

CPCU Society: Factors affecting the decline in membership

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Introduction

There has not only been a significant rise in national membership of CPCU society beginning august of 1994 through august of 1999, but also a consistent decline since then until august of 2005. This declining trend will likely continue in the near future as is projected. CPCU or Chartered Property Casualty Underwriters Association, which was founded in 1944, is an organization of members committed to support of Casualty and Property Professionals. There are about 28,000 members currently in this society, who became members by passing a set of 8 rigorous set of examinations, gained an equivalent of 3 years of experience in Property and Casualty Industry, and have made a commitment to follow a required set code of ethics. There is an urgent need to find out which Macroeconomic factors, various personal factors, and societal factors that might have affected in membership decline of CPCU society (source: www.cpcusociety.org). These factors will be studied individually and on aggregate basis.

CPCU society is among a very few nationally recognized Property and Casualty Underwriters association and so there is not much related information available regarding membership decline among such associations. Although, there seems to be a breadth of literature available on Labor Union Organizations Membership, and so we will most likely draw upon the diverse literature and studies conducted on Unions, Industries and Membership Organizations recently and from distant past. Unless specified, Unions, Industries and Membership Organizations will commonly be referred to just as organizations.

This paper considers several internal (affiliated with CPCU society) factors and external (not related to CPCU society) factors. The discussion of factors can be followed within the categories of Macroeconomic and Microeconomic variables. Both of these aspects are pertinent

to understand some of the issues related to the Property and Casualty Industry and CPCU society.

This article will be structured in the following way. First section will consist of Literature review. Second section will consist of Data and Methodology. Third Section will consist of Results and its discussion. Fourth section will contain some Remarks and Conclusion. After that, a section of Appendix, Notes, and References will end our article in the order mentioned.

Literature Review

Our issue at hand is to determine the various factors that affect the national membership of CPCU society. In order to understand the main issue we need to know more about the organization itself. CPCU society website might be the best resource available, as most of the information regarding the activities of the society is available online. However, probably due to privacy issues, the website does not contain any information about how many members currently serve on the society. The number of national members is an important dependent variable we are trying to predict based on available macroeconomic data on the Property and Casualty Industry and internal data on the composition of members of the society. Apart from that, the site does not contain any historical statistics provided on the site currently. The statistics that are available online show data on the members by income level, by highest degree earned, by age, by state, by interest groups, by business types, by level of position, by primary job function etc. which are available by following the link “about us” and then clicking “CPCU society statistics” from the cpcu society home website. However, these statistics provide some insight into what type of factors we might be dealing with.

Some interesting statistics are shown in table 1. Over time these statistics change and also one can relate their change to the change in overall membership of the society. Income data on members is an interesting factor, because one would like to know whether the average income level among the CPCU society members has increased or decreased in relation to the Property and Casualty Industry over time. Highest degree earned is important, as most of the CPCU society members either have Bachelor's degree or degrees that are not the same as the Master, PhD, or an associate degree. Now, it would be very interesting to find out if the percentages of the Bachelors graduating from the insurance industry that become CPCU society members change over time. If the percentage is declining, then we know that fewer graduates might be joining the society. Another concern would be that whether the CPCU designees among this group are declining as well. It is possible that many fresh graduates are not interested in becoming a CPCU. So, then there are many possibilities. They might be interested in other areas of the insurance industry, like going for a CAS membership designation. The reasons for turning towards becoming CAS society member might be due to higher income offered, or maybe more benefits or resources that might be available to someone. Therefore, percentage of Bachelors who are CPCU society members is an important variable if noticed over time.

Another major source of information that needs to be considered is the surveys conducted by companies like Accenture on the issues or concerns raised by the CPCU society members, and are available to public. CPCU designation has a competition from another professional degree called the MBA. MBA is perceived to be a substitute for CPCU designation (source:

TABLE 1		Statistics for June 2008	
Percentage of Members by income level		Percentage of Members with highest degree earned	
\$29999 and under	2.2%	Associate's	1.0%

\$30000-\$39999	6.3%	Bachelor's	44.3%
\$40000-\$74999	33.1%	Master's	7.8%
\$75000-\$99999	17.2%	Doctorate/Law	2.1%
\$100000-\$149999	21.9%	Unknown	44.7%
\$150000 and over	9.3%		

Source://www.cpcusociety.org

www.cpcusociety.org). Also, Baby Boom Generation is here to stay in work force for a longer period than the generation before or after it, which has increased the risk of increasing cost for a larger work force for this industry (source: www.cpcusociety.org). Age and Experience seem to have major impact on attainment of the CPCU designation (source: www.cpcusociety.org). The Casualty Actuarial Society Membership has actually been rising rapidly in membership while CPCU society's membership has been declining in the same period (source: www.cpcusociety.org). There is also some fear of competition from industries like GEICO and Progressive, who offer similar services without the need of CPCU designation (source: www.cpcusociety.org). The main focus of this paper will include only some aspects of them, while the majority of issues will be comparatively analyzed with the organizations mentioned in previously.

Why has been the CAS Society's membership rising, while the CPCU society's membership has been declining in the same period? First we try to understand some of the facts regarding CAS Society. CAS Society was first formed in 1914 by the first President of the Society himself. The purpose of this society was to keep up-to-date knowledge of the Property and Casualty Insurance Industry among the Industry's professionals and also to inform the general public by conducting seminars that involve presentation of research papers and publications and maintenance of a breadth of literature related to this Industry (source: www.casact.org).

There are some basic similarities and differences among the two societies. CAS society was formed much earlier than the CPCU society. The numbers of members vastly differ among the two societies as well. CAS society has more than 4849 members (source: www.casact.org), of whom many are industry professionals, but is only about 17% of the CPCU society's overall membership. So, the scale of the membership numbers is an important issue on its own. There is about 96 different committees listed on the CAS website each containing groups of two to three members to groups containing 100s of members. Now, CPCU society itself has about 150 local chapters that are located in all the 53 states of U.S. Just as the various chapters within the CPCU society, the committees serve as interest groups to attract and market the value of the CAS society. Now, the local chapters of the CPCU society were most likely established more or less around the same time when the society as a whole was formed, but the committees were established separately from each other at various times throughout the life of the CAS society. Also, it might be the case that when one has freedom to join any committee of his/her interest there is also more likely formations of groups of members who have common characteristics. It is possible that many of these committees have a majority of members who are young and so have different opinions as their older counterparts. In contrast to that, the numbers of local chapters of the CPCU society have not been changing and their structure of organization might have stayed the same for a long time. So, the structure of the two societies is quite different and it is most likely possible that one structure is more preferred over the other by the various members of these societies.

Just as in the CPCU society, one has to pass a number of rigorous exams and acquire some educational experience requirements to attain membership within the CAS society.

However, due to the rigorousness of the exams, there are different levels of membership of which some do not require passing all the exams. A full voting membership requires passing nine CAS exams with some required educational experience or equivalent to a CAS Fellowship. One can also become a CAS member by becoming an Associate, which requires passing first seven CAS exams with the same educational requirements. Now, there are also members of CAS Society who are called Affiliates, but are not Fellows or Associates. The exams given by CAS Society are assumed to be very different compared to the CPCU society exams, and so this presents an issue of what type of people are attracted to which society (source:www.casact.org). Due to the unavailability of the data on the members of the CAS society, a comparison of the factors concerning the membership of CAS society with that of CPCU society directly is not feasible. Instead the factors associated with the issues mentioned above can have definite impact on the membership level of the CPCU society and so the above mentioned issues cannot be ignored.

Macroeconomic variables like Unemployment, Wages and Inflation are three important variables that of particular interest when employment risk is high. Unemployment has influence in determining the density of union membership (Schnabel and Wagner 2005). Whenever there is a higher risk of being unemployed, workers tend to become Union Members (Böckerman and Uusitalo 2006; Troy 1990; Visser 2002). More recent data also suggests similar results. All across the board (i.e. among all workers of all ages) there was an increase in union membership in the year 2008. Currently, there are 12.4% Union Members from the previous year up from 12.1% (Source: <http://www.bls.gov/news.release/pdf/union2.pdf/>), while the unemployment rate has risen quite rapidly from 4.9% in December of 2007 to 7.2% in December of 2008 (source:

<http://www.bls.gov/>). On the contrary, when majority of workers become unemployed, then they have no incentive to remain union members and so they leave the union (Waddington and Kerr 1999; Visser 2002). Rapid rise in unemployment attributed to rise in unorganized industries including non-industrial sector has led a major decline in Union membership (Troy 1990; Ebbinghaus and Visser 1999). So, it is critical to determine whether employment opportunities are abundant in various segments of Insurance Industry. CPCU society offers membership to people that come from various areas of Property and Casualty Business, which include Underwriters and other related occupations within the Insurance Industry. Table 2 provides some numbers on how majority of members are associated according to different types of business, to different types of positions held in industry, and by their primary job function. When employment opportunities are diversifiable then one forgoes the benefits of being a member by having to go through a certification process and resign instead and move on to some more attractive career opportunity (Hsieh and Su 2005; Waddington and Kerr 1999). In their (Hsieh and Su 2005) study, they found roughly 66.2% of the unemployed CCA's (Certified Care Assistants) were looking for work somewhere not affiliated with the long-term care industry. Therefore, Employment in Insurance Industry is an important aspect that can affect the membership of CPCU society.

Percentage of members by type of business		Percentage of members by level of position	
Insurance Company—		Manager/Supervisor	23.6%
Commercial and Personal	59.7%	Professional	11.9%
Agency—Independent		Vice President	9.1%
and Exclusive	19.5%	Owner/Partner	6.4%

Brokerage—Independent and Excess/Surplus	7.0%	Technical Analyst	5.4%
Reinsurance	2.8%	Account Executive	4.6%
Consultant	2.0%	President	4.1%
Service Organization	1.2%	Director	4.0%
Risk Management/Buyer	0.6%	Sr. Vice President/Executive	3.7%
Surplus Lines	0.6%	Assistant Vice President	3.0%
Non-Insurance Entity	0.6%	CEO	1.4%
Education	0.5%	Customer Service Representative	1.0%
Law Firm	0.4%	Retired Professional	1.0%
Regulatory	0.4%	Administrative Assistant	0.3%
Association—Trade or Professional	0.4%	Student/Trainee	0.1%
Other	3.7%	Commissioner or Deputy	0.0%
Total	100.0%	Total	100.0%

Percentage of members by primary job function

Underwriting	21.7%
Claims	17.3%
Agent/Broker	14.3%
Management	6.3%
Sales	5.1%
Marketing	4.2%
Risk Management	2.4%
Consultant	2.3%
Accounting/Finance	2.0%
Multi-Function/Executive	1.9%
IT/IS	1.9%
Customer Service	1.8%
Legal/Tax	1.3%
Operations	1.3%
Administration	1.2%
Training & Development	1.2%
Actuarial/Statistical	1.2%
Loss Control	1.0%
Data Processing	0.9%
Auditor	0.8%
Education	0.6%
Research	0.6%
Office Manager	0.5%
Human Resources	0.5%
Policy Writing	0.3%

Strategic Planning	0.3%
Intermediary	0.3%
Buyer/Purchasing	0.1%
Fire Inspection/Prevention	0.1%
Publications	0.1%
Product Management	0.0%
Other	6.5%
Total	100.0%

Source: <http://www.cpcusociety.org>

Wage is also an important factor in determining membership in organizations. Low income workers are less likely to become union members or are more likely to leave industry (Böckerman and Uusitalo 2006; Hsieh and Su 2005; Schnabel and Wagner 2005; Blanchflower 2007; Visser 2002). One of the reasons why workers join union is better wages (Schnabel and Wagner 2005; Mellor 1990). It is very easy for union workers to wage-bargain than non-union workers (Mellor 1990). More importantly, wage among different age groups, gender, ethnicities, education status and sectors can have a significant impact on membership decline. Younger, temporary, some public sector workers and others who are associated with lower wages are less likely to become members of organizations (Böckerman and Uusitalo 2006). Wage differentials (i.e. Income disparity among workers of a particular group) are higher among the younger workers than among older workers (Blanchflower 2007). By comparing salary-differential among CPCU and non-CPCU workers one can measure who is better off. CCA's worked for longer hours compared to other service industries and still received comparatively lower wages, which was determined to be a major factor among leaving this industry (Hsieh and Su 2005). If wages in unorganized industries are similar to organized industries then members have an incentive to decline membership. Free-rider (workers changing employment laterally within industries) problem arises when unorganized workers earn the same wage as union workers

(Schnabel and Wagner 2005; Visser 2002). Thus, if wages in Insurance Industry are declining when compared to other related industries, while simultaneously the cost of membership usually stay the same or increase, the benefits the members get out of their organizations remain the same. Therefore, the Insurance industry professionals would be less inclined to join or participate in it and the younger employees will not find the idea of joining the society so attractive.

Effects of age groups, gender, and sectors also can significantly impact the membership of organizations. Workers among different age groups have different tastes and attitudes towards Unions (Moore and Newman 1988; Visser 2002). Membership in organizations increases among older workers (Böckerman and Uusitalo 2006; Visser 2002; Mellor 1990), while the younger workers have not such high percentage of membership or have fallen over time (Böckerman and Uusitalo 2006; Hsieh and Su 2005; Blanchflower 2007; Machin 2004). Some reasons why the younger workers tend to less membership could be that they change jobs often. The age density curve across various age groups who were union members was U-shaped and the maximum lied at the age of 50 (Blanchflower 2007). Table 3 provides the statistics on age of members in the CPCU society. This suggests there are more CPCU society members who are middle or near retirement age. In contrast, many middle aged CCAs' working in the health care industry in a

TABLE 3 Statistics for June 2008	
Percentage of members by age group	
30 and under	1.9%
30-39	11.1%
40-49	33.1%
50-59	40.4%
60-69	11.4%
70 and over	2.2%

Source: <http://www.cpcusociety.org>

stressful work environment, which sometimes gave them back pain and other physical ailments, but were unable to get better benefits quit (Hsieh and Su 2005). Early retirement schemes are also causes of why less density among the workers reaching retirement (Waddington and Kerr 1999). Many workers who have or are very near retiring age tending to give up membership (Visser 2002). Within CPCU society there seems to be a consistent decline among the retiring Insurance industry professionals, with not enough experienced workers replacing them and also fewer younger people seem to be joining the society.

Traditionally, men had higher union density (proportion of all workers who are union members) than women as more men were associated with labor force and affiliated industries (Schnabel and Wagner 2005; Blanchflower 2007; Machin 2004; Ebbinghaus and Visser 1999). So, when men lost jobs associated with labor force then there was an associated decline in union density (Ebbinghaus and Visser 1999). There were suspicions regarding the decline in union membership related to increased employment of women in labor force, but they remained suspicions as there was rapid growth in employment in cities and large industries, which usually have more influence (Moore and Newman 1988; Machin 2004). Within CPCU society, during the period of membership decline there has been a significantly lower percentage of women compared to men year over year (source: www.cpcusociety.org). Union density among various ethnicities also varies when compared to overall membership. High proportions of Blacks are union members compared to whites, while other minorities have lower density rates compared to whites (Blanchflower 2007). So, if there is an increase in employment in the industry among a particular ethnic group that has traditionally higher union membership, but their density of membership stays constant then it can have lower union membership. It would also be very

interesting to note whether the diversity initiative that CPCU society has started to increase the membership of minorities or not.

Another issue cited is that if employed workers show less membership among joining the Unions, it is possible that may be Unions were not present and if present then they were ineffective (Waddington and Kerr 1999). Within CPCU society there are more than 150 local chapters. Recent information suggests that due to less participation among local chapters, some of the chapters have become ineffective. Each chapter’s website is accessible by going through the main CPCU society website. There are essentially two different ways the local chapters are grouped. They are grouped according to states and also according to territories/regions. Now within each state there is at least one local chapters, and if there is more population or exposure of Insurance industry than more chapters are located. However, the issue is that some of the chapters might be inactive, but they still have a local website. So, just by having more sites does not mean that CPCU members have resources available through those websites as there is no one to manage them. All of these sites do have links to the main CPCU society website and so information on national events are still accessible by majority of members. Again, the issue at hand is how these local chapters conduct their respective activities. The most convenient way to

TABLE 4 Statistics for June 2008

CPCU Class Gender Ratio		
Year	Male	Female
1999	56.01%	43.99%
2000	56.48%	43.52%
2001	56.73%	43.27%
2002	60.08%	39.92%
2003	54.01%	45.99%
2004	56.16%	43.84%
2005	57.49%	42.51%
2006	58.10%	41.90%

2007	52.12%	47.88%
2008	60.56%	39.44%

Source: <http://www.cpcusociety.org>

know what is happening at national level is still to attend the local chapter meetings. Therefore, knowing how many active or inactive chapters are there is an important variable to consider over time.

Recently, there also has been a rapid rise in Information Technology (IT) segment in various industries. More possibilities in sectors like IT that can influence supply and demand relationship of employment characteristics and numbers in other industries including Property and Casualty (P & C) Industry. Traditionally, men had higher union density (proportion of all workers who are union members) than women as more men were associated with labor force and affiliated industries (Schnabel and Wagner 2005; Blanchflower 2007; Machin 2004; Visser 2002). So, when men lost jobs associated with labor force then there was an associated decline in union density (Visser 2002). There were suspicions regarding the decline in union membership related to increased employment of women in labor force, but they remained suspicions as there was rapid growth in employment in cities and large industries, which might be of more importance (Moore and Newman 1988; Machin 2004). Rapid rise in unemployment attributed to rise in unorganized industries including non-industrial sector has let a major decline in Union membership (Ebbinghaus and Visser 1999; Visser 2002). Within CPCU society, during the period of membership decline, there has been a decrease in membership among women when compared to men (source: www.cpcusociety.org). Table 4 shows some past percentage of women CPCU members as compared to men.

Methodology

Due to minimal information available on studies among membership decline among Insurance Industry relations organizations, we would like to focus on the model developing techniques used for the Union membership affiliated organizational studies. Our study will include factors that emphasizes on cross-section and time-series data. Macroeconomic factors like Unemployment, Wages, Inflation, and GDP can be studied using both cross-section and time-series (Böckerman and Uusitalo 2006; Schnabel and Wagner 2005). Many factors that consist of data on individual members, for example gender, age, education status and other affiliated factors can mostly be studied over cross-section (Schnabel and Wagner 2005). Although, we can compare that data over many different time periods as is done in various studies (Moore and Newman 1988; Machin 2004) to show how each can affect membership decline depending on their composition. Unfortunately, Membership decline cannot be directly related to the above listed macroeconomic factors with the use of structured form equations, which in fact requires detailed explanation of the supply and demand framework (this framework explains a direct relationship between two variables considered), and so it becomes very complicated to analyze. For example, when data on Union-membership fees are not readily available, as indicated in previous studies (Moore and Newman 1988; Coombs 2008), they resorted to the use of reduced form equations which do not require such framework. Our concern is we are unable to determine some direct relationship between the dependent and independent variables that we consider. Data on many important variables like membership dues, income level of individual members, different classes of memberships, types of positions held by members, number of mutual and stock companies and many other variables that can be found only through data available on members of CPCU society are not available as needed.

Therefore, we decide to use reduced-form equations, and specifically make use of Multiple Linear Regression Analysis to show dependency on the factors. The main lists of factors we will consider in our study are as follows:

To find out which factors most significantly affect the membership decline, a multiple linear regression model is considered as follows:

$$Y_t = \beta_0 + \beta_1 YM_t + \beta_2 RM_t + \beta_3 FM_t + \dots + \varepsilon_t$$

For this model our dependent variable Y will be in terms of monthly and yearly membership numbers. The subscript t denotes the month or the year of the data collected. Independent variables consists of the following: number of employees in younger age group, denoted by YM (ages 16-24, ages 25-34 considered separately) among all employees in the insurance industry; Number of employees in the retiring age group, denoted by RM for Baby boomers (ages 55 and over) among all the employees in the insurance industry; Number of female employees, denoted by FM in the insurance industry; Number of Bachelors' degree employees compared to the number of Masters' and P.hds' employed in the insurance industry denoted by BMP ; Average annual income of a person employed in the industry, denoted by ICM ; Number of people employed in public but not mutual insurance companies, denoted by $PUBM$; Similarly, number of employees in the mutual insurance industry, denoted by $MUTM$; Average years of experience among all persons employed in the insurance industry, denoted by $EXPM$; Employment rate in insurance industry, denoted by $EMPM$; Percentage of GDP of the insurance industry, denoted by $IGDP$; Number of Non-whites in the insurance industry (diversity perspective), denoted by NWM ; Number of females holding management positions in the industry based on the criteria of

jobs, denoted by *FMP*; Number of MBA programs offered in the U.S. according to various 4-year Colleges and Universities including Graduate Programs, denoted by *MBP*.

First, we do a cross-sectional analysis of this model at a national level. For this case, we pool all the data for a period of years. Second, we divide the data according to different periods, where each period represent a number of years (for example, we take a period of years from January 1 1998 to December 31 2008) and conduct regression analysis on a national level for each period. Then, we compare the estimates of our models among various periods and find out whether the parameter estimates change over periods. We would like to find out whether the models are affected by cohort effects and related changes in sociological trends. We would also like to compare the estimates of the different macroeconomic factors and also notice which factors influence the models for different periods.

We also plan to use a multiple regression model that will relate the national membership of CPCU society to the factors that are directly related to the individual data of members. Again the model looks similar to that was just proposed above, but contains the following factors. The dependent variable is still the national membership of the society. Some of the independent variables that we considered above remain the same except they are directly taken from the data provided by the CPCU society. They are as follows: *YM*, *RM*, *FM*, *BMP*, *ICM*, *PUBM*, *MUTM*, *EXPM*, *NWM*, and *FMP*. All these variables have the same units except the sample is restricted to just the members of the CPCU society. Some of the important variables that also need to be considered are as follows: *SEM* (number of seminars attended on average among all members available to all society members attended within a year), *ENEWS* (number of members who receive electronic newsletter), *MRKT_i* (number of members associated to companies with respect

to the marketing division i for as many marketing classification available in the insurance company, but they have to be mutually exclusive), $MEMLVL_i$ (number of members among a particular membership level according to different membership level i for full membership, affiliate membership, etc.), $FINSIZC_i$ (number of members working in an industry with related Financial Size i of the company where different companies will be grouped among their respective financial size category).

Our objective will be to find a definite relationship between the proposed factors and the number of members in the CPCU society. Also, we hope to prove our relationship at a 5% Significance Level, unless stated otherwise.

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