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# WOMEN IN THE ICT PROFESSION: DOES MEMBERSHIP OF A PROFESSIONAL ASSOCIATION MAKE A DIFFERENCE TO THEIR CAREER?

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This paper provides the results of a comparative analysis of female Members and Non-Members of the Australian Computing Society (ACS). The data was collected through an on-line nation-wide survey of women in Australia's Information Communications Technology (ICT) sector. An analysis of the demographic characteristics and career experiences of ACS Members and Non-Members, identified statistically significant differences in the two cohorts in relation to age, years of experience in ICT, job role, educational qualifications and income.

**Keywords:** Information communication technology, Women, Profession, Professional membership, Australia.

## Introduction

Professional associations provide an avenue for increased public awareness and play a significant role in skill development, training and career development of its members (Phillips & Leahy 2012). Strong professional associations (PA's) are essential for supporting the professions they represent. However, professional membership patterns vary considerably within different associations. For instance, as at February 2013 there were an estimated 597,700 Information Communication Technology (ICT) workers employed in Australia with 169 400 women and 428 300 men (ACS 2013). Approximately 20 630 ICT workers were 'Members' of the Australian Computer Society (ACS 2014).

It is evident that women are under-represented in the ICT workforce and in the professional society that represents them. For example, women constitute approximately 28 per cent of the ICT workforce and approximately 18 per cent of the total ACS membership (ACS 2014). Although women, compared to men, are more likely to engage in volunteering actions (Markova et al. 2013), no studies have been undertaken to determine if there are specific differences between women in the ICT industry who join professional associations as opposed to non-members. The absence of empirical research and limited application of theoretical frameworks have hindered the professions' ability to identify appropriate intervention strategies to deal with the limited membership participation.

Social exchange theory (SET), the most commonly used theory to assess the motives of professional association membership (Lee et al. 2014; Phillips & Leahy 2012), provides the framework for this paper. SET argues that membership of a PA would increase if potential members believed that they would derive adequate and justifiable return through their membership cost – both financial and others. Consequently, the objective of this study is to explore the major reasons that influence the professional association

membership of women in the ICT sector and to test the theoretical hypotheses relating to female membership.

The lack of data concerning the profile of women in the ICT sector prompted the Women's Board of the Australian Computer Society (ACS W) to undertake a survey of female ICT workers. The survey concluded in January 2013. The Australia-wide online survey sought to obtain both quantitative and qualitative data concerning the demographic characteristics and career experiences of ACS Members and Non-members engaged in the ICT sector. Specifically, the research sought to determine if there were differences between ACS Members and Non-members in relation to age, length of service, educational qualifications, job role and income. Five hundred and forty four women completed the online survey.

This paper commences with a review of the available literature on the topic. The methodology used in the study is then explained. A comparative analysis of respondents according to age, income, educational qualifications, employment role, length of service is undertaken for two cohorts defined by ACS Membership and Non-Membership. The paper then discusses the survey results. The paper concludes with summary of the survey results.

## Literature Review

Whilst ICT is not recognised in official statistics as an industry sector in its own right, ICT workers are employed across all sectors of the Australian economy (ACS 2013; Deloitte 2015). According to Deloitte (2015) over 50 per cent of ICT workers are employed in industries outside of the ICT sector. These industries include professional services, public administration and financial services.

Defining the ICT profession is difficult and the diversity of ICT roles exacerbates the problems with trying to describe what constitutes an ICT 'professional'. In the absence of a unifying definition Boughton (2013) suggests that ICT professionals are characterised by attitude and character as opposed to specific job roles and qualifications. Miller and Voas (2008) posit that working for the public good should be the primary criteria that defines an ICT professional; Agresti (2008) argues that mastery of a recognised body of knowledge is fundamental to the profession; Davidson et al (2006) maintain that an ICT professional should enact ethical values consistent with both a high level of reasoning and the prevailing societal culture and; Denning and Frailey (2011) assert that accreditation, certification are the hall marks of a mature ICT profession.

According to Boughton (2013:85) professions, are usually exemplified in the form of an association/society/body of like-minded colleagues. They are typically not-for-profit organisations sustained by a combination of the volunteer efforts of members, subscriptions and fees for services (Beaton 2010). They are created to represent and support those who are accepted as accredited members, and to maintain professional integrity, values and recognition (Boughton 2013).

Beaton (2010) argues professional associations (PA's) wield a significant set of functions. Hagar (2014) maintains that these functions have both public and private benefits. According to Beaton (2010), PA's have a strong interest in ensuring that the practice of relevant professions is undertaken by properly trained practitioners and as a consequence, enhance the professions' prestige. Numerous authors also argue that the professions have an obligation to represent and uphold the public interest (Beaton 2010; Davison et al. 2006; Fabian 2009). Whilst Harvey (2004) posits that PA's also have a responsibility to represent the interests of individuals engaged in that profession.

A review of the literature reveals there is a significant body of information on the topic of why people join professional associations (Bauman 2008; Hager 2014; Markova et al. 2013) . Whether it is from altruistic or pragmatic motives, people join PA's for a variety of reasons. Pellegrino (1983) suggests that individuals join professions out of the human need to form relationships. He asserts that membership fulfils an innate need to relate to others who have similar interests (Pellegrino 1983). Markova et al (2013) argues that PA's offer the opportunity to define one's professional identity. Others join for the more tangible benefits such as learning opportunities, career development, certification to practice, employment assistance and access to knowledge and information (Hager 2014; Markova et al. 2013).

Social exchange theory (SET), the most commonly used framework for assessing the motives of PA membership (Lee et al. 2014; Phillips & Leahy 2012), argues that the concept of reciprocity is important to both members and professional associations. Reciprocity allows a mutually beneficial relationship to arise. The key proposition of this theory is that for any exchange to occur, both parties to the exchange (giver and receiver) must feel that they are adequately compensated for their contribution and the benefits of the exchange are commensurate with the effort of exchange. SET also posits that the interdependent transactions have the potential to generate high-quality relationships between the parties to any exchange (Cropanzano & Mitchell 2005). The notion of 'self-interest' is paramount to the parties involved in exchange.

## Hypothesis Development

The review of the literature indicates there is often conflicting information on the demographic variables that define 'Membership' and or 'Non-membership' of PA's. Consequently, the hypothesis are developed from a combination of the literature and what is inferred from the ICT industry specific characteristics such as the age profile, qualifications, length of service, job role, and the income level of ICT workers. This framework forms the basis of the development of the hypotheses of the study.

### Age

Research indicates that there is a relationship between age and membership of voluntary organisation (Cutler & Hendricks 2000). According to Cutler (1976, 1977) the relationship is described as a curvilinear, reflecting time and resources available to people of differing ages. Cutler and Hendricks (2000) study of 16 membership organisations indicated that participation rates are low at the younger ages and rise to a peak among those aged 40–44 years. Thereafter, membership levels decline fairly steadily, with a substantial decrease occurring between the age groups 55–59 and 60–64 years.

There is however, a general consensus amongst researchers that participation rates of voluntary associations cannot be examined in a vacuum; they are linked to previous experience, family, work, consumption cycles, and to compositional characteristics of groups (Cutler & Hendricks 2000; Wilensky 1961). Intangible and difficult to quantify factors such as the degree of identification with the profession and the degree of altruism also influence a person's decision to join PA's. Based upon evidence presented in the literature review it is hypothesised that:

H1 Female membership of the ACS is related to age

### Educational Qualifications

There is a well-established direct, positive relationship between educational attainment and Membership of PA's (Cutler & Hendricks 2000; Fischer, Mueller & Cooper 1991; McPherson & Ranger-Moore 1991; McPherson & Rotolo 1996). Cutler et al (2000) posit that this relationship exists both in terms of the actual number of members, as well as the intensity of their engagement. Initial research by Mc Pherson and Ranger-Moore (1991) concluded that educational attainment is a strong, stable predictor of membership of volunteer organisations. Whether this relationship is because educational attainment is often a criteria of membership of PA's, or is due to the fact that educational attainment is related to opportunity to engage with the profession is difficult to determine. Based on evidence presented in the literature review if is hypothesised that:

H2 Female membership of the ACS is related to educational qualifications

**Years of Experience in ICT**

A review of the literature indicated no research that links the variable 'Years of experience' with 'Membership' of PA's. However, a study of the employment experiences of women in the ICT sector by Warne, Bandias and Fuller (2011) revealed that, for a significant number of women, their career path had been interrupted. Approximately 44 per cent of women participating in the study had taken a career break at some point in their working life. According to Warne, Bandias and Fuller (2011) child care, study commitments and caring responsibilities, were the most commonly cited reasons for a mid-career break. The study also revealed that ICT was a second or subsequent career for more than 50 per cent of survey respondents. Consequently, the length of service for women working in ICT is often affected by either a late entry into the industry or by a career break during their working lives. It is therefore hypothesised that:

H3 Female membership of the ACS is related to years of experience in the industry

**Income**

According to Duncan (2010) socio-economic status has been identified as an important predictor of association membership. Duncan (2010) argues that access to material resources, such as income, increases the likelihood of participation in groups and associations. Research by Hermann and Kopasz (2011) also determined a significant positive relationship between income and membership of voluntary associations. Similarly, a study by Duncan (2010) which investigated the influence of individual income, neighbourhood poverty and income inequality on voluntary association membership, also found a positive relationship between income levels and membership of associations. Based upon this evidence it is therefore hypothesised that:

H4 Female membership of the ACS is related to income.

**Job Role**

Professional associations had their origins in occupations that encompassed a specific and select body of knowledge. According to Beaton (2010) the three classical professions were Divinity, Law and Medicine. Although knowledge has expanded and the number of professional occupations has proliferated since the genesis of the 'professions', membership of a PA still defines the identity of certain occupations (Beaton 2010; Fabian 2009; Markova et al. 2013). Given the diversity roles within the ICT industry it is hypothesised that certain job roles are perceived as a 'profession' as opposed to a trade or skill set. Occupants of these 'professional' roles are more likely to be attracted to membership to the ACS. It is there for hypothesised that:

H5 Female membership of the ACS is related to job role.

**Methodology**

Given the large population that was to be surveyed, an online survey was considered to be the best methodology to use for data gathering. Whilst the use of online survey research is considered to be '…young and still evolving' (Wright 2005:1), the advantages and disadvantages of employing an online survey methodology are well documented (Andrews, Nonnecke & Preece 2003; Birnbaum 2004; Couper 2000; Kaye & Johnson 1999; Wright 2005).

The potential respondents to the 2012 survey included female Members of the ACS, Members of similar ICT groups, Vocational Education, Under Graduate and Post Graduate students and women who

self-identified as ICT workers. Potential respondents were contacted via the ACS, the ICT Council of Deans, State and Territory Industry Training Advisory Board's (ITAB's), social media and professional networking sites. Five hundred and forty four women completed the survey. The respondents were broadly representative of women in the Australian ICT industry (Deloitte 2015).

The survey authors, mindful of the privacy issues surrounding data collection methods took precautions to ensure that the survey respondents remained anonymous. In order to minimise any privacy issues that may have arisen, to preserve the integrity of the survey and to mitigate the concerns of respondents, personal data such as names and contact details were disaggregated from the survey data and stored separately.

The survey consisted of 35 questions that explored the respondent's age, qualifications, ACS membership, remuneration, time spent and roles in the ICT industry. The survey also asked participants to identify the factors that influenced their career choices. The questions were both quantitative and qualitative in nature and were designed to obtain statistical as well as descriptive responses. Potential survey respondents were contacted, via email and social media prior to the release of the survey. Follow up contact was initiated in order to maximise the response rate.

The statistical software package SPSS was used to analyse the survey data. Since most of the data collected through the survey is categorical in nature, a Pearson Chi-Square analysis was conducted on two sets of variables. In order to provide a detailed analysis of the demographic context of the survey respondents, SPSS was also used to create a number of cross tabulations.

**Survey Respondent Demographics**

Approximately 97 per cent of all survey respondents resided in Australia. The remainder indicated they lived overseas. Eighty three per cent were Australian citizens. The highest proportion of respondents were from New South Wales (26 per cent), followed by Victoria, Western Australia, Queensland, the Australian Capital Territory, South Australia, The Northern Territory and Tasmania. Ninety four per cent resided in an urban area; six percent in a rural area and; less than one percent lived in a remote location.

Fifty seven percent of respondents were under the age of 45. Approximately 14 per cent were aged between 45 and 49; 12 per cent were aged between 50 - 54; nine per cent were in the 55 - 60 age range; and eight percent were aged over 60. The highest concentration of respondents (35 per cent) was in the 25 – 39 age range.

The majority of respondents (50 per cent) had post graduate qualifications. Approximately 14 per cent indicated that their highest educational qualification was at the Vocational education level and included either a Certificate or a Diploma; 31 per cent had an Under-Graduate degree; 18 per cent had a Post-Graduate Degree or a Diploma; 23 per cent had a Masters; and nine percent has a Doctoral qualification. Less than four per cent indicated their highest educational qualification was in the secondary education sector.

Thirty seven per cent of respondents had worked in the ICT sector less than 10 years; 30 per cent had been in the ICT sector between 10 - 20 years; 28 per cent has been in the sector for more than 21 years. Four per cent of respondents did not work in the ICT industry.

The majority (70 per cent) of respondents were employed full time. Nine per cent were employed part time; 3 per cent were on short term contracts; 1 per cent was employed on a casual basis; 6 per cent were self-employed; 6 per cent were studying either part time or full time; and 6 per cent were either retired or unemployed.

The survey respondents were employed in a range of roles. Approximately 13 per cent were employed in an ICT consulting role; 11 per cent were in IT management; nine per cent were project managers; eight percent were in executive/management positions; and eight per cent were business analysts. The remainder of the respondents (approximately 50 per cent) were employed in relative small numbers as document writers, project leaders, graphics designers, programmers, research and development, teaching, data base administrators, computer support, sales and marketing, web developers, help desk support, software engineers and ICT security. Approximately eight per cent were employed in

"other" occupations that included areas as diverse as accounting, library management, educational design, medical practice management, journalism, ICT skills assessor and email management.

Eleven percent of respondents earned less than $50 000 per annum; 17 per cent earned between $50 000 - $75 000; 10 per cent earned between $75 000 - $90 000; 19 per cent earned $90 000 - $110 000; 22 per cent earned $110 000 - $200 000; eight per cent earned between $150 00 and $200 000; and three per cent earned more than $200 000 per annum

As discussed, 544 respondents completed the online survey. Approximately 83 per cent of respondents were Members of the ACS and the remaining 17 percent of respondents were Non-members. Of the respondents that were member approximately 7 per cent were 'Student' Members; 55 per cent held the grade of 'Member'; 17 per cent were 'Senior Members'; 16 per cent were 'Associate' Members; and 5 per cent were 'Fellows' of the ACS. Approximately 43 per cent had been member of the ACS for less than three years; 31 per cent had been Members for 3-10 years; 13 per cent had been member for 11- 20 years and 14 per cent had been Members for more than 20 years.

A cross tabulation analysis of the variables 'Membership Status' and 'Career Choice', indicate that for a significant number of women, ICT was their second or subsequent career. Approximately 57 per cent of 'Non ACS members' and 60 per cent of 'Members' had worked in other industry sectors prior to establishing a career in ICT. ICT was the first career for marginally more 'Non-members' than 'Members' – 43.6 per cent as opposed to 40.5 per cent.

## Data Analysis

### Age and Membership Status

A Pearson Chi-square test was performed to examine the relationship between the variables "Age" and "ACS Membership Status". The relationship between these two variables was found to be significant, $\chi^2$ (24, N = 544) = 565.43, $p < 0.01$. The results indicate a strong positive relationship between these two variables. As indicated in Table 1, the ratio of ACS members to Non-members increased with age. With the exception of the 30 – 34 age cohort the percentage of women who were members of the ACS was double that of Non- members. Therefore, Hypothesis One - Female membership of the ACS is related to age, is supported.

**Table 1.** Age and ACS Membership Status (Actual Numbers and Percentages)

| Age | Blank | Non member | % | ACS member | % | Total |
|---|---|---|---|---|---|---|
| Blank | 4 | 0 | 0 | 0 | 0 | 4 |
| 18-20 | 0 | 0 | 0 | 5 | 100 | 5 |
| 21-24 | 0 | 8 | 28 | 21 | 72 | 29 |
| 25-29 | 0 | 20 | 30 | 46 | 70 | 66 |
| 30-34 | 0 | 26 | 37 | 45 | 63 | 71 |
| 35-39 | 0 | 10 | 18 | 45 | 82 | 55 |
| 40-44 | 0 | 16 | 22 | 57 | 78 | 73 |
| 45-49 | 0 | 17 | 22 | 61 | 78 | 78 |
| 50-54 | 0 | 11 | 17 | 55 | 83 | 66 |
| 55-60 | 0 | 9 | 18 | 42 | 82 | 51 |
| Over 60 | 0 | 8 | 18 | 36 | 82 | 44 |
| Also it | 0 | 1 | 100 | 0 | 0 | 1 |
| **5. Decl** | **0** | **1** | **100** | **0** | **0** | **1** |
| **Total** | **4** | **127** | **23** | **413** | **76** | **544** |

**Educational Qualifications and Membership Status**

A Chi -Square analysis of the variables "Educational Qualifications" and "ACS Membership Status " indicated a strong positive relationship between these two variables, $\chi^2$ (16, N = 544) = 571.77, p < 0.01. As indicated in Table 2, ACS Members are more likely to hold an Under Graduate degree or a Post Graduate qualification than Non-members. The data analysis substantiates the Hypothesis Two - Female membership of the ACS is related to educational qualifications.

**Table 2.** Educational Qualifications and ACS Membership Status (Actual Numbers)

| Membership Status | Blank | Secondary School | Cert | Dip | Under-Grad Degree | Post-Grad Degree | Masters | PhD | Void | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Non-member | 0 | 8 | 14 | 12 | 42 | 21 | 16 | 12 | 2 | 127 |
| ACS Member | 0 | 16 | 14 | 37 | 124 | 77 | 110 | 35 | 0 | 413 |
| **Total** | **4** | **24** | **28** | **49** | **166** | **98** | **126** | **47** | **2** | **544** |

**Years in Industry and Membership Status**

As demonstrated in Table 3, a Chi -Square analysis of the variables "Yeas in ICT Industry" and "ACS Membership Status " was also conducted. The relationship between these two variables was found significant, $\chi^2$ (18, N = 544) = 568.09, p < 0.01. The results indicate a strong positive relationship between years of experience in the ICT sector and ACS membership. Women were more inclined to join the ACS as their length of service increased. Consequently, Hypothesis Three - Female membership of the ACS is related to years of experience, is supported.

**Table 3.** Years in ICT Industry and ACS Membership Status (Actual Numbers and Percentages)

| Membership Status | Blank | 0-2 | 3-5 | 6-10 | 11-14 | 15-20 | 21-30 | 30+ | NA | VOID | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Non-Member | 0 | 16 | 17 | 28 | 20 | 14 | 13 | 10 | 7 | 2 | 127 |
| % | | 28 | 27 | 35 | 28 | 16 | 13 | 19 | 32 | 100 | 23 |
| ACS Member | 0 | 42 | 47 | 53 | 52 | 75 | 85 | 44 | 15 | 0 | 413 |
| % | | 72 | 73 | 65 | 72 | 84 | 87 | 81 | 68 | 0 | 76 |
| **Total** | **4** | **58** | **64** | **81** | **72** | **89** | **98** | **54** | **22** | **2** | **544** |

**Income and Membership Status**

A Chi -Square analysis of the variables "Salary Range " and "ACS Membership Status " indicated a strong positive relationship between these two variables , $\chi^2$ (16, N = 544) = 566.59, p < 0.01. As indicated in Table 4, ACS Members are more likely to have higher salaries than Non-Members. The percentage of ACS members with salaries of more than on more than $50K is twice that of Non-members. Four times the number of ACS members have salaries in the $110k to $150k range than Non-members. This ratio rises to 19 to 1 when the salary is in excess of $150k. Consequently, Hypothesis Four - Female membership of the ACS is related to income, is correct.

**Table 4.** Salary Range and ACS Membership Status (Actual Numbers)

| Membership Status- ACS | Blank | <50k | 50k-75k | 75k-90k | 90k-110k | 110k-150k | 150k-200k | >200k | VOID | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Non-Member | 0 | 7 | 27 | 29 | 26 | 18 | 2 | 2 | 16 | 127 |
| % | 0 | 13 | 33 | 32 | 28 | 17 | 5 | 13 | 25 | 23 |
| ACS Member | 0 | 46 | 55 | 62 | 67 | 85 | 38 | 13 | 47 | 413 |
| % | 0 | 87 | 67 | 68 | 72 | 83 | 95 | 87 | 75 | 76 |
| **Total** | **4** | **53** | **82** | **91** | **93** | **103** | **40** | **15** | **63** | **544** |

## Job Role and Membership Status

As demonstrated in Table 5, a Pearson Chi -Square analysis of the variables "Job Role" and "ACS Membership Status" was also conducted. The relationship between these two variables was also found to be significant, $\chi^2$ (48, N = 544) = 597.72, $p < 0.01$. Job role is indicative of ACS membership. ACS members are more likely than Non-Members to be employed in Consulting, Project Management and Executive/Management roles. The data analysis indicates that Hypothesis Five - Female membership of the ACS is related to job role- is also supported.

**Table 5.** Job Role and ACS Membership Status (Actual Numbers)

| Job Role | Non-member | ACS member | Total |
|---|---|---|---|
| Consulting | 5 | 56 | 61 |
| Research and Development | 10 | 5 | 15 |
| Research and Teaching | 7 | 14 | 21 |
| Teaching and Training only | 2 | 13 | 15 |
| Database Administration | 2 | 1 | 3 |
| Sales and Marketing | 2 | 3 | 5 |
| Analysis and Testing | 5 | 12 | 17 |
| Computer Support | 5 | 8 | 13 |
| LAN Manager/Admin | 2 | 0 | 2 |
| Webmaster/Internet Developer | 1 | 11 | 12 |
| Software Engineer | 6 | 11 | 17 |
| Project Management | 9 | 33 | 42 |
| Help Desk Support | 3 | 4 | 7 |
| Business Analyst | 11 | 27 | 38 |
| ICT Security | 3 | 6 | 9 |
| IT Management | 7 | 45 | 52 |
| Documentation/ Report Writer | 0 | 4 | 4 |
| System Management | 4 | 11 | 15 |
| Project Leader | 1 | 3 | 4 |
| Computer Graphics/Designer | 1 | 0 | 1 |

| | | | |
|---|---|---|---|
| Programmer/Analyst | 8 | 22 | 30 |
| Executive/Manger | 5 | 32 | 38 |
| Other | 12 | 45 | 57 |
| Void | 16 | 47 | 63 |
| Blank | 0 | 0 | 4 |
| Total | | | 544 |

## Discussion

The data analysis indicated that, in every age cohort there was a higher percentage of ACS Members than Non-Members. A significant percentage of women over the age of 50 were members of the ACS. Non-Membership was highest amongst respondents under the age of 34. The data analysis also indicated that women were more inclined to join the ACS as their length of service in the IT sector increased. Whilst 76 per cent of all respondents were members of the ACS, this rose to over 82 per cent when women had 15 or more years of experience in the ICT sector.

Non – Members of the ACS had a variety of work roles. The respondents were employed across a wide range of occupations that included analyst positions, teaching, research and development, web design, sales and marketing, consulting and help desk support. Substantially fewer Non-Members than ACS members were employed in Consulting, Project Management and Executive/Management roles.

The variable 'Educational Qualifications' was also positively and significantly related to ACS membership. A Diploma, Certificate or Secondary education was the highest educational qualification of relatively few respondents. However, ACS Members are more likely than Non –Members, to hold an Under Graduate degree or a Post Graduate qualification. Approximately 31 per cent of all respondents held an Under Graduate degree and of this cohort, 25.3 per cent were Non-Members. However, more than 87 per cent of the respondents who held a Master's degree were members of the ACS.

Income was also found to be a determinant of ACS membership. The percentage of ACS members with salaries of more than on more than $50K is twice that of Non-Members. Four times the number of ACS members had salaries in the $110k to $150k range. This ratio rose to 19 to 1 when the salary was in excess of $150k.

## Conclusion

The paper examined the differences in the demographic and work related characteristics of two cohorts of female ICT workers. The two cohorts consisted of Members of the ACS and Non- ACS members. The data was collected from five hundred and forty four women who completed and Australia wide on line survey. Approximately 83 per cent of respondents were Members of the ACS and the remaining 17 percent of respondents were Non-Members. The data analysis indicated there was a significant, positive relationship between membership of the ACS and age, income, educational qualifications, years of experience and job role. In the Australian context women who join a professional IT association are likely to be older; have considerable experience in the industry; hold an Under Graduate or Post Graduate Degree; be high income earners and; be employed in Consulting, Project Management and Executive/ Management roles.

This paper has provided profile of the female Membership of the ACS. However, a significant number of the women who work in the Australian ICT sector choose not to become Members. Consequently, there is an opportunity for the PA to expand its membership by providing value added services to the cohort who is currently under-represented in the ACS. Building a mutually beneficial relationship with young women through the provision of education and training opportunities, career advice and promoting the tangible and intangible benefits of a long term career in ICT would assist the

ACS in remaining a relevant and an attractive proposition for prospective members. Establishing a sense of collegiality and professional identity amongst the women employed in occupations currently under represented in the ACS would potentially provide reciprocal value for members, the ICT sector, employers as well as the ACS. In the social exchange between PA's and their current and prospective members, reciprocity, mutual benefit and 'compensation' for the cost of time and effort needs to appeal and promote and professional identity of all the ICT sector.

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