As an example of focusing our expert knowledge on policy issues, I have identified, from literature reviews and longitudinal studies, 14 facts that career specialists know for sure and could assert in debates about public policy regarding workforce development and career guidance.

1. Childhood socialization influence adult work performance and job satisfaction.

We know that attitudes toward work are formed early in life, so workforce and vocational guidance policy should take a developmental perspective. Vocational psychologists such as Super, Crites, Gribbons, and Lohnes have each concluded from their longitudinal studies that planful competence in early adolescence relates to more realistic educational and vocational choices, occupational success, and career progress (cf. Savickas, 1993). Longitudinal studies in other fields such as epidemiology, sociology, psychiatry, and developmental psychology also have shown that early experiences help to shape an individual's worklife. The sociologist Clausen (1991) used a 50-year longitudinal study to show that planful competence in early adolescence-- that is a syndrome of self-confidence, dependability, and effective use of intellectual resources– led to orderly careers in which individuals were stable and satisfied, with fewer disruptions of career and marriages in mid-life. Low competence related to recurrent life crises that involved career problems, marital conflict, divorce, depression, and alienation. Clausen demonstrated that planful competence allowed adolescents to make better life choices, helped them elicit social support, contributed to them reaching their goals, and enabled them to deal with the ill-structured dilemmas of worklife.

The epidemiologists Kalimo and Vuori (1991) traced the development of Finnish children for 25 years. They concluded that poor self-esteem and deficient social conditions in childhood constrained the development of personal resources and resulted in greater probability of entering and remaining in inadequate jobs as well as more prevalent adult health problems.

Using the perspective of psychodynamic psychiatry, Valliant and Valliant (1981) reported that for underprivileged men the capacity to work in childhood predicted mental health and capacity for relationships at mid-life, surpassing family problems and all other childhood variables in predicting success in adult life. By the age of 47, men who were competent and industrious at age 14 were twice as likely to have warm relationships with a variety of people, five times more likely to be well paid for their adult work, and 16 times less likely to have suffered significant unemployment. Intelligence was not an important mediating factor.

The developmental psychologist Bynner (1997) analyzed data from a major British longitudinal study involving 17,000 people who were born in the same week in April, 1970 and were surveyed at ages 5,10, 16, and 21. Individuals with poor basic skills (reading, spelling, writing, and counting) at age 10 showed different career paths at age 16. Rather than continue their education, they tended to get jobs (about 45%), enter Government Youth Training Programs, or be unemployed. Problems with basic skills clearly led to problems in staying in school and acquiring more specific work-related skills.

2. Part-time work affects the socialization and development of adolescents.

Along with family, school, and peer group, work can be a key social context affecting the development of youth (Stone and Mortimer, 1998). Social scientists debate whether young people should be encouraged to work and whether some jobs are better than others to foster healthy adolescent development. Nevertheless, about 60% of high school juniors and 75% of high school seniors work for pay outside the home at least one week during the academic year. On average, juniors work about 18 and seniors work about 24 hours during the weeks they worked. Unfortunately, adolescents' work experience is usually unconnected to their occupational aspirations and career plans.

Stone and Mortimer (1998), based on their evaluation of the empirical evidence, recommended that public policy explicitly link school to work so that school personnel

supervise work and make the workplace a context for youth development. This would allow teachers to connect work to school in meaningful ways, thereby helping students to view work as a complement to school, not a separate domain. The links between school and work now are especially loose at lower levels, with school being almost irrelevant for unskilled and semi-skilled jobs. Stone and Mortimer (1998) also encouraged employers to provide moderate work hours over a long period of time, improve the quality of jobs, and increase opportunities for skill development.

Even more radically, policy could reconstruct adolescence as a life stage. Adolescence as a distinct period in life is synonymous with twentieth century industrial societies. Currently adolescence is socially constructed as period of preparation for work, a life stage truncated by employment Grubb (1989). As society moves toward lifelong learning and job flexibility, adolescence could be reconstructed as mix of work and schooling that extends into the thirties, giving greater flexibility around decisions related to career choice and certainty about it. Such a reconfiguration of adolescence as a life stage could reduce the floundering, drifting, and stagnating among school leavers while increasing training and employment.

3. Knowing how the world-of work is organized eases vocational decision making and job transitions.

When individuals face an initial occupational choice or change jobs, they must choose from among thousands of jobs. Vocational psychology has shown that it helps tremendously to have "a more compact view of the world of work at a more manageable level of abstraction" (Dawis, 1996, p. 239). Of course this view can be socioeconomic in terms of pay and fringe benefits or functional in terms of tasks and work conditions yet vocational psychology has something better to offer. Based on 40 years of programmatic research, Holland (1997) has provided a compact view of the work world in terms of psychological attributes. He organized all jobs onto a hexagonal model of the world-of-work. Because jobs are mapped using personality traits, it is easy for individuals to

match their own personality traits to jobs. By organizing occupational information and personality types using the same language, career development specialists ease decision making by teaching clients that the work world has a meaningful structure into which they must fit themselves. Knowing how environments are organized is a transferable skill that individuals can use to adapt to many diverse life situations.

4. Vocational exploration and information lead to better career decisions.

Vocational exploration and information-gathering increases self-knowledge and awareness of suitable educational and occupational options (Blustein, 1992). In fact, one of the best ways to determine the wisdom of a specific career choice is to assess the amount of information an individual has collected about that choice. In addition to encouraging exploratory experiences, public policies should continue to support occupational information delivery systems, especially those that use computer technology and the Internet to widely distribute their products (Peterson, Mumford, Borman, Jeanneret, & Fleisman, 1999).

5. Career interventions effectively ease occupational choice and enhance work adjustment.

Career interventions help individuals gain self-knowledge about where they can be satisfactory and satisfied workers (Baker, 1998; Killeen, 1996; Whiston, Sexton, & Lasoff, 1998). The interventions can also smooth job transitions by helping job changers learn which jobs are easiest for them to move into and what specific skills they need to acquire. Evidence also supports the effectiveness of teaching individuals job-seeking skills. Today's economy requires the flexibility to repeatedly move into newly configured jobs. Career counselors have evidence that their interventions help smooth school-to-work transitions and movement from one job to another. We do not have evidence, yet we infer from the available data that career interventions also benefit nations in reducing unemployment, enhancing gross national product, and restimulating discouraged workers and displaced homemakers.

6. Interests shape occupational preferences and enhance learning during training

The measurement of vocational interests is a singular accomplishment of vocational psychology. Over 75 years of systematic research has produced a clear understanding of interests as a motivational construct along with a sophisticated technology for measuring vocational interests of men and women across the life span and within diverse cultures. Most importantly, this research has documented how to best communicate interest inventory results to clients in a manner that fosters their occupational self-efficacy, vocational exploratory behavior, and career decision making (Savickas & Spokane, 1999). Self-knowledge about vocational interests enhances educational and vocational decision making. Conversely, knowledge about a candidate's interests can be useful in selecting individuals for training programs.

7. Personality and ability determine job performance more than interests

While interests are an important factor in shaping occupational preferences and predicting learning in job training programs, they are less important in predicting job performance (Schmidt & Hunter, in press). Yes, it is better if interests match the content of the job, however quality and level of job performance depend more on mental ability and certain personality traits. Based on a literature review of personality and work, Tokar, Fischer, and Subich (1998) concluded that personality traits such as conscientiousness and extroversion are important in job performance. Furthermore, individuals with an internal locus of control fare better in transitions and in initiating social support when they encounter problems. Individuals who demonstrate autonomy, self-esteem, and a future orientation, not only plan their careers more successfully, they also become more satisfactory and satisfied workers.

8. Congruence between the worker and the job improves performance.

The goal of career interventions is to help individuals move to increasing congruence in their interactions with the environment, as operationally defined by job satisfaction, commitment, and productivity as opposed to turnover, absence, tardiness,

and interpersonal conflicts. Career development specialists know from an extensive literature that person-environment fit should be an important value, not only in career interventions, but also in public policy about work and workers. Based on a literature review, Edwards (1991, p. 328) concluded that "across a variety of measures, samples, job content areas, and operationalizations, Person-Job fit has demonstrated the expected relationships with outcomes."

Congruence is also important from an employer's perspective, especially in terms of productivity. Variability in employee performance can be measured with a dollar value, using a minimum of 40% as of the mean salary as the standard deviation (Schmidt & Hunter, in press). For example, if the mean salary is $50,000 then the standard deviation in employee performance is at least $20,000. Assuming a normal distribution, workers at the 84th percentile produce $20,000 more per year than the average worker–$40,000 more per year than a worker at the 16th percentile. This variability in employee productivity influences the economics of an organization, and even a country. Employers who can select more congruent employees from a better applicant pool certainly have an advantage over their competitors. After conducting a meta-analysis of 85 years of research on personnel selection, Schmidt and Hunter (in press) concluded that "the cumulative findings show that the research knowledge we now have makes it possible for employers today to substantially increase their productivity, output, and learning ability of their work-forces by using procedures that work well and avoiding those that do not." In short, person-job congruence benefits the worker, the company, and the nation.

9. The transition from school to work can be smoothed.

Unemployment rates for youth just out of high school are high, usually three to four times higher than the rates for adult workers. For example, the National Longitudinal Survey of Youth showed that youth between the ages of 18 and 27, who graduated from high school yet did not enter post-secondary training, held about six different jobs and had four or five spells of unemployment. (Veum & Weiss, 1993).

Public policy could benefit youth and society by forging tighter links between schooling, adolescent employment, and adult careers. When linkages are made-- particularly apprenticeships, magnet schools, internships, cooperative work-education, and shadowing experiences-- they appear to be quite successful in fostering the school-to-work transition. The programs are most successful when work and training are complementary, rather than making training and schooling preparatory for work. Because work habits and attitudes strongly influence early adult earnings, training programs should emphasize these work behaviors as much as they emphasize job skills.

10. Organizational socialization of new employees promotes satisfaction and performance

Companies can use realistic job previews and systematic socialization to provide information that reduces uncertainty and anxiety in new employees. Providing new employees with an interpretive schema or cognitive map of their organization and work context has been show to increase performance, satisfaction, and retention (Saks & Ashforth, 1997). With increasingly diverse workforces, it is even more important to impart an overarching set of norms, attitudes, and beliefs.

11. Work can be structured to foster emotional well-being.

Good jobs foster mental health whereas poor jobs cause distress (Loscocco & Roschelle, 1991). Good jobs usually provide substantive complexity, challenge, feedback, variety, and autonomy. Jobs are even better in this regard if they include significant tasks with which workers can identity. In contrast, poor jobs involve excessive workload or responsibility, role ambiguity, forced overtime, conflicting roles, tasks more complex than ability, and lack of control over job demands. Of course the context in which work is performed also influences mental health. Poor working conditions caused by noise and noxious stimuli cause distress. As jobs are being redesigned to emphasize process over content, public policy has an opportunity to reinforce the importance of including intrinsic rewards and importance into new jobs. If

particular jobs cannot be redesigned to promote health, then employers can be prodded to provide workers with training in coping with occupational stress.

12. Workers can learn to cope more effectively with occupational stress.

Stressors include the dimensions of poor jobs noted previously-- role overload, insufficient resources do the tasks, excessive responsibility, and noxious physical environment. These elements cause stress, but how much of the occupational stress becomes personal strain depends on a worker's coping resources. Workers experience less strain if they cope with stress by recreation, self-care, social support, and rational problem solving. These four types of coping behaviors have direct effects on strain, but they do not have direct link to job satisfaction (Fogarty et.al, 1999). Public policy can encourage employers and career specialists to increase their efforts at teaching these commonsense and empirically-validated coping techniques.

13. Work-family connections can be made less conflictual and more integrative.

Conflicts between work responsibilities and family obligations can cause significant personal strain and lower productivity. Problems can be bi-directional, with work problems contaminating family life and family responsibilities (e.g., child care, care of elders) distracting work concentration. Research on work-family conflict has accelerated during the last 25 years prompted by the increasing number of dual-earner partners or single parents. Legislative and employer initiatives that enact "family-friendly" work policies such as flexibility in work scheduling can alleviate some of this conflict (Loscocco & Roschelle, 1991). After reviewing 59 empirical studies on work-family conflict, Greenhaus and Parasuraman (in press) suggested work-family integration as a possible new paradigm, one which focuses on opportunities wherein multiple roles can expand rather than deplete resources. Positive spillover (enhancement) can be made to outweigh negative depletion (conflict). Two examples of positive spillover are "status enhancement" and "personality enrichment." Status enhancement means using money, connections, and other work resources to promote family well-being. Personality

enrichment means transferring skills and attitudes from one domain to the role. Public policies that reduce conflict and increase integration will be good for families, as well as organizations and individual workers.

14. Individual difference among aging workers can be used to retain and retrain productive workers.

An often overlooked problem is that the workforces in Western societies are aging rapidly. Moreover, restructuring and downsizing of industries have had disproportionate negative effects on older workers. We know from empirical research that as workers age, individual differences increase, with some workers maintaining and even improving their skills while others loss their initiative and let their skills deteriorate (Hansson, DeKoekkoek, Neece, &, Patterson, 1997) . We need to design policies to retain productive older workers and encourage the use of enabling technologies. Now, more than ever, society must recognize and affirm the contributions of older workers while reducing ageist stereotypes and pressures to retire. Training opportunities must be provided with regard to functional ability and interest, not chronological age.