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Work-Life Expectancy for the Self-Employed

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Introduction

Work-life expectancy in personal injury or wrongful death cases has received considerable attention by forensic economist and vocational rehabilitation experts. The discussion revolves around whether the broad average work-life expectancy tables generated by the Bureau of Labor Statistics (BLS) should be used or whether other measures are more appropriate. While alternative work-life expectancy estimates raise important issues, the gains of these methods must be weighed against the cost of alienating a jury with academic rigor that may be misconstrued as “ivory tower” babble.

The purpose of this paper is to explore characteristics of the self-employed that may lead to differences in work-life expectancies from the general population. It may be inappropriate to solely use BLS work-life expectancies for self-employed individuals.

Characteristics of the Self -Employed

The decline of self-employment following World War II reversed itself beginning in the 1970's. Nonagricultural self-employment increased from 6.9% of the labor force in 1970 to 7.74% of the labor force in 1997 (Employment and Earnings 1998). Structural and technological changes in society have made self-employment more attractive (Blau 1987). The possibility of underreporting income as marginal tax rates rise (something extremely difficult for wage and salary workers to do) may provide a further incentive to become self-employed. Changes in Social Security retirement benefits and declining real income makes self-employment worth pursuing as individuals try to maintain or increase their standard of living. Self-employed individual have the advantage of deriving benefits from using business equipment, home deductions, and other business items for personal consumption while taking legitimate business deductions. As home based business become more common this benefit becomes more important to the self-employed. The tax advantage of these business deductions reduces marginal tax rates for the self-employed which may provide an incentive to remain in the labor force longer.

Older workers are more likely to be self-employed than are individuals in other age groups (Burkhauser and Quinn 1990). The average age for self-employed men is 44.4 years while their wage and salary counterpart's average age was 36.4 years. Self-

employed female's average age was 43.4 years versus 36.4 for their wage and salary counterparts (Devine 1994). Self-employed individuals work more hours per week and work more weeks per year than their wage and salary counterparts. Self-employed males worked 44.6 hours per week and 47.5 weeks per year, compared with 40.9 hours and 46 weeks for wage and salary workers in 1990. Self-employed females worked fewer hours (35.3 versus 35.5) but more weeks (43.8 versus 43.5).

As workers age, self-employment becomes more common. The closer a self-employed person is to the traditional retirement age, the more likely he or she will continue working (Quinn 1980). In 1997, 10% of nonagricultural wage and salary workers between the ages of 35 and 44 were self-employed (Employment and Earnings 1998). The percentage is about the same for workers between 45-54 years of age and 13.3% between the ages of 55 and 64. The number of self-employed people over 65 years of age was 24.7%.

One explanation of the positive relationship between aging and self-employment is that older workers have the financial capacity and required skills necessary for self-employment. However, it is the nature of the self-employment investment that requires the self-employed to remain in the labor force longer. As with any type of investment, people investing in self-employment expect to recover implicit and explicit investments with a future stream of income. Since self-employed workers were older when they chose self-employment they will be older when they recover their investments.

An argument may be made that the self-employed will hire employees who in turn generate profits, thus reducing the time necessary to recover self-employment investments. However, the self-employed do not appear to create many jobs other than for themselves. A little over twenty-one percent of the self-employed had paid employees in 1995. Of these, only 33% had more than one employee, while only 14% had six or more employees (Devine 1994). Since the self-employed have few employees to generate additional revenues, they must remain in the labor force in order to recover their investments.

Another reason why the self-employed remain active in the labor force longer than wage and salary workers is because they have the flexibility to reduce the hours they work rather than exiting the labor force as they age (Quinn 1980, Fuchs 1982, and Burkhauser and Quinn 1990). Wage and salary workers often move directly from full-time employment to full-time retirement, while less than 50% of self-employed men move directly to full-time retirement (Burkhauser and Quinn 1990). The self-employed gradually depart from the labor force by working fewer hours rather than leaving abruptly upon retirement (Ruhm 1995). Consequently BLS work-life expectancy tables that do not capture this effect underestimate remaining years of labor force participation for the self-employed.

The probability of remaining in the labor force is increased if private pension plans are unavailable or if an employee works more than 50 hours per week (Fuch 1982, Rhum 1995). The self-employed are less likely to be covered by private pension plans and often work more than 50 hours per week. Consequently the self-employed are less likely to follow traditional work patterns, and will continue working beyond the age shown by work-life expectancy tables.

Current demographic patterns also suggest that workers in general, and self-employed workers in particular, will continue working past traditional retirement ages as the trend toward early retirement is reversed and the number of younger workers contributing to Social Security declines (Fuch 1982). If the federal government continues raises the eligibility age for receiving Social Security, workers, including the self-employed, will work more years.

Individual health status also predicts labor force attachment (Fuch 1982, Quinn 1980). An aging wage and salary worker might have no choice but to retire as his health gradually deteriorates. The self-employed worker on the other hand, has the option of working fewer hours while remaining in the labor market when their health deteriorates.

Work-Life Expectancy

The increment-decrement method of work-life estimates introduced by Smith (1982, 1986) accounts for workers entering and exiting the labor market several times during their lives; it also considers the effect of race and education on work-life expectancy. Smith (1985) recognized the need for occupational work-life estimates but concluded that it would be too difficult and impractical to generate. Richards and Solie (1996), while examining work-life expectancy for fourteen broad occupational groupings, also recognized the importance of an occupational cohort for the self-employed.

BLS tables measure average work-life expectancy for all people in a particular age group. The broad averages used by the BLS work-life expectancy tables do not take into consideration important individual characteristics. Self-employment is one such characteristic.

While individual specificity would improve BLS work-life expectancy tables, the fact remains that the legal standard for work-life expectancy is the BLS tables. Romans and Floss (1993) remind us that BLS work-life expectancy tables are simple to use (one just looks up the age) and are admissible in all courts. Ciecka and Donley (1996) concur and say, “ We assume that forensic economists will want to continue to use BLS participation rates in their work because of the authoritative nature of BLS data in litigation settings and because the rates are frequently updated. ”

Since BLS work-life tables assume an average life span, any unique individual characteristics, whether it be health-related, self-employment, etc. would not show a survival status different from the average individual. Defense attorneys will use this argument to show that life expectancies are overestimated for people with medical risks (Slesnick and Thorton 1994). The plaintiff’s attorney would respond to this argument by saying that these tables do include some of these at-risk people and point out that since disease-specific tables are not available the BLS tables will have to do.

This ‘at risk’ argument is useful for explaining why average work-life expectancy tables are inappropriate for the self-employed. While BLS tables include some self-employed people, they are such a small part of the total population that their longer work-life expectancies would not be captured by the tables. Because BLS tables may either underestimate or overestimate work-life expectancy, economists often suggest presenting a range of economic losses based on different life-expectancies (Slesnick and Thorton 1994, Romans and Floss 1993).

BLS tables may result in “front-loading” the years of labor force activity (Ciecka and Goldman 1995). Current tables assume continuous employment activity followed by labor force detachment at the appropriate work-life age. This front-loading problem does not take into consideration that people will be moving in and out of the labor force. For example, if a 36- year old has a work-life expectancy of 20 years, the assumption is that she will work continuously for 20 years to age 56 at which time she exits the labor force. The period of inactivity is delayed until she reaches age 56.

On the other hand, the labor force status of the self-employed is very stable because they tend not to drift in and out of the labor force (Quinn 1980). Thus, the self-employed not only have a more stable attachment to work, but they also remain in the labor force longer than their wage and salary counterparts. The “front-loaded” nature of the BLS tables underestimate self-employed work-life expectancies because the self-employed are older, work longer and have the option of reducing their hours worked as they age. In short, the self-employed would not be inclined to “front-load” their work lives. It is possible that just the opposite may occur. The spells of inactivity in their early years propelled them to be self- employed so they can stay in the labor force longer. Labor force attachment is strongest at the end of their life because they need that time to recover their self-employment investments. Just when the self-employed are becoming more active later in life, work-life tables show them leaving the labor force. Consequently BLS tables underestimate work-life expectancy for the self employed.

Changing social and institutional factors may alter future work-life expectancies in ways not captured by current tables (Ciecka and Goldman 1995). If self-employment is a viable labor force alternative because of changing social and institutional norms, then BLS self-employment work-life expectancies are underestimated.

BLS tables do not consider improvements to life mortality from year to year, which tends to underestimate survival probabilities (Suyderhoud and Pollock 1990). While living, new cures for disease or new medical treatments extend our lives longer than in the absence of these medical benefits. Consequently, life expectancies are longer. Evidence suggests improvements in mortality will continue, particularly among the middle-aged (Suyderhoud and Pollock 1990). The self-employed are overwhelmingly middle- aged. They also have the flexibility to reduce hours worked rather than exiting the labor force if their health deteriorates. Thus minor medical improvements, which have no impact on wage and salary workers ability to continue working full time may allow the self-employed to stay in the labor force by working fewer hours, which, in turn, results in longer labor force attachment. Consequently BLS tables further underestimate work-life expectancies for the self-employed.

Previous labor force activity also predicts current and future labor force participation rates. Self-employed individuals whose labor force activity increases as they age will have their future labor force participation rates underestimated by the average participation rates presented in BLS tables (Ciecka and Thomas 1996).

Work-Life for the Self Employed

Most wrongful death and personal injury litigation does not involve the self-employed. Yet, when such litigation involves the self-employed, their work-life

expectancy must be determined. Research over the last decade attempts to adjust the broad averages used in the standard work-life expectancy tables by considering case-specific information. Self-employment is one additional piece of case-specific information. Avoiding average concepts when individual information is available is supported by most practicing forensic economists. Legal limitations however may prevent the use of these BLS alternatives.

The most important legal limitation may be the recent Supreme Court ruling in *Daubert v Merrell Dow Pharmaceutical* (1993), which opened the door for trial courts to become more assertive in reviewing scientific theories and, if necessary, to discard them as being overly speculative. The *Daubert* precedent allows future courts to be more restrictive in admitting expert witness testimony, particularly if that testimony is not uniformly acceptable to the scientific community.

The problem at hand for the forensic economists and vocational rehabilitation experts is that the BLS tables are so widely accepted by all courts that it may be difficult to persuade a judge to accept any other tables or methods dealing with work-life expectancy. While methods other than BLS estimates of work-life expectancy may be appropriate, we must question whether the jury or the judge would in fact understand the statistical nuances in these other estimates. The issue for damage experts is how to estimate work-life expectancy for self-employed individuals whose individual characteristics do not fall within the broad averages reported by the BLS. Care must be taken to avoid confusing the jury with probability statements, or worse, having the judge rule that BLS work-life estimates are the only admissible testimony when those tables may underestimate actual losses. Ciecka and Ciecka (1996) provide a justification for such a ruling by a judge when they point out that the single-point estimate that most economists present is very useful, but that its probability of being exactly correct is almost zero. Using this line of reasoning a judge may only permit testimony using BLS work-life expectancies even though they underestimate the economic damages.

This issue can be avoided by presenting to the jury a range of work-life expectancy estimates rather than one single work-life expectancy age (Ciecka and Ciecka 1996, Romans and Floss 1993). Once this evidence is presented to the jury they can then determine the likelihood of the actual losses falling within this range. In wrongful death or personal injury cases of the self-employed, BLS work-life expectancy tables should be used as the lower range of years remaining. In order to capture all other factors that keep the self-employed in the labor force longer than their wage and salary counterparts, the upper bound should be age 65, and if necessary, higher. This range of work-life expectancy has the advantage of simplicity for the jury. Since the two end points capture almost all of the theoretical possibilities, a jury can choose the loss that they believe the facts support. It is much easier for a jury to understand this range than to listen to theoretical probability statements that can be twisted under cross-examination.

Conclusion

The self-employed are different from wage and salary workers in several respects. First, the self-employed tend to work continuously throughout their careers and do not exit and enter the labor force with the same frequency as wage and salary workers.

Secondly, the self-employed do not go from full-time employment to full-time retirement but instead reduce the number of hours they work as they age, thus postponing retirement. Third, the self-employed are less likely to have pension plans than wage and salary workers. Consequently, losses derived from a single retirement age based on work-life expectancy tables published by the BLS would be underestimated for the self-employed.

Presenting a jury with a range of losses based on different work-life expectancies allows the jury to evaluate the facts and award damages that they believe are required. Testifying before a jury about statistical differences between various adjustments to the BLS tables runs the risk that a jury will not understand and hence will disregard the economic testimony, leading to faulty conclusions about the plaintiff's loss. The range for damages suggested in this paper captures most adjustments made in the literature yet has the advantage of being easy to understand.

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