

Critiquing the Vocational Analysis

A well-prepared expert uses disability statistics to round out the presentation of future lost earnings for people who have suffered a disabling injury.

Edward P. Berlá, Ronald E. Missun, and David S. Gibson

In cases concerning permanent disability, attorneys frequently hire vocational and rehabilitation professionals to assess the loss of lifetime earnings. However, when these experts fail to consider the full range of difficulties people with disabilities face in the labor market, their reports may be flawed. Survey data from the U.S. Census Bureau that emphasizes this perspective, including data from the new American Community Survey, can help experts present a more accurate analysis.

Whether a report is your own or from the opposing expert, you must understand its elements: the techniques used to develop the report, their significance, and the pros and cons of each. You also need to be able to identify information that may be missing.

An expert assessing your client's lifetime earning capacity should develop a complete picture based on a variety of factors. The components of a complete assessment are:

- personal elements – age, education, work history, work limitations, and transferable skills

- social/disability elements – the difficulties people with disabilities experience in finding and maintaining employment

- statistical elements – a broader statistical perspective that estimates the effects of disability in an unknown,

Edward P. Berlá, Ronald E. Misun, and David S. Gibson are vocational and economic consultants with Vocational Economics, Inc., in Louisville, Kentucky

long-term future and describes how disability affects the earnings and work-life expectancy of many people in a variety of situations.

Understanding the composition of the U.S. labor force and knowing disability statistics are both important in order to accurately assess lost earning capacity. This assessment must consider the lifetime effects of disability on the individual, not simply his or her current status in the labor market.

Misapplications

Many vocational reports provide a summary of the types of jobs a plaintiff could perform after injury. Some measure postinjury annual earning capacity by listing these jobs and either picking one or computing an average; others use databases to perform calculations using a much larger array of jobs. Both approaches can lead to seriously flawed conclusions.

The list of jobs. In the first approach, a vocational expert predicts postinjury annual earning capacity based on a “representative list” of jobs. This approach often involves listing 5 to 10 jobs and corresponding salaries. The expert either picks one “representative” salary or averages the entire list. However, pegging postinjury earnings to one occupation is unreasonable if you don't know the exact job the plaintiff will perform after injury.

Averaging more than one occupation is usually preferable when the client's future career is unknown. But if the expert does not use a complete list of the jobs in the labor market that the plaintiff can perform, the result can be distorted.

In addition, if the expert lists 10 jobs and computes the average by simply

adding the salaries together and dividing by 10, the result can be misleading. More people may work in some jobs on the list than in others. If occupation A employs 20 times as many people as occupation B, the plaintiff is more likely to become employed in occupation A; thus, the expert needs to give that occupation more weight to arrive at the true average earnings for the jobs the plaintiff can perform after injury.

The two methods can generate substantially different results. If occupation A pays \$20,000 a year and occupation B pays \$40,000, the straight average is \$30,000, but it does not consider the realities of the labor market. Though employment in the \$40,000 occupation is a possibility, the \$20,000 occupation is more likely. A weighted average – \$20,952 – is the appropriate figure to consider. When calculated over the person's work-life expectancy, the difference becomes even clearer.

The database average. The second approach assesses postinjury annual earning capacity by performing calculations using a large, comprehensive list of jobs in the labor market, usually derived from government surveys. Using a weighted average based on the number of people in many occupations avoids the pitfalls of the list method, but experts must still exercise caution.

Database programs exist that assess average earnings for given occupations or for the cognitive and physical requirements of the work and the environment to which the worker is exposed. These programs may be valuable for exploring career choices and assessing a person's overall expected earnings.

However, these programs rarely consider disability. Research from the U.S. Census Bureau and other organizations indicates that, on average, people with a disability earn less than people without one.¹ Therefore, it is inappropriate to use figures from programs that do not consider the effects of disability.

Consider Mr. Jones, a 23-year-old man with a bachelor's degree employed as a pharmaceutical sales representative. He suffered a permanent back injury that restricts him to sedentary work. Using a database, a vocational expert calculates two average earnings figures for men performing work consistent with Mr. Jones's above-average cognitive level. The preinjury average considers earnings for all jobs consistent with this cognitive level for someone with no physical restriction. The postinjury average includes only sedentary occupations at that cognitive level.

Since the sedentary jobs frequently pay more than nonsedentary jobs, the calculations show a higher level of earnings after an injury than before. Has the injury enhanced Mr. Jones's annual earning capacity by forcing him into higher-paying jobs? Certainly not. Can we at least conclude that there has been no reduction in annual earning capacity due to the back injury? Again, no.

Remember that research indicates that people with disabilities earn less than those without, even when working year-round, full-time. This holds

Disability has a more profound impact on work-life expectancy for older people: The percentage reduction in work-life due to disability increases with age across all gender and educational groups.

true for men and women at all education levels and across disability types. Even in the same occupation, the disabled earn less. Any analysis that does not address this is missing an essential element.

Also, people with disabilities are less competitive in the marketplace. If two people are competing for a job and they have the same qualifications, but one has a disability, who is more likely to be hired? Despite state and national laws against discrimination, govern-

ment data shows that people with disabilities are less likely to be hired than people without.²

Another factor to consider is length of employment. Lifetime earnings are derived from two basic elements – how much the individual earns annually and how long he or she works. Although most vocational reports address annual earnings, many fail to consider work-life expectancy.

As with earnings, the surveys show that people with disabilities are less likely to work and that those who do are less likely to stay employed than their counterparts without disabilities. These findings imply that permanent partial disability reduces the number of years someone is likely to work. In addition, because it is more difficult to find work when already out of a job, people with disabilities may choose lower-paying work out of necessity.

Unfortunately, many vocational experts do not address this issue. They often show no reduction in work-life after injury, even in cases involving seri-

of the total working-age population, any data set considering disability status must be very large – such as the data used in CPS and ACS.

The CPS, a joint project of the U.S. Bureau of Labor Statistics and the Census Bureau, is a monthly study of approximately 50,000 households.⁶ It is the primary source of labor-force characteristics for people in the United States, from which the government derives its monthly unemployment rates. The CPS provides data on the earnings of individuals by age, education level, gender, and disability status.

Each March, the CPS is expanded with the Annual Social and Economic Supplement to collect more information on income and employment; this series of additional questions also addresses work disability specifically. The CPS data can be further broken down to distinguish people with severe work disabilities from those with less severe disabilities.⁷

The ACS, an annual nationwide survey begun in 2000, is designed to pro-

Table 1. Reduction in average earnings of full-time workers with a disability, ages 25-64.

	CPS	ACS	
	work disability	physical disability	cognitive disability
Men with high school degree	9.5%	7.0%	17.1%
Men with college degree	24.5%	16.8%	27.2%
Women with high school degree	7.9%	11.0%	15.6%
Women with college degree	9.0%	19.2%	14.6%

SOURCES: CURRENT POPULATION SURVEY, AMERICAN COMMUNITY SURVEY

ous permanent partial disability, so they produce underestimated economic-loss assessments.

A better approach

Surveys documenting that disability affects both earnings and work-life expectancy include the Current Population Survey (CPS), the Survey of Income and Program Participation, and the American Community Survey (ACS) from the Census Bureau;³ the National Health Interview Survey from the National Center for Health Statistics;⁴ and the NOD/Harris Survey of Americans with Disabilities.⁵

A better approach to vocational assessments relies on data from these surveys and differentiates earnings and employment by disability status, as well as gender and level of education. Since the disabled constitute only a small part

of the total working-age population, any data set considering disability status must be very large – such as the data used in CPS and ACS.

vide communities a fresh look at how they are changing. It is a critical element in the Census Bureau's reengineered 2010 census plan and will replace the long form in the 10-year census.⁸

The ACS sample size in 2001 was about 1 million people. Beginning in 2005, the survey was expected to produce data on about 5 million people using a different, more specific approach than the CPS. The ACS identifies several categories based on type of disability – including physical, cognitive, and sensory.⁹

CPS and ACS data show that people with work, physical, and cognitive disabilities have lower average annual earnings than those without disabilities, regardless of gender or education. More surprising, as Table 1 suggests, this earnings gap in most cases gets larger with higher levels of education.

The table shows, for example, that male high school graduates with a physical disability earn 7 percent less on average than their counterparts without disability, while men with a physical disability and a bachelor's degree earn 16.8 percent less on average than their counterparts without disability.

As shown in Table 2, unlike the findings regarding earnings, higher education reduces the impact of disability on work-life. Disability has a more profound impact on work-life expectancy for older people: The percentage reduction in work-life due to disability increases with age across gender and educational groups. Experts should consider this when estimating the future work-life expectancy for people who have gone back to work. A successful return to work does not necessarily mean that there will be

no future work-life loss.

Of course, these averages do not apply to all cases of permanent disability. Just as with life expectancy, some people who become disabled will have longer work-life expectancy than the tables suggest. Those with more severe disabilities will have a shorter work-life.

Hire experts who are knowledgeable and comfortable with disability statistics to provide a fair assessment of loss of lifetime earning capacity. A vocational expert should have experience working with people with disabilities in the labor market and be able to use statistics to give a true picture of the plaintiff's future opportunities in the workforce. An economist should be comfortable using disability data to convert the opinion of the vocational expert into a lifetime loss. ■

Notes

1. For data from the Current Population Survey (CPS), the Survey of Income and Program Participation, and the American Community Survey (ACS) from the Census Bureau, see www.census.gov/hhes/www/disability/disability.html (last visited Nov. 28, 2005).
2. David S. Gibson & John P. Tierney, *Disability and Worklife Expectancy Tables: A Response*, 13 J. FORENSIC ECON. 309 (2000); Edward Yelin, *The Labor Market and Persons With and Without Disabilities: Analysis of the 1993 Through 1995 Current Population Surveys*, 1996 CONFERENCE ON EMPLOYMENT AND RETURN TO WORK FOR PEOPLE WITH DISABILITIES.
3. See Web site referenced at note 1.
4. See www.cdc.gov/nchs/nhis.htm (last visited Nov. 28, 2005); see also DAVID STAPLETON ET AL., EXPLORATORY STUDY OF HEALTH CARE COVERAGE AND EMPLOYMENT OF PEOPLE WITH DISABILITIES: LITERATURE REVIEW (1997), available at <http://aspe.hhs.gov/daltcp/reports/eshclit.htm> (last visited Nov. 28, 2005).
5. See www.nod.org (last visited Nov. 28, 2005).
6. For an overview, see www.bls.census.gov/cps/overmain.htm (last visited Nov. 28, 2005).
7. For the CPS definition of work disability, see Web site referenced at note 1. Work disability statistics in the remainder of this article are for nonsevere work disability.
8. See www.census.gov/acs/www/index.html (last visited Nov. 28, 2005).
9. For the ACS descriptions of disability, see www.census.gov/hhes/www/disability/disab_defn.html#ACS (last visited Nov. 28, 2005).

Table 2. Reduction in average work-life expectancy of disabled workers at ages 25 and 45

	CPS		ACS	
	nonsevere work disability	physical disability	physical disability	cognitive disability
Men with high school degree				
Age 25	23.5%	41.3%		39.8%
Age 45	30.2%	47.6%		43.5%
Men with college degree				
Age 25	17.9%	23.4%		27.3%
Age 45	24.3%	28.5%		33.9%
Women with high school degree				
Age 25	26.2%	34.1%		37.3%
Age 45	32.7%	37.3%		40.1%
Women with college degree				
Age 25	18.6%	13.4%		26.2%
Age 45	26.9%	17.8%		37.6%

SOURCES: CURRENT POPULATION SURVEY, AMERICAN COMMUNITY SURVEY

Courtesy of

**VOCATIONAL
ECONOMICS,
INC.**

www.VocECON.com

800-227-0198