The Earning Capacity Assessment Form: A Study of Its Reliability

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This study evaluated the reliability of the Earning Capacity Assessment Form (ECAF), using a test-retest design over a 2-week interval. Twenty-five subjects applied the ECAF to three case studies intended to represent varying levels of threat to earning capacity. Test-retest reliability coefficients measuring subjects' assessments of loss of earning capacity ranged from .85 to .97 ($p < .01$), with an overall correlation coefficient of .98 ($p < .01$). Along with prior studies attesting to the ECAF's validity, the authors suggest this study provides additional support for use of the instrument as a robust measure of loss of earning capacity. As subjects gained experience using the ECAF, they reported its utility increased. The authors present background information about the ECAF at the onset of the article and, after reviewing this study's results, conclude with a discussion about current and planned research.

Introduction

The Earning Capacity Assessment Form (ECAF) (Shahnasarian, 2001, 2004a), which became available commercially in 2004 (Shahnasarian, 2004b), was developed to help vocational evaluators make valid and reliable analyses of loss of earning capacity claims. It has been used most often in cases involving allegations of acquired disabling problems with concomitant loss of earning capacity claims in medical malpractice and personal injury litigation.

Several studies have addressed the ECAF's validity. The instrument's initial validation study (Shahnasarian, 2004c) involved 78 vocational rehabilitation counselors employed by the Florida Division of Vocational Rehabilitation Services. Subjects were randomly assigned either to a control group or to one of two experimental groups in which the ECAF was used to help evaluate claims of loss of earning capacity presented in three fact patterns. In all cases, variances within experimental group assessments were significantly less than variances among control group subjects. Further, subjects' use of the ECAF reduced within-group variances in estimates of loss of earning capacity. In another study examining the relevance of the ECAF's 14 factors, practicing vocational rehabilitation experts used the ECAF to assess 70 claims of lost earning capacity (Shahnasarian & Leitten, 2006). In 74.5% of the cases, the experts agreed or strongly agreed that the ECAF facilitated efforts to discern a loss of earning capacity, and the factors of motivation and cognition were most often identified as material in identifying potential loss of earning capacity. Shahnasarian and Leitten (in press) reported a longitudinal study in which positive work attitudes were highly predictive of return to work and minimal loss of earnings – especially when accompanied by higher levels of intelligence; this finding supported the investigators' 2006 factor analysis results.

The present study evaluated the ECAF's reliability, using a test-retest design over a 2-week interval. First, an overview of the ECAF, along with a presentation of postulates undergirding its conceptual framework, is presented. Following a report of the reliability study, the article concludes with a discussion of the results and information about an ECAF scoring study in progress.

Earning Capacity Assessment Form Overview

Shahnasarian (2007) detailed the ECAF's development, use, and applications. Briefly, the ECAF is based on a review of literature from psychology, career development, economics, and vocational rehabilitation. It includes 14 factors germane to evaluators' assessments of claimed loss of earning capacity. These factors, along with their definitions, appear in Figure 1.

On the ECAF, each factor is accompanied by four statements arranged in a graduated, hierarchical sequence. Within a given cluster of statements, the first statement generally suggests either a high level of vocational functioning or an absence of an impediment to career development. Subsequent statements reflect progressively increasing levels of potential career-related problems that could inhibit future earning capacity. The first statement is often an asset, or driver, to future career development. For example, ratings from which evaluators are to choose for the cognition factor include:

0 Cognitively intact

1 Mild cognition problems, not anticipated to impact future career development

2 Cognitive deficits will adversely impact career development

3 Cognitive deficits preclude gainful work participation

The ECAF's graduated rating scheme allows for systematic analysis, assessment, and valuation of phenomena (i.e., factors influencing earning capacity), while also incorporating practitioners' clinical judgments. ECAF users should incorporate both premorbid and postincident claimant factors in their analyses (Shahnasarian, 2001, 2004a, 2007). Premorbid factors refer to claimant characteristics predating the onset of problems potentially impairing earning capacity. Postincident factors refer to claimant characteristics pending at the time of an evaluation.

Also included in the ECAF is an Impairment to Earning Capacity Rating Scale, presented in Figure 2. It provides a point of reference for assessing overall loss of earning capacity. The scale ranges from 0% (no loss or impairment of earning capacity) at one limit to 100% (total loss of earning capacity) at the other limit. Within these limits are qualitatively identified degrees of loss of earning capacity with corresponding quantitative indices:

- Mild (loss of earning capacity from 1% to 20%)
- Moderate (loss of earning capacity from 21% to 50%)
- Severe (loss of earning capacity from 51% to 80%)
- Extremely Severe (loss of earning capacity from 81% to 99%)

An analysis of potential career-related problems from the ECAF factors, as well as an analysis of viable means to mitigate or offset the adverse impact a factor foreshadows, provides a basis for applying the Impairment to Earning Capacity Rating Scale. The use of a continuum offers points of reference to describe the global impact on earning capacity given an evaluator's assessment and the facts specific to a case.

Currently, no formula or method exists to directly translate ratings of ECAF factors to the Impairment of Earning Capacity Rating Scale; however, research to this end is in progress. A combination of analysis of facts, thorough understanding of vocational rehabilitation, and clinical judgment facilitates evaluators' integration of ECAF factor ratings and assessments of loss of earning capacity. Shahnasarian (2001, 2004a) provided additional information about the ECAF's development.

Postulates Undergirding the ECAF

A fundamental ECAF premise is that individual characteristics are critical to evaluate when conducting a loss of earning capacity analysis. While the ECAF assesses individual factors, Shahnasarian (2001, 2004a) has emphasized that it should not be used as a sole outcome measure, and other information – such as statistical data along the lines Gamboa (2007) has espoused – is sometimes important to integrate in an assessment of a loss of earning capacity claim. Overrelying upon aggregate statistical data while giving short shrift to individual characteristics, however, compromises precision and leads to depersonalization of an analysis. This latter problem also impairs an evaluator's ability – for example, in cases where an individual may be foreclosed from returning to work in a prior occupation – to determine vocational rehabilitation interventions that can offset potential loss of earning capacity.

Nine postulates, below, undergird the ECAF's analytical scheme. These postulates include an assessment of relevant drivers – factors that could facilitate an individual's vocational rehabilitation, and inhibitors – factors that could adversely affect one's vocational rehabilitation.

Postulate #1: When evaluating loss of earning capacity claims, there are premorbid and postincident factors that could be facilitative (drivers) as well as detrimental (inhibitors) to a claimant's vocational rehabilitation. These factors merit analysis.

Postulate #2: ECAF factors that are drivers include low scores on the following items:

Item 1: Stability of Career Development

Item 2: Work Propensity

Figure 1
The 14 ECAF Factors with Definitions

Stability of Career Development: consists of longevity of employment with previous employers, consistency between types of jobs performed and industries within which subject has worked, eligibility for rehiring with prior employers, and continuity of employment.

Work Propensity: subject's historical level of work participation including proclivity to pursue overtime work and supplemental employment.

Demonstrated Earnings History: earnings levels a subject has demonstrated a capacity to attain.

Phase of Career Development: age, level of career maturity, and vocational accomplishments with respect to status within one of five progressive career development phases – growth, exploration, establishment, maintenance, and withdrawal.

Subject-Specific Issues: life and/or personal circumstances that may impact subject's ability to pursue work-related activities.

Motivation: a personality trait affecting work tendencies and productivity. Indicators include record of career accomplishments and work participation, initiatives to enhance existing skill set, reasonableness of job search efforts, attempts to return to work after acquiring disabling problem, efforts to pursue rehabilitative services to help overcome work-related obstacles, and subject's use of discretionary time to further career development.

Ability to Apply Prior Skills: based on transferability of skills – subject's ability to apply previously developed work skills and specialized knowledge to meet the requirements of jobs or occupations other than what subject has performed in the past. Factors such as vocational adjustment issues, physical and cognitive capacity for retraining, and available resources should be considered.

Future Career Development Prospects: a general awareness of what could impact subject's future employability. Dependent upon factors such as industry trends, marketplace changes, and modification of management philosophy.

Cognition: subject's thought processing and mental functioning abilities. Deficits may be congenital, due to medication, or stem from events such as a head injury, a cerebrovascular accident, dementia, or a mental disorder.

Prognosis: expectancy of how disabling problems and vocational handicaps will impact subject over remainder of work life, including future earning capacity.

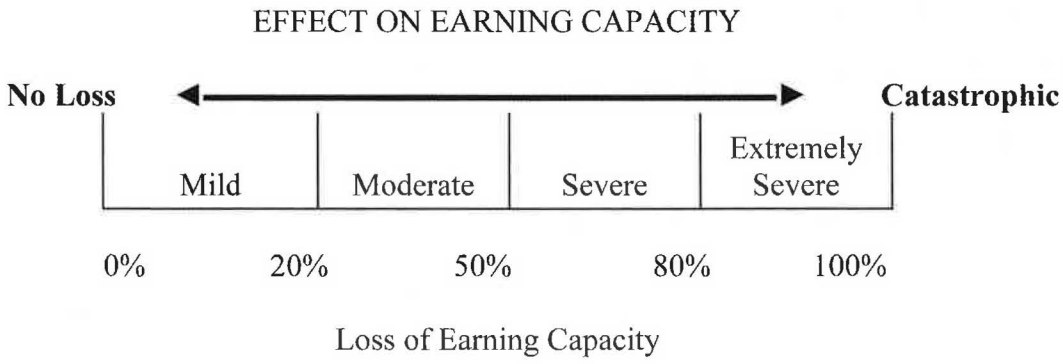
Need and Capacity for Retraining: necessity for subject to undergo retraining in order to realize earning capacity; may involve consideration of subject's capacity for retraining.

Preexisting Vocational Handicaps: includes subject's premorbid medical and psychological history, and level of functioning. Unrelated disabling problems may synergize to yield a compounded disabling outcome.

Acquired Vocational Handicaps: factors that can adversely impact present and future career development, including diminished access to work opportunities, need for workplace accommodations, employer bias in hiring and advancement, and diminished work life expectancy.

Vocational Adjustment Issues: difficulties subject may realize when career transitioning due to vocationally related and subject-specific characteristics that may inhibit or facilitate positive vocational adjustment. A subject's capacity to make a positive vocational adjustment depends upon ability to recover from setbacks posed by newly acquired disabling problems.

Figure 2
Impairment to Earning Capacity Rating Scale



Shahnasarian, M. (2001). Figure 3.4. Assessment of Earning Capacity. Tucson, AZ: Lawyers and Judges Publishing Company.

Item 3: Demonstrated Earnings History

Item 6: Career Motivation

Item 9: Cognition

Postulate #3: ECAF factors that are inhibitors include high scores on the following items:

Item 4: Phase of Career Development

Item 5: Subject-Specific Issues

Item 7: Ability to Apply Prior Skills

Item 8: Future Career Development Prospects

Item 10: Prognosis

Item 11: Need and Capacity for Retraining

Item 12: Preexisting Vocational Handicaps

Item 13: Acquired Vocational Handicaps

Item 14: Vocational Adjustment Issues

Postulate #4: Drivers and inhibitors can be quantitatively and qualitatively evaluated by qualified vocational rehabilitation evaluators.

Postulate #5: Drivers and inhibitors have an interactive effect on vocational rehabilitation potential, assuming an individual is motivated to pursue vocational rehabilitation.

Postulate #6: Drivers can help mitigate earning capacity damages, assuming an individual is motivated for this.

Postulate #7: The ECAF can be used to generate a quantitative index of drivers.

Postulate #8: The ECAF can be used to generate a quantitative index of inhibitors.

Postulate #9: Driver and inhibitor indices can be used to assess claims of loss of earning capacity, with corresponding degrees of loss.

Reliability Study Methodology

Subjects

Twenty-five students (4 males and 21 females) enrolled in a graduate-level course entitled "Career and Lifestyle Assessment," offered by a rehabilitation and mental health counseling program in a large southeastern university, served as subjects. The subjects had no formal experience assessing claims of loss of earning capacity. Subjects' levels of education ranged from 16 to 18 years, with a mean of 16.2 years (SD = 0.6). Two subjects were vision-impaired, and one subject was sight-impaired; accommodations were extended to enable these individuals' participation.

Procedures

Subjects first reviewed written guidelines on ECAF use before receiving supplemental oral instruction. Then, they reviewed three case studies, each with a fact pattern providing basic information necessary to evaluate a claim of loss of earning capacity. The subjects used the ECAF to conduct analyses of the three cases, rate the 14 ECAF factors for each case, and ultimately determine an overall assessment of impairment to earning capacity rating for the respective cases. Figure 3 presents the case studies.

Figure 3
Case Studies

Case A

The client is a 30-year-old woman who completed high school and some college studies. She was employed as a customer service representative by a large, regional supermarket when she experienced cardiac arrest followed by a lengthy coma. One year has elapsed and her cognition remains severely impaired. She cannot stand or walk, and she is incontinent. She receives nutrition through a feeding tube, and she has severe communication impairments. Since the onset of her disabling problems, the client has lived in health care facilities, and she has not been employed. The Social Security Administration has awarded her disability benefits.

Case B

A 24-year-old woman was involved in a motor vehicle accident two and one-half years ago. She sustained a mild-to-moderate head injury, a fractured jaw, a pelvic fracture, and fractures to both collarbones. Approximately five months before the accident, she earned an associate of arts degree; she was pursuing a major in speech pathology. Results from standardized testing and her previous academic performance indicate that her career path was viable. Her work history consisted of jobs as a food server and as a caretaker/transporter at a mental health facility. She has acquired disabilities that include an unstable gait, moderately compromised short- and long-term memory functioning, spasticity, emotional lability and depression, word retrieval and expressive language problems, dependency in some activities of daily living, reading comprehension trouble, and vision difficulties. Regarding her cognitive deficits, the client has problems with recall and learning new information. She has not been employed since the accident. She has demonstrated, however, excellent motivation to pursue rehabilitation as evidenced by her aggressive home exercise program, enrollment in a vocational training program, and use of family and community resources. With vocational rehabilitation, she will likely be able to pursue unskilled, repetitive work. She will be dependent upon others for transportation.

Case C

A 57-year-old client was in a motor vehicle accident. He worked as an instrument fitter at an oil refinery and earned $17.47 per hour. He was away from work for four months after the accident. After returning to work, he began experiencing right-shoulder and right-hip pain, exacerbated by climbing and lifting. His employment involved medium-to-heavy exertion. The client's physician imposed restrictions that included no climbing or lifting more than 30 pounds above the shoulder. The restrictions were presented to his employer, and his job responsibilities have accordingly been modified to conform to the doctor's restrictions. He has maintained continuous employment since returning to work, and his compensation and number of hours worked per week are comparable to preaccident levels. The client does not exhibit pain behavior, his gait is normal, and he does not use assistive aids. He denies having limitations related to walking, standing, cervical spine movements, or using his upper or lower extremities. Since returning to work, the client denied having work attendance problems, expressed that he is meeting his employer's expectations, and related that there has been no suggestion by his employer that his job security is in jeopardy. He plans to maintain his present employment and denied searching for alternate employment. Additionally, the client expressed that other positions with his employer are within his capabilities.

After completing the ECAF, subjects responded to questions eliciting additional information about their experiences, including assessments of the instrument's utility. Two weeks later, subjects repeated the process, again using the ECAF to evaluate claims of loss of earning capacity presented in the three case studies.

Results

Table 1 provides information on subjects' assessments of examinee vocational rehabilitation prospects and loss of earning capacity by case. For all three cases, test-retest correlations measuring subjects' assessments of percent loss of earning capacity were significant at the .01 level, with the following test-retest reliability coefficients: Case A, r_{tt} = .90; Case B, r_{tt} = .85; and Case C, r_{tt} = .97. The overall test-retest reliability coefficient for this variable, collapsed across all cases, was .98.

Test-retest correlation coefficients for the 14 ECAF factors were also computed by case and appear in Table 2. Thirteen of the 14 correlation coefficients (92.9%) were significant at either the .05 or the .01 level; Acquired

Table 1
Assessment of Vocational Rehabilitation Prospects and Loss of Earning Capacity by Case

Case Evaluated	Trial	
	Trial 1	Trial 2
Case A		
Number of Subjects Determining a Loss of Earning Capacity	25 (100%)	25 (100%)
Number of Subjects Determining Examinee is a Vocational Rehabilitation Candidate	6 (24%)	4 (16%)
Prognosis for Vocational Rehabilitation		
Good	0	0
Fair	0	0
Guarded	2 (8%)	2 (8%)
Poor	23 (92%)	23 (92%)
Mean Percent Loss of Earning Capacity	92.8%	94.7%
Case B		
Number of Subjects Determining a Loss of Earning Capacity	25 (100%)	25 (100%)
Number of Subjects Determining Examinee is a Vocational Rehabilitation Candidate	24 (96%)	25 (100%)
Prognosis for Vocational Rehabilitation		
Good	2 (8%)	4 (16%)
Fair	7 (28%)	9 (36%)
Guarded	16 (64%)	12 (48%)
Poor	0	0
Mean Percent Loss of Earning Capacity	67.6%	67.8%
Case C		
Number of Subjects Determining a Loss of Earning Capacity	10 (40%)	10 (40%)
Number of Subjects Determining Examinee is a Vocational Rehabilitation Candidate	11 (44%)	9 (36%)
Prognosis for Vocational Rehabilitation		
Good	23 (92%)	23 (92%)
Fair	1 (4%)	1 (4%)
Guarded	1 (4%)	1 (4%)
Poor	0	0
Mean Percent Loss of Earning Capacity	5.2%	4.8%

Vocational Handicaps was the lone ECAF factor not to rise to the level of statistical significance.

Depending on the case, the ECAF factor with the highest test-retest correlation coefficient varied. In Case A – the case that posed the most severe disabling problems, for example – the ECAF factors Ability to Apply Prior Skills, and Need and Capacity for Retraining had the highest correlations (.99, $p < .01$). While these factors' test-retest correlation coefficients were also statistically significant in Cases B and C, the strength of the correlations were far less – especially in Case C, the case that posed the fewest disabling problems.

Generally, there was considerable variance in the magnitude of correlation coefficients by ECAF factor across cases. The Ability to Apply Prior Skills factor had the most scatter, with correlation coefficients ranging from .44 to .99 across the three cases.

When examined cumulatively by case, all 14 ECAF factors yielded test-retest correlation coefficients that were significant at the .01 level. Demonstrated Earnings History had

Table 2
Test-Retest Reliability Coefficients of Individual ECAF Factors, Drivers, and Inhibitors by Case and Across Cases

	Case A	Case B	Case C	Across Cases
Item	r_{tt}	r_{tt}	r_{tt}	r_{tt}
ECAF Individual Factors				
Stability of Career Development	.81**	.69**	.68**	.88**
Work Propensity	.67**	.58**	.88**	.75**
Demonstrated Earnings History	.53**	.88**	.49*	.61**
Phase of Career Development	.60**	.84**	.89**	.91**
Subject-Specific Issues	.72**	.70**	.57**	.90**
Career Motivation	.57**	.76**	.70**	.90**
Ability to Apply Prior Skills	.99**	.80**	.44*	.94**
Future Career Development Prospects	.85**	.61**	.53**	.92**
Cognition	.51**	.60**	.60**	.94**
Prognosis	.46*	.59**	.74**	.92**
Need and Capacity for Retraining	.99**	.43*	.46*	.91**
Preexisting Vocational Handicaps	.88**	.92**	.74**	.87**
Acquired Vocational Handicaps	.35	.03	.00	.88**
Vocational Adjustment Issues	.69**	.67**	.90**	.94**
ECAF Drivers	.70**	.80**	.52**	.72**
ECAF Inhibitors	.96**	.74**	.83**	.97**

*Note: n = 25 (Case A, Case B, and Case C). n = 75 (Across Cases) **p < .01. *p < .05.*

the lowest coefficient (.61). Three ECAF factors – Ability to Apply Prior Skills, Cognition, and Vocational Adjustment Issues – had the highest coefficients (.94).

As Table 2 indicates, in all three cases, test-retest correlation coefficients associated with ECAF Drivers and Inhibiters were significant ($p < .01$). Overall, across cases measures for these factors were as follows: ECAF Drivers, $r_{tt} = .72$ ($p < .01$); ECAF Inhibitors, $r_{tt} = .97$ ($p < .01$).

Finally, subjects rated the ECAF's utility on a 5-point Likert scale with limits designated as "strongly agree" and "strongly disagree." In all three cases, across both trials, subjects agreed or strongly agreed that the ECAF enhanced their evaluations at least 68% of the time. This opinion varied both by case and by trial. From 68% to 76% of the subjects agreed or strongly agreed that the ECAF facilitated their loss of earning capacity assessments during the first trial; this outcome emerged from 84.2% to 90.9% of the time over the second trial.

In all three cases, subjects found the ECAF even more helpful with their second use of it. An overall chi square analysis comparing subjects' assessments of the instrument's utility across trials was statistically significant, x^2 (1, n = 75) = 17.13, $p < .001$.

Discussion

ECAF users analyze 14 factors to respond, ultimately, to referral questions that include whether an individual sustained a loss of earning capacity and, if so, to what degree. Consistent ratings of factors associated with loss of earning capacity – both within an evaluator's repeated ratings and between evaluators' ratings – are critical to the integrity of a vocational rehabilitation evaluation. This study produced impressive results in support of use of the ECAF as a reliable measure of factors associated with the assessment of earning capacity.

Use of graduate students as subjects may limit this study's generalizability. The correlation coefficients may have been even higher if practicing experts rather than nonexperienced graduate students served as subjects, as implied in the finding that subjects' increased ECAF use and experience evaluating claims of loss of earning capacity was accompanied by higher ratings of its utility.

Data Analysis

The most important data from this inquiry relates to the research question: Is the ECAF a reliable measure to apply in assessments of loss of earning capacity

claims? The results provide an affirmative response, as evidenced by test-retest reliability coefficients ranging from .85 to .97 ($p < .01$) on measures of percent loss of earning capacity, and an overall .98 ($p < .01$) correlation between subject ratings of the three case studies evaluated 2 weeks apart.

All 14 ECAF factors demonstrated significant test-retest reliability across the three case studies. Test-retest correlation coefficients associated with ECAF drivers and inhibitors were, likewise, highly significant. This lends credence to the ECAF postulates related to the measurement of drivers and inhibitors, as well as to overall ability to apply the ECAF to reliably measure loss of earning capacity.

The variance that emerged between same ECAF factor correlation coefficients across cases is consistent with Shahnasarian's assertions about a case's uniqueness and, correspondingly, the need to evaluate a pending case on the bases of its facts and intricacies (Shahnasarian, 2004b). Apparently, the ECAF helps evaluators discern and assess these variables, consistently. This could be due to the comprehensiveness of the ECAF factors, along with the associated discipline of applying a systematic process to evaluate a loss of earning capacity claim.

Only 1 of 14 ECAF factors, Acquired Vocational Handicaps, did not demonstrate a statistically significant test-retest correlation coefficient. This result could be a function of subjects' lack of experience practicing vocational rehabilitation and conducting assessments of loss of earning capacity claims. Of the 14 ECAF factors, Acquired Vocational Handicaps is among the most sensitive to knowledge of how disabling factors and vocational functioning interact over time and threaten earning capacity. An experienced cadre of evaluators would likely be sensitive to indicia such as diminished access to work opportunities, need for workplace accommodations, employer bias in hiring and advancement, and diminished work life expectancy associated with the Acquired Vocational Handicaps factor and, correspondingly, provide consistent ratings on repeat measures.

Finally, the finding that subjects' assessments of the ECAF's utility increased significantly as they became more familiar with the instrument is encouraging. Like most tools, familiarity and confidence in using it facilitates skilled application. The utility finding, in part, could be attributable to subjects' lack of experience conducting assessments of loss of earning capacity claims, and increased comfort in doing so when equipped with an appropriate resource to perform the task.

Ongoing Initiatives

In an investigation of trial lawyers' perceptions of vocational rehabilitation methodologies, Shahnasarian and Lassiter (2002) found lawyers had little confidence that vocational experts' methodologies were either objective or consistent. The examiners hypothesized that the litigation context – namely, a complex, adversarial environment in which suspicion, mistrust, competing motives, and many other dynamics interact unpredictably and are the rule of the day – contributed to these perceptions. Other presumed reasons for the lawyers' skepticism included true inconsistencies and bias by experts desiring to win the favor of a retaining lawyer, and inexperience among experts conducting assessments of earning capacity.

Regardless of the reasons for inconsistent assessment results, lack of consistency among experts who ostensibly analyze a fixed pattern of facts and apply a generally accepted methodology to perform a vocational rehabilitation evaluation denigrates the profession and lends disservice to jurisprudence. Efforts to objectify and standardize vocational rehabilitation procedures are long overdue.

Admittedly, a number of consonant methodologies for conducting a vocational rehabilitation evaluation to construct an opinion on loss of earning capacity have been proposed (e.g., Dillman, 1998; Parker & Schaller, 1996; Shahnasarian, 2001; Sleister, 2000; Tate, Heinrich, Paasuke, & Anderson, 1998; Weed, 1999). What is needed, however, are validated procedures and resources to promote accuracy in analyses undertaken to address vocational experts' ultimate referral questions: Is a claim of loss of earning capacity merited? If so, what is the loss?

Taking a patient history and conducting a physical examination are fundamental methods physicians employ when conducting a disability evaluation. It is only through subsequent application of a standardized, generally accepted resource (e.g., Guides to the Evaluation of Permanent Impairment, 2008) that attempt to objectify disability ratings, however, that a physician can reliably convert evaluation data to a quantitative impairment rating. While the task of conducting an evaluation to assess a claim of loss of earning capacity is analogous to the task of conducting a medical evaluation to assess a claim of physical injury, the vocational rehabilitation profession has lacked validated reference sources necessary to promote reliable practice. This, too, may be contributing to problems with inconsistencies between vocational expert opinions.

To meaningfully enhance the reliability of vocational rehabilitation evaluations, practitioners must have more than generally specified methods to guide their efforts. Measures along the lines of the ECAF are essential to the evolution of sound vocational rehabilitation practice.

Current ECAF research includes a scoring study linking evaluators' ratings of the 14 ECAF factors (please refer to Figure 1) to the Impairment to Earning Capacity Rating Scale (please refer to Figure 2). Concep-

tually, the outcome of this work will be to offer vocational experts a means to systematically consider and evaluate factors associated with loss of earning capacity, and then apply the assessment data to a scoring scale that allows for quantifying loss of earning capacity. It is envisioned that the ECAF's scoring system will involve evaluators compiling ratings of ECAF driver and inhibitor scores, and then applying scores to a scoring scale keyed to the Impairment to Earning Capacity Rating Scale, similar to the manner scores are added and converted to assess degrees of depression via the Beck Depression Inventory (Beck & Steer, 1987).

As noted at the onset of this article, several studies have found that some factors – such as motivation and intelligence – are particularly predictive of return to work after injury and ability to mitigate loss of earning capacity damages. Future ECAF research will undertake to establish factor weightings in overall earning capacity assessment.

Regardless of the objectivity an instrument like the ECAF theoretically offers, evaluators' biases can diminish a measure's precision. To this end, investigating ECAF ratings by vocational experts retained by opposing lawyers in the same case could prove instructive. A study in which subjects using the ECAF to respond to the same fact pattern while presuming that either a plaintiff or defense lawyer retained them, for example, could help determine how perhaps the most substantial threat to reliability – rater bias – impacts expert assessments.

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