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**Measurements to Assess Progress in Rights and  
Livelihood of Persons with Disabilities: Implications  
Drawn from the IDE–PIDS Socio–Economic Survey of  
PWDs**

Soya Mori and Tatsufumi Yamagata

**Abstract**

Finding measurements to collect in order to assess the rights and livelihood of persons with disabilities is an urgent challenge that needs to be addressed to further “disability and development”. The Institute of Developing Economies (IDE) and the Philippine Institute for Development Studies (PIDS) jointly conducted a field survey of persons with disabilities (PWDs) living in Metro Manila, Philippines, in 2008. Referring to lessons drawn from the survey, the authors discuss what data and indicators should be collected. Additional measurements are proposed, supplementing those in a seminal paper, Rapley [2007]. The main point of the proposal is to suggest some process-oriented measures reflecting the Biwako Millennium Framework in addition to the result-based measures in line with the Millennium Development Goals. Our suggestion is to add indices in the following five areas: 1) accessibility for PWDs, 2) disabled people’s organizations, 3) education, 4) employment, and 5) participation in decision-making.

**Keywords:** disability; measurements; rights; livelihood; Philippines  
**JEL classification:** I12, I21, I31, I32

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# Measurements to Assess Progress in Rights and Livelihood of Persons with Disabilities: Implications Drawn from the IDE-PIDS Socio-Economic Survey of PWDs\*

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## Abstract

Finding measurements to collect in order to assess the rights and livelihood of persons with disabilities is an urgent challenge that needs to be addressed to further “disability and development”. The Institute of Developing Economies (IDE) and the Philippine Institute for Development Studies (PIDS) jointly conducted a field survey of persons with disabilities (PWDs) living in Metro Manila, Philippines, in 2008. Referring to lessons drawn from the survey, the authors discuss what data and indicators should be collected. Additional measurements are proposed, supplementing those in a seminal paper, Rapley [2007]. The main point of the proposal is to suggest some process-oriented measures reflecting the Biwako Millennium Framework in addition to the result-based measures in line with the Millennium Development Goals. Our suggestion is to add indices in the following five areas: 1) accessibility for PWDs, 2) disabled people’s organizations, 3) education, 4) employment, and 5) participation in decision-making.

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## **1. Introduction**

The cycle of evaluation and reform has become the norm in implementation of international development. Quantitative measures are indispensable for the continuation of the cycle. In order for disability issues to be incorporated in the Millennium Development Goals (MDGs) process, it is necessary to devise effective and feasible measurements of progress in the rights and livelihood of persons with disabilities and to collect appropriate data to be used to work out those measurements.

There is a seminal paper written by Clinton E. Rapley which discusses what to measure and which data to collect to work out the measurements (Rapley [2007]). The aim of this paper is to look more deeply at the points raised by Rapley [2007]. Comments on Rapley [2007] and new proposals for measurements to be collected will be presented.

A portion of the arguments developed in this paper stems from what the authors learned from a survey of persons with disabilities (PWDs) conducted jointly by the Institute of Developing Economies, Japan External Trade Organization (IDE-JETRO) and the Philippine Institute for Development Studies (PIDS) in Metro Manila, the capital of the Philippines, in August 2008. Therefore, the summary of the method of and the lessons learned from the survey is provided in the next section. Based on the summary, the authors then elaborate on the proposals advanced by Rapley [2007] with comments and suggestions.

The main suggestion set forth in this paper is that, in addition to result-based measurements in line with MDGs, process-oriented measurements which share the spirit of the Biwako Millennium Framework (BMF) should be more widely adopted to assess progress for PWDs. A consensus has already been achieved on the next steps to be taken for empowering PWDs, such as strengthening the self-help organizations of PWDs and raising accessibility in terms of both movement and communication; these are steps which were featured in BMF.

The remainder of this paper is organized as follows. The next section summarizes methods of and results from the IDE-PIDS Socio-Economic Survey. Some

useful insights for new measurements are drawn. The third section scrutinizes the proposals submitted by Rapley [2007] and develops the authors' comments and suggestions. The final section presents the concluding remarks.

## **2. Lessons Drawn from the IDE-PIDS Socio-Economic Survey of PWDs in Metro Manila<sup>1</sup>**

### **2.1. Methods**

The Philippines is known as a developing country where laws and institutions for PWDs have been better and more comprehensively formulated than in other developing countries. The first law for PWDs, known as Republic Act 1179, dates back to 1954. The most influential law to follow this first law is Republic Act 7277; enacted in 1992, it is known as the "Philippine Magna Carta for Disabled Persons". The Magna Carta declares the rights of PWDs in terms of employment, education, health, and social services, etc. Thus, our case study of Metro Manila, the capital city of the Philippines, may be expected to suggest how a middle-income country can support PWDs so that they can enhance their living standard.

Metro Manila consists of seventeen cities known as "Local Government Units" (LGUs). Among the seventeen LGUs, Makati, Pasay, Quezon and Valenzuela were selected so as to design this survey to reflect the general figure of Metro Manila (Figure 1). These four cities each represent different aspects of Metro Manila. Makati contains the wealthiest quarter in the Philippines; its economic affluence is exceptional among the seventeen LGUs. Quezon is a large city which constitutes 20 percent of Metro Manila in terms of both area and population. Pasay and Valenzuela are as poor as any other LGU of Metro Manila. While Pasay is like a downtown adjacent to Makati, Valenzuela is a peripheral LGU of Metro Manila.

The survey team adopted a unique policy wherein PWD enumerators were hired to interview PWDs with the same sort of disability. The reasoning behind this policy is that PWDs are ideal interviewers for persons with the same disability because

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<sup>1</sup> For details of this survey and analyses of it, see Albert et al. [2009] and Mori, Reyes and Yamagata eds. [2009].

they better understand the situation of their peers with the same disability. This advantage is strongest among deaf people because interviewers skilled in sign language can conduct interviews in sign language; without knowledge of sign language, direct interviewing of deaf people is impossible. In order to adhere to this policy, the focus of the study was limited to mobility, visual and hearing disabilities because there were no nationwide self-help PWD organizations for other sorts of disabilities such as cognitive and mental disabilities. The self-help PWD organizations that cooperated with this survey were the Philippine Federation for the Deaf, Resources for the Blind, Inc., and Life Haven, Inc.

The target sample size was set at 360 persons, with 120 samples for each type of disability and with samples roughly uniformly distributed across the LGUs. The distribution of samples is displayed in Table 1. In total, 403 samples were collected.

## **2.2. Implications**

The following six implications were drawn from the IDE-PIDS survey conducted in Metro Manila.

### **2.2.1. Higher incidence of poverty among PWDs**

Firstly, poverty among PWDs appears to be more serious than that among non-PWDs. Supporting evidence for this is the fact that the values of poverty indicators<sup>2</sup> derived from the PWD sample collected in Metro Manila were far higher than those derived from the sample collected in the capital city for the *Family Income and Expenditure Survey* (FIES), which contains both PWDs and non-PWDs<sup>3</sup>, as shown in

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<sup>2</sup> For details on the poverty indicators, see Foster, Greer and Thorbecke [1984], and Deaton [1997].

<sup>3</sup> There are some caveats concerning this conclusion because of differences in the derivation of the indicators in the IDE-PIDS survey and the FIES. Firstly, the sampling strategy for the IDE-PIDS survey emphasizes lower-income segments of PWDs, while that of FIES is neutral with respect to a bias towards lower or higher income groups. Secondly, the poverty indicators of the FIES are derived based on the average income of a family per head, while those of the IDE-PIDS survey are based on the amount of income of each PWD. Thirdly, costs of living deduced from the expenses applied to non-PWDs are likely to be

Table 2. The table suggests that PWDs seem to be poorer than non-PWDs on average.

### **2.2.2. Stark contrast between economically empowered PWDs and those who are not**

The above-mentioned finding of low average income does not necessarily mean that all PWDs are poor and powerless. Indeed, some PWDs are highly empowered while some do not go out of their homes at all and earn nothing. This stark contrast appears to be the norm rather than an anomaly, shared in many PWD societies.

Table 3 exemplifies the diversity in educational attainment among PWDs in Metro Manila. Around a quarter of our sample of PWDs either did not attend or did not graduate from primary school. In the meantime, another quarter has received a tertiary education. This contrast is most pronounced for persons with visual impairments, in the sense that 28.5 percent of them did not graduate from primary school while 27.8 percent have received a tertiary education.

### **2.2.3. High correlation between education and income**

Inequality in educational attainment directly translates into inequality in income in general. The impact of this translation is measured by the rate of return on education (Mincer [1958]). The rate of return on education is an analogy for the interest rate on physical capita, which incorporates how much return is raised during one year. Thus, the rate of return on education is interpreted as the interest rate on human capital.

Most of the studies in the literature covering non-PWDs exhibit positively significant estimates of the rate of return on education.<sup>4</sup> This positive correlation between education and income seems generally applicable to PWDs. The statistical exercises with the IDE-PIDS data show that the level of education is highly correlated

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underestimated for PWDs, which implies that the estimated poverty line is too low for PWDs. This means that the poverty indicators worked out with the non-PWDs' poverty line are underestimated. In sum, it is inconclusive whether the estimates of poverty indicators for the IDE-PIDS survey in Table 2 are overestimated or underestimated. See Albert et al. [2009] for more details.

<sup>4</sup> For a comprehensive survey, see Willis [1986].

with the level of income among PWDs in Metro Manila, and that the estimated rate of return on education was 25 to 30 percent per annum (Albert et al. [2009]). Lamichhane and Sawada [2009] found a similarly high rate of return on education among Nepalese PWDs. The high rate of return on education found among the PWD data in Nepal and the Philippines is reflected in the high inequality in terms of both income and education among PWDs.<sup>5</sup>

#### **2.2.4. Female PWDs seem more disadvantaged**

The diversity in education and income among PWDs implies that there is a considerable number of underprivileged PWDs. A substantial subgroup among them is female PWDs. The relative hardship of female PWDs compared to male PWDs is reflected in the gender difference in income. In fact, the average income of male PWDs is more than twice that of female PWDs in our sample, even after controlling for years of education, age, marital status and type of disability. Even though the gender difference in income for the overall population is generally significant even in the Philippines, the degree of the difference is not so large as among PWDs (see Yamauchi [2005], among others). This difference is striking because the Philippines is known as a country where gender equality has been generally achieved.<sup>6</sup> Although gender equality has been basically achieved among non-PWDs, it is yet to be attained among PWDs in this country.

#### **2.2.5. Persons with a certain disability are highly successful with a certain occupation**

It is noteworthy that a certain type of PWDs is highly successful with a certain

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<sup>5</sup> Ideally, the rate of return on education should incorporate the impact of education on income. In reality, however, the rate reflects the reverse causality from income to education, which is known as the endogeneity problem in the field of econometrics. It is noted that this problem might be involved in the high estimates of the rate of return on education in the two countries, even though both Albert et al. [2009] and Lamichhane and Sawada [2009] employ some measures to address the endogeneity problem.

<sup>6</sup> The value of the Gender Empowerment Measure (GEM) in the Philippines is generally higher than in neighboring countries with similar levels of income, such as Indonesia, Malaysia, Singapore and Thailand. See Collas-Monsod and Monsod [1999], pp. 55-69.



type of occupation, either as an employee or as a business owner. An interesting example is the job of masseur<sup>7</sup> for visually impaired people. As shown in Table 4, 71.5 percent of the sampled persons with visual impairments were engaged in income generating activities, which is far higher than the overall average of 50.4 percent. Moreover, the mean annual income of persons with visual impairments was substantially higher than that of those with other impairments (Table 5). Of the sampled persons with visual impairments, masseurs constituted 65 percent.

In casual observations during the interviews for the survey, the authors saw some cases in which persons with visual impairments trained others with the same disability, and after the training, they invited them to join their masseur business as employees or partners. People generally regard the job of masseur as being reserved for persons with visual impairments, and visually impaired people consider work as a masseur to be a promising job. In this complementary way, a reputation for and belief in the competitiveness of persons with visual impairments are built. Thus, the system of training, recruitment and management of persons with visual impairments has been established and institutionalized in the masseur business.

#### **2.2.6. The outreach of policy instruments is slow**

The final issue is the outreach to bring the effects of policies to PWDs. A good policy is useless if it does not reach the intended beneficiaries.

The Philippines has an admirable disability-antidiscrimination act called “Philippine Magna Carta for Disabled Persons” which declares the rights of PWDs. If the act were fully implemented and followed, then the rights of PWDs would be highly respected and their welfare level would be higher. However, in reality, the Magna Carta is known only to some the PWDs even in Metro Manila. Table 6 shows that only a third of the sampled PWDs know about the Magna Carta. Since knowledge of the

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<sup>7</sup> The work of the masseur is not always welcomed as a formal job in some countries. In the Philippines, the masseur is one of the relaxation therapies for the general public, as in Japan. The masseur is just one example of a good job for visually impaired people in some countries. In other countries, we could try to find other examples to suit the situation.

Magna Carta is a precondition for the PWDs to enjoy the benefits, it is critical for many PWDs to know about the act. Table 6 implies that two thirds of PWDs are excluded from the beginning because of their ignorance of the Magna Carta. Moreover, it is highly likely that PWDs living in rural areas might know less about the Magna Carta, so that rural PWDs are more disadvantaged than PWDs in cities. Typical examples of PWDs deprived of entitlements can be found in rural areas.

### **3. Measurements to be Collected**

#### **3.1. Evaluations of the measurements suggested by Rapley [2007]**

Rapley [2007] is an insightful and seminal work which should be regarded as a benchmark for discussion on ideal and feasible measurements to be collected and targeted by developing countries in line with the MDGs. Two sorts of measurements are suggested by Rapley [2007]: 1) indicators which are used for the MDGs and could be directly applied to PWDs, raised in subsections IV.3-5, pp. 16-25, for example the net enrollment ratio in primary education and the headcount ratio (ratio of the poor among total PWD population), and 2) indicators related to policies and institutions specifically for PWDs, such as those raised as IV.1 "Policy commitment for mainstreaming and empowerment of persons with disabilities in the context of development," IV.2 "Institutional framework for mainstreaming and empowerment of persons with disabilities in the context of development," and IV.6 "Environmental accessibility for all".

The type 1 indicators reflect outcomes of development and poverty reduction, and are consistent with result-based management, while the type 2 indicators incorporate processes which have been generally agreed upon among the international community of PWDs as means to achieve higher goals owned by PWDs. The type 1 indicators might be called "result-based indicators" while the type 2 indicators may be referred to as "process-based indicators". Generally speaking, the "result-based indicators" are PWD-analogs of the MDGs, and the "process-based indicators" are closer to the philosophy of the BMF.

### 3.2. Suggestions

The authors suggest that the type 2 indicators should be further expanded and augmented. The reasons are as follow.

The type 1 indicators are straightforward applications of the MDGs to PWDs, such that the feasibility of collecting data and constructing the indicators is high. As long as the original data used for MDGs contain information on who has disabilities, then it will be relatively easy to construct the MDG indicators for PWDs. In the meantime, a disadvantage of the type 1 indicators is that, even if one of the indicators improves, the cause is not clear. The improvement may stem from pure luck or a deliberate effort concerted with movements of PWD society (see Figure 2). In practice, whether the change is due to luck or an intentional endeavor constitutes a critical difference. Luck is just a chance happening, while an effort is expected to be followed by favorable repercussions. Thus, the type 1 indicators are less informative and have poorer policy implications.

In fact, the result-based management was introduced as a corrective to input-based management which previously had been dominant among both private and public sectors. Therefore, the result-based management plays a role in offsetting the weaknesses of the input-based management, and it does not work as a complete panacea.<sup>8</sup> In the context of international development, the MDGs, which are key goals for result-based management, are pursued according to the poverty reduction strategy paper (PRSP) which details processes for reaching the goals.<sup>9</sup> Thus, both goals and processes must be monitored so that they work harmoniously. It seems that the type 1 indicators are more highly elaborated than the type 2 indicators in Rapley [2007].

In reality, the processes to be followed in order to promote attainments in the rights and livelihood of PWDs are well documented in BMF. Facilitating the self-help organizations of PWDs and enhancing the accessibility of PWDs in terms of mobility and communication are among the consensuses shared by PWDs. Indicators incorporating these aspects should be constructed.

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<sup>8</sup> See Alchian and Demsetz [1972], and Milgrom and Roberts [1992] among others.

<sup>9</sup> See Sachs [2005], Chapter 14, for more details.

The authors' field survey also testifies to the fact that self-help organizations have a great potential for organizing member PWDs and enhancing their collective power. The six implications raised in the previous section consist of both outcome and process related issues. The process related implications concern 1) the outreach of policies and laws to PWDs and 2) the importance of employment which includes securing job opportunities for a certain category of PWDs, for example, masseur jobs for persons with visual impairments.

Taking all the above issues into consideration, the authors suggest the following as desirable measurements.

The first "type 2 measurement indices" the authors suggest are those concerning accessibility for PWDs. They are very important for PWDs' mainstreaming and empowerment.

#### 1) Wider Usage and Formal Recognition of Sign Language

The first is an indicator for the usage of sign language. In most countries, especially in developing countries, sign language is the important key to accessibility for the deaf community. This is the reason why the UN Convention on the Rights of Persons with Disabilities defined sign language as a language in Article 2 and mentions sign language in many other Articles.

- a) Official recognition of sign language at schools for the deaf
- b) Number of sign users including hearing people

#### 2) Wider Usage of Braille

- a) Number of braille typewriters per blind and/or visual-impaired student at schools for the blind
- b) Ratio of books translated to braille out of all publications

#### 3) Wider Usage of Wheelchairs

Ratio of regular users of wheelchairs among physically impaired people

- 4) Public Building and Transportation Accessibility
  - a) Percentage of public buildings with physical accessibility including ramps and elevators
  - b) Percentage of public transportation facilities with physical accessibility
  
- 5) Accessibility of Voting
  - a) Percentage of polling booths with physical accessibility including ramps
  - b) Percentage of polling booths with braille accessibility

The second “type 2 measurement indices” that the authors suggest are those concerning disabled people’s organizations and their functions. Both BMF and BMF plus 5 as well as CRPD have mentioned the importance of self-help organizations. Rapley (2007) wrote about cross-disability national machinery as an institutional framework for mainstreaming and empowerment of PWDs in the context of development. To evaluate their roles properly, the following indices should be added.

1) Cross-disability national organization

The degree of variety among disabilities

The degree of regional expansion in terms of the number of regional branches

The frequency of official meetings with governmental bodies

2) Disability-specific national organizations

The organizations’ regional expansion in terms of regional branches

The percentage of persons with the given disability who are members of a given organization

The organizations’ frequency of official meetings with governmental bodies

The third “type 2 measurement indices” that the authors suggest are those concerning education. Basic Education is one of the key issues for MDGs. However, we should emphasize its significance to PWDs more than to people without disabilities.

This is because, in most countries, PWDs have much less access to formal education with reasonable accommodations. In India, the government has a policy called Sarv Shiksha Abhiyan (SSA) which provides basic education to all children, and several other countries have a similar kind of education policy. However, even under this type of law, children with disabilities are very often merely taken into the regional school without any reasonable and necessary accommodations, such as teachers trained in special education, sign language accessibility, braille textbooks or physical barrier-free facilities.

Rapley (2007) mentioned the progress in universal primary education. However, we should add effective and essential indices to his idea. Some of the necessary indices concerning accessibility have been already mentioned above, and we suggest additional indices as follow.

#### Special Education

- a) The number of schools for the deaf, those for the blind and those for the children with other disabilities
- b) Ratio of teachers trained in special education per each child with disabilities
- c) Percentage of the national education budget allocated to special education

The fourth “type 2 measurement indices” that the authors suggest are those concerning employment. Accessibility factors are also important for this issue, and it is noteworthy that poverty alleviation can be attained through employment in most cases. However, in most countries, PWDs are excluded from formal employment and this situation means that their livelihood worse than that of people without disabilities. To deal with this situation, the following indices are required in addition to the accessibility indices.

#### Affirmative Action Legislation

- a) Does the government have legislation for affirmative action for

employment of PWDs in public sector and/or private sector? Yes/ No

- b) Does the government have an employment quota system for PWDs?  
Yes/No
- c) Does the government have legislation which requires reasonable accommodation by employers?

The fifth “type 2 measurement indices” that the authors suggest are those concerning participation of PWDs in decision-making. While CRPD will play many important roles in achieving the MDGs, one of its most important contributions will be promotion of PWD inclusive decision-making. The public sector plays a particularly crucial role in policy-making, and from this viewpoint, the following indices are necessary.

#### Disability Inclusive Decision-making

- a) The number of Parliament/Assembly members with disabilities
- b) The percentage of public officers with disabilities out of the total officers in the public sector
- c) Does the government have a focal point for disability policies and disability inclusive policies? Yes/No

#### **4. Concluding Remarks**

After international society agreed to the MDGs in 2000, the UN and international society found that one important issue had been overlooked in the MDGs. This is the issue of PWDs. After this issue was raised in important speeches concerning the MDGs, such as those by the World Bank president, J. Wolfensohn<sup>10</sup> and Mexico’s

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<sup>10</sup> “Unless disabled people are brought into the development mainstream, it will be impossible to cut poverty in half by 2015 or to give every girl and boy the chance to achieve a primary education by the same date which are key among the Millennium Development Goals agreed to by more than 180 world leaders at the UN Millennium Summit in September 2000.” (*Washington Post*, December 2, 2002)

president, Vicente Fox,<sup>11</sup> the UN attempted to launch an effort to include the PWDs in the MDGs. In 2008, the 62nd UN General Assembly adopted the “Implementation of the World Programme of Action Concerning Disabled Persons: Realizing the Millennium Development Goals for persons with disabilities”. So, international society should now be promoting the implementation of the PWD inclusive development and “disability inclusive” poverty reduction strategy.

In this paper, we have reviewed the indices proposal by Rapley (2007) based on our empirical study of the livelihood of PWDs in the Philippines. The main point of our proposal is to suggest some process-oriented measures reflecting the Biwako Millennium Framework and Biwako Plus 5 framework in addition to result-based measures in line with the Millennium Development Goals. Our suggestion is to add indices in the following five areas: 1) accessibility for PWDs, 2) disabled people’s organizations, 3) education, 4) employment, and 5) participation in decision-making.

The above are important process-oriented indices for attaining effective inclusion of PWDs in the MDGs as well as in PRSP. It is possible that most of the MDGs will be attained with broad efforts before 2015; however, it must be remembered that PWDs should not be left behind as the last extremely poor people in the world. Marginalization of PWDs is still seen in some developing countries, even where there is general good performance in poverty alleviation.<sup>12</sup>

Universal Design studies have shown that, in the US and Europe, the cost of implementing accessibility regulations is small in relation to GDP (0.01%). In the US, of the reasonable accommodations required by the Americans with Disabilities Act (ADA) to be provided by a company, 69 percent cost nothing, 28 percent less than US\$1000, and 3 percent more than USD\$1000 (Wiman and Sandhu [2004]). Moreover, there is a report that barrier-free design, if incorporated in the initial design stage, costs

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<sup>11</sup> President Vicente Fox stated that Mexico is intensifying efforts towards protecting and promoting the rights of PWDs through the creation of a special committee to look at the elaboration of an international convention during the 58th session of the General Assembly. He stated that any process towards the development of such a convention should also capture “all views” and be both “dynamic and inclusive,” involving the full and active participation of PWDs.

<sup>12</sup> World Bank (2008)



an additional 0.5 percent to 1.0 percent maximum.

These reports indicate that adjustments as an after-thought for PWDs cost more than incorporating designs to accommodate disabilities from the outset. This should apply to the MDGs as well. Using the process-oriented indices outlined herein, we should now begin to evaluate the current state of the MDGs to see if they are truly PWD inclusive or not.

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**Table 1. Number of Respondents by Type of Impairment and by Area**

City	Type of Impairment				Total
	Mobility	Visual	Hearing	Multiple	
Makati	54	31	38	2	125
Pasay	29	27	23	5	84
Quezon	28	58	32	4	122
Valenzuela	27	28	15	2	72
Total	138	144	108	13	403
Percentage					
Makati	39	22	35	15	31
Pasay	21	19	21	38	21
Quezon	20	40	30	31	30
Valenzuela	20	19	14	15	18
Total	100	100	100	100	100

Source: Yap et al. [2009], Table 8.

**Table 2. Poverty Indices in Metro Manila (%)**

	IDE-PIDS Survey 2008	FIES 2006
Incidence of poverty ( $P_0$ )	40.8	10.4
Depth of poverty ( $P_1$ )	30.6	1.5
Severity of poverty ( $P_2$ )	27.0	0.5

Note: The incidence, depth, and severity of poverty are known as the head count ratio, poverty gap ratio and squared poverty gap ratio in the terminology of economics. FIES is an abbreviation for *Family Income and Expenditure Survey*, which was conducted by the National Statistics Office nationwide in 2006. The figures for FIES 2006 are cited from Tables 2 and 11 of the following site: [http://www.nscb.gov.ph/poverty/2006\\_05mar08/tables.asp](http://www.nscb.gov.ph/poverty/2006_05mar08/tables.asp).

**Table 3. Percentage of Respondents by Highest Educational Attainment and by Impairment**

Highest Educational Attainment	Type of Impairment				Total
	Mobility	Visual	Hearing	Multiple	
Never attended school	3.6	13.2	4.6	23.1	7.9
Kindergarten/preparatory school	0.0	0.0	1.8	0.0	0.5
Grades I to V	8.7	15.3	25.9	15.4	15.9
Elementary school graduate	8.0	9.7	5.6	0.0	7.7
1 to 3 years of high school	18.1	8.3	18.5	0.0	14.1
High school graduate	18.8	16.7	22.2	38.5	19.6
Vocational school	14.5	9.0	0.9	7.7	8.7
Post-secondary	1.4	0.0	0.0	0.0	0.5
Some college	18.8	15.3	15.7	7.7	16.4
College or university graduate	8.0	10.4	4.6	7.7	7.9
Masters education or higher	0.0	2.1	0.0	0.0	0.7
Total	100	100	100	100	100

Source: Yap et al. [2009], Table 21b.

**Table 4. Percentage of Respondents with Income-generating Job out of Total Respondents by Type of Impairment**

Impairment	Status			Total
	Without	With	No answer	
Mobility	76	61	1	138
Visual	41	103	0	144
Hearing	73	34	1	108
Multiple	8	5	0	13
Total	198	203	2	403
Percentage				
Mobility	55.1	44.2	0.7	100
Visual	28.5	71.5	0.0	100
Hearing	67.6	31.5	0.9	100
Multiple	61.5	38.5	0.0	100
Total	49.1	50.4	0.5	100

Source: Yap et al. [2009], Table 108.

**Table 5. Mean Annual Income of Respondents by Source and Type of Impairment**

Source	Mobility	Visual	Hearing	Multiple	All
Wages and Salaries	10,460	58,315	13,053	6,111	28,127
Profits from business	15,320	4,745	1,870	16,622	8,004
Rent for buildings/rooms/lands	1,733	1,894	3,906	462	2,331
Interests and dividends from bonds, savings and stocks	92	0	47	0	44
Pension	7,690	592	1,048	5,700	3,256
Benefit/allowance from government	4,412	296	0	0	1,617
Money received from family members/friends	12,229	7,352	24,967	15,554	13,995
Others	1,759	3,076	10	0	1,706
Total Income	55,681	76,270	45,667	44,077	60,173

Source: Yap et al. [2009], Table 138.

**Table 6. Do you know the Magna Carta for PWDs?**

Response	Frequency	Percent
No	273	67.7
Yes	128	31.8
No answer	2	0.5
Total	403	100.0

Source: Yap et al. [2009], Table 159a.

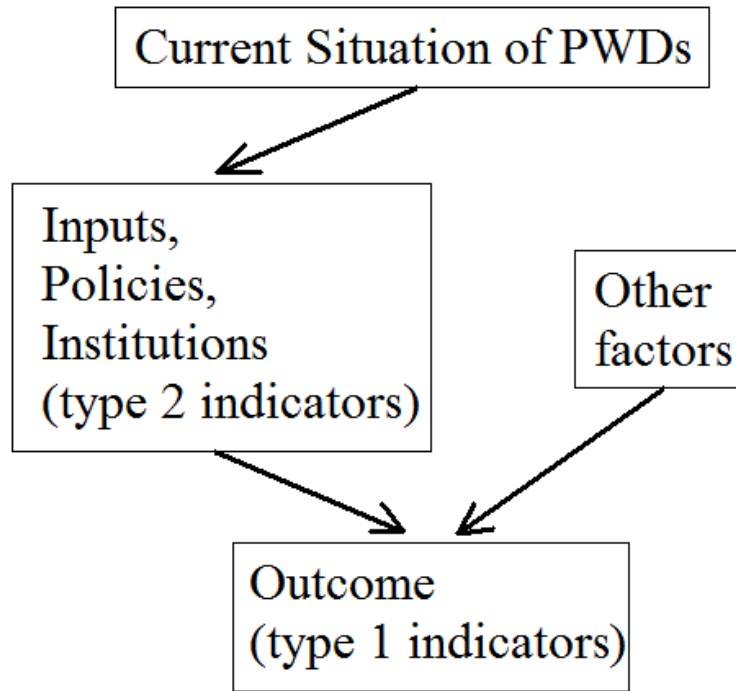
Figure 1. Map of Metro Manila and Cities Where the Data was Collected



Source: Yap et al. [2009], Figure 2.

Note: Figures represent the sample size in each city, and figures in parentheses represent the percentage of the whole.

Figure 2. Result-based and Process-based Indicators





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