

**“Should incentives to induce individuals to return to work be means tested?”**

**“Should the incentives be time limited?”**

**Executive Summary:** Some return-to-work incentives rely on time-limiting and/or means-testing for their efficacy. Means-testing is the key feature in the geometric design of tax credit programs. Most benefits-programs are means-tested as well, from cash assistance to childcare subsidies, by virtue of government budget constraints. Time limits are irreplaceable in inducing job acquisition during a relatively “pleasant” period, before more heavy-handed measures make the unemployment period less pleasant.

Nonetheless, it is unlikely that these incentives themselves cause long-term upskilling or employment consistency, and many forms of means-testing create adverse effects, in theory if not in practice. For some programs, neither means-testing nor time limits can definitively help them pass the cost-benefit analysis. In essence, some incentives should be means-tested in a particular fashion, and some incentives should be time-limited. They will be discussed below.

### **Motivation and Background:**

Blundell (2016) identifies two categories of “welfare-to-work” schemes, especially in the United Kingdom: one for low-income/low-educated families with young children and another for low-skilled workers with long or repeated unemployment spells. The idea is that the adults in the first case are unemployed for different reasons from the second, and different incentives could alleviate the situation.

For the first group, Blundell asserts that the generosity of out-of-work benefits combined with the importance of childcare encouraged unemployment for parents, motivating reform. For the second group (low-skilled workers), Blundell asserts that low initial wages were the key reason for reform.

Addressing the first group (families) is primarily done through **tax credit programs**, which are typically subject to family income means-testing, but without a time limit. They increase the effective income of a household, depending on hours worked, wages earned, and/or number of dependents.

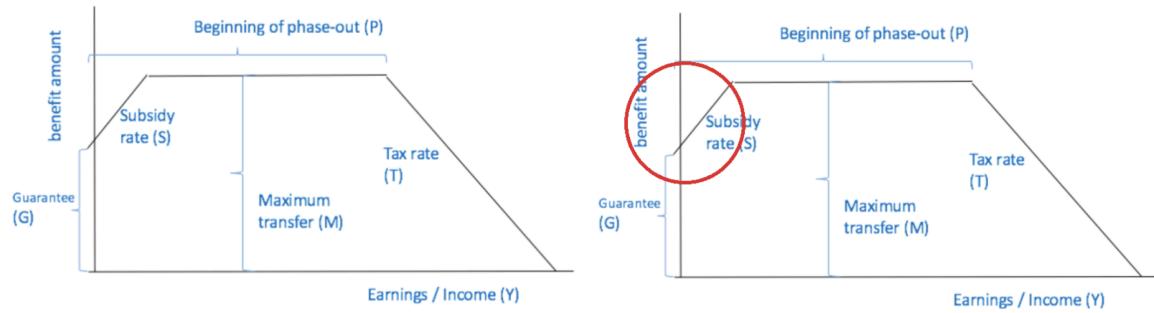
Addressing the second group (low-skilled workers) is oftentimes done through **active labor market programs**, which often provide services to assist in the job search, like application help and upskilling through technical training and/or education. There can also be directly government-subsidized employment options. Programs often fall in between the two program types. We can evaluate each pure program and sometimes the components of mixed programs to answer our two central questions regarding means-testing and time-limits.

Good

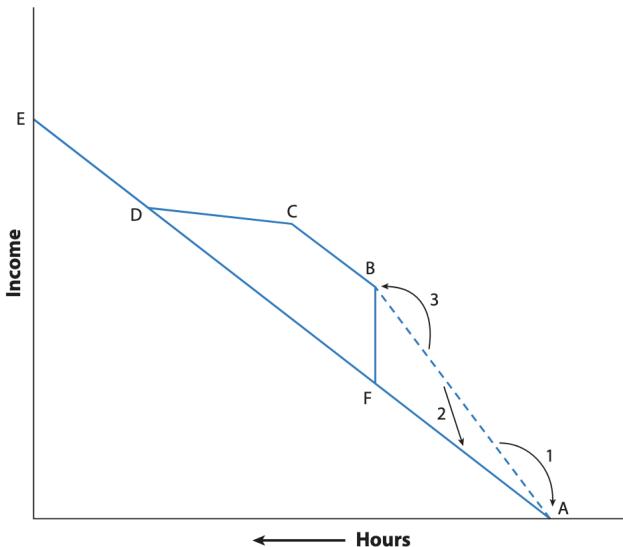
### **Basic Setup:**

**Tax credit programs** are easiest to introduce, as they generally follow the same structure and setup. People below a certain earnings threshold qualify for some tax credit. There may be a guaranteed benefit amount. Programs also have subsidy rates, where absolute benefit amounts increase, then a phase-out range where benefits remain constant despite increased work income, and finally a tax rate, where benefits are gradually decreased.

Prominent examples include the Earned Income Tax Credit (EITC) in America and the Working Families Tax Credit (WFTC) in the United Kingdom.



Earnings subsidies/tax credit programs sometimes have minimum work requirements. This removes the subsidy rate portion of the curve, demonstrated above. Thus, a minimum hours requirement does not always increase labor supply because some individuals in the otherwise-phase-in region quit working or reduce hours worked ( $H$ ) even though some individuals are induced to increase  $H$  to the minimum requirement (Chan and Moffitt, 2018).



In addition, Chan and Moffitt (2018) graphically demonstrate how work requirements may reduce the incentive to build human capital. After the work requirement, those who reluctantly comply immediately find themselves between BC. Because the subsidy *amount* is fixed (see how the net income is parallel to the zero benefit line), the subsidy *rate* is a decreasing function of the wage rate. In contrast, had there been a phase-in region, the dotted line, the subsidy rate would be fixed as  $W$  increased. In theory, this would induce some amount of human capital development in hopes of a higher combined income.

Thus, both the work requirement and the phase-out region are essentially means-tested. With the former, higher-wage individuals are unable to enjoy the benefits of the wage subsidy/tax credit, as even working the minimum hours with their higher wage already puts them in the phase-out/zero subsidy region, either in percent or absolute terms. And the phase-out region is by definition means-tested. To conclude, receiving higher wages could decrease subsidy amounts to such an extent that the laborer simply values the existing

old-income+leisure bundle more, especially when they cannot reduce their hours worked below the minimum threshold.

Thus, there exist some theoretical arguments *against* means-testing of wage subsidy/tax credits if unambiguously boosting labor supply and human capital is the goal. This conflicts with the simple, intuitive idea that citizens and politicians may harbor regarding labor policy, where people must be compelled to work.

Now, I present the theoretical background for **time-limited incentives**, from Chan and Moffitt (2018). An individual's decision problem in period t is:

$$V_t(S_t; \theta, \epsilon_{\theta t}, \epsilon_{wt}) = \max_{H_t Y_t} [U(H_t, Y_t; \theta, \epsilon_{\theta t}) + \beta E_t V_{t+1}(S_{t+1}; \theta)],$$

where his utility at a given time period  $S_t$  depends on a time-invariant preference parameter  $\theta$ , preference and wage shocks  $\epsilon_{\theta t}$  and  $\epsilon_{wt}$  respectively.  $H_t$  represents hours worked and  $Y_t$  represents take-home income.  $\beta$  represents discounting, where  $\beta=0$  represents the myopic individual.  $\beta>0$  represents forward-looking individuals, who may demonstrate behavioral changes following time limit impositions. This is what the literature often studies.

**Active labor market** programs have the potential to vary widely. No single graphical model can generally represent the wide variety of options: they can be opt-in or compulsory, the interventions can be gentle or punitive—"carrots or sticks" may be used. Unemployment Insurance benefits can be withheld with failure to comply with the general program or portions of it, as seen in the New Deal (UK).

Finally, **mixed strategies** are not necessarily heavy-handed active intervention, with educational/vocational training and mentorship, yet they are not in the form of means-tested tax credits. An example is the Canadian SSP, a limited-time wage subsidy contingent upon independent job attainment in a timeframe.

### New Deal (UK):

Launched in 1998, every 18-24 year old with six months unemployment was compelled to participate. For 4 months, participants had to search for jobs intensively (monitored and advised by a mentor), and also took basic skills courses, with the idea of placing them into standard, unsubsidized employment. Those that failed after the 4 months were compelled to seek subsidized employment or mandatory education, among other options. Blundell et al. (2004) studied the effects. They focus on "the degree to which enhanced mandatory job assistance has led to more outflows to (unsubsidized) employment." Their central result was "an economically and statistically significant effect of the program on outflows to employment among men," increasing the probability of young men finding a job by 5pp. 1pp was due to job search assistance, with the biggest treatment impacts in the first quarter of introduction.

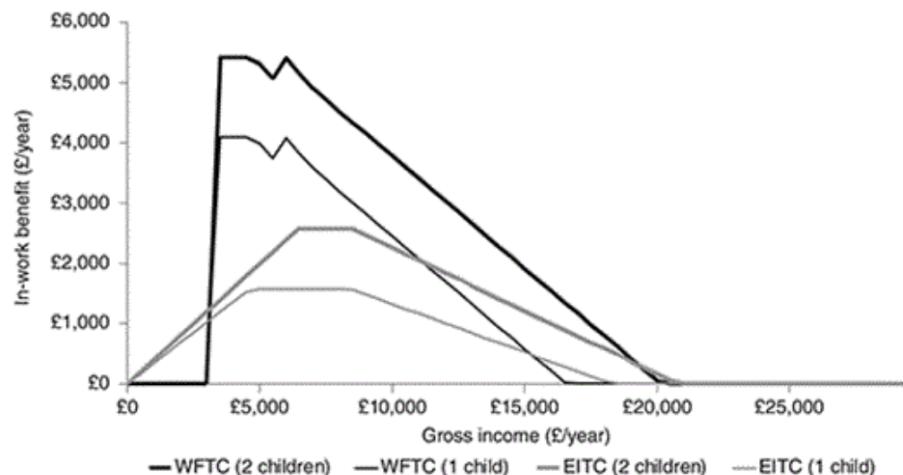
Indeed, Blundell argues that part of the success of this program hinges on the job search assistance program being time-limited, though it is difficult to disentangle its effects from the threat of welfare sanctions and direct effect of the support system.

Very good

### Working Families Tax Credit (WFTC):

This began as the Family Credit in the late-1980s, designed to support low-wage families (Blundell, 2016). Eligibility depended on the number of children, family net income being lower than some threshold (means-tested), and a minimum number of working hours. The WFTC

reform raised the income threshold and lowered the benefit-reduction rate (as income increased), along with other changes. First, the researchers used an ex-ante simulation model, with the following estimates. Single parents were induced to work by a small, positive degree due to the threshold increase and benefit-taper decrease post-reform. Yet in the case of couples, the secondary earner, especially women, had lower participation in the labor market due to the income effects from her working spouse, where the increased income from WFTC would be lost if the woman's income pushed the household income further down the tapering-off region of the benefits curve.



**Figure 11.11.** EITC Schedule and WFTC Weekly Award, 2000

Group	Increase in Employment	% point change
Single Parents	34,000	2.20
Women in couples (Partner not working)	11,000	1.32
Women in couples (Partner working)	-20,000	-0.57
Married men, partner not working	13,000	0.37
Married men, partner working	-10,500	0.30
Total Effect	27,500	
Decrease in Workerless Families	57,000	

There are other studies of the WFTC as well. Bingley & Walker (1997) estimated “a 25% increase in the maximum in-work benefit will increase employment by 2.5 percentage points.” Francesconi et al. (2009) found an insignificant employment effect for married mothers with a working partner and a positive effect among those with nonworking partners. These echo Blundell’s findings. Heterogeneous results are also interesting—substantially disparate impacts for university and secondary school graduates. WFTC reforms increased single mothers’ employment rates by 8.5pp for university graduates and 20.4pp for secondary school graduates.

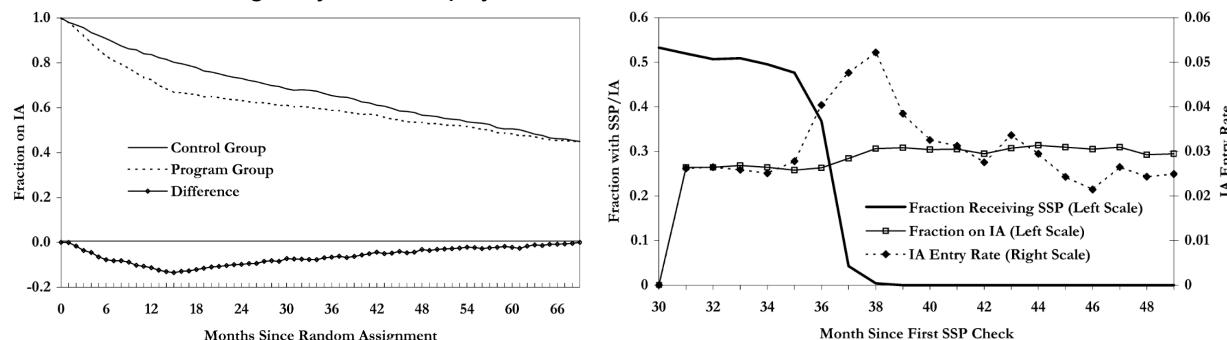
For married mothers, employment *fell* by 1pp and 6.6pp, respectively. Altogether, there are no long-term effects on employment and wage rates when children become adults (Blundell, 2016). Thus, this raises further questions about the efficacy of the “return-to-work” scheme, because it forces perhaps “dead-end” part-time employment for the duration of raising children, and then afterwards, the effects are an effective wash.

**Subconclusion:** Blundell (2016) asserts that a specific distributional objective, namely reducing child poverty, was the impetus behind the lack of time limits with the WFTC. From my understanding, the New Deal was a purer form of return-to-work, insofar as that was the *central* objective. WFTC, indeed, induced single parents to work, particularly at the minimum 16-hour work week level, yet the paramount objective of alleviating child poverty necessitated a lack of time limits. Thus, no blanket, unambiguous description can be made thus far *requiring* incentives be means-tested and/or time-limited. It varies with context.

### Canadian Self Sufficiency Project (SSP):

The impetus of this project was to “test whether a time-limited earnings subsidy could get long-term welfare recipients permanently off welfare” (Lecture 15). Those eligible were single parents in Canada receiving Income Assistance who had received welfare in at least eleven of the past twelve months (means-tested). The central point of design was a work income subsidy up to three years in length, available if candidates began work within 12 months of being informed of eligibility; otherwise they would never be eligible again (Card and Hyslop, 2005). The subsidy was essentially a negative income tax with a 50% rate, a guarantee level above average welfare benefits, and a minimum hours requirement of 30 hours per week. It was explicitly designed to create stronger work incentives compared to standard Income Assistance.

The central estimate is the difference in monthly Income Assistance participation rates over time between the control group and the treated group—non-candidates vs candidates of SSP. Summary statistics include a low rate of high school graduation (45% vs 70% average in population) yet a high average work experience (7.3 years). 1/3rd of the treatment group were able to establish eligibility for SSP payments.



Some key results: the impact of SSP peaked at -14pp in month 15 (the treated group had a 14pp lower rate of being on Income Assistance in month 15), yet the gap steadily converged over time. By the end of SSP payments in month 52, the gap was only 2.5%, and by month 69, it converged to zero. The right-hand graph highlights the immediate return to Income Assistance from many (presumably) former SSP-payment recipients.

7.3 years of experience is large compared to the 1/3 of a year of work experience gained on average because of the experiment.

Interestingly the treatment effect estimate s don't correlate with the profiling scores

### **Worker Profiling and Reemployment Services (WPRS):**

This program is means-tested: specific Unemployment Insurance (UI) claimants with lengthy predicted spells of unemployment were required to receive employment and training services early in their unemployment stint as a condition of receiving benefits (Black, et al., 2002). The study utilizes randomization at the margin of candidate selection: if there are 11 candidates with a predicted profile of 10/20 (with higher numbers predicting longer unemployment spells), and only 7 spots in the WPRS program, randomization occurs, creating a treatment and control group.

The researchers estimate that the program reduces mean weeks of UI benefit receipt by 2.2 weeks, reduces mean UI benefits received by \$143, and increases subsequent earnings by about \$1,000, asserting that the program easily passes cost-benefit analysis (Black, et al., 2002). The treatment group had significantly higher earnings in the first two quarters after filing their UI benefits, but no difference between quarters three and six. The earnings gain come from earlier returns-to-work, and *not* due to the upskilling components of the program. The earlier exit from UI in the control group arises immediately when UI recipients receive notice of this mandatory program, rather than through the course of this program's services. To summarize, the intervention need not truly upskill the worker; rather, making unemployment less pleasant can induce employment.

This program buttresses the findings from the New Deal (UK) and the SSP. Mandatory means-tested programs of active/mixed intervention consistently have the most promising results.

### **Time Limits Empirical Literature:**

The Temporary Assistance for Needy Families (TANF) is a time-limited form of assistance, which “restricted female-headed families to a maximum of 5 years of federally funded cash benefits.” (Chan and Moffitt, 2018). The literature generally finds that time limits reduce welfare use and increase labor supply by a small degree: Grogger (2003) found that time limits increased employment by 0.9pp, and Fang & Keane (2004) found that time limits did so between 0.3 and 1.1pp. Swann (2005) *forecasted* a 2.3pp employment rate increase among all women due to TANF’s time-limit, and Chan (2013) *found* a 2.2pp employment rate increase among single mothers, and a 1.1% average hours worked increase. Though TANF is not explicitly a “return-to-work” scheme in the way the New Deal (UK) or SSP (Canada) is, it does so indirectly. Nonetheless, the results are nominally promising, with increases in the employment rate of women.

### **Childcare Subsidies:**

In theory, childcare subsidies should induce parents to return-to-work. There is some empirical backing: Blau (2003) finds a higher childcare price reduces labor supply among both single and married mothers. The Child and Dependent Care Tax Credit in the United States can be useful to note. Being means-tested, the program covered up to 30% of childcare expenditure for low-income families (Chan and Moffitt, 2018). Michalopoulos et al. (1992) and Ribar (1995) find very small labor supply effects, while Averett et al. (1997) find a larger effect due to methodological differences.

Fang & Keane (2004) used cross-state variation in Childcare and Development Fund (CCDF), as the program provided improved funding and allowed states a greater degree of flexibility in designing their version, with less stringent means-testing (not requiring TANF receipt). The authors found that the CCDF increased the employment of single mothers by 0.1-1.3 pp between 1997 and 2002. Blau & Tekin (2007) found that the reform increased employment by 13 pp, and Griffen (2018) found that maternal employment increased by 6.38pp. Thus, I am skeptical that child subsidies are an effective method to induce work. Nonetheless, they are both functionally time-limited (to children's young age) and means-tested (with the threshold changing with various reforms like the CCDF).

**Conclusion:** Some active interventions, like the New Deal (UK) and the WPRS, were both successful and relied on means-testing and time-limits—a “pleasant” and “unpleasant” period. The means-tested, time-limited programs of SSP and American child subsidies have little definitive evidence of inducing long-term work. The means-tested WFTC had no long-term labor effects either. The means-tested, time-limited TANF induced return-to-work for women. So some programs succeed *because* of means-testing and/or time-limits, and others fail despite means-testing and/or time limits. No unambiguous prescription can be made.

This is a very comprehensive  
and well-argued essay. Well  
done!