

**Ohio School Employees Retirement System  
Projected Cash Flows  
10% Population Reduction**

Year Ended	Contributions		Benefit Payments	Net External Cash Flow	Market Value of Assets	Net External Cash Flow as a % of Assets
	Employers	Members				
2020	481,953,033	344,252,166	(1,393,803,439)	(567,598,240)	14,447,067,004	-3.93%
2021	474,944,672	339,246,195	(1,415,414,678)	(601,223,811)	14,836,095,050	-4.05%
2022	472,565,667	337,546,905	(1,451,629,569)	(641,516,996)	15,210,651,613	-4.22%
2023	476,389,533	340,278,238	(1,490,795,999)	(674,128,229)	15,577,674,509	-4.33%
2024	480,424,978	343,160,698	(1,531,883,599)	(708,297,923)	15,935,023,374	-4.44%
2025	484,429,814	346,021,296	(1,577,415,662)	(746,964,551)	16,277,366,700	-4.59%
2026	488,372,494	348,837,496	(1,627,427,818)	(790,217,828)	16,598,906,917	-4.76%
2027	492,440,285	351,743,061	(1,678,817,881)	(834,634,535)	16,896,983,657	-4.94%
2028	496,848,109	354,891,507	(1,731,102,989)	(879,363,373)	17,169,631,422	-5.12%
2029	501,799,391	358,428,136	(1,784,836,316)	(924,608,789)	17,414,535,525	-5.31%
2030	507,408,815	362,434,868	(1,838,838,967)	(968,995,284)	17,630,642,893	-5.50%
2031	513,503,603	366,788,288	(1,891,229,327)	(1,010,937,436)	17,818,467,649	-5.67%
2032	519,999,649	371,428,320	(1,942,209,263)	(1,050,781,294)	17,978,201,745	-5.84%
2033	527,089,212	376,492,294	(1,990,276,393)	(1,086,694,886)	18,111,946,660	-6.00%
2034	534,872,868	382,052,049	(2,034,220,082)	(1,117,295,166)	18,223,382,430	-6.13%
2035	543,462,890	388,187,779	(2,073,907,482)	(1,142,256,813)	18,316,783,399	-6.24%
2036	552,896,390	394,925,993	(2,110,639,968)	(1,162,817,585)	18,395,442,037	-6.32%
2037	563,125,850	402,232,750	(2,143,860,842)	(1,178,502,242)	18,463,373,159	-6.38%
2038	574,129,833	410,092,738	(2,174,740,753)	(1,190,518,183)	18,523,622,961	-6.43%
2039	585,852,058	418,465,755	(2,202,466,427)	(1,198,148,614)	18,580,192,753	-6.45%
2040	598,317,443	427,369,602	(2,224,396,278)	(1,198,709,232)	18,640,142,190	-6.43%
2041	611,573,291	436,838,065	(2,241,459,896)	(1,193,048,540)	18,710,146,905	-6.38%
2042	625,585,300	446,846,643	(2,255,269,646)	(1,182,837,704)	18,795,620,165	-6.29%
2043	640,331,734	457,379,810	(2,265,635,744)	(1,167,924,200)	18,902,512,030	-6.18%
2044	655,798,439	468,427,456	(2,277,627,969)	(1,153,402,074)	19,031,916,725	-6.06%
2045	671,973,481	479,981,058	(2,287,238,619)	(1,135,284,081)	19,189,131,873	-5.92%
2046	688,905,308	492,075,220	(2,295,038,924)	(1,114,058,396)	19,379,320,664	-5.75%
2047	706,660,313	504,757,367	(2,300,310,328)	(1,088,892,648)	19,608,869,220	-5.55%
2048	725,298,172	518,070,123	(2,303,490,599)	(1,060,122,305)	19,884,263,480	-5.33%
2049	744,927,459	532,091,042	(2,304,528,598)	(1,027,510,097)	20,212,688,973	-5.08%

**Ohio School Employees Retirement System**  
**Projected Cash Flows**  
**20% Population Reduction**

Year Ended	Contributions		Benefit Payments	Net External Cash Flow	Market Value of Assets	Net External Cash Flow as a % of Assets
	Employers	Members				
2020	481,953,033	344,252,166	(1,393,803,439)	(567,598,240)	14,447,067,004	-3.93%
2021	474,944,672	339,246,195	(1,415,414,678)	(601,223,811)	14,836,095,050	-4.05%
2022	465,734,230	332,667,307	(1,451,629,569)	(653,228,031)	15,198,530,691	-4.30%
2023	455,289,711	325,206,937	(1,487,281,618)	(706,784,970)	15,530,905,396	-4.55%
2024	450,672,370	321,908,836	(1,523,954,856)	(751,373,651)	15,840,397,045	-4.74%
2025	452,585,939	323,275,671	(1,567,773,832)	(791,912,222)	16,129,595,689	-4.91%
2026	454,870,732	324,907,665	(1,616,794,544)	(837,016,147)	16,392,355,675	-5.11%
2027	457,405,650	326,718,321	(1,667,591,137)	(883,467,166)	16,625,432,055	-5.31%
2028	460,325,746	328,804,104	(1,719,415,196)	(930,285,346)	16,826,366,966	-5.53%
2029	463,802,285	331,287,346	(1,772,741,265)	(977,651,634)	16,992,343,212	-5.75%
2030	467,931,794	334,236,996	(1,826,383,297)	(1,024,214,508)	17,121,745,221	-5.98%
2031	472,535,609	337,525,435	(1,878,402,571)	(1,068,341,527)	17,214,533,906	-6.21%
2032	477,525,600	341,089,715	(1,929,134,572)	(1,110,519,257)	17,270,163,848	-6.43%
2033	483,112,722	345,080,516	(1,977,427,647)	(1,149,234,409)	17,289,617,704	-6.65%
2034	489,410,718	349,579,084	(2,021,386,020)	(1,182,396,218)	17,276,110,857	-6.84%
2035	496,495,499	354,639,642	(2,060,440,090)	(1,209,304,948)	17,233,807,996	-7.02%
2036	504,379,697	360,271,212	(2,096,328,446)	(1,231,677,537)	17,165,388,305	-7.18%
2037	513,016,661	366,440,472	(2,128,558,786)	(1,249,101,652)	17,074,145,276	-7.32%
2038	522,382,232	373,130,166	(2,158,341,741)	(1,262,829,343)	16,962,307,075	-7.44%
2039	532,434,788	380,310,563	(2,184,545,911)	(1,271,800,560)	16,833,354,991	-7.56%
2040	543,197,950	387,998,536	(2,204,818,462)	(1,273,621,977)	16,693,491,095	-7.63%
2041	554,696,608	396,211,863	(2,220,485,947)	(1,269,577,476)	16,548,022,783	-7.67%
2042	566,905,576	404,932,554	(2,232,944,799)	(1,261,106,668)	16,401,138,976	-7.69%
2043	579,809,955	414,149,968	(2,241,977,547)	(1,248,017,624)	16,257,520,464	-7.68%
2044	593,384,619	423,846,156	(2,252,596,160)	(1,235,365,385)	16,116,943,723	-7.67%
2045	607,613,712	434,009,794	(2,260,816,719)	(1,219,193,213)	15,983,264,808	-7.63%
2046	622,555,886	444,682,775	(2,265,458,635)	(1,198,219,974)	15,861,935,672	-7.55%
2047	638,282,653	455,916,181	(2,266,520,032)	(1,172,321,199)	15,758,918,728	-7.44%
2048	654,833,566	467,738,261	(2,266,217,799)	(1,143,645,972)	15,678,369,459	-7.29%
2049	672,324,158	480,231,541	(2,263,474,698)	(1,110,918,999)	15,626,054,157	-7.11%

**Ohio School Employees Retirement System**  
**Projected Cash Flows**  
**Stable Population**

Year Ended	Contributions		Benefit Payments	Net External Cash Flow	Market Value of Assets	Net External Cash Flow as a % of Assets
	Employers	Members				
2020	489,087,974	349,348,553	(1,393,803,439)	(555,366,912)	14,459,500,150	-3.84%
2021	496,981,901	354,987,072	(1,419,308,854)	(567,339,881)	14,884,468,383	-3.81%
2022	503,640,085	359,742,918	(1,460,308,895)	(596,925,893)	15,308,562,871	-3.90%
2023	509,648,102	364,034,358	(1,501,208,209)	(627,525,749)	15,730,673,122	-3.99%
2024	515,415,063	368,153,617	(1,543,297,469)	(659,728,789)	16,149,000,944	-4.09%
2025	521,020,845	372,157,746	(1,589,424,630)	(696,246,039)	16,558,816,360	-4.20%
2026	526,517,315	376,083,796	(1,639,899,062)	(737,297,951)	16,954,830,126	-4.35%
2027	532,125,330	380,089,521	(1,691,698,917)	(779,484,066)	17,334,902,226	-4.50%
2028	538,078,775	384,341,982	(1,744,347,737)	(821,926,981)	17,697,650,957	-4.64%
2029	544,587,221	388,990,872	(1,798,457,712)	(864,879,619)	18,041,336,119	-4.79%
2030	551,769,555	394,121,111	(1,852,709,549)	(906,818,884)	18,365,672,103	-4.94%
2031	552,240,779	399,595,354	(1,904,854,930)	(953,018,798)	18,664,894,694	-5.11%
2032	555,320,885	405,343,712	(1,955,814,915)	(995,150,319)	18,941,456,743	-5.25%
2033	574,496,756	411,530,628	(2,004,542,619)	(1,018,515,235)	19,213,195,447	-5.30%
2034	576,343,255	418,246,194	(2,049,367,136)	(1,054,777,688)	19,466,424,221	-5.42%
2035	595,797,943	425,569,960	(2,090,088,195)	(1,068,720,292)	19,722,948,414	-5.42%
2036	596,537,916	433,530,462	(2,127,965,050)	(1,097,896,671)	19,967,231,749	-5.50%
2037	617,147,660	442,082,851	(2,162,773,396)	(1,103,542,886)	20,222,771,084	-5.46%
2038	615,905,443	451,212,779	(2,195,382,789)	(1,128,264,567)	20,470,611,233	-5.51%
2039	636,498,363	460,896,715	(2,224,563,882)	(1,127,168,805)	20,736,934,307	-5.44%
2040	658,190,482	471,145,657	(2,247,900,336)	(1,118,564,197)	21,030,805,764	-5.32%
2041	653,576,155	481,988,315	(2,266,351,614)	(1,130,787,144)	21,332,597,474	-5.30%
2042	675,476,063	493,408,373	(2,281,594,035)	(1,112,709,599)	21,674,224,861	-5.13%
2043	698,958,840	505,393,232	(2,293,410,976)	(1,089,058,903)	22,064,244,637	-4.94%
2044	723,023,545	517,925,175	(2,308,697,576)	(1,067,748,856)	22,503,621,695	-4.74%
2045	743,388,608	530,991,863	(2,322,699,583)	(1,048,319,113)	22,993,864,932	-4.56%
2046	735,267,922	544,642,906	(2,334,130,055)	(1,054,219,227)	23,512,318,577	-4.48%
2047	755,660,565	558,920,536	(2,343,341,329)	(1,028,760,228)	24,093,414,042	-4.27%
2048	782,157,936	573,850,283	(2,351,008,528)	(995,000,309)	24,750,127,705	-4.02%
2049	810,590,288	589,520,209	(2,356,867,715)	(956,757,218)	25,492,392,923	-3.75%