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NAVIGATION BUTTONS

On non-wage labour income

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Labour income consists of both wages and salaries, and non-wage employee benefits. These non-wage benefits are referred to in aggregate as supplementary labour income (see Definitions and data sources). The stagnation in real wage and salary growth since 1977 has been well documented. (1) Real hourly wages were 2% lower in 1989 than the peak reached in 1977. By comparison, real hourly supplementary labour income (SLI) was more than 5% higher. This increase in SLI served to mitigate the drop in total labour income that occurred over the period. Indeed, over the 1967 to 1989 period the SLI growth rate consistently outstripped that of wages and salaries, virtually doubling its share of total compensation from about 5% to almost 10%.

Clearly, employee benefits have been an important source of gains in labour compensation during the past two decades. What was the nature of these gains, and how were they distributed across the labour force? This article examines three aspects of SLI: the growth record of its various public and private components; the degree of correspondence between wage and SLI levels by industry; and, changes affecting funding arrangements for the largest SLI component, private pensions.

Composition of benefits

The relative importance of the five major components of SLI changed between 1967 and 1989 (Table 1). This period can be divided into two distinct sub-periods according to the patterns of growth exhibited by the different SLI components.

VIEW Table 1 **Distribution of aggregate supplementary labour income*, by component, 1967, 1980 and 1989**

Source: Calculations by Economic Council of Canada, based on unpublished data from Statistics Canada, Labour Division.

* *Supplementary labour income comprises payments other than wages and salaries made by employers for the future benefit of their employees.*

From 1967 to 1980, private benefit plans (as represented by employer contributions) accounted for just over two-thirds of the growth of SLI, increasing their share from 61% to 65% of total SLI. Employer contributions to private pension plans constituted the largest component of the growth. At the same time, the Canada and Quebec Pension Plan (C/QPP) component fell from 19% to 12%, causing the overall share of SLI accounted for by public benefit plans to show a corresponding decline. The C/QPP decline reflected the cap on maximum contributory pensionable earnings (to which the contribution rate is applied) that existed until 1976, and the fact that the contribution rate remained constant while the rates for other plans rose. For the other two public components, Workers' Compensation declined slightly, while Unemployment Insurance (UI) jumped from 8% to 12% of SLI, largely as a result of the major expansion of the UI system in the early 1970s.

In contrast to the 1967 to 1980 period, public plan contributions grew more rapidly after 1980. Indeed, public plans accounted for almost three-quarters of the growth in SLI, or $7 billion of the $9.6 billion change in real SLI, during the 1980s (Table 2).

Although private plans' share of SLI declined in the 1980s, aggregate real contributions to these plans still increased, from $16.0 billion to $18.6 billion (1989$), in that period. How much of this growth can be attributed to actual increases in the rate of employer contributions, and how much merely to an expanding labour force? Converting aggregate contributions to a per-hour basis shows that private contributions grew only enough to accommodate a growing workforce: per-hour, constant-dollar employer contributions remained at virtually the same level in 1989 (81 cents) as in 1980 (82 cents). [2] For public benefit plans, real hourly employer contributions increased from 44 to 68 cents per hour. In fact, all of SLI's increased share of total hourly labour income during the 1980s (from 8.3% to 9.5%) can be attributed to public benefits, since private benefits' share actually fell by two-tenths of a percentage point (Table 2).

VIEW ▶ Table 2 **Real and relative employer contributions to private and public benefit plans, 1980 and 1989**

Source: Labour Income Estimates and Labour Force Survey

Given the stagnation in real wages and contributions to private plans, employer contributions to public benefit plans are the only component of labour income that displayed any real growth in the 1980s. On closer inspection, though, some of the apparent increases in public benefits are illusory. Between 1980 and 1988 nearly half of the real growth in public SLI can be attributed to increases in employer UI and C/QPP contribution rates. [3] However, neither set of rate increases was associated with any significant improvement in real benefit entitlements. Higher UI premiums were required primarily to offset greater insurance costs imposed by higher unemployment rates and longer spells of joblessness in the 1980s. C/QPP rates were raised because initial contribution rates were too low to fund future pension liabilities.

Industry comparisons

Industries with the highest hourly wages and salaries also tend to have the highest levels of employer-provided benefits. [4] Hourly benefit levels are greatest in such high-wage industries as public administration, followed by transportation, communication and other utilities, health and education services, and manufacturing. On the other hand, benefit levels are considerably below average in retail trade, business and personal services, construction, and agriculture, where wage levels are also lower. [5] The ranking of industries by wages and SLI also essentially describes the standing of the different industries in terms of the importance of private benefits in total labour income.

Private pensions

Within the array of employer-provided benefit plans, pension plans merit particular consideration. With roughly one-half of total employer contributions to private benefit plans and one-quarter of the value of all SLI, pension plans constitute by far the largest single benefits group. As noted, the contribution of private benefit plans to total SLI declined during the 1980s. This was due primarily to a significant reduction in the real value of employer contributions to private pension plans, a phenomenon prevalent in all industries.

VIEW Chart **Relative earnings and supplementary labour income by industry, 1989.**

Sources: *Survey of Employment, Payrolls and Hours, Labour Force Survey, Labour Income Estimates and National Accounts*

Declining employer contributions to pension plans over the past decade appear to be the product of at least four factors. First, during the 1960s and most of the 1970s, the proportion of the labour force covered by employer-sponsored pension plans increased steadily from about 29% in 1960 to a peak of about 40% in 1976. After that, however, coverage fell to about 37% in 1988. (See *Pension coverage.*)

Second, high real interest rates and strong stock market gains improved the overall financial performance of pension funds. This reduced the employer contributions required for defined benefit plans, which account for over 90% of all private pension plan members (Table 3). In these plans, where employees receive a guaranteed pension and employers bear much of the investment risk, employers need contribute only enough to maintain the actuarial soundness of the fund. Because such plans were doing well, employer contributions declined. (6)

Table 3 **Distribution of private pension plans and members, by type of plan, selected years, 1960-1988**

Source: Survey of Pension Plans in Canada

Chart **Employer contributions to private pension plans.**

Sources: Survey of Employment, Payrolls and Hours, Labour Force Survey and Labour Income Estimates

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Third, although defined benefit plans remained dominant, defined contribution plans became increasingly important. In contrast to defined benefit plans, employees bear a greater financial risk in defined contribution plans, because benefits are determined by contributions and fund performance. Between 1980 and 1988, defined contribution plans increased their share of members from 5% to 8%, and their share of plans from 42% to 60%. (7) Thus, even as high interest rates were easing employers' financial burdens in defined benefit plans, a relative shift was occurring towards defined contribution plans, where the financial burden on employees is somewhat higher.

Finally, contribution rates of employees in "contributory", or shared-cost, plans increased during the 1980s as overall employer contributions were falling. This is particularly important because about 70% of pension plan members belong to such plans.

For instance, the proportion of workers contributing 7% or more of their salaries towards their pensions stood at about 1% in 1970, rose to about 40% in 1980, and hit 50% in 1988. (8) Employee contributions, which in 1978 represented just 30% of combined employer/employee contributions, accounted for 40% of all contributions by 1988. (9)

Chart **Employee pension plan contribution rates*.**

Source: Pension Plans in Canada data base

** Based only on plans with rates specified as a proportion of earnings.*

What was the combined impact of these developments on the funding sources of pension plans? Information to address this question is available only for trusteed pension plans, which represent about one-quarter of all plans and two-thirds of all plan members. Employer contributions, which had been the largest single source of income for trusteed pension plans during most of the 1970s, were replaced in 1979 by income from investments.

Chart **Sources of income for trusteed pension plans.**

Source: Survey of Trusteed Pension Funds

Summary

Since the mid-1960s, SLI, measured by the value of employer contributions to supplementary benefit plans, almost doubled its share of the total compensation package. The growth in real hourly SLI during the 1980s was concentrated in public plans, particularly UI and Workers' Compensation, whereas in the 1970s private benefit plans had accounted for most of SLI growth. Evenhere however, the increases were somewhat illusory, as employer contribution rates were raised mainly to maintain the actuarial soundness of the public plans rather than to provide enhanced benefit entitlements to employees.

The absence of real growth in private hourly SLI in the 1980s was due largely to reductions in employer contributions to private (employer-sponsored) pensions. This decline can be partially attributed to falling private pension coverage, reflecting the concentration of employment growth in areas of the economy - small firms, consumer services, part-time jobs, and self-employment - where pension coverage is low. Other factors were the strong financial health of defined benefit plans, the increasing importance of defined contribution plans, and the rise in employee contribution rates in shared-cost plans.

Paralleling the growing interest in international competitiveness is the need to measure labour costs adequately. One important aspect of labour costs is SLI. Because comprehensive data on SLI employee benefits are lacking in this country, it must be measured by the value of employer contributions to supplementary benefit plans. But this is only a partial measure and more comprehensive information on non-wage cost items is required if we are to accurately measure our labour cost position vis-à-vis our international competitors.

Pension coverage

The decrease in private pension coverage in the 1980s stems largely from the patterns of job creation during the decade. Growth was concentrated among groups with the lowest rates of pension coverage (Table A). [10] For example, women accounted for over 70% of total employment growth in the 1980s, but their pension coverage was a third less than men's (39% versus 52%). Similarly, non-unionized workers accounted for more than 60% of employment growth from 1981 to 1987, but only 30% of them were covered by private pension plans, versus 78% of unionized workers. Growth was also greatest in traditional service industries, where less than one-fifth of employees were covered by a work-related pension. Most new jobs were created in the private sector, where coverage is far below the public sector. Finally, only 14% of employees in firms employing fewer than 20 persons were covered by a private pension in 1986. Almost three-quarters of employment growth from 1979 to 1987 was concentrated in such firms. (Growth was also strong among the self-employed, who are, by definition, ineligible for membership in employer-sponsored pension plans.)

VIEW Table A **Employment growth (1981 to 1989) and work-related pension coverage in 1986**

Sources: Labour Force Survey, CALURA, Labour Market Activity Survey, Ontario Ministry of Industry, Trade and Technology

Have Registered Retirement Savings Plans (RRSPs) led to increased pension coverage? Between 1977 and 1984, the proportion of labour force members with RRSPs nearly doubled (from 12% to 23%). [11] However, the majority were already covered by employer-sponsored pension plans, so RRSP holdings raised the proportion of the labour force covered by some kind of private retirement income plan by only 11 percentage points, to 48% (Table B). Moreover, RRSP incidence - like pension coverage - rises with earnings: in 1984 about 55% of those earning more than $36,000 had an RRSP versus less than 9% of those earning less than $12,000. Thus, even when RRSP holdings are taken into account, a majority of the labour force - particularly in the lower earnings categories - still have no private pension coverage.

VIEW Table B **Incidence of work-related pension plans and RRSP holdings by earnings category among labour force members aged 15 to 64, 1984**

Sources: Assets and Debt Survey, a supplement to the 1984 Survey of Consumer Finances

Definitions and data sources

Supplementary labour income (SLI) is neither a true benefit nor a true income in the sense of money directly received by employees. SLI represents the contributions to public and private health and welfare plans made by employers on behalf, and for the *future* benefit, of their employees. While employer contributions may well be the most practicable measure of these benefits, the use of this indicator of SLI is at times misleading. Changes in employer contributions and in employee benefits do not necessarily move in tandem. For instance, changes in financing arrangements or financial conditions may alter employer premiums without producing a corresponding effect on benefit levels. Indeed, where public benefit plans receive a continuing subsidy out of general taxation revenues, the use of employer premiums alone will chronically underestimate the value of the benefits provided.

The three public SLI components are: the Canada/Quebec Pension Plan, to which employers (and employees) each contributed 2.1% of the employee's annual earnings in 1989 up to an earnings maximum of $26,900 (with the first $2,700 exempted); Unemployment Insurance, to which employers contributed 2.73% (and employees 1.95%) of weekly earnings up to an earnings maximum of $605; and provincially administered Workers' Compensation, to which employers contribute at rates that vary by province, industry and firm size.

Private benefit plans, to which employers (and very often employees) contribute at a specified rate, include employer-sponsored pension plans and plans covering life and dismemberment insurance, disability, extended health care, drug expenses, and dental care. Included with private SLI are employer premiums and payroll taxes to provincial medical and hospital (public) insurance plans, since the data do not permit their separate identification.

Excluded from the analysis are income-in-kind (low-cost housing, food, etc.), and pay for time off (vacation, illness, etc.), which are considered to be part of wages and salaries. Also excluded from the discussion are *current* fringe benefits partially or wholly paid for by the employer, such as membership fees for professional institutes and parking.

The SLI data in this paper are produced by the Labour Division of Statistics Canada, using administrative and survey data and annual reports.

Notes

Note 1
See Chapter 8 of Economic Council of Canada (1991); H. Pold and F. Wong (Autumn l990); P. Smith (Winter 1990) and P.S. Spiro (May 1991).

Note 2
Data for the denominator - total weekly actual hours worked multiplied by 52.14 - were obtained from the Labour Force Survey, both in published form (Statistics Canada, *The labour force*, Catalogue 71-001) and unpublished. The actual hours series includes the hours of the self-employed, but there is no SLI information for the self-employed. Since the self-employed do not represent a significant proportion of employment (apart from agriculture and fishing), however, the resultant under-estimation of hourly income is likely small and similar in most industries. (For a more sophisticated technique, see S. David, 1989.)

Note 3
Based on shift-share analysis to isolate the impact of changes in C/QPP and UI employer contribution rates, where 1980 employer contribution rates were applied to 1988 levels of insurable and pensionable earnings. (The latter were estimated by dividing the published employer C/QPP and UI contributory earnings levels by the known respective employer contribution rates.) This yielded hypothetical 1988 employer contributions (based on 1980 employer contribution rates) to which we compared the actual 1988 contributions.

Note 4
Public benefits are excluded from the analysis because they do not vary greatly by industry. A basic weakness of the industrial distributions is that the data are collected at the level of the pension plan. So, for example, all employees under the federal government superannuation plan are coded under public administration, even though many of them actually work in other industries, such as transportation, communication and even manufacturing. The measure of hourly wages used here was calculated by dividing Labour Division's wage and salary income by the Labour Force Survey's (LFS) actual hours series (see note 2 for a discussion of the denominator and the self-employed). Because the self-employed represent a large proportion of agricultural employment, the corresponding wages and salaries were augmented with farm income from National Accounts. Although not the traditional measure of hourly compensation produced by National Accounts (as part of their productivity measurement exercise), the

Labour Division/LFS measure was used because it permitted greater industrial detail, consideration of both the business and non-business sectors, and a separate examination of supplementary labour income, which the former does not.

Note 5
Wage and benefit levels show a positive correlation with unionization rates by industry. Although not addressed, unionization rates may help to explain the industry variation of SLI.

Note 6
In most cases, employers must continue to match (fixed) employee contributions, despite the health of the plan. Outweighing this, however, is the significant incidence of employers taking contribution holidays as a result of over-funding.

Note 7
This implies that defined-contribution plans are a small-firm phenomenon, despite the fact that during the 1980s a lot of growth in such plans can be attributed to the partial lifting of restrictions on plans for "significant shareholders." In the United States, where the trend towards defined-contributed pension plans has been even more evident, pensions are viewed as the one area, among all employer health and welfare obligations, with some leeway for labour cost reduction. See Labor Research Association (1990). For a discussion of this issue in other countries, see C. Euzéby (1989).

Note 8
These estimates are based only on plans where the contribution rate is specified as a proportion of earnings. Excluded are plans with rates specified as cents per hour or based on age, salary, employee classification or other criteria; in 1970 such plans accounted for 29% (18% variable by sex) of all contributions plans, but by 1988 this proportion had dropped to 7% (none variable by sex). Included in private pensions are plans integrated with the C/QPP, some of which have a two-tier rate structure, with the lower rate applied to earnings below the year's maximum pensionable earnings (YMPE) and a higher rate for earnings above the YMPE. Obviously, this complicates rate comparisons, but see Statistics Canada, *Pension Plans in Canada* (1988), for how this problem was overcome.

Note 9
Much of the impetus for the rise in employee contributions came from the public sector to finance benefit improvements such as CPI indexing. In the private sector, contribution rates actually fell, partially to combat the impact of the C/QPP increased contribution schedule. A further reason for the fall in employer contribution rates, was that in the 1970s, many employers were forced to make extensive payments to liquidate unfunded liabilities and actuarial deficiencies resulting from implementation of the federal/provincial regulatory legislations' funding requirements in the late 1960s. These deficiencies were amortized over a number of years and by the 1980s had been paid off.

Note 10
The overall rate of pension coverage in Table A, derived from the LMAS, is somewhat higher than that

published in Pension plans in Canada. But exact correspondance between the two rates would have been unexpected given the significantly different methodologies involved. LMAS data were used in the table because they provide demographic and industrial detail.

Note 11
Based on data from Statistics Canada's Assets and Debt Survey. This is an occasional supplement to the Survey of Consumer Finance, described in G. Oja (1987). The 1977 data were obtained from "Selected tables on coverage under work-related pension plans and registered retirement savings plans, 1977", unpublished mimeo, Statistics Canada, Consumer Income and Expenditure Division (1983). The 1984 data were based on an unpublished Statistics Canada tabulation. The work-related pension information from the 1984 survey excludes those covered only by a pension from their previous job, while that from the 1977 survey includes such persons. This should not greatly affect the results. While more recent data on actual *holders* of RRSPs and worker-related pension plans are not available, more recent data on *contributors* to such plans (which would slightly under-estimate the actual number of holders) confirm these findings about the direct relationship between income and pension holdings. (See Statistics Canada, *Pension Plans in Canada*, 1988). Recent changes to retirement savings tax rules, however, will give greater room to contribute to RRSPs.

References

- David, S. ***Total annual hours worked: definitions and measurement approach***, Staff report, Labour and Household Surveys Analysis Division. Ottawa: Statistics Canada, 1989.
- Euzéby, C. "Non-contributory old-age pensions: A possible solution in the OECD countries." *International labour review*, Vol. 128, No. 1, Geneva, International Labour Office, 1989.
- Economic Council of Canada. *Employment in the service economy*. Ottawa: Supply and Services Canada, 1991.
- Labor Research Association. "A slow death." *Economic notes*, Bimonthly, Vol. 58, Nos. 7-8: July-August 1990. New York, New York: LRA, pp. 1-3.
- Oja, G. *Changes in the distribution of wealth in Canada, 1970-1984*, Analytic report Catalogue 13-588, No. 1. Ottawa: Statistics Canada, 1987.
- Pold, H. and F. Wong. "The price of labour." *Perspectives on labour and income*, Quarterly, Catalogue 75-001E, Autumn 1990. Ottawa: Statistics Canada, pp. 42-49.
- Smith, P. "Recent trends in wages." *Perspectives on labour and income*, Quarterly, Catalogue 75-001E, Winter 1990. Ottawa: Statistics Canada, pp. 41-50.
- Spiro, P.S. "Real wages and labor markets in the 1990s." *Policy Options*, May 1991, Halifax, pp. 7-9.
- Statistics Canada. *The labour force*, Monthly, Catalogue 71-001, various editions. Ottawa.
- ---. *Pension Plans in Canada*, Biennial, Catalogue 74-401, 1988. Ottawa.

- ---. Consumer Income and Expenditure Division, "Selected tables on coverage under work-related pension plans and registered retirement savings plans, 1977." Ottawa, July l983. Unpublished mimeo.

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Source

Perspectives on Labour and Income, Winter 1991, Vol. 3, No. 4 (Statistics Canada, Catalogue 75-001E). This is the seventh of eight articles in the issue.

Table 1

Distribution of aggregate supplementary labour income*, by component, 1967, 1980 and 1989

	1967	1980	1989
	%		
Private benefit plans	**60.8**	**65.3**	**54.4**
Pensions	37.0	39.7	24.0
Other**	23.8	25.6	30.4
Public benefit plans	**39.2**	**34.7**	**45.6**
Unemployment insurance	8.4	12.1	17.2
Workers' compensation	11.5	10.7	15.5
Canada/Quebec pension plans	19.3	11.9	12.9
Total supplementary labour income (billions of 1989 dollars)	**8.7**	**24.5**	**34.1**

Source: Calculations by Economic Council of Canada, based on unpublished data from Statistics Canada, Labour Division.

** Supplementary labour income comprises payments other than wages and salaries made by employers for the future benefit of their employees.*

*** Other private benefit plans include life insurance, disability insurance, dental plans, supplementary health insurance, etc. Also included are employer payments of provincial medicare premiums, because the data do not permit their separate identification.*

Table 2

Real and relative employer contributions to private and public benefit plans, 1980 and 1989

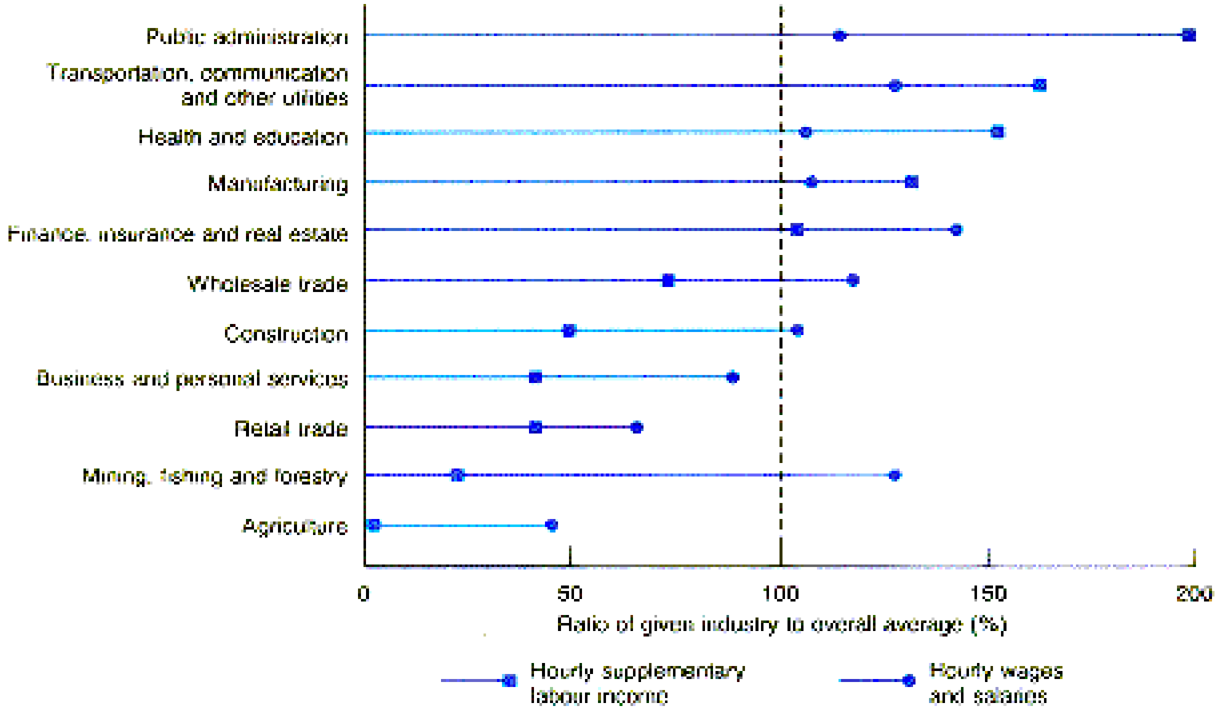
	Total contributions		Hourly contributions*			
			Level		As a share of total labour income	
	1980	1989	1980	1989	1980	1989
	(1989 billion dollars)		(1989 dollars)		%	
Private benefit plans	16.0	18.6	0.8	0.8	5.4	5.2
Public benefit plans	8.5	15.5	0.4	0.7	2.9	4.3
Total supplementary labour income	**24.5**	**34.1**	**1.3**	**1.5**	**8.3**	**9.5**

Sources: Labour Income Estimates and Labour Force Survey

** Per actual hour worked.*

Relative earnings and supplementary labour income by industry, 1989

Higher benefits tend to be found in high-wage industries.



Sources: *Survey of Employment, Payrolls and Hours, Labour Force Survey, Labour Income Estimates and National Accounts*

Table 3

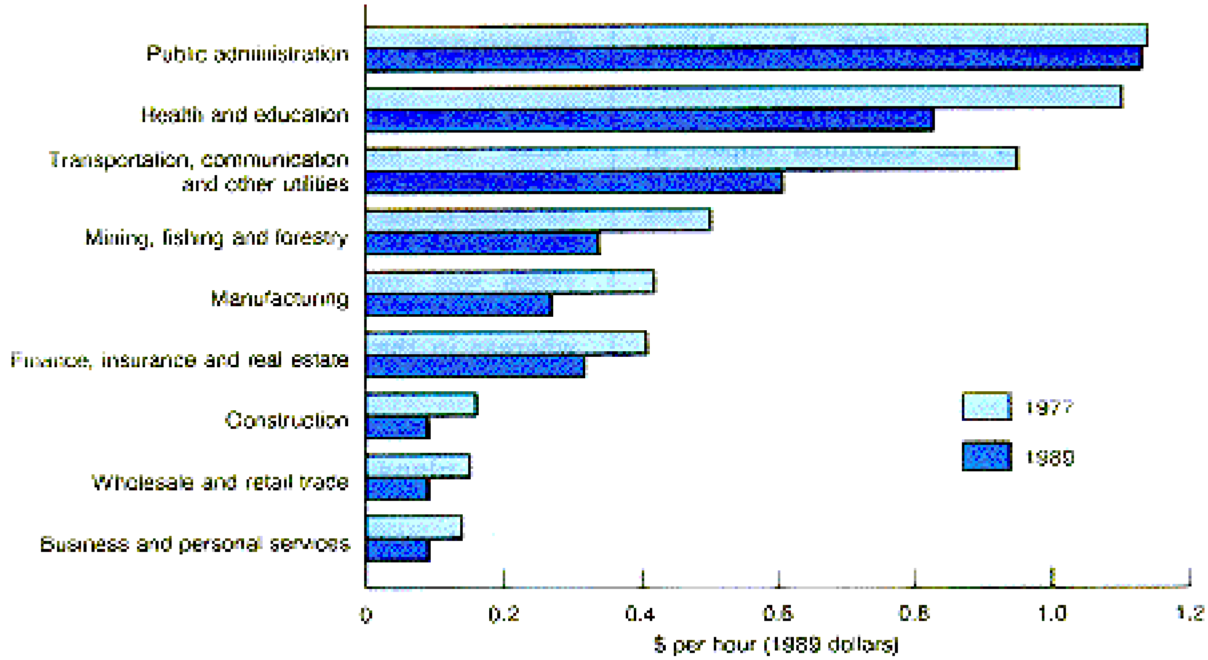
Distribution of private pension plans and members, by type of plan, selected years, 1960-1988

	1960	1970	1980	1982	1984	1988
	%					
Plans						
Defined contribution	62.8	54.4	42.3	40.1	51.0	59.8
Defined benefit	35.8	42.8	55.1	57.6	47.3	39.1
Composite and others	1.4	3.1	2.6	2.3	1.7	1.1
Members of plans						
Defined contribution	14.3	5.7	5.2	5.3	5.9	7.6
Defined benefit	84.4	90.1	93.7	93.7	93.0	91.4
Composite and others	1.3	4.3	1.1	1.0	1.2	0.9

Source: Survey of Pension Plans in Canada

Employer contributions to private pension plans

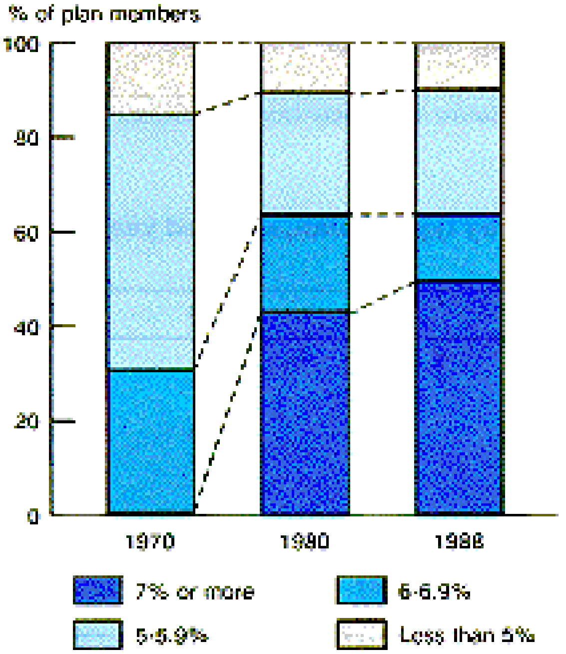
Employer contributions declined in all industries, but most significantly in transportation, communication and other utilities.



Sources: Survey of Employment, Payrolls and Hours, Labour Force Survey and Labour Income Estimates

Employee pension plan contribution rates*

Since 1970, employee contribution rates have increased considerably.

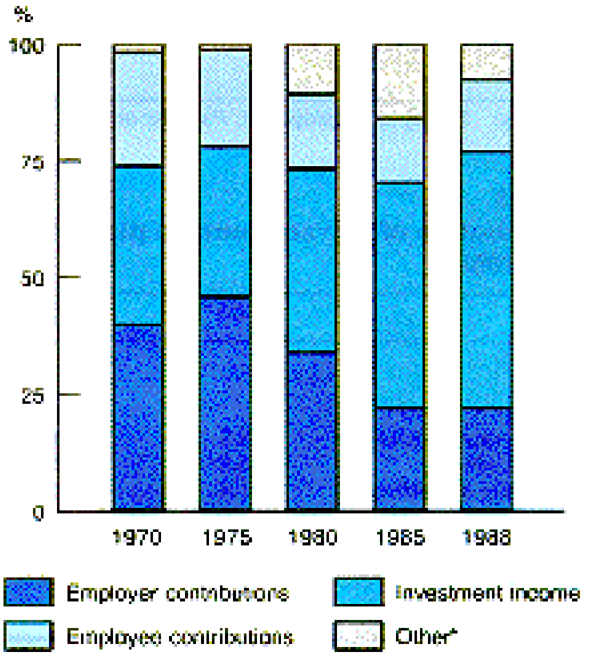


Source: Pension Plans in Canada data base

* *Based only on plans with rates specified as a proportion of earnings.*

Sources of income for trusteed pension plans

Investment income has become the largest source of income for trusteed pension plans.



Source: Survey of Trusteed Pension Funds

* *Comprises profits on sales of securities, and miscellaneous items.*

Table A

Employment growth (1981 to 1989) and work-related pension coverage in 1986

	Employment growth (1981-1989)	Work-related pension coverage (1986)
	%	
Total	**100.0**	**46.7**
Sex		
Women	71.6	39.4
Men	28.4	52.6
Union membership*		
Unionized	36.3	78.0
Non-unionized	63.7	29.9
Industry group		
Goods		
Primary	-6.3	38.7
Manufacturing	0.1	54.5
Construction	7.6	30.8
Services		
Distributive	7.9	70.1
Traditional	36.6	18.2
Information	23.8	40.5
Non-market	30.2	66.6
Sector		
Private	94.4	43.8
Public	5.6	77.9
Firm size (employment)**		
19 or fewer	73.1	14.1
20 to 99	11.9	35.4
100 to 499	7.5	55.8
500 or more	7.5	70.9

Sources: Labour Force Survey, CALURA, Labour Market Activity Survey, Ontario Ministry of Industry, Trade and Technology

** For the period 1981 to 1987*
*** For the period 1979 to 1987*

Table B

Incidence of work-related pension plans and RRSP holdings by earnings category among labour force members aged 15 to 64, 1984

Earnings category	Labour force members aged 15 to 64	Proportion with:				
		work-related pension plan only	RRSP and work-related pension plan	all work-related pension plans holders	RRSP only	RRSP and/or work-related pension plan
	'000	%				
All individuals	**11,458**	**24.5**	**12.6**	**37.1**	**10.5**	**47.8**
Less than $12,000	4,695	7.9	1.1	9.0	7.4	16.4
$12,000 - $17,999	1,878	26.9	8.6	35.5	11.5	47.3
$18,000 - $26,999	2,373	39.5	17.7	57.2	12.3	69.4
$27,000 - $35,999	1,418	44.4	28.1	72.5	11.6	84.1
$36,000 and over	1,094	34.3	38.1	72.4	16.6	88.9

Source: Assets and Debt Survey, a supplement to the 1984 Survey of Consumer Finances