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**ABSTRACT OF DISSERTATION**

Baomei Zhao

The Graduate School  
University of Kentucky

2004

**Perceptions of Quality of Life and  
Use of Human Services by Households: A Model**

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**ABSTRACT OF DISSERTATION**

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**A dissertation submitted in partial fulfillment of the  
Requirements for the degree of Doctor of Philosophy in the  
College of Agriculture  
at the University of Kentucky**

**By**

**Baomei Zhao**

**Lexington, Kentucky**

**Co-director: Dr. Raymond E. Fogue, Associate Professor of University of Kentucky**

**Co-director: Dr. Claudia J. Heath, Professor of University of Kentucky**

**Lexington, Kentucky**

**2004**

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## ABSTRACT OF DISSERTATION

### PERCEPTIONS OF QUALITY OF LIFE AND USE OF HUMAN SERVICES BY HOUSEHOLDS: A MODEL

Quality of life is a term that has been used in various ways by researchers in different fields. In regional or community research, researchers have been concerned to a large extent with a person's overall quality of life as affected by factors such as income, housing, marital status, gender, and regional/community human services.

The present research concerns the relationship between perception of quality of life and the use of human services in the community. The data were from Lexington-Fayette County, Kentucky.

Family systems theory served as the underlying conceptual framework for this study. Family systems theory would predict that residents' perception of quality of life is generally affected by the availability/use of resources and services. These resources and services can be classified as internal and external. According to family systems theory, three domains were identified as potentially affecting one's perception of quality of life: (1) individual characteristics; (2) family characteristics, and (3) use of community human services.

Results from the individual perspective showed that being currently married, ownership of residence, education, and young age were positive contributions to perceptions of quality of life. There were no gender or race differences in perceived quality of life. From a family perspective, perception of quality of life was influenced by household income and health situation. From the community human services perspective, neighborhood safety was an important contributor to perception of quality of life. As for financial assistance, turning to family or friends, banks, utility companies, Community Action Council or Department of Community-based Services, and Medicare were more common uses of services than churches or clergy, food banks, the Salvation Army, social/survivor income, and other persons or agencies. This study also investigated gender, income, and age differences in the association of perception of quality of life with the presence of urgent needs for basic living by use of community-based human services. The results provided a broad context for interpreting perception of quality of life.

In conclusion, this study provided baseline information concerning perceptions of quality of life and use of community human services by households. The findings provided insight into residents' perceptions of quality of life based on their individual characteristics, family situation, and community human services as components contributing to perceptions of quality of life.

**KEYWORDS:** Quality of Life, Perception of Quality of Life, Family Systems, Resources, Human Services

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Dec.15<sup>th</sup>, 2004

PERCEPTIONS OF QUALITY OF LIFE AND  
USE OF HUMAN SERVICES BY HOUSEHOLDS: A MODEL

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DISSERTATION

Baomei Zhao

The Graduate School  
University of Kentucky

2004



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USE OF HUMAN SERVICES BY HOUSEHOLDS: A MODEL**

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**DISSERTATION**

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## TABLE OF CONTENTS

ACKNOWLEDGMENTS .....	iii
LIST OF TABLES .....	vi
LIST OF FIGURES .....	viii
CHAPTER ONE: INTRODUCTION .....	1
Problem Statement .....	3
Statement of Purpose .....	4
Research Questions .....	5
Delimitations .....	5
Definitions .....	5
CHAPTER TWO: REVIEW OF LITERATURE .....	7
Family Systems Theory and the Quality of Life.....	7
Prior Assessments of Factors Affecting Perception of Quality of Life .....	12
Quality of Life Indicators and Measurements .....	16
CHAPTER THREE: EMPIRICAL MODEL .....	23
Development of the Model .....	23
Methodology .....	26
CHAPTER FOUR: ANALYSES .....	38
Sample Description .....	38
Multinomial Regression Models .....	46
Sub-group Correlation Analyses of Perception of Quality of Life: Urgent Needs by Use of Community-based Human Services .....	60

CHAPTER FIVE: SUMMARY AND IMPLICATION .....	89
Summary .....	89
Implication, Limitations and Future Research .....	94
APPENDIX: LEXINGTON-FAYETTE COUNTY NEEDS ASSESSMENT QUESTIONNAIRE .....	98
REFERENCES .....	117
VITA .....	120

## LIST OF TABLES

Table III-1: Variables in the Research Model .....	29
Table IV-1: Frequency of Perception of Quality of Life .....	39
Table IV-2: Individual Characteristics of Respondents .....	40
Table IV-3: Basic Characteristics of the Households .....	42
Table IV-4: Human Services in the Community .....	44
Table IV-5: Multinomial Regression Results for All Models .....	47
Table IV-6: Parameter Estimates in Domain 1 .....	49
Table IV-7: Parameter Estimates in Domain 2 .....	52
Table IV-8: Parameter Estimates in Domain 3 .....	55
Table IV-9: Parameter Estimates in Full Model .....	58
Table IV-10: Pearson Correlation of Perception of Quality of Life and Use of Community Human Services by Gender .....	61
Table IV-11: Crosstabular Analysis of Perception of Quality of Life and Urgent Needs by Gender .....	62
Table IV-12: Pearson Correlation of Use of Community Income Support by Types of Urgent Needs by Gender .....	63
Table IV-13: Crosstabular Analysis of Perception of Quality of Life and Urgent Needs by Income .....	68
Table IV-14: Pearson Correlation of Perception of Quality of Life and Community Human Services by Income Groups .....	69
Table IV-15: Pearson Correlation of Use of Community Human Services by Types of Urgent Needs by Income Groups .....	71
Table IV-16: Crosstabular Analysis of Perception of Quality of Life and Urgent Needs by Age .....	77
Table IV-17: Pearson Correlation of Perception of Quality of Life and Community Human Services by Age Groups .....	78
Table IV-18: Pearson Correlation of Use of Community Human Services by Types of Urgent Needs by Age Groups .....	80

## LIST OF FIGURES

Figure II-1: Model of Relationships between Perception of Quality of Life and the Three Domains .....	9
Figure II-2: Boundaries Relative to an Individual, a Family and the Community .....	10
Figure II-3: Internal/External Resources Relative to an Individual, a Family, and the Community .....	11
Figure II-4: Quality of Life Levels of Two Different Inputs – Internal and External Resources of the Family System .....	15
Figure III-1: Variables in the Model .....	25
Figure III-2: Sub-group Analysis of Perception of Quality of Life with Urgent Needs and Community-based Human Services .....	34

## CHAPTER ONE: INTRODUCTION

Quality of life (QoL) first appeared as a concept in ancient Greek philosophy. “Aristotle suggested that happiness was derived from virtuous activity of the soul and led to a good life” (McKeon, 1947). In recently years, several studies have shown that economic security, family life, personal strengths, friendships, and the attractiveness of the physical environment were the basic components of “the quality of American life” (Bradburn, 1968; Campbell, Converse, & Rodgers, 1976; Cantril, 1965).

Quality of life as a concept has changed over time (Cooley, 1998). Quality of life was originally a broad concept used in the context of society. Social scientists use quality of life to refer to the evaluation of all the environmental and socioeconomic conditions of a given time and/or place in terms of the effect on human well-being (Campbell, 1981). Quality of life has also been adapted for use in the health care arena, focusing on how mental and physical healthiness influence the perception of quality of life or how treatments for a certain disease may improve perception of quality of life. Social, cultural, and political factors were also causally related to an increase in the importance of quality of life as an outcome in health care (Campbell, 1981).

In recent years, efforts to monitor and systematically describe and analyze the current state of quality of life have been given new priority. The improvement in living conditions and quality of life are among the main goals of government at all levels. There is less agreement, however, about what promotes good quality of life (Andrews & Withey, 1976).

A number of studies have examined the relationship between quality of life and other variables. These other variables can be grouped as (1) demographic and social variables, e.g., age, gender, education, income, and the length of residence; (2) psychological variables, e.g., satisfaction with family life, satisfaction with work, stress indicators, and perceptions of happiness; and (3) subjective evaluations of quality in various specific areas of life, e.g., self evaluation of achievement in work, family, and capability; perception of relationships; perception of comparison with other people; etc. (Andrews & Withey, 1976).



One of the surprising findings in quality of life research is the weak relationship between well-being and certain social and demographic variables. Variables such as age, gender, race, education, income, and marital status taken together rarely explain more than 10% of the variance related to happiness or general satisfaction in the lives of subjects. (Andrews & Withey, 1976; Michalos, 2003).

Several researchers have found that degree of satisfaction with specific areas of one's life is one of the most powerful statistical predictors of overall well-being. These areas include objective and subjective variables such as: family relationships, work situations, housing, neighborhood surroundings, recreational activities, and the spiritual dimension among others (Lever, 2000). Research focusing on these variables has been conducted by other authors, including Andrews and Withey (1976), and Campbell et al. (1976). These research studies indicated agreement and disagreement with using quality of life as an outcome, which could influence the policy, thus influencing the lives of the general public. In fact, two realities are obvious; first, the research to date has been relatively limited with regard to perception of quality of life and community-based human services or with regard to perception of quality of life and family internal and external resources; second, many community human services are provided according to the profit principle, funding source preference, or resources available. So, there is a gap between theoretical approaches and actions taken by social service providers to improve quality of life.

The task of measuring perception of quality of life is difficult and relatively unconventional. The unique approach taken in this research was built on three perspectives: (1) theory, the use of family systems theory to investigate the perception of quality of life; (2) measurement, the use of a subjective measure for the dependent variable and both subjective and objective measures of independent variables related to community human services, in addition to the usual individual characteristics and family characteristics; and (3) application, this study investigates the perception of quality of life in the community, what factors comprise the perception of quality of life, and what government agencies, community service providers, or private businesses can do to improve people's perception of quality of life. The present research investigates the relationship of perception of quality of life and community human services, and also

investigates urgent needs and the use of community-based human services for three sub-groups of the population by gender, age, and income levels.

### **Problem Statement**

Traditional economic theory would lead us to believe that quality of life is related to objective and absolute variables such as household income, Gross National Product (GNP), the employment rate, and other quantifiable measures of economic status. Economists also join other social scientists in looking at age, gender, education, health status, and housing, but only behavioral scientists would tend to focus on relative variables such as relative personal characteristic variables as: whether better off compared to a year ago, or whether happy compared with one's neighbors. Efforts to measure perceptions of quality of life would thus focus on these two pairs of measures as dependent variables: objective/subjective and absolute/relative (Campbell, Converse, & Rodgers, 1976).

When researchers began to test hypotheses based on these theoretical expectations they found that both the objective and absolute levels of these variables failed to explain the variation in perception of quality of life. As a result, many researchers began to hypothesize that it was not the objective and absolute levels of the variables that explained differing levels of perceptions of quality of life. Instead, they suggested that it was the relative levels of these variables that mattered. This can be seen in the following two opinions: (1) the quality of life research should focus on relative measures with subjective measures, and (2) that other theoretical perspectives would suggest other variables which might better explain variation in perceptions of quality of life (Andrews and Withey, 1976).

As technological advances occur and economies develop, people's needs, job requirements, and living environment change as well, thus the overall perception of quality of life may change. Two realities are obvious; first, the research to date has been relatively limited with regard to perception of quality of life and community-based human services or with regard to perception of quality of life and family internal and external resources; second, many community human services are provided according to

the profit principle, funding source preference, or resources available. So a gap between theoretical approaches and actions taken by social service providers to improve quality of life exists. Thus, state government and public and private agencies are trying different ways to improve quality of life through community services. The present research accepts the challenge to investigate perception of quality of life and the detailed effects of community human services on three sub-groups by gender, age, and income levels of the population. In addition, the research also tests whether the use of community human services have a positive association with perception of quality of life.

### **Statement of Purpose**

The purpose of this study was to identify and measure the factors that affect perception of quality of life, as well as the relationship between perception of quality of life and other variables such as individual characteristics (age, gender, etc.), family situation (number of people in household, household income, etc.), and use of community-based human services (transportation, childcare, income support services, etc.). This study investigates the perception of quality of life as affected by variables in three domains: individual characteristics, family situation and use of community human services (in the form of social services and income support).

According to previous research implemented primarily in Kentucky by Coughenour and Coleman (1979), a series of factors have been determined to define quality of life for individuals including physical location, work situation, health condition, etc. The present study sought to determine the state of quality of life among households, how the people use the existing services, and what types of income support were used as influenced by the presence of urgent needs and by gender, income levels, and age.

It is intended that this study would promote the development of further research on the relationship of perception of quality of life and community human services, and that its theoretical and methodological contributions will serve as guidelines for actions to improve existing human services, and thus the quality of life in the community.

## Research Questions

The overarching question of this study is “How are perceptions of quality of life among Lexington-Fayette County, Kentucky residents related to the use of human services?” This broad question can be broken down into three sub-questions:

- (1) What is the overall perception of quality of life among respondents?
- (2) What is the relationship among elements of the three domains of personal characteristics, family situation, and use of human services on perceptions of quality of life within the population?
- (3) What differences exist regarding perception of quality of life and the use of community-based human services (in the form of social services and income support) among different sub-groups of the population based on gender, income levels, and age groups?

## Delimitations

The study was delimited in the following way:

The study assessed only people that participated in interviews by telephone or by mail in Lexington-Fayette County, Kentucky. Therefore, the results may limit generalizability; however, the primary objective of the study is to test a model, where community-based resources/services are factors affecting perception of quality of life.

## Definitions

For purposes of this study the definitions of terms are as the following:

***Quality of life***: a multi-dimensional concept, comprising important elements of a person’s physical, emotional, social, functional, and spiritual well-being (Guyatt, 1993). It is an existing phenomenon even though it is hard to measure.

***Perception of quality of life***: It is an individual’s subjective feelings about one’s conditions or status of life regarding the needs or wants given limited resources or services available. In regional or community research, it is a term used to indicate a

person's overall perceptions of life quality as affected by personal factors such as income, housing, marital status, gender, and community factors (community human services) one shares with other people in the community at any given point of time.

***Internal resources/services:*** Based on the family systems theory model, resources/services are limited and can be classified as within or outside the system. Quality of life is influenced by a portion of what one owns and a portion of what one shares with other people in the community at any given point of time, the portion one owns is the portion one exclusively uses and also is termed as internal resources.

***External resources/services*** are the resources/services available to someone from outside one's ability or family to generate at any given point of time.

***Income supports:*** In this study, they are specific forms of external resources/services provided by the society or community; they are closely related to both long-term and short-term government welfare policy and community support systems. The most common income supports are worker's compensation, social security retirement or survivor income, Medicare, Social Security disability income or insurance, government housing, food stamps, and Medicaid. All these income supports have numerical values in finance that differ from other external resources/services as employment service, public safety services, or information services.

## **CHAPTER TWO: REVIEW OF LITERATURE**

This study focused on how perception of quality of life is related to individual characteristics, family situation, and use of community-based human services (in the form of social services and income support). The review of literature focused on three subtopics: (a) family systems theory and the quality of life, (b) prior assessments of factors affecting perception of quality of life; and (c) quality of life indicators and measurement issues.

### **Family Systems Theory and the Quality of Life**

The theoretical framework for this study was family systems theory. Family systems theory emerged from general system theory. Scholars found that the theory had many applications to families and other social systems. Any system is defined as a bounded set of interrelated elements exhibiting coherent behavior as a trait (Rosenblatt, 1994). In other words, it can be an assemblage of objects related to each other by some regular interaction or interdependence. Families are considered systems because they are made up of interrelated elements or objectives, they exhibit coherent behaviors, they have regular interactions and they are interdependent on one another (Boss, 2002; Rosenblatt, 1994).

A family system influences each member's perception of quality of life. The components and characteristics of family systems are as follows:

(a) Family systems have interrelated elements and structure (Rosenblatt, 1994). The elements of a system are the members of the family. Each member has characteristics. There are relationships between members. These relationships function in an interdependent manner. All of these create a structure, or sum total of the interrelationship among the elements, including membership in a system and the boundary between the system and its environment.

(b) Family systems interact in patterns (Rosenblatt, 1994). There are predictable patterns of interaction that emerge in a family system. These repetitive cycles help

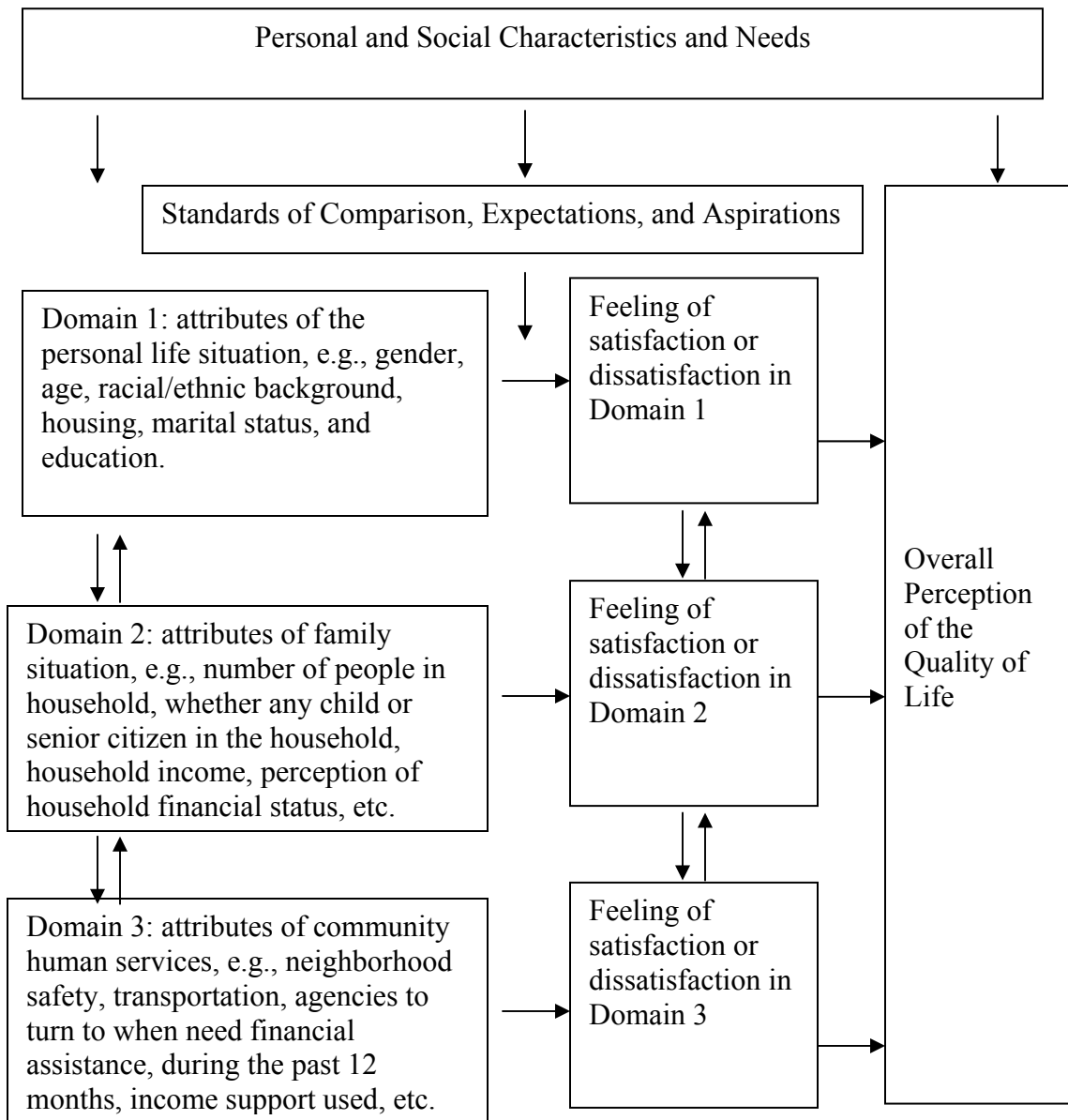
maintain the family's equilibrium and provide clues to the elements about how they should function.

(c) Family systems have boundaries and can be viewed on a continuum from open to closed (Rosenblatt, 1994). All systems have ways of including and excluding elements so that the line between those within the system and those outside of the system is clear to all. If a family is permeable and vague in boundaries, it is considered "open." Open boundary systems allow elements and situations outside the family to influence it. It may even welcome external influences. A closed boundary system isolates its members from the environment and is self-contained. No family system is completely closed or completely open. In family systems, looking inward reveals individuals, and looking outward is the community (see Figure II-1).

(d) Family systems function as an organic whole, even though they are made up of individual elements (Rosenblatt, 1994).

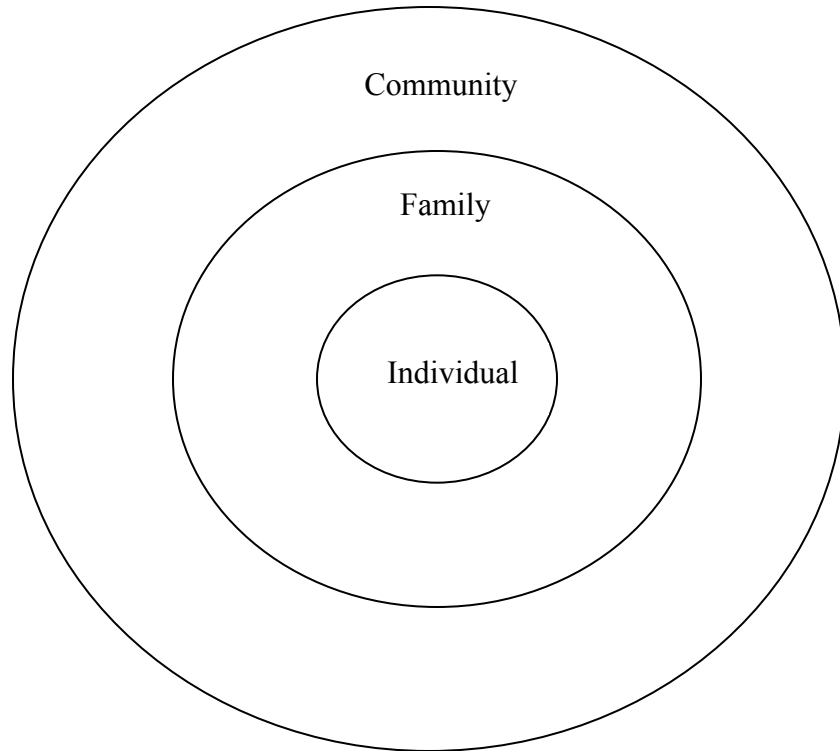
(e) Family systems have subsystems (Rosenblatt, 1994). Every family system contains a number of small groups usually made up of two or three people. The relationships between these people are known as subsystems, coalitions, or alliances. Each subsystem has its own rules, boundaries, and characteristics. Elements in subsystems can have direct or indirect influence to the whole system.

As the above five characteristics show, family systems influence a household's overall perception of quality of life. Any kind of activity the family system, or subsystem performs can influence each member. Boundaries exist relative to an individual, a family, and the community (see Figure II-2). In any system of an individual, a family, and the community, economic resources (including time) are limited. Thus economic concepts are integral to family systems theory. In any family system with existing boundaries, resources may be classified into internal or external. With change to the broader boundaries, external resources may change to internal resources (see Figure II-3).

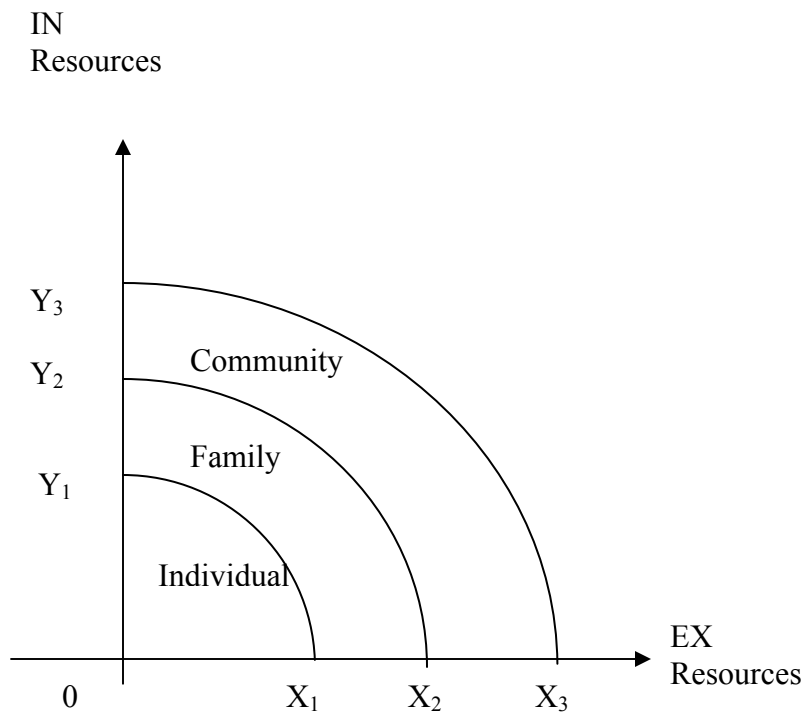


**Figure II-1: Model of Relationships between Perception of Quality of Life and the Three Domains (Adopted from Figure 1-2, Campbell, Converse, and Rodgers, *the Quality of American Life*, p.16)**





**Figure II-2: Boundaries Relative to an Individual,  
a Family and the Community**



**Figure II-3: Internal/External Resources Relative to an Individual, a Family, and the Community**

## **Prior Assessments of Factors Affecting Perception of Quality of Life**

Economics has long been defined as a scientific study that deals with the allocation of scarce resources among alternative uses to satisfy unlimited human wants. Traditional economic theory would lead us to believe that quality of life is related to objective variables such as household's income, Gross National Product (GNP), employment rate, and other quantifiable measures of economic status (Campbell, Converse, & Rodgers, 1976). Economists also join the other social scientists in adding such independent variables as age, gender, education, health status, housing, and other absolute variables to realize social equality or equal distribution of scarce resources in the society (Andrew & Withey, 1976).

Early in 19th century, economists, W. S. Jevons, Leon Walras, and Alfred Marshall built theories to develop the economic principle of the greatest good for the greatest number by assuming that interpersonal utility is measurable (Campbell, 1981). Individuals were considered to possess cardinal utility. Human nature is more complex than any simple summation of happiness and dissatisfaction (Baier & Rescher, 1969). The ordinal utility school deserted the assumption that interpersonal utility is comparable, but they still require that a rational individual's preferences be consistent and transitive, that is, the more resources you have, the better. As a result, objective variables: economic growth in GNP or real income per capita has been a dominating policy goal with near universal support for much of the 20th century. But, problems of human action and behavior were not comprehensively touched (Robins, 1985).

Based on probability and statistical methods, modern positive economists insist on objective variables, without emotion or value judgment, they follow the argument that ethical value judgment has no place in scientific analysis, because ethical conclusions cannot be evaluated in the same way that scientific hypotheses are tested and verified (Robins, 1985). However, it is not valid on the basis of this observation, to preclude economists from studying or examining the consequences of various value judgments.

The complexity of the post-industrial society requires that economists step out from the orthodox framework of pure competition, guaranteed full employment, efficient production and accelerated growth. More consideration of both objective/subjective and

absolute/relative variables is needed. For example, externalities, social costs, depleted nature resources, polluted environments, and a number of other social problems adversely affect our quality of life. Thus, the approach taken by economists, which includes such measures, provides a more accurate framework for the study of quality of life from the perspective of economics.

“Quality of life” is a new name for an old notion. It denotes a set of wants, the satisfaction for which makes people happy. It reflects a combination of the subjective feelings and objective status of the “well-being” of people and the environment in which they live at a particular point in time. Dissatisfaction with the GNP as an accurate measure of social welfare, using the growth of the GNP as an accurate measure of increasing social welfare as a goal for national life, has led to a desire for social indicators which can be used to set policy priorities, and measure the extent to which we are satisfied with our human and environmental conditions. In addition to the concern about efficient production with limited resources to meet those unlimited human wants, welfare economists stress even more an equitable system of distribution among groups and regions as well. In spite of the rapid growth in per capita income and the highest level of living standard among all nations in the world, dissatisfaction among the citizens in the U.S. grows at an increasing rate with the social, political and environmental problems such as urban crimes, ghetto slums, the generation of waste and environmental pollution, etc. (Liu, 1976).

The status of the quality of life for any individual is interdependent in the following three mechanisms: “the intrapersonal capability of the individual, the interpersonal aspects with other individuals, and the political system or society in which they all live as members, namely, the self, the other, and the societal system” (Scott, 1971). Man is a “wanting” creature. The nature of human activity consists of his effort or his failure to reach a state of satisfaction. According to Maslow (1970), it is necessary that needs be met on two levels—basic needs and growth needs. The basic needs include the physiological needs, safety and security, the belonging and love, and the needs for esteem. The growth needs consist of those that psychologically develop and actualize one’s fullest potentialities and capacities in relation to others in the community. Each member of our society owns certain private goods (income, housing, etc.), and shares the

use of some public good and services, such as schooling, medical care, police, and fire protection (Maslow, 1970). This is also in accordance with the family resource theory, which classifies resources/services as internal or external.

So we can interpret perception of quality of life within the family resources system model, where the quality of life that each individual (i) attempts to maximize may be expressed as an output function with two factor inputs--- the Internal (IN) and the External (EX) – a portion of which one owns and a portion of which one shares with other people in the community at any given point of time (t):

$$QoL_{it} = F (IN_{it}, EX_{it}) \quad (1)$$

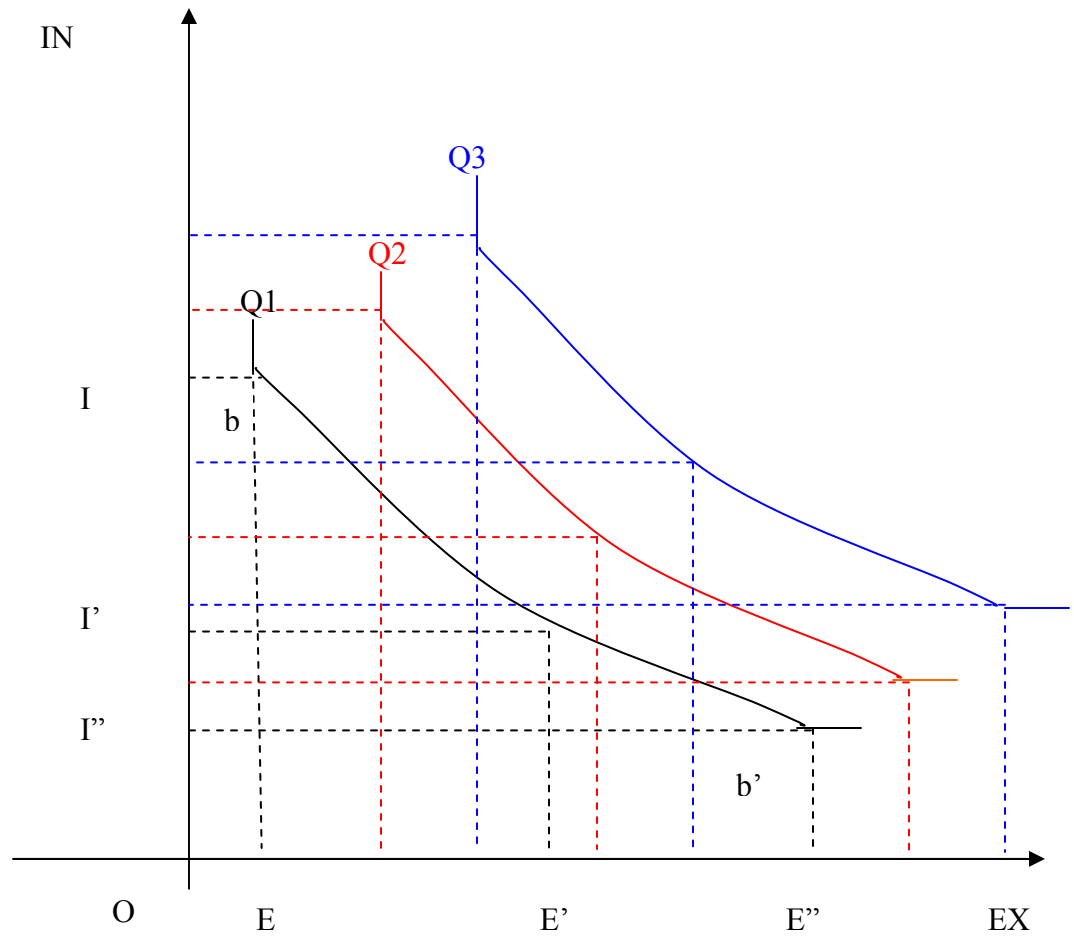
Where “i” stands for any individual, 1, 2, 3 ...n;

“t” stands for a point of time, 1, 2, 3...n;

It should be noted that the input factors are not completely independent; they can be employed in varying proportions in the production of quality of life. As for resources, we assume the more the better, but because of some welfare regulations or scarcity of resources, we classify resources into internal or external.

It is possible that the internal inputs can be used as substitutes to a certain extent for the external inputs, or vice versa. In fact, both IN and EX play an important role in determining the quality of life in the family system. In many cases, IN and EX can not be substituted fully for each other, for example, Medicare, as an external resource, can substitute for internal resources at certain level, but a further increase in Medicare would not increase a person’s education level or marital situation. So in this model, IN and EX are generally not perfect substitutes.

Equation (1) is also represented in Figure II-4— iso-quality curves, which are representations of combinations of factor inputs (IN) and (EX) so that the level of quality of life produced is the same for all combinations of the two input factors. Along this iso-quality curve, the use of additional input from one category while holding the amount of the other input constant, beyond a certain level, will not enable an individual to acquire a better quality of life. For example, an input of OI” of (IN) and OE” of (EX) will produce the same level of quality of life, Q1, as does the combination of OI and OE, or OI’ and OE’ of (IN) and (EX), respectively. However, given (IN) input of OI,” any



**Figure II-4: Quality of Life Levels of Two Different Inputs – Internal and External Resources of the Family System**

additional input of (EX) in excess of OE” units will not produce a greater level of quality of life than Q1. In the same way, neither will any additional (IN) in excess of OI with a given OE of (EX) increase the level of quality of life to Q2. There is a saturation level with both the inputs beyond both points of b and b’. The higher levels of quality of life are represented by iso-quality curves Q2 and Q3, which lie uniformly above Q1. Improvements in quality of life can be achieved by greater amounts of both inputs IN and EX.

In conclusion, IN and EX are generally not perfect substitutes. Convexity is assumed in the sense that the marginal rate of substitution between these two inputs is diminishing. For a given iso-quality curve,  $d(QoL) = 0$ .

### **Quality of Life Indicators and Measurements**

The search for quality of life indicators is an attempt to obtain new information that will be useful to evaluate the past, guide the actions of the present, and plan for future improvement. The empirical measures of various levels of quality of life used by Americans are aimed at the identification of strengths and weaknesses of the national health so that decision makers, public or private, can be assisted as they seek to evaluate, guide, and plan for a better quality of life.

In relation to quality of life, there is little agreement about the meaning of the term itself. There are rival factions each strongly urging the adoption of a different approach and a lot of measures purporting to address quality of life. As a consequence, there are doubts about the wisdom of using quality of life as an outcome, which could influence the lives of the general public (Andrews & Withey, 1976).

This situation has been perpetuated by two common and somewhat contradictory attitudes among researchers on the topic. The first attitude is exemplified by those who state categorically that there is general agreement on the components which make up quality of life. This statement is, however, never supported by information about who was involved in this general agreement, or where and when it was achieved (Campbell, Converse, & Rodgers, 1976). That such a consensus does not exist is evidenced by the fact that there are in existence a number of models of quality of life, which are by no

means in agreement about the structure of the concept. In fact it is acknowledged that there is wide dissent about the meaning of the term -- quality of life, how to measure it, and whether it should be measured at all. Clinicians, economists, psychologists, sociologists, philosophers and health research scientists, all have different perspectives which, most often, reflect the preoccupations of their particular discipline. In addition, the stance adopted may be influenced by the requirements of funding bodies, both public and private, which have their own agendas (Andrew & Withey, 1976).

The researchers who are of the second attitude justify a *laissez faire* use of measures by pointing out that there is no gold standard for quality of life. This statement apparently confers the freedom to measure in any way and or any means that the researcher fancies or finds convenient. Thus quality of life may appear as health status, physical functioning, perceived health status, subjective health, health perception, symptom, need satisfaction, individual cognition, functional disability, psychiatric disturbance, well-being, and often, several of these at the same time. "Thus indicators of quality of life have ranged from the purely physiological through functional capacity to complex series of questionnaires on social activities and psychological problems" (Hunt, 1997).

Although the disagreement exists, currently there are three basic approaches to the measurement of quality of life.

(1) There are those measures which come under the rubric of health-related quality of life and which were originally developed to assess some aspect of health status, using functional scales, symptom check lists, and measures of psychological or psychiatric problems. Some of these were designed to be completed by patients and some by observers. "The assumption behind the use of all of the measurements is that aspects of functional health status must have an impact on quality of life" (p207) (Hunt, 1997). Examples are health situations related to perception of quality of life, like gender, age, sleeping hours, behavioral symptoms, before/after treatment medical indexes or observations, etc.

(2) Measures stemming from the field of Health Economics, colloquially known as quality-adjusted life years, attempt to combine some estimate of life's length with the quality of that life. "The basic assumption under this notion is that, if offered the choice,



a rational person would prefer a life that is shorter but coupled with a satisfactory state of health, to a longer life with a considerable handicap or serious discomfort” (p207) (Hunt, 1997). Examples are income and insurance effects, lifestyle, spending style, stress and stress management skills, etc.

(3) There have been a few attempts to develop conceptual models or theories of quality of life. For example, quality of life has been construed as the emotional response to circumstances, the match between expectation and reality, the ability to meet his or her needs and an individual cognitive approach. The so-called “needs model” posits that quality of life is at its best when all, or most, of a person’s needs are met and gets progressively worse as fewer needs are met (Hunt, 1979). In addition, using the individual cognitive approach, the self-evaluation instrument for quality of life assumes that quality of life is an idiosyncratic perception, which can be measured only at individual level. Judgment analysis is used to derive an index score from an individual’s choice of important domains of his or her life and the relative values attached to those domains (Hunt, 1979). “Examples are research on income and needs assessment at different levels: basic living needs, love needs, self realization needs; hopes and fears, value order prioritizing, etc.” (Hunt, 1979).

The above three approaches of indicators and measurements employ two types of independent variables. The so-called “objective” (Andrews & Withey, 1976) measures are selected and refined from the Census and other repositories of regularly collected statistical data. Examples for “objective” items are population, employment status, education level, health index, age, gender, housing, recreation, and income. The so-called “subjective” (Andrews & Withey, 1976) indicators are obtained through polls and surveys asking people about their quality of life as they experience it and/or perceive it from their environment. Examples are mental health and happiness, self-rated stress, financial well-being and satisfaction.

Richard Easterlin (1974, 1995) was one of the first economists to study statistics over time on the reported level of happiness. His 1974 paper suggested that individual happiness appears to be the same across poor countries and rich countries. Researchers should think of people as obtaining utility from a comparison of themselves with others close to them, “Happiness is relative.” Because individuals are all moving up together,

the benefit of higher total national income will mean less to an individual. He also found that economic growth does not raise well-being. By testing whether reported happiness rose as national income did, he concluded: “In the one time series studied, that for the United States since 1946, higher income was not systematically accompanied by greater happiness.”

Blanchflower, Oswald (1996), Warr, Jackson, and Banks (1988) examined whether there is an upward trend in well-being after controlling for demographic and other compositional changes in the American economy. Their results showed a positive time trend, but very slight. They also found that the rise in happiness has not been spread evenly across gender. American men have become happier while American women have experienced little growth in subjective well-being. Blanchflower and Oswald (1996) also found that the young are becoming relatively happier than the old.

Andrew Oswald analyzed subjective well-being and estimated a well-being regression equation of the form “reported well-being = f(personal characteristics).” Oswald found that the equation held true “across different periods, different countries, and even different measures of well-being.” This finding illustrates two points as follows: (1) “Reported happiness is high among those who are married, high income, women, whites, the well-educated, the self-employed, the retired, and those looking after the home” (p1795) (Oswald, 1997); and (2) “Unemployed people are very unhappy” (Oswald, 1997). This is in accord with the Eurobarometer data (Warr et al, 1988).

To explore the idea that money buys happiness, Humphry (1992) discussed the notion of and evidence for rational suicide. Oswald (1997) revealed the fact that “total suicide deaths reached their maximum in the Great Depression, which is consistent with the idea that economics may have some role to play in this area.” (p.1801) Charlton, et al (1992) showed that “the suicide death rate is largely independent of social class.” Thus generally speaking, people of different income levels treat their lives in the same way. But they also found the exception that “men unemployed and seeking work at census were at 2-3 fold greater risk of suicide death than the average. ... But married men commit suicide — holding age constant—only one third as often as other” (p.92) (Charlton, Kelly, Evans, Jenkins, & Wallis, 1992).

Campbell, Converse, and Rodgers (1976) were prominent among the first investigators to attempt to analyze perception of quality of life by sorting out various “domains of life experience” and examining them separately before relating them to an overall judgment of quality of life. The domains they used are economic condition, employment, education, family, health, and social participation.

Identified variables can include gender, race, age, marital status, education, etc. as discussed below. They are pervasive qualities that affect a person’s social standing so that all of them might be expected to have an important impact on one’s perception of quality of life, but this has not been uniform. Most studies on the relationship between perception of quality of life and gender have found no relationship or a relatively low correlation. Age has yielded the largest variety of results. Cantril (1965) reported that the quality of life and age were highly correlated, but Watts and Free (1973, 1974) reported no relationship. It has been found that older people tend to report a higher level of life satisfaction than younger people because “older people are usually closer to retirement or are already retired and thus may experience less pressure from work” (McCoy & Filson, 1996). Race has also been found to have a consistent relationship with perception of quality of life. In fact all of the major national studies of quality of life have found that white people are more likely to rate their quality of life (“satisfaction,” “well being,” or “happiness”) higher than non-white people, especially Black people. Education level is highly correlated with financial “well being,” job satisfaction, and income level. There exists a race difference in education levels and there is still disagreement on whether education level is positively related to happiness in life (McCoy & Filson, 1996). Marital status has an important impact on a person’s life. Marital status (being married, never married, divorced, separated, or widowed) restricts social interaction. Many national studies showed a positive correlation between marital status and perception of quality of life. “Marital instability tends to jeopardize quality of life,” (Acock & Deseran, 1986), but being married rather than single is more likely to be associated with higher perceived quality of life (McCoy & Filson, 1996). In essence, research showed that married people reported their perception of quality of life higher than single, separated, divorced, or widowed people.

Household variables are often used to investigate the relationship of perception of quality of life and the household situation because perception of quality of life may be influenced by family type and family size (number of people in the household, number of children, or number of seniors in the household). “In the society and especially in rural areas and most especially in the south, family life is highly valued,” (Oswald, 1997) this leads to the expectation that those having children in their household would rate their quality of life higher. There is also the argument that having children is expensive and demands some commitment, so there is the opposite expectation. Almost all of the studies of quality of life use income as the major indicator of individual/household conditions. It has been found that income is positively correlated with perception of quality of life (McCoy & Filson, 1996). However, Wilkening and McGranahan (1978) reported “respondents’ subjective evaluation of their income such as how they feel about their income levels, was a better determinant of their life satisfaction and happiness than such objective measures as gross income.” All the above mentioned suggests that response differences are the reason why the majority of researchers currently use both subjective and objective indicators of a person’s quality of life (Liu, 1976).

As mentioned above, perception of quality of life is a subjective and a comparative notion. Perceptions on financial situation can combine subjective and objective standards and reflect personal subjective perceptions, i.e., the comparison of one’s previous situation instead of comparison to someone else’s situation. This can be applied to all income levels. Examples of these kinds of variables are: sufficient money for monthly bills, emergencies in basic needs, or anyone in the family saving or investing for retirement? Housing (ownership of the residence) is highly correlated with well-being and perception of quality of life. Income is also found highly correlated with health, and both variables affect the quality of life, especially for senior citizens (Liu, 1976).

Community quality of life is also multi-dimensional; it is contingent on the social science field of interest and the specific focus of research. Proshansky and Fabian (1996) have suggested that a better understanding of community quality of life will be obtained from research questions that are more specific in their focus. For example, the research question is “What kind of quality, for what kinds of people, and in what kinds of places?”

Researchers have examined and illustrated numerous resources in different communities that serve to impact the welfare of the individual (Shin, 1980). These resource indicators can be grouped under categories such as economic, social, political, health and education, and environmental conditions. Underwood (2000) suggested that community quality of life research should adhere to the policy-based nature, only those resources indicators subject to reasoned policy choice qualify as proper components of community quality of life measure. Since many resources affecting quality of life (e. g., climatic conditions, geography, etc.) are not subject to modification by government, business, and community service agents; they should not be included as part of the conceptualization and measurement of community quality of life (Shin, 1980). The resource indicators measured in the Shin study included public schools, medical care, housing, government services, and neighborhood safety.

A predictive model of community quality of life was developed by Widgery (1982) and focused on both community and neighborhood. Wagner (1995) conducted a study with the Regional Plan Association and Quinnipiac College Polling Institute of Hamden Connecticut. “The survey covered five metropolitan areas in an attempt to pin down how community residents define quality of life.” (p.18) At the top of the list were low crime and safe streets, followed by important issues like “high-quality public schools, a good personal financial situation, strong family, and good health.” (p20)

The research to date, however, has been relatively limited with regard to perception of quality of life and community-based human services, or with regard to perception of quality of life and internal and external family resources. The task of measuring perception of quality of life is a difficult and relatively unconventional one.

Based on a new hypothesis that absolute levels of community resources might explain the variations that are seen in perceptions of quality of life and that relative levels of access to community resources might also explain variations seen in perceptions of quality of life, this research is a trial investigating the perception of quality of life using individual characteristics, family situation, and community-based human services. It provides community leaders with a more refined tool to determine the specific perceptions of quality of life in the community by the residents, as well as to improve the quality and availability of human service in the community.

## CHAPTER THREE: EMPIRICAL MODEL

This chapter outlines the research methodology used in the study. First, the models of three domains with instruments are identified. Second, methodology is illustrated in two parts: a) the sampling procedure is described, and b) operationalizing variables and analytic procedures are outlined.

### Development of the Model

This study employs the theoretical approach of family systems theory. As an individual, one can be a member of a family or a member of a community of the world. So one can view that the quality of life is a function of individual characteristics, family situation, and use of community-based human services, as shown in the following equation:

$$QoL_i = \Sigma (I_i, F_i, C_i) \quad (2)$$

Where: QoL – perception of quality of life, the dependent variable;

“i” stands for any individual, 1, 2, 3, ...n;

“I” stands for individual characteristics (Domain 1);

“F” stands for a family situation (Domain 2); and

“C” stands for use of community-based service (Domain 3).

The variables in this model are also shown in Figure III-1. This model reflects the academic shift to meanings and perceptions in family studies research. Figures II-1, II-2, and II-3 illustrate the equation in the following two senses. First, in the family system, resources or services can be classified into two categories, internal and external. For any individual, family, or community, there are boundaries (e.g., physical, relational, psychological, or historical). In simple terms of resource systems, there are limited internal and external resources. Second, the family system has the family at the center. Looking inwardly there are subsystems comprised of the individual family members and interrelationships among those individuals. Looking outwardly there are external systems in the community. Both internal individual level and external community level

resources/services will influence the overall perceptions of quality of life for the individual or family.

People usually obtain the convenient available resources internally. But when internal resources are limited or not available, people will search for external ones. Some internal resources for a family are external resources for the individual, and in the same way, some community internal resources are external resources for a family.

A more detailed design is shown in Figure III-1 for our study on the perception of quality of life. Personal and social characteristics and needs have great influence on the perception of quality of life. We will analyze the residents' perception of quality of life in three domains (see Figure III-1).

(1) Domain 1--- Individual characteristics of life situation as measured by objective variables, e.g., gender, age, racial/ethnic background, housing, marital status (whether married or other), and education. They are all objective variables.

(2) Domain 2 --- Family situation, e.g., number of people in household, children or senior citizens in the household, sufficient household income to pay bills, rating of household's overall physical health, whether anyone in the household had an urgent requirement for basic needs, household income group. In this domain, both objective and subjective variables are used in order to investigate the situation in the household.

(3) Domain 3 --- Community human services availability, e.g., neighborhood safety; transportation a): whether use LexTran service, and b): whether have family or friends to help; whether sufficient activities in Lexington for teenagers aged 14-17; financial assistance: a) family or friends, b) church or clergy, c) bank, d) Lexington housing authority, e) utility companies, f) Community Action Council or Department of Community-based Services, g) food banks, h) the Salvation Army, i) Catholic Social Services, j) other persons or agencies; and whether during the past 12 months received income from: a) Social Security/Survivor Income, and b): Medicare. In this domain, more subjective variables are used than the first two domains and the variables are used to investigate the relationship of perception of quality of life and the use of community human services, and the percentage of the population using the existing

<b>Empirical Model: QoL = <math>\Sigma</math> (I, F, C)</b>	
<b>Dependent variable:</b> Perception of quality of life -- Overall how do you perceive your situation in life?	
In Crisis or At-risk = 1      Stable = 2      Safe = 3      Thriving = 4	
<b>Independent variables in 3 domains:</b>	
<b>Domain 1: (I)</b>	Individual characteristics: gender, racial/ethnic background, education, housing, whether married, and age.
<b>Domain 2: (F)</b>	Family situation: number of people in the household, whether any child in the household, whether any senior citizen in the household, whether household makes enough money to pay bills, rate household's overall physical health, whether anyone in the household had an urgent need for basic needs, household income group.
<b>Domain 3(C)</b>	Human services at community level: neighborhood safety; transportation mode; activities for teenagers; types of financial assistance: a) family or friends, b) church or clergy, c) bank, d) Lexington Housing Authority, e) utility companies, f) Community Action Council or Department of Commonwealth based services, g) Food banks, h) the Salvation Army, i) Catholic Social Services, j) other persons or agencies; during the past 12 months received income from: a) Social Security/Survivor Income, and b) Medicare.

**Figure III-1: Variables in the Model**



services. Each of the above-mentioned domains has direct influence on feelings of satisfaction or dissatisfaction in the domains, which in the end influence the overall household perception of quality of life.

## **Methodology**

This section explains the methodology applied to this research in two subjects: (a) sampling and data collection, and (b) operationalizing variables and analysis.

### **Sampling and Data Collection**

Heath (2003) at the University of Kentucky Research Center for Families and Children (RCFC) conducted a study to assess the use and quality of human services in the Lexington-Fayette County area. "The participation will help agencies, local leaders, neighborhood centers, and others to improve the community and perceptions of quality of life." (p.1) (Heath, 2003)

The Self-Assessment Study (Heath, 2003) was conducted by the Research Center for Families and Children with survey assistance by the University of Kentucky Survey Research Center. Both centers are located at the University of Kentucky. The study was funded by LexLinc --- a nonprofit organization in Lexington, Kentucky.

The sample was initially drawn using the Info Time Polk Directory distributed by Equifax (2002). This directory has listed information for all households in Lexington-Fayette County, Kentucky. A simple random sample of 11,500 households was drawn across all census tracts in Lexington-Fayette County to ensure that there would be enough households in the sample pool to complete both the telephone and mailed phases of the study. After the matching and cleaning process to obtain telephone numbers where none were originally listed, a smaller random sample of 4,700 was drawn resulting in 3,606 households for the telephone survey sample and the remaining 1,094 for the mailed survey sample. Calls were conducted by the University of Kentucky Survey Research Center from March 22-April 18, 2002. Up to 22 attempts were made by telephone per sample household at various times during the day and evening (Heath, 2003).

Mailed surveys were used to reach households drawn in the sample who did not have telephone service or for which no number was found. Statements in Spanish inviting

participation in the survey through either a phone interview in Spanish or a mailed survey in Spanish were included in a cover letter. The mailed portion of the study began May 10, 2002 and was completed June 25, 2002.

The number of completed surveys was 1561 (1237 telephone surveys and 324 mailed surveys). “The margin-of-error for the survey is less than  $\pm 2.5\%$  at the 95% confidence level” (Heath, 2003). Individuals must have been 18 years old of age or older to participate in the interview. Randomly selected Lexington residents answered questions regarding their financial needs, income support, needs of the elderly, employment, childcare needs, physical and mental health needs, and characteristics such as ethnicity, last grade of school completed, marital status, and number of people in their household.

The data for this research were organized into three domains according to the family systems theoretical model: Domain 1: data on individual characteristics, Domain 2: data on family situation, and Domain 3: data on use of community-based human services. The questions addressed in the three domains are shown in Figure III-1. In Domain 1, the variables are gender, age, racial/ethnic background, education, marital status, and ownership of residence. In Domain 2, the variables are number of people in the household, household income, whether children in the household, whether senior citizens in the household, perception of household financial situation, household income supports, and whether household experienced an urgent basic need. And in Domain 3, neighborhood safety, awareness of availability of social services, transportation services, childcare, financial emergency services, and overall needs are investigated. At the end of the overall assessment of needs questionnaire, the key question is “Thinking about the needs of you and your household and thinking about the issues in this survey, overall how do you perceive your situation in life? Would you say you are: (1) thriving, (2) safe, (3) stable, (4) at-risk, or (5) in-crisis.” All the other questions used in the study are in one of the two forms of choices: (a) “Yes” or “No” choices, (b) Likert scale indicating strongly agree, agree, disagree, and strongly disagree.

### **Operationalizing the Empirical Model**

According to the research model and data, variables are organized by the three domains (see Figure III-2). As the first step of model testing, frequency analyses, cross tabular, and correlation methods are used to avoid small cell count problems and multicollinearity of variables, thus avoiding the possible misleading of statistic results. Recoding the dependent variable was the first step taken to avoid cell problems in the data analysis: the first two response categories (in-crisis and at-risk) are combined into one category and other categories: stable, safe, and thriving remaining as originally determined (see Table III-1).

In order to deal with the high missing percentage of an independent variable --- household income, adjustment is to use data missing analysis by SPSS to estimate the missing data for income group and replace the missing data with the regression result of predictors of race, gender, and education. Detailed variable information is shown in Table III-1 and Chart III-1.





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<b>HHInc</b>	<b>The previous year household income from all sources before taxes</b>
	Equal to or below \$25,000 ( <b>IncG1</b> )= 1
	\$25,001- \$50,000 ( <b>IncG2</b> ) = 2
	\$50,001 or over ( <b>IncG3</b> ) = 3

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**Table III-1 (continued): Variables in the Research Model**

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<b>Independent Variables in Domain 3:</b>		
<b>NSafety</b>	<b>Neighborhood safety</b>	
	No = 0	Yes (NSafe)= 1
<b>Transpta</b>	<b>Whether use LexTran services</b>	
	No = 0	Yes (LextranY) = 1
<b>Transptb</b>	<b>Whether has family or friends to pick up</b>	
	No = 0	Yes (TranspbY)= 1
<b>TeenActs</b>	<b>Whether sufficient appropriate activities in Lexington for teenagers (aged 14-17) to frequent or attend</b>	
	No = 0	Yes (TeenActY) = 1
<b>FAFF</b>	<b>When need financial assistance, turning to family or friends</b>	
	No = 0	Yes (FAFFY) = 1
<b>FACorC</b>	<b>When need financial assistance, turning to church or clergy</b>	
	No = 0	Yes (FACorCY)= 1
<b>FABank</b>	<b>When need financial assistance, turning to Bank</b>	
	No = 0	Yes (FABankY) = 1
<b>FALHA</b>	<b>When need financial assistance, turning to Lexington Housing Authority</b>	
	No = 0	Yes (FALexHY)=1
<b>FAUtility</b>	<b>When need financial assistance, turning to Utility Company</b>	
	No = 0	Yes (FAUtilityY) = 1
<b>FACACS</b>	<b>When need financial assistance, turning to Community Action Council or Department of Community-based Services</b>	
	No = 0	Yes (FACACSY)=1
<b>FAFBank</b>	<b>When need financial assistance, turning to Food Banks</b>	
	No = 0	Yes (FAFBankY) =1
<b>FASArmy</b>	<b>When need financial assistance, turning to the Salvation Army</b>	
	No = 0	Yes (FASArmyY)=1

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<b>FACatho</b>	<b>When need financial assistance, turning to Catholic Social Services</b>	No = 0	Yes ( <b>FACathoY</b> )= 1
<b>FAOther</b>	<b>When need financial assistance, turning to other person or agency</b>	No = 0	Yes ( <b>FAOtherY</b> )= 1
<b>SSI</b>	<b>During the past 12 months received income: Social security/survivor income</b>	No = 0	Yes ( <b>SSIY</b> )= 1
<b>Medicare</b>	<b>During the past 12 months received income: Medicare</b>	No = 0	Yes ( <b>MedY</b> )= 1

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<b>Sub-group</b>		<b>Perception of Quality of Life</b>	<b>Urgent Needs</b>	<b>Use of Community- based Human Services</b>
<b>Income</b>	<b>Equal to or below \$25,000</b>			
	<b>\$25,001-50,000</b>			
	<b>\$50,001 or above</b>			
<b>Gender</b>	<b>Female</b>			
	<b>Male</b>			
<b>Age</b>	<b>18-34</b>			
	<b>35-44</b>			
	<b>45-54</b>			
	<b>55+</b>			

**Figure III-2: Sub-group Analysis of Perception of Quality of Life and Urgent Needs by Use of Community-based Human Services**

As data were rearranged according to the three domains illustrated in the model. The models used in this study can be expressed in the following equations:

$$QoL_{Domain-1} = F(I) = B_0 + (B_1Marstat + B_2Ownres + B_3Gender + B_4Race + B_5Educ + B_6Age) + e \quad (3)$$

Where: “QoL<sub>Domain-1</sub>” stands for dependent variable --- perception of quality of life in Domain 1 Model,

“I” stands for individual characteristics,

“B<sub>1-6</sub>” stands for constant or coefficients,

“e<sub>1</sub>” stands for errors in Domain 1 model;

$$QoL_{Domain-2} = F = C_0 + (C_1NumHH + C_2ChilHH + C_3SrHH + C_4PayBills + C_5HHHealth + C_6UrgNeed + C_7HHInc) + e_2 \quad (4)$$

Where: “QoL<sub>Domain-2</sub>” stands for dependent variable --- perception of quality of life in Domain 2 Model,

“F” stands for family situations,

“C<sub>1-7</sub>” stands for constant or coefficients,

“e<sub>2</sub>” stands for errors in Domain 2 Model;

$$QoL_{Domain-3} = C = D_0 + (D_1NSafety + D_2Transpta + D_3Transptb + D_4TeenActs + D_5FAFF + D_6FACorC + D_7FABank + D_8FAHousing + D_9FAUtility + D_{10}FACACS + D_{11}FAFBank + D_{12}FASArmy + D_{13}FACatho + D_{14}FAOther + D_{15}SSI + D_{16}Medicare) + e_3 \quad (5)$$

Where “QoL<sub>Domain-3</sub>” stands for dependent variable --- perception of quality of life in Domain 3 Model,

“C” stands for community human services,

“D<sub>1-16</sub>” stands for constant or coefficients,

“e<sub>3</sub>” stands for errors in Domain 3 Model;

$$QoL_{Full} = \Sigma (I, F, C) \quad (6)$$

Where: “QoL<sub>Full</sub>” stands for dependent variable --- perception of quality of life in the full model.

The model was tested using a sample composed of 1,651 respondents. Reliability analysis of the variables was conducted using SPSS program with Crombach’s Alpha value equals to .52.

The analyses involved three main steps. The first step was to statistically develop the empirical model. Where crosstabular analysis indicated a small cell count, values were collapsed to allow use of the variable in the empirical model. To formulate a model of the relationship between the dependent variable (Quality of Life) and a set of independent variables (individual, family, and community), it depends on the characteristics of the variables, the choice of model can be a simple linear regression, multiple regression, logistic (binary) regression, or multinomial regression. With the consideration of the above, it was decided to conduct a parallel test of regression parameter slopes for an ordinal regression model for the three domain models and the full model. Statistically significant results led to the conclusion that ordinal regression is not an appropriate method for this model. In the second step, multinomial regressions were used to investigate relationships between each of the three domains and the full model, and perception of quality of life. In order to make the statistical results more intuitively understandable, reverse recoding was used – using “at risk and in crisis” as the reference category. Pseudo R-square of Nagelkerke coefficients were reported for goodness of fit, Chi-square value, degree of freedom and significance at  $p < .05$  level were reported. In the third step, Pearson correlation analyses are used conducted with sub-group analysis regarding age (18-34, 35-44, 45-54, and 55 or above), income levels (\$25,000 or below, \$25,001- \$50,000, and \$50,001 or above), and gender (male and female) (see Figure III-2).

Correlations are analyzed between perception of quality of life, urgent needs and the use of community-based human services. Urgent needs are separated into six perspectives, these are whether the respondent worries that food will run out before getting money to buy more, whether the respondent worries about being able to pay mortgage or rent, whether the respondent worries about being able to pay utility bills, whether the respondent has enough income to pay for prescription drugs the family needs, whether the respondent has enough income to pay for the family’s medical needs, and whether the respondent has enough income to pay for family housing. Findings were reported through similar responses identified by the researcher and through correlation with significance levels between dependent variable, urgent needs, and community

human services. Chi-square was also used in the report for sub-group difference with significance level of  $p < .05$ ,  $p < .01$ , and  $p < .001$ .

## **CHAPTER FOUR: ANALYSES**

In this chapter, results of the study are reported in three parts: (1) sample description, (2) the multinomial regression of the four models tested, and (3) sub-group correlation analyses regarding perception of quality of life by types of urgent needs and use of community-based human services.

### **Sample Description**

This section reports the sample and characteristics using descriptive statistics in the order of the three domains of individual, family, and community. When the respondent was asked to think, overall, about himself or herself, their household, and the issues of the survey, respondents report their perceived quality of life (n=1547): 6.0 percent reported in-crisis or at risk, 35.3 percent stable, 29.2 percent safe, and 29.5 percent thriving (see Table IV-1).

#### **Characteristics of Respondents in Domain 1: Individual Characteristics**

Of the respondents, 61.5 percent were female. Respondents' average age is within the range of 35-44 years, with a mode of 55 years old or above; 88.4 percent identified themselves as white. Almost three out of five (58.4%) were currently married. About three quarters of respondents (77.1%) own their residence. Regarding education, 21.2 percent had a high school diploma, GED or less, 27.4 percent had some college but no degree/vocational-technical degree; 51.4 percent had bachelor degree or more (see Table IV-2).

**Table IV-1: Frequencies of Perception of Quality of Life (n =1547)**

<b>Quality of Life</b>	<b>Frequency</b>	<b>Percent</b>
<b>In crisis or at risk</b>	93	6.0
<b>Stable</b>	546	35.3
<b>Safe</b>	451	29.2
<b>Thriving</b>	457	29.5
<b>Total</b>	1547	100.0

**Table IV-2: Individual Characteristics of Respondents**

<b>Variables</b>	<b>Percent</b>
<b>Gender (n=1555)</b>	
Female	61.5
Male	38.5
<b>Age (n=1540)</b>	
18-34	24.9
35-44	23.4
45-54	22.3
55 and above	29.4
<b>Marital status (n=1558)</b>	
Currently married	58.4
All other	41.6
<b>Residence ownership (n=1554)</b>	
Rent or other	22.9
Own	77.1
<b>Race (n=1544)</b>	
Nonwhite	11.6
White	88.4
<b>Education (n=1549)</b>	
High school diploma/ GED or less	21.2
Some college but no degree/Vocational- technical degree	27.4
Bachelor's degree or some graduate school	30.5
Graduate or some professional degree	20.9

## **Characteristics of Respondents in Domain 2: Households**

Regarding household, the average household size is 2.48 with 22.7 percent of the households with only one member, and 38.8 percent of households with two people; 54.5 percent of households reported no child under the age of 18 in the household (see Table IV-3). In the 45.5 percent of households with a child/children under the age of 18, the average number of children was 1.76. For 20.1 percent of households with someone 65 years of age or older, the average size of the household is 1.36 persons. 82.3 percent of households report overall physical health as good or excellent compared to 17.7 percent of households report overall physical health as poor or fair. Regarding income, 19.8 percent reported income at \$25,000 or below, 25.5 percent reported between the ranges of \$25,001 - \$50,000; and 54.7 percent reported \$50,001 or above.



**Table IV-3: Basic Characteristics of the Household**

<b>Basic Characteristics of Household</b>	<b>Percent</b>
<b>Number of people in household (n=1556)</b>	
1 person	22.7
2 people	38.8
3 people	15.4
4 or more	23.1
<b>Whether children under 18 in household (n=1204)</b>	
No	54.5
Yes	45.5
<b>Whether senior in household (n=1558)</b>	
No	79.9
Yes	20.1
<b>Whether household makes enough money for bills (n=1556)</b>	
No	12.0
Yes	88.0
<b>Household's overall physical health (n=1555)</b>	
Poor or fair	17.7
Good or excellent	82.3
<b>Household urgent need in the past 12 months (n=1553)</b>	
No	94.1
Yes	5.9
<b>Household income group (n=1561)</b>	
Equal or below \$25,000	19.8
\$25,001-50,000	25.5
\$50,001 or over	54.7

### **Characteristics of Respondents in Domain 3: Community-based Human Services**

Regarding community-based human services, the majority of respondents (92.5%) reported living in a safe neighborhood. At least 93 percent reported not using LexTran -- the public transportation service, 75.9 percent reported not having friends or family pick them up. Regarding financial assistance, approximately 50 percent reported turning to family or friends, 20 percent reported turning to church or clergy, 26 percent reported turning to banks, 5.6 percent reported turning to Lexington Housing Authority, 9 percent reported turning to utility companies, 9.4 percent reported turning to Community Action Council or Department of Community-based Services, 11 percent reported turning to food banks, 11 percent reported turning to the Salvation Army, 8.6 percent reported turning to Catholic Social Services, and about 6 percent report turning to other person or agency. Regarding income support during the past twelve months, 21.8 percent of households reported support from social security/survivor income, and 19.3 percent reported support from Medicare (see Table IV-4).

**Table IV-4: Human Services in the Community**

<b>Basic Characteristics of Community Services</b>	<b>Percent</b>
<b>Whether neighborhood safe (n =1555)</b>	
No	7.5
Yes	92.5
<b>Whether use LexTran for transportation (n=1561)</b>	
No	93.1
Yes	6.9
<b>Whether have friends or family to pick up as transportation mode (n =1561)</b>	
No	75.9
Yes	24.1
<b>Whether sufficient activities in Lexington for teenagers 14-17 (n=1274)</b>	
No	54.2
Yes	45.8
<b>Financial assistance a) turn to family or friends (n=1561)</b>	
No	50.6
Yes	49.4
<b>Financial assistance b) turn to church or clergy (n=1561)</b>	
No	80.1
Yes	19.9
<b>Financial assistance c) turn to bank (n=1561)</b>	
No	73.7
Yes	26.3
<b>Financial assistance d) turn to Lexington Housing Authority (n=1561)</b>	
No	94.4
Yes	5.6
<b>Financial assistance e) turn to utility companies (n=1561)</b>	
No	91.0
Yes	9.0

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<b>Financial assistance f) turn to Community Action Council or Department of Community Based Services (n=1561)</b>	
No	90.6
Yes	9.4
<b>Financial assistance g) turn to food banks (n=1561)</b>	
No	88.9
Yes	11.1
<b>Financial assistance h) turn to the Salvation Army (n=1561)</b>	
No	88.9
Yes	11.1
<b>Financial assistance i) turn to Catholic Social Services (n=1561)</b>	
No	91.4
Yes	8.6
<b>Financial assistance j) turn to other person or agency (n=1561)</b>	
No	94.1
Yes	5.9
<b>During the past 12 months received income from: Social Security Retirement/Survivor Income (n=1540)</b>	
No	78.2
Yes	21.8
<b>During the past 12 months received income from: Medicare (n=1542)</b>	
No	80.7
Yes	19.3

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## **Multinomial Regression Models**

According to the model design of three domains, multinomial logistic regression was first used to investigate the association of perception of quality of life and individual characteristics, family situation, and the community human service. The Nagelkerke values of Pseudo R-Square of the three domains are .175, .308 and .145 respectively, which reflect the goodness of fit of the models to the data. Detailed degrees of freedom and significance of each variable using Chi-square in the three domains are reported in Table IV-5.

Second, the full model with all the variables in the above three domains was tested. Again, multinomial regression analysis was used with Nagelkerke value of Pseudo R-Square .408, which reflects the goodness of fit of the model to the data. Significance of Chi-square and degree of freedom of each variable in the adjusted model are reported in Table IV-5.

**Table IV-5: Multinomial Regression Results for All Models**

Variable	Significant level			Full model (n = 1211)
	Domain 1 (n = 1507)	Domain 2 (n = 1526)	Domain 3 (n = 1251)	
<b>Marstat</b>	***			
<b>Ownres</b>	***			
<b>Gender</b>				
<b>Race</b>				
<b>Educ</b>	***			***
<b>Age</b>	***			
<b>NumHH</b>				
<b>ChilHH</b>				
<b>SrHH</b>				
<b>PayBills</b>		***		***
<b>HHHealth</b>		***		***
<b>UrgNeed</b>		***		***
<b>HHInc</b>		***		***
<b>NSafety</b>			*	
<b>Transpta</b>				
<b>Transptb</b>			*	
<b>TeenActs</b>			**	
<b>FAFF</b>			***	
<b>FACorC</b>				
<b>FABank</b>			*	
<b>FALHA</b>				
<b>FAUtility</b>			*	*
<b>FACACS</b>			**	*
<b>FAFBank</b>				
<b>FASArmy</b>				
<b>FACatho</b>				
<b>FAOther</b>				
<b>SSI</b>				
<b>Medicare</b>			*	
<b>Nagelkerke value</b>	.175	.308	.145	.408

Note: \*\*\*: significant at the 0.001 level (2-tailed) using Chi-square statistic.  
 \*\*: significant at the 0.01 level (2-tailed) using Chi-square statistic.  
 \*: significant at the 0.05 level (2-tailed) using Chi-square statistic.

## **Domain 1 Model**

In Domain 1, four out of the six independent variables were statistically significant at the level of .05 (reported with the Chi-square values and degree of freedom), they are whether married (16.36, df=3), own residence (38.23, df=3), education (87.74, df=9), and age (40.80, df=9), (see Table IV-5).

With perception of quality of life being “in crisis or at risk” as the reference category, parameter estimates are reported using regression coefficients, significance, and odds ratio –Exp (B) as Table IV-6 shows.

(1) The odds of being in “thriving” vs. being “in crisis or at risk” for those who are currently married are 2.60 times higher than for those who are currently not married; the odds for those who own their residence are 4.73 times higher than for those who do not own; the odds for those of graduate or professional degree are 28.67 times higher than for those of the high school diploma/GED or less, the odds for those of bachelors or some graduate school 4.17 times higher than for those of the high school diploma/GED or less; the odds for those of some college but no degree/vocational-technical degree are 2.07 times higher than for those of the high school diploma/GED or less.

(2) The odds of being in “safe” vs. being “in crisis or at risk” for those who are currently married are 1.93 times higher than for those who are currently not married, the odds for those who own their residence are 3.52 times higher than for those who do not own; the odds for those of graduate or professional degree are 19.50 times higher than for those of the high school diploma/GED or less, the odds for those of bachelors or some graduate school 2.68 times higher than for those of the high school diploma/GED or less; the odds for those of aged 45 to 54 are .33 lower than the youngest group of aged 18 to 34, the odds for those of aged 35 to 44 are .33 lower than the youngest group of aged 18 to 34.

(3) The odds of being “stable” vs. being “in crisis or at risk” for those who own their residence are 1.95 times higher than for those who do not own; the odds for those of graduate or some professional degree are 7.09 times higher than for those of the high school diploma/GED or less.

**Table IV-6: Parameter Estimates in Domain 1 (n = 1507)**

Domain 1 items	Regression coefficient-B and significance			Odds ratio: Exp (B)		
	Thriving	Safe	Stable	Thriving	Safe	Stable
Intercept	-1.03 *	-.24	.82 *			
Married	.96 ***	.66 *	.50	2.60	1.93	1.66
OwnRes	1.56 ***	1.26 ***	.67 *	4.73	3.52	1.95
Male	.21	.49	.38	1.23	1.62	1.47
White	.40	.53	.23	1.49	1.70	1.25
GradOrProf	3.36 ***	2.97 ***	1.96 **	28.67	19.50	7.09
BOrGS	1.43 ***	.99 **	.13	4.17	2.68	1.14
CollOrVT	.73 *	.53	.07	2.07	1.69	1.07
55OrAbove	-.32	-.61	.32	.72	.54	1.37
45To54	-.67	-1.10 **	-.32	.51	.33	.72
35To44	-.63	-1.10 ***	-.63	.53	.33	.53

Note: Perception of QoL –“In crisis or at risk” is set as the reference category.

\*\*\*: significant at the 0.001 level (2-tailed).

\*\*: significant at the 0.01 level (2-tailed).

\*: significant at the 0.05 level (2-tailed).



From the above results, we can draw the conclusion that the individual characteristics (from Domain1) of owning a residence and having higher educational attainment were the two predictive variables for all levels (thriving, safe, stable) of perception of higher quality of life versus in crisis or at risk. The two variables -- age and whether married can also predict the perception of higher quality of life but not at all three levels.

## Domain 2 Model

In Domain 2, four out of seven independent variables are statistically significant ( $p < .05$ ), (reported with the Chi-square values and degree of freedom), they are whether household makes enough money every month to pay bills (105.60,  $df=3$ ), household's overall physical health (60.38,  $df=3$ ), household's urgent needs (19.19,  $df=3$ ), and household income group (76.79,  $df=6$ ), (see Table IV-5).

With perception of quality of life being "in crisis or at risk" as the reference category, parameter estimates are reported by regression coefficient (B), significance, and odds ratio –Exp (B) as Table IV-7 shows.

(1) The odds of being in "thriving" vs. being "in crisis or at risk" for those who have enough money to pay bills are 26.79 times higher than for those who have not; the odds for those who rate their overall household health as good or excellent are 7.16 times higher than for those who rate their overall household health as poor or fair; the odds for those who have had urgent needs during the past 12 months are .16 times lower than for those who have no urgent needs during the past 12 months; the odds for those of the group of \$50,000 or above are 3.83 times higher than for those of the group of \$25,000 or below.

(2) The odds of being in "safe" vs. being "in crisis or at risk" for those who have enough money to pay bills are 27.86 times higher than for those who have not; the odds for those who rate their overall household health as good or excellent are 7.24 times higher than for those who rate their overall household health as poor or fair; the odds for those who have had urgent needs during the past 12 months are .25 times lower than for those who have no urgent needs during the past 12 months; the odds for those of the income group of \$50,000 or above are 3.86 times higher than for those of the group of \$25,000 or below.

(3) The odds of being "stable" vs. being "in crisis or at risk" for those who have enough money to pay bills are 10.51 times higher than for those who have not; the odds for those who rate their overall household health as good or excellent are 2.57 times higher than for those who rate their overall household health as poor or fair; the odds for those who have had urgent needs during the past 12 months are .26 times lower than for those who have no urgent needs during the past 12 months.

**Table IV-7: Parameter estimates in Domain 2 (n = 1526)**

Domain 2 items	Regression coefficient-B and significance						Odds ratio: Exp (B)		
	Thriving		Safe		Stable		Thriving	Safe	Stable
Intercept	-2.99	***	-2.85	***	-.14				
H4OrMore	.37		-.37		.19		1.45	.69	1.21
H3	1.13		.62		.94		3.10	1.86	2.56
H2	.64		.29		.48		1.90	1.34	1.61
ChildH	-.06		.10		-.34		.94	1.11	.72
SrH	.27		.34		.41		1.31	1.41	1.51
PayBills	3.29	***	3.33	***	2.35	***	26.79	27.86	10.51
HHealthG	1.97	***	1.98	***	.94	***	7.16	7.24	2.57
UrgN	-1.84	***	-1.39	**	-1.35	***	.16	.25	.26
IncG3	1.34	**	1.35	**	.02		3.83	3.87	1.02
IncG2	.06		.49		-.21		1.06	1.63	.81

Note: Perception of QoL –“In crisis or at risk” is set as the reference category.

\*\*\*: significant at the 0.001 level (2-tailed).

\*\*: significant at the 0.01 level (2-tailed).

\*: significant at the 0.05 level (2-tailed).

From the above results, we can draw the conclusion for the family situation (Domain 2), whether the household has enough money to pay bills, the household's overall physical health, and whether the household has had an urgent need in the past 12 months were the three predictive variables for all levels (thriving, safe, stable) of perception of higher quality of life versus in crisis or at risk. Household income also was a predictive variable for the perception of higher quality of life but not at all three levels.

### **Domain 3 Model**

In Domain 3, eight out of sixteen independent variables are significant ( $p < .05$ ), (reported with the Chi-square values and degree of freedom). They are neighborhood safety (8.80,  $df = 3$ ), transportation: family or friends to provide transportation (11.05,  $df = 3$ ), whether sufficient activities in Lexington for teenagers 14-17 (11.48,  $df = 3$ ), financial assistance: turning to family or friends (28.72,  $df = 3$ ), turning to bank (9.19,  $df = 3$ ), turning to utility companies (8.88,  $df = 3$ ), turning to Community Action Council or Department of Community-based Services (14.01,  $df = 3$ ), and during the past 12 months received income from: Medicare (10.07,  $df = 3$ ), (see Table IV-5).

With perception of quality of life – “in crisis or at risk” as the reference category, parameter estimates are reported by regression coefficient (B), significance, and odds ratio –Exp (B) as Table IV-8 shows.

(1) The odds of being in “thriving” vs. being “in crisis or at risk” for those who consider the neighborhood safe are 2.68 times higher than for those who do not rate the neighborhood safe; the odds for those who need family or friends to provide transportation are .40 times lower than for those not having family or friends provide transportation. As for who to turn to when financial assistance is needed, the odds of being in “thriving” vs. being “in crisis or at risk” for those who turn to family and friends are .22 times lower than for those who do not turn to family and friends; the odds for those who turn to banks are 2.11 times higher than for those who do not turn to banks.

(2) The odds of being in “safe” vs. being “in crisis or at risk” for those who consider the neighborhood safe are 3.12 times higher than for those who do not rate the neighborhood safe; the odds for those have family or friends to provide transportation are .41 times lower than for those not having family or friends to provide transportation. As for who to turn to when financial assistance is needed, the odds of being in “safe” vs. being “in crisis or at risk” for those turn to family and friends are .24 times lower than for those who do not turn to family and friends; the odds for those who turn to banks are 2.37 times higher than for those who do not turn to banks.

**Table IV-8: Parameter estimates in Domain 3 (n = 1251)**

	Regression coefficient-B and significance						Odds ratio: Exp (B)		
	Thriving		Safe		Stable		Thriving	Safe	Stable
Intercept	1.68	***	1.39	**	1.68	***			
NSafe	.99	**	1.14	**	.75	*	2.68	3.12	2.12
LextranY	-.49		-.84		-.20		.61	.43	.82
TranspbY	-.92	***	-.89	**	-.75	**	.40	.41	.47
TeenActY	.40		.44		.01		1.49	1.56	1.01
FAFFY	-1.52	***	-1.43	***	-1.03	**	.22	.24	.36
FACorCY	.52		.45		.21		1.68	1.57	1.23
FABankY	.75	*	.86	**	.92	**	2.11	2.37	2.52
FALHAY	.07		.10		-.24		1.07	1.11	.78
FAUtilityY	-.44		.56		.38		.64	1.75	1.47
FACACSY	-.64		-.73		.44		.53	.48	1.56
FAFBankY	-.53		-.12		-.54		.59	.89	.59
FASArmyY	1.10		.45		.52		2.99	1.56	1.68
FACathoY	-.59		-.91		-1.23	*	.55	.40	.29
FAOtherY	-.19		.42		.21		.82	1.52	1.24
SSiY	.51		-.04		.65		1.66	.96	1.91
MedY	-.98		-.15		.01		.38	.87	1.01

Note: Perception of QoL –“in crisis or at risk” is set as the reference category

\*\*\*: significant at the 0.001 level (2-tailed).

\*\*: significant at the 0.01 level (2-tailed).

\*: significant at the 0.05 level (2-tailed).

(3) The odds of being “stable” vs. being “in crisis or at risk” for those who consider the neighborhood safe are 2.12 times higher than for those who do not rate the neighborhood safe; the odds for those who have family or friends to provide transportation are .47 times lower than for those not having family or friends to provide transportation. As for who to turn to when financial assistance is needed, the odds of being “stable” vs. being “in crisis or at risk” for those who turn to family and friends are .36 times lower than for those who do not turn to family and friends; the odds for those who turn to banks are 2.52 times higher than for those who do not turn to banks, the odds for those who turn to Catholic Social Services are .29 times lower than for those do not turn to Catholic Social Services.

From the above results, we can draw the conclusion for the community human services (Domain 3), neighborhood safety, whether the respondent relied on friends or family for transportation, whether turned to friends or family, or turned to the bank for financial assistance were the four predictive variables for all levels (thriving, safe, stable) of perception of higher quality of life versus in crisis or at risk. In addition, turning to the Community Action Council or Department of Community-based Services, or to the utility companies for financial assistance, receiving income from Medicare during the past 12 months, and considered there to be sufficient activities for teenagers (aged 14-17) in Lexington were also predictive variables for the perception of higher quality of life but not at all three levels.

## Full Model

In the full model, seven out of twenty-nine independent variables are significant ( $p < .05$ ), (reported with the Chi-square values and degree of freedom). They are education (29.71,  $df = 9$ ), whether household makes enough money every month to pay bills (83.02,  $df = 3$ ), Household's overall physical health (31.79,  $df = 3$ ), Household's urgent needs (18.83,  $df = 3$ ), household income group (28.39,  $df = 6$ ), financial assistance: turning to utility companies (10.64,  $df = 3$ ), and turning to Community Action Council or Department of Community-based Services (8.64,  $df = 3$ ), (see Table IV-5).

With perception of quality of life – “in crisis or at risk” as the reference category, parameter estimates are reported by regression coefficient (B), significance, and odds ratio –Exp (B) as Table IV-9 shows.

(1) The odds of being in “thriving” vs. being “in crisis or at risk” for those who are currently married are 2.77 times higher than for those who are currently not married; the odds for those with a graduate or professional degree are 26.68 times higher than for those with the high school diploma/ GED or less, the odds for those who have enough money to pay bills are 35.19 times higher than for those who have not; the odds for those who rate their overall household health as good or excellent are 6.55 times higher than for those who rate their overall household health as poor or fair; the odds for those who had urgent needs during the past 12 months are .09 lower than for those having no urgent needs during the past 12 months.

(2) The odds of being in “safe” vs. being “in crisis or at risk” for those who are currently married are 2.78 times higher than for those who are currently not married; the odds for those with a graduate or professional degree are 14.72 times higher than for those with a high school diploma/ GED or less; the odds for those of 45-54 age group are .32 times lower than for those of 18-35 age group; the odds for those who have enough money to pay bills are 37.79 times higher than for those who have not; the odds for those who rate their overall household health as good or excellent are 5.44 times higher than for those who rate their overall household health as poor or fair; the odds for those who had urgent needs during the past 12 months are .15 times lower than for those having no urgent needs during the past 12 months; the odds for those of the income group of \$50,000 or above are 3.12 times higher than for those of the group of \$25,000 or below.



**Table IV-9: Parameter Estimates in Full Model (n = 1211)**

Full Model Items	Regression coefficient-B and significance					Odds ratio: Exp (B)			
	Thriving		Safe		Stable	Thriving	Safe	Stable	
Intercept	-2.84	**	-2.10	*	.42				
Married	1.02	*	1.02	*	.90	*	2.77	2.78	2.45
OwnRes	.33		.07		-.21		1.39	1.07	.81
Male	.06		.37		.39		1.07	1.45	1.48
White	-.27		-.20		-.21		.76	.82	.81
GradOrProf	3.28	**	2.69	*	2.24	*	26.68	14.72	9.42
BOrGS	.64		.18		-.39		1.90	1.20	.68
CollOrVT	.49		.06		-.28		1.63	1.06	.75
55OrAbove	-.51		-.87		-.24		.60	.42	.78
45To54	-1.01		-1.14	*	-.51		.37	.32	.60
35To44	-.34		-.73		-.33		.71	.48	.72
H4OrMore	-.34		-1.45		-.69		.71	.24	.50
H3	.68		-.13		.34		1.98	.88	1.40
H2	.55		-.05		.23		1.73	.96	1.26
ChildH	-.03		.18		-.03		.97	1.20	.98
SrH	.06		.04		-.23		1.06	1.04	.81
PayBills	3.56	***	3.63	***	2.70	***	35.19	37.79	14.89
HHealthG	1.88	***	1.69	***	.83	*	6.55	5.44	2.30
UrgN	-2.42	***	-1.87	***	-1.66	***	.09	.15	.19
IncG3	.93		1.14	*	-.09		2.52	3.12	.91
IncG2	.01		.57		-.16		1.01	1.78	.85
NSafe	-.08		.22		.21		.93	1.25	1.23
LextranY	.92		.30		.47		2.51	1.35	1.60
TranspbY	-.62		-.63		-.67		.54	.54	.51
TeenActY	-.41		-.42		-.67		.66	.66	.51
FAFFY	-.39		-.47		-.31		.68	.63	.73
FACorCY	.44		.58		.30		1.55	1.79	1.34
FABankY	.05		.24		.55		1.05	1.27	1.73
FALHAY	-.35		-.13		-.42		.70	.88	.66
FAUtilityY	.07		1.20		.78		1.07	3.31	2.18
FACACSY	.62		.47		1.32	*	1.86	1.61	3.73
FAFBankY	-.48		-.08		-.49		.62	.93	.62
FASArmyY	.44		-.51		-.14		1.55	.60	.87
FACathoY	-.66		-.91		-1.03		.52	.40	.36
FAOtherY	-.33		.24		.03		.72	1.27	1.03
SSIY	-.03		-.72		-.19		.98	.49	.83
MedY	.10		.98		.75		1.11	2.67	2.11

Note: Perception of QoL –“in crisis or at risk” is set as the reference category.

\*\*\*: significant at the 0.001 level (2-tailed).

\*\*: significant at the 0.01 level (2-tailed).

\*: significant at the 0.05 level (2-tailed).

(3) The odds of being “stable” vs. being “in crisis or at risk” for those who are currently married are 2.45 times higher than for those who are currently not married; the odds for those with a graduate or professional degree are 9.42 times higher than for those with a high school diploma/ GED or less; the odds for those who have enough money to pay bills are 14.89 times higher than for those who have not; the odds for those who rate their overall household health as good or excellent are 2.30 times higher than for those who rate their overall household health as poor or fair; the odds for those who had urgent needs during the past 12 months are .19 times lower than for those who had no urgent needs during the past 12 months. As for who to turn to when financial assistance is needed, the odds of being “stable” vs. being “in crisis or at risk” for those who turn to Community Action Council or Department of Community Based Services are 3.73 times higher than for those who do not turn to these services.

From the above results, one can draw the conclusion that when all variables of the three domains were included and of equal importance, the variables relating to individual characteristics (Domain 1) and family situations (Domain 2) were predictive of the perception of quality of life, but the influence of variables relating to community human services (Domain 3) were fewer. Within Domain 3, only two variables remained statistically significant. They were whether the respondent turned to utility companies or whether the respondent turned to Community Action Council or Department of Community-based Services for financial assistance (see Table IV-5). This finding indicates the need to further investigate potential relationships between community human services, urgent needs and the perception of quality of life. Therefore, the next section provides an analysis of the presence of urgent needs and the use of community-based human services for three variables -- gender, income, and age.

## **Sub-group Correlation Analyses of Perception of Quality of Life: Urgent Needs by Use of Community-based Human Services**

In this section, gender, income, and age differences are compared. Crosstabular analysis and Pearson correlations were used to analyze perception of quality of life: urgent needs by use of community human based services. Results are reported in three parts: gender, income, and age with Chi-square and Pearson Correlation, Significance ( $p < .05$ ,  $p < .01$ , and  $p < .001$ ). Differences in each group were to be compared and reported when they are statistically significant.

### **Gender**

In total sample of 1561 respondents, 957 (61.5%) were female, and 598 (38.5%) were male—with 6 missing.

With regard to the correlation between perception of quality of life and the community-based human services (see Table IV-10), out of sixteen variables, nine were statistically significant for females and four for males. The nine variables statistically significant for females are: neighborhood safety (.10); transportation: whether use LexTran service (-.11), have family or friends to provide transportation (-.11); sufficient activities in Lexington for teenagers 14-17 (.09), who to turn to when financial assistance is needed: family or friends (-.15), Community Action Council or Department of Community-based Services (-.13), food banks (-.07); during the past 12 months received income from: social security/survivor income (-.09) and Medicare (-.13). The four variables statistically significant for males are: neighborhood safety (.16); transportation: whether use LexTran service (-.12), whether have family or friends to provide transportation (-.13); who to turn to when financial assistance is need: family or friends (-.10).

Then urgent needs were also investigated (see Tables IV-10, IV-11, and IV-12). Urgent needs were in six perspectives, whether worry that food will run out before getting money to buy more, whether worry about paying mortgage or rent, whether worry about being able to pay utility bills, whether the respondent has enough income to pay for prescription drugs the family needs, whether the respondent has enough income to pay

**Table IV-10: Pearson Correlation of Perception of Quality of Life  
and the use of Community Human Services by Gender**

Variables	Perception of Quality of Life			
	Female		Male	
<b>NSafety</b>	.10	**	.16	**
<b>Transpta</b>	-.11	**	-.11	**
<b>Transptb</b>	-.11	**	-.13	**
<b>TeenActs</b>	.09	*	.09	
<b>FAFF</b>	-.15	**	-.10	*
<b>FACorC</b>	.00		-.08	
<b>FABank</b>	-.01		-.02	
<b>FALHA</b>	-.06		.02	
<b>FAUtility</b>	-.06		-.06	
<b>FACACS</b>	-.13	**	-.05	
<b>FAFBank</b>	-.07	*	-.02	
<b>FASArmy</b>	-.03		.04	
<b>FACatho</b>	-.04		-.01	
<b>FAOther</b>	-.04		-.04	
<b>SSI</b>	-.09	**	-.07	
<b>Medicare</b>	-.13	**	-.07	

Note: \*\*: Pearson correlation is significant at the 0.01 level (2-tailed).  
 \*: Pearson correlation is significant at the 0.05 level (2-tailed).  
 Sample size is in parenthesis.

**Table IV-11: Crosstabular Analysis of Perception of Quality of Life and Urgent Needs by Gender**

Variables		Female	Male
<b>Perception of QoL (n= 1547)</b>			
In-crisis or at risk		6.8	4.7
Stable		35.2	35.4
Safe		27.3	32.2
Thriving		30.7	27.7
<b>Urgent needs</b>			
Worry food	* Yes	10.3	6.6
(n= 1544)	No	89.7	93.4
Worry mortgage/rent	Yes	11.4	8.9
(n= 1524)	No	88.6	91.1
Worry utility bill	* Yes	11.6	7.9
(n= 1540)	No	88.4	92.1
Enough for prescriptions	** Yes	87.8	92.2
(n= 1533)	No	12.2	7.8
Enough for medical needs	* Yes	85.0	88.8
(n= 1540)	No	15.0	11.2
Enough for housing	Yes	94.9	95.3
(n= 1537)	No	5.1	4.7

Note: \*\*: significant at the 0.01 level (2-tailed) using Chi-square statistic.

\*: significant at the 0.05 level (2-tailed) using Chi-square statistic.

**Table IV-12: Pearson Correlation of Use of  
Community Income Support by Types of Urgent Needs by Gender**

Variables	Worry for food (1)		Worry for mortgage/ rent (2)		Worry for utility bill (3)	
	Female	Male	Female	Male	Female	Male
FAFF	.12 ** (951)	.15 ** (593)	.15 ** (937)	.15 ** (587)	.15 ** (948)	.18 ** (592)
FACorC	.04 (951)	.02 (593)	.07 * (937)	.01 (587)	.06 (948)	.04 (592)
FABank	-.07 * (951)	-.06 (593)	.01 (937)	-.06 (587)	-.06 (948)	-.07 (592)
FALHA	.11 ** (951)	-.03 (593)	.14 ** (937)	-.04 (587)	.11 ** (948)	-.04 (592)
FAUtility	.12 ** (951)	.03 (593)	.15 ** (937)	.04 (587)	.12 ** (948)	.06 (592)
FACACS	.19 ** (951)	.10 * (593)	.16 ** (937)	.07 (587)	.17 ** (948)	.08 (592)
FAFBank	.18 ** (951)	-.03 (593)	.13 ** (937)	-.03 (587)	.12 ** (948)	-.02 (592)
FASArmy	.04 (951)	-.08 (593)	.04 (937)	-.09 * (587)	.04 (948)	-.06 (592)
FACatholic	.04 (951)	-.01 (593)	.03 (937)	-.03 (587)	.04 (948)	.01 (592)
FAOther	.04 (951)	.09 * (593)	.03 (937)	.06 (587)	.04 (948)	.04 (592)
SSI	-.03 (941)	-.02 (585)	-.04 (928)	-.06 (582)	-.02 (938)	-.01 (588)
Medicare	.03 (940)	.03 (587)	-.00 (928)	-.03 (584)	-.00 (938)	-.02 (589)

Note: \*\*: Pearson correlation is significant at the 0.01 level (2-tailed).

\*: Pearson correlation is significant at the 0.05 level (2-tailed).

Sample size is in parenthesis.

**Table IV-12 (Continued): Pearson Correlation of Use of  
Community Income Support by Types of Urgent Needs by Gender**

Variables	Enough for prescriptions (4)		Enough for medical needs (5)		Enough for housing (6)	
	Female	Male	Female	Male	Female	Male
FAFF	-.09 ** (942)	-.16 ** (591)	-.16 ** (949)	-.16 ** (591)	-.08 * (946)	-.12 ** (591)
FACorC	-.02 (942)	-.08 (591)	-.01 (949)	-.02 (591)	.01 (946)	-.06 (591)
FABank	.05 (942)	.04 (591)	.04 (949)	.03 (591)	-.03 (946)	.02 (591)
FALHA	-.15 ** (942)	.01 (591)	-.12 ** (949)	.06 (591)	-.04 (946)	.01 (591)
FAUtility	-.14 ** (942)	-.13 ** (591)	-.09 ** (949)	-.04 (591)	-.04 (946)	-.03 (591)
FACACS	-.23 ** (942)	-.18 ** (591)	-.22 ** (949)	-.08 (591)	-.11 ** (946)	-.03 (591)
FAFBank	-.18 ** (942)	-.03 (591)	-.15 ** (949)	.05 (591)	-.05 (946)	.04 (591)
FASArmy	-.06 (942)	-.01 (591)	-.05 (949)	.07 (591)	-.02 (946)	.07 (591)
FACatholic	-.08 * (942)	-.04 (591)	-.08 * (949)	.02 (591)	-.02 (946)	.02 (591)
FAOther	-.01 (942)	-.10 * (591)	-.01 (949)	-.03 (591)	-.04 (946)	-.02 (591)
SSI	-.12 ** (933)	-.03 (586)	-.02 (939)	.01 (586)	-.00 (936)	.06 (586)
Medicare	-.18 ** (933)	-.02 (588)	-.07 * (940)	-.02 (588)	-.07 * (937)	-.04 (588)

Note: \*\*: Pearson correlation is significant at the 0.01 level (2-tailed).

\*: Pearson correlation is significant at the 0.05 level (2-tailed).

Sample size is in parenthesis.

for family's medical needs, and whether the respondent has enough income to pay for family housing.

As Table IV-11 shows, although there is no gender difference in perception of quality of life, females reported higher percentage of urgent needs in these four perspectives than the males; they worry that food will run out before getting money to buy more, worry about being able to pay utility bills, worry about prescription drugs the family needs, and worry about the family's medical needs.

With regard to the correlation between urgent needs and the community-based human services in the form of income support, results (see Table IV-12) are reported in the order of the six urgent needs perspectives.

(1) Regarding whether the respondent worries that food will run out before getting money to buy more, six income support variables are statistically significant for females, they are financial assistance: turning to family and friends (.12), banks (-.07), Lexington Housing Authority (.11), utility companies (.12), Community Action Council or Department of Community-based Services (.19), and food banks (.18). Three income support variables are statistically significant for males, they are financial assistance: turning to family and friends (.15), Community Action Council or Department of Community-based Services (.10), and other persons and agencies (.09).

(2) Regarding whether the respondent worries about being able to pay mortgage or rent, six income support variables are statistically significant for females, they are financial assistance: turning to family and friends (.15), church or clergy (.07), Lexington Housing Authority (.14), utility companies (.15), Community Action Council or Department of Community-based Services (.16), and food banks (.13). Two income support variables are statistically significant for males, they are financial assistance: turning to family and friends (.15), and the Salvation Army (-.09).

(3) Regarding whether the respondent worries about being able to pay utility bills, five income support variables are statistically significant for females, they are financial assistance: turning to family and friends (.15), Lexington Housing Authority (.11), utility companies (.12), Community Action Council or Department of Community-based Services (.17), and Food Bank (.12). Only one income support variable is statistically significant for males, it is financial assistance: turning to family and friends (.18).



(4) Regarding whether the respondent has enough income for prescription drugs the family needs, eight income support variables are statistically significant for females, they are financial assistance: turning to family and friends (-.09), Lexington Housing Authority (-.15), utility companies (-.14), Community Action Council or Department of Community-based Services (-.23), food banks (-.18), Catholic Social Services (-.08); during the past 12 months received income from: social security/survivor income (-.12), and Medicare (-.18). Four income support variables are statistically significant for males, they are financial assistance: turning to family and friends (-.16), utility companies (-.13), Community Action Council or Department of Community-based Services (-.18), and other persons and agencies (-.10).

(5) Regarding whether the respondent has enough income for family's medical needs, seven income support variables are statistically significant for females, they are financial assistance: turning to family and friends (-.16), Lexington Housing Authority (-.12), utility companies (-.09), Community Action Council or Department of Community-based Services (-.22), food banks (-.15), Catholic Social Services (-.08), and during the past 12 months received income from Medicare (-.07). Only one income support variable is statistically significant for males, it is financial assistance: turning to family and friends (-.16).

(6) Regarding whether the respondent has enough income for paying family housing, three income support variables are statistically significant for females, they are financial assistance: turning to family and friends (-.08), Community Action Council or Department of Community-based Services (-.11), and during the past 12 months received income from Medicare (-.07). Only one income support variable is statistically significant for males, it is financial assistance: turning to family and friends (-.12).

The above results revealed the behavior similarity of females and males. Each group tended to turn to family and friends when financial assistance was needed. Although there were no gender differences in perception of quality of life, there were gender differences regarding urgent needs and the use of community human services. Community human services were very important resources for respondents with urgent needs, especially for female respondents.

## **Income**

Income was categorized into three groups, they are \$25,000 or below as Group 1, between \$25,001-\$50,000 as Group 2 and \$50,001 or above as Group 3. In the total of 1561 samples, 265 (17%) are in Group 1, 516 (33%) are in Group 2 and 780 (50%) are in Group 3.

Table IV-13 shows the fact that the majority of income group 1 are “in crisis or at risk” and “stable” categories, the majority of income group 2 are “stable” and “safe” and the majority of income group 3 are in “safe” and “thriving” categories. And the same pattern shows that at the higher income group, the less worries in the six perspectives investigated. Income is statistically significant in the perception of quality of life and urgent needs.

With regard to the correlation between perception of quality of life and the community-based human services (see Table IV-14), for Group 1, one variable is significant, it is transportation: having family or friends to provide transportation (-.16). For Group 2, one variable is significant, it is to turn to Community Action Council or Department of Community-based Services (-.10). For Group 3, five variables are significant, they are neighborhood safety (.08), transportation: having family or friends to provide transportation (-.08), financial assistance: family or friends (-.14), bank (-.12); during the past 12 months received income from Medicare (-.08).

**Table IV-13: Crosstabular Analysis of Perception of Quality of Life  
And Urgent Needs by Income**

Variables		Income group 1 (%)	Income group 2 (%)	Income group 3 (%)
<b>Perception of QoL (n = 1547)</b>		***		
	In-crisis or at risk	17.8	5.8	2.2
	Stable	53.4	43.3	24.0
	Safe	14.4	30.0	33.6
	Thriving	14.4	21.0	40.2
<b>Urgent needs</b>				
	Worry for food	***		
	(n = 1550)	Yes	31.3	7.0
		No	68.7	93.0
	Worry for mortgage/rent	***		
	(n = 1529)	Yes	27.7	10.2
		No	72.3	89.8
	Worry for utility bill	***		
	(n = 1545)	Yes	29.1	10.0
		No	70.9	90.0
	Enough for prescriptions	***		
	(n = 1539)	Yes	65.0	89.7
		No	35.0	10.3
	Enough for medical needs	***		
	(n = 1546)	Yes	58.5	86.5
		No	41.5	13.5
	Enough for housing	***		
	(n = 1543)	Yes	82.7	95.5
		No	17.3	4.5

Note: Group 1: Income \$25,000 or below

Group 2: Income between \$25,001 and \$50,000

Group 3: Income \$50,001 or above

\*\*\*: significant at the 0.001 level (2-tailed) using Chi-square statistic.

**Table IV-14: Pearson Correlation of Perception of Quality of Life and  
Community Human Services by Income Groups**

Variables	Perceptions of QoL					
	Income Group 1	n	Income Group 2	n	Income Group 3	n
<b>NSafety</b>	.06	(261)	.08	(503)	.08 *	(777)
<b>Transpta</b>	-.06	(264)	-.03	(504)	.02	(779)
<b>Transptb</b>	-.16 **	(264)	.01	(504)	-.08 *	(779)
<b>TeenActs</b>	.07	(213)	.06	(401)	.06	(654)
<b>FAFF</b>	-.09	(264)	-.02	(504)	-.14 **	(779)
<b>FACorC</b>	-.03	(264)	.01	(504)	-.04	(779)
<b>FABank</b>	.01	(264)	.02	(504)	-.12 **	(779)
<b>FALHA</b>	.06	(264)	-.07	(504)	-.00	(779)
<b>FAUtility</b>	.03	(264)	-.06	(504)	-.02	(779)
<b>FACACS</b>	-.02	(264)	-.10 *	(504)	-.04	(779)
<b>FAFBank</b>	-.01	(264)	-.03	(504)	-.03	(779)
<b>FASArmy</b>	.11	(264)	-.01	(504)	-.03	(779)
<b>FACatho</b>	.02	(264)	.02	(504)	-.06	(779)
<b>FAOther</b>	-.02	(264)	-.08	(504)	.01	(779)
<b>SSI</b>	.12	(258)	-.04	(496)	-.06	(776)
<b>Medicare</b>	.10	(258)	-.06	(494)	-.08 *	(778)

Note: Group 1: Income \$25,000 or below

Group 2: Income between \$25,001 and \$50,000

Group 3: Income \$50,001 or above

\*\* : Pearson correlation is significant at the 0.01 level (2-tailed).

\* : Pearson correlation is significant at the 0.05 level (2-tailed).

Sample size is in parenthesis.

Urgent needs were also investigated within income groups (see Table IV-15). Urgent needs were in six perspectives, whether worry that food will run out before getting money to buy more, whether worry about paying mortgage or rent, whether worry about being able to pay utility bills, whether the respondent has enough income to pay for prescription drugs the family needs, whether the respondent has enough income to pay for the family's medical needs, and whether the respondent has enough income to pay for family housing. With regard to the correlation between urgent needs and the community-based human services in the form of income support, results are reported in the order of the six urgent needs perspectives.

(1) Regarding whether the respondent worries whether food will run out before getting money to buy more, six income support variables are statistically significant with Group 1, they are financial assistance: family or friends (.13), bank (-.13), Lexington Housing Authority (.14), Community Action Council or Department of Community-based Services (.23), food banks (.24) and other persons or agencies (.12). Five income support variables are statistically significant with Group 2, they are financial assistance: family or friends (.12), utility (.14), food bank (.10), during the past 12 months received income from: social security/survivor income (-.10) and Medicare (-.13). One income support variable is statistically significant with Group 3, it is during the past 12 months received income from: Medicare (.08).

(2) Regarding whether the respondent worries about being able to pay mortgage or rent, six income support variables are statistically significant with Group 1, they are who turn to when need financial assistance: family or friends (.13), Lexington Housing Authority (.14), utility companies (.15), Community Action Council or Department of Community-based Services (.17), food banks (.17), during the past 12 months received income from: social security/survivor income (-.15). Six income support variables are statistically significant with Group 2, they are financial assistance: family or friends (.13), Lexington Housing Authority (.10), utility companies (.10), Community Action Council or Department of Community-based Services (.11), during the past 12 months received income from: social security/survivor income (-.10) and Medicare (-.09). One income support variable is statistically significant with Group 3, it is financial assistance: family or friends (.12).

**Table IV-15: Pearson Correlation of Use of Community Human Services  
by Types of Urgent Needs by Income Groups**

Variables	Worry for food (1)			Worry for mortgage/Rent (2)		
	1	2	3	1	2	3
FAFF	.13 *	.12 **	.06	.13 *	.13 **	.12 **
	(259)	(512)	(779)	(253)	(501)	775
FACorC	.06	.03	-.00	.07	.06	.00
	(259)	(512)	(779)	(253)	(501)	775
FABank	-.13 *	-.02	-.01	-.05	.04	.02
	(259)	(512)	(779)	(253)	(501)	775
FALHA	.14 *	.00	-.04	.14 *	.10 *	-.05
	(259)	(512)	(779)	(253)	(501)	775
FAUtility	.07	.14 **	-.04	.15 *	.10 *	.01
	(259)	(512)	(779)	(253)	(501)	775
FACACS	.23 **	.06	-.01	.17 **	.11 *	-.04
	(259)	(512)	(779)	(253)	(501)	775
FAFBank	.24 **	.10 *	-.05	.17 **	.06	-.03
	(259)	(512)	(779)	(253)	(501)	775
FASArmy	.05	.03	-.05	.05	-.00	-.06
	(259)	(512)	(779)	(253)	(5010)	775
FACatholic	.10	.01	-.05	.03	-.03	.02
	(259)	(512)	(779)	(253)	(501)	775
FAOther	.12 *	.04	-.04	.12	.03	-.06
	(259)	(512)	(779)	(253)	(501)	775
SSI	-.12	-.10 *	-.02	-.15 *	-.10 *	-.03
	(254)	(500)	(776)	(247)	(494)	773
Medicare	-.02	-.13 **	.08 *	-.08	-.09 *	.01
	(254)	(501)	(778)	(248)	(494)	775

Note: Group 1: Income \$25,000 or below

Group 2: Income between \$25,001 and \$50,000

Group 3: Income \$50,001 or above

\*\* : Pearson correlation is significant at the 0.01 level (2-tailed).

\* : Pearson correlation is significant at the 0.05 level (2-tailed).

Sample size is in parenthesis.

**Table IV-15 (continued): Pearson Correlation of Use of Community Human Services by Types of Urgent Needs by Income Groups**

Variables	Worry for utility bill (3)			Enough for prescriptions (4)		
	1	2	3	1	2	3
F AFF	.13 *	.14 **	.15 **	-.19 **	-.04	-.03
	(258)	(508)	(779)	(257)	(507)	(775)
F ACorC	.07	.04	.04	-.05	-.02	-.02
	(258)	(508)	(779)	(257)	(507)	(775)
F ABank	-.07	-.06	-.02	.02	.03	.00
	(258)	(508)	(779)	(257)	(507)	(775)
F ALHA	.10	.07	-.05	-.16 *	-.07	-.00
	(258)	(508)	(779)	(257)	(507)	(775)
F AUtility	.18 **	.06	-.03	-.14 *	-.14 **	-.03
	(258)	(508)	(779)	(257)	(507)	(775)
F ACACS	.19 **	.09 *	-.00	-.32 **	-.09	-.02
	(258)	(508)	(779)	(257)	(507)	(775)
F AFBank	.18 **	.02	-.02	-.27 **	-.06	-.01
	(258)	(508)	(779)	(257)	(507)	(775)
F ASArmy	.09	.00	-.046	-.15 *	.00	-.00
	(258)	(508)	(779)	(257)	(507)	(775)
F ACatholic	.12 *	-.03	-.02	-.22 **	.00	-.01
	(258)	(508)	(779)	(257)	(507)	(775)
F AOther	.09	.06	-.05	-.09	-.00	.00
	(258)	(508)	(779)	(257)	(507)	(775)
SSI	-.13 *	-.07	-.00	.02	-.05	-.08 *
	(252)	(501)	(777)	(251)	(499)	(773)
Medicare	-.14 *	-.06	.02	-.07	-.06	-.06
	(253)	(500)	(779)	(252)	(500)	(775)

Note: Group 1: Income \$25,000 or below.

Group 2: Income between \$25,001 and \$50,000.

Group 3: Income \$50,001 or above.

\*\* : Pearson correlation is significant at the 0.01 level (2-tailed).

\* : Pearson correlation is significant at the 0.05 level (2-tailed).

Sample size is in parenthesis.

**Table IV-15 (continued): Pearson Correlation of Use of Community Human Services by Types of Urgent Needs by Income Groups**

Variables	Enough for medical needs (5)			Enough for Housing (6)		
	1	2	3	1	2	3
FAFF	-.21 ** (258)	-.11 * (510)	-.10 ** (778)	-.12 (255)	-.03 (510)	-.07 (778)
FACorC	-.05 (258)	-.00 (510)	.04 (778)	.01 (255)	-.04 (510)	-.01 (778)
FABank	.10 (258)	.00 (510)	-.08 * (778)	-.13 * (255)	-.01 (510)	-.01 (778)
FALHA	-.08 (258)	-.03 (510)	.01 (778)	-.02 (255)	.01 (510)	.02 (778)
FAUtility	-.04 (258)	-.04 (510)	-.03 (778)	.02 (255)	-.05 (510)	.03 (778)
FACACS	-.29 ** (258)	-.01 (510)	-.03 (778)	-.04 (255)	-.04 (510)	-.02 (778)
FAFBank	-.17 ** (258)	-.02 (510)	-.00 (778)	-.01 (255)	.02 (510)	-.01 (778)
FASArmy	-.09 (258)	.00 (510)	.02 (778)	-.03 (255)	.03 (510)	.04 (778)
FACatholic	-.15 * (258)	.01 (510)	-.01 (778)	-.03 (255)	.03 (510)	.03 (778)
FAOther	-.08 (258)	.05 (510)	.02 (778)	-.09 (255)	.01 (510)	.03 (778)
SSI	.13 * (252)	.07 (501)	-.04 (776)	.14 * (249)	.04 (501)	.01 (776)
Medicare	.06 (254)	.02 (502)	.00 (778)	-.00 (251)	-.02 (502)	-.00 (778)

Note: Group 1: Income \$25,000 or below.

Group 2: Income between \$25,001 and \$50,000.

Group 3: Income \$50,001 or above.

\*\* : Pearson correlation is significant at the 0.01 level (2-tailed).

\* : Pearson correlation is significant at the 0.05 level (2-tailed).

Sample size is in parenthesis.



(3) Regarding whether the respondent worries about being able to pay utility bills, seven income support variables are statistically significant with Group 1, they are financial assistance: family or friends (.13), utility companies (.18), Community Action Council or Department of Community-based Services (.19), food banks (.18), Catholic Social Services (.12); during the past 12 months received income from: social security/survivor income (-.13), and Medicare (-.14). Two income support variables are statistically significant with Group 2, they are financial assistance: family or friends (.14), and Community Action Council or Department of Community-based Services (.09). One income support variable is statistically significant with Group 3, it is financial assistance: family or friends (.15).

(4) Regarding whether the respondent has enough income to pay for prescription drugs the family needs, seven income support variables are statistically significant with Group 1. They are financial assistance: family or friends (-.19), Lexington Housing Authority (-.16), utility companies (-.14), Community Action Council or Department of Community-based Services (-.32), food banks (-.27), the Salvation Army (-.15), Catholic Social Services (-.22). One income support variable is statistically significant with Group 2, it is financial assistance: utility companies (-.14). One income support variable is statistically significant with Group 3, it is during the past 12 months received income from: social security/survivor income (-.08).

(5) Regarding whether the respondent has enough income to pay for the family's medical needs, five income support variables are statistically significant with Group 1, they are financial assistance: family or friends (-.21), Community Action Council or Department of Community-based Services (-.29), food banks (-.17), Catholic Social Services (-.15), during the past 12 months received income from: social security/survivor income (.13). One income support variable is statistically significant with Group 2, it is financial assistance: family or friends (-.11). Two income support variables are statistically significant with Group 3, they are financial assistance: family or friends (-.10), and bank (-.08).

(6) Regarding whether the respondent has enough income to pay for family housing, two income support variables are statistically significant with Group 1. The variables are financial assistance: bank (-.13), and during the past 12 months received

income from: social security/survivor income (.14); none are statistically significant with Groups 2 and 3.

The above results revealed that there were income differences in perception of quality of life. Regarding urgent needs and the use of community human services, there were also differences among different income groups. Lower income groups had more urgent needs than the highest income group, and depended more on community human services. Those in lower income groups intended to turn to family and friends when financial assistance was needed than the highest income group. Those of the highest income group tended to use services from banks when financial assistance was needed. Community human services were very important resources for lower income groups with urgent needs, especially for those households with income of \$25,000 or below.

## Age

Age was categorized as 18-34 year-olds as Group 1, 35-44 year-olds as Group 2, 45-54 year-olds as Group 3, and 55 or above as Group 4. Among the 1561 respondents, 383 (24.9%) are in Group 1, 361 (23.4%) are in Group 2, 343 (22.3%) are in Group 3 and 453 (29.4%) are in Group 4 with missing count of 21.

Table IV-16 shows that the majority of age groups 1 and 4 are in “stable” and “safe” categories. The majority of age groups 2 and 3 are in “stable” and “thriving” categories, while age group 2 has the highest percentage of being “in crisis or at risk” compared to the other age groups. Age group 4 has the lowest percentage of being “in crisis or at risk” compared to the other age groups. Age is a statistically significant variable for perception of quality of life. Among the six urgent needs investigated, worry for mortgage/rent is statistically significant among age groups.

With regard to the Pearson correlation between perception of quality of life and the community-based human services among age groups (see Table IV-17), for Age Group 1, six variables are statistically significant, they are neighborhood safety (.13), transportation: have family or friends to help (-.17), financial assistance: Lexington Housing Authority (-.11), utility companies (-.17), Community Action Council or Department of Community-based Services (-.16); during the past 12 months received income from: Medicare (-.17). For Age Group 2, four variables are statistically significant, they are neighborhood safety (.13), transportation: use LexTran service (-.18), transportation: have family or friends to help (-.11), financial assistance: family or friends (-.27). For Age Group 3, two variables are significant, they are neighborhood safety (.15), and financial assistance: family or friends (-.20). For Age Group 4, one variable is significant, it is transportation: use LexTran service (-.13).

**Table IV-16: Crosstabular Analysis of Perception of Quality of Life by Urgent Needs by Age**

Variables		Age	Age	Age	Age
		group	group	group	group
		1	2	3	4
<b>Perception of QoL (n = 1547)</b>		***			
In-crisis or at risk		6.0	7.8	6.1	4.5
Stable		30.1	28.5	35.3	44.1
Safe		36.9	27.7	26.5	25.9
Thriving		27.0	36.0	32.1	25.5
<b>Urgent needs</b>					
Worry for food (n = 1550)	Yes	12.0	7.8	8.2	7.6
	No	88.0	92.2	91.8	92.4
Worry for mortgage/rent (n = 1529)	Yes	12.0	12.5	11.5	6.1
	No	88.0	87.5	88.5	93.9
Worry for utility bill (n = 1554)	Yes	11.8	12.2	9.9	7.3
	No	88.2	87.8	90.1	92.7
Enough for prescriptions (n = 1539)	Yes	90.8	89.1	90.0	87.8
	No	9.2	10.9	10.0	12.2
Enough for medical needs (n = 1546)	Yes	87.1	83.1	85.9	89.0
	No	12.9	16.9	14.1	11.0
Enough for housing (n = 1543)	Yes	94.2	94.5	96.5	95.5
	No	5.8	5.5	3.5	4.5

**Note:** Group 1: Age 18-34

Group 2: Age 35-44

Group 3: Age 45-54

Group 4: Age 55 or above

\*\*\*: significant at the 0.001 level (2-tailed) using Chi-square statistic.

\*\* : significant at the 0.01 level (2-tailed) using Chi-square statistic.

**Table IV-17: Pearson Correlation of Perception of Quality of Life  
and Community Human Services by Age Groups**

Variables	Perception of QoL											
	Age		n		Age		n					
	Group 1		Group 2		Group 3		Group 4					
<b>NSafety</b>	.13	*	(382)	.13	*	(359)	.15	**	(343)	.07		(436)
<b>Transpta</b>	.00		(382)	-.18	**	(361)	-.10		(343)	-.13	**	(440)
<b>Transptb</b>	-.17	**	(382)	-.11	*	(361)	-.10		(343)	-.07		(440)
<b>TeenActs</b>	.10		(327)	.11		(307)	.07		(294)	.08		(321)
<b>FAFF</b>	-.10		(382)	-.27	**	(361)	-.20	**	(343)	-.06		(440)
<b>FACorC</b>	.03		(382)	-.02		(361)	-.06		(343)	-.08		(440)
<b>FABank</b>	.09		(382)	-.02		(361)	-.07		(343)	-.08		(440)
<b>FALHA</b>	-.11	*	(382)	.01		(361)	-.01		(343)	-.04		(440)
<b>FAUtility</b>	-.17	**	(382)	-.07		(361)	-.00		(343)	-.05		(440)
<b>FACACS</b>	-.16	**	(382)	-.09		(361)	-.10		(343)	-.09		(440)
<b>FAFBank</b>	-.07		(382)	-.08		(361)	-.06		(343)	-.03		(440)
<b>FASArmy</b>	-.01		(382)	.04		(361)	-.03		(343)	-.05		(440)
<b>FACatho</b>	-.01		(382)	-.03		(361)	-.06		(343)	-.03		(440)
<b>FAOther</b>	-.05		(382)	.02		(361)	-.10		(343)	-.04		(440)
<b>SSI</b>	.05		(381)	-.06		(358)	-.07		(341)	-.06		(432)
<b>Medicare</b>	-.17	**	(381)	-.09		(360)	-.08		(342)	-.08		(429)

Note: Group 1: Age 18-34

Group 2: Age 35-44

Group 3: Age 45-54

Group 4: Age 55 or above

\*\* : Pearson correlation is significant at the 0.01 level (2-tailed).

\* : Pearson correlation is significant at the 0.05 level (2-tailed).

Sample size is in parenthesis.

Urgent needs were also investigated among age groups (see Table IV-18). Urgent needs were in six perspectives, whether worry that food will run out before getting money to buy more, whether worry about paying mortgage or rent, whether worry about being able to pay utility bills, whether the respondent has enough income to pay for prescription drugs the family needs, whether the respondent has enough income to pay for the family's medical needs, and whether the respondent has enough income to pay for family housing. With regard to the correlation between urgent needs and the community-based human services in the form of income support, results were reported in the order of the six urgent needs perspectives.

(1) Regarding whether the respondent worries that food will run out before getting money to buy more, five income support variables are statistically significant with Age Group 1, they are financial assistance: family or friends (.20), Lexington Housing Authority (.11), utility companies (.16), Community Action Council or Department of Community-based Services (.20), and during the past 12 months received income from Medicare (.26). Five income support variables are statistically significant with Age Group 2, the variables are financial assistance: Lexington Housing Authority (.11), utility companies (.12), Community Action Council or Department of Community-based Services (.16), food bank (.21), and during the past 12 months received income from Medicare (.13). Six income support variables are statistically significant with Age Group 3, the variables are financial assistance: family or friends (.17), bank (-.12), Community Action Council or Department of Community-based Services (.25), food bank (.18), other persons or agencies (.15), and during the past 12 months received income from Medicare (.20). One income support variable is statistically significant with Age Group 4, it is financial assistance: the Salvation Army (-.10).

**Table IV-18: Pearson Correlation of Use of Community Human Services by  
Types of Urgent Needs by Age Groups**

Variables	Worry for food (1)			
	1	2	3	4
<b>FAFF</b>	.20 ** (382)	.09 (360)	.17 (342)	.05 (445)
<b>FACorC</b>	.04 (382)	-.01 (360)	.07 (342)	.06 (445)
<b>FABank</b>	.03 (382)	-.06 (360)	-.12 (342)	-.09 (445)
<b>FALHA</b>	.11 * (382)	.11 (360)	.06 (342)	-.02 (445)
<b>FAUtility</b>	.16 ** (382)	.12 (360)	.03 (342)	.03 (445)
<b>FACACS</b>	.20 ** (382)	.16 (360)	.25 (342)	.03 (445)
<b>FAFBank</b>	.09 (382)	.21 (360)	.18 (342)	.02 (445)
<b>FASArmy</b>	.05 (382)	.07 (360)	.01 (342)	-.10 * (445)
<b>FACatholic</b>	.07 (382)	.02 (360)	.09 (342)	-.04 (445)
<b>FAOther</b>	.06 (382)	.01 (360)	.15 (342)	-.01 (445)
<b>SSI</b>	.04 (381)	.09 (358)	.09 (340)	-.06 (433)
<b>Medicare</b>	.26 ** (381)	.13 (360)	.20 (341)	-.05 (433)

**Note:**

Group 1: Age 18-34

Group 2: Age 35-44

Group 3: Age 45-54

Group 4: Age 55 or above

\*\* : Pearson correlation is significant at the 0.01 level (2-tailed).

\* : Pearson correlation is significant at the 0.05 level (2-tailed).

Sample size is in parenthesis.

**Table IV-18 (continued): Pearson Correlation of Use of Community Human Services by Types of Urgent Needs by Age Groups**

Variables	Worry for mortgage/rent (2)				
	1	2	3	4	
<b>FAFF</b>	.15 (382)	** .20 (359)	** .05 (340)	.15 (429)	**
<b>FACorC</b>	.04 (382)	.07 (359)	.00 (340)	.05 (429)	
<b>FABank</b>	-.02 (382)	-.04 (359)	-.11 (340)	.05 (429)	
<b>FALHA</b>	.11 (382)	* .09 (359)	.06 (340)	.04 (429)	
<b>FAUtility</b>	.16 (382)	** .17 (359)	** .05 (340)	.05 (429)	
<b>FACACS</b>	.17 (382)	** .05 (359)	.21 (340)	** .06 (429)	
<b>FAFBank</b>	.07 (382)	.09 (359)	.11 (340)	* .08 (429)	
<b>FASArmy</b>	.05 (382)	.00 (359)	-.03 (340)	-.03 (429)	
<b>FACatholic</b>	.04 (382)	.04 (359)	-.02 (340)	-.03 (429)	
<b>FAOther</b>	.06 (382)	-.03 (359)	.07 (340)	.05 (429)	
<b>SSI</b>	.04 (381)	.11 (356)	* .04 (338)	-.05 (421)	
<b>Medicare</b>	.21 (381)	** .11 (358)	* .07 (339)	-.04 (421)	

**Note:**

Group 1: Age 18-34

Group 2: Age 35-44

Group 3: Age 45-54

Group 4: Age 55 or above

\*\* : Pearson correlation is significant at the 0.01 level (2-tailed).

\* : Pearson correlation is significant at the 0.05 level (2-tailed).

Sample size is in parenthesis.



**Table IV-18 (continued): Pearson Correlation of Use of Community Human Services by Types of Urgent Needs by Four Age Groups**

Variables	Worry for utility bill (3)				
	1	2	3	4	
<b>FAFF</b>	.16 (382)	** .21 (361)	** .14 (342)	* .10 (441)	*
<b>FACorC</b>	.05 (382)	.11 (361)	* -.01 (342)	.04 (441)	
<b>FABank</b>	-.08 (382)	-.10 (361)	* -.12 (342)	* -.00 (441)	
<b>FALHA</b>	.12 (382)	* .09 (361)	-.00 (342)	.03 (441)	
<b>FAUtility</b>	.17 (382)	** .18 (361)	** .01 (342)	.03 (441)	
<b>FACACS</b>	.20 (382)	** .13 (361)	* .18 (342)	** .04 (441)	
<b>FAFBank</b>	.07 (382)	.12 (361)	* .08 (342)	.06 (441)	
<b>FASArmy</b>	.08 (382)	.06 (361)	-.05 (342)	-.04 (441)	
<b>FACatholic</b>	.07 (382)	.05 (361)	.03 (342)	-.04 (441)	
<b>FAOther</b>	.03 (382)	.05 (361)	.05 (342)	.04 (441)	
<b>SSI</b>	.04 (381)	.12 (358)	* .13 (340)	* -.03 (433)	
<b>Medicare</b>	.17 (381)	** .12 (360)	* .13 (341)	* -.06 (432)	

**Note:**

Group 1: Age 18-34

Group 2: Age 35-44

Group 3: Age 45-54

Group 4: Age 55 or above

\*\* : Pearson correlation is significant at the 0.01 level (2-tailed).

\* : Pearson correlation is significant at the 0.05 level (2-tailed).

Sample size is in parenthesis.

**Table IV-18 (continued): Pearson Correlation of Use of Community Human Services by Types of Urgent Needs by Four Age Groups**

Variables	Enough for prescriptions (4)				
	1	2	3	4	
<b>FAFF</b>	-.09 (380)	-.18 (358)	** -.14 (340)	* -.11 (442)	*
<b>FACorC</b>	-.07 (380)	-.04 (358)	-.01 (340)	-.04 (442)	
<b>FABank</b>	.02 (380)	.12 (358)	* -.00 (340)	.05 (442)	
<b>FALHA</b>	-.15 (380)	** -.11 (358)	* -.12 (340)	* -.03 (442)	
<b>FAUtility</b>	-.25 (380)	** -.21 (358)	** -.04 (340)	-.07 (442)	
<b>FACACS</b>	-.20 (380)	** -.27 (358)	** -.31 (340)	** -.11 (442)	*
<b>FAFBank</b>	-.14 (380)	** -.15 (358)	** -.19 (340)	** -.09 (442)	
<b>FASArmy</b>	-.09 (380)	-.05 (358)	-.10 (340)	.04 (442)	
<b>FACatholic</b>	-.14 (380)	** -.07 (358)	-.13 (340)	* .01 (442)	
<b>FAOther</b>	-.06 (380)	-.07 (358)	-.08 (340)	.04 (442)	
<b>SSI</b>	.03 (379)	-.22 (355)	** -.14 (338)	* -.09 (433)	
<b>Medicare</b>	-.26 (379)	** -.26 (357)	** -.29 (339)	** -.06 (434)	

**Note:**

Group 1: Age 18-34

Group 2: Age 35-44

Group 3: Age 45-54

Group 4: Age 55 or above

\*\* : Pearson correlation is significant at the 0.01 level (2-tailed).

\* : Pearson correlation is significant at the 0.05 level (2-tailed).

Sample size is in parenthesis.

**Table IV-18 (continued): Pearson Correlation of Use of Community Human Services by Types of Urgent Needs by Four Age Groups**

Variables	Enough for medical needs (5)							
	1		2		3		4	
<b>FAFF</b>	-0.21	**	-0.14	**	-0.18	**	-0.14	**
	(380)		(361)		(341)		(445)	
<b>FACorC</b>	.01		.01		-0.04		-0.02	
	(380)		(3610)		(341)		(445)	
<b>FABank</b>	.05		.10		-0.04		.05	
	(380)		(361)		(341)		(445)	
<b>FALHA</b>	-0.07		-0.05		-0.07		-0.07	
	(380)		(361)		(341)		(445)	
<b>FAUtility</b>	-0.16	**	-0.09		-0.05		.01	
	(380)		(361)		(341)		(445)	
<b>FACACS</b>	-0.11	*	-0.23	**	-0.25	**	-0.09	
	(380)		(361)		(341)		(445)	
<b>FAFBank</b>	-0.06		-0.11	*	-0.14	**	-0.06	
	(380)		(361)		(341)		(445)	
<b>FASArmy</b>	-0.02		-0.03		-0.11	*	.07	
	(380)		(361)		(341)		(445)	
<b>FACatholic</b>	-0.06		-0.02		-0.16	**	.03	
	(380)		(361)		(341)		(445)	
<b>FAOther</b>	.01		-0.01		-0.04		-0.04	
	(380)		(361)		(341)		(445)	
<b>SSI</b>	.04		-0.15	**	-0.12	*	-0.03	
	(379)		(358)		(339)		(435)	
<b>Medicare</b>	-0.16	**	-0.22	**	-0.26	**	.00	
	(379)		(360)		(340)		(437)	

**Note:**

Group 1: Age 18-34

Group 2: Age 35-44

Group 3: Age 45-54

Group 4: Age 55 or above

\*\* : Pearson correlation is significant at the 0.01 level (2-tailed).

\* : Pearson correlation is significant at the 0.05 level (2-tailed).

Sample size is in parenthesis.

**Table IV-18 (continued): Pearson Correlation of Use of Community Human Services by Types of Urgent Needs by Four Age Groups**

Variables	Enough for housing (6)				
	1	2	3	4	
<b>FAFF</b>	-0.08 (379)	-0.11 (361)	* (342)	-0.04 (442)	**
<b>FACorC</b>	.03 (379)	-0.01 (361)	.00 (342)	-0.11 (442)	*
<b>FABank</b>	-0.06 (379)	.01 (361)	.05 (342)	-0.04 (442)	
<b>FALHA</b>	-0.02 (379)	-0.04 (361)	.05 (342)	-0.07 (442)	
<b>FAUtility</b>	-0.10 (379)	-0.06 (361)	.02 (342)	.01 (442)	
<b>FACACS</b>	-0.05 (379)	-0.14 (361)	** (342)	-0.04 (442)	
<b>FAFBank</b>	.01 (379)	-0.06 (361)	-0.01 (342)	-0.04 (4420)	
<b>FASArmy</b>	-0.02 (379)	.01 (361)	-0.02 (342)	.04 (442)	
<b>FACatholic</b>	-0.049 (379)	.01 (361)	.01 (342)	.01 (442)	
<b>FAOther</b>	-0.02 (379)	-0.04 (361)	-0.07 (342)	-0.01 (442)	
<b>SSI</b>	.03 (378)	.05 (358)	-0.14 (340)	** (432)	.06
<b>Medicare</b>	-0.15 (378)	** (360)	* (341)	-0.29 (434)	**

**Note:**

Group 1: Age 18-34

Group 2: Age 35-44

Group 3: Age 45-54

Group 4: Age 55 or above

\*\* : Pearson correlation is significant at the 0.01 level (2-tailed).

\* : Pearson correlation is significant at the 0.05 level (2-tailed).

Sample size is in parenthesis.

(2) Regarding whether the respondent worries about being able to pay the mortgage or rent, five income support variables are statistically significant with Age Group 1. The variables are financial assistance: family or friends (.15), Lexington Housing Authority (.11), utility companies (.16), Community Action Council or Department of Community-based Services (.17), and during the past 12 months received income from Medicare (.21). Four income support variables are statistically significant with Age Group 2, they are financial assistance: family or friends (.20), utility companies (.17), during the past 12 months received income from: social security/survivor income (.11), and Medicare (.11). Two income support variables are statistically significant with Age Group 3, the variables are financial assistance: Community Action Council or Department of Community-based Services (.21), and food banks (.11). One income support variable is statistically significant with Age Group 4, that variable is financial assistance: family or friends (.15).

(3) Regarding whether the respondent worries about being able to pay utility bills, five income support variables are statistically significant with Age Group 1. The variables are financial assistance: family or friends (.16), Lexington Housing Authority (.12), utility companies (.17), Community Action Council or Department of Community-based Services (.20), and during the past 12 months received income from Medicare (.17). Eight income support variables are statistically significant with Age Group 2. The variables are financial assistance: family or friends (.21), church or clergy (.11), bank (-.10), utility companies (.18), Community Action Council or Department of Community-based Services (.13), food banks (.12), during the past 12 months received income from: social security/survivor income (.12), and Medicare (.12). Five income support variables are statistically significant with Age Group 3. The variables are financial assistance: family or friends (.14), bank (-.12), Community Action Council or Department of Community-based Services (.18), during the past 12 months received income from: social security/survivor income (.13), and Medicare (.13). One income support variable is statistically significant with Age Group 4, it is financial assistance: family or friends (.10).

(4) Regarding whether the respondent has enough income to pay for prescription drugs the family needs, six income support variables are statistically significant with Age

Group 1. The variables are financial assistance: Lexington Housing Authority (-.16), utility companies (-.25), Community Action Council or Department of Community-based Services (-.20), food banks (-.14), Catholic Social Services (-.14), and during the past 12 months received income from Medicare (-.26). Eight income support variables are statistically significant with Age Group 2. The variables are financial assistance: family or friends (-.18), bank (.12), Lexington Housing Authority (-.11), utility companies (-.21), Community Action Council or Department of Community-based Services (-.27), food banks (-.15), during the past 12 months received income from: social security/survivor income (-.22), and Medicare (-.26). Seven income support variables are statistically significant with Age Group 3. The variables are financial assistance: family or friends (-.14), Lexington Housing Authority (.12), Community Action Council or Department of Community-based Services (-.31 ( $p < .01$ ), food banks (-.19), Catholic Social Services (-.13), during the past 12 months received income from: social security/survivor income (-.14), and Medicare (-.29). Two income support variables are statistically significant with Age Group 4. The variables are financial assistance: family or friends (-.11), and Community Action Council or Department of Community-based Services (-.11).

(5) Regarding whether the respondent has enough income to pay for the family's medical needs, four income support variables are statistically significant with Age Group 1. The variables are financial assistance: family or friends (-.21), utility companies (-.16), Community Action Council or Department of Community-based Services (-.11), and during the past 12 months received income from Medicare (-.16). Five income support variables are statistically significant with Age Group 2, the variables are financial assistance: family or friends (-.14), bank (-.23), Community Action Council or Department of Community-based Services (-.23), food banks (-.11), during the past 12 months received income from: social security/survivor income (-.15) and Medicare (-.22). Seven income support variables are statistically significant with Age Group 3, the variables are financial assistance: family or friends (-.18), Community Action Council or Department of Community-based Services (-.25), food banks (-.14), the Salvation Army (-.11), Catholic Social Services (-.16), during the past 12 months received income from: social security/survivor income (-.12), and Medicare (-.26). One income support variable

is statistically significant with Age Group 4, the variable is financial assistance: family or friends (-.14).

And (6) regarding whether the respondent has enough income to pay for family housing, one income support variable is statistically significant with Age Group 1. It is during the past 12 months received income from Medicare (-.15). Three income support variables are statistically significant with Age Group 2, the variables are financial assistance: family or friends (-.11), Community Action Council or Department of Community-based Services (-.14), and during the past 12 months received income from Medicare (-.12). Two income support variables are statistically significant with Age Group 3. The variables are during the past 12 months received income from: social security/survivor income (-.14), and Medicare (-.29). Two income support variables are statistically significant with Age Group 4, they are financial assistance: family or friends (-.15), and church and clergy (-.11).

The above results revealed that there were age differences in perception of quality of life. Regarding urgent needs, there were age differences for the variable of worry for mortgage/rent. Regarding the use of community human services, there were also differences among the age groups. But there was a similarity for all age groups: people tended to turn to family and friends when financial assistance was needed. Community human services were more frequently used by the three younger age groups than the oldest group.

## **CHAPTER FIVE: SUMMARY AND IMPLICATIONS**

The purpose of this study was to investigate the perceptions of quality of life and the use of human services among households. To do this, three steps were taken: first, a model of three domains (individual characteristics, family situation, and community human services) was developed, and descriptive statistical analyses were conducted on the three domains; second, multinomial regression was used to investigate the three domain models and the full model; third, Pearson correlation analyses were conducted to investigate the use of community-based human services by types of urgent needs among sub-groups categorized on gender, income levels, and age. In this chapter, discussion of the findings are conducted in two parts: the first part, summary, which covers (a) discussion on the study results and the model, and (b) discussion of the use of community-based human services by types of urgent needs among subpopulations, and the second part addresses implications, limitations, and future research.

### **Summary**

This part summarizes the findings of this study; it covers the discussions on the study results and the models, and the discussion of the use of community-based human services by types of urgent needs among subpopulations.

### **Discussion on the Study Results and the Models**

From the study results and models, the conclusions we can obtain are the following:

First, this study revealed that the majority (58%) of the respondents perceived their quality of life in safe and thriving categories, and only 6.0 percent reported in-crisis or at risk. This reflected the current status of perception of quality of life in households.

Second, from individual characteristics (marital status, residence ownership, gender, race, education, and age), people currently married reported to perceive higher quality of life than those not currently married (never married, separated, divorced or widowed). This result is in accordance with most of the previous studies that married



people reported their perception of quality of life higher than single, separated, divorced or widowed people. This could be because, from family systems theory, marriage is the unit of cooperation, loving, stability, and reliability, while all the other categories may have a lack of some of these positive feelings. Those who own their residence may perceive a higher quality of life than those who do not own. This could be because residence ownership gives people some sense of security or stability, which will have a positive effect on perception of quality of life. Education is a highly predictive variable for high levels of quality of life. Those of the higher education level turn out to perceive a higher quality of life, as previous studies have showed that education level is highly correlated with financial well-being. Income level also has a positive effect on perceptions of quality of life. Perception of quality of life is also influenced by age. This study showed that the younger group (aged from 18 to 34) perceived a higher quality of life compared with those of the middle aged group (35-54), or the older group (55 or older). This result turned out opposite to that of McCoy and Filson (1996). Their conclusion was that older people tend to report a higher level of life satisfaction than younger people. But in fact the “sandwich generation” may experience higher level of stress for the family members and the older group may also experience the failing health conditions. There is no gender and race difference in perceived quality of life in this study.

Third, from the family situation perspective, perception of quality of life is mostly influenced by household income and health situations. Those reported having higher incomes, making enough money to pay bills, or having no urgent needs perceive higher quality of life than the counterparts. This can be explained with the family systems theory that within the system, resources are limited in the same way that income resources are limited. The more the better” principle applies. In addition, family members health situation not only affects one member’s perception of quality of life, but also affects all the other members’ perception of quality of life in the consumption of limited resources of time, money, physical and mental care. No differences were observed based on the number of people in the household, or whether there was a child or senior citizen in the household.

Fourth, from the community-based human services perspective: neighborhood safety was an important factor influencing perception of quality of life. Those who value neighborhood safety more would also perceive higher quality of life. There are also income and age differences regarding neighborhood safety. The higher income group may value neighborhood safety more than the lower income groups. The younger group value neighborhood safety more than the older group. Neighborhood safety is not correlated with perception of quality of life for the older respondents. This may be due to the fact that the older aged group is living in a more stable area than the younger aged group. They do not have children under 18 living with them as does the younger group. For transportation, having family or friends to help would be more important than public transportation service. This showed the tendency that in search for transportation assistance, people may use internal resources as the priority rather than public transportation. Those who are aware of activities for teenagers turn out to perceive higher quality of life compared to their counterparts. As for financial assistance: turning to family or friends, banks, utility companies, Community Action Council or Department of Community-based Services, and Medicare are more commonly used services than turning to church or clergy, food banks, the Salvation Army, social/survivor income, and other person or agency.

Fifth, from a more comprehensive perspective, the full model confirmed the above-mentioned model results in the following ways: (1) currently married and higher education level perceived higher quality of life; (2) household income and health situation are highly influential factors in one's perception of quality of life. Higher household income is a predictor for whether there is sufficient income to pay bills, and whether there was an urgent requirement for basic needs, which directly influence the perception of quality of life of the individual and the household. And (3) among the community-based human services investigated, when financial assistance is need, utility companies and the Community Action Council or Department of Community-based Services were the most used services for the general population.

The full model also revealed the fact that when we put all the variables of the three domains to a system of equal variable importance, individual characteristics and family situations revealed stronger influences in the perception of quality of life. The

influence of variable of community human services was weak. Only two variables remained statistically significant, they were financial assistance: turning to utility companies, and turning to Community Action Council or Department of Community-based Services. This result supports the opinion of Proshansky and Fabian (1996) that a better understanding of community quality of life will be obtained from research questions that are more specific in their focus, for example, for what kinds of people, and with regard to what specific needs.

### **Discussion of the Use of Community-based Human Services by Types of Urgent Needs among Subpopulations**

In this section, discussion will focus on the relationship between the community-based human services and perceptions of quality of life within subpopulations. The subpopulations are established according to gender, income levels, and age. Urgent needs were also investigated by receipt of community income support. We can derive the following conclusions regarding gender, income level, and age sub-groups.

#### ***Gender***

Although there was no gender difference in perception of overall quality of life, there were gender differences in urgent needs and the use of community-based human service. Female's and male's association of perception of quality of life and use of human services were similar regarding neighborhood safety, public transportation service, transportation help from family or friends, and turning to family or friends for financial assistance. However, female respondents were more likely to indicate that sufficient activities for teenagers aged 14-17 affected their perceptions of quality of life positively. Females also used more services than the males, especially in Community Action Council or Department of Community-based Services, social security/survivor income, and Medicare. Females' urgent needs were higher than males' in percentage, and among the group of urgent needs, females were more likely to use community income support than males. Females were more likely to obtain services from housing authority, Community Action Council or Department of Community-based Services, food bank, the Salvation Army, Catholic Social Services, and Medicare.

### ***Income***

Income is highly associated with perception of quality of life and urgent needs. Those of higher income perceive higher quality of life. Regarding urgent needs and the use of community human services, there were also income differences. Lower income groups had more urgent needs than the higher income group, and depended more on community human services.

Among those three income groups with urgent needs, there were no income differences in using services from church or clergy, the Salvation Army, Catholic Social Services, and social security/survivor income. But those of lower income groups were more likely to turn to family and friends when financial assistance was needed than the highest income group. Those of the highest income group were more likely to use services from banks. Community human services were very important resources for lower income group with urgent needs, especially for those households with income of \$25,000 or below.

### ***Age***

There was an age difference in perception of quality of life. The age group of 35-44 had more differences regarding perceived quality of life than the other age groups. This group had the highest percentages of “thriving” and being “in crisis or at risk.”

Regarding urgent needs, there were age differences in the variable of worry for mortgage/rent, but all age groups revealed the tendency to turn to family and friends for help with this specific need. In addition, the younger age group (18-34) used more of other community services than the older groups when financial assistance was needed. Among the community human services and income support services, age differences existed in using services from the Community Action Council or Department of Community-based Services, food bank, social security/survivor income, and Medicare.

## **Implications, Limitations, and Future Research**

In this section, the discussion is focused on the implications and limitations of this study and the future research direction.

### **Implications**

Based on the family systems theory, the investigation into perceptions of quality of life was addressed in three domains: individual characteristics, family situation, and community human services. This approach is a contribution to the research on quality of life as it applies a new way of looking at the components of quality of life. Specifically, the impact of community-based human services and urgent needs on perceptions of quality of life was addressed. In addition, respondents were broken into sub-groups according to their relative levels of exhibiting urgent needs and by gender, income level, and age. This made it possible to determine what the main variables influencing perception of quality of life, and what community-based human services meet urgent needs.

In addition, this study provides baseline information concerning perceptions of quality of life and community human services among households in Lexington-Fayette County, Kentucky. The findings provide insights into residents' perceptions of quality of life with their individual characteristics, family situation, and community human services as components contributing to perceptions of quality of life. The subpopulation comparison of quality of life with urgent needs and the use of community income support services provided a broader context for interpreting perception of quality of life. This study also provided a useful way of understanding research on perceptions of quality of life and improving community services for the general public and urgent needs at the community level.

Policy makers, educators, and social service providers can benefit from the findings of this study. Specifically, their efforts to improve quality of life should focus on those variables that have been shown to predict enhanced quality of life. In Domain 1 (Personal Characteristics), it was found that owning a residence, having a higher educational attainment, and being married were predictive of a higher quality of life.

Thus, in order to improve quality of life, policies and services should be addressed that (1) expand the opportunities and programs for home ownership, (2) broaden the opportunities for educational attainment and (3) assist married couples in efforts to enrich their marital relationships. In Domain 2 (Family Situation), it was found that households making enough money every month to pay bills, households in good physical health, household with no urgent needs, and higher household income were predictive of a higher quality of life. Thus, in order to improve quality of life, policies and services should also be addressed that (4) design and expand programs for improvement of household health conditions, (5) increase the possibility of household income sources, (6) enhance education programs for improvement of household's ability to deal with family crisis and urgent needs successfully. In Domain 3, (Community Human Services), it was found that having a safe neighborhood, transportation with family or friends for help, sufficient activities for teenagers, and financial assistance by turning to family or friends, turning to bank, turning to utility companies, turning to Community Action Council or Department of Community-based Services, and having received assistance from Medicare during the past 12 months were predictive of a perception of higher quality of life. Thus, in order to improve quality of life, policies and services should also be addressed that (7) design and improve programs for a safer community, and increase communication and understanding for people or families in the community, (8) design activities for children, adults and the aged group for better understanding and support networking, (9) local banks, utility companies, Community Action Council or Department of Community-based Services, Medicare or businesses should also be actively involved in community enhancement activities by contributing different forms of resources, for example, financial support, consultant services, technology support, shelter options, etc.

In addition to improving the availability of community-based human services to the general population, community human service providers should also focus special programs for subpopulations with urgent needs. According to the gender analysis in this study, although there was no gender difference in perception of quality of life, females reported a higher percentage of urgent needs in these four perspectives than the males. They worry that food will run out before getting money to buy more, worry about being

able to pay utility bills, worry about prescription drugs the family needs, and worry about the family's medical needs. Community housing authority, utility companies, Community Action Council or Department of Community-based Services, food banks and Medicare should develop special programs for the female population with urgent needs and give support to females in dealing with their hardships and becoming independent themselves.

According to the income subgroup analysis in this study, there were income differences in perception of quality of life and urgent needs. Community human services should design some income adjustment programs, especially programs by community housing authority, utility companies, Community Action Council or Department of Community-based Services, food banks, the Salvation Army, Catholic Social Services for low income groups with urgent needs to help deal with their hardships and to assist so they can become independent.

According to the age subgroup analysis in this study, there were age differences in perception of quality of life and urgent needs for mortgage/rent. Thus, community human services should have programs designed for the younger age groups through the community housing authority, utility companies, Community Action Council or Department of Community-based Services. Food banks, social security/survivor income and Medicare should also design programs for different age groups with urgent needs. For example, community housing authority, utility companies, Community Action Council or Department of Community-based Services, and Medicare should design some programs for people under 35 year old with urgent needs for mortgage/rent. Community Housing Authority, utility companies, Community Action Council or Department of Community-based Services, social security/survivor income and Medicare should also consider people with urgent needs, especially for the population aged 55 or above with urgent needs. In conclusion, community-based human services in the form of income support were necessary for people with specific needs, these (income) support services should be tailored to specific needs population as soon as possible after urgent needs become evident and then gradually help them become independent from these supports.

## **Limitations**

The findings of this study are limited by their focus on primarily the Lexington-Fayette County population. The sample reflected the perception of quality of life with urgent needs of lower income population. As a result these findings do not accurately describe what factors contribute to the perceptions of quality of life and the association of quality of life with urgent needs and the community-based human services. In addition, the urgent needs investigated in the study were limited to financial needs without considering the other perspectives.

Although there are limitations in this study, there are several significant conclusions that can be drawn as mentioned above, and the methodology can be applied to future research.

## **Future Research**

Regarding future research, three perspectives are worth considering. (1) Not only the use of community human services, but also the quality of the services should be paid attention. For example, the service may be available, but the satisfaction level for the users of the service may be low, which may even have worse effect on ones perceptions of quality of life than no service. (2) Perceptions of quality of life are highly associated with urgent needs like worry for food, worry for utility bills, etc. Future research can prioritize to urgent needs and investigate the cause of the urgent needs, thus helping to eliminate poverty and improve quality of life. (3) The importance of the empirical demonstration of the impact of the use and quality of human services on perceptions of quality of life cannot be underestimated. This study made some initial inroads, however future research may require longitudinal research designs that monitor changes in variables over time. Future research with the above-mentioned factors will build a broader and deeper understanding of the quality of life construct, thus contributing to research and the improvement of quality of life.



**Appendix**

**LEXINGTON-FAYETE COUNTY NEEDS ASSESSMENT QUESTIONNAIRE**

## LEXINGTON-FAYETE COUNTY NEEDS ASSESSMENT

### GENERAL HOUSEHOLD INFORMATION

The following questions are for statistical purposes. This information is important to help us understand differences and similarities in opinion between various kinds of families.

1. Including yourself, how many people live in your household? By household, we mean the people who usually consider your home to be their home.
2. How many children under age 18 live in your household?
3. (Including yourself), how many people age 65 or over live in this household?
4. In what year were you born?

*Instructions: Please circle the number corresponding to your answer.*

5. What is your current marital status?
  - 1 Now married
  - 2 Widowed
  - 3 Divorced
  - 4 Separated
  - 5 Domestic partner
  - 6 Never married(single)
6. Which of the following best describes the family situation in your household:
  - 1 Couple with no children
  - 2 Two parent family
  - 3 Mother only with children
  - 4 Father only with children
  - 5 Grandparents with children
  - 6 Other relative or guardian such as aunt or uncle with children
  - 7 One adult resident
  - 8 Non-related adult residents
  - 9 Other: (please specify) \_\_\_\_\_

## HOUSING

7. What type of housing do you currently live in?
- |             |                                |
|-------------|--------------------------------|
| 1 Apartment | 5 Hotel                        |
| 2 Townhouse | 6 Trailer/Manufactured home    |
| 3 Condo     | 7 Shelter                      |
| 4 House     | 8 Other: (please specify)_____ |
- 8 Do you own this residence or do you pay rent, live here in exchange for work, or live for free?
- |                            |                 |
|----------------------------|-----------------|
| 1 Own →→ <b>SKIP TO 10</b> | 3 Room for work |
| 2 Rent                     | 4 Live for free |
- 9 What is the **MAIN** reason you do not own your residence? [*Please circle one response*]
- 1 Cannot find a home in my price range
  - 2 Cannot find an affordable home in a desirable neighborhood
  - 3 Do not want to own a home
  - 4 Do not plan to stay in Fayette County
  - 5 Cannot make down payment
  - 6 Other: (please specify)\_\_\_\_\_

## NEIGHBORHOOD CRIME AND SAFETY

The next set of questions are about crime and safety in your neighborhood. For each statement, please circle the number indicating whether you (1) Strongly Agree, (2) Somewhat Agree, (3) Somewhat Disagree, or (4) Strongly Disagree.

<b>Strongly</b>	<b>Strongly</b>			
<b>Disagree</b>	<b>Agree</b>			
10. I consider my current neighborhood to be safe.	1	2	3	4
11. Drug use is a problem in my neighborhood.	1	2	3	4
12. Gangs are a problem in my neighborhood.	1	2	3	4
13. Thefts or robbery is a problem in my neighborhood.	1	2	3	4

14. Vandalism or graffiti is a problem in my neighborhood. 1 2 3 4
15. How safe do **YOU** feel while out alone at night walking in your immediate neighborhood?
- 1 Very safe 2 Somewhat safe 3 Somewhat unsafe 4 Very Unsafe
16. How safe do you feel your children are while playing outside in your neighborhood?
- 1 Very safe 2 Somewhat safe 3 Somewhat unsafe 4 Very Unsafe 5 No children in household

### TRANSPORTATION

17. Does your household have a vehicle?
- 1 Yes 2 No →→ **SKIP TO 19**
18. Do you consider vehicle to be reliable? That is, can you depend on it to get you where you need to go?
- 1 Yes →→ **SKIP TO 20** 2 No
19. Does not having a reliable vehicle make it difficult to get places you need to go in Lexington?
- 1 Yes 2 No

Which of the following modes of transportation do you use to get where you need to go in the Lexington-Fayette area:

20. LexTran?
- 1 Yes →→→→→→→→→→ 20b. In your opinion, how reliable is LexTran? By reliable, we mean does it get you where you need to go on time? Is LexTran:
- 2 No
- 1 Very reliable  
2 Somewhat reliable  
3 Not reliable at all
21. Having family or friends pick you up?

1 Yes      2 No

22. Carpooling?

1 Yes      2 No

23. Walking?

1 Yes      2 No

24. The WHEELS bus (Red Cross bus for urgent needs transportation)?

1 Yes →→→→→→→→→→

2 No

24b. In your opinion, how reliable is

WHEELS? By reliable, we mean does it get you where you need to go on time? Is WHEELS:

- 1 Very reliable
- 2 Somewhat reliable
- 3 Not reliable at all

25. Any other mode of transportation?

1 Yes      2 No

IF YES, please specify: \_\_\_\_\_

### CHILDCARE AND AFTER SCHOOL NEEDS

If there are no children in your **CURRENT** household, please **SKIP TO QUESTION 33.**

26. Do you or anyone in your household currently have a child in child care or after school care?

1 Yes      2 No →→ **SKIP TO 30**

27. What type of childcare or after school care are these children in?

28. How satisfied are you with **YOUR** current child care/after school care program? Are you:

- 1 Very satisfied →→ **SKIP TO 30**
- 2 Somewhat satisfied →→ **SKIP TO 30**
- 3 Somewhat dissatisfied
- 4 Very dissatisfied

29. Why are you dissatisfied with your current child care/after school care program?

30. Do you or anyone in your household currently have a child care or after school care needs that are **NOT** being met?

- 1 Yes
- 2 No →→ **SKIP TO 33**

31. Why do you not have childcare or after-school care for your child?  
*[Please circle all that apply]*

- 1 Cannot find quality care
  - 2 Cannot find care with someone I trust
  - 3 Cannot afford child care/after school care
  - 4 Cannot find care that keeps children during the hours I need it
  - 5 Other: (please specify)
- 

32. What do you do with your children for whom you do not have childcare or after school care?

- 1 Other parent watches children
  - 2 Grandparents watches children
  - 3 Sibling watches children
  - 4 Family friends watches children
  - 5 Child stays home alone
  - 6 Other arrangement: (please specify)
- 

33. Would you describe yourself as very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied with the **AVAILABILITY** of quality childcare in your community?

- 1 Very satisfied
- 2 Somewhat satisfied
- 3 Somewhat dissatisfied
- 4 Very dissatisfied
- 5 Don't know

34. Would you describe yourself as very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied with the **AFFORDABILITY** of quality childcare in your community?

- 3 Very satisfied                      3 Somewhat dissatisfied              5 Don't know  
4 Somewhat satisfied              4 Very dissatisfied

35. In your opinion, what is the **BIGGEST** barrier to people finding needed child care or after school care in Lexington? *[Please circle one answer]*

- 1 Access to quality care              4 Transportation  
2 Affordability                      5 Other: (please specify) \_\_\_\_\_  
3 Convenience

Shifting focus for a moment to older children, please circle whether you (1) Strongly Agree, (2) Somewhat Agree, (3) Somewhat Disagree, or (4) Strongly Disagree with the following statement.

36. There are sufficient appropriate activities around the Lexington area for teenagers (ages 14-17) to frequent or attend. [Appropriate means activities that do not involve drugs or drinking for example.]

- 1 Strongly Agree    2 Somewhat Agree    3 Somewhat Disagree  
4 Strongly Disagree

### EMPLOYMENT

37. Are you currently working full-time or part-time **OUTSIDE** the home or are you retired?

- 1 Yes – full-time→→ **SKIP TO 40**  
2 Yes – part-time→→ **SKIP TO 40**  
3 Retired  
4 Not currently working

38. In the past 12 months, have you worked full-time or part-time **OUTSIDE** the home?

- 1 Yes – full-time  
2 Yes – part-time

3 No

39. Are you currently looking for a job **OUTSIDE** the home?

- 1 Yes
- 2 No – student
- 3 No – homemaker
- 4 No – disabled
- 5 No – given up
- 6 No – home business
- 7 No – home employment
- 8 No – retired
- 9 No – Other reason not looking for a job:

\*\*\*\*\* **If you are currently not working, please SKIP TO 49** \*\*\*\*\*

40. Are you satisfied with your current employment?

- 1 Yes
- 2 No

41. Do you have more than 1 job?

- 1 Yes
- 2 No

42. Approximately how many hours do you work per week (for all jobs)?

43. Are you **ELIGIBLE** for health insurance through your job?

- 1 Yes
- 2 No →→ **SKIP TO 47**

44. Are you covered through this insurance?

- 1 Yes
- 2 No →→→→→→→→→→→→→→→ 44b. Why not? *[Please circle one answer]*

- 1 Can't afford employer's health insurance plan
- 2 Prefer different health insurance plan
- 3 Covered by spouse's employer's insurance
- 4 Other: (please specify) \_\_\_\_\_



45. Does this insurance through your job also cover family members?

- 1 Yes      2 No →→ **SKIP TO 47**

46. Are the dependants in your household covered by this insurance through your job?

- 1 Yes  
2 No →→→→→→→→→→→→→→→→ 46b. Why not? *[Please circle one answer]*  
3 No dependants in household
- 1 Can't afford employer's health insurance plan  
2 Prefer different health insurance plan  
3 Other: (please specify) \_\_\_\_\_

47. Does your employer offer other benefits such as paid time off or retirement?

- 1 Yes      2 No →→ **SKIP TO 49**

48. Which of the following benefits are you using: *[Please circle all that apply]*

- 1 Retirement  
2 A 125/Cafeteria Plan or Flexible Benefits Plan  
3 Disability/Worker's comp  
4 Further/Continuing Education  
5 Childcare  
6 Sick Days  
7 Vacation  
8 Any other benefits: (please specify)
- \_\_\_\_\_

**\*\*\*\*\* If you are covered by health insurance through your job, please SKIP TO 51**  
**\*\*\*\*\***

49. Do you have health insurance?

- 1 Yes      2 No →→ **SKIP TO 51**

**\*\*\*\*\*If your dependants are covered by health insurance through your job, please**  
**SKIP TO 53\*\*\*\*\***

50. What type of insurance do you have?

- 1 Private insurance
- 2 COBRA
- 3 Medicaid
- 4 Covered through spouse's employer sponsored insurance
- 5 Other: (please specify) \_\_\_\_\_

51. Are the dependants in your household covered by any other health insurance?

- 1 Yes    2 No →→ **SKIP TO 53**    3 No dependants in household →→ **SKIP TO 53**

52. What type of coverage do they have?

- 1 Private insurance
- 2 K-CHIP
- 3 Covered through spouse's employer sponsored insurance
- 4 Covered by non-custodial parent
- 5 Other: (please specify) \_\_\_\_\_

53. Are you eligible for earned income tax credit?

- 1 Yes          2 No          3 Don't know

54. Are there others in your household who work to contribute to household income?

- 1 Yes          2 No          3 No one else in household

55. Are there others in your household who are in need of employment?

- 1 Yes          2 No          3 No one else in household

### **FINANCES**

56. Would you say that you are better off or worse off financially than you were a year ago?

- 1 Better off          2 No change          3 Worse

Please circle whether you (1) Strongly Agree, (2) Somewhat Agree, (3) Somewhat Disagree, or (4) Strongly Disagree with the following statement.

		<b>Strongly Agree</b>			<b>Strongly Disagree</b>
57.	My household makes enough money every month to pay our bills	1	2	3	4
58.	We worry whether food will run out before we get money to buy more	1	2	3	4

Please circle whether you (1) Strongly Agree, (2) Somewhat Agree, (3) Somewhat Disagree, or (4) Strongly Disagree with the following statement.

		<b>Strongly Agree</b>			<b>Strongly Disagree</b>
59.	We worry whether we will be able to pay the mortgage or rent	1	2	3	4
60.	We worry whether we will be able to pay a utility bill.	1	2	3	4
61.	Do you have enough income to pay for prescription drugs your family needs? 1 Yes      2 No				
62.	Do you have enough income to pay for your family's medical needs? 1 Yes      2 No				
63.	Do you have enough income to pay for your family's housing?				

1 Yes      2 No

64. **NOT INCLUDING** an employer's pension or retirement plan, are you or anyone currently in your household saving or investing for retirement?

1 Yes      2 No

65. Overall, thinking about your household's financial situation, would you say your household is

1 Thriving    2 Safe      3 Stable      4 At-risk    5 In-crisis

### INCOME SUPPORT

In the past 12 months, because of sickness, unemployment, divorce or any other reason, have you or anyone in your household received any of the following sources of income? Please circle 1 for yes or 2 for no.

	Yes	No
66. Child Support	1	2
67. Worker's Compensation	1	2
68. Social Security retirement or survivor income	1	2
69. Medicare	1	2
70. Unemployment compensation	1	2
71. SSI (Social Security disability income or insurance)	1	2
72. Veteran's benefits	1	2
73. Food or housing in exchange for work	1	2

In the past 12 months, for any reason, have you or anyone in your household received any of the following sources of income?





- |     |  |   |   |
|-----|--|---|---|
| 90. | Do you know what action to take if you become aware of a child or an adult who is in an abusive situation?   | 1 | 2 |
| 91. | Do you know of any social service agencies and organizations in Fayette County that serve individuals who are being physically or mentally abused?                                       | 1 | 2 |
| 92. | Do you know of any social service agencies and organizations in Fayette County that you can contact for help if you thought the situation in <b>YOUR</b> household might become abusive? | 1 | 2 |
| 93. | Have you or anyone in your household ever been homeless?   | 1 | 2 |
| 94. | Do you know of any social service agencies and organizations in Fayette County that serve individuals and families who are homeless?   | 1 | 2 |

### EMERGENCY SERVICES

Which of the following do you turn to when you need financial assistance to pay the mortgage or rent or to pay a bill or when you have a food emergency?

If you **NEVER** need financial assistance, please check the box  and **SKIP TO 107.**

- |      |                             | Yes | No |
|------|-----------------------------|-----|----|
| 95.  | Family or friends           | 1   | 2  |
| 96.  | Church or clergy            | 1   | 2  |
| 97.  | Bank                        | 1   | 2  |
| 98.  | Community Action Council    | 1   | 2  |
| 99.  | Lexington Housing Authority | 1   | 2  |
| 100. | Utility Companies           | 1   | 2  |
| 101. | Check-cashing service       | 1   | 2  |

- |      |  |   |   |
|------|--|---|---|
| 102. | Department of Community-based Services           | 1 | 2 |
| 103. | Food Banks (i.e., God's Pantry)                  | 1 | 2 |
| 104. | the Salvation Army                               | 1 | 2 |
| 105. | Catholic Social Services                         | 1 | 2 |
| 106. | Other person or agency<br>(please specify) _____ | 1 | 2 |

107. Have you or someone in your household had an urgent basic need such as food, shelter, or paying a bill such as gas in the **PAST 12 MONTHS**?

- 1 Yes                      2 No →→ **SKIP TO 109**

108. What were those needs? [Please circle all that apply]

- 1 Food
- 2 Shelter/rent
- 3 Medical treatment
- 4 Prescription drug
- 5 Utilities bill
- 6 Car payment
- 7 Other: (please specify) \_\_\_\_\_

**ELDERLY NEEDS AND LONG-TERM CARE ARRANGEMENTS**

109. Are there any senior citizens in your **CURRENT** household (including yourself) that require daily assistance with taking care of themselves?

- 1 Yes                      2 No →→ **SKIP TO 112**

110. Do you think there are enough service providers available in Lexington-Fayette County to assist with these needs?

- 1 Yes →→ **SKIP TO 112**                      2 No

111. What kinds of services do you find lacking in the area of elderly care?



112. What type of care arrangement do you now use or foresee needing **MOST** for yourself as you age or become unable to care for yourself? *[Please circle one response]*
- 1 Nursing Home
  - 2 Assisted Living
  - 3 Move in with relative
  - 4 Stay in home and have a caretaker
  - 5 Temporary drop-in home health nurse
  - 6 Rent/subsidized housing
  - 7 None (will take care of self)
  - 8 Other: (please specify) \_\_\_\_\_

#### **OVERALL ASSESSMENT OF NEEDS**

113. This survey has asked about many needs and social service areas. Overall, in your opinion, what is the **MOST** important critical social services need for **LEXINGTON**?
114. Thinking overall about the needs of **YOU OR YOUR HOUSEHOLD MEMBERS**, what do you need that you are not getting?
115. Finally, thinking about the needs of **YOU AND YOUR HOUSEHOLD** and thinking about the issues in this survey, overall how do you perceive your situation in life? Would you say you are:
- 1 Thriving      2 Safe      3 Stable      4 At-risk      5 In-crisis

## DEMOGRAPHICS

We have just a couple of more questions about you for statistical purposes. This information is important to help us understand differences and similarities in opinion between various kinds of families

116. First, What is your gender?

- 1 Male      2 Female

117. How would you describe your racial or ethnic background? Are you:

- 1 White  
2 African-American  
3 Hispanic  
4 Asian  
5 Other race: (please specify)
- 

118. What is the last grade in school you completed?

- 1 Grade school only  
2 Some high school  
3 High school diploma  
4 GED  
5 1 or 2 years college, no degree  
6 Graduates junior or community college  
7 Vocational/technical degree  
8 3 or 4 years of college, no degree  
9 Bachelor's degree  
10 Some graduate school work  
11 Graduate degree – Masters (ex: MA or MS)  
12 Professional degree or doctorate (ex: PhD, JD, MD)

119. What is your zip code where you currently reside?

- |         |         |          |
|---------|---------|----------|
| 1 40502 | 5 40507 | 9 40513  |
| 2 40503 | 6 40508 | 10 40514 |
| 3 40504 | 7 40509 | 11 40515 |
| 4 40505 | 8 40511 | 12 40517 |

120. Last year, what was your total household income from all sources before taxes?

- 1 Under \$5,000
- 2 \$5-\$7,499
- 3 \$7,500-\$9,999
- 4 \$10-\$12,499
- 5 \$12,500-\$14,999
- 6 \$15,000-\$19,999
- 7 \$20-\$24,999
- 8 \$25-\$29,999
- 9 \$30-\$39,999
- 10 \$40-\$49,999
- 11 \$50-\$69,999
- 12 \$70-\$89,999
- 13 \$90-\$119,999
- 14 \$120,000 or more

**THANK YOU FOR YOUR PARTICIPATION**

Please put the completed survey in the enclosed envelope.

Postage has been paid your convenience

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**Vita**  
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**Education:**

- ◆ Graduate student, Department of Family Studies, University of Kentucky, U.S.A. (Jan. 2001- Dec. 2004)
- ◆ M. A. Economics at Zhejiang University, China (Dec. 1998)
- ◆ B. A. English Language and Literature at Hangzhou University, China (July 1985)

**Work History:**

Teaching Assistant (TA), Research Assistant (RA) and Instructor at the Department of Family Studies, University of Kentucky (Jan.2002 – present)

- ◆ TA at Department of Family Studies under Dr. Forgue for FAM 251 (Personal/Family Financial Management)
- ◆ RA at the Research Center of Family and Children under Dr. Heath, conducting research on Kentucky Poverty Tracks & Housing Program (2003)
- ◆ RA at Department of Family Studies under Dr. Hayhoe in Protecting Your Retirement and Other Financial Issues for Family Caregivers (2002)
- ◆ Sole instructor for FAM 251 (Personal / Family Financial Management) summer section (2002 - 2004)
- ◆ Financial Education Extension specialist assistant for Dr. Flashman in Kentucky High Financial Education Program (2002 & 2003 summers)
- ◆ Extension Exhibition Assistant at Agricultural Communication Services, University of Kentucky (May- Dec. 2001)

Visiting scholar at Shawnee State University, Portsmouth, Ohio (Jan. 2000 - Dec. 2000)

- ◆ Sole instructor for classes: International Business, Macroeconomics; and East Asian History (Early histories and their effects on cultures).
- ◆ Co-teaching a course: Teaching Individuals in a Pluralistic Society & Education for Disabilities (using long distance education facilities)

- ◆ Research on Comparative Structures for Small and Medium-sized Business in China and the U.S. Associate Professor at the College of Business Administration, Zhejiang University of Technology, Hangzhou, China (July 1999-Dec. 1999)
- ◆ Teacher and administrator at Sino-Australian co-operation education program, Sino-U.S. co-operation education program and Sino-German co-operation education program.

Researcher and lecturer, Zhejiang Small and Medium-sized Business Development Institute, Zhejiang University of Technology, China (Jan. 1995-June 1999)

- ◆ Taught: undergraduate courses: International Business, Business Communication, Import and Export Documentation, Business Negotiation in Different Cultures, and graduate courses: International Trade Theory and Economics.
- ◆ Conducted research on Small and Medium-sized Business and Foreign Direct Investment.

Lecturer, Zhejiang Economic and Management Institute for Leaders, China (Dec. 1992-Dec. 1994)

Assistant lecturer, Zhejiang Economic and Management Institute for Leaders, China (July 1985- Dec.1992)

- ◆ Taught Business Communication in English, Import and Export Documentation, and International Trade Theory.

**Continuing Professional Development:**

- ◆ Attended “Preparing for Future Faculty and Higher Education” certificate program hosted by the Teaching & Learning Center of University of Kentucky (2002-2004)
- ◆ Attended training courses in International Marketing for Senior Chinese Executives at Valporaiso University, Indiana, USA (Nov. 12- Dec. 3, 1997)
- ◆ Attended Import and Export Business Internship at Shanghai Collegiate Internship Center for International Business, China (July – August 1997)
- ◆ Attended a course of training relative to the Political and Economic Structure of



Singapore at the School of Business, Temasek Polytechnic, Singapore (Sept 1996)

**Related Professional Activities:**

- ◆ A member of American Association of Family and Consumer Sciences, and the Kentucky Association of Family and Consumer Sciences. Present a paper “Small Business Development and Family Development in China, and How We See This as a Trend” at 2004 AAFCS conference in San Diego, California.
- ◆ Co-author for a paper “Individualism Versus Collectivism in the Chinese Parent-Adolescent Relationship: Predictors of Youthful Autonomy and Conformity” to be presented at 65<sup>th</sup> National Council on Family Relations Annual Conference in Vancouver, Canada (Nov. 2003)
- ◆ A member of the American Council on Consumer Interests, presented a research in progress “Economic Analysis of Tobacco Consumption Control In China” at 49<sup>th</sup> conference (May, 2003)
- ◆ A student worker and a volunteer at the National Council on Family Relations conference in Houston, Texas, (2002)
- ◆ Presented a paper at the Third US-China Conference on Women’s Issues in Beijing, China (Oct. 2002)
- ◆ A team member of research on Kentucky Poverty Population and Housing Programs (2002), “Community Self Assessment” Data assistance and editing by Baomei Zhao, accessible at [http://www.lexlinc.org/needs\\_assessment/file\\_list.htm](http://www.lexlinc.org/needs_assessment/file_list.htm)
- ◆ Secretary General of the First West Lake International Conference on Small and Medium Business funded by Hangzhou Municipal Government and Zhejiang University of Technology, China (Oct. 1999)
- ◆ Chair of the Teachers Union of College of Business Administration, Zhejiang University of Technology, China (Jan. 1996-Sept. 1999)
- ◆ A team member of a grant-supported research (35000 RMB, Chinese currency) on Foreign Direct Investment Impacts on Zhejiang Industrial Technology Structure & the Countermeasures, sponsored by Science Committee of Zhejiang Provincial Government, China (Jan. 1997-Dec. 1999)

- ◆ Participated in a grant-supported research (3000 RMB) on Innovation System for Small Business in China, sponsored by Science Committee of Zhejiang Provincial Government, China (Sep. –Dec. 1996)
- ◆ Participated in a grant-supported research (3000 RMB) on Updating & Optimizing Special Markets in Zhejiang Province, sponsored by Science Committee of Zhejiang Provincial Government, China (Sep.1997 – Sep.1999)
- ◆ Participated in a grant-supported research (3000 RMB) on Environment Optimization for SMB Technical Innovation, sponsored by Science Committee of Zhejiang Provincial Government, China (Sep.1998 – Jan 2000)
- ◆ In Charge of the establishment of a Foreign Trade Lab for teaching program, sponsored by Zhejiang University of Technology, China (July 1995-June 1997)
- ◆ Assisting Hangzhou Chunxiang Knitwear Factory to promote the products in Australia (Jan. 1997-August 1998)

**Publications:**

◆ Articles:

1. “Community Self Assessment” data assistance and editing by Baomei Zhao, published and accessible at [http://www.lexlinc.org/needs\\_assessment/file\\_list.htm](http://www.lexlinc.org/needs_assessment/file_list.htm)
2. “The Direction & Measures for Small and Medium Business Intensive Operation in Zhejiang Province” *East China Economic Management*, May 1999 (Code: CN34-1014/F).
3. “Hong Kong Second Board and New Ideas for SMB Financing” *Zhejiang economy*, June 1999 (Code: CN33-1007/F).
4. “On Establishing Human Resources Markets for Entrepreneurs in China” *East China Economic Management*, May 1998 (Code: CN34-1014/F).
5. “Research on Existence Foundation, Competition Environment and Development Mode of Small Business in Zhejiang Province” presented at the First West Lake International Conference on Small and Medium-sized Business in Oct.1999 (page 345-352).

6. "Industry Organization Pattern Study in the Development of Small Business Aggregation" presented at the First West Lake International Conference on Small and Medium-sized Business in Oct.1999 (page 301-314).
7. "On Entrepreneurs' Human Resources Capitalization" *Zhejiang Economy*, June 1998 (Code: CN33-1007/F).
8. "To Develop Resources Recycling and Promote Constant Development of National Economy" *East China Economic Management*, April 1997 (Code: CN34-1014/F).
9. "Resources Recycling and Constant Development" *Zhejiang Economic Management*, Feb. 1997 (Code: Zhe01-1065).
10. "The Five C's Pursuit of the Singaporean" *Zhejiang Economic Management*, April 1996 (Code: Zhe01-1065).

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1. An English – Chinese Economic Dictionary published by Chengdu University of Science & Technology Publication House (code: ISBN 7-5616-2797-1/H.288).
2. Chapter 3 in Cheng, Chungeng (Ed.), *Socialist Market Economy and the Modern Business System. China: Xinghua Publication House*, August 1997 (code: ISBN – 5011-3788-9/F.545).
3. Chapter 6 in Cheng, Huifang (Ed.), *International Trade and Finance. China: Xinghua Publication House*, August 1997 (code: ISBN –5011-3781-1/F.539).

**Awards:**

1. American Association of Family and Consumer Science --- International Division Scholarship (June, 2004)
2. American Council on Consumer Interests 49<sup>th</sup> and 50<sup>th</sup> Conference Student Travel Grant (May 2003 and March 2004)
3. Family Economics Scholarship from University of Kentucky, U.S.A. (Aug. 2002- May 2004)
4. Patricia Buster Fellowship from College of Human and Environmental Science, University of Kentucky, U.S.A. (Aug. 2002-May 2003)

5. On Dean's List & President's List at Shawnee State University, Ohio, U.S.A. (2000)
6. "Model Faculty Member" award by Zhejiang University of Technology, China (1999)
7. "Model Faculty Member" award by Teachers' Union of Zhejiang University of Technology, China (1997)
8. "Excellence in Teaching" award by The Planning and Economic Committee of Zhejiang Province, China (1995)
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