
Tax Policy and Job Creation: Specific Employment Incentive Programs

Ben Cherniavsky
Technical Committee Research Analyst

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Abstract

This paper provides a selective survey of literature from the last two decades on tax incentives for employment creation and for recruitment from specific population groups. Particular attention is paid to Canadian experience, but references to experience in the United States are included. Based on the literature surveyed, generalizations as to the effectiveness of marginal employment tax credits and of targeted-recruitment incentives are advanced.

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Executive Summary

Similar to the late 1970s and early 1980s, the first half of this decade has been plagued with unacceptably high levels of unemployment in most Western economies. While some of the previous jargon of "stagnation" has been replaced with the contemporary counterparts of "jobless recovery" and "downsizing," the fundamental issue that faces the government remains the same: how to get people back to work. Once again, policy makers are pressured to take an active role in improving employment opportunities, and tax incentives designed to stimulate jobs are an option open for discussion.

Over the past 20 years, there have been a number of experiments with fiscal intervention in the labour market, so this time around policy makers are endowed with the advantage of retrospect. Hence, this survey selects a number of these tax-related employment programs, reviews their design, and analyses their effects in an attempt to shed some light upon the potential costs, benefits, and challenges that such policies incorporate.

Although there are a multitude of ways in which the government can use taxes to stimulate employment, this survey has found that most experiments with direct labour market fiscal intervention have been in the form of either marginal or targeted-recruitment tax credits for employers. The former is a credit against tax for any firm that adds incremental employees to its labour force, while the latter is available to firms that hire specific "types" of workers – usually the "unskilled" or "disadvantaged." Marginal employment tax credits, in effect, subsidize firms' wage costs as an incentive for employers to increase production and labour demand, and/or substitute new workers for capital. While decreased wage costs may also result from the use of targeted-recruitment tax credits, the degree to which incremental increases in employment are stimulated is not as important as the effect the initiative has on improving employment opportunities for specific types of individuals. In fact, some targeted-recruitment programs have not even included provisions to protect existing (non-subsidized) workers from being replaced with program participants (subsidized workers). In such cases, the program could have been deemed "successful" even if 10,000 targeted workers had been hired and 10,000 non-subsidized workers had been displaced.

All the surveyed programs, with the exception of Canada's UI Premium Relief (essentially a payroll tax freeze), were, in effect, wage subsidies, but their rates, limits and administration all varied enormously. Their respective costs, benefits, strengths and shortfalls were similarly diverse. The attached table – Summary of Employment Stimulating Tax Policies – highlights the similarities and differences amongst these programs and illustrates how difficult it is to draw a general and definitive conclusion about their effectiveness in creating jobs.

Despite the somewhat patchy results, through the course of analysing these programs and reviewing related economic literature,¹ support was found for the following four general observations about tax incentives and job creation:

1. According to the cases studied in this survey, effectiveness in increasing the employment of workers who would not have been recruited in the absence of a tax credit is mediocre. As a result, these programs generally incur high costs per net new job.
2. Tax incentives are preferred to direct government job creation programs. As Robert Solow concludes: "[because] profit incentives operate more or less as they are supposed to ... wage subsidies have some advantage over direct job creation according to the efficiency criterion. They are probably also to be preferred according to the equity criterion: they offer at least the possibility of a start in the mainstream labour market, whereas direct job creation at least runs the risk of creating a sort of caste."²
3. Even though there is no proof that they are any more cost-effective, the literature suggests that targeted employment tax credits are preferred to marginal employment credits. The rationale is based on economic, political and administrative factors: (i) it is easier to measure effects and control abuse for programs that single out particular types of individuals than for those that broadly attempt to assist anyone who is in search of work; (ii) assisting those workers who possess relatively little – if any – bargaining power minimizes any inflationary impact on wages;³ and (iii) any consequential displacement of non-subsidized workers may be socially acceptable if it comes in the process of helping those who are least able to help themselves.
4. Tax incentives for job creation are not completely ineffective. While they do prove to be expensive, firms do respond to varying degrees and some jobs will ultimately be created. Hence, it is up to the government and the electorate to determine at what point the cost per job is too high.

¹ See OECD (1982), OECD (1995) and OECD (1996).

² Solow (1980).

³ See Gera (1988), p. 10.

1. Introduction

This report surveys the various job creation tax policies that have been implemented and/or are currently in use in different countries around the world. By summarizing previously published material regarding these particular programs, the survey presents a broad review of the numerous policy options that could be considered in Canada, with supporting empirical analysis of impacts where available.

While this survey is not as interested in the technical theory behind such programs as it is in their simplicity and efficacy, the reader should be aware of certain general relationships between taxation and job creation that the literature holds to be true. First of all, it is recognized that income, payroll and even consumption taxes create a "wedge" between the price of labour that the employer must pay to hire someone and the purchasing power that the employee takes home from that payment. As a result, changes in these tax rates are expected to influence the decision of workers to enter the labour market or the decision of employers to hire.

Notwithstanding this "tax wedge," there appears to be no evidence of a simple correlation or linkage between the general level of taxes in an economy and the level of unemployment. Data furnished by the OECD illustrate that Sweden has the highest tax/GDP ratio of all member countries, with the third-lowest unemployment level, whereas Australia has the lowest tax ratio, with relatively high unemployment.⁴ In light of such data, it is difficult to qualify cuts in personal or corporate taxes as specific job creation policies, even though they may often be presented as such.⁵

Accordingly, this survey is only interested in tax policies that reflect a government's direct attempt at influencing the labour market. Alterations in payroll taxes, for example, constitute a change in fiscal policy that is specifically aimed at stimulating employment. A similar example of such initiatives, and one that has been implemented by numerous governments, is a tax credit to firms that increase the size of their payroll. This option is also known as a marginal employment subsidy executed through the tax system. As will be presently illustrated, such incentives can also be used to improve the employability of particular workers who have been chronically displaced from the job market and are dependent upon social assistance; in these cases, the policy is known as a recruitment subsidy. Using either payroll tax cuts or marginal employment subsidies, policy makers essentially lower wage rates and decrease a firm's marginal and, to some extent, average costs in the hope that this will stimulate production and, in turn, labour demand. These supply-side tactics, however, rest on the assumption that the demand for the output of the industries in which the firms operate has significant price elasticity and that, consequently, as prices fall with costs, sales will increase. Because tax incentives for job creation change the relationship between the cost of capital and the cost of labour, these policies could also stimulate employment if capital and labour are substitutes for each other in the production process.

⁴ See OECD (1995).

⁵ This has most recently been demonstrated by the Ontario provincial government in May of 1996.

In evaluating the effectiveness of job-stimulating tax policies, it is useful to distinguish among direct effects, indirect effects, dead-weight loss and net effects.

Direct effects – Simply put, the number of jobs subsidized in a specific industry, a targeted group of workers, or the economy at large by a particular tax policy is that policy's *direct effect*. For example, if 1,000 new jobs are created in the steel industry because of a 50-percent tax credit that is offered to all firms in that industry which increase their payroll, then these new jobs represent a direct effect of the policy.

Indirect effects – Any fiscal stimulus will cost money. If the selected policy is to remain revenue neutral, the financing will likely be done through an increase in some other form of taxes, which may, in turn, raise the aforementioned tax wedge in another industry. Returning to the steel industry example: suppose the lost revenues from the tax credit are replaced by higher tax levies on gasoline; this would, in effect, increase the "tax wedge" (i.e. the financial burden) placed upon the energy sector. If this results in decreased demand and profits, production may fall and jobs may be lost. Hence, an *indirect effect* of any job-stimulating tax policy may be a decrease in employment in other areas of the economy. Another *indirect effect* may be the substitution of existing employees with new subsidized workers. Under these circumstances, each subsidized individual that the firm hires replaces another more costly individual that the firm has fired; once again, job creation is offset by job elimination.⁶

Dead-weight loss – Dead-weight loss of a program may occur when tax incentives create a job that would have been created in the absence of any government program.

Net effects – Hence, the success of any job-stimulating tax policy depends upon a careful measurement of the total jobs that were created, minus the sum of all the jobs that either were lost because of the policy or would have been created even in the absence of the policy. This represents the *net employment effect* of the tax program. As this survey will demonstrate, this *net effect* is not easy to determine.

With these principles in mind, this survey now turns to the examination of the selected job-stimulating tax programs.

2. Survey of Selected Programs

Employment Tax Credit Program (Canada)

Purpose: The 1970s were characterized by a broad acceptance of job creation programs as attractive policy options for abating the high levels of unemployment that persisted in that decade. In March 1978, the government introduced the Employment Tax Credit Program (ETCP)

⁶ For the purpose of keeping this introduction succinct, only a selection of the most pertinent indirect effects have been mentioned. There are, however, a number of other indirect effects – both negative and positive – which are discussed more specifically in Marchildon (1995).

specifically to stimulate employment in the private sector by granting tax credits to any "eligible employer"⁷ who hired an *incremental* "eligible worker."⁸ As will be presently explained, the ETCP was designed to favour those in the unskilled labour sector who had been suffering long-term displacement from the work force. The size of the tax credit varied from region to region to assist the particular areas of the country that were plagued with above average-levels of joblessness. At the time it was introduced, the government estimated that the program would produce 50,000 jobs a year. It was also hoped that a by-product of the ETCP would be an increase in the long-term employability of the participants beyond the period for which they were subsidized.

Design: The ETCP offered an employer a business tax credit equal to \$1.50, \$1.75 or \$2.00 per hour for each worker hired in addition to the normal work force of the firm.⁹ The applicable rate depended on the region in which the firm was based, with the higher rates going to the more seriously afflicted areas. The employer could claim up to 40 hours a week for a period not exceeding nine months (later changed to 12). The credit was both non-refundable and non-transferable; however, if the firm's federal tax was less than the total amount of the tax credit earned in the fiscal year, the difference could be carried forward for up to five years. Finally, to be deemed "eligible employment" for the credit, the position for which the worker was hired had to satisfy the following six criteria:

- the additional employment was a direct result of the program; that is to say, the job would not have been created in the absence of the subsidy;
- the subsidized job normally employed the worker for no less than 35 hours a week;
- the wage paid was no less than the minimum wage if the position was subject to such legislation; otherwise the going wage had to be at least 25¢ per hour above the rate of the applicable tax credit;
- the employment had to last for a minimum of three consecutive months;
- the employment was not directly subsidized by any other government program; and
- the employment was not of a personal domestic nature (i.e. maid, etc.).

By offering the employers a subsidy rather than the workers, the ETCP was designed to shift the firm's demand curve for labour. As the firm's relative cost of labour to capital was decreased, an incentive was created for it to substitute the latter with the former. As well, the fixed dollar value per hour subsidy meant that as the going wage rate for various positions decreased, the relative

⁷ "Eligible employer" being one who had been carrying on business in Canada for more than 52 weeks immediately preceding the date of participation in the ETCP.

⁸ "Eligible worker" being a Canadian citizen or permanent resident of working age who had been unemployed and registered with a Canada Employment Centre (CEC) as actively seeking work for eight consecutive weeks or more (later changed to two weeks or more), and who had been referred to the eligible employer by the CEC.

⁹ Employers were given a detailed method for calculating their normal work force prior to the ETCP.

size of the subsidy increased. Hence, the program implicitly favoured unskilled and low-paid labour. No provisions were made to encourage firms to provide training for the program's participants.

Analysis: In the first year the ETCP fell considerably short of its target (50,000) by producing only 19,934 jobs in spite of a large federal advertising campaign. The government responded by conducting a survey to investigate what was wrong with the system. It discovered that the majority of businesses viewed the program favourably but were reluctant to respond, primarily because:

- of the requirement that the job be incremental in nature and deemed as such by the employer in the agreement to hire;
- of the requirement to use Canada Employment Centres' clients/services;
- the subsidy rate was too low;
- of the requirement that new employees had to be unemployed for at least eight weeks before being hired, which was viewed as too restrictive; and
- employers feared an audit.

In the second year the federal government modified the ETCP in response to these concerns,¹⁰ and the number of jobs created under the program more than doubled to 48,427. The positive results prompted the government to extend the program for another year and in 1980/81 an additional 47,418 jobs were produced.¹¹

As discussed in the Introduction, notwithstanding these impressive figures, such a program must be examined in much more detail before its overall effectiveness can be accurately measured. An Economic Council of Canada report¹² attempted to determine the ETCP's ultimate effect on employment; it came up with mixed results. On the one hand, the ETCP was deemed to have been a socially efficient program, in that the social value of the output (SVO) that it created exceeded the social opportunity cost (SOC) of the resources used. To arrive at this conclusion, the researchers measured the SOC by aggregating three factors: (i) the probability of finding alternative employment for ETCP workers; (ii) the proportion of time for which the ETCP worker was expected to receive unemployment benefits when not working; and (iii) the average value of leisure time to the worker when he or she was unemployed. This value was then subtracted from a proxy measurement for the SVO created – namely, the total wages paid out under the ETCP. The difference between these two measurements was consistently positive for all 10 provinces; moreover, the size of the difference (i.e. the net social gains) varied correspondingly with the size of each province's unemployment rate. This finding validated the provisions within the ETCP that favoured certain regions over others.

¹⁰ Essentially the duration of the subsidy was extended from 9 to 12 months and the unemployment qualification period was reduced from 8 to 2 weeks.

¹¹ At the end of the program's existence a total of 113,182 jobs had been created.

¹² See Gera (1988) or Gera (1987).

On the other hand, the report also determined that although the ETCP was socially efficient, its ability to stimulate *new* jobs was marginal. Even though an employer could not theoretically qualify for a subsidy without proving that the job was incremental in nature, the distinct possibility remained that the worker would have either found unsubsidized employment somewhere else or been hired by the firm even in the absence of the subsidy. To account for this, the report constructed a model to test for the probability of such a dead-weight loss in the program. The results yielded a figure of 67 percent which suggests that only one of every three ETCP participants represented a real incremental gain in employment, while two of every three represented a mere transfer to the firm. Using these figures, along with data on the total cost of the program and number of participants, the cost *per new job* was determined to be \$9,555.¹³ These results were backed up by another estimate of the ETCP's incremental effect on employment by the CEIC's Strategic Policy and Planning branch. This study found that the maximum degree of incrementality was 37 percent; correspondingly, 63 percent of the jobs created by the ETCP represented transfers (i.e. they would have occurred without the program).¹⁴ However, it should be noted that the dead-weight probability (67 percent) was the national average figure; when the estimates were broken down by provinces, this probability varied inversely with the provincial unemployment rates. Once again, this at least justified the regionally selective nature of the ETCP, even if its overall ability to create new jobs was dubious.

Finally, it was also determined that the ETCP had no positive impact on either the long-term employability of its participants or their wages within or beyond the period for which they were subsidized. However, this is not surprising because, as mentioned earlier, no incentives existed within the ETCP to provide workers with training, and the majority of jobs that were stimulated paid relatively low wages and required little or no skill. Similarly, the nature of the program was to favour those who had previously experienced long-term displacement from the work force and were thus most likely to experience it again.

The evaluation of the ETCP suggests that it was generally a "promising policy approach,"¹⁵ particularly when compared with other direct job creation efforts. Both studies to which this survey referred concluded that the ETCP's net social benefits outweighed its shortfalls in net job creation and skills improvement. The favourable outlook on the ETCP was also based on the equity argument for shifting demand to unskilled and low-wage labour. In the final analysis, it was asserted that:

well-designed marginal wage subsidies to the private sector can provide employment increases at lower budget costs than other labour market policies, despite displacements, substitution and windfalls to employers that may accompany them. Subsidies focussed on the long-term unemployed and other target groups (especially youth), combined with sound macro-economic and selective labour market policies, can serve two objectives:

¹³ Gera (1987).

¹⁴ See CEIC (1982).

¹⁵ Gera (1988).

a counter-cyclical one by generating the planned rate of new jobs, and a structural one by promoting more equitable access to employment opportunities.¹⁶

Still, the high costs incurred by the government per new job created must not be overlooked.

Small Business Unemployment Insurance Premium Relief Program (Canada)

Purpose: By the end of the 1980s it had become strikingly clear that small businesses were the leading source of employment growth in Canada.¹⁷ Despite being subjected to generally favourable tax rates by international standards, the high regulatory nature and administrative costs – imposed by two levels of government (GST and PST, for example) – of paying taxes in Canada were luring many small businesses to the United States by the early part of this decade. At the same time, unemployment in Canada was increasing. In response to these developments, in 1992 the Canadian government introduced the Small Business Employment Investment Package, which included the Unemployment Insurance Premium Relief Program (UIPR). This program granted small businesses a one-year freeze on their (employer) UI premiums (a form of payroll tax) so that any incremental hirings would not incur incremental UI costs. Thus, the UIPR acted as a tax incentive to marginal job creation in the small-business sector.

Design: The UIPR was introduced in December 1992 as a simple temporary one-year program to enhance small-business employment and production opportunities by freezing 1993 employer UI premiums to the amount paid in 1992. Through the payroll deduction remittance system, a credit was provided to the employer equal to the difference between 1992 UI premiums paid and 1993 UI premiums due. The size of the credit was, however, restricted to the lesser of \$30,000 or the amount by which the employer's share of 1993 UI premiums (limited to a maximum of \$60,000) exceeded the 1992 UI premiums. These provisions ensured that the incentive went to small businesses only. Any business (incorporated or unincorporated) whose employer's share of UI premiums in 1992 was less than \$60,000 qualified to receive benefits – assuming the average industrial wage, this effectively meant that businesses employing fewer than 50 employees were eligible.¹⁸ To make the size limit effective, the design restricted access to the credit by associated businesses and successors. New businesses, started in 1993, were subjected to no UI premiums on their payroll for that year. The funding for this incentive came from the government and not the UI fund. Finally, the UIPR stipulated that charitable organizations were eligible for the credit, but public-sector bodies were not.

Analysis: Anecdotal evidence suggests that, despite Revenue Canada's strong marketing efforts in contacting over 1.2 million firms, many eligible employers simply may not have been aware of the UIPR program until it was too late. First, the "cost" of the program (\$270 million) was about half

¹⁶ Gera (1987).

¹⁷ Small business accounted for more than 80% of total jobs created between 1979 and 1990 (Department of Finance, 1992).

¹⁸ This was estimated to include approximately 98% of all businesses, which employed approximately 35% of all workers and paid around 25% of the employers' share of UI premiums.

of the amount anticipated. Second, Revenue Canada had requested that eligible firms submit the appropriate UI forms at the same time as T4s to allow for easier administration. These UI forms, however, were often submitted long after the T4s. Indeed, this suggests that some employers who received the benefit were unaware of the program until they were informed of it by their accountants at the end of the fiscal year.

Programme d'aide à l'intégration en emploi (Quebec)

Purpose: Throughout the 1980s changes in a combination of social, economic and demographic factors increased the dependency level on welfare of a sector of Quebec's population. Specifically, the number of welfare recipients in that province rose by 44 percent between 1977 and 1987.¹⁹ In response to this, the Quebec government committed itself to considerable reform of its welfare system in 1989. The intent of this reform was threefold: (i) to identify those on welfare who could be considered employable; (ii) to introduce a stricter and more all-encompassing system of work incentives; and (iii) to compile better statistics on the welfare population in order to understand better the dynamics of welfare use. One of the six programs which resulted from this reform was the *Programme d'aide à l'intégration en emploi* (PAIE) program – introduced in May 1990. Similar to the ETCP (see above), PAIE was designed to stimulate employment opportunities by offering employers wage subsidies. However, despite this shared goal between the two schemes, PAIE was distinctly different in a number of ways. First of all, PAIE specifically targeted long-term welfare recipients as the group that it wanted to assist; as a result, it was more interested in moving these particular individuals off of welfare and into the job market than it was in *incremental* increases in the economy's overall level of employment. Second, the subsidies that PAIE offered to employers represented direct government transfers and were not administered through the tax system. Third, not every business that hired someone on welfare could receive the subsidy; instead, as will be discussed below, appropriate employers were approached by the government to participate in PAIE. Finally, because PAIE was most concerned with providing work experience for welfare recipients, it made the subsidies available to both the private and the public non-profit sectors. It was hoped that ultimately, by providing experience to the chronically unemployed, their long-run dependence upon welfare would end, thus reducing the financial burden to the Quebec government.

Design: PAIE offered employers a maximum subsidy of \$160 a week per worker in the private sector and \$204.75 per worker in the public sector. The subsidy was available for up to 26 weeks, and the minimum hiring requirement was that the position be created for at least 18 weeks of full-time work (35 hours per week or more).²⁰ To be eligible, recipients had to have been on welfare for at least six of the previous 12 months, with selection priority increasing according to the amount of time the individual had been dependent on the system. The program also provided participants the health-care benefits to which they were entitled under welfare. Participation in

¹⁹ Reynolds (1995a).

²⁰ Subsidies for part-time work were also available as long as the pay exceeded welfare allowances.

PAIE also earned entitlement to Unemployment Insurance, a further benefit for those who were not able to find work after the program.

The program's employers were selected by the government on the basis that they were very likely to hire the participants after the subsidy expired. Most of the firms were small to medium sized businesses that offered positions in the services sector.²¹ While PAIE was not especially concerned with minimizing dead-weight loss, it did take explicit precautions to avoid the substitution effect of employment. Before hiring a PAIE participant, employers had to submit a written statement to the government showing exactly how many employees were currently in the division into which the participant was being placed. The employer then had to agree not to fire any other employees or reduce working hours to make room for the PAIE worker; the government was permitted to verify this agreement at any time.

Analysis: In 1991 the Quebec government set out to evaluate the effectiveness of PAIE by monitoring two separate groups of welfare recipients by telephone over a period of 19 months. The "success" of the program was understood as integrating participants into the work force and reducing their dependence on welfare. One group consisted of welfare recipients who had been actively participating in PAIE; the other group represented "employable unemployed" individuals on welfare who either chose not to take a job through the program or who made themselves available but were not placed with an employer.²² Following their subsidized work experience, 70 percent of PAIE participants had found at least one job within the 19 months under examination;²³ by contrast, only 30 percent of non-participants had found a job on their own within that same time period. However, there is considerable falling off in these results as the time period of the analysis is extended. Specifically, only 44 percent of PAIE participants were employed 19 months after their subsidized experience, compared with 18 percent for the other group. Even more strikingly, only 30 percent of the 70 percent who had found at least one job were employed for the entire 19 months under examination; in comparison, a meagre 7 percent of the "employable" group who were not placed under PAIE were employed for this entire period. Finally, of those PAIE participants who had found work at some point within the 19 months, 55 percent worked from that point until the end of the study. Once members of the comparison group found a job, only 48 percent worked continuously until the end of the 19-month study.

Another noteworthy finding was the program's different degrees of effectiveness between those PAIE participants who were placed in the private sector and those who were placed in the public sector. All of the above statistics are the averaged results for the two groups. However, when they are broken down, the figures are consistently more favourable for those who worked in the private sector. For example, while 70 percent of all the participants had at least one job following the program, the respective figures for private- and public-sector workers were 74 percent and

²¹ 75% of participants found work in the services sector (Reynolds, 1995a).

²² Although the two groups shared similar characteristics in terms of age, sex, education, etc., there may be a bias in the sense that the non-participants consisted of some individuals who made themselves available but were not placed, suggesting that they were inherently less employable than those who found employers.

²³ This figure must be adjusted for the fact that of those participants who found a job following PAIE, 29% were employed *at least once* in another separately subsidized job.

65 percent – a noticeable difference. Likewise, 49 percent of those PAIE participants who had received their experience in the private sector were employed 19 months following the program, whereas the figure was 39 percent for those who had been placed in the public sector. A similar observation was made for the former PAIE participants who at some point found work and held onto it for the remainder of the study: the 55-percent figure was an average between 58 percent of those who had been placed in the private sector and 50 percent of public-sector participants.

These results generally suggest that while PAIE was successful in integrating welfare recipients into the work force, its effects on the permanent rate of employment once participants left the program were less significant. However, this does not unequivocally imply that those who entered but ultimately left the work force immediately returned to the welfare system. On the contrary, the early evidence of the 1991-93 evaluation indicates that the program had a positive impact with respect to its second goal (i.e. reducing welfare costs): 63 percent of PAIE participants who found a job after the program left welfare for the entire 19-month period, while the figure was 49 percent for the comparative group of non-participants. The figures, however, must be taken as preliminary because data are not yet available for the period beyond the 19-month study.

Although it is difficult to determine the net financial effect of the program without a thorough analysis by the Quebec government, the displacement effects of PAIE are clear. When asked what they would have done in lieu of a subsidized PAIE employee, 51.6 percent of 1,600 surveyed participating employers in the private sector indicated that they would still have hired someone for the position.²⁴ This suggests that the program was not all that successful at creating new jobs. However, as mentioned before, this result is not completely contradictory to the program's main goal of integrating welfare recipients into the work force. Even if the employer was going to hire anyway, at least PAIE encouraged the employment of those most in need of work, who may not have been the most qualified.

According to the analyses considered in this survey, the ultimate results of PAIE can be summarized as follows:

- its most significant outcome was targeting welfare recipients and successfully integrating them into the work force;
- it had a smaller but significant effect on keeping this group employed over the long run and decreasing their dependency on welfare;
- it offered no improvement in wage rates following participation in the program;²⁵
- there were relatively few new jobs created and the substitution effect was negligible;
- once a participant leaves a government-sponsored program in search of work, private-sector experience tends to be more valuable than public-sector experience.

²⁴ In the public sector the number was only 10%, but this merely reflects the consistent shortage of funds therein.

²⁵ The comparison group in the study earned, on average, one dollar per hour more than PAIE participants who used their experience to integrate into the work force.

Co-operative Education Tax Credit (Ontario)

Purpose: In May of 1996 the Ontario government announced the introduction of the Co-operative Education Tax Credit (CETC). This incentive is available to all Ontario corporations who provide co-op work terms to students enrolled in such programs provincially assisted post-secondary institutions in Ontario. The purpose of this plan is to enhance the long-term job prospects of Ontario's youth by encouraging firms to hire these "inexperienced" individuals who are struggling to break into the labour force once they finish school. In this sense, the program is a recruitment subsidy, which targets a specific group (youth), rather than a marginal incremental subsidy, which is interested in increasing the overall level of employment.

Design: The CETC allows firms to deduct from their Ontario corporate tax liabilities 10 percent of the eligible costs incurred in providing co-op work students with employment in the company. Eligible costs are deemed to be "salaries, wages, and other remuneration paid by the Ontario corporation to a student in respect of a qualifying co-op work placement and/or payments by the Ontario corporation to a university or college in respect of a qualifying co-op work placement."²⁶ The credit will be applied to the corporation's outstanding tax liability (subject to corporate minimum tax) for the year in which the qualifying co-op work placement ends. If the size of the credit exceeds the total taxes due, the difference will be fully refunded. However, the annual size of the CETC is limited to \$1,000 per student. No time limit for this program has, at present, been announced. The CETC provides no explicit protection against employment substitution (i.e. replacing existing workers with subsidized ones).

Analysis: As mentioned, the CETC was introduced in Ontario's 1996 spring budget; it did not take effect until August 31, 1996. No analyses of the program's impact are available yet.

WIN-Welfare Tax Credit Program (United States)

Purpose: In 1968 the U.S. government implemented the Work Incentive Program (WIN) as part of its social policy. The goal of this program was to reduce long-term dependency on welfare support – specifically AFDC (Aid for Families with Dependent Children). Its provisions offered employment, training and support services to these public assistance recipients in order to help them qualify for and find employment. To make the program more efficacious, in 1971 the government introduced the Welfare Tax Credit (WTC), which granted any AFDC recipient registered under WIN a wage subsidy in the labour market. The subsidy took the form of a tax credit that was available to any employer who hired a WIN participant. Although the credit is no longer available under current U.S. tax laws, it was initially designed as a "permanent" program with no specified termination date. To this degree, its purpose was to counter structural, rather than cyclical, unemployment.

²⁶ Ministry of Finance (1996).

In 1975 the program was expanded to include all AFDC recipients regardless of whether or not they were enrolled in WIN. Despite other WTC revisions in 1975, no restrictions were ever placed on the program to prevent the substitution of existing workers with subsidized ones. In this sense, the WTC was a recruitment subsidy that was primarily interested in assisting a targeted group of chronically unemployed, able-bodied workers – namely, AFDC recipients.

Design: The WTC was designed to stimulate employment from the demand side by offering a wage subsidy to the employer. Specifically, between 1971 and 1975, the program offered any employer who hired an eligible worker a 20-percent tax credit up to a limit of \$1,000 on each employee's annual wage; this rate fell to 10-percent after the firm's annual credits reached a total of \$25,000. Although no limitation was placed on the total amount of credit available beyond \$25,000, it could not exceed the total tax liability of the firm in each respective fiscal year. However, credit could be carried back for three years or forward for seven. The only other restriction placed upon the employer was that the firm retain the worker for at least two years.

In 1975, when the program was extended to include all AFDC recipients, a number of other minor changes were implemented to make the program more attractive to firms. Most notably, the required length of employee retention was reduced from two years to 90 days. As well, although the rates were held constant, the credit limit of a 20 percent wage subsidy up to \$25,000 was extended to \$50,000, after which the credit rate dropped to 10 percent.

In 1979, the program was changed again: the tax credit was increased to 50 percent of wages up to \$6,000 per worker for the first year of employment and 25 percent of wages up to \$6,000 per worker for the second year.

Analysis: The record of the WTC in stimulating firms to take on eligible workers was discouraging. First of all, the credit was substantially under-utilized: "A private study of the program found that in only 25 percent of the cases in which an employer was eligible to receive the credit did he actually request certification for the WTC."²⁷ Other figures indicate that between 1973 and 1975 the WTC was granted to only 88,000 workers; yet 515,000 WIN participants entered the labour market and 952,000 new enrollees signed up with WIN during this same period of time.²⁸ Such a low level of response to the WTC has been attributed to employer unwillingness to hire under any program that requires additional paperwork. The stigmatization of subsidized workers as inferior has also been cited as an explanation for employers' reluctance to respond to the incentive.

²⁷ OECD (1982).

²⁸ Hamermesh (1978).

Another indication of the program's shortfall is that even in cases where the credit was used, employer surveys suggest that the WTC merely acted as a transfer to employers who would have hired the subsidized worker even in the absence of the program. Two separate studies cited by Daniel Hamermesh's analysis both estimated that only 10 percent of the employers who used the WTC attributed the hiring of a subsidized worker to the credit.²⁹

At least this rather disappointing attempt at integrating welfare recipients back into the labour market did not come at an enormous cost. In 1973, \$9 million was claimed under the WTC; based on an estimate of 25,000 certifications, the average government subsidy per worker came out to only \$360.³⁰ This estimate, however, represents cost per claim and not cost per new job created. A more involved assessment of the WTC that compared the costs (lost corporate tax revenues) with the savings generated (welfare grant reductions, increased social security and personal income tax collections) estimated that it cost approximately 53¢ in lost revenue to stimulate \$1 of potential welfare savings.³¹ These figures indicate that, although the program was under-utilized, it was cost-effective.

Hence, in the final analysis, the evidence from the WTC suggests that the major flaw with such a program was not in its overall costs, but rather its inability to stimulate employer participation. Moreover, the evidence indicates that even if the program offered to employees is extensively used, there is a difficult challenge in designing it so that the subsidization is not a mere transfer to the firm.

New Jobs Tax Credit (United States)

Purpose: Introduced in 1977 for a predetermined two year period, the New Jobs Tax Credit (NJTC) represented an attempt to stimulate jobs through employment subsidies to private industry. Its implementation was viewed as a counter-cyclical measure to combat the high unemployment that was plaguing industrialized economies at that time. Hence, its focus was on an overall short-term marginal improvement in employment rather than promoting the job opportunities of a targeted group.³² Its design was such that growing industries and, to a lesser extent, small businesses had the most to gain from the program.

Design: The NJTC was available to any private-sector employer based in the United States. It offered firms a tax credit against corporate (or personal) income tax liability in one of two forms. The credit was calculated as either 50 percent of the excess total wages over 105 percent of the previous year's total wages *or* 50 percent of the increase in total FUTA wage costs (federal unemployment insurance contributions) over 102 percent of the previous year's FUTA wage base – whichever was the smallest. The size of the subsidy could not exceed the total annual tax

²⁹ Ibid.

³⁰ Ibid.

³¹ OECD (1982).

³² It should be noted that an additional subsidy was offered for every disabled person who was hired; however, notwithstanding this provision, the program was not designed with this particular group's employment needs as an overriding concern.

liability of the firm; if a firm paid no tax in the fiscal year, the credit could be carried back for three years or forward for seven. The credit was also limited to the smaller of 25 percent of all FUTA wages or \$100,000.³³ By subsidizing employment, a shift from capital to labour in firm production was expected.

This system was particularly advantageous to those industries where demand was increasing, as it facilitated either the entry of new firms or a production increase for existing firms. Hence, the NJTC innately favoured growing industries and smaller businesses. At the same time, the system presented a disadvantage to firms that increased production through contracted work rather than an increase in the payroll.

The nature of the NJTC clearly encouraged incremental hirings³⁴ and provided no incentive for firms to substitute existing employees with subsidized ones. Similarly, the two-year limit was imposed not only in the interest of countering cyclical unemployment, but also to safeguard the labour market from a saw-tooth employment pattern:

A long-run New Jobs Tax Credit program might induce a firm with constant labour requirements to increase employment the first year and inventory its extra output, then decrease employment in the second year in order to qualify for the credit in the third year, and so forth.³⁵

For firms whose payroll level fluctuates with supply and demand, a long-run credit could induce an "average cyclical effect" that may simply intensify economic cycles. For example, if a firm is experiencing a downturn but foresees a boom in the year to come, then – despite the expected increase in demand for labour – it may postpone hiring in the recessionary period in order to qualify for the credit in the next fiscal year.

Analysis: According to the literature that this survey reviewed, one of the major flaws of the NJTC was the degree to which employers were unaware of its existence. In 1978 the Census Bureau conducted a preliminary assessment of the NJTC and found that only 34.4 percent of surveyed firms had heard of the program. Moreover, when it came to the program's implicit goal of encouraging small-business employment, the findings were more discouraging: only 27.3 percent of small firms (zero to nine employees) were aware of the available subsidies, whereas 89.1 percent of large firms (over 500 employees) knew about it.

³³ The employers were required to add the value of the credit back into taxable income by reducing ordinary business expense deductions by the amount of the NJTC claim.

³⁴ The exception was in cases where a firm was expanding so rapidly that it reached the credit limit (\$100,000) on intended hiring increases alone; under these circumstances, the tax incentive would not affect its incremental hiring behaviour even though the firm would receive the credit up to its limit.

³⁵ Perloff and Wachter (1979).

Nonetheless, in some cases where it was applied, the NJTC appeared to have had a positive impact upon the labour market. One study, for example, estimated that the NJTC was responsible for 20 percent to 30 percent of the 1.3 million jobs created in the retailing and construction industries during the 1977-78 period under examination.³⁶ This finding was complemented with the observation that the rate of employment growth in these industries exceeded the rate of output growth by a considerable margin. Although such findings affirm that the program had a favourable employment effect in these particular economic sectors, the models that were constructed to arrive at these estimates failed to consider job displacements in other industries. Hence, the overall level of new jobs created in the economy is difficult to determine.

From a more qualitative perspective, the results of the Census Bureau's NJTC analysis also suggest that the program was successful in creating jobs; it found that the firms that were aware of the NJTC increased employment 3 percentage points faster than other firms.³⁷ However, the conclusion that the program was successful because the firms that were aware of it hired more employees should be made with caution. In particular, it is possible that the rapidly growing firms were directed by effective profit-maximizing managers who made a point of researching all the available subsidies such as the NJTC. Hence, a causal correlation between awareness and employment growth – though intuitively probable – is not certain. Similarly, these findings cannot be used to conclude that these jobs would not have been created in the absence of the subsidy. To the contrary, the Census Bureau survey found that even when firms were fully aware of the program, only 6 percent of them had made a conscious effort to increase employment and 36 percent indicated that their levels of employment growth automatically qualified them for the subsidy.³⁸ These results cast further doubt on the extent of the NJTC's success at increasing overall levels of employment.

But the least favourable analysis of the NJTC was put forth in Robert Tannenwald's 1982 study. He affirms that the NJTC was a highly cost-ineffective program, in the sense that the reduction in wages (and government revenues) resulting from the tax credit failed to act as an effective stimulus for hiring. Specifically, he estimates that new employment was increased by only 0.4 percent for every 10-percent reduction in the after-tax wages stimulated by the NJTC; this figure falls well below the 2-percent increase in jobs that was predicted before the program's inception.³⁹ This estimate of 0.4 percent translates into a high dollar-value cost for the program: the average tax revenue loss per new job created (after adjusting for multiplier and displacement effects)⁴⁰ was estimated to be between \$14,100 and \$17,100 – depending on the assumed displacement rate.⁴¹

³⁶ See Bishop and Haveman (1979).

³⁷ See Perloff and Wachter (1979).

³⁸ 7.2% learned of the credit too late; 5% said that applying for the credit was "too troublesome"; while the remaining firms did not answer the question or gave other reasons.

³⁹ Tannenwald (1982).

⁴⁰ To some extent, employment was reallocated and not displaced.

⁴¹ For reasons pertaining to his methodology, Tannenwald believes that the real values are likely to be somewhat higher than these "overly optimistic" ones.

Essentially, Tannenwald attributes the cost-ineffectiveness of the NJTC to the low response the program received from private-sector employers. The results of his 309-firm survey suggest that there were four major impediments inherent to the NJTC program that made firms reluctant to respond to the tax incentive. First of all, more than half of the respondents stressed that product demand determined hiring levels, not tax credits; there was no need for firms to increase output if no one was going to purchase the products. Second, most of the interviewees indicated that a sharp distinction and lack of communication between the firm's operations and finance departments often prevented human resource managers from knowing about the fiscal incentive for increased hiring. The survey also indicated that employers did not respond to the incentive because the decision to increase employment had to be made before the end of the fiscal year; without knowing their level of taxable income, firms had to hire based on the probability, not the certainty, of receiving the subsidy. Finally, businesses often cited a time lag as a reason for their low response to the program. Often a firm that was willing to increase its payroll in light of the incentive needed more time to make the necessary adjustments (screen employees, build plants, install new capital, etc.) than the length of the program permitted. In these cases, firms knew that expansion that would satisfy the NJTC criteria had to be planned in a longer-run context, but due to the statutory termination date of the program, they would not qualify and, hence, did not apply.

Tannenwald's survey also found that "fewer than 10 percent of all knowledgeable qualifying respondents reported that their work force would have been smaller in the absence of the NJTC."⁴² The finding suggests that even if more firms had known of the program, it is unlikely that many more new jobs would have been created. This counters the notion that a low level of awareness of the program was an imposing obstacle to the NJTC's success.

Still, it is important to note some of the positive conclusions that these studies drew about the NJTC. Perloff and Wachter, for example, concluded that although they prefer traditional monetary and fiscal tools for countering cyclical unemployment, "the estimated impact of the NJTC among knowledgeable firms suggests that a permanent program aimed at increasing the equilibrium employment rate may be practical." Similarly, Robert Solow noted that the positive response to the NJTC among firms that knew about it validates the belief that profit incentives can be used as effective policy tools; therefore, wage subsidies have some advantages over direct job creation programs in terms of efficiency. This, however, is not to say that wage subsidies are cost-effective in terms of foregone revenue; Tannenwald's study suggests the contrary.

No unambiguous final analysis of the NJTC's impact on job creation is possible. This suggests that the use of an employment tax credit will lead to uncertain and difficult-to-measure results. What can be concluded with certainty is that the NJTC program had some significant flaws in theory, design and outcome.

⁴² Tannenwald (1982).

Targeted Jobs Tax Credit (United States)

Purpose: In 1979, the New Jobs Tax Credit program was replaced by the Targeted Jobs Tax Credit program (TJTC), which was specifically designed to enhance the employment opportunities of "disadvantaged workers." In effect, this change reflected a policy shift away from the counter-cyclical concept of subsidizing incremental increases in the overall level of private-sector employment toward one of assisting particular groups of individuals that were experiencing long-run displacement from the job market. Thus, the program could be considered successful in one of two forms: either the subsidy stimulated new jobs that were filled by the targeted workers, or it simply encouraged firms to hire these workers in lieu of non-eligible workers for positions that would have been available regardless of the subsidy. The following five groups were eligible: disabled individuals, welfare recipients, economically disadvantaged youth, Vietnam veterans and ex-offenders. The TJTC was implemented without an explicit restriction on the length of time for which it would be available; in fact, although it is due to expire this year, the program – notwithstanding some minor revisions – has been in place until today. In this sense, it was more of a permanent program than its predecessor, the NJTC.

Design: For the first six years of its existence, the TJTC program offered firms a tax credit equal to one half of the first \$6,000 of wage costs incurred for each "disadvantaged worker" whom the firm had hired in the fiscal year. In the second year the subsidy decreased to one quarter of such costs, and in the third year it was no longer available. Following the 1986 *Tax Reform Act*, the TJTC program was slightly altered so that the subsidy was available for only one year, and the amount was reduced to 40 percent of the first \$6,000 in wage costs per eligible worker added to the firm's work force. The program remains in this form today.

With the exception of the first two years of the program, during which time firms could claim for eligible workers already on the payroll, the procedure required that an employer apply for the subsidy prior to the "disadvantaged worker's" first day on the job. But an application did not guarantee a subsidy, because the government was required to verify that the worker did indeed belong to a targeted group. This system, although necessary for reasons of legitimacy, imposed large administrative and search costs on the firm. Alternatively, firms that were aware of the credit could alert the appropriate employment agency of their interest in hiring a subsidized worker. The agency would then act as a conduit between "disadvantaged workers" and potential employers. The agency could also hand out certified vouchers of subsidization to eligible workers (or the workers could request such vouchers from authorized employment agencies), which could be presented to employers in an interview. But these alternatives were not without notable flaws of their own.

Finally, the TJTC has no provisions for ensuring incremental increases in employment levels. To qualify for the subsidy, the firm is simply required to hire a targeted worker, regardless of whether the position represents a net increase to the payroll. Thus, there was the inherent likelihood that firms would replace existing workers with subsidized ones. The TJTC, it is clearly a recruitment subsidy rather than a marginal employment subsidy.

Analysis: The evidence for the first half of the TJTC's existence indicates that the program did not initially have a major positive impact on the hiring practices of firms with regard to targeted workers. The Congressional Budget Office estimated that during 1983 the TJTC incentive accounted for less than 10 percent of the eligible youth who were hired in that year. It also found that in 1982 the TJTC participating companies accounted for only about 4 percent of the nation's employers and less than 20 percent of the nation's jobs.⁴³ Unlike its predecessor, the NJTC, it is doubtful that increased promotion of the TJTC program would have made much difference to the initial low response to the program; in 1982, a survey recorded that 73 percent of the employers who had some familiarity with the program said that they did not plan to ask for TJTC-eligible referrals when they needed unskilled workers in the future.⁴⁴ Bishop and Kang's overview of the TJTC suggests that the low take-up rates were largely due to the aforementioned administrative costs of hiring targeted workers. From the employer's perspective, applying for the subsidy required not only learning about the program, but also a time-consuming process of researching more personal information (family income sources, criminal records, etc.) about potential employees who did not carry certified vouchers. If, on the other hand, potential employees revealed themselves as eligible for the TJTC in hope of saving the firm research costs or simply making it aware of the program, they ran the risk of being stigmatized as less-productive workers should the employer not be interested in subsidized individuals. Such risks were indeed confirmed by a survey that asked employers who had heard of the NJTC (but not necessarily applied for it) whether they believed the targeted workers "make better or poorer employees than people who are not tax-credit eligible." Only 7 percent said better, while 28 percent said worse (the rest responded with the more socially acceptable "don't know" or "no difference").⁴⁵ Even for firms that requested an interview with subsidized workers, time-consuming elements and stigmatization effects were factors that affected a firm's ultimate response to the program.

In spite of its slow start, the TJTC did gain momentum and by the mid-1980s nearly 700,000 workers were being subsidized by the program. The increased use of the subsidy can be partly attributed to the fact that an increasing portion of firms had already incurred the fixed costs of acquiring the necessary knowledge about the program and potential employees as time passed. Similarly, the stigmatization effect is expected to recede after workers are integrated into the work force.⁴⁶

Although the TJTC was explicitly designed as a recruitment subsidy, its impact on the creation of new jobs is still of interest. A model constructed by Bishop and Montgomery in 1993 estimated that at most the TJTC created three new jobs for every 10 Targeted Jobs Tax Credits granted;⁴⁷ the rest represented some form of substitution. However, as they point out:

⁴³ See Bishop and Kang (1991).

⁴⁴ Ibid.

⁴⁵ Ibid.

⁴⁶ A survey of employers who had hired TJTC-eligible employees revealed that the subsidized workers were viewed as being just as or more productive than others hired for the same job (Bishop and Kang, 1991).

⁴⁷ The lower bound for this estimate was 1.3 new jobs for every 10 credits granted.

Policy makers might be pleased nevertheless if those other seven hirings represent a transfer of jobs from non-targeted workers to targeted ones. But our results prove otherwise.... We are led to conclude that the great majority of claims for tax credits are for workers who would have been hired even in the absence of the subsidy. These are simple transfer payments to the employers.⁴⁸

One final observation about the TJTC concerns its cost. Using program data for 1985, Bishop and Montgomery estimated the cost of creating a job through the tax credit program. They found that at best each new job cost \$5,270 per worker; however, their most pessimistic result (using a different model) indicated that the program cost as much as \$11,581 per new job. They also cited another estimate (by Bassi in 1985) that suggested a cost ranging between \$2,198 and \$5,708. But Bishop and Montgomery believe that the higher limit of their estimate is most likely the closest to the subsidy's true cost.

3. Conclusion

The evaluation of past experience suggests that governments incur considerable losses in tax revenues from tax-related employment programs without certainty over how many new jobs will be created or how much related social expenditures will be reduced. In general, the unreliable nature of these programs can be largely attributed to the following four pitfalls. First, ensuring legitimacy requires some degree of administration; however, compliance costs act as a deterrent to employer participation in any program. Second, making employers fully aware of any employment incentive has proved to be a considerable challenge; extensive advertising campaigns are an option, but without certainty about employer response, they incur considerable risks. Third, it is difficult – if not impossible – to ensure that each claim is legitimately contributing to the program's goal and that the incentive is not being "wasted" on tax advantages that merely represent transfers to firms. Finally, in the case of targeted programs, singling out specific types of workers, although inherently necessary, can result in a stigmatizing effect that will work contrary to the program's goal.

It can also be concluded from the evaluation of past programs that, if the government decides to intervene in the labour market – especially on a permanent basis – targeted employment-stimulating tax policies are generally preferable to that which attempt to decrease unemployment in the economy at large. Although there is no evidence that suggests that such programs are less costly or more efficient, targeted employment tax credits do possess some administrative, economic and political advantages. First of all, it is easier to measure the effects and control the abuse of programs that single out particular types of individuals – such as single mothers, youth or the under-educated – than of programs that broadly attempt to assist anyone who is in search of work. (In particular, defining the basic level of employment for marginal employment incentive programs becomes increasingly problematic as the life of the program increases.) From the economic perspective, by assisting those workers who possess relatively little – if any – bargaining

⁴⁸ Bishop and Montgomery (1993).

power, any inflationary wage impacts are likely to be minimal.⁴⁹ Finally, from the political perspective: any consequential indirect effects may be socially acceptable if they come in the process of helping those who are least able to help themselves.

Although the final analysis still indicates that the efficacy of *any* type of active employment policy is questionable, the use of employment-stimulating tax incentives should not be completely ruled out. Often political considerations override economic realities; despite the costly nature and indefinite outcomes of such incentives, governments are often pressured by voters to take an active role in stifling unacceptably high levels of unemployment. Hence, the evidence that these programs do – to varying degrees – induce firms to take on new employees must not be overlooked. Moreover, the review of the literature indicates that, if a government decides to intervene in the labour market, then tax credits for wages are preferred to direct employment programs:

"[because] profit incentives operate more or less as they are supposed to ... wage subsidies have some advantage over direct job creation according to the efficiency criterion. They are probably also to be preferred according to the equity criterion: they offer at least the possibility of a start in the mainstream labour market, whereas direct job creation at least runs the risk of creating a sort of caste."⁵⁰

The long-run improvements in the skill levels, work motivation and – in turn – employability of subsidized workers must also be weighted against short-term financial costs.

Clearly, there is a trade-off to be made between the potential costs and inefficiencies and the potential employment benefits. Hence, the underlying issue is really to determine at what point the costs per job become too high. This is essentially a value-based subjective decision that must be made by policy makers and the electorate that they represent.

⁴⁹ See Gera (1988), p. 10.

⁵⁰ Solow (1980).

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Summary of Employment-Stimulating Tax Policies

Name of program	Government	Date implemented	Duration	Design	Est. no. of claims	Est. cost per new job	Notable traits	Notable results
Employment Tax Credit Program	Canada	1978	3 years	Marginal employment tax credit equal to \$1.50, \$1.75, or \$2.00 per worker per hour	113,182 over 3 years	\$7,635 (Sask) to \$13,139 (Nfld); av. = \$9,555 (Can)	Rate varied according to regions	Estimated that only 33% of claims were for net new jobs; determined to have a high degree of net social value
PAIE (<i>Programme d'aide à l'intégration en emploi</i>)	Quebec	1990	Still available	Targeted-recruitment subsidy for long time welfare recipients; equal to maximum of \$160 per worker per week in private sector and \$204.75 in public sector	N/A	N/A	Direct government subsidy not administered through the tax system; included provisions to prevent substitution of existing workers with subsidized ones	Generally successful at integrating workers into the work force, but only marginal improvements in long-run employability of participants
New Jobs Tax Credit	United States	1977	2 years	Marginal employment tax credit=50% of excess wages over 105% of previous year's total wage or 50% of employer's increase in FUTA cost over 102% of previous year's FUTA costs	N/A	\$14,100 to \$17,100	Inherent provisions to prevent substitution effect; restricted to 2 years in order to prevent saw-tooth pattern and average cyclical effect	Low level of firm awareness; poor effect on new employment (estimated 0.4% increase in new jobs for every 10% reduction in wages resulting from tax credit)

Summary of Employment-Stimulating Tax Policies (Cont'd)

Name of program	Government	Date implemented	Duration	Design	Est. no. of claims	Est. cost per new job	Notable traits	Notable results
Targeted Jobs Tax Credit	United States	1979	Expires 1996	Targeted-recruitment tax credit for "disadvantaged worker" = one half of the first \$6,000 in wage costs incurred by each additional eligible worker; down to one quarter of such costs in second year*	Nearly 700,000/year by mid-1980s	\$2,198 to \$11,581 in 1985	No provisions for ensuring incremental increases in employment	High initial non-pecuniary costs led to an initially slow employer response to the program; stigmatization of participants was also a deterrent; majority of claims were made for workers who would have been hired even in the absence of subsidies; estimated only 3 new jobs for every 10 claims
Co-operative Education Tax Credit	Ontario	1996	No time limit has been set	Targeted-marginal tax credit for Ontario-based firms that provide work terms to Ontario students; allows for a deduction from taxes of 10% of the costs incurred by the firm for hiring a co-op student	N/A	N/A	No explicit protection against substitution of existing workers with subsidized ones	N/A

* Revised in 1986 to 40% of such costs for only one year.

Summary of Employment-Stimulating Tax Policies (Cont'd)

Name of program	Government	Date implemented	Duration	Design	Est. no. of claims	Est. cost per new job	Notable traits	Notable results
Small Business Unemployment Insurance Premium Relief Program	Canada	1992	1 year	An employment subsidy designed to encourage new hirings in small businesses; froze 1993 employee UI premiums to the amount paid in 1992	N/A	N/A	Essentially a payroll tax cut specifically for small businesses; new businesses started in 1993 were subjected to no UI premiums in 1993	Low level of firm response despite aggressive marketing tactics (actual total costs were about half of what were expected; poor channels of communication between firms' accountants and their human resources)
WIN-Welfare Tax Credit Program	United States	1971	Permanent (at least 5 years but exact expiry date unknown)	Targeted-recruitment tax credit for firms who hired AFDC (welfare) recipients enrolled in WIN program; 20% credit per worker; rate dropped to 10% after a firm's total claimed credit reached \$25,000; after 1975 program extended to all AFDC recipients and \$25,000 limit extended to \$50,000	88,000 between 1973 and 1975 (25,000 in 1973)	N/A (est. cost per claim in 1973 = \$360)	Originally the firm was required to keep the worker for 2 years, but this was reduced to 90 days in 1975	Employers were reluctant to respond due to administrative costs and stigmatization; program was substantially under-utilized; estimated that 90% of all workers hired even in the absence of the credit; positive effect on lowering welfare costs; 53¢ in lost revenue for \$1 saved in welfare costs

Technical Committee on Business Taxation

The Technical Committee was established by the Minister of Finance, at the time of the March 1996 federal budget, to consider ways of:

- improving the business tax system to promote job creation and economic growth,
- simplifying the taxation of businesses to facilitate compliance and administration, and
- enhancing fairness to ensure that all businesses share the cost of providing government services.

The Technical Committee will report before the end of 1997; consultations with the public will follow the release of the report.

The Technical Committee is composed of a panel with legal, accounting and economic expertise in the tax field. The members are:

Mr. Robert Brown
Price Waterhouse
Toronto, Ontario

Mr. James Cowan
Stewart McKelvey Stirling Scales
Halifax, Nova Scotia

Mr. Wilfrid Lefebvre
Ogilvy Renault
Montreal, Quebec

Professor Nancy Olewiler
Department of Economics
Simon Fraser University
Burnaby, British Columbia

Mr. Stephen Richardson
Tory, Tory, Deslauriers & Binnington
Toronto, Ontario

Professor Bev Dahlby
Department of Economics
University of Alberta
Edmonton, Alberta

Mr. Allan Lanthier
Ernst & Young
Montreal, Quebec

Professor Jack Mintz (Chair)
Faculty of Management,
University of Toronto (on leave)
Clifford Clark Visiting Economist
Department of Finance
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The Technical Committee has commissioned a number of studies from outside experts to provide analysis of many of the issues being considered as part of its mandate. These studies are being released as working papers to make the analysis available for information and comment. The papers have received only limited evaluation; views expressed are those of the authors and do not necessarily reflect the views of the Technical Committee.

A list of completed research studies follows. They may be requested from:

Distribution Centre
Department of Finance
300 Laurier Avenue West
Ottawa, Ontario K1A 0G5
Telephone: (613) 995-2855
Facsimile: (613) 996-0518

They are also available on the Internet at <http://www.fin.gc.ca/>

Technical Committee on Business Taxation Completed Research Studies

- WORKING PAPER 96-1**
Comparison and Assessment of the Tax Treatment of Foreign-Source Income in Canada, Australia, France, Germany and the United States
Brian Arnold (Goodman Phillips & Vineberg)
Jinyan Li and *David Sandler* (University of Western Ontario)
- WORKING PAPER 96-2**
Why Tax Corporations
Richard Bird (University of Toronto)
- WORKING PAPER 96-3**
Tax Policy and Job Creation: Specific Employment Incentive Programs
Ben Cherniavsky (Technical Committee Research Analyst)
- WORKING PAPER 96-4**
The Effects of Taxation on U.S. Multinationals and Their Canadian Affiliates
Jason Cummins (New York University)
- WORKING PAPER 96-5**
The Integration of Corporate and Personal Taxes in Europe: The Role of Minimum Taxes on Dividend Payments
Michael Devereux (Keele University)
- WORKING PAPER 96-6**
International Implications of U.S. Business Tax Reform
Andrew Lyon (University of Maryland)
- WORKING PAPER 96-7**
The Economic Effects of Dividend Taxation
Ken McKenzie (University of Calgary)
Aileen Thompson (Carleton University)
- WORKING PAPER 96-8**
Capital Tax Issues
Peter McQuillan and *Cal Cochrane* (KPMG Toronto)
- WORKING PAPER 96-9**
Compliance Issues: Small Business and the Corporate Income Tax System
Robert Plamondon (Ottawa)
- WORKING PAPER 96-10**
Study on Transfer Pricing
Robert Turner (Ernst & Young, Toronto)
- WORKING PAPER 96-11**
The Interaction of Federal and Provincial Taxes on Businesses
Marianne Vigneault (Bishop's University)
Robin Boadway (Queen's University)
- WORKING PAPER 96-12**
Taxation of Inbound Investment
Gordon Williamson (Arthur Andersen, Toronto)