortfall

## AFTAP



- The AFTAP (Adjusted Funding Target Attainment Percentage) is a measure of a plan's funding status as certified by the plan actuary on an annual basis.
- Determine Plan Assets:
  - The actuary starts by determining the value of the plan's assets. This includes all the investments and funds held by the pension plan.

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## AFTAP Calculations



- Actuary calculates the Adjusted Funding Target Attainment Percentage:
  - Present value of all the benefits of expected future payouts
  - Estimating the amount of money needed TODAY to cover all future pension obligations
  - Adjust for certain items
    - Previously made contributions that exceed minimum (credit balances and funding standard carry over balances)
  - Calculate

$$\text{AFTAP} = \frac{\text{Plan Assets}}{\text{Funding Target}}$$

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# Benefit Restrictions

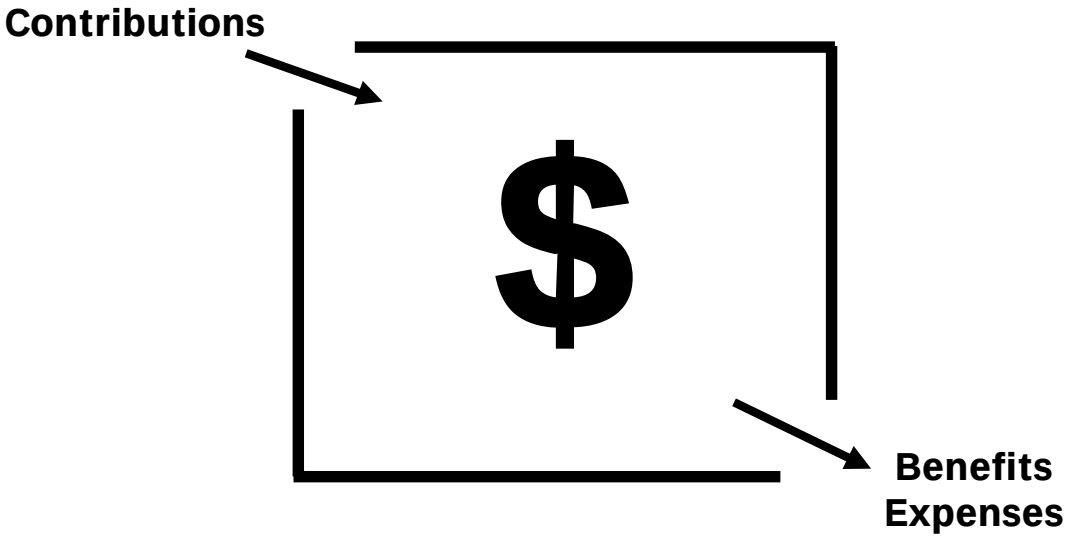


- AFTAP Above 60% and below 80%
  - Plans cannot implement amendments that increase benefits unless additional contributions are made to bring AFTAP above 80%
  - Accelerated payments and lump sums cannot be made.
- AFTAP below 60%
  - Plans must freeze benefit accruals, and unpredictable contingent event benefits (UCEBs) cannot be made (ex. Shutdown benefits, early retirement windows, etc. . . . )
- Presumptive AFTAP
  - Plans not certified by first day of tenth month of plan year are assumed to have an AFTAP less than 60%



# "Magic Box"





## You Promise to Pay

- **Unknown** amount of money
- To an **unknown** number of people
- Beginning at **unknown** dates
- Payable for an **unknown** time
- Continuing after death to **unknown** person





## The Actuarial Process

- The ultimate cost of a pension plan:
  = Benefits paid + Expenses – Investment income
- Problem:
  - You won't know true cost until last person dies
- Actuarial process:
  - Forecast all future benefits
  - Determine present value
  - Spread costs over EEs' working lifetime

## We Must Make Assumptions

- Who will get a benefit?
  - Turnover, disability, mortality
- When will they get it?
  - Retirement rates
- How much will the benefit be?
  - Service, compensation, inflation
- How long will it be paid?
  - Mortality, marriage, spousal age
- What interest can we earn on assets?

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## Time Value of Money

- IF I have to give you $1 one year from today
  - How much do I need today?
- Must predict the future
  - What interest can my current money earn?
- IF I assume 0% return
  - THEN I need $1.00 [my present value]
- IF I assume 100% return
  - THEN I need $0.50 [my present value]

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# Time Value of Money

- Money [hopefully] grows with interest
- Future value of a current dollar n years from now = \$1 **x** $(1 + i)^n$
- Let's say $n$ = 40 years
- IF i = 3%,
  THEN future value = \$1 **x** $(1.03)^{40}$ = \$3.26
- IF i = 6%,
  THEN future value = \$1 **x** $(1.06)^{40}$ = \$10.29

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# Time Value of Money

- Discounting (same calc backwards)
- Present value of a future dollar payable $n$ years from now = \$1 ÷ $(1 + i)^n$
- Let's say $n$ = 40 years
- IF i = 3%,
  THEN present value = \$1 ÷ $(1.03)^{40}$ = \$0.31
- IF i = 6%,
  THEN present value = \$1 ÷ $(1.06)^{40}$ = \$0.10

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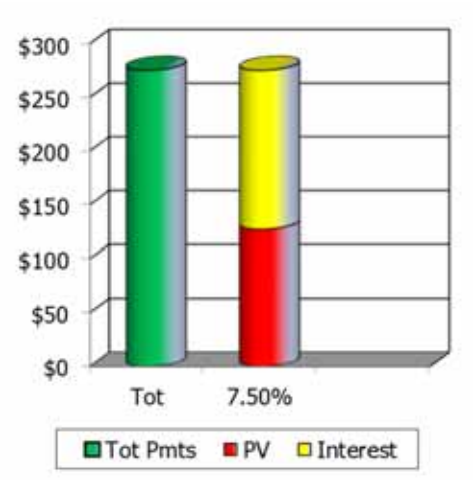
# The Importance of Interest

Benefit of $1000 per month at age 60

Plan expects to pay $275,000

| | At 7.5% assumption | |
|---|---|---|
| Expect investment return to pay | $148,000 | |
| Sponsor must pay balance (the liab) | $127,000 | |

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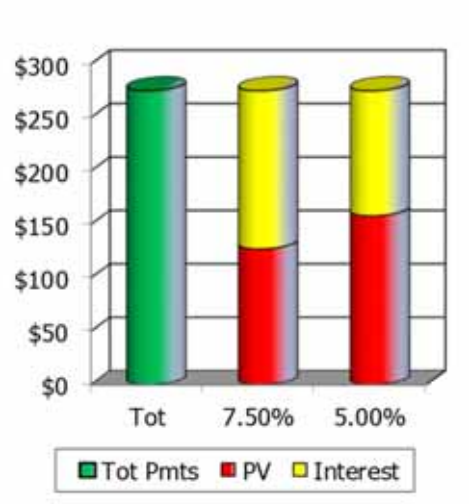
# The Importance of Interest

Benefit of $1000 per month at age 60

Plan expects to pay $275,000

| | At 7.5% assumption | At 5.0% assumption |
|---|---|---|
| Expect investment return to pay | $148,000 | $117,000 |
| Sponsor must pay balance (the liab) | $127,000 | $158,000 |

**Benefits unchanged—Liability increases 24%**

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## PPA Changes

- Faster funding
  - Different funding method
  - Lower (variable) interest rates
  - Faster (shorter) amortization
  - Special rules if underfunded
- Greater cost volatility
- Began in 2008

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## Types of DB Plans

- Traditional (Don't need to change often)
- Negotiated (Tend to need/want improvements with each contract)
  - Single Employer
    - Benefit is negotiated
    - Actuary determines cost
  - Multiemployer
    - Contribution is negotiated
    - Actuary calculates benefits

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# Public Plans

- Two main types
  - Public Safety (police and fire)
  - All others
- Some groups not in Social Security
- Often require pre-tax employee contributions
- Common benefit differences
  - Richer benefits (especially if not in Soc. Sec.)
  - Final average pay, often three years or less
  - Unreduced benefits at younger ages
  - Automatic cost-of-living increases in retirement
  - Special ancillary benefits
  - Subject to politics:
    - Funding, benefit design

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# Defined Contribution Plans

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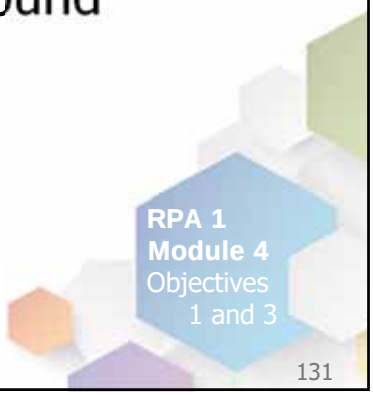
## Defined Contribution Plans

Defined contribution plans are one of the most popular ways to save for retirement. It's valuable to familiarize yourself with the general characteristics and variations found among defined contribution plans.

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## Defined Contribution Plans (DC)

- Plan defines ***amount of contribution***
  - Plan does NOT define the benefit in retirement
- Goal—Provide ***savings vehicle***
  - Share company profits
  - Help employee save
  - Accumulate wealth

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# The Traditional DC Plan

- Contribute to individual employee account
- Account is invested by ER or EE
- Value of account adjusted for:
  - Contributions, reallocated forfeitures
  - Investment experience [gains OR losses]
  - Administrative expenses
- Account balance paid as a lump sum
- Funded via a trust
- Employee may pay much of cost
- Subject to some different ERISA, IRS, DOL rules

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# Principal Design Features

- Coverage
- Eligibility
- Vesting
- How benefits are earned
- When benefits are payable
- How benefits are paid
- Bells and Whistles (Additional benefits)

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## How Benefits Are Earned

- Employer may contribute
  - Percent of profits
  - Fixed amount
  - Discretionary amount
  - Matching percent
- Contribution allocated to participants
  - Matching contributions (based on EE contributions)
  - Nonelective (or profit sharing) contributions
    - Pro-rata to Compensation or flat amount (*e.g.*, $500 per month)
    - Weighted by age or service
    - Integrated with Social Security

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## How Benefits Are Earned

- Employee may contribute
  - Pre-tax salary deferral
  - Roth post-tax salary deferral
  - Traditional after-tax salary deferral
  - Rollover from another qualified plan
  - Catch-up deferrals

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## When Benefits Are Paid

- Termination of Employment
- In-service Distributions
  - Disability
  - Death
  - Hardship
  - Stated Age or Number of Years
- Required minimum distribution (RMD)*





## How Benefits Are Paid

- Normal
  - Lump Sum
- Optional
  - Direct Rollover to another qualified plan
  - Installments
  - Combination
  - Involuntary cash-out
  - Annuity
- Amount = Vested account balance

## Loans

- Optional plan feature
- Makes the sponsor into a banker
- Leads to leakage from a person's retirement





## In-Service Withdrawals

- Optional plan feature
- Rollover accounts
- Hardship

## "Leakage"

Concern:

Loans and in-service withdrawals defeat the purpose of these retirement vehicles as, upon retirement, there are fewer assets available

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## Types of DC Plans

- Profit Sharing
- 401(k)
- 403(b) [Education]
- 457 [Gov't]
- IRA
- Roth IRA
- SEP (Simplified Employee Pension)
- SIMPLE (Savings Incentive Match Plan for Employees)
- Stock Bonus
- Money Purchase
- ESOP (Employee Stock Ownership Plan)

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## Pooled Employer Plan (PEP)*

- A type of MEP that is:
  - An individual account plan (*i.e.* not DB or cash balance plans)
  - Established or maintained by a "Pooled Plan Provider" to provide benefits to employees of two or more employers
  - Meets certain code requirements
- All PEPs are MEPs; not all MEPs are PEPs.

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## Pooled Employer Plan (PEP)*

- PEP Participating Employer—Any employer that participates in the PEP
- Pooled Plan Provider—The Pooled Plan Provider (PPP) who sponsors the PEP:
  - Is designated by the terms of the plan as a Named Fiduciary and the Plan Administrator responsible to perform all administrative duties
  - Registers as a Pooled Plan Provider
  - Acknowledges status as Named Fiduciary
  - Ensures fiduciaries and others handling assets are bonded as required under ERISA

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# Poll

What types of DC plans do you offer?

(Choose all that apply.)

- Profit Sharing Plan
- 401(k)
- 403(b) [Education]
- 457 [Gov't]
- IRA
- Roth IRA
- SEP (Simplified Employee Pension Plan)
- SIMPLE Plan
- Stock Bonus
- Money Purchase Plan
- ESOPs





# Profit Sharing Plan

- Sponsor contributes portion of profits
  - Discretionary or according to a formula
  - Don't need "profits" to make a contribution
    - "Not-for-profits" can have a profit-sharing plan
- Allocate to participants according to specified formula

# 401(k) Plan

- Feature of a profit sharing or stock bonus plan
- EE chooses
  - Current cash or deferred compensation
- Deferrals not taxed until distributed from plan
  - But FICA tax does apply
  - Different states tax differently
- Typically designed to encourage EE savings
  - EE must contribute to receive ER matching contribution

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# 401(k)—Types of Contributions

- Employee
  - Pre-tax (elective deferrals)
  - After-tax
  - Roth
- Employer
  - Match EE contribution
    - Pre-tax
    - After-tax
  - Non-elective contribution
    - Not dependent on EE contribution
    - May be a fixed amount, dependent on profits, etc.

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# 403 (b)

- 403(b) Plans
  - Not for profit entities or governmental education entities
  - Works like a 401(k) plan

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# 457 (b)

- 457(b) Plans
  - Governmental entities
  - Not for profit entities can sponsor 457(b) plan, but only for a select group of top tier employees

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## Money Purchase Plan

- Plan has a required contribution
  - Contribution must be based on fixed formula (cannot be tied to profits or ER discretion)
- DC Plan, but treated as DB for some purposes
  - Minimum funding rules apply
  - Qualified joint and survivor required
- Pre-tax EE contribution not permitted





## SEP Plan

- Simplified Employee Pension (SEP) Plan
  - Only employer money
  - Uses an IRA funding vehicle

## SIMPLE Plan

- Savings Incentive Match PLan for Employees (SIMPLE)
  - Allows participant deferrals.
  - For employers with fewer than 100 participants





## Employee Stock Ownership Plan (ESOP)

- Stock bonus or combination stock bonus/money purchase plan
- Invest primarily in employer securities
  - Special exemption from diversification rules
- Leveraged ESOP
  - Plan borrows funds needed to acquire ER stock
- KSOP
  - 401(k) feature;
  - ER match used to buy company stock
- Additional Code and ERISA requirements apply

# ESOP Basics

- Ownership
  - Employees become beneficial owners
- Contributions
  - The company makes contributions to ESOP, which can be in the form of newly issued stock, cash to buy existing stock or borrowed funds to purchase stock
- Vesting
  - Employees earn right to stock over time
- Distribution
  - Depending on plan design when company requires the employee to sell back to company if required
- Tax advantages

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# ESOP: Pros and Cons

Pros

- Employee Motivation and Retention
- Tax Benefits
- Succession Planning
- Improved Corporate Performance

Cons

- Complexity and Cost
- Dilution of Ownership
- Repurchase Obligation
- Investment Risk
- Litigation Risk

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## Compare DB and DC Plans

How are benefits distributed?

How are risks allocated?

Other features

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## Distribution of Benefits

| DB Plan | DC Plan |
| --- | --- |
| • Provides the same <u>monthly benefit</u> for a year of work to all EEs | • Provides the same <u>contribution</u> for a year of work to all EEs |

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# Distribution of Benefits

How do we compare . . .

- Monthly income? **(the DB plan)**
- With Contribution? **(the DC plan)**

Convert one to the other:

- Monthly income to contribution (cost)
- Contribution to monthly income

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# Sample Plans

| DB Plan | DC Plan |
|---|---|
| • Benefit is $100 for each year of service<br>• Enter at age 30<br>• Retire at age 60<br>• $3,000 monthly benefit at retirement | • $3,500 annual contribution<br>• 6.5% interest<br>• Enter at 30<br>• Retire at 60<br>• $322,000 in fund at retirement |

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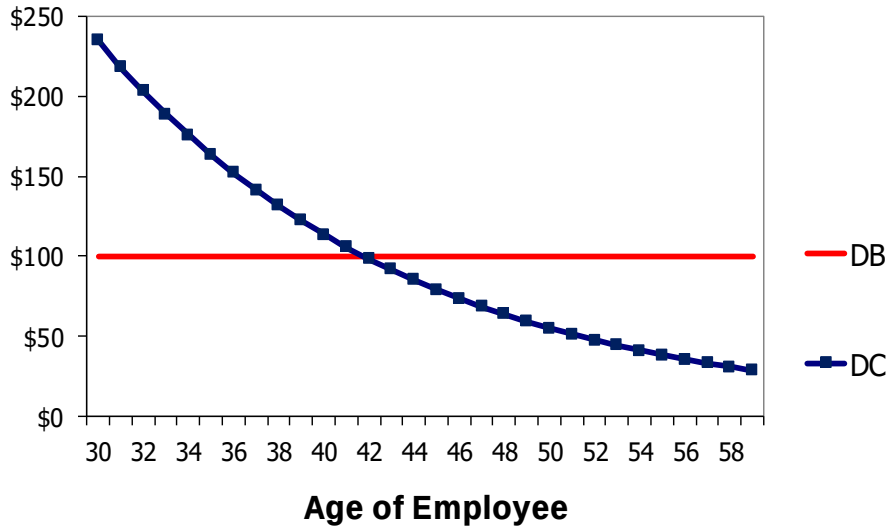
# Distribution of BENEFITS by Age



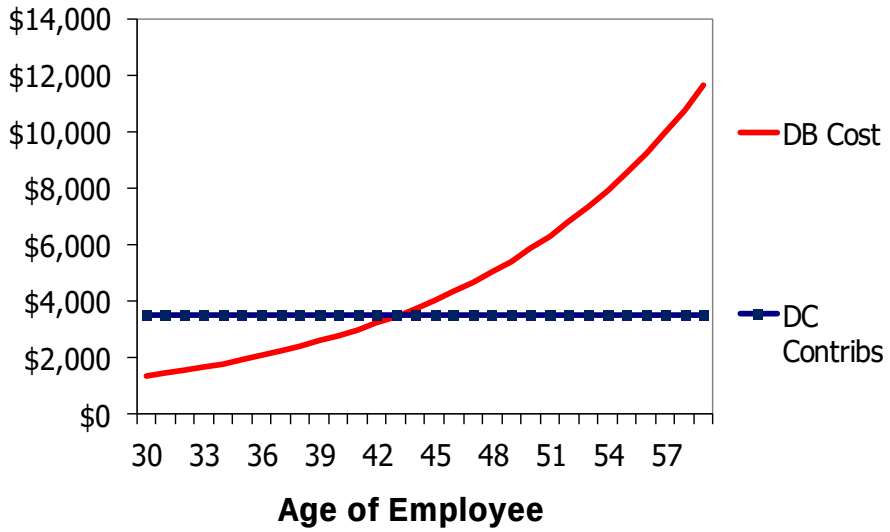





# Why DC Benefits Decline

- At a return of 6.50% per year:
  - $3,500 at 30 grows to $23,150 at 60
  - $3,500 at 55 grows to $ 4,795 at 60
- Contribution at 30 can buy more income at retirement

# Distribution of COST by Age








# Distribution of Benefits

## DB Plan

- Provides the same monthly benefit to all EEs for a year of work
- Higher cost for older participants
- DB favors older EEs [Assumes plan-sponsor stability]

## DC Plan

- Provides the same contribution to all EEs for a year of work
- Larger monthly benefits for younger participants
- DC favors younger EEs [Assumes solid investment returns]

# Distribution of Benefits

How benefits are distributed by age is a fundamental consideration in the selection and design of a plan

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# Allocation of Risk—Benefit Adequacy

| DB Plan | DC Plan |
| --- | --- |
| • Can target amount of benefit<br>• Benefit guaranteed for life<br>• Sponsor at risk | • Cannot control amount of benefit:<br>– Benefits can be inadequate or excessive<br>• Participant at Risk |

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# Allocation of Risk—Investments

| DB Plan | DC Plan |
|---|---|
| • Assets pooled<br>• Sponsor manages investments<br>• Sponsor at risk<br>• Sponsor gets gains | • Participant accounts<br>• Participant manages investments<br>• Participant at risk<br>• Participant gets gains |

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# Allocation of Risk—Funding Status

| | DB Plan | DC Plan |
|---|---|---|
| Funded status | Under or over funded | Always exactly fully funded |
| Liability on plan termination | Possible | No |
| Liability on withdrawal | Possible | No |

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# Allocation of Risk—Employer Cost

## DB Plan

- Cost can change significantly from year to year (G/L)
- Requires actuarial calculations
- Actuarial assumptions important
- PBGC premiums (Pension Benefit Guaranty Corporation)

## DC Plan

- Cost stable from year to year
- Defined by plan (no actuary)
- Expenses higher per capita
- Record keeping more complex

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# Other Features

| | DB Plan | DC Plan |
|---|---|---|
| Credit for past Service | Yes | No |
| Subsidized early retirement | Yes | No |
| Ancillary benefits (death, disability, health) | Yes | No |
| Portability | No | Yes |

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# Cost to Finance Secure Retirement

| DB Plan | DC Plan |
| --- | --- |
| Like insurance:<br>Shared risk<br>• Better investment returns<br>• Lower expenses<br>• Nothing left at death (Joint and Survivor) | Self insurance:<br>Must save more<br>• Generally poorer investment returns<br>• Higher expenses<br>• May provide estate |

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# Employee Perception

| DB Plan | DC Plan |
| --- | --- |
| • More confusing<br>• Thought to have "penalties" | • Easier to understand |

So, which is more popular?

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## What Would You Rather Have?

- $2,500/month at 60
- $250,000 at age 60
- $150,000 at age 50

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## Hybrid Plans

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## Hybrid Plans

While potentially more complex than either defined contribution plans and defined benefit plans individually, hybrid plans seek to combine parts of both plans to reduce the weaknesses found in traditional retirement plan structures.

RPA 2
Module 8
Objective 2

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## Problems With DB Plans

- Not as appealing to young employees
  - Difficult to comprehend
- Sponsor typically bears all the risks
- Funding can be volatile
- Unfunded liability
- No lump sum payments
- Not portable

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# Problems With DC Plans

- Not as appealing to older employees
- Cannot target retirement income
  - Income replacement rates more volatile
- EE must decide to participate, contribute, and invest assets
- EE bears risks of mortality and investment
- Money leaks out of accounts
- ER cannot subsidize benefits
  - ER cannot encourage certain EE behaviors

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# Problems With DC Plans

"Based on the notion that the average American worker has the time, interest, and ability to fund and invest their way to a secure retirement in their spare time."

"It's akin to asking the average worker to become their own auto mechanic on the side, but with much larger potential social costs."

Source: http://moneywatch.bnet.com/investing/blog/fund-watch/time-for-some-intellectual-honesty-from-the-ici-in-the-retirement-debate/269/?tag=content;col1

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# Starting from Scratch:

## What would we want our retirement plan to be like?

1. Secure benefits
   - Provide lifelong income to retirees
   - With inflation protection
2. Stable contributions
   - Contributions fund current, not past, benefits
   - Contributions provide desired level of benefits
3. Fully funded in all market conditions
   - No withdrawal or termination liability
   - Ability to attract new employers

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# Possible Solutions—Hybrid Plans

| Make DB Plan look like DC | Make DC Plan look like DB | Provide benefits of both |
|---|---|---|
| • Cash balance<br>• Pension Equity Plan<br>• Variable Annuity | • Age-weighted profit sharing | • Floor-offset<br>• Combined plan |

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## Cash Balance (CB) Plan

- DB Plan
- Hypothetical participant accounts
- Annual credits (additions)
  - Pay credit
  - Interest credit
- At retirement, convert account to monthly income
- Lump-sum payout often provided
- Most common hybrid

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## Cash Balance—Pay Credits

- Fixed percent of pay
- Graded by age
- Graded by service
- Graded by points (age + service)
- Integrated with Social Security
- Flat dollar amount

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# Sample Credit Schedules

| Age | Percent of Pay |
|---|---|
| < 30 | 2.9% |
| 30-34 | 3.5% |
| 35-39 | 4.0% |
| 40-44 | 5.0% |
| 45-49 | 6.0% |
| 50-54 | 7.0% |
| 55-59 | 8.0% |
| 60 + | 8.5% |

| Years of Service | Percent of Pay |
|---|---|
| <5 | 3.5% |
| 5-9 | 4.5% |
| 10-14 | 5.5% |
| 15-19 | 6.5% |
| 20-24 | 7.0% |
| 25-29 | 7.5% |
| 30-34 | 8.0% |
| 35 + | 8.0% |

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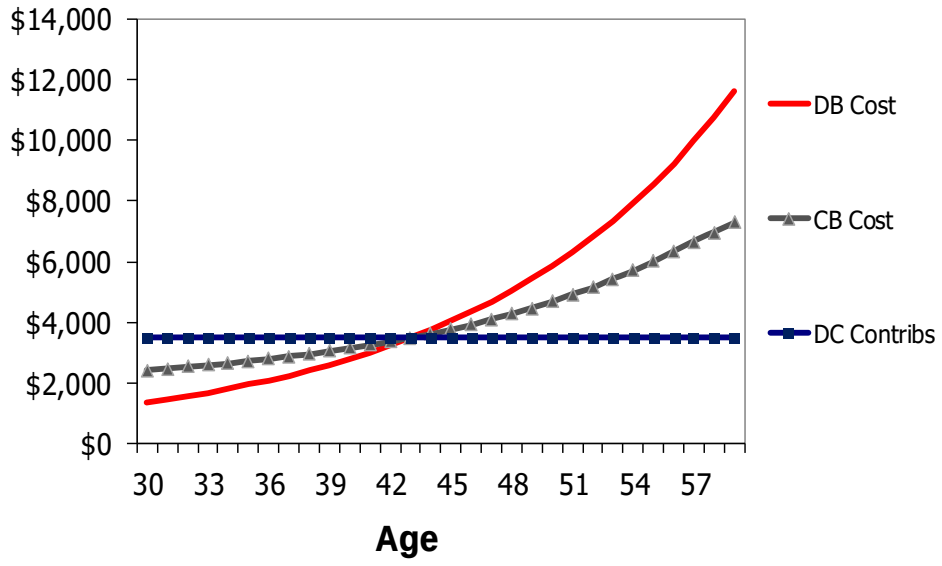
# Cost / Value by Age: Cash Balance

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# Cash Balance—Interest Credits

- Not related to actual fund returns
- Rate of return must be stated in the plan
  - Fixed rate; or
  - Variable rate tied to published index
    - 30 Year Treasury
    - One year T-Bills; or
  - Combination (*i.e.*, Variable with min or max)
- Investment risk remains with employer





# Cash Balance Example

**Pay in year one—78,000**
**Pay in year two—80,000**

**Pay credit—4%**
**Interest credit—5%**

**First Year**

| | |
|---|---|
| Pay Credit: | $78,000 x 4% = $3,120 |
| Account Balance at end of year one: | $3,120 |

**Second Year**

| | |
|---|---|
| Pay Credit: | $80,000 x 4% = $3,200 |
| Interest Credit: | $3,120 x 5% = $ 156 |
| Account Balance at end of year two: | $6,476 |

## Cash Balance—At Retirement

- Annuity
  - Convert account balance to monthly income
  - Qualified Joint and Survivor
  - Other payment options
- Lump sum often offered

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## Cash Balance—Other Benefits

- Termination: Three-year vesting
- Early retirement
- Disability
- Death: Must provide pre-retirement J&S
- Benefit: Typically pay account balance as lump sum

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# Cash Balance—Other Features

- Funded like DB
  - Actuarial calculations
  - Cost is not equal to sum of annual additions
- Insured by PBGC (Pension Benefit Guaranty Corporation)
- Expected to be more stable over time





# Comparison

| DB | Cash Balance | DC |
|---|---|---|
| Benefit formula | Account balance | |
| Annuity benefit | Lump sum | |
| Assets pooled | | Separate accounts |
| ER at risk | | EE at risk |

## Comparison *(continued)*

| DB | Cash Balance | DC |
|---|---|---|
| Can subsidize | | Cannot subsidize |
| Actuarial funding | | Actual funding |
| Insured | | Not insured |
| EE confusion | EEs understand | |

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## Pension Equity Plan: (PEP)*

- A defined benefit (DB) plan that pays a lump sum at retirement or exit
- Benefit is based on your final average salary and years of service
- Combines features of DB and DC plans
- Also called:
  - Final-pay cash balance plan
  - Portable pension

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## Pension Equity: How Benefits Are Calculated



- Each year of service earns a percentage of pay, based on your age
- Example percentages:
  - Under 30: 4%, Age 31–34: 5%, Age 35–39: 6%, etc.
- Example:
  - Ten years of service, age 35
  - Five years at 4% + Five years at 5% = 45%
  - Final average pay = $50,000 → Lump sum = $22,500
- May produce same benefit as cash-balance plan if:
  - Increases in annual salary equal the "cash balance interest rate"



## Pension Equity: Retirement and Other Benefits



- At retirement:
  - Take lump sum or convert to monthly income
- Other benefits:
  - Paid as lump sum if you leave early, retire early, become disabled, or pass away

# Benefits of CB and PEP*

## Sponsors

- Cost less volatile than DB plan
- Sponsor controls investment
- Financial accounting (liability) less volatile
- Allocate risk more evenly between ER and EE
- Funding flexibility
- More attractive to younger workers

## Participants

- Lower investment risk for participants
  - Guaranteed by the ER/PBGC
- All eligible employees participate
- Variety of payment options
  - Lifetime income, J&S options
- Benefits more portable than DB

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# Variable Annuity Pension Plan: (VAPP)

- Accrue benefits like a traditional DB Plan
  - Participant earns a unit of benefit each year of service in the plan
- Once earned, benefits go up OR down based on the actual return on plan assets
  - Benefits can be volatile, even in retirement
- Plan stays funded in all market conditions
  - Keeps assets and liabilities in balance by adjusting liabilities to match assets

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# Basic Variable Annuity Pension Plan

- Career avg., flat dollar, or $/hour type formulas
- Initial benefit is based on a "Hurdle Rate," usually set between 4% and 5%
- Annual contribution must cover cost of benefit earned plus expenses
- Liabilities calculated at hurdle rate
- Earned benefits fluctuate annually based on investment return
  - If return = Hurdle Rate: Benefits do not change
  - If return > Hurdle Rate: Benefits may increase by excess
  - If return < Hurdle Rate: Benefits may decrease by shortfall

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# Basic Variable Annuity Pension Plan

- Example
  - Suppose a retiree's benefit is $1,000/mo.
  - And the plan has a 4% hurdle rate
  - If plan investments lose 6%
  - The new monthly benefit amount is $904

    $1,000 * (1-0.06)/(1.04) = $904
  - The next year plan investments gain 16%
  - The monthly benefit increases to $1,008

    $904 * (1+0.16)/(1.04) = $1,008

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# Stabilized Variable Annuity Pension Plan: (VAPP)

## Characteristics:

- Ceiling on high returns
- Floor on low returns
- A portion of investment return in good years is held back as a reserve
- Reserve is used to prevent benefits from going down in bad years





# Comparison

| | DB | DC | VAPP | Stabilized VAPP |
|---|---|---|---|---|
| Lifetime income | Yes | No | Yes | Yes |
| Inflation protection | No | Maybe | Maybe | Yes |
| Retiree benefit can decrease | No | Yes | Yes | Poss. |
| Stable contributions | No | Yes | Yes | Yes |
| Always fully funded | No | Yes | Yes | Yes |
| PBGC premium | Yes | No | Reduced | Reduced |
| Eliminates future withdrawal liability | No | Yes | Yes | Yes |

# Transition Considerations

- Still need to fund current plan liabilities
  - De-risking options
- Converting from old to new plan benefits
  - From Traditional DB Plans
    - A+B: Accrued benefit to date of change plus new benefit after that
    - Wear-away:
      - Freeze accrued benefit at date of change
      - Calc second benefit under new formula
      - Benefit is the greater of frozen accrued benefit and the new benefit
  - From DC Plans
    - Conversion factors may require a determination letter

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# Day 1 Case Study: Hope Springs Advertising: Part 1*

*Disclaimer: The company name and names of people depicted in this case study are entirely fictional and are used solely for education purposes. Any resemblances to actual companies and people, including names or logos, are coincidental.

# Key Takeaways

**Your Feedback Is Important. Please Scan This QR Code.**

Session Evaluation