Disability Statistics: Current Status and Future Directions*

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Abstract

In response to Japan's ratification of the Convention on the Rights of Persons with Disabilities (2014) and the adoption concerning disability statistics at the 49th session of the United Nations Statistical Commission (2018), strengthening disability statistics in Japanese government surveys has recently become a pressing issue. In this paper, we first review domestic and international trends surrounding disability statistics in Japan. We then compare traditional disability statistics with those based on newly introduced survey items, and organize the challenges and possibilities for future disability statistics. According to the most recent data, there are 11.65 million "institutionally recognized persons with disabilities," compared to 14.3 million persons with disabilities (aged 15 and older) under international comparison criteria. However, because the definition of "disability" differs between the two categories, only 35% of individuals are counted in both. The definition of disability is closely tied to the concept and scope of disability policy; thus, the use of international common standards must be distinguished from domestic policy evaluation. Nevertheless, traditional disability statistics exhibit differences in target populations and survey responses. It is therefore necessary to clarify various disability concepts, including international comparison criteria, and to utilize them appropriately in analysis.

Keywords: Disability Statistics, Convention on the Rights of Persons with Disabilities, Reasonable Accommodation, Disability Employment Policy

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I. Introduction

The purpose of this paper is twofold: (1) to clarify the recent changes in disability statistics in Japan and (2) to identify the challenges involved in using these statistics both to ad-

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vance our understanding of the socioeconomic characteristics of persons with disabilities and to evaluate disability policies.

Statistical surveys concerning persons with disabilities are closely linked to each nation's disability policies. In Japan, the enactment of the Basic Act for Persons with Disabilities in 1993 shifted the legal framework from traditional disability welfare toward guaranteeing the social rights of persons with disabilities. Subsequently, the 2011 amendment of the same law, in line with the principles of the United Nations Convention on the Rights of Persons with Disabilities, introduced the perspective of the "social model of disability" and removed provisions specific to disability welfare, while incorporating a prohibition of discrimination as part of ensuring rights. Specifically, Article 2, Paragraph 1 of the Act defines a person with a disability as "an individual with a physical disability, intellectual disability, or mental disability (including developmental disorders), or other impairment of bodily or mental functions (collectively referred to as 'disabilities'), who experiences substantial limitations in everyday life or social life on an ongoing basis due to these disabilities and social barriers." Paragraph 2 of the same article defines social barriers as "any objects, institutions, customs, ideas, and all other elements in society that pose obstacles to persons with disabilities in their pursuit of daily or social life."

Reflecting this social model of disability, in recent years, the Ministry of Health, Labour and Welfare (MHLW)'s Comprehensive Survey of Living Conditions and the Ministry of Internal Affairs and Communications (MIC)'s Survey on Time Use and Leisure Activities have introduced survey items related to limitations in daily life. These efforts aim to capture data that are suited to international comparison but differ from traditional means of identifying disabilities (and persons with disabilities).

How, then, do these new disability statistics differ from existing disability statistics, and what should be the relationship between the two? In this paper, through a review of previous studies, we contextualize both existing domestic disability statistics and newer surveys based on international standards by examining the underlying concepts of disability and evolving trends in disability policy. We then outline the content and positioning of these two approaches. In addition, we discuss issues related to the use of such surveys, including both the old and new disability statistics, when clarifying the socioeconomic characteristics of persons with disabilities or when conducting economic analyses—such as policy evaluations.

The structure of this paper is as follows. In Section II, we provide an overview of trends in disability statistics both domestically and internationally. Section III focuses on the current state of disability statistics in Japan, describing how persons with disabilities have traditionally been identified in statistical surveys and administrative data, as well as introducing the approach and findings of more recent disability statistics based on international standards. In Section IV, we discuss issues related to the use of disability statistics for analysis, including the differences in how persons with disabilities are defined across surveys. Finally, Section V presents our conclusions.

II. Changes in the Environment Surrounding Japan's Disability Statistics

II-1. International Trends in Disability Statistics

Measuring the population of persons with disabilities and defining "disability" in each country are inextricably linked to how disability policies are structured and evolve.[1] The first major milestone in the international trajectory of disability policy was the "International Year of Disabled Persons," declared by the United Nations (UN) in 1981. Under the theme of "full participation and equality" for persons with disabilities, the resolution set out five objectives: (1) to help disabled persons in their physical and psychological adjustment to society, (2) to promote all national and international efforts to provide them with proper assistance, etc., and to ensure their full integration into society, (3) to encourage study and research to facilitate their practical participation in daily life, (4) to educate and inform the public of their right to participate in life and the community, and (5) to promote effective measures for the prevention of disability and for the rehabilitation of disabled persons.

In the following year, 1982, the UN General Assembly adopted the World Programme of Action concerning Disabled Persons, declaring the period from 1983 to 1992 the United Nations Decade of Disabled Persons. Under three broad objectives—"disability prevention," "rehabilitation," and "equalization of opportunities"—this plan encouraged member states to take action. In Europe, the Committee on the Rehabilitation and Integration of People with Disabilities was established within the European Communities (EC) in 1996, and 2003 was designated as the European Year of People with Disabilities. An action plan for the period from 2004 to 2010 was formulated and implemented. These developments were carried forward in the UN's discussions on the Convention on the Rights of Persons with Disabilities beginning in 2001. The Convention was adopted in December 2006 and entered into force in May 2008.

These international action plans on disabilities brought about a shift in thinking on how to conceptualize disability. Traditionally, the "individual model of disability" prevailed, whereby the physical, intellectual, or mental functional impairments that constitute disabilities were viewed primarily as individual problems. Policy responses in this model often focused on reducing or eliminating disabilities through medical rehabilitation, or on providing medical or welfare support.[2] In contrast, paragraph 21 of the World Programme of Action concerning Disabled Persons states that "experience shows that it is largely the environment which determines the effect of an impairment or a disability on a person's daily life" (O'Reilly, 2003). This statement demonstrates a clear recognition of the "social model of disability," in which the root causes of social disadvantages experienced by persons with disabilities are attributed to societal factors. From this point on, a social/rights-based approach to disability began to guide the development of policies supporting accessibility

[1] The description in this section draws heavily on Katsumata (2008).
[2] This "individual model of disability" is also referred to as the "medical model" or the "care/welfare approach."

measures and sheltered employment for persons with disabilities. In 2001, the World Health Organization (WHO) adopted the International Classification of Functioning, Disability and Health (ICF), leading countries to recognize disability as a multidimensional entity arising from the interaction of impairments at the individual level and environmental factors at the societal level.

As an international consensus on how to view disability began to emerge, the notion also arose—particularly in comparative research conducted by international organizations—of developing definitions and analytical frameworks to enable cross-country comparisons on a common platform. In Europe, where social inclusion policies are being promoted within the EC, it was recognized that establishing some common basis for comparison was essential to evaluate member states' efforts to advance the social inclusion of persons with disabilities; this recognition was reflected in EC (2003). In that EC study, disability was defined in labor force surveys by asking respondents whether they had "a health problem or disability that has lasted (or is expected to last) for six months or more," with those responding "yes" being categorized as persons with disabilities. The Organisation for Economic Co-operation and Development (OECD) also presented results from different national surveys in a single chart (OECD, 2003, Chart 3.1). Meanwhile, for countries participating in the European Community Household Panel, the EC developed an international comparison initiative that identifies disability based on two survey questions: "Do you have any chronic physical or mental health problem, illness, or disability?" and "Are you hampered in your daily activities by this chronic physical or mental health problem, illness, or disability?"

However, defining disability using a single standard always raises the problem of who may be excluded from that definition—that is, the issue of "disability gaps." Hence, during the drafting of the Convention on the Rights of Persons with Disabilities, no single unified definition of disability was ultimately adopted, following extensive debates on the matter. Rather, international comparative research at that time tended to focus on first establishing frameworks that allow for comparison despite varying definitions across countries, instead of moving toward a single standard definition (Katsumata, 2008). For example, EC (2002) discusses definitions of disability across four domains: (1) Activities of Daily Living support, (2) income replacement, (3) employment measures, and (4) anti-discrimination legislation.[3]

The second major milestone in disability statistics was the adoption of the Convention on the Rights of Persons with Disabilities by the UN General Assembly in December 2006, which entered into force in May 2008.[4] Article 31 of the Convention, "Statistics and Data Collection,"[5] obliges contracting states to collect statistical data for the formulation, imple-

[3] Among Japanese institutional initiatives, the Japan Council on Disability (2006) classifies disability definitions according to the requirements for receiving each service in four fields: (1) social welfare/social services, (2) income security, (3) employment, and (4) rights advocacy/anti-discrimination. Based on these classifications, the features of each definition fall into three categories: A. Disability assessment by government (specialists), based on severity; B. Needs assessment by government (specialists) and persons with disabilities themselves; C. Other. Japan is categorized as Type A, with a strong bias toward the medical (functional) model of disability assessment.

[4] The statements in this paragraph refer to Cabinet Office (2020).

mentation, and evaluation of policies, and also imposes on them the responsibility to disseminate statistics in formats accessible to persons with disabilities and others. As a result, contracting states need to develop and disseminate statistics that allow, for example, comparison between persons with and without disabilities. Moreover, at the UN Sustainable Development Summit in September 2015, member states adopted "Transforming our world: the 2030 Agenda for Sustainable Development." The Sustainable Development Goals (SDGs) set forth in this agenda call on all countries to pursue comprehensive goals by 2030 under the principle of "leaving no one behind." Persons with disabilities are deeply connected to many of these goals—such as those related to poverty reduction, health and well-being, and decent work—creating additional demand for data on disabilities from the perspective of monitoring SDGs progress. In March 2018, reflecting these developments, the 49th Session of the United Nations Statistical Commission adopted recommendations on disability statistics, calling on member states to examine their data collection methods and tools for disability statistics.[6] Specifically, from the standpoint of monitoring the 2030 Agenda for Sustainable Development and the need for disaggregation of data by disability status, countries were asked to select appropriate measurement tools for disability in accordance with their own data needs, while also reviewing the concepts, objectives, and advantages underlying their existing data collection methods.

II-2. Direction of Disability Surveys in Government Statistics[7]

In Japan, the MHLW conducts the "Survey on Difficulties in Living," aimed at understanding the circumstances of persons with disabilities. However, because this survey mainly targets persons with disabilities who hold an official disability certificate, it is not possible to compare their employment situation directly with that of persons without disabilities. Nonetheless, in response to the global push toward strengthening disability statistics outlined above, some changes have recently been observed in how disability is surveyed in Japan's government statistics.

A key trend in public disability statistics in recent years is tied to Japan's ratification of the Convention on the Rights of Persons with Disabilities in 2014. In March 2018, the Fourth Basic Programme for Persons with Disabilities and the Basic Plan Concerning the Development of Official Statistics were approved by the Cabinet, both of which called for enhanced statistics to bolster effective policy implementation. In May 2018, the Parliamentary League for Promoting Stable and Secure Employment for Persons with Disabilities (Inclusive Employment Parliamentary League) proposed the development of indicators that would allow comparison between persons with and without disabilities, recommending the addition of questions related to disability in core government surveys. Acting on this proposal, the Statistics Commission, in July 2018, initiated a plan to conduct a pilot survey on

[5] Convention on the Rights of Persons with Disabilities: https://www.mofa.go.jp/mofaj/files/000018093.pdf
[6] Cabinet Office (2020), p. 3, Figure 2.
[7] Based on Hayashi (2022).

disability statistics. Subsequently, between October 2019 and March 2020, the Cabinet Office formed a "Research Team on Enhancing Disability Statistics," advancing improvements in this domain.

In reviewing international approaches to disability statistics, this research team focused on question items developed by the Washington Group of the UN and by Eurostat (the statistical office of the European Union). An internet survey was conducted to analyze the characteristics of each of these indicators. In addition, with the cooperation of organizations for persons with disabilities, a paper-based survey was conducted to see how persons with disabilities would respond to these questions. These efforts revealed that the Eurostat approach identifies a higher percentage of persons with disabilities than the Washington Group approach, and it more readily includes individuals who do not use public disability programs. Furthermore, the Eurostat-based method appears to be easier for non-working respondents to complete.

Reflecting these findings, the 2021 Survey on Time Use and Leisure Activities included questions modeled on Eurostat's approach, asking respondents about the extent to which their daily life is affected by disabilities, and whether such limitations had lasted (or were expected to last) for six months or more. Meanwhile, the 2022 Comprehensive Survey of Living Conditions introduced questions based on the Washington Group format, in which six items—such as difficulties with vision, hearing, and walking—were evaluated on a four-level scale regarding the severity of difficulty experienced in daily life. In this way, two core national surveys have now adopted new questions concerning disability with the aim of enabling international comparisons. Further additions of disability-related questions to other core surveys are also under consideration. In the next section, we examine the characteristics of traditional disability statistics in Japan and consider how they differ from these recent statistical initiatives.

III. The Current State of Disability Statistics in Japan

III-1. Traditional Approaches to Disability Statistics and Their Realities

While efforts to develop internationally standardized disability statistics have advanced in recent years, statistical surveys that capture "persons with disabilities under the system"—that is, individuals who are the target users or beneficiaries of Japanese disability policies—continue to be conducted on an ongoing basis. In what follows, we first review several criteria applied in traditional disability statistics for identifying "persons with disabilities under the system" and then examine the number and characteristics of these individuals.

III-1-1. Criteria for "Persons with Disabilities under the System"

1. Possession of a Disability Certificate[8]

The first criterion is possession of a disability certificate. This term generally refers to

three types of certificates: the Physical Disability Certificate (*shintai shōgaisha techō*), the Intellectual Disability (Rehabilitation) Certificate (*ryōiku techō*), and the Certificate of Mental Disorder (*seishin shōgaisha hoken fukushi techō*).

The Physical Disability Certificate is issued to individuals with physical disabilities as stipulated in the annex to the Act on Welfare of Physically Disabled Persons; eligibility requires a disability of a certain severity and permanence. According to the 2022 Welfare Administration Report (*fukushi gyōsei hōkoku rei*), 4,842,344 people possess a Physical Disability Certificate (based on the ledger of issued certificates).

The Intellectual Disability Certificate is issued to individuals certified with an intellectual disability by a child guidance center or an intellectual disability consultation center for persons with intellectual disabilities. Disabilities are divided into "severe" (A) and "other" (B), though some local governments further subdivide these categories. According to the 2022 Welfare Administration Report, 1,249,939 people possess an Intellectual Disability Certificate.

The Certificate of Mental Disorder applies to all mental disabilities, including schizophrenia, depression, bipolar disorder, epilepsy, substance dependence, higher brain dysfunction, and developmental disorders (e.g., autism, learning disabilities, attention deficit hyperactivity disorder), as well as other mental disorders such as stress-related disorders.[9] Individuals with both developmental and intellectual disabilities can hold two certificates, whereas those with only an intellectual disability qualify instead for an Intellectual Disability Certificate and not for a Certificate of Mental Disorder. To apply for a Certificate of Mental Disorder, at least six months must have passed since the date of first medical consultation for the mental disability. According to the 2022 Health Administration Report (*eisei gyōsei hōkoku rei*), 1,345,468 people possess a Certificate of Mental Disorder (based on the ledger of issued certificates).

2. Degree of Disability for Disability Pensions[10]

The second criterion relates to the degree of disability as determined for disability pensions, which differs from the criteria for disability certificates. Assessments are based on separate annexes—*koku-nen-rei beppyō* for the National Pension and *kō-nen-rei beppyō* 1 and 2 for the Employees' Pension. Grade 1 applies to cases where the individual has difficulty performing almost any activity of daily living independently due to severe impairment of bodily functions or a medical condition requiring prolonged rest. Grade 2 applies to cases where daily life is substantially restricted due to bodily functional impairment or a medical condition requiring prolonged rest. Grade 3 covers cases in which work is substantially limited or must be adjusted due to disability; if such limitations persist after recovery from ill-

[8] MHLW website, "Disability Certificates." https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/hukushi_kaigo/shougaisha-hukushi/techou.html

[9] "Mental Health Information Site," National Center of Neurology and Psychiatry, Japan. https://kokoro.ncnp.go.jp/support_certificate.php

[10] Japan Pension Service, "Criteria for Disability Assessment in National Pension and Employees' Pension Insurance." https://www.nenkin.go.jp/service/jukyu/seido/shougainenkin/ninteikijun/20140604.files/01.pdf

ness or injury, the individual may receive a lump-sum disability allowance.

Individuals whose first date of medical consultation for an illness or injury occurred while they were covered by the National Pension are eligible for the Disability Basic Pension, while those covered by the Employees' Pension at that time are eligible for the Disability Employees' Pension.[11] Disability Basic Pension payments are made only for Grade 1 and Grade 2; those determined to be Grade 3 or eligible for the lump-sum disability allowance receive benefits solely through the Employees' Pension. Moreover, certain pension contribution requirements must be met to receive any disability pension. Disability pensions are a major source of income for many persons with disabilities, and their status is tracked through various MHLW reports and surveys (Momose, 2018). According to the 2022 Annual Report on the Employees' Pension Insurance and the National Pension, 502,231 individuals receive the Disability Employees' Pension (Grades 1-3) and 2,129,756 individuals receive the Disability Basic Pension.

III-1-2. Main Support Measures for "Persons with Disabilities under the System"

1. Disability Deductions[12]

Persons with disabilities can receive various tax benefits. Here, disability status typically requires possession of a disability certificate, among other conditions. Individuals with severe mental disabilities who always lack decision-making capacity, as well as those with profound intellectual disabilities and other serious conditions, are recognized as persons with "special disabilities."

For income tax, the standard disability deduction is 270,000 yen, and the deduction for a special disability[13] is 400,000 yen. For inheritance tax, a disabled individual can deduct 100,000 yen per year (or 200,000 yen for a special disability) up to the age of 85. For gift tax, if assets are trusted for the living expenses of a "specified disabled person,"[14] up to 60 million yen is tax exempt for a special disability and up to 30 million yen for other specified disabled persons. Additionally, a family member caring for a dependent with a disability can deduct 270,000 yen (or 400,000 yen for a special disability) per dependent; if cohabiting with the dependent, the deduction can be as high as 750,000 yen. This system alleviates the financial burden on families who provide care. According to the 2022 Sample Survey of Income Tax Returns conducted by the National Tax Agency, approximately 357,000 individuals took advantage of disability deductions.

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[11] Note that the Special Disability Allowance (*Tokubetsu Shōgai Kyūfukin*) system is in place as a welfare measure for those unable to receive Disability Basic Pension because they did not enroll in National Pension on a voluntary basis. According to "Special Disability Allowance System," Japan Pension Service (https://www.nenkin.go.jp/service/jukyu/sonota-kyufu/tokubetsu-kyufu/tokubetsu-kyufu.html), it covers, for example, those who were students as of March 1991 or spouses of employees before March 1986, provided that the onset date of their disability lies within the period when they were not required to enroll, that they currently meet the criteria for Grades 1 or 2, and that they file a claim before reaching age 65. Recipients of Disability Basic Pension or Disability Employees' Pension are excluded, and approval by the Minister of Health, Labour and Welfare is required.

[12] National Tax Agency website: "Persons with Disabilities and Tax." https://www.nta.go.jp/publication/pamph/koho/kurashi/html/03_2.htm

[13] Individuals with a particularly severe disability, such as Grade 1 or 2 on the Physical Disability Certificate, etc.

[14] "Specified disabled persons" refers to special disabled persons or to individuals with mental disabilities who are classified as disabled persons other than special disabled persons.

2. Disability Allowance (Special Disability Allowance)

The Special Disability Allowance is provided to individuals who have severe mental or physical disabilities and constantly require special nursing care in daily life.[15] Its aim is to mitigate the psychological and material burdens associated with severe disabilities and to improve the welfare of such individuals. The allowance is available to those aged 20 or older who live at home and require around-the-clock care. Possession of a disability certificate is not mandatory; if a severe disability is recognized, the individual may still be eligible. However, an income limit applies, so the allowance is not paid if the recipient, spouse, or any obligated supporter exceeds certain income thresholds. According to the MHLW Welfare Administration Report, 132,475 individuals received the Special Disability Allowance at the end of fiscal year 2022.

3. Medical Expense Subsidies: Self-Support (Independence) Medical Care System and Subsidies for Persons with Severe Disabilities and Elderly Persons with Severe Disabilities

The Self-Support Medical Care System (*jiritsu shien iryō*) is a publicly financed program designed to reduce or eliminate patients' financial burden for medical treatment aimed at alleviating or removing disabilities.[16] This system covers three main types of medical care. The first is outpatient mental healthcare (*seishin tsūin iryō*), which applies to individuals with mental illnesses such as schizophrenia who require outpatient treatment. The second is rehabilitation medical care (*kōsei iryō*), available to individuals aged 18 or older who hold a Physical Disability Certificate and whose condition may improve through surgery or other interventions. The third is developmental medical care (*ikusei iryō*), intended for individuals under 18 with physical disabilities that can be alleviated through surgery or similar treatments. The out-of-pocket expenses for these services vary according to income. According to the 2022 Welfare Administration Report, the Self-Support Medical Care System covered 319,462 individuals (based on the number of decisions on financial support).

4. Public Assistance[17]

The eligibility criteria for public assistance are the same for persons with and without disabilities. The primary difference is whether an additional disability allowance is granted as part of public assistance. Under the Public Assistance Act, disability allowances are recognized for individuals with Physical Disability Certificate Grades 1-3 or Disability Pension Grades 1-2. In practice, however, there is no requirement to wait for a pension decision or certification. If an application for a disability allowance is submitted, public assistance agencies guide the individual through the appropriate procedures and determine eligibility. If an

[15] MHLW website, "Regarding the Special Disability Allowance." https://www.mhlw.go.jp/bunya/shougaihoken/jidou/tokubetsu.html

[16] MHLW, "Overview of the Self-Support Medical Care System." https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/hukushi_kaigo/shougaishahukushi/jiritsu/gaiyo.html

[17] MHLW, "Recognition of Disability Allowances under Public Assistance" (https://www.mhlw.go.jp/web/t_doc?dataId=00ta8435&dataType=1&pageNo=1) and *Seikatsu Hogo Techō (2015 Edition)*[Public Assistance Handbook 2015].

individual has a recognized pension or other certification, no further medical documentation is required to receive the disability allowance. If pension certification is still pending, the allowance can be determined based on a specialist's diagnosis. Holders of Certificates of Mental Disorder Grades 1-2 can be recognized based on the information on the certificate. Should a pension or equivalent body ultimately determine that the applicant does not meet eligibility criteria, the disability allowance will be rescinded the following month. However, if the individual reapplies for a pension after renewing a certificate, the allowance can continue until the pension decision is made. Conversely, if it is determined that the person does meet pension requirements, the allowance is granted from the following month, with the allowance also recognized retroactively for that month, the previous month, and the month before that. Momose and Ohtsu (2020) show that the rate at which disability pension recipients also receive public assistance varies depending on the type and grade of disability. According to MHLW's Survey on Public Assistance Recipients, as of the end of July 2022, 401,111 public assistance recipients had some form of disability allowance added to their benefits.

5. Guarantees of Employment Opportunities[18]

In Japan, based on the Act to Facilitate the Employment of Persons with Disabilities, a mandatory employment quota system for persons with disabilities has been introduced to promote their employment.[19] Under the employment quota system, individuals who hold a Physical Disability Certificate, an Intellectual Disability Certificate, or a Certificate of Mental Disorder are included in the calculation of the disability employment rate.

The legally mandated disability employment rate (quota) for private-sector companies has been progressively raised since 1960, when it stood at 1.1%. It reached 2.2% in 2018, 2.3% in 2021, will rise to 2.5% in 2024, and to 2.7% in July 2026. Moreover, from April 2024, companies with at least 40 employees will be subject to the mandate, and from July 2026, this will become companies with at least 37.5 employees. Businesses that fail to meet the quota are required to pay a levy, while those that meet or exceed the quota receive an adjustment grant.[20] [21] This levy system is based on the principle that employers collectively share responsibility for hiring persons with disabilities. It aims to balance the economic burden of employing persons with disabilities among companies and thereby promote their employment. Grants and incentives are funded by these levies.

According to the MHLW Report on Employment of Persons with Disabilities, as of June 1, 2022, the number of persons with disabilities working for employers required to hire them under the Act was: 613,958.0 persons in private-sector firms, 71,148.5 persons in public institutions, and 12,420.5 persons in independent administrative agencies. Thus, just un-

[18] "Report on Employment of Persons with Disabilities." https://www.mhlw.go.jp/content/001100468.pdf

[19] This section draws on OECD (2003), Nakagawa (2021), and Terada (2023), among others.

[20] Website of the Japan Organization for Employment of the Elderly, Persons with Disabilities and Job Seekers. https://www.jeed.go.jp/index.html

[21] When calculating the number of employees who form the basis for the legally required quota of persons with disabilities, full-time (non–short hour) employees are counted as 1.0 person, while short-hour employees may be counted as 0.5.

der 700,000 persons with disabilities are employed at companies subject to the quota system.

6. Use of Employment Support Services Under the Act on Providing Comprehensive Support for the Daily Life and Life in Society of Persons with Disabilities[22]

Established in 2013, the Act on Providing Comprehensive Support for the Daily Life and Life in Society of Persons with Disabilities promotes social participation for persons with disabilities by facilitating their labor market engagement. While the employment quota system provides general opportunities, this Act offers four primary employment support services. Eligibility goes beyond those who hold an official disability certificate; for instance, individuals on leave from work due to mental health conditions may also qualify, provided they have a physician's certificate or statement of opinion.[23]

Transition Support for Employment (*shūrō ikō shien*) consists of fixed-term training to help persons with disabilities acquire the skills and knowledge required for jobs in ordinary companies. Continuing Employment Support (Type A) (*shūrō keizoku shien A-gata*) targets individuals for whom employment in ordinary companies is difficult but who can still work under a standard employment contract. Under this arrangement, service providers hire these individuals via such contracts, offering work opportunities and production activities. Continuing Employment Support (Type B) (*shūrō keizoku shien B-gata*) is designed for individuals whose disabilities prevent them from working under a standard labour contract; providers offer them work opportunities and support for various production activities. Employment Retention Support (*shūrō teichaku shien*) offers consultation and advice on issues that arise in the workplace or in daily life to persons with disabilities who have found employment in ordinary companies after using Transition Support for Employment or other services.

These measures enable persons with disabilities to participate in society according to their abilities. According to the MHLW's 2022 Survey of Social Welfare Institutions, 37,887 people used Transition Support for Employment, 101,448 used Continuing Employment Support (Type A), 406,577 used Continuing Employment Support (Type B), and 15,691 used Employment Retention Support. Altogether, more than 560,000 individuals benefited from these forms of labor-participation assistance.

7. Issues in the Certification of "Persons with Disabilities under the System"

As described above, Japanese disability support measures primarily revolve around those who hold a disability certificate, yet each system applies its own criteria. This can lead to confusion among persons with disabilities (and their guardians) about which social security programs they qualify for, potentially resulting in underuse of available services. For instance, although the criteria for Grades 1-2 in disability pensions largely overlap with those for physical and mental disability certificates, many discrepancies arise in practice. Accord-

[22] MHLW, "Current Status of Employment Support Measures for Persons with Disabilities." https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/hukushi_kaigo/shougaishahukushi/service/shurou_00017.html

[23] Welfare and Medical Service Agency. https://www.wam.go.jp/content/wamnet/pcpub/syogai/handbook/qa/

ing to Ishikawa (2021), among individuals qualified to receive Grade 1 Disability Basic Pension, only 38.1% hold a Grade 1 Physical Disability Certificate and only 10.5% possess a Certificate of Mental Disorder. Additionally, many persons with disabilities, particularly those with mental or intellectual disabilities, do not hold any certificate at all. Because physical disabilities are often visibly evident, it is generally easier to ascertain their severity, whereas diagnosing mental or developmental disorders can be more subjective and depends heavily on the discretion of the physician. Although the MHLW has introduced guidelines to improve this process, diagnosing mental and developmental disorders remains challenging, and they must be evaluated with greater care compared to visible (external) impairments.

Moreover, Japan's disability grading system is based on the extent to which daily life is restricted. In many other countries, however, classification often hinges on reduced or lost earning capacity. Although Japan's standard has the advantage of not discouraging work incentives, it poses the potential drawback of insufficient economic support for persons with disabilities who experience financial hardship. Indeed, a significant number of people with disabilities receive no public financial assistance (Momose, 2008).

III-1-3. Number and Rate of "Persons with Disabilities under the System"

Because each system in Japan adopts its own criteria for determining the targets of disability policies, traditional disability statistics cover not only holders of disability certificates but also individuals—such as those with intractable diseases (*nanbyō*)—who do not hold certificates yet face prolonged illness or injury and experience difficulties in daily life.

Among surveys focusing on persons with disabilities living at home, a representative example is the "Survey on Difficulties in Living" (National Survey of Children/Persons with Disabilities at Home), conducted by the MHLW. This survey integrates previously separate household surveys—for physical disabilities (the "Survey on Children/Persons with Physical Disabilities") and for intellectual disabilities (the "Basic Survey on Children/Persons with Intellectual Disabilities")—while also expanding the scope to include individuals with mental disabilities, intractable diseases, and others. First implemented in 2011, it is conducted at five-year intervals and had been carried out three times as of the writing of this paper (2025). In this survey, enumerators visit households in randomly selected census tracts (approximately 2,400 to 5,300 tracts) and distribute questionnaires if any household member meets one of the following conditions: (1) possesses a disability certificate, (2) has been diagnosed with an intellectual disability, developmental disorder, higher brain dysfunction, or an intractable disease, or (3) does not meet conditions (1) or (2) but experiences ongoing difficulties in daily life due to a chronic illness or injury. The questionnaire is completed by respondents themselves (self-administered).

In addition, the 2017 and 2022 "National Survey on Social Security and People's Life" conducted by the National Institute of Population and Social Security Research added items to gather, for the first time, information on household members' possession of a Physical Disability Certificate, Intellectual Disability Certificate, or Certificate of Mental Disorder, as well as details on difficulties in daily life and the need for caregiving. These items were ad-

ministered to household members aged 18 and older living in enumeration areas of the Comprehensive Survey of Living Conditions. As a result, the survey now makes it possible to compare persons with disabilities and those without under various criteria.

Meanwhile, persons with disabilities residing in facilities are not captured by household surveys. Their actual numbers are measured via facility-based surveys. For example, among holders of physical or intellectual disability certificates, the MHLW's Survey of Social Welfare Institutions—conducted annually (though in-depth surveys occur every three years)—collects the relevant data. Because its scope includes not only facilities under the Act on Providing Comprehensive Support for the Daily Life and Life in Society of Persons with Disabilities but also those under the Child Welfare Act, the Act on Social Welfare for the Elderly, and other legislation, the number of persons with disabilities residing in facilities is ascertained as the number of certificate holders in facilities other than those primarily serving older adults. Persons with mental disabilities, by contrast, are tracked in the MHLW's Patient Survey, a sample survey conducted every three years targeting hospitals and clinics. In that survey, outpatient figures are used to estimate the number of individuals with mental disabilities living at home, while inpatient figures indicate the number of facility-resident individuals. Specifically, anyone diagnosed under ICD-10 category V, "Mental and Behavioral Disorders," excluding mental retardation, plus those with epilepsy or Alzheimer's disease, is defined as having a mental disability. However, this definition is based on the cause of illness rather than the possession of a Certificate of Mental Disorder.

In Japan, the number of "persons with disabilities under the system" has thus been measured primarily through three surveys: the "Survey on Difficulties in Living," the "Survey of Social Welfare Institutions," and the "Patient Survey." Table 1 summarizes the findings from these surveys since 2005. The most recent results, from 2020 to 2022, show that the total number of persons with physical disabilities (living at home and in facilities) is 4.229 million, those with intellectual disabilities total 1.267 million, and those with mental disabilities total 6.149 million (combining outpatients and inpatients). Although an individual may simultaneously hold multiple certificates, if we simply sum these figures, the recent count of "persons with disabilities under the system," centered on certificate holders, reaches as high as 11.645 million—equivalent to approximately 9.3% of the total population (124.947 million as of 2022). Table 1 also reveals that over the past 15 years, the number of institutionalized or hospitalized persons has changed little, whereas the number of certificate holders living at home has increased for all types of disabilities.

Figure 1 displays the disability rate by age group among at-home persons with disabilities in 2022. From infancy through the early 50s, the disability rate hovers in the 2-3% range, showing little correlation with age. However, from the late 50s onward, the rate increases with age, peaking at 14.7% in the late 80s. By type of disability, the percentage of Physical Disability Certificate holders is relatively high and rises with age. Typically, when people experience declining physical function due to aging, they rely on the long-term care insurance system rather than obtaining a disability certificate; however, possession of such a certificate allows individuals under 75 to enroll in the Late-Stage Elderly Medical Care Sys-

Table 1. Trends in the Number of Persons with Disabilities by Type and by Living at Home vs. in Facilities

Unit: Thousand persons

Year	Physical Disabilities		Intellectual Disabilities		Mental Disabilities			Non-certificate Holders
	Certificate holders		Certificate holders		Certificate holders	Outpatient	Inpatient	Receiving self-support benefits, etc.
	living at home	living in facilities	living at home	living in facilities	living at home	living at home	living in facilities	living at home
2005			419	128		2,675	353	
2006	3,576	87						
2007								
2008						2,900	333	
2009		73						
2010								
2011	3,864		622	119	568	2,878	323	320
2012		58						
2013								
2014						3,611	313	
2015		73		120				
2016	4,287		962		841			338
2017						3,891	302	
2018		73		132				
2019								
2020						**5,861**	**288**	
2021		**70**		**127**				
2022	**4,159**		**1,140**		**1,203**			**229**

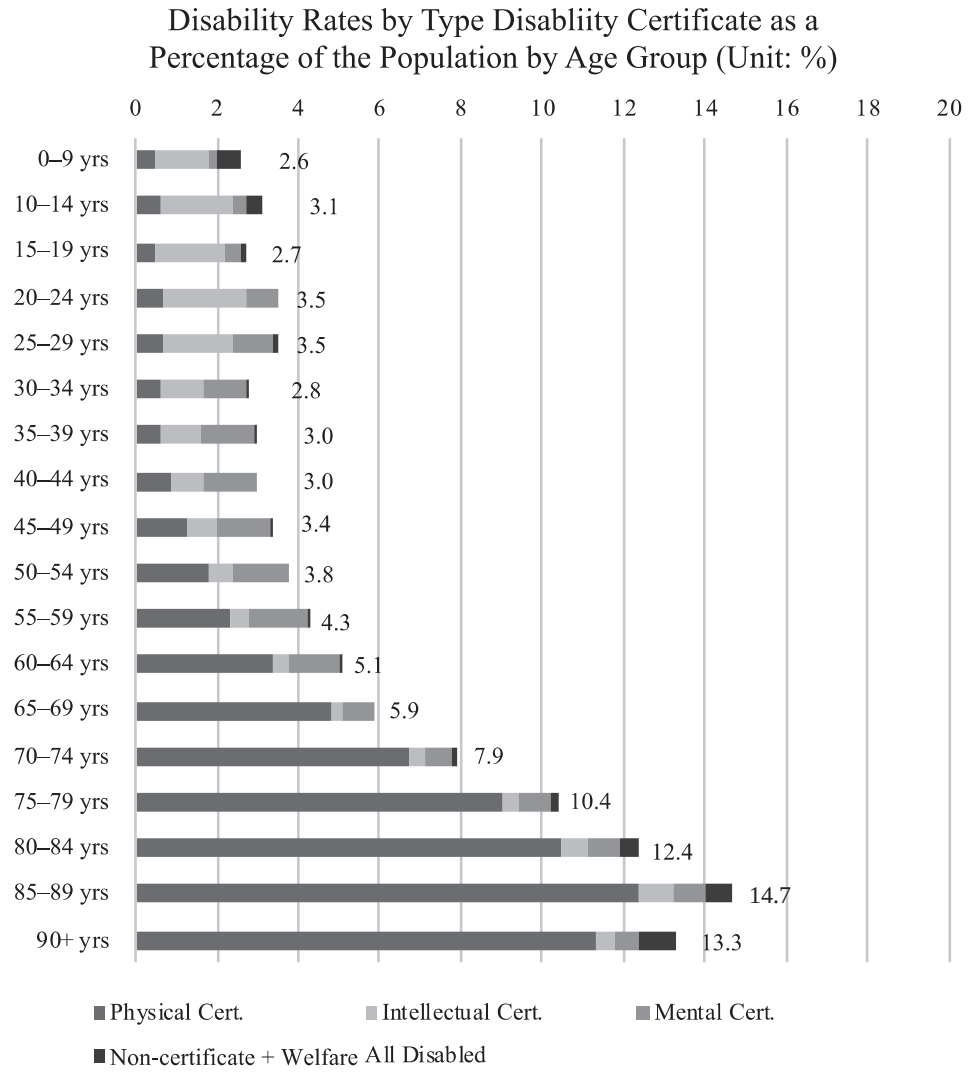
Notes:

1. Facility-resident individuals with physical or intellectual disabilities do not include residents of facilities that primarily serve the elderly.
2. The number of persons with mental disabilities corresponds to the number of patients classified under "V: Mental and Behavioral Disorders" in ICD-10 (International Classification of Diseases, 10th Revision), excluding mental retardation, plus the number of those with epilepsy or Alzheimer's disease.
3. For outpatient mental disability figures, data for 2011 exclude some areas of Miyagi Prefecture and Fukushima Prefecture. From 2020, the method for estimating total patient numbers has changed.
4. The 2022 figure for "individuals not holding a disability certificate but receiving self-support benefits or other services" refers to users of disability welfare services who do not hold any disability certificate.

Sources:

1. Persons with physical or intellectual disabilities living at home: MHLW, "Survey on Children/Persons with Physical Disabilities" (2006), "Basic Survey on Children/Persons with Intellectual Disabilities" (2005), "Survey on Difficulties in Living" (2011-)
2. Facility-resident persons with physical or intellectual disabilities: MHLW, "Survey of Social Welfare Institutions"
3. Persons with mental disabilities (certificate holders) living at home: "Survey on Difficulties in Living" (2011-)
4. Outpatient and inpatient persons with mental disabilities: MHLW, "Patient Survey"
5. Individuals not holding any certificate but receiving self-support benefits, etc.: "Survey on Difficulties in Living"

Figure 1. Proportion of the Population Who Are "Persons with Disabilities under the System" (2022)



Sources:
1. MHLW, 2022 Survey on Difficulties in Living (National Survey of Children/Persons with Disabilities at Home)
2. MIC, 2022 Basic Resident Register

tem, among other benefits. This partly explains a tendency for older adults to acquire a disability certificate.

Among older adults, the share of Intellectual Disability Certificate or Certificate of Mental Disorder holders is not necessarily large, but as the elderly population itself expands, the number of such individuals also grows. Thus, the rise in the number of at-home persons with disabilities, as shown in Table 1, reflects population aging. This trend is expected to continue going forward.

III-2. Disability Statistics Based on International Standards

As mentioned earlier, disability statistics rooted in international standards are considered essential data for policy evaluation. In line with the SDGs principle of "leaving no one behind," these statistics help clarify differences between persons with disabilities and non-disabled individuals in areas such as education, health, and employment. Although Japan's Basic Act for Persons with Disabilities was revised to define social barriers and mandate non-discrimination and reasonable accommodation, the development of statistics suitable for international comparison remained an ongoing challenge. To address this issue, as discussed in Section II-2, the Cabinet Office conducted a pilot survey in fiscal 2019, leading to the adoption of GALI (Global Activity Limitation Instrument)—the Eurostat-style disability item—in the 2021 Survey on Time Use and Leisure Activities, and Washington Group–style disability questions in the 2022 Comprehensive Survey of Living Conditions.

First, the Survey on Time Use and Leisure Activities is conducted to create the "Social Life Basic Statistics," a core statistical resource under the Statistics Act. Its primary aim is to gather fundamental data that shed light on people's social lives, including how they allocate their time and their main activities during leisure.[24] In 2021, the survey covered about 190,000 individuals aged 10 and older (with questions related to the degree of daily-life difficulty asked of those aged 15 and older), drawn from some 91,000 households randomly selected from approximately 7,600 enumeration districts nationwide. Certain populations, such as diplomatic personnel, foreign military personnel, residents of Self-Defense Forces facilities, individuals confined to institutions, and those living on boats, were excluded. The sample was chosen through a stratified two-stage method involving both enumeration districts and households. First, areas deemed ineligible (e.g., mountainous regions, certain social facilities) were removed, then within each prefecture, districts were selected via probability-proportional systematic sampling, accounting for population. Next, twelve households were chosen by equal-probability systematic sampling from each selected district. If the enumerator found a household absent, replacement sampling was carried out.

The survey used two questionnaires, A and B, asking about a broad spectrum of topics, including household composition, age, health status, learning and employment situations, and time allocation. It also included detailed questions on employment status and income for those aged 15 and older. In October 2021, this survey introduced new questions concerning disability based on the Eurostat framework, asking about "degree of difficulty in daily life" and whether such difficulty had lasted at least six months (Figure 2).

Second, the Comprehensive Survey of Living Conditions collects basic information on health, medical care, welfare, pensions, income, and other aspects of citizens' lives, thereby supplying fundamental data for planning and managing health and welfare administration. It

[24] MIC, Statistics Bureau, "Outline of the 2021 Survey on Time Use and Leisure Activities." https://www.stat.go.jp/data/shakai/2021/gaiyou.html

Figure 2. Newly Introduced Items in the 2021 Survey on Time Use and Leisure Activities

Degree of Limitation in Daily Life				
Please respond only regarding limitation in activities because of health problems				
Check one box that best applies				
Severely limited		Limited but not severely		Not limited at all
6 months or more	Less than 6 months	6 months or more	Less than 6 months	
☐	☐	☐	☐	☐

Source: Adapted and compiled by the author from the Statistics Bureau of Japan, MIC, Overview of the 2021 Survey on Time Use and Leisure Activities (https://www.stat.go.jp/data/shakai/2021/pdf/qua.pdf)

also serves to identify parent samples for subsequent surveys.[25] This survey comprises two types: a large-scale survey and a simplified survey, both targeting households and household members nationwide. In the large-scale survey, five types of questionnaires—Household, Health, Long-term Care, Income, and Savings—are distributed to all households in 5,530 census enumeration districts. Among these, 2,500 districts are further designated for the Long-term Care questionnaire, and 2,000-unit districts for the Income and Savings questionnaires. The simplified survey uses 1,106 enumeration districts for the Household questionnaire and 500-unit districts for the Income questionnaire. Populations such as employees on temporary assignments away from their families, individuals on extended business trips, persons in detention, and single-person households in dormitories or boarding houses are excluded from the sample. A stratified random sampling approach is used. Households fill out the questionnaires distributed by enumerators, returning them either in person or through an online system; absent households may submit their forms by mail.

The Household questionnaire covers household composition and expenditures, the Health questionnaire deals with health status and outpatient visits, the Long-term Care questionnaire examines levels of care and service use, the Income questionnaire focuses on income and taxation from the previous year, and the Savings questionnaire addresses savings, assets, and remaining loan balances. The Household, Health, and Long-term Care questionnaires are administered in June, while the Income and Savings questionnaires are conducted in July. In June 2022, the Comprehensive Survey of Living Conditions introduced new Washington Group–style questions on disability. These items assess the degree of difficulty experienced in daily life—regarding such activities as vision, hearing, or walking—on a four-point scale (Figure 3).

Figure 4 presents the disability rate by age group, calculated using the newly added question items in both surveys. In the Survey on Time Use and Leisure Activities, a person

[25] Comprehensive Survey of Living Conditions. https://www.mhlw.go.jp/toukei/list/20-21tyousa.html#anchor02

Figure 3. Newly Introduced Items in the 2022 Comprehensive Survey of Living Conditions

For each the following items (a) through (f), regarding difficulties you may experience in daily life, please select one number (1- 4) that best applies.				
	No difficulty	Some difficulty	A lot of difficulty	Cannot do at all
(a) Do you have difficulty seeing, even if wearing glasses?	1	2	3	4
(b) Do you have difficulty hearing, even if using a hearing aid(s)?	1	2	3	4
(c) Do you have difficulty walking or climbing steps?	1	2	3	4
(d) Do you have difficulty remembering or concentrating?	1	2	3	4
(e) Do you have difficulty with self-care, such as washing all over or dressing?	1	2	3	4
(f) Do you have difficulty communicating, for example understanding or being understood?	1	2	3	4

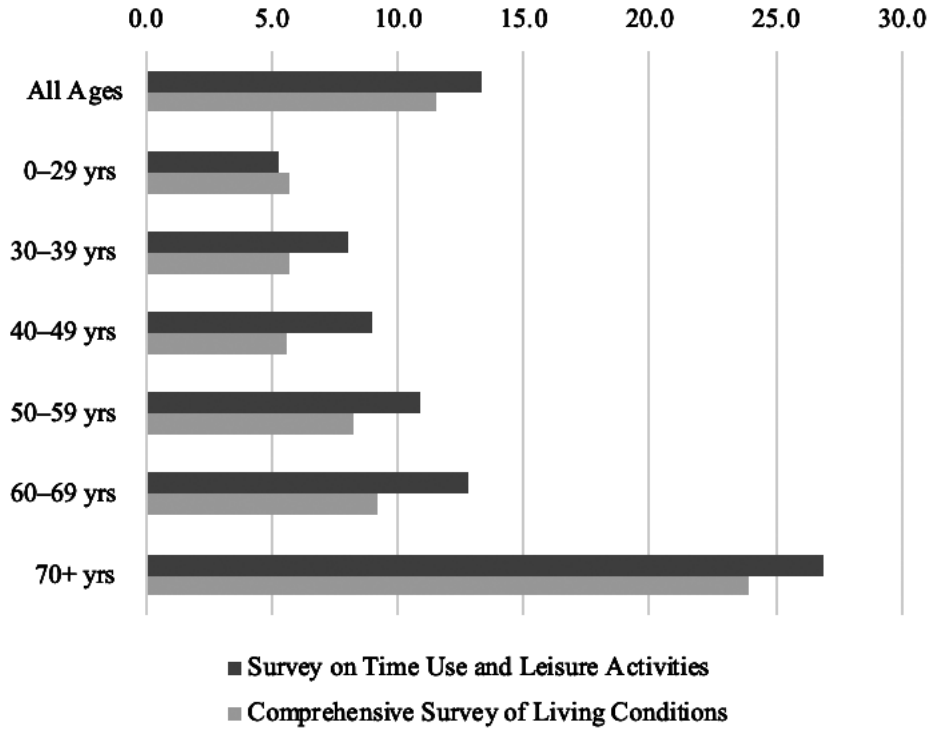
Source: Adapted and compiled by the author from the MHLW, List of Questionnaire Forms for Statistical Surveys (Comprehensive Survey of Living Conditions) https://www.mhlw.go.jp/toukei/chousahyo/20-21/dl/koku2022ke.pdf

with a disability is defined in accordance with the Eurostat approach—namely, an individual reporting "severe difficulty" or "some difficulty" in daily activities lasting at least six months.[26] According to this definition, the estimated number of persons with disabilities in Japan in 2021 was 14.302 million,[27] yielding a disability rate of 13.4%. This is notably higher than the rate of "persons with disabilities under the system" (about 9.3%, primarily based on certificate holders), even though the survey excludes individuals under age 15 and those living in institutions. By age group, the disability rate is low (5.3%) under age 30 but steadily increases with age, reaching 26.9% for those aged 70 and older.

In the Comprehensive Survey of Living Conditions, persons with disabilities are defined as those who responded "A lot of difficulty" or "Cannot do at all" for at least one of six items (e.g., vision, hearing, walking), offered on a four-point scale ("No difficulty," "A little difficulty," "A lot of difficulty," "Cannot do at all"). Based on this definition and the 2022 survey data, the disability rate is 11.6%.[28] By age group, the results mirror those of the Sur-

[26] For the definition of disability rates, see Hayashi (2023), which conducts a similar analysis.
[27] MIC, Statistics Bureau, "Results of the 2021 Survey on Time Use and Leisure Activities." https://www.stat.go.jp/data/shakai/2021/kekka.html

Figure 4. Disability Rates (in %) Calculated from the Survey on Time Use and Leisure Activities (Eurostat Format, 2021) and the Comprehensive Survey of Living Conditions (Washington Group Format, 2022)



Source: Compiled by the authors based on published tables on e-Stat from the MIC Statistics Bureau (https://www.e-stat.go.jp)

vey on Time Use and Leisure Activities—5.7% for those under age 30 but a relatively high 23.9% for those aged 70 and older. Noting that the presence or absence of older adult facilities in a given survey area may significantly affect the disability rate, Hayashi (2024) adjusted for institutionalized residents and found a disability rate of 12.7%.

As shown in the previous section, the maximum estimated number of "persons with disabilities under the system," largely those holding disability certificates, is 11.645 million, representing 9.3% of the total population. By contrast, estimates that adhere to international standards yield a minimum disability count of 14.302 million, for a rate between 11.6% and 13.4%. Hence, the recent introduction of surveys on functional limitations in the Comprehensive Survey of Living Conditions and the Survey on Time Use and Leisure Activities reflects the social model of disability, making it possible to capture a broader range of individuals who face restrictions in everyday life.

[28] In the Comprehensive Survey of Living Conditions, the total number of persons with disabilities is not estimated.

III-2-1. International Comparison Using the Survey on Time Use and Leisure Activities

Hayashi (2023) provides an international comparison using the Survey on Time Use and Leisure Activities. As mentioned, Japan's disability rate based on the Eurostat-style GALI questions is 13.4%. By contrast, calculations from the EU-SILC (EU Statistics on Income and Living Conditions) dataset indicate that the average disability rate across the 27 European Union member states (EU-27) is 25.2%. Japan's rate is thus roughly half the EU-27 average, even after adjusting for age.

Additionally, the 2018 older-adult surveys in the Philippines and Vietnam also included questions on "limitations in daily life," with both countries reporting disability rates on par with those in the EU—implying that disability rates in some parts of Asia may be similarly high.

Notably, the 2017 National Survey on Social Security and People's Life also employed the Eurostat GALI questions, yielding a disability rate of 23.1% and an age-adjusted rate of 23.9%—approximately ten percentage points higher than found in the Survey on Time Use and Leisure Activities.

When comparing age-specific disability rates among the EU, the Survey on Time Use and Leisure Activities, the Cabinet Office's pilot survey, and the National Survey on Social Security and People's Life, the Survey on Time Use and Leisure Activities consistently shows the lowest rates for all age brackets. In the EU and in the National Survey on Social Security and People's Life, disability rates begin to rise substantially from around age 50, whereas in Japan's Survey on Time Use and Leisure Activities they increase markedly only from around age 70 onward. In the Cabinet Office's pilot survey, disability rates do not increase for individuals over 60, likely because respondents older than 70 were underrepresented, causing a concentration of respondents in their 60s.

Hayashi (2023) posits that Japan's disability rate is relatively low compared to other countries. Possible reasons for the especially low rate in the Survey on Time Use and Leisure Activities include genuinely lower actual disability prevalence, differences in response styles, and potential biases in the sample. Another possibility is that since the survey focuses on time use, its respondents may be skewed toward those less likely to have disabilities. Further research is needed to compare these results with other surveys.

III-2-2. International Comparison Using the Comprehensive Survey of Living Conditions

Hayashi (2024) presents an international comparison based on the Comprehensive Survey of Living Conditions. When used to calculate disability rates, the Washington Group questions yield an estimate of 11.6% in Japan (12.7% after adjusting for institutionalized residents). The Washington Group approach was designed for international comparisons, but relatively few high-income countries use these questions verbatim. For instance, the United States and Canada include some Washington Group items but also add their own questions. In Europe, the GALI format is more common, while the Washington Group format is less

so. In contrast, it is widely employed in the Middle East, Africa, and Latin America, although the exact question sets differ by country.

Across middle- and upper-middle-income countries, disability rates using the Washington Group format tend to range from about 12% to 14%. There is a high correlation between disability rates and the share of people aged 65 and older, yet Japan's rate remains comparatively low given its large elderly population. Conversely, disability rates in low- and middle-income countries are often well below this range, possibly because many disabilities go unrecognized.

IV. Challenges in Surveys on Disability Statistics

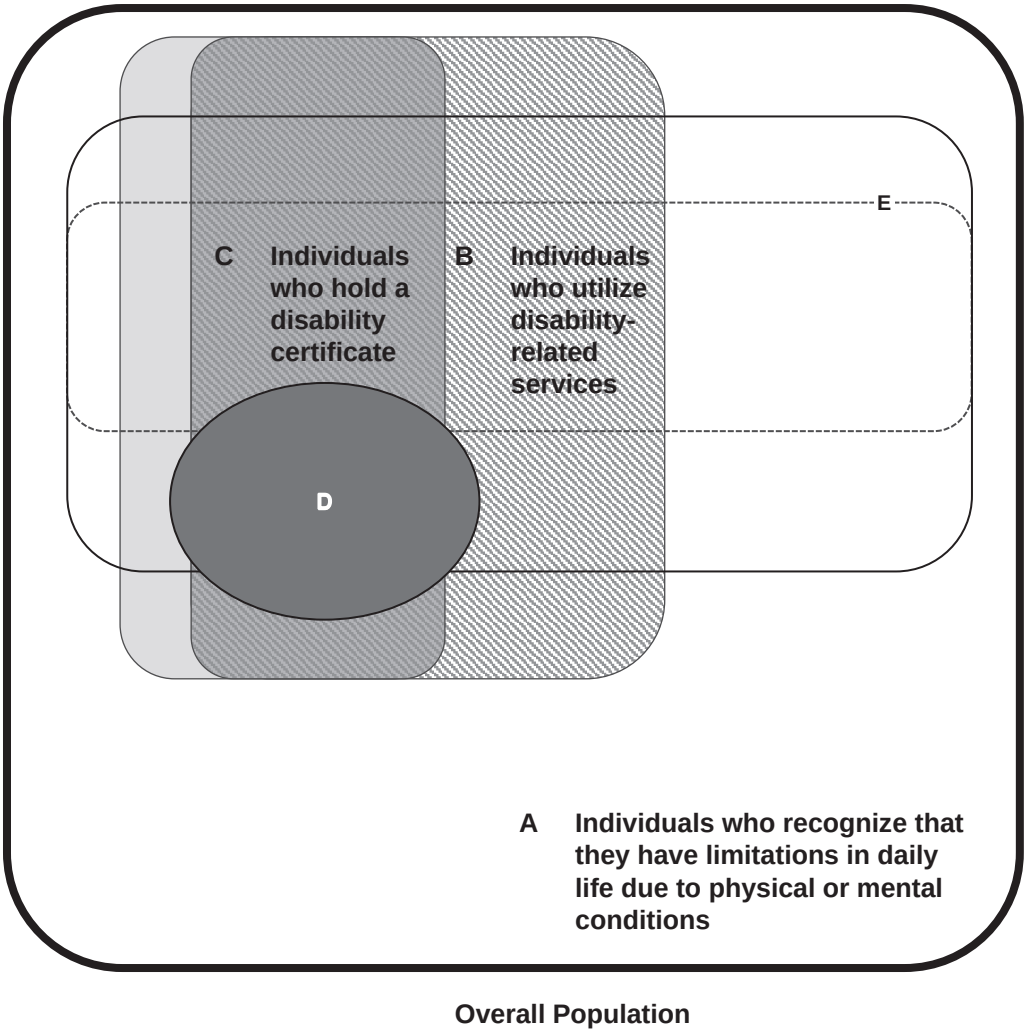
As we have seen, Japan's recent disability-related surveys now encompass both the traditional, certificate-based definition of persons with disabilities and newer surveys that adopt the subjective criterion of "limitations in daily life" in line with international conventions. However, there are two main challenges in making full use of these multiple surveys to understand the realities of persons with disabilities based on the nature of their disabilities. The first concerns how "disability" (or "persons with disabilities") is defined in each survey—namely, what types of disabilities and which characteristics are to be elucidated. The second relates to who actually completes the questionnaire. Below, we discuss these issues with reference to Izumida and Kuroda (2019), who address these questions in relation to surveys on disabilities.

IV-1. Differences in the Definition of "Persons with Disabilities"

The first challenge pertains to how the target disabilities (or persons with disabilities) are defined and what scope is used to identify them. Figure 5 summarizes methods of identifying disabilities across various statistical surveys. [29] In this figure, (A) represents individuals who "recognize that they have limitations in daily life due to physical or mental conditions." In policy terms, this group broadly corresponds to the definition of "persons with disabilities" in Article 2(1) of the Basic Act for Persons with Disabilities, as amended in 2011, which states, "A person with a physical disability, intellectual disability, mental disability (including developmental disorder), or other impairment in bodily or mental functions (hereinafter referred to as 'disability'), who experiences substantial restrictions on an ongoing basis in everyday or social life due to their disabilities and social barriers." More specifically, this group corresponds to individuals who are entitled to the rights set forth in the Convention on the Rights of Persons with Disabilities, such as freedom from discrimination and entitlement to reasonable accommodation. Recent questions introduced in the Comprehensive Survey of Living Conditions and the Survey on Time Use and Leisure Activities,

[29] The original title of the figure is "Methods of Identifying Disabilities in Previous Studies." In Izumida and Kuroda (2019), they also mention a category (C) "persons whose physical or mental conditions cause them to have limitations in daily life" but do not provide a concrete attempt at measurement, so that concept is omitted here.

Figure 5. Methods of Identifying Persons with Disabilities in Statistical Surveys



Source: Created by the authors based on Izumida and Kuroda (2019), Figure 2, with some modifications

which focus on limitations in daily life, can be seen as attempts to capture persons with disabilities of this type.

Within the population whose "physical or mental conditions cause limitations in daily life," some are (B) persons who use disability-related services—for example, users of in-home care or training benefits under the Act on Providing Comprehensive Support for the Daily Life and Life in Society of Persons with Disabilities—or (C) persons who hold a disability certificate and are thus eligible for the employment quota system under the Act to Facilitate the Employment of Persons with Disabilities. However, these groups do not completely overlap. Moreover, with regards to (D) certificate holders, attempts have been made to identify persons with disabilities based on taxation data, such as whether they receive disability deductions for income or inheritance taxes (Eguchi and Kawakami, 2009).

A key issue here is that surveys using these various definitions operate independently, making it difficult to gain and analyze an integrated view of how differences in policy targets and disability definitions relate to actual conditions. For instance, Yamada, Momose, and Shikata (2015), using the Comprehensive Survey of Living Conditions, observe that the survey does not capture the status of disability certificate holders. Hence, they define individuals who require monitoring and caregiver assistance as "persons with assistance needs," and then examine their employment and income status as a proxy for "persons with disabilities." We can interpret this as an attempt to identify persons with disabilities corresponding to (E) in Figure 5. Further, the Cabinet Office's FY2019 "Research Project on Enhancing Disability Statistics (Internet Survey)" found that among "persons with disabilities under the system" (i.e., users of public disability support programs), 30% required monitoring and caregiver assistance, and 57% currently had health problems that affected their daily lives. Another study by the Cabinet Office reported that among those defined as having "functional limitations in daily life" (the question set developed by the Washington Group, introduced into the 2022 Comprehensive Survey of Living Conditions), 35% overlapped with "persons with disabilities under the system," while 10% were not "under the system." In other words, the newly introduced government survey items align with the areas labeled (A) or (E) in Figure 5, defining a new group of persons with disabilities that partially intersects multiple existing concepts.

Against this background, several recent studies have employed (C) certificate holders as a benchmark and analyzed disability defined at the margins (i.e., individuals who do not hold a certificate but who have health problems) or drawn comparisons with non-disabled persons, thereby clarifying the differences in socioeconomic conditions depending on the degree and definition of disability (Izumida and Kuroda, 2019; Momose, 2022; Sakakibara, 2022). All these studies make use of the 2017 National Survey on Social Security and People's Life, which has several characteristics: it covers a nationwide population; it asks about disability certificate status and severity of disability; it inquires about subjective health status, activity limitations due to health problems, and tendencies toward depression or anxiety. Consequently, it captures features of a "grey area" (Momose, 2022), namely, individuals who do not hold a certificate but do experience difficulties in daily life due to physical or

mental conditions. Their results indicate, for example, that households with a disability certificate holder have lower equivalized disposable income and higher levels of various "deprivation indicators" compared to households without one (Izumida and Kuroda, 2019); that certificate holders are at an economic disadvantage compared to non-certificate holders and have difficulty establishing independent households (Sakakibara, 2022); and that 30% of elderly individuals without a disability have physical or mental impairments (i.e., share some characteristics with "persons with disabilities"), and this group faces poorer employment outcomes and higher deprivation indices than those who have no impairments or only mild disabilities (Momose, 2022).

These recent findings suggest that by including survey items keyed to various disability concepts, it becomes possible to compare disabled and non-disabled individuals from multiple perspectives and to shed light on issues faced by persons with disabilities not covered by existing disability policies. However, the relationship between new disability concepts defined by self-assessed health status or level of difficulty in daily activities—specifically, the item "degree of difficulty in daily life" introduced in the 2022 Comprehensive Survey of Living Conditions in line with the Washington Group's international-comparison criteria—and those defined under public disability programs (e.g., certificate holders) is still not fully understood. Moreover, as Iwaya and Kitamura (2023) note, the Washington Group explicitly cautions against using its international-comparison definitions for formulating or evaluating domestic policies. Going forward, when adding new disability-related survey items to other core government surveys, it would be desirable to include various question items that encompass both domestic policy definitions and international standards.

At the same time, when capturing disability in multiple ways, we need to consider Japan's aging population. As shown in the previous section, regardless of whether "persons with disabilities" are identified as "under the system" or by international standards, disability rates clearly rise with age. Consequently, as indicated by the time-series increase in at-home "persons with disabilities under the system," population aging is one factor causing the overall disability rate in Japan to climb. Internationally, there has been debate over viewing health issues arising from aging as disabilities that result in daily-life limitations—some suggest that "over 40% of older adults have disabilities" (Hutton and WHO, 2008). However, the MHLW's summary paper, Effectiveness of Long-Term Care Certification Standards for Persons with Disabilities,[30] points out that supporting persons with disabilities requires function- and life-skills training and employment support with the goal of promoting independence; hence, determining the need for such support requires a different logic than the approach used to assess "long-term care benefits" (primarily targeting older adults) under the Long-Term Care Insurance Act. In other words, support for older adults and support for persons with disabilities differ in terms of the type of disabilities to be addressed, the skills required, and the aims of intervention (e.g., social participation and independence). As such, Yamada, Momose, and Shikata (2015) and Momose (2022) focus on the status of disabilities

[30] https://www.mhlw.go.jp/shingi/2005/04/s0426-6d.html

among those under 65 precisely to distinguish between health problems and support needs arising from disability and those related to aging. Given Japan's rapid population aging, future surveys on disability should consider collecting information on the age at which the disability first occurred and its causes so that circumstances driven primarily by aging (i.e., requiring monitoring or care due to advanced age) can be distinguished from other types of disabilities.

IV-2. Issues Related to Survey Methodology

The second challenge concerning statistical surveys on disabilities involves the person (or persons) actually responding to the survey and the characteristics of those responses. This challenge can be divided into two parts: (1) the selection of the sample and (2) whether the respondent is the person with disabilities or someone else on their behalf. Table 2 compares some major surveys that focus on household-level data and collect information about disabilities.

First, let us consider the characteristics of the target populations and the sampling methods. Among the main surveys capturing "persons with disabilities under the system" (e.g., holders of disability certificates), the Survey on Difficulties in Living (National Survey of Children/Persons with Disabilities at Home) targets at-home children and adults with disabilities. In its most recent (2022) iteration, enumerators visited about 5,363 census tracts, identifying (1) holders of a Physical Disability Certificate, an Intellectual Disability Certificate, or a Certificate of Mental Disorder, (2) those with intractable diseases, and (3) individuals with long-term illnesses or injuries not covered by law but who face difficulties in daily life. If any such household member was found, the enumerator administered the survey.

Similarly, the National Survey on Social Security and People's Life shares the same master sample as the Comprehensive Survey of Living Conditions, drawing on large-scale survey districts. The surveyed population includes the household head and household members aged 18 and older in sampled districts. Meanwhile, the 2022 Comprehensive Survey of Living Conditions, which introduced Washington Group items on "degree of difficulty in daily life" for international comparison, targeted all households and household members in 5,530 enumeration districts (selected by stratified random sampling from census tracts labeled "1" for general districts or "8" for dormitories/boarding houses with 50 or more single residents). Likewise, the Survey on Time Use and Leisure Activities—now including Eurostat-like questions on "limitations in daily life"—also shares a similar population as the Comprehensive Survey of Living Conditions but surveys individuals aged 10 and older (with daily-life limitation items asked of those 15 and older).

Because these surveys are household surveys, they focus on persons with disabilities or disabled children living at home. This generally excludes individuals living in supportive housing or disability care facilities (such as group homes), as well as patients hospitalized for mental disorders. Many such surveys do not cover these facility-based groups. According to the Annual Report on Government Measures for Persons with Disabilities, 2022

Table 2. Differences in Target Population and Response Methods in Major Disability-Related Surveys

Statistical Survey Name	Survey on Difficulties in Living (National Survey of Children/Persons with Disabilities at Home)	National Survey on Social Security and People's Life (formerly "Survey on Social Security")	Comprehensive Survey of Living Conditions (Household and Health Questionnaires)	Survey on Time Use and Leisure Activities (Questionnaire A)
Population	Nationwide children and adults with disabilities living at home	Same as the most recent large-scale Comprehensive Survey of Living Conditions	All residents in general enumeration districts nationwide, plus those in areas with dormitories or boarding houses accommodating 50 or more single residents	Same as left
Basic Sampling Method	Among all census enumeration districts nationwide, about 5,363 districts are randomly selected by stratification. Enumerators visit every household in these districts, explain the purpose of the survey, and, if they identify any eligible respondents, distribute the questionnaire.	From the enumeration districts used in the 2022 Comprehensive Survey of Living Conditions, 300 districts are randomly selected. All households residing in those districts are included.	Within census enumeration districts labeled "1" or "8," a stratified random sample of 5,530 districts is taken.	Within census enumeration districts labeled "1" or "8," about 91,000 households are drawn via stratified random sampling.
Survey Target	Holders of a disability certificate (Physical Disability Certificate, Intellectual Disability Certificate, or Certificate of Mental Disorder), individuals with specified intractable diseases, and others not covered by law but experiencing prolonged illness or injury that hinders daily life	The household head and all household members aged 18 or older	All household members	All household members aged 10 or older
Survey Method	Self-administered; questionnaires returned by mail	Self-administered; responses accepted online, by mail, or via enumerator visits	Self-administered; responses accepted online, by enumerator visits, or by mail	Self-administered; responses accepted online or via enumerator visits
Proxy Responses	(1) The individual responds personally, (2) The individual's intentions are transcribed by another person, (3) A family member or caregiver completes the form on the individual's behalf, reflecting the respondent's wishes. A checkbox is used on the questionnaire.	(1) The individual responds personally, (2) The individual conveys responses, and family members or caregivers fill them in, (3) If the individual cannot easily express intentions, family members or caregivers fill in the form based on the individual's presumed wishes. A checkbox is used.	If the individual cannot respond due to illness or injury, family members or caregivers fill in the questionnaire on the respondent's behalf, or the enumerator records responses when collecting the form. No checkbox is provided.	If health issues make it difficult for someone to respond, the household head or another appropriate person may fill in the questionnaire on that individual's behalf. No checkbox is provided.
Reasonable Accommodations in the Survey	・The questionnaire uses a large font size and ・For visually impaired respondents, Braille versions are provided on request. includes phonetic guides (furigana) for kanji. ・For respondents with hearing, speech, or language impairments, the arrangement of sign-language interpreters can be considered.	None	None	None

Source: Compiled by the authors from the overviews of each survey

(Cabinet Office, 2021), the share of disabled people living in facilities is 1.7% among those with physical disabilities, 7.2% among those with mental disabilities (in inpatient care), and 12.1% among those with intellectual disabilities, indicating that the share of facility-based individuals is particularly high among those with intellectual disabilities. Since facility-based surveys like the Survey of Social Welfare Institutions (for those in facilities) and the Patient Survey (for inpatients) are establishment surveys, their items focus mainly on the numbers of persons with disabilities. For research on socioeconomic characteristics, it is important to keep in mind that data on facility-based individuals—particularly among those with intellectual disabilities—are often not included in these personal/household-level surveys.

Challenges also arise when surveying individuals with intellectual disabilities even when they are included. As Table 2 shows, enumerators distribute questionnaires for each of the four representative surveys, and responses are typically self-administered.[31] However, depending on the type and severity of disability, it may be difficult for the individual to complete the survey themselves. In all four surveys, family members or caregivers are permitted to fill in the questionnaire on behalf of the respondent or to provide supportive input reflecting the disabled person's views. The Survey on Difficulties in Living and the National Survey on Social Security and People's Life includes a checkbox indicating that the response was written by a proxy. Yet there are no aggregated data on how many responses are completed via proxy.

On this point, a study by Mitsubishi UFJ Research & Consulting (2020), commissioned by the MHLW, surveyed disability welfare service providers on the living conditions of persons with disabilities under age 64 who use their services. Among these respondents overall, 54% answered themselves, 28% had a family member answer, and 17% had a staff member at the service provider complete the form. By disability type, the self-response rate for those with intellectual disabilities or multiple disabilities (i.e., a combination of physical, intellectual, or mental disabilities) was around 35%, much lower than for other groups. Households co-residing with family members had higher rates of family response, while those in group homes more frequently had staff respond on their behalf. Because there is considerable heterogeneity in disability type and severity—and many government surveys do not have the resources to adopt specialized accommodations for persons with disabilities—particularly for those with intellectual disabilities, we must exercise caution in analyzing subjective answers or detailed behavioral records where a self-response is desirable but was in fact completed by a proxy.

Finally, an additional concern arises with self-administered (self-reported) questionnaires regarding disability. Iwaya and Kitamura (2023) note that the short-set Washington

[31] Regarding the "National Survey on Social Security and People's Life," up to the 2017 round, the basic principle was self-completion. If a respondent could not answer due to illness or care needs, the questionnaire noted this, and the survey ended. However, it was pointed out that some individuals requiring proxy responses dropped out of the survey, and in some cases, proxy responses might have been completed without being recognized as such (Sakakibara, 2020). Hence, starting with the latest 2022 survey, proxy responses are permitted and can be identified via a checkbox on the questionnaire.

Group questions were designed under the assumption of an interview format, in which a trained enumerator would help the respondent choose an answer about their "level of difficulty." In contrast, the Comprehensive Survey of Living Conditions, which introduced these items in 2022, uses a self-completion format, meaning respondents may interpret or gauge their level of difficulty differently than intended by the question designers. This discrepancy remains an issue requiring further examination.

IV-3. Directions for Future Research

One promising avenue for new empirical studies on persons with disabilities involves using the newly added disability-related survey items in the Survey on Time Use and Leisure Activities and the Comprehensive Survey of Living Conditions. In addition to the National Survey on Social Security and People's Life, these surveys now collect data on the difficulties persons with disabilities face in daily life, offering an opportunity to examine socioeconomic challenges and welfare needs arising from disability. Nevertheless, neither survey is panel-based, so addressing unobservable heterogeneity remains a challenge. Even so, Japan has seen very few empirical studies that include persons with disabilities not covered by existing disability policies or that compare persons with and without disabilities; we hope such research will expand in the future.

We can also consider leveraging surveys focused on "persons with disabilities under the system," centered on disability certificate holders. As discussed earlier, surveys such as the Survey on Difficulties in Living (National Survey of Children/Persons with Disabilities at Home) have been conducted for some time, yet there has been little analysis to date using micro-level data from these surveys. Although comparing these respondents directly with the non-disabled is difficult, further microdata-based analysis could shed light on the socioeconomic circumstances of certificate holders and specific daily-life challenges associated with particular disabilities.

In addition, other public data sources introduced only briefly here may prove useful. For instance, the MHLW's "Survey on the Employment Situation of Persons with Disabilities" aims to grasp working conditions (number of employees, wages, working hours, etc.) of persons with disabilities in private firms for policy planning. Conducted every five years on June 1, the survey selects approximately 9,400 establishments with at least five regular employees, based on the Japan Standard Industrial Classification. Arimura (2016) has used aggregate results from this survey to explore employment conditions among persons with disabilities; further detailed research using microdata is anticipated.

Another potential source for analyzing disability employment is the "Report on Employment of Persons with Disabilities," administered by each Labor. Compiled annually as of June 1, this administrative data covers the state of disability employment in private firms. Although the data are retained at local labor bureaus, they can be obtained through information disclosure requests. As of 2025, with the statutory employment rate in the private sector set at 2.5% and firms with 40 or more employees required to hire at least one person with

disabilities, this data essentially covers the vast majority of Japanese companies and contains relatively few measurement errors. Mori and Sakamoto (2018) used national administrative data (published online by the NPO DPI-Japan Conference) on disability employment in private firms as of June 1, 2008, to examine the relationship between disability employment and profit rates, finding no significant association. We anticipate more research using this high-quality dataset going forward.

Additionally, analyses based on original or non-governmental surveys are also advancing. Shimizutani et al. (2015) used microdata from JSTAR (Japanese Study on Aging and Retirement), a survey organized in cooperation with the Research Institute of Economy, Trade and Industry, Hitotsubashi University, and (from the second wave onward) the University of Tokyo, to examine the impact of relaxed eligibility requirements for disability pensions. Their results show that, although obtaining eligibility for pension benefits increases retirement probabilities slightly, benefit reductions have no significant effect on employment outcomes. Such original surveys are important for supplementing analyses on items that cannot be captured by government statistics.

Data availability remains a challenge for research using Japanese data. For example, in analyzing the impact of disability pensions on employment, detailed microdata in the United States have enabled rigorous quasi-experimental studies (Maestas et al., 2013; Autor et al., 2016). Meanwhile, research on continuity of employment for persons with disabilities and reemployment assistance is also well-advanced abroad (Leinonen et al., 2019; Laaksonen et al., 2022). Similar studies on the impact of Japan's vocational rehabilitation services, programs for transition and continuation of employment, job-coach initiatives, and subsidies for disability employment are needed, yet obtaining the necessary microdata is difficult. As seen in other countries, enhancing data accessibility should be a priority for future research.

V. Conclusion

In this paper, we have surveyed the domestic and international trends surrounding disability statistics and examined the current state of such statistics, discussing issues for the development and use of disability statistics going forward.

Internationally, since the 1980s, a shared understanding has emerged regarding how to view disability and protect the rights of persons with disabilities, culminating in the 2008 enforcement of the Convention on the Rights of Persons with Disabilities. More recently, efforts have intensified to construct a standardized framework for disability statistics that can be used to evaluate policies aimed at the social inclusion of persons with disabilities in each country. In Japan, prompted by its ratification of the Convention, there have been steps to align data collection in the Comprehensive Survey of Living Conditions and the Survey on Time Use and Leisure Activities with international standards; more expansions in disability-related survey items in other core national surveys are expected. Still, the development of such internationally comparable statistics is the result of long-term efforts—focused on creating definitions and frameworks that enable parallel cross-country comparisons in light of

differences in domestic disability policies. Accordingly, international organizations have warned against using definitions designed for cross-country comparison as-is for formulating or evaluating domestic policy. From that perspective, in Japan, the continued collection and use of survey and administrative data on "persons with disabilities under the system"—those centered on disability certificate holders—remains essential, given that these individuals are the primary targets of domestic disability policies.

However, as shown here, Japan's "persons with disabilities under the system" face challenges for unified analysis. Reasons include differences in disability certification standards across social security programs, inconsistencies in how disability is defined and who is targeted in different statistical surveys, and complications related to proxy responses. Moreover, it is also clear that "persons with disabilities under the system" and those defined by international criteria do not substantially overlap, indicating that they represent distinct conceptual categories. In the future, introducing survey items aligned with various concepts of disability will be crucial for comparing persons with and without disabilities from multiple perspectives and for clarifying problems faced by those not covered by existing disability policies.

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