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Brown, J. and Hanlon, P. and Turok, I. and Webster, D. and Arnott, J. and Macdonald, E.B. (2007) Establishing the potential for using routine data on Incapacity Benefit to assess the local impact of policy initiatives. *Journal of Public Health* 30(1):pp. 54-59.

<http://eprints.gla.ac.uk/4196/>

Deposited on: 29 May 2008

# Establishing the potential for using routine data on Incapacity Benefit to assess the local impact of policy initiatives

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## ABSTRACT

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**Background** Incapacity Benefit (IB) is the key contributory benefit for people who are incapable of work because of illness or disability.

**Methods** The aims were to establish the utility of routinely collected data for local evaluation and to provide a descriptive epidemiology of the IB population in Glasgow and Scotland for the period 2000–05 using data supplied by the Department for Work and Pensions.

**Results** Glasgow's IB population is large in absolute and relative terms but is now falling, mainly due to a decrease in on flow. Claimants, tend to be older, have a poor work history and suffer from mental health problems. The rate of decline has been greater in Glasgow than Scotland, although the rate of on flow is still higher.

**Conclusions** Department for Work and Pensions (DWP) data can be used locally to provide important insights into the dynamics of the IB population. However, to be truly useful, more work needs to be undertaken to combine the DWP data with other information.

**Keywords** chronic ill health and deprivation, Incapacity Benefit

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## Introduction

In recent years, the vulnerable population being paid Incapacity Benefit (IB) has become a focus for policy makers interested in both employment and health.<sup>1,2</sup> After more than a decade of steady improvement in labour market conditions large numbers still remain on IB. New initiatives have proliferated<sup>1,3</sup> but, if we are to truly evaluate the impact of policy, we need data that can capture changes in the labour market, IB claimants, policy interventions and aspects of health over time. This paper describes the first steps in what will be a concerted effort to create a dynamic model of the IB population for the city in the United Kingdom (UK) with the largest IB problem—Glasgow.

IB is the key contributory benefit in the UK for people who are incapable of work because of illness or disability. The number of people claiming sickness-related benefits in the UK more than trebled between the late 1970s and the mid-1990s as employment in many traditional industries collapsed. It has since stabilized at around 2.7 million.<sup>1</sup> The proportion of the working age population (WAP) claiming IB varies greatly between different parts of the country, reflecting the state of the local labour market and the area's

economic history. It is particularly high in former industrial areas, such as Glasgow, Liverpool, Newcastle and South Wales although it is now beginning to decline even in these areas. Many claimants moved onto IB with no expectation of getting back to work, although about a third now say they want to work.<sup>4</sup> Some observers have argued that the large IB population in Britain partly reflects disguised unemployment.<sup>5</sup> In practice, many people on IB never get back to work. Indeed, after two years on IB, a person is more likely to die or retire than find a new job.<sup>2</sup>

In 2006, the UK Government set an ambitious target of getting a million people off IB within the next 10 years.<sup>1</sup> It has introduced 'city strategies' to target areas with the highest levels of IB. Health strategists are aware that this is a

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vulnerable population with many complex health needs.<sup>6</sup> The relationship between health and employment in this population is interactive and dynamic. Therefore, if the outcome of these policies is to be assessed, a variety of input, process and outcome data will have to be collected and analysed in ‘real time’ so that policies and programmes can be rapidly adjusted.

## Methods

This study was established under the auspices of the Glasgow Centre for Population Health, which is a formal collaboration between Glasgow City Council, NHS Greater Glasgow and Clyde and Glasgow University—all bodies with an interest in the IB population. Glasgow is an IB ‘hot spot’ and has the largest single population of IB claimants in the UK.<sup>7</sup> The city is about to launch its ‘city strategy’ to improve employment in this group but has already an impressive list of initiatives in this area.<sup>8,9</sup>

This study was established to create a framework for data collection that will evaluate the outcome of this policy over the next 5–10 years. Ideally, a ‘dynamic model’ of the IB population will be created. However, in this first stage of this work, three main questions were addressed:

- (i) What can we learn about the utility of routinely collected data for the ongoing analysis of policy?
- (ii) What can we learn about the dynamics of the IB population in Glasgow?
- (iii) Is Glasgow a special case—how does the IB population in Glasgow compare to Scotland as a whole?

To achieve these aims, a descriptive epidemiology of IB claimants (demonstrating variability by person, place and time) was created. The study team received comprehensive data (100% sample of IB claimants) for Scotland from the Department for Work and Pensions (DWP) Information Directorate Work and Pensions Longitudinal Study for the period 2000–05. Data are presented for two geographies, Glasgow City and all of Scotland (including Glasgow). Data have been analysed by age, sex, reason on benefit, length of time claiming benefit and benefit type (payment and credit only status—see below).

From these data, three groups were identified; the ‘stock IB’ population (those claiming IB at any given time), the ‘on flow’ (those starting to claim IB) and the ‘off flow’ (those whose claim has terminated).

Data for stock IB claimants were provided quarterly from June 1999 until February 2006. Where yearly data are shown, they have been calculated by taking a mean of the data from four quarters. For example, yearly data for 2005

were calculated by taking a mean of the data from the four quarters commencing December 2004 and ending in November 2005. To illustrate the change over the five years of analysis, a breakdown by age, reason for those claiming IB and length of time on IB is shown for the first and last quarter, i.e. June 1999–August 1999 and December 2005–February 2006 but this was only chosen as the approach once it had been established that changes had been gradual and constant over the period of analysis. The on flows and off flows to IB have been provided quarterly from September 1999 to November 2005. The on and off flow data have been presented as yearly data. For example, data for the year 2005 are the sum of the four quarters from December 2004 to the quarter ending November 2005.

IB claimants can be divided into two groups—‘Payment’ IB claimants and ‘Credits only’ IB claimants. Together these two categories make up what is commonly understood to be a single IB claiming population however there are clear distinctions between the two groups. Definitions are complex and the benefit system as a whole tries to ensure that individuals receive broadly equivalent amounts from the State—but the source may vary. Payment IB claimants must be incapable of work, not entitled to Statutory Sick Pay, and have sufficient National Insurance (NI) contributions to receive IB payment. Payment IB claimants therefore have a good recent work history. Credits only claimants will not have made sufficient NI contributions but fulfil all the other qualifying conditions for IB and so receive financial support from other sources. They are ‘credited’ with pension contributions and gain access to other benefits like Income Support with a disability premium. These claimants have less good recent work histories. In this study, the stock data can be broken down into payment and credits only claimants and where differences have been found between the two groups this is highlighted.

## Results

### Utility of data

The 100% sample of data relating to IB claimants from the DWP proved to be an extremely useful tool as is evidenced by the results set out below. Some limitations were also identified. It was not possible to cross tabulate the data from different categories. For example, over 50% of those claiming IB in Glasgow are doing so because of mental health problems. It was not possible to break down this group of IB claimants by sex, age, length of time on benefit.

### The dynamics of stock, on flow and off flow

To illustrate the dynamic nature of the stock, on flow and off flow populations, we have used a bath water analogy

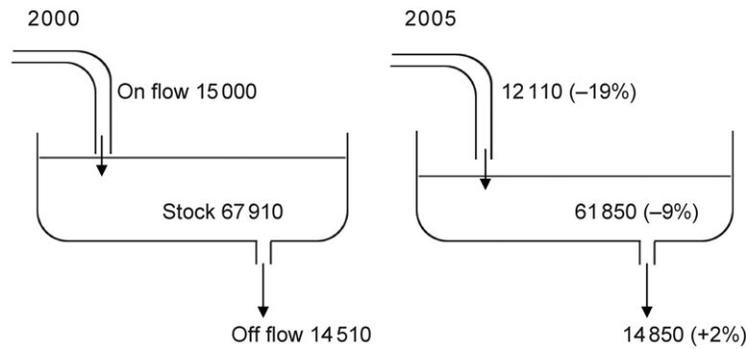


Fig. 1 Stock IB claimants, on and off flows in Glasgow in 2000 and 2005. The percent change in stock IB claimants, on and off flow is shown in brackets.

(Figs. 1 and 2). The stock IB population is represented by the amount of bath water. The on and off flow populations are represented as the tap water and the outflow, respectively.

Two bathwater diagrams are presented to compare Glasgow (Fig. 1) and Scotland (Fig. 2). Glasgow has a large IB claimant population (61 850 in 2005) but, importantly, there has been a sizeable reduction (-9%) in the stock of IB claimants from 2000 to 2005—the level of the bathwater is falling (Fig. 1). In Scotland there has been a smaller percentage decrease (-4%) in the number of stock claimants (to 323 160 in 2005) (Fig. 2). In both Glasgow and Scotland this decrease in stock IB populations is mainly due to a decrease in the number of on flow claimants with the absolute number of off flow claimants remaining broadly unchanged. Although the relatively unchanged numbers in the off flow gives the impression of no change over time, analysis of the rate of off flow leads to a different conclusion (see below).

The percent of the WAP claiming IB has decreased between 2000 and 2005 across both geographies but there is still a higher proportion of the WAP in Glasgow City claiming IB (16.4% in 2005) than Scotland (10.2% in 2005) (Fig. 3).

### Characteristics of the stock population

The percentage of credits only IB claimants (poor work history) in Glasgow is greater than for Scotland as a whole (in 2005, Glasgow 44.9%, Scotland 33.5% of total claimants). In Glasgow, the largest percentage of claimants are between 40 and 60 and the proportion of all IB claimants in this age group has been increasing with time. There have been decreases in the younger age categories. This pattern is mirrored in all of Scotland. One striking statistic from the age data is the percent of 55–59 year olds claiming IB (for December 2005–February 2006, 34.9% in Glasgow compared with only 18.6% in Scotland). There is also a marked difference in age profile between payment (good work history) and credits only (poor work history) claimants. In both Glasgow and Scotland, more than 50% of payments claimants (good work history) are aged over 50 compared with under 30% of credits only. The male:female ratio of IB claimants is constant over time in both Glasgow and Scotland (around 58% males, 42% females). Females are over represented in the poor work history group (credits only claimants) in Glasgow and Scotland. The majority of claimants in Glasgow have been claiming for greater than 2 years with 58.2% claiming for over 5 years in the quarter December 2005–February 2006. There have been decreases

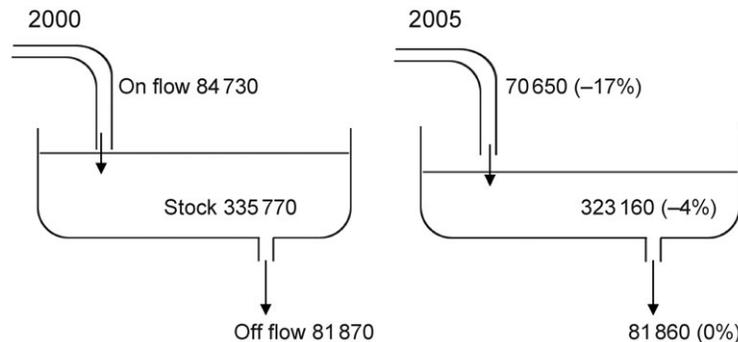
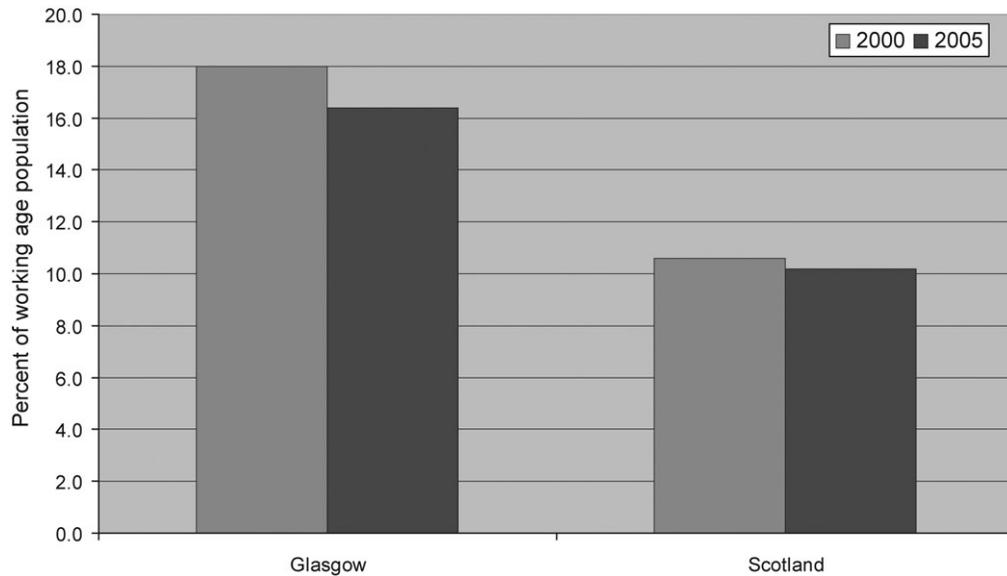


Fig. 2 Stock IB claimants, on and off flows in Scotland in 2000 and 2005. The percent change in stock IB claimants, on and off flow is shown in brackets.



**Fig. 3** Total stock IB claimants in Glasgow and Scotland as percent of the working age population in 2000 and 2005.

in all duration of claim categories except greater than 5 years. Similar trends are observed in Scotland.

#### Reason for claiming IB—health problems

The main reason for claiming IB is ‘mental and behavioural disorders’. This category increased from 38.9% between June 1999 and August 1999 to 50.4% between December 2005 and February 2006 in Glasgow (Table 1). More credits only claimants (poor work history) are receiving IB because of mental and behavioural disorders than payment claimants in Glasgow (For December 2005–February 2006 payment claimants receiving IB because of mental and behavioural disorder was 42.8%, credits only 59.5%). Similar trends are observed in Scotland but the percentage share of those with mental health problems in Glasgow was slightly greater (For December 2005–February 2006 the percentage of total claimants claiming because of mental and behavioural disorder in Glasgow was 50.4% and 43.2% in Scotland).

#### The on flow population

The rate of on flow is expressed as a percent of the WAP not on IB. This is the ‘population at risk’ of moving onto IB.

The on flow in Glasgow has decreased from 4.8% in 2000 to 3.8% in 2005 (Table 2). More of the on flow in Glasgow is made up of credits only claimants (poor work history) than payment claimants (in 2005, there were 5310 payment claimants and 6800 credits only claimants). The rate of on flow in Scotland has also decreased from 3.0% in 2000 to 2.5% in 2005. In contrast, the on flow population in Scotland has a better work history (in 2005, there were 38 350 payment claimants and 32 300 credits only claimants). The rate of on flow in Glasgow has declined at a higher rate than for Scotland (in Glasgow the rate of on flow has decreased by 21% whereas in Scotland the rate of on flow has decreased by 16%) however the rate in Glasgow is still higher than Scotland (3.8% versus 2.5% in 2005) (Table 2).

#### The off flow population

The rate of off flow is expressed as a percent of the total stock population. This is the ‘population at risk’ of moving off IB. There have only been small changes in the absolute numbers of off flow claimants in Glasgow from 2000 to 2005 (an increase of 340 off flow claimants) however the

**Table 1** Percent of IB claimants with a mental health problem

	<i>Glasgow</i>			<i>Scotland</i>		
	<i>Total claimants (%)</i>	<i>Payment Claimants (%)</i>	<i>Credits only claimants (%)</i>	<i>Total claimants (%)</i>	<i>Payment Claimants (%)</i>	<i>Credits only claimants (%)</i>
June 1999–August 1999	38.9	32.4	49.9	32.4	27.9	45.5
December 2005–February 2006	50.4	42.8	59.5	43.2	36.9	55.5

**Table 2** On flow rates in Glasgow and Scotland in 2000 and 2005

Year	Glasgow		Scotland	
	Total claimants	On flow rate <sup>a</sup> (%)	Total claimants	On flow rate <sup>a</sup> (%)
2000	15 000	4.8	84 730	3.0
2005	12 100	3.8	70 650	2.5
		21% reduction		16% reduction

<sup>a</sup>On flow rate is expressed as a percent of the WAP not on IB.

rate of off flow has shown a small increase from 21.4 to 24.0% (Table 3). The actual numbers of individuals in off flow and the total rate of off flow in Scotland remain largely unchanged (24.4% in 2000, 25.3% in 2005) (Table 3).

Since the focus of policy is to increase the off flow, greater attention was paid this part of the analysis. Although the change in absolute numbers of off flow claimants for Glasgow and Scotland remains small, the increase in off flow rates has been more significant than appears at first sight. Off flow rates in both 2000 and 2005 are higher for people under 30 years. There has been a potentially encouraging increase in Glasgow for this age group. Whereas in 2000, the off flow rate was 5% lower in Glasgow than in Scotland (at 41.0% compared with 46.5%), by 2005 it was 5% higher (55.1% in Glasgow compared with 50.0% in Scotland). Off flow rates in 2000 and 2005 have increased in both Glasgow and Scotland for claimants in every category of duration of claim except for those claiming over 5 years, for which they have fallen. However, off flow rates have increased in Glasgow relative to Scotland in every category of duration of claim, with the result that Glasgow now has higher off flow rates than Scotland in every category of duration of claim longer than 6 months. The increase in off flow rates in Glasgow has been particularly marked for duration of claims 3–6 months and 6 months–1 year.

**Table 3** Off flow rates in Glasgow and Scotland in 2000 and 2005

Year	Glasgow		Scotland	
	Total claimants	Off flow rate <sup>a</sup> (%)	Total claimants	Off flow rate <sup>a</sup> (%)
2000	14 510	21.4	81 870	24.4
2005	14 850	24.0	81 860	25.3

<sup>a</sup>Off flow rate is expressed as a percent of the total stock population.

## Discussion

### Main findings of this study

The 100% sample of IB claimants provided by the DWP allowed an analysis which is more comprehensive than has previously been created for a regional or city population. As such, DWP data have been established as a necessary, important but not sufficient basis for the type of dynamic model building that is the eventual aim of this work.

Glasgow's IB population is large in absolute and relative terms (61 850 in 2005, 16.4% of the WAP). Encouragingly, there has been a reduction in IB stock claimants from 2000 to 2005, mainly due to a decrease in on flow. Glasgow's IB population can be characterized as being older, having a poor work history and suffering from mental health problems.

Glasgow's IB population is distinctive from the whole of Scotland. It is proportionately larger (16% of the Glasgow WAP was claiming IB in 2005 compared with 10% in Scotland and 8% in the UK). However, the rate of decline has been greater in Glasgow, although the rate of on flow is still higher in Glasgow than Scotland. The proportion of IB claimants with a poor work history in Glasgow is higher. Higher proportions of claimants in Glasgow suffer from mental health problems (in 2005, 50% in Glasgow compared with 43% in Scotland).

### What is already known on this topic

Several reports provide general information on IB claimants in the UK.<sup>1,3,10,11</sup> These show important UK trends (e.g. falling total IB claimants, move from musculoskeletal to mental health problems<sup>12</sup>) but provide insufficient detail about any city or region to be truly useful for monitoring the local impact of policy initiatives. One helpful study<sup>7</sup> examined IB claimants in Scotland but provided insufficient detail to meet the objectives set out above. Smaller studies on IB populations in other areas of the UK have been undertaken.<sup>13</sup>

### What this study adds

This study demonstrates how routinely collected data can be used to begin to create a simple dynamic model of the IB population for a defined geography. To date, very little data have been presented that provide information about the on and off flows. This study illustrates the importance of establishing the numerators and denominators of these flow populations and charting changes over time.

By creating a simple, early model (the bathwater diagrams) this study shows that Glasgow has witnessed a decline in IB claimants for the first time in more than two decades but

that, to date, this has been achieved mainly by reducing the on flow and not by primarily returning existing IB claimants to work. However, by looking at the off flows by age and length of time on benefit, there is evidence that Glasgow is outperforming Scotland. In recent years, considerable investment has gone into increasing the off flow by supporting IB claimants through return to work schemes. The time period for this study (2000–2005) may be too early to have detected the full impact of this more recent investment.

Further, the study provides an important description of the three populations (stock, on flow and off flow) and their characteristics (sex, age, reason for claiming benefit and employment history). For example, it highlights the rise in mental health conditions that now outnumber musculo-skeletal disorders. This study also highlights the differences between payment (good work history) and credits only (poor work history) claimants. The reason why credits only claimants have been increasing relative to payments claimants appears to lie in the fact that the NI contribution conditions for receiving payments were tightened up in 2001 for new claimants. Since then, fewer of the people coming on to IB have qualified for payments. However, a full understanding requires more research.

### Limitations of the study

This study has two major limitations. First, some categories of data were simply not available. For example, no information was obtained about the destination and outcomes for those who were in the off flow. There is clearly a big difference between people moving into work, transferring onto benefits, retiring or being lost in the system. Second, the data had limitations when set against our objectives. For example, with the data provided, we could not break down subcategories (e.g. those with mental health problems) by sex, age and length of time on benefit.

This work continues. In the current phase, we are investigating other data sources which will place IB claimant analysis within the context of the labour force and the whole working aged population. Also, comparison will be made with relevant UK populations.

### Conclusions

The DWP data can be used locally to provide important insights into the dynamics of the IB population. However, to be truly useful, more work needs to be undertaken to combine the DWP data with other information. Glasgow has a significant challenge in the size and nature of its IB population but can take some encouragement from the

trends established up until 2005. Further work should create a tool that can monitor the impact of policy on the vulnerable population over time.

### Acknowledgements

We acknowledge the help of Penny Sinclair and Gary Gifford at the Information Directorate, DWP who provided the data and Professor Carol Tannahill and the Glasgow Centre for Population Health.

### Funding

This study was funded by the Glasgow Centre for Population Health.

### References

- 1 Department for Work and Pensions. *A New Deal For Welfare: Empowering People To Work*. London: Department for Work and Pensions, 2006.
- 2 HM Government. Health, work and well-being - caring for our future. 2005.
- 3 Blyth B. Incapacity benefits reforms - pathways to work pilots performance and analysis. Department for Work and Pensions, 2006.
- 4 Woodward A, Kazimirskia A, Shaw A *et al*. New deal for disabled people. No. W170, Department for Work and Pensions, 2003.
- 5 Beatty C, Fothergill S. *The Diversion from 'Unemployment' to 'Sickness' across British Regions and Districts*. CRESR, Sheffield: Sheffield Hallam University, 2004.
- 6 Waddell G, Burton AK, Bartys S. *Concepts of Rehabilitation for the Management of Common Health Problems*. London: The Stationery Office, 2004.
- 7 Fothergill S. *Scotland's Incapacity Benefit Claimants*. Scotland: Futureskills, 2005.
- 8 Turok I. *Full Employment Strategies for Cities: The Case of Glasgow*. Paris: OECD Working Paper, 2007;6:214–31.
- 9 Glasgow Community Planning Partnership. Regeneration outcome agreement 2006-2008. 2005.
- 10 Berthoud R. The profile of exits from incapacity-related benefits over time. Department for Work and Pensions Working Paper No. 17, 2004.
- 11 Department for Work and Pensions. Pathways to work: Helping people into employment. 2002.
- 12 Waddell G, Aylward M. *The Scientific and Conceptual Basis of Incapacity Benefits*. London: The Stationery Office, 2005.
- 13 Galt V, Simms J. Incapacity Benefit and Severe Disability Allowance in the East Midlands. Intelligence East Midlands, Nottingham: Nottingham Research Observatory, 2006.