



The Real Deal for the Public Sector: Retirement Income Adequacy Study

Webinar

December 15, 2022

AON



NATIONAL INSTITUTE ON
Retirement Security

Reliable Research. Sensible Solutions.

Agenda

- Introductions and Logistics
- Research Review
- Questions

THE REAL DEAL FOR THE PUBLIC SECTOR

RETIREMENT INCOME
ADEQUACY AMONG U.S.
PUBLIC SECTOR EMPLOYEES



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Reliable Research. Sensible Solutions.

By Eric Atwater, Tyler Bond, Dan
Doonan, and Emily Swickard

December 2022

Logistics

- Attendees in listen only mode.
- Questions are welcome. Submit using “Question” function on control panel.
- Audio/technical issues during webinar: call GoToWebinar at 1-800-263-6316.
- Webinar replay and slides will be posted at nirsonline.org/reports/realdeal.



Speakers



Tyler Bond
Research Manager
National Institute on
Retirement Security



Eric Atwater
Partner
Aon



Emily Swickard
Consultant
Aon

Background

Aon and the National Institute on Retirement Security (“NIRS”) partnered to evaluate retirement income adequacy of public sector retirement plans

- Very few employees know what is needed for an adequate retirement
- Public sector employees have long thought that the benefits provided would provide an adequate retirement after a full career
- Most of the public sector retirement reform has focused on cost and not factored in retirement adequacy, nor the impact of employees not being able to retire in an orderly fashion



Purpose

Key Questions to be Answered

- How much do employees need for an adequate retirement?
- How adequate of a retirement does the average public sector plan provide? What is the shortfall or surplus of the average plan?
- What is the impact on retirement readiness of having:
 - Retiree medical (OPEB) plan
 - Social Security
 - Cost-of-living-adjustment (COLA)
- Do “cost-neutral” DB and DC plans provide the same retirement income for participants?
- What is the impact on retirement shortfall or surplus of a high or low investment return environment?



Retirement Income Adequacy Defined

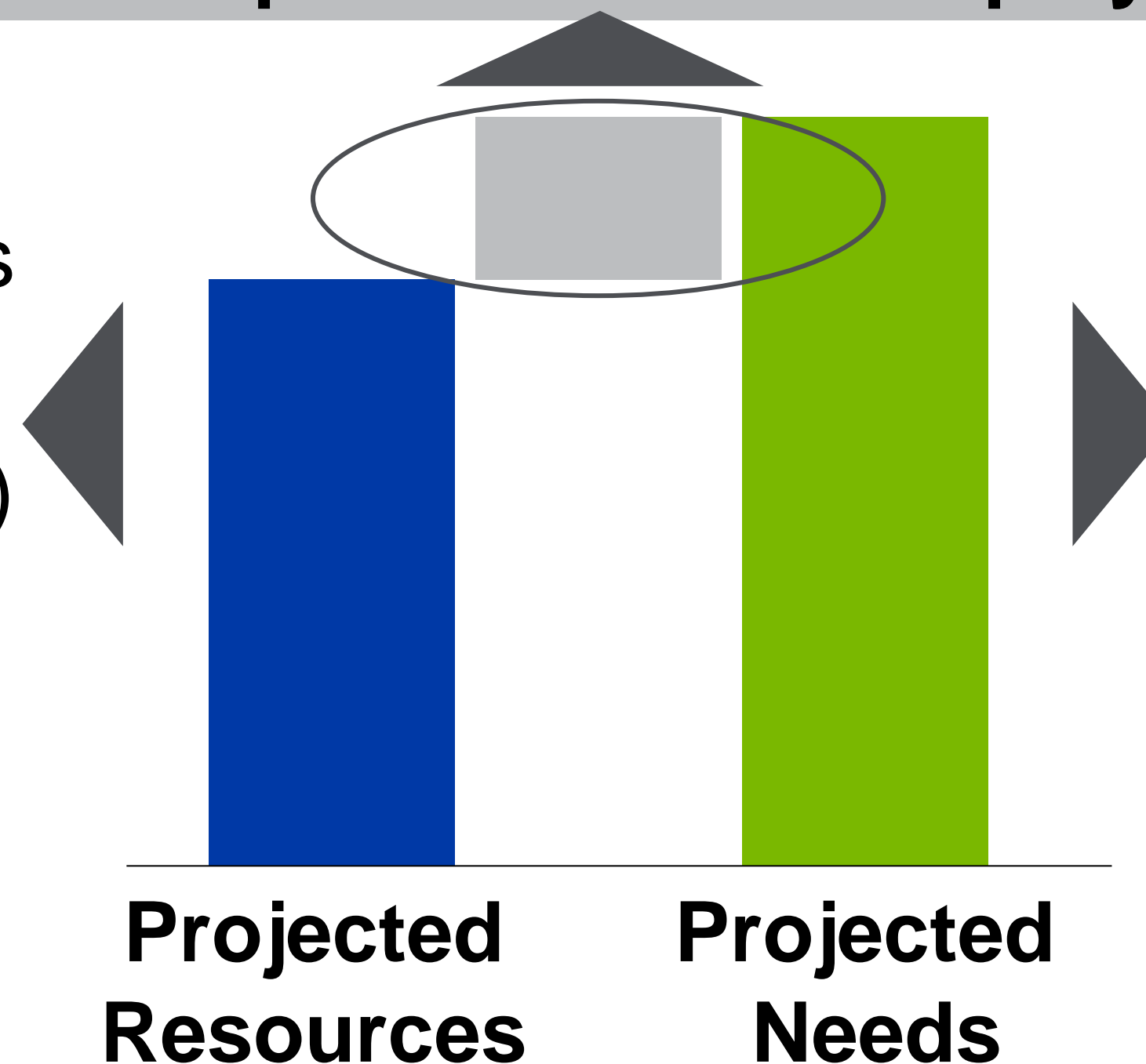
Definition in *The Real Deal*:

- ▶ Accumulating the resources (income) required to maintain preretirement standard of living for a postretirement lifetime

Resource shortfall results in lower standard of living if not compensated by other assets or postretirement employment

Resources

- Employer-provided benefits
 - Defined benefit (DB)
 - Defined contribution (DC)
 - Retiree medical
- Employee savings in plan
- Social Security



Needs

- Preretirement pay adjusted to reflect:
 - No longer saving for retirement
 - Change in taxes
 - Higher medical costs

The Real Deal Assumptions

	Baseline Assumption
Retirement age	62
▶ Preretirement investment rate of return	6.00%
▶ Postretirement investment rate of return	5.00%
General inflation	2.25% pre- and postretirement
Medical inflation	5.50%
Pay growth	3.75%
National wage base increase rate	2.75%
▶ Postretirement mortality	50 th percentile life expectancy (approximately age 90 for females and age 88 for males)
Defined Benefit plan discount rate (used to develop cost equivalent DC plan)	6.50%
▶ Sensitivities run on return assumptions (+/- 1%) and mortality (80 th percentile)	

Plan Designs Modeled

	Baseline DB	Cost Equivalent DC	Baseline DB without Social Security
DB Design	2.00% of 5-yr FAE	None	2.50% of 5-yr FAE
DB Employee Contributions	6.00%	None	7.50%
COLA	None	None	None
Social Security	Yes	Yes	No
Retiree Medical	50% ER Subsidy	50% ER Subsidy	50% ER Subsidy
DC Employer Contributions	None	6.00%	None
DC Employee Contributions	None	6.00%	None
Unreduced Retirement Age	62	N/A	62

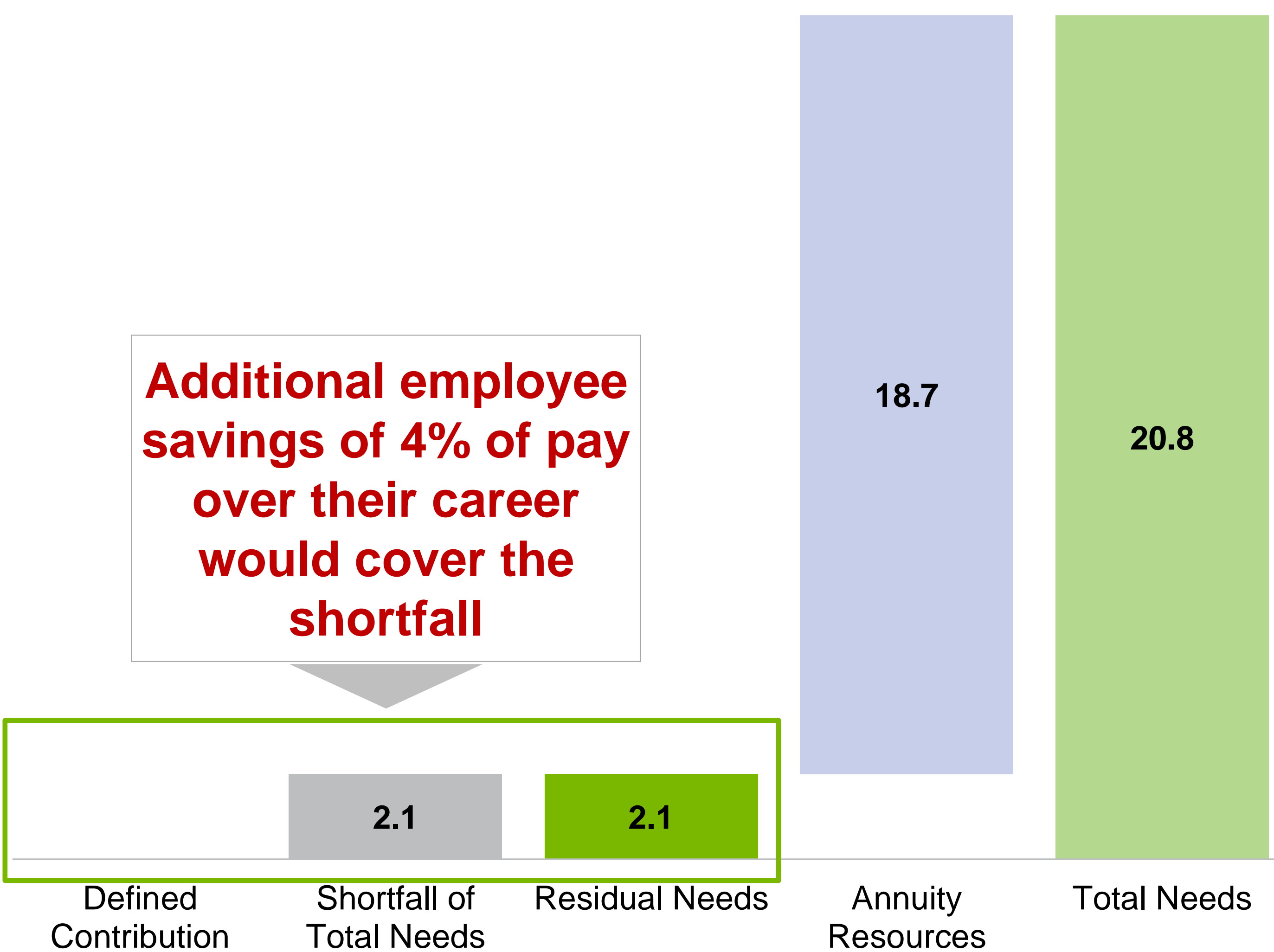


Alternative designs to review:

- The benefit of COLA
- Shifting definitions of cost equivalence

Baseline 2.0% DB Pension Plan

Average Projected Resources and Target Needs as a Multiple of Pay



Changing DB design to the following also makes up for the shortfall:

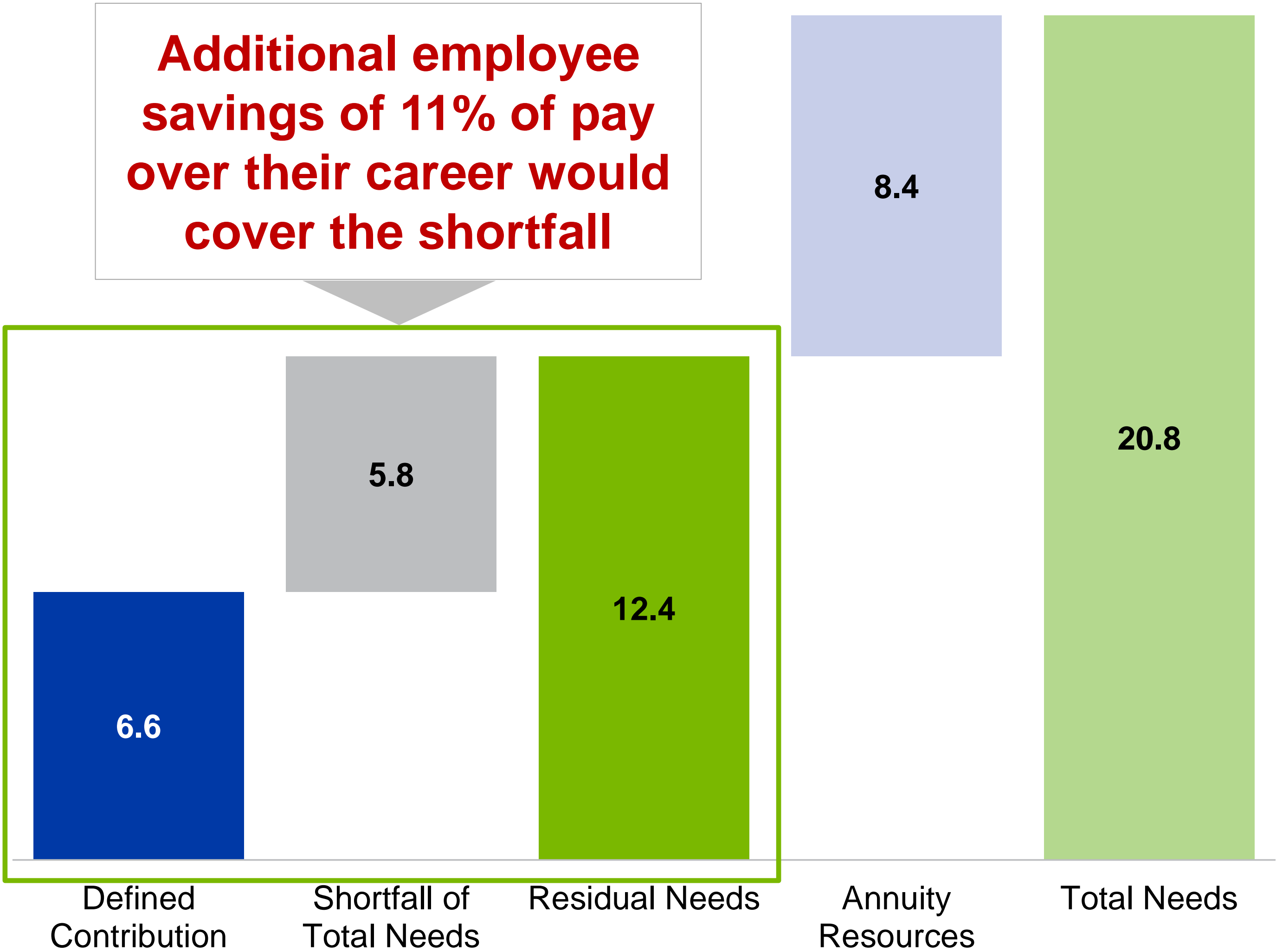
- Change Multiplier to 2.50%
- Adding 2.0% COLA
- Change Multiplier to 2.25% and 1.0% COLA, respectively

Present Values of Annuity Resources	
DB	= 10.3
Social Security	= 5.1
Retiree Medical	= 3.3
Total Annuity Resources	= 18.7

Cost Equivalent 6.0% DC Design

Average Projected Resources and Target Needs as a Multiple of Pay

Additional employee savings of 11% of pay over their career would cover the shortfall



Changing employer contribution to 17% of pay also makes up for the shortfall

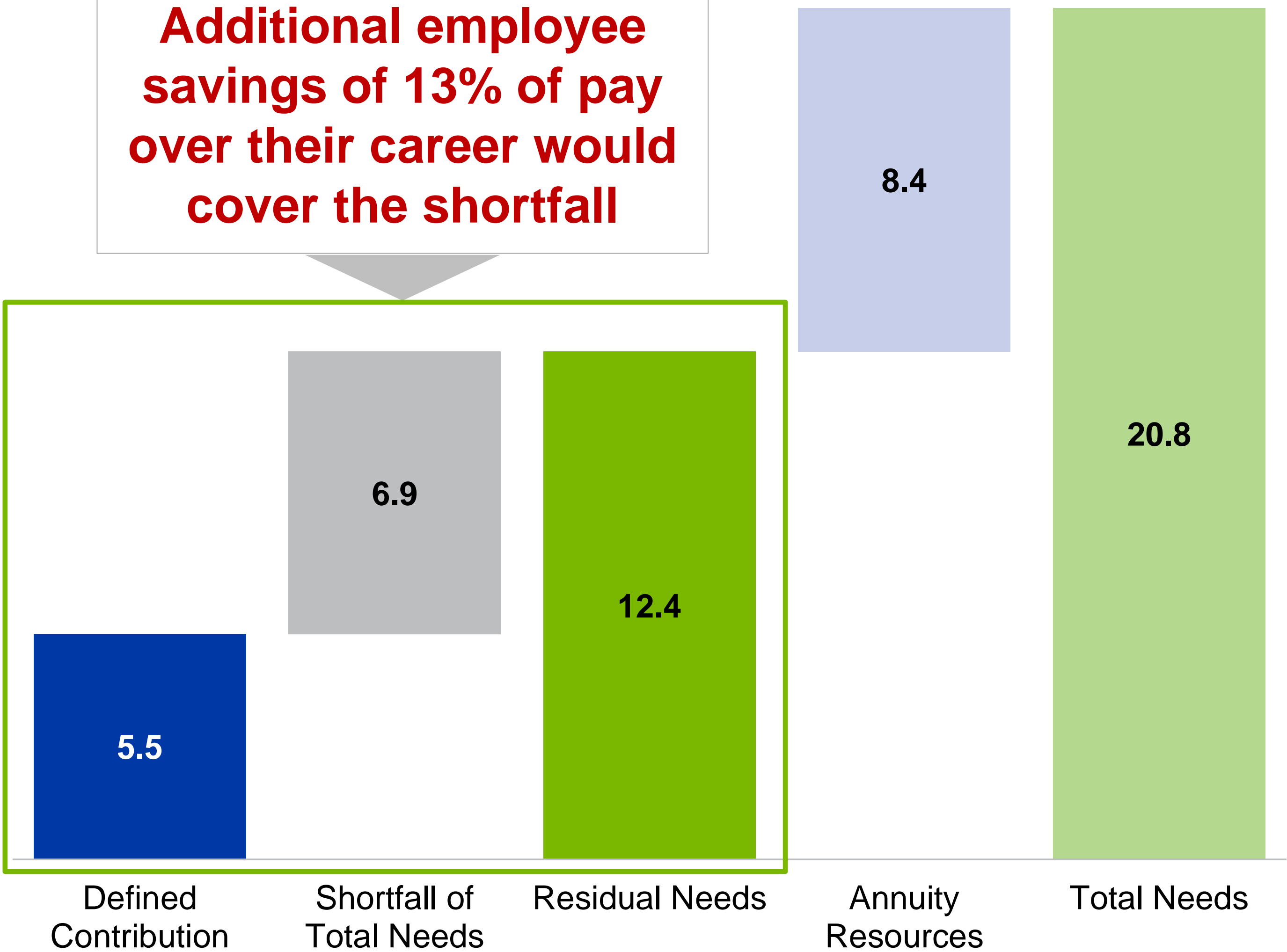
To be comparable to the adequacy of the DB plan, the employer contribution would have to increase from 6% to 13% of pay

Present Values of Annuity Resources		
DB	=	0.0
Social Security	=	5.1
Retiree Medical	=	3.3
Total Annuity Resources	=	8.4

Comparing Sponsor Cost Equivalence

Average Projected Resources and Target Needs as a Multiple of Pay

Additional employee savings of 13% of pay over their career would cover the shortfall



Using a discount rate of 7.0% (rather than 6.5%) for the DB plan results in a 4.0% employer contribution to the DC plan for the same “cost” as the pension benefit (modeled here)

- 6.0% rate results in an 8.0% employer contribution

Shortfall increases compared to the baseline DC model by 1.1x pay

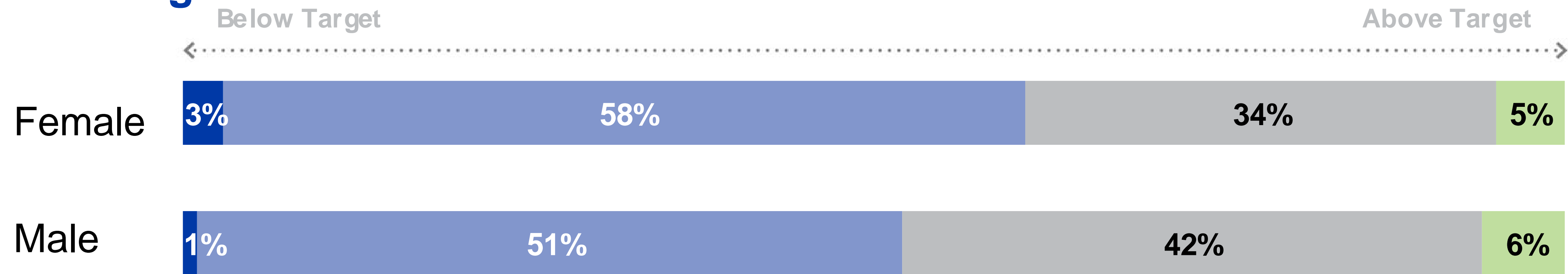
Present Values of Annuity Resources

DB	=	0.0
Social Security	=	5.1
Retiree Medical	=	3.3
Total Annuity Resources	=	8.4

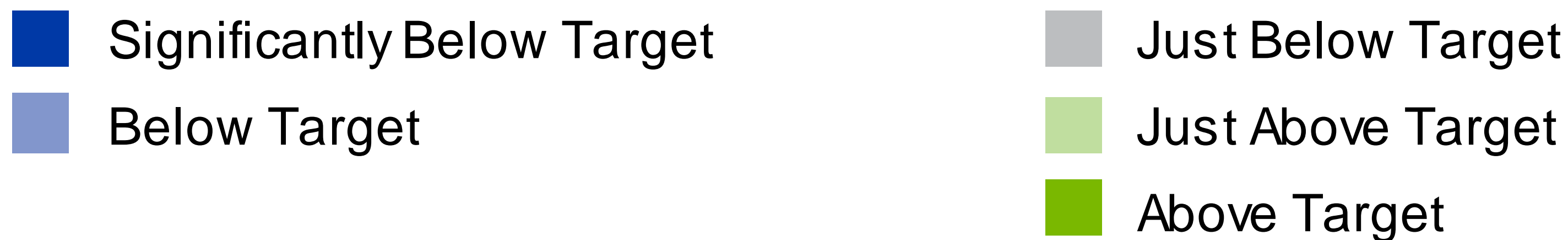
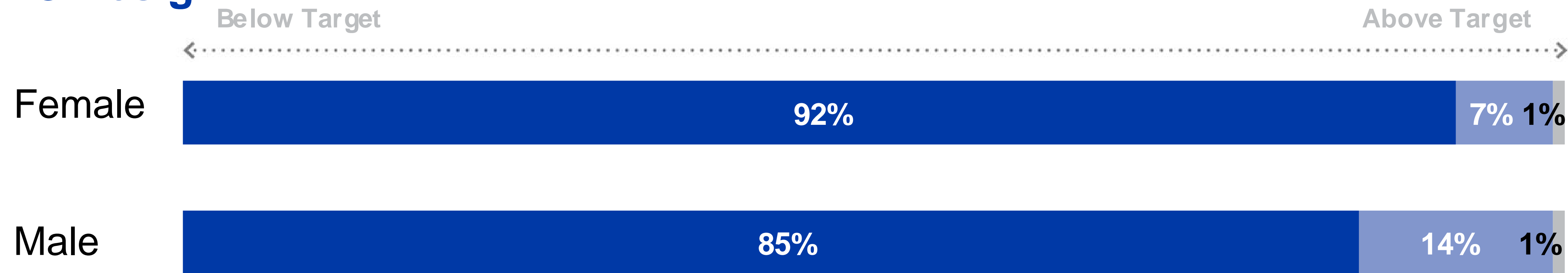
Comparing DB and DC Designs—Results by Gender

Distribution of Surplus/(Shortfall) of Projected Resources Versus Target Needs

DB Design



DC Design



Baseline DB Plan—Results by Income

Distribution of Surplus/(Shortfall) of Projected Resources Versus Target Needs

2019 Limited Pay	Age								
	Under 25	25 – 29	30 – 34	35 – 39	40 – 44	45 – 49	50 – 54	55 – 59	60+
\$0 to \$29,999									
\$30,000 to \$39,999									
\$40,000 to \$49,999									
\$50,000 to \$59,999									
\$60,000 to \$69,999									
\$70,000 to \$79,999									
\$80,000 to \$89,999									
\$90,000 to \$99,999									
\$100,000 to \$149,999									
\$150,000+									

Average shortfalls by pay bracket vary from 0.6x pay to 4.5x pay

- Significantly Below Target
- Below Target
- Just Below Target
- Just Above Target
- Above Target

Cost Equivalent DC Plan—Results by Income

Distribution of Surplus/(Shortfall) of Projected Resources Versus Target Needs

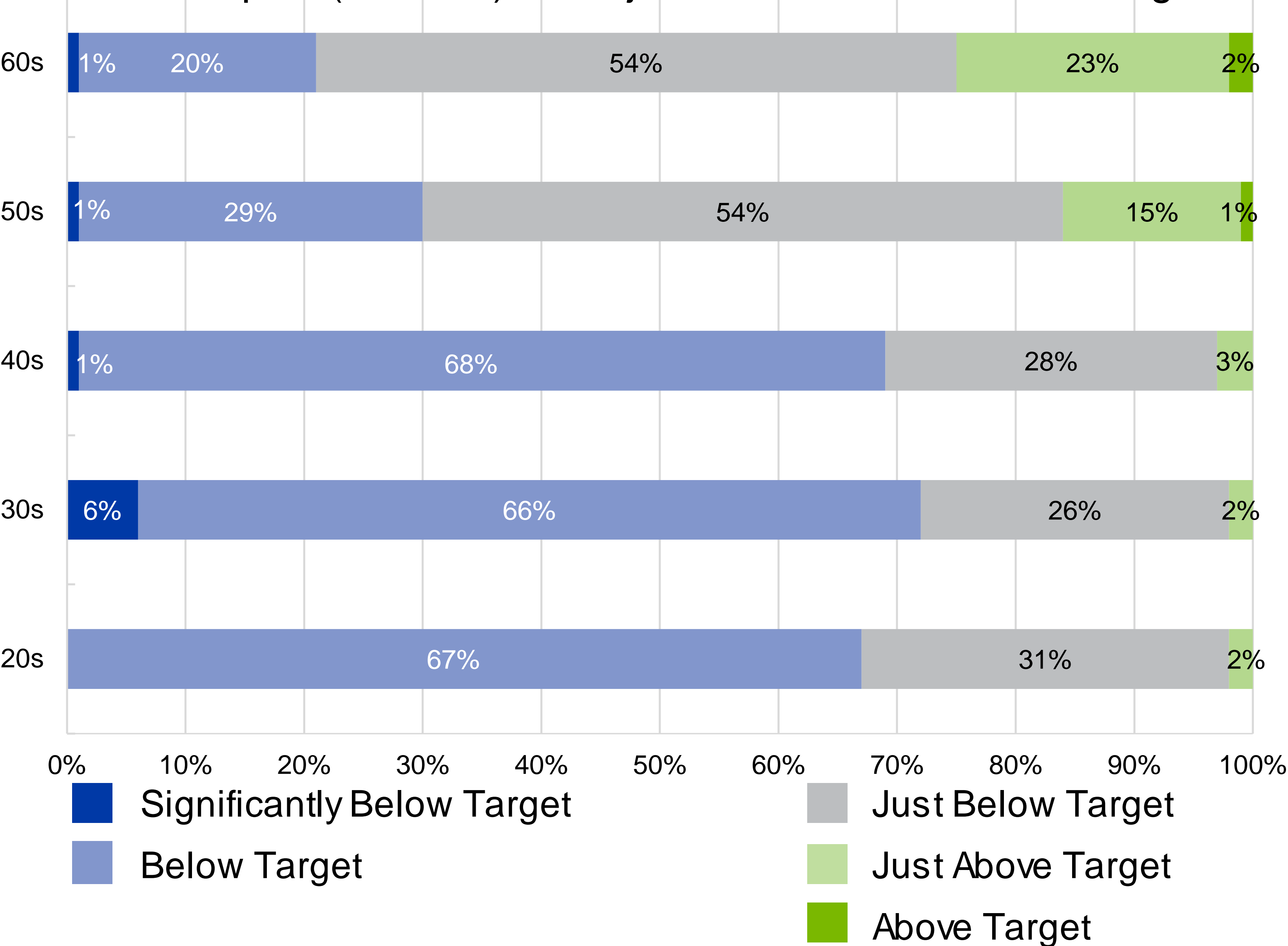
2019 Limited Pay	Age								
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\$50,000 to \$59,999									
\$60,000 to \$69,999									
\$70,000 to \$79,999									
\$80,000 to \$89,999									
\$90,000 to \$99,999									
\$100,000 to \$149,999									
\$150,000+									

Average shortfalls by pay bracket vary from 4.4x pay to 7.8x pay

- Significantly Below Target
- Below Target
- Just Below Target
- Just Above Target
- Above Target

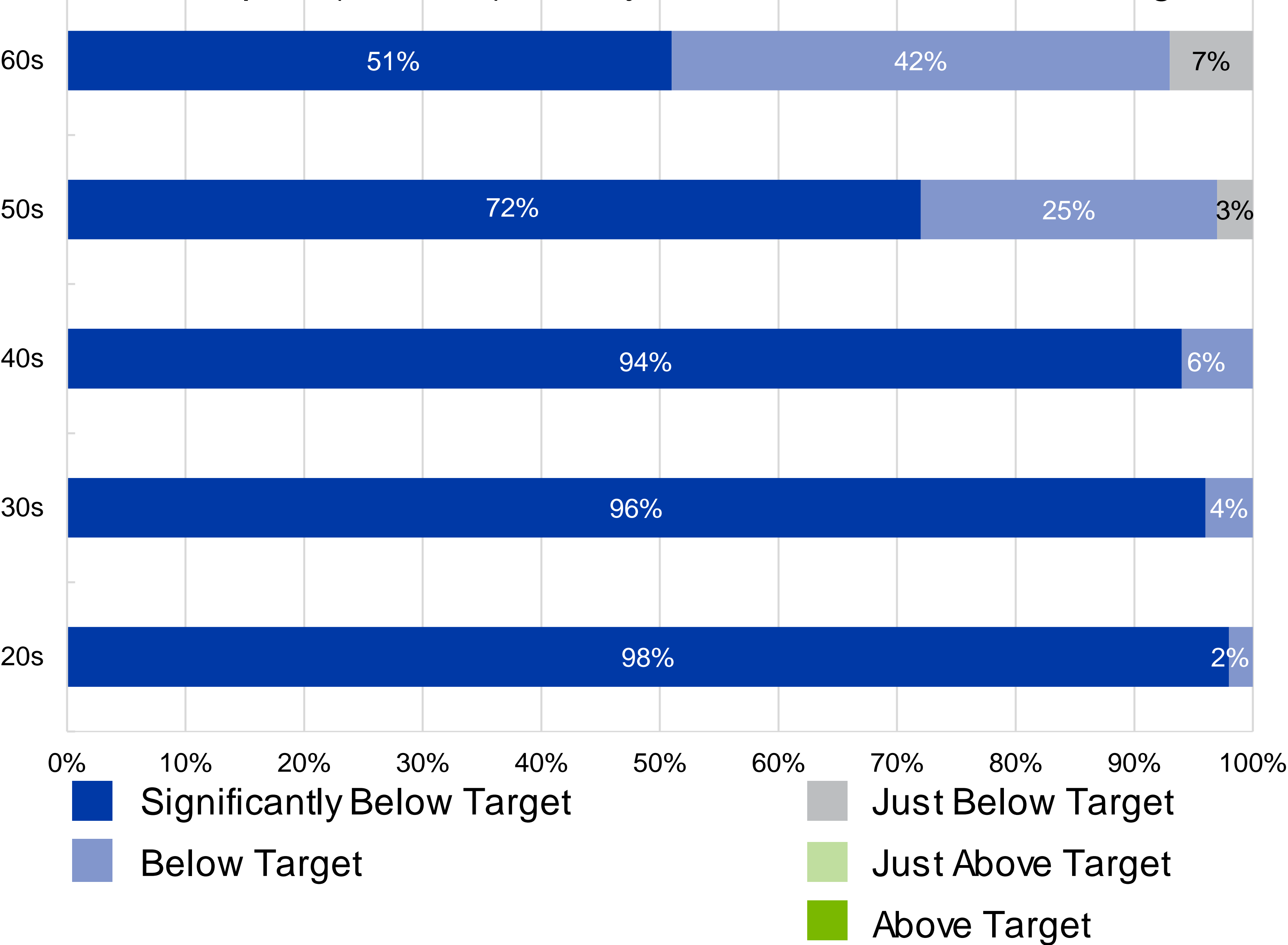
Baseline DB Plan—Results by Generation

Distribution of Surplus/(Shortfall) of Projected Resources Versus Target Needs



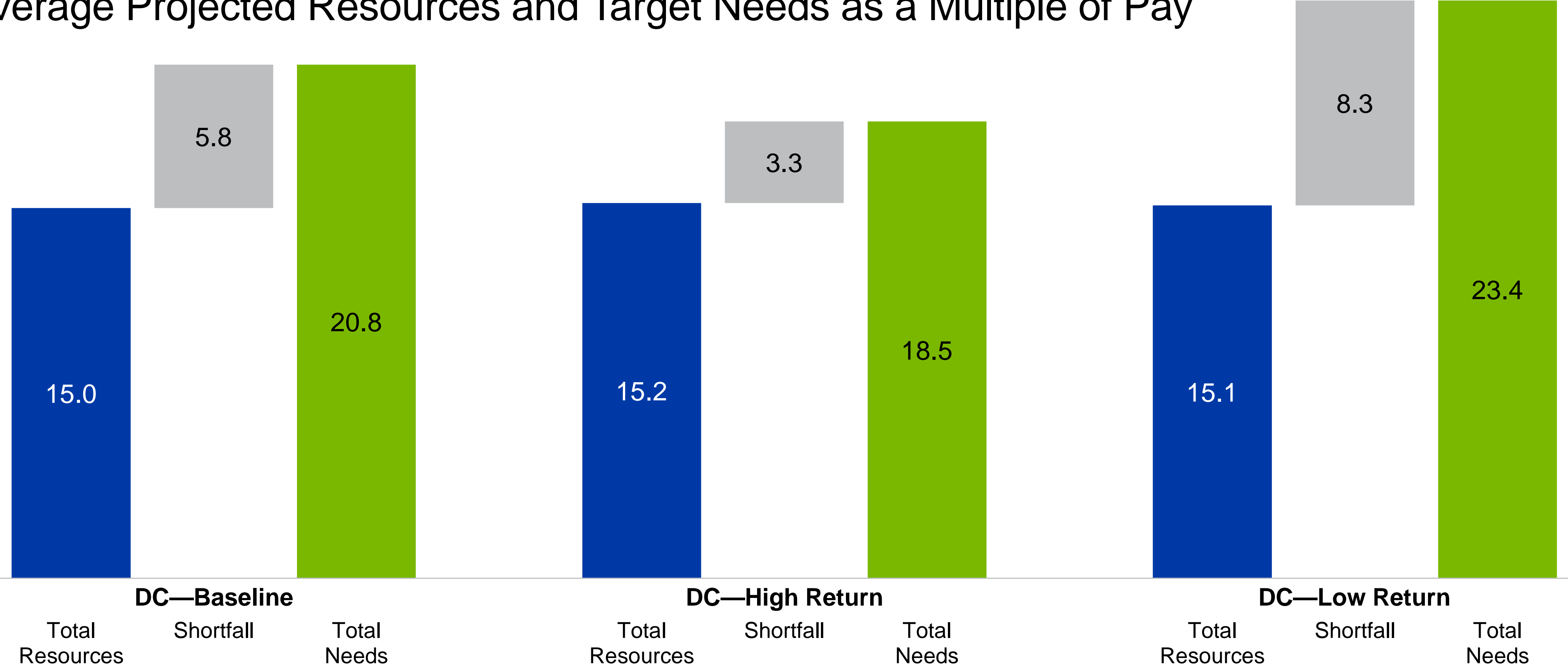
Cost Equivalent DC Plan—Results by Generation

Distribution of Surplus/(Shortfall) of Projected Resources Versus Target Needs



Comparing DB and DC Plans Shortfall— High and Low Return Scenarios

Average Projected Resources and Target Needs as a Multiple of Pay



Additional employee savings to cover shortfall

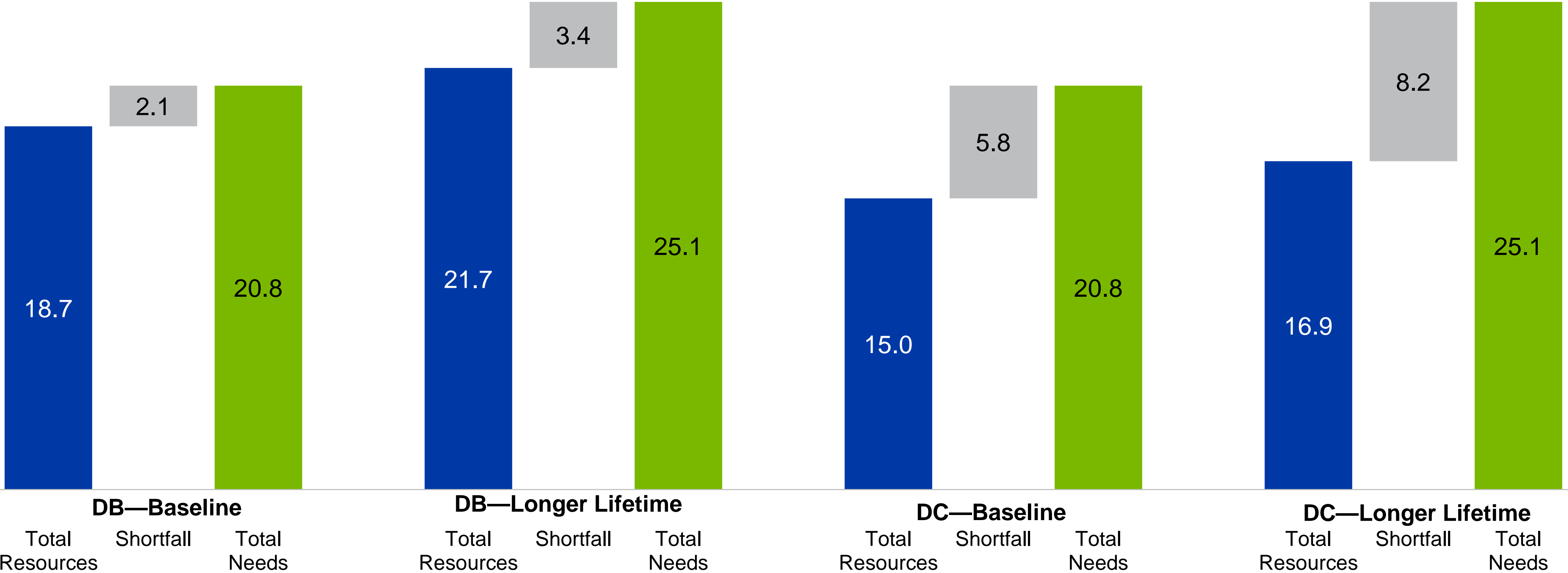
11%

6%

15%

Comparing DB and DC Plans Shortfall— Longer Lifetime Scenario

Average Projected Resources and Target Needs as a Multiple of Pay



Additional employee savings to cover shortfall

4%

6%

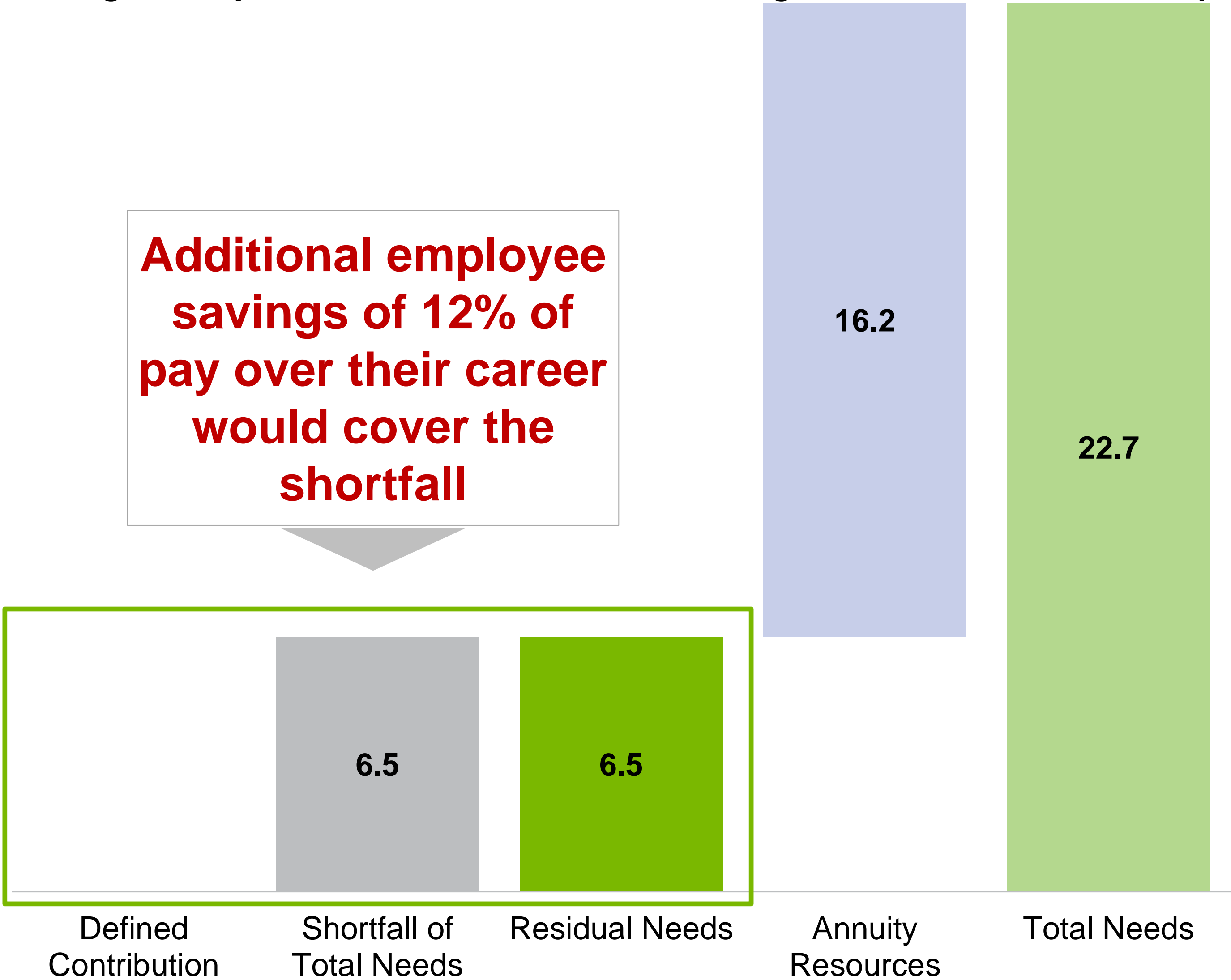
11%

15%

80th percentile life expectancy (approximately age 98 for females and age 96 for males)

Impact of Not Having Social Security

Average Projected Resources and Target Needs as a Multiple of Pay



If participants saved their FICA tax savings, shortfall would drop by another 3.5x pay (or 6.2% of pay over an employee's career).

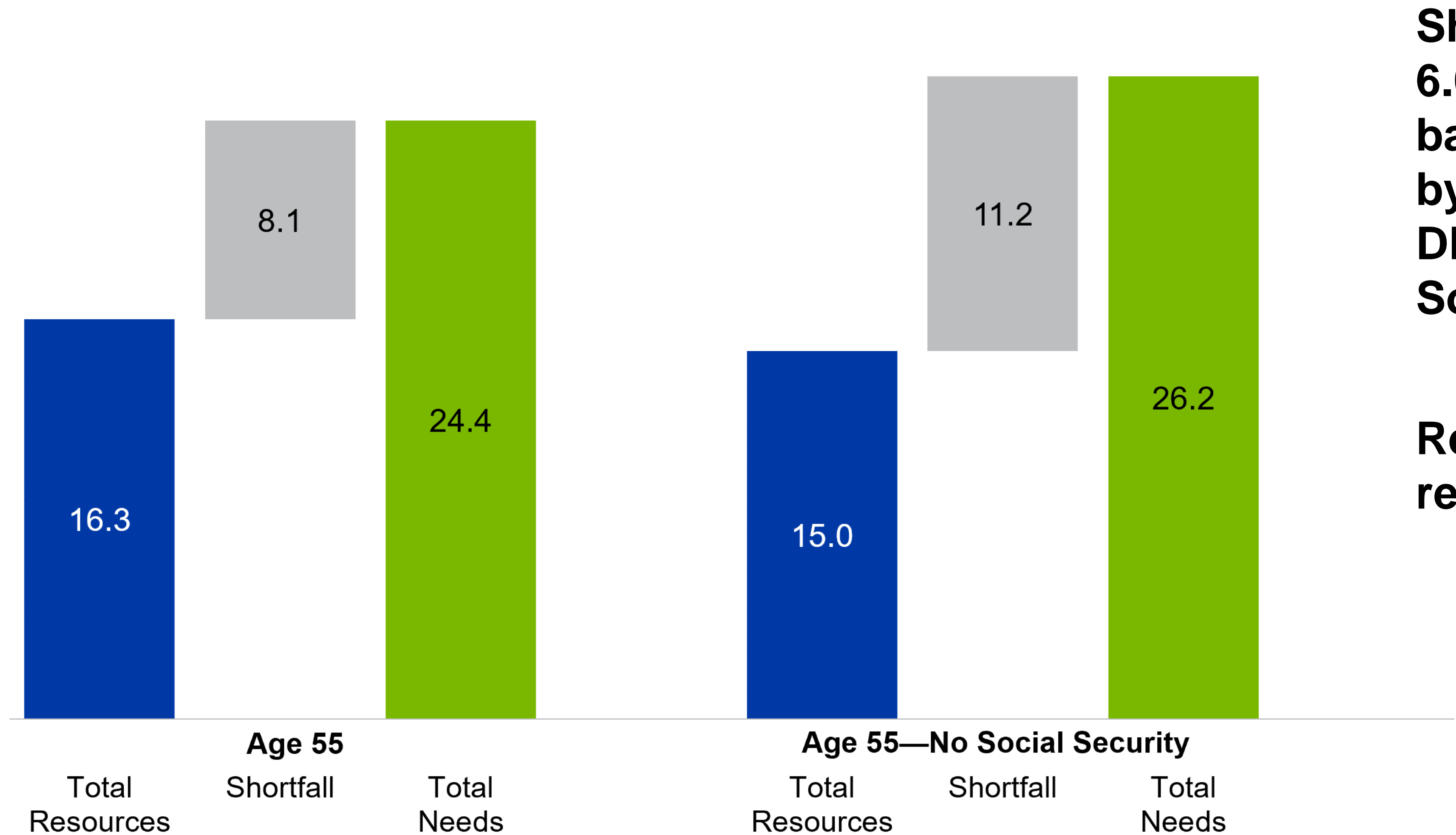
Design without Social Security can meet shortfall with following changes:

- Multiplier changed to 3.75%

Present Values of Annuity Resources		
DB	=	12.9
Social Security	=	0.0
Retiree Medical	=	3.3
Total Annuity Resources	=	16.2

Impact of Retiring at Age 55

Average Projected Resources and Target Needs as a Multiple of Pay



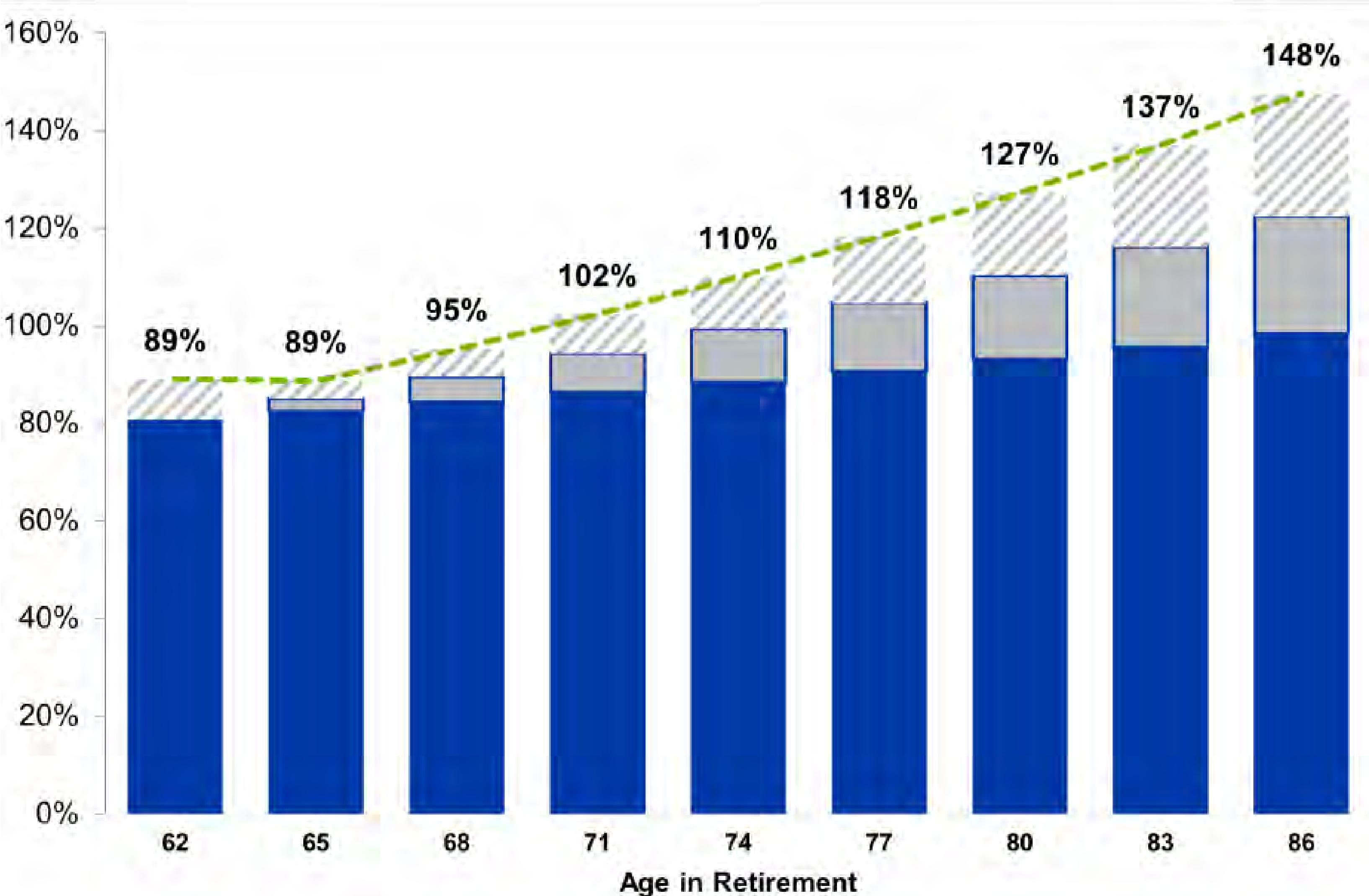
Shortfall increases by 6.0x pay under the baseline DB design and by 4.7x pay under the DB design without Social Security.

Retiree medical represents 4.0x pay.

Results from a strawman of an average male assuming age 55 retirement.

Understanding the Impact of a COLA— Baseline 2.0% DB Plan with 1.50% COLA

Annuity Resources and Needs as a percent of pay at retirement

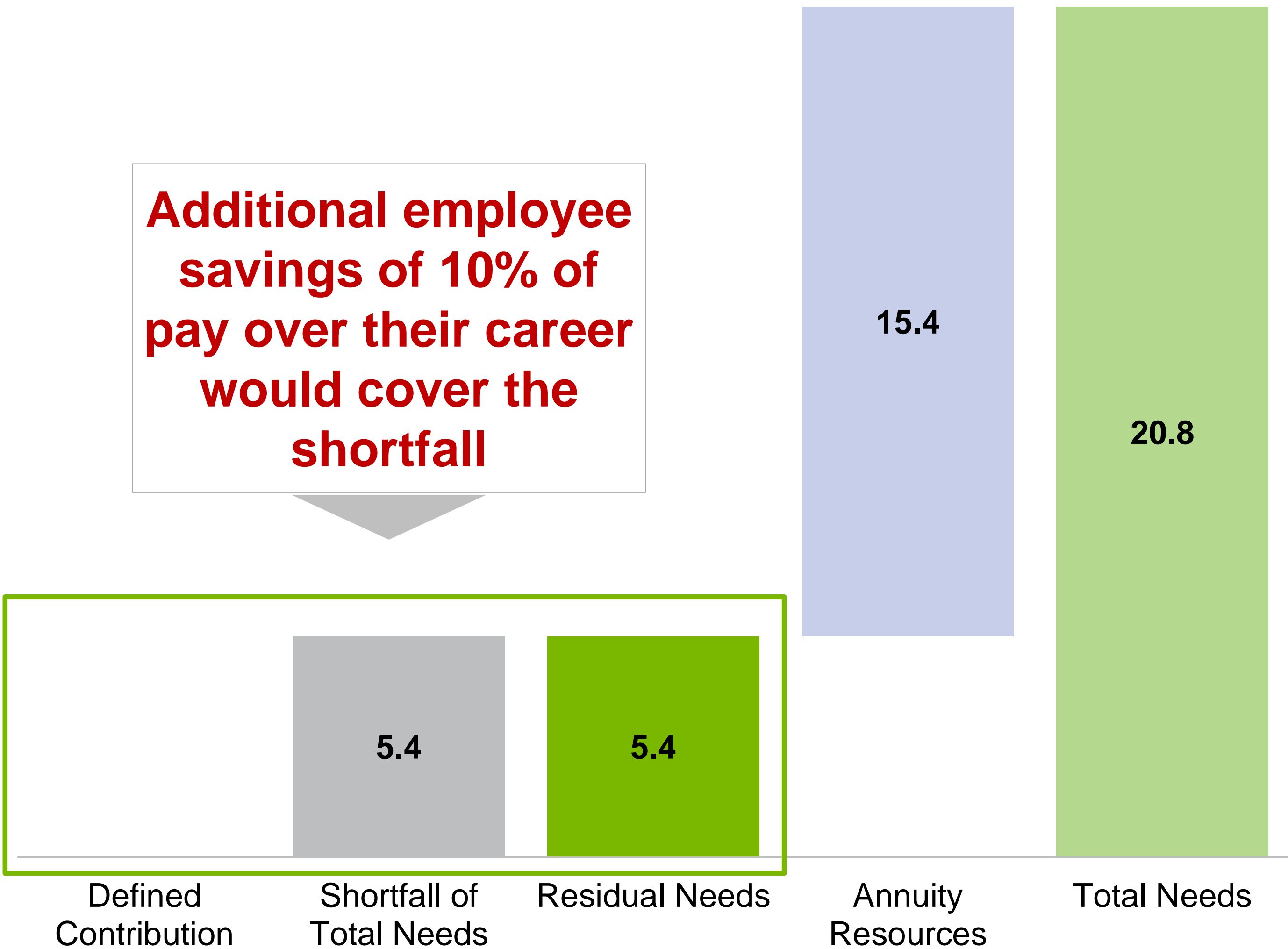


With COLA, shortfall is about 0.4x pay or 1.0% of total career pay (as compared to 2.1x pay or 4.0% of total career pay without COLA)

- Annuity Resources without COLA
- Annuity Resources due to COLA
- ▨ Shortfall of Annuity Resources
- Total Needs

Impact of Not Having Retiree Medical Plan— Baseline 2.0% DB Pension Plan

Average Projected Resources and Target Needs as a Multiple of Pay



Not having access to a retiree medical plan increases an employee's shortfall from 4.0% to 10.0% of pay over their career

Changing DB design to the following also makes up for the shortfall:

Change Multiplier to 3.00%

Adding 3.0% COLA

Change Multiplier to 2.50% and 2.0% COLA, respectively

Present Values of Annuity Resources

DB	=	10.3
Social Security	=	5.1
Retiree Medical	=	0.0
Total Annuity Resources	=	15.4

Key Findings

Adequacy

- **Retirement is growing more challenging** for younger generations
- **Employees** in the average public sector DB plan **still need to save ~4.0%-6.0% on their own** for an adequate retirement
- Rising medical costs have **younger employees less ready for retirement than prior generations**
- Females are less ready than Males due to longer life expectancies
- **‘Your Retirement Number’ is elusive** because key factors are individual-based

Plan Design

- **DC plans provide less retirement income than DB plans** for the same cost under all conditions for career employees
- The average **DB plan with a 2.0% COLA provides employees with adequate retirement income** without any additional employee savings
- **Not participating in Social Security requires a higher multiplier and higher employee savings** for an adequate retirement
- Not having a retiree medical plan increases an employee's shortfall, requiring an additional 6% of pay over an employee's career to cover the gap

Next Steps

- Educate, educate, educate – All Stakeholders
- Understand your plan's level of retirement readiness
- Encourage employee savings toward retirement



Questions?

