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Efficiency of Employment Subsidies
and
Firms' Recruitment Strategies

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Notation

Latin alphabet

A	area representing unemployed who meet the screening device standard but not the productivity standard
a	ability
a_{ave}	average ability of subsidy entitled unemployed
a_{max}	maximum ability
a_{min}	minimum ability
B	area representing unemployed who meet the productivity standard but not the screening device standard
b	cost of carrying out an assessment
C	area representing unemployed who meet both the productivity and the screening device standard
c	periodical cost of foregone productivity
D	area representing unemployed who neither meet the productivity standard nor the screening device standard
d	cost to upgrade the productivity level of the most able applicant with a single productivity unit
E	employment
e	cost of activating the cheapest recruitment channel
HC	hiring costs
i	firm
j	job seeker
f	labour supply
f^d	labour demand
q	arrival rate of job seekers
p	productivity
p^*	minimum productivity to be productive on the job
p^s	minimum productivity level to be entitled to a training subsidy
PP	participation profit
p^j	minimum productivity to be considered for a job
p^{s*}	maximum productivity to be entitled to a training subsidy
p_{max}	maximum available productivity within an unemployment cohort
p_{min}	minimum available productivity within an unemployment cohort
r	recruitment channel
RC	recruitment costs
T	total size of the unemployment pool
TC	schooling costs
t	unemployment duration
t_{min}	first cohort of unemployed which contains unemployed whose productivity has depreciated below the productivity standard
t_{max}	first cohort of unemployed which no longer contains unemployed who meet the productivity standard
f^s	screening device standard set by the firm
f^{s*}	first unemployment cohort to be subsidy entitled
f^l	last unemployment cohort to be subsidy entitled
u	unemployment rate
U	unemployment outcome

Notation

v vacancy rate
 w wage

Greek alphabet

α probability to accidentally cause deadweight loss when pursuing the optimal hiring strategy
 χ average number of assessments needed to find an applicant who meets the productivity standard
 δ productivity discount factor
 ε wage / training subsidy
 ϕ mark-up on costs d , for training individuals having ability levels below the maximum ability level
 η productivity discrepancy between the productivity standard and the job seeker's productivity
 η^* units of schooling costs needed to upgrade productivity to the productivity standard
 φ average number of applicants needed before a second arrives who meets the productivity standard
 φ^* number of periods needed to fill the vacancy
 κ distribution function of productivity over a cohort of unemployed
 λ job separation rate
 μ mean
 θ labour market tightness
 ρ productivity depreciation rate
 σ standard deviation
 Ψ average number of periods between two applicants
 ξ mark-up on the costs of the cheapest recruitment channel of using a different recruitment channel

Preface

When Joan Muysken contacted me to consider writing a Ph.D. back in autumn 1999, I was surprised. Not so much at the fact that he asked me, but more since it was only 30 minutes after I had told Tom van Veen that I was pondering my future. Should I interpret that as a warm welcome or is it a bad omen if people want you desperately? Anyway, I've never regretted the decision to actually start writing the Ph.D.

I used the degrees of freedom Joan provided concerning the subject choice – anything, as long as it involved the labour market – to resume my interest in active labour market policy. A subject I dug into when writing my master thesis a few years earlier. It is a fascinating subject, since it is hard to grasp why governments spent – and continue to spend – so much money on active labour market policy, while its effectiveness is consistently proved to be low.

In spring 2000 we had produced a research proposal which met with approval of METEOR, the Maastricht graduate research school. The subsequent grant enabled me to start my Ph.D. in September 2000. In the following four years I met some colleagues who made my stay at building excavation TSS3 an interesting one and therefore deserve credit.

Special thanks go to Joan Muysken for putting trust in me and guiding me through the process. Though the number of official meetings we had must have been historically low, he never disappointed me when I used one of his favourite sayings to backfire on him: 'frapper toujours'.

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Next, I thank my room-mates. Arnald Kanning introduced me into his peculiar view on life in general and university in particular. Unfortunately, a lack of cubic content and later an asbestos pollution ended this partnership and my residence at the fourth floor. Subsequently, I moved to the first floor, where I built up a new partnership with Mark Sanders, whose general knowledge / interest is second to none. Students who committed plagiarism still regret the university's decision to mix us up in one room. After Mark's departure and the explosion of the General Economics department -- though I am sure this time it is not building workers who were responsible for the damage -- Geranda Notten accompanied me in the final stages of my Ph.D. Her determination in mastering STATA commands struck the eye and was a shining example to me to finish the tail end of my thesis. Finally, bearing in mind that I commuted 30 minutes daily by train, I roughly spent 20 days in railway carriages. Silvana de Sanctis, Ronald Peeters and Kirsten Rohde made it pleasant trips.

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Preface

Welters – Joris and Hub Welters, my brother Lando Welters and LB. Perhaps I have never been very explicit on what I exactly did the last few years, but please take comfort from the fact that it was not unwillingness but sheer incapability from my part.

RW, Maastricht, April 2005