

# Using a cost:benefit framework for supported employment policy and practice

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# Why use cost:benefit analysis?

- Understanding worker benefits of employment:
  - Helps to raise awareness and change minds
  - Helps to build confidence among people and supporters
- Helps to identify intended (and unintended) cost consequences of different programmes
- Policy makers often require a cost analysis of investment in alternative programmes to decide on best option
- Different perspectives possible and can underpin investment by different organisations:
  - Taxpayer/government
  - Local/regional authorities
  - Service providers/NGOs
  - Employers
- *Even with good costs, without belief, it still won't happen!*

# Different forms of financial analysis

- CBA or Social Cost:Benefit Analysis
  - Quantifying in monetary terms all the costs and benefits of a programme or policy including outcomes
- Financial cost:benefit
  - Quantifying the monetary cost and benefits of a programme where social outcomes are unknown
- Cost:Effectiveness
  - Includes the costs of known impacts where they cannot be monetized- .....cost per unit of outcome...
- The programme with the best net benefit will not always be chosen
- *Who wins and loses is still a political decision*

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# First select “perspectives”

- Worker
- Taxpayer/Government
- Specific government departments/funding
- Local authorities
- Employers
- Society
- Net income
- Net expenditure
- Net expenditure from their budget
- “
- Net profit or net cost of workers
- The sum of all costs and benefits from other perspectives, excluding transfers between them

# Basic Model

	•World with Service		•World without Service	
	•Cost	•Flow-back	•Cost	•Flow-back
•The Service (or business)	• Costs	• Sales • Indirect tax • Grants	• None	• None
•Alternative Service	•None	•None	• Costs	• Sales • Indirect tax • Grants
•Disabled workers	• Wages • In work Benefits	• Tax on pay • Indirect tax	• Out of work Benefits	• Indirect tax
•Displaced non-disabled workers	• Out of work Benefits	• Indirect tax	• None	• Tax on pay • Indirect tax

# Extended Model

	•World with Service		•World without Service	
	•Cost	•Flow-back	•Cost	•Flow-back
•The Service (or business)	<ul style="list-style-type: none"> <li>• Costs</li> <li>• <i>Wider support costs</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sales</li> <li>• Indirect tax</li> <li>• Grants</li> <li>• <i>Well-being outcomes?</i></li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>
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# North Lanarkshire 2007

- The service was working with 210 people, of which 119 people were being supported in jobs through the work of NLSE, of whom 93 were people with learning disabilities, 21 people with mental health problems and 2 people with brain injury.
- People with learning disabilities were people “*who either came from day centres or had an eligibility to attend the same.*”
- A full data set was available for 104 people, 88 of which were people with learning disabilities.
- The services budget was £869,338.

# The North Lanarkshire Example

## Taxpayer Perspective

	<i>Situation with NLSE</i>		<i>Situation without NLSE</i>	
	<b>Costs (A) per person</b>	<b>Flowbacks (B) per person</b>	<b>Costs (C) per person</b>	<b>Flowbacks (D) per person</b>
LA-funding	1. NLSE&- £7,216 2. £?+	5. £0	9. Cost of Locality Day Service- £14,998+	12. £0
Disabled workers in NLSE	3. In-work benefits £3,130/ Tax Credits- £3,217	6. Tax NI- £567+ 7. Indirect tax on income-£2,333	10. Welfare Benefits paid When unemployed= £7,155	13. Indirect tax on income- £1,252
Non-disabled workers displaced by NLSE	4. Out of work welfare benefits- £3,648	8. Indirect tax on income- £638	11. In-work tax credits when people employed- £1,076	14. Tax NI- £373+ 15. Indirect tax on income- £1,038
<b>Total</b>	<b>£17,211</b>	<b>£3,538</b>	<b>£23,229</b>	<b>£2,663</b>
Net cost*+ to government	-£6,894			
Ratio of flowbacks to costs with NLSE+	0.21			

# The North Lanarkshire Example

## Programme costs

	<i>Situation with NLSE</i>		<i>Situation without NLSE</i>	
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Ratio of flowbacks to costs with NLSE+ (Net)	0.21 (1.5)			



# Cost of alternative services

- Alternative service is where user goes if programme does not exist
- Use as a cost heading particularly if looking at one programme and not comparing several programmes

# Consistency in measuring costs

- Same cost basis for comparing

Budget Heading
Salaries (include manager, secretarial admin & front line staff)
Vehicle costs
Transport (Service users)
Premises rental
Utilities costs (gas water etc)
Travel & expenses (staff)
Administration
Equipment
Training
Management Charges (to host organisation)
Material/consumable costs
Sale of goods/profit on sales
Other costs (state):
Total Costs



# User wages

- User wages can appear either as a cost or a flowback
- User wages can be included within the cost of the programme for programmes which employ the people, e.g. social firms
- If paid by an ordinary community employer, user wages are not a cost to the programme, but appear in the disabled person's perspective as a flowback (see later example)



# Inflation in longer term studies

- We need to cost to one year of pricing
- Use inflation to bring prices up to date
- Use deflation to reduce future prices
- Governments produce Price Indices and special sector indices

# The North Lanarkshire Example

## Wider support costs

	<i>Situation with NLSE</i>		<i>Situation without NLSE</i>	
	<b>Costs (A) per person</b>	<b>Flowbacks (B) per person</b>	<b>Costs (C) per person</b>	<b>Flowbacks (D) per person</b>
LA-funding	1. NLSE- £7,216 2. Access to Work- £?+	5. £0	9. Cost of Locality Day Service- £14,998+	12. £0
Disabled workers in NLSE	3. In-work benefits £3,130/ Tax Credits- £3,217	6. Tax NI- £567+ 7. Indirect tax on income-£2,333	10. Welfare Benefits paid When unemployed= £7,155	13. Indirect tax on income- £1,252
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# Wider support costs

- Depends on perspective- in North Lanarkshire the Perspective is Taxpayer and so Access to Work programme payments are an additional cost
- Here cost was unknown separately but included in total SEA budget
- Some wider support costs need a separate exercise (and an economist!) to calculate:
  - Use of social work services
  - Use of health services, psychology, psychiatry etc.

# The North Lanarkshire Example

## Welfare Benefits

	<i>Situation with NLSE</i>		<i>Situation without NLSE</i>	
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# Benefit changes

- Overall, Welfare Benefits represented:
  - 98.7 % of income before employment for people with learning disabilities
  - 49.7% when in employment
  - Reduction in Welfare Benefits from:
    - a mean of £139.51 per person before employment
    - to a mean of £122.65 per person after employment, a fall of 12.1%
    - This represents a total saving to the taxpayer of per year £77,168 for people with learning disabilities

# The North Lanarkshire Example

## Income tax

	<i>Situation with NLSE</i>		<i>Situation without NLSE</i>	
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# Tax flowbacks to taxpayer from programme users

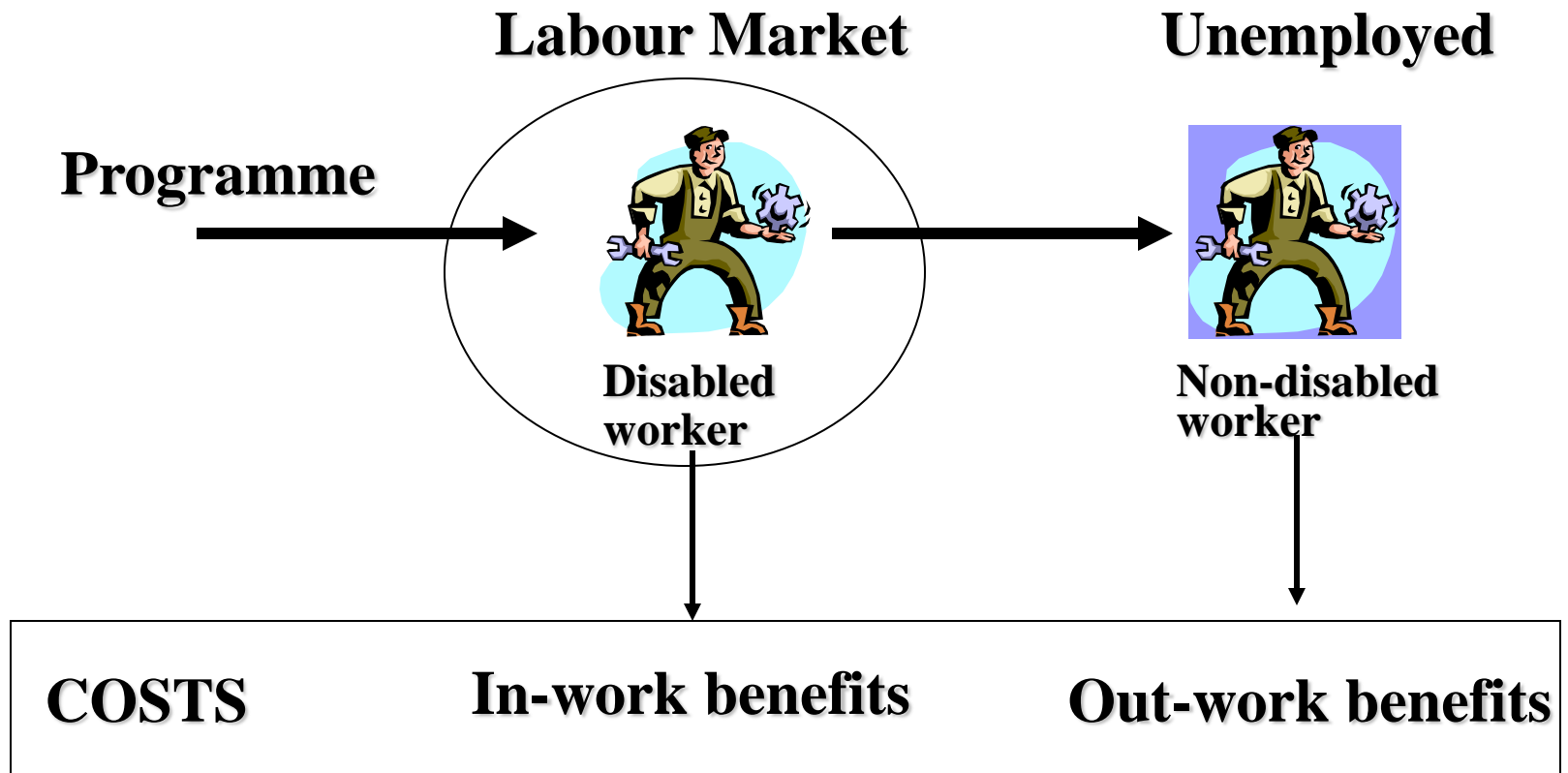
- Usually more tax paid when in work than when on benefit
  - Use database or surveys of users or programmes to determine tax paid
  - Ethical concerns often raised, and so estimation is sometimes needed
  - “Model Tax Tables” can be used in UK to estimate tax paid based on gross earned income
- Important to reflect adequately the tax and welfare benefit regulations locally
  - Must know how combined earned and welfare benefit income is treated for tax purposes, particularly if tax credits are being used instead of welfare benefits
- Assume all earnings (less tax) spent on goods eligible for indirect tax (VAT), this flowing back to taxpayer

# The North Lanarkshire Example

## Displacement of non-disabled workers

	<i>Situation with NLSE</i>		<i>Situation without NLSE</i>	
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# Displacement Costs with programme



# Displacement formula

$$N_A = n_A (h + d - 1) + d \frac{n_D}{\overline{P_A}} P_D$$

Where :

$N_A$ - Number of displaced non-disabled workers

$n_A$ - Number of non-disabled workers with productive roles in the programme.

$n_D$  - Number of disabled workers in the programme

$\overline{P_A}$ - Productivity (or output) of non-disabled workers in the programme or ordinary community jobs

$P_D$ - Productivity of disabled workers in the programme

$d$  - Proportion of open output displaced by the programme

$h$ - Proportion of "hard to fill" vacancies filled.



# Displacement

- **Don't use it unless your government Treasury officials look for it in comparative programme cost:benefits calculations**

# The North Lanarkshire Example

## Net costs

	<i>Situation with NLSE</i>		<i>Situation without NLSE</i>	
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# Costs to LA in North Lanarkshire

- Using the average number of people in jobs 122 (ranging from 109 Jan. to 129 Dec. 2007) the cost per employed person of SE was £7,216 per job.
- Equivalent Locality Support Service, which catered for 295 people on a full- and part-time basis was an annual cost of £14,998
- A SE job represents 47.5% of the cost of a LSS place
- A financial cost:benefit analysis, taking into account reduction in Welfare Benefit estimated that the cost to government for NLSE to be -£6,894 (a saving).
- Ratio of flowbacks to costs in World with NLSE was 0.21 or a saving of 21p per £1 spent to the taxpayer

# The North Lanarkshire Example

## Worker Perspective (all disabilities)

	<i>Situation with NLSE</i>		<i>Situation without NLSE</i>	
	<b>Costs (A) per person</b>	<b>Flowbacks (B) per person</b>	<b>Costs (C) per person</b>	<b>Flowbacks (D) per person</b>
Disabled workers in NLSE	Tax NI- £567+	Wages- £6739 In-work benefits - £3,130 Tax Credits- £3,217		Welfare Benefits paid When unemployed= £7,155
Total	£567	£13,086	£0	£7,155
Net cost/Benefit to person	- £5,364 (Saving)			
Ratio of flowbacks to costs for worker with NLSE+	1.75			

# For people with learning disabilities in North Lanarkshire

- People in jobs worked 22.1 hours per week with 94% working for 16 hours or more
- **People with learning disabilities** were on average 95% financially better off after employment
- There was a shift from Income Support before, to Working Tax Credit in, employment
- Average gross earned wage in employment was £129.60 per week
- Average gross total income in employment was £252.25 per week
- Wages represented 50.3% of income in work the rest being made up of non-means tested benefit and a generic Working Tax Credit top up for low income

# For people with learning disabilities in Kent

- 52% of people worked for 16 hours or more
- **People with learning disabilities** were on average 55% financially better off after employment
- There was a shift from Income Support before, to Working Tax Credit in, employment
- Average gross total income in employment was £175.14
- Wages represented 54% of income in work the rest being made up of non-means tested benefits.
- Relatively few people received Working Tax Credit top up for low income
- **From the taxpayer perspective KSE has a net saving of £3,564 per person per year compared to a day service alternative.**




Comparing employment  
approaches-

A UK Example of government  
programme

# Net Cost of the GB Supported Employment Programme

	Factories Type A	Factories Type B	Community Jobs
<b>Situation with SEP</b>			
<b>Cost (A)</b>			
SEP	12,164	11,523	4,625
Disabled workers	97	227	282
Displaced workers	808	532	905
<b>Flowbacks (B)</b>			
SFP	Net zero	Net zero	Net zero
Disabled workers	5,948	3,401	3,619
Displaced workers	83	70	93
<b>Situation without SEP</b>			
<b>Cost (C)</b>			
SEP	None	None	None
Disabled workers	7,735	7,735	7,735
Displaced workers	None	None	None
<b>Flowbacks (D)</b>			
SEP	Net zero	Net zero	Net zero
Disabled workers	910	910	910
Displaced workers	1,608	1,355	1,800
<b>Net Cost p.p.*</b>	<b>1,821</b>	<b>3,341</b>	<b>-2,925</b>
<b>Net Cost Ratio</b>	<b>0.46</b>	<b>0.28</b>	<b>0.64</b>



Comparing employment  
approaches-

Cost effectiveness



# Cost Effectiveness

- Earnings per \$1 service cost (Hill, Virginia)
  - People with mild L.D.- \$1.43
  - People with moderate/severe L.D.- \$1.24
- Earnings and hours per \$1 service cost (McCaughrin, Illinois)
  - Supported Employment work longer and earn more per \$1 than people in work crew, enclave or sheltered jobs
  - Supported Employment have higher average “Quality of Life-Worker Loneliness” score per \$1 than work crew, enclave or sheltered jobs



# Direct measures can be used

- Time engaged in meaningful activity
- Increased employability
- Community living
- Emotional/behavioural functioning
- Psychiatric symptomology
- Neuropsychological functioning
- Work integration
- Family satisfaction measures

# Moving to employment- The Research Project

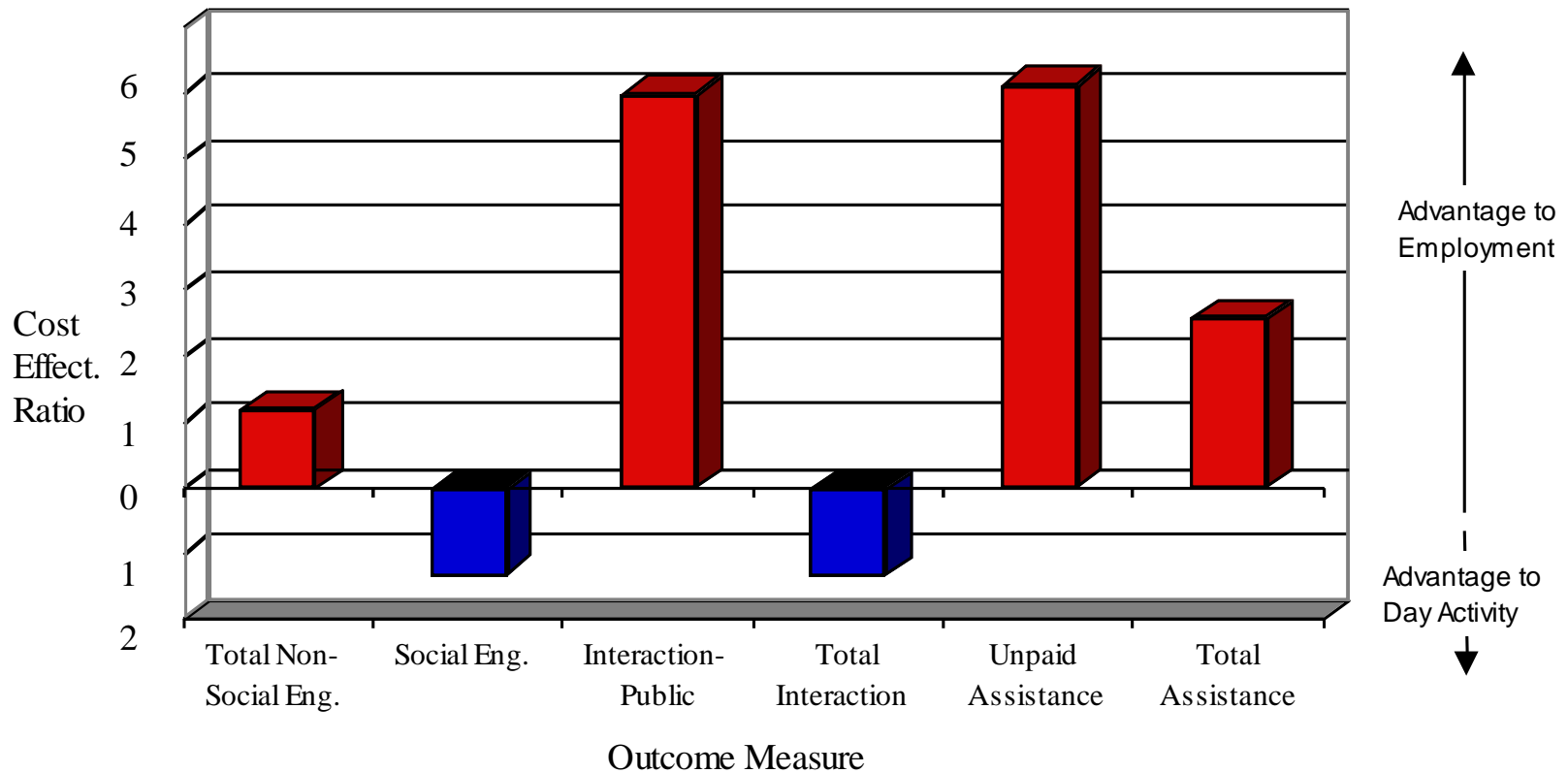
## ■ How we researched

- We compared people in the project with similar others
- We looked at people's days and observed what they did and who helped for ten hours each
- We did this before employment was found, when first in employment, and 3 months after

## ■ What we observed and counted

- We looked at what people were engaged in, for what proportion of time in each activity and what help was given
  - Social/non-social, challenging behaviour, social contact, assistance
- We divided the percentage of time engagement by the hourly cost of supporting the person, to produce a cost effectiveness measure.

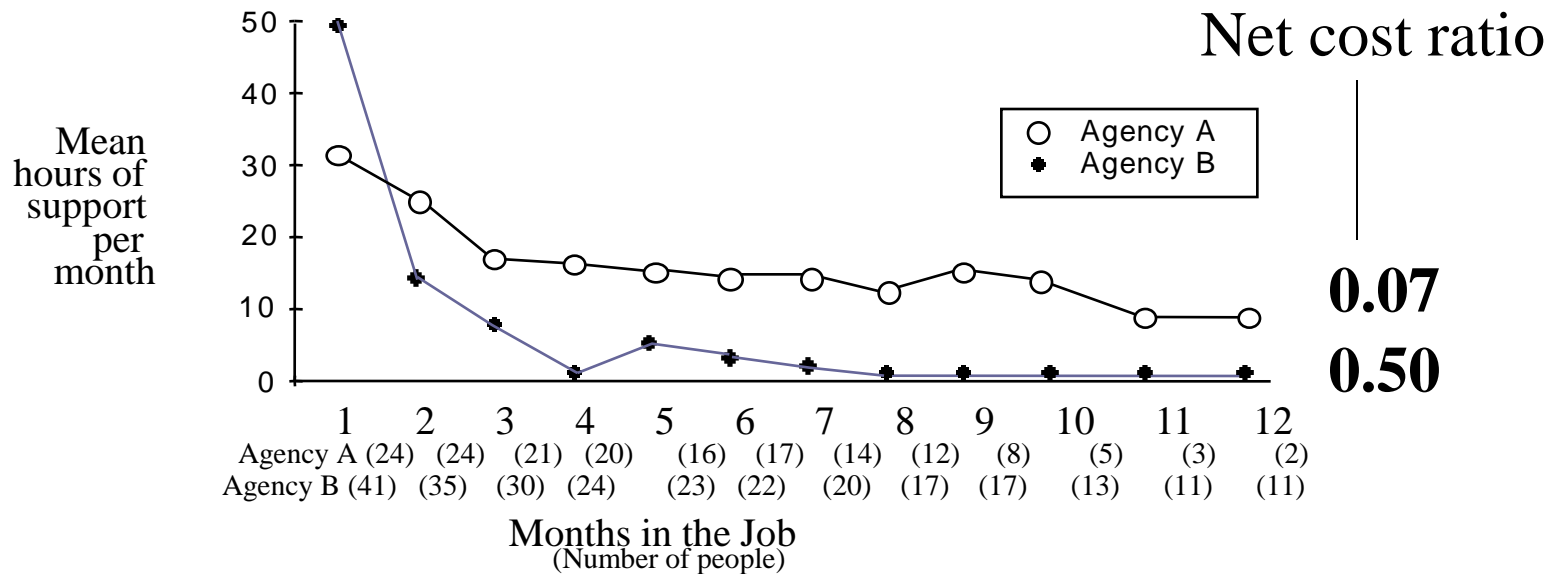
# The Cost Effectiveness Outcomes - Comparing the Employed before & after



# Implications for services

- The Supported Employment Service has to collect data on people, their benefits, and the jobs it finds
- The longer they keep them, the longer the analysis period possible, and greater the net benefits are likely to be (if they are good)
- It needs to know what people were doing before entering employment (for cost comparisons)
- It helps if the agency tracks its inputs as “fading” time (number of clients helped into jobs) and hours people work (welfare benefit changes) will both influence net costs of the service, depending on perspective
- If you can describe the challenge the people you serve represent, the better you can interpret comparative costs for funders.

# Factors Impacting on Cost



1 Month 1 adjusted upwards to allow for part month starts

# Basic data set

## **Supported Employment**

- SE agency cost over set period (spend)
  - All sources, depending on perspective
- Record of jobs found, sustained into, and lost in the same period
- Job details
  - Hours/days worked
  - Standardise to average number in jobs during period

## **Alternative service**

- Cost of service people would have used, same basis as SE
- Record of number of people served with budget
- Service details
  - Hours/days delivered
  - Standardise to average number supported during period

# Basic data set

## **Supported Employment**

- Welfare benefits (and total £) received per person before, and after, employment
- Tax & National Insurance deductions on wages

## **Alternative service**

- Assume welfare benefit stay same as “before employment” unless this is a form of employment

# Questions

Thank you

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