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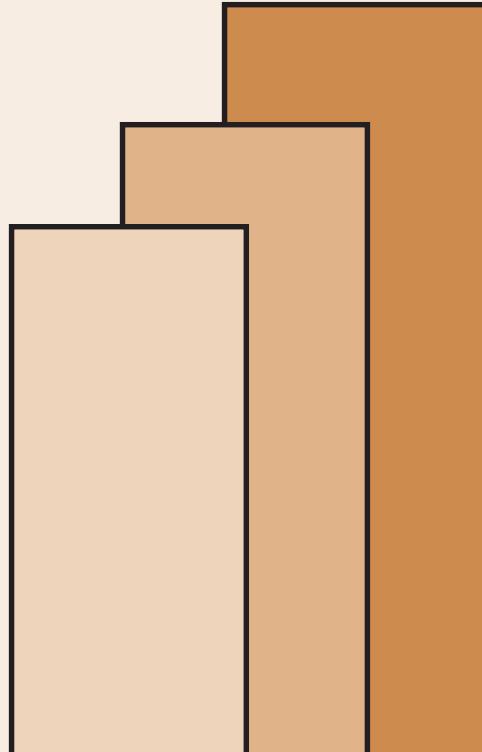
Christian D. Mina

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Employment of persons with disabilities (PWDs) in the Philippines: The case of Metro Manila and Rosario, Batangas

Christian D. Mina[†]

Abstract

Persons with disability (PWDs) are among the vulnerable groups in the country that need utmost attention from the government. This is the perhaps the reason why the institutional and legal environment has been made favorable to this particular group, especially in the area of employment. However, earlier reports note that the quality of employment of PWDs still needs improvement.

This paper examines the employment profile of PWDs in the Philippines, using the 2008 and 2010 disability surveys in selected cities of Metro Manila (urban) and Rosario, Batangas (rural), respectively. Key findings of this paper are as follows: (1) Proportion of employed among PWD respondents in the urban area is relatively higher than that in the rural area; (2) Roughly half of working PWDs are underemployed; (3) Employed PWDs in the urban area is dominated by the visually-impaired while the hearing-impaired has the highest proportion of employed in the rural area; (4) The leading occupation among PWDs in the urban area is masseur while farmer/farm worker/ livestock and poultry raiser in the rural area, although many respondents in both areas are also engaged in entrepreneurial activities (e.g., managing a *sari-sari* store, e-load business, among others) and are working as helpers/utility workers or laborers; (5) The majority of employed respondents in both areas are considered as vulnerable workers—self-employed and unpaid family workers; (6) Some PWDs who are wage/salary workers are considered as informally employed as they are working as temporary workers without formal contract, seasonal workers, or hired on a daily basis; (7) Multiple Correspondence Analysis (MCA) suggests that being a member in a Disabled People's Organization and being at least high school graduate strongly correlate with being employed; and, (8) MCA also revealed that PWDs who are at least college graduates are more closely related to being officers/managers/supervisors, professionals and technicians/associate professionals while those who are at most elementary graduates tend to be laborers/unskilled and agricultural workers.

Keywords: employment; labor force participation; source of personal income; occupation; class of worker; urban; rural; Metro Manila; Rosario, Batangas; education; Multiple Correspondence Analysis

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Employment of persons with disabilities (PWDs) in the Philippines: The case of Metro Manila and Rosario, Batangas

Introduction

Laws concerning the rights of persons with disability (PWDs) in the area of employment have long been implemented in a number of countries, including the United States, United Kingdom and Japan. The Americans with Disabilities Act of 1990 (which was amended in 2008) is considered as one of the most important laws that have notable anti-discrimination provisions in the area of employment in the United States. Other U.S. laws addressing employment of disabled persons include the Small Business Act Amendments of 1972, the Tax Reduction and Simplification Act 1977, and the Workforce Investment Act of 1998, among others (IDRM 2004; Gottlieb et al. 2012). In the United Kingdom, there is the Disability Discrimination Act (DDA) 1995 and the recently-implemented Equality Act 2010 that oblige all employers to make the necessary adjustments to the employment arrangements as well as workplace for the disabled, require the public sector to promote disability equality, and prohibit discriminatory practices against PWDs and their parents/carers (Home Office 2010; IDRM 2007; Thornton 2005). Meanwhile, Japan has the Fundamental Law for Persons with Disabilities (which was enacted in 1970 and amended in 2004) that has anti-discrimination provisions and the Law for Employment Promotion of Persons with Disabilities that requires both private and public organizations to employ a certain percentage of PWDs and provides vocational training and job placement services to PWDs (IDRM 2005).

In the Philippines, the Republic Act No. 7277 or the Magna Carta for Disabled Persons (specifically Section 32), which took effect in 1992, ensures equal opportunities for suitable employment to PWDs as their able-bodied counterparts. A number of policies, programs and services had already been implemented in relation to employment of PWDs (IDRM: 96). There have also been employment-related programs and services provided by the government to PWDs, which include the following: *Tulong Alalay sa Taong May Kapansanan* (TULAY) program, or Support services to PWDs, of the Department of Labor and Employment (DOLE); Assistance package for PWDs of the Department of Trade and Industry (DTI); Philippine National Skills Competition for PWDs of the Technical, Education and Skills Development Authority (TESDA); Science and Technology Intervention for the Poor, the Vulnerable and PWDs of the Department of Science and Technology (DOST); among others (Mori et al. 2009; Purcil 2009).

Despite the efforts of the government in promoting anti-discriminatory practices in the area of employment and providing various employment-related programs and services for PWDs, it seems that employment for this segment of the population still need improvement. Schelzig (2005) estimated that only less than 10 percent of more than 100,000 employable PWDs registered with the DOLE were wage employed. The International Disability Rights Monitor (IDRM), however, reported that 57.1 percent of the PWDs in the Philippines are employed, 30.9 percent of which are engaged in agriculture such as farmers, forestry workers or fishermen while 10.8 percent are laborers or unskilled workers.

Using the 2008 and 2010 disability surveys conducted in selected cities of Metro Manila and Rosario, Batangas, respectively, this paper looks into the labor force participation, income sources, and occupations of PWDs in both areas. It also examines some personal and household characteristics across groups of PWDs with different employment profiles. Meanwhile, this chapter also explores the association between educational attainment and occupational classification of PWDs to see if there is a significant mismatch between education and occupation.

Labor force participation¹

The proportion of employed PWDs in the urban area is slightly higher (58.3%) than that in the rural area (41.9%). More than half of those with job/business were still looking for additional work to be able to augment their income. This is particularly evident in the urban area (Table 1). Others even tried to get secondary jobs or engaged themselves in informal and/or small-scale businesses such as operating a *sari-sari* store, e-load retail business, charcoal or ice vending, among others.

Unemployment rate among PWDs in the rural area is relatively higher than that in the urban area. Many of these PWDs, however, were looking and available for work. Others, although not actively looking for work, said they were available and willing to take up work if opportunity would exist. On the other hand, majority (84%) of those with no job/business in the rural area were not looking for work. Having permanent disability appeared to be the most common reason for being economically inactive. Parents and/or other family members of those PWDs do not allow their disabled members to seek employment. Pessimism and lack of self-esteem also prevent other PWDs from exerting an effort to get into the mainstream employment. Many of them believed that no work is available for them while a few others mentioned that they are shy to go out and interact with other people.

In the urban area, almost half of the employed PWDs are visually-impaired while in the rural area, only 16 percent from this group are working. In fact, almost 60 percent of the non-working visually-impaired in the rural area were not looking for work. On the contrary, the hearing-impaired group got the highest employment rate in the rural area, followed closely by mobility-impaired. In the urban area, however, the hearing-impaired has the highest proportion of economically inactive members.

¹ In order to provide comparative analysis between the urban and rural data sets, labor force concepts adopted in the urban data set was used. The rural data set contains the complete set of variables necessary to generate labor force variables that are in accordance with the International Labour Organization (ILO) labor concepts. On the other hand, the urban data set lacks some screening variables such as respondent's availability for work, willingness to work, reasons for not looking for work, among others. The mode of labor force participation is thus defined as follows: (1) fully employed – a working-aged (15-70) person who worked for pay or profit for at least an hour during the reference period, and who did not look for additional work; (2) underemployed – a working-aged (15-70) person who worked for pay or profit for at least an hour during the reference period, but was still looking for additional work; (3) unemployed – a working-aged (15-70) person who had no job/business but was looking for work during the reference period; and, (4) not part of the labor force – a working-aged (15-70) person who had no job/business and not looking for work during the reference period.

Table 1. Respondent's profile and household (HH) characteristics by mode of labor force (LF) participation and by area

Characteristic	Urban					Rural				
	Employed	Underemployed	Unemployed	Not in LF	Total	Employed	Underemployed	Unemployed	Not in LF	Total
<i>Respondent's profile</i>										
<i>Impairment</i>										
mobility	30 (27.5)	38 (30.2)	28 (37.3)	27 (29)	123 (30.5)	9 (28.1)	8 (66.7)	4 (40)	10 (19.6)	31 (29.5)
visual	55 (50.5)	58 (46)	16 (21.3)	14 (15.1)	143 (35.5)	5 (15.6)	2 (16.7)	3 (30)	14 (27.5)	24 (22.9)
hearing	18 (16.5)	24 (19)	26 (34.7)	38 (40.9)	106 (26.3)	13 (40.6)	2 (16.7)	3 (30)	14 (27.5)	32 (30.5)
multiple	6 (5.5)	6 (4.8)	5 (6.7)	14 (15.1)	31 (7.7)	5 (15.6)	0 (0)	0 (0)	13 (25.5)	18 (17.1)
<i>Sex</i>										
female	38 (34.9)	35 (27.8)	33 (44)	48 (51.6)	154 (38.2)	11 (34.4)	7 (58.3)	4 (40)	31 (60.8)	53 (50.5)
male	71 (65.1)	91 (72.2)	42 (56)	45 (48.4)	249 (61.8)	21 (65.6)	5 (41.7)	6 (60)	20 (39.2)	52 (49.5)
<i>Age (years)</i>										
15-21	4 (3.7)	7 (5.6)	8 (10.7)	24 (25.8)	43 (10.7)	3 (9.4)	1 (8.3)	1 (10)	10 (19.6)	15 (14.3)
22-59	103 (94.5)	116 (92.1)	65 (86.7)	68 (73.1)	352 (87.3)	24 (75)	10 (83.3)	9 (90)	30 (58.8)	73 (69.5)
≥60	2 (1.8)	3 (2.4)	2 (2.7)	1 (1.1)	8 (2)	5 (15.6)	1 (8.3)	0 (0)	11 (21.6)	17 (16.2)
<i>Marital status</i>										
single	44 (40.4)	45 (35.7)	41 (54.7)	50 (53.8)	180 (44.7)	17 (53.1)	3 (25)	4 (40)	8 (15.7)	32 (30.5)
not single	65 (59.6)	81 (64.3)	34 (45.3)	43 (46.2)	223 (55.3)	15 (46.9)	9 (75)	6 (60)	43 (84.3)	73 (69.5)
<i>Education</i>										
low educ	51 (46.8)	46 (36.5)	28 (37.3)	61 (65.6)	186 (46.2)	19 (59.4)	7 (58.3)	9 (90)	50 (98)	85 (81)
at least HS grad	58 (53.2)	80 (63.5)	47 (62.7)	32 (34.4)	217 (53.8)	13 (40.6)	5 (41.7)	1 (10)	1 (2)	20 (19)
<i>HH head indicator</i>										
HH head	51 (46.8)	60 (47.6)	15 (20)	11 (11.8)	137 (34)	13 (40.6)	3 (25)	3 (30)	9 (17.6)	28 (26.7)
HH member	58 (53.2)	66 (52.4)	60 (80)	82 (88.2)	266 (66)	19 (59.4)	9 (75)	7 (70)	42 (82.4)	77 (73.3)
<i>DPO membership</i>										
member	62 (56.9)	72 (57.1)	34 (45.3)	25 (26.9)	193 (47.9)	6 (18.8)	2 (16.7)	2 (20)	7 (13.7)	17 (16.2)
non-member	47 (43.1)	54 (42.9)	41 (54.7)	68 (73.1)	210 (52.1)	26 (81.3)	10 (83.3)	8 (80)	44 (86.3)	88 (83.8)
<i>Household characteristics</i>										
<i>Household size</i>										
≤5	57 (52.3)	75 (59.5)	44 (58.7)	43 (46.2)	219 (54.3)	16 (50)	8 (66.7)	4 (40)	17 (33.3)	45 (42.9)
>5 to ≤10	42 (38.5)	43 (34.1)	26 (34.7)	43 (46.2)	154 (38.2)	15 (46.9)	2 (16.7)	5 (50)	30 (58.8)	52 (49.5)
>10	10 (9.2)	8 (6.3)	5 (6.7)	7 (7.5)	30 (7.4)	1 (3.1)	2 (16.7)	1 (10)	4 (7.8)	8 (7.6)
<i>OFW indicator^a</i>										
yes	15 (13.8)	19 (15.1)	18 (24)	23 (24.7)	75 (18.6)	13 (40.6)	5 (41.7)	3 (30)	12 (23.5)	33 (31.4)
no	94 (86.2)	107 (84.9)	57 (76)	70 (75.3)	328 (81.4)	19 (59.4)	7 (58.3)	5 (50)	37 (72.5)	68 (64.8)
<i>Poverty status^b</i>										
poor	42 (38.5)	49 (38.9)	38 (50.7)	56 (60.2)	185 (45.9)	19 (59.4)	7 (58.3)	5 (50)	34 (66.7)	65 (61.9)
non-poor	67 (61.5)	77 (61.1)	37 (49.3)	37 (39.8)	218 (54.1)	13 (40.6)	5 (41.7)	5 (50)	17 (33.3)	40 (38.1)

Sources of basic data: PWD surveys, 2008 (Metro Manila) and 2010 (Rosario, Batangas)

Notes:

Figures in parentheses are column percentages.

^a whether the respondent's household receive money from family/relatives/friends abroad;

^b a household is considered poor if its total income is below the poverty line;

Please note that household income data are not comparable between the rural and urban surveys, i.e. components of income in rural data set is more comprehensive.

Employment gender gap is also apparent in both areas. Two out of five working PWDs in the rural area are female while the employment gender ratio¹ in the urban area is around 44 percent. Majority of employed male PWDs in the urban area were not satisfied with their current work and expressed desire of getting additional work.

Youth employment rate and the proportion of working PWDs aged 60 and above are relatively higher in the rural area than in the urban area. In fact, roughly 14 percent of the employed PWDs in the rural area are already considered senior citizens while about 10 percent are considered youth (aged 15-21).

Employment rate among PWDs who have never been married is slightly lower than those who have/had a partner and/or a family, and this is true for both areas. In the rural area, however, PWDs whose marital status is not single comprised 84 percent of economically inactive group.

In terms of educational attainment, different patterns can be observed in rural and urban areas. Forty percent of the employed PWDs in the rural area are at least high school graduate. About 60 percent, however, of the employed PWDs in the urban area were able to finish at least secondary education. Majority of the PWDs who did not finish high school and had no job/business were neither looking nor available for work during the reference period.

In the urban area, employment rate among PWDs who are household heads is almost equal to employment rate among those who are household members. In the rural area, employment rate among heads is slightly higher than the rate among members. Household members, meanwhile, comprised the majority of the unemployed and economically inactive groups.

Interestingly, the proportion of employed PWDs in the urban area is relatively higher among those who are members of at least one Disabled People's Organization (DPO) compared to those who are not. Most of these respondents belong to the visually-impaired group and are working as masseurs. On the other hand, very few of the respondents in the rural area are members of the only PWD group in the area, which is the Municipal Federation of PWDs. Among those who are members, more than half have no job/business. One of the reasons behind this is that the organization does not have regular activities for its members, particularly on employment or livelihood assistance.

Majority of those with job/business in the urban area belong to small households (at most 5 members), followed by those who belong to households with more than 5 up to 10 members. In the rural area, employed PWDs are mostly members of smaller households.

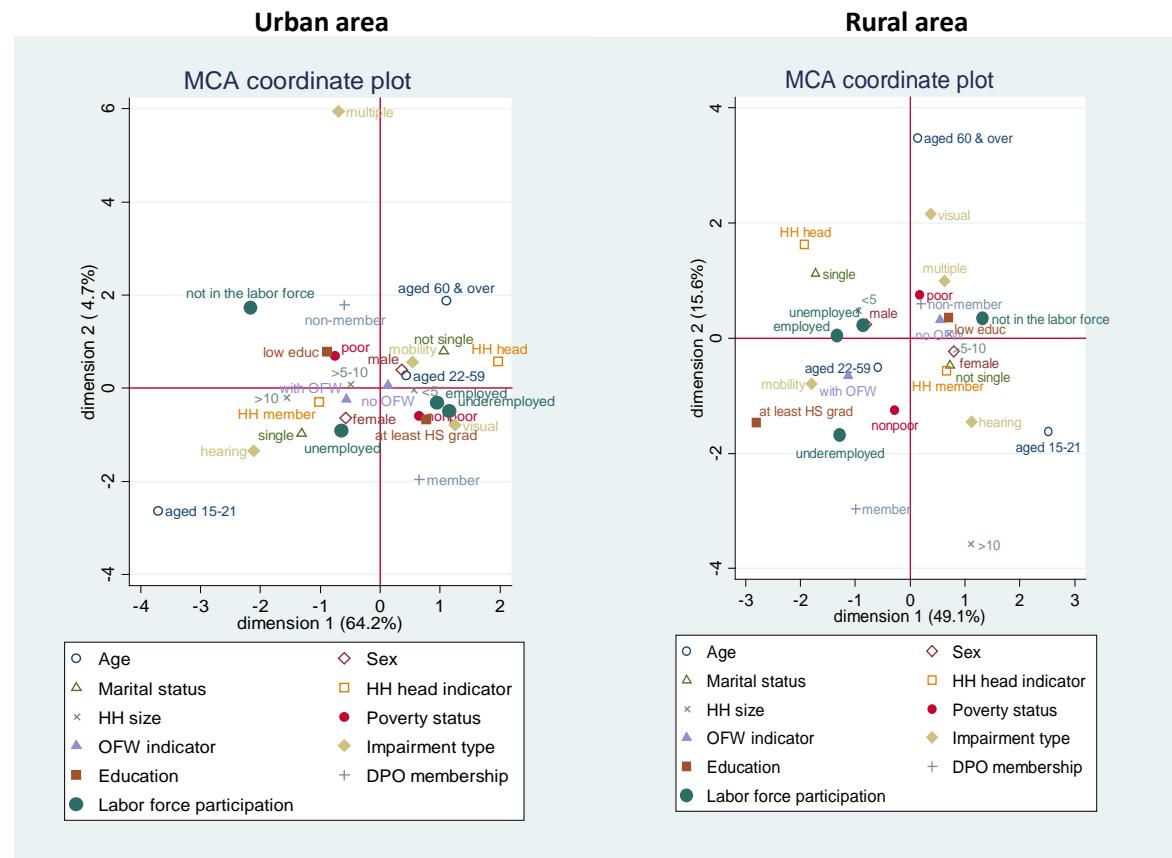
Around 15 percent of the employed PWDs in the urban area are members of the households that receive remittances from family members/relatives/friends abroad. On the other hand, around 2 out of 5 employed PWDs in the rural area belong to remittance-receiving households.

¹ Female unemployment rate as a percentage of the male unemployment rate

In terms of income poverty status of households, PWDs who are part of the non-poor households in the urban area comprised 60 percent of the employed. However, the opposite is true in the rural area. Three out of five employed PWDs in the rural area belong to households that are considered income poor.

The figure below exhibits the interrelationships among the different modes of labor force participation and selected individual as well as household characteristics of PWDs in a Multiple Correspondence Analysis (MCA)² two-dimensional map.

Figure 1. MCA results on mode of LF participation vis-à-vis respondent's profile and HH characteristics, by area



Sources of basic data: PWD surveys, 2008 (Metro Manila) and 2010 (Rosario, Batangas)

The figure reveals that in the urban area, being employed (either fully-employed or underemployed) is more likely associated with being visually-impaired, at least high school graduate, DPO member, and member of a non-poor household. Being unemployed, however, is more correlated with being hearing-impaired, female, single, household

² Multiple Correspondence Analysis (MCA) is a descriptive statistical technique used in handling high-dimensional categorical data. It allows one to analyze the pattern of relationships of several nominal variables (including continuous variables that are transformed into categorical variables) with several levels or categories (which are coded as binary variable). One of its outputs is an n -dimensional map (i.e., n is usually 2) which displays the multi-way association among the levels of the variables, i.e., proximity among levels of different nominal variables means that these levels tend to appear together in the observations. (Greenacre and Blasius 2006)

member, youth, member of a remittance-receiving household, and member of large household (i.e., more than 10 members). Meanwhile, being economically inactive tend to be more associated with having multiple impairments, having lower educational attainment, not a member of any DPO, and member of an income poor household.

In the rural area, on the other hand, being a DPO member, at least high school graduate, between 22 and 59 years of age, member of a non-poor household, member of a remittance-receiving household, and mobility-impaired are some of the characteristics of a PWD that are usually underemployed. Being single and a head of a household tend to be associated with either being fully employed or being unemployed, while being male and belonging to a smaller household appear to be more likely associated with being unemployed. Similar to the finding in the urban area, having multiple impairments, having lower educational attainment, not a member of any DPO, and member of an income poor household are more correlated with being economically inactive.

Sources of personal income ³

Filipinos are well-known for closer family ties. Therefore, providing support in the form of either cash or kind is not unusual within a family. This is particularly crucial if one of the members of the family has disability. More often than not, family members who are better-off financially provide support (of any form) to a disabled member. But this is not only true among family members. Other members of the household, who are not related by blood, or even friends and neighbors, may provide support to a disabled person.

Table 2 shows that a significant proportion of PWDs in both rural and urban areas are either dependent on income transfers from family members, relatives and/or friends, or fully dependent on the income of their household. In the rural area, half of the PWDs have no personal income and merely depend on their family and other household members while 10 percent mostly depend on income transfers. In the urban area, 21 percent have no personal income while 28 percent mostly depend on transfer income.

³ A PWD respondent may have more than one source of income. In order to determine his/her major source of income, all incomes from various sources were aggregated and then the share of each source to total was estimated. The source with the highest percentage share was then selected as the major source of personal income of the respondent. These sources of income were then grouped into major categories, namely: wage income, entrepreneurial income and transfer income. Paid employment income such as wages and salaries, including cash gifts and bonuses received, is defined as wage income. Entrepreneurial income is the total net income or profit from any entrepreneurial activities, whether agricultural or non-agricultural enterprises, engaged in by the respondent as an operator or self-employed. A number of respondents who are renting their rooms/houses to others consider this as business and income from such activity as profits. Transfer income includes cash receipts or gifts from family members, relatives or friends, either domestic or abroad. It also includes pension income and benefits/allowances from the government. Any receipts (either cash or in-kind) from institutions such as church or federations, and even from begging, are also included under this category.

Table 2. Respondent's profile and HH characteristics by source of personal income and by area

Characteristic	Urban					Rural				
	None	Wage	Entrepreneurial	Transfer	Total	None	Wage	Entrepreneurial	Transfer	Total
<i>Respondent's profile</i>										
<i>Impairment</i>										
mobility	30 (34.9)	13 (13.3)	39 (36.4)	41 (36.6)	123 (30.5)	16 (29.1)	5 (26.3)	7 (53.8)	3 (15.8)	31 (29.2)
visual	21 (24.4)	60 (61.2)	45 (42.1)	17 (15.2)	143 (35.5)	13 (23.6)	4 (21.1)	1 (7.7)	7 (36.8)	25 (23.6)
hearing	27 (31.4)	21 (21.4)	17 (15.9)	41 (36.6)	106 (26.3)	13 (23.6)	9 (47.4)	4 (30.8)	6 (31.6)	32 (30.2)
multiple	8 (9.3)	4 (4.1)	6 (5.6)	13 (11.6)	31 (7.7)	13 (23.6)	1 (5.3)	1 (7.7)	3 (15.8)	18 (17)
<i>Sex</i>										
female	43 (50)	27 (27.6)	40 (37.4)	44 (39.3)	154 (38.2)	34 (61.8)	7 (36.8)	5 (38.5)	7 (36.8)	53 (50)
male	43 (50)	71 (72.4)	67 (62.6)	68 (60.7)	249 (61.8)	21 (38.2)	12 (63.2)	8 (61.5)	12 (63.2)	53 (50)
<i>Age</i>										
15-21	14 (16.3)	5 (5.1)	5 (4.7)	19 (17)	43 (10.7)	10 (18.2)	0 (0)	1 (7.7)	4 (21.1)	15 (14.2)
22-59	71 (82.6)	89 (90.8)	101 (94.4)	91 (81.3)	352 (87.3)	36 (65.5)	18 (94.7)	11 (84.6)	8 (42.1)	73 (68.9)
≥60	1 (1.2)	4 (4.1)	1 (0.9)	2 (1.8)	8 (2)	9 (16.4)	1 (5.3)	1 (7.7)	7 (36.8)	18 (17)
<i>Marital status</i>										
single	50 (58.1)	41 (41.8)	39 (36.4)	50 (44.6)	180 (44.7)	12 (21.8)	9 (47.4)	5 (38.5)	7 (36.8)	33 (31.1)
not single	36 (41.9)	57 (58.2)	68 (63.6)	62 (55.4)	223 (55.3)	43 (78.2)	10 (52.6)	8 (61.5)	12 (63.2)	73 (68.9)
<i>Education</i>										
low educ	48 (55.8)	39 (39.8)	50 (46.7)	49 (43.8)	186 (46.2)	48 (87.3)	16 (84.2)	5 (38.5)	17 (89.5)	86 (81.1)
at least HS grad	38 (44.2)	59 (60.2)	57 (53.3)	63 (56.3)	217 (53.8)	7 (12.7)	3 (15.8)	8 (61.5)	2 (10.5)	20 (18.9)
<i>Head indicator</i>										
HH head	10 (11.6)	50 (51)	45 (42.1)	32 (28.6)	137 (34)	8 (14.5)	7 (36.8)	5 (38.5)	9 (47.4)	29 (27.4)
HH member	76 (88.4)	48 (49)	62 (57.9)	80 (71.4)	266 (66)	47 (85.5)	12 (63.2)	8 (61.5)	10 (52.6)	77 (72.6)
<i>DPO membership</i>										
member	36 (41.9)	62 (63.3)	55 (51.4)	40 (35.7)	193 (47.9)	7 (12.7)	4 (21.1)	4 (30.8)	2 (10.5)	17 (16)
non-member	50 (58.1)	36 (36.7)	52 (48.6)	72 (64.3)	210 (52.1)	48 (87.3)	15 (78.9)	9 (69.2)	17 (89.5)	89 (84)
<i>Household characteristics</i>										
<i>Household size</i>										
≤5	43 (50)	66 (67.3)	55 (51.4)	55 (49.1)	219 (54.3)	16 (29.1)	11 (57.9)	8 (61.5)	11 (57.9)	46 (43.4)
>5 to ≤10	36 (41.9)	24 (24.5)	44 (41.1)	50 (44.6)	154 (38.2)	34 (61.8)	6 (31.6)	5 (38.5)	7 (36.8)	52 (49.1)
>10	7 (8.1)	8 (8.2)	8 (7.5)	7 (6.3)	30 (7.4)	5 (9.1)	2 (10.5)	0 (0)	1 (5.3)	8 (7.5)
<i>OFW indicator^a</i>										
yes	13 (15.1)	11 (11.2)	16 (15)	35 (31.3)	75 (18.6)	13 (23.6)	7 (36.8)	6 (46.2)	7 (36.8)	33 (31.1)
no	73 (84.9)	87 (88.8)	91 (85)	77 (68.8)	328 (81.4)	40 (72.7)	11 (57.9)	7 (53.8)	10 (52.6)	68 (64.2)
<i>Poverty status^b</i>										
poor	46 (53.5)	39 (39.8)	46 (43)	54 (48.2)	185 (45.9)	36 (65.5)	7 (36.8)	9 (69.2)	13 (68.4)	65 (61.3)
non-poor	40 (46.5)	59 (60.2)	61 (57)	58 (51.8)	218 (54.1)	19 (34.5)	12 (63.2)	4 (30.8)	6 (31.6)	41 (38.7)

Sources of basic data: PWD surveys, 2008 (Metro Manila) and 2010 (Rosario, Batangas)

Notes:

Figures in parentheses are column percentages.

^a whether the respondent's household receive money from family/relatives/friends abroad;

^b a household is considered poor if its total income is below the poverty line;

Please note that household income data are not comparable between the rural and urban surveys, i.e. components of income in rural data set is more comprehensive.

Among wage earners in the rural area, almost half are hearing-impaired while most of the entrepreneurial income-earners are mobility-impaired. On the other hand, the visually-impaired group has the most number of members relying on transfer income, followed closely by the hearing-impaired. In the urban area, the PWDs are distributed across the four sources of income, although 53 percent of them either depend on transfer or entrepreneurial income. Both the mobility- and hearing-impaired got the highest proportion of members who rely a lot on transfer income. On the contrary, the visually-impaired group depends heavily on wage as well as entrepreneurial income.

Majority of PWDs with personal income are male in both areas while female PWDs, particularly in the rural area, are fully dependent on their household income. On the other hand, majority of PWDs who are aged 60 and above in the urban area depend mostly on wage income while almost all of the older PWDs in the rural area are dependent on either transfer income or income of their household.

Among PWDs with no personal income, those who have never been married outnumber those who have/had partner in the rural area. The reverse, however, is true in the urban area.

In the urban area, majority of PWDs who have personal income are at least high school graduate. Except for the entrepreneurial income-earners, the opposite is true in the rural area. Looking across sources of income, it can be observed that 56 percent of the PWDs with lower educational attainment merely rely on the income of the household in the rural area but three-fourths of PWDs from this group in the urban area have personal income. Two out of five of PWDs who are at least high school graduate source most of their income from entrepreneurial activities but a third of them do not have income. In the urban area, majority of PWDs with higher educational attainment have personal income.

Around 28 percent of PWDs who are household heads in the rural area do not have personal income but only 7 percent of PWDs from this group in the urban area are fully dependent on their household income.

Higher proportions of wage and entrepreneurial income-earners in the urban area are affiliated with at least one DPO. In the rural area, almost half of those who are member of the Municipal Federation of PWDs have no personal income.

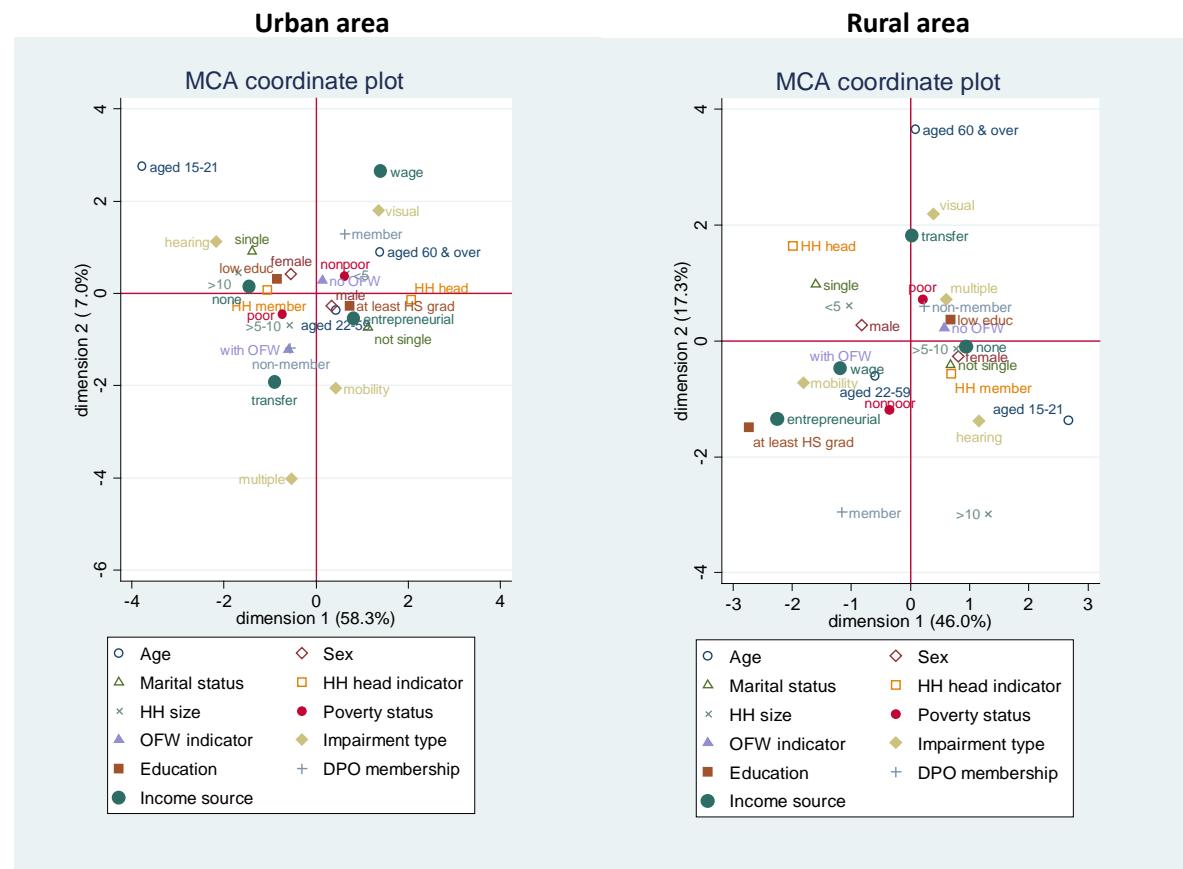
Majority of the PWDs who are income-earners in the rural area belong to smaller households while 60 percent of those with no personal income belong to middle-sized households (i.e., >5 to ≤ 10). In the urban area, however, those who belong to smaller households outnumber those from the other groups, and this is particularly true among the wage income-earners.

Across income sources, it can be observed that almost half of PWDs belonging to remittance-receiving households mostly depend on transfer income in the urban area. On the other hand, in the rural area, only 1 out of 5 PWDs belonging to remittance-receiving households depend on transfer income. Most of them, instead, have no personal income.

Moreover, wage income-earners in both areas mostly belong to non-poor households. Among those who depend heavily on entrepreneurial activities, PWDs belonging to income-poor households outnumber those who belong to non-poor households in the rural area, but the opposite is true in the urban area. Many of those who mainly depend on transfer income in the rural area belong to poor households. In the urban area, however, those who depend on income transfers are almost equally divided into poor and non-poor household members.

Exploring the multi-way association of the levels of the variables, the MCA 2-dimensional plot (Figure 2) reveals that in the rural area, wage income-earners are more closely related to being mobility-impaired, aged 22-59, member of a remittance-receiving household, and a non-poor household member. In the urban area, however, being visually-impaired, DPO member, aged 60 and above, member of a non-poor or smaller or non-remittance-receiving household are more correlated with being wage income-earner.

Figure 2. MCA results on source of personal income vis-à-vis respondent's profile and HH characteristics, by area



Sources of basic data: PWD surveys, 2008 (Metro Manila) and 2010 (Rosario, Batangas)

PWDs who are largely dependent on entrepreneurial income in the rural area are more closely related with being DPO member and at least high school graduate. In the urban area, there is stronger correlation between being dependent on entrepreneurial income and the following characteristics: having higher level of education, not being single, being a household head, aged between 22 and 29, being male, and having mobility impairment.

Meanwhile, having multiple impairments, being a non-DPO member and being a member of a poor household tend to be more associated with being dependent on transfer income. On the other hand, being a household member, being single, being youth, having a hearing impairment, and being a member of bigger household are more closely related to having no personal income. These findings are true for both rural and urban areas.

Occupational classification ⁴

Aside from the mode of labor force participation and source of personal income, it is also interesting to look at the primary occupations assumed by the employed respondents. Table 3 shows that in the rural area, almost half of the employed are laborers/unskilled workers, about 1 out of 5 are farmers/forestry workers/fishermen, and another 20 percent is composed of either service workers/shop/market sales workers or trades, production and related workers.

Laborers and unskilled workers appeared to be the biggest occupational group across impairments; half from the hearing-impaired group, 38 percent from the mobility-impaired group, and one-third each from the visual and multiple groups. The specific occupations under this category include: helpers, construction workers, hand launderers, ice vendors, among others.

Some other occupations of PWDs, especially the hearing-impaired, in the rural area are related to agriculture such as rice farmers, livestock and poultry farm workers/helpers; and services-related, which include baby sitter, haircutter, and pedicurist. Other occupations in the rural area include the following: teacher, musician, assistant surveyor, stick maker, upholstery maker, *barangay* health worker, *sari-sari* store owner, tricycle operator, bet collector, rice cake vendor, factory worker, business manager/owner of three small-scale businesses, and an unpaid family worker.

In the urban area, one-third of the employed PWDs are classified under technicians and associate professionals. Those occupations include masseur, real estate broker, sales agent, artist/musician, sales consultant, *barangay* affairs worker, and computer technician. Twenty-two percent are laborers and unskilled workers, which include: street vendor, ice vendor, e-load distributor, helper, janitor/sweeper, messenger, warehouse aide, construction worker, hand launderer/presser, barker, parking attendant, pedicab driver, and garbage collector. Interestingly, 15.3 percent of the respondents belong to the highest level of occupation, i.e., officials of government and special-interest organizations, corporate executives, managers, managing proprietors and supervisors. Specifically, this group

⁴ The primary occupation of the respondents was categorized into ten major occupational groups based on the Philippine Standard Occupational Classification (PSOC), which are as follows: (1) officials of government and special-interest organizations, corporate executives, managers, managing proprietors and supervisors; (2) professionals; (3) technicians and associate professionals; (4) clerks; (5) service workers and shop and market sales workers; (6) farmers, forestry workers and fishermen; (7) trades, production and related workers (*Note: production and related workers was included under this category*); (8) plant and machine operators and assemblers; (9) laborers and unskilled workers; and, (10) special occupations.

includes *barangay* councilor, supplier of raw materials, lessor, *sari-sari* store owner, junk shop owner, owner of a shirt printing business, owner of water delivery business, among others.

There are also trades, production and related workers (comprising 8.9%) such as electricians, repairman, painter, carpenter, plumber, mason, and butcher; service workers and shop and market sales workers (6%) which include *barangay* health worker, computer shop assistant, service crew in a fast food chain, direct selling agent, buy and sell agent, personal assistant in a catering business, manicurist, barber, and baby sitter; clerks (5.5%), which include data encoder, *barangay* secretary, and storekeeper; plant and machine operators and assemblers (4.7%), which is composed of tricycle operator and bus driver; professionals (2.6%) such as teacher, professional musician, community development worker, PWD social worker, and sign language interpreter; and, farmers, forestry workers and fishermen (1.3%).

The visually-impaired group is composed mainly (62.8%) of masseurs, which are classified under technicians and associate professionals. The mobility-impaired are dominated by laborers and unskilled workers (27.9%) and officials of government and special-interest organizations, corporate executives, managers, managing proprietors and supervisors (23.5%). The hearing-impaired are largely composed of laborers and unskilled workers (31%), officials of government and special-interest organizations, corporate executives, managers, managing proprietors and supervisors (23.8%), and trades, production and related workers (21.4%). Meanwhile, majority of those with multiple impairments are either laborers and unskilled workers (33.3%) or officials of government and special-interest organizations, corporate executives, managers, managing proprietors and supervisors (33.3%).

It is also good to look at the interrelationships among different levels of education and major occupational classifications of PWDs and see if there is a mismatch between their education level and type of work. Figure 3 reveals that in the rural area, graduates of vocational courses are more closely related to being officers/managers/supervisors and service workers and shop/market sales workers. PWDs who reached college but did not finish tend to work as clerks. Those whose educational attainment is either college graduate or high school undergraduate usually work as trades, production and related workers. Elementary undergraduates seem to end up with occupations classified under plant and machine operators and assemblers as well as farmers, forestry workers and fishermen. High school graduates tend to assume jobs classified under professionals and technicians/associate professionals. Meanwhile, laborers and unskilled workers are more closely associated with those who have finished elementary as well as those who did not go to formal schooling.

In the urban area, a few PWDs who got post-graduate degrees or units end up having jobs classified under professionals. Those who finished college level education are more closely associated with being officers/managers/supervisors and service workers and shop/market sales workers. Clerks, however, tend to have either college or post-secondary degrees. Farmers/forestry workers/fishermen are more closely related to those who did not even reach elementary level.

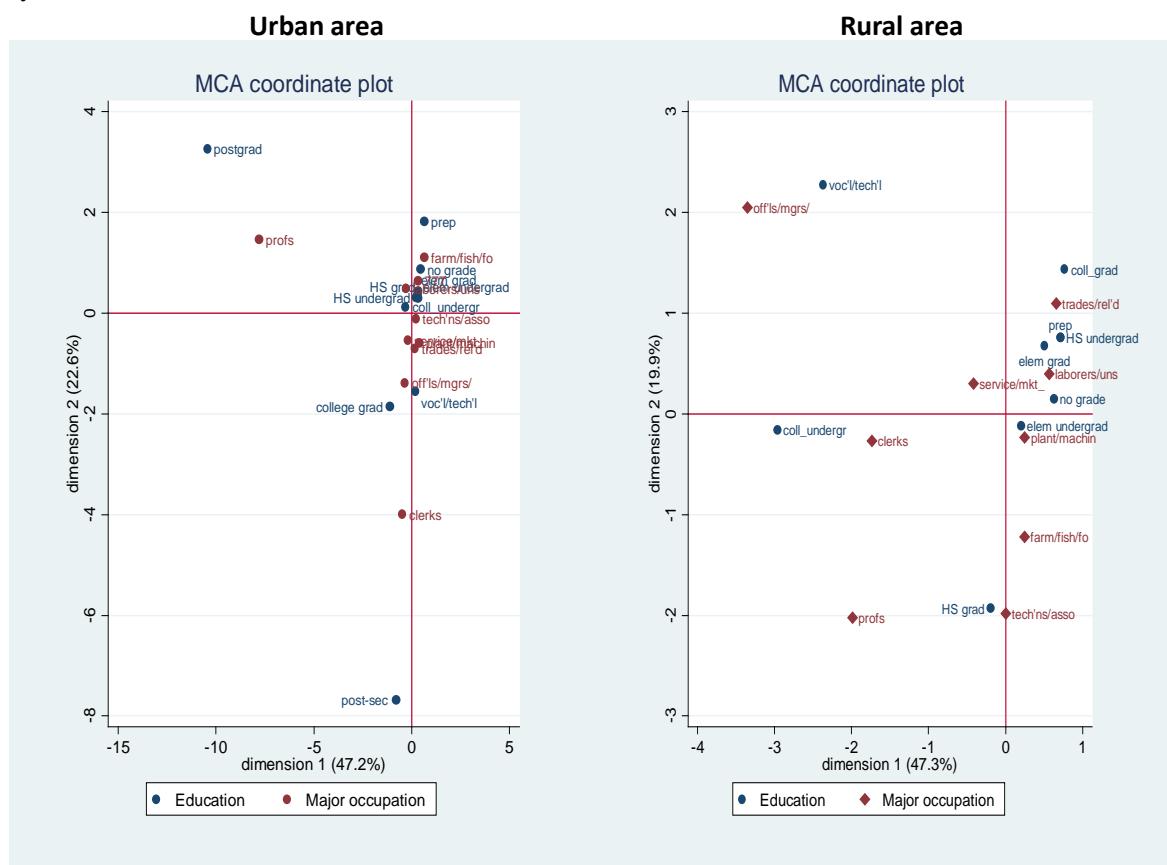
Table 3. Respondent's primary occupation by impairment and by area

Major occupation	Urban					Rural				
	Mobility	Visual	Hearing	Multiple	Total	Mobility	Visual	Hearing	Multiple	Total
Officials of government and special-interest organizations, corporate executives, managers, managing proprietors and supervisors	16 (23.5)	6 (5.3)	10 (23.8)	4 (33.3)	36 (15.3)	0 (0)	0 (0)	1 (5.6)	1 (16.7)	2 (4.3)
Professionals	1 (1.5)	4 (3.5)	1 (2.4)	0 (0)	6 (2.6)	2 (15.4)	0 (0)	0 (0)	0 (0)	2 (4.3)
Technicians and associate professionals	6 (8.8)	71 (62.8)	1 (2.4)	1 (8.3)	79 (33.6)	1 (7.7)	1 (11.1)	0 (0)	0 (0)	2 (4.3)
Clerks	5 (7.4)	4 (3.5)	4 (9.5)	0 (0)	13 (5.5)	1 (7.7)	0 (0)	0 (0)	1 (16.7)	2 (4.3)
Service workers and shop and market sales workers	9 (13.2)	2 (1.8)	3 (7.1)	0 (0)	14 (6)	1 (7.7)	0 (0)	4 (22.2)	0 (0)	5 (10.9)
Farmers, forestry workers and fishermen	1 (1.5)	1 (0.9)	0 (0)	1 (8.3)	3 (1.3)	1 (7.7)	2 (22.2)	4 (22.2)	1 (16.7)	8 (17.4)
Trades, production and related workers	5 (7.4)	7 (6.2)	9 (21.4)	0 (0)	21 (8.9)	2 (15.4)	2 (22.2)	0 (0)	1 (16.7)	5 (10.9)
Plant and machine operators and assemblers	6 (8.8)	2 (1.8)	1 (2.4)	2 (16.7)	11 (4.7)	0 (0)	1 (11.1)	0 (0)	0 (0)	1 (2.2)
Laborers and unskilled workers	19 (27.9)	16 (14.2)	13 (31)	4 (33.3)	52 (22.1)	5 (38.5)	3 (33.3)	9 (50)	2 (33.3)	19 (41.3)

Sources of basic data: PWD surveys, 2008 (Metro Manila) and 2010 (Rosario, Batangas)

Note: Figures in parentheses are column percentages.

Figure 3. MCA results on major occupation vis-à-vis respondent's profile and HH characteristics, by area



Sources of basic data: PWD surveys, 2008 (Metro Manila) and 2010 (Rosario, Batangas)

Based on the patterns revealed in Figure 3, it appears that the mismatch between the educational attainment and occupational classification of PWDs can be considered not large, particularly in the urban area. PWDs with post-graduate degrees tend to get professional jobs while those who have college diploma are more closely related to being officers/managers/supervisors, service workers and shop/market sales workers, and clerks. Also, those who did not complete any grade end up being farmers/forestry workers/fishermen, the type of occupation that might not necessarily require a degree. In the rural area, laborers and unskilled workers, which also do not require higher educational degree, tend to be more closely related with either having elementary diploma or having no diploma at all. However, those who finished tertiary level education usually end up being just trades, production and related workers while those who only got high school diploma assumed professional- and associate professional-level jobs.

Class of worker¹

Given the types of work assumed by PWDs, it can be argued that majority of the employed PWDs in rural and urban areas are considered as vulnerable workers. Table 4 shows that a significant proportion of PWDs both in the rural and urban areas are own-account workers, which are mostly self-employed, plus a few unpaid family workers. The International Labour Organization (ILO) (2009) noted that self-employed workers (without paid employees) and contributing family workers are considered to have relatively higher risk of getting zero or negative income in the face of economic, natural and other types of shocks. These workers are also said to have informal work arrangements and less likely to have access to employment benefits or social protection programs.

In addition, some wage/salary workers, who are either temporary workers without a written contract, seasonal workers, or hired on a daily basis, can be considered as informally employed². On top of this, the businesses of the two employers in the rural area are operating on a small-scale and the total number of their paid employees is less than 10. One of the employers has 3 paid employees while the other one hired 9 employees for his two small-scale businesses.

¹ Employed persons are classified according to the following categories: (1) Wage/salary workers – those who are working for private households for pay, in cash or in kind; working for private establishment for pay, in cash or in kind; working for government/government corporation; working with pay on own family-operated farm or business; (2) Own-account workers – those who are working as self-employed, or persons who operate their own businesses or trades and do not employ paid workers in the conduct of their economic activities; or, employers, or persons who employ one or more paid employees in the operation of their businesses or trades; and, (3) Unpaid family workers or those who are working without pay on own family-operated farm or business (NSO 2012).

² Cuevas et al. (2009) noted that informal employment can either be informal self employment or informal wage employment. Informal self employment includes employers in informal enterprises (i.e., household enterprises engaged in the production of goods or services with the primary objective of generating employment and incomes to the persons concerned; and that typically operate at a low level of organization, with little or no division between labor and capital as factors of production, and on a small scale), own-account workers in informal enterprises, unpaid family workers, and members of informal producers' cooperatives. Informal wage employment, on the other hand, includes employees without formal contracts, worker benefits, or social protection who are employed either in formal or informal enterprises.

Table 4. Respondent's class of worker by impairment and by area

Class of worker	Wage/salary	Own-account			Unpaid family
		Self-employed	Employer	Total	
<i>Urban</i>					
<i>Mobility</i>	23 (33.8)	45 (66.2)	-	45 (66.2)	-
<i>Visual</i>	66 (58.4)	47 (41.6)	-	47 (41.6)	-
<i>Hearing</i>	27 (64.3)	15 (35.7)	-	15 (35.7)	-
<i>Multiple</i>	4 (33.3)	8 (66.7)	-	8 (66.7)	-
<i>Total</i>	120 (51.1)	115 (48.9)	-	115 (48.9)	-
<i>Rural</i>					
<i>Mobility</i>	3 (23.1)	9 (69.2)	1 (7.7)	10 (76.9)	0 (0)
<i>Visual</i>	4 (44.4)	4 (44.4)	0 (0)	4 (44.4)	1 (11.1)
<i>Hearing</i>	12 (66.7)	3 (16.7)	1 (5.6)	4 (22.2)	2 (11.1)
<i>Multiple</i>	2 (33.3)	3 (50)	0 (0)	3 (50)	1 (16.7)
<i>Total</i>	21 (45.7)	19 (41.3)	2 (4.4)	21 (45.7)	4 (8.7)

Sources of basic data: PWD surveys, 2008 (Metro Manila) and 2010 (Rosario, Batangas)

Note: Figures in parentheses are column percentages.

Concluding remarks

Notwithstanding the limited number of respondents, some meaningful insights can be drawn from the descriptive analysis of the survey data. One of the most interesting findings from the surveys is that being a member of a DPO, particularly in the urban area, has relatively higher likelihood of being engaged in an income-generating activity. One clear example of this is that majority of the visually-impaired respondents in selected cities in Metro Manila, who are DPO members, are working as masseurs. It is thus interesting to note that DPO plays an important role not only in providing employment to PWDs but also in empowering them and improving their perspective in life. It is thus a good idea for the local government to work in partnership with DPOs in conducting regular activities catered for PWDs which include job/income-generating trainings, socialization, rehabilitation, among others. In addition, it is also important that there are job placement and/or livelihood assistance programs available in the area (either *barangay* or municipality) so that PWDs will not face difficulty in finding a decent and productive work.

Education is considered as a critical factor in gaining employment. The MCA between educational attainment and occupation suggests that having a good educational background is one of the most important requirements in getting a satisfactory job. The government might offer scholarships to school-aged PWDs who cannot attend school because of financial constraints. Alternative learning sessions might also be conducted (on a regular basis and free of charge) to PWDs who are already beyond the school-age but do not have at least high school diploma (which is usually the minimum qualification set by employers). Special sessions might also be catered to the hearing-impaired who do not know sign language (especially those in far-flung areas where deaf schools are inaccessible) and are not knowledgeable with Filipino (since English is the medium of instruction in deaf schools). The government can also allocate additional funds for programs and activities related to skills development and employment assistance for older PWDs with lower educational attainment (Mina 2010).

Examination of the sources of personal income of PWDs suggests that a large proportion of PWDs are either dependent on transfer income or completely dependent on the income of their household to be able to survive. The MCA 2-dimensional map exhibits strong association between transfer income-earners and being non-DPO members and having lower educational attainment (in the rural area). On the other hand, those without personal income were found to be more closely related to having lower educational attainment (in the urban area). These findings also highlight the importance of DPO membership and good educational background on accessing a productive employment and not being dependent on the support from other people.

Majority of PWDs in both rural and urban areas are considered to be engaged in vulnerable employment. A significant percentage of employed PWDs are classified as own-account workers (which are basically self-employed) and a few others are unpaid family workers. Some PWDs who are in paid employment are considered to be informally employed because they are working as temporary workers without formal contract, seasonal workers, and hired on a daily basis. These types of occupation lack security of tenure. The government can thus offer skills development trainings to these groups of PWDs, and then provide employment or livelihood assistance programs to them afterwards. Supported employment programs might also be explored for the benefit of those who wanted job security.

A number of economically inactive PWDs have low self-esteem to interact with other people, are discouraged or are not allowed by their family members to work. For PWDs who are willing to work but are not confident enough to apply for a job, the intervention may be in the form of either a transitional (sheltered) employment program or a supported employment program. On the other hand, those who believe that no work is available for them should be regularly informed of the employment, and even trainings, opportunities by the PWD affairs officer within their LGUs. Moreover, employment assistance can be provided to at least one unemployed members of the household of PWDs who are not permitted by their parents or other family members to work, particularly if they are or have higher probability of being income poor.

Ultimately, there should be a stricter implementation of the laws and policies pertaining to employment of PWDs. One is Section 5 of Republic Act (RA) No. 7277 that requires government organizations engaged in social development such as DSWD, DOH, DepEd, among others, to reserve 5 percent of all their casual, emergency and contractual positions for PWDs. Possible amendment to this is the allotment of a certain percentage of permanent positions for PWDs. This is essential for PWDs who want job security and for the employed ones to be entitled to medical, leave and other benefits. Another is the provision of incentives to private employers to ensure gainful employment for PWDs, as stipulated in Section 8 of RA No. 7277. It is important to ensure that incentives are properly provided to employers that comply with this policy. Implementation of other sections of RA No. 7277 should also be observed such as ensuring the safety of PWDs within their working environment as well as ensuring that public infrastructure are more PWD-friendly. It is thus essential for the government to allocate sufficient amount of funds, or explore alternatives such as public-private partnership (PPP), on the improvement of not only rural infrastructure but also infrastructure in urban areas, especially the public transport system. Moreover, RA No. 10070 (amended Section 40 of RA 7277) should also

be enforced. This requires the national agencies and LGUs to collaborate with DPOs in exploring livelihood opportunities to PWDs and disseminating information, which includes training and employment opportunities, to PWDs. It is thus important for the National Council on Disability Affairs (NCDA) to maintain a complete registry of PWDs and share this to LGUs to be able to improve information channels on employment and training opportunities for PWDs.

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