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Financial incentives to promote employment of people with disabilities: When and how do they work best?



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Financial incentives to promote employment of people with disabilities: When and how do they work best?

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Executive Summary

Financial incentives are widely used to support employers to hire and retain workers with varying health conditions and disabilities. Financial incentives are exhibited in a variety of ways, such as wage subsidies, tax credits or tax benefits, and reimbursement of costs associated with accommodation. Both nationally and internationally, stakeholders (including employers, disability advocates, people with disabilities, and service providers) have contrasting perspectives on the merits of financial incentives for the recruitment and retention of workers with disabilities. The larger issue may not be directly whether wage subsidies work, but under what conditions and contextual factors do they facilitate employment and retention for people with disabilities. Therefore, a greater understanding of the impact of financial incentives for workers with disabilities, when and how they are currently used is needed to prior to the development of guidelines for their use.

Given the current Ontario employment landscape and the large investment by the Ontario government to support the recruitment and retention of workers with disabilities, it is timely to end the controversy on the topic of financial incentives with a study that provides insight into the issue. The overall purpose of this three-year project is to explore the impact of financial incentives that are designed to encourage employers to hire workers with disabilities. Specifically, this project addresses the body of existing knowledge and evidence, explores the perspectives of key stakeholders, to develop situational examples showcasing opportunities, challenges, risks and benefits of financial incentives to encourage hiring and retaining workers with disabilities. This report provides the current state of peer-reviewed literature surrounding financial incentives directed to employers to hire and retain people with disabilities.

This scoping review has highlighted a number of important themes on the question of the use of financial incentives for the hiring people with disabilities. The review serves as a source of peer reviewed evidence and is a first step in our initiative. Phase two will examine both the quantitative and qualitative sources of evidence in this field in order to develop a best practice guide to assist employers, service providers and policy makers in how best to leverage financial incentives to bring meaningful employment to Ontarians workers living with a disability.

1. Introduction

It is estimated that one in seven people in Ontario (approximately 1.9 million) has a disability, and this number will rise as the population ages (Partnership Council, 2016). Unemployment among people with disabilities is alarmingly high, some 16%, approximately twice as high as able bodied individuals (National Post, June 5, 2017). Further, 53% of them were unemployed or not in labour force in 2012, compared to 26.1% of people without disabilities (Arim, 2015). Nearly 60,000 people with disabilities aged 18 to 29 in Ontario are receiving social assistance (Matteis, June 5, 2017). Undoubtedly, there are many talented people amongst this population who can and want to work. Yet employers are reticent to draw on this talent pool often due to misconceptions of the costs and risks. These misconceptions fall into a number of categories.

For example, in the case of wage subsidies, some feel it may encourage employers to take advantage of vulnerable workers and question the sustainability of wage-subsidized employment. Further, some believe that wage subsidies can undermine the contributions that people with disabilities make in the labour market and suggest that they are not as valuable as their non-disabled colleagues (Fraser et al., 2011). Conversely, others feel that subsidies used under the right conditions can help leverage an opportunity or a trial period for an employer, without undue financial hardship.

In workplace accommodation, many employers have the perception that the cost of accommodating people with disabilities is prohibitive and feel that they need financial support if they are to recruit and retain workers who need accommodation. The evidence base on the costs and benefits of accommodation is modest. In a recent literature review the authors found that rigorous evaluation of effectiveness and costs of workplace accommodations for persons with physical disabilities is still absent in much of the peer reviewed literature (Padkapayeva, 2017). Only three studies with economic analyses were identified, and these studies suggested that the benefits generally outweigh the costs. However, many employers are likely to be apprehensive about accommodations unless provided some financial supports, particularly small employers with modest resources.

The issue of financial incentives such as wage subsidies is particularly relevant for people with disabilities and employers in Ontario. Ontario is the largest Canadian province with a diverse labour market and a vibrant community of people with disabilities. Many Ontarians with disabilities can and want to work and are seeking employment-related supports (Ali et al., 2011). However, a large proportion of the Ontario labour market is made up of small employers who might fear the cost of accommodating employees with disabilities without financial support (Gewurtz et al.,

2016; Ju et al., 2013). Further, with the provincial government's plan to raise the minimum wage to \$14.00 this year and to \$15.00 in 2019, employers will likely be even more cautious about hiring people with disabilities.

Defining disability in the context of employment

Disability is a complex and multi-layered phenomenon. Work disability policies and programs utilize one of the following models of disability: medical model or functional limitations model, social or human rights model, or relational model (Office for Disability Issues, 2003). The model that forms the basis of a specific disability policy or program reflects and helps to define eligibility criteria and policy or program objectives.

The medical model focuses exclusively on a person's health impairment or functional limitation and conceptualizes disability as an individual problem. The functional limitations model goes further and defines work disability as limitations in activities associated with work roles and tasks, caused by a person's impairment. Both approaches are intertwined with viewing disability through economic lenses as loss of productivity or inability to work, and both view a person's health impairment as a central cause of disability.

The contemporary social or sociopolitical model defines disability broadly as a form of social disadvantage that results from barriers in the physical and social environment for people with health impairments (Reindal 2008). The focus on human rights within the social approach views all people, independent of the state of their body, as holders of rights. Economic and social processes that fail to accommodate individual differences are considered as barriers that hinder exercising these rights. The human rights discourse focuses on removing these socially imposed barriers, including worksite and workplace barriers, to people with disabilities, as opposed to compensating for their biological limitations.

The tensions between the co-existing but conflicting disability perspectives bring into light the understanding of disability as a complex relational concept, rather than a characteristic of an individual or environment. This approach tries to embrace the different sides, aspects and layers of disability. Following these considerations, **work disability** can be defined as the interaction between a person who has a health condition, an impairment, or a non-standard state of body, and their work environment; this interaction is characterized by disadvantages or challenges experienced by people to successfully function and integrate into the environment (see similar definitions by the UN Convention on the Rights of Persons with Disabilities: article 1; social relational model in Nagi 2001, Reindal 2008, Smith-Carrier et al., 2017). According to the relational perspective, preventing work disability means removing social barriers and providing equal employment

opportunities for people who have health issues. This approach to work disability will guide our study, however in the research literature we may find different approaches to work disability (explicitly stated or implied), as well as various opinions of the stakeholders regarding what work disability means to them.

Defining financial incentives

The team developed the following definition for financial incentives:

Financial incentives are monetary benefits offered to motivate or encourage certain behaviour or actions that might not take place otherwise. Financial incentives that are used to motivate employers to hire and employ people with disabilities may take different forms, including wage subsidies, financial support with accommodations, penalties/rewards such as quota systems, coverage of healthcare or pharmaceutical benefits, tax credits or tax benefits, etc.

Research Question and Objectives

Given that there is little evidence surrounding the use and implications of financial incentives for the employment, retention and promotion of people with disabilities, the broad research question addressed was: *What is known in the published literature about the use of financial incentives that are designed to encourage or motivate employers to hire and provide accommodation to workers disabilities?* This question was addressed using the following objectives:

1. Complete a scoping review of the literature to determine the current state of evidence surrounding the use of financial incentives to hire, employ or retain people with disabilities;
2. Characterize the current state of evidence;
3. Summarize the themes, trends, and evidence in the literature;
4. Identify existing gaps and future directions to inform the latter phases of this project (Inform Stages 2 and 3 Qualitative and Quantitative methods).

2. Methodology

A scoping review was performed by systematically searching, selecting and synthesizing the current literature surrounding financial incentives for employment of people with disabilities (Colquhoun 2014).

The review entailed five steps outlined by Arksey and O'Malley (2005): (1) identifying the research question (see 1.1); (2) identifying the relevant literature, balancing breadth and comprehensiveness; (3) identifying relevant studies; (4) charting the data incorporating numerical summary and qualitative thematic analysis; (5) summarizing and synthesizing findings; and (6) writing a report, including implications for policy and research. Figure 1 displays a flow chart of the steps carried out to complete the scoping review.

2.1 Identifying relevant literature

Using the search terms in Table 1, titles and abstracts were extracted from the following search engines: EMBASE, Medline, PsycINFO, Social Science Abstracts, ABI Inform, Sociological Abstracts, EconLit. We used EndNote® to store references from all literature searches and remove duplicates. The references were then uploaded to DistillerSR®, an online application designed specifically for the various review stages. Figure 1 lists the searched databases along with respective yields.

Figure 1 Scoping review methodology employed in the search

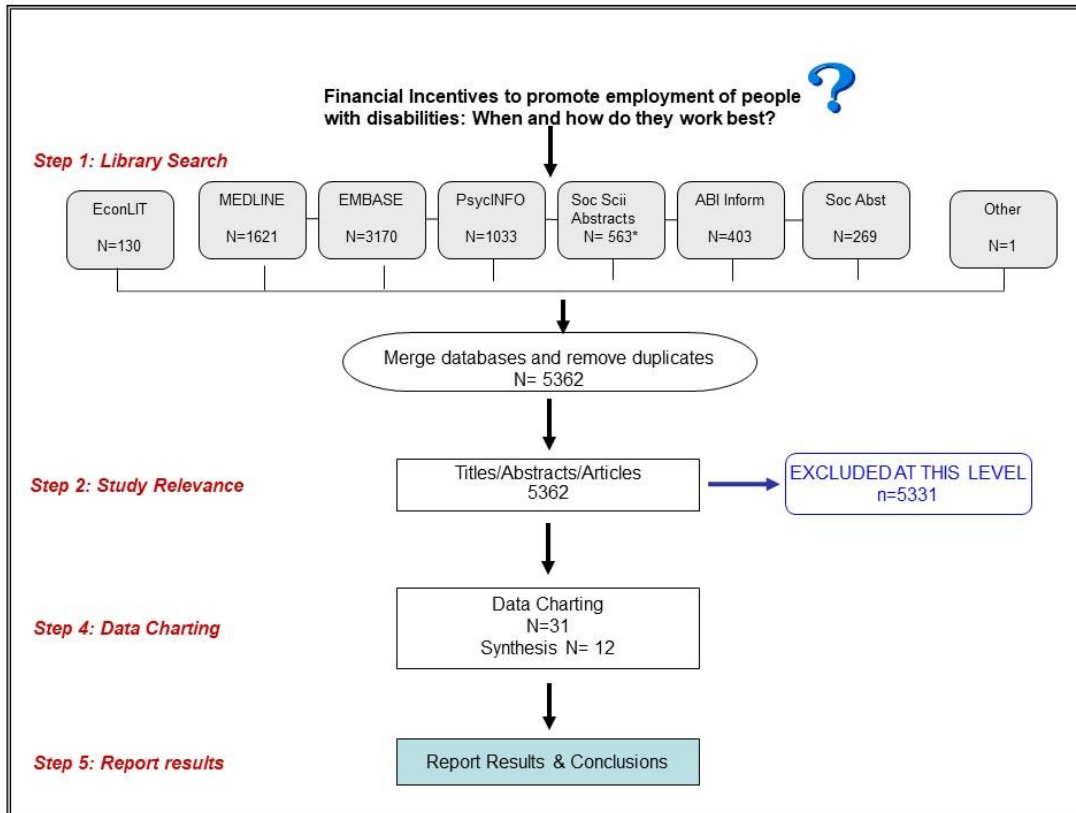


Table 1 Search terms included for population and outcome of interest

Population: People with Disability		Outcome: Financial Incentives
Disabled People	Deafness	Financial incentive
disabled	deaf individual or people or person	Tax credit
disability	Hearing Disorders	Wage, subsidy
Amputees	hearing disorder	Financing, Government/ Employer incentive
amputee	hearing impair	Subsidy accommodation work
Anxiety Disorders	Depressive Disorder, Major	Employee disabled
anxiety disorder	depression.	Hire hiring disabled
Attention Deficit Disorder	Learning Disorders	Labour market
Hyperactivity	learning disorder	Work force
attention deficit disorder	learning disability	Workforce
Blindness	dyslexia	Labor market prognosis
blind individual, people	Mentally ill people	Labor market participation
Fatigue Syndrome, Chronic	mental illness	Labor market experience
chronic fatigue syndrome	mental disorder	Retain or retention
		Financial incentive
		Financing, Government/ Employer incentive
		Accommodation work
		Employee disabled

2.2 Identifying relevant studies: Inclusion and exclusion criteria

Peer-reviewed literature was eligible for review if the population of interest was people with disabilities, the article pertained to employment or retention and reflected a financial incentive to the employer or organization. Articles were limited to English and French languages. An article was excluded if it was written in any other language, the population of interest did not have a disability, it did not relate to employment, if there was no financial incentive component to the employer or the financial incentive was directed to the employee.

2.3 Charting, collating and summarizing the literature

The final 12 articles extracted through the aforementioned levels of review were charted using a data-extraction form in DistillerSR® software. The form inquired about article characteristics (authors, year of publication), study design, job characteristics, disability, type of financial incentives, main findings and conclusions from the studies to answer the initial research question of how and when do financial incentives work best. This form served to describe the studies as a collection and to pull out detailed observations for the thematic analysis. This stage consisted of four steps (Levac, 2010).

Charting

The data charting form was piloted on 2 papers, before the final form was created. This form was completed by 4 authors for each of the 12 papers. The data was then analyzed to produce a summary analysis of the final papers included in the review.

Reporting

The results of the forms were combined to produce overall messages answering the main objective of the study.

Thematic Analysis

The team of 4 authors used the full text and reported results to discuss and synthesize the overall findings.

3. Results

3.1 Charting

For the final articles included in the review, the data extraction template was applied and completed by four members of the team. To characterize the types of studies retrieved, team members extracted the information on the year of publication, study design, jurisdiction, types of workplaces/sectors, terms used to categorize disability, and types of financial incentives described. The summary of the information that was extracted from the studies is presented in Appendix A. It was used to identify the themes described in the literature. Figure 2 displays an overview of the countries/jurisdictions represented by the articles included in the review, along with a timeline of the years of publication. The number of studies is reported for both the timeline and the jurisdictional map.

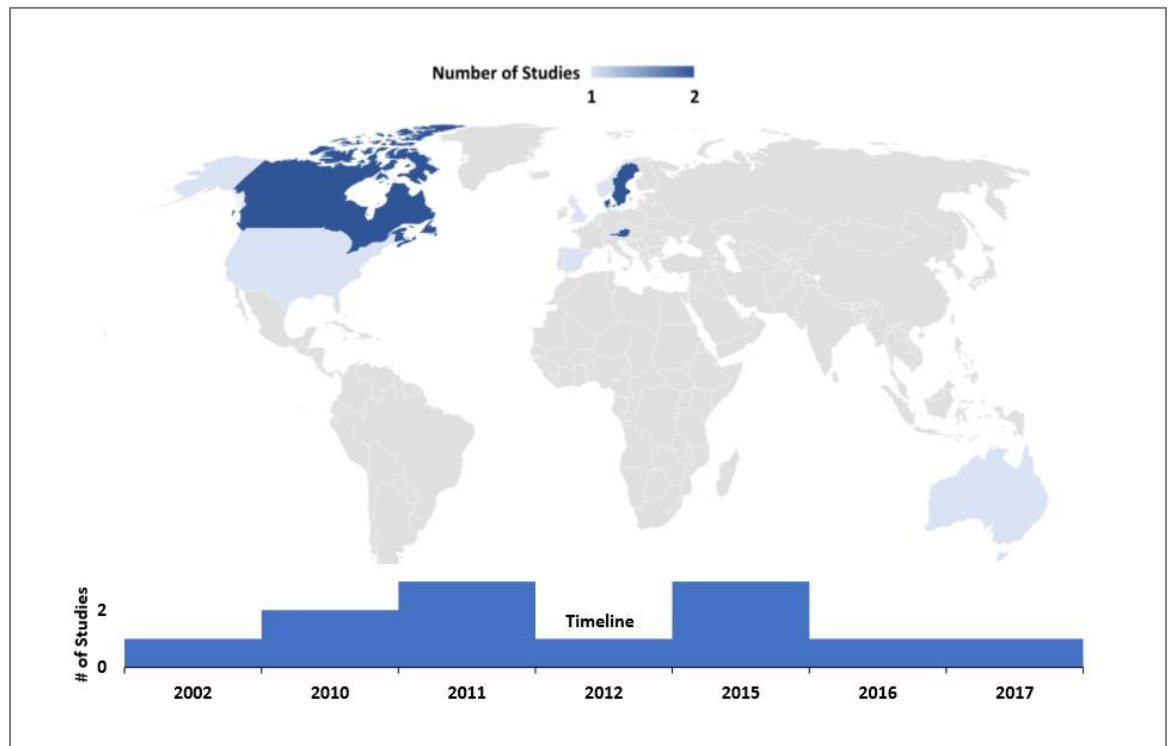


Figure 2 Jurisdictions and timeline of publications retrieved in final report

The main outcome variable of the included articles was a direct financial incentive to an employer aimed to promote the hiring, employment, and retention of workers with disabilities. Table 2 includes the information on the study designs and the types of financial incentives evaluated by the studies that were included in the review. Wage

subsidies were the most commonly reported and discussed type of financial incentives.

Table 2 Study designs and types of financial incentives examined in the articles

Types of Study Designs	Types of Financial Incentives
Experimental	Direct
Qualitative	Wage Subsidy Accommodation Costs
Survey	Reimbursement
Cross Sectional	Quota Systems
Systematic Review	Tax Credits/Benefits
Empirical, Economic Evaluation	

The sector of work and disability terminology used in the studies were important constructs extracted by research team to get an insight into the question of where, for whom and when financial incentives may work best. Figure 3 displays the pie chart of the percentage of the studies discussing a one or multiple sectors of work.

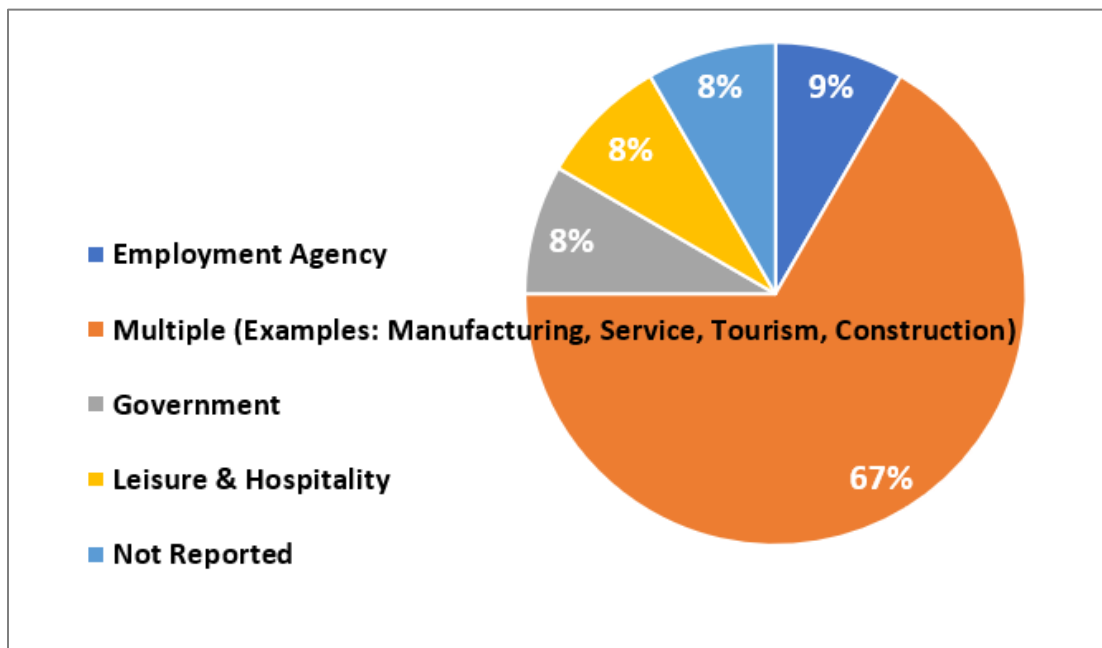


Figure 3 Work sectors reported in the studies

Qualitative studies reported the types of disabilities of the participants. Other studies referred to the policies and assessments employed to determine if a worker was qualified to receive a wage subsidy. The word map in Figure 4 displays some of the most commonly used disability terms in the retrieved studies. Disability and impairment were the most common terms used in the studies, where as the types of disabilities were less pronounced. Of those disabilities that were reported, there were mentions of physical and intellectual disabilities with little mention of episodic or mental health disabilities.



Figure 4 Disability terms and definitions used in the retrieved literature

3.2 Narrative

Table 3 Themes extracted from the retrieved literature

Extracted Themes	Select Examples of Supporting Literature
Employment Characteristics Firm Size Job Sector Job Type	<i>Andersson 2015</i> <i>Gustafsson 2014</i> <i>Jasper 2013</i>
Employer knowledge and expertise Disability confidence	<i>Andersson 2015</i> <i>Gustafsson 2014</i>
Employer (mis)conceptions “Aesthetic anxiety”	<i>Andersson 2015</i> <i>Gustafsson 2014</i> <i>Jasper 2013</i>
Types of costs & related supports Accommodation cost Health Care Worker’s Compensation Flexibility of job hours Productivity, Absenteeism	<i>Andersson 2015</i> <i>Graffam 2002</i> <i>Jasper 2013</i>
Pigeonholing into low-skilled entry-level positions	<i>Chouinard 2010</i> <i>Gustafsson 2014</i>
Optimal disclosure time Optimal disclosure time	<i>Andersson 2015</i> <i>Baert 2016</i>
Motivation for uptake of incentives Free-rider behaviour	<i>Castelo 2011</i> <i>Chouinard 2010</i> <i>Datta Gupta et al. 2015</i> <i>Deuchert 2017</i> <i>Nazarov 2015</i>
Alternative Incentives Quota Systems	<i>Lalive 2013</i> <i>Wuellrich 2010</i>

Of the 12 articles that met inclusion criteria for this scoping review, a variety of public-sector sponsored approaches to promoting the recruitment and retention of people with disabilities were evaluated in various jurisdictions in North America, Europe and Australasia. Invariably, legislation takes on different forms in different countries, but there is much common ground and common learnings/experiences from these approaches. At a high level, the various approaches can be put into two broad categories—incentives that are positive/rewards for desired behaviours, and penalties/punishments for undesirable ones. These are sometime likened to a carrot versus a stick approach. In the former category are supports such as wage subsidies, payroll tax reductions, cost-offsets for accommodation expenses, and services to support recruitment and onboarding. In the latter category are quota systems with penalties for not achieving a target proportion of workers with a disability within an organization. In some cases, quota systems can also have rewards, e.g., rewards for exceeding target proportion in the form of financial support for accommodating new hires with a disability.

Amongst the 12 included articles, there were 3 articles in the category of penalties/quotas—Lalive et al. (2013); Nazarov et al. (2015), and Weullrich (2010). Quota programs are common in several European countries, namely Austria, Belgium, France, Germany, Italy, Poland and Spain. Two of the articles evaluate the Austrian system, Lalive et al. (2013) and Weullrich (2010). In the Austrian system a firm must provide at least one job to a worker with a disabled for every 25 non-disabled workers or be subject to a tax. The system also provides a bonus to over-complying firms. The tax in the Austrian system has increased by 30% over a period of years, from €118 per month in 1990 to €196 per month by June 2001. The impact of these tax increases comprises part of the analysis of the two studies. Nazarov et al. (2015) also evaluates a disability employment quota system, in this case in South Korea. It too evaluates the impact of a change in the system that took place between 2004-2006. The change was an increase in the number of employers covered by the quota system. Originally, only firms with at least 300 workers were required to achieve a target proportion, which was set at 2.5%. The minimum employer size subject to this requirement was subsequently reduced to 50 in 2004. In 2006, the penalties for non-compliance with the requirement were increased. Also, the sectors covered by the requirement were expanded to include companies with hazardous work environments (e.g., mining, construction, security).

Amongst the 9 studies that fit into the category of positive incentives, 5 surveyed stakeholders to inquire about their perceptions of financial incentives. Four of the 5 studies surveyed employers—Andersson et al. (2015); Graffam et al., (2002); Gustafsson et al. (2014); and Jasper (2013). One surveyed women with a disability—

Chouinard (2010). Andersson et al. (2015) used a vignette method with questions in a survey of 212 employers in Sweden who were actively seeking to hire a worker. They asked these employers about their interest in hiring a person with a disability. Financial compensation was considered in one section of the survey. Specifically, employers were asked to rank factors important to hiring a worker with a disability with one of the categories being financial compensation. The Gustafsson et al. (2014) study was also undertaken in Sweden. It examined the factors that are important to employers when hiring a person with a disability in the context of wage subsidies. Semi-structured face-to-face interviews were undertaken with 21 employers. The Graffam et al., (2002) study undertook analysis of a large Australian survey with 643 employers who had employed a person with a disability through a funded disability employment service over the preceding 3 years. The survey had a section on benefits and costs, with several questions on receipt of wage subsidies and/or incentives. The Jasper (2013) study analysed a 2008 U.S. government survey of employer perspectives on employment of people with disabilities, focusing on employers in the leisure and hospitality sectors. The summarized responses to perceived challenges and factors that were helpful with hiring a person with a disability. Rather than surveying employers, the Chouinard (2010) study surveyed workers about their perceptions, specifically women with a disability in the Canadian context. The study is based on an online survey with 80 participants that inquired about experiences with government employment assistance, include the provision of wage subsidies.

The other 4 studies in the positive incentives category more formally evaluated the impacts of providing subsidies for hiring workers with a disability in several European countries, namely Belgium, Denmark, Switzerland, and Spain. These studies are by Baert (2014); Datta Gupta (2015); Deuchert (2017); and Castello (2012), respectively. In the Baert (2014) study the author conducted a large-scale field experiment on the effects of disclosing entitlement to a Flemish supporting subsidy. The subsidy was designed for post-secondary graduate with a disability to help them integrate into the labour market. Two identical (fictitious) applications were submitted to each of 768 vacancies, one disclosing a specific type of disability, and the other with no disclosure. In addition, entitlement to the subsidy was randomly disclosed in the applications in which there was disclosure of a disability. The Deuchert (2017) study conducted a similar field experiment in Switzerland with two worker groups, one of adolescents seeking competitive employment after a sheltered dual-track vocational education and training program, the other of clients from a job-coaching services who acquired their disability during their working life. In some applications there was disclosure of eligibility for a subsidy/support and in some there was no disclosure. The Castello (2011) study evaluated the impact of an increase in 2004 of the deductions to social security contributions paid by employers in Spain when they hired women with a disability. They used statistical methods (difference-

in-difference models) with micro-level administrative data from the social security system to assess shifts in employment trends for women compared to men who receive partial or total disability pensions. The Datta Gupta et al. (2015) study evaluated the impact of reforms to the Danish Flexjob program targeted at employing workers who were long-term partially disabled. The program, which began 1998, entitled workers to a permanent wage subsidized job. It had a graduated subsidy based on the degree of reduction of work capacity (1/3, 1/2, or 2/3). In 1999, it was decided to reimburse government institutions for all wage expenses paid to workers with a disability in the Flexjob program, which was subsequently reduced in 2002. The study focused on these public-sector employment experiences and the changes in employer entitlement.

Across the 13 included articles, several themes emerge that help contextualize when and how financial incentives work well or do not work well. We identify them as themes because they are recurring (i.e., are found in more than one study), and are important factors to consider in the design, promotion and use of financial incentives. The themes are complex and multi-faceted. They are also connected and interrelated. Most studies have more than one theme. We identify these themes with the following labels:

1. Employment characteristics (e.g., sector, type of job, firm size);
2. Employer knowledge and expertise (i.e., disability confidence);
3. Common employer (mis)conceptions about workers with a disability;
4. Types of costs and related supports to offset them;
5. Pigeonholing into low-skilled entry-level positions;
6. Optimal disclosure time; and
7. Motivation for uptake of incentives.

Employment characteristics

Characteristics of the employment opportunity were often cited as important variables for both the need for financial incentives as well as a factor bearing on the placement success. Firm size was noted in several studies as a factor in determining the ability of the employer to recruit and retain a worker with a disability and/or the need for supports. In particular, small firms were noted as not having the resources (in terms of both finances and skills) to recruit and retain without external supports. The Jasper (2013) study, amongst others, found that employers with more workers were more likely to hire workers with a disability than those with fewer workers. That study was focused on the leisure and hospitality sector. A good match between the job requirements and personal characteristics of the worker also were identified as an important precursor to success (Andersson et al., 2015; Gustafsson et al., 2014).

Employer knowledge and expertise

Several studies noted that having previously hired a person with a disability dramatically improves employers' attitudes towards workers with a disability (Anderson et al., 2015; Gustafsson et al., 2014). Sometimes these experiences were outside of the work environment, such as in the family, school or leisure activities. Some employers expressed being impressed by what those individuals had accomplished in spite of their disability. When organizations have little experience in hiring workers with a disability, it is sometimes seen as unusual and somewhat different than hiring a non-disabled worker. But a positive experience with initial employment of a worker with a disability can advance the idea that it is an ordinary, rather than an unusual occurrence.

Common employer (mis)conceptions about workers with a disability

The Jasper (2013) study noted "aesthetic anxiety" towards people with disabilities in some organizations (i.e., anxiety that a negative perception will be made of one's business by worker with a disability in cases where workers frequently interacted with clients). The study also noted concerns about the ability of people with disabilities to perform necessary job functions. Concern about cost such as workers' compensation, health care coverage, litigation, cost of accommodation, and greater work absences were often cited and believed to be unmanageable, particularly for small employers (Gustafsson et al., 2014). Some employers also noted that a worker's progress could eventually lead to employment without subsidy, as long as their productivity reached a certain level. Andersson et al. (2015) found important differences in employers' perceptions of different types of disabilities. They showed greater interest in hiring workers with a physical disability, compared to an intellectual, cognitive or psychiatric disability.

Types of costs and related supports to offset them

Jasper (2013) noted several cost categories of concern identified by employers—cost of accommodation, time to shift responsibilities for task to those who can perform them, health care insurance costs and workers' compensation costs. In many cases a wage subsidy was seen by employers as compensation for reduced productivity. The subsidy created a competitive edge, particularly for small employers. Nonetheless, financial compensation was only ranked fourth in importance by employers in the study by Andersson (2015). It was preceded by openness between the employer and employee, education and knowledge of the worker, and receiving extra resources and guidance. In fact, in the Australian study by Graffam (2002) employers identified more organizational benefits than costs in each of 8 domains as they related to workplace modifications and changes to training and supervision. A large majority considered the net financial effect of modifications and changes to be either cost-neutral or benefits exceeding costs.

Pigeonholing into low-skilled entry-level positions

In the Chouinard (2010) study, respondents identified concerns about being directed into menial, entry level jobs despite their advanced training and skills. Gustafsson et al. (2014) also noted that jobs filled by people with disabilities were mainly in the low- or unskilled categories. Employers thought that jobs in which tasks were monotonous and repetitive as particularly suitable for workers with a disability. The word “disability” was often perceived as suggesting inability or reduced potential for development. In fact, workers in higher end, self-governed or independent work situations were less often seen as “disabled” and less importance was attached to their disability and more to workers’ knowledge and experience.

Optimal disclosure time

The two field experiments that evaluated the merits of disclosure in a job application letter both found that the probability of receiving a positive response to a job application is not positively influenced by disclosure of a disability and entitlement to a wage subsidy. In the Belgium study (Baert, 2014), applications that disclosed a disability had 47% lower chance of receiving a positive reaction from an employer compared to applications with no disclosure. Disclosing eligibility for a wage subsidy had a similarly lower chance (49%) of receive a positive reaction compared to no disclosure. The Swiss study also found that disclosure of eligibility for a subsidy was ineffective or even counterproductive for adolescents who had completed a vocational training program, though it had less of a negative impact for adult workers who had received job-coaching services. The two studies conclude that the negative signaling effect (i.e., in which disclosure is a signal for lower productivity and red tape) offsets the positive aspect of the subsidy. Yet the Andersson et al. (2015) study noted that employers felt that openness about the disability was an important factor in the hiring process. Taken together, these studies suggest that disclosure is best left till later in the recruitment process, after an interview is secured.

Motivation for uptake of incentives

Even though two studies (Datta Gupta et al., 2015; Castelo, 2011) found a meaningfully positive correlation between wage subsidies and increased hiring/retention of persons with disability in situations where programs have changed, other studies warn of the risk of costly free-rider behavior (e.g., misuse subsidies for financial gain) when there is widespread promotion of wage subsidies (Deuchert, 2017), suggesting the need for selective use of wage subsidies that ensure employers’ are appropriately motivated (i.e., have the desire to have a good job fit and have the intention of retaining the worker with disability even after the subsidy expires). Women with a disability in the Chouinard (2010) study noted that employment assistance (primarily wage subsidies, but also other supports) were of limited

effectiveness. More than half of the 40 respondents who had received some form of support found it to be only somewhat important or of little importance in helping find and keep a job. They noted employer abuse of subsidies, specifically terminating an employee once her subsidy ran out and replacing her with a new employee who qualified the employer for a new subsidy. Some respondents suggested focusing on mentorship and pre-screening employers to ensure a commitment to inclusive workplaces.

4. Strengths & Limitations

A strength of this review is that it used an established scoping review methodology and was conducted by a team with both content and methodological expertise. Financial incentives is a topic that solicits strong and diverse opinions throughout the Province and as a result the IWH well established model of stakeholder engagement (Keown, 2008) throughout the review process was a further strength. A limitation of this review is that as it was a scoping review it does not include a quality appraisal of the literature and therefore we are unable to make recommendations.

5. Discussion

In this scoping review we examined the current state of evidence surrounding the use of financial incentives to hire, employ or retain people with disabilities, and summarized the themes, trends and evidence in the literature. Although publicly provided financial incentives for the employment of people with disabilities are quite common in developed countries, the research literature on this topic is not very extensive.

Using a systematic search of the literature across 7 bibliographic databases, we identified only 12 peer-reviewed studies that considered various types of financial incentives for employers, of which only one was conducted in Canada (Chouinard, 2009). Nine of the studies discussed positive incentives (such as wage subsidies), and three studies investigated quota systems. Of the nine studies examining the positive incentives, five were descriptive and four evaluated the effects of the incentives

The studies identified provided important insights into better understanding how and when financial incentives might best work to encourage employers to hire, retain and promote workers with a disability, and how and when they might have less desirable responses. We clustered the themes identified in this literature into seven categories. They are: 1) Employment characteristics (e.g., sector, type of job, firm size); 2) Employer knowledge and expertise (i.e., disability confidence); 3) Common employer (mis)conceptions about workers with a disability; 4) Types of costs and related supports to offset them; 5) Pigeonholing into low-skilled entry-level positions; 6) Optimal disclosure time; and 7) Motivation for uptake of incentives.

Some important considerations related to the use and the effects of financial incentives have not been substantively examined in the peer-reviewed literature. These include:

- 1) Workers with a disability are as diverse as able-bodied workers, consequently the support required will differ from situation to situation. The literature did not explore how financial incentives work in specific contexts and for specific disabilities. Furthermore, episodic disabilities were largely overlooked.
- 2) Although some of the studies touched on the importance of employer knowledge and experience, the topic of employer capacity building in recruitment, retention and promotion (i.e., “demand-side capacity building”) was not substantively explored. More research is needed that examines how financial incentives can help build “disability confidence” amongst employer, particularly small employers, to ensure sustainability of efforts to improve employment opportunities for people with disabilities.
- 3) There was little consideration of the role of service providers (i.e., placement agencies, accommodation specialists, technology providers) in the system.

Service providers play an important role in this policy arena, so there need to better understand how financial incentives influence their interactions with employers, public sector funders of supports and policymakers.

- 4) In some cases, a worker with a disability requires several types of support, at a point in time, or over the course of the recruitment, onboarding or promotion. The supports provided might be considered as a “customized package.” Although it was touched on in the literature, more research is needed on how best to package supports. The evidence of employers’ misconceptions about the work capacity of people with disabilities, and the need to ensure that employers are appropriately motivated to look for a good job fit and provide a meaningful job to a person with a disability, supports the opinions of our stakeholders that continuous guidance related to the use of financial incentives and to hiring and accommodating people with disabilities, is needed. A package of supports, therefore, may serve as a more effective option, compared to just providing employers with a wage subsidy or a tax break. Continuous relationship building between an employer and a service provider are very important to encourage and motivate employers who have little experience employing people with disabilities and ensure that people with disabilities have meaningful jobs and have opportunities to grow within an organization.
- 5) The literature did not touch on the role of financial incentives in career planning, career trajectories and opportunities for the promotion of workers with a disability. As noted in one of our themes, workers are often pigeonholed into low-skilled entry-level positions.

Our examination of the state of research evidence and gaps in knowledge in this first phase of our three-part initiative, informs our phase two field data collection and analysis activities. We are now well positioned to undertake these activities.

In the mixed method approach of phase two, we will undertake both quantitative and qualitative field data collection and analysis to better understand the how and when financial incentives are used in the Ontario (and Canadian) context and the outcomes associated with them. We also plan to map the policy arena in Ontario and Canada in order to identify the types of incentives being used, the stakeholders involved, and the relationships within the system. In addition, we will examine how best to build employer capacity to meaningfully employ people with disabilities. Our qualitative study component will include interviews with people with disabilities, employers who have/have not used financial incentives, and service providers. The quantitative component will focus on describing employer and worker characteristics in the contexts of financial incentives and the outcomes associated with their use.

6. Conclusions

This scoping review has highlighted a number of important themes on the question of the use of financial incentives for the hiring people with disabilities. The review serves as a source of peer reviewed evidence and is a first step in our initiative. Phase two will examine both the quantitative and qualitative sources of evidence in this field in order to develop a best practice guide to assist employers, service providers and policy makers in how best to leverage financial incentives to bring meaningful employment to Ontarians workers living with a disability.

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Appendix A

First Author	Year	Research Question or Objective(s)	Jurisdiction	Sector/Workplace/Work setting where the study was conducted	The type(s) of disability	Study design	The type(s) of financial incentive(s)	Outcome variables	What was the effect (if any) of the financial incentive?	Statistical outcomes reported	Conclusions
Andersson	2015	"The purpose of this study was to investigate Swedish employers' experiences and attitudes toward hiring persons with various disabilities."	Sweden	Employment Agency	Asperger syndrome Autism Acquired brain injury Psychosis ADHD Intellectual disability Physical disability	Survey	Direct (financial cost associated ie. wage subsidy, benefits, cost of accommodation)		The results indicated that there is some interest for employers to hire persons with disabilities and that this depended on the type of disability a person has. Other results demonstrated that previous experience of employing persons with disabilities was linked to greater interest in hiring, that employers had greater interest to hire than they thought other employers had, and that openness about the disability was deemed as an important factor in the hiring process.		See Effects
Baert	2016	"To evaluate the effectiveness of wage subsidies in terms of integrating the disabled into the labor market using an experimental field study."	Belgium	Multiple work sectors Examples: Carpenter, electrician administrative clerk, teleseller, accountant, informatician, chemist.	Blind, Deaf, Autism (Fictitious job applications)	Correspondence Experiment: " Two applications, identical except that one disclosed a disability, were sent to 768 vacancies. Blindness, deafness, and autism each represented one-third of the disabilities disclosed. We selected vacancies for which the disabled candidate could be expected, based on the vacancy information, to be as productive as his non-disabled counterpart, possibly after reasonable (and fully subsidized) adjustments in the workplace. In addition, entitlement to the Flemish Supporting Subsidy was	Direct (financial cost associated ie. wage subsidy, benefits, cost of accommodation)	Hiring Practices, Call-back rates of a job application	"First, when not disclosing wage subsidy entitlement, the disabled candidates had a 47 % lower chance to receive a positive reaction from the employer side than the nondisabled candidates. Second, when disclosing wage subsidy entitlement, the disabled candidates had a 49 % lower chance to receive a positive reaction. The difference between the two statistics does not differ significantly from zero. Therefore, our results show that the likelihood of a disabled candidate receiving a positive response to a job application is not influenced by disclosure of wage subsidy entitlement in Belgium. Consequently, at least	Subtracting the number of applications for which the disabled candidate was preferred from the number of applications for which the nondisabled candidate was preferred and dividing by the number of application pairs in which at least one candidate	"Wage Subsidies did not have desired effect our results show that the likelihood of a disabled candidate receiving a positive response to a job application is not influenced by disclosure of wage subsidy entitlement in Belgium."

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						randomly disclosed in the applications of the disabled individuals."			in this stage of the recruitment process, this wage subsidy instrument does not sort the desired effect."	received a positive call-back.	
Castello	2011	"The aim of this paper is to evaluate the results of an employment promotion policy introduced in Spain in 2004 which increased the deductions to the Social Security contributions paid by employers that hired disabled women."	Spain	Public and Private Sectors	NR	Cross sectional	Direct (financial cost associated ie. wage subsidy, benefits, cost of accommodation)	Shifts in employment trends in the women relative to the men sample conditioning on the existence of pre-existing trends	"We find that the impact of the policy is significant and we estimate an average elasticity of employment of 0.14 for partially and of 0.08 for totally disabled women relative to the deductions in the employer Social Security contributions. Finally, when we extrapolate the results beyond our sample, we estimate that 7100 disabled women were able to find a job in Spain due to the policy with an associated cost of 10,997.900 euro for the government."		
Chouinard	2010	"The purpose of this article was to explore women with disabilities' experiences of government employment assistance in Canada."	Canada	Multiple	Mobility, Agility, Seeing, Pain, Hearing, Psychological, Memory	Survey	Direct (financial cost associated ie. wage subsidy, benefits, cost of accommodation)	Type of assistance, perception of whether or not it was of assistance (binary)	"The majority of the women whose employers had received wage subsidies (6/10 respondents) regarded these as of very little importance or only somewhat important to their finding and keeping a job. Their reasons for this rating focused on employer abuse of subsidy assistance – terminating an employee once her subsidy ran out and replacing her with a new employee who qualified the employer for wage subsidies once again."	Direct Quotes	"...existing forms of wage subsidy assistance may not contribute to ongoing employment because at least some employers let an employee go once subsidies run out and hire a new employee to re-qualify for subsidies. One possible way of addressing this might be to make a period of employment beyond the subsidy period a mandatory requirement of wage subsidy programs. Consideration might also be given to the suggestion of attaching wage subsidies to the worker

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Datta Gupta	2015	"The aim of this study is to investigate to what extent this insider/outsider substitution arises in the hiring process due to wage subsidies for the disabled."	Denmark	Municipal/regional and Federal Governmental sector	Disability was self-reported	Cross Sectional	Direct (financial cost associated ie. wage subsidy, benefits, cost of accommodation)	Two outcomes: 1) whether the new Flexjob employee is hired from nonemployment (outsider) and 2) whether the new Flexjob employee is a retained employee (insider).	"For the first outcome, in the comparison group, the proportion of previously non-employed Flexjob employees is at the same level before and after, namely 24–26 percent. In the treatment group, the proportion before the reform is 42% and 13% after the reform. This implies a total difference in the before and after differences of –31 percentage points, which is highly significant, the proportion of previously retained Flexjob employees is at the same level in the comparison group before and after, namely 56–58 percent, while in the treatment group, the proportion before the reform is 38% and 74% after the reform. This implies a total difference in the before and after differences of 38 percentage points, which also is highly significant."		as opposed to a particular job."
Deuchert	2017	"In this article we propose a novel approach to evaluate a subsidy programme when no suitable control group is available. We conduct a field experiment among individuals who are all eligible for	Switzerland	Manufacturing and service	Physical 92% Mental 33% Intellectual 0%	Protocol: "where people with a disability who were looking for sustainable employment and who were eligible for the hiring subsidy wrote several applications which either disclosed their eligibility for the subsidy or not. It was randomly decided which application type was sent to a potential employer.	Direct (financial cost associated ie. wage subsidy, benefits, cost of accommodation) Subsidy already in place in jurisdiction.	Prime outcome is call-back rates, whereas the desired outcome from a policy perspective is employment.	"Overall, we do not find significant differences between applications that were sent with or without the notification of a subsidy. Stratifying our results by wave, however, we find opposite, albeit insignificant, effects indicating that the subsidy reduces call-back rates in Wave 1 and increases them in Wave 2 (the p-value from a t-test for statistical difference between the two waves is 0.39)."	Table 4	"Our results reveal that effectiveness may depend on the target group: the subsidy seems to be ineffective or even counterproductive in a group of adolescents who were at the end of their vocational training programme, but it is likely to have increased call-back rates in a group of clients of job-coaching services."

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Graffam	2002	"The present study investigated employer benefits and costs associated with employing a person with a disability." a hiring subsidy programme."	Australia	Multiple: manufacturing, health and community services, hospitality, and trade/sales.	NR	Qualitative, Questionnaire		"When asked whether they had used financial subsidies and/or incentives, 546 employers responded: 59% responded 'yes', 39% responded 'no', and 2% were unsure. When asked if financial subsidies and/or incentives were important in their decision to employ the person with a disability, 375 employers responded: 51% responded 'yes', 44% responded 'no' and 5% were undecided."	"Receipt of subsidies and/or incentives was investigated in relation to working conditions of employees with a disability, employer decision-making, rated impact of the employee on the work environment, and identified benefits and costs. There was a significant main effect for use of financial incentives for length of time in position, $F(1, 478) = 9.37, p < 0.01$. Employers using financial incentives reported employees with significantly shorter time in their position ($M = 20.11$ months) than those not using incentives ($M = 27.04$ months). With respect to employer decision-making, there was a significant main effect related to influence of cost factors in decision-making, $F(2, 595) = 11.08, p < 0.001$. Cost factors were rated as significantly more important by employers using financial incentives ($M = 3.20$) than for those who did not ($M = 2.92$). There was a significant main effect related to employee impact on the work environment, $F(1, 575) = 9.34, p < 0.01$. The employee's impact on the work environment was rated significantly better by employers who did not use financial incentives ($M = 4.06$) than by those who did ($M = 3.90$). There was no significant main effect related	"Although more than half of employers had received a subsidy and/or incentive, receipt of a subsidy and/or incentive was associated with somewhat poorer employee working conditions and resulted in no difference to benefit-cost outcome."	

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Gustafsson	2014	What are the main factors behind decisions to employ people with disabilities within a context of wage subsidies?	Sweden	Multiple	NR	Qualitative (interviews)	It examined the factors that are important to employers when hiring a person with a disability in the context of wage subsidies	The results show that four factors attitude, matching, economic incentives and accommodations are important for the employment of people	to any of the benefit/cost factors." Positive earlier experiences of people with disabilities serve as one of the reasons employers are willing to of such hiring decisions.	NR	Positive earlier experiences of people with disabilities serve as one of the reasons employers are willing to consider people with disabilities for jobs, but for hiring to take place, they must consider hiring people with disabilities and there must be a match between the right person and the right job. Wage subsidies, within this context are an incentive to hire people who have reduced work capacity; accommodations are seen as necessary for the successful implementation of such hiring decisions.
Jasper	2012	"This paper seeks to analyze government survey data on what concerns leisure and hospitality employers most when considering hiring people with disabilities, as well as what hiring practices best alleviate these concerns. Special attention is to be given to	United States	Leisure and hospitality	NR	Survey	Direct (financial cost associated ie. wage subsidy, benefits, cost of accommodation)	Improving worker outcomes	"Employee abilities and workplace accommodations raised substantial concerns, while financial incentives and practices addressing workplace attitudes were seen as especially helpful solutions. Employer concerns toward hiring varied significantly by employer size, with employers with more workers being more likely to hire those with disabilities than those with fewer workers."	Table iii from original report	"Employee abilities and workplace accommodations raised substantial concerns, while financial incentives and practices addressing workplace attitudes were seen as especially helpful solutions. Employer concerns toward hiring varied significantly by employer size."

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Lalive	2011	the theory of planned behavior in these aims." "Our aim is to identify the causal effect of the non-compliance quota tax on threshold firms' disabled employment."	Austria	Private sector - services, manufacturing, construction, tourism	NR	Economic Evaluation	Direct (financial cost associated ie. wage subsidy, benefits, cost of accommodation)	Hiring of people with disabilities	"The results indicated that firms with 25 nondisabled workers employ about 0.04 (or 12%) more disabled workers than without the tax; firms do manipulate employment of nondisabled workers but the lower bound on the employment effect of the quota remains positive; employment effects are stronger in low-wage firms than in high-wage firms; and firms subject to the quota of two disabled workers or more hire 0.08 more disabled workers per additional quota job.		
Nazarov	2015	"The aim of this study is to add to the limited evaluation literature on quota systems by investigating to what extent the structural changes in disability employment regulations that took place in South Korea in the middle of the 2000s affected the employment rate and	South Korea	N/A	Categories: visually, auditory or speech impaired ie. Has difficulty walking, climbing stairs, lifting heavy objects; persistent difficulties in: learning, remembering, concentrating; indoor activities (dressing, bathing, etc.); outdoor	Bivariate Probit Model	Direct (financial cost associated ie. wage subsidy, benefits, cost of accommodation)	Change in employment level of persons with disability severity of disability & above change job satisfaction	Found increased labour force participation (cannot directly link to quota however)	Hotchkiss (2004) in understanding the impact of the ADA legislation on labour market outcomes for individuals with disabilities in the US. Specifically, we assume that factors associated with the propensity to	"Taken together, our findings may suggest that additional opportunities, available as a result of increasing (1) the number of employers covered by the quota system, (2) the number of jobs available to individuals with disabilities and (3) the financial incentives for employing individuals with disabilities, have increased the labour force participation of people with disabilities in South Korea relative

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		subsequent job satisfaction of individuals with disabilities."			activities (shopping, going to the hospital etc.)					be in the labour force, * 1iY , and the propensity to work, * 2iY , can be modelled by the following binary response model with sample selection	to their non-disabled counterparts. However, these opportunities have had limited positive impact on the probability of employment (after controlling for selection into the labour market) and on job satisfaction. Overall, despite the limitations of our current data source, we can conclude from our findings that the new disability employment initiatives did not have a major impact on the disability employment situation in South Korea."
Wuellrich	2010	This paper investigates whether the unique tax increase from € 150.– to € 196.– in July 2001 in the context of the Austrian employment quota promoted the employment of disabled workers.	Austria	Private sector firms, with a firm size between 25 and 249 (these are firms subject to the non-compliance tax - firms with 25 or more non-disabled workers)	NR	Empirical study using uninterrupted time-series approach	Direct (financial cost associated ie. wage subsidy, benefits, cost of accommodation)	Firms' average number of disabled workers - examining the linear time trend before and after the tax increase; The effect of the tax increase on the number of disabled workers per firm - by looking at the number of disabled workers per firm before and after the tax increase	(1) Econometric results: The immediate response amounts to 0.0202 and is statistically significant at the 1% level. This means that firms employ 0.0202 disabled worker smore than they would in the absence of the tax increase, which is in terms of the average number of disabled workers a 1.9% increase. Put differently, roughly one in 50 firms employs one disabled worker more due to the tax increase (more details in Table 1). 2) Short-run responses of firms to the tax increase: the time trend significantly changes after the tax had been increased. The slope of the linear time trend increases by 0.0023 (column	See Table 1	Provided strong evidence that the tax increase led to an immediate as well as short-run response of firms covered by the DPEA.

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									<p>(5), Table 1). This means that roughly one in about 450 firms decides to employ one disabled worker more each month as a response to the tax increase, i.e. they indeed sluggishly respond to the tax increase. More details on it in Table 1. 3) Investigating whether this effect is offset by a decrease in the number of disabled workers in firms not subject to the tax: that there is no negative immediate impact for firms with less than 25 non-disabled workers that offsets the positive impact for firms with 25 or more employees</p>		