Actuaries Serving Congress: Actuarial Work at the Government Accountability Office (GAO)

Presentation to Mid-Atlantic Actuarial Club

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Disclaimer

- The views expressed are those of the presenters and not necessarily those of the Government Accountability Office

Outline

- GAO: Who Are We and What We Do
- Selected Areas of GAO Work
  - Property and Casualty
  - Retirement

GAO Today

- The Government Accountability Office (GAO) is part of the legislative branch of the federal government.
  - Often called the "congressional watchdog" or the investigative arm of Congress
- Sister agencies:
  - Congressional Budget Office (CBO)
  - Congressional Research Service (CRS)
- U.S.'s "Supreme Audit Institution" (SAI)
  - Plays leading role in INTOSAI: International Organization of Supreme Audit Institutions

GAO History

- Established in 1921, under the Budget and Accounting Act, as *General Accounting Office*
  - GAO was given the statutory authority to "investigate…all matters relating to the receipt, disbursement, and application of public funds"
- Increasingly involved in a full range of financial and non-financial oversight, insight, and foresight activities, including program evaluations and policy analyses
  - Name changed to *Government Accountability Office* in 2004

GAO Today

GAO's Mission:

- Support the Congress in meeting its constitutional responsibilities and to help improve the performance, and ensure the accountability, of the federal government for the benefit of the American people.
- Provide Congress with timely information that is objective, fact-based, nonpartisan, nonideological, fair, and balanced.

www.gao.gov

GAO Today

- GAO is led by the Comptroller General (CG) of the United States
  - Single 15-year term
  - Appointed by the President from a list of candidates selected by a bipartisan Congressional commission, and subject to Senate confirmation
- Current CG: Gene Dodaro, eighth CG
  - Confirmed December 2010; had been Acting CG since 2008
  - Most recent predecessor: David Walker

GAO Today

We support Congressional oversight by:

- Auditing agency operations to determine whether federal funds are being spent efficiently and effectively
- Investigating allegations of illegal or improper activities
- Reporting on how well government programs and policies are meeting their objectives
- Performing policy analyses and outlining options for Congressional consideration
- Issuing legal decisions and opinions, such as bid protest rulings and reports on agency rules

GAO Today

- Sources of work:
  - Congressional requests
  - Legislative mandates
  - Comptroller General’s statutory authority
- Informed by strategic planning and ongoing dialogue with Congress

GAO Today

- Reports and Congressional testimonies
  - Strict professional standards of review and referencing
- “Recommendations” to agencies
- “Matters” for Congressional consideration
- In fiscal year 2021
  - 578 reports
  - 67 Congressional testimonies
  - 1,602 new recommendations
  - About 76% of recs made 4 years ago or earlier have been implemented

GAO Today

- GAO staff
  - Approx. 3,300 employees
  - About 70% in Washington, DC headquarters, others in 11 field offices
  - Includes economists, social scientists, accountants, public policy analysts, attorneys, scientists, computer experts, and other specialists in fields ranging from national defense to health care

Role of the Actuary at GAO

- Most employees are in one of 14 “mission teams,” organized largely by subject area
- Actuaries are housed in Applied Research and Methods team, along with economists, statisticians, data analysts, methodologists, and other specialists
- Our actuarial work spans all practice areas
- Actuarial team: Frank Todisco, Lijia Guo, Joe Silvestri, Emei Li

Role of the Actuary at GAO

- Expert consultants to mission teams and Congress
  - Includes assisting with structure of research, methodology, analysis, interviewing external experts
  - Analysis, modeling, empirical research
  - Assessment and interpretation
- Review / edit / draft relevant parts of reports
- Sign reports where appropriate
- Represent GAO externally
- Testify before Congress

Role of the Actuary at GAO

- Open posting to hire another actuary!
  - Primary practice area: Retirement
  - Link to posting: https://www.usajobs.gov/GetJob/ViewDetails/621859600
  - Open through December 13
- GAO voted best place to work in federal government, 2021, among mid-size federal agencies

Selected Areas of GAO Work

GAO’s High-Risk List

- Focuses on areas most in need of reform or transformation, or most vulnerable to fraud, waste, abuse, and mismanagement
- 36 areas currently on the list
- Helps focus attention of federal agencies and Congress
- Began in the 1990s. Issued with each new Congress, most recently in February, 2021.

Examples from GAO's High-Risk List

- Pension Benefit Guaranty Corp. Insurance Programs
- National Flood Insurance Program
- Medicare and Medicaid Programs
- U.S. Postal Service Financial Viability
- Limiting the Federal Government's Fiscal Exposure by Better Managing Climate Change Risks
- Modernizing the U.S. Financial Regulatory System and Resolving the Federal Role in Housing Finance
- For full list, see www.gao.gov/high-risk-list

Consolidated Financial Statements of the U.S. Government

- U.S. government issues an annual GAAP financial report (GAO-21-340R)
  - Produced by Treasury and OMB, audited by GAO
  - Distinct from budget and budget deficit
- Relevant accounting standards are (mostly) those of the Federal Accounting Standards Advisory Board (FASAB)

Consolidated Financial Statements of the U.S. Government

- Statements of Operations, Balance Sheet
  - Including reconciliation between net accounting cost and budget deficit
- Statements of Social Insurance (SOSI)
  - 75-year present values of revenues and expenditures
- Statement of Long-Term Fiscal Projection
  - 75-year present values of receipts and spending
- Liabilities for federal civilian and military pension and retiree health benefits and veterans benefits
- Explanations of actuarial aspects of these amounts and changes in these amounts

Fiscal Health of the Nation

- *The Nation's Fiscal Health: After Pandemic Recovery, Focus Needed on Achieving Long-Term Fiscal Sustainability* (GAO-21-275SP)
- *State and Local Governments' Fiscal Outlook: 2019 Update* (GAO-20-269SP)

Property and Casualty-Related Work

- Emerging Risks
  - Climate change
  - Cyber risk
  - Pandemic risk
- Federal Programs
  - National Flood Insurance Program (NFIP)
  - Federal Terrorism Risk Insurance Program
- Bill for a Pandemic Risk Reinsurance Program and for other purposes

National Flood Insurance Program (NFIP)

- NFIP is the primary source of flood insurance coverage for residential properties in the United States.
- Congress passed the National Flood Insurance Act (NFIA) of 1968 and established NFIP to make federally backed flood insurance available to residential property owners and businesses.
- Flood Insurance Protection Act of 1973 mandated that lenders require flood insurance on loans secured by properties located within high-risk flood areas
- Biggert-Waters Flood Insurance Reform Act of 2012 aimed at strengthening NFIP's financial stability.
- Homeowner Flood Insurance Affordability Act of 2014 repeals or alters portions of the Biggert-Waters Ac
- Congress must periodically renew the NFIP's statutory authority to operate. On Sept. 30, 2021, the president signed legislation passed by Congress that extends the National Flood Insurance Program's (NFIP's) authorization to Dec. 3, 2021.
- Congress must now reauthorize the NFIP by no later than 11:59 p.m. on **Dec. 3, 2021**.

Challenges of NFIP

- Over 22,000 communities in 56 states participate in the NFIP
  - More than 5 million policies providing over $1.3 trillion in coverage
  - About $4 billion in annual premium revenue
  - The NFIP pays over $400 million in annual interest expense on its $20.525 billion debt amounting to total interest paid of $4.6 billion since Hurricane Katrina through FY2019
  - NFIP brings in less premium and fee revenue than claim payouts, in large part because of legislative mandated premium discounts.
- Design to pay for catastrophic events without additional financial assistance.
  - FEMA estimates an annual probable maximum loss of about $40 billion
  - Since 2005, the NFIP's borrowing authority ballooned from $1.5 billion to its current limit of $30.425 billion.
  - As of August 2020, FEMA's debt was $20.5 billion despite Congress having canceled $16 billion in debt in October 2017
- Placed on GAO High Risk List since 2006 due to the financial exposure
- Risk Rating 2.0: FEMA started partial implementing in October 2021

Risk Rating 2.0: Path to Financially Resilient

- Rating methodology remaining non changed since 1970s
  - Data: FEMA sourced
  - Rating variables: Flood insurance rate map zone, Base flood elevation, foundation type, (Structure elevation (special Flood Hazard Area only)
  - 1% Annual Change of Flooding
- Risk Rating 2.0 methodology
  - Data FEMA sourced, Federal government-sourced data, commercially available third-party
  - Cost to rebuild
  - Rating variables: Distance to Coast/Ocean/River; River Class; Flood type — Fluvial/Pluvial; Ground Elevation; First Floor Height; Construction Type/Foundation Type
  - Broader Range of Flood Frequencies
- What's not changed
  - Statutory rate caps on annual premium increases
  - Availability of premium discounts,
  - Transfers of policy discounts to new homeowners
  - Use of Flood Insurance Rate Maps (FIRMs) for mandatory purchase and Floodplain Management
- FEMA started partial implementing in October 2021.

Recent GAO Work on NFIP

- Better Planning and Analysis Needed to Address Current and Future Flood Hazards (GAO-22-104079)
- Hazard Mitigation Assistance (GAO-21-140)
- Fiscal Exposure Persists Despite Property Acquisitions (GAO-20-508)
- Climate migration (GAO-20-488)
- Options for comprehensive reform (GAO-17-425)
- Potential for increased use of private insurance (GAO-16-611)
- FEMA's methodology for setting premium rates (GAO-16-59)
- Privatization options (GAO-14-127)
- Ongoing challenges and potential additional program changes (GAO-13-858T)
- "All-perils" homeowner's policies (GAO-14-179)
- FEMA's Rate-Setting Process Warrants Attention (GAO-09-12)

Emerging Risks in Property and Casualty

- Climate change
  - NFIP
- Cyber: Insurers and Policyholders Face Challenges in an Evolving Market (GAO-21-477)
  - Growing Cyber Risk Creates Uncertainty in Evolving Market
  - Increasing take-up rate, price increases and lower coverage limits
  - Limited Historical Data Exist on Cyber Losses and Events
  - TRIA's Applicability for Cyberattacks
- Pandemic
  - Bill (PRIA) for pandemic risk reinsurance program introduced in 2020 and 2021
  - Business interruption insurance
    - Mandatory participation
    - Federal Exposures
  - Mandatory GAO study on unique capacity constraints on the amount of P/C insurance available
  - What makes insuring a pandemic complicated

Other Property/Casualty/Health Work

- TRIA: program changes have reduced federal fiscal exposure (GAO-20-348, GAO-20-364)
- Federal Workers' compensation program (GAO-20-523)
- Federal Crop Insurance Program (GAO-17-501)
- Federal space launch insurance (GAO-18-57)
- Potential impacts of climate change, federal efforts (GAO-21-327)
- Federal insurance and other activates that transfer risks to the government (GAO-19-353)
- Medicare fee-for-service: modernizing cost-sharing design (GAO-18-100)
- SSI program challenges (GAO-21-105419)
- VA community care (GAO-20-669, GAO-19-478)
- Veterans changing demographics and VA facility planning (GAO-19-440)

Restructuring the U.S. Postal Service (USPS) to Achieve Sustainable Financial Viability

- U.S. Postal Service Primer: Answers to Key Questions about Reform Issues (GAO-21-479SP)
- Other reports addressing actuarial issues
  - GAO-12-146, GAO-13-112, GAO-13-658, GAO-18-602
- Congressional testimonies
  - GAO-14-398T, GAO-13-872T

Restructuring the U.S. Postal Service (USPS) to Achieve Sustainable Financial Viability

- Deteriorating financial situation
  - Losses of $87 billion over FYs 2007-2020
  - Insufficient revenues to cover expenses and financial obligations
  - Sharply declining mail volume
- Liquidity concerns
  - Since 2010 through FY 2020, failure to make $63 billion in mandated payments to prefund retiree health and pensions
- Unfunded liabilities and debt totaling $188 billion at the end of fiscal year 2020
  - Equal to over 250% of annual revenue; vs. 99% in 2007
- Congress needs to approve a comprehensive package of actions to improve the USPS's financial viability

Restructuring the U.S. Postal Service (USPS) to Achieve Sustainable Financial Viability

- Unfunded liabilities and debt at end of FY 2021
  - Debt to Treasury: $ 11 B
  - CSRS pension: $ 43 B
  - FERS pension: $ 34 B
  - Retiree health: $ 76 B
  - Workers' comp $ 23 B
- Retiree health fund projected to become depleted around 2030

USPS benefit issues: GAO has analyzed, clarified, and made recommendations where appropriate

- Disputes over responsibility for CSRS pension benefits
- Proposals by various parties:
  - To eliminate RHB prefunding requirement
    - We have supported prefunding, with 100% target and an actuarial approach
  - For USPS to pull out of federal health care program and run its own program
  - To integrate RHB with Medicare
  - To invest some of the RHB assets in stock market
  - To use USPS-specific actuarial assumptions
- Dispelling myths and misinformation about RHB prefunding

GAO Reports on Central States Pension Fund (CSPF)

- *Department of Labor Activities under the Consent Decree and Federal Law* (June 2018, GAO-18-105)
- *Investment Policy Decisions and Challenges Facing the Plan* (June 2018, GAO-18-106)

- **[Prior to ARPA (American Rescue Plan Act of 2021)]**

Background on CSPF

- One of the largest multiemployer defined benefit pension plans
  - $15 billion in assets at end of 2016
  - About 1,400 contributing employers
  - About 385,000 participants
- Operated under a court-enforceable consent decree since 1982

Background on CSPF

- Was (pre-ARPA) estimated to become insolvent by 2025
- PBGC's multiemployer program was also projected as most likely insolvent by the end of 2025
    - PBGC projects that, once the program becomes insolvent, most participants in insolvent plans would receive less than $2,000 a year, and in many cases much less.

GAO-18-106: Investment Policy Decisions and Challenges Facing the Plan

- Objective 1: Factors that contributed to CSPF’s critical financial condition
- Objective 2: CSPF's investment policy, and the process for setting and executing it, since the consent decree was established
- Objective 3: How have CSPF's investments performed over time, particularly compared to similar pension plans? How have CSPF’s expenses and fees compared to similar pension plans?

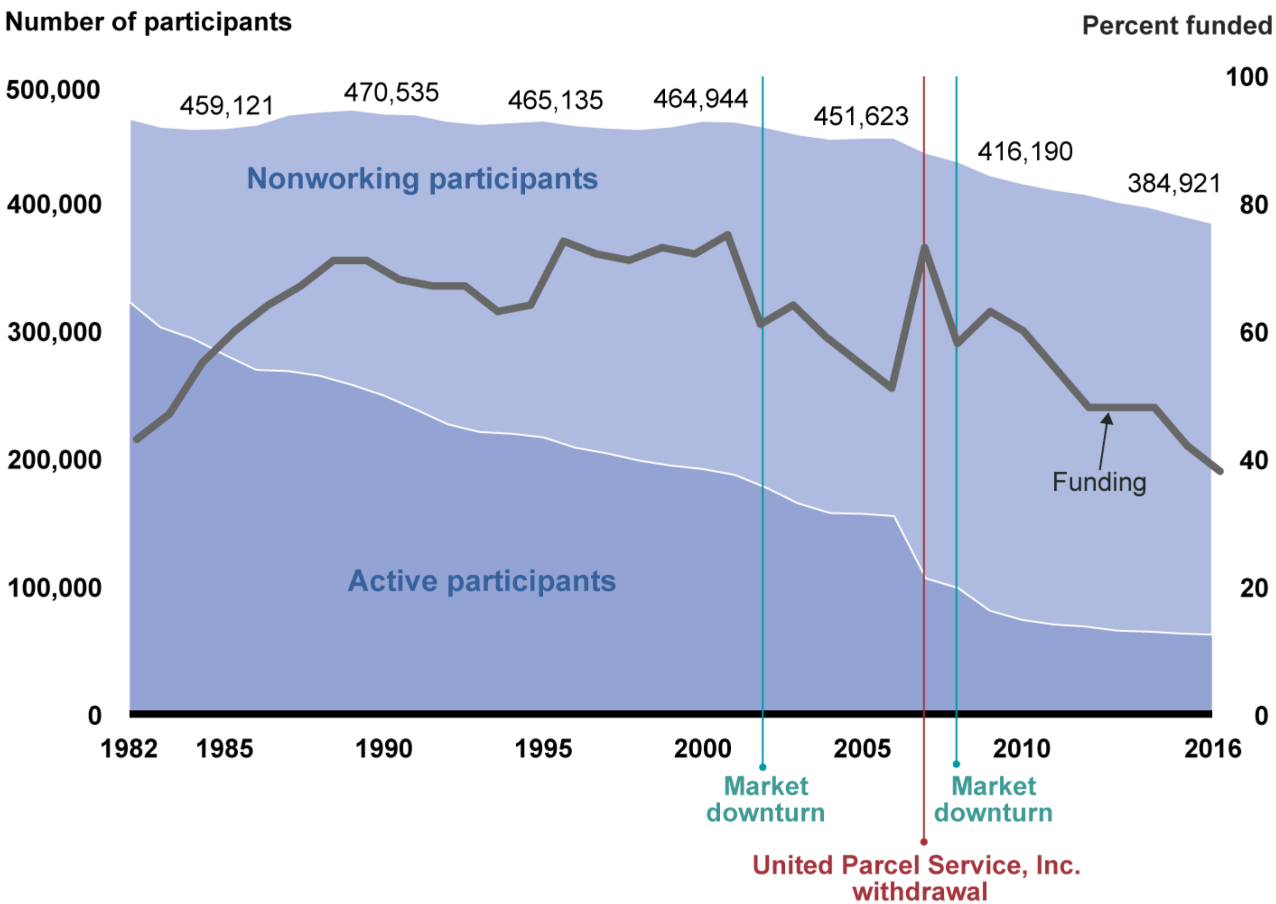
Factors That Affected CSPF's Financial Condition

- Collective impact of multiple factors:
  - Historical underfunding
  - Workforce trends
  - Funding challenges
  - Investment performance
  - United Parcel Service (UPS) withdrawal
- Reflects many of the challenges experienced by other plans in the multiemployer system

Factors: Historical Underfunding

- Less than 40% funded at outset of consent decree
- Progress over next two decades, but never more than 75% funded
- Funded percentage generally deteriorated since 2002 filing

CSPF Funding Levels and Active and Nonworking Participant Totals, 1982–2016



Source: GAO analysis of Central States, Southeast and Southwest Areas Pension Fund (CSPF) data. | GAO-18-105

Factors: Workforce Trends

- Industry concentration risk
- Industry deregulation
  - Trucking industry became increasingly dominated by nonunion trucking companies, who did not join the plan
- Bankruptcy of many contributing employers
- Result:
  - Accelerated plan “maturity”
  - Less capacity to recover from an underfunded position

Ratio of Active to Non-Working Plan Participants:

For entire multiemployer system and for CSPF

Year	Entire System	Year	CSPF
1980	3:1	1982	2:1
2014	1:2	2016	1:5

Factors: Funding Challenges

- Timeframes (amortization periods)
  - E.g., CSPF began a 40-year amortization in 1981 of an unfunded liability of $ 6 billion
- Discount rates
- Strength of employers

Factors: Funding Challenges

- Withdrawal liability (WL)
  - Paid over time, in annual amounts based on prior contribution rates rather than on amount of WL
  - Subject to 20-year cap, regardless of whether paid off
  - Employer bankruptcies leave WL unpaid
  - WL assessment may be based on discount rate that transfers risk to the plan
  - Fears of WL exposure could be an incentive for employers to leave plan, and a disincentive for new employers to join

Factors: Investment Performance

- Investment practices
- Market downturns
- Failure to achieve assumed returns

Factors: United Parcel Service (UPS) Withdrawal

- 2007 withdrawal
- 30 percent reduction of CSPF’s active population
  - Accounted for about one-third of annual contributions to the plan
- $6.1 billion withdrawal liability payment invested just before 2008 crash

Investments, Fees, and Expenses

- CSPF’s Investment Return History is in Line with Other Funds and Plans
- Fees and Expenses Paid by CSPF Were Similar to Other Large Multiemployer Plans

CSPF’s investment policy, process, and asset allocation

- Early period, Sept 1982 through Oct 1993
  - By 1989, nearly all troubled real estate assets had been sold
- Middle period, Nov 1993 through early 2017
  - Notable equity allocation increases from YE’s 1993-95 and 2000-2002

CSPF's asset allocation

	Allocation to equities	Allocation to cash plus fixed income
YE 1993	37%	63%
YE 2002	69%	27%

Annualized Rates of Return (ROR), 2000-2014

	Assumed ROR	Actual ROR (time-weighted)	Actual ROR (dollar-weighted)
CSPF	**8.0-7.5%**	**6.0%**	**4.9%**
Comparator group of other mature multiemployer plans		**5.5%**	**4.8%**

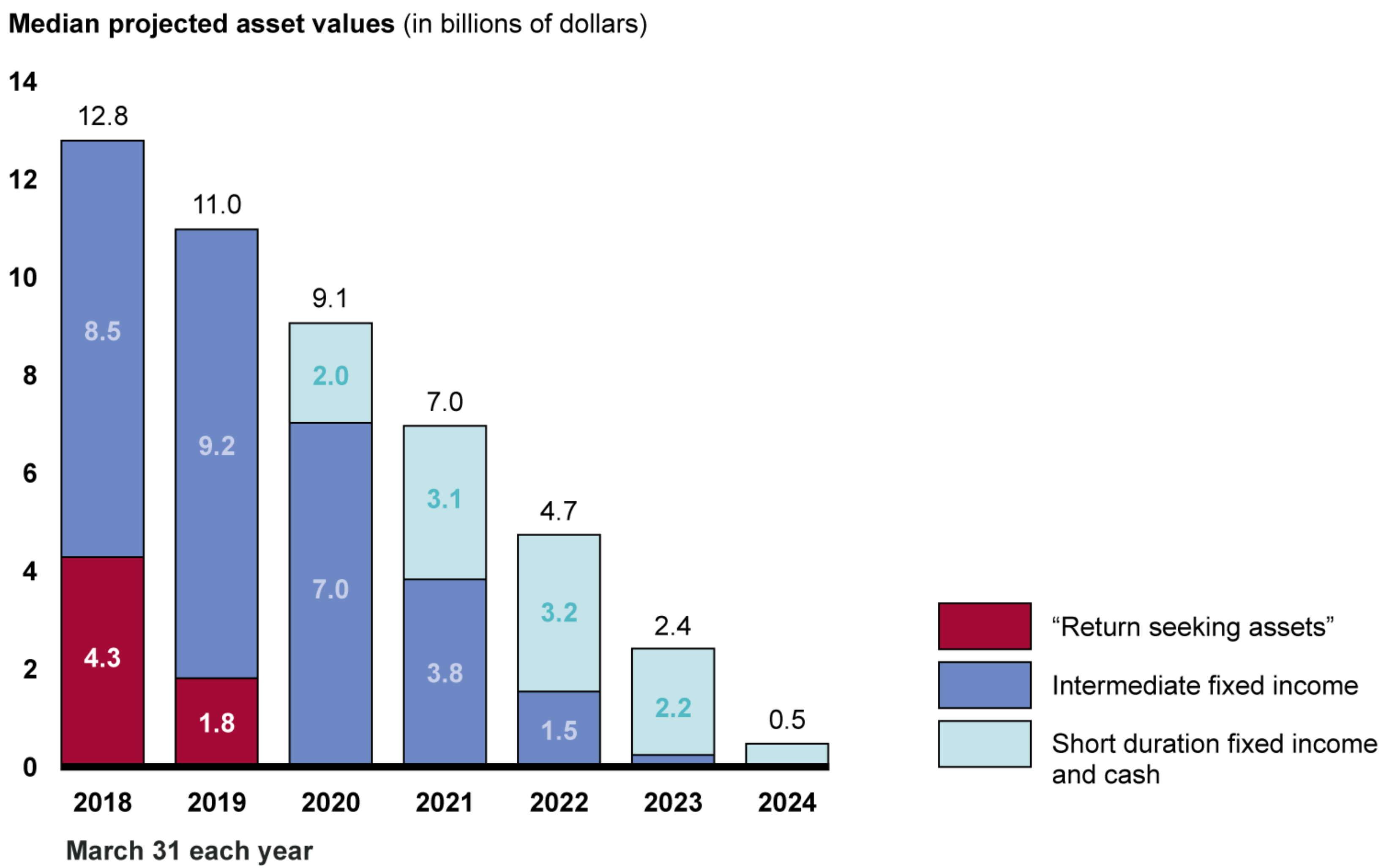
- Dollar-weighted ROR is what matters (reflects cash flow of plan)
- Other multiemployer plans had similar Assumed RORs, perhaps about half a percent lower on average

- **Over this 15-year period, CSPF funded status declined from 73%** (BOY 2000) **to 48%** (BOY 2015)**; (and to 38% at** BOY 2017**)**
  - **If ROR had been 7.5% instead of the actual 4.9%, funded status, hypothetically, would have been 91% at BOY 2015**

CSPF’s investment policy and process, “current period” (pre-ARPA)

- Starting January 2017
- No additional options to avoid insolvency projected on Jan 1, 2025
- Move plan assets into fixed income and cash equivalent investments
- Provide participants greater certainty regarding their benefits and reduce the plan’s exposure to market risk and volatility

Planned changes to asset allocation



Source: GAO analysis of Central States, Southeast and Southwest Areas Pension Fund's (CSPF) named fiduciary documentation. | GAO-18-106

GAO Work on Washington Metropolitan Area Transit Authority (WMATA)

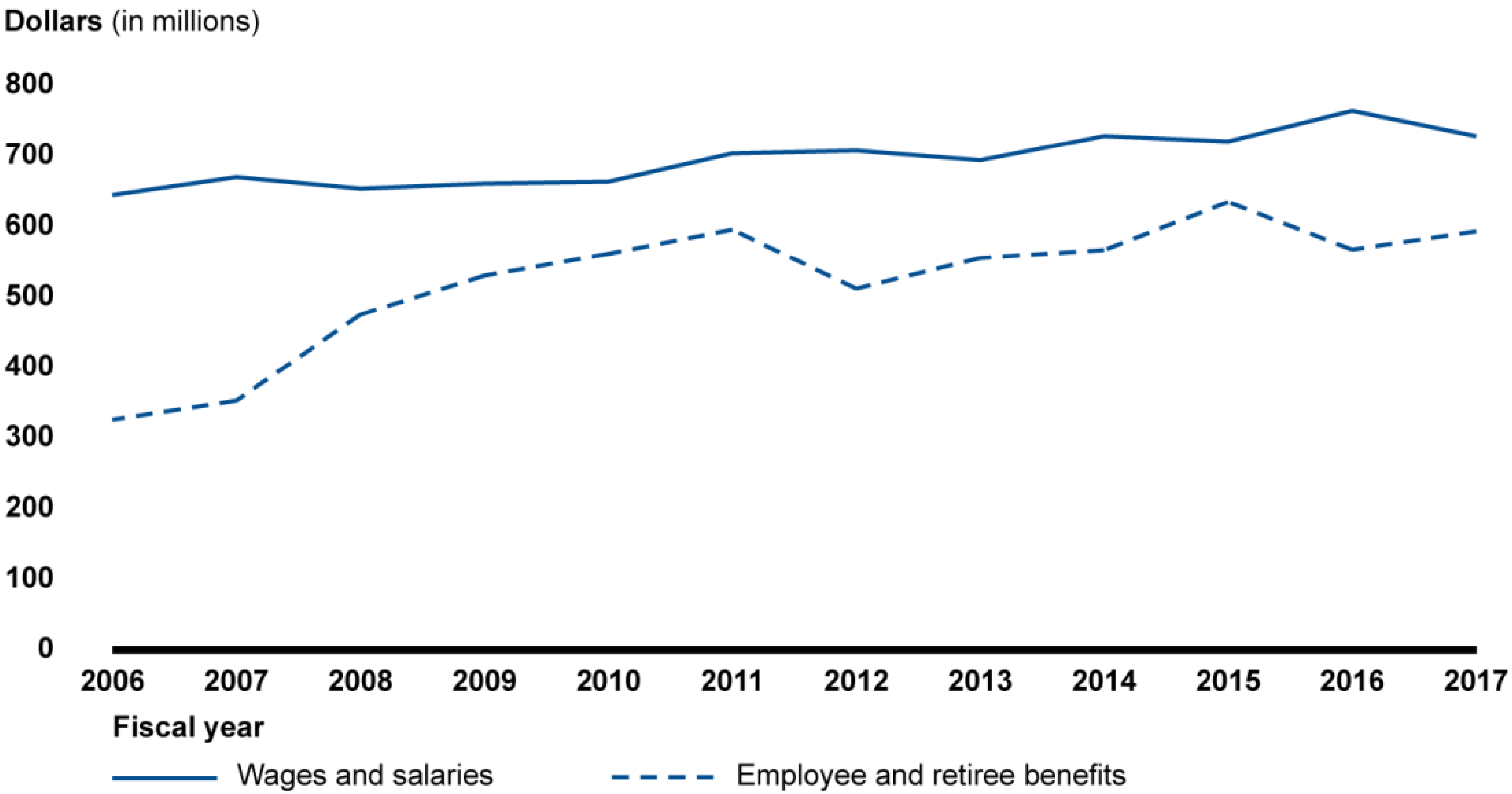
- *WMATA: Assessing Fiscal Risks and Improving Workforce Management Would Help Achieve Strategic Goals*, GAO-18-643, September 10, 2018

GAO Work on WMATA’s Workforce Costs and Performance Management

Three Reporting Objectives:

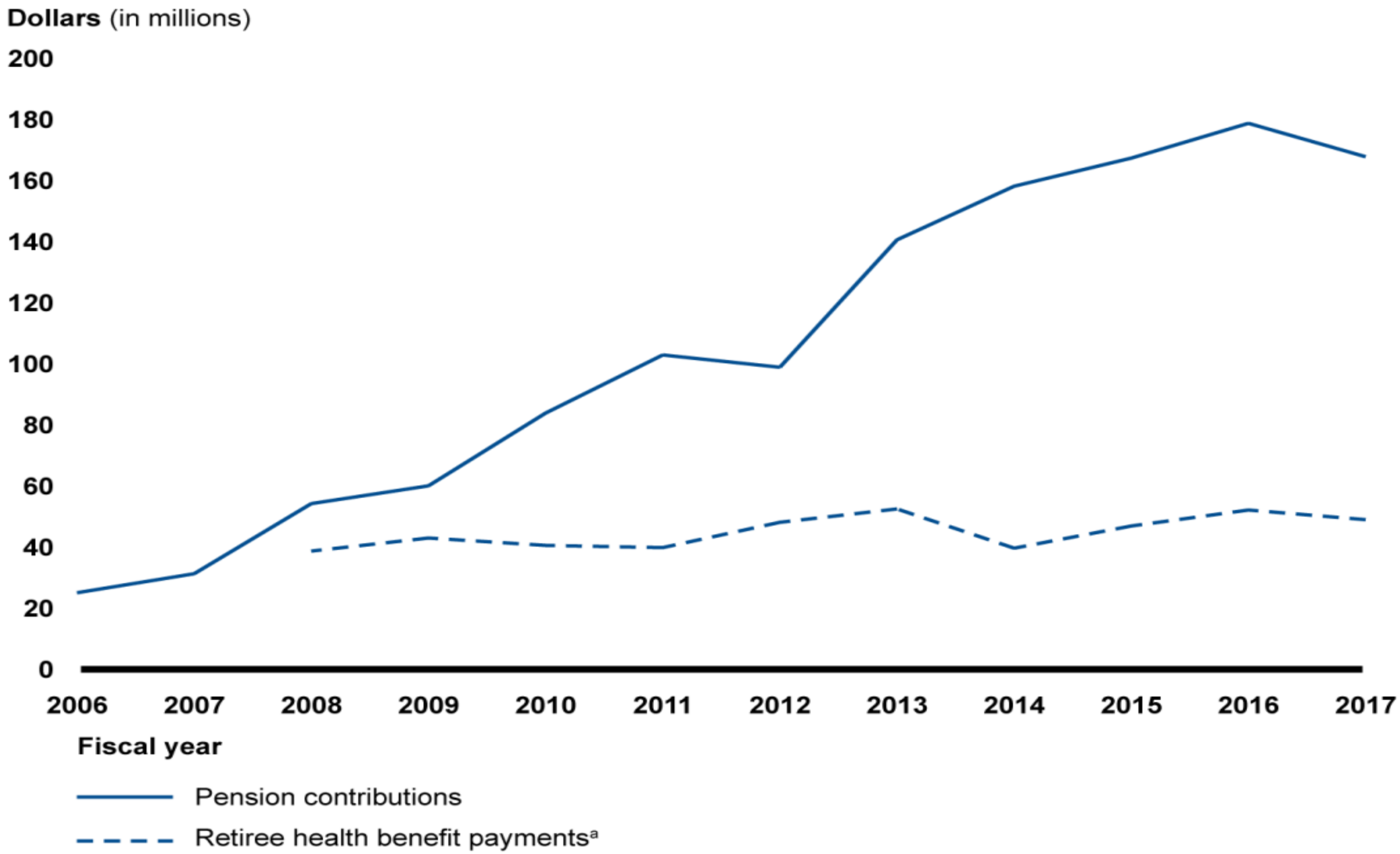
1. How WMATA’s workforce costs have changed from fiscal year 2006 through 2017 and factors contributing to those changes;
2. How WMATA identifies and addresses its current and future workforce needs; and
3. How WMATA has designed, implemented, and monitored its employee performance management systems.

Increases in WMATA's Workforce Costs since Fiscal Year 2006 Were Largely Driven by the Cost of Benefits



Source: GAO analysis of WMATA comprehensive annual financial reports. | GAO-18-643

WMATA's Required Annual Pension Contributions Increased by an Average of 19 Percent Per Year, Fiscal Years 2006 through 2017, and Were Seven Times More in 2017 than 2006



Source: GAO analysis of WMATA comprehensive annual financial reports. | GAO-18-643

Found that the Size and Maturity of WMATA's Pension Plans Posed a Risk to WMATA's Financial Operations

- WMATA's pension plans are considered "mature" by actuarial measures, meaning, for example, that they have a high proportion of retirees compared to active members.
- In FY 2017, WMATA's pension assets ($3.6 billion) were about 5 times more, and its pension liabilities ($4.7 billion) about 6.5 times more than its annual wages and salaries ($728 million).
- As a result, changes in the value of these assets or liabilities could significantly affect WMATA's operations

Found that Investment Decisions of WMATA’s Pension Plans Posed a Risk to WMATA’s Financial Operations

- WMATA’s pension plans (1) are largely invested in the stock market, which poses significant risk, and (2) assume higher rates of return than state and local pension plans generally do.
- In 2017, 69 percent of WMATA’s plan assets across all five pension plans were invested in the stock market, and only 18 percent in fixed income or cash.
- For the 2017 plan year, WMATA’s largest pension plan assumed average future investment returns of 7.85 percent.
- With its mature plans, WMATA faces a shorter time horizon before benefits for its retirees and older workers will become due, leaving less time to recover from any investment shortfalls.

WMATA Has Not Fully Assessed the Risks its Five Pension Plans Pose to the Agency’s Financial Operations

- We recommended that WMATA conduct a comprehensive assessment of the financial risks to which WMATA is exposed from its pension plans and communicate the results to its pension plan trustees and other stakeholders, such as its Board of Directors.
- This assessment should include information about WMATA's current and potential future required payments and unfunded liabilities, including under potentially adverse economic scenarios.

Other Retirement-Related Work Has Included:

- Retirement readiness
- State of retirement in the U.S.
- DC account balances
- DC leakage
- DC fees
- DC lifetime income options
- Debt of seniors
- Trends in income and wealth distribution of older adults
- Women's retirement security
- Impact of caregiving on retirement security
- Alternative cost-of-living indices
- Longevity differentials
- Social Security claiming ages
- Social Security reform options
- PBGC risk-related premiums
- DB cashouts
- QDROs
- Replacement ratios
- Phased retirement
- Top hat plans

Q&A