

countries have been certified, including the USA, Canada, Germany, Italy, Israel, New Zealand, and Taiwan. U.S. citizens currently represent just over 90 percent of BCPE Certificants. These individuals reside in 31 different states.

Most BCPE Certificants work in a business environment, either as a corporate ergonomist or consultant. Just under 10 percent of the BCPE Certificants work primarily at a college or university and consult with outside organizations on ergonomics issues. Just over 3 percent are government employees.

In summary, BCPE Phase I Certification has attracted a large and representative group of ergonomics practitioners - - practitioners who believe it is the appropriate time to obtain professional certification. Non-certified qualified practitioners may apply to the BCPE under the Phase I "certification by waiver of exam" process until the application submission deadline of December 31, 1993. ❖

## **CERTIFICATION FOR ERGONOMISTS: WHY THE BCPE?**

**THERE ARE A NUMBER OF COMPELLING REASONS** for an organization such as the BCPE to spearhead certification for the large population of human factors and ergonomics professionals. First, as stated by current BCPE President Hal Hendrick, "*A maturing profession like ergonomics needs professional certification in order to serve professional practitioners; academic, research, and training interests; the "users" of professional ergonomics services; and the health and safety interests of the general public.*" Second, existing professional organizations can be constrained by legal and other factors, at least in the U.S. As stated by Attorney Jerald A. Jacobs (1986, pg 337), expert on professional certification issues and counsel to the *Human Factors and Ergonomics Society*, "*All policy-making functions of a credentialing group should be kept as independent as is feasible from influence or domination by a parent or related association whose functions include promoting the economic well-being of the profession. In short, the credentialing body should be autonomous with respect to policy-making. Indications are that federal antitrust enforcers would also prefer autonomy with respect to administration for professional voluntary credentialing organizations.*" This does not preclude, however, such organizations from providing formal endorsements or strong advisory links with certification bodies. ❖



## **A PRELIMINARY LOOK AT THE PHASE II CERTIFICATION EXAM**

**BEGINNING JANUARY 1, 1994**, BCPE applicants will, among other things, be required to pass a written exam on ergonomics and human factors professional practice. This exam will be one day in duration and will be scheduled at regular intervals, probably in association with regular meetings of related professional societies and associations. This exam is currently under development by the BCPE. Examination development groups met this summer in Englewood, Colorado and earlier in the year in Las Vegas, Nevada. Additional working sessions will occur this fall.

A scenario-based approach is being employed - - one that provides the examinee with a series of realistic work situations that might be encountered by an ergonomics practitioner. The examinee will be expected to select and respond to a subset of presented scenarios. This selectivity should enable truly qualified persons to respond adequately to the exam, regardless of specific areas of ergonomic expertise and practice.

Each scenario will, in general, (a) present a realistic work problem/situation, (b) provide human factors data necessary for resolution of the problem, and (c) focus on issues, methods, and approaches to professional practice and problem resolution. The settings of the scenarios (eg., industrial, office, transportation systems) will generally mirror the areas of practice of certificants brought in under the Phase I "waiver of exam" phase.

The exam will have five principal content areas. *Methods and Techniques* will comprise approximately 30 percent of the exam. This will include analytical tools involved in ergonomic analysis, design, and evaluation. *Design of the Human-Machine Interface* will comprise about 25 percent of the exam. Principles of workspace design and layout, job aids, and other design issues will be addressed. *Humans as System Components (Limitations/Capabilities)* will comprise approximately 25 percent of the exam. Anthropometry, biomechanics, perception, and information processing are among the issues that will be examined in this content area. *Systems Design and Organization* will comprise about 15 percent of the exam. Issues in this section may include team performance and motivation. *Professional Practice* will comprise about 5 percent of the exam and will address issues such as ethics, working with diverse groups, and ergonomics resources such as standards and guidelines. ❖