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Personality types of actuaries

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Personality Types of Actuaries

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ABSTRACT

Relatively little research has explored the personality types and interests of actuaries: the sole published study profiled North American actuaries using the Myers Briggs Type Indicator and the Strong Interest Inventory. In contrast, a number of studies of accountants have shown a clear and consistent dominance of certain personality preferences, with some authors expressing concern about the implied narrowness of the accounting profession and the possible lack of certain valued skills such as strategic thinking and persuasive communication. Personality type has been shown to be related to management, leadership and decision-making style; for example, it has been suggested that the dominance of Sensing / Concrete types in the accounting profession as a whole does not apply to those at the higher levels, who are predominantly Intuitive / Conceptual.

This paper reviews what is known of the personality types of actuaries and contrasts the profiles of actuaries and accountants. The links between personality type and job satisfaction, leadership and management are explored. Finally, scope for further research and implications for the actuarial profession are highlighted.

Keywords: personality; Myers Briggs Type Indicator; MBTI; accountant; actuary

INTRODUCTION

The stereotype of the actuary as an “*introverted, personality-less ‘techie’*” (Ross, 2003), “*brainy and exact ... [but with a] reputation for rigidity and inability to look past the numbers*” (Shankar, 2008), is well known. In a marketing audit of the profession, the top four adjectives used by Australian actuaries to describe the perceived image of the profession were “*technical*”, “*conservative*”, “*specialist*” and “*respected*” (Gale et al., 1995). To what extent is it true that our profession is dominated by introverted, meticulous and conservative individuals?

The personality profiles associated with a number of professions and careers have been studied quite extensively. Research on the accounting profession demonstrates a clear dominance of certain personality types among both practicing accountants and accounting students (Wheeler, 2001). Other professionals including medical doctors (Borges and Savickas, 2002), lawyers (Richard, 2002) and dentists (Grandy et al., 1996) have also been studied. The sole published study of the actuarial profession reported on the personality types and interests of North American actuaries (Patrick 1996), and reveals some interesting differences to the typical profile for accountants and to the actuarial stereotype.

A better understanding of the personality types of actuaries will benefit school students deciding upon a future career; careers counsellors advising such students; actuarial educators wishing to capitalise on students’ preferred learning styles, and individual actuaries wishing to develop a better understanding of their own and others’ strengths. It may also provide a starting point for a discussion about how to foster diversity in the profession: Myers et al. (1998) make the point that “*Diversity is likely necessary within an occupation to keep the occupation from growing stale and to prevent ‘group think’. When someone has a type different from that of the majority, that individual may even take the role of a ‘pioneer’ by bringing in fresh, new approaches and insights*” (pp. 300–301).

THE MYERS BRIGGS TYPE INDICATOR

The Myers Briggs Type Indicator (MBTI) was developed by Katherine Briggs and Isabel Myers–Briggs to operationalise Jung’s (1923) theory of psychological type. The basis of Jung’s theory is that much of the apparent variation in human behaviour arises because individuals differ in their preferences for energy orientation, taking in information (or perceiving), making decisions (or judging) and dealing with the external world. Dichotomous preferences on these four dimensions (see Table 1 for descriptions) generate 16 distinctive personality types, each denoted by the combination of the preferences on the four dimensions (eg. ESTJ).

The MBTI measures preferences rather than abilities, though it is to be expected that a preferred and oft–used function will generally be developed to a higher level of skill and ease. No one personality type is regarded as superior in any way, but certain types are expected to be more naturally skilled or comfortable in certain contexts or roles.

The reliability of the MBTI has been found to be good, with preferences remaining relatively stable over time (Gardner and Martinko, 1996). Continuous scores on each of the four dimensions are more reliable than the dichotomous preferences, and are therefore advocated by some authors. The validity of the MBTI (ie. whether it measures what it purports to measure) is not as well established (Gardner and Martinko, 1996) although the fact that it

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correctly predicts the personality profiles associated with particular occupations and with academic and interest measures (Myers et al., 1998) is convincing. The MBTI is very widely used, being administered to more than two million individuals each year (CPP, 2009) for purposes such as team building, organisational development, business management, education, training and career counselling (Myers and Myers, 1980).

Table 1: The Four Dichotomous Dimensions of the MBTI

Energy orientation	
Extraversion (E)	Introversion (I)
<ul style="list-style-type: none"> • energy is directed mainly toward the outer world of people and objects • energised by interaction and action • concrete, experiential learning style • tend to be sociable and expressive • (not “loud” and “talkative”) 	<ul style="list-style-type: none"> • energy is directed mainly toward the inner world of experiences and ideas • energised by inner world and ideas • reflective, observational learning style • tend to be private and contained • (not “shy” and “inhibited”)
Taking in information (perceiving)	
Sensing (S)	Intuition (N)
<ul style="list-style-type: none"> • information is taken in by observing reality through the senses • “<i>facts speak for themselves</i>” • tend to be concrete, practical, specific and observant • tend to build carefully to conclusions, and to trust experience • oriented to present reality 	<ul style="list-style-type: none"> • information is taken in by seeing patterns, relationships and connections between facts • “<i>facts illustrate principles</i>” • tend to be imaginative and creative, and to focus on broad patterns and meaning • tend to move quickly to conclusions, and to trust intuition and inspiration • oriented to future possibility
Making decisions (judging)	
Thinking (T)	Feeling (F)
<ul style="list-style-type: none"> • decision-making is based on objective, logical analysis • fairness means that everyone is treated equally • tend to critique and analyse • strive for objective truth • (not “cold-hearted”) 	<ul style="list-style-type: none"> • decision-making is based on personal, subjective values • fairness means that everyone is treated as an individual • tend to empathise and honour • strive for harmony and understanding • (not “emotional” or “irrational”)
Dealing with the external world	
Judging (J)	Perceiving (P)
<ul style="list-style-type: none"> • prefer the decisiveness and closure that result from dealing with the world using one of the Judging processes (Thinking or Feeling) • tend to be scheduled and systematic • like to have things decided • feel stressed by last-minute pressures • (not “judgemental”) 	<ul style="list-style-type: none"> • prefer the flexibility and spontaneity that result from dealing with the world using one of the Perceiving processes (Sensing or Intuition) • tend to be spontaneous and flexible • like to have things open to change • feel energised by last-minute pressures • (not “perceptive”)

Source: Myers, McCaulley et al. (1998); Myers (1999).

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Table 2 shows the proportions of each type in the U.S. population, from the National Representative Sample, based on 3,009 participants and collected in 1996 (Myers et al., 1998). Type proportions for U.S. university students are also shown (Myers et al., 1998). A comparison of males and females reveals a significantly higher proportion of Feeling types and a somewhat higher proportion of Extraverts among females. The most notable difference between the general population and university students is the much higher proportion of Intuitive types among university students: there is also a somewhat higher proportion of Extraverted and Thinking types in this group.

Table 2: Proportions of Each MBTI Type in the United States

U.S. National Representative Sample							
Males				Females			
ISTJ	ISFJ	INFJ	INTJ	ISTJ	ISFJ	INFJ	INTJ
16.4%	8.1%	1.3%	3.3%	6.9%	19.4%	1.6%	0.8%
ISTP	ISFP	INFP	INTP	ISTP	ISFP	INFP	INTP
8.5%	7.6%	4.1%	4.8%	2.4%	9.9%	4.6%	1.8%
ESTP	ESFP	ENFP	ENTP	ESTP	ESFP	ENFP	ENTP
5.6%	6.9%	6.4%	4.0%	3.0%	10.1%	9.7%	2.4%
ESTJ	ESFJ	ENFJ	ENTJ	ESTJ	ESFJ	ENFJ	ENTJ
11.2%	7.5%	1.6%	2.7%	6.3%	16.9%	3.3%	0.9%
E = 45.9%		I = 54.1%		E = 52.6%		I = 47.4%	
S = 71.8%		N = 28.2%		S = 74.9%		N = 25.1%	
T = 56.5%		F = 43.5%		T = 24.5%		F = 75.5%	
J = 52.1%		P = 47.9%		J = 56.1%		P = 43.9%	
U.S. Traditional Age University Students							
Males				Females			
ISTJ	ISFJ	INFJ	INTJ	ISTJ	ISFJ	INFJ	INTJ
12.5%	5.4%	2.6%	5.4%	6.9%	11.5%	3.8%	2.2%
ISTP	ISFP	INFP	INTP	ISTP	ISFP	INFP	INTP
6.8%	4.1%	5.3%	6.6%	2.4%	5.7%	5.7%	2.1%
ESTP	ESFP	ENFP	ENTP	ESTP	ESFP	ENFP	ENTP
6.7%	4.4%	6.3%	6.8%	2.8%	8.3%	11.7%	3.5%
ESTJ	ESFJ	ENFJ	ENTJ	ESTJ	ESFJ	ENFJ	ENTJ
12.8%	5.5%	3.0%	5.8%	8.7%	15.1%	6.4%	3.2%
E = 51.2%		I = 48.8%		E = 59.8%		I = 40.2%	
S = 58.2%		N = 41.8%		S = 61.4%		N = 38.6%	
T = 63.4%		F = 36.6%		T = 31.8%		F = 68.2%	
J = 53.0%		P = 47.0%		J = 57.7%		P = 42.3%	

Source: Myers, McCaulley et al. (1998)

MBTI RESEARCH FINDINGS

MBTI Type and Job Satisfaction

Studies have shown that distributions of individuals across job roles are consistent with what would be predicted by type theory (Myers et al., 1998, Myers and Myers, 1980). We might also predict that congruence between type and the demands of an occupation would lead to higher levels of job satisfaction: Myers and McCaulley (1985, cited by Myers et al., 1998) state: *“When there is a mismatch between type and occupation, the client usually reports feeling tired and inadequate. According to type theory, the mismatch causes fatigue because it is more tiring to use less-preferred processes...Tasks that call on preferred and developed processes require less effort for better performance, and give more satisfaction”* (pg. 303). In a review of studies on this subject, Hammer (1986, cited by Myers et al. 1998) found some support for a link: *“A number of studies have ... suggested that those types who are less frequent or underrepresented in an occupation tend to be less satisfied or have higher intention to leave the occupation that do those types who are more frequent or whose fit with the occupation is judged to be better”* (pg. 303).

Hammer also found that Introvert and Perceiving types are less satisfied overall with their work than Extravert and Judging types. In a US national sample reported in Myers, McCaulley et al. (1998) it was also found that Extravert–Judging types reported the most satisfaction with their work, and Introvert–Perceiving types the least. Within this general pattern, there are differences in the proportions of each type reporting satisfaction on various particular work aspects, such as salary, environment and opportunity for learning.

MBTI Type and Leadership and Management

The MBTI has been widely used in leadership development and in related areas such as communication, dealing with conflict, team dynamics, organisational change, and decision-making (Myers et al., 1998). Studies across a number of countries and types of organisation have found a predominance of Thinking and Judging types among managers, both in absolute terms and relative to the general population: however, more research is required to confirm that this is a true finding rather than subjects falsely reporting preferences that they see as desirable management traits (Gardner and Martinko, 1996). In a study of accountants, Schloemer and Schloemer (1997) found that the proportion reporting a preference for Sensing was 67% overall, but only 39% among accounting firm partners / principals, suggesting that *“individuals with a preference for activities requiring a broad perspective and abstract reasoning have an advantage at higher levels in public accounting”* (pg. 33).

Gardner and Martinko (1996) report a number of additional findings with varying levels of support in the literature. Sensing managers tend to favour practical, conventional, detail-oriented and systematic behaviour and concrete information whereas Intuitive managers favour idealistic, unconventional and creative behaviour and abstract information. Overall, research suggests that Thinking managers engage in logical, analytical and impersonal process and are assertive in resolving conflicts, whereas Feeling managers rely on personal responses and tend to cooperate. There are also suggestions of differences between types in risk preference and tolerance, preferred environment, and decision-making style. While a number of studies have researched type and management effectiveness, the quality of such research is mixed and conclusions are inconsistent (Gardner and Martinko, 1996).

MBTI Type and the Accounting Profession

Numerous studies have indicated that between 34% and 46% of accountants and accounting students are of type –STJ, most commonly ISTJ followed by ESTJ (Taggar and Parkinson, 2007, Wheeler, 2001). This compares with only 20% of the general U.S. population and of U.S. university students. The predominance of –STJ types is similar for practicing accountants and accounting students and has not changed significantly over time (Briggs et al., 2007). Descriptions of the ISTJ and ESTJ types are given in Table 3.

Table 3: Myers’ Descriptions of Characteristics Frequently Associated with Types ISTJ and ESTJ

ISTJ	<i>“Quiet, serious, earn success by thoroughness and dependability. Practical, matter-of-fact, realistic, and responsible. Decide logically what should be done and work toward it steadily, regardless of distractions. Take pleasure in making everything orderly and organised – their work, their home, their life. Value traditions and loyalty.”</i>
ESTJ	<i>“Practical, realistic, matter-of-fact. Decisive, quickly move to implement decisions. Organise projects and people to get things done, focus on getting results in the most efficient way possible. Take care of routine details. Have a clear set of logical standards, systematically follow them and want others to also. Forceful in implementing their plans.”</i>

Source: Myers (1999)

Considering each of the four dimensions separately, most recent studies of accountants and accounting students (Satava, 1996, Schloemer and Schloemer, 1997, Wolk and Nikolai, 1997, Kovar et al., 2003, Briggs et al., 2007) show an approximate 50–50 split on the Extraversion–Introversion dimension. However, there is a clear preference for Sensing over Intuition (60 – 84% Sensing across these studies), Thinking over Feeling (63% – 80% Thinking across these studies) and Judging over Perceiving (62% – 80% Judging across these studies).

Larabee (1994) found that higher–level accounting students compared with sophomores are more likely to report preferences for Introversion (50% for higher–level students versus 40% for sophomores), Sensing (66% versus 61%), Thinking (72% versus 60%) and Judging (66% versus 57%). This result implies that students with the non–dominant preferences for Extraversion, Intuition, Feeling and / or Perceiving could be “filtered out” during study, possibly due to the nature of the material or the teaching styles of the accounting faculty (Larabee, 1994). Wheeler (2001) urges further research on this finding, and asks: “*What is the loss to the profession by this filtering process*” (pg. 144).

A number of researchers have expressed concern about whether those attracted to accounting have the diversity of skills to meet the challenges being faced by the profession. Briggs, Copeland et al. (2007) state: “*It seems likely that the immediate and important needs of the profession for accountants with a broader range of personalities, but especially for accountants with well–developed intuition and decision–making capacity and perhaps also for more accountants with value– and interpersonal–related skills, will not be met*” (pg. 531). They emphasise the importance of attracting and retaining a broader range of personality types, and giving accounting students more opportunity to develop the skills required.

MBTI Type and the Actuarial Profession

The sole published study of MBTI types among actuaries gives a detailed report on 304 Canadian actuaries, representing approximately one–sixth of the profession at that time, and broad results for 441 U.S. actuaries (Patrick, 1996). Table 4 shows the MBTI preferences of Canadian actuaries, split by English– and French–speaking individuals and by sex. Table 5 shows the most frequently occurring individual MBTI types among Canadian and U.S. actuaries.

Table 4: MBTI Preferences Reported by Canadian Actuaries

Population	Number of participants	Percentage of study population reporting preference										
		E	I	S	N	T	F	J	P	ISTJ	ESTJ	–STJ
English–speaking females	101	40	60	58	42	75	25	75	25	26	12	38
English–speaking males	128	27	73	41	59	88	12	59	41	21	6	27
French–speaking females	37	37	63	68	32	76	24	71	29	29	18	47
French–speaking males	38	34	66	53	47	89	11	61	39	18	13	31

Source: Patrick (1996)

Table 5: Summary of Most Frequently Occurring MBTI Types Among Canadian and U.S. Actuaries

English–speaking actuaries		French–speaking actuaries		U.S. actuaries ¹	
Females (n=101)	Males (n=128)	Females (n=37)	Males (n=38)	Females (n=226)	Males (n=215)
ISTJ (26%)	INTJ (22%)	ISTJ (29%)	INTJ (22%)	ISTJ	ISTJ
ESTJ (12%)	ISTJ (21%)	ESTJ (18%)	ISTJ (18%)	INTJ	INTP
INTJ (11%)	INTP (15%)	INTJ (8%)	INTP (15%)	INTP	INTJ
INTP (9%)	ENTP (9%)	ISTP (8%)	ESTJ (13%)	ESTJ	ENTP

Source: Patrick (1996)

Whereas both accountants and the general population show a roughly equal split between Extraverts and Introverts, Canadian actuaries and particularly male Canadian actuaries, are predominantly Introverts. There is a greater proportion of Intuitive types among Canadian actuaries than among accountants or the general population, particularly among males. This is perhaps not surprising given that actuarial work is concerned with modeling the financial consequences of long–term risks, for which the Intuitive emphasis on conceptual modeling, the future and the big–picture would be expected to be valuable. The Sensing emphasis on developing practical and workable solutions to real–world problems is clearly also highly–valued in actuarial work. Actuaries, particularly male actuaries, show an even stronger preference for Thinking over Feeling than accountants. Finally, whereas female actuaries share the accountant preference for Judging, this is less pronounced for male actuaries, whose preferences are broadly in line with the general population on this dimension.

¹ Percentages were not reported for U.S. actuaries

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Overall, this study suggests that actuaries as a group are more introverted than accountants. Female Canadian actuaries appear to show similarities with the personality profile for accountants, with a strong preference for Sensing, Thinking and Judging and with ISTJ and ESTJ being the most common types. Male Canadian actuaries show a stronger preference than female Canadian actuaries for Intuition over Sensing and a weaker preference than female Canadian actuaries for Judging over Perceiving, resulting in the INTJ, ISTJ and INTP types being the most common. Male and female U.S. actuaries appear to have a similar profile to male Canadian actuaries. Descriptions of the ISTJ and ESTJ types from Table 3 are repeated in Table 6, along with descriptions of the INTJ and INTP types.

Table 6: Myers' Descriptions of Characteristics Frequently Associated with Types ISTJ, INTJ, ESTJ and INTP

ISTJ	<i>“Quiet, serious, earn success by thoroughness and dependability. Practical, matter-of-fact, realistic, and responsible. Decide logically what should be done and work toward it steadily, regardless of distractions. Take pleasure in making everything orderly and organized – their work, their home, their life. Value traditions and loyalty.”</i>
INTJ	<i>“Have original minds and great drive for implementing their ideas and achieving their goals. Quickly see patterns in external events and develop long-range explanatory perspectives. When committed, organize a job and carry it through. Skeptical and independent, have high standards of competence and performance – for themselves and others.”</i>
ESTJ	<i>“Practical, realistic, matter-of-fact. Decisive, quickly move to implement decisions. Organise projects and people to get things done, focus on getting results in the most efficient way possible. Take care of routine details. Have a clear set of logical standards, systematically follow them and want others to also. Forceful in implementing their plans.”</i>
INTP	<i>“Seek to develop logical explanations for everything that interests them. Theoretical and abstract, interested more in ideas than in social interaction. Quiet, contained, flexible, and adaptable. Have unusual ability to focus in depth to solve problems in their area of interest. Skeptical, sometimes critical, always analytical.”</i>

Source: Myers (1999)

INITIAL AUSTRALIAN RESULTS

The IAAust Leadership Committee recently launched the Step-Up Program, aimed at accelerating the leadership development of young actuaries through a two-day “bootcamp” course combined with a practical project and a mentoring program. The program is targeted at members of the profession who have at least five years of commercial experience together with an interest in leadership development and a desire to make a service contribution in business, the community or the profession.

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Of the 18 participants in the 2009 Step–Up Program, 15 returned an anonymous survey which collected information about MBTI preferences, satisfaction with the actuarial career, reasons for pursuing an actuarial career, and satisfaction with current job role. With only 15 respondents, who are likely not representative of the profession due to their particular interest in leadership development and their selection into the program, this study cannot be expected to yield any conclusions about personality types of actuaries and links with job satisfaction. It may, however, raise possible questions for future, more detailed research.

Results from the 15 participants are summarised in Table 7. Three of the 15 reported a tied score on the questionnaire items measuring the Sensing–Intuition preference; all three self–described as Intuitive rather than Sensing so have been placed in that category². After this allocation, of the 15 participants three each are ENFJ and INTP, two each are ENTJ, ESTJ, and INTJ and one each are ENTP, INFJ and ISTP.

Table 7: MBTI Preferences Reported by Australian Step–Up Program Participants

Percentage of study population reporting preference																	
E	I	S	N	T	F	J	P	ENFJ	INTP	ENTJ	ESTJ	INTJ	ENTP	INFJ	ISTP	–STJ	
53	47	20	80	73	27	67	33	20	20	13	13	13	7	7	7	13	

These results reveal a substantially different personality profile from Patrick’s (1996) study of the Canadian actuarial profession. The proportion of Extraverts is higher, the proportion of Intuitive types is very much higher, and the proportion of Thinking types is a little lower in this sample. The ISTJ type, the most common in Patrick’s (1996) study and in the cited studies of accountants and accounting students, is not represented *at all* in this group. The proportion of –STJ types overall is only 13% which is less than the 20% found in the general population and substantially less than the 34–46% found in studies of accountants. As noted previously, the results would not be expected to be representative of the Australian actuarial profession: the participants are a select group who are interested in leadership and who have been identified as having leadership potential, the participants are not of the same age and gender mix as the profession as a whole, and the sample is too small to draw meaningful conclusions.

Few links between personality type and career satisfaction can be identified from such a small sample. A notable result is that Feeling types, in response to the question “*Today, how closely do you think that the actuarial studies subject matter aligns with your true personality and interests?*” were much less likely to answer “*Very closely*” or “*Somewhat closely*”. Only one of four Feeling types gave this response, compared with 8 of the 11 Thinking types. Feeling types may feel that the objective, impersonal nature of their work doesn’t suit their natural talents and preferences. Somewhat at odds with this result is the finding that Feeling and Thinking types reported roughly equal levels of satisfaction with their choice of an actuarial qualification and with their current role.

A larger study of personality types of actuarial students is underway (Tickle, forthcoming). This research is expected to provide more reliable and current information about the MBTI preferences of actuarial students, and to illuminate links between MBTI type and satisfaction with the actuarial studies program.

² One of the fundamental principles of type theory is that type is “self-validated”.

DISCUSSION

There is some support for the stereotype of the actuary as tending towards introversion: Patrick (1996) found that roughly two-thirds of her sample of Canadian actuaries reported this preference, compared with roughly half of accountants and the general population. It is important to emphasise that the preference for Introversion indicates that the individual is energised by his or her inner world of ideas and prefers to direct energy in this direction: it does not indicate a lack of sociability or an inability to interact with others.

The view of the actuary as “*brainy and exact*” (Shankar, 2008), “*conservative*” and “*specialist*” (Gale et al., 1995) does not find support in the studies that have been conducted. A practical, conservative and detail-oriented approach tends to be associated with the Sensing preference, whereas a conceptual, imaginative and big-picture approach tends to be associated with the Intuitive preference. Patrick’s (1996) study suggests that actuaries are split roughly equally between these two preferences, whereas the split in the general population and among accountants is roughly 70–30 in favour of Sensing. Among the small group of participants in the IAAust Step-up Program, Intuitive types significantly outnumber Sensing types.

Actuaries certainly seem to have a preference for Thinking over Feeling as a basis for decision-making, with over 80% of Canadian actuaries favouring Thinking (Patrick, 1996). The Thinking preference is more prevalent in our profession than in accounting, and substantially more prevalent than in the general population. This is consistent with the image of the actuary as technical, analytical, logical and critical. Actuaries show a greater preference for Judging over Perceiving than the general population, but not quite as strong as that found in most studies of accountants.

Overall, actuaries as a group demonstrate clear preferences for Introversion and Thinking, but are otherwise reasonably diverse. In particular, the predominance of –STJ types which is causing the accounting profession some consternation does not appear to be as pronounced among actuaries.

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