Monthly Labor Review

March 2017

An analysis of private long-term disability insurance access, cost, and trends

The authors use data from the National Compensation Survey to examine private long-term disability insurance (LTDI) access, cost, and trends over time. In 2013, one-third of employers provided access to LTDI. Compared with those without LTDI access, workers with access were more likely to work full time, have jobs with higher wages, work in larger establishments, and be employed in industries and regions with lower disability prevalence. The average cost for employers to provide LTDI to most types of workers who currently have access is typically 0.3 percent to 0.6 percent of their total wages. This proportion is slightly smaller than the disability insurance component of the Social Security payroll tax, a component that is 0.9 percent of wages. A slight increase in LTDI access rates occurred over the past decade (2003 through 2013), although only a minority of workers have the option of LTDI. These findings suggest that any type of expansion in LTDI access would affect primarily workers who have lower wages, work in small establishments, and have higher imputed disability prevalence, given that these individuals were least likely to have coverage in 2013.

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There is strong interest in the role that private long-term disability insurance (LTDI) can play in promoting employment and influencing Social Security Disability Insurance (SSDI) participation. An expansion of LTDI access could create more options for workers to obtain cash support in the event of disability. Increased availability of LTDI plans that provide return-to-work services could reduce reliance on SSDI and other public benefits. This article uses National Compensation Survey (NCS) microdata to identify the characteristics of employers and employees who might be affected by changes in the scope of LTDI. The Bureau of Labor Statistics (BLS) utilizes the NCS to provide regular updates of LTDI access and costs as part of its annual NCS Employee Benefits and Employer Costs for Employee Compensation publications.[1] We build on the descriptive statistics in those publications and use multivariate regression methods to isolate the relationship between worker characteristics, on the one hand, and LTDI access and cost on the other. We also track general trends in LTDI access and plan characteristics over a 10-year period.

We found that people with LTDI access in 2013 were more likely to work full time, be employed by large establishments, have relatively high wages, and work in industries and regions with a relatively low percentage of workers with disabilities. The average employer cost of providing LTDI to most types of workers ranges from 0.3 percent to 0.6 percent of wages, which is slightly smaller than the employer share of the current SSDI payroll tax of 0.9 percent.[2] The multivariate analysis confirmed that each of these descriptive relationships exists even after controlling for other observable worker and establishment characteristics. Finally, although we found that access rates have been increasing slightly over time, the majority of workers do not have LTDI access. Among workers who have LTDI access, a consistently large proportion (ranging from 93 percent to 96 percent from 2003 to 2013) opt to enroll in the insurance plan, although the rates are higher for those who are not required to make an employee contribution than those who have a required contribution.

Overview of LTDI plans

LTDI is an optional employer-offered benefit that provides insurance to workers who experience the onset of a disability, where disability is defined as being unable to do one's own occupation or an occupation that is similar in terms of training, education, and experience. The provisions of LTDI vary from plan to plan and are determined by the contract between the employer and the insurer. The premiums can be paid with pretax or aftertax dollars, which affects whether any LTDI benefits paid out are taxable. In 2013, 64 percent of private industry workers covered by group disability contracts had benefits equal to 60 percent of predisability annual earnings.[3] In most cases, LTDI benefits are coordinated to begin after the company's short-term disability plan benefits are exhausted. Important features of LTDI plans are rehabilitation benefits, accommodation supports, and work incentives. However, medical care associated with these return-to-work efforts is not typically covered by LTDI plans.

Another option for workers who experience the onset of disability is to apply for benefits through SSDI.[4] SSDI is a social insurance program that provides cash benefits to workers with disabilities and their dependents if they meet certain work and disability criteria. Potentially strong overlap exists between LTDI and SSDI: data provided by a major provider of private disability insurance show that 41 percent of the workers enrolled in the company's LTDI plans from 2000 to 2006 simultaneously received SSDI, and data from the 2006 National Beneficiary Survey matched to SSA administrative data show that 6.6 percent of SSDI beneficiaries (who did not concurrently receive SSI) also received LTDI.[5]

Relative to LTDI, SSDI has stricter eligibility requirements and different rules for wage replacement. To qualify for SSDI, a worker must be unable to engage in any substantial gainful work that exists in the national economy. The level of the SSDI benefit depends on the worker's average indexed monthly earnings (AIME) during all previous years of work.[6] In contrast, LTDI plans have relatively minimal work experience requirements, often covering workers within a year or less of starting a job, and benefits are calculated by using the worker's most recent earnings under the current employer.[7]

In addition, the LTDI and SSDI replacement rates (i.e., the proportion of a person's former earnings that is replaced by a program's benefits) differ. For example, the SSDI wage replacement rate for the lowest AIME is 90 percent of the AIME, so workers with relatively low monthly income ($1,500 or less) would likely receive larger benefits through SSDI than through a typical LTDI policy that would provide 60-percent replacement for the same base wage. Another incentive for workers to enroll in SSDI is that it includes eligibility for Medicare, which LTDI does not typically provide. Employer-based health insurance coverage can continue for a limited period if the worker pays the necessary premiums.[8]

In cases of an overlap in LTDI and SSDI eligibility, LTDI insurers have a strong incentive to help their claimants apply for SSDI benefits. Most LTDI contracts deduct other benefits received (including SSDI) from the LTDI benefit amount, dollar for dollar. Because this offset greatly reduces the cost to the private insurer, private insurers often encourage LTDI beneficiaries to apply for SSDI, and some insurers might even require that they do so.[9] SSDI implicitly provides a subsidy for LTDI in that the insurers would have to charge a much higher premium to offer the same LTDI replacement rate in the absence of SSDI. In other words, the existence of SSDI allows LTDI carriers to offer higher replacement rates for any given premium than they could in the absence of SSDI. The upside of this subsidy is that it allows LTDI insurers to provide lower cost coverage for a given replacement rate. The downside is that the subsidy likely has a positive impact on the number of SSDI applications by LTDI claimants.[10]

Three recent policy proposals expressed interest in expanding the role of LTDI with a goal of reducing SSDI dependency, although the parameters for how to do so differ among the proposals.[11] The general rationale for expanding the role of LTDI is that it provides an avenue for early intervention supports that might facilitate return to work and reduce dependency on SSDI. Proponents argue that there is strong potential for expanding LTDI access, given that only about one-third of employers offer this coverage. However, there could be increased employer costs associated with these proposals. In addition, there is some concern that even expanding the role of LTDI will not address the aforementioned incentives for LTDI insurers to refer participants to apply for SSDI.

Data and methodology

In this section, we describe the NCS data, our approach to characterizing the types of workers who had access to LTDI in 2013, the cost to employers for providing this coverage, and trends in both access rates and plan characteristics.

The NCS data contain quarterly information on both average wages and employer expenditures on fringe benefits for a selection of jobs within a sample of establishments across the country.[12] BLS defines a job (i.e., the unit of observation for the survey) on the basis of the work performed and the skills required, union status, full-time or part-time status, and whether the worker is paid on an hours-worked or an incentive basis. Wage and employer expenditure information is collected to determine an average for all workers in the job; no information is retained on individual workers. The survey has a rotating panel structure, meaning that that the sampled establishments remain in the survey for 3 or 5 years and one cohort is rotated out of the survey every year.[13]

Starting in 2003, the NCS data began to include a yearly calculation in March on the percentage of workers in the job who have access to an LTDI plan (the access rate), the percentage of workers in the job who participate in such a plan (the participation rate), and the percentage of workers in the job with access to LTDI who participate in the plan (the takeup rate). The NCS does not collect information on the amount of the employee contribution to LTDI (only the employer contribution), although it does record whether an employee contribution is required. The wage and employer expenditure data are published quarterly by BLS in the Employer Costs for Employee Compensation (ECEC) publications, while the benefits information is published annually in the Employee Benefits

Survey publications.[14] We follow the BLS approach in presenting descriptive characteristics by using sampling weights to make the estimates representative of workers in private industry in the United States.

In the first column of table 1, we present a replication of LTDI access and takeup rate findings from selected tables in the BLS publication using raw data from the 2013 NCS. Replicating the BLS estimates is important because later we will be providing a more indepth analysis of some of LTDI's key features not available in the annual publication. The overall LTDI access rate (the percentage of workers in private establishments whose employer offers LTDI) was 33.1 percent in 2013, and the overall takeup rate for LTDI plans was 95.6 percent. The characteristics of LTDI plans do not vary much. The plans tend not to require an employee contribution toward the premiums, they pay a fixed percentage of annual earnings in the case of disability, and they have a maximum benefit amount. However, variation in the generosity of the benefit amount is likely.

Table 1. Long-term disability insurance (LTDI) access rates and plan characteristics, 2013

Variable	All workers	Workers with access to an LTDI plan	Workers with LTDI coverage
Access rate	33.1	—	—
Takeup rate	—	95.6	—
Employee contribution required			
Yes	—	—	8.0
No	—	—	92.0
Method of payout			
Fixed percentage of annual earnings	—	—	94.5
Percentage varies by annual earnings	—	—	3.8
Flat dollar amount	—	—	1.2
Other	—	—	.6
Has maximum benefit amount			
Yes	—	—	87.0
No	—	—	13.0

Note: The unit of observation for the calculation of the access rate in column 1 is the occupation within the establishment; the unit of observation for the takeup rate and plan characteristics in columns 2 and 3 is the LTDI plan offered to the occupation within the establishment. Unweighted sample sizes: occupations = 46,080 (column 1); LTDI plans offered = 24,234 (columns 2 and 3). We use weights to ensure that the analysis samples are representative of workers in private industry in the United States. A dash indicates not applicable.

Source: Authors' analysis of National Compensation Survey data from 2013. Results replicated from National Compensation Survey: employee benefits in the United States, March 2013 (U.S. Bureau of Labor Statistics), https://www.bls.gov/ncs/ncspubs_2013.htm.

Analysis of LTDI access and costs in 2013

We used descriptive and multivariate analyses to examine how access rates and costs varied by worker characteristics in 2013. We present the same worker characteristics listed in BLS publications: occupation, full-time or part-time status, union status, average wages, industry, establishment size, and region. We also added an imputed estimate of regional disability prevalence by industry to assess whether disability prevalence was related to LTDI access, takeup, and coverage. To impute the disability prevalence, we used data from the Current Population Survey on the number of workers in each industry and region, by year, who reported a work limitation or responded "yes" to having a physical, mental, or emotional condition on the six-question sequence that BLS uses to obtain official disability statistics.[15] We merged the disability prevalence by industry, region, and year onto the NCS data to impute disability prevalence. It is important to keep in mind that this statistic is a measure of the percentage of workers who have a disability overall and not a measure of those who leave the workforce because of the onset of a disability.

Our descriptive analysis begins by comparing worker characteristics for those with and without access to LTDI. This comparison provides insight into the characteristics of workers who would be affected by expanded access to LTDI. We then present the average employer cost of LTDI (both as a dollar amount and as a percentage of wages) for workers who have LTDI access, by worker characteristics.[16] For both access and costs, we present a multivariate analysis that examines how LTDI access and employer cost are correlated with worker characteristics from the NCS. Using this analysis, we can isolate the relationship between each characteristic and these outcomes of interest while controlling for other factors. We do not include imputed disability prevalence as an independent variable, because it was developed on the basis of other variables included in our model. The estimated coefficients should be interpreted as associations, not causal relationships, because unobserved characteristics included in the error term may be correlated with both the included variables and each of the access and cost variables.

Time trends

We present data on trends from 2003 through 2013 to assess whether there have been any substantial changes in the scope of LTDI over time. This analysis is useful in considering how LTDI access and plan characteristics might change in the future even without a change in policy. We included data from 2003, 2008, and 2013. The 2008 data are notable because they coincide with the economic recession, a coincidence that allows us to assess the sensitivity of our results to the business cycle. We also exploit the panel structure of the NCS data by calculating the percentage of establishments that either added or dropped LTDI coverage from 2012 to 2013. Finally, we examine plan characteristics and takeup rates from 2003 through 2013 to assess whether changes in disability plans were related to changes in access rates over time.

Results

In this section, we present the results of a descriptive analysis and a regression analysis of LTDI access rates and costs by worker characteristics. We also present changes in LTDI access rates and plan characteristics over time.

LTDI access

Compared with workers who do not have access to LTDI, those who do have access tend to have higher wages, work in larger establishments, and work in industries and regions that have a lower disability prevalence. (See table 2.) Compared with those without access, those with access are more likely to be in the highest wage quartile (43.9 percent versus 12.8 percent), work for establishments with 500 or more employees (34.4 percent versus 11.5 percent), and be in the lowest quartile for imputed disability prevalence (35.8 percent versus 19.5 percent). In comparison to those without LDTI, workers with LTDI are also more likely to work full time (96.4 percent versus 63.5 percent). In addition, they differ in occupational status, with more workers with LTDI access in management and professional occupations and fewer in service occupations. This result might be related to the finding that workers with LTDI are less likely to hold part-time positions, given that jobs for service occupations are more likely to be part time.

Table 2. Characteristics of workers in the sample, by long-term disability insurance (LTDI) status, 2013

Variable	Access to LTDI		No access to LTDI		Difference
	Mean	Standard error	Mean	Standard error	
Full time	96.4	0.2	63.5	0.7	32.9**
Union	9.5	.4	8.7	.3	.8
Occupation					
Management, professional, and related	44.6	.7	15.4	.4	29.2**
Service	6.6	.4	30.2	.7	-23.6**
Sales and office	27.7	.6	28.2	.5	-.5
Natural resources, construction, and maintenance	6.5	.3	8.8	.3	-2.3**
Production, transportation, and material moving	14.6	.5	17.4	.4	-2.8**
Average wages					
Lowest 25 percent	5.9	.4	40.3	.7	-34.4**
Second 25 percent	20.6	.6	27.3	.6	-6.7**
Third 25 percent	29.6	.6	19.5	.5	10.1**
Highest 25 percent	43.9	.6	12.8	.4	31.1**
Industry					
Mining	1.2	.1	.4	.1	.8**
Construction	2.2	.2	5.8	.2	-3.6**
Manufacturing	14.8	.4	9.9	.3	4.9**
Trade, transportation, and utilities	17.6	.5	25.9	.5	-8.3**
Information	4.8	.2	1.3	.1	3.5**
Financial activities	14.1	.3	3.4	.2	10.7**
Professional and business services	20.9	.6	14	.5	6.9**
Education and health services	21.0	.6	16.8	.6	4.2**
Leisure and hospitality	1.6	.2	18.4	.6	-16.8**
Other services	1.9	.2	4.1	.2	-2.2**
Establishment size					
1–49 workers	23.4	.7	50.6	.7	-27.2**
50–99 workers	10.9	.4	13.2	.4	-2.3**
100–499 workers	31.3	.6	24.8	.5	6.5**
500 or more workers	34.4	.6	11.5	.3	22.9**
Region					
New England	6.4	.3	4.7	.3	1.7**
Middle Atlantic	14.9	.4	14.5	.4	.4
East North Central	16.8	.5	15.7	.5	1.1
West North Central	7.9	.3	7.7	.4	0.2
South Atlantic	18.4	.6	18.9	.5	-.5
East South Central	4.7	.3	4.7	.2	.0
West South Central	11.4	.5	10.9	.4	.5
Mountain	6.7	.3	6.8	.3	-.2
Pacific	12.8	.4	16.1	.5	-3.3
Imputed disability prevalence					
Lowest 25 percent	35.8	.6	19.5	.4	16.3**
Second 25 percent	26.5	.6	24.1	.6	2.4**
Third 25 percent	22.7	.5	26.1	.6	-3.4**
Highest 25 percent	15.0	.6	30.3	.7	-15.3**

* Difference in means is statistically significant, $p < .05$ (two-tailed t-test).

See footnotes at end of table.

** Difference in means is statistically significant, *p* < .01 (two-tailed t-test).

Note: The difference in distributions between those with and without access for all worker plan characteristics is statistically significant at *p* < .05 (chi-square test). Disability prevalence is imputed with the use of reported disability prevalence by industry and region from the Current Population Survey. Unweighted sample sizes: occupations with access to LTDI = 23,854; occupations with no access to LTDI = 22,226. We use weights to ensure that the analysis samples are representative of workers in private industry in the United States.

Source: Analysis of 2013 National Compensation Survey data, U.S. Bureau of Labor Statistics.

There are no statistically significant differences in the percentage of workers who are unionized and very few differences in the regions where they live. In a separate analysis (not shown in the table), we looked at whether regional access rates vary by worker characteristics, given that regional variation in disability prevalence is well documented. We found that the access rates by worker characteristics demonstrate similar patterns in each region, with only a few outliers. For example, only 4.5 percent of service workers in the East South Central region have access to LTDI, compared with 14.2 percent of service workers in the Middle Atlantic region.

In sum, these differences afford insights into how various worker groups might be influenced by expansions in LTDI access. Specifically, expanding LTDI access would provide additional coverage options primarily to workers with lower wages, workers in smaller establishments, and workers in industries and regions with a high disability prevalence.

LTDI cost

The average hourly employer cost of LTDI for those who have access is $0.13, which is 0.47 percent of the average hourly wage of those with access. (See table 3.) The hourly employer cost is relatively much higher for workers who are part time ($0.18, which is more than 1 percent of wages). The higher costs for part-time workers is not surprising given that these workers have lower overall wages than full-time workers. Other workers who have high LTDI costs (from $0.19 to $0.29 per hour, which is equivalent to 0.70 percent to 0.85 percent of wages) are those who are unionized; those in production, transportation, and material-moving occupations; and those in the trade, transportation, and utilities industries. Finally, employer LTDI costs (in dollars) increase as wages go up, and these costs are largest for establishments with 500 or more workers. For example, employers of workers in the highest wage quartile spend approximately $0.20 per hour on LTDI, whereas employers of workers in the lowest wage quartile spend only $0.05. However, the cost of LTDI presented as a percentage of wages varies little across wage quartiles: the cost for the lowest three wage quartiles ranges from 0.47 percent to 0.53 percent, whereas the cost for the highest quartile is 0.44 percent. Overall, LTDI costs as a percentage of wages tend to range from 0.3 percent to 0.6 percent for most worker groups, with a few positive outliers for part-time and unionized workers as well as those in certain occupations and industries.

Table 3. Employer cost of long-term disability insurance (LTDI), by worker characteristics, 2013

Selected characteristic	Hourly employer LTDI cost (in dollars)	Employer LTDI cost as a percentage of wages
All workers with access to LTDI	0.13	0.47
Full time	.13	.45
Part time	.18	1.09
Union	.29	.85
Nonunion	.12	.43

See footnotes at end of table.

Table 3. Employer cost of long-term disability insurance (LTDI), by worker characteristics, 2013

Selected characteristic	Hourly employer LTDI cost (in dollars)	Employer LTDI cost as a percentage of wages
Occupation		
Management, professional, and related	.15	.39
Service	.07	.44
Sales and office	.09	.43
Natural resources, construction, and maintenance	.13	.46
Production, transportation, and material moving	.20	.80
Average wages		
Lowest 25 percent	.05	.47
Second 25 percent	.07	.53
Third 25 percent	.10	.47
Highest 25 percent	.20	.44
Industry		
Mining	.14	.42
Construction	.14	.45
Manufacturing	.13	.49
Trade, transportation, and utilities	.19	.70
Information	.10	.32
Financial activities	.10	.35
Professional and business services	.14	.40
Education and health services	.12	.45
Leisure and hospitality	.07	.39
Other services	.12	.50
Establishment size		
1–49 workers	.11	.46
50–99 workers	.11	.38
100–499 workers	.12	.47
500 or more workers	.17	.50
Region		
New England	.13	.43
Middle Atlantic	.15	.49
East North Central	.13	.48
West North Central	.14	.48
South Atlantic	.12	.44
East South Central	.13	.54
West South Central	.11	.47
Mountain	.15	.42
Pacific	.16	.49
Imputed disability prevalence		
Lowest 25 percent	.12	.41
Second 25 percent	.13	.44
Third 25 percent	.15	.51
Highest 25 percent	.13	.51

See footnotes at end of table.

Note: Disability prevalence is imputed with the use of reported disability prevalence by industry and region from the Current Population Survey. Unweighted sample size for all occupations with access to LTDI (row 1) = 23,854. We use weights to ensure that the analysis samples are representative of workers in private industry in the United States.

Source: Authors' analysis of 2013 National Compensation Survey data, U.S. Bureau of Labor Statistics.

Regression analysis of LTDI access and cost

Our regression findings reinforce the descriptive findings that workers are more likely to have access to LTDI if they have higher wages and that they are also more likely to have access to LTDI if they work in large establishments. (See table 4.) Specifically, holding all else constant, being in the highest wage and establishment size category increases the probability of access by 28 and 24 percentage points, respectively, compared with being in the corresponding lowest category. Perhaps not surprisingly, being a part-time worker reduces the probability of having access to LTDI by 26 percentage points compared with full-time workers, and workers in service occupations are less likely than those in any other occupation to have access to LTDI. Finally, unionized workers are 4 percentage points less likely to have LTDI access than nonunionized workers.

Table 4. Relationship between worker characteristics and access to and hourly cost of long-term disability insurance (LTDI), 2013

Variable	Access (standard error)	Employer cost of LTDI (standard error)	Natural logarithm of employer cost of LTDI (standard error)
Part time	-0.264**	0.049**	-0.015
	(.008)	(.017)	(.021)
Union	-.043**	.129**	.144**
	(.010)	(.016)	(.013)
Occupation (reference group = services)			
Management, professional, and related	.104**	.016*	.073**
	(.016)	(.006)	(.017)
Sales and office	.088**	.013*	.057**
	(.014)	(.006)	(.015)
Natural resources, construction, and maintenance	.027	.000	.050**
	(.018)	(.009)	(.017)
Production, transportation, and material moving	.054**	.115**	.121**
	(.016)	(.015)	(.026)
Average wages (reference group = lowest 25 percent)			
Second 25 percent	.109**	.036**	.014
	(.012)	(.009)	(.014)
Third 25 percent	.181**	.064**	.025
	(.013)	(.009)	(.016)
Highest 25 percent	.282**	.169**	.115**
	(.015)	(.012)	(.026)
Industry (reference group = construction)			
Mining	.236**	-.012	-.031
	(.038)	(.011)	(.021)
Manufacturing	.130**	-.049**	-.065*

See footnotes at end of table.

Table 4. Relationship between worker characteristics and access to and hourly cost of long-term disability insurance (LTDI), 2013

Variable	Access (standard error)	Employer cost of LTDI (standard error)	Natural logarithm of employer cost of LTDI (standard error)
	(.014)	(.010)	(.025)
Trade, transportation, and utilities	.137**	.048**	.053*
	(.014)	(.011)	(.022)
Information	.268**	-.052**	-.073**
	(.022)	(.008)	(.017)
Financial activities	.347**	-.009	-.034*
	(.016)	(.008)	(.016)
Professional and business services	.174**	-.007	-.059
	(.015)	(.008)	(.031)
Education and health services	.167**	-.006	-.066**
	(.017)	(.012)	(.019)
Leisure and hospitality	-.003	.000	.000
	(.020)	(.010)	(.029)
Other services	.111**	.024	.044
	(.023)	(.013)	(.038)
Establishment size (reference group = 1–49 workers)			
50–99 workers	.096**	-.005	.009
	(.011)	(.011)	(.014)
100–499 workers	.149**	.004	-.003
	(.009)	(.005)	(.007)
500 or more workers	.239**	.043**	.079**
	(.010)	(.007)	(.011)
Region (reference group = South Atlantic)			
New England	.029	-.011	.005
	(.016)	(.007)	(.025)
Middle Atlantic	-.014	.006	-.007
	(.012)	(.007)	(.026)
East North Central	.004	-.015*	.028
	(.011)	(.007)	(.036)
West North Central	.028	.001	-.012
	(.014)	(.008)	(.029)
East South Central	.014	.01	-.034
	(.016)	(.009)	(.025)
West South Central	.016	-.011	-.054*
	(.013)	(.007)	(.024)
Mountain	.017	.02	.110*
	(.015)	(.026)	(.051)
Pacific	-.046**	.002	-.011
	(.011)	(.008)	(.027)

* Difference from zero is statistically significant at $p < .05$ (two-tailed t-test).

** Difference from zero is statistically significant at $p < .01$ (two-tailed t-test).

See footnotes at end of table.

Note: Access to LTDI, hourly employer cost of LTDI, and the natural logarithm of hourly employer cost of LTDI are the three outcome variables for the regressions. The binary access outcome is estimated with the use of a logit model, and coefficients are presented as marginal effects. The continuous outcomes are estimated with the use of ordinary least squares. Unweighted sample sizes: all occupations = 46,080 (column 1); occupations with LTDI access = 23,854 (columns 2 and 3). We use weights to ensure that the analysis samples are representative of workers in private industry in the United States.

Source: Authors' analysis of 2013 National Compensation Survey data, U. S. Bureau of Labor Statistics.

The cost regressions show that the employer hourly cost of LTDI is higher for workers who are unionized, who are in the highest wage quartile, and who work in establishments with 500 or more workers, even after controlling for other worker characteristics. Employers who offer LTDI to their workers spend $0.13 (or approximately 14 percent) more per hour on LTDI if the workers are unionized. Furthermore, LTDI for workers in the highest wage quartile costs $0.17 (or approximately 12 percent) more per hour than for those in the lowest wage quartile, likely because LTDI benefit amounts increase with wages. A similar explanation might apply to workers in large establishments, whose LTDI cost is $0.04 (or 8 percent) more per hour than the cost for workers in small establishments.

The regression results for all outcomes reinforce the descriptive finding that LTDI tends to be highly concentrated within groups with specific characteristics. Thus, even after controlling for correlations between these characteristics, substantial relationships between the outcomes obtained and observed worker characteristics remain.

LTDI access rates and plan characteristics over time

LTDI access over the period observed has trended upward, increasing by 11 percent (3.4 percentage points) from 2003 to 2013. (See table 5.) LTDI access among those employed increased after the recession, growing from 31.5 percent to 33.1 percent from 2008 to 2013. These changes reflect changes in the composition of jobs over the period, as well as any decisions by employers to add or drop coverage. Access rates increased consistently from 2003 to 2013 across most worker subgroups, with some exceptions, such as those in service occupations. Of particular note was the growth of LTDI in mining (from 28.5 percent to 57.1 percent) and information industries (from 43.0 percent to 65.0 percent). Nonetheless, the majority of employers do not offer LTDI, particularly in lower wage occupations, part-time jobs, service occupations, the construction industry, or the leisure and hospitality industry. This situation indicates that, in the absence of a policy initiative, LTDI access might continue to grow at modest rates, but growth for workers in service occupations and for low-wage workers is likely to remain weak unless stronger incentives are offered to both employers, to provide such coverage, and employees, to accept this coverage.

Table 5. Long-term disability insurance (LTDI) access rates, by worker characteristics, 2003, 2008, and 2013

Selected characteristic	LTDI access rates (in percent)		
	2003	2008	2013
All workers	29.7	31.5*	33.1**
Full time	37.5	39.2	42.9**
Part time	4.2	6.6**	4.7**
Union	28.0	33.6**	35.2
Nonunion	29.9	31.3	32.9**

See footnotes at end of table.

Table 5. Long-term disability insurance (LTDI) access rates, by worker characteristics, 2003, 2008, and 2013

Selected characteristic	LTDI access rates (in percent)		
	2003	2008	2013
Occupation			
Management, professional, and related	56.6	56.7	58.9
Service	10.8	12.4	9.7**
Sales and office	30.0	31.4	32.7
Natural resources, construction, and maintenance	18.9	22.0	26.8**
Production, transportation, and material moving	22.2	27.0**	29.3
Average wages			
Lowest 25 percent	5.5	7.5*	6.7
Second 25 percent	22.1	25.9*	27.2
Third 25 percent	34.8	38.2*	42.9**
Highest 25 percent	56.3	56.6	62.9**
Industry			
Mining	28.5	55.3**	57.1
Construction	9.8	10.1	15.7**
Manufacturing	34.5	40.3**	42.5
Trade, transportation, and utilities	19.4	23.4**	25.2
Information	43.0	59.4**	65.0
Financial activities	61.2	62.6	67.3**
Professional and business services	41.3	37.3	42.5**
Education and health services	38.9	37.0	38.2
Leisure and hospitality	7.3	X	4.2**
Other services	20.0	26.8	18.5**
Establishment size			
1–49 workers	16.9	17.2	18.6
50–99 workers	27.3	24.7	29.1**
100–499 workers	32.6	35.0	38.5**
500 or more workers	54.7	57.5	59.7*
Region			
New England	31.4	33.2	40.4**
Middle Atlantic	27.8	29.9	33.6*
East North Central	31.0	35.4*	34.7
West North Central	30.1	30.1	33.7
South Atlantic	32.5	32.7	32.5
East South Central	26.3	30.7	33.4
West South Central	30.3	31.6	34.1
Mountain	23.3	28.3	32.5*
Pacific	28.9	28.9	28.2
Imputed disability prevalence			
Lowest 25 percent	NA	NA	47.6
Second 25 percent	NA	NA	35.3
Third 25 percent	NA	NA	30.1
Highest 25 percent	NA	NA	19.7

* Difference in means between the 5-year interval is statistically significant at $p < .05$ (two-tailed t-test).

See footnotes at end of table.

** Difference in means between the 5-year interval is statistically significant at $p < .01$ (two-tailed t-test).

Note: Disability prevalence is imputed with the use of reported disability prevalence by industry and region from the Current Population Survey. Three observations in 2003 are missing information on establishment size, and 2,056 observations in 2008 are missing information on wages and establishment size; these observations are included only in the worker categories for which they are not missing information. X = access rates in some categories have been redacted because of small sample sizes. NA = not applicable. Unweighted sample sizes for all workers in row 1: 2003 = 14,692; 2008 = 54,683; 2013 = 46,080. We use weights to ensure that the analysis samples are representative of workers in private industry in the United States.

Source: Authors' analysis of National Compensation Survey data from 2003, 2008, and 2013. Access rates replicated from 2008 and 2013 BLS publications. Access rates for 2003 are slightly different from those listed in the BLS publication because of different definitions of workers' characteristics.

To assess whether the observed trends represent change in employer decisions to offer coverage versus change in the composition of jobs, we looked at the extent to which access to LTDI from 2012 to 2013 changed within establishments. (See table 6.) Very few establishments added or dropped access over this period. Only 0.5 percent of workers in occupations on which data were compiled in both 2012 and 2013 gained access to LTDI coverage, and only 0.6 percent lost access. Most workers' LTDI status did not change: 32 percent had access in both years, and 67 percent did not have access in either year. Overall, despite the increase in LTDI access rates over time, no evidence exists of a major shift over a 1-year period in employer decisions to offer LTDI coverage.

Table 6. Changes within establishments with long-term disability insurance (LTDI) access from 2012 to 2013

Access status	Percentage of workers
Had access to LTDI in both years	32.3
Did not have access to LTDI in both years	66.6
Dropped access to LTDI	.6
Added access to LTDI	.5

Note: The sample excludes the 11,595 occupations on which data were compiled in 2013 but not in 2012. The unweighted sample size is 34,485. We use weights to ensure that the analysis samples are representative of workers in private industry in the United States.

Source: Authors' analysis of National Compensation Survey data from 2012 and 2013.

Table 7 shows that the characteristics of LTDI plans have changed slightly from 2003 to 2013. Changes in characteristics from 2008 to 2013 were very small. Changes from 2003 to 2008 were typically larger, but these changes might reflect the large decrease in missing information. For instance, the percentage of workers with benefits specified as a fixed percentage of annual earnings increased from 72.9 percent in 2003 to 90.6 percent in 2008 (up 17.7 percentage points). However, the increase was accompanied by a decline in missing data from 19.7 percent in 2003 to 1.3 percent in 2008 (down 18.4 percentage points). LTDI takeup rates remained consistently high (above 95 percent) over this period even as access rates grew. Nonetheless, when we examined takeup rates separately for plans that do and do not require an employee premium contribution, we found that plans which require an employee contribution have an average takeup rate that is significantly lower than those which do not require employee contributions (77 percent versus 98 percent in 2013). This difference suggests that there is little room to increase enrollment in LTDI plans among those workers who are not required to make an employee contribution, but there is some potential to increase takeup rates for the 10 percent of workers with LTDI access who are required to make an employee contribution.

Table 7. Changes in characteristics of long-term disability insurance plans offered to workers, 2003, 2008, and 2013

Variable	Mean		
	2003	2008	2013
Takeup rate	93.2	94.9**	95.6**
Takeup if no employee contribution required	96.9	97.2	97.7
Takeup if employee contribution required	67.4	77.5**	76.7
Employee contribution requirement			
Yes	11.4	11.9	9.9**
No	66.1	86.8**	89.3**
Missing	22.6	1.3**	.8**
Method of payout			
Fixed percentage of annual earnings	72.9	90.6**	93.7**
Percentage varies by annual earnings	4.1	5.4**	3.9**
Flat dollar amount	1.9	1.5	1.1**
Other	1.4	1.2	.6**
Missing	19.7	1.3**	.8**
Has maximum benefit amount (only plans whose payout method is a fixed percentage of annual earnings)			
Yes	67.6	78.5**	86.8**
No	15.3	21.5**	13.2**
Missing	17.1	.0**	.0

* Difference in means between the 5-year interval is statistically significant at $p < .05$ (two-tailed t-test).

** Difference in means between the 5-year interval is statistically significant at $p < .01$ (two-tailed t-test).

Note: For 2008 and 2013, the difference in distributions between the 5-year interval for all categorical plan characteristics is statistically significant at $p < .05$ (chi-square test). Unweighted sample sizes for LTDI plans: 2003 = 7,239 (12 missing takeup rate); 2008 = 28,132 (244 missing takeup rate); and 2013 = 24,406 (172 missing takeup rate). We use weights to ensure that the analysis samples are representative of workers in private industry in the United States.

Source: Authors' analysis of National Compensation Survey data from 2003, 2008, and 2013. Estimates differ from those listed in the BLS publication because observations with missing takeup and plan information are included here.

Conclusions

The findings in this article provide a description of the types of workers who had access to LTDI in 2013, the cost to employers for providing this coverage, and trends in both access rates and plan characteristics. Workers who had access to LTDI in 2013 tended to work full time, have higher wage jobs, work in larger establishments, and have a lower imputed disability prevalence than those without access to coverage. The cost for employers who provided LTDI to workers was, on average, $0.13 per hour and typically ranged from 0.3 percent to 0.6 percent of wages for most types of workers. Part-time and unionized workers tended to be on the more expensive end of the spectrum. The regression results followed the same patterns as the descriptive statistics. We also found an 11-percent increase in LTDI access rates from 2003 through 2013—an increase that might be more due to changes in the composition of workers and their employers than to decisions by employers to add coverage. Two-thirds of workers remained without access to LTDI as of 2013. Finally, the average takeup rate among those who had access to LTDI was between 93 percent and 96 percent from 2003 to 2013, but workers who were offered plans that require an employee contribution consistently had an average takeup rate that was lower than those whose plans did not require an employee contribution.

These findings indicate that any type of expansion of LTDI access would affect workers who have lower wages, work in small establishments, and have a higher imputed disability prevalence, given that these individuals were least likely to have coverage in 2013. On the basis of LTDI costs for workers who were least likely to have coverage in 2013, the cost to employers of providing coverage to most types of workers could range anywhere from 0.3 percent to 0.6 percent of wages, with a few categories of workers being more expensive to insure. However, this cost could be an underestimate, given that workers who currently do not have access to LTDI might be more expensive to cover. These findings also suggest that there is little room for expanding takeup of LTDI among those who currently have access and are not required to make an employee contribution, but there is some room for growth among the small fraction of workers for whom an employee contribution is required.

Acknowledgment

The authors appreciate the excellent programming support provided by Kenneth Jackson and the helpful discussions with Winthrop Cashdollar and David Stapleton. Funding for this study was made possible by the Employment Policy and Measurement Rehabilitation Research and Training Center, which is funded by the National Institute for Disability, Independent Living, and Rehabilitation Research (NIDILRR) under a cooperative agreement with the University of New Hampshire. The contents do not necessarily represent the policy of NIDILRR and are not endorsed by the federal government. The authors are solely responsible for any errors or omissions.

SUGGESTED CITATION

Priyanka Anand and David Wittenburg, "An analysis of private long-term disability insurance access, cost, and trends ," *Monthly Labor Review,* U.S. Bureau of Labor Statistics, March 2017, https://doi.org/10.21916/mlr.2017.10

NOTES

1 “Employer costs for employee compensation, historical listing, National Compensation Survey, March 2004–September 2014,” (U..S. Bureau of Labor Statistics), https://www.bls.gov/ncs/ect/sp/ececqrtn.pdf.

2 “How is Social Security financed?” (Social Security Administration), http://www.ssa.gov/news/press/factsheets/HowAreSocialSecurity.htm.

3 David Babbel and Mark Meyer, “The fiscal benefits of private disability income protection coverage to the SSDI program: current situation and a proposal for expansion” (Washington, DC: Charles River Associates, 2015).

4 Workers who experience an onset of disability on the job can also apply for benefits through workers’ compensation. In this article, we focus our discussion on LTDI and SSDI interactions, given the policy interest in this overlap described in later sections.

5 David Autor, Mark Duggan, and Jonathan Gruber, “Moral hazard and claims deterrence in private disability insurance,” *American Economic Journal: Applied Economics,* October 2014, pp. 110–141; Gina Livermore, Debra Wright, Allison Roche, and Eric Grau, *Work activity and use of employment supports under the original Ticket to Work Regulations: 2006 National Beneficiary Survey: methodology and descriptive statistics, final report*, (Washington, DC: Mathematica Policy Research), October 2009.

6 "Disability benefits," SSA Publication No. 05-10029, ICN 456000 (U.S. Social Security Administration, May 2015), http://www.ssa.gov/pubs/EN-05-10029.pdf.

7 “An employer’s guide to disability income insurance” (Washington, DC: America’s Health Insurance Plans, 2007), https://www.ahip.org/wp-content/uploads/2016/03/PRO_113_14_Guide-to-DI-2013_F.pdf.

8 Under the Family and Medical Leave Act, employees must be given up to 12 weeks of unpaid leave, during which time they are still eligible for their employer-sponsored health benefits. After 12 weeks, the employer has the right to terminate the employee. The typical options for terminated employees whose benefits have been discontinued are to purchase coverage through the Consolidated

Omnibus Budget Reconciliation Act (COBRA) or individual private health insurance. Employees who are able to retire while receiving LTDI also might be eligible for private retiree benefits.

9 “Short-term and long-term disability insurance: the details,” Disability Benefits 101 (Berkeley, CA: World Institute on Disability, 2015, updated July 2016), http://mn.db101.org/mn/programs/income_support/std_ltd/program2c.htm.

10 Autor, Duggan, and Gruber, “Moral hazard and claims deterrence.”

11 For example, in David Autor and Mark Duggan, “Supporting work: a proposal for modernizing the U.S. disability insurance system” (Washington, DC: Center for American Progress and The Hamilton Project, 2010), the authors propose a mandate for employers to provide an LTDI plan that would pay disability benefits for 24 months before most workers could transition to SSDI. The plan would include vocational rehabilitation services, workplace accommodations mandated by the Americans with Disabilities Act, and partial wage replacement for workers for a minimum of 90 days and a maximum of 2.25 years after the onset of disability. In Babbel and Meyer, “The fiscal benefits," the authors propose the enactment of federal legislation and accompanying regulations to encourage (but not mandate) automatic enrollment into LTDI plans under employer-sponsored income protection plans. Finally, in Rachel Greszler, “Private disability insurance option could help save SSDI and improve individual well-being” (The Heritage Foundation, 2015), the author proposes a tax credit for employers who provide private disability insurance that covers the first years of benefits.

12 More details about the NCS sampling design can be found in the *BLS Handbook of Methods*, chapter 8, “National compensation measures,” https://www.bls.gov/opub/hom/pdf/homch8.pdf.

13 From 2004 through 2012, establishments remained in the NCS sample for 5 years. Every year, one cohort (representing one-fifth of the sample) was rotated out. Beginning in 2013, the NCS began phasing in a 3-year rotation, in which establishments remain in the NCS sample for 3 years and the cohort that is rotated out every year represents one-third of the sample. To begin this transition, two of the 5-year rotation groups were dropped from the sample in 2013 and replaced with one 3-year rotation group. The impact of this switch on our analysis is that we observe fewer jobs in the 2013 sample that were also in the 2012 sample than we would have had the transition not occurred.

14 As an example of the ECEC quarterly publication, see “Employer Costs for Employee Compensation supplementary tables, March 2013,” (U.S. Bureau of Labor Statistics, June 2013), https://www.bls.gov/ncs/ect/sp/ecsuptc26.pdf. As an example of the Employee Benefits Survey annual publication, see "National Compensation Survey: employee benefits in the United States, March 2013,” (U.S. Bureau of Labor Statistics, September 2013), https://www.bls.gov/ncs/ebs/benefits/2013/ebbl0052.pdf.

15 “Frequently asked questions about disability data,” Labor force statistics from the Current Population Survey (U.S. Bureau of Labor Statistics, August 2015), https://www.bls.gov/cps/cpsdisability_faq.htm.

16 The annual NCS publication also provides employer cost estimates, but it includes all workers in its calculations (treating those who do not have access as having zero cost) and presents LTDI costs as a percentage of total compensation (not wages). We choose to present estimates only for workers with access because these estimates are the actual LTDI costs to employers and provide useful information for employers who do not currently have these plans. Similarly, we present costs relative to wages rather than costs relative to total compensation (wages plus fringe benefits) because the concept of wages is easier to communicate to a broad audience.

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