The Labour Force Status of

People with Visual Impairment

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November 2019

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National Education Centre for Blind Children

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1. Introduction

This report uses census data to describe and analyse the labour market experience of people affected by visual impairment (VI). We start in Section 2 by presenting data on the numbers of people with VI who are categorised as employed, unemployed, unable to work etc. and compare the corresponding proportions with those that relate to the general population. In Section 3 we investigate whether and how the conclusions that emerge for this initial exercise need to be modified as the focus of analysis moves across the age spectrum, and in Section 4 we examine how the labour market experience of people with VI changed between 2011 and 2016, a period during which general labour market conditions improved significantly.

In Section 5 we compare the situation of people affected by VI with that of people with other disabilities, and in Section 6 we look at how labour market outcomes for people with VI vary across the different manifestations of VI (i.e. VI only, VI in combination with one other disability, or VI in combination with two or more other disabilities). In Section 7 we use census data to explore the kinds of occupations that people with VI find themselves in. In particular, we address the question of whether the distribution of people with VI across occupational categories is different from that of the general population. We do this in respect of the full working age spectrum (15-64) and on a more granular age cohort basis. In Section 8 we carry out a similar comparative exercise in respect of educational attainment. The final section concludes with a summary of findings.

2. The Overall Picture

The labour force status of people with visual impairment (VI) is markedly different from that of the general population. *Table 1* sets out summary data in this regard for 2016. According to the census of that year, there were 24,376 people with VI who were of working age (15-64) of whom just 8,289 (34%) were in employment. The corresponding proportion in respect of the general population was 62.4%. On the other hand, amongst those of working age, the proportions unemployed were 13.8% and 9.4% for those with VI and the general population respectively.

Table 1: Labour Force Status of People Aged 15-64, 2016								
		Employed	Unemployed	Student	Retired	Unable to Work	Other*	Total
General Population	(%)	62.4	9.4	13.7	2.3	4.3	7.7	100.0
Visually Impaired	(%)	34.0	13.8	9.7	4.3	30.6	7.5	100.0
Visually Impaired	(Nos)	8,289	3,365	2,360	1,059	7,450	1,856	24,376

** Including home duties*

Part of the explanation for the relatively low employment rate amongst those with VI is the relatively high proportion of such people classified as 'unable to work due to permanent sickness or disability'. Almost 31% of those with VI who were of working age in 2016 (some 7,450 people) are so classified, compared with just 4% of the general population. Given the obvious relationship between the proportion employed and the proportion unable to work, it is worth adjusting the former to account for the latter. Adjusted accordingly, the proportion of people with VI who are employed (that is the proportion who are not unable to work because of their disability, who are employed) rises to 49%. This is still lower than the corresponding estimate in respect of the general population (65%), but the gap is not as wide as indicated by the unadjusted figures.

Table 2: Adjusted Employment and Unemployment Rates, 2016		
(%)	Employment	Unemployment
General Population	65.3	9.9
Visually Impaired	49.0	19.9

But if excluding those who can't work has the effect of raising the employment rate amongst those with VI, both in absolute terms and relative to the general population, it also has the effect of raising the unemployment rate both in absolute terms (to almost 20%) and in relative terms (the equivalent rate amongst the general population is just under 10%).

One other aspect of the data in *Table 1* that is worthy of comment at this stage relates to education: students make up a significantly lower proportion of those with VI than of the general population, 9.7% compared with 13.7%, although it should be noted that much of this differential reflects the age distribution of VI[1] . We return to the issue of education in Section 8 below.

3. Differences by Age

An obvious next step in the analysis is to examine how the labour force status of people with VI varies with age. We start here by looking at the variation in inability to work across age cohorts. The relevant data in this regard are summarised in *Table 3* and clearly demonstrate that the proportion of those with VI who are classified as unable to work because of their disability rises steeply with age, from 10% in the youngest age cohort to 45% of the 55-64 year-old cohort.

A similar pattern is also evident amongst the general population, but the proportions are much smaller, and the differential between those with VI and the population generally widens very considerably (from 9 percentage points in the 15-24 age cohort to over 34 percentage points in the case of those aged 55-64.

Table 3: Prevalence of Inability to Work, 2016

(%)	General Population	Visually Impaired
15-24	1.0	10.0
25-34	2.1	18.9
35-44	3.1	24.6
45-54	6.1	36.8
55-64	10.8	45.0
15-64	4.3	30.6

Two important implications of the foregoing are worth drawing out:

- The raw employment rate amongst those with VI falls steeply with age (from 49% for the 25-34 year-old cohort to 22% for 45-64 year-olds) as the proportion unable to work rises;

1 The proportion of the population affected by VI rises sharply with age.

- The differential between the proportions employed amongst those with VI and the general population widens appreciably (from 26 percentage points for 25-34 year-olds to almost 34 percentage points for the 55-64 year-old cohort).

It is more meaningful therefore to exclude those classified as unable to work from the analysis, thus removing inability to work as an explanation for differential employment and unemployment rates as between those with VI and the population as a whole. This is done in Table 4.

Table 4: Adjusted Employment and Unemployment Rates by Age Cohort, 2016

(%)		15-24	25-34	35-44	45-54	55-64	15-64
Emp Rate	Gen Pop	24.4	76.8	79.4	77.2	62.3	65.3
	VI	19.6	60.6	64.1	59.3	40.2	49.0
Unemp Rate	Gen Pop	8.4	11.4	9.1	9.8	10.7	9.9
	VI	12.2	21.1	19.0	22.4	23.4	19.9

For people of working age, and who are not classified as unable to work because of their disability, the proportion in employment amongst those with VI is 49%, about 16 percentage points lower than the equivalent proportion for the general population. For three of the five relevant age cohorts, the gap is not greatly different from this. However, in the case of the 15-24 cohort, it is considerably narrower at just 5 percentage points, indicating that the probability of a person in this age range with VI being employed is not much lower than the probability in respect of a person of the same age in the general population. However this is a cohort where the majority are in education rather than employment, so it is not especially significant from a labour market perspective.

At the other end of the age spectrum, in the case of the 55-64 cohort, employment rates (adjusted) fall steeply, especially so for those with VI, and so the differential widens to 22 percentage points. What is happening here is that the numbers in retirement rise, but more strongly amongst those with VI than amongst the general population.

4. What Happened as the Labour Market Improved?

At the time of the 2011 Census the economy was close to its nadir following the financial crash. By 2016 an economic recovery was well in train. Over the intervening period, labour market conditions improved considerably, and this shows up clearly in the labour market status of the general population. As *Table 5* indicates, the proportion of the population aged 15-64 that was in employment increased by about 5 percentage points over this period, and the proportion unemployed declined to a roughly offsetting degree.

Table 5: Employment and Unemployment Rates, 2011-2016

		General Population		Visually Impaired	
		2011	2016	2011	2016
Emp Rate	Unadj	57.3	62.4	32.6	34.0
	Adj	60.0	65.3	46.1	49.0
Unemp Rate	Unadj	13.7	9.4	15.9	13.8
	Adj	14.4	9.9	22.5	19.9

How did the experience of a buoyant labour market of those with VI compare with that of the general population?

The principal changes are in the same direction, but a good deal less pronounced:

- The proportion in employment rose by just 1.4 percentage points, from 32.6% to 34%;
- The proportion unemployed fell by 2.1 percentage points, compared with a fall of 4.3 percentage points for the population as a whole

Adjusting these estimates to exclude those categorised as unable to work because of their disability makes little difference and leaves the main conclusion unaltered: the rise in employment and the fall in unemployment amongst those with VI were significantly more modest than the corresponding changes recorded by the general population.

Table 6 sheds a little more light on the matter. It sets out the changes in adjusted employment rates that occurred between 2011 and 2016, by age cohort. For each cohort the proportion of those capable of work who were employed increased faster amongst the general population than amongst those with VI. The age cohorts where employment rates for those with VI increased most strongly in both absolute and relative terms were 35-44 and 45-54.

Table 6: Changes in Adjusted Employment Rates, 2011-2016		
(% pts)	**General Population**	**Visually Impaired**
15-24	+1.7	+0.2
25-34	+5.2	+2.3
35-44	+7.2	+5.7
45-54	+5.2	+4.9
55-64	+6.9	+3.6
15-64	+5.3	+2.9

5. Comparing the Experience of VI with Other Disabilities

The censuses collect data in respect of a range of disabilities. In this section we compare the labour force status of those with VI with that of other disabilities, in particular deafness and intellectual disability (ID).

Table 7 sets out some key data. The first point worth noting is that the profile of those with VI is very similar to that of the total disabled population. In other words, from a labour force point of view, the experience of those with VI is very close to the average of all those who are affected by some sort of disability. Thus the (unadjusted) employment rate amongst those with VI is virtually identical to that of the generality of disabled people, as is the proportion classified as unable to work.

Table 7: Labour Force Status of People Aged 15-64 by Type of Disability							
	Employed	Unemployed	Student	Retired	Unable to Work	Other*	Total
Intellectual Disability	14.6	11.1	20.1	1.3	49.2	3.7	100.0
Visually Impaired	34.0	13.8	9.7	4.3	30.6	7.6	100.0
Hearing Impaired	45.6	12.7	5.2	7.1	20.8	8.4	100.0
All Disabled	33.9	12.6	11.0	4.0	30.3	8.1	100.0

** Including home duties*

Compared with other specific disability categories, the experience of those with VI lies somewhere between the experience of those affected by deafness and those affected by ID. Those affected by deafness are distinctly less disadvantaged in the labour market, with just 21% classified as unable to work and some 46% actually employed, while those affected by ID are distinctly more disadvantaged, with almost half categorised as unable to work and less than 15% in employment.

These overall conclusions remain valid when the employment (and unemployment) proportions are adjusted to take account of those unable to work. *Table 8* sets out the relevant data. Thus, even when those classified as unable to work are excluded from the analysis, the probability of someone with a hearing impairment being employed (58%) exceeds that of a person with VI (49%) which in turn considerably exceeds that of a person with ID (29%).

Table 8: Adjusted Employment and Unemployment Rates by Disability Type		
(%)	**Employment**	**Unemployment**
Intellectual Disability	28.8	21.8
Visually Impaired	49.0	19.9
Hearing Impaired	57.6	16.0
All Disabled	48.6	18.1

Not surprisingly, the opposite conclusion applies in respect of unemployment: the probability of a deaf person being unemployed (16%) is lower than that of a person with VI (20%) which is somewhat lower in turn than that of a person with ID (22%). Once again, the similarity between the estimated in respect of those with VI and the general disabled population is noteworthy.

6. Differences Across Different Forms of VI

The data on VI that we have been analysing thus far relate to visual impairment in all its manifestations whether VI alone, VI in combination with one other form of disability (e.g. VI + ID), or VI in combination with two or more other disabilities, a condition called multi-disability visual impairment or MDVI. It is of some interest to know how and to what extent the labour market status of those with VI varies across these different manifestations. Some relevant data are presented in *Table 9*.

The first seven rows of this table relate to discrete non-overlapping conditions, ranging from VI only, through VI in combination with just one other condition, to MDVI. The last two rows set out what might be considered to be benchmark data, one set relating to all those affected by VI (an average of the foregoing), and the other relating to the general population.

Of the discrete conditions, it is clear, not surprisingly, that MDVI carries with it the greatest handicap from a labour market point of view. Almost 60% of those with MDVI are unable to work because of their disability, and only one-in-eight are employed. Even amongst those with MDVI who are not unable to work, just 30% are employed and the proportion unemployed is almost as high as this. Of the dual diagnosis conditions covered in the table, VI with ID and VI with a physical disability also score very poorly from a labour market perspective. On the other hand, the combination of visual impairment and hearing impairment is not especially disadvantageous in labour market terms: just 17% of people with this dual disability are unable to work and 45% of them are in employment.

Table 9: Labour Market Outcomes for People with VI, 2016		
(%)	Employment rate*	Unable to Work
VI only	50.6 (56.7)	11.0
VI + Hearing disability	44.5 (53.6)	17.0
VI + Intellectual disability	21.2 (38.5)	44.9
VI + Learning disability	29.5 (35.2)	16.3
VI + Physical disability	16.0 (31.0)	47.0
VI + Psychological condition	29.5 (41.0)	28.2
MDVI	12.4 (30.4)	59.1
VI	34.0 (49.0)	30.6
General Population	62.4 (65.3)	4.3

** Adjusted rates in brackets*

Obviously, if one is affected by VI, it is best to have VI only: just 11% of people in this situation are classified as unable to work and over half of them are employed. These proportions are much closer to those that apply to the general population than to those that pertain to the totality of people affected in some way by VI.

7. What Kind of Jobs?

The census collects data on the types of jobs that people do. There are eleven categories, ranging across the spectrum of skill and responsibility from 'Employers and managers' to 'Unskilled manual', and separating out 'Farmers' and 'Agricultural workers'. It is interesting to compare the distribution of people with VI across these categories with that of the general workforce. This is done in *Table 10* for all ages.

In very broad terms, the distribution of people with VI across the occupational categories is not radically different from that of the general working population. That said, people with VI tend to be under-represented amongst employers and managers, professional positions (both higher and lower) and skilled manual jobs. For example, less than 19% of people with VI who are employed work in the professions, compared with 24% of the workforce as a whole. On the other hand, people with VI tend to be over-represented in general non-manual employments (a category that includes administrative and clerical posts) and in unskilled and semi-skilled manual occupations. The latter two categories together account for 17% of VI people who are employed, compared with just over 12% of the workforce as a whole.

Table 10: Socio-Economic Status of those at Work, All Ages

(%)	General Population	Visually Impaired
Employers and Managers	15.4	13.5
Higher Professional	8.4	6.3
Lower Professional	15.6	12.4
General Non-Manual	25.0	27.1
Skilled Manual	7.8	5.2
Semi-skilled and Unskilled	12.4	17.0
Farmers and Ag Workers	4.3	5.9
Other	11.1	12.8

More granular analysis indicates that most of the patterns noted above are persistent across age cohorts. This is true of the under-representation of people with VI in the professions and in skilled manual jobs. It is also true of the over-representation of VI in the non-manual category, and in semi-skilled and unskilled manual jobs if we ignore the 15-24 cohort where the estimate may be anomalous for statistical reasons[2].

2 Details of this more granular analysis are available from the author by request.

8. Educational Attainment of People with VI

A key determinant of the type of job a person does is the amount of education he/she has received. An important influence therefore on the pattern of employment amongst people with VI is the pattern of educational attainment. The census collects data on educational attainment, defined as the highest level of education reached. In this regard there are a number of categories spanning the range from no formal education to PhD level.

Table 11: Educational Attainment of those Aged 15+, 2016		
(% of total)	**General Population**	**Visual Impaired**
Primary*	10.3	32.6
Lower Secondary	12.0	15.5
Higher Secondary	15.3	12.6
Technical, Apprenticeship etc	16.2	11.6
Primary Degree	15.1	7.1
Post Graduate**	8.4	3.2
Education Not Ceased	11.4	4.7
Other/Not Stated	11.3	12.7

** Including those with no formal education*
***Including PhDs*

Looking in the first instance at all persons aged 15 and over, *Table 11* indicates that people with VI are over-represented at the lower levels of educational attainment and under-represented at the higher levels. Thus, almost a third of all those affected by VI who are aged 15 and over are recorded as either having no formal education at all or of not going beyond primary level. The corresponding proportion for the general population is just over 10%. At the other end of the scale, about 7% of those with VI have primary degrees and a further 3% have some form of postgraduate qualification (including those with PhDs). The corresponding proportions amongst the general population are 15% and 8.4% respectively.

The relatively poor performance of those with VI in the education attainment stakes is related to age. On the one hand, the incidence of VI increases with age and is especially heavy amongst the cohort aged 65 and more. On the other hand, educational attainment throughout the population diminishes with age – the older generations have not benefited from mass participation in third level. Consequently, it is important to examine how patterns of educational attainment amongst those with VI compare with those of the general population across different age cohorts.

Table 12: Educational Attainment Amongst Those Able to Work, 2016

(% of total)	25-34 Gen Pop	VI	55-64 Gen Pop	VI
Primary*	2.2	4.6	12.6	22.5
Lower Secondary	6.0	8.8	20.3	20.1
Higher Secondary	14.2	14.2	20.7	15.5
Technical, Apprenticeship etc	18.9	20.8	16.8	15.5
Primary Degree	24.0	18.1	13.3	8.8
Post Graduate**	12.7	9.8	7.6	4.7

** Including those with no formal education*
***Including PhDs*

In *Table 12*, we specifically examine the position of two age cohorts, 25-34 and 55-64, and we exclude those who are categorised as unable to work. This makes our analysis of educational attainment more relevant to employment patterns.

Amongst those aged 25-34 and not unable to work, it is still the case that people with VI are over-represented at the lower levels of educational attainment and under-represented at the upper levels, but the differentials are not as pronounced as those discussed above. In this category, almost 5% of people with VI either have no formal education or progressed no further than primary level. This compares with 2.2% for the general population. A further 9% of people with VI progressed no further than lower secondary, compared with 6% for the general population. At the other end of the spectrum, some 28% of 25-34 year olds with VI and not unable to work acquired at least one third level degree, compared with 37% of the equivalently defined general population.

Amongst those aged 55-64 and not unable to work, the same broad conclusions apply, although here the over-representation of people with VI at the lower levels of educational attainment is somewhat more pronounced than for the 25-34 cohort.

9. Main Findings

Only one-third of adults with visual impairment (VI) are in employment according to the latest Census, which is about half the equivalent proportion for the general population. This is partly due to the fact that people with VI are much more likely to be classified as unable to work. However, even when adjusted accordingly, the employment rate amongst those with VI, at 49%, is significantly lower than the corresponding figure for the population at large (65%).

Inability to work rises steeply with age amongst people with VI, from less than one in five of those aged 25 to 34 to almost half of those aged 55 to 64. Accordingly, the raw employment rate falls sharply over this age section of the spectrum. So does the adjusted employment rate. Of those people with VI who are not deemed unable to work, just 40% of those aged 55 to 64 are employed whereas the equivalent proportions amongst the cohorts spanning the age range 25 to 54 are in the range 60-65%. For all age cohorts the adjusted employment rate amongst those with VI is significantly lower than the equivalent rate for the general population.

The labour market profile of people with VI is very similar to that of the total population of disabled people, in terms of proportions employed, unemployed, retired, unable to work etc. However, judged on this basis, people with VI do significantly better than people with intellectual disability but not nearly as well as people with hearing impairment.

Within the VI community, there are also notable differences. From a labour market point of view, if one has VI, it is best not to have any other disability and, not surprisingly, the worst outcomes are recorded by those who have multi-disability VI (that is VI with at least two other disabilities). For VI people with one other disability, the least disadvantageous combination is VI with hearing impairment, and the most disadvantageous is VI with a physical disability.

In terms of employment type, people with VI tend to be somewhat (but not dramatically) over-represented in relatively low-skilled jobs and under-represented in high-skilled occupations such as the professions and management. Education provides one explanation for this pattern. Average educational attainment amongst people with VI is significantly lower than for the general population. To a considerable extent this is a function of age – people with VI tend to be older – but it is also true across all age cohorts.

Finally, a cautionary note. All the data presented above are derived from the 2011 or 2016 Census of Population. Census returns are based on detailed forms filled out typically by heads of household, and their accuracy depends on the attitudes and understanding of the individuals concerned. It is possible therefore, that some conditions are under-reported and others over-reported in census data. The same holds true in relation to occupational categories, levels of education attainment and so on. In seeking to minimise inaccuracy, it is important that census questions be as clear as possible and that ongoing consultation take place with those stakeholders who can contribute to achieving this objective. Likewise, it is important that census enumerators continue to provide informed assistance where needed to those filling out the forms.

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November 2019

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