AMERICAN ACADEMY of ACTUARIES

Professional Responsibilities of Pension Actuaries
Cash Balance Plans in the USA

Presentation by
RON GEBHARDTSBAUER
SENIOR PENSION FELLOW
AMERICAN ACADEMY OF ACTUARIES

For the International Actuarial Association Pensions Seminar
at the Grand Hotel in Brighton, England
9:00 AM to 10:30 AM
Thursday, June 7, 2001

The American Academy of Actuaries is the public policy organization for actuaries of all specialties within the United States. In addition to setting qualification standards and standards of actuarial practice, a major purpose of the Academy is to act as the public information organization for the profession. The Academy is nonpartisan and assists the public policy process through the presentation of clear analysis. The Academy regularly prepares testimony for Congress, provides information to federal elected officials, regulators and congressional staff, comments on proposed federal regulations, and works closely with state officials on issues related to insurance.

Outline

- What are Cash Balance Plans?
- USA Historical Perspective
  - Why Convert to Cash Balance plan?
- Challenges at Conversion
- Remedies
- Federal Developments
- Future?
- How Did Profession Respond?

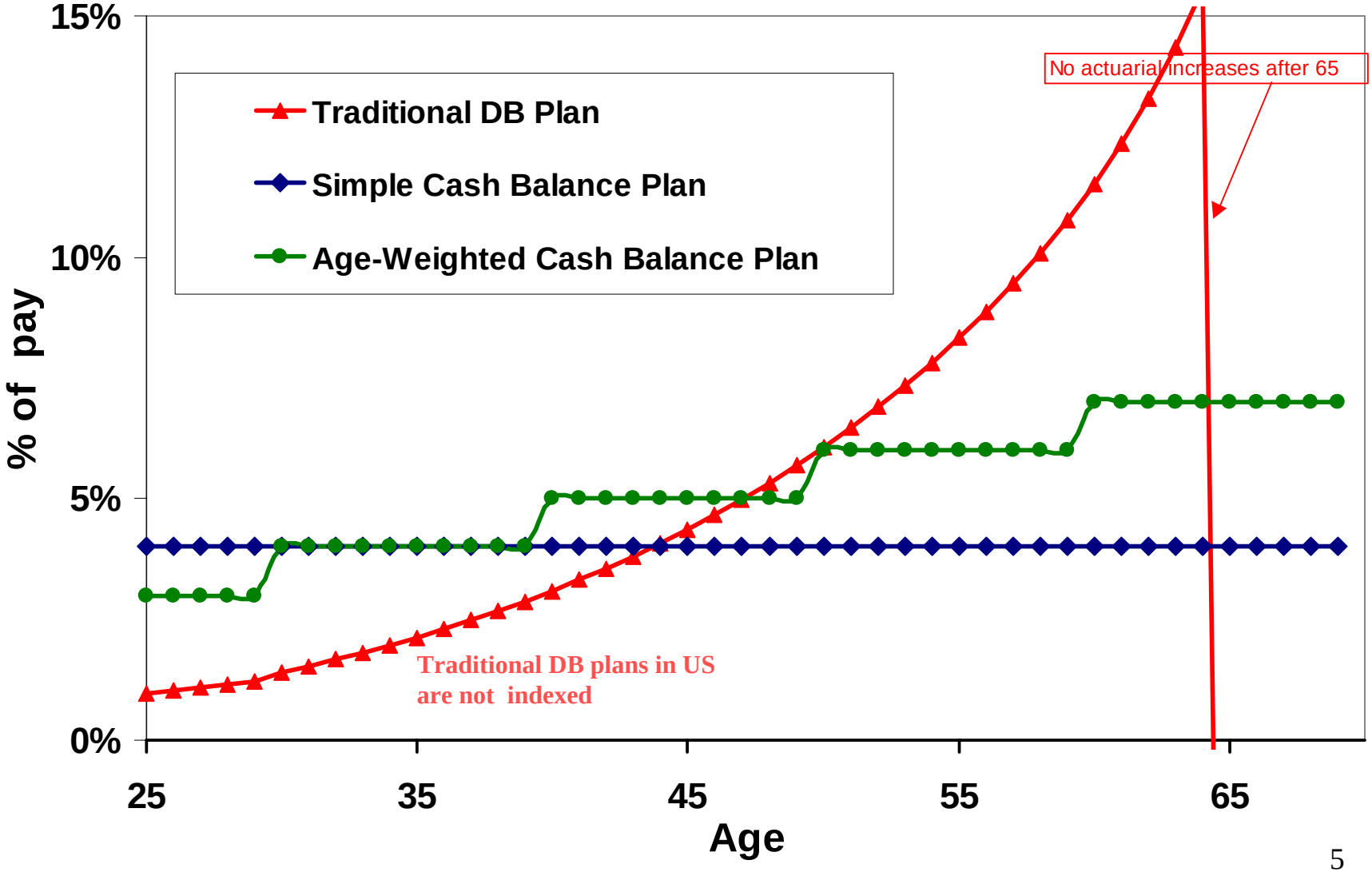
What are Cash Balance Plans?

- Hybrid Pension Plan (Scheme)
  - DB (Defined Benefit) Plans that look like
  - DC (Defined Contribution) Plans
- DB because Pension Plan Document defines both
  - Pay Credit (notional contribution)
  - Interest Credit (notional investment return)
    - In DC plans, you get whatever the assets yield
- Not traditional DB - It defines benefits in terms of:
  - A cash balance today
  - Traditional DB plans define pension at retirement

What are Cash Balance Plans?

- Pay Credit (Notional Contribution)
  - 5% of pay
  - Age Weighted (e.g., 3% in 20's to 7% in 60's)
  - More even benefit accrual, relative to traditional DB - Chart I
- Interest Credit (Notional Investment Return)
  - 6%
  - 30-Year Treasury Rate
  - One-Year Treasury Rate + 1%
  - 417(e) whipsaw problems, if greater than 30 Year Treasury
    - 2nd Circuit Court of Appeals (Lyons v Georgia-Pacific), and
    - 11th Circuit Court of Appeals (Esden v Bank of Boston)
    - Lump sum cash out = PV of projected accrued benefit, using 30-yr Treasury rate (by law), is larger than account balance (double at young ages)

Chart I - Contribution Needed
(Using UC method and 6%)



What are Cash Balance Plans?

- Can take lump sum distribution upon separation, or
- Convert account balance to annuity @ retirement
  - Employee may have risk if annuity prices go up
  - Fixed or Subsidized purchase rates can help, but there may be legal/whipsaw problems
- Otherwise, Investment Risk borne by plan sponsor

Funding and Asset Allocation Issues

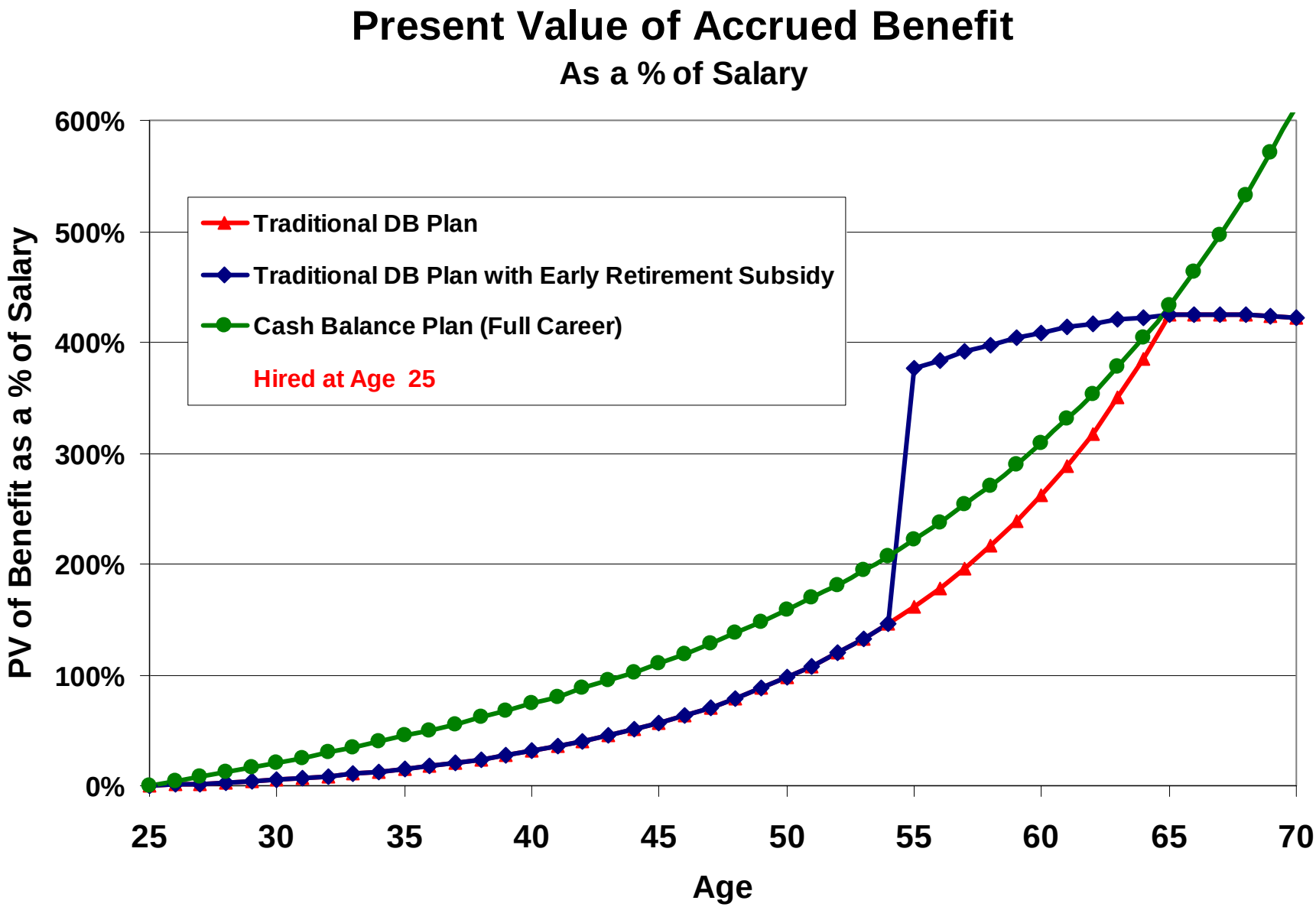
- Funding is slower than accruals
  - If employer gets leverage on asset yield > interest credit
  - PBGC concern if employees quit sooner in their CB plans
    - So PBGC doesn't get as much leverage as the employer would have
- CB plans have shorter liability duration (relative to traditional DB)
  - If interest rates change, liability swings less
  - If Interest Credit pegged to 1-year (or 30-year) Treasury
- Same asset allocation (stock v bonds)
  - But shorter-duration bonds
- Can immunize if interest credits pegged to market returns

Future CB Plan Designs

- Could create investment vehicles which don't exist now
  - Market returns with minimums and maximums
- Employees get investment choice?
  - If whip saw rule is fixed
  - Will employers give up leverage (investment gain) they now have?
- New Conversion/transition designs
- Need to re-emphasize annuity options
  - Subsidize annuity purchase rates? Whipsaw problem?
- New Comparability plans can be in CB plans
  - Provide maximum to owners & Top Heavy 3% to rest?
- Could laws allow CB plans to have:
  - Pre-tax Employee Contributions
  - Employer Matches
  - Meet Social Security Tier II minimums (if passed)

Historical Perspective in USA

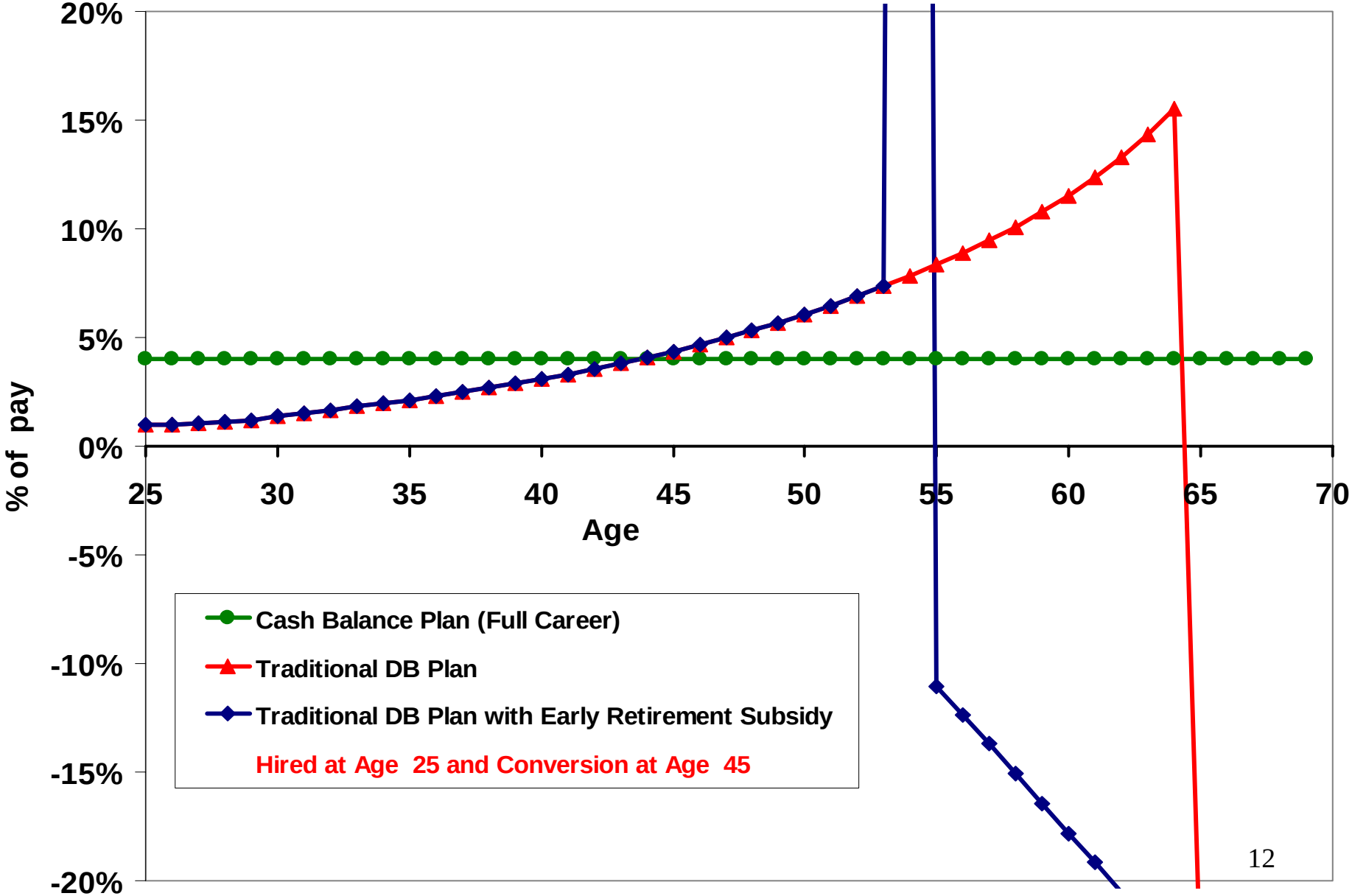
- Many employers subsidized Early Retirement benefits
  - Often to satisfy Union
  - It encouraged employees to retire early (e.g., 50’s)
  - Made sense to employers in 1970’s
    - Due to entrance of baby boomers and women in the workforce


Present Value of Accrued Benefit
As a % of Salary
PV of Benefit as a % of Salary
600%
500%
400%
300%
200%
100%
0%
Traditional DB Plan
Traditional DB Plan with Early Retirement Subsidy
Cash Balance Plan (Full Career)
Hired at Age 25
25
30
35
40
45
50
55
60
65
70
Age

Historical Perspective in USA

- PV of Accruals in DB plans
  - Very small at young ages
    - PV of accrual = 1% of pay
      - Inflation indexing of DB benefits is <u>not</u> required in USA
    - Not attractive enough to hire young
      - When they could get a better accrual in a DC or 401(k)
      - Confusing DB lump sum cash outs = pv accrued vary with interest rates
  - Huge at first unreduced early retirement age (e.g., 55)
    - PV of accrual can equal 200% of pay
    - Employees stay to age 55 and retire
      - Employers don't want them to retire in 1990's

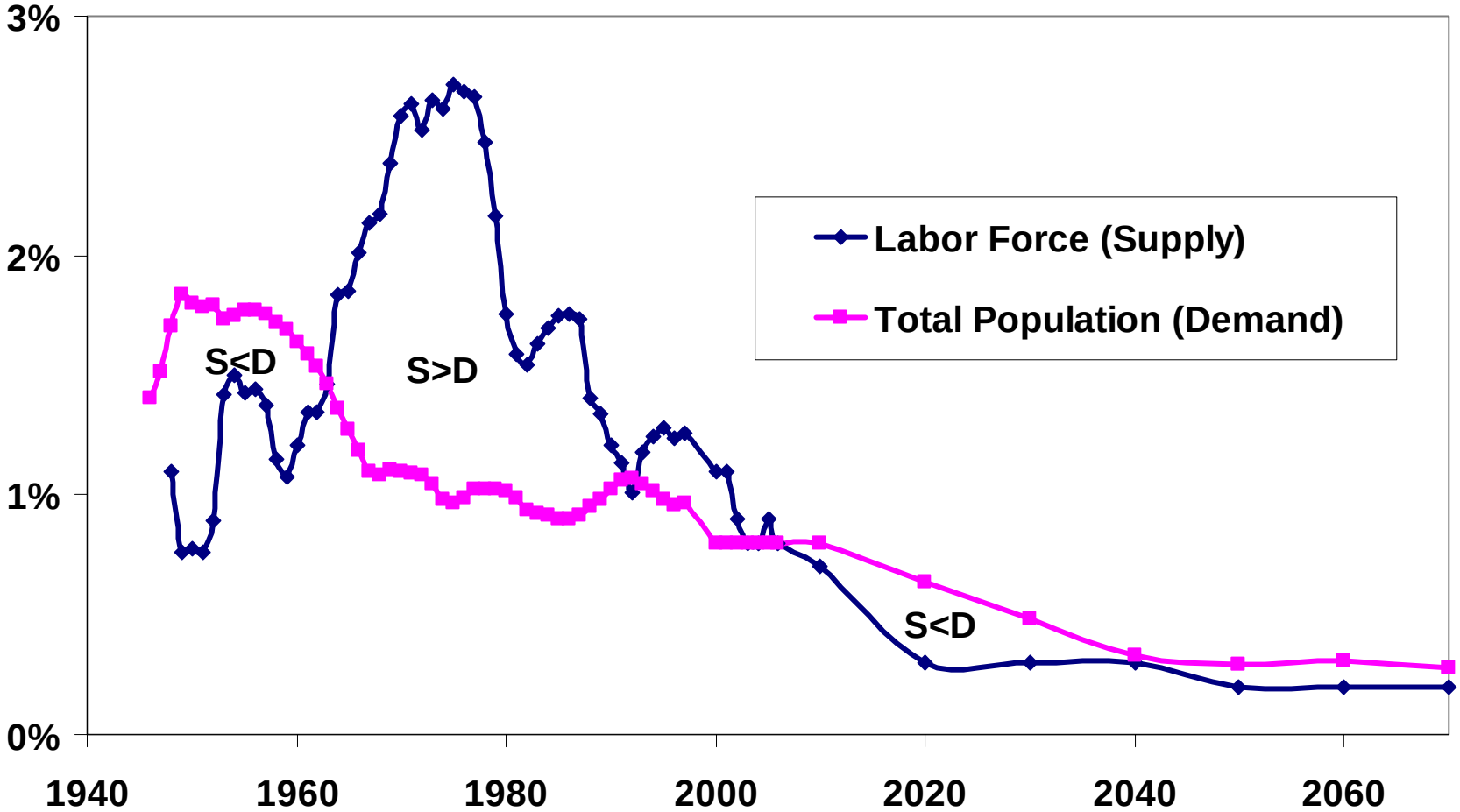
Contribution Needed to Increase Value of Pension



Historical Perspective in USA

- Today
  - Boomers are starting to retire
  - Thus, Labor is scare
  - Early retirement subsidies don’t make sense to employers anymore
- 401(k) plans become hot
    - Employee contributes 6% of pay & gets 50% match

Average Increases in Labor Force & Population



Sources: 2001 SSA Trustees' Report, Tables V.A2 & V.B2, Statistical Abstract of US
Due to smaller increases in labor force, employers may encourage employees to retire later.

Historical Perspective in USA

– So employers are switching to Cash Balance plans
  - Simpler to understand and appreciate
  - Won’t encourage employees to leave in their 50’s
  - Provides better benefit to young hires

Why convert to CB?

- Workforce Management
  - Attractive to young, mobile workforce; women
  - Fewer workers leave at subsidized early retirement
- Simpler: Employees appreciate cash balance more
  - Reduce early retirement subsidy & simplicity change same time
  - Traditional DBs are complex. Inflation indexed would be even more complex, and it would increase risk to employer.
- Flexible funding/design of DB plan
  - Past Service Credits, Interest Guarantees, Windows
- Increasing longevity costs can be controlled
- Higher yields than if employee allocates assets
- Not a plan termination

Why Convert to CB?

Concerns of Employers

- Pays more to employees who quit early
- Application of IRS & EEOC rules not clear
- Conversion is complex and confusing
- Creates winners and losers
- Employers generally provide transition benefits to those that get caught in the middle
- There may still be losers
  - They will be unhappy

Participants' Views

- Easier to understand
- Portable, steadily increasing lump sum
  - But pension can go up and down.
- Younger, mobile employees get more
  - Better for someone who has many jobs over lifetime, but
  - Benefit not related to final pay as well as traditional DB plan
- More Democratic (Charts I-b and I-c)
- Interests of Employees, Employers, and Govt. align
  - Except for those planning to stay in order to get subsidized early retirement benefit (Chart III)
  - Baby boomers may get less accruals before and after conversion (Charts I)
    - Unless Employer provides transition benefits

Chart I-b

CB plan More Democratic than Traditional DB plan

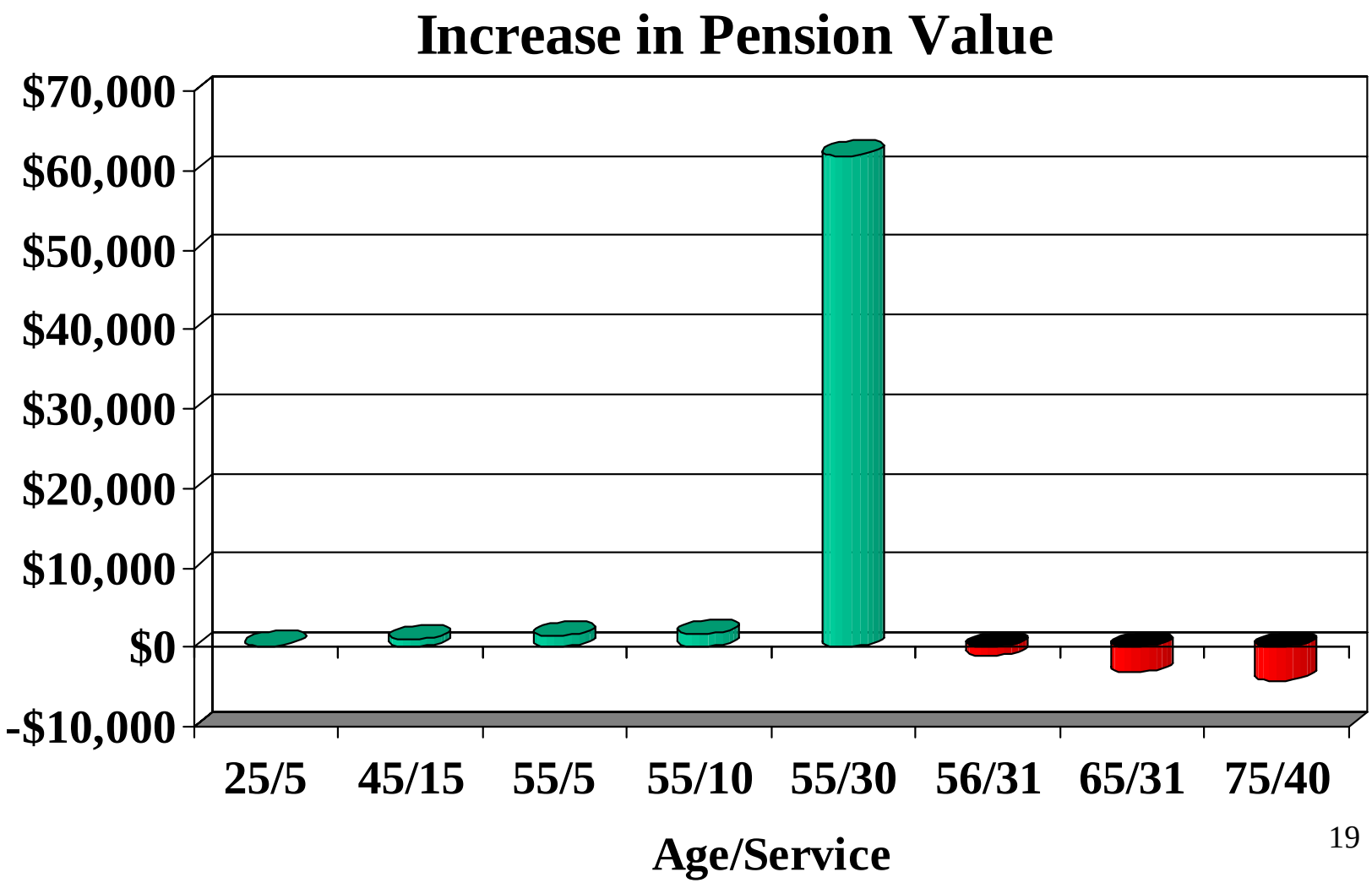
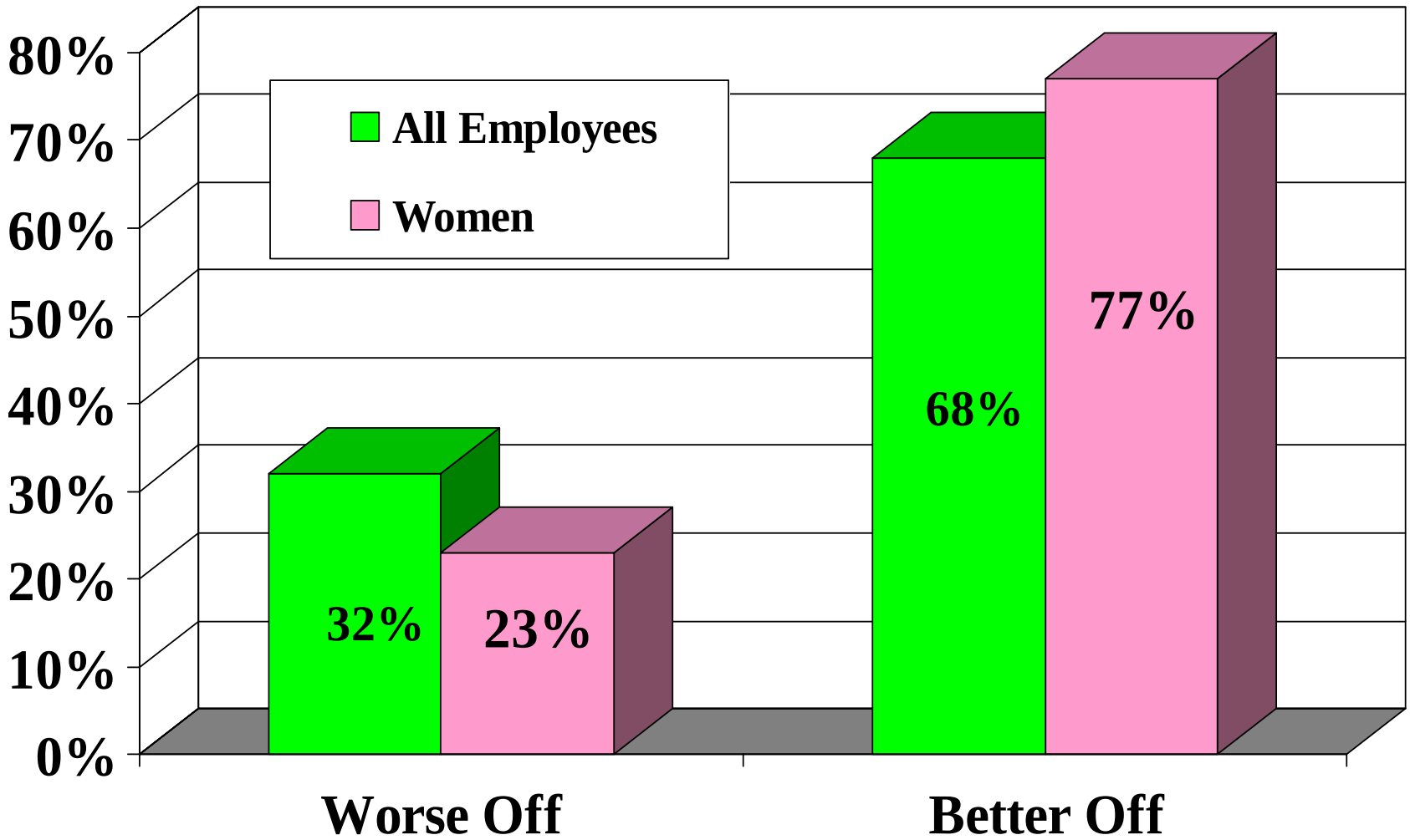


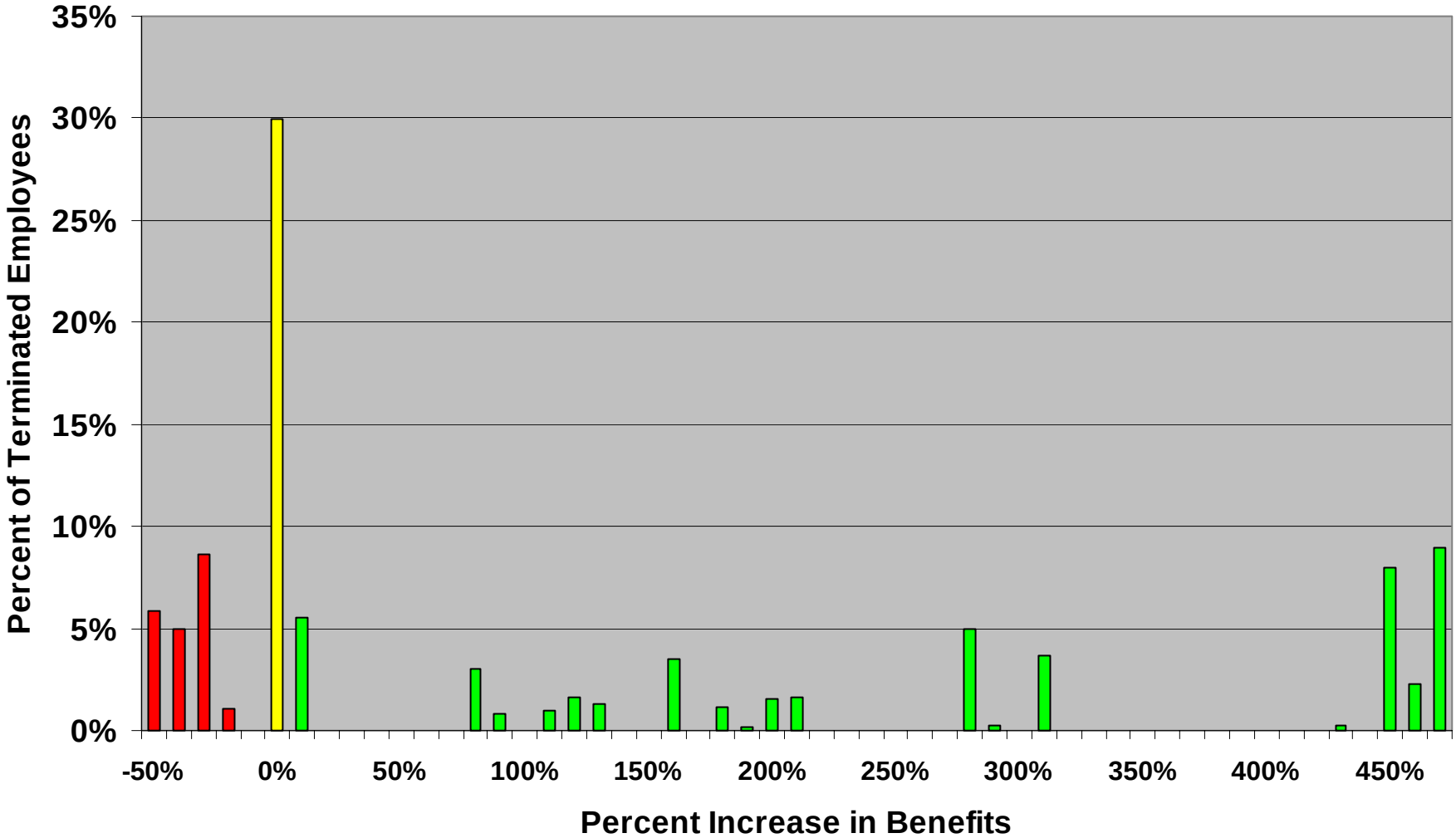
Chart I-c

Which plan is better?

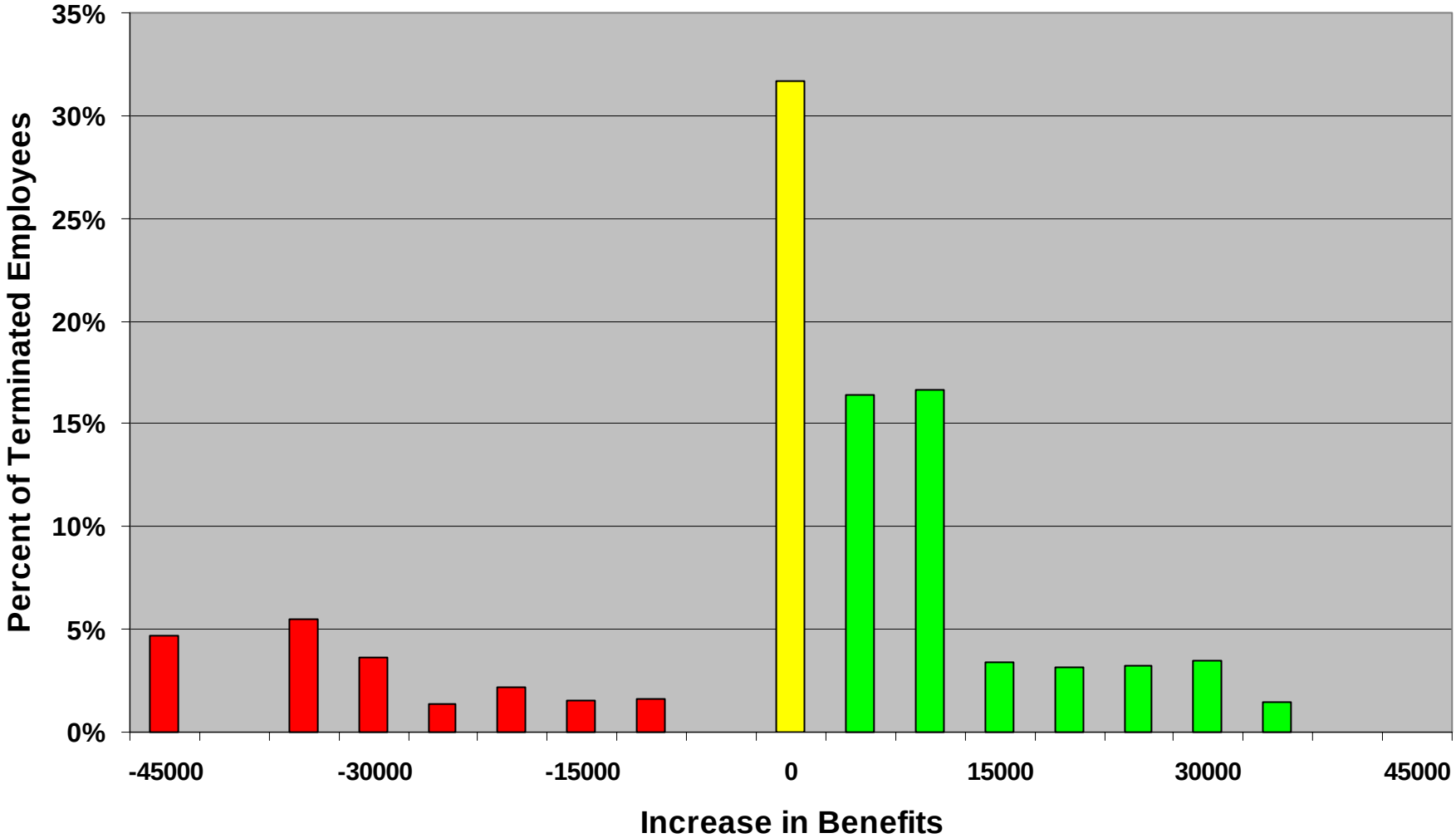


Source: SOA Study in 10/98 The Pension Forum of how a large sample of terminated employees would fare under traditional v cash balance plans

Increase in Benefits thru a Cash Balance Plan



Increase in Benefits thru a Cash Balance Plan



Participants' Views

- While younger employees may like CB plans and their simplicity, longer service employees may get hurt.
- Pension Plateau, while old formula wears away
  - Some employees get no accruals during this period
- Generally, no early retirement subsidy, like 401(k)
  - except on accrued benefit at conversion
- Investment returns less than in 401(k) ?
- Everyone gets something, unlike 401(k) Voluntary Savings plans w match
- Easier to be hired at older ages
- Lower pension if annuity prices go up, like 401(k)
- Accrued benefit guaranteed by PBGC, unlike 401(k)

Chart II - Present Value of Accrued Benefit As a % of Salary

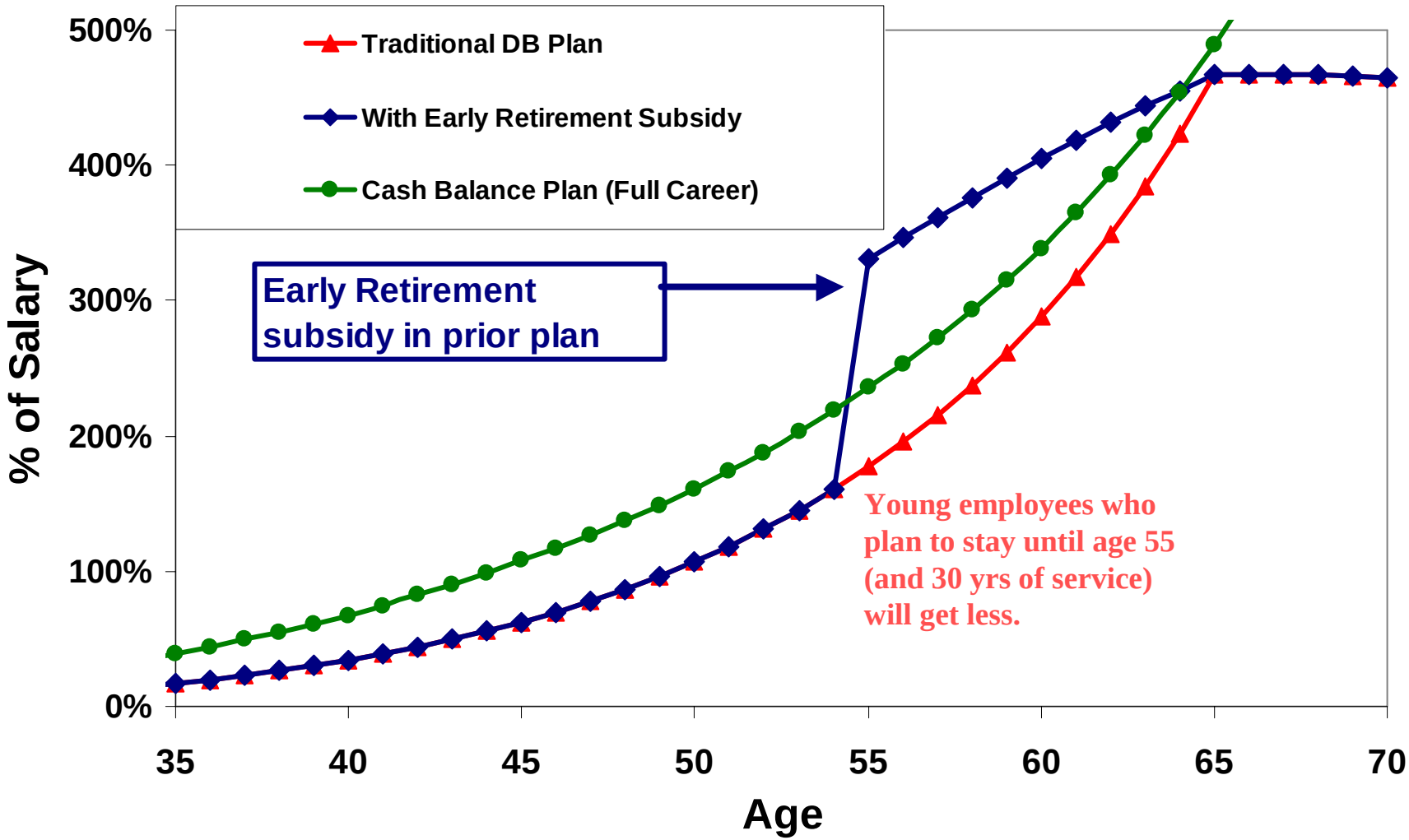


Chart III - Present Value of Accrued Benefit As a % of Salary

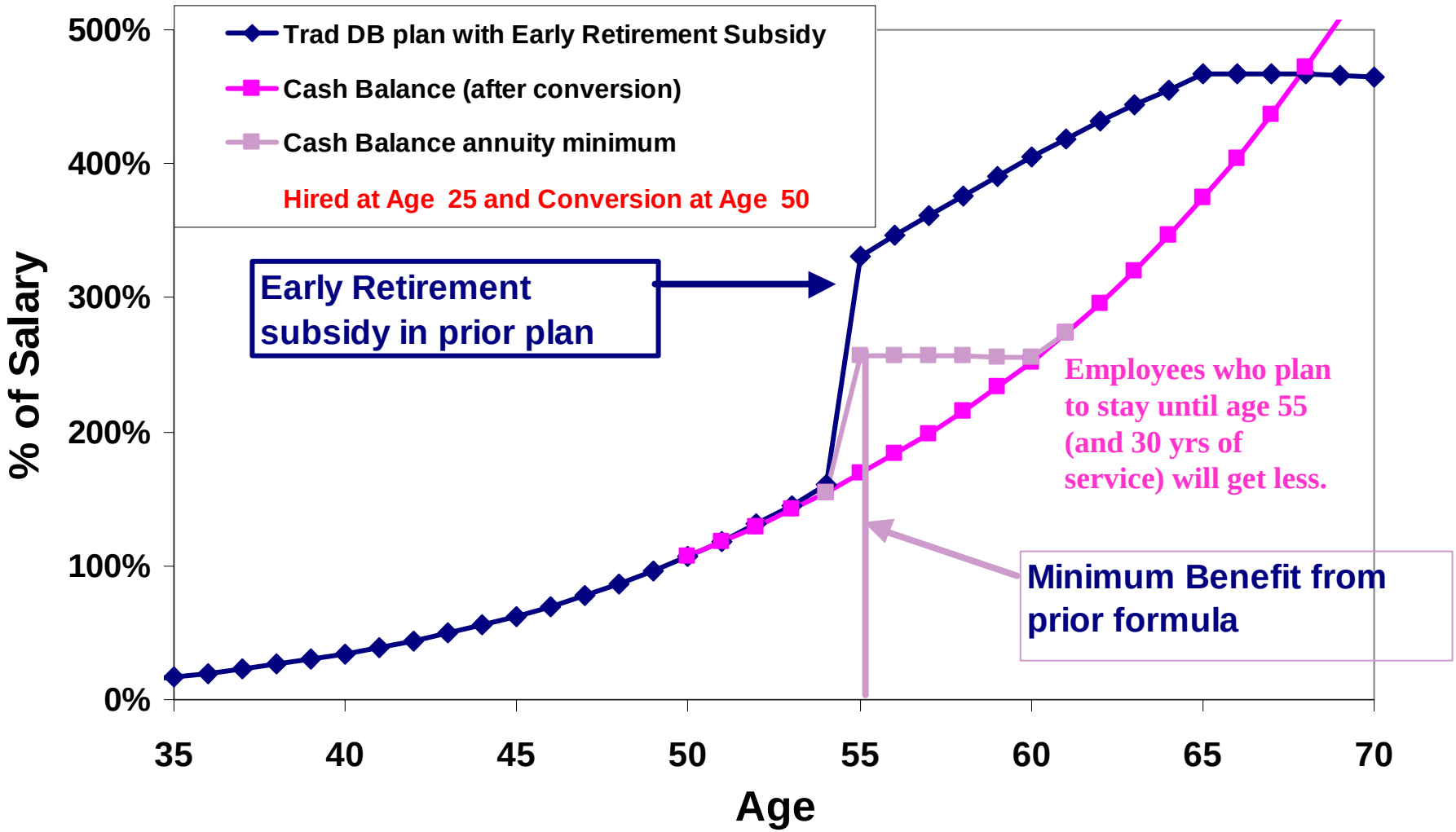
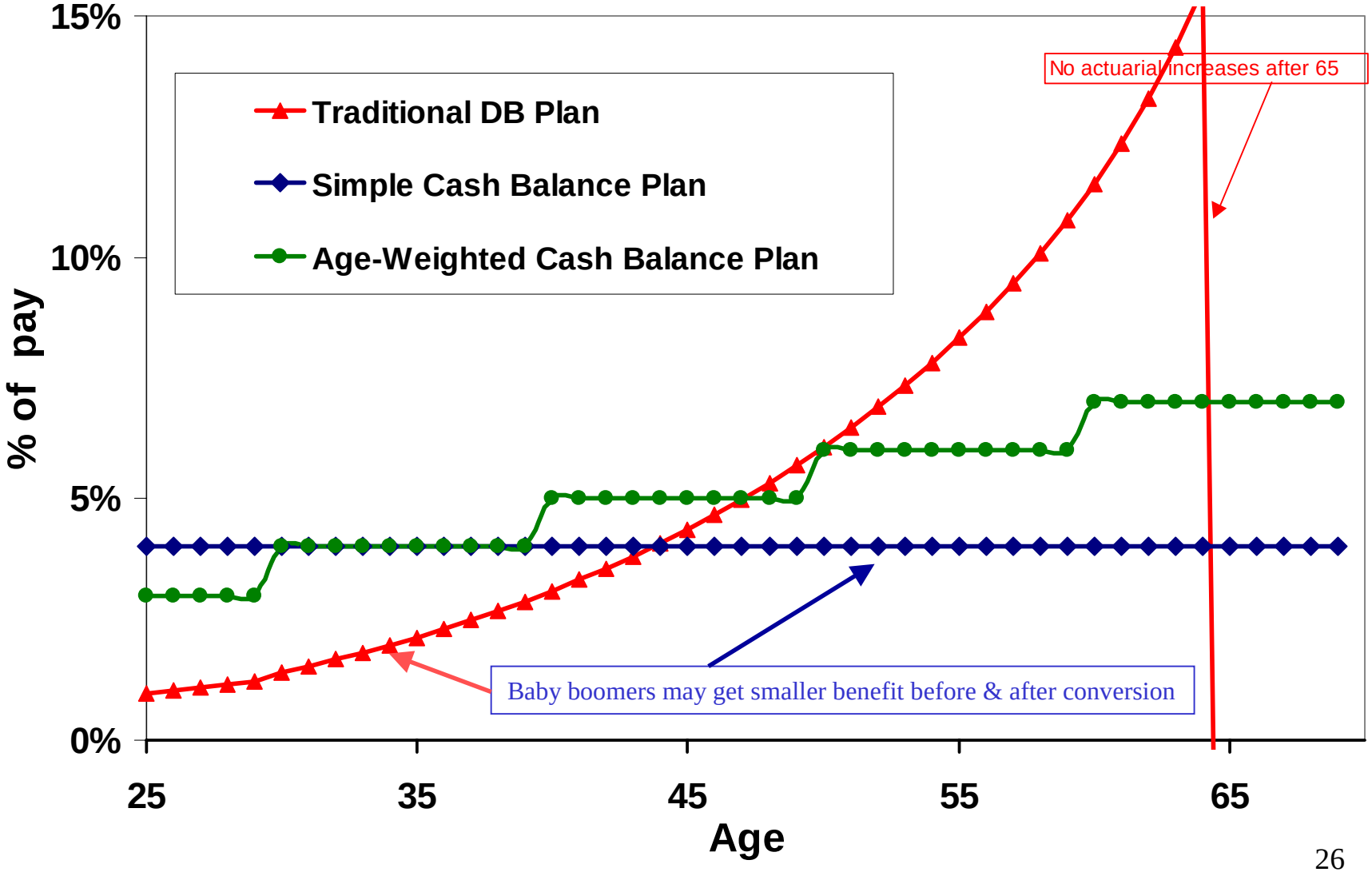


Chart I - Contribution Needed
(Using UC method and 6%)



Challenges at Conversion to CB

Employer sets initial account balance

- Initial balance < lump sum in prior plan (Chart IV)
  - EG Account Balance as if participant had always been in CB plan
    - Generally better for younger employees, but
    - But may not be for people in 50's
  - Higher discount rate chosen by plan sponsor
  - New plan cannot pay less than lump sum from prior plan at conversion
  - This lump sum (and the accrued annuity benefit) creates a plateau until the gap 'wears away' (or prior plan wears away).

- Initial balance = lump sum under prior plan (Chart V)
  - Discount rate in law (GATT rate) if no lump sum in prior plan

Chart IV - Replacement Rates at Retirement After Conversion to Cash Balance Plan

(for someone age 56 at conversion)

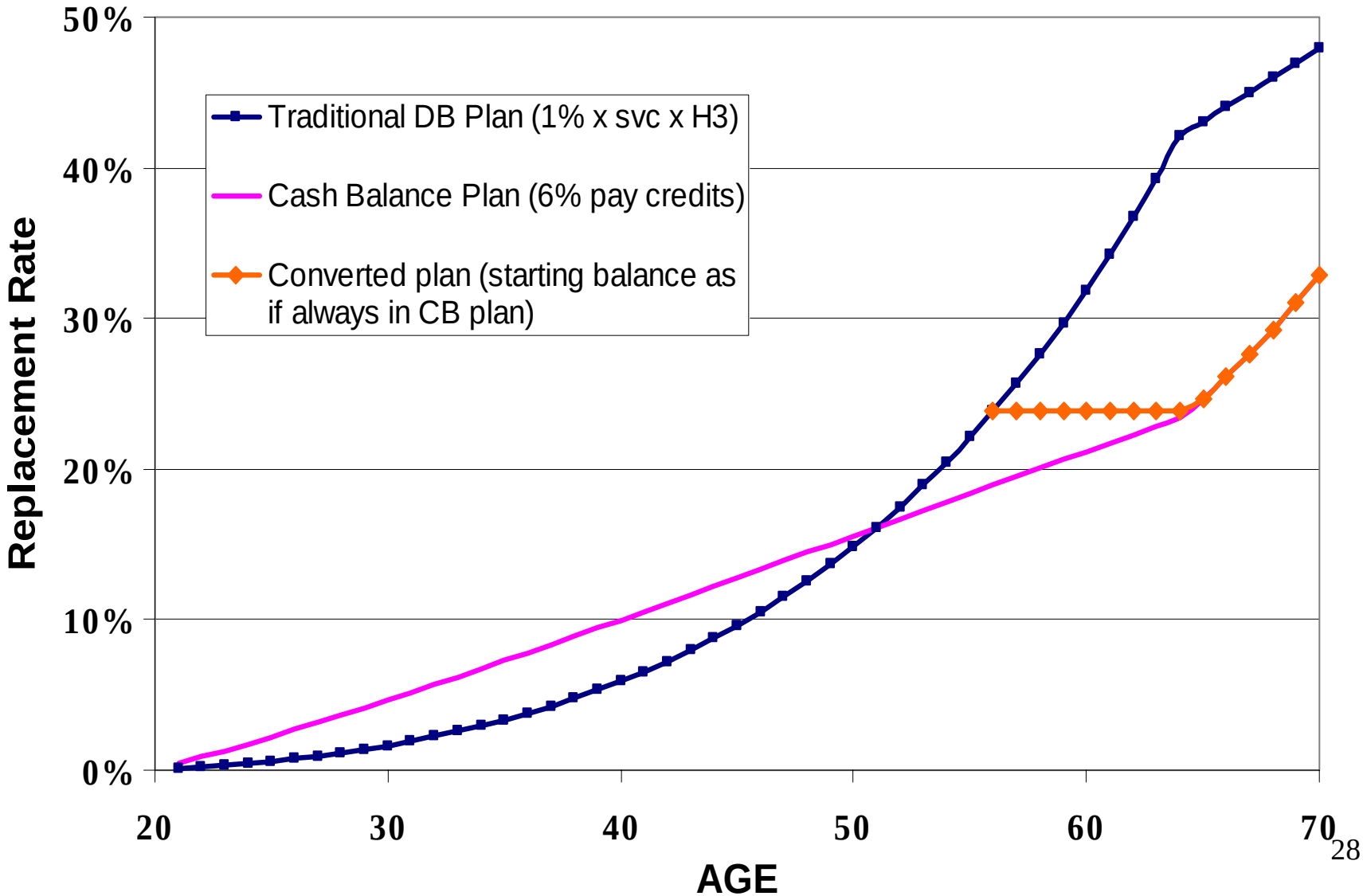
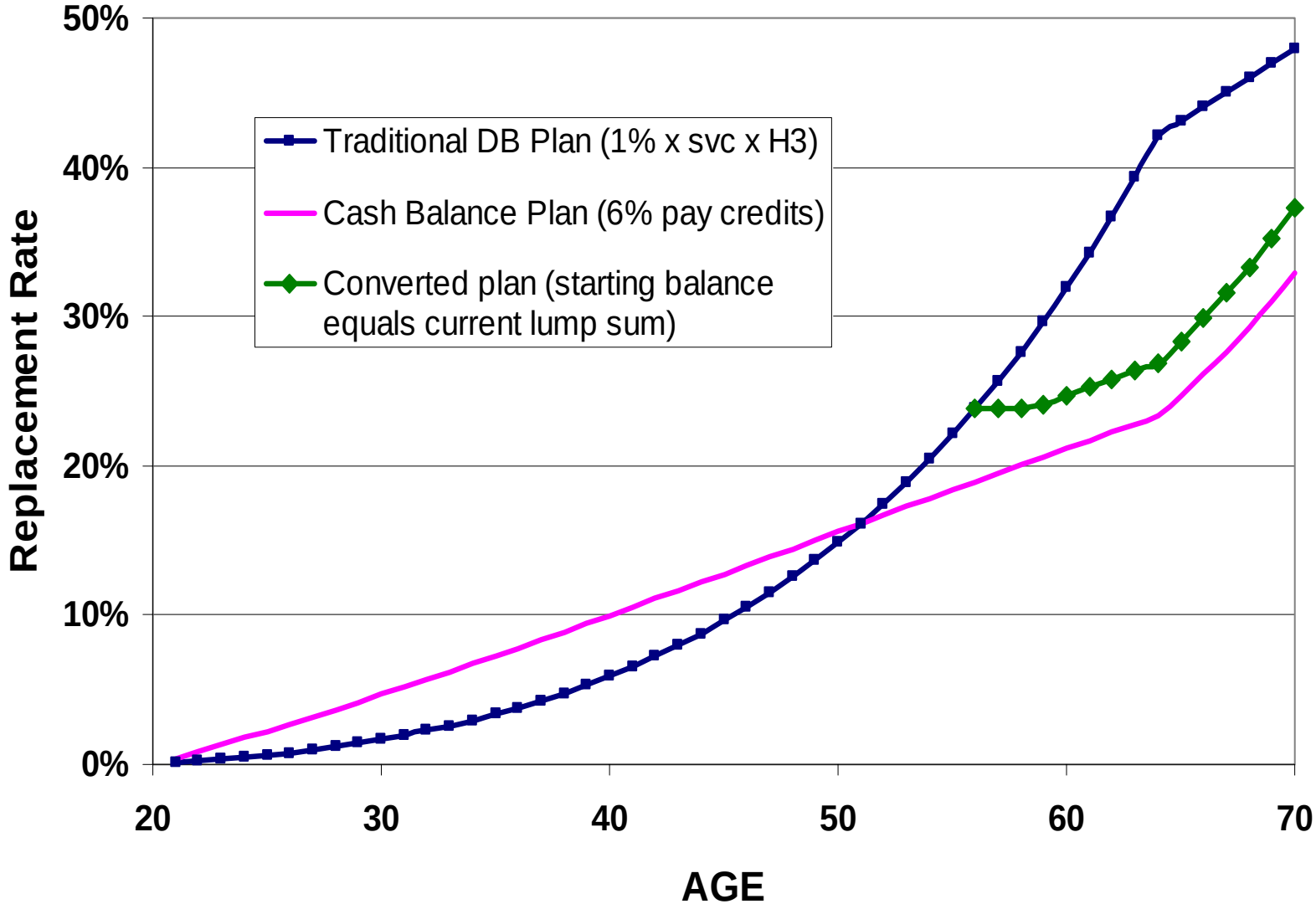


Chart V - Replacement Rates at Retirement After Conversion to Cash Balance Plan

(for someone age 56 at conversion)

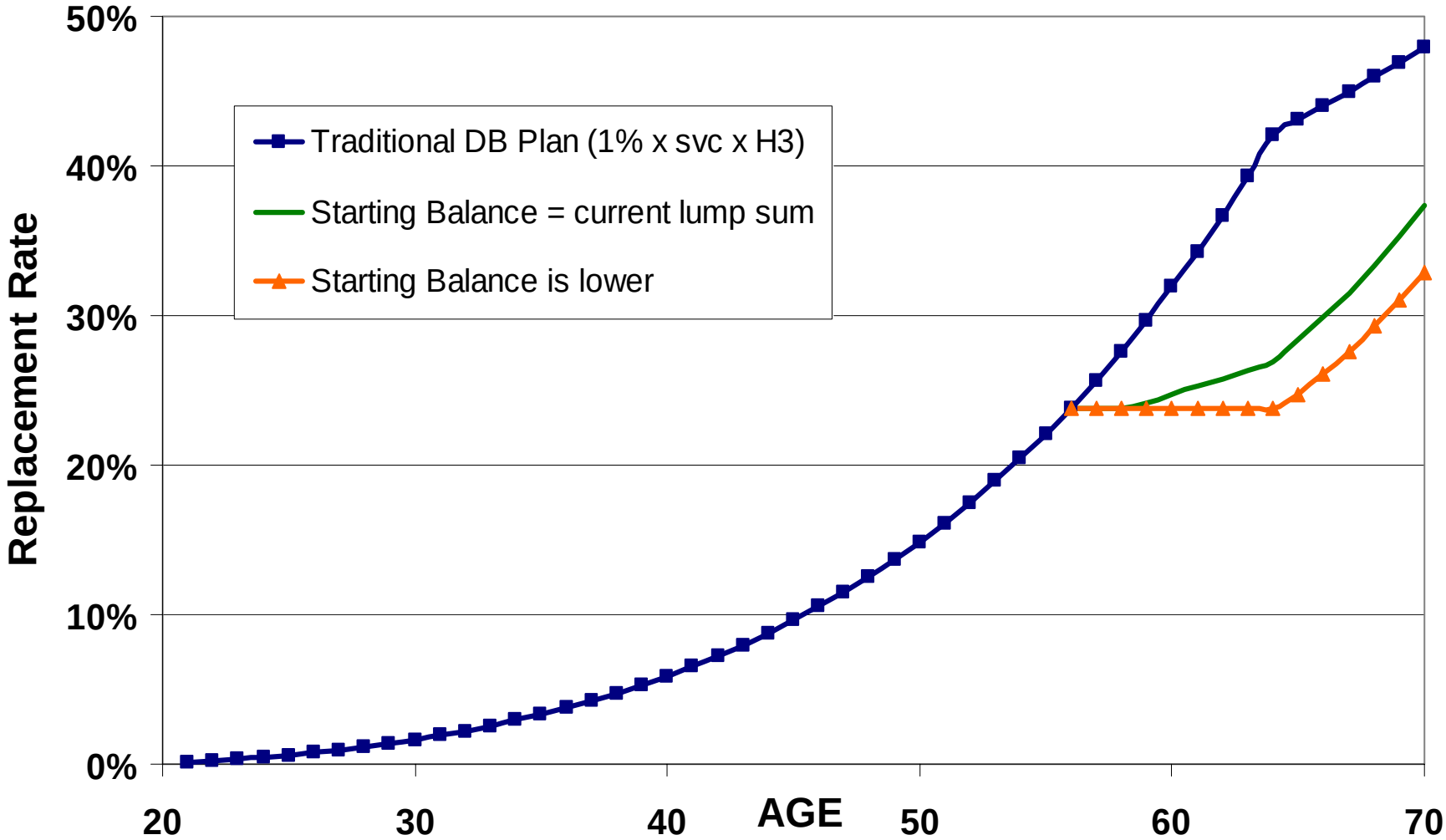


Challenges at Conversion to CB

- Wear away can also happen if:
  - Interest rates fall (Chart VI)
    - PV of prior formula's accrued benefit would go up > account balance
    - Solution: Modify law to allow LOCKING IN discount rates at conversion
      - Thus,employee wins no matter which way interest rates go
      - If discount rates go up, pv of prior formula's acc ben goes down < account bal
    - Lump Sum = Cash Balance Account (No WhipSaw)
  - If there are early retirement subsidies in the prior plan (Chart VIII)
    - If starting account balance = PV of Unreduced Early Retirement Benefit, employer could end up paying more than prior plan
    - Lump sums calculated at 6% can be 40% more expensive than annuity
    - If starting account balance = PV of Accrued NRB, then anti-cutback rule preserves subsidy in <u>accrued</u> benefit of prior plan

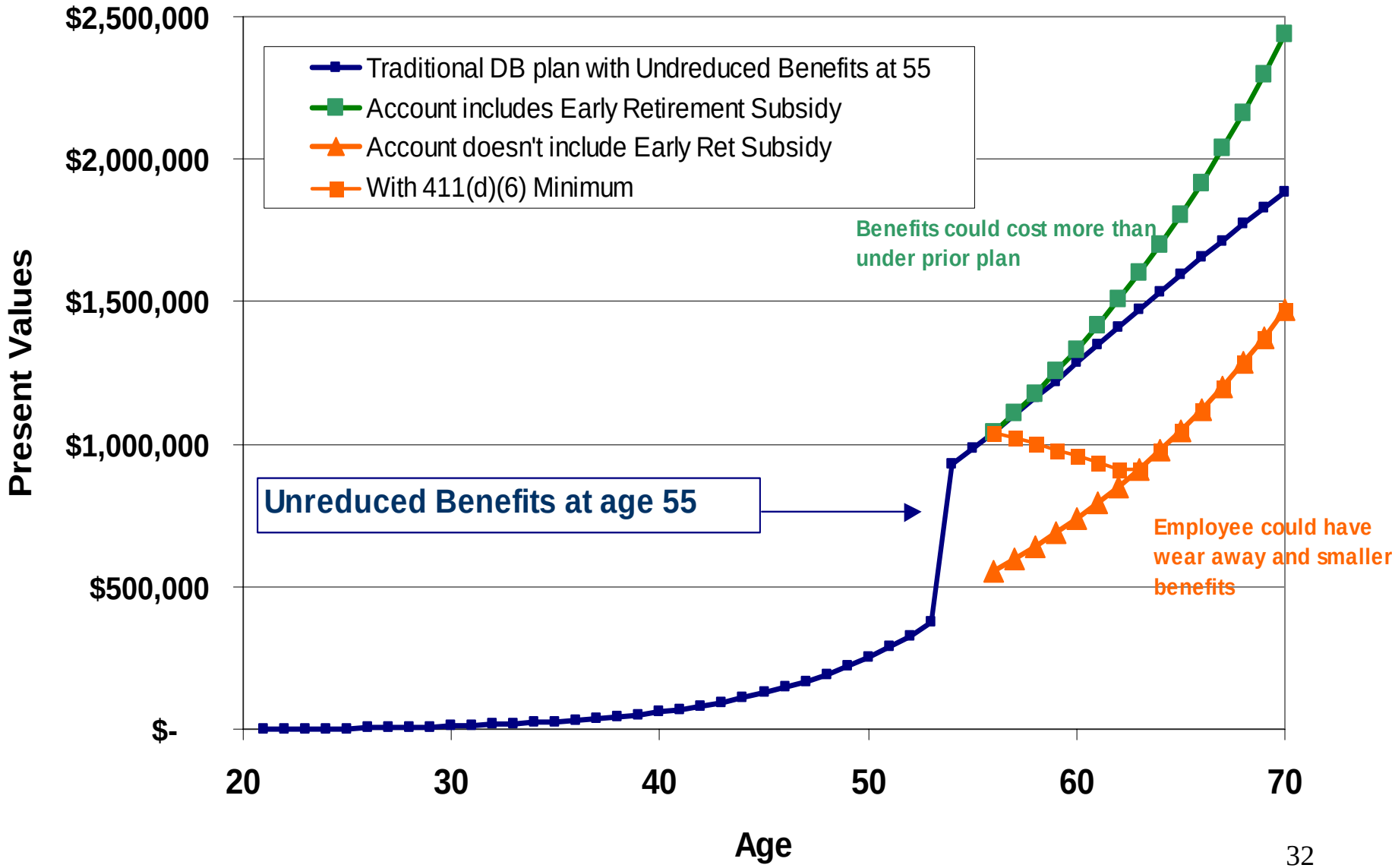
Chart VI - Replacement Rates at Retirement After Conversion to Cash Balance Plan

(for someone age 56 at conversion)



If interest rates go down, acct balance buys smaller pension. However, protected lump sums go up, and protected pension stays level.
If interest rates go up, account balance buys larger pension AND protects employee from lump sums going down (but not under Harkin).

Chart VIII - Present Value of Benefits

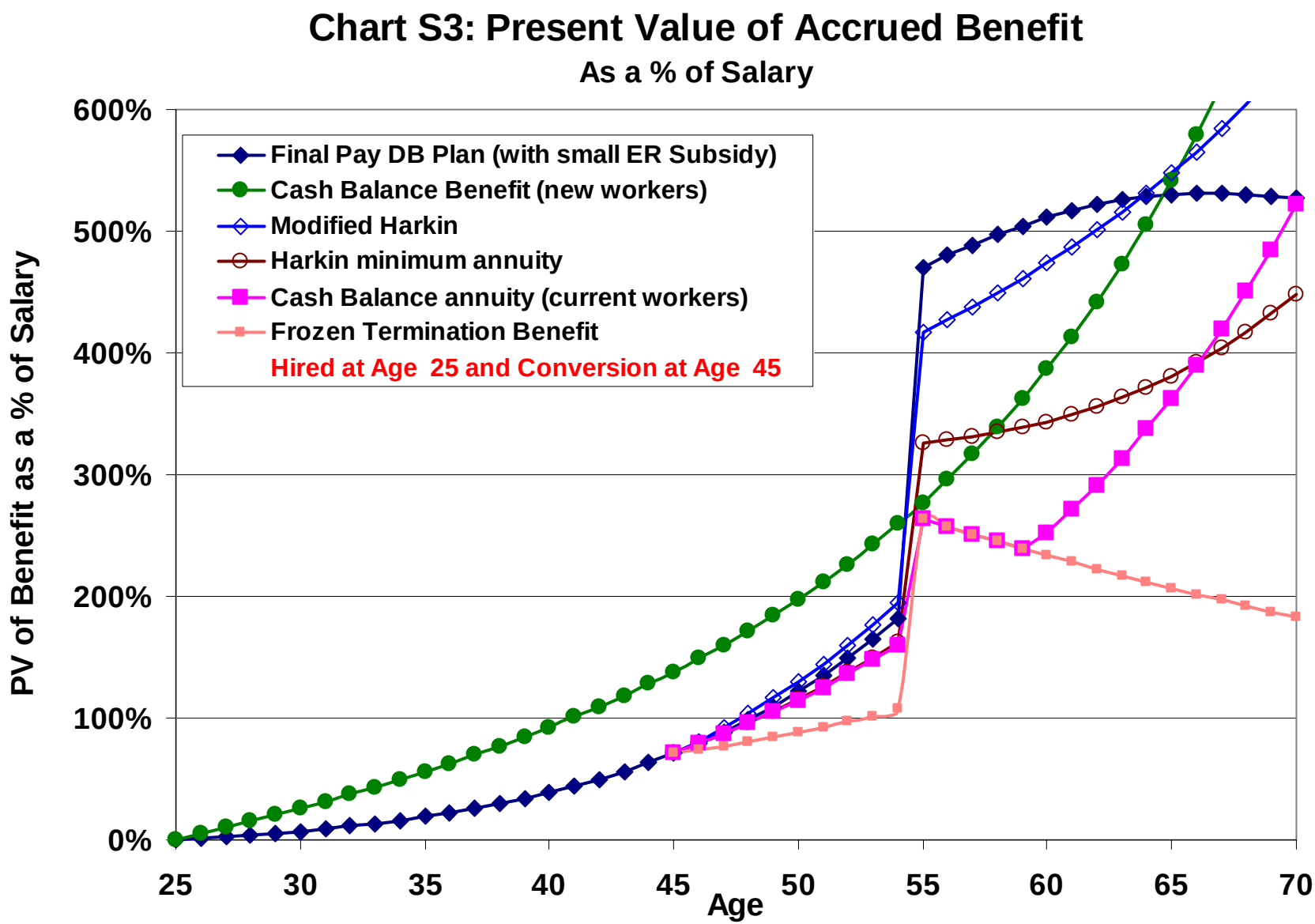


Remedies

- Set the opening balance using GATT rate (Senate Finance)
  - Or prior Lump sum if greater
  - Eliminates initial wear away and wear away at NRD, but not at subsidized ERD
- New Plan = Prior accrued benefits + CB accruals (Harkin)
  - Eliminates wear away at subsidized ERD, and due to interest rate decreases
  - Preserve prior benefit as annuity & start new account balance at zero (Boeing indexed annuity part with pay)
- Only give CB plan to new employees
  - Should you allow current employees to switch to new plan?
    - World Bank & Household Finance
  - Takes a long time to get to one plan.
  - Has little help on workforce management for a long time

Remedies

- For participants near retirement
  - Supplement the opening balance
    - IBM did as if always in CB plan
  - Give higher pay credits:
    - For 10 years: IBM
    - For all older employees (age-weighting)
  - Grandfather old plan
  - Give “Choice” (Kodak gave to everyone)
    - Problems discussed in Hinchey slide
    - Extending choice to more employees after effective date causes complex 411(d)(6) problems (e.g., IBM)
  - “Greater Of” (Bell Atlantic sort of)
  - Compensate outside of plan
  - Enhance Early Retirement Annuities: IBM



Surveys show most employers give additional transition benefits to current workers.

CB line has Wear Away where it = Frozen Benefit; Harkin fixes wear away; Extended wear away (greater of CB and Harkin Minimum).

Federal Developments - Disclosure

- Should Congress Mandate, Encourage, Accommodate?
- Inadequate Disclosure
  - 204(h) Notice
    - Provided early, but
    - Not Clear Enough (Legal document ok)
    - Not Comprehensive Enough (Summary skips material)
    - Only needed for reduction of benefit accrual rate at NRD
  - Summary of Material Modifications (revised SPD)
    - Clear and comprehensive, but
    - Not Soon Enough – 7 months after end of plan year

Federal Developments - Design

- Harkin Proposal (defeated 48-52)
  - To eliminate pension plateau age discrimination
  - For plans with more than 100 participants
  - Prior accrued benefits + future CB accruals (A+B)
  - Old plan never wears away – Applies to all plan changes
    - Even changes in J&S factors, pay definition, required changes, etc.
    - Eventually could have 10 to 20 plan documents in use
  - Accruals on top of prior plan's early retirement subsidy
    - Could increase benefits over prior plan
    - Employers would rather terminate

Federal Developments - Design

- Hinchey and Sanders proposal would also:
  - Require fully vested employees get choice
  - Sanders adds 50% penalty on pension surplus
  - Pro: Employees can stay in old plan if better
  - Higher costs if employees chose correctly
  - Choice can be very confusing
    - Especialy if other plans change
  - Employees can choose wrong plan; employer liability?
  - Employers have to administer 2 plans. Mistakes happen:FERS
  - Employees in same jobs have different plans
  - Should employer not change plan in future (after choice)?
  - Ethan Kra: “Could kill the goose that laid the golden egg”

Federal Developments

- What about Social Security and CSRS?
  - Congress cut benefits without protecting accruals
  - No before and after comparisons for notch babies
  - Will Congress apply these rules to themselves re: future changes in SS and federal employee plans?
  - Cash balance plans are like DB plans with indexed pay (in fact, that's how first one started)
  - If CB is age discriminatory, then indexed DB plans could be too.

The Future?

- Decisions Congress & EEOC make now has big impact
- Could accelerate employers going to 401(k)s
  - Most low-paid employees don't participate
  - Puts all the risk on employees
    - Exacerbated by any Privatization of Social Security
- Could accelerate switch to CB plans
  - CB plan can mimic DC plan
  - More Funding and Design flexibility
  - CB plans can have larger contributions (than DC)
  - Less risk to employees
  - Easy to pay annuities
    - BofA allows switching 401(k) $ to CB plan's market indexes
      - They can beat return of employees that choose conservative indexes

AMERICAN ACADEMY of ACTUARIES

Session 54:
Experiences with Employee Activism

RON GEBHARDTSBAUER
SENIOR PENSION FELLOW
AMERICAN ACADEMY OF ACTUARIES

Conference of Consulting Actuaries

Marriott Desert Springs
Palm Desert, California

9:05 am – 10:20 am
Wednesday, November 1, 2000

The American Academy of Actuaries is the public policy organization for actuaries of all specialties within the United States. In addition to setting qualification standards and standards of actuarial practice, a major purpose of the Academy is to act as the public information organization for the profession. The Academy is nonpartisan and assists the public policy process through the presentation of clear analysis. The Academy regularly prepares testimony for Congress, provides information to federal elected officials, regulators and congressional staff, comments on proposed federal regulations, and works closely with state officials on issues related to insurance.

CB Conversions

- Employees losing early retirement subsidy
  - Very Unhappy
  - Created very politically active group thru www
  - Testified in Congress
  - Hired Attorneys
- Wall Street Journal articles by Ellen Schultz
- Attorneys
  - Trial waged in court of public opinion
  - Discovered memo of company's actuarial consultant
  - Researched a decade of tapes of actuarial meetings

CB Conversions

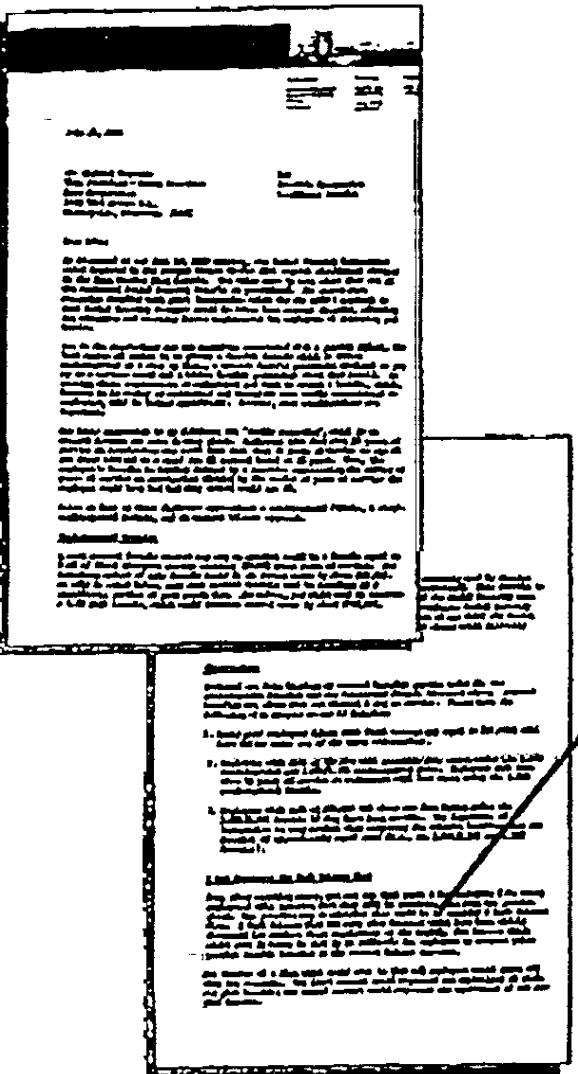
- Attorney discovered actuary's memo to defendant

"A Cash Balance Plan has many nice features. One which may come in handy is that it is difficult for employees to compare prior pension benefit formulas to the cash balance approach."

- Attorney gave to Members of Congress & press

LETTER TO ONAN CORPORATION

JULY 27, 1989



"A Cash Balance Plan has many nice features which have been widely discussed (we enclose three newsletters on the topic). One feature which might come in handy is that it is difficult for employees to compare prior pension benefit formulas to the cash balance approach."

CB Conversions

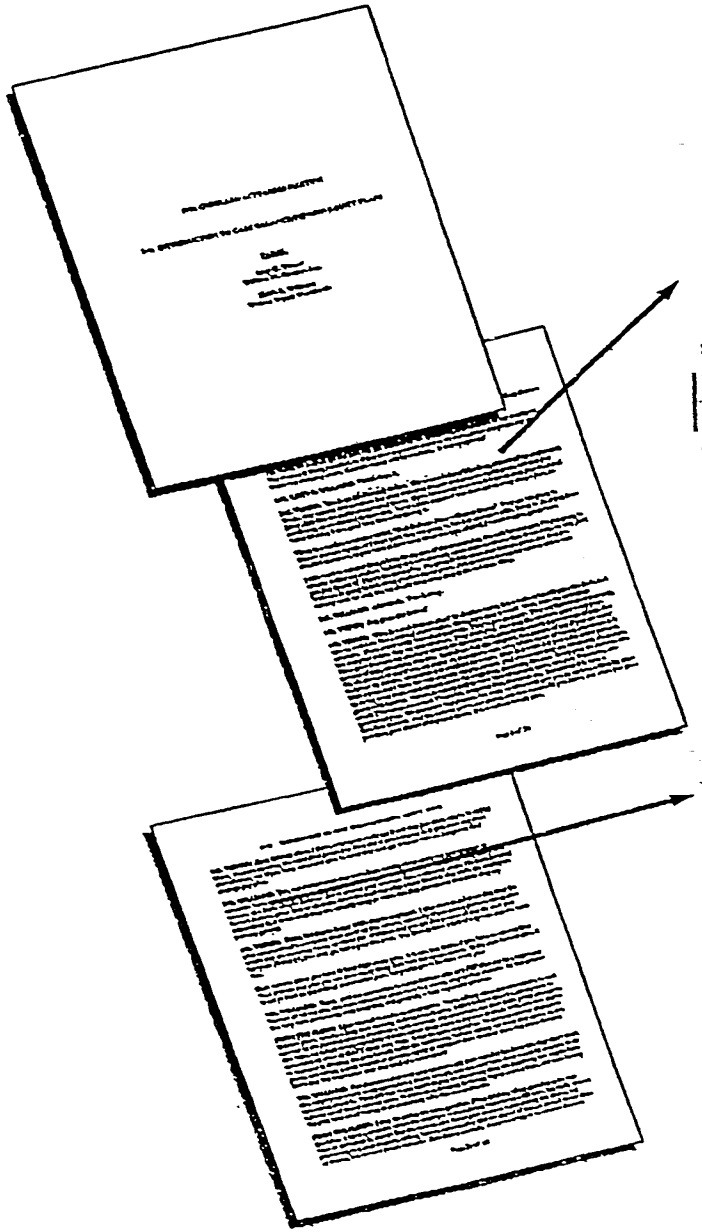
- NBC Nightly News played a tape:

Actuary A: " … it is not until they retire that they understand how little they are actually getting."

Actuary B: "Right, but they're happy while they're employed."

[laughter from audience at actuarial meeting]

We all started worrying about what we might have said.



. This is an introductory lecture. We wanted to have it because, at most of the conferences lately, they assume that everyone has dealt with cash balance and pension equity plans, and they just jump right into the really complicated issues. If you have never seen one it is pretty over your head and confusing,..."

I've been involved in cash balance plans five or six years down the road and what I have found is that while the employees understand it, it is not until they are actually ready to retire that they understand how little they are actually getting."

Right, but they're happy while they're employed."

How Would You Respond?

- We could get defensive
- Not do any soul searching
- Say our words were taken out of context
- But then they could point to the memo
  - They read hundreds of pages and only found a few smoking guns – Defensive again
- We were good advisors (technicians)
- But were we good professionals?

How Did Profession Respond?

- Actuarial firm newsletters all agreed
  - It is best to keep employees well informed
  - Some companies should have had better disclosure
  - If company doesn't want employees to know about cut, then they may need to rethink their redesign
  - Some employees will figure out anyway
  - The small group that is hurt will tell everyone that their benefits are slashed: Morale plummets
  - Best to have accurate information

How Did Profession Respond?

- Professions survive because they aid the public welfare
  - Could we restore our good name?
  - Had to postpone our push for more self-regulatory authority
- Academy supported meaningful disclosure
  - Academy President Kern wrote Letter to Congress
  - We made suggestions for improved disclosure to Congress
  - Newsletter articles to our membership emphasized it
    - We reminded members of our standards and discipline rules
  - Letter in Congressional newspapers (next slide)

American Workers Deserve to Know

A Message about Pension Benefits from the U.S. Actuarial Profession

AS EXPERTS ON FUTURE COSTS, actuaries make sure that insurance and pension benefits will be there when we need them. As professionals, actuaries work in the public interest.

OVER THE PAST FEW MONTHS, the actuarial role in cash balance pension conversions has come under scrutiny. For the record, actuaries are bound by their code of professional conduct to act honestly and perform services with integrity and are subject to counseling and discipline when they fail to meet the code. Actuaries also believe that American workers should have access to meaningful information about their pension benefits.

EMPLOYEES SHOULD:

- ▲ Receive clear and understandable information about their pensions.
- ▲ Know if pension changes are expected to reduce future benefits.
- ▲ Be able to compare options and understand the consequences of their choices.
- ▲ Be able to request information about their specific situation.

WE STAND READY TO WORK WITH CONGRESS to ensure that workers obtain information to plan for a secure retirement and that America's successful, voluntary private pension system is strengthened.

LEARN MORE ABOUT THE PENSION POLICY CHOICES NOW FACING CONGRESS
Join us for lunch and a bipartisan briefing Wednesday, May 17, 12 noon to 2:00 pm, Room 708 Hart.

For more information, contact:

American Academy of Actuaries
Rick Lawson, Executive Director
202-223-8196

American Society of Pension Actuaries
Brian Graff, Executive Director
703-516-9300

Casualty Actuarial Society

Conference of Consulting Actuaries

Society of Actuaries

How Did Profession Respond?

- ASB (Actuarial Standards Board) & ABCD (Actuarial Board for Counseling and Discipline)
  - Visited key Members & Regulators
  - Discussed our standards and discipline
    - Noted anyone can report an actuary to ABCD
  - Noted we have
    - More & better standards than in past
    - More ABCD activity than in past
    - Much more education of policy makers than in past

Our Code of Conduct

Precept 1. An Actuary shall act honestly, with integrity and competence, and in a manner to fulfill the profession's responsibility to the public and to uphold the reputation of the actuarial profession.

Our Code of Conduct

Annotation 1-4. An Actuary shall not engage in any professional conduct involving dishonesty, fraud, deceit, or misrepresentation of commit any act that reflects adversely on the actuarial profession.

Our Code of Conduct

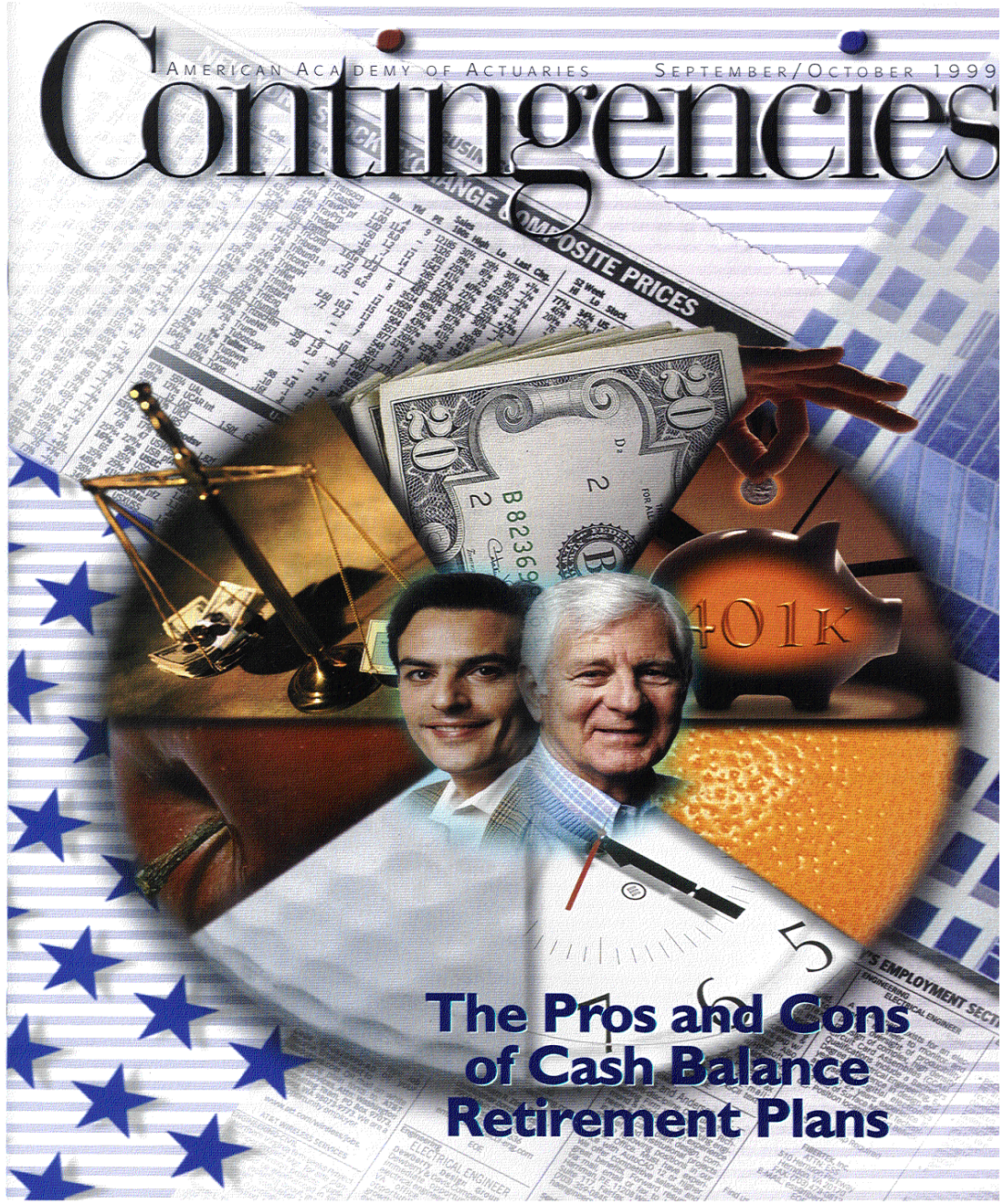
Precept 8. An Actuary who performs Actuarial Services shall take reasonable steps to ensure that such services are not used to mislead other parties.

How Did Profession Respond?

- ASB wrote draft standard on Benefit Illustrations
  - Standard defines good disclosure
    - Comprehensive (including changes at early retirement)
      - Disclose wear away, if any
    - Fair (avoiding bias)
      - Reasonable and alternative assumptions
    - Identify significant changes
  - We can't tell employers what to give employees
  - We can give employer's disclosure our stamp of approval, if standard followed
  - Current draft standard is controversial among membership
    - Should there be numerical comparisons, showing old formula for which participants are no longer eligible?
      - Or only if choice?
    - Or is description of changes and general effect good enough?

How Did Profession Respond?

- Thru neutral education, we helped all sides
  - We had Lunch and Learn session on Hill on CB plans
  - At Senator Harkin's request, we analyzed his CB proposal
  - Produced “Understanding your CB plan” for web site
    - Copies sent to all members of Congress
    - They can send to their voters
  - Contingencies magazine had issue on CB plans
    - Provided background plus Pro and Con article
    - It goes to key public and private leaders (& our members)


American Academy of Actuaries
September/October 1999
Contingencies
The Pros and Cons of Cash Balance Retirement Plans

Pension Assistance List (PAL)

- Actuaries helping employees with pension questions
  - Part of the solution, not part of the problem
  - Helps us understand participant's viewpoints better
  - Please sign up at www.actuary.org (click on pension)
- Is my benefit calculated correctly?
  - My service and compensation looks a little low
  - Why did it say N/A on the excess piece?
- Should I stay until age 55 or quit now?
- When should I retire?
- Provide financial/retirement assistance in Wash Post
  - Big Tent
  - See Bragg's Personal Actuary article in Contingencies

How Did Profession Respond?

- Congress proposed benefit minimums for plan amendments
  - We stayed neutral (mostly)
  - Benefit minimums did not pass
  - Improved disclosure rules did pass
    - Better disclosure rules could discourage employers from making large cuts in projected benefits

Is Our Reputation Repaired?

- We think so. We will probably get to co-write disclosure regulations with Department of Treasury
  - We co-wrote insurance illustration rules with state regulators
- Our press conference a week before Presidential election was lead story on every major news station
  - They took us very seriously
    - ABC World News with Peter Jennings
    - CBS Evening News with Dan Rather
    - Meet the Press questioned Lieberman
    - NBC Nightly News with Tom Brokaw (questioned both candidates)
    - CNN Evening News
  - We learned a lot from this process