



SOCIETY OF ACTUARIES

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What's the difference?

Project examines personalities of U.S., Canadian actuaries

by Mary C. Patrick, Ph.D.

Did you know that, among actuaries native to the United States or Canada:

- English-speaking male and female Canadians have interests in common with U.S. males.
- French-speaking male and female Canadians have interests in common with U.S. females.
- Both male and female French Canadians are more people-oriented than English-speaking Canadian males and U.S. males.
- Men have a greater tendency to pursue creative opportunities than do women.
- Women have a greater tendency to pursue practical opportunities than men do.

These are just a few major findings of the Actuarial Profile Research Project® (APRP), an initiative that can help the actuarial profession gain insights into itself as a whole. The author initiated the APRP to enable the actuarial profession to be included as one of the 109 occupations included on the Strong Interest Inventory (SII), the most widely used instrument in North America to help individuals identify career choices.

The APRP was conducted by the author in cooperation with the American Academy of Actuaries (AAA), under the leadership of James J. Murphy, and the Institute of Insurance and Pension Research, under the leadership of Robert L. Brown.

A major APRP goal was to gather accurate information about Canadian and U.S. actuaries based on reliable and valid assessments of interest patterns and personality preferences; demographic, cultural, educational, and occupational backgrounds; and job satisfaction and skills.

About one-third of AAA and Canadian Institute of Actuaries members were randomly sampled. The response rate was greater than 51%.

Two standardized instruments, each with more than 50 years of validated research, were used for the APRP: the Strong Interest Inventory (SII) and the Myers Briggs Type Indicator (MBTI®). Both instruments are used extensively in career and organizational development.

The APRP's value

As the actuarial profession looks toward the 21st century and increasing its involvement in a worldwide economy, a sophisticated understanding of the individuals involved in the profession can help actuaries keep pace with the global marketplace and appropriately expand their sphere of influence domestically and worldwide. The in-depth analyses of the APRP provide a solid understanding of the profession and its nuances. The dramatic consistency in the results from the various analyses and the high response rate provide findings that have a very high degree of validity and significance for the actuarial profession.

The results of the Actuarial Profile Research Project can benefit the profession in several ways:

- *Database for continuing education programs:* This database should be used to help develop continuing education programs that increase professional growth using a variety of educational methodologies.
- *Tools for individual development:* At the individual level, both the Strong Interest Inventory and the Myers Briggs Type Indicator are dynamic tools that provide a framework for personal and

professional development which could help actuaries enhance their strengths and learn new skills to be more effective and sensitive individuals.

- *Visibility for the actuarial profession:* Having "actuary" as an occupation in the Strong Interest Inventory introduces the profession to a significant number of people (including individuals and career development professionals) who might never have been exposed to it before.

A brief look at some of the APRP's findings based on the two assessments used highlights some striking similarities — and differences — among actuaries. Thinkers and organizers: the Strong Interest Inventory The SII provides a broad-spectrum profile of an individual's various interests. Most individuals have an SII profile consisting of two or three of the SII's six interest patterns.

For the profession as a whole, the SII provides valuable information about particular characteristics of successful, satisfied actuaries. People who've done well in their occupation and enjoy their work tend to have similar interest profiles.

In the Actuarial Profile Research Project, the SII results indicated that actuaries tend to have one of two somewhat similar interest profiles: Investigative-Conventional (I-C), a pattern called "thinkers," or Conventional-Investigative (C-I), called "organizers." The I-C and C-I interest patterns indicate individuals who are analytical, persistent, conscientious, self-controlled, and professional. They tend to enjoy solving complex problems, particularly in the areas of finance, research, computers, and

investments. An observable difference between the two patterns is that I-C types tend to prefer theoretical and long-range problems that may or may not have practical outcomes, whereas the C-I types tend to prefer projects with practical outcomes that have clearly stated time frames and procedures.

The I-C “thinker” interest pattern appeared most often among English-speaking Canadian actuaries of both genders and among male U.S. actuaries. This pattern applies to people who are independent, analytical, introspective, and conscientious. They prefer flexible work structures and place a high value on autonomy and achievement.

The C-I “organizer” interest pattern arose most often among French-speaking Canadian actuaries of both genders and among female U.S. actuaries. This pattern appears among people who are conscientious, methodical, conservative, and analytical. They tend to prefer clean lines of authority and value systematic activities. Introspection, logic, control: The MBTI-personality profile The Myers Briggs Type Indicator provides a composite profile of personality preferences. It is a dynamic developmental tool to help increase self awareness, understand behavior, and value differences, fostering both personal and professional development.

The four dimensions measured by the MBTI are energy (with extraversion — an MBTI term — on one end of the scale, introversion on the other), perceiving (sensing-intuition), decision-making (thinking-feeling), and lifestyle (judgment-perception).

For three of the four MBTI profile dimensions, the actuarial personality preference profile was generally consistent across gender and culture. The three dominant preferences were introversion, thinking, and judgment. This indicates that as a group, actuaries are introspective, logical, and controlled.

Thus, they:

- Need quiet reflective time to revitalize

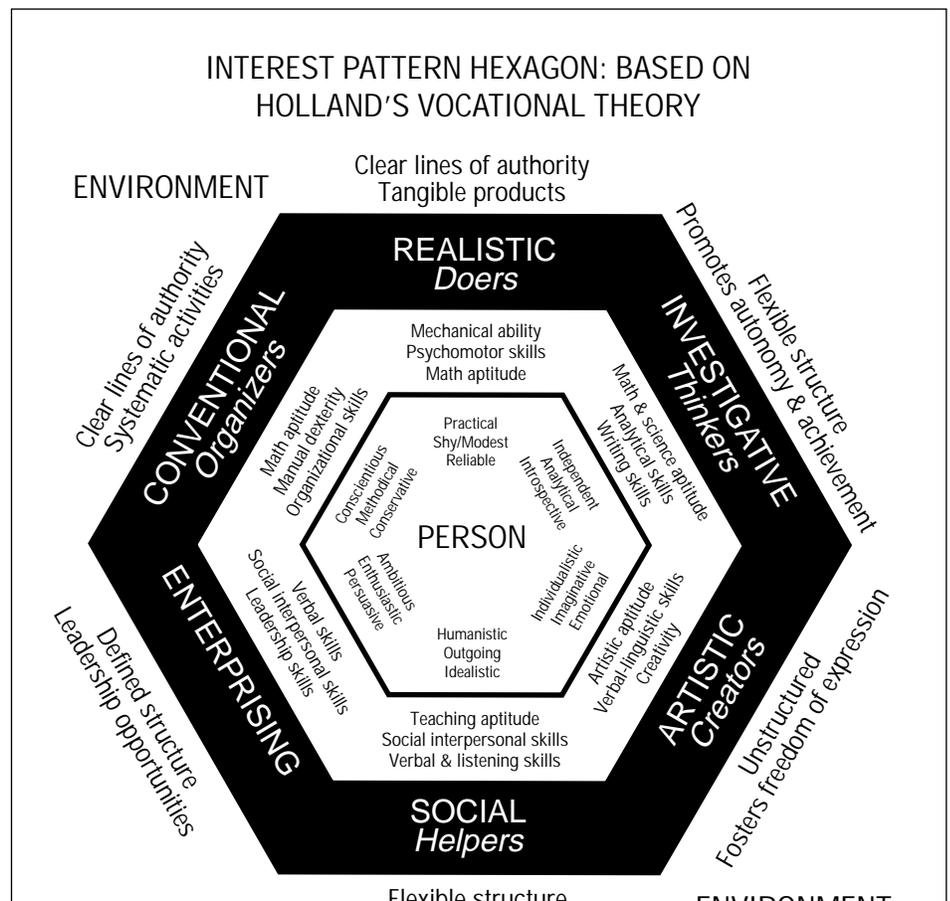
- May appear private, quiet and reserved
- Tend to organize information and make impersonal, objective decisions using logic and analysis
- Prefer to follow schedules, obtain closure, maintain control, and work first, then play

However, this is a general profile. Male English-speaking Canadian actuaries had a significantly greater need for quiet, reflective time. Also, compared to U.S. female actuaries,

Canadian female actuaries expressed a stronger preference for lifestyles that are planned and organized.

The one MBTI dimension in which actuaries showed great disparity from each other was the perceiving dimension. Perceiving, according to the MBTI, identifies preferences people have for paying attention and gathering information. The perceiving scale extends from the label Sensing,

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© 1994. Adapted from J.L. Holland (1985) *Making Vocational Choices: A Theory of Personalities and Work Environments* Prentice Hall, By M. C. Patrick

The Strong Interest Inventory (SII) is based on Holland’s Vocational Theory. Figure 1 is a graphic visualization of this theory using a hexagon to display the theory’s six interest patterns. Each pattern is associated with a repertoire of needs, skills, interests, values, and perceptions as well as characteristics of a satisfying work environment. *The two inner hexagons* reflect characteristics associated with the person: the innermost hexagon identifies some personality traits associated with each personality type; the next hexagon identifies potential aptitudes, skills, and abilities commonly associated with each personality type. *Outside the large hexagon*, the organizational structure and typical rewards (motivators) found in each environment type are described. Few individuals and organizations/occupations can be classified as pure types. Most are a combination of two or three.

In Springfield, Mass., Liberty School has partnered with Mass Mutual to create a pilot project aimed at fourth grade students. Actuaries Richard Breen and Bob Bartholomew helped get it off the ground.

Teresa R. Winer, a self-employed actuary formerly with Life Insurance Co. of Georgia, put together a project using actuaries as one-on-one tutors and as leaders in math clubs and labs at Warren T. Jackson Elementary School in Atlanta.

These are some of the outstanding recent efforts by actuaries, but not all efforts have to be alike. What's critical is to network and open lines of dialogue with people outside our profession. I have been involved with several different activities: the Chicago Network, the Pension Research

Council, the National Academy on Aging, and the Health and Medicine Policy Research Group. Each of these groups brings together diverse perspectives from business leaders, academics, and the community. I would encourage everyone to get involved in groups like these because they're where real people are talking about real issues.

We spend too much time talking to ourselves. We go to a lot of meetings, but they are frequently meetings with other actuaries. If we can be in the places where the issues that we're concerned about are being worked on and talked about, I think we do a lot more good.

Anna M. Rappaport is managing director of William M. Mercer Incorporated in Chicago.

Position open at George Mason

George Mason University, Fairfax, VA, has a tenure-track position open at the rank of assistant or associate professor in the department of mathematical sciences.

Preferred areas of specialization are actuarial science, mathematical finance, numerical analysis, or applied mathematics. Qualifications for actuarial candidates include a doctorate or Fellowship in an actuarial society.

The applicant chosen will teach both undergraduate and graduate students. He or she also will be expected to take a leadership role in expanding the bachelor and master degree programs in either actuarial mathematics or computational and applied mathematics, including recruiting and advising students, coordinating activities with related departments in business or engineering, expanding contact with local industry, and developing external funding. Opportunities for interdisciplinary work and teaching doctoral students exist in the Institute for Computational Sciences and Informatics.

Applications arriving before March 10 will be considered, and late applications will be accepted until the position is filled. Candidates should arrange for a vita, statement of teaching and research interest, and at least three letters of reference to be sent to: Ittai Kan, Chair of Search Committee, Department of Mathematical Sciences, George Mason University, MS 3F2, 4400 University Drive, Fairfax, VA 22030-4444 (e-mail: ikan@gmu.edu).

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meaning detail-oriented (in part), to intuition, or "big-picture" thinking (labeled "iNtuition" on the MBTI).

These perceptual differences can create significant barriers to effective communication among actuaries. There were gender and cultural differences among the six groups. Female English-speaking Canadian actuaries and both female and male French-speaking Canadian actuaries tended to prefer Sensing, which indicates that they gather information about the world from a practical, down-to-earth perspective by attending to facts. However, male English-speaking Canadian actuaries and male U.S. actuaries tended to prefer iNtuition, suggesting that they perceive information about the world from a wide perspective, attending to the patterns and possibilities. Female U.S. actuaries

were evenly divided between Sensing and iNtuition preferences.

Availability of reports

A report on the Canadian portion of the study is available for \$50. Those wishing copies should contact Nandane Basdeo at the Institute of Insurance and Pension Research, University of Waterloo, Waterloo, Ontario, Canada N2L 3G1 (telephone: 519/888-4744; fax: 519/746-1875; e-mail, nbasdeo@jeeves.uwaterloo.ca) and request Report # 96-06. A full analysis of the U.S. data has not been completed due to lack of funding.

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