

Value of Defined Benefit Pension Plan

		Teachers Pension Plan		RRSP Equivalent				
Assumptions:		Annual Pension Payments	Present Value of P. Payments	Beginning Portfolio Value	Withdrawal	Portfolio Growth	End of Yr. Portfolio Value	
Year								
		1	\$ 56,510	\$ 56,510	\$ 1,148,913	\$ 56,510	\$ 54,620	\$ 1,147,023
Average 5 Best		2	\$ 57,640	\$ 54,895	\$ 1,147,023	\$ 57,640	\$ 54,469	\$1,143,852
Years of Salary	\$ 94,183	3	\$ 58,793	\$ 53,327	\$ 1,143,852	\$ 58,793	\$ 54,253	\$1,139,312
Pension Payment		4	\$ 59,969	\$ 51,803	\$ 1,139,312	\$ 59,969	\$ 53,967	\$1,133,311
Year 1	\$ 56,510	5	\$ 61,168	\$ 50,323	\$ 1,133,311	\$ 61,168	\$ 53,607	\$1,125,750
Interest or		6	\$ 62,391	\$ 48,885	\$ 1,125,750	\$ 62,391	\$ 53,168	\$1,116,527
discount rate	5%	7	\$ 63,639	\$ 47,489	\$ 1,116,527	\$ 63,639	\$ 52,644	\$1,105,532
Inflation Rate	2%	8	\$ 64,912	\$ 46,132	\$ 1,105,532	\$ 64,912	\$ 52,031	\$1,092,651
		9	\$ 66,210	\$ 44,814	\$ 1,092,651	\$ 66,210	\$ 51,322	\$1,077,763
		10	\$ 67,534	\$ 43,533	\$ 1,077,763	\$ 67,534	\$ 50,511	\$1,060,740
		11	\$ 68,885	\$ 42,289	\$ 1,060,740	\$ 68,885	\$ 49,593	\$1,041,447
		12	\$ 70,263	\$ 41,081	\$ 1,041,447	\$ 70,263	\$ 48,559	\$1,019,743
		13	\$ 71,668	\$ 39,907	\$ 1,019,743	\$ 71,668	\$ 47,404	\$995,479
		14	\$ 73,101	\$ 38,767	\$ 995,479	\$ 73,101	\$ 46,119	\$968,497
		15	\$ 74,563	\$ 37,660	\$ 968,497	\$ 74,563	\$ 44,697	\$938,630
		16	\$ 76,055	\$ 36,584	\$ 938,630	\$ 76,055	\$ 43,129	\$905,704
		17	\$ 77,576	\$ 35,538	\$ 905,704	\$ 77,576	\$ 41,406	\$869,534
		18	\$ 79,127	\$ 34,523	\$ 869,534	\$ 79,127	\$ 39,520	\$829,927
		19	\$ 80,710	\$ 33,537	\$ 829,927	\$ 80,710	\$ 37,461	\$786,678
		20	\$ 82,324	\$ 32,578	\$ 786,678	\$ 82,324	\$ 35,218	\$739,572
		21	\$ 83,971	\$ 31,648	\$ 739,572	\$ 83,971	\$ 32,780	\$688,381
		22	\$ 85,650	\$ 30,743	\$ 688,381	\$ 85,650	\$ 30,137	\$632,868
		23	\$ 87,363	\$ 29,865	\$ 632,868	\$ 87,363	\$ 27,275	\$572,780
		24	\$ 89,110	\$ 29,012	\$ 572,780	\$ 89,110	\$ 24,183	\$507,853
		25	\$ 90,892	\$ 28,183	\$ 507,853	\$ 90,892	\$ 20,848	\$437,809
		26	\$ 92,710	\$ 27,378	\$ 437,809	\$ 92,710	\$ 17,255	\$362,354
		27	\$ 94,565	\$ 26,595	\$ 362,354	\$ 94,565	\$ 13,389	\$281,179
		28	\$ 96,456	\$ 25,836	\$ 281,179	\$ 96,456	\$ 9,236	\$193,959
		29	\$ 98,385	\$ 25,097	\$ 193,959	\$ 98,385	\$ 4,779	\$100,353
		30	\$ 100,353	\$ 24,380	\$ 100,353	\$ 100,353	\$ -	-\$0
				<b>\$ 1,148,913</b>	Value of Pension On Retirement Date			

**Explanation:**

The RRSP holder would need a balance in their RRSP at retirement date that equates to the current value of the teacher's pension plan's annual income stream. We assume both live for 30 years in retirement, we assume an inflation rate, and we assume that the RRSP/RRIF grows at a reasonable long-term rate of return. After 30 years, the RRSP/RRIF is exhausted.

They both have the same income stream in retirement. This equates value of the RRSP balance with the value of the pension plan.

The example shows the value of a pension stream for a recipient whose average best 5 years of salary is \$94,183 and receives a starting annual pension payment of 60%, or \$56,510. The payments grow at an inflation rate of 2%. The RRSP recipient withdraws from their RRSP/RRIF an amount per year equal to the Teacher's pension stream and the balance grows at 5%.

For example, in year 20, the teacher receives a pension payment of \$82,324. The RRSP/RRIF holder needs \$32,579 in their RRSP/RRIF at the start of retirement growing at 5% per year for the next 19 years. The required RRSP/RRIF starting balance is a sum of the present value of all annual pension payments. The example shows the teachers pension plan is worth over \$1.1 million.