Factors Affecting Length of Job Search and Job Switching in Davao City, Philippines

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FACTORS AFFECTING LENGTH OF JOB SEARCH AND JOB SWITCHING IN DAVAO CITY

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ABSTRACT

This study was conducted to analyze factors affecting length of job search and job switching in Davao City. Ordinary Least Square (OLS) was used to examine factors affecting length of job search. Factors affecting probability of job switching was examined using logit regression model.

Result shows that on the average, length of job search in Davao City is around 5 months. OLS estimation revealed that age of the job seeker and being a household head significantly affects the length of job search. Result of the job switching analysis revealed that those employed in the private sector and obtained degree from private academic institutions has a higher probability of switching job. Furthermore, it revealed that women has higher probability of job switching than men.

Key words: Length of job search, job switching, logit, OLS.

INTRODUCTION

BACKGROUND OF THE STUDY

Labor market is in constant flux, some workers quit their jobs, and other workers are laid off. Some firms cut employment, other firms expand employment. New workers enter the market after completing their education, and many other workers reenter after spending sometime in the non-market sector. According to Shimer (2005), as workers and jobs move between labor markets, some unemployed workers find vacant jobs and some employed workers lose or leave their job and become unemployed. Any given worker can choose from among many different job offers however, firms offer different job opportunities and because workers are unaware of where the "best" jobs are located, it takes time to locate the available opportunities (Borjas, 2000).

For many Filipinos, education is regarded as an investment that affords them a way out of poverty. It is seen as the key to improving the quality of life, the primary means for social and economic elevation. Parents spend their scarce resources to have their children educated, hoping that a good education will lead to attractive jobs for them. The value of education in national development is also enshrined in the Philippine Constitution which states that "The State shall give priority to education, science and technology, arts, culture, and sports to foster patriotism and nationalism, accelerate social progress, and promote total human development" (The Constitution of the Philippines, 1987). Access to education holds both individual and national implications.

Yet many graduates find themselves unemployed after earning a degree, despite the high value and expectation placed on education. Thousands of young university or college graduates can be seen lining up in job fairs around the country in search of elusive employment opportunities. According to a study by UNESCAP (2000), youth are the least employable among different age groups. This is validated by quarterly statistics from the Philippine's National Statistics Office (NSO). In July 2009, youth unemployment accounted for more than half of the total unemployed. Age group of 15 to 24 counted for 1,542,000 or 52.7 percent, dominating the unemployed workforce (NSO, 2009). This trend has been on the rise.

Length of unemployment may have long-term employment consequences. First, the loss of valuable work experience may make it more difficult to find employment. Human capital theory implies that since substantial investment in human capital should occur in the early working years, joblessness for the young is particularly costly. This would also apply to older individuals facing a changing economic system and attempting to learn new, more applicable skills. If there is no investment in human capital during periods of unemployment, the subsequent earnings profile of the unemployed will be depressed.

In an employed side it also distinguish the issue of job switching among workers, a search for a job is an important activity in the labor market, and is typically carried out by both the employed as well as the unemployed. the studies of 'reference-based utility' have suggested that it is *changes* which matter more to individuals, than do *states*. And within this framework: 'changes that make things worse (losses) loom larger than improvements or gains' (Kahneman *et al.,* 1991). Unless one is sure of a good outcome, why take the risk of changing.

But some workers do change jobs, and they usually have good reasons for so doing. Workers are primarily motivated to change jobs because of dissatisfaction with their jobs and aspirations for a better job. But what is particularly interesting is that dissatisfaction with the 'nature of the work' and dissatisfaction with job insecurity were stronger motivators to change jobs than was dissatisfaction with the pay.

This study explored possible determinants affecting length of job search and factors affecting the probability of job switching. This also tackled job satisfaction of worker. Satisfaction of job is a key element which gives employees energy to perform and continue his job adequately. Job satisfaction regulates the peace of mind, foster relaxation that leads to more enthusiasm and more innovative work (Maher, 2004). It gives the clear picture of completeness and accomplishment emanating from his work, a feeling which has nothing to do with money but a feeling of relief that the employee gets out of the work itself (Odwan, 1999).

RATIONALE

Length of unemployment is an urban problem and higher among well-educated as well as to the first-time job seekers. Educated unemployment is one of the throbbing issues in developing countries. In the Philippine context, especially major cities like Davao city, the economy's difficulty in absorbing the high number of new entrants to the labor force is a familiar refrain. Where in fact, many graduates voice their frustration at not being able to land a job, particularly a job that is well-paid and secure. Job creation is not sufficient to absorb the rising labor force, particularly well-educated individuals.

Periods of unemployment might lead to poor work habits, weak labor force attachment, and general alienation from society. The joblessness experience itself may alter the attitudes of the unemployed if they become discouraged about their prospect of obtaining work, thus affecting their search efforts. This likely experience in an economy such as Davao city which has a history of high labor force participation especially among educated job seeker. In addition, employers might use employment history as a signal of potential productivity, preferring to hire workers who have not been unemployed which can be avoided through policy making.

The analysis of Factors Affecting Length of Job Search will attempt to contribute to understand search problem of a Job seeker and the switching of workers in Davao

city. There was no studies conducted in Davao city that explores the issue about the factors affecting duration of searching and switching issue of a worker.

OBJECTIVES OF THE STUDY

This study was conducted to mainly examine the factors affecting length of job search and job switching in Davao city.

Specifically, this would seek;

1. to identify the factors affecting length of job search,

2. to examine the determinants affecting the probability of job switching and

3. to understand job satisfaction among employees in Davao City.

SCOPE AND LIMITATIONS

The study utilized primary information through survey in Davao city. The study is focus on length of job search of the job seekers perspective using recall data of employed respondents and probability of job switching was also analyzed.

Due to the limited time and resources, only 514 samples were surveyed out of 1000 target employed respondents. Only 314 employed respondents from private sector and 210 from public/government sector who responded to the survey questionnaires.

REVIEW OF LITERATURE

This chapter present all the related literature about the determinants of unemployment duration of an individual that was found relevant to the research about the factors affecting length of Unemployment and Job mismatch and be discussed herein.

From the study of khan and Yuosaf (2013) entitled employment duration of first time job seekers. She analyzed the determinants of unemployment for first time jobs seekers, taking primary data of all employed or self- employed individuals between the age group of 20-35 years. The dependent variable is duration of unemployment, which a person has to suffer after obtaining last degree of education, before leaving unemployment to employment. Professional and general education levels, training, age, salary, gender preference for public / private sector job, marital status has been taken as independent variables. Her findings are that professional degree holders suffer greater unemployment duration, but in case of general education, higher education degree holders suffer less unemployment duration than

their counterpart of low degree holders. Training, marital status, high salary, head of household and household size reduce the duration of unemployment, but the stated preference for government job increases the duration of unemployment.

Konjun (2011) he conducted a study about factors affecting job opportunities for University Graduates in China: the Evidence from University Graduates in Beijing. In his paper, he determine the factors whether a graduate finds a job in China. A duration model for this study indicates that the graduates find jobs faster if they come from colleges with higher reputation. In addition, study shows graduates with engineering and business degrees find jobs more easily, next is major of arts and social science. The graduates with law and science degrees find jobs more difficult. Other majors have no significant effects on job finding. Finally, female graduates find jobs more easily than male graduates particularly before the final graduation date and 1-2 months after graduation.

Another study of Cuesta (2005) about youth labor market integration in Spain: Search time, job duration and skill mismatch. In this paper He analyzed the transition from school to work for a sample of Spanish youths who left education for the first time after 1990. He allow the search period after completing education, the duration of the first significant job, and the probability of being over-educated in that job to be correlated in a system of simultaneous equations which is estimated by maximum likelihood. The results suggest that over-educated workers experience shorter duration in their first significant job. He do not find a direct effect of search time on employment duration. However, there are unobserved factors that increase the first unemployed job search period after completing education, and that also increase the subsequent employment duration.

Nagato (2012) examines how job search duration influences the quality of the first job, especially job stability. It makes three contributions to the body of knowledge on this topic. First, he clarify whether job search duration affects the match quality of the first job. Second, in order to examine the relationship between job search and job stability, he utilize data derived from an online survey on job searching both before and after graduation. Third, he focus on the unique and uniform setting of the job searches of Japanese university graduates in order to control for several important factors that may cause ambiguous empirical results. Whether or not job search duration affects subsequent job tenure, especially in the first job, is not obvious. In order to examine the relationship, he must overcome the problem of indignity, which is caused by unobserved heterogeneity such as an individual's cognitive and potential abilities or motivation to work. He use three excluded instrumental variables: average job search duration, university graduate job-opening-to-application ratio, and number of job applications per month. These three variables are considered to being related to job search duration, but not to job stability. The results of OLS estimation indicate that job search duration seems to have a significant negative impact on job stability. Note, however, that they ignore the existence of unobserved heterogeneity as noted above. To overcome the indignity

problem of job search duration, he conducted IV estimation by using the three types of instrumental variables. We find that the negative relationship between job search duration and job stability disappears after removing the problem of indignity. These results suggest that the negative relationship is simply caused by unobserved heterogeneity. Hence, although a job seeker spends a longer time finding a job, his/her job stability in the first job is unchanged. Robustness checks also indicate that our main result is robust.

From the recently study of Msigwa and Kipesha (2013) examined the factors which determine youth unemployment in Tanzania and suggest way forward towards reduction of the problem. The study uses multinomial logistic regression model (MLM) to analyse the determinants of unemployment in Tanzania. The findings of the study show that gender, geographical location, education, skills and marital status are all significant factors in explaining the difference in youth employment status in Tanzania. From the findings of the study, several recommendations are made, first, the government and policy makers should review job market laws and regulation in order to promote a smooth transition of youth from education to job market. The government should create specific interventions especially in the creation of more formal jobs. Strengthening job market regulation relating to youth people to ensure that all youth with education or skills realize their investments in education and contribute to the country's development. The study also recommends that the government and policy makers should strengthen the laws and regulation relating to gender balance in the job market, in order to give equal chance to the youth with the same level of skills or education.

Krueger (2011) studied the job search and job finding in a period of mass unemployment: evidence from high-frequency longitudinal data. His main findings are: (1) the amount of time devoted to job search declines sharply over the spell of unemployment; (2) the self-reported reservation wage predicts whether a job offer is accepted or rejected; (3) the reservation wage is remarkably stable over the course of unemployment for most workers, with the notable exception of workers who are over age 50 and those who had nontrivial savings at the start of the study; (4) many workers who seek full-time work will accept a part-time job that offers a wage below their reservation wage; and (5) the amount of time devoted to job search and the reservation wage help predict early exits from Unemployment Insurance (UI).

Using information contained in a nationally representative, longitudinal survey of Russian citizens, Foley (1997) analysed the determinants of unemployment duration during the early stages of economic transition. A competing-risks, discrete-time waiting model, augmented to incorporate unobserved heterogeneity, is employed to analyse whether there is evidence of duration dependence in unemployment, and the role of demographic characteristics, alternative income support, and local demand conditions in explaining unemployment duration for working age of individuals. Married women are found to experience significantly longer unemployment spells before exiting to a job compared to married men. Older

individuals can expect to be unemployed longer than comparable younger workers. Persons with higher education do not have significantly longer unemployment spells than those with secondary or even primary education. Having children has no effect on the duration of unemployment, however they do appear to motivate women to drop out of the labor force, significantly decreasing the time spent searching for work. Local labor market demand conditions have a significant effect on duration. Individuals in regions with higher unemployment rates, all else equal, have longer unemployment spells. Finally, there is evidence of duration dependence in the re-employment hazard in Russia, with a period of positive duration dependence in the first 7 months, followed by a declining hazard until approximately eighteen months. These results are robust to the introduction of unobserved heterogeneity.

In addition, the study of Kingdon et al (2001) reported positive relationship between level of education and employment rates and concluded that variable indicating human capital like education, work experience have greater influence on employment probabilities. So, by increasing high level of education, unemployment can be eradicated.

Stenberg (2005) using data from Sweden analyzed unemployment duration by considering both selection bias and censored observations, concluded that training and skill-enhancing program reduce unemployment duration.

Kettunen (1997) reported that education has positive effects on re-employment probability up to about 13-14 years of education in other words the possibility of getting an unacceptable offer decrease toward the highest levels of education. Unemployment stress compels people to migrate, as the duration of unemployment increases.

Krishna and Bino (2012) examine two core features of on-the-job search in India. First, based on National Sample Survey (NSS) 66th round unit level data, they identify the factors influencing the decision of the employed to engage in search activity. Based on a probit model, this study suggests that household, personal and labor market characteristics play a pivotal role in the determination of on-the-job search. The two most fascinating findings of this study are: the significant and positive coefficient of *economic activity* indicates that workers in the manufacturing sector are more likely to look for jobs while employed; and, the coefficients of size of firm appears to be negative in the manufacturing sector and positive in the services sector. Second, based on a sample survey of 367 employees from 346 firms located in an urban agglomeration, we show the major determinants of on-the-job search of employees in an industrial cluster. While the first exercise unravels an aggregate function of the employed search, built on labor supply characteristics, devoid of organization-person relation, the second one inquires workers behavior against the context of organization, bringing some flavor of demand for labor. Interestingly, as revealed in second exercise, wage, firm size, and job tenure have a negative impact on the on-the-job search.

METHODOLOGY

THEORETICAL FRAMEWORK

Beveridge Curve

Beveridge curve presented that the increase in hiring, shortens the length of unemployment duration, increases workers threat in wage bargaining, and increases also the expected present value of wages in new jobs. Then, it can be said that higher wages absorb most of the productivity increase, thus reducing the incentive for the creation of vacancies. Therefore, the labor productivity shock results primarily in higher wages, with little impact on the unemployment, vacancy, and job-finding rates (Shimer, 2005). This study presented that an increase in separations results to decreasing employment duration, increasing unemployment rate and so therefore increasing vacancies. As a result, fluctuations in the separation rate or separation shocks generate an increase in both unemployment and vacancies (Shimer, 2005).

Job Search theory

A job search model as presented in Mortensen (1970) or Lippman and McCall (1976). This model assumes that when a worker becomes unemployed, the expected completed duration of his or her unemployment spell depends upon the probability of receiving a job offer and the probability of then accepting that offer. The probability of receiving a job offer will be determined by factors which make a specific worker more attractive to an employer such as education, skill level, experience, and local demand conditions. The probability that an unemployed individual will then accept an offer will be determined by his or her minimum acceptable wage. This "reservation" wage is determined by the cost of search, unemployment income if any, the expected distribution of wage offers, and the probability of receiving subsequent job offers. In short, the waiting time to reemployment, or exiting the labor force, will be influenced by the probability of receiving a job offer and the reservation wage. This assumption is derived at which employed workers are indifferent between searching and not searching. The proportion of all employed workers who decide to search on the job is given by proportion of the workers earning a wage below the reservation wage level. The reservation wage depends on the unemployment benefit, the costliness of search, mobility costs, the wage received on the current job, the offer arrival rate, the probability of job loss and the discount rate.

Asking wage

Another theory that can support is the Asking wage. The Asking wage is the threshold wage that determines if the unemployed worker accepts or rejects incoming job offers. There is a clear link between a worker's asking wage and the length of the unemployment spell that the worker will experience. Workers who have low asking wage will find acceptable jobs very quickly, and the unemployment spell will be short. Workers with high asking wage spell will take long time to find an acceptable job, and the unemployment spell will be very long.

CONCEPTUAL FRAMEWORK

Figure 1 presents the variables might affect the length of Job search and switching. Presented on the left side are the independent variables while the dependent variable is presented on the right side.

Independent Variables   **Dependent Variable**
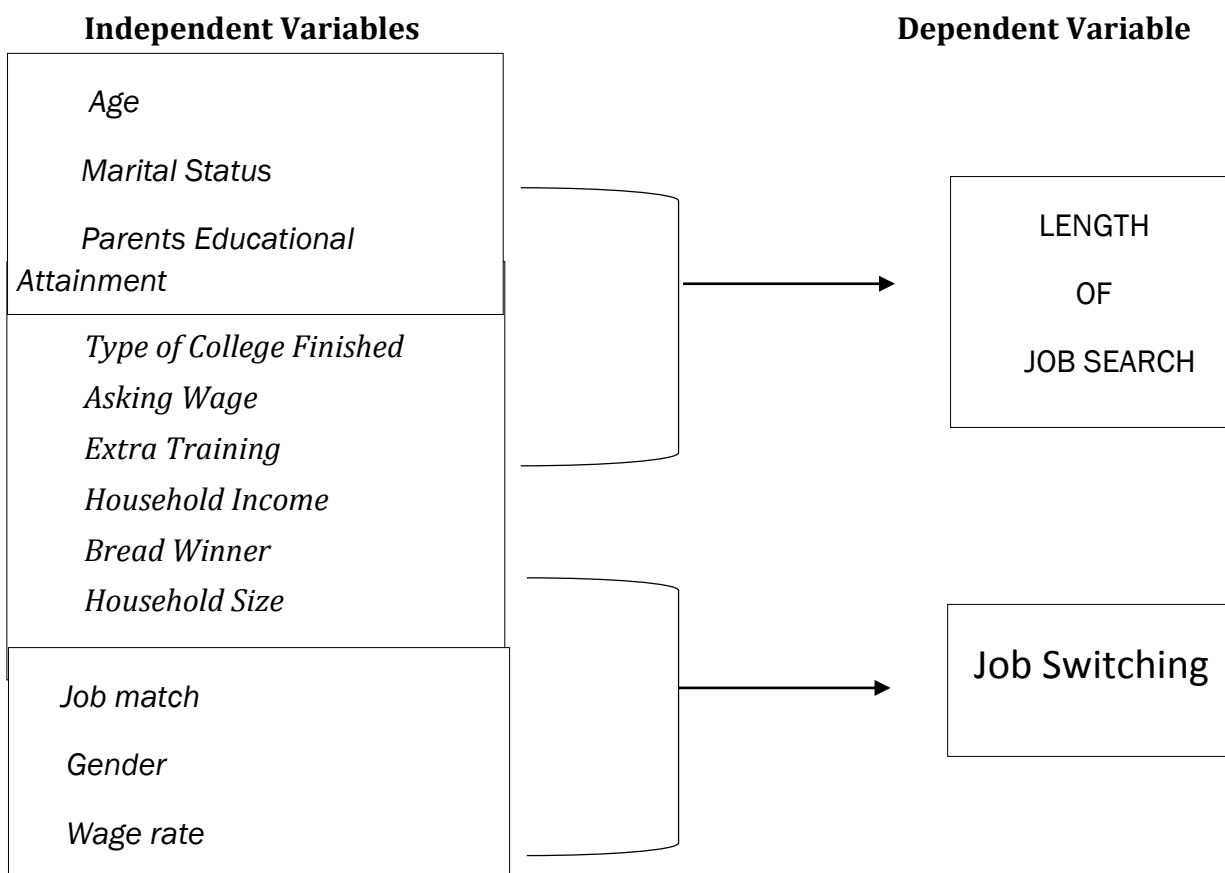
Figure 1. The Factors affecting length of job search and switching.

DESCRIPTION OF VARIABLES

Dependent Variable

There are two (2) analysis conducted in the study. The dependent variable for factors affecting length of job search is in the number of days in which the individual has obtained the last degree to the time of first entry in job. The analysis for job switching used binary variables that is 1 if the worker switched job and 0 otherwise.

Independent Variables

Gender (Gen) - refers to the respondent sex.

$$\begin{cases} 1, \text{ if the respondent is male} \\ 0, \text{ otherwise} \end{cases}$$

Age (Age) - refers to the age of the respondent at the time he /she starting looking for job.

Marital status (MS) - refers to the status of the respondent.

$$\begin{cases} 1, \text{ if the respondent is single} \\ 0, \text{ otherwise} \end{cases}$$

Household Income (HI) -.refers to the total monthly income by the household.

Household Size (HS) - refers to the total number of the family members.

Head of Household (HoH) - refers to the household role of the respondent.

$$\begin{cases} 1, \text{ if the respondent is the head of the household} \\ 0, \text{ otherwise} \end{cases}$$

Bread winner (BW) - refers to the sole bread earner of the household

$$\begin{cases} 1, \text{ if the respondent is a bread winner} \\ 0, \text{ otherwise} \end{cases}$$

Educational attainment (ET) - refers to the number of years in formal schooling of the respondent.

Type of School (TS) - refers to the types of Institution where the respondent finished his/her course.

$$\begin{cases} 1, \text{ if the educational institution is private} \\ 0, \text{ otherwise} \end{cases}$$

Father's Educational attainment (FEd) - refers to the number of years of educational   attainment of respondent's Father.

Mother's Educational attainment (MEd) - refers to the number of years of educational attainment of respondent's Mother.

Extra Training (EXT) - refers to the extra skill obtain from training in addition to his/her degree.

$$\left\{\begin{array}{l} \text{1, if the respondents obtained extra- training} \\ \text{0, otherwise} \end{array}\right.$$

Asking Wage (AW) - refers to the asking wage of the respondent.

Job match (JM) - refers to the alignment of respondent job to his/her degree.

$$\left\{\begin{array}{l} \text{1, if the job is aligned to his/her degree} \\ \text{0, otherwise} \end{array}\right.$$

Wage rate offer (WR) - refers to the preference of respondent if he/she after on wage rate offer while applying a job.

$$\left\{\begin{array}{l} \text{1, if the respondent preferred to the wage rate offer} \\ \text{0, otherwise} \end{array}\right.$$

Delayed employment (De) – refers to the perception of respondent on the time he/she entered the job market.

$$\left\{\begin{array}{l} \text{1, if the respondent perceived that his/her entrance to the job} \\ \text{market is delayed.} \\ \text{0, otherwise} \end{array}\right.$$

Sector (Sec) – refers to the sector where the respondent is employed.

$$\left\{\begin{array}{l} \text{1, if the respondent is employed at the private sector} \\ \text{0, otherwise} \end{array}\right.$$

Preferred Course (Pref) – refers to desirability of the course finished by the respondents relative to his/her desires in life.

$$\left\{\begin{array}{l} \text{1, if the respondent earned his/her preferred course} \\ \text{0, otherwise} \end{array}\right.$$

ECONOMIC MODEL

The relationship discussed in the theoretical framework are summarized in the general model as follows;

LU = f (*AGE, ET Fed, Med, AW, HI, HS, ET, MS, HoH, Pref, TS, Gen)*　　(1)

JS = f (*AGE, ET, AW, HI, HS, ET, MS, HoH, Pref, De, WR, JM, TS, Gen*)　(2)

The model states the length of job search and job switching depends on age, asking wage, household income, household size, educational attainment, types of college education, parent's educational attainment, extra training, marital status, bread winner and household size, job match, gender and wage rate offer. Equation (1) was estimated using ordinary least squares subjected to different functional forms like linear, log-linear, linear-log, and double log to find out which best fit the data. Equation (2) was estimated using logit analysis.

DATA

The study used cross sectional data gathered through a survey using stratified random sampling.

STATISTICAL ANALYSIS

This section was divided into three parts. The first part will be descriptive analysis for the profile of the respondents and job satisfaction. The second part presented the regression analysis that explores the factors that affect the length of unemployment of the job seeker. The last part is the logit analysis for job switching.

A. Descriptive Analysis

Descriptive statistics was conducted to determine the profile and the summary statistics of data utilized in the study. This was conducted using Microsoft excel 2010.

B. Regression Analysis

To estimate the parameters in the linear regression model, Ordinary Least Squares (OLS) was employed. This method minimizes the sum of the squared vertical distances between the observed responses in the data set and the responses predicted by the linear approximation (minimizing the squared deviations from the arbitrary regression line).

The regression equation for predicting **Y** can be expressed as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_n X_n + \xi \qquad (3)$$

The parameters β_0, β_1, to β_n represents the y-intercept and the slopes of the relationship, respectively. In order for the estimates of the parameters to be BLUE (Best Linear Unbiased Estimator), following assumptions were satisfied;

$$E(\xi_t) = 0 \qquad (4)$$

$$E(\xi_t^2) = var(\xi_t) = \sigma^2 \qquad (5)$$

$$Cov(\xi_j \xi_j) = 0, i \neq j \qquad (6)$$

where; the first assumption implies that the mean of the error term is zero, the second has a properly of homoscedasticity, i.e., that the errors have a common variance, and the third implies the property of no auto-correlation, i.e. no two errors are serially correlated.

To eliminate the problem of multicollinearity, heteroscdasticity and autocorrelation a series of test was conducted to satisfy the above conditions. Multicollinearity occurs when two or more independent variables are correlated. The problem of multicollinearity could be detected when R^2 is high,T-statistics is low , the estimator standard errors are large and the parameters estimates are not significantly different from zero. On the other hand, autocorrelation problem usually occurs in time series data the Durbin Watson (DW) test was used to test the presence of the said problem. Autocorrelation exist if the Durbin Watson statistics has a p-value less than alpha (∞) of 0.05 levels. Lastly, a problem of heteroscdasticity usually occurs in a cross- section data and when the second assumption is violated.

C. Logit Analysis

Logit regression is generally used to predict the dependent variable on the basis of independent variables and to determine the percent of variance in the dependent variables explained by the independent variables; to assess interaction and effects; and to understand the impact of covariate control variables (Madalla, 1992). The Logit model estimation methods can be used when the dependent variable is a 0-1 binary variable.

Logit is by far the most widely used discrete choice model. It is derived under the assumption that ε_{ni} is the extreme value for all i. The critical part of the assumption is that the unobserved factors are uncorrelated over alternatives, as well as having the same variance for all alternatives. This assumption, while restrictive, provides a very convenient form for the choice probability. The popularity of the logit model is due to this convenience. However, the assumption of independence can be inappropriate in some situations. Unobserved factors related to one alternative might be similar to those related to another alternative.

The Logit model assumes that the response probability takes the form:

$$P_i(Y_i = 1 \mid X_i) = \frac{\exp(X_i^{'}\beta)}{1 + \exp(X_i^{'}\beta)} \qquad (7)$$

The right-hand side of equation (1) can also be given as,

$$\frac{\exp(X_i^{'}\beta)}{1 + \exp(X_i^{'}\beta)} \quad \frac{1}{1 + \exp(_{-X i})} = \qquad ' \qquad (8)$$

The estimation problem is to find estimates of the unknown parameters β (shazam.econ.ubc.com).

EMPIRICAL MODEL

As previously discuss in the theoretical framework, the empirical model is formulated as shown;

$$LU = \beta_0 + \beta_1 AGE + \beta_2 ET + \beta_3 FEd + \beta_4 MEd + \beta_5 AW + \beta_6 HI + \beta_7 HS + \beta_8 ET$$

$$+ \beta_9 MS + \beta_{10} HoH + \beta_{11} Pref + \beta_{12} Pref + \beta_{13} Gen \, \xi_t \qquad (8)$$

$$JS = \beta_0 + \beta_1 Sec + \beta_2 AGE + \beta_3 ET + \beta_4 AW + \beta_5 HI + \beta_6 HS + \beta_7 ET + \beta_8 MS$$

$$+ \beta_9 HoH + \beta_{10} Pref + \beta_{11} De + \beta_{12} WR + \beta_{13} JM + \beta_{14} TS$$

$$+ \beta_{15} Gen + \xi_t \qquad (9)$$

where ξ_t refers to disturbance term

RESULTS AND DISCUSSIONS

DESCRIPTIVE STATISTICS

Profile of the Respondents

Table 1 shows the characteristics of the respondents. It shows that 61% of the samples are female and 39% are male. The mean age of the respondents is 32 years old with a standard deviation of 10.

Table 1. Profile of the respondents.

Variables		Mean	Standard Deviation	n = 514	Percentage (%)
Gender	Male			199	38.7
	Female			315	61.3
Age		31.88	9.94		
Father's Educational Attainment		11.83	3.1		

Mother's Educational Attainment	11.26	3.22	
Estimated Gross Monthly Income of the Household	23,424.12	19949.9	
Household Size	4.32	1.83	

The average household size of the respondents is 4 members with an average estimated monthly income of PhP 23, 424.12. On the average, both parents of the respondents are educated. The Father on the average has 12 years of schooling while the mother has 11 years of formal schooling.

Table 3 presents the educational background of the respondents. As intended, 82% of the sample at least obtained a college degree. Around 18 percent has more than 14 years of education. More than half (52%) of the respondents obtained their tertiary education at a private institutions, while 48% from public institutions.

Table 3.Educational Background of the Respondents

Variable		n=514	Percentage
No. of Years in Formal	14 years	423	82.3
	16 years	74	14.4
	17 years and above	17	3.3
Mean year = 14.63 Sd = 1.15			
Type of School	Private	267	51.9
	Public	247	48.1
	Business and Administration	159	30.9
	Education	142	27.6
	Engineering and Technology	50	50
	Medicine	41	7.8
Nature of Courses	Computer Related Courses	8	1.6
	Bachelor of Arts	23	4.5
	Social Science	79	15.7
	Agriculture	5	1
	Others	7	1.4

Fitting of degree obtained to skills and Professional desire	Yes	397	77.2
	No	117	22.8
Extra Training Obtained	Yes	155	30.2
	No	359	69.8

Half of the respondents obtained a degree related to Engineering and Technology followed by Business Administration, Education, Social Sciences, Medicine and Agriculture with 30.9%, 27.6%, 15.7%, 7.8% and 1% respectively. Furthermore, 77% of the respondents believe that their degree obtained fits their skills and professional desires. Only 22% perceived that degree does not fit their skills and professional desire. Majority (70%) of the respondents has not obtained additional training on their field.

Table 4 shows the classification of current job of respondents. It shows that most (41%) of the respondents are professional and technical workers, followed by service workers, managerial and clerical related occupation with 22%, 13% and 13% respectively. Seventy two (72%) percent of the respondents perceived that their degree obtained is relevant to their current job.

Table 4.Current Job of respondents

Characteristics		n	(%)
Occupation Classification	Managerial Workers	66	12.8
	Service Workers	113	22
	Prof., Tech. Workers	209	40.7
	Clerical Related workers	65	12.6
	Sales Workers	29	5.6
	Others	32	6.2
Industrial Classification	Business Services	122	23.7
	Manufacturing	68	13.2
	Construction	2	0.4
	Transport. Storage and Communication	7	1.4
	Comm. Soc. And Personal Services	315	61.3
	Others	9	1.8
Relevance of course finished to current job	Yes	370	72.0
	No	144	28.0

Length of Job Search

Table 5 shows the characteristics of the respondents during job search. It shows that on the average, respondents search their first job at the age of 21. Majority (66%) of them are single. Only few (20%) are breadwinners. Respondents preferred to a job which belongs to the classification of Professional and Technical work with 48% followed by a managerial work with 22%.

Table 5. Characteristic of Respondent during Job Searching

Variable		n = 514	%
Age (Starting Looking for Job)	21 years old and below	99	19.3
	22 years old	338	65.8
Mean = 20.99	23 - 25 years old	66	12.8
Standard Deviation = 1.80	26 years old and above	11	2.1
Marital Status	Single	314	66.3
	Married	173	33.7
Breadwinner	Yes	102	19.8
	No	412	80.2
Preferred Job	Managerial worker	112	21.8
	Service worker	70	13.6
	Prof. Tech worker	246	47.9
	Clerical related work	33	6.4
	Sales worker	7	1.4
	Others	46	8.9

Figure 1 shows the length of job search among respondents, classified based on the type of School. Results revealed almost the same length of job search for both graduates from private and public institution. On the average, length of job search in Davao City is 5 months (24 weeks). This is higher compared to length of Job Search in in the literatures. In the United States, the highest length of job search from 1943 to 2003 is 20 weeks (Mukoyama, et al., 2008). In 2011, the median number of weeks that unemployed men actively searched for work before landing a job was 10.2 weeks, compared with 9.6 weeks for women (Theodossiou, et al.,2012).
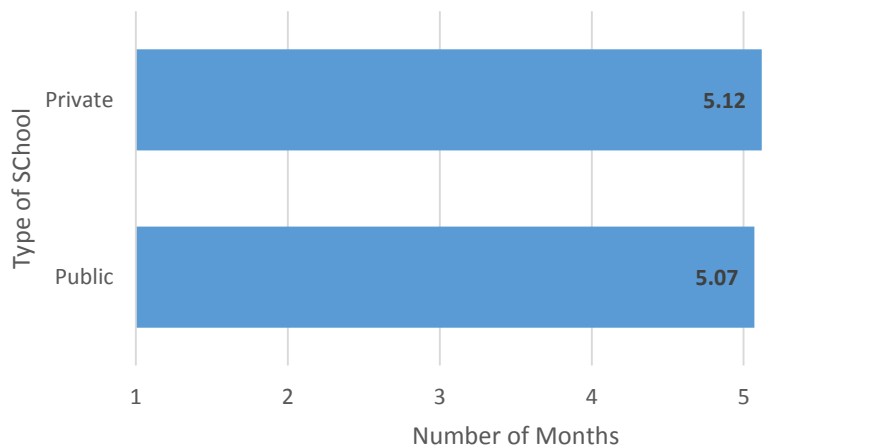
Figure 1.Lenght of Job Search (first job), by type of school.

Table 6 shows the means of getting a job by sector. Result shows that Public employment is accessed through government and school placement office. On the other hand, employment in the private sector is access through recommendations from professors/teachers followed by recommendations from relatives and friends. Entering a job through pleasing physical appearance ranked higher in private sector compared to public sector. Media advertisement rank lowest for both public and private.

Table 6. Means of Entering a Job, by Sector

Reasons *	Public	Private
School Placement Office	2	4
Government Placement Office	1	5
Media Advertising	6	6
Recommendation from Former teacher/Instructors	3	1
Recommendation from relatives/Friends	4	2
Physical Appearance	5	3

  *1 is the highest and 5 is the lowest

Table 7 shows the top reasons of delayed employment among the respondents. It revealed that lack of connection inside the job market of the preferred job is the main reason for delayed employment. Respondents perceived that lack of job opening in their field of specialization, lack of professional eligibility requirements, and inadequate experience are also hampering their entry to the job market. Family situation was also perceived as top reason for delayed employment.

Table 7. Top Reasons for Delayed Employment

Reasons*	Rank
Lack job opening in my field of specialization	2
No Connection	1
Family situation prevents me from working	5
Lack of professional eligibility requirements	3
Inadequate experience	4

*1 is the highest and 5 is the lowest

Job Switching

Figure 2 indicates the average number of job switching by the respondents by sex. This shows that female has a higher tendency of switching job. On the average, female respondents switch job twice within the first 10 years of employment.
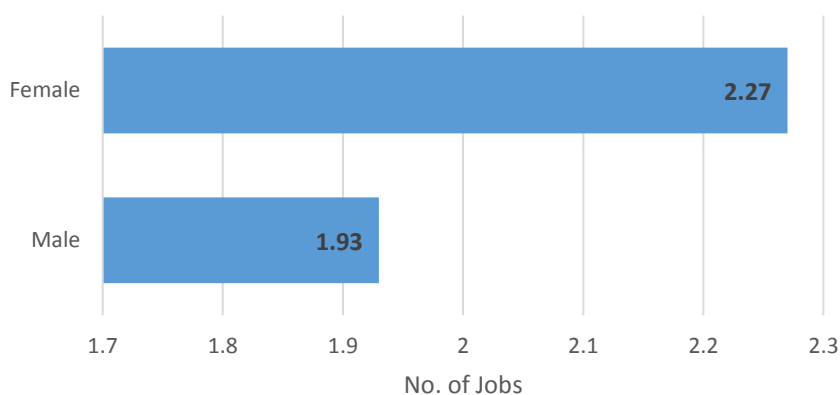
Figure 2. No. of Job Switch by Sex.

Table 8 presents major reasons for job switching among respondents. It shows that low salary offer is the common major reason for switching jobs of employees both in the public and private sector. This is followed by unsatisfactory working condition and little opportunity for career advancement.

Table 8. Top Reasons for Job Switching.

Reasons*	Public	Private
Salary Offer too low	1	1
Working Condition not Satisfactory	2	2
Little Opportunity for advancement	3	3

Job too far from home	5	4
No job opportunities	4	5

*1 is the highest and 5 is the lowest

Table 9 shows the job satisfaction of workers in Davao City. These includes satisfaction on self-fulfillment, utilization of talents, employee relationship, job security, prospect for career, income, time management and travel opportunity. Results revealed that higher satisfaction is recorded in the public than in the private. Low satisfaction is recorded in the private sector in terms of utilizing talents and skills in current job. Harmonious relationship is higher among employed in the public sector than those in the private sector. Both public and private sectors are not satisfied in terms of job security and level of income. High satisfaction is recorded in the public sectors in terms of balance between job and time for family and hobbies. In terms of career development, public employed are more satisfied that those employed in the private sector.

Table 9. Current Job Satisfaction

Factors	Private (%)	Public (%)
A. Job provides self-fulfillment		
Not Satisfied	1.6	1
Barely Satisfied	24.6	7.8
Satisfied	50	44.1
Very satisfied	23.7	47.1
B. Able to utilize talents		
Not Satisfied	30.9	6.7
Barely Satisfied	34.7	48
Satisfied	28.6	44.1
Very satisfied	5.6	1
C. Good employee relations		
Not Satisfied	2.3	1
Barely Satisfied	12.8	4.4
Satisfied	52	32.8
Very satisfied	32.9	61.8
D. Job offers secure future		
Not Satisfied	26.0	28.4
Barely Satisfied	52.6	65.1
Satisfied	16.4	4.1
Very satisfied	4.9	2
E. Good prospect for career		
Not Satisfied	1.6	2

Barely Satisfied	29.3	7.8
Satisfied	36.9	48
Very satisfied	32.9	43.1
F. Good income		
Not Satisfied	17.1	8.3
Barely Satisfied	44.7	43.6
Satisfied	32.6	47.6
Very satisfied	5.6	1
G. Ample time off for family and hobbies		
Not Satisfied	6	1
Barely Satisfied	32.6	8.3
Satisfied	44.7	47.6
Very satisfied	17.1	43.6
H. Opportunity to travel		
Not Satisfied	17.1	8.3
Barely Satisfied	44.7	43.6
Satisfied	32.6	47.1
Very satisfied	5.6	1

Factors affecting Length of Job Search in Davao City

To empirically examine factors affecting length of job search, OLS estimation of a log-linear model was carried out. Results of the estimation are presented in Table 10.

Table 10. OLS Results of the Factors Affecting Length of Job Search in Davao City

Variables	Coef.	Std. Err.	P>|t|	[95% Conf.]	[Interval]
Sector	-4.18527[ns]	19.32578	0.82900	-42.15519	33.78466
Age	17.84642*	4.88372	0.00000	8.25124	27.44161
Educ. Attain.	-8.20523 [ns]	7.76826	0.29100	-23.46776	7.05730
Father Educ.	-1.84964 [ns]	3.11510	0.55300	-7.96997	4.27069
Mother Educ.	4.10519 [ns]	2.89872	0.15700	-1.59001	9.80039
Asking Wage	-0.00006 [ns]	0.00020	0.76800	-0.00045	0.00033
Household Income	0.00030 [ns]	0.00043	0.48700	-0.00055	0.00115
Household Size	-3.13093 [ns]	4.78743	0.51300	-12.53693	6.27507
Training (Dum.)	11.37197 [ns]	19.50921	0.56000	-26.95835	49.70229
Marital Status (Dum.)	4.46802 [ns]	19.19842	0.81600	-33.25167	42.18772
Household Head (Dum.)	47.23184*	22.16826	0.03400	3.67721	90.78647
Preferred Course (Dum.)	7.75594 [ns]	21.10465	0.71300	-33.70898	49.22086
Type of School (Dum.)	-10.18117 [ns]	17.59994	0.56300	-44.76030	24.39796

Gender	13.79757 ns	17.96757	0.44300	-21.50385	49.09899
Constant	-136.7945 ns	151.01790	0.36500	-433.5037	159.91470
Prob > F		0.0419			
R-squared		0.0471			
R-squared adjusted		0.0203			

[*]= Significant at 10% level   [ns] = not significant

Result of the estimation revealed that age and being a household head are the significant variables that affect the length of job search in Davao City. Age of the person who is seeking job is an important factor that affects his/her length of job search. The estimation has shown that length of job search increases by around 18 days as age increases by 1 year. Result also revealed that individual who are head of a household have higher length of job search. The P-value of the model is 0.04 which shows statistically significant relationship between the length of job search and its determinants. The computed R-squared, however, is only 2%, which suggest that only 2% of the variance can be explained by the predictors in the model. Low R-squared is common in cross-section data.

Probability of Job Switching among workers in Davao City

Logit analysis was employed to examine the probability of job switching of employed workers in Davao City. The convergence of the logit model was achieved after 3 iterations, results are presented in Table 11. Among the variables included in the model, sector, preferred course, type of school and gender are the significant variables on the probability of job switching.

Probability of job switching is high among employed in the private sector than those employed in the public sector with marginal effect of 0.09. Results shows that probability of switching is higher among those who finished a preferred course compared to those who finished a non-preferred course with marginal effect 0.11. This is maybe due to temporary employment and the desire of those who finished their preferred degree to align skill and knowledge to their target industry. In terms of the type of school, it revealed that probability of switching is higher among those who finished at the private educational institutions compared to those who finished in the public educational institutions. Gender also turns out significant, it shows that women has higher probability of switching job compared to men with marginal effect of 0.10.

Table 11. Results of the Logit Estimation.

Variable Name	Est. Coef.	Asymptotic Stand. Error	T-Ratio	Elasticity at Means	Weighted Aggregate Elasticity
Sector	0.396*	0.209	1.894	0.105	0.095
Age	-0.059 ns	0.049	-1.204	-0.551	-0.510
Educational Attain.	-0.078 ns	0.077	-1.017	-0.513	-0.473
Asking Wage	-0.006 ns	0.034	-0.170	-0.030	-0.028
Household Income	-0.016 ns	0.032	-0.496	-0.080	-0.074
Household Size	0.000 ns	0.000	0.969	0.043	0.038
Extra Training	0.000 ns	0.000	-1.525	-0.105	-0.095
Marital Status	-0.025 ns	0.052	-0.472	-0.048	-0.044
Head of Household	-0.208 ns	0.209	-0.995	-0.028	-0.026
Preferred Course	0.461*	0.206	2.245	0.137	0.125
Delayed Employment	0.237 ns	0.242	0.981	0.021	0.019
Wage Rate Offer	0.046 ns	0.232	0.198	0.016	0.015
Job Matched	0.307 ns	0.250	1.224	0.024	0.022
Type of School	0.720*	0.192	3.740	0.193	0.175
Gender	-0.491*	0.221	-2.218	-0.161	-0.152
Constant	2.376ns	1.522	1.561	1.068	0.986
Scale Factor	0.24744				

| Variable Name | Marginal Effect | Probabilities of Typical Case | | | Marginal effect |
		Case values	X=0	X=1	
Sector	0.098	1.000	0.563	0.657	0.094
Head of Household	-0.052	0.000	0.657	0.609	-0.048
Preferred Course	0.114	1.000	0.547	0.657	0.110
Delayed Employment	0.059	0.000	0.657	0.709	0.051
Wage Rate Offer	0.011	1.000	0.647	0.657	0.010
Job Matched	0.076	0.000	0.657	0.723	0.065
Type of School	0.178	1.000	0.483	0.657	0.174
Gender	-0.121	1.000	0.758	0.657	-0.101

*= Significant at 10% level   ns = not significant

SUMMARY

This study analyzed the factors affecting length of job search faced by educated jobs seekers, after completing their last degree of education using the Ordinary Least Square (OLS). The estimated result clearly shows that as job seeker aged, the length of job search also increases. Being head of a household during job search also contributed to the length of job search. Descriptive analysis revealed that on the average, length of job search in Davao City is 5 months (24 weeks) which higher compared to length of job search in some literatures.

Job switching analysis revealed that women switch job on the average of 2.27 which is relatively higher compared to men with 1.93 switching. Result of the logit analysis revealed that sector is significant determinants that affects the probability of switching job. Those employed in the private sector has relatively higher probability of switching job compared to those who are employed in the private sector. Worker tend to switch job depending on the benefits and utility they received from the type of sectors he/she entered. Based on the survey, the major reasons of job switching are low salary, unsatisfactory working conditions and little opportunity for career advancement.

Those who finished their preferred degree has higher probability of job switching. Empirically, it was proven that women has higher probability of job switching compared to men.

RECOMMENDATIONS

Based on the results of the study the following are recommended;

Graduate unemployment is dependent on many factors. Creating enough jobs to meet the increasing numbers of highly educated young people is a priority of governments. Higher Education Institutions, on the other hand, have to ensure that they are producing the right kind of graduates who can meet the demands of employers. Likewise, industries have to work hand in hand with the governments and Higher Education Institutions to complement their efforts in preparing the students to be a productive and skilled workforce when they graduate.

It would help graduates immeasurably if a school-based placement office, which maintains links with company placement officers, could be established and made operational. A greater number of graduates would then have access to a variety of employment possibilities. It has been noted that many graduates do not exert enough effort to secure a job. The college career counsellor must design a program that would enable graduates to have greater self-confidence and more initiative in looking for a job. They must be exposed to a variety of techniques in job-seeking, including tips for job interviews and passing job recruitment tests.

Appropriate and updated labor market information should be provided to bridge the information gap between higher education institutions and employers, and between people looking for work and employers. To increase the availability of labor demand statistics, publication of annual reports that indicate current labor demand by job sector/classification and scenarios for the next few years should be produced.

For further studies, it is recommended to conduct a comprehensive study, consider more factors and labor issues and explore other methodologies.

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Annex 1. Summary Statistics of variables

Variable	Obs	Mean	Std. Dev.	Min	Max
Y2	514	152.9922	195.4736	3	2112
var2	514	.5914397	.4920466	0	1
var3	514	20.99027	1.799367	19	30
var4	514	14.6323	1.147507	14	20
var5	514	11.83463	3.104089	2	21
var6	514	11.2607	3.229695	2	20
var7	514	31317.12	44536.1	2000	1000000
var8	514	23424.12	19949.91	10000	400000
var9	514	4.328794	1.832899	0	15
var10	514	.2957198	.4568102	0	1
var11	514	.6595331	.4743279	0	1
var12	514	.1964981	.3977365	0	1
var13	514	.7762646	.4171528	0	1
var17	514	.5194553	.5001081	0	1
var18	514	.3891051	.4920003	0	2

Annex 2. Result of the OLS estimation of model 1

Source	SS	df	MS			
Model	921644.389	14	65831.7421			
Residual	18680051.6	499	37434.9731			
Total	19601696	513	38209.9337			

Number of obs = 514
F(14, 499) = 1.76
Prob > F = 0.0419
R-squared = 0.0470
Adj R-squared = 0.0203
Root MSE = 193.48

Y2	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
var2	-4.185266	19.32578	-0.22	0.829	-42.15519	33.78466
var3	17.84642	4.88372	3.65	0.000	8.251237	27.44161
var4	-8.205233	7.768261	-1.06	0.291	-23.46776	7.057297
var5	-1.849641	3.115099	-0.59	0.553	-7.969968	4.270686
var6	4.105186	2.898719	1.42	0.157	-1.590013	9.800385
var7	-.0000581	.0001971	-0.29	0.768	-.0004454	.0003291
var8	.0003017	.000434	0.70	0.487	-.0005511	.0011545
var9	-3.130933	4.787428	-0.65	0.513	-12.53693	6.275068
var10	11.37197	19.50921	0.58	0.560	-26.95835	49.70229
var11	4.468021	19.19842	0.23	0.816	-33.25167	42.18772
var12	47.23184	22.16826	2.13	0.034	3.677207	90.78647
var13	7.755939	21.10465	0.37	0.713	-33.70898	49.22086
var17	-10.18117	17.59994	-0.58	0.563	-44.7603	24.39796
var18	13.79757	17.96757	0.77	0.443	-21.50385	49.09899
_cons	-136.7945	151.0179	-0.91	0.365	-433.5037	159.9147

Annex 3. Test for Heteroskedasticity


```
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
        Ho: Constant variance
        Variables: fitted values of Y2

        chi2(1)      =     131.18
        Prob > chi2  =     0.0000
```

Annex 4. Result of the Logit Model (Model 2)

```
Welcome to SHAZAM (Double Precision) v11.0 -  JUNE 201 Windows7 PAR=112400
 ...NOTE..CURRENT WORKING DIRECTORY IS: C:\Users\saec\Documents\SHAZAM


 REQUIRED MEMORY IS PAR=      137 CURRENT PAR=  112400
  LOGIT ANALYSIS      DEPENDENT VARIABLE =Y       CHOICES =  2
      514. TOTAL OBSERVATIONS
      281. OBSERVATIONS AT ONE
      233. OBSERVATIONS AT ZERO
   25 MAXIMUM ITERATIONS
 CONVERGENCE TOLERANCE =0.00100

 LOG OF LIKELIHOOD WITH CONSTANT TERM ONLY =    -354.03
 BINOMIAL  ESTIMATE = 0.5467
 ITERATION  0     LOG OF LIKELIHOOD FUNCTION =   -354.03

 ITERATION  1 ESTIMATES
  0.37313    -0.52686E-01-0.73736E-01-0.55026E-02-0.13469E-01 0.23935E-05
 -0.81582E-05-0.23464E-01-0.19240     0.43488     0.21703     0.52810E-01
  0.27699     0.67591    -0.44418     2.1376
 ITERATION  1     LOG OF LIKELIHOOD FUNCTION =   -331.58

 ITERATION  2 ESTIMATES
  0.39606    -0.58519E-01-0.77981E-01-0.56214E-02-0.15597E-01 0.29497E-05
 -0.98309E-05-0.24675E-01-0.20804     0.46087     0.23656     0.46477E-01
  0.30590     0.71860    -0.48964     2.3669
 ITERATION  2     LOG OF LIKELIHOOD FUNCTION =   -331.43

 ITERATION  3 ESTIMATES
  0.39640    -0.58688E-01-0.78139E-01-0.56850E-02-0.15723E-01 0.30523E-05
 -0.10019E-04-0.24649E-01-0.20842     0.46149     0.23717     0.46005E-01
  0.30655     0.71951    -0.49062     2.3761

                              ASYMPTOTIC                       WEIGHTED
 VARIABLE     ESTIMATED      STANDARD    T-RATIO     ELASTICITY    AGGREGATE
   NAME       COEFFICIENT     ERROR                  AT MEANS     ELASTICITY
 SEC           0.39640      0.20930      1.8940       0.10536     0.95312E-01
 AGE          -0.58688E-01  0.48754E-01 -1.2037      -0.55101    -0.50965
 EDU          -0.78139E-01  0.76842E-01 -1.0169      -0.51282    -0.47347
 AW           -0.56850E-02  0.33511E-01 -0.16965     -0.30237E-01-0.27909E-01
 HI           -0.15723E-01  0.31717E-01 -0.49574     -0.79571E-01-0.73747E-01
 HS            0.30523E-05  0.31514E-05  0.96855      0.42959E-01 0.38195E-01
 ET           -0.10019E-04  0.65711E-05 -1.5248      -0.10548    -0.94957E-01
 MS           -0.24649E-01  0.52268E-01 -0.47158     -0.47952E-01-0.44219E-01
 HH           -0.20842      0.20942     -0.99526     -0.27700E-01-0.26077E-01
 PC            0.46149      0.20558      2.2448       0.13679     0.12496
 DE            0.23717      0.24173      0.98113      0.20944E-01 0.19255E-01
 WRO           0.46005E-01  0.23187      0.19841      0.16050E-01 0.14897E-01
```

```
JM              0.30655        0.25037       1.2244      0.24391E-01  0.21571E-01
TS              0.71951        0.19239       3.7398      0.19251      0.17485
GEN            -0.49062        0.22115      -2.2184     -0.16086     -0.15243
CONSTANT        2.3761         1.5221        1.5611      1.0679       0.98568


SCALE FACTOR =   0.24744

VARIABLE        MARGINAL       ----- PROBABILITIES FOR A TYPICAL CASE -----
  NAME          EFFECT          CASE         X=0          X=1         MARGINAL
                                VALUES                                EFFECT
SEC             0.98085E-01     1.0000       0.56347      0.65738     0.93913E-01
AGE            -0.14522E-01     20.891
EDU            -0.19335E-01     14.603
AW             -0.14067E-02     11.835
HI             -0.38906E-02     11.261
HS              0.75526E-06     31317.
ET             -0.24792E-05     23424.
MS             -0.60991E-02     4.3288
HH             -0.51573E-01     0.00000E+00  0.65738      0.60903    -0.48355E-01
PC              0.11419         1.0000       0.54740      0.65738     0.10999
DE              0.58686E-01     0.00000E+00  0.65738      0.70865     0.51264E-01
WRO             0.11384E-01     1.0000       0.64695      0.65738     0.10435E-01
JM              0.75853E-01     0.00000E+00  0.65738      0.72276     0.65379E-01
TS              0.17804         1.0000       0.48304      0.65738     0.17434
GEN            -0.12140         1.0000       0.75810      0.65738    -0.10071


LOG-LIKELIHOOD FUNCTION =  -331.43
LOG-LIKELIHOOD(0)   =   -354.03
LIKELIHOOD RATIO TEST =    45.2125    WITH    15  D.F.   P-VALUE= 0.00007


ESTRELLA R-SQUARE            0.86887E-01
MADDALA R-SQUARE             0.84204E-01
CRAGG-UHLER R-SQUARE         0.11260
MCFADDEN R-SQUARE            0.63854E-01
     ADJUSTED FOR DEGREES OF FREEDOM       0.35656E-01
     APPROXIMATELY F-DISTRIBUTED   0.72756E-01  WITH       15  AND    16  D.F.
CHOW R-SQUARE                0.84724E-01

         PREDICTION SUCCESS TABLE
                  ACTUAL
               0             1
          0   118.          76.
PREDICTED 1   115.         205.


NUMBER OF RIGHT PREDICTIONS =        323.
PERCENTAGE OF RIGHT PREDICTIONS =    0.62840
NAIVE MODEL PERCENTAGE OF RIGHT PREDICTIONS =    0.54669


EXPECTED OBSERVATIONS AT 0  =        233.0   OBSERVED =    233.0
EXPECTED OBSERVATIONS AT 1  =        281.0   OBSERVED =    281.0
SUM OF SQUARED "RESIDUALS" =         116.59
WEIGHTED SUM OF SQUARED "RESIDUALS" =      513.61


HENSHER-JOHNSON PREDICTION SUCCESS TABLE
                                        OBSERVED     OBSERVED
                    PREDICTED  CHOICE     COUNT        SHARE
          ACTUAL         0         1
            0        116.423   116.577   233.000       0.453
            1        116.577   164.423   281.000       0.547

PREDICTED COUNT      233.000   281.000   514.000       1.000
PREDICTED SHARE        0.453     0.547     1.000
PROP. SUCCESSFUL       0.500     0.585     0.546
SUCCESS INDEX          0.046     0.038     0.042
PROPORTIONAL ERROR     0.000     0.000
NORMALIZED SUCCESS INDEX                   0.085
|_stop
```