SOCIAL POLICY AND THE DEMAND SIDE

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ABSTRACT

In general, analysis of the effectiveness of social policy reforms in encouraging transitions to employment requires consideration of both the demand side and the supply side of labour markets - but in the high unemployment labour markets of the 1990's, demand side constraints are particularly crucial. Policies to improve the training, or increase the incentives, of the unemployed are relatively pointless if there are few jobs available for the retrained and the remotivated.

This essay summarizes existing literature on demand side constraints on the quantity of work available which indicates the prevalence (even in the lower unemployment of the 1980's) of quantity constraints on labour hours and the limited importance, in practice, of wage incentives to increased labour supply. It uses the 1988-90 Labour Market Activity Survey to assess demand side constraints on available job "quality", using the self-sufficiency experiment of Employment and Immigration Canada as an example. Since very few (approximately 6%) of those who accept low-wage jobs find that these jobs lead to earnings above the poverty line 3 years later, it is illusory to expect that temporary wage subsidy programmes will have much impact on long-term poverty. Typically, low-wage jobs are in fact "dead-end" jobs. There is no evidence that greater work experience pays off in higher hourly wages, for low wage workers.

Given the empirical evidence on the importance of the demand side, it may be considered odd that Canadian social policy reforms have concentrated on improving worker motivation and training - i.e. on increasing the effective supply of labour. The supply side emphasis of policy can, however, be explained by the incentives and constraints facing social policy designers.

SOCIAL POLICY AND THE DEMAND SIDE

A century ago, Alfred Marshall remarked that the two great analytical tools of economics -- supply and demand -- were like the blades of a pair of scissors. Considered in isolation, neither demand nor supply can explain much, but considered together, supply and demand can explain a great deal. Since then, there have been great advances in economics -- for example, it is now possible to estimate econometrically models of market disequilibrium, relying on the fact that "the short side of the market rules"[1] and there is now a substantial theoretical literature on non-clearing markets (see Benassy, 1993). However, in both equilibrium and disequilibrium markets it is just as true now as it was a hundred years ago that getting a job is the <u>joint</u> <u>event</u> that a firm offers a job and a person decides to accept it -- a full understanding of the labour market depends on an analysis of <u>both</u> the demand and supply for labour.

How is it then that social policy discussion in Canada focuses so exclusively on the supply side of labour markets? The Ontario government's recently announced reforms to social assistance administration are only the latest in a long series of Canadian social policy amendments which have emphasized (1) reducing financial disincentives to the acceptance of employment by social assistance recipients and (2) increasing the training and educational credentials of the unemployed. This emphasis on improving the motivation and skills of potential workers -- i.e. increasing the effective supply of labour -- could reasonably be expected to have big social payoffs

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[1]If demand exceeds supply at prevailing prices, quantities sold are determined by the supply function, while excess supply of a commodity implies that the quantity of transactions is determined by the demand side of the market (and suppliers are rationed). For an early discussion see Fair and Jaffee (1972). Maddala (1983: Chapter 10) provides an econometric survey. Morrissette and Salvas-Bronsard (1988) are a Canadian example of econometric work on aggregate unemployment.

in a labour market where job vacancies for the newly motivated and retrained were relatively

plentiful [-- e.g. Toronto in 1988/89?] However, when there already is a queue of motivated and

trained potential workers available, additions to the length of the queue have relatively little

economic benefit.[2]

Although researchers at the Bank of Canada and the federal Department of Finance

concur in estimating that the "natural" rate of unemployment in Canada is between 7% and 7.5%

(see James, 1991), the actual unemployment rate exceeds 11% -- and as Figure 1 indicates,

unemployment can be expected to remain in this vicinity for the balance of the decade, if current

macroeconomic policies remain unchanged (Informetrica, 1993).[3] Current estimates of the

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[2]It can be argued that retraining programs have social benefits because they give people hope
[even if, as Decker and Corson (1993) demonstrate, they do not give people any actual increase in
the probability of job finding] and because the daily activity and the sociability of training
programs fills the gap of inactivity and isolation that unemployment would otherwise entail. If
these social benefits to individuals diminish the probability of dysfunctional behaviour, such as
family violence, substance abuse or divorce, retraining programmes may produce downstream
economic benefits to the social assistance system -- but the working assumption of this paper is
that these effects are of a second order of magnitude.

[3]Figure 1 is taken from the 1993 Reference Outlook Forecast of Informetrica Ltd. All
forecasts are conditional ones, and changes in economic policy, or in the international economic
environment, could produce different outcomes -- but the Reference Outlook Forecast basically
assumes the continuation of current macroeconomic policy. If monetary policy in Canada remains
focused on the total elimination of inflation and fiscal policy remains preoccupied with reduction
in the federal budget deficit, the implication of restrictive macroeconomic policy settings, assumed
constancy of the exchange rate (at $.79 U.S.) and modest growth in the world economy is a
forecast of annual GDP growth of 3.2% over the period 1993 to 1997 (constant dollars). Since
labour productivity is expected to grow at 1.4% per annum, the growth in employment (at 1.8%)
is only marginally greater than growth in the labour force (1.7%). As a result, unemployment
decreases with painful slowness over the period 1993 to 1997, averaging 10.9% for the period. It
is only when the model is run out into the very long run to 2020 that demography kicks in and the
slower rate of labour force growth of an aging population eventually produces a decline in
unemployment
rates (to 8.2%).

"natural" rate of unemployment embody the efficiency of Canada's existing training system and the financial incentives of the current social assistance system -- improvements to either could be expected to diminish the "natural" rate of unemployment. However, when <u>actual</u> unemployment is in excess of 11%, declines in the "natural" rate of unemployment only widen the gap between actual and potential unemployment levels.

It therefore seems pretty clear that in the 1990's the empirically relevant case for social policy planners is an excess supply labour market, in which, more often than not, potential workers cannot get all the hours of work which they might desire (i.e. a "quantity" constraint) and in which the type of job they want may well not be available (a "quality" constraint). However, in assessing the likely importance of "quantity" and "quality" demand side constraints in the labour market, there is no option but to work with the data from previous historical periods, in which unemployment rates were typically considerably lower and the demand side constraints of the labour market were considerably less important.

The plan of this essay is, therefore, to begin with a brief summary of the literature on the importance of demand side quantity constraints on hours of work. Although the available data was typically drawn from labour markets in which unemployment was much closer to 7% than to its current 11%+, the basic conclusion of this section is that demand side constraints on the availability of additional hours are an important limitation on the observed labour supply of a significant number of workers. The social policy implication is that improved incentives to additional labour supply are irrelevant to the behaviour of workers who cannot get as much work as they want <u>now</u>.

Since there has been a good deal of interest in Canada in wage subsidy programs to lure social assistance clients into "self-sufficiency", section 2 uses the 1988 to 1990 Labour Market Activity Survey to examine whether, in fact, those who do accept employment at hourly wages comparable to current social assistance support levels eventually get enough earnings to enable them to be "self-sufficient". Although the labour market of 1988/90 was considerably more buoyant than labour markets are currently, and although those who ignored the disincentives of social assistance regulations in 1988 and accepted jobs may be considered to be a "self-selected" group with higher than average probabilities of employment success, the empirical evidence clearly indicates that low-wage jobs typically do <u>not</u> generally lead to anything better. In addition to quantity constraints on hours availability, there is a "quality constraint" from the demand side of labour markets - most available low-wage jobs offer no significant chance of upward wage mobility. The social policy implication is that wage subsidy programs may need to be permanent, not temporary, for the workers which they affect.

Section 3 turns from analysis of training, incentives and the forces of demand and supply in the labour market to consideration of the importance of training, incentives and constraints to the demand and supply of social policy advice.

1.   Quantity Constraints and the Demand Side of Labour Markets

A huge number of economists have estimated econometric models of the supply of labour by individuals and households.[4] Those economists who assume that individuals can always get all the hours of work which they desire at existing wage rates assume that individuals maximize utility (defined as a function of consumption goods and non-labour time) as per equation 1, subject to the budget constraint of equation 2 and the time constraint of equation 3. If individuals face no other constraints in the labour market, then (by assumption) actual hours of labour supply (H^A) are equal to desired hours of labour supply (H^*), and the labour supply function is described by equation 4.[5]

(1)   Max $U = u\,(C,L)$

(2) $P.C = W.H + Y$

(3) $H + L = T$

(4) $H^A = H^* = h\,(W,P,Y)$

(5) $H^A \leq H^*$

if employment constrained $(E = 1)$ $H^A < H^*$

if not employment constrained $(E = 0)$ $H^A = H^*$

(6) $H^A = h^1\,(W,P,Y,E)$

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[4]Hum and Simpson (1991), Keeley (1981), Killingworth (1983), Osberg (1986), Pencavel (1986), and Phipps (1993) provide surveys. Osberg and Phipps (1993) present estimates of labour supply behaviour in Canada.

[5]Stern (1986) has emphasized the importance of the link between the empirical labour supply function estimated and the underlying utility function, e.g., if non-labour time enters the utility function u, the labour supply function must be backward-bending, above some wage point.

C = consumption goods
L = non-Labour time
H = work hours
T = Total time
P = price consumer goods
W = wage rate
H^* = desired hours
H^A = actual hours
Y = non-labour income
E = employment constraint on available
hours of work

However, if one allows the possibility that individuals may be constrained in the total number of employment hours which are available to them (as in equation 5) then actual hours of labour supply are determined as in equation 6. Estimation of the determinants of hours of paid labour supply must account explicitly for the probability of employment constraint if one wants to avoid bias in the estimation of the labour supply function.

In the labour supply literature, it is common to distinguish between models of the probability of labour force participation [i.e., Prob($H^A \geq 0$)] and models of the number of labour hours, conditional on labour force participation. As Killingsworth (1983: Chapter 3) notes, these two different types of models may have different econometric structure. Furthermore, since one only observes actual hours of employment for those who participated in the labour market, estimation of labour supply equations may be biased if correction is not made for the sample selection bias involved when only people with positive hours of work are entered into the regression. The Heckman (1979) methodology has been widely used in so called "second generation" labour supply analysis in order to ensure that the estimate of wage elasticity of labour

supply produced is relevant for the entire population, and not just the population of labour force participants.

Many data sets do not ask respondents whether they would have preferred to work more hours,[6] but when such information has been obtained, it has in general been found to be a significant determinant of actual hours of paid labour supply. Phipps (1993) has recently summarized "second generation" empirical studies of labour supply elasticities in Canada and studies of the importance of quantity constraints in hours of labour supply, using both data with self-reporting and studies which use econometric methods to identify importance of quantity constraints, without self-reporting. Her conclusion is that the range of reliable estimates of Canadian labour supply elasticities estimated in different studies is:

(1)   rather narrow (-.05 to +0.46 for men);[7]

(2)   broadly similar for both men and women (a range of -0.85 to +0.40 for females);

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[6]It is notable that the baseline survey instrument for the self-sufficiency project, although similar in some respects to the LMAS, does not ask respondents whether they were satisfied with hours or weeks of work obtainable or whether "no jobs available" was a constraint on labour supply. By construction, the data set available from this policy experiment will exclude the possibility that demand side constraints partially explain observed labour market outcomes.

[7]As is normal in the literature, Phipps (1993) summarizes each study in terms of its estimate of the wage elasticity of labour supply at the population mean. In general, however, labour supply elasticities differ, at different points in the distribution of wages. A linear labour supply function implies, mathematically, that the wage elasticity will differ in magnitude, but not in sign, at different wages. A quadratic (backward bending) labour supply function will be positively sloped at low wages, but negatively sloped at higher wages -- i.e., wage elasticities change in sign and in magnitude with changes in wages. Comparisons across studies are, therefore, not always easy -- but the important point is that at similar points in the wage distribution, labour supply elasticity estimates are closely clustered and absolutely small.

(3)   often negative - i.e. an increase in the net returns to employment is often estimated to

produce a <u>decrease</u> in hours of labour supply;[8] and

(4)   absolutely small in magnitude.

The size of wage effects on labour supply can be usefully compared to the total variance in

annual hours and to the effects of other variables. If, for example, the average male worker were

to receive a 100% increase in wages (surely a large increase) the expected change in annual hours

(at a wage elasticity of 0.1) would be about 192 hours. This change in hours is a rather small

component of the total dispersion in hours - the standard deviation of annual male hours in 1986

was 661. Control variables are at least as important as wages. The effect of unionization, holding

other things constant, was in 1986 a change of about 100 hours in annual labour supply, while

residents of Atlantic Canada (if no correction is made for labour demand constraints) worked

about 150 hours less than Ontario residents (see Osberg/Phipps; 1993). But, as Pencavel (1986)

has noted, despite the addition of many control variables (often of dubious theoretical

justification) labour supply regressions typically have very low R^2, (often 0.1 or less).

There is great variability in annual hours of work, but very little of it can be explained by

labour supply models (even with the addition of many control variables). For this reason,

Hamermesh (1990) has argued that empirical labour economics should refocus its attention away

from the "increasingly sterile" area of labour supply, and investigate the demand side of labour

markets. When relatively little of the variation in hours can be explained by movements <u>along</u> a

supply function of desired hours, the empirically important issues in labour supply are (as

[8]Osberg's (1986) survey put the international consensus estimate of the uncompensated wage
elasticity of male labour supply at -0.1. This number has a history, since Brown (1981:143) and
Keeley (1981) independently came to the same conclusion.

Pencavel (1986) has noted) the determinants of <u>shifts</u> of the supply function. And when actual

hours of work may be demand side constrained, observed hours are determined by the

<u>combination</u> of desired hours and demand side constraints. Where researchers have been able to

estimate the importance of quantity constraints on labour supply, constraints have been

empirically large and highly statistically significant.

For the purposes of social policy evaluation in the 1990's, one should also note that: (a)

the probability of experiencing quantity constraints in hours of labour supply is negatively

correlated with hourly wages -- implying that the social assistance population is much more likely

to face quantity constraints in labour markets than the population in general; (b) the average

experience of quantity constraints is significantly higher in the labour markets of the 1990's (11%

plus unemployment) than during the periods studied by the literature surveyed in Table 1. [e.g.

Studies using the 1988/89 Labour Market Activity Survey (such as Lin and Osberg [1992])

describe a labour market of substantially lower unemployment than currently experienced --

national unemployment was 7.9% in the first quarter of 1988.]

Osberg and Phipps (1993) note that in 1986, the average underemployed male worker in

Canada would have worked 254.5 additional hours per year, at their current wage rate, if such

additional hours of work had been available to them. Analyzing the weekly supply of labour of a

sample of low-income U.S. males, Dickens and Lundberg (1993) have a significantly higher

estimate of the quantitative importance of hours constraints on labour supply -- nearly 10 hours

per week, on average. The size of the quantity constraint on individual hours of labour supply is

especially significant relative to the consensus in the labour economics literature that increases in

the after-tax hourly wage rate produce very small changes in desired hours of labour supply - and

the fact that these desired changes may not always be positive.[9]

For social policy planners, the major points are that: (1) the increased hours of paid work

which would be implied by relaxation of the quantity constraints[10] on available labour hours are

large relative to the change in hours which would be obtained by improving incentives to greater

desired labour supply; (2) even if improving incentives to labour supply produce small positive

changes in desired hours of labour supply, the impact on actual hours of labour supply would be

even smaller, since some workers are already constrained by the hours of paid work available; (3)

the low-wage population is particularly strongly affected by demand side constraints on the

quantity of labour hours available.

Furthermore, single parents, and social assistance recipients, appear to have labour supply

behaviour which is very similar to that of the wider population -- i.e., highly inelastic with respect

to the wage (see Selby, 1992). Given all this evidence that changes in labour supply incentives

produce very small changes in actual labour supply behaviour, the emphasis on "incentives" in

current policy discussion cannot be explained as due to the accumulation of research results.

2.1 Job Quality Constraints and the "Self-sufficiency" Project

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[9]Osberg and Phipps (1993) estimate that in Canada female labour supply begins to decline, with further increases in the pre-tax hourly wage, once hourly wages exceed $12.09. The male labour supply function is backward sloping, though nearly vertical, throughout, if potential demand side constraints are considered.

[10]In the LMAS, respondents are asked about the perceived reasons for difficulty in locating employment. "No jobs available" clearly dominates "lack of training" or education as the major determinant of quantity constraints - Osberg and Phipps (1993) provide an extended discussion.

One variant on the "incentives" argument in social policy is the hypothesis that social assistance payments are high relative to the wage initially available to social assistance clients, but that if people did accept employment at these wages, on-the-job training and work experience would imply a fairly rapid increase in wage rates -- large enough to enable social assistance clients to become "self-sufficient" after a few years. Figure 2 presents a diagrammatic representation of this hypothesis, in which social assistance payments are initially higher than earnings (implying a disincentive to accept employment) but after a year or two of work experience, continued employment generates a level of earnings sufficient to exceed social assistance payments and to generate eventual "self-sufficiency".[11]

In this perspective, the real issue is the presumed tastes (rate of time preference and "work ethic") of social assistance clients. If it is presumed that individual social assistance clients get to choose between continued receipt of social assistance and an earnings path such as Y_A in Figure 2, then a rational individual will choose the income and utility stream with greater present value. If the left-hand side of equation 7 (the present value of the utility of earnings) exceeds the right-hand side (the present value of the utility of social assistance payments) then a rational individual will choose to accept employment. The "incentives" argument is that people remain on social assistance because they calculate that "it does not pay to accept employment" -- the important

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[11]A corollary of this hypothesis is that the labour supply equations discussed in section 1 may be misspecified since they use the observed hourly wage rate as an explanatory variable predicting current hours of labour supply. If it really is the case that low wage jobs embody a substantial on-the-job training component, then the correctly specified wage variable in labour supply estimation is current wage payments plus the present value of future increments in earnings received as a return on current on-the-job training. However, if (as turns out to be the case) low wage jobs typically do not have substantial on-the-job training components attached, then the results of section 1 stand.

point to note is that such a calculation depends on the stream of earnings potentially available

(Y_{At}), the level of social assistance payments, (SA_t) <u>and</u> the rate of time discount (r) and tastes (u)

which individuals apply to the eventual benefits obtainable from employment compared to social

assistance.

(7) $$\int_0^T u(Y_{At})e^{-rt}\, dt \gtrless \int_0^T u(SA_t)e^{-rt}\, dt$$

In this perspective, if individuals differ in their subjective rate of time preference, some

people (those with lower discount rates) will figure that the present value of employment earnings

dominates continued receipt of social assistance and they will accept employment. Alternatively,

some people may have private information which enables them to predict a higher rate of increase

of earnings than average. Some people may dislike being "on welfare" more intensely than others.

Any of these reasons will imply that some people will choose to work (i.e. prefer Y_{AT} over SA_t in

Figure 2) and in fact it can be observed that a substantial number of the single-parents who would

be eligible for social assistance payments do now work for low wages (approximately 86,000 in

January 1988 - see Table 1). However, those who argue from an incentives perspective believe

that the policy problem of the Canadian welfare state is that this behaviour is rare and that too

many people "choose" to remain on social assistance.

In order to lure such people into employment, and eventual "self-sufficiency", wage

subsidy programs have been proposed. The dashed line in Figure 2 represents total income under

a wage subsidy program (the self-sufficiency experiment) which pays to all individuals in full-time

employment a "self-sufficiency supplement" equal to half the difference between their earnings

and an income of $30,000 per year. The idea is that although the self-sufficiency supplement ends

after three years, by that point individual earnings will have increased to a point where continued

employment will dominate social assistance receipt and individuals will go off social assistance for

good -- i.e., they will have become "self-sufficient". For governments, the happy financial

implication of the scenario of Figure 2 is that (1) the self-sufficiency supplement diminishes

steadily within the three year supplement period as individual earnings rise and (2) after the expiry

of the supplementation period, individuals have no further need of social assistance payments,

thereby generating substantial long-run budgetary savings for governments. In an era of constant

fiscal pressure on governments, the "self-sufficiency" hypothesis offers the alluring prospect that a

short-run investment in wage subsidization will generate substantial long-run savings in social

transfer programs.

Although the self-sufficiency project presumes that the typical social assistance client is

choosing between continued receipt of social assistance and jobs (or job sequences) with earnings

streams such as Y_{At}, one might well ask "where are these jobs?"[12] After all, if wage subsidy

programs are to have much hope of making a major dent in Canada's transfer expenditures, there

has to be a lot of such jobs available, and it should be possible for labour market analysts to think

of a few examples.

As someone who has done a number of case studies of low income employment, I find it

much easier to think of jobs such as those represented in Figure 3. Working behind the counter of

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[12]In addition one might equally ask whether social assistance clients typically get to make a
choice between jobs and social assistance. Clearly, if jobs are not available, the "choice"
framework is misleading -- an issue of general relevance in the 1990's and one of particular
relevance to rural labour markets with 20%+ unemployment. Furthermore, if jobs are available,
my interviews with social assistance case workers (who are under considerable pressure to
contain their budgets) have convinced me that case workers can and do terminate social assistance
claims for clients for whom they believe work is available.

Tim Horton's Donuts, selling at The Bay or cleaning houses for Molly Maid -- there are many jobs

which offer wage profiles (such as Y_B or Y_C) which are slightly above, or slightly below, the

income available on social assistance, but these jobs typically have very limited prospects for

advancement and little real expectation of eventual growth in earnings.[13] Indeed, the literature on

"labour market segmentation" would argue that "dead-end jobs" are the typical case in the low-

wage labour market, and mobility out of those jobs is systematically constrained. [See Osberg et

al., (1986 a,b) or Apostle et al. (1985) for Canadian empirical data; Gordon, Edwards and Reich

(1982) or Dickens and Lang (1992) for a general discussion.] The segmentation perspective

argues that low-wage jobs typically have a flat experience/earnings profile and rarely lead to a

better job. The segmentation approach argues that the possibility of an upwardly mobile sequence

of jobs which starts with low-wage employment is effectively limited to those who (like college

students who waited tables in the summer months) eventually get a good job for other reasons --

i.e. because of their educational credentials. For both college students and the educationally

disadvantaged, the long-term value of low-wage work experience is essentially nil.

As the preparations for the New Brunswick and British Columbia self-sufficiency

demonstration projects have continued, I have had the opportunity to ask quite a number of the

civil servants and labour market analysts connected with these projects if they can provide any

real world examples of earnings profiles such as Y_A in Figure 2. Almost without exception, they

have been unable to provide a real world example of a low-wage job (or job sequence) with such

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[13]Figure 3 does not try to represent unstable employment situations, such as fish plants or agricultural processing, which offer a combination of periods of employment and layoff and a total income package similar to social assistance, but likewise with no realistic prospect of eventual wage growth.

a steeply rising experience/earnings profile. This should be disquieting, since if the self-sufficiency project is to succeed great numbers of social assistance clients will have to find the earnings trajectories which no one can now think of.

Labour market analysts in the "human capital" tradition have long noted that earnings growth over time is particularly rapid for the college educated population. Career progression in a single job, or in a sequence of jobs, is also significantly faster in an era of rapid employment growth (such as the 1970's).[14] However, the social assistance population typically cannot expect the career progression associated with a college education and our present reality is a slow growth economy. If the typical jobs, or job sequences, available to social assistance clients have earnings profiles such as Y_B or Y_C, the budgetary implication for government is: (1) self-sufficiency supplements will not show any noticeable tendency to decline over the three year period of eligibility for payments; (2) when eligibility for self-sufficiency supplements expires, individuals will be back approximately where they began, and if they return to social assistance there are no long-run savings in transfer payments expenditures to governments; (3) the net financial cost of wage subsidies is the difference between the self-sufficiency supplement and the social assistance payments which an individual would have otherwise received.

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[14]For these reasons, introspection by the university graduates of the 1960's and 1970's can be a very poor guide to the current labour market reality of social assistance clients.

2.1.1   Cheaper Dependency?

If low hourly wages are generally accompanied by a flat experience/earnings profile, as in figure 3, the payment of wage subsidies never really generates "self-sufficiency", in the sense that social assistance becomes permanently much less financially attractive than work. Furthermore, if a low hourly wage today generally implies a low hourly wage next year, the labour supply equations summarized in section 1 were correctly specified after all, and one can use the estimated elasticities calculated from them to compute the labour supply impacts of a wage subsidy program.

However, even if one cannot expect a temporary wage subsidy to generate the permanent wages gains depicted in figure 2, a wage subsidy program may still save the government money in the short run -- if wages earned are high enough so that the "self-sufficiency supplement" is less than social assistance foregone (and if the wage subsidy program does not attract more eligible applicants than current social assistance programs).

In the longer run, however, a full-scale wage subsidy program would be sure to generate institutional changes and general equilibrium effects. The "self-sufficiency" project builds in a very strong incentive for individuals to report a minimum of 120 hours of paid employment per month. Neoclassical economists would expect an increased supply of low-wage labour to erode wage rates at the low end of the skill spectrum. Institutionalists would note that there are huge incentives for changes in reported behaviour, even if actual labour supply is unchanged. An employer who now pays $10 per hour to a 20 hour per week employee can give them almost $10,000 per year in additional income (at no cost to themselves) by reporting wage payments of $6.50 per hour for 30 hours per week. Alternatively, there is a lot to be gained by both employer

and employee if hourly wage payments are cut from $10 to $6.50, and if the employee continues to work 20 hours per week while the employer reports 30 and pockets the differential as untaxed personal income.[15]   Unlike social assistance, policing a wage subsidy programme would require policing both firms and individuals.

In New Brunswick, the target income is $30,000 and the self-sufficiency supplement is equal to 50% of the difference between $30,000 and annual earnings, while provincial social assistance support for a single parent and child in 1992 was $8,304 -- implying that someone earning in excess of $13,400 would receive a self-sufficiency supplement less expensive to government than the straight delivery of social assistance. In B.C., with a comparable provincial social assistance support level of $11,293 and a target income of $37,000, individuals earning more than $14,400 would receive a self-sufficiency supplement less than the social assistance payments they would otherwise be eligible for. [But since social assistance payments increase with family size while the wage subsidy does not, the governmental break even point is lower for large families.]

In either B.C. or New Brunswick potential earnings have to be significantly in excess of current social assistance payments level (i.e. Y_C rather than Y_B in Figure 3) if a wage subsidy program is to have lower annual financial costs to governments than current welfare programs.

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[15]If target income is $30,000 and the self-sufficiency supplement is one-half the differential with annual earnings, $6.50 per hour for 20 hours per week generates earnings of $6,760 -- since the self-sufficiency supplement is calculated on the accounting fiction of 30 hours per week, it is $9,930, but the personal income of the worker (at $16,690) still shows a nice increase from working 20 hours a week at $10 per hour ($10,400 annually). The firm shows wage payments of $10,140, but particularly in the small business sector, one can expect many small employers would have the accounting flexibility to absorb $3,380 annually in fictional wage payments as an untaxed addition to personal income.

Do such people now claim social assistance in appreciable numbers? Would their behaviour be altered more than temporarily by a wage subsidy program of limited duration, or would a permanent wage subsidy program be needed to maintain permanently changed labour market behaviour?

A complicating factor in analyzing the issue is the fact that for single-parent families, a span of three years may encompass significant changes in child status and the opportunity cost of time, as, for example, when children enter school or leave home. The labour force behaviour of single parents can, therefore, be expected to vary significantly over time even without any change in the financial incentives of the market work or social assistance regulations -- i.e. some fraction (increasing with time) of social assistance clients can be expected to leave social assistance in any event, even without the payment of a self-sufficiency supplement to all low-wage earners. Furthermore a full-scale wage subsidy programme could probably expect much greater "takeup" than social assistance currently has.

Full evaluation of the financial costs and benefits of wage subsidy programs will raise complex issues surrounding estimation of the importance of self-selection bias in selection into social assistance receipt, which will interact with the problem of measuring the degree of acceleration of labour force re-entry by single parents induced by wage subsidy. Fortunately, the project has a large enough budget for the econometric work involved. Section 2.2 will, however, argue that the flat experience/earnings time profiles pictured in Figure 3 are a closer approximation to the world of low-wage employment than the steeply rising experience/earnings profiles depicted in Figure 2, -- which implies that hopes for eventual financial savings for government from wage subsidy programmes depend on whether, (1) on a continuing basis, the

self-sufficiency supplement is, on average, less than social assistance support levels; (2) the

number applying for wage subsidies exceeds the number applying for social assistance.

2.2   Job Quality Constraints -- Empirical Considerations

A lot of people in Canada work for low wages. As Table 1 indicates, in January 1988, 6.4% of men aged 17-64 (about 525,000 individuals) and 12.1% of women (approximately one million people) worked at a job paying $6.50 per hour or less. Although female single parents would presumably have found it much easier than others to claim social assistance payments, 15.3% (86,000 individuals) ignored the disincentives implicit in social assistance policy design and worked for $6.50 per hour, or less.

This paper focuses particularly on individuals earning $6.50 hourly[16], or less, since this is a generous estimate of the range of jobs to which, conceivably, social assistance might be preferred. In 1989, a single parent with one child in New Brunswick could get $7,624 in provincial social assistance, while a similar person in B.C. was eligible for $9,714 in provincial social assistance. Larger families got somewhat more -- for example a two-parent two-child family was eligible for $10,366 in New Brunswick and $4,072 in B.C.[17] -- but by comparison a full time (37.5 hours per week), full year (50 weeks) worker earning $6.50 per hour would make $12,188 per year. Jobs paying more than $6.50 per hour clearly paid better, and in most cases much better, than continued reliance on social assistance[18] -- hence it is the jobs which paid less than $6.50 per hour

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[16]Beach and Shannon (1993) examine the proposal of the Ontario government to increase the minimum wage in Ontario to a level equivalent to $6.75 an hour in 1989. With inflation running at 4.3% in 1988, $6.75 in 1989 is equivalent to just under $6.50 per hour in 1988 and their analysis of the demographic, occupational and industrial composition of the low-wage Ontario population is almost exactly applicable to the low-wage population examined in this paper.

[17]Figures taken from Welfare Incomes 1989, National Council on Welfare Tables 3 and 2.

[18]Some would argue that child care costs are the crucial barrier to paid employment for many social assistance clients. However, this issue is ignored by a wage subsidy policy design, which emphasizes improving the gross returns to paid employment, rather than improving the net return.

which are the relevant ones to examine, if we are to understand the disincentives to paid

employment implicit in current social assistance design.

2.2.1 The Chances of Escaping from Poverty

For the purposes of the self-sufficiency project whose objective is to encourage individuals

to accept low-wage jobs, the important issue is where these jobs lead. Presumably, it is desired

that people should be able to earn more than a poverty line income. However, one of the inherent

problems of an emphasis on wage subsidies in social policy design is that wages, and the self-

sufficiency supplement, are not differentiated by family size or area of residence -- a wage subsidy

program (unlike social assistance) takes no account of differences in need among families of

different size or residence. In 1991, Statistics Canada's low income cut off for a single parent

with two children in a mid-size city was $22,626 per year, or, in a city with a population over

$500,000, $25,761. In a city with a population between 100,000 and 499,999, a single parent

with three children would need an income of $26,049 to exceed the low income cut off. As a

working approximation, therefore, this paper defines the target of income self-sufficiency as

having annual earnings in excess of $25,000 per year.

This study operationalizes the general question of "what fraction of low-wage jobs

eventually lead to earnings self-sufficiency?" as "what percentage of individuals who worked at a

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If child care costs are the big issue, a more focused policy (e.g. day care subsidies) might well be more cost effective, but this paper, like the self-sufficiency project design, essentially ignores the issue of the opportunity cost of employment hours.

job paying less than $6.50 per hour in January 1988 had earnings in 1990 in excess of $25,000?"[19]

The data set used is the 1988-1990 Labour Market Activity Survey.[20] However, one needs to

stress that the probability of a transition from low wages to earnings self-sufficiency which one

observes in this data set will <u>overestimate</u> the probability of earnings mobility which one would

observe in a comparable period in the 1990's, and the earnings mobility one would observe in the

population as a whole.

Those who chose to work in 1988 at low wages <u>despite</u> the disincentives to low-wage

employment which were then built into social assistance regulations were clearly a self-selected

sample from the population. The presumption of the "incentives" argument is that all individuals

compare the present value of the utility of remaining on social assistance with the present value of

utility of employment and that they have the choice of whether or not to work at low wages.

Compared to those who do not work at low wages, those who do choose to work at $6.50 per

hour or less are a self-selected sample of individuals with a relatively strong "work ethic"

(relatively high disutility from the acceptance of social assistance) and with higher than average

expected probability of future earnings growth. Furthermore, one must emphasize that in the first

quarter of 1988 Canada's unemployment rate was 7.9%, while the average for 1990 was 8.1%. In

the 1990's, unemployment rates are expected to remain in excess of 10.5%. (See Figure 1). In a

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[19]Clearly, however, if self-sufficiency is defined to be a lower income, a higher percentage of people will make it -- but the interesting thing about Tables 4, 4A and 4B is how little the basic story changes if the criterion for "self-sufficiency" is lowered to earnings greater than $20,000 in 1990.

[20]Since the design of the self-sufficiency project is based on the self-sufficiency supplement terminating <u>after</u> the third year of employment, while earnings during 1990 are the earnings <u>during</u> the third year after being employed in January 1988, this paper uses a somewhat shorter time span than the self-sufficiency experiment.

less buoyant labour market, one cannot expect to observe the same degree of upward earnings mobility.

Because those who accepted low-wage employment in 1988 are a self-selected sample and because labour markets in 1988/90 were closer to full employment than is likely to be the case in the 1990's, the transition probabilities reported in this paper will likely <u>overstate</u> the probability of success in attainment of "self-sufficiency" through wage subsidy programs in the 1990's. Nevertheless, these probabilities cannot be considered to be high.

The "main event" of this section of this paper is Table 4, but Tables 1,2, and 3 are included to set Table 4 in context. Tables 1 and 2 are included in order to give readers an idea of the relative size of the employed, low-wage population. In Table 1, the comparison is to the entire Canadian population, and the issues to stress are the fact that (1) a significant proportion of the Canadian population now works at low wages,[21] and (2) a majority of single parents, who presumably would find it easier than most other demographic groups to obtain social assistance, are now employed, although often not at particular good wages. Most single parents are <u>not</u> dissuaded by the "disincentives" of social assistance from accepting employment -- as is entirely consistent with the low wage elasticity of labour supply reported in Section 1.

Table 2 looks at the wage distribution of <u>paid workers</u> in January, 1988. It is noteworthy that almost a quarter of paid workers in New Brunswick, and over 30% of employed single parents, were working at wage rates of $6.50 per hour or less in January, 1988.

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[21]Note that the employment concept used in this paper is employment <u>at anytime</u> during January 1988 - the Labour Force Survey reports a higher rate of unemployment than Table 1 because it refers to the "employed" as those working in a specific week.

Table 3 examines the distribution of 1990 earnings among all persons, and among those who were employed in January, 1988. One lesson that can be drawn is that a large proportion of Canadians, and an especially large proportion of women and New Brunswickers, had 1990 earnings which were, on an individual basis, fairly low. Indeed the proportion of low-earnings workers is very much greater than the poverty rate (16.2% for adult women and 11.3% for adult men in 1990). For many Canadian families, it is the fact that a number of individuals combine their earnings which lifts a household out of poverty, even if individual earnings are $15,000 or less. Clearly, however, single parents have to depend on their individual income. It is the combination of low individual earnings and the inability to pool earnings in households which generates household poverty, and the need for social assistance support - one must re-emphasize that a policy design based on wage subsidy is not sensitive to household size or the presence of other earners, and hence ignores a crucial dimension of the social assistance problem.

In the self-sufficiency experiment, eligibility is restricted to single parents and the thorny issues of multiple earnings or taxation of family income, can be avoided. It is not exactly clear what type of general programme would be implied by "success" in the self-sufficiency experiment. If a full-fledged wage subsidy programme were implemented, it is far from clear that it would be possible, given the Charter of Rights, to restrict eligibility for the wage subsidy to single parents. Even if it were possible, it is not clear that it would be desirable to restrict eligibility since restricted eligibility would create strong incentives to family break-up and the creation of single parent families. However, if the criterion for qualification for a "self-sufficiency supplement" is

low <u>individual</u> wages, then (a) a great many people are potentially eligible and (b) many of those benefitting from the programme will be members of non-poor households.[22]

In the context of self-sufficiency, it is especially important to know to what level of earnings the acceptance of a low-wage job will lead three years down the road. As Table 4 indicates, in the vast majority of cases, a low-wage job leads to low annual earnings -- approximately 90% of those Canadians who accepted employment in January 1988 at less than $6.50 per hour went on to earn less than $20,000 in 1990. If we define $25,000 or more as a "self-sufficiency" income, the percentage of low-wage workers who achieve "self-sufficiency" is clearly less. The probability of success is particularly low in New Brunswick (approximately 4%) but significantly higher in B.C. (almost 10%).

It could be argued that Table 4 does not represent a good test of the hypothesis underlying the self-sufficiency experiment because it refers to the eventual annual earnings of <u>all</u> low-wage workers. The design of the self-sufficiency experiment builds in strong incentives to full-time work -- operationally defined as more than 120 hours per month. Perhaps low-wage workers who stay continuously employed, or who work full-time, get on-the-job training which is not made available to other low-wage workers. If so, their probability of attaining self-sufficiency in annual earnings should be significantly higher. Tables 4A and 4B therefore report the 1990 annual earnings of people who worked for $6.50 an hour or less <u>and</u> who were continuously employed in 1988, 1989 and 1990 (4B) or were employed for more than 1,440 hours in 1988,

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[22]With respect to "target efficiency", a general wage subsidy programme and minimum wage legislation both provide benefits to poor <u>and</u> non-poor individuals [see Beach and Shannon (1993)]. However, in the former case the financial costs are a burden on tax revenues while in the latter case, firms bear the costs directly.

1989 and 1990 (4A). Table 4C is a combination of both of these conditions. It is clear that

Tables 4, 4A, 4B and 4C all tell very much the same story -- for the vast majority of low-wage

workers, the experience/earnings profile is essentially flat. Approximately 80% of the 1988 low-

wage workers who worked full-time (more than 1,440 hours) every year earned $20,000 or less in

1990. Among single parents (the target group for the self-sufficiency experiment) only about 7%

of those who worked full time in 1988, 1989 and 1990 ended up with more than $20,000 earnings

in 1990. To a very large extent, low-wage jobs are "dead end" jobs.

As Table 6 indicates, part of what is going on in Table 4 appears to be the phenomenon of

"college student with part-time job graduating and getting a full-time "real" job". Table 6

indicates that the probability of going from a low-wage job in January 1988 into a "self-

sufficiency" income in 1990 is much higher for people who had, in 1990, a university degree.

Such observations pull up the average -- the Canada wide probability of someone with only a high

school diploma moving from a low-wage job in January, 1988 to a "self-sufficiency" income in

1990 is only about 4% (and is lower still for women and New Brunswickers).

The original idea behind this paper was to use these simple cross-tabulations as

background material for a multivariate analysis of the probability of transition from low-wage

employment to a self-sufficiency income. Originally, the expectation was that a significant

number of transitions would be observed and the hope was to identify which industries and which

occupations of initial employment were associated with a significantly higher probability of

eventually earning a relatively high annual salary.

However, using industry and occupation of initial employment for analysis requires the

construction of a large number of dummy variables. Although the Labour Market Activity Survey

is a large data file, the transition from low-wage employment to high annual earnings is a rare event -- of 4,981 raw observations of workers earning less than $6.50 per hour in January, 1988, only 293 earned more than $25,000 in 1990. As a result, unless broad industry or occupation categories are used, multivariate regression techniques are bedeviled by small or empty cells - but broad aggregates [e.g., "services"] have relatively little utility. Although the sample size is, in total, statistically respectable, the cell size for transitions associated with particular occupations/industries is often not really large enough for a lot of confidence.[23]

Table 6 presents the results of a logit regression which estimates the determinants of the probability of attaining "self-sufficiency" by low-wage workers. This sort of regression should be seen as a "reduced form" which mingles the "supply side" determinants of the probability that individuals will accept jobs (or job sequences) with a trajectory leading to earning self-sufficiency and the "demand side" determinants of the probability that employers will offer them such jobs. Although this papers has not presented an explicit model, some variables (such as number of children) have a relatively easy interpretation as a "supply side" influence, while others (such as industry of initial employment) are easier to interpret as a "demand side" influence.

Qualitatively, the determinants of the probability of self-sufficiency attainment presented in Table 6 seem plausible. The finding that one's chances of attaining self-sufficiency decrease with one's number of children and increase for males is consistent with what we know from other

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[23]Indeed, even simple cross-tabs should in some cases be interpreted with extreme caution. In Table 4, column 3 is based on the 216 single parents with high school or less who earned less than $6.50 in January 1988 -- the probability of transition to $30,000+ is really only one observation, but one which has a rather high sampling weight.

sources about the operation of the labour market. (Notably, however, marital status -- controlling for number of children -- is statistically insignificant.)

The "base case" for Table 6 is a single female Ontario resident aged 25 to 34 with a high school education, initially employed in a traditional service industry, in a service occupation. Compared to this base case, the probability of attaining self-sufficiency is very significantly lower in Quebec and Atlantic Canada, but much higher in British Columbia. Relatively high wage industrial sectors such as primary industry, utilities, communications or finance offer workers earning less than $6.50 per hour in January 1988 a significantly higher chance of attaining earnings self-sufficiency. Similarly, those with a managerial/administrative occupation have a much better of chance of attaining self-sufficiency, while individuals following a religious, artistic or sales occupation have a significantly lower chance of attaining self-sufficiency. (The influence of attaining a manufacturing job in a manufacturing industry, compared to a service job in a service industry, has to be seen by considering the joint influence of industry and occupation dummies in Table 6 -- the net influence of a manufacturing job in a manufacturing industry is positive.)

In general, the co-efficients presented appear plausible, but it is anomalous that the dummy variable indicating very low education (0-8 years) appears with a positive sign. One expects to observe the substantial positive influence of possession of the post-secondary certificate or diploma, or a university degree, on the probability of escaping from low-wage employment to earning self-sufficiency, but there is no reason to expect very low education to have a positive payoff. In the public use sample tape which Statistics Canada makes available to outside researchers, some continuous variables (such as age or years of education) are re-coded into

intervals in order to better preserve the confidentiality of the identity of respondents to the

LMAS. This procedure accentuates the problem presented by the fact that many variables of

interest (gender, province, occupation, industry) are inherently dichotomous. With a rather small

cell size for particular combinations of dichotomous variables, it seems appropriate to use caution

in the interpretation of multiple regression results.

Moreover, in thinking about the implications of Table 6, one should not forget that the

logit regression which it presents is estimating the determinants <u>of an absolutely low probability</u>.

For the sample as a whole, the mean probability of moving from low-wage employment in January

1988 to earnings self-sufficiency in 1990 is 6.42 percent. The table indicates, for example, that

males in a primary industry in British Columbia have <u>higher</u> probabilities of escaping low-wage

employment for self-sufficiency, but the variations which Table 6 models represent the differences

between a low probability, and a very low probability of attaining earnings self-sufficiency.

Table 6 represents a fairly "primitive" form of multi-variate analysis. It is almost invariably

the case that the determinants of labour market outcomes for males differ from those for females,

but Table 6 presents a pooled regression (with only a dummy variable for gender) because of

concern about absolute sample size. Although this paper has stressed the self-selection involved

when (despite the disincentives of unemployment insurance and social assistance) individuals

accept low-wage employment, Table 6 contains no attempt to adjust econometrically for such

self-selection bias. Although it would be quite feasible technically to inject a much greater degree

of econometric sophistication, such an effort would be essentially misleading. The big story of

this paper is not the determinants of the probability of attaining income self-sufficiency or the

econometric sophistication with which one can approach the issue -- the major issue is <u>the</u>

absolutely low probability of moving from low-wage employment to income self-sufficiency.

Overwhelmingly, low-wage jobs are "dead end" jobs.

2.2.2 The Earnings Over Time of Low Wage Workers

Those who are able to move from low wage employment to earning self-sufficiency are clearly not "average" low wage workers -- they represent the upper tail of the distribution of future earnings of low wage workers. The average wage profile over time is pretty flat. Table 7 examines directly the wages, hours of work and total earnings in 1988, 1989 and 1990 of individuals who worked in January 1988 for $6.50 an hour or less. The first two columns of Table 7 report the average characteristics of all January 1988 low wage workers while columns 3 and 4 described the average characteristics of those low wage workers who worked continuously full-time (i.e. more than 1,440 hours in each of 1988, 1989 and 1990).

In the LMAS data, some individuals report extreme outcomes. Apparently, some people have the self-conception of being literally always on the job and, as a result, they report their annual hours of work as 8,760 (24 hours a day for 365 days of the year). One individual worked for low wages in January 1988 but did extremely well in 1990, earning $145,000. On the other hand, some respondents reported extremely low levels of earnings. Although there is no hard and fast rule in empirical economics concerning the treatment of data, outliers, one does not want empirical results to be driven by such unusual cases. Columns 5 and 6 of Table 7 therefore exclude those individuals who reported working more than 5,000 hours per year, earning over $70,000 or less than $4,000 in any of the three years.

However, whatever way one slices it, it is clear that there is a very slow progression, on average, in the real wages and earnings of female low wage workers. Since there is a somewhat greater tendency of wages, higher among male low wage workers, Table 8 examines the determinants of 1990 wages for the population of January 1988 low wage workers.

The premise underlying the self-sufficiency experiment is the importance of on the job training for low wage workers. In this experiment, individuals are financially encouraged to work full-time with the expectation that greater work experience would produce higher future wages. From this perspective, the key issue in Table 8 is the impact of total hours of work, in 1988 and 1989, on 1990 wages, holding constant the influence of other variables, such as age, education or region of residence.

If there were some on-the-job training going on for the low wage work force, one would expect that greater work experience in 1988 and 1989 would translate into higher hourly wages in 1990, and higher 1990 earnings.[24] However, the negative coefficient on the log of hours worked in 1988 and 1989 indicates that, if anything, those who work longer hours get lower hourly wages.

Since the sample is restricted to those earning less than $6.50 per hour in Jan. 1988 (and, in columns 3 to 6, to those working more than 1440 hours), one clearly would not want to use the results of Table 8 to predict the returns to greater work experience for the population as a whole. The coefficients of Table 8 represent only the partial influence of particular independent variables on the conditional expectation of 1990 hourly wages, for the low-wage population. That, however, is precisely the point. There is lots of evidence that greater work experience pays off, as a general rule, in the labour market as a whole - but in the low wage segment of the labour

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[24]We specify the regression in Table 8 to examine the determinants of the 1990 hourly wage, but whether one examines 1990 earnings or the change between 1988 and 1990 in the hourly wage, does not change the result -- total 1988 and 1989 hours worked is, in all specifications, not associated with higher wages or incomes in 1990, ceteris paribus.

market, Table 8 indicates that there is no positive payoff in higher hourly wages from working more hours.

TABLE 1				
EMPLOYMENT STATUS - JANUARY 1988 **PERSONS AGED 17 TO 64**				
EMPLOYMENT STATUS	ALL PERSONS	MALES	FEMALES	FEMALE SINGLE PARENTS	FEMALE SINGLE PARENTS W/HS OR LESS
Not In The Labour Force	25.83	15.87	35.64	40.96	45.91
Unemployed	4.90	5.71	4.09	6.30	7.63
Employed $6.50/hr or less	9.27	6.39	12.10	15.27	18.91
$6.50 - $10.00	13.96	11.70	16.18	12.56	11.69
$10.01 - $15.00	18.01	20.16	15.90	13.05	9.64
$15.01 - $20.00	10.98	15.47	6.57	5.21	1.74
$20.01 - +	7.20	11.16	3.31	2.20	0.72
Self-employed[25]	9.85	13.54	6.22	4.45	3.76
TOTAL	100%	100%	100%	100%	100%

SOURCE: 1988 L.M.A.S. Author's Calculations.

[25]INCLUDES:
        Unpaid Family Worker
        Incorporated Business - With Paid Help
        Incorporated Business - No Paid Help
        Not Incorporated Business - With Paid Help
        Not Incorporated Business - No Paid Help
        Self-Employed, Not Specified

TABLE 2

**HOURLY WAGES (INCLUDING TIPS) OF
JANUARY 1988 PAID WORKERS AGED 17-64 YEARS**

	Males and Females			All Canada		Single Parents	
	Canada	B.C.	N.B.	Males	Females	Males	Females
Employed $6.50/hr or less	15.60	12.96	23.46	9.85	22.39	30.81	31.62
$6.50 - $10.00	23.49	21.81	26.07	18.04	29.93	23.54	26.01
$10.01 - $15.00	30.31	29.53	28.11	31.07	29.41	23.85	27.03
$15.01 - $20.00	18.49	22.81	15.89	23.85	12.16	10.49	10.78
$20.01 - +	12.11	12.88	6.47	17.20	6.11	11.31	4.56
Total	100%	100%	100%	100%	100%	100%	100%

Source: 1988/90 LMAS Author's Calculations

Note: "Employment" refers to reported employment at any time during January 1988.

TABLE 3

1990 EARNINGS BY 1988 EMPLOYMENT STATUS
INDIVIDUALS AGED 17-64

1990 Earnings	All Persons			Employed Jan. 1988					
				Canada		B.C.		N.B.	
	Canada	B.C.	N.B.	Male	Female	Male	Female	Male	Female
zero	10.87	9.95	9.86	8.60	10.60	7.49	10.90	6.05	9.98
$1 - $4,999	8.40	7.99	11.44	4.48	8.79	3.91	8.67	5.46	9.18
$5,000 - $9,999	9.99	9.53	14.23	4.71	12.26	4.45	12.01	5.16	16.32
$10,000 - $14,999	10.41	8.82	13.11	5.91	13.54	4.51	12.81	8.66	16.70
$15,000 - $19,999	10.45	8.73	12.20	7.93	13.38	4.53	12.94	10.36	16.70
$20,000 - $24,999	10.76	10.70	11.02	9.68	13.63	9.26	13.81	15.63	10.52
$25,000 - $29,999	10.28	10.38	7.91	12.65	9.69	10.60	11.07	11.19	7.51
$30,000 +	28.84	33.89	20.54	46.03	18.11	55.25	17.79	37.49	13.08
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: 1988/90 LMAS Author's Calculations

TABLE 4					
1990 EARNINGS OF LOW-WAGE (≤ $6.50) WORKERS IN JANUARY 1988*					
1990 Earnings	All Canada	Female Single Parents	Female Single Parents H.S. or Less in 1988	N.B. All Males and Females	B.C. All Males and Females
zero	14.00	14.91	15.94	13.45	12.52
$1 - $4,999	18.91	16.18	13.61	19.51	13.46
$5,000 - $9,999	22.29	26.12	27.47	23.56	21.17
$10,000 - $14,999	22.45	23.00	24.18	25.34	22.20
$15,000 - $19,999	10.39	9.65	8.06	10.80	14.36
$20,000 - $24,999	5.52	4.58	4.42	3.40	6.41
$25,000 - $29,999	2.72	4.88	6.08	1.82	2.39
$30,000 +	3.70	0.67	0.24	2.11	7.48

Source: 1988/90 LMAS Author's Calculations

*   Low-wage worker if worked during January 1988 at hourly wage of $6.50 or less (including tips).

TABLE 5								
1990 EARNINGS OF LOW-WAGE (<$6.50) WORKERS IN JANUARY 1988* **BY EDUCATION IN 1990**								
1990 Earnings	0-8 Years	Some Secondary	High School Diploma	Some Post Secondary	Post Secondary Diploma or Certificate	University Degree	Trades Certificate or Diploma	
Zero	27.42	16.05	11.83	11.91	14.39	9.37	14.03	
$1 -- $ 4, 999	21.47	19.49	16.60	26.44	15.73	13.34	14.09	
$5,000 $ 9,999	16.53	21.10	24.13	26.85	18.63	19.63	19.87	
$10,000 -- $14,999	18.98	26.25	26.75	17.01	18.27	16.69	26.10	
$15,000 -- $19,999	8.37	9.26	10.71	10.21	11.37	12.17	11.50	
$20,000 -- $24,999	2.64	4.00	5.78	4.08	7.60	10.43	7.36	
$25,000 -- $29,999	1.18	1.81	1.82	1.52	5.83	7.10	4.25	
$30,000 -- +	3.41	2.05	2.38	1.98	8.19	11.26	2.80	
Total	100%	100%	100%	100%	100%	100%	100%	
% of Low Wage Workers	6.63	20.29	29.40	18.93	13.11	6.91	4.73	= 100%

3.   <u>Training, Incentives and the Demand and Supply for Social Policy Ideas</u>

Section 2 focussed on the "self-sufficiency" experiment because it is the most important

current example in Canada of a "supply-side" orientation to social policy reform. However, the

theme of this essay is that job availability -- the demand side of labour markets -- is important for

analysis of the impacts of social policy reforms, both in the "quantity" sense that individuals may

be constrained in the number of hours of work available to them at their current wage rate and in

the "quality" sense of the type of jobs, and wages profiles, which are actually available in the

labour market. The idea that employment availability is important seems common sense -- even

banal. One does not need a Ph.D. in Economics to recognize that policies which increase the

effective supply of labour will have little impact on employment if nobody wants to hire those who

are retrained and remotivated.[26]

How then can one explain the almost exclusive emphasis of social policy discussion in

Canada on the supply side of labour markets? Can one, perhaps, use the language of training and

incentives, and the analytical categories of supply and demand, to analyze the production of social

policy ideas, as well as to analyze the responsiveness of individuals to social policy reform?

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[26]As always, one possible response to a problem is to deny that it exists. One can, for example, simply deny that there is currently a problem with job availability in Canada (perhaps with reference to the "Help Wanted" section of any daily newspaper). Since there are always <u>some</u> vacancies in existence in <u>any</u> labour market (if only because some people are continually dying or retiring), the strategy of denial may have some appeal to those who lack a quantitative approach to social policy. However, although some vacancies always exist and some specialized labour markets are almost always experiencing shortages, the crucial quantitative issue is whether <u>enough</u> vacancies exist for the stock of unemployed job searchers and whether <u>most</u> labour markets are characterized by excess supply of qualified labour. The private demand for retraining and further education is now running at record levels in Canada but although it is evident that large numbers of people have been engaged in trying to upgrade their training and educational credentials, unemployment remains in the 11%+ range. As private sector response and public sector policy reforms on the supply side of labour markets continue, but the problem of unemployment remains, the strategy of denial of a demand side role diminishes in credibility.

If one examines social policy discussion in Canada from a "Training/Retraining" perspective, one can observe that many of the participants in the policy debate received their academic training in the 1970's or before. The late 1960's and early 1970's in Canada were a period of relatively low unemployment -- 3.6% nationally in 1966 and 5.6% in 1973. The supply and demand perspective of this paper is based on the view that when markets are in disequilibrium, as they often are in a world of unpredictable shifts in technologies and international market forces, "the short side of the market rules". In the low unemployment environment of the late 1960's, supply side constraints <u>were</u> the relevant problem. Theories which were relatively new at the time (i.e. search theory and the human capital approach) dominated the academic literature. At that time, it was much more reasonable than it is now to emphasize the supply side interpretation of these theories -- e.g. to emphasize the reservation wage, rather than the arrival rate of job offers, in analysis of job search.[27]

Although the formative academic training and initial life experience of many social policy decision makers took place in the relatively low unemployment environment of 20 or more years ago, unemployment has trended up since then in most of the country (with short-run localized exceptions, such as Southern Ontario in 1988/89). Furthermore, the research literature has developed considerably in the last 20 years, both in analytical technique and in substantive conclusions.

It is, however, probably more important to look at incentives and constraints than at training. The economic theory of bureaucracy emphasizes the incentives and constraints which bureaucrats face as a way of understanding the outputs of bureaucracies. If individuals derive

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[27]The literature since then has in fact indicated that it is the arrival rate of job offers (i.e. the demand side of labour markets) which is more important empirically. See Devine and Kiefer (1991: 304).

utility and income from maximizing the size of the program which they administer, but are constrained in the type of program that they can "sell", the economic theory of bureaucracy would predict that they will supply a stream of ideas for ever larger programs of the "acceptable" variety.

For most of the 1980's, monetary policy has been oriented to the objective of fighting inflation while fiscal policy has been driven by the objective of deficit reduction. High level political decisions have therefore foreclosed the option of stimulative macroeconomic policy, while the general thrust of the political philosophy of the federal government has been to minimize the size and role of government operations. Hence, labour demand policies - both stimulative macroeconomic policies to increase aggregate demand for labour or micro policies of direct job creation - have largely been politically "unacceptable". However, the public does care about unemployment and the problem has not been going away. Government must be seen to be "doing something" about unemployment, even if prior political decisions on monetary and fiscal policy imply that it does nothing from the aggregate demand side of labour markets.

Within government, there is therefore an enormous demand for social policy ideas which stress the supply side of labour markets -- and there are substantial rewards to satisfying the political market. To take only two examples, although the research grants budget of SSHRC for all types of economic research, at all Canadian universities, is approximately $1 million per year (an amount which is measured out in meagre amounts, after a rigorous peer review process, to approximately 7% of academic economists), the "self-sufficiency" project was able to attract a research budget of over $50 million, and a wide network of consultants, to evaluate a single "supply-side" policy idea. On a grander scale, the Department of Human Resources and Labour, which is envisaged under the plans for reorganization of the federal civil service, appears to have a mandate for fundamental reform of Canada's social transfers and training programs along the lines

of "improving incentives and encouraging retraining". Those who engage in this task will administer a budget of over $69 billion, almost half of federal government expenditures. There are clear rewards to supplying social policy ideas which emphasize the supply side of labour markets.

Section 1 of this essay repeated Phipps' (1993) summary of recent evidence on the responsiveness of the desired labour hours of individuals to higher wages and the importance of quantity constraints to actual hours of work. Greater financial incentives to labour supply imply fairly small changes in desired hours of work, and actual hours of work change by even less, since some individuals already cannot get all the hours of paid work which they desire. Section 2 presented some preliminary data on the returns to acceptance of low-wage employment, which indicate that the idea that social assistance creates disincentives to the acceptance of low-wage jobs which would eventually lead to something better is misleading. It is not very realistic to expect that switching Canada's social welfare system from transfer payments to wages subsidies will generate either much individual self-sufficiency or substantial financial savings to government.

None of this should be construed as saying that incentives "do not matter". Economists have long argued that utility maximizing individuals will respond to incentives - but the maximization of utility is always subject to constraints and whether it is demand side constraints or supply side incentives which are more important at a given time in the labour market is an empirical issue. It appears that in the labour markets of the late 1980's (and even more in the labour markets of the early 1990's) demand side constraints were in practice more important in low-wage labour markets than variations in supply-side incentives. However, in the market for

social policy, the incentives and the constraints which really matter are those which are faced by
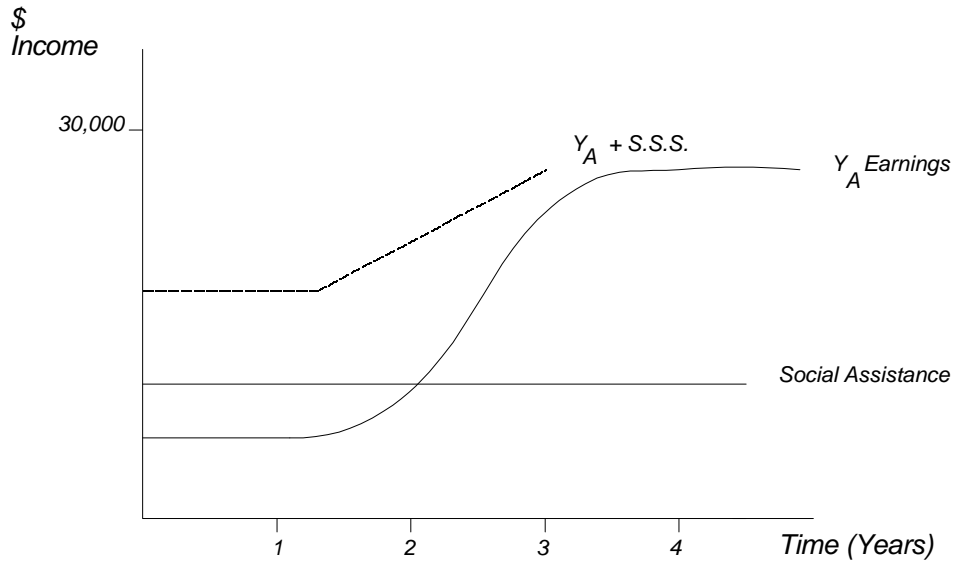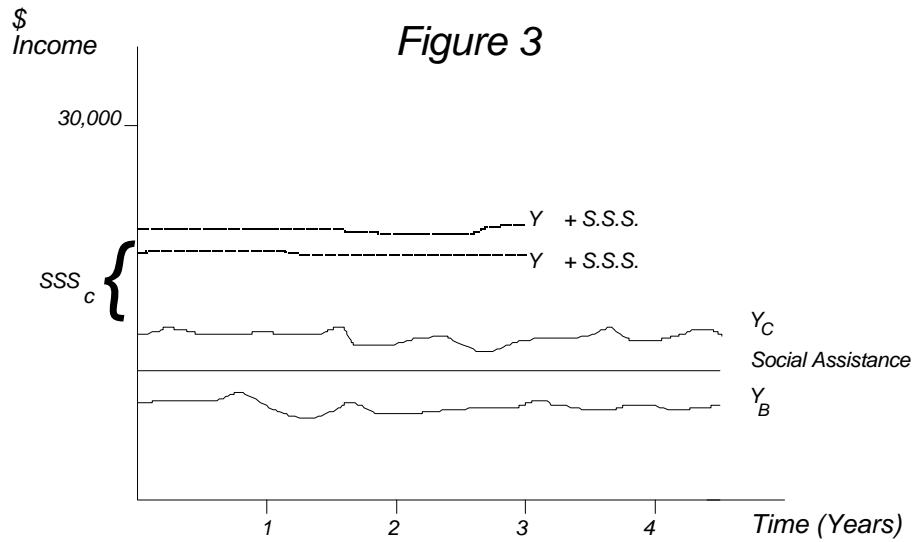
social policy <u>designers</u>.

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Figure 2

$Income

30,000

Y_A + S.S.S.

Y_A Earnings

Social Assistance

1   2   3   4   Time (Years)

Figure 3

$Income

30,000

Y + S.S.S.

Y + S.S.S.

SSS_C

Y_C

Social Assistance

Y_B

1   2   3   4   Time (Years)

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