Retirement & Investment Solutions
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City of Carthage, Missouri Policemen's & Firemen's Pension Plan
Vested Term Lump Sum Analysis

JANUARY 23, 2024

CBIZ.COM/RETIREMENT

Agenda

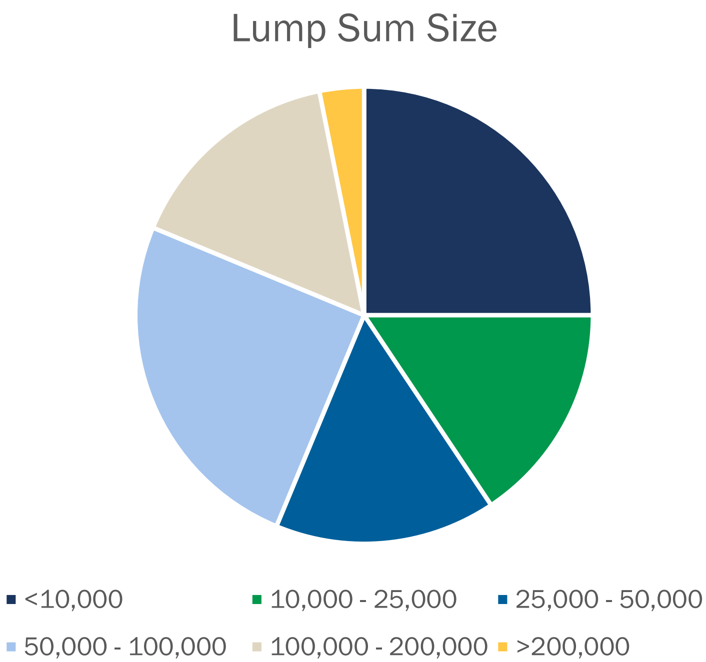
- Introduction
- Vested Term Data Analysis
- Appendix – Vested Term Data

Introduction

- Reviewed vested terminated participants in the plan as of January 1, 2023.
- Includes 32 participants
  - Removed one retiree who started payments in 2023
- Lump sums are calculated as if payable on April 1, 2024
- Liability impact is based on January 1, 2023 actuarial liability rolled forward to April 1, 2024

Vested Term Data Analysis

Lump Sum Breakdown



Lump Sum	Vested Term Count
< $10,000	8
$10,000 - $25,000	5
$25,000 - $50,000	5
$50,000 - $100,000	8
$100,000 - $200,000	5
> $200,000	1

Vested Term Data Analysis

Funding Status Impact

Lump Sum	Total Lump Sum - Asset Impact	Total Liability Impact	Funding Status Impact	Vested Term Count
< $10,000	$57,034	$43,169	$(13,865)	8
$10,000 - $25,000	69,802	55,312	(14,490)	5
$25,000 - $50,000	210,276	163,387	(46,889)	5
$50,000 - $100,000	576,629	463,774	(112,855)	8
$100,000 - $200,000	1,002,239	856,952	(145,287)	5
> $200,000	344,488	297,071	(47,417)	1
Total	$2,260,466	$1,879,666	$(380,800)	32

1/1/2023 Actuarial Accrued Liability: $12,032,493
1/1/2023 Market Value of Assets: $9,613,000
1/1/2023 Funded Percentage: 79.9%

APPENDIX

Appendix

Lump Sum Data

Sex	Date of Birth	Date of Hire	DOT	Annual Benefit	Age	4/1/2024 Lump Sum	4/1/2024 Liability	Funding Impact
Male	3/17/1970	4/21/2008	1/1/2022	$ 26,055	54	$ 344,488	$ 297,071	$ (47,417)
Male	6/24/1966	7/2/2001	2/29/2016	$ 14,888	58	$ 196,610	$ 170,980	$ (25,630)
Male	10/3/1968	7/4/1995	9/11/2014	$ 16,866	55	$ 195,183	$ 166,521	$ (28,662)
Male	9/16/1968	8/14/1995	12/31/2012	$ 15,135	56	$ 175,151	$ 150,510	$ (24,642)
Male	9/29/1977	1/24/2002	10/20/2020	$ 17,069	47	$ 146,349	$ 117,285	$ (29,065)
Male	1/7/1969	9/10/2012	12/4/2022	$ 10,419	55	$ 145,457	$ 128,932	$ (16,525)
Male	1/17/1970	1/31/2000	12/6/2010	$ 9,048	54	$ 96,843	$ 81,791	$ (15,052)
Male	2/10/1981	9/6/2005	10/22/2019	$ 12,655	43	$ 89,587	$ 68,614	$ (20,972)
Male	3/3/1963	11/24/1986	9/3/1999	$ 6,019	61	$ 76,499	$ 74,956	$ (1,543)
Male	10/31/1983	2/14/2007	3/9/2020	$ 11,602	40	$ 70,095	$ 52,657	$ (17,438)
Male	7/9/1973	5/1/1995	1/2/2007	$ 7,539	51	$ 66,192	$ 54,053	$ (12,139)
Male	8/28/1986	1/3/2011	7/8/2022	$ 12,342	38	$ 63,307	$ 46,333	$ (16,974)
Male	7/31/1984	11/16/2010	9/7/2022	$ 10,094	40	$ 58,401	$ 43,693	$ (14,708)
Male	6/16/1983	2/17/2008	11/13/2019	$ 9,044	41	$ 55,705	$ 41,678	$ (14,027)
Male	2/7/1983	2/22/2004	1/4/2018	$ 7,824	41	$ 49,362	$ 37,035	$ (12,327)
Male	10/10/1976	5/27/2010	1/2/2019	$ 5,140	47	$ 46,680	$ 37,551	$ (9,129)
Male	7/25/1985	10/17/2010	1/17/2022	$ 8,287	39	$ 45,256	$ 33,520	$ (11,737)
Male	4/4/1971	7/29/2006	3/20/2014	$ 4,300	53	$ 42,988	$ 35,562	$ (7,427)
Male	3/17/1980	8/8/2003	6/22/2012	$ 4,367	44	$ 25,989	$ 19,720	$ (6,269)
Male	8/1/1981	2/11/2010	3/23/2017	$ 2,486	43	$ 17,098	$ 13,102	$ (3,996)
Male	10/17/1975	9/1/1996	12/29/2003	$ 1,844	48	$ 14,220	$ 11,293	$ (2,927)
Male	1/2/1972	10/21/2000	6/16/2006	$ 1,432	52	$ 13,707	$ 11,292	$ (2,415)
Male	4/25/1976	7/16/2008	9/12/2014	$ 1,825	48	$ 13,609	$ 10,735	$ (2,874)
Male	11/27/1975	7/16/2001	2/15/2007	$ 1,462	48	$ 11,168	$ 8,891	$ (2,278)
Male	3/31/1982	12/18/2008	6/5/2015	$ 1,882	42	$ 9,978	$ 7,422	$ (2,556)
Male	10/18/1968	7/2/1996	5/29/2001	$ 798	55	$ 9,195	$ 7,883	$ (1,312)
Male	2/24/1978	9/15/2001	3/26/2007	$ 1,311	46	$ 8,795	$ 6,825	$ (1,970)
Male	5/31/1983	12/20/2007	3/2/2014	$ 1,621	41	$ 8,031	$ 5,890	$ (2,140)
Male	8/28/1985	5/27/2008	3/24/2014	$ 1,509	39	$ 6,562	$ 4,759	$ (1,802)
Male	1/1/1992	11/21/2016	6/2/2022	$ 1,518	32	$ 5,729	$ 3,956	$ (1,773)
Male	9/21/1982	4/30/2007	6/22/2012	$ 964	42	$ 4,966	$ 3,700	$ (1,266)
Male	7/8/1985	12/20/2007	9/29/2012	$ 860	39	$ 3,778	$ 2,733	$ (1,045)

Appendix

Assumptions

- Lump Sum Basis – 2024 Lump Sum Basis
  - 2024 417(e)(3) Mortality
  - November 2023 417(e)(3) rates - 2-month lookback
    - 5.50%, 5.76%, 5.83%
- Liability Basis
  - Assumptions, Methods and Plan Provisions as described in the Actuarial Valuation as of January 1, 2023

Questions?

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