

Andover Contributory Retirement System  
Forecast of Annual Appropriations

Funding Schedule A-1  
Baseline

Based on Results of January 1, 2023 Valuation

Andover Housing Authority

All Others

Fiscal Year Ending	Andover Housing Authority						All Others							
	Employer Normal Cost	Net 3(8)(c) Transfers	Amortization Payment of UAL	Total Employer Cost	Increase Over Prior Year	Unfunded Actuarial Accrued Liability	Employer Normal Cost	Net 3(8)(c) Transfers	Amortization Payment of UAL	Total Employer Cost	Increase Over Prior Year	Unfunded Actuarial Accrued Liability	Total Appropriation	Increase Over Prior Year
2024	45,180	-	127,603	172,783		1,992,871	5,519,182	-	1,605,663	7,124,845		17,608,982	7,297,628	
2025	46,273	-	144,240	190,513	10.26%	1,976,850	5,672,248	-	1,238,793	6,911,041	-3.00%	16,977,992	7,101,554	-2.69%
2026	47,453	-	150,009	197,462	3.65%	1,942,879	5,861,357	-	1,288,344	7,149,701	3.45%	16,686,238	7,347,163	3.46%
2027	48,720	-	156,010	204,730	3.68%	1,901,050	6,044,752	-	1,339,878	7,384,630	3.29%	16,326,989	7,589,360	3.30%
2028	50,008	-	162,250	212,258	3.68%	1,850,674	6,231,823	-	1,393,473	7,625,296	3.26%	15,894,334	7,837,554	3.27%
2029	51,415	-	168,740	220,155	3.72%	1,791,014	6,421,198	-	1,449,211	7,870,409	3.21%	15,381,943	8,090,564	3.23%
2030	52,910	-	175,490	228,400	3.75%	1,721,280	6,659,033	-	1,507,180	8,166,213	3.76%	14,783,038	8,394,613	3.76%
2031	54,452	-	182,510	236,962	3.75%	1,640,628	6,855,048	-	1,567,468	8,422,516	3.14%	14,090,361	8,659,478	3.16%
2032	56,696	-	189,810	246,506	4.03%	1,548,153	7,073,811	-	1,630,167	8,703,978	3.34%	13,296,146	8,950,484	3.36%
2033	60,339	-	197,403	257,742	4.56%	1,442,888	7,326,048	-	1,695,373	9,021,421	3.65%	12,392,087	9,279,163	3.67%
2034	60,940	-	205,299	266,239	3.30%	1,323,799	7,508,292	-	1,763,188	9,271,480	2.77%	11,369,302	9,537,719	2.79%
2035	61,219	-	213,511	274,730	3.19%	1,189,780	7,767,236	-	1,833,716	9,600,952	3.55%	10,218,294	9,875,682	3.54%
2036	63,167	-	222,051	285,218	3.82%	1,039,649	8,011,563	-	1,907,063	9,918,626	3.31%	8,928,912	10,203,844	3.32%
2037	65,639	-	230,934	296,573	3.98%	872,145	8,288,508	-	1,983,347	10,271,855	3.56%	7,490,315	10,568,428	3.57%
2038	67,268	-	240,171	307,439	3.66%	685,917	8,552,400	-	2,062,681	10,615,081	3.34%	5,890,917	10,922,520	3.35%
2039	69,899	-	249,778	319,677	3.98%	479,525	8,831,158	-	2,145,187	10,976,345	3.40%	4,118,350	11,296,022	3.42%
2040	71,662	-	259,768	331,430	3.68%	251,433	9,133,414	-	2,230,995	11,364,409	3.54%	2,159,410	11,695,839	3.54%
2041	73,975	-	-	73,975	-77.68%	-	9,435,354	-	-	9,435,354	-16.97%	-	9,509,329	-18.69%
2042	76,369	-	-	76,369	3.24%	-	9,743,435	-	-	9,743,435	3.27%	-	9,819,804	3.26%
2043	78,847	-	-	78,847	3.24%	-	10,065,786	-	-	10,065,786	3.31%	-	10,144,633	3.31%
2044	81,411	-	-	81,411	3.25%	-	10,406,649	-	-	10,406,649	3.39%	-	10,488,060	3.39%
2045	84,065	-	-	84,065	3.26%	-	10,780,495	-	-	10,780,495	3.59%	-	10,864,560	3.59%

- Funded Status: 49.70%
- Investment Return Rate: 5.750%
- Amortization Payments Increase Annually: 4.00%
- Limit on Annual Increase: None
- Fully Funded in Fiscal Year: 2040
- COLA Base 13,000/14,000

- Funded Status: 95.41%
- Investment Return Rate: 5.750%
- Amortization Payments Increase Annually: 4.00%
- Limit on Annual Increase: None
- Fully Funded in Fiscal Year: 2040
- COLA Base 13,000/14,000

Andover Contributory Retirement System  
Forecast of Annual Appropriations

Funding Schedule B-1  
Mortality

Based on Results of January 1, 2023 Valuation

Andover Housing Authority

All Others

Fiscal Year Ending	Andover Housing Authority						All Others							
	Employer Normal Cost	Net 3(8)(c) Transfers	Amortization Payment of UAL	Total Employer Cost	Increase Over Prior Year	Unfunded Actuarial Accrued Liability	Employer Normal Cost	Net 3(8)(c) Transfers	Amortization Payment of UAL	Total Employer Cost	Increase Over Prior Year	Unfunded Actuarial Accrued Liability	Total Appropriation	Increase Over Prior Year
2024	44,689	-	128,094	172,783		1,968,827	5,487,280	-	1,637,566	7,124,846		15,007,880	7,297,629	
2025	45,765	-	142,348	188,113	8.87%	1,950,921	5,639,219	-	1,035,708	6,674,927	-6.31%	14,194,672	6,863,040	-5.96%
2026	46,926	-	148,042	194,968	3.64%	1,917,396	5,827,156	-	1,077,137	6,904,293	3.44%	13,950,747	7,099,261	3.44%
2027	48,174	-	153,964	202,138	3.68%	1,876,115	6,009,341	-	1,120,222	7,129,563	3.26%	13,650,392	7,331,701	3.27%
2028	49,443	-	160,123	209,566	3.67%	1,826,399	6,195,162	-	1,165,031	7,360,193	3.23%	13,288,666	7,569,759	3.25%
2029	50,830	-	166,527	217,357	3.72%	1,767,520	6,383,232	-	1,211,632	7,594,864	3.19%	12,860,275	7,812,221	3.20%
2030	52,305	-	173,188	225,493	3.74%	1,698,700	6,619,736	-	1,260,098	7,879,834	3.75%	12,359,552	8,105,327	3.75%
2031	53,825	-	180,115	233,940	3.75%	1,619,105	6,814,365	-	1,310,502	8,124,867	3.11%	11,780,429	8,358,807	3.13%
2032	56,046	-	187,321	243,367	4.03%	1,527,843	7,031,683	-	1,362,922	8,394,605	3.32%	11,116,416	8,637,972	3.34%
2033	59,669	-	194,813	254,482	4.57%	1,423,959	7,282,429	-	1,417,439	8,699,868	3.64%	10,360,566	8,954,350	3.66%
2034	60,246	-	202,606	262,852	3.29%	1,306,432	7,463,107	-	1,474,136	8,937,243	2.73%	9,505,453	9,200,095	2.74%
2035	60,500	-	210,710	271,210	3.18%	1,174,171	7,720,451	-	1,533,101	9,253,552	3.54%	8,543,137	9,524,762	3.53%
2036	62,422	-	219,138	281,560	3.82%	1,026,010	7,963,106	-	1,594,426	9,557,532	3.29%	7,465,134	9,839,092	3.30%
2037	64,868	-	227,904	292,772	3.98%	860,702	8,238,355	-	1,658,202	9,896,557	3.55%	6,262,375	10,189,329	3.56%
2038	66,470	-	237,020	303,490	3.66%	676,917	8,500,449	-	1,724,531	10,224,980	3.32%	4,925,178	10,528,470	3.33%
2039	69,074	-	246,500	315,574	3.98%	473,233	8,777,361	-	1,793,512	10,570,873	3.38%	3,443,201	10,886,447	3.40%
2040	70,807	-	256,360	327,167	3.67%	248,134	9,077,709	-	1,865,253	10,942,962	3.52%	1,805,403	11,270,129	3.52%
2041	73,091	-	-	73,091	-77.66%	-	9,377,691	-	-	9,377,691	-14.30%	-	9,450,782	-16.14%
2042	75,453	-	-	75,453	3.23%	-	9,683,723	-	-	9,683,723	3.26%	-	9,759,176	3.26%
2043	77,899	-	-	77,899	3.24%	-	10,003,953	-	-	10,003,953	3.31%	-	10,081,852	3.31%
2044	80,431	-	-	80,431	3.25%	-	10,342,620	-	-	10,342,620	3.39%	-	10,423,051	3.38%
2045	83,050	-	-	83,050	3.26%	-	10,714,185	-	-	10,714,185	3.59%	-	10,797,235	3.59%

- Funded Status: 50.01%
- Investment Return Rate: 5.750%
- Amortization Payments Increase Annually: 4.00%
- Limit on Annual Increase: None
- Fully Funded in Fiscal Year: 2040
- COLA Base 13,000/14,000

- Funded Status: 96.06%
- Investment Return Rate: 5.750%
- Amortization Payments Increase Annually: 4.00%
- Limit on Annual Increase: None
- Fully Funded in Fiscal Year: 2040
- COLA Base 13,000/14,000

Andover Contributory Retirement System  
Forecast of Annual Appropriations

Funding Schedule B-2  
Shorten FF Date, 7.37% Annual Increase

Based on Results of January 1, 2023 Valuation

Andover Housing Authority

All Others

Fiscal Year Ending	Andover Housing Authority						All Others						Total Appropriation	Increase Over Prior Year
	Employer Normal Cost	Net 3(8)(c) Transfers	Amortization Payment of UAL	Total Employer Cost	Increase Over Prior Year	Unfunded Actuarial Accrued Liability	Employer Normal Cost	Net 3(8)(c) Transfers	Amortization Payment of UAL	Total Employer Cost	Increase Over Prior Year	Unfunded Actuarial Accrued Liability		
2024	44,689	-	128,094	172,783		1,968,827	5,487,280	-	1,637,566	7,124,846		15,007,880	7,297,629	
2025	45,765	-	139,753	185,518	7.37%	1,950,921	5,639,219	-	2,010,729	7,649,948	7.37%	14,194,672	7,835,466	7.37%
2026	46,926	-	152,265	199,191	7.37%	1,920,052	5,827,156	-	2,386,592	8,213,748	7.37%	12,952,748	8,412,939	7.37%
2027	48,174	-	165,697	213,871	7.37%	1,874,602	6,009,341	-	2,809,760	8,819,101	7.37%	11,254,691	9,032,972	7.37%
2028	49,443	-	180,190	229,633	7.37%	1,812,790	6,195,162	-	3,273,907	9,469,069	7.37%	9,025,855	9,698,702	7.37%
2029	50,830	-	195,727	246,557	7.37%	1,732,589	6,383,232	-	3,783,707	10,166,939	7.37%	6,193,774	10,413,496	7.37%
2030	52,305	-	212,423	264,728	7.37%	1,631,873	6,619,736	-	2,765,779	9,385,515	-7.69%	2,677,034	9,650,243	-7.33%
2031	53,825	-	230,413	284,238	7.37%	1,508,276	6,814,365	-	-	6,814,365	-27.39%	-	7,098,603	-26.44%
2032	56,046	-	249,140	305,186	7.37%	1,359,158	7,031,683	-	-	7,031,683	3.19%	-	7,336,869	3.36%
2033	59,669	-	268,010	327,679	7.37%	1,182,298	7,282,429	-	-	7,282,429	3.57%	-	7,610,108	3.72%
2034	60,246	-	291,583	351,829	7.37%	975,954	7,463,107	-	-	7,463,107	2.48%	-	7,814,936	2.69%
2035	60,500	-	317,258	377,758	7.37%	733,616	7,720,451	-	-	7,720,451	3.45%	-	8,098,209	3.62%
2036	62,422	-	343,177	405,599	7.37%	451,064	7,963,106	-	-	7,963,106	3.14%	-	8,368,705	3.34%
2037	64,868	-	129,903	194,771	-51.98%	125,735	8,238,355	-	-	8,238,355	3.46%	-	8,433,126	0.77%
2038	66,470	-	-	66,470	-65.87%	-	8,500,449	-	-	8,500,449	3.18%	-	8,566,919	1.59%
2039	69,074	-	-	69,074	3.92%	-	8,777,361	-	-	8,777,361	3.26%	-	8,846,435	3.26%
2040	70,807	-	-	70,807	2.51%	-	9,077,709	-	-	9,077,709	3.42%	-	9,148,516	3.41%
2041	73,091	-	-	73,091	3.23%	-	9,377,691	-	-	9,377,691	3.30%	-	9,450,782	3.30%
2042	75,453	-	-	75,453	3.23%	-	9,683,723	-	-	9,683,723	3.26%	-	9,759,176	3.26%
2043	77,899	-	-	77,899	3.24%	-	10,003,953	-	-	10,003,953	3.31%	-	10,081,852	3.31%
2044	80,431	-	-	80,431	3.25%	-	10,342,620	-	-	10,342,620	3.39%	-	10,423,051	3.38%
2045	83,050	-	-	83,050	3.26%	-	10,714,185	-	-	10,714,185	3.59%	-	10,797,235	3.59%

- Funded Status: 50.01%
- Investment Return Rate: 5.750%
- Amortization Payments Increase Annually: 4.00%
- Limit on Annual Increase: 7.37% per year
- Fully Funded in Fiscal Year: 2037
- COLA Base 13,000/14,000

- Funded Status: 96.06%
- Investment Return Rate: 5.750%
- Amortization Payments Increase Annually: 4.00%
- Limit on Annual Increase: 7.37% per year
- Fully Funded in Fiscal Year: 2030
- COLA Base 13,000/14,000

Andover Contributory Retirement System  
Forecast of Annual Appropriations

Funding Schedule B-3  
HA 7.37% Increase, HA FF Date 2037  
All Others FF Date 2032, All Others 5% Increase

Based on Results of January 1, 2023 Valuation

**Andover Housing Authority**

**All Others**

Fiscal Year Ending	Andover Housing Authority						All Others							
	Employer Normal Cost	Net 3(8)(c) Transfers	Amortization Payment of UAL	Total Employer Cost	Increase Over Prior Year	Unfunded Actuarial Accrued Liability	Employer Normal Cost	Net 3(8)(c) Transfers	Amortization Payment of UAL	Total Employer Cost	Increase Over Prior Year	Unfunded Actuarial Accrued Liability	Total Appropriation	Increase Over Prior Year
2024	44,689	-	128,094	172,783		1,968,827	5,487,280	-	1,637,566	7,124,846		15,007,880	7,297,629	
2025	45,765	-	139,753	185,518	7.37%	1,950,921	5,639,219	-	1,841,870	7,481,089	5.00%	14,194,672	7,666,607	5.06%
2026	46,926	-	152,265	199,191	7.37%	1,920,052	5,827,156	-	2,027,986	7,855,142	5.00%	13,125,586	8,054,333	5.06%
2027	48,174	-	165,697	213,871	7.37%	1,874,602	6,009,341	-	2,238,558	8,247,899	5.00%	11,804,525	8,461,770	5.06%
2028	49,443	-	180,190	229,633	7.37%	1,812,790	6,195,162	-	2,465,132	8,660,294	5.00%	10,191,968	8,889,927	5.06%
2029	50,830	-	195,727	246,557	7.37%	1,732,589	6,383,232	-	2,710,076	9,093,308	5.00%	8,254,775	9,339,865	5.06%
2030	52,305	-	212,423	264,728	7.37%	1,631,873	6,619,736	-	2,928,239	9,547,975	5.00%	5,955,476	9,812,703	5.06%
2031	53,825	-	230,413	284,238	7.37%	1,508,276	6,814,365	-	3,211,008	10,025,373	5.00%	3,300,664	10,309,611	5.06%
2032	56,046	-	249,140	305,186	7.37%	1,359,158	7,031,683	-	210,522	7,242,205	-27.76%	203,767	7,547,391	-26.79%
2033	59,669	-	268,010	327,679	7.37%	1,182,298	7,282,429	-	-	7,282,429	0.56%	-	7,610,108	0.83%
2034	60,246	-	291,583	351,829	7.37%	975,954	7,463,107	-	-	7,463,107	2.48%	-	7,814,936	2.69%
2035	60,500	-	317,258	377,758	7.37%	733,616	7,720,451	-	-	7,720,451	3.45%	-	8,098,209	3.62%
2036	62,422	-	343,177	405,599	7.37%	451,064	7,963,106	-	-	7,963,106	3.14%	-	8,368,705	3.34%
2037	64,868	-	129,903	194,771	-51.98%	125,735	8,238,355	-	-	8,238,355	3.46%	-	8,433,126	0.77%
2038	66,470	-	-	66,470	-65.87%	-	8,500,449	-	-	8,500,449	3.18%	-	8,566,919	1.59%
2039	69,074	-	-	69,074	3.92%	-	8,777,361	-	-	8,777,361	3.26%	-	8,846,435	3.26%
2040	70,807	-	-	70,807	2.51%	-	9,077,709	-	-	9,077,709	3.42%	-	9,148,516	3.41%
2041	73,091	-	-	73,091	3.23%	-	9,377,691	-	-	9,377,691	3.30%	-	9,450,782	3.30%
2042	75,453	-	-	75,453	3.23%	-	9,683,723	-	-	9,683,723	3.26%	-	9,759,176	3.26%
2043	77,899	-	-	77,899	3.24%	-	10,003,953	-	-	10,003,953	3.31%	-	10,081,852	3.31%
2044	80,431	-	-	80,431	3.25%	-	10,342,620	-	-	10,342,620	3.39%	-	10,423,051	3.38%
2045	83,050	-	-	83,050	3.26%	-	10,714,185	-	-	10,714,185	3.59%	-	10,797,235	3.59%

- Funded Status: 50.01%
- Investment Return Rate: 5.750%
- Amortization Payments Increase Annually: 4.00%
- Limit on Annual Increase: 7.37% per year
- Fully Funded in Fiscal Year: 2037
- COLA Base 13,000/14,000

- Funded Status: 96.06%
- Investment Return Rate: 5.750%
- Amortization Payments Increase Annually: 4.00%
- Limit on Annual Increase: 5% per year
- Fully Funded in Fiscal Year: 2032
- COLA Base 13,000/14,000

Andover Contributory Retirement System  
Forecast of Annual Appropriations

Funding Schedule B-4  
HA 7.37% Increase, HA FF Date 2037  
All Others FF Date 2033, All Others 3.5% Increase

Based on Results of January 1, 2023 Valuation

**Andover Housing Authority**

**All Others**

Fiscal Year Ending	Andover Housing Authority						All Others							
	Employer Normal Cost	Net 3(8)(c) Transfers	Amortization Payment of UAL	Total Employer Cost	Increase Over Prior Year	Unfunded Actuarial Accrued Liability	Employer Normal Cost	Net 3(8)(c) Transfers	Amortization Payment of UAL	Total Employer Cost	Increase Over Prior Year	Unfunded Actuarial Accrued Liability	Total Appropriation	Increase Over Prior Year
2024	44,689	-	128,094	172,783		1,968,827	5,487,280	-	1,637,566	7,124,846		15,007,880	7,297,629	
2025	45,765	-	139,753	185,518	7.37%	1,950,921	5,639,219	-	1,734,997	7,374,216	3.50%	14,194,672	7,559,734	3.59%
2026	46,926	-	152,265	199,191	7.37%	1,920,052	5,827,156	-	1,805,158	7,632,314	3.50%	13,234,977	7,831,505	3.59%
2027	48,174	-	165,697	213,871	7.37%	1,874,602	6,009,341	-	1,890,104	7,899,445	3.50%	12,148,286	8,113,316	3.60%
2028	49,443	-	180,190	229,633	7.37%	1,812,790	6,195,162	-	1,980,764	8,175,926	3.50%	10,912,162	8,405,559	3.60%
2029	50,830	-	195,727	246,557	7.37%	1,732,589	6,383,232	-	2,078,850	8,462,082	3.50%	9,512,164	8,708,639	3.61%
2030	52,305	-	212,423	264,728	7.37%	1,631,873	6,619,736	-	2,138,520	8,758,256	3.50%	7,931,268	9,022,984	3.61%
2031	53,825	-	230,413	284,238	7.37%	1,508,276	6,814,365	-	2,250,430	9,064,795	3.50%	6,198,395	9,349,033	3.61%
2032	56,046	-	249,140	305,186	7.37%	1,359,158	7,031,683	-	2,350,380	9,382,063	3.50%	4,251,334	9,687,249	3.62%
2033	59,669	-	268,010	327,679	7.37%	1,182,298	7,282,429	-	2,159,296	9,441,725	0.64%	2,090,011	9,769,404	0.85%
2034	60,246	-	291,583	351,829	7.37%	975,954	7,463,107	-	-	7,463,107	-20.96%	-	7,814,936	-20.01%
2035	60,500	-	317,258	377,758	7.37%	733,616	7,720,451	-	-	7,720,451	3.45%	-	8,098,209	3.62%
2036	62,422	-	343,177	405,599	7.37%	451,064	7,963,106	-	-	7,963,106	3.14%	-	8,368,705	3.34%
2037	64,868	-	129,903	194,771	-51.98%	125,735	8,238,355	-	-	8,238,355	3.46%	-	8,433,126	0.77%
2038	66,470	-	-	66,470	-65.87%	-	8,500,449	-	-	8,500,449	3.18%	-	8,566,919	1.59%
2039	69,074	-	-	69,074	3.92%	-	8,777,361	-	-	8,777,361	3.26%	-	8,846,435	3.26%
2040	70,807	-	-	70,807	2.51%	-	9,077,709	-	-	9,077,709	3.42%	-	9,148,516	3.41%
2041	73,091	-	-	73,091	3.23%	-	9,377,691	-	-	9,377,691	3.30%	-	9,450,782	3.30%
2042	75,453	-	-	75,453	3.23%	-	9,683,723	-	-	9,683,723	3.26%	-	9,759,176	3.26%
2043	77,899	-	-	77,899	3.24%	-	10,003,953	-	-	10,003,953	3.31%	-	10,081,852	3.31%
2044	80,431	-	-	80,431	3.25%	-	10,342,620	-	-	10,342,620	3.39%	-	10,423,051	3.38%
2045	83,050	-	-	83,050	3.26%	-	10,714,185	-	-	10,714,185	3.59%	-	10,797,235	3.59%

- Funded Status: 50.01%
- Investment Return Rate: 5.750%
- Amortization Payments Increase Annually: 4.00%
- Limit on Annual Increase: 7.37% per year
- Fully Funded in Fiscal Year: 2037
- COLA Base 13,000/14,000

- Funded Status: 96.06%
- Investment Return Rate: 5.750%
- Amortization Payments Increase Annually: 4.00%
- Limit on Annual Increase: 3.5% per year
- Fully Funded in Fiscal Year: 2033
- COLA Base 13,000/14,000