Impact of the Recession

Duncan M. Shields, H.B.A. ©

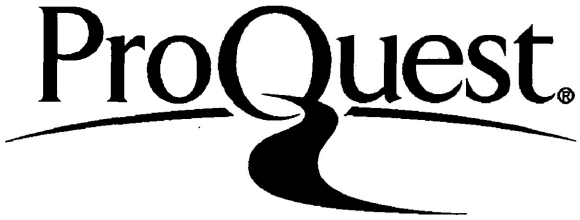
Presented in Partial Fulfillment of the Requirements

For the Degree of Master of Arts

Clinical Psychology

Lakehead University

September, 1994



Acknowledgements

During the preparation of this thesis, I received a great deal of assistance from a number of individuals whose contributions I gratefully acknowledge.

A very special thanks to my thesis supervisor, Dr John Jamieson who provided me with excellent direction, constructive criticism and unfailing encouragement throughout the research process, and to my second reader Professor Ken Allan.

I would also like to express my appreciation to my friends, Antoinette Larizza-Savas and Tara Shute for their assistance with recruiting subjects and passing out questionnaires.

I would especially like to thank Catherine Wyber, my wife and closest friend, who read and commented on each section of this thesis as it was written, and encouraged and supported my efforts throughout the ups and downs.

Abstract

Over the last few years, Canada and many other industrialized nations have been facing serious economic and fiscal crises. There is some evidence indicating that this kind of economic contraction is a significant source of psychosocial stress, and that during times of economic recession or uncertainty a relationship exists between economic events and measures of health and well being at both the individual and societal level.

An exploration of the nature and strength of any such relationship is important in identifying individuals that may be at high risk due to economic contraction, and to identify what factors may buffer against the negative effects of recession. The present study was designed to assess the impacts of the current economic recession on a university student population. In addition to the exploratory aspect of this study, the relationship between economic events and depression and hopelessness was investigated within the framework of self-efficacy theory.

The specific objectives were: to evaluate the

relative contributions of domain specific (economic) self-efficacy, general self-efficacy, and outcome expectations in the determination of depression and hopelessness; and to investigate students' perceptions of the impact of economic recession on themselves and other students.

Path analyses showed that depression was more strongly associated with beliefs about one's self-efficacy in general, while feelings of hopelessness were more strongly related to beliefs about personal control over economic issues. Outcome expectations were found to have no additional predictive value in understanding depression and hopelessness scores. These findings support the role of cognitive processes (self-efficacy beliefs) in the mediation of the effects of stressors such as negative economic events on mental health.

Table of Contents

Impact of the Recession

Over the last few years, Canada and many other industrialized nations have been facing serious economic and fiscal crises. A general trend towards down-sizing in both the public and private sectors in order to deal with current economic contraction, as well as numerous bankruptcies and plant closures, have contributed to high unemployment rates. Government attempts to make up for spending deficits have translated into reduced funding in many areas, higher taxes, general wage and benefit rollbacks, and a loss of job security for many of the employed. The impact of economic contraction has been felt in almost all sectors of society, and although there is speculation that the recession is over and that the economy is now making a recovery, it is expected that high unemployment, and a long term reduction in job security and income expectations for many individuals, will accompany a slow economic recovery.

A number of studies have investigated the social and psychological impact of economic recession. Some evidence indicates that during times of economic

recession or uncertainty a relationship exists between economic events and measures of health and well being at both the individual and societal level (Pierce, 1967; Brenner, 1973). An exploration of the nature and strength of any such relationship is important for identifying individuals who may be at high risk due to economic contraction, and to elucidate what factors may buffer against the negative effects of recession. The present study explores the impact of the current recession on a population of university students to examine whether self-efficacy beliefs may play a role in buffering the impact of recession.

Economic Recession

The idea that economic change affects social and psychological processes was discussed as early as 1897, with Durkheim's work on suicide. Since that time, numerous studies have shown that during times of recession and economic uncertainty, a relationship exists between aggregate measures of economic change (unemployment rates for example) and aggregate measures of a society's health and well being. Brenner (1973),

for example, examined fluctuations in the rates of hospitalization in mental hospitals and unemployment in the state of New York from 1914 until 1960, and discovered an inverse relationship between the stability of the economy and the behavioural instability of individuals.

Other studies have revealed relationships between increases in unemployment rates, and rates of homicide and suicide (Lester, 1987; Brenner, & Swank, 1986), suicidal ideation (Dooley, Catalano, Rook, & Serxner, 1989; Brenner, 1987), and increases in total mortality (Brenner, 1987). Researchers have found significant relationships between the effects of economic uncertainty, and increased levels of psychological distress, numbers seeking help for psychological stress, and nonspecific physiological illness (Dooley & Catalano, 1980; Liem & Rayman, 1982; Catalano, 1991).

Research addressing the effects of economic events on specific populations has related personal economic setbacks such as job loss to subsequent personal psychological and health consequences. Groups that have received frequent attention in the research

literature are the unemployed, and those individuals who have little job security (Johoda, 1988; Warr, 1987). There appears to be some consensus among researchers that many of the unemployed are "psychologically impaired" (Jahoda, 1988), or at a higher risk than the general population for conditions such as depression, anxiety, and low self-esteem (Warr, 1987). Thus, when individuals experience economic stress, there is evidence that they experience emotional distress as well.

The university population has not escaped the effects of current economic stress and instability. As seen in Burke's (1986) study of the effects of the recession on public schools, a depressed economy can affect an educational institution and its students in a number of ways. The first is through direct financing. During times of economic contraction, governments are forced to cut budgets. As a result, there is less money available for certain services because of increased strain on others (Unemployment Insurance, welfare), and there is also less revenue. Education is one area (among others, ie. health care and hospital

support) which has suffered through restraint programs (Burke, 1986).

Cutbacks in funding can negatively impact on the physical learning environment of students and the availability of resources. Burke (1986) examined the effects of the economic recession in Canada on public school students, their problems and concerns, and their educational environment using data from over 3000 teachers. Results showed that deterioration of facilities and programs and more frequent student problems were consistently related to the perceived impact of the economic recession.

Fiscal restraint also results in less direct effects, involving the link between the nation's economic health and the behaviour and well-being of its citizens. Students, parents, professors, and the communities in which these individuals live may experience more discomfort and distress as a result of the depressed economic circumstances in which they find themselves (Burke, 1986).

The most obvious economic circumstance that might be a source of discomfort and distress is unemployment

and/or income loss. The negative effects on the individual of unemployment or income loss are well documented (Johoda, 1988; Warr, 1987). Students, especially those that have entered university immediately following secondary schooling, may not have experienced significant periods of unemployment themselves, nor any significant decreases in income. However, a negative economic event such as unemployment has a much broader range of influence than what is experienced specifically by the individual. A number of researchers have investigated the impact of unemployment of a parent on other individuals in the family. Although some direct effects of unemployment on the family have been revealed, the most significant effects are indirect, and mediated through the changes that economic loss produces in the parent's behaviour and disposition (McLoyd, 1989; Whitbeck et al, 1991). Research has shown that economic hardship diminishes capacities for consistent and involved parenting and renders parents more vulnerable to negative life events and psychosocial problems such as depression and demoralization (Conger et al, 1992; McLoyd, 1990).

Other findings indicate that parents may respond to economic loss with increased irritability and pessimism, and may be less nurturant and more punitive and arbitrary in their interactions with their children (Flanagan, 1990; McLoyd, 1990). These behaviours increase the child or adolescent's risk of deviant behaviour such as adolescent aggression (Skinner, Elder, & Conger, 1992), reduced academic performance or failure (Walker, 1989), lower achievement motivation and creativity, and reduced aspirations and expectations (Flanagan, 1990), as well as socioemotional problems or psychological distress such as depression, low self-esteem, loneliness and attempted suicide (Lempers, Clark-Lempers, & Simons, 1989; Lewis et al, 1988; Ge et al, 1992; McLoyd, 1990; Whitbeck et al, 1991).

Many university students continue to rely on their families for financial and emotional support throughout their education. In a recession, young adults have an increasingly difficult time self-supporting, and there is a trend for these individuals to return, or continue to live with their parents, whether driven home due to

economic hardship, or because they feel entitled to a particular standard of living (Hartung and Sweeney, 1991). If families are seriously impacted by negative economic events, and have experienced either a loss of employment or a decrease in income, they may not be able to provide the resources that their young people need or expect (Burke, 1986). Students in these situations may develop negative attitudes, and may have an increased risk of developing mental health problems.

In addition to these difficulties, career prospects and income expectations, even for those graduating with university degrees, are also less optimistic given high unemployment rates and reduced placement statistics (Watts, 1986). The resultant competitiveness of the labour market may increase tension levels for students and affect their expectations, motivation, and emotional state. Bronzaft and Dobrow (1976), in a study of economic recession and test anxiety, found that college students who considered the recession to have made the job market extremely competitive showed higher levels of test anxiety than students who did not perceive such an

impact.

In summary, a depressed economic environment may ultimately impact on the quality of education, the learning environment, on students' problems and difficulties, and on students expectations (Burke, 1986). These circumstances may be perceived by many students as very stressful. For others, however, these events may not be a source of stress at all.

Various researchers have studied the way in which people cope with particularly stressful circumstances, such as economic contraction (Catalano, 1991). The determination and examination of these differences in vulnerability to stressful circumstances of different individuals or groups within society is considered by some to be the foremost task of stress research (Lazarus & Folkman, 1984).

Individual Differences and Self-Efficacy

So why is it that individuals react differently to stressors such as economic contraction? What is the nature of the relationship between stress, coping and mental health. Stress is generally seen as a process

in which the person is an active agent who can influence the impact of the stressor. Stress is defined as the condition that results when person/environment transactions lead the individual to perceive a discrepancy, whether real or imagined, between the demands of the situation and the resources of the person's biological, psychological, or social systems (Sarafino, 1990). The individual assesses two factors: 1) whether a demand threatens their well being and 2) the resources available for meeting the demand (Sarafino, 1990).

Whether an event is cognitively appraised as stressful or not will vary from person to person. These individual variations often result from psychological and social factors that seem to modify the impact of stressors. Bandura (1977) suggests that the way people think, how they behave, and the nature of the environment are inter-related and determined by one another. A key mediator in this process is a cognition called self-efficacy.

Self-Efficacy

Self-efficacy is a component of the greater **social learning theory** which centres on the role of self referent thought in psychosocial functioning; it is the learned expectation of success, or a person's belief that he or she can successfully perform a behaviour regardless of past failures or current obstacles (Bandura, 1986). Self-efficacy interacts, according to Bandura, with expectations about the outcome of behaviour in general, and the result of this interaction helps to shape a person's health and psychological well-being (Bandura, 1982).

Outcome expectation is defined as "a person's estimate that a given behaviour will lead to certain outcomes". In comparison, self-efficacy is "the conviction that one can successfully execute the behaviour required to produce the outcomes" (Bandura, 1977, p.193). If a person has little self-efficacy and also expects that nothing that anyone does has much effect on the world, apathy and hopelessness may result. But if a person with low self-efficacy believes that others (but not themselves) do reap the

benefits of their efforts, the results are often self disparagement and depression (Bandura, 1982).

Measurement of Self-Efficacy

Self-efficacy was originally presented by Bandura as a situation-specific belief that varied greatly depending on the task and the context in which the task was to be performed (Bandura, 1978). However, there is evidence that the experiences of personal mastery that contribute to efficacy expectancies generalize to actions other than the target behaviour (Bandura & Adams, 1977). Bandura suggested that in new situations, individuals' self-efficacy expectancies would be generalized from other similar situations that they had faced. Bandura referred to this construct as domain efficacy (Bandura, 1977).

Sherer and Maddux et al. (1982) explored self-efficacy as a global concept that they called General Self-Efficacy, and developed a scale to measure this construct. They hypothesized that an individual's past experiences with success and failure in a variety of situations (or across a variety of domains) result in a

general set of expectations for mastery that the individual carries into new situations (Sherer et al. 1982). Individuals with histories of varied and numerous experiences of success tend to have positive self-efficacy expectancies in a greater variety of situations than individuals with experiences of limited success and failure.

The Self-Efficacy Scale that Sherer et al. (1982) developed consists of a subscale that is designed to provide a measure of the general self efficacy construct, and a second separate subscale that taps into the more domain specific area of social self-efficacy. They found that high scores on the general self-efficacy subscale were predictive of the future academic and vocational success of college students (Sherer et al., 1982).

Woodruff and Cashman (1993) re-examined Sherer et al.'s Self-efficacy Scale (1982) and found support for the validity and usefulness of this measure. In attempting to further refine the measure, they suggested that the general self-efficacy subscale may be a general measure of self-efficacy within the

academic/vocational domain and caution that it may not be appropriate to generalize to areas outside of this domain. Although this domain is appropriate for the focus of the present study, their caveat reflects an ongoing debate in the literature regarding the definition and measurement of domain and general self-efficacy.

Wang & Richarde (1988) conducted a number of studies to reconcile contextualist accounts of self-efficacy with evidence supporting its more general nature. Results suggested that general and domain or task-specific measures assess relatively distinct aspects of self-efficacy. The present study includes both domain and general self-efficacy measures to evaluate their value for predicting the effects of the recession.

Self-Efficacy and Mental Health

Self-efficacy theory was originally applied to the study of changes achieved in the treatment of fearful and avoidant behaviour, however research has revealed that self-efficacy theory is generalizable to diverse

tasks and situations and that self-efficacy beliefs have predictive value in a variety of areas. One area that has received increasing attention in the literature is the relationship between efficacy expectations and mental health and behaviour (Holahan et al., 1984; Stanley & Maddux,1986).

Murphy (1988), for example, examined the ability of self-efficacy to mediate the effects of disaster stress on health one and three years following the volcanic eruption of Mt. St. Helens in 1980. Murphy found that low self-efficacy was a significant predictor of higher levels of overall mental distress, depression, and somatization.

The relationship between depression and low self-efficacy has been demonstrated in a number of studies (Olioff et al., 1989; Flannery, 1986). Ehrenberg et al. (1991) examined the self-efficacy status of depressed and non-depressed adolescents and concluded that self-efficacy played an important role in the mediation of adolescent depression. Similarly, Schwartz & Fish (1989) reported finding a significant relationship between self-efficacy and depressive

symptoms in a sample of college students.

Stanley and Maddux (1986) found that induced self-efficacy expectations for an anticipated social interaction significantly influenced mood. They reported that low self-efficacy expectancies created greater depressed mood than high self-efficacy expectancies. Hong and Mayo (1988), in a study of depression-proneness of male and female 17-25 year olds, found that self-efficacy was a significant predictor of depressive affect.

Various researchers have also studied the predictive relationships between self-efficacy beliefs and mental health in older adults (Holahan et al., 1984; Holahan & Holahan, 1987; Davis-Berman, 1988). Results indicate that low self-efficacy expectancies among senior citizens are significantly related to increased levels of depression, maladjustment, and social isolation.

Self-efficacy has also been found to be related to hopeless/helpless beliefs. These beliefs are commonly regarded as characteristic of depressed individuals (Beck & Steer, 1988). In a correlational analysis with

93 undergraduates, Wang and Richarde (1988), found that generalized self-efficacy was inversely related to scores on the Beck Hopelessness Scale.

Several studies have also documented the relationship between self-efficacy, career related events, and mental health and coping. Stumpf et al. (1987) examined the process of self-efficacy expectation development, coping with a difficult task such as a job interview, and task performance. They found that that self-efficacy expectations played an important role in mediating the relationship of perceived past performance and pretask anxiety with subsequent behaviour and outcomes.

In a study of depression, job search self-efficacy, and the unemployed older adult, Rife (1989) found that subjects with lower job search self-efficacy were more likely to report higher levels of depression and longer current unemployment rates than subjects with higher expectancies. No significant relationship was found between job search self-efficacy and aspirations for work.

In their 1990 study, Rife & Kilty investigated job

search discouragement and the older worker. Differences in personal and social characteristics were examined between unemployed, actively searching older workers and discouraged workers who had stopped searching for a job. Unemployed discouraged older workers tended to have significantly lower job-search self-efficacy expectations, more disorderly work histories, a longer period of current unemployment, and higher reported levels of depression, social isolation, and psychological discouragement.

The results of these studies support Bandura's (1977) suggestion that "expectations of personal mastery affect both initiation and persistence of coping" (p.193). However, there exists some ambiguity concerning the role of self-efficacy versus outcome-efficacy expectations in terms of their respective roles in mediating the impacts of stressors. For example, Flannery (1986) examined outcome expectancies and self-efficacy as they relate to anxiety and depression. Depression was found to be negatively correlated with outcome expectations, while no relationship was found between expectations of personal

efficacy and symptomatology.

The Present Study

Research has revealed a significant relationship between economic recession and increased incidence of negative mental health consequences such as depression. It is also well established that there are linkages between low expectations of personal efficacy and increased levels of depression or reduced mental health. While it is clear that high self-efficacy beliefs act to buffer the impact of certain stressors, there is some uncertainty in the literature about the nature of the relationship between outcome expectancies and self-efficacy and how these two expectancy factors interact to mediate the effects of stress on mental health. Bandura (1982) suggested that if a person has little self-efficacy and also expects that nothing that anyone does has much effect on the world, apathy and hopelessness may result. But if a person with low self-efficacy believes that others (but not themselves) do reap the benefits of their efforts, the results will be self-disparagement and depression.

Given the broad range and extent of the recession's effects, it is important to explore the nature of the impact of this phenomenon on students' levels of depression and hopelessness, and the role of efficacy expectations in mediating these effects. More specifically, it is important to attempt to gain some understanding of how outcome beliefs combine with self-efficacy beliefs to influence levels of depression and hopelessness.

There is also some question in the literature concerning the specificity of self-efficacy measures that should be used to study self-efficacy phenomena. Clarification of the respective roles of general self-efficacy and domain self-efficacy is needed in order to better understand the contributions of these two expectancy factors in mediating the effects of economic recession on students.

The purpose of the present study is to explore the role of self-efficacy as a buffer to the effects of the recession on a population of university students. The specific research objectives are:

1) to evaluate whether outcome beliefs are

important predictors of mental health, or whether self-efficacy per se is a major determinant of both depression and hopelessness.

2) to evaluate the relative contributions of domain and general self-efficacy measures in predicting the effects of economic recession.
3) to investigate, at an exploratory level, students' perceptions of the impact or effect of economic recession on themselves and other students.

Method

Subjects

The sample used for this study consisted of 122 university students, 54 of whom were recruited from various university classes, and 68 of whom were recruited at the university cafeteria. Forty-nine percent, or a total of 60 of the final sample, were female. Criteria for inclusion of these subjects was their voluntary consent to participate. Each was given a questionnaire and informed as to the purpose of the

study and what was required from respondents. Volunteers were treated in accordance with the "Ethics Procedures & Guidelines for Research on Human Subjects" (Ethics Advisory Committee to the Senate Research Committee, Lakehead University, 1989). The data were collected during the month of March, 1994.

Materials

Each of the subjects were asked to complete a questionnaire consisting of a Beck Depression Inventory, a Beck Hopelessness Scale, a Self-Efficacy Scale, and three scales which were developed for this study to measure economic self-efficacy, economic outcome expectations, and the direct impact of the recession on students.

1) The Beck Depression Inventory (BDI) is a 21-item instrument designed to assess the presence and severity of depression in adolescents and adults (Beck & Steer, 1987) (see Appendix A). The test is self-administered with all questions presented in a multiple choice format. Scoring involves simple addition, and interpretation is based on total scores. With normal

populations, BDI scores greater than 15 may detect possible depression. The manual also suggests that for university students, high BDI scores may represent overall adjustment problems. The test has readily apparent face validity, high content validity, and cross-validation research supports the reliability and validity of the BDI (Beck & Steer, 1987).

2) The Beck Hopelessness Scale (BHS) is a self-administered scale used to measure the extent of negative attitudes about the future (pessimism) as perceived by adolescents and adults (Beck & Steer, 1988)(see Appendix B). The test consists of 20 true-false statements that are keyed to yield a summed total score ranging from 0 to 20 with higher scores indicating greater helplessness. According to the general guidelines for interpretation, a BHS score between 0 and 3 is within the normal range, 4 to 8 is mild, 9 to 14 is moderate, and greater than 14 is considered to be severe. The mean score reported in the manual for college students is 2.32 (SD = 2.25). The validity of the scale is well established and is well documented in the manual.

3) The Self-Efficacy Scale is a self-administered scale designed to measure generalized mastery expectancies (Sherer et al., 1982)(see Appendix C). This test consists of two subscales, the General Self-Efficacy subscale (GSE, 17 items), and the Social Self-Efficacy subscale (SSE, 6 items). Subjects are required to rate agreement with each item on a 14-point Likert scale ranging from "strongly disagree" to "strongly agree". For the purposes of the present study, only the General Self-Efficacy subscale was used, and the scale was converted from a fourteen-point to a six-point Likert scale to be consistent with the form of the next two scales. In Sherer et al's. (1982) study the mean score of students on the GSE subscale (converted to the six point scale) is 73.9 (SD = 11.7). Research indicates that this scale has good reliability and good construct validity (Woodruff and Cashman, 1993).

4) A questionnaire was developed to measure economic self-efficacy (ESE) and economic outcome expectancies (OE) (see Appendix D). These scales consisted of 11 items and 7 items respectively. The

items were generated from reviews of relevant literature, and on the basis of input from students and professors. All items were scored on a 6-point Likert type scale ranging from "Strongly Disagree" to "Strongly Agree". Seven of the items were reverse coded.

5) A number of questions were developed for the purpose of gathering information about the direct impact of the recession on students and to explore the varied effects of recession on the student population (see Appendix E). This section consisted of 14 questions developed from reviews of relevant literature, and on the basis of input solicited from students and professors at the University. Some of these questions were answered with either yes or no responses, some were Likert type questions on a 6-point scale, and some were open ended questions which provided respondents with the opportunity to make unstructured comments.

Aside from the formal questionnaires and scales, there were also a number of questions included to obtain information about respondent demographics,

registration, and living arrangements.

Procedure

Potential subjects were contacted through two classes and individually in the university cafeteria. A brief description of the study was given, participation was requested and if granted, volunteers were given the questionnaire package. Participation involved filling out the questionnaire package and returning to the researcher in person or to the researcher's mailbox. Completion of the questionnaire required approximately 30 minutes time. Questionnaires were returned without the subjects' names on them to ensure confidentiality. Out of 150 questionnaires distributed, 122 were returned.

BDI, BHS and the GSE subscale of the General Self-Efficacy Scale were scored to yield their respective total scores. These scores, and all other individual items were encoded and analyzed by computer using SPSS.

Results

Beck Depression Inventory

The mean BDI score of this sample fell within the category of "minimal depression" (Mean=7.34, SD=6.16) with a range of 0 to 29. The BDI manual (Beck and Steer, 1987) suggests that with normal populations, BDI total scores greater than 15 may detect possible depression. Using the cut-off score for normal populations for this sample, 108 subjects scored 15 and below (88.5%) and 14 subjects had scores above 15 (11.5%). For clinical populations, BDI results are generally reported in categories ranging from "minimal" to "severe" depression. For the current sample, using the cut-off scores for clinical populations, 67.2% fell within the "minimal" range, 24.6% within the "mild" range, and 8.2% within the "moderate" range. No subjects in this sample registered scores in the "severe" range.

A one sample z test statistic was calculated to compare the distribution of this sample with the distribution of Gotlib's (1984) college student sample (Mean = 7.47, SD = 5.89). There was no significant

difference between the two student populations (z=-.25, p>.05).

Beck Hopelessness Scale

The mean BHS score of this sample fell within the "mild" range (Mean=3.52, SD=3.47) with a range of 0 to 19. Using the cut-off scores found in the BHS manual (Beck and Steer, 1988), 61% of the subjects scored within the "normal or asymptomatic" range, 31% fell within the "mild" range, 7% within the "moderate" range, and 1% in the "severe" range.

A one sample z test statistic was calculated in order to compare the distribution of this sample with the college student norms published by Durham in 1982 (Mean = 2.32, SD = 2.25). The mean of the student population used in this study was significantly higher than the mean of Durham's sample (z=6.00, p<.01).

General Self-Efficacy

The mean score of this sample on the General Self-Efficacy Scale was 78.5 (SD=9.72) and ranged from 46 to 99. This mean lies above the mean of the student

population used by Sherer in 1982 (Mean 73.9, SD = 11.7). The calculation of a one sample z test statistic indicates that this sample's GSE mean is significantly higher than that of Sherer's population ($z=4.34$, $p<.01$).

Economic Self-Efficacy (ESE)

Table 1 shows the 11 questions answered by subjects that make up the Economic self-efficacy (ESE) scale and the reliability analysis of this scale. This scale has good reliability with an alpha of .844.

Economic Outcome Expectations (OE)

Table 2 shows item total correlations for the 7 items that make up the Economic Outcome Expectancies scale (OE). The reliability coefficient found for this scale is alpha = .661.

Table 1

Reliability of the Economic Self-Efficacy Scale (ESE)

	Item	Item Total Correlation
1.	I am certain that I will be able to find an interesting and adequately paying job in my field once I graduate.	.669
2.	If a job looks like it might be difficult to get, I would not be likely to try for it.	.483
3.	Not being able to find a job initially after leaving school, is likely to make me try even harder.	.484
4.	I am certain that I can make my career plans work	.726
5.	I feel insecure about my ability to compete successfully for a job.	.534
6.	Even if unexpected problems arise when I go to start my career, I know that I will be able to handle them well.	.661
7.	I am confident that I will be able to do what it takes to find an adequately paying job next summer.	.396
8.	I am confident that my eventual standard of living will end up being at least as high as that of my parents.	.507
9.	I lack confidence in my future given the state of the economy and the effects that this might have on me.	.601
10.	Despite the current trend of unemployed workers returning to school to upgrade, I feel confident about my chances of getting into graduate school or other training programs.	.529
11.	I consider myself to be extremely motivated to succeed in school.	.349

Alpha = 0.844

Table 2

Reliability of the Economic Outcome Expectations Scale (OE)

	Item	Item Total Correlation
1.	Given the current high unemployment rates, I do not believe that having a university degree significantly improves peoples' chances of finding stable and adequately paying employment.	.353
2.	Given the current state of the economy, I believe that people in my generation will generally have lower standards of living than their parents do.	.383
3.	Despite the state of the economy and the high rates of unemployment, I feel confident that those people who really desire to work will be able to find suitable employment.	.485
4.	I expect that how well a person does for themselves will be directly related to how motivated they are to succeed.	.454
5.	I am not certain that people's hard work really translates into substantial rewards or success.	.388
6.	Despite the increasing trend whereby unemployed workers are returning to school to upgrade and increase their marketability, students attempting to go straight through to graduate programs or other training shouldn't have any problems getting in if they try hard.	.323
7.	More young people will have to live with their parents into their thirties due to the difficulty of getting "established" financially in the present economy.	.231

Alpha = 0.661

Relationship between Self-Efficacy, Outcome Expectations and BDI and BHS Scores

The correlation coefficients of the relationships among the two self-efficacy measures (GSE & ESE), Beck Depression and Hopelessness scores, and the Outcome Expectations scale (OE), are presented in Table 3.

Table 3

Table of Correlations: BDI and BHS with other scales.

Scale	BHS	OE	ESE	GSE
BDI	.552**	-.228*	-.357**	-.491**
BHS	--	-.381**	-.597**	-.428**
OE		--	.413**	.314**
ESE			--	.541**

Note: ** denotes significance at P<.01, * indicates significance at p<.05, (2-tailed). **BDI** = Beck Depression Inventory, **BHS** = Beck Hopelessness Scale, **OE** = Economic Outcome Expectations Scale, **ESE** = Economic Self-Efficacy Scale, **GSE** = General Self-Efficacy Scale.

It can be seen that, as expected, scores on the Beck Depression Inventory are correlated with scores on the Beck Hopelessness scale. It should also be noted that the two self-efficacy measures (GSE and ESE) are correlated, and that the Outcome Expectations scale is also significantly related to these two measures.

The two Self-Efficacy measures and the Outcome

expectations measure are also significantly correlated with BDI and BHS scores, indicating that Self-Efficacy and Outcome expectations are predictive of depression and hopelessness as measured by these two instruments.

BDI and BHS Analysis of Variance

To examine whether Outcome Expectations act as moderators in the relationship between self-efficacy and depression and hopelessness scores, four, two way anovas were conducted. In order to do this, median splits were carried out to create high and low groups for each measure. The results of these analyses are summarized in Tables 4, 5, 6, and 7. Cell means are included in Appendix F.

Table 4

ANOVA BDI by Outcome Expectations and Economic Self-Efficacy

Main	*F* value	*p* value
OE	4.259	.041*
ESE	2.478	.118
Interaction		
OE and ESE	2.918	.09

Note: * indicates significance $p<.05$

Table 5

ANOVA BHS by Outcome Expectations and Economic Self-Efficacy

Main	F value	p value
OE	7.701	.006*
ESE	17.24	.000*
Interaction		
OE and ESE	14.63	.211

Table 6

ANOVA BDI by Outcome Expectations and General Self-Efficacy

Main	F value	p value
OE	3.229	.075
GSE	10.736	.001*
Interaction		
OE and GSE	41.074	.268

Table 7

ANOVA BHS by Outcome Expectations and General Self-Efficacy

Main	F value	p value
OE	10.119	.002*
GSE	14.185	.000*
Interaction		
OE and GSE	2.496	.117

These tables show no significant interactions between the two self-efficacy measures and outcome expectations. Thus it appears that the effects of self-efficacy and outcome expectations operate independently on BDI and BHS scores, contrary to Bandura's (1982) suggestion that an interaction between self-efficacy and outcome expectations helps shape a person's health and psychological well-being.

Path Analysis

Two path analyses were conducted in order to compare the roles of General Self-Efficacy, Economic Self-Efficacy and Outcome Expectations in the prediction of depression and hopelessness scores. Multiple regression (MR) analyses were performed to predict BDI and BHS scores, with GSE, ESE and OE each entered into the equation last in order to eliminate common variance. The R squared changes for the unique contribution of each (when the variables were entered into the MR analysis third) and their significance levels are presented in the two path diagrams (see Figures 1 & 2).

Figure 1

Path Model of Outcome Expectations and Self-Efficacy variables on Depression

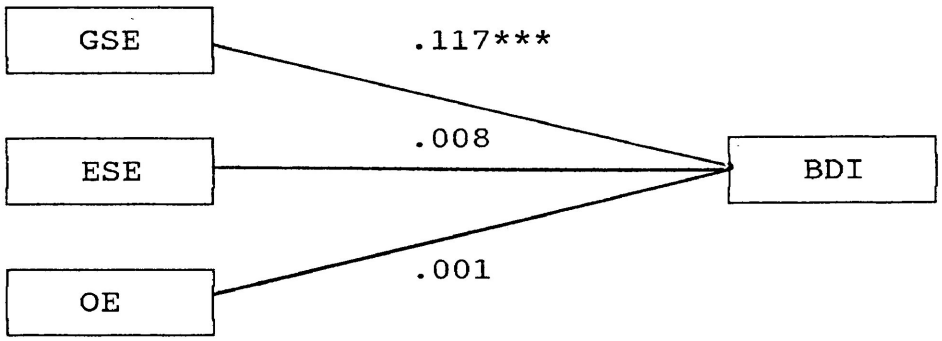


Figure 2

Path Model of Outcome Expectations and Self-Efficacy variables on Hopelessness

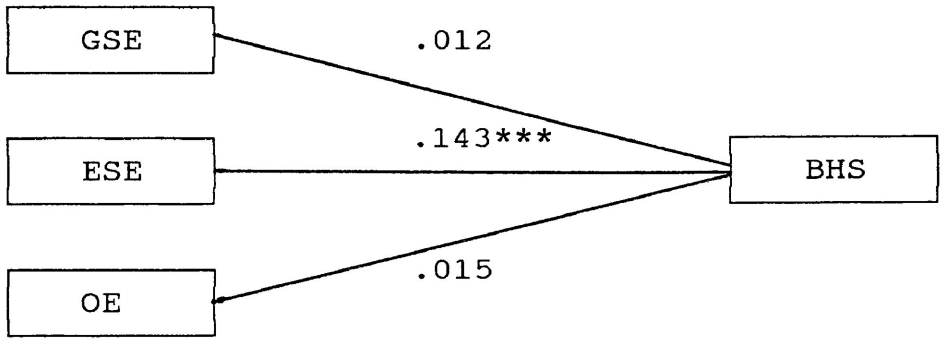


Figure 1 depicts the results of the first path analysis for GSE, ESE and OE predicting depression. Figure 2 shows the path analysis for GSE, ESE and OE with

hopelessness. These analyses show that General Self-Efficacy beliefs are significant "unique" predictors of depression scores, and that specific Economic Self-Efficacy beliefs are significant "unique" predictors of hopelessness scores. Outcome Expectations were not significant predictors of either BDI or BHS once the effects of the two self-efficacy variables had been controlled for.

Perceived Impact

Ten questions were included in the questionnaire to investigate students' perceptions of the impact of the recession on themselves (see Appendix E). A number of distinct themes emerged from their comments to the following open ended question.

Has the current economic situation affected your attitudes, feelings, or motivation with regard to school and/or career? Describe the effects of the current recession on yourself, and describe how you are able to deal with these effects.

Overall, responses provided anecdotal evidence for the direct impact of the recession on students' financial

resources, and thus on lifestyle and educational/career goals. The following is a typical sampling of subjects' comments:

> "... with the rising cost of school I am not sure I can finish and I am so close to having a B.A...."
>
> "At present, money is tight. This limits spending to necessities such as rent, food, etc. Further, lack of money also affects my social life by not being able to afford to go out as much..."
>
> "At the present time I am unable to attend school full-time. I was forced, this past year, because of finances, to attend part-time..."

It is evident that the recession has directly impacted on many students' lives. However, there was also indication of cognitive mediation of these effects. For some, difficult economic circumstances have led to worries and pessimistic attitudes towards the future. Some common negative responses are:

> "I have had to settle for a drastically lower wage paying summer job, and as a result I have spent much time worrying about where the money for rent and bills would come from."
>
> "... the current economic situation has affected my attitudes negatively. Before, I used to look to the future positively... now, my feelings have changed to uncertainty.... I'm not as motivated in school (university)

> anymore because I feel as if a university degree will not get me a decent job..."
>
> "We are living in a time when honesty and hard work do not guarantee employment... I believe that something as awful as the Depression of the '30's is going to have to happen before things are turned around to the way they used to be and rightfully should be."
>
> "... I feel no matter how much education I achieve it does not infer success or financial stability in my future..."

Others seem to cope by actively maintaining a positive attitude. These students vary along a continuum, from those who achieve an optimistic outlook despite some concerns about the potential effects of the recession, to those who have such confidence in their own abilities that they believe the recession will not impact on them. Some typical comments are:

> "Jobs may be hard to get but not impossible... No one can predict the future but they can deal with the day to day and not let the future and what might be, stop them from striving to reach their goals."
>
> "... I am not overly concerned with finding employment once I graduate. The recession has made finances difficult for everyone in my family, but everyone manages to adjust. ... I try to maintain a positive attitude."
>
> "As with most students, the key is restraining spending and looking forward to a

prosperous future once we have graduated."

"...I am confident now that all it takes is hard work, willingness, a good attitude and appreciation to achieve what you set out to do..."

"It drives me nuts that everyone whines all the time about how tough things are... You can get what you want! Don't let anyone tell you different."

Nine other questions were included in the questionnaire to measure direct effects of the recession. Correlations between these items and the depression and hopelessness measures are shown in Table 8. Only one direct impact item correlated significantly with a dependent measure. An inability to find employment in the last few years was significantly correlated with increased Depression scores ($r = -.183$, $p<.05$, 2-tailed). All other direct measures, including income level over the past year were not found to be predictive of BDI or BHS scores.

Discussion

The purpose of the present study was to explore the impact of the recession and its effects on the mental health of a population of university students. The results showed that questions about direct impacts of the recession correlated poorly with measures of depression and hopelessness. In contrast, measures of self-efficacy beliefs and outcome expectations were predictive of these measures of mental health. Economic Self-Efficacy, General Self-Efficacy and Outcome Expectations all predicted BDI and BHS scores. This demonstrates that both domain and general measures of self-efficacy, and expectations about the outcome of behaviour, are significant predictors of depression and hopelessness.

The self-reports of how the recession has affected the students support a role for cognitive mediation. Although many students indicated that they have been impacted by the recession (ie. by having to curtail social activities, or reduce university attendance to part-time due to financial difficulties), the main determinant of mental health status appears to be the

cognitive response to these events. Some students cope by actively maintaining an optimistic attitude; for example, many seemed to believe that through hard work, combined with confidence in their own abilities, they would be able to achieve their financial/career goals despite the fiscal climate. For others, the effects of the recession led to a negative outlook. These students tended to convey a belief that no amount of effort or ability would lead to success unless the external circumstances changed. Thus, the mental health outcomes of the recession seem to be cognitively mediated, either positively or negatively, rather than through the direct impact of economic events.

This cognitive response is reflected in the Self-Efficacy measures of the current study. Bandura (1982, 1986) contends that self-efficacy, a person's belief that he or she can successfully perform a behaviour regardless of past failures or current obstacles, is a key cognitive mediator in the process through which external circumstances come to influence a person's psychological well-being. The findings of the current study are consistent with this claim. These findings

are also consistent with other views such as that of Lazarus (Lazarus and Folkman, 1984) which emphasize the role of cognitive mediation in the response to stress.

The relative contributions of the two self-efficacy measures and Outcome Expectation (OE) in predicting the effects of economic recession were evaluated by path analyses. These analyses showed that depression (BDI) is primarily determined by General Self-Efficacy, not Economic Self-Efficacy or Outcome Expectations; while hopelessness (BHS) is primarily determined by Economic Self-Efficacy, and not General Self-Efficacy or Outcome Expectations. It seems, therefore, that self-efficacy is related to both depression and hopelessness, and that depression is more strongly associated with beliefs about one's self-efficacy in general, while feelings of hopelessness are more strongly related to beliefs about personal control over economic issues.

Bandura (1982) has suggested that an interaction between self-efficacy and outcome expectations helps to shape a person's health and psychological well-being. In contradiction to this however, the results of this

study reveal that while both self-efficacy beliefs and outcome expectations are predictive of BDI and BHS, these two variables operate independently in determining an individual's mental health. The absence of a significant interaction between these two variables is inconsistent with Bandura's suggestion. Further, in the present study, Outcome Expectations were found to be predictive of both BDI and BHS scores when used independently; however, path analyses revealed that Outcome Expectations had no additive predictive value when used in conjunction with Economic Self-Efficacy and General Self-Efficacy.

Unfortunately, conclusions about the role of outcome expectations must be tentative because of the low reliability of the scale used in the present study (alpha = .661). This low reliability may be due to the small number of items on the scale (7), or may reflect an inherent difficulty in measuring the concept of Outcome Expectations. Other studies have investigated the role of Outcome Expectations using several different methods. Flannery (1986), for example, used the Rotter's Locus of Control Scale as a measure of

this variable. As this is not a typical use of this instrument, it is questionable as to whether it would provide an uncontaminated measure of Outcome Expectations. Desharnais et al. (1986) used an approach that required subjects to rate expectations of outcome, as well as the extent to which they valued those outcomes (the "expectancy-value" approach). However, no reliability information is reported by Desharnais et al. (1986) and it is thus difficult to compare the "expectancy-value" approach with the method used in the present study.

Limitations

There are a number of limitations inherent in the present study. One caveat to the interpretation of these findings concerns the use of a university student population. A sample drawn from a different and more general population might reveal stronger impacts of the recession. Students' self-reports provide some evidence to suggest that they may be buffered from negative economic effects of the recession through parental financial support. Typical comments include:

> "I am able to deal with this problem by talking with my parents who have given me help and support both financially and emotionally."
>
> "If I were to be in financial trouble, I always can rely on my parents to bail me out, at least for now."

Thus, since these students have not experienced any serious negative financial consequences as a result of the recession, they may be more positive about their own economic future.

Various studies have demonstrated a relationship between socio-economic status, achievement motivation and educational achievement (Luthar and Zigler, 1988; Cassidy and Lynn, 1991). Thus, it is possible that there is some selection bias due to the fact that university attendance in itself could imply some degree of economic stability.

Another limitation of the present study arising from the use of a student sample relates to the use of the Beck Depression Inventory. Studies caution against using the BDI as a research tool with non-clinical populations (Lips, 1985) as results are considered inconsistent and may reflect differences in the methodology used. Gotlib (1984) also cautioned that

high BDI scores for university students are not necessarily indicative of clinical depression but may represent overall adjustment problems. Nevertheless, the BDI is one of the most frequently used screening tools for depression and studies have demonstrated that, with normal populations, scores greater than 15 may detect possible depression (Beck and Steer, 1993).

While the present study is concerned with the effects of the recession, it must be recognized that causal inferences are limited by the correlational nature of the design. Only one point in time was studied (March, 1994), and it is quite possible that the relationships found here would also appear even during better economic times. There are always some people who experience negative economic events, even in good economic times. It is quite likely that cognitive appraisal plays the same role for mediating the impact of such events in other times as well. The main advantage of conducting the present study during a recession was that a larger percentage of the sample would be expected to have experienced negative impacts. As well, recessions have a direct effect on people's

expectations, which would be reflected in the Economic Self-Efficacy beliefs of interest to the present study.

Clinical Implications

Consistent with Bandura's (1977) theory, the results of the present study support the conclusion that cognitive processes mediate the effects of negative economic circumstances on mental health. This information is useful in targeting individuals who may be at significant risk of adverse psychological consequences due to economic contraction, as well as for tailoring clinical interventions.

Given the results of the current study it is evident that students who have low expectations of economic and general self-efficacy may be at high risk due to economic contraction. Subjects recording higher self-efficacy scores showed lower levels of both depression and hopelessness, suggesting that interventions designed to increase self-efficacy expectations may be effective. Several studies have investigated the effectiveness of interventions designed to increase self-efficacy beliefs (Stanley and

Maddux, 1986; Rife and Kilty, 1990). Evidence indicates that approaches targeting self-efficacy translate into reduced depression and discouragement.

Directions for Further Research

The finding that general self-efficacy is a unique predictor of depression, and that the domain measure of economic self-efficacy is a unique predictor of hopelessness, has not been previously reported in the literature. Further studies to either support or refute these results are therefore necessary. As well, it could be argued that hopelessness and economic self-efficacy are similar concepts, and thus some correlation between these variables would be expected. Bandura (1986) has suggested that measurement problems could arise since individuals may assess hopefulness to complete a behaviour, rather than conviction in their own ability to perform the given behaviour. As it is reasonable to assume that most individuals hope for some level of economic success or stability, it is plausible that subjects' assessments of economic self-efficacy reflect a desire for economic success, rather

than a realistic assessment of what they feel capable of attaining. Thus the relationship between hopelessness and economic self-efficacy could reflect these scales measuring a common dimension. This possibility should also be evaluated in a future study.

Summary

The present study was designed to investigate the impacts of economic recession on the university student population. The specific objectives were: to evaluate the relative contributions of domain and general self-efficacy and outcome expectations in the determination of depression and hopelessness; and to investigate students' perceptions of the impact of economic recession on themselves and other students. Results showed that depression is primarily determined by general self-efficacy, while hopelessness is primarily determined by economic self-efficacy. It seems, therefore, that self-efficacy is related to both depression and hopelessness, and that depression is more strongly associated with beliefs about one's self-efficacy in general, while feelings of hopelessness are

more strongly related to beliefs about personal control over economic issues. Outcome expectations were found to have no additive predictive value in understanding depression and hopelessness scores. These findings support the role of cognitive processes (self-efficacy beliefs) in the mediation of the effects of stressors such as negative economic events on mental health.

References

Alloy, L. B., & Ahrens, A. H., (1987). Depression and pessimism for the future: Biased use of statistically relevant information in predictions for self versus others. Journal of Personality and Social Psychology. 52(2), 366-378.

Bandura, A., (1977). Self-efficacy: towards a unifying theory of behaviour change. Psychological Review, 84, 191-215.

Bandura, A., (1978). Reflections on self-efficacy. Advancements in Behavioural Research and Therapy, 1, 237-269.

Bandura, A., (1982). Self-efficacy in human agency. American Psychologist. 37, 122-147.

Bandura, A., (1986). Social foundations of thought and action. Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A., & Adams, N. E., (1977). Analysis of self efficacy theory of behavioural change. Cognitive Therapy and Research, 1, 287-310.

Beck, A.T., & Steer, R.T., (1987). Beck Depression Inventory. San Antonio, TX: The Psychological Corporation.

Beck, A.T., & Steer, R.T., (1988). Beck Hopelessness Scale. San Antonio, TX: The Psychological Corporation.

Betz, T.A., & Hackett, G., (1983). The relationship of mathematics self-efficacy expectations to the selection of science-based college majors. Journal of Vocational Behaviour, 23, 329-345.

Brenner, M. H., (1973). Mental illness and the economy. Cambridge, MA: Harvard University Press.

Brenner, M. H., (1987). Relation of economic change to Swedish health and social well-being, 1950-1980. Special Issue: Unemployment and health. Social Science and Medicine, 25(2), 183-195.

Brenner, M. H., and Swank, R. T., (1986). Homicide and economic change: Recent analyses of the Joint Economic Committee Report of 1984, Journal of Quantitative Criminology, 2(1), 81-103.

Bronzaft, A. L., and Dobrow, S, B., (1976). Test Anxiety and the Economic Recession. Psychological Reports, 38, 1211-1215.

Burke, R. J., (1986). Economic Recession and quality

of Education: Experiences of 3336 Canadian Teachers. Psychological-Reports, 59, 1231-1243.

Catalano, R., (1991). The health effects of economic insecurity, American Journal of Public Health, 81(9), 1148-1152.

Conger, R. D., Conger, K. J., Elder, G. H., Lorenz, F. O., et al., (1992). A family process model of economic hardship and adjustment of early adolescent boys, Child Development, 63(3), 526-541.

Davis-Berman, J., (1988). Self-efficacy and depressive symptomatology in older adults: An exploratory study. International Journal of Aging and Human Development, 27(1), 35-43.

Dooley, D., Catalano, R., Rook, K., Serxner, S., (1989a). Economic stress and suicide: Multilevel analyses: I. Aggregate time-series analyses of economic stress and suicide. Suicide and Life Threatening Behaviour, 19(4), 321-336.

Dooley, D., Catalano, R., Rook, K., Serxner, S., (1989b). Economic stress and suicide: Multilevel analyses: II. Cross-level analyses of economic

stress and suicidal ideation. Suicide and Life Threatening Behaviour, 19(4), 337-351.

Durham, T.W., (1982). Norms, reliability, and item analysis of the Hopelessness Scale in a general psychiatric, forensic psychiatric, and college populations. Journal of Clinical Psychology, 38, 497-600.

Durkheim, E., (1897). Suicide: A Study in Sociology. Paris: Alcan.

Ehrenberg, M.F., Cox, D.N., & Koopman, R.F., (1991). The relationship between self-efficacy and depression in adolescents. Adolescence, 26(102), 361-374.

Ethics Advisory Committee to the Senate Research Committee, (1989). Ethics Procedures & Guidelines for Research on Human Subjects. Lakehead University.

Flanagan, C. A., (1990). Families and schools in hard times, New Directions for Child Development, 46, 7-26.

Flannery, R.B., (1986). Personal control as a moderator variable of life stress: Preliminary

inquiry. Psychological Reports, 58(1), 200-202.

Ge, X., Conger, R.D., Lorenz, F. O., Elder, G. H., et al., (1992). Linking family economic hardship to adolescent distress, Journal of Research on Adolescence, 2(4), 351-378.

Gotlib, I.H., (1984). Depression and General Psychopathology in University Students. Journal of Abnormal Psychology, 93, 19-30.

Hartung, B., and Sweeney, K., (1991). Why adult children return home. Social Science Journal, 28(4), 467-480.

Holahan, C.K., Holahan, C.J., & Belk, S.S., (1984). Adjustment in aging: The roles of life stress, hassles, and self-efficacy. Health Psychology, 3(4), 315-328.

Holahan, C.K., Holahan, C.J., (1987). Self-efficacy, social support, and depression in aging: A longitudinal analysis. Journal of Gerontology, 42(1), 65-68.

Hong, S.M., & Mayo, J., (1988). Prediction of depression-proneness. Psychological Reports, 62(1) 122.

Jahoda, M., (1988). Economic recession and mental health: Some conceptual issues, Journal of Social Issues, 44(4), 13-23.

Lazarus, R. S., and Folkman, S., (1984). Stress Appraisal, and Coping. New York: Springer Publishing Company.

Lempers, J. D., Clark-Lempers, D., Simons, R. L., (1989). Economic hardship, parenting, and distress in adolescence, Child-Development, 60(1), 25-39.

Lester, D., (1987). Social integration, economic hardship and rates of personal violence (suicide and homicide): 1933-1970 in the USA, Psychological Reports, 60(3, Pt 2), 1306.

Lewis, S. A., Johnson, J., Cohen, P., Garcia, M., et al., (1988). Attempted Suicide in Youth: Its Relationship to School Achievement, Educational Goals and Socioeconomic Status, Journal of Abnormal Child Psychology, 16(4) 459-471.

Lips, H.M., and Ng, M., (1985). Use of the Beck Depression Inventory with three non-clinical populations. Canadian Journal of Behavioural

Science, 18(1), 62-74.

McLoyd, V. C., (1989). Socialization and development in a changing economy: The effects of paternal job and income loss on children. Special Issue: Children and their development: Knowledge base, research agenda, and social policy application. American Psychologist, 44(2), 293-302.

McLoyd, V. C., (1990). The impact of economic hardship on Black families and children: Psychological distress, parenting, and socioemotional development. Special Issue: Minority children. Child Development, 61(2), 311-346.

Murphy, S.A., (1988). Mediating effects of intrapersonal and social support on mental health 1 and 3 years after a natural disaster. Special Issue: Progress in traumatic stress research. Journal of Traumatic Stress, 1(2), 155-172.

Olioff, M., Bryson, S.E., Wadden, N.P., (1989). Predictive relation of automatic thoughts and student efficacy to depressive symptoms in undergraduates. Special Issue: Clinical depression. Canadian Journal of Behavioural

Science, 21(4), 353-363.

Rife, J.C., (1989). Depression, job search self-efficacy, and the unemployed older adult. Clinical Gerontologist, 8(4), 43-45.

Rife, J.C., & Kilty, K., (1989-90). Job search discouragement and the older worker: Implications for social work practice. Journal of Applied Social Sciences, 14(1), 71-94.

Sarafino, E.P., (1990). Health Psychology: Biopsychosocial Interactions. Toronto: John Wiley & Sons.

Schwartz, J., Fish, J.M., (1989). Self-efficacy and depressive affect in college students. Journal of Rational Emotive and Cognitive Behaviour Therapy, 7(4), 219-236.

Seligman, M.E.P., (1975). Helplessness: On depression, development, and death. San Fransisco: Freeman.

Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs, & Rogers, (1982). The self-efficacy scale: Construction and validation. Psychological Reports, 51, 663-671.

Skinner, M. L., Elder, G. H., and Conger, R. D.,

(1992). Linking economic hardship to adolescent aggression, Journal of Youth and Adolescence, 21(3), 259-276.

Stanley, M.A., & Maddux, J.E., (1986). Self-efficacy expectancy and depressed mood: An investigation of causal relationships. Journal of Social Behaviour and Personality, 1(4), 575-586.

Stotland, E., (1969). The psychology of hope. San Fransisco, CA: Jossey: Bass.

Stumpf, S.A., Brief, A.P., Hartman, K., (1987). Self-efficacy expectations and coping with career-related events. Journal of Vocational Behaviour, 31(1), 91-108.

Van Ryn, M, & Vinokur, A.D., (1992). How did it work? An examination of the mechanisms through which an intervention for the unemployed promoted job-search behaviour. American Journal of Community Psychology, 20(5), 577-597.

Walker, B., (1989). Protecting our children. Seventh Annual Wilbur D. Mills Health Policy Lecture (1988, Hot Springs, Arkansas), Journal of the National Medical Association, 81(7), 815-818.

Wang, A.Y., & Richarde, R.S., (1988). Global versus task-specific measures of self-efficacy. Psychological Record, 38(4), 533-541.

Watts, A.G., (1986). The Careers Service and Schools: A changing relationship. British Journal of Guidance and Counselling, 14(2), 168-186.

Whitbeck, L. B., Simons, R. L., Conger, R. D., Lorenz, F. O., et al., (1991). Family economic hardship, parental support, and adolescent self-esteem, Social Psychology Quarterly, 54(4), 353-363.

Appendix A

Beck Depression Inventory

This next section consists of 21 groups of statements. After reading each group of statements carefully, circle the number (0,1,2 or 3) next to one statement in each group which best describes the way you have been feeling the past week, including today. If several statements within a group seem to apply equally well, circle each one. Be sure to read all the statements in each group before making your choice.

1. 0 I do not feel sad.
   1 I feel sad.
   2 I am sad all the time and I can't snap out of it.
   3 I am so sad or unhappy that I can't stand it.

2. 0 I am not particularly discouraged about the future.
   1 I feel discouraged about the future.
   2 I feel I have nothing to look forward to.
   3 I feel that the future is hopeless and that things cannot improve.

3. 0 I do not feel like a failure.
   1 I feel I have failed more than the average person.
   2 As I look back on my life, all I can see is a lot of failures.
   3 I feel I am a complete failure as a person.

4. 0 I get as much satisfaction out of things as I used to.
   1 I don't enjoy things the way I used to.
   2 I don't get real satisfaction out of anything anymore.
   3 I am dissatisfied or bored with everything.

5. 0 I don't feel particularly guilty
   1 I feel guilty a good part of the time
   2 I feel quite guilty most of the time
   3 I feel guilty all of the time.

6. 0 I don't feel I am being punished.
   1 I feel I may be punished.
   2 I expect to be punished.
   3 I feel I am being punished.

Appendix A Continued: Beck Depression Inventory.

7.	0	I don't feel disappointed in myself.
	1	I am disappointed in myself.
	2	I am disappointed in myself.
	3	I hate myself.
8.	0	I don't feel I am any worse than anybody else.
	1	I am critical of myself for my weaknesses or mistakes.
	2	I blame myself all the time for my faults.
	3	I blame myself for everything bad that happens.
9.	0	I don't have any thoughts of killing myself.
	1	I have thoughts of killing myself, but I would not carry them out.
	2	I would like to kill myself.
	3	I would kill my self if I had the chance.
10.	0	I don't cry any more than usual.
	1	I cry more now than I used to.
	2	I cry all the time now.
	3	I used to be able to cry, but now I can't cry even though I want to.
11.	0	I am no more irritated now than I ever am.
	1	I get annoyed or irritated more easily than I used to.
	2	I feel irritated all the time now.
	3	I don't get irritated at all by the things that used to irritate me.
12.	0	I have not lost interest in other people.
	1	I am less interested in other people than I used to be.
	2	I have lost most of my interest in other people.
	3	I have lost all of my interest in other people.
13.	0	I make decisions about as well as I ever could.
	1	I put off making decisions more than I used to.
	2	I have greater difficulty in making decisions than before.
	3	I can't make decisions at all anymore.

Appendix A Continued: Beck Depression Inventory.

14.
0 I don't feel I look any worse than I used to.
1 I am worried that I am looking old or unattractive.
2 I feel that there are permanent changes in my appearance that
3 make me look unattractive.

15.
0 I can work about as well as before.
1 It takes an extra effort to get started at doing something.
2 I have to push myself very hard to do anything.
3 I can't do any work at all.

16.
0 I can sleep as well as usual.
1 I don't sleep as well as I used to.
2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
3 I wake up several hours earlier than I used to and cannot get back to sleep.

17.
0 I don't get more tired than usual.
1 I get tired more easily than I used to.
2 I get tired from doing almost anything.
3 I am too tired to do anything.

18.
0 My appetite is no worse than usual.
1 My appetite is not as good as it used to be.
2 My appetite is much worse now.
3 I have no appetite at all anymore.

19.
0 I haven't lost much weight, if any, lately.
1 I have lost more than 5 pounds.
2 I have lost more than 10 pounds.
3 I have lost more than 15 pounds.

I am purposely trying to lose weight by eating less.

YES NO

Appendix A Continued: Beck Depression Inventory.

20. 0 I am no more worried about my health than usual.
1 I am worried about physical problems such as aches and pains; or upset stomach; or constipation.
2 I am very worried about physical problems and it's hard to think of much else.
3 I am so worried about my physical problems that I cannot think about anything else.

21. 0 I have not noticed any recent change in my interest in sex.
1 I am less interested in sex than I used to be.
2 I am much less interested in sex now.
3 I have lost interest in sex completely.

Appendix B

Beck Hopelessness Scale

This nest section consists of 20 statements. Please read the statements carefully one by one. If the statement describes your attitude for the past week including today, circle TRUE. If the statement does not describe your attitude, darken the circle FALSE. Please be sure to read each statement carefully.

1. I look forward to the future with hope and enthusiasm.

TRUE FALSE

2. I might as well give up because there is nothing I can do about making things better for myself.

TRUE FALSE

3. When things are going badly, I am helped by knowing that they cannot stay that way forever.

TRUE FALSE

4. I can't imagine what my life would be like in ten years.

TRUE FALSE

5. I have enough time to accomplish the things I want to do.

TRUE FALSE

6. In the future, I expect to succeed in what concerns me most.

TRUE FALSE

7. My future seems dark to me.

TRUE FALSE

Appendix B Continued: Beck Hopelessness Scale

8. I happen to be particularly lucky, and I expect to get more of the good things in life than the average person.

TRUE FALSE

9. I just can't get the breaks, and there's no reason I will in the future.

TRUE FALSE

10. My past experiences have prepared me well for the future.

TRUE FALSE

11. All I can see ahead of me is unpleasantness rather than pleasantness.

TRUE FALSE

12. I don't expect to get what I really want.

TRUE FALSE

13. When I look ahead to the future, I expect that I will be happier than I am now.

TRUE FALSE

14. Things just don't work out the way I want them to.

TRUE FALSE

15. I have great faith in the future.

TRUE FALSE

16. I never get what I want, so it's foolish to want anything.

TRUE FALSE

Appendix B Continued: Beck Hopelessness Scale

17. **It's very unlikely that I will get any real satisfaction in the future.**

TRUE FALSE

18. **The future seems vague and uncertain to me.**

TRUE FALSE

19. **I can look forward to more times than bad times.**

TRUE FALSE

20. **There's no use in really trying to get anything I want because I probably won't get it.**

TRUE FALSE

Appendix C

General Self-Efficacy Scale

1. **When I make plans, I am certain I can make them work.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

2. **One of my problems is that I cannot get down to work when I should.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

3. **If I can't do a job the first time, I keep trying until I can.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

4. **When I set important goals for myself, I rarely achieve them.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

5. **I give up on things before I complete them.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

6. **I avoid facing difficulties.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

7. **If something looks to complicated, I will not even bother to try it.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

8. **When I have something unpleasant to do, I stick to it until I finish it.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

9. **When I decide to do something, I go right to work on it.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

10. **When trying to learn something new, I soon give up if I am not initially successful.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

11. **When unexpected problems occur, I don't handle them well.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

12. **I avoid trying to learn new things when they look to difficult for me.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

13. **Failure makes me try harder.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

14. **I feel insecure about my ability to do things.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

15. **I am a self reliant person.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

16. **I give up easily.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

17. **I do not seem capable of dealing with most problems that occur in my life.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

Appendix D

Economic Self-Efficacy

The following questions ask you to evaluate the amount of confidence you have in a number of areas. Please circle the answer which best reflects your feelings. When you answer each question please consider the many factors that could impact on these areas, such as competition, unemployment, or other recession related factors.

1. I am certain that I will be able to find an interesting and adequately paying job in my field once I graduate.

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

2. If a job looks like it might be difficult to get, I would not be likely to try for it.

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

3. Not being able to find a job initially after leaving school, is likely to make me try even harder.

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

4. I am certain that I can make my career plans work.

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

5. I feel insecure about my ability to compete successfully for a job.

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

6. Even if unexpected problems arise when I go to start my career, I know that I will be able to handle them well.

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

7. I am confident that I will be able to do what it takes to find an adequately paying job next summer.

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

8. I am confident that my eventual standard of living will end up being at least as high as that of my parents.

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

9. I lack confidence in my future given the state of the economy and the effects that this might have on me.

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

10. Despite the current trend of unemployed workers returning to school to upgrade, I feel confident about my chances of getting into graduate school or other training programs.

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

11. I consider myself to be extremely motivated to succeed in school.

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

Appendix D continued: Economic Outcome Expectations

1. Given the current high unemployment rates, I do not believe that having a university degree significantly improves peoples' chances of finding stable and adequately paying employment.

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

2. Given the current state of the economy, I believe that people in my generation will generally have lower standards of living than their parents do.

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

3. **Despite the state of the economy and the high rates of unemployment, I feel confident that those people who really desire to work will be able to find suitable employment.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

4. **I expect that how well a person does for themselves will be directly related to how motivated they are to succeed.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

5. **I am not certain that people's hard work really translates into substantial rewards or success.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

6. **Despite the increasing trend whereby unemployed workers are returning to school to upgrade and increase their marketability, students attempting to go straight through to graduate programs or other training shouldn't have any problems getting in if they try hard.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

7. **More young people will have to live with their parents into their thirties due to the difficulty of getting "established" financially in the present economy.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

Appendix E

Direct Impact and Demographics Questions

A Questionnaire Concerning The Effects of Economic Recession On Undergraduate University Students.

Thank you for taking the time to complete the following. Please circle the answer which best applies to you or your situation, or which best represents your feelings about the issue in question.

1. Gender
   a. FEMALE
   b. MALE

2. Age
   a. 22 OR LESS
   b. 23 TO 30
   c. OVER 30

3. Registered
   a. FULL TIME
   b. PART TIME

4. Living Arrangements
   a. LIVE ALONE
   b. WITH PARENTS/RELATIVES
   c. WITH ROOMMATE
   d. WITH SPOUSE/MATE

5. Has either of your parents or spouse lost their job, or suffered major reductions in income over the past few years?

   YES NO

6. Have you lost a job, or suffered a major reduction in income, over the past few years?

   YES NO

7. Have you, or your spouse or parent, been unable to find adequately paying employment, despite a desire to work, at any point in the past few years?

   YES NO

8. **In the past few years, have you needed to take an emergency student loan or find other short term financial help (loans from friends or family for example) in order to make ends meet?**

YES NO

9. **What percentage of this year's education (fees, living expenses, etc.) was covered by your parents, spouse, and/or other relatives?**

NONE ABOUT 25% ABOUT 50% ABOUT 75% ALL

10. **What percentage of this year's education (fees, living expenses, etc.) was covered by OSAP or other loans?**

NONE ABOUT 25% ABOUT 50% ABOUT 75% ALL

11. **What percentage of this year's education (fees, living expenses, etc.) were you able to cover from summer employment and/or part-time job earnings?**

NONE ABOUT 25% ABOUT 50% ABOUT 75% ALL

Please estimate your 1993 gross earnings. _____

12. **I am likely to have enough money to last until the end of the school year.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

13. **I am short of money for basic necessities at this point in the year.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

14. **I have found it necessary to make do without certain school supplies or texts due to lack of funds.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

15. **My social life suffers occasionally due to a lack of sufficient funds.**

Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree

16. What are your professional and academic goals? What do you hope to attain and what do you expect to be doing a few years after you have finished your education?

17. Has the current economic situation affected your attitudes, feelings, or motivation with regard to school and/or career? In your own words, describe the effects of the current recession on yourself, and describe how you are able to deal with these effects. Feel free to comment on the back of the page as well. Your input is most appreciated.

Appendix F

Cell Means for ANOVA's.

BDI by Outcome Expectations(OE) and Economic Self-Efficacy(ESE).

OE	1	2
	8.84	5.86
	(61)	(59)
ESE	1	2
	8.57	5.96
	(65)	(55)

	ESE 1	**ESE 2**
OE 1	9.98	6.11
	(43)	(18)
OE 2	5.82	5.89
	(22)	(37)

BHS by Outcome Expectations(OE) and Economic Self-Efficacy(ESE).

OE	1	2
	4.72	2.27
	(61)	(59)
ESE	1	2
	4.89	1.89
	(65)	(55)

	ESE 1	**ESE 2**
OE 1	5.67	2.44
	(43)	(18)
OE 2	3.36	1.62
	(22)	(37)

BDI by Outcome Expectations(OE) and General Self-Efficacy(GSE).

OE	**1**	**2**
	8.85	5.77
	(62)	(60)

GSE	**1**	**2**
	9.27	5.05
	(66)	(56)

	GSE 1	**GSE 2**
OE 1	10.35	5.47
	(43)	(19)
OE 2	7.26	4.84
	(23)	(37)

BHS by Outcome Expectations(OE) and General Self-Efficacy(GSE).

OE	**1**	**2**
	4.77	2.23
	(62)	(60)

GSE	**1**	**2**
	4.80	2.02
	(66)	(56)

	GSE 1	**GSE 2**
OE 1	5.74	2.58
	(43)	(19)
OE 2	3.04	1.73
	(23)	(37)