Buses and Economic Growth

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Structure of Presentation

- Background

- Buses and Economic Growth part I

- Second phase of the work

- Final thoughts

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Background

- The bus is a familiar part of everyday urban life.

- Bus service receives less attention than rail and car.

- Annual turnover of £5.3 billion (inc. fares, local and national gov. support)

- Bus service is a vital cog in the wheel of the economy, facilitating access to jobs, education, shops and recreation

- Previous studies have looked at direct benefits of policy interventions, eg BSOG, busways, parking policies

- This work aims to quantify the 'indirect' contribution to efficient working of the labour market and towns/cities' delivery of services
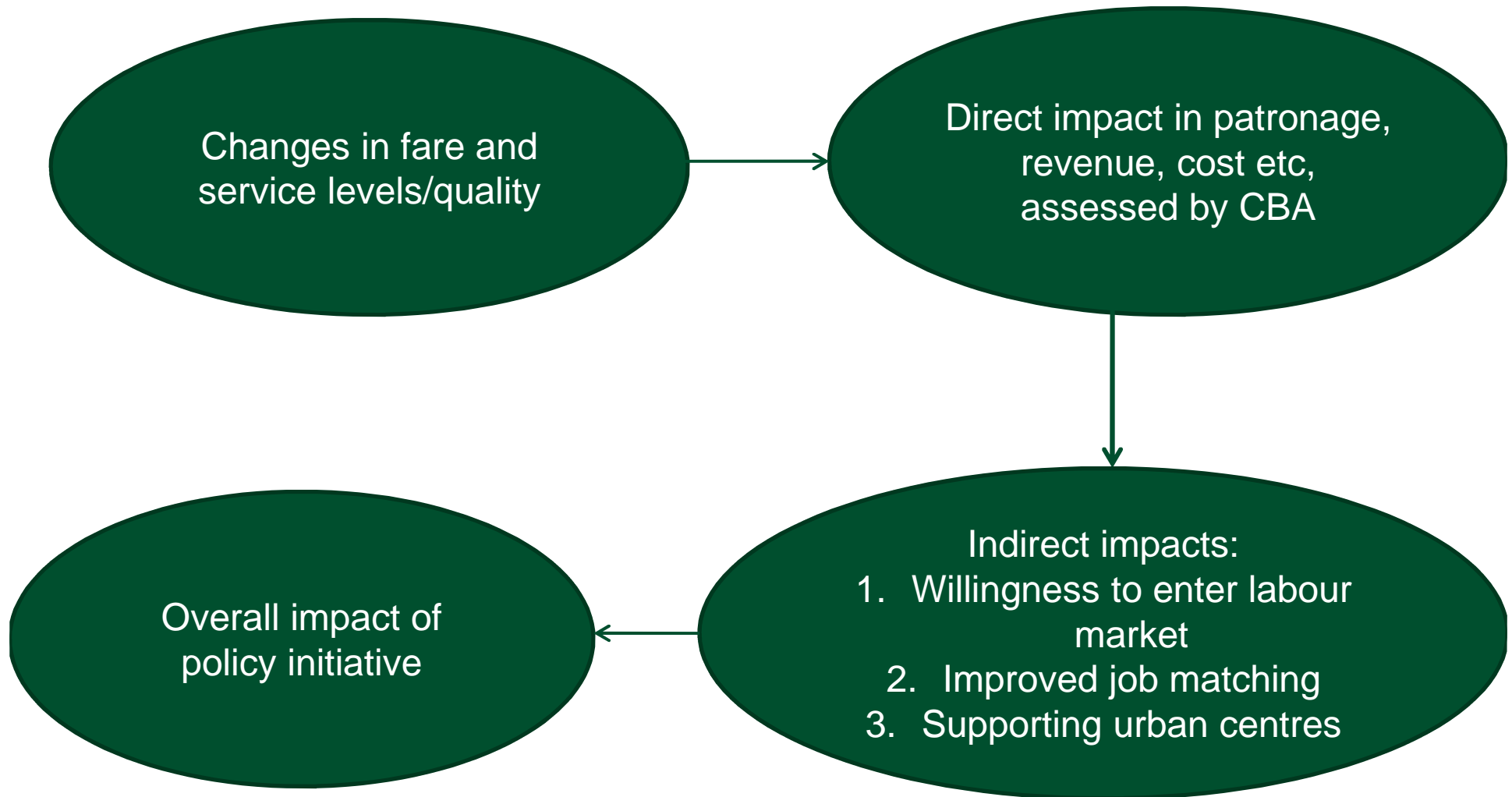
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- Transport policies which lower costs of business and freight travel can grow the economy
- ➤ As commuting costs fall, so does required level of compensation hence leading to a reduction in factor input prices and an increase in demand.
- ➤ Reductions in commuting costs can also lead to economically inactive people joining the labour market.

- Transport policies can also re-distribute economic activity from one part of a country/society to another

We see **three** frameworks by which bus services can influence economic growth

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Better bus services – impact pathway

Changes in fare and service levels/quality

Direct impact in patronage, revenue, cost etc, assessed by CBA

Indirect impacts:
1. Willingness to enter labour market
2. Improved job matching
3. Supporting urban centres

Overall impact of policy initiative

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- To identify the manner in which buses have an economic impact not captured in current economic appraisal methods

- To examine the argument that buses have a greater economic impact than their use value

- To demonstrate the role that buses can play in delivering economic growth

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Study structure

The first report is a synthesis based on three parts

1. An analysis of bus travel using the National Travel Survey - examine role of bus and link between usage and sociodemographic and service level factors

2. An internet survey of 2,500 (mainly) bus users -provide insight into the links between bus use and economic activity

3. Interviews of employers and stakeholders -to illuminate the variations in local success of the bus

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NTS Analysis – use of bus for commuting (N>19k)

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Bus as usual main mode (%)		
All		8.5
Sex	Male	6.6
	Female	**10.7**
Age	16 - 19 years	**19.0**
	20 - 29 years	**13.3**
	30 - 39 years	7.3
	40 - 49 years	6.2
	50 - 59 years	6.1
	60 - 69 years	8.1
Economic Status	Full time	7.6
	Part time	**11.7**
Car/light van availability	Car/light van available	5.5
	No car/light van available	**34.0**
Household Income	Less than £25,000	**12.7**
	£25,000 to £49,999	8.5
	£50,000 and over	5.9
Type of area (2001 GIS coding)	Greater London	**20.7**
	Met built-up areas	**13.8**
	Other urban over 250K	9.1
	Urban over 25K to 250K	5.6
	Urban over 10K to 25K	3.3
	Urban over 3K to 10K	3.7
	Rural	1.8

- Higher usage amongst females, young, part-time workers, no car availability, low income

- Highest rates in London, then Metropolitan areas. Declines with density.

- Technical or elementary occupations tend also to be frequent users

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- We looked at 4 case study areas: Brighton, Nottingham, Kent Towns and W Yorkshire

- There are significant variations across urban Britain.

- Bus is comparatively successful in Brighton and Nottingham

- Better penetration achieved by the bus out of its core market. Higher proportion of usage:
  ➢ in the 30-59 age group
  ➢ Full time workers
  ➢ Managers and senior officials
  ➢ Those on higher incomes

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- Reasons explored in stakeholder/employer interviews:
- Mutually reinforcing geography, socio-economics and politics –

➢ city layout and land use ;

➢ local social and employment mix,

➢ supportive policy mix both buses and cars;

➢ strong comms channels between operators, officers and politicians.

- Result — positive ratings across a range of service quality indicators. Different attitudes towards the bus. Virtuous circle can enable retention of market share among workers.

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The Macro Picture

Over 5 bn bus trips in GB every year, nearly 2 x the number of rail/underground trips

Over 1 bn bus trips to/from work –

- 2.5 million workers normally commute and a further 1 million use bus as back-up mode.

- 12% of the working population

- Using figures on average wages from our survey and mix of part time/full-time we find those who use bus contribute £64bn of economic output PA

- Facilitates efficient matching of people to jobs.

➢ From our survey we estimate 360k people in a better more productive job than they could otherwise access—net additional GVA £180m

- Increases labour market participation.

➢ We estimate 30k people (GVA £190m) who would not be in the labour market without the bus

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- Acts as a form of social insurance.

➢ We asked people *"What is the MAXIMUM your HOUSEHOLD be willing to pay PER MONTH in additional Council Tax to maintain your local bus services at existing levels (and fares)?"*

➢ We find infrequent users WTP £38/year to have buses available ; frequent users £60/year.

➢ Gross Option value £700 million—probably a conservative estimate.

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- Improves access to education and training, especially access from deprived areas

- Democratises travel and scores well in distributive terms

- Supports the vitality of urban centres — as well as access to employment offers access to shopping and leisure facilities. Both efficiency and distributive dimensions to this.

- So at the bus policy level, we have identified at least £1 bn of wider economy and external benefits not included in direct user benefits or direct congestion relief and environmental impacts. This is to be considered at the macro level against the public sector support for the bus.

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A macro approach does not translate directly to policy and appraisal work, eg VfM of public spend
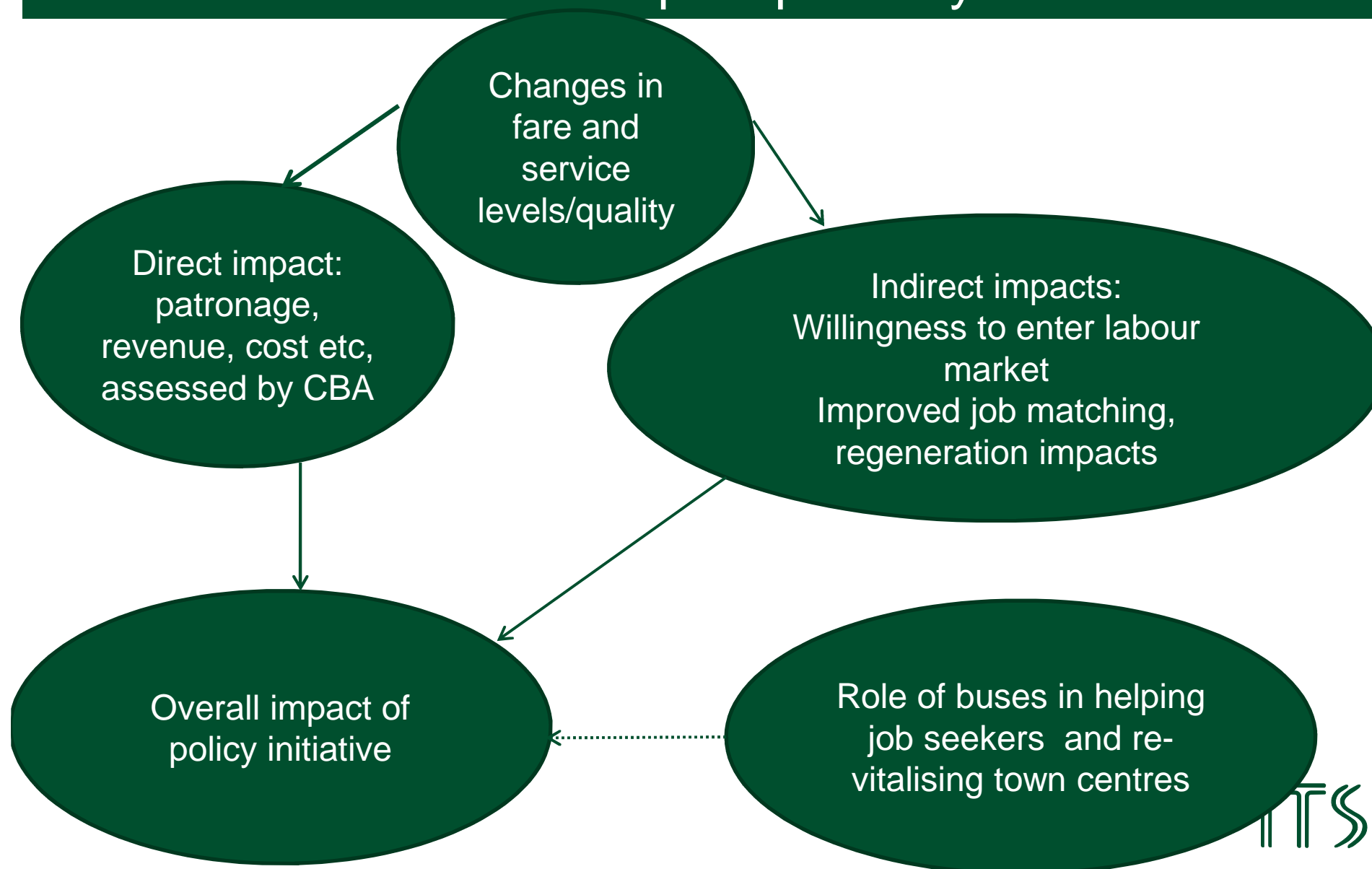
Lack of evidence base on role of bus in sustaining and revitalising town centres, local economies, regeneration areas and rural areas.

GJ/DfT asked us to explore these gaps in a follow-up study:

- **Quantify** the relationship between improved accessibility, employment and GVA

- **Understand** the role buses play in helping re-vitalise town centres

- **Understand** the role bus plays in helping unemployed

- **How** might findings fit into appraisal?

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Changes in fare and service levels/quality

Direct impact: patronage, revenue, cost etc, assessed by CBA

Indirect impacts:
Willingness to enter labour market
Improved job matching, regeneration impacts

Overall impact of policy initiative

Role of buses in helping job seekers and re-vitalising town centres

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- Panel data regression analysis to examine temporal effect of differences in service levels on areas' labour market outcomes.

- Requires bus accessibility data and labour market data, matched in a zonal model

$$Employment_{it} = f(A_{it}, C_i, V_{it})$$

Where:

A_{it} is accessibility measure for area i in time t;

V_{it} are time variable factors such as population, car ownership etc

C_i are area specific constants capturing impact of area characteristics

➤ Coefficients of model will give us elasticities

- Issue of direction of causality

- Initial results encouraging

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Understand the role buses play in helping re-vitalise town centres

Types of expenditures undertaken in shopping locations

Is there linkage between expenditure (patterns of visits) and accessibility and chosen mode ?

What factors influence choice of shopping location?

What factors influence choice of access mode?

Could bus help switch people back to town/city centres?

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Original study did not reveal relationship between bus services and unemployment. This task will examine:

1. Profiling the access to, role of, and perception of, public (focusing on buses) and private transport amongst the unemployed.

2. Use regression analysis to quantify impact of differences in public transport accessibility on:

   – job seeking behaviour

   – time spent unemployed

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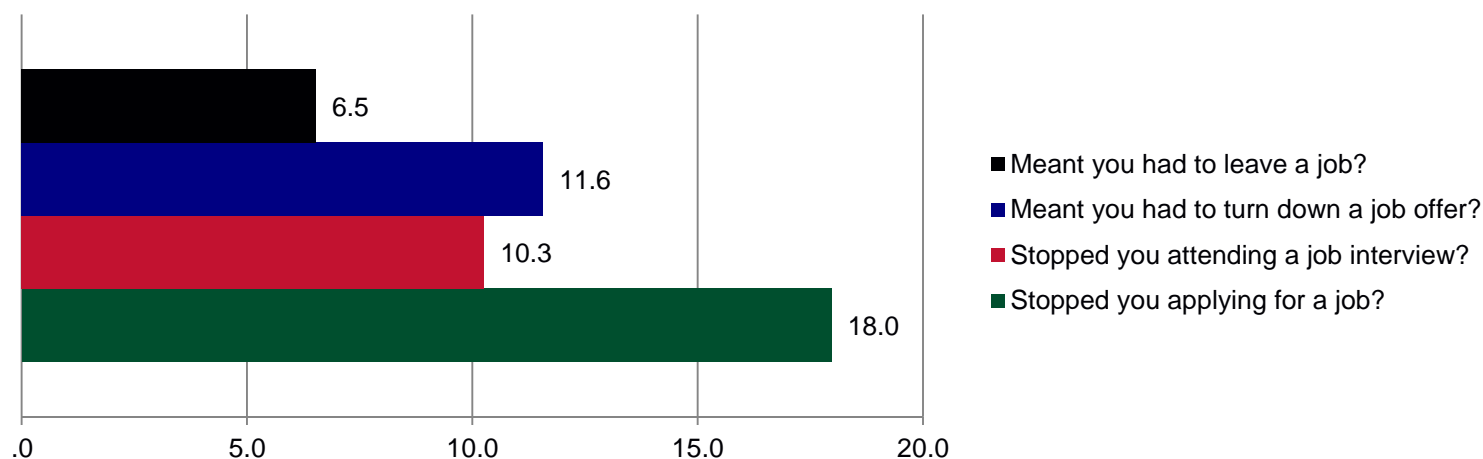|		Bus	Car	Walk/Cycle	Train/Tram	Other
	All	**58**	**22**	**15**	**4**	**1**
Gender	Male	**55**	21	19	5	0
	Female	**65**	24	8	2	1
Car Availability	No Car Available	**72**	4	19	5	1
	Car Available	**23**	70	5	3	0
Age	18-24	**66**	11	16	5	0
	25-49	**57**	23	15	4	1
	50+	**46**	37	13	3	1
Occupation	Professional occupations (SOC 1-2)	**31**	42	15	11	0
	Skilled (SOC3-5)	**52**	27	15	4	2
	Lower skilled (SOC6-9)	**65**	17	15	3	0
Qualifications	NVQ 2 or higher	**55**	26	14	5	0
	NVQ 1 or lower	**62**	18	17	3	1

Bus dominant mode amongst unemployed over all categories barring those seeking Professional occupations
Higher rates for females, those with no car available, younger, those seeking Lower Skilled occupations and those with lower qualifications
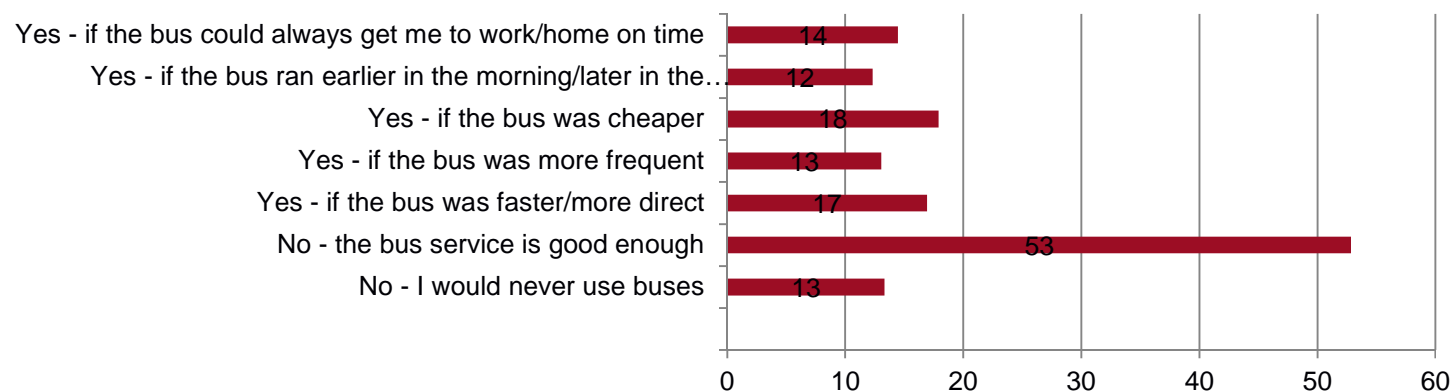
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Has the lack of a suitable or affordable bus service ever:
(% of all respondents)

- ■ Meant you had to leave a job?
- ■ Meant you had to turn down a job offer?
- ■ Stopped you attending a job interview?
- ■ Stopped you applying for a job?

6.5
11.6
10.3
18.0

Do you think that if there was a better bus service you would be
more likely to start work/get a job? (%)

Yes - if the bus could always get me to work/home on time — 14
Yes - if the bus ran earlier in the morning/later in the… — 12
Yes - if the bus was cheaper — 18
Yes - if the bus was more frequent — 13
Yes - if the bus was faster/more direct — 17
No - the bus service is good enough — 53
No - I would never use buses — 13

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Unemployed: Accessibility

Distance from nearest bus stop (% of respondents)	
Less than 5 minutes walk	71
Between 5 and 10 minutes walk	23
Between 10 and 15 minutes walk	4
More than 15 minutes walk	1
Don't know where my nearest bus stop is	1

81% claimed to know about the services from their nearest bus stop

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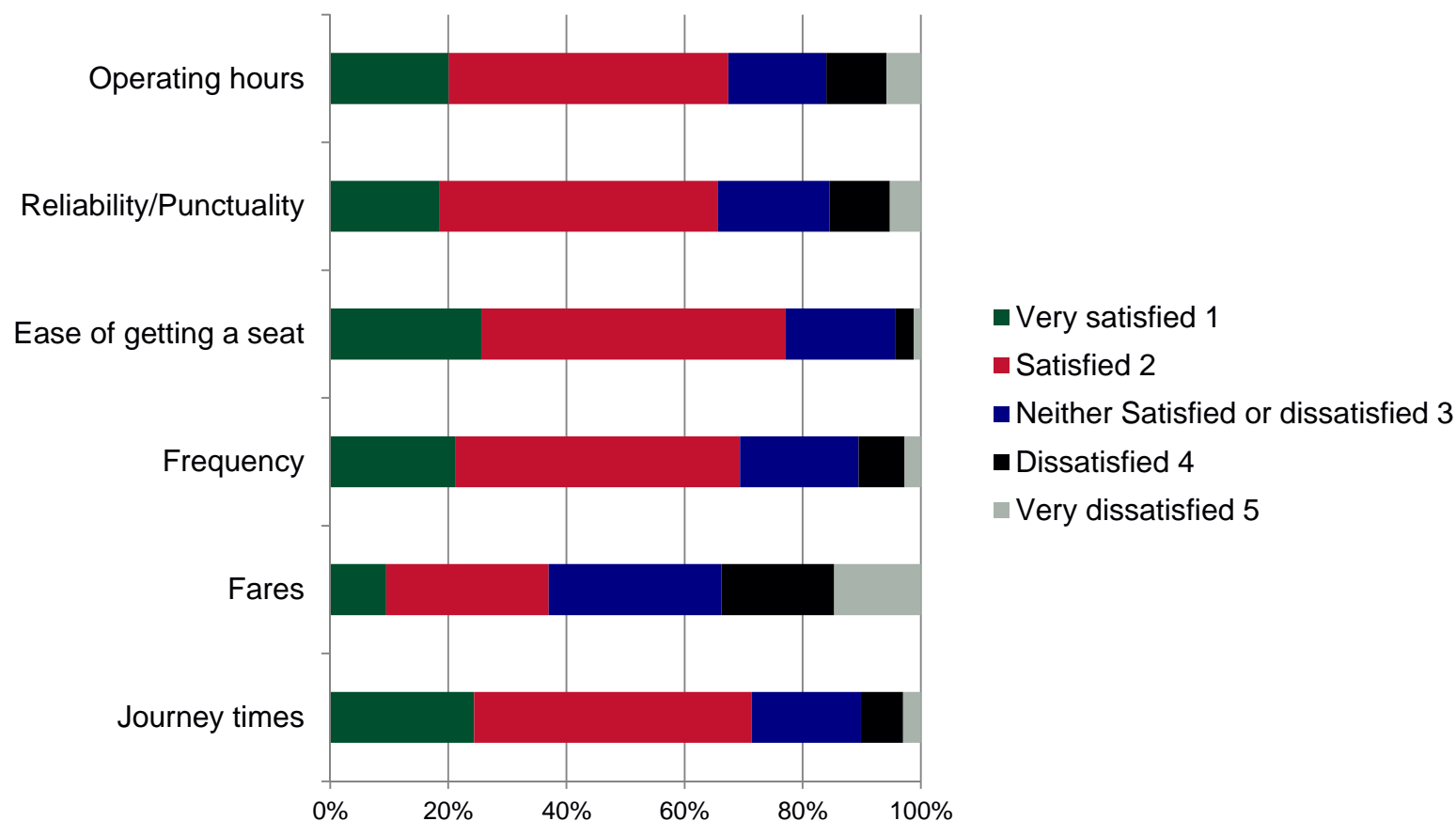
- Over a third "dissatisfied" or "very dissatisfied" with the fares.
- Similarity amongst the remaining service aspects

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Unemployed: Key findings

- Extremely high levels of dependence on buses for accessing employment, much more so than the general working population

- The levels of bus dependance particularly acute for females, those with no car availability, younger and the lower skilled.

- A fifth of interviewees had not applied for a job/attended an interview or turned down a job or left a job due to the lack of a suitable bus service.

- 60% of our sample felt they would have less chance of finding a job without a bus service.

- Over a third felt they would have a better chance of finding work if bus services were improved, with fares and journey times emerging as the key dimensions.

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- Part I looked at (Indirect) Economic Value of Buses at a Macro level.

➢ Found values for bus service helping move to more productive jobs and increasing labour supply.

- Part II seeks to quantify the underlying (Micro) relationship between quality of bus service and economic growth

➢ Looking at regeneration impacts too

- CBA vs GVA

- But what happens at a local level?

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