

# Calculation OF THE RETIREMENT PENSION



An example showing how a retirement pension is calculated

Suppose a person born in November 1940 becomes entitled to a retirement pension in December 2005, that is, in the month following his or her 65th birthday. How much will the retirement pension be if the person's Statement of Participation shows the earnings entered in column I of the table on the back of this leaflet?

## General rules

A retirement pension corresponds to 25% of a worker's average monthly adjusted (and non-excluded) pensionable earnings.

The pension for a person under age 65 is reduced, for life, according to an actuarial factor of 0,5% a month, up to a maximum reduction of 30% (at age 60). If a pension begins after age 65, it is increased in a similar manner until the person reaches age 70.

A retirement pension may be increased in January each year if it is not already the maximum payable and the beneficiary made contributions to the Plan in the preceding year. Disability pensions and surviving spouse's pensions are based on the retirement pension that would have been paid to the contributor, without taking into account the actuarial increase or decrease. The death benefit is a fixed, lump-sum payment of 2 500 \$.

## The pension calculation has three steps:

- **First step:** adjusting pensionable earnings
- **Second step:** determining the months and earnings to be used in the calculation
- **Third step:** actually calculating the pension

## First step

### Adjusting pensionable earnings

Before calculating the average monthly pensionable earnings, past yearly earnings must be adjusted to their current value by multiplying each year's pensionable earnings (shown in column I of the table) by the average of the maximum pensionable earnings for the year in which the pension begins and the 5 preceding years (AMPE - 5). The result of that operation is then divided by the maximum pensionable earnings (MPE) for the year being adjusted (shown in column II of the table).

For 2005, the person's earnings for 1966 ( in our example, 3 267 \$ ) would be adjusted as follows:

$$\frac{3\,267\ \$ \times \text{AMPE-5 for 2005}}{\text{MPE for 1966}} = \frac{3\,267\ \$ \times 39\,780\ \$}{5\,000\ \$} = 25\,922,24\ \$$$

where

**AMPE - 5 for 2005 =**

$$(38\,300\ \$ + 39\,100\ \$ + 39\,900\ \$ + 40\,500\ \$ + 41\,100\ \$) \div 5 = 39\,780\ \$$$

After adjustment, the earnings of 3 267 \$ for 1966 are valued at 25 992,24 \$ in current (2005) dollars.

A similar adjustment must be made for each of the years in question. The results are shown in column III of the table.

## Second step

### Determining the months and earnings to be used for the calculation

A person's contributory period begins on the first day of the month that follows the month of his or her 18th birthday, but no earlier than 1 January 1966, and ends at the end of the earliest of the following months:

- the month preceding the one in which a retirement pension becomes payable;
- the one in which the beneficiary reaches age 70;
- the month in which the beneficiary dies.

In our example, the contributory period begins on 1 January 1966 and ends at the end of November 2005, that is, the month which precedes the month in which payment of the pension starts, for a total contributory period of 479 months. (See column V of the table.)

All the pensionable employment earnings during that period can be used in calculating the pension. However, the *Act respecting the Québec Pension Plan* allows the exclusion of the earnings made during 15% of the months in the contributory period. The months excluded are those in which the person's earnings are the lowest. In the example, a total of 72 months can be excluded (479 months x 15% = 72), representing earnings of 133 656,96 \$, as shown in columns VI and VII of the table. This means that the pension will be calculated on the basis of the best 407 months (479 - 72 = 407) which represent earnings of 1 296 761,28 \$.

## Third step

### Actually calculating the pension

In calculating the average monthly earnings, we must exclude the 72 months mentioned above from the contributory period and at the same time, subtract from the person's total earnings (1 430 418,24 \$) the earnings for those 72 months of lowest earnings. As shown in column IV of the table, those months are the 12 months of 1966, 1967, 1968, 1969, 1972 and 1979. This gives the following result:

$$1\,430\,418,24 \$ - 133\,656,96 \$ = 1\,296\,761,28 \$$$

The monthly retirement pension corresponds to 25% of the average monthly earnings for the best 407 months; it is calculated as follows:

$$\frac{(25\% \times 1\,296\,761,28 \$)}{100} \div 407 = 796,54 \$$$

In our example, payment of the monthly retirement pension of 796,54 \$ begins in December 2005. If the contributor had contributed the maximum amount for the 407 best months, that is, for 34 years, he or she would receive the maximum payable in 2005, that is 828,75 \$ a month. If the person in our example had reached the age of:

- **62 years** (36 months before age 65), the pension would be 653,16 \$ a month, according to the following formula:

$$796,54 \$ - \left[ \left( \frac{36 \times 0,5}{100} \right) \times 796,54 \$ \right] = 653,16 \$$$

- **67 years** (24 months after age 65), the pension would be 892,12 \$ a month, according to the following formula:

$$796,54 \$ + \left[ \left( \frac{24 \times 0,5}{100} \right) \times 796,54 \$ \right] = 892,12 \$$$

### Table of earnings

Year	I Pensionable employment earnings \$	II Maximum pensionable earnings \$	III Adjusted annual earnings \$	IV Adjusted monthly earnings \$	V Months in the contributory period	VI Months excluded (15%)	VII Earnings excluded (15%) \$
1966	3 267*	5 000	25 992,24	2 166,02	12		25 992,24
1967	3 332*	5 000	26 509,68	2 209,14	12		26 509,68
1968	3 659*	5 100	28 540,56	2 378,38	12		28 540,56
1969	3 899*	5 200	29 827,68	2 485,64	12		29 827,68
1970	4 225*	5 300	31 711,08	2 642,59	12		
1971	4 422*	5 400	32 723,04	2 726,92	12		
1972	0*	5 500	0,00	0,00	12	12	0
1973	5 900	5 900	39 780,24	3 315,02	12		
1974	6 600	6 600	39 780,00	3 315,00	12		
1975	7 400	7 400	39 780,24	3 315,02	12		
1976	8 300	8 300	39 780,24	3 315,02	12		
1977	9 300	9 300	39 780,00	3 315,00	12		
1978	10 400	10 400	39 780,12	3 315,01	12		
1979	6 702*	11 700	22 786,80	1 898,90	12	12	22 786,80
1980	13 100	13 100	39 780,12	3 315,01	12		
1981	14 700	14 700	39 780,00	3 315,00	12		
1982	16 500	16 500	39 780,00	3 315,00	12		
1983	18 500	18 500	39 780,12	3 315,01	12		
1984	20 800	20 800	39 779,88	3 314,99	12		
1985	23 400	23 400	39 780,00	3 315,00	12		
1986	23 466*	25 800	36 181,32	3 015,11	12		
1987	24 113*	25 900	37 035,36	3 086,28	12		
1988	25 232*	26 500	37 876,68	3 156,39	12		
1989	26 101*	27 700	37 483,56	3 123,63	12		
1990	27 332*	28 900	37 621,80	3 135,15	12		
1991	29 954*	30 500	39 067,92	3 255,66	12		
1992	31 250*	32 200	38 606,40	3 217,20	12		
1993	31 782*	33 400	37 852,92	3 154,41	12		
1994	32 751*	34 400	37 873,08	3 156,09	12		
1995	34 900	34 900	39 780,00	3 315,00	12		
1996	33 333*	35 400	37 457,28	3 121,44	12		
1997	35 800	35 800	39 780,00	3 315,00	12		
1998	33 825*	36 900	36 465,00	3 038,75	12		
1999	34 283*	37 400	36 464,64	3 038,72	12		
2000	37 600	37 600	39 780,00	3 315,00	12		
2001	38 300	38 300	39 780,00	3 315,00	12		
2002	35 842	39 100	36 465,24	3 038,77	12		
2003	36 575*	39 900	36 465,00	3 038,75	12		
2004	37 125*	40 500	36 465,00	3 038,75	12		
2005	37 675#	41 100	36 465,00	3 315,00	11		
TOTAL			1 430 418,24		479	72	133 656,96

Earnings of 133 656,96 \$ (for the 72 months of lowest earnings) must be subtracted from 1 430 418,24 \$, which leaves total earnings of 1 296 761,28 \$ for the remaining 407 months.

\* The asterisk indicates that the contributor did not reach the maximum pensionable earnings for the year.

# The pound sign indicates that the annual maximum pensionable earnings have been adjusted to correspond to the 11 months during which the contributor could contribute during the last year of work.