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Factors that Affect the Employment Status of Working-Age Adults with Visual Impairments in New Zealand

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Abstract: Of the 150 working-age visually impaired adults in this study, 59 were in paid employment, 36 were either actively seeking employment or interested but not actively seeking it, and 55 were not interested in employment. Of the 59 who were employed, 22 were considered to be underemployed. The amount of usable vision, gender, and the presence of other disabling conditions were found to have significant affects on the rates of employment, unemployment, and labor force participation and some apparent affects on underemployment.

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Throughout the world, the rate of employment is generally low among persons with visual impairments (that is, those who are blind or have low vision) (Wolffe & Spungin, 2002). Even in the most developed countries, only about 25%–30% of working-age adults (that is, those aged 15–64) with visual impairments are meaningfully employed; 70%–75% are either not employed or underemployed (Bruce, McKennell, & Walker, 1991; Hagemoser, 1996; Hanye & Crudden, 1999; Kirchner, 1988; Leonard, D'Allura, & Horowitz, 1999; McNeil, 1996; Roy, Dimigen, & Taylor, 1998; Tillsley, 1997). In contrast, the employment rates of persons with any type of disability in Great Britain and the United States are 32% and 50% and of those with no disability are 78% and 80%, respectively (McNeil, 2001; Tillsley, 1997). Although no official employment data are available for visually impaired persons in New Zealand, an employment rate of 39% was reported for a randomly selected sample of 150 working-age members of the Royal New Zealand Foundation of the Blind (RNZFB) in 2002 (La Grow, 2003). This figure compares to an employment rate of 40% for those who had any disability in 2001 and 70% for those who did not (Statistics New Zealand, 2003, p. 17).

The employment rate of 39% reported for persons with visual impairments was higher than expected, since it did not differ from the rate of 40% for all persons in New Zealand with any disability (Hanye & Crudden, 1999; McNeil, 2001; Tillsley, 1997). However, it did

vary significantly when the participants' amount of usable vision was considered. It was then seen to range from a mean of 26% for those who stated that they had "no" usable vision to 35% for those who said they had "a little" and 65% for those who said that they had "a lot" (La Grow, 2003). The lower figures were more in line with expectations, with the combined responses for those who said they had no or only a little usable vision resulting in an employment rate of 33%—7% lower than that of the population with any disability (Bruce et al., 1991; Hagemoser, 1996; Hanye & Crudden, 1999; Roy et al., 1998). One reason why the overall figure may have been higher than expected is that the eligibility criteria for membership in RNZFB is liberal by international standards: an acuity of 6/24 (20/80) or less in the better eye after the best-possible correction or a field of view that does not subtend 20 degrees at its widest angle. As a result, a percentage of this population may not have had as significant a visual impairment as those on whom the expectation was set.

One thing that is clear from the foregoing figures is the degree of visual impairment, as well as the type of disability, affect the employment rate among this population. There is evidence that a number of other factors may also influence this rate (Crudden, 2002; Hagemoser, 1996; Hill, 1989; Leonard et al., 1999; Roy, Dimigen, & Taylor, 1996; Wolffe, Roessler, & Schriner, 1992). However, more systematic research is needed on the independent predictors of the employment rate among persons with visual

impairments (see, for example, Leonard et al., 1999).

Factors that affect employment and underemployment

Employment

In a study by the New Zealand Ministry of Health (1998), gender, age at onset, type of disability, severity of disability, and the presence of other disabling conditions were all found to be related to rates of employment among persons with disabilities in New Zealand. Early onset, severity of disability, being a woman, and the presence of other disabling conditions were all related to lower rates of employment and labor force participation (i.e., persons who are employed or are actively seeking employment) among persons with disabilities. The level of education was also found to be related to employment status but was confounded by age of onset and severity of disability. The type of disability (which was divided into five subcategories labeled physical, sensory, psychiatric, intellectual, and other) was found to have a differential effect on employment rates. The category of sensory disability, which included those with visual impairments and those with hearing impairments, had the least-negative effect on employment rates of the five. However, those with hearing impairments outnumbered those with visual impairments by more than 2 to 1. As a result, it was not possible to draw any conclusions on the possible effects of visual impairments on rates of

employment for persons in this category.

There is also evidence that age, the degree of disability (amount of usable vision), the level of education, gender, and the presence of other disabling conditions have an affect on the rate of employment among working-age persons with visual impairments (Crudden, 2002; Hagemoser, 1996; Hill, 1989; Leonard et al., 1999; Roy, et al., 1996; Tillsley, 1997; Wolffe et al., 1992). Age has been found to have a negative affect on rates of employment (Crudden, 2002), as have being a woman and having other disabling conditions (Leonard et al., 1999), while both the amount of available vision (Hill, 1989; La Grow, 2003; Leonard et al., 1999) and level of education (Hagemoser, 1996; Roy et al., 1996; Wolffe et al., 1992) has been found to have a positive effect. There is mixed evidence on the effect of age at onset on employment rates (Crudden & Hanye, 1999). However, there is reason to believe that persons with congenital visual impairments who are employed are more likely to be underemployed than are those with adventitious visual impairments (Leonard et al., 1999).

Underemployment

"Research indicates that not only are persons who have a visual impairment employed at a lower rate, they are also less likely to be employed at levels consistent with their education and skills" (Leonard et al., 1999, p. 33) and are paid less than others and disadvantaged in

terms of advancement (Roy et al., 1996). This statement appears to be true in New Zealand as well, where 24% of those who were working said that they worked too few hours, 30% said that the levels of their present jobs were too low for their ability and qualifications, 36% said they thought their chances for advancement were worse than those of their peers, and 40% said that their rates of pay were too low for the jobs in which they were employed (La Grow, 2003).

Despite the dearth of research on the factors that affect underemployment, there is reason to believe that both the degree of impairment and age at onset have an effect on underemployment, with those with earlier onset and those with the most severe impairments being more disadvantaged than are others (Crudden & Hanye, 1999; Leonard et al., 1999). One would also expect that the level of education, gender, and the presence of other disabling conditions would have an impact on this situation as well. Thus, in the study reported here, I examined the effects of age, age at onset, gender, degree of impairment, level of education, and presence of other disabling conditions on the employment status (including rates of underemployment) of members of the RNZFB.

Employment status

Employment status is generally reported in terms of rates of employment, unemployment, and labor force participation. Underemployment is not generally

included as a standard measure of employment; rather, it is more intuitive and is drawn from other sources, like relative income (Roy et al., 1996) or occupational status (Leonard et al., 1999).

Employment rates are the most straightforward and are determined by dividing the number of people in paid employment during a specified period by the total number of working-age people in that population and multiplying the quotient by 100 to get a percentage or rate. Rates of labor force participation are determined by adding the number of persons who are not currently employed but are actively seeking employment to those who are currently employed and dividing the sum by the total, whereas unemployment rates are determined by dividing the number of persons who are not currently employed but are actively seeking employment by the total (Kirchner & Peterson, 1988). Thus, the latter two categories include only those who were actively seeking employment at the time of the survey. As a result, the subsequent unemployment rate is relatively low compared to the total number of people in a given population who are not employed (Kirchner & Peterson, 1988), since those who are not seeking employment are considered to be uninterested in employment and legitimately pursuing other activities (for example, raising young children, attending college, or enjoying early retirement).

Although this assumption may be accurate for the population as a whole, it may be too optimistic for

persons with disabilities who tend to participate in the labor force at much lower rates than their nondisabled peers. In New Zealand, for example, 44% of all persons who identified themselves as being disabled in 2001 were considered to be in the labor force (that is, labor force participation rate). Of that proportion, 91% were currently in paid employment (that is, 40 of the 44%) and 9% (that is, 4 of the 44%) were not. The unemployment rate, then, was 9% even though 60% of this population were not engaged in paid employment. These figures contrast with 74% of those without disabilities who were in the labor force, of which 70% were employed, resulting in an official unemployment rate of about 5.4% (that is, 4/74).

As I mentioned previously, the assumption that underlies the latter labor force participation rate and the subsequent unemployment rate is that the 26% of the working-age population in New Zealand who were not included in this calculation were otherwise occupied and therefore not currently interested in employment. As a result, these persons were not included when the unemployment rate was determined. Although this may be a valid assumption, one must wonder if it would hold true for the 56% of those with disabilities who are not in the workforce or if a significant proportion of the additional 30% in that group's nonparticipation rate are actually interested in employment but simply no longer seeking it (for example, discouraged workers). Believing that the latter may be an accurate assumption, I included those

who stated that "although they are not actively seeking it, they would be interested in employment if it were available" in the same category as those who are not employed but actively seeking it, as some earlier studies have done (Freedman & Fesko, 1996; Kirchner, Johnson, & Harkins, 1997). Thus, in this study, employment status was viewed as having three levels: (1) currently in paid employment, (2) interested but not currently employed, and (3) not interested in paid employment at this time. This study sought to identify the factors that affect employment status among working-age members of RNZFB, including rates of underemployment (i.e., underemployed or not underemployed) among those who were currently in paid employment.

Method

As I reported earlier, 150 registered members of RNZFB (67 men and 83 women) were randomly selected for participation in a study to determine the rates of employment and unemployment among this population (see La Grow, 2003). The data that were gathered from that sample on employment status, including perceptions of underemployment, are further analyzed here.

Procedure

In addition to the questions asked to determine employment status, a number of demographic details

were also gathered, including age, age at onset, amount of usable vision, level of education, gender, and the presence of other disabling conditions. These details were used as independent variables to identify the factors that affected the employment status (that is, employed, unemployed, not interested in employment) of this sample and underemployment (that is, underemployed, not underemployed) among those who were currently in paid employment. Each factor was recorded as a nominal dichotomous variable (gender, presence of other disabling conditions) or as an ordinal variable with no more than three levels of response (amount of usable vision available) or was transformed from a continuous variable (that is, age) into an ordinal variable.

The dependent variable, underemployment, was transformed into a simple dichotomous variable (that is, underemployed, not underemployed) from responses recorded on a 5-point Likert scale to questions on the participants' perceptions of (1) the number of hours worked, (2) the level of the job in relation to their abilities and/or qualifications, (3) their chances for advancement, and (4) their rate of pay (see La Grow, 2003). This transformation was done in two steps. First, responses of 1 ("way too low") and 2 ("a bit too low") were recorded as negative responses, and responses of 3 ("about right"), 4 ("a bit too high"), and 5 ("way too high") were recorded as positive responses. Second, all those who responded negatively to two or more of the questions were considered to be

underemployed, and the rest were not. Only those who stated that they were currently in paid employment were considered for inclusion in this part of the study.

The unemployment rate was determined by dividing the number of persons who were not currently employed but interested in employment (that is, those who were not employed but were seeking employment and those who were not seeking employment but stated that they were interested in employment) by the total number in the sample. This rate would be considered an unofficial unemployment rate because it included more people than just those who were actively seeking employment at the time of the survey. Similarly, adding all those who were interested in employment plus those who were currently employed and dividing by the total determined the labor force participation rate. Again, this rate would be higher than the official labor force participation rate, which includes only those who are actively seeking employment plus those who are currently employed. The unofficial participation rate used in this study is the inverse of the rate for those who stated that they were not interested in employment at the time of the survey. Both official and unofficial unemployment and labor force participation rates are reported, yet unofficial rates were used as the primary dependent variables in this study.

Age, age at onset, amount of usable vision, gender, the presence of other disabling conditions, and level of

education were cross-tabulated against employment status and underemployment to determine if the proportion of observed cases in each category was significantly different than expected. A Pearson chi-square test was used to determine significance. The *p*-value was set at .05.

Results

As can be seen in Table 1, 59 of the 150 participants were currently in paid employment (39.3%), 21 were actively seeking employment, and 15 were interested in employment. Thus, 36 (24%) were interested in employment but were not currently employed, and 55 (36.7%) were not interested in employment at the time of the study. Officially, 53.3% (n = 80) would be considered to be in the labor force and 14% would be considered to be unemployed. Unofficially, the labor force participation rate was found to be 63.3%, and the unemployment rate, 24%.

Of the 59 who were currently employed, 56 said they were in competitive employment, and 3 responded "other." No one responded that he or she was in sheltered employment. Twenty-eight said that they worked 30 hours or less per week (47.5%) and therefore could be considered to be part-time employees. Fifty-two responded to the request to describe their current position; 9 were employed in the service industry (17.3%); 7 were employed as unskilled laborers (13.4%); 6 each were employed in

professional (11.5%), managerial (11.5%), sales (11.5%), and clerical (11.5%) positions; 4 were employed as skilled laborers (7.7%); 1 was employed in a technical (0.7%) position; and 7 responded "other" (13.4%). Of the 55 who responded to the question concerning the employment sector in which they were employed, 26 worked in the private sector (47.3%), 14 worked in the public sector (25.3%), and 15 were self-employed (27.3%).

Factors that affect employment status

Current age, age at onset, amount of usable vision, gender, the presence of other disabling conditions, and level of education were assessed to determine the effect that each had on employment status. Of the 147 people who gave their age, 40 (27.2%) were aged 18–32, 46 (31.3%) were aged 33–47, and 61 (41.5%) were aged 48–63. In terms of age at onset, 54 (36.5%) of the 148 who responded to this question experienced the onset of a visual impairment at birth or by age 5, 70 (37.3%) experienced it from age 6 to 39, and 24 (16.2%) experienced it at age 40 or older. Of the 148 who responded to the question regarding their amount of usable vision, 27 (18.2%) said they had no usable vision, 88 (59.5%) said they had a little usable vision, and 33 (22.3%) said they had a lot of usable vision. In response to whether they had other health issues or disabling conditions that affected their functioning, 64 (42.7%) said yes and 86 (57.3%) said no. Only those who were employed or were interested in employment

(*n* = 95) were asked their level of education. Of the 89 who responded to this question, 24 (27%) said they had no formal educational qualification (that is, they did not have a high school certificate, a diploma, or an equivalent), 27 (30.3%) said they had a secondary qualification (that is, they had a high school certificate, a diploma, or an equivalent), and 38 (42.7%) said they had a tertiary qualification (that is, any postsecondary qualification).

All six factors that were investigated (that is, age, age at onset, amount of usable vision, gender, the presence of other disabling conditions, and education) seemed to exert some influence on the percentage of those who were in paid employment and those who stated that they were not interested in employment, while four variables were seen to have some effect on the percentage of those who stated they were interested but not currently in paid employment (that is, unemployed). As can be seen in Table 2, those in the younger age groups (ages 18–32 and 33–47) were in paid employment at a higher rate (42.5% and 45.7%, respectively) than were those in the oldest age group (34.2%); those who experienced the onset of a visual disability at the youngest age (ages 0–5) were employed more often (44.4%) than were those who experienced it later (27.4% of those who experienced it at age 6–39 and 25% of those who experienced it after age 40), while those who stated that they had a lot of vision were in paid employment more often (63.3%) than were those who said they had a little (35.1%) or

those who said they had no usable vision (25.9%). Men were in paid employment more often than were women (43.3% versus 32.6%), and those who stated that they had no other disabling conditions were in paid employment (47.7%) more often than were those who said that they did (28.1%).

As I stated earlier, only those who were in paid employment or were interested in paid employment (*n* = 95) were asked about their educational levels. Of the 89 participants who responded to this question, those with secondary qualifications were in paid employment more often (70.4%) than were those with tertiary qualifications (63.2%) and much more often than were those with no educational qualifications (45.8%).

With regard to those who would be considered to be unemployed (that is, interested but not employed), the trends seem to be a reflection of the participants' choice to participate or not to participate in the labor force. For example, those with the lowest unemployment rates also had the lowest rates of employment and the highest rate of those who stated that they were not interested in employment at this time on three of the five factors that were investigated (that is, the age 40 or older group at age of onset, women, and those with other disabling conditions). This trend varied only in terms of the amount of usable vision, with those with the least amount of vision having the highest rate of unemployment, the lowest rate of employment, and the highest rate of

nonparticipation in the labor force, and those with the most amount of vision having the highest rate of employment, a moderate rate of unemployment, and the lowest rate of nonparticipation in the labor force. Little variation was seen in the unemployment rate by age, while unemployment was simply the inverse of employment in terms of educational level, since only those who participated in the labor force were asked for their level of education.

A clear trend emerged in terms of nonparticipation in the labor force, with those in the oldest age group (age 48–63), those with the latest age at onset (age 40 or older), those with the least amount of vision (no usable vision), women, and those with other disabling conditions being the most likely to state that they were not interested in paid employment at the time of the survey. No data on this aspect of employment status were collected in terms of level of education. Although these trends were reasonably apparent across the groups, only those observed by the amount of usable vision (chi square = 14.42, $p = .006$), gender (chi square = 7.41, $p = .025$), and the presence of other disabling conditions (chi square = 25.42, $p = .000$)) were found to be significantly different from what was expected.

Factors that affect underemployment

Twenty-two of the 59 participants who were employed (37.3%) responded negatively on two or more of the

factors that were used to assess underemployment and were therefore considered to be underemployed. The remaining 37 (62.7%) were not. See La Grow (2003) for details of the participants' responses on each of the four items related to underemployment.

As can be seen in Table 3, there were some apparent differences in the rates of underemployment by age, age at onset, amount of useful vision, gender, the presence of other disabling conditions, and level of education. However, in no case was the observed rate significantly different from what was expected.

In terms of age, those in the middle age group had the highest rate of underemployment (52.3%), while those in the oldest age group had the lowest rate (23.8%). In terms of age at onset, there were no real differences in the rates of underemployment among those in the earliest age at onset (age 0–5) (41.7%) and those in the later age group (age 6–39) (42.9%). Yet both varied greatly from the oldest group (age 40 or older), in which no one was found to meet the criteria for being designated as underemployed. In relation to the dichotomy between congenital and adventitious onset, there was some difference between the groups, with those with congenital onset having a higher rate of underemployment (41.7%) than those with adventitious onset (35.3%). In terms of amount of usable vision, those with a little usable vision had the highest rate of underemployment (45.2%), while those with no or a lot of usable vision had identically lower

rates (28.6%). With regard to gender, the women had a higher rate of underemployment (43.3%) than did the men (31%). Those who had other disabling conditions (38.9%) had somewhat higher rates of underemployment than did those who did not (36.6%). Finally, those with no formal education were the most likely to be underemployed (63.6%), followed by those with a secondary qualification (36.8%) and those with a tertiary qualification (29.2%).

Discussion

The overall rate of employment found in this sample (39.3%) was higher than expected (25% to 30%) when compared to the rate that has generally been reported for visually impaired persons in other developed countries (Bruce et al., 1991; Hagemoser, 1996; Hanye & Crudden, 1999; Kirchner, 1988; Leonard et al., 1999; McNeil, 1996; Roy et al., 1998; Tillsley, 1997). It was also higher than expected in relation to the rate of 40% reported for all persons with disabilities in New Zealand, since persons with visual impairments are generally thought to be employed at rates lower than that found in the general population of those with disabilities. However, when the amount of usable vision was controlled, the rates were found to be in line with both these expectations. When only those with no or a little usable vision were considered, the employment rate was found to range from 26% to 35%, with an average of 33% for these two groups, and was therefore 7% lower than that found for persons

with disabilities in general in New Zealand. The former rate was in line with those of other developed countries (Bruce et al., 1991; Hagemoser, 1996; Hanye & Crudden, 1999; Kirchner, 1988; Leonard et al., 1999; McNeil, 1996; Roy et al., 1998; Tillsley, 1997), while the latter was in line with what was expected (Hanye & Crudden, 1999; McNeil, 2001; Tillsley, 1997) and gives some credence to the expectation that the type as well as the degree of disability would effect rates of employment (New Zealand Ministry of Health, 1998), with visual impairment resulting in lower rates than the mean for persons with disabilities as a whole and in direct opposition to that found for the category of sensory impairment overall.

The labor force participation rate (63.3%) and the unemployment rate (26%) that were reported in this study were relatively high compared to the official rates because of the way they were determined. In this study, the unofficial rates of labor force participation included all those who were interested in employment, regardless of whether they were actively seeking it. Thus, both the labor force participation rates and the subsequent unemployment rates that were determined from them were about 10% higher than were the official rates, which were determined using only those who were actively seeking employment and those who were currently employed at the time of the study (14% for the unemployment rate and 53.3% for the labor force participation rates). Therefore, they are not particularly useful in comparison to those that were

reported for persons with or without disabilities in New Zealand. However, they are both probably more reflective of the way in which people perceive their employment status than are the official rates, and variations in them in relation to the factors that were investigated would still be indicative of those effects. They are also comparable to the rates found in earlier studies that used similar methods and similar to the rates found in other developed countries (Freedman & Fesko, 1996; Kirchner et al., 1997). However, even when the official rates are used, it appears that those with visual impairments have higher unemployment rates (14% versus 9%) than do people with disabilities in general in New Zealand.

Three factors (the degree of visual impairment, gender, and the presence of other disabling conditions) were found to have significant effects on the rate of employment in this study. The degree of visual impairment was found to have an inverse effect on the employment rate, as expected (Hill, 1989; Leonard et al., 1999). However, the degree to which this effect was noted may have been even higher than expected, with those with no usable vision found to be in paid employment at less than half the rate (25.9%) of those with a lot of vision (63.3%); and those with a little nearly so (35.1%). Being a woman and having other disabling conditions was also found to have negative effects on rates of employment as expected (Leonard et al., 1999).

Level of education did not have as direct an effect as expected (Hagemoser, 1996; Roy et al., 1996; Wolffe et al., 1992). While those with no formal educational qualification had the lowest rate of employment, those with secondary levels of qualification did not follow directly. Rather, those with secondary qualifications had the highest rate of employment, followed by those with tertiary qualifications.

The literature has reported mixed evidence of the effect of age at onset on employment rates. It is often expected that persons with congenital visual impairments will have lower rates of employment than will those with later onset for a number of reasons, but this expectation has not always been borne out in studies of this relationship (Crudden & Hanye, 1999), nor was it found in this study. In fact, persons with congenital visual impairments had the highest rate of employment, although they also had the highest rate of unemployment. Thus, they had the highest labor force participation rate as well.

This finding varies from that reported for all persons with disabilities in New Zealand, for whom congenital onset was clearly associated with both lower employment rates and lower labor force participation rates (New Zealand Ministry of Health, 1998). However, this finding may be explained by the fact that persons with intellectual disabilities would be disproportionately represented in the group whose onset was congenital among all those with disabilities

in New Zealand. The report of the New Zealand Ministry of Health (1998) speculated that this finding may be confounded by educational level as well, since those with congenital onset had lower levels of educational attainment than did others. All other factors that affected employment and labor force participation among persons with disabilities in New Zealand were found to have a similar affect on those with visual impairments.

The study also indicated that younger persons were more likely to be interested in work than were older ones, as were those with a lot of usable vision versus those with a little usable vision and those with no usable vision, men versus women, and those with no other disabling conditions versus those with other disabling conditions. A reasonably high level of underemployment (37%) was found among those in paid employment, as was expected on the basis of earlier studies (Leonard et al., 1999; Roy et al., 1996). Although none of the observed rates of underemployment by age, age at onset, amount of usable vision, gender, presence of other disabling conditions, or level of education was found to be significantly different from what was expected, the apparent trends in these data proved interesting and varied somewhat from those that were expected. For example, it was expected that those with earlier onset and those with the most severe disabilities would be the most likely to be underemployed (Crudden & Hanye, 1999; Leonard et al., 1999), yet there was no

apparent difference between those with the earliest onset (age 0–5) and those with later onset (age 6–39). However, there was a great deal of difference between these two groups and those with the latest onset (age 40 or older). When this variable was collapsed into a dichotomous variable of congenital and adventitious onset, it was found that the congenital group had a higher rate of underemployment than did the adventitious group (41.7% versus 35.3%). However, this difference can clearly be seen to be a product of the nil rate in the late-onset group.

Furthermore, the expectation that the more severe the disability, the greater the rate of underemployment did not seem to be upheld when the level of usable vision was viewed in terms of no, a little, and a lot of usable vision. In this case, there was no apparent difference in the observed rate of underemployment among those with no usable vision and those with a lot, but there was an apparent difference between these two groups and those with a little usable vision. If the groups with the more severe visual impairments were collapsed, the expected difference would be apparent, with the two groups with more severe visual impairments having a higher rate of underemployment (42%) than would the least-severe group (28.6%). However, this finding appears to be the product of a higher rate in the group who had a little usable vision as opposed to those with no usable vision.

It was also postulated that the level of education,

gender, and the presence of other disabling conditions would have an impact on the level of underemployment. This hypothesis was partially supported. The women did have a higher rate of underemployment than did the men, and those with the lowest level of education had the highest level of underemployment compared to those with higher levels of education. However, no apparent difference was found in terms of those with other disabling conditions.

It appears from this study that women are disadvantaged in rates of both employment and underemployment, as are those with the least amount of education and those with a little usable vision. Those with no formal educational qualification were the most disadvantaged group in both rates of employment and underemployment, while those who had a little usable vision were more disadvantaged on these two dimensions than were those who had no usable vision and those who had a lot of usable vision. This was also the largest group in the study.

One major limitation of this study was the small sample. Although the small sample may not have proved to be a problem with regard to occupational status, it clearly was in terms of underemployment, for which the sample was reduced from 150 to 59, since only those who are employed can be underemployed. However, some interesting trends were observed that deserve further study.

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