

# Job Search Outcomes for University Graduates: The Role of Economic Hardship and Work Involvement

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## Abstract

This study assessed the relationship between economic hardship and work involvement with job search outcomes and employment quality as mediated by search effort. Participants completed a survey prior to graduation and six months after graduation. Structural equation modeling was used with a sample of 123 students who recently graduated and attained employment. The model provided an excellent fit to the data with significant relationships between economic hardship with job search effort and employment quality as well as work involvement with employment quality. Students experiencing economic hardship report investing more effort in their job search but without the increase in results and accept positions that are lower in employment quality. In contrast, students with higher levels of work involvement accept positions that are higher in employment quality. The implications for research and practice are discussed.

## Job search outcomes for university graduates: The role of economic hardship and work involvement

It is well established that a college and university education contributes to graduates' careers from both monetary and non-monetary perspectives (College Board, 2003, October 21). Graduates from post-secondary institutions can expect higher quality of employment, higher earnings potential and greater employment security. Despite the potential employment benefits of higher education, one drawback is student debt, which can impact students during their education and after graduation. In recent years, college and university fees have risen to a greater extent than student aid with the net effect of an increase in education costs (College Board, 2003, October 21). The burden

of debt and the stress of loan repayment can have a psychological impact on students.

Past research has examined how the financial strain of debt affects students psychologically. Several studies have shown a link between financial stress and psychological well being for students attending university (Hodgson & Simoni, 1995; Lange & Byrd, 1998; Roberts, Golding, Towell, Reid, & Woodford, 2000). Roberts et al. (2000) surveyed 482 university students about their financial circumstances and psychological well being. The survey found that 72% of the sample experienced some difficulty paying bills, 12% reported great or very great difficulty and just under 10% had seriously considered dropping out of school for financial reasons. Indicators of physical health and psychological well being were lower than the population norms indicating that it was possible to link adverse health to the experience of financial difficulties (Roberts et al.). Hodgson and Simoni (1995) produced similar results with graduate students, finding that financial problems were significantly related to depression, anxiety and suicidality. In addition to short-term effects, economic hardship can also have a long-term impact on university students.

Lange and Byrd (1998) stated that the effects of debt incurred by university students were thought to continue for many years after graduation. They found that higher estimates of future debt and higher levels of daily financial stress produced greater levels of chronic financial strain and a loss of control. Financial counselors have suggested that ongoing levels of student debt could negatively affect individuals' future financial affairs by restricting graduates' ability to purchase a home, educate their children and provide for

their retirement (Lange & Byrd, 1998). It is important to note that actual debt reflects only one aspect of economic hardship.

Students without debt may experience hardship as they struggle to pay bills with constrained resources. Similarly, some students may be quite comfortable with debt whereas others find it overwhelming. Several studies have found individual differences with respect to student attitudes towards debt (Davies & Lea, 1995), financial well being (Norvilitis, Szablicki, & Wilson, 2003) and financial risk taking (Carducci & Wong, 1998; Wong & Carducci, 1991). One question that has yet to be addressed is whether student stress due to financial hardship affects the quality of employment they secure after graduation.

Graduating university students facing economic hardship and searching for work are faced with a difficult choice: find and accept any job as quickly as they can to start improving their financial situation or take extra time to find a job that reflects their career interests and educational investments. Work involvement (also known as employment commitment) has been found to predict employment status (Kanfer, Wanberg, & Kantrowitz, 2001), but not employment quality (Wanberg, Kanfer, & Rotundo, 1999) with unemployed job seekers. Prior research has not explored the role of work involvement in job search and employment quality for new job entrants. According to Kanungo (1982) work involvement reflects a normative belief in the value of work, which is developed through parental, school and religious training. Therefore, the importance of work to the student should serve as a motivator for that person to find a meaningful job. Therefore several questions are relevant here. Can high

work involvement counter the economic pressures graduating students face in seeking employment? Moreover, how do both variables relate to the job search process?

The job search process for new graduates typically involves the following steps: individuals first generate a list of job alternatives, prepare for the job search process (e.g. revising resume, talking with friends about job leads), then commence the job search process (e.g. mailing resumes, phoning potential employers) (Blau, 1993; Schwab, Rynes, & Aldag, 1987) and finally select a job from the one or more offers that are received. These behaviours have typically been categorized into two domains: preparatory and active job search (see Blau, 1993; 1994). In several studies these have been referred to as job search intensity because they measure the frequency of job search behaviours (e.g. see Wanberg, et al. 1999 and Werbel, 2000).

A third related factor is job search effort, which is the perceived investment of emotional energy in the job search process (Barber, Daly, Giannantonio & Phillips, 1994; Blau, 1993; Kanfer et al., 2001). This factor has also been referred to as job search intensity in several studies (e.g. Saks & Ashforth, 1999; 2000). For simplicity, this study will use the term job search behaviours (preparatory and active) and job search effort to avoid any confusion with the prior literature.

The most obvious and common outcome of job search is the attainment of a job or whether job seekers have found a job by a set time (Brasher &

Chen, 1999; Kanfer et al., 2001; Schwab et al., 1987). In addition to securing employment, researchers have identified search duration, number of interviews obtained and job offers as criteria (Brasher & Chen, 1999; Kanfer et al., 2001). A recent meta-analysis by Kanfer et al. (2001) found support for both job search behaviours and effort in securing employment. Interestingly, they also found that effort was more highly related to securing work and negatively related to the length of time individuals were unemployed. However, their data does not show how job search (both behaviours and effort) relate to the quality of employment. In other words, are job seekers sacrificing the quality of jobs in order to secure employment as a means of reducing their economic hardship?

Employment quality can be assessed in different ways via salary, degree of match between academic degree and job, job satisfaction, and turnover or intention to quit (Brasher & Chen, 1999; Wanberg et al., 1999). Although each measure is important, they are all somewhat deficient in assessing overall employment quality. Salary has been used as a measure of employment quality with higher initial salary being indicative of better quality employment despite the confound of labour market variations across different jobs (Brasher & Chen, 1999; Werbel, 2000). Degree of match between academic degree and job has been used as a measure of employment quality (Brasher & Chen, 1999; Saks, & Ashforth, 2002) with a stronger match indicating higher quality. Job satisfaction has also been used as a measure of

employment quality (Brasher & Chen, 1999; Saks, & Ashforth, 2002; Werbel, 2000) as well as intention to quit (Brasher & Chen, 1999; Werbel, 2000) as indicative of overall attitudes towards the job.

Although a considerable amount of research has demonstrated the link between job search effort and securing employment (Kanfer, et al, 2001; Saks & Ashforth, 1999; Schmit, Amel, & Ryan, 1993), far fewer studies have explored the link with employment quality. Several studies have explored the relationship between job search behaviours and employment quality (Blau, 1993; Saks & Ashforth, 2002; Wanberg, et al., 1999; Wanberg, et al., 2000) with mixed results, however few studies have explored job search effort and employment quality. Blau (1993) found a direct relationship between job search effort and employment quality (job satisfaction, quit intentions, and organizational commitment) whereas Saks and Ashforth (2002) found no direct relationship between them (i.e. the link was mediated by person-job and person-organization fit).

The present study addresses the relationship between economic hardship and work involvement as antecedents to job search effort with job search outcomes and employment quality as dependent variables. The proposed model extends prior research by including employment quality as an outcome beyond employment status.

**Method**

This study is part of a larger study on the school-to-work transition of university students. The current study rep-

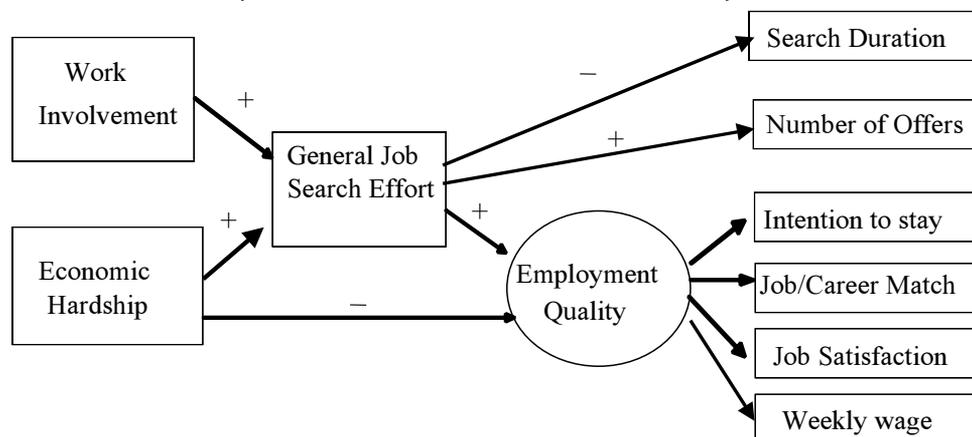


Figure 1. Initial research model: Impact of economic hardship and work involvement on general job search effort and employment quality.

resents two phases (1 month prior to graduation and 6 months after graduation) of the longitudinal survey across two graduating cohorts.

### Participants

Participants in the study were 2003 and 2004 graduates of a medium sized university who were searching for a job during the administration of the first survey and had secured employment at the time of the second survey. The 2003 cohort included 365 graduating students at Phase 1 (51.5% response rate) and 215 at Phase 2 (69.8%). The 2004 cohort included 700 participants (32.5% response rate) at Phase 1 with 281 at Phase 2 (40.0%). A total of 123 respondents met the criteria for the study and completed all of the measures.

### Procedure

Graduating students were contacted one month prior to graduation (in class for 2003 cohort and via e-mail for 2004 cohort) and asked to participate in two surveys. Six months after graduation all respondents who had consented to a follow-up survey were contacted by phone and/or e-mail and directed to a web site for the Phase 2 survey. Students were offered three draws of \$75 for their participation.

### Phase 1 Survey

Demographic information was collected to provide necessary background information such as: participants' degree program, their plans after graduation, whether they were currently employed or still searching for a job, and how long they had been searching for a job. Economic hardship, job search effort and work involvement were assessed in Phase 1. Economic hardship (Vinokur & Caplan, 1987) was measured using three questions with a higher score indicating a greater amount of hardship (Cronbach's alpha = .66). General Job Search Effort (Blau, 1993) was measured with four-items with a higher score indicating greater effort (Cronbach's alpha = .93). Work Involvement (Kanungo, 1982) was measured with six-items with a higher score indicating greater involvement (Cronbach's alpha = .72).

### Phase 2 Survey

After graduation respondents were asked to provide information about any current jobs, whether their current job was in the direction of their desired career path (job/career match with 1 = YES and 0 = NO), duration of their job search, and the number of offers they received. Job satisfaction and intent to turnover were measured at Phase 2. Job Satisfaction (Rice, Gentile & McFarlin, 1991) was assessed using six-items (Cronbach's alpha = .92) with higher scores indicated more satisfaction. Intent to stay (Mobley, 1977) was measured with three items with higher scores indicated a greater intention of staying (Cronbach alpha = .87). It should be noted that although this measure is typically scored with higher values indicating intention to leave, it was recoded to be consistent in direction with the other measures of employment quality.

### Analysis

All variables were reviewed for univariate normality, outliers, and missing data. Values for outliers were replaced with the next largest value within the z value of +/- 3.29. Mean substitution was used to replace missing values. Bivariate scatterplots were reviewed for multivariate normality, linearity and homoscedasticity with no notable concerns. Structural equation modeling was employed to assess the fit of the proposed model to the data. Model fit was assessed using the *generalized likelihood ratio* ( $\chi^2$ ) ratio, the *root mean square error of approximation* (RMSEA), the *Goodness of Fit Index* (GFI), the *adjusted Goodness of Fit Index* (AGFI), the *Comparative Fit Index* (CFI), the *Akaike Information Criterion* (AIC), the *Incremental Fit Index* (IFI) and the *Expected Cross Validation Index* (ECVI). IFI was used instead of the *Bentler-Bonett Normative Fit Index* (NFI) because the NFI may underestimate the fit of the model if the sample size is small (Tabachnick & Fidell, 2001). Individual parameter estimates within the model were also examined as the above fit indices determine the overall fit of the model and not the fit of the individual paths.

### Results

Means, standard deviations, minimum and maximum values, skewness and kurtosis are reported in Table 1. Demographic data was measured for cohort (50% 2003 graduates and 50% 2004 graduates) and degree (44% Bachelor of Science, 38% Bachelor of Arts and 19% Bachelor of Commerce). These were comparable to the percentage of degrees granted across the university for both years (48% Sciences, 37% Arts, and 14% Commerce).

A one-way ANOVA was conducted to determine if there were significant differences between majors on the variables of interest. Significant differences were found between majors in economic hardship,  $F(2, 114) = 3.53, p < .05$ , job/school match,  $F(2, 114) = 10.09, p < .001$ , and total weekly wage,  $F(2, 114) = 8.79, p < .001$ . An independent samples t-test was conducted to determine if there were significant differences between cohorts. Significant differences were found between cohorts in economic hardship,  $t(121) = 3.65, p < .001$ , general job search effort,  $t(121) = -3.99, p < .001$ , job/school match,  $t(121) = 3.63, p < .001$ , job satisfaction,  $t(121) = 2.08, p < .05$ , and intention to stay,  $t(121) = 7.34, p < .001$ . The model was tested with degree and cohort as covariates, however, no meaningful differences were found in either the paths or the model as a whole. The original model without covariates was retained to maintain an acceptable sample to estimated parameter ratio (Tabachnick & Fidell, 2001).

Significantly skewed variables were transformed as recommended by Tabachnick and Fidell (2001). Search duration, number of job offers, total weekly wage and job satisfaction were transformed using a square root transformation. The model was tested with the transformed variables and no meaningful differences were found and therefore the original distributions were retained.

### Model Estimation and Parameter Estimates

Path analysis (mixed model) was used to test the fit of the model. Table 2 shows the fit indices for the original model and the revised model. Parameter

Table 1 Descriptive Statistics

	<i>M</i>	<i>SD</i>	Min	Max	Skewness	Kurtosis
Economic Hardship	3.52	.86	1.00	5.00	-.60	-.20
Work Involvement	2.72	.77	1.00	4.80	.24	-.25
General Job Search Effort	2.56	.72	.75	4.00	.08	.08
Search Duration	7.03	6.35	0	24	.88*	-.16
Number of Job Offers	.97	1.20	0	5	1.11**	.67
Intention to Stay	3.57	1.31	1.00	5.00	-.71	-.73
Job/Career Match	1.58	.49	1.00	2.00	-.34	-1.91
Job Satisfaction	3.75	1.00	1.00	5.17	-.79*	-.04
Total Weekly Wage	554.57	242.81	100.00	1313.00	.75*	.96

\* $p < .05$ . \*\* $p < .01$ .

Table 2 Model fit indices

Model	$\chi^2$	df	N	GFI	AGFI	IFI	CFI	ECVI	AIC	RMSEA
Revised model	33.42	26	123	.94	.90	.95	.95	.59	71.42	.05
Thesis model	37.90	27	123	.93	.89	.92	.92	.61	73.90	.06
Null Model	170.19	36	123	.74	.67	.00	.00	1.5	188.186	.17

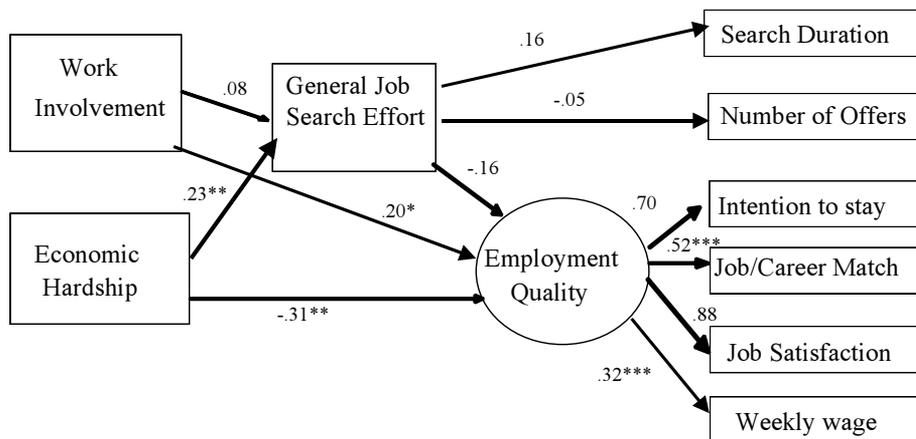


Figure 2. Standardized path coefficients: Impact of economic hardship and work involvement on general job search effort and employment quality.

estimates within the model were examined to determine if each path in the model was predicting what was expected. The standardized path coefficients are presented in Figure 2. All of the parameters estimated in the model were in the expected direction and five of the nine estimated parameters were significant. The proposed model produced a good fit to the data.

### Post Hoc Model Modifications

Although the original model resulted in a relatively good fit to the data, the AGFI and NFI were slightly discrepant from accepted levels (Tabachnick & Fidell, 2001). Therefore, post hoc analyses based on modification indices were conducted to explore for a better fitting model. The addition of a path from work involvement to employment quality produced an improvement across all indices. The AIC was lower with the addition of a path and the chi-square difference was significant ( $\chi^2(1, N = 123) = 4.48, p < .05$ ). Overall the revised model appeared to fit the data very well. These results, the overall findings and their implications are explored in more detail in the discussion.

### Discussion

The primary goal of the current study was to determine the impact of economic hardship and work involvement on job search outcomes and employment quality. Economic hardship was significantly related to both job search effort and employment quality, which suggests that this is an important consideration in the job search process of university graduates. Those graduates who felt more economic hardship prior to graduation felt that they invested more effort in their job search and took jobs of lesser employment quality six months after graduation. In general, these jobs were not the first job in their career path, lower paying, less satisfying with more likelihood of being left for another position. The finding that economic hardship significantly and negatively relates to employment quality is consistent with Wanberg, et al. (1999) who found a positive relationship between financial need and intention to turnover (one aspect of employment quality).

Prior research has explored the relationship between economic hardship and job search effort. Kanfer et al. (2001) found a negative relationship between financial need (similar to economic hardship) and effort, however all of the studies cited in their meta-analysis focused on individuals who had lost jobs. It may be that economic hardship plays a different role in job search effort between these two groups. Saks & Ashforth (1999) suggest that there may be considerable differences in job search between new graduates and older unemployed workers.

In contrast to economic hardship, work involvement was not related to job search effort and positively related to employment quality, which suggests that graduates who see work as important to their lives choose better jobs but do not perceive themselves as investing more effort in their job search. This finding is inconsistent with prior research. For example, Wanberg, et al. (1999) found no relationship between work involvement (employment commitment) and job satisfaction/intent to turnover with unemployed individuals. Two potential explanations can be offered. First, it may be that the sample differences explain the results and work involvement is more salient for new university graduates (similar to the argument made by Saks & Ashforth, 1999). Secondly, the current study's measure of employment status includes several variables (i.e. salary and job/career match) that when combined may more strongly reflect employment quality for those high in work involvement beyond just satisfaction and intent to turnover.

Job search effort did not relate to search duration, number of job offers nor employment quality, which is not consistent with Kanfer, et al. (2001) who found a significant relationship between effort with duration and job offers. Interestingly, Saks and Ashforth's (2000) study of university graduates may provide some insight into these differences. They found job search effort (referred to as intensity) to be related to job offers prior to graduation but not 4 months later. It may be that job seekers' self-assessments of job search effort at one point in time are not predictive of longer-term outcomes.

This gap may be due to a lack of sustained effort over time.

### Strengths of the Study

This is the first study to measure employment quality beyond work attitude measures (e.g. organizational commitment, job satisfaction, and intent to turnover) by including job/career match and weekly salary. The strong loadings for each of the observed variables support this conceptualization. Another strength of the study is its predictive design with employment quality being measured six months after the antecedent and job search measures were administered. Although there may be additional factors, the predictive design does allow the conclusion that work involvement and economic hardship have an impact on subsequent employment quality. In addition, this study adds to the limited research in job search effort and suggests that effort may not have long-term impact on employment outcomes.

### Limitations and Directions for Future Research

Despite the distinct contributions of this study, there are several limitations. First, the sample was a limitation with respect to size and diversity. Although a large number of students were surveyed, the focus of the study on currently searching students (in Phase 1) who secured employment 6 months later (Phase 2) was quite restrictive. In addition, the current sample came from one university. Future research should cross-validate the results using a larger and more diverse sample.

Secondly, significant differences were found between degrees of study and cohorts. The sample size was insufficient to fully integrate both of these variables into the model and still maintain an acceptable sample to estimated parameter ratio (Tabachnick & Fidell, 2001). The models did not change significantly when the covariates were included but this conclusion is tentative. Future research should confirm the model with sufficiently large subgroups (by degree and cohort).

Finally, the timing of the survey was not optimal for analyzing job search effort. The survey was administered in March, which is one month

prior to graduation in students' final semester. It is likely that students were not heavily focused on searching for a job but instead on completing their course assignments. When comparing the mean values from this study with other student job search samples (e.g. Saks & Ashforth, 1999; 2000, 2002) in all cases the mean here was substantially lower. In addition, graduates may have increased or changed their job search effort after graduation with a greater impact on search success. As a result, this may have reduced the relationship between job search effort and employment outcomes. Future research should conduct the study immediately following graduation and over repeated occasions to better capture graduates' job search effort.

In addition, future research should expand the use of different measures by including job search behaviours (preparatory and active) and more frequent data collection periods between searching and securing employment. The increased focus on employment quality rather than simply employment should continue as it reflects an important outcome for many job seekers as well as the mediators and moderators of these relationships. Saks & Ashforth's (2002) study, which incorporated person-job and person-organization fit is an excellent example of this. Finally, future research should include the career focus of job seekers as this becomes especially relevant when considering employment quality, particularly with new job entrants.

Although some researchers have lamented the strong focus of job search research on new entrants to the labour market (e.g. Kanfer, et al. 2001), there are several good reasons to continue research with this group. First of all, they represent a large, relatively homogeneous group of job seekers and their role in employment is considerable. Secondly, the early job search experiences may have significant implications for graduate's careers and employment success. Finally, many students attend university in order to secure better employment after graduation and therefore it is important to understand the unique factors that affect the job search process for them. Kanfer, et al.'s study points to the important job search dif-

ferences between new entrants and other job seekers which reinforces the focus on each group specifically.

### Conclusions

This study is the first to produce a model assessing the impact of economic hardship, work involvement, and job search effort on employment quality. Both economic hardship and work involvement were found to be important predictors of employment quality. As a result, they warrant on-going research to support an effective school-to-work transition. As university fees increase, the negative impact of economic hardship on subsequent employment outcomes is considerable. Universities and governments need to recognize the full implications of fee increases and subsequent economic hardship on graduates as these have implications for early career decisions.

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### Footnotes

<sup>1</sup>It should be noted that a large portion of the students were not searching for jobs just prior to graduation and a smaller portion had already secured positions which partially explains the drop in useable data.

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