

# THREE: APPENDICES

## MISCELLANEOUS ASSUMPTIONS

*continued*

### ***LEOFF Plan 2 Percent Law Enforcement Officer/Firefighter***

#### **What is the LEOFF Plan 2 Percent Law Enforcement Officer/Firefighter Assumption and How Do We Use it?**

The Percent Law Enforcement Officer/Firefighter assumption for LEOFF 2 represents the probability that a member is occupied as a law enforcement officer or a firefighter. We use the assumption to blend occupation specific termination and retirement rates into one set of rates for all members of the plan.

#### **High Level Takeaways**

Historically, the percent of LEOFF 2 members identified as law enforcement officers/firefighters decreased/increased over the study period. However, since the [2007-2012 Demographic Experience Study](#) the more recent data remains steady. As such, we made no change to our prior assumption.

#### **Data**

We looked at 23 years of experience study records, from 1984-2017. No special data was added for this assumption, and no data was excluded.

#### **General Methodology**

We compared the number of law enforcement officers and the number of firefighters to the total active LEOFF 2 member counts to determine the percentage that are employed in each occupation. We made this comparison by age and by year over the study period.

#### **Law Changes**

Since the last study, no law changes have impacted our analysis of this assumption.

#### **Analysis and Results**

##### ***Analysis***

##### ***Past Experience***

The following table shows the member counts of law enforcement officers and firefighters by age. We found that between ages 25 and 60, the percent of members employed in either occupation as a percentage of total LEOFF 2 active membership remained steady.

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LEOFF Plan 2 Member Counts by Age (Males and Females)					
Age	All	LEO	FF	Percent LEO	Percent FF
20-24	7,823	3,989	3,834	51%	49%
25-29	47,891	27,403	20,488	57%	43%
30-34	77,448	44,001	33,447	57%	43%
35-39	81,724	45,752	35,972	56%	44%
40-44	72,385	40,366	32,019	56%	44%
45-49	55,635	30,816	24,819	55%	45%
50-54	36,237	19,689	16,548	54%	46%
55-59	16,558	8,765	7,793	53%	47%
60-64	4,714	2,653	2,061	56%	44%
65+	628	353	275	56%	44%
<b>Total</b>	<b>401,043</b>	<b>223,787</b>	<b>177,256</b>	<b>56%</b>	<b>44%</b>

The following table shows the member counts of law enforcement officers and firefighters by year. As noted, the historical percent of members identified as law enforcement officers/firefighters decreased/increased. However, recent data suggests a steady proportion, or leveling-off, of each occupation over the study period.

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LEOFF Plan 2 Member Counts by Year (Males and Females)					
Year	All	LEO	FF	Percent LEO	Percent FF
1984	3,262	1,987	1,275	61%	39%
1985	3,676	2,229	1,447	61%	39%
1986	4,142	2,489	1,653	60%	40%
1987	4,544	2,688	1,856	59%	41%
1988	4,977	2,940	2,037	59%	41%
1989	5,616	3,360	2,256	60%	40%
1990	6,183	3,697	2,486	60%	40%
1991	6,940	4,171	2,769	60%	40%
1992	7,700	4,586	3,114	60%	40%
1993	8,218	4,824	3,394	59%	41%
1994	8,813	5,134	3,679	58%	42%
1995	9,568	5,597	3,971	58%	42%
1996	10,237	6,018	4,219	59%	41%
1997	10,872	6,348	4,524	58%	42%
1998	11,452	6,658	4,794	58%	42%
1999	11,975	6,958	5,017	58%	42%
2000	12,755	7,376	5,379	58%	42%
2001	13,183	7,568	5,615	57%	43%
2002	13,641	7,718	5,923	57%	43%
2003	14,116	7,924	6,192	56%	44%
2004	14,665	8,165	6,500	56%	44%
2005	14,875	8,235	6,640	55%	45%
2006	15,262	8,423	6,839	55%	45%
2007	15,789	8,666	7,123	55%	45%
2008	16,187	8,826	7,361	55%	45%
2009	16,705	9,116	7,589	55%	45%
2010	17,036	9,216	7,820	54%	46%
2011	17,006	9,116	7,890	54%	46%
2012	16,865	8,951	7,914	53%	47%
2013	16,767	8,849	7,918	53%	47%
2014	16,741	8,834	7,907	53%	47%
2015	16,838	8,889	7,949	53%	47%
2016	17,073	9,048	8,025	53%	47%
2017	17,364	9,183	8,181	53%	47%
<b>Total</b>	<b>401,043</b>	<b>223,787</b>	<b>177,256</b>	<b>56%</b>	<b>44%</b>

### ***Results***

Based on the member counts by age and by year, and considering the more recent trends in the data, we determined the current assumption for the percent of members occupied as law enforcement officers or firefighters remains reasonable.

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## MISCELLANEOUS ASSUMPTIONS

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Plan 2 Percent Law Enforcement Officer/ Firefighter		
	Old	New
LEO	55%	55%
FF	45%	45%