CANADIAN THESES ON MICROFICHE

I.S.B.N.

THESES CANADIENNES SUR MICROFICHE

National Library of Canada
Collections Development Branch

Canadian Theses on
Microfiche Service

Ottawa, Canada
K1A 0N4

Bibliothèque nationale du Canada
Direction du développement des collections

Service des thèses canadiennes
sur microfiche

NOTICE

The quality of this microfiche is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us a poor photocopy.

Previously copyrighted materials (journal articles, published tests, etc.) are not filmed.

Reproduction in full or in part of this film is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30. Please read the authorization forms which accompany this thesis.

THIS DISSERTATION
HAS BEEN MICROFILMED
EXACTLY AS RECEIVED

AVIS

La qualité de cette microfiche dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de mauvaise qualité.

Les documents qui font déjà l'objet d'un droit d'auteur (articles de revue, examens publiés, etc.) ne sont pas microfilmés.

La reproduction, même partielle, de ce microfilm est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30. Veuillez prendre connaissance des formules d'autorisation qui accompagnent cette thèse.

LA THÈSE A ÉTÉ
MICROFILMÉE TELLE QUE
NOUS L'AVONS REÇUE

93

0-315-16004-7

National Library of Canada
Bibliothèque nationale du Canada

Canadian Theses Division
Division des thèses canadiennes

Ottawa, Canada
K1A 0N4

63913

PERMISSION TO MICROFILM — AUTORISATION DE MICROFILMER

• Please print or type — Écrire en lettres moulées ou dactylographier

Full Name of Author — Nom complet de l'auteur

ISAAC N. GLICK

Date of Birth — Date de naissance	Country of Birth — Lieu de naissance
AUG. 30, 1928	U.S.A.

Permanent Address — Résidence fixe

7103 - 111 St.
EDMONTON, ALBERTA T6G 1G9

Title of Thesis — Titre de la thèse

THE FACTORS OF COMMUNITY WELL-BEING AS IDENTIFIED BY RESIDENTS OF A RESOURCE TOWN

University — Université

UNIVERSITY OF ALBERTA

Degree for which thesis was presented — Grade pour lequel cette thèse fut présentée

Ph. D.

Year this degree conferred — Année d'obtention de ce grade	Name of Supervisor — Nom du directeur de thèse
FALL 1982	DR. JOHN PATERSON

Permission is hereby granted to the NATIONAL LIBRARY OF CANADA to microfilm this thesis and to lend or sell copies of the film.

The author reserves other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

L'autorisation est, par la présente, accordée à la BIBLIOTHÈQUE NATIONALE DU CANADA de microfilmer cette thèse et de prêter ou de vendre des exemplaires du film.

L'auteur se réserve les autres droits de publication; ni la thèse ni de longs extraits de celle-ci ne doivent être imprimés ou autrement reproduits sans l'autorisation écrite de l'auteur.

Date	Signature
Oct. 13/82	I. N. Glick

THE UNIVERSITY OF ALBERTA

FACTORS OF COMMUNITY WELL-BEING AS IDENTIFIED BY RESIDENTS OF A RESOURCE TOWN

by

Isaac N. Glick

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

IN

COUNSELLING PSYCHOLOGY

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

EDMONTON, ALBERTA

SPRING 1983

THE UNIVERSITY OF ALBERTA

Release Form

NAME OF AUTHOR Isaac N. Glick

TITLE OF THESIS Factors of Community Well-Being as Identified by Residents of a Resource Town

DEGREE FOR WHICH THESIS WAS PRESENTED Doctor of Philosophy

YEAR THIS DEGREE GRANTED 1983

Permission is hereby granted to THE UNIVERSITY OF ALBERTA LIBRARY to reproduce single copies of this thesis and to lend or sell such copies for private, scholarly or scientific research purpose only.

The author reserves other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

I. N. Glick

PERMANENT ADDRESS:
7103 - 111 Street
Edmonton, Alberta. T6G 1G9.

Dated. March 1983

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled, "The Factors of Community Well-Being as Identified by Residents of a Resource Town", submitted by Isaac N. Glick in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

.....
Supervisor

.....

.....

.....

.....
External Examiner

Date.....March, 1983.....

ABSTRACT

The purpose of this exploratory study was to develop a conceptual image of community well-being in a resource town. The literature reviewed, reflects the inherent problem of defining a general construct like "well-being", and documents a variety of perspectives across disciplines and over time. The description and pathology-oriented literature of resource towns was noted. Conventional quality-of-life studies in community settings were reviewed, tracing briefly the history, value, and limitations of social and psychological indicator research, and the subsequent impact assessments in rapid growth areas. Finally, some theoretical perspectives were reviewed, based on theories of Change, Image, Community, and Community Development.

The record of resource towns has called for a vision of realistic well-being possibilities, to replace the almost exclusively negative "image" portrayed in the literature. For this purpose, via a modified Delphi process, this study elicited resident perceptions of what characterizes, what facilitates, and what commonly prevents community well-being in that context.

Findings indicated a greater unanimity about factors that "help" than about those that "hinder" community well-being. It was also noted that factors typically associated with resource towns, such as pace, stress, transience,

crowding, and isolation, were rated high by fewer residents than more subjective factors. One may infer that many residents considered these matters of less relative significance than the repetitious literature has implied. The highest ratings by 75 percent or more of respondents, highlighted: (1) personal attributes such as commitment, involvement, initiative, and integrity; (2) shared responsibilities such as cooperation, local government, and informed planning; (3) leadership roles of government and industry to facilitate local aspiration and responsibility; (4) the stabilizing function of the family; (5) basic services at affordable costs; (6) and an environment characterized by economic stability, natural and social appeal for "putting down roots", and by trust and contentment.

Implications are that residents see community well-being as primarily a subjective and local responsibility, that government and industry must facilitate, but cannot provide. Related implications accent local input in resource town planning, local responsibility for its administration, and a style by government and industry that optimizes "opportunity", in ways that foster rather than frustrate the highly rated personal attributes mentioned above. It is reasonable to conclude, that just as mitigating measures have been implemented when negative impacts were anticipated and identified specifically, it is possible, and essential, to identify and facilitate positive community alternatives.

ACKNOWLEDGEMENTS

The writer wishes to acknowledge the support of the interdepartmental committee under whose guidance this study was conducted, particularly since the focus was atypical in Educational Psychology.

Dr. John Paterson served as chairman and coordinator of the committee involving Dr. Tom Maguire from Educational Research, Dr. Gordon Fearn from Sociology, and Dr. Glen Eyford from Community Development and Education Foundations. Their constructive criticisms have been invaluable. Dr. Lloyd West from Educational Psychology, University of Calgary, served as the outside examiner.

A special tribute is due the residents of Fort McMurray for their interest and participation in this study. Their excellent cooperation was significant in view of the many studies that Fort McMurray residents have been subjected to.

Recognition and a word of thanks is given to the Impact Assessments Division of Alberta Environment, Government of Alberta, for funding this exploratory study.

Finally, I want to acknowledge the understanding and enduring support provided by Millie, and our children, throughout this endeavor.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION AND STATEMENT OF THE PROBLEM

INTRODUCTION

The "well-being" theme is virtually timeless and universal (Plato's Republic, Richards, 1966; Mumford, 1961; Robinson, 1976), and is an implied goal of virtually all modern societies (Andrews & Withey, 1976). It has not been technically defined in the literature (Levy & Guttman, 1975; Moberg, 1979). Very recently "first signs of a science of well-being" have been acknowledged (Elkes, 1983), citing evidence of body-mind interactions, influence by the nervous system on the immune system, and biofeedback. Use of the term in psychology and sociology is a phenomenon of the past two decades. Levy and Guttman discovered that "well being" does not yet appear in English and English's (1958) A Comprehensive Dictionary of Psychology and Psychoanalytical Terms, nor in The International Encyclopedia of the Social Sciences (Sills, 1968), a decade later.

Andrews (1974) suggests that well-being is broadly conceived to mean the "level" of life quality, i.e., the extent to which pleasure and satisfaction characterize human existence, and the extent to which people can avoid the various miseries that are potentially the lot of each of us. Andrews & Withey (1976) narrowed the use of "well-being" to "perceptions" of individual well-being, in contrast to "quality-of-life" which they said "could include the measurement of practically anything of interest to anybody",

and which is generally based on social indicator research.

In a prolific interdisciplinary literature, well-being is now recognized as a values issue (Drews & Lipson, 1971; O'Manique, 1976; Roszak, 1979; Ferguson, 1980), with global survival implications (Club of Rome, Meadows et al., 1972, 1974; Feather et.al. 1980; Rifkin, 1980).

THE PROBLEM, PURPOSE, AND RATIONALE

The Problem

The problem undertaken in this study was to have residents of a resource town identify the factors of community well-being; to determine what fosters and what frustrates its occurrence in that context; and to integrate resident perceptions with relevant theory. In question form, the problem was:

1. What are the specific descriptive features or characteristics of community well-being that industry, government and the community may appropriately hope and plan for in a resource town?

2. Who and what can best facilitate the attainment of community well-being features?

3. What factors interfere with such community features being attained?

In relation to community impact assessments, the problem was to make explicit the community norm or ideal that is usually left unspecified in the language and literature of social and community impacts.

The Purpose

The purpose was to formulate a conceptual image of

community well-being that can redirect planning from the kind of community that needs preventing, to the kind that is worth pursuing; to help shift the focus, expectations, and energies of all concerned from the problems of resource towns, and unite them around creative possibilities in those settings; and, to test a process for encouraging a community to grapple with the quality-of-life they want for their community, and have them identify the facilitating conditions and necessary actions to move in that direction.

The Rationale

The rationale for this study was rooted in resource town literature, image and change theories in psychology, community development theory, and personal observations.

Resource town literature has been one-sided in its repetitious descriptions of community problems. Little else has been documented by which expectations could be molded, or planners and newcomers informed. The lack of studies based on residents' views (Larson, 1979; Freudenburg, 1980), and the need for some positive new models, provided further impetus for this study.

Image theory, referring to "the picture in our heads", suggests that awareness of ideal values is the first step in the conscious creation of the future, and of communities, since the image determines behavior and is the key to all choice-oriented initiatives. Polak (1973) emphasized that society must give thought to practical methods of image change and the kind of images that it

needs; it must examine and be vigilant concerning those images of the future in the minds of politicians, scientists, industrialists and professionals in every field, lest society be victimized by unworthy vested interests.

The personal observation that some people appear to thrive in the same resource town circumstances where others break down or leave, seemed to beg the community well-being question. It seemed reasonable to assume, since negative impacts have been identified and mitigating measures implemented, that it would be equally possible to plan, teach, and initiate facilitating measures for community well-being, if specifically identified. No precedent was found in the literature that made "community well-being" in that setting its explicit focus.

Industrial developments are carefully planned and guided by economic priorities, based on a clear model of what is needed for financial success. Community priorities and a model of community well-being in that context are less clear than those that inform economic planners.

During the last decade, attention of industry and government was increasingly directed toward social impact issues. Industries assigned personnel and budgets to social and community concerns and governments sponsored numerous environmental, social, and community impact assessments. Ironically, the kind of community hoped for in a rapid growth setting has not been clearly conceptualized in either theoretical or ideal terms, despite a general assumption that a healthy community benefits everyone more, including

industry and government, than an ailing community.

METHODOLOGICAL CONSIDERATIONS FOR THE STUDY

The explanatory power and very real achievements of the rational, mechanistic models of science as applied to the material world and its component parts, has not been similarly reliable in the social sciences, nor to the same extent feasible. By imitating the classical model, the social sciences have frequently been drawn into extreme use of quantification, and a quest for the dubious ideal of value-free judgments. This not only imposes a preference for observation and measurement of easily quantifiable phenomena such as social indicators; it often reduces research to either/or assumptions and assessment of dualistic means to given goals (Polak, 1973).

The result, over time, in issues such as health or well-being, has been to narrow the perspective of those who adopted it, to quantifiable dimensions, to single discipline attention, and to behavioristic solutions. Consequently, the importance of economic, environmental, psychological, and broader social determinants were sometimes overlooked (Gordon, 1980). Since each of these fields has been dominated by the same investigative paradigm, each has had similar "blinders". For example, evidence of lifestyle-related ailments (Kelman, 1980; Hastings et al. 1980), are troublesome to the medical model's assumption that pathologies are bio-chemical in origin; similarly, evidence of body-mind relationships (Smith, 1975; Frank, 1975;

Antonovsky, 1979), run counter to behavioristic assumptions; and all of these, to well-being that is economically defined.

To reflect more holistic assumptions, and to incorporate resident perceptions, called for a departure in methodology from those documented in the resource town literature. A method was needed that engaged residents of a resource town in some disciplined reflection about community well-being, to help identify what is necessary to achieve it in their setting. Since the method was exploratory, the findings derived from the process are equally important to the study as the assembled data. The study must be seen as distinct from, and prior to, one that would seek to measure the level of community well-being in a community.

BRIEF OVERVIEW OF THE STUDY

Parameters of the inquiry were defined in terms of what "helps", "goes with" or "describes", and what "hinders", "interferes with" or "prevents", community well-being in a resource town setting. (Hereafter "what helps" and "what hinders" will be understood to represent all three terms in each case). The community selected was Fort McMurray, Alberta, which has experienced two major boom periods. The primary data source was a sample of residents who lived there during at least one of these periods. The approach was to have them identify factors of community well-being, and to integrate those with findings from the literature.

Specifically, the methodology included in-depth interviews with a selected sample of 30 long-time residents, together with a modified Delphi procedure that engaged a larger cross-section of community residents. From the in-depth interview data, two lists were developed. The one reflected their views of what helps, and the other of what hinders, community well-being. These lists were then shared with a larger community sample to obtain "importance" and "hindrance" ratings of each item on the lists. In a final step, participants were brought together in a seminar setting to hear a findings report, and to obtain their assessment of results and of the process by which data were obtained.

SIGNIFICANCE OF THE STUDY

The hazard of confining resource town research to what is readily quantifiable, is to limit attention to "after-the-fact" phenomena which, in the circumstances, are often negative. Without denying the history of recurring difficulties, more appropriately seen as symptoms (Bunge, 1976), there are compelling reasons to investigate what is behind the symptoms, and more important, to bring into focus an "image" of positive alternatives (Antonovsky, 1979; Polak, 1973; Boulding, 1973).

Very practically, when limited community resources in rapid growth settings consistently get committed to problems, it is a matter of economic and social prudence that communities discover how to invest resources in

community well-being.

With more holistic assumptions about well-being than the traditional economic, medical, or even social indicator models provided, this study contributes to the very recent holism literature. The scope and pace of recent technological and industrial developments, and their impacts on people and communities, have shown the separate models of well-being to be inadequate.

Finally, the study follows sequentially in a tradition of well-being research that long highlighted economic indicators, then social indicators, followed by several types of impact assessments. This study represents a kind of "futures and values" probe for what could be, instead of documenting or measuring only what is or has been.

While impact assessments are useful to facilitate prior planning, because the assessments do precede impact, their perspective is still pathology-oriented, i.e., projecting what will occur, then seeking to prevent it. They do not present a model or image of community well-being toward which planning and expectations may be directed. The implied norm or ideal that is being impacted has not usually been specified. To focus the essential features of such a community ideal lends purpose and significance to this exploratory study. The results should facilitate more precise impact assessments, as well as subsequent measurement research to determine the level of well-being at which a community is functioning.

CHAPTER II

REVIEW OF THE LITERATURE AND RELATED RESEARCH

This review is divided into five sections. The first highlights the problem of defining "well-being" and lists a plethora of descriptive and theoretical terms that reflect popular and theoretical interest in personal and community well-being from Plato to the present; the second summarizes the resource town literature of the last two decades, which is largely descriptive, and rarely includes resident perceptions nor focuses on well-being; the third reviews conventional quality-of-life assessment in community settings, citing the most relevant studies based on social and psychological indicators, and the recent phenomenon of social and community impact assessments in resource towns; the fourth section brings together relevant perspectives from theories of "change", "image", and "community development". A summary concludes the chapter.

WELL-BEING: HISTORICAL PERSPECTIVCES AND DESCRIPTIONS

The lack of a precise definition of "well-being" has been indicated by various authors (Bradburn & Caplovitz, 1965:1; Levy & Guttman, 1975:361; Moberg, 1979:3), not unlike that expressed concerning "health" (Audy, 1971:141; Kelman, 1980), "mental health" (Jahoda, 1958; Szasz, 1963), and "quality of life" (Andrews & Withey, 1976; Campbell et.al. 1976). Nonetheless, Moberg concludes from his research that "most people have rather definite ideas about

the characteristics associated with, influencing, and affected by (such a phenomenon) even though they have difficulty in providing a definition of it" (p.9).

Michalos suggests that while a precise definition and "a well-developed theory to guide one's research (are) a happy circumstance" (in King-Farlow, 1976:27), they are not essential in this type of research. Definition and theory are seen to emerge out of the study itself. "Generally all one needs for a clear understanding is a criterion of application for a term, not a meaning analysis". He illustrated by the phrase, "is in pain" for which a criterion of application is "to be kicked in the shins". He observes that there is no need to define "pain" by analysis to be certain as we can be that a person kicked in the shins is in pain. Similarly, he argues that clean air, freedom of movement, privacy, peace of mind, etc. may be seen as criteria of application "although we do not have a generally acceptable meaning analysis of the phrase "quality of life".

The literature abounds in descriptive and theoretical terms related to "well-being", but as Bell asserts, "no conceptual scheme (or definition) ever exhausts a social reality. Each conceptual scheme is a prism which selects some features, rather than others, in order to highlight historical change or, more specifically, to answer certain questions". (Bell, Foreword, 1976). Each may be seen to represent the value priority of an era or discipline, as the various perspectives of economics, medicine, environment, health, sociology and psychology are considered. A glimpse

of the many facets of the "well-being" prism are reflected from the literature that follows.

The Good Life.

Plato outlined his vision of "the good life" in his REPUBLIC which portrayed the Greek city-state as an organism of functionally balanced interdependence; one that is characterized by individual "service to the whole". The well-being of the community was of greater importance than that of the individual if there was tension between the two (Robinson in King-Farlow, 1976:126-141). This pre-industrial vision of community well-being has nothing to say about environmental concerns of our time. Justice was to be the dominant characteristic of well-being. Development philosopher Goulet declares, "to live well is the ultimate reason for living at all; all other values are instrumental to the good life" (Goulet, 1971:124).

Utopia.

Utopia represents the deepest yearnings, noblest dreams, and highest aspirations for a human society or community, where physical, social, and spiritual forces are integrated to achieve whatever people find necessary and desirable. The projected ideal usually accents self-reliance, initiative, and commitment versus dependence and external coercion. Utopias have been criticized as attempts to escape, but have also spawned new creations.

Kanter (1972) identifies three types of utopias in North America: religious utopias as early as 1680;

politico-economic utopias that sought to avoid the dislocation, mechanization, overcrowding and poverty following the Industrial Revolution, guided by the social creed of Horace Greeley in the 1840's; and since the 1960's, the psycho-social utopias. This third type emerged in a context of social isolation and inner fragmentation. Several emphases have been apparent, "from the 'turn on, tune in, drop out' critique of Timothy Leary to the humanistic psychology of Abraham Maslow to the theories of B.F.Skinner" (Kanter, 1972:3-7).

The Great Society.

"The Great Society" initially represented the vision of a famine and poverty-free society resulting from "The Great Industry" (a term that had come to symbolize The Industrial Revolution prior to 1900) which was expected to "throw millions into the lap of human comfort" (Cracroft, Essays On Reform, 1867, Wallas, 1920). The mood allowed that even if The Great Society "should deprive men of some of the romance and intimacy of life, (it would) at least give them such an increase of security as would be far more than an equal return. Famine would be impossible....Wars would be few and short...." (Wallas, 1914:6).

After the subsequent setbacks of "The Great War", "The Great Depression" and the J.F.Kennedy assassination, an upbeat vision of social possibilities was once again attached to "The Great Society" during the mid-sixties Johnson administration in the United States. This was an extension of Kennedy's "war on poverty".

Self-Actualization.

This concept was elaborated by Abraham Maslow in the early fifties, though it had been introduced by Goldstein as early as 1939 (Sward, 1980:8). In Maslow's terms it refers to the fulfillment of what he calls man's "hierarchy of needs" (Goble, 1970:52), and represents a psychology of growth toward health (Maslow, 1968:3-8), and "toward unity and integration. . . within the person" (p.25). Based on Maslow's theory, Sheehan (1973) sees the ideal society as fostering arrangements that maximize both individual freedom and the collective good (p.233), since each has "a need to see himself as a valuable member of a community" (p.240).

Becoming.

Gordon Allport, Maslow, and others in the humanistic psychology tradition called for renewed attention to inner experience and development (becoming), in contrast to the external, experimental, positivistic emphasis of behaviorists. In this they shared tradition with developmental theorists, who, since Rousseau, tried to discover "the nature of intrinsic growth forces. . .that would guide the individual toward a healthier, more independent development" (Crain, 1980:262,263).

Key ideas are that development proceeds according to an inner time-table and unfolds fairly independently from environmental influences, and in a series of stages. This view spawned a philosophy of education that is person/child-centered, which Carl Rogers utilized in "Client-Centered

Therapy" (1965), and which provides a paradigm for the current community-centered study.

The concept of "becoming" is elaborated by Gordon Allport in a book by that title (1955), and used by Carl Rogers (1961), to refer to the "move toward self-fulfillment" (Sward, 1980:8) in humans which he elaborates as the "need for autonomy" and the "need for relationship". Rank (1929,1931,1945) had previously identified this as the "need to separate" and the "need to unite" (p.190); the former refers to "independence and self-reliance", and the latter to "relatedness, affiliation, togetherness, and mutuality" (Sward:1980:9), all of which have both personal and community implications.

Welfare.

This traditionally referred to the general well-being of an individual or society prior to the social assistance connotations that now surround it. Funk and Wagnalls (1947) defined it as "the condition of faring well; exemption from pain or discomfort; prosperity; also, condition as regards well-being". Allardt (1973:1) says that "welfare is conceived as a multidimensional phenomenon composed of several dimensions of values".

Mental Health.

"Mental Health" is projected from Humanistic Psychology's facet of the well-being prism. In its label it is still rooted in the medical paradigm, but it represents a departure from psychoanalytic and Behaviorist orthodoxy, and a move toward a more holistic view of man, the problem of

impreciseness (Szasz, 1963) notwithstanding. Goble (1970:120) identifies early "Third Force" influentials like Carl Jung, Alfred Adler, Gordon Allport, and Carl Rogers as instrumental. Besides these, Allport (1968) also identified Hartman, Horney, Erikson, Fromm, Goldstein and Maslow. In this context "mental health" is characterized by human freedom to cultivate awareness, assume responsibility, exercise initiative, make choices and decisions, and welcome opportunities for growth. The Blair Report (1968, 1973) refers to mental health as "a level of social and personal well-being at which a population can develop its potentialities to the fullest possible extent...." (p.17). Hobbs, quoted by De Groot (1975:8), said that "mental health now means not just health but human well-being", suggesting that the concept is being transplanted to more holistic soil than what the medical paradigm provided.

Stability and Security.

These terms symbolize what have been called "economic conditions of well-being" (Vickers, 1959:131). For centuries the aim was "freedom from want" which, during this century, has shifted to a notion of "increasing abundance" - at least in the Western world. Conventional economic wisdom long assumed that if left unregulated the economic conditions of growth would perpetually regenerate themselves, guided by an "invisible hand" (Smith, 1776). This assumption is now being seriously questioned in the Western World as by the Club of Rome (Meadows et al. 1972)

and others (Campbell, 1976:1; Leiss, 1976; Roszak, 1979). There is a bid for reintegrating economics with philosophy (Goulet, 1971:6-13) and/or values (Ferguson, 1980:323ff.). O'Manique (1976) suggests that the major "incompatibility ...may be between the values required for the survival and development of our species and those required for the survival and development of our economic system" (p.49).

Over half a century ago, Krutch (1929:42) warned of "an ancient fallacy, which consists in basing an estimate of our welfare upon the extent to which our material surroundings have been elaborated". Significantly, John Stuart Mill, over a century ago maintained that quantitative increases would not necessarily improve the lot of mankind as a whole. He argued that a turn from quantitative to qualitative criteria was the primary desideratum for further social progress (Leiss, 1976:104).

Happiness.

Wallas (1914) referred to happiness as a "harmony of the whole being", and argued that in "The Great Industry" it is as important to plan for a workman's happiness as for his efficiency . Bradburn (1969) defined happiness as the extent to which positive feelings outweigh negative ones, using the time referent of "the past few weeks." (George,1979:211). Campbell et al. (1976) suggest that happiness refers to "short-term moods of gaiety and elation" distinguishing it from the core meaning of "satisfaction". It refers more, in recent research, to the affective than to the cognitive domain of experience (George, 1979:210).

Life Satisfaction.

"Life Satisfaction", defined as a "cognitive assessment of progress toward desired goals" (George, 1979:210), is seen as a measure of "life as a whole", and has been "...precisely defined as the perceived discrepancy between aspiration and achievement..." (Campbell, 1976:8), or more positively, "congruence between achieved and desired goals" (Adams,1969). The "satisfaction" concept has been the focus of considerable theory and research in the "aspiration tradition of Kurt Lewin and the relative deprivation theme of Robert Merton (Campbell, 1976:8).

Community Development.

Development ethics borrow freely from other disciplines including economics, political science, sociology, psychology, and planning. Although each supplies its own definition of development, ethics brings them together in one framework where development ultimately means "the quality of life and the progress of societies toward values capable of expression in various cultures (or settings).... How development is gained is no less important than what benefits are obtained at the end of the development road.... Although development can be studied as an economic, political, educational, psychological, or social phenomenon, its ultimate goals are...to provide all men with the opportunity to live full human lives. Thus understood, development is the ascent of all men and societies in their total humanity" (Goulet, 1971:x).

Quality-of-Life.

This phrase dates back to a speech by President Lyndon Johnson, October 31, 1964 (McCall,1976:6). It has spawned research and considerable literature in the Journals of both Sociology and Psychology. McCall identifies two reasons for the current interest in quality-of-life (QOL): first, a widespread desire for something better or a nostalgia for something lost; and second, the desire of planners and researchers for an index of social well-being analogous to the Gross National Product and other measures of economic well-being. The concern is with measurability which has provided impetus for "social indicators" research in recent years, to supplement economic indicators that are now seen as an "unreliable yardstick" (Shea, 1976:2) of QOL.

The Environmental Protection Agency (EPA) in Washington, D.C. says that "the concept of QOL has emerged...as an undefinable measure of society's determination and desire to improve or at least not permit a further degradation of its condition. Despite current undefinability, it represents a yearning of people for something which they feel they have lost or are losing, or have been denied, and which to some extent they wish to regain or acquire" (E.P.A., 1973:iii).

McCall (1976) defines QOL in a region "as consisting in satisfaction of the general happiness requirements throughout the region, i.e., for each inhabitant". The EPA definition accents the subjective experience of life quality while the McCall definition emphasizes the objective

conditions or criteria for life quality. Both are important, though in resource towns, external factors have tended to receive most attention by outside news media, public officials, planners, and sometimes by local residents. Such factors are more tangible and appear more manageable than attitudes or feelings (Dalkey, 1972:9; Andrews & Withey, 1976:5), and in some ways have been more amenable to the canons of reliability and validity.

Wellness.

This term symbolizes the recent shift in emphasis (and paradigm) from the long-standing preoccupation with illness in the "health" field. In the "wellness movement" (Ardell, 1980) it represents a goal worthy of active promotion. This emphasis is often referred to as "holistic health". It aims at well-being, compared to mere treatment and prevention of pathology. A guide to "high level wellness" has recently been published (Ryan & Travis, 1980).

Conviviality.

Ivan Illich (1973) popularized this term "to mean autonomous and creative intercourse among persons, and the intercourse of persons with their environment; and this in contrast with the conditioned response of persons to the demands made upon them by others, and by a man-made environment." Illich elaborated, "individual freedom realized in personal interdependence" and expressed the belief that "in any society, as conviviality is reduced below a certain level, no amount of industrial productivity

can effectively satisfy the needs it creates among society's members". He suggests that contemporary institutional purposes frequently "hallow industrial productivity at the expense of convivial effectiveness, (and) are a major factor in the amorphousness and meaninglessness that plague...society" (Illich, 1973:11).

Sense of Coherence.

Medical Sociologist Aaron Antonovsky, in developing a general theory of health notes that some individuals and social groups are unusually successful in maintaining health in circumstances where others break down. After reviewing the extensive literature on stress and coping and failing to find a satisfactory answer to explain this, he examined the various material, social, and psychological resources people utilize in resisting illness. Central to his health or well-being theory is what he calls the "sense of coherence", which represents a general attitude, characteristic of those who consistently enjoy good health, that the world is comprehensible; that one's life is meaningful, orderly, and reasonably predictable; and that one at least participates in the shaping of one's destiny. (Antonovsky, 1979:123 ff.).

A "sense of coherence" represents a way of seeing the world and one's life in it. "It is perceptual, with both cognitive and affective components. Its referent is not this or that area of life, this or that problem or situation, this or that time, or, this or that stressor. It is a crucial element in the basic personality structure of an individual and in the ambiance of a subculture, culture,

or historical period" (p.124).

The concept is distinguished from "sense of control" which emphasis, says Antonovsky, "reflects a superfluous cultural bias" (p.127). The crucial issue is not whether control lies in one's own hands or elsewhere. "What is important is that the location of power is where it is legitimately supposed to be. This may be within oneself; it may be in the hands of the head of the family, patriarchs, leaders, formal authorities, the party, history, or a deity. The element of legitimacy assures one that issues will, in the long run, be resolved by such authority in one's own interests. Thus a strong sense of coherence is not at all endangered by not being in control oneself" (p.128).

Holism. Holistic Health.

"Holism" comes from the Greek "holos", meaning whole and has come into recent usage to express the ancient recognition that living nature is more than the sum of its parts, and contrasts sharply with the mechanistic view that has dominated modern medicine by its preoccupation with a "machine" view of the body and its parts (Bloomfield, 1978:9; Antonovsky, 1979; Dubos, 1959; Ferguson, 1980). This view arose when Rene Descartes, a 17th century philosopher, compared the human body to the mechanical robot in Louis XIII's garden (Bloomfield, 1978:10).

"Holistic Medicine", interchangeably and more positively referred to as "Holistic Health", has been defined as "a system of total living embracing concepts of

health promotion and disease prevention" in a person's individual experience (Monaco, 1978:10). It involves an integration of body, mind, and spirit (Bloomfield, 1978:14; Neubert, 1978:34 ff.), which is where medicine began with "the healing force of nature" (vis medicatrix naturae) under Hippocrates (Cousins, 1979:17), before it was sidetracked by Descartes (Kelman, 1980:134).

The holistic health movement is careful to point out that neither the holistic nor the mechanistic views of health have a corner on "truth". Either/or thinking is avoided and would be inconsistent with the underlying philosophy of wholeness. Central to the new emphasis is a shift in the locus of responsibility from physician back to the individual (Neubert, 1978:38; Hastings et al., 1980:xi; Gordon, 1980:15,18), which once again defines the physician as a facilitator and recognizes the active role of the individual in the healing process.

The importance of this shift is underscored by the growing body of biofeedback and other data that confirm a significant relationship between the human mind and the body for preventing and overcoming illness (Cousins, 1979; Cousins, 1979 (SR):20; Simonton & Simonton, 1978). Once again, the new emphasis is really a rediscovery of the importance of mental set to bring about healing. "Paracelsus, the wonder healer of the sixteenth century suggested that government authorities and 'learned fools who make their patients worse' could not heal. Healing involved faith and visualization, he said. 'If this person

believes in what I say' observed Paracelsus, 'it will come true' (Friedman, 1978:20).

Organismic Integrity.

This term denotes "the natural optimum of the human organism, that condition...most apparently consistent with the innate laws of psychology and physiology" (Kelman, 1980:133). It seeks to extend the meaning of human well-being beyond the socially and medically imposed limits of "health". It does not, however, include "spirit" in its definition as found in "holistic health".

Spiritual Well-Being.

A working definition that can be used phenomenologically and rhetorically, and consistent with the concepts of holistic well-being and definitions of good mental health has been developed by The National Interfaith Coalition on Aging (Moberg, 1979:5) as follows: "Spiritual well-being is the affirmation of life in a relationship with God, self, community and environment that nurtures and celebrates wholeness".

Moberg asserts that "spiritual well-being" is not a synonym for religion. "Spiritual" is seen as a pervasive dimension that touches all other dimensions, - physical, psychological, material and other aspects of human existence, - in terms of ethical and moral values, philosophy of life, anxieties, fears, self-esteem, etc. (Moberg, 1979:14). He suggests that its functional definition pertains to "the wellness or 'health' of the

totality of the inner resources of people, the ultimate concerns around which all other values are focused, the central philosophy of life that guides conduct, and the meaning-giving center of human life which influences all individual and social behavior" (p.2).

Health.

Prior to the 19th century, "health" was entwined with the practice of living, not unlike the holistic health movement today. In classical times health was a goal and aspiration of life itself, available mainly to the wealthy. Perceptions of health shifted somewhat over time via medical theories of "contagionism" in mid-19th century Europe, then "anticontagionism" which gave way to "germ theory" in the 1870s, which in turn was absorbed by "scientific medicine" and its focus on the biological aspects of the problem. "By abstracting disease from its social framework and reducing it to the biological sphere, social conditions were ignored" (Berliner & Salmon, 1980).

Kelman (1980) distinguishes "clinical" and "epidemiological" models of health: the former is seen as "perfect working order" much like a machine, requiring attention on an individual basis, by means that are "methodologically external" (p.134); the latter sees pathogenesis arising from the interaction of some combination of external threats, and the internal immune system at the time, thus defining health once again as a natural "perfect working order" of the individual without regard to the social dimensions of health (p.135).

Kelman then elaborates diverse social dimensions and distinguishes two types of societies and the health patterns of each. Prototypic of "Society A" is contemporary North America where the principal dynamic is the accumulation of capital. Health in that context is the "optimal organismic condition" of the population relative and subject to that accumulation. To the extent that the fortunes of the population depend on the continued accumulation of capital, so too does their health, and their social development. By "social development" Kelman refers to such dimensions of the social world as "division of labor, the nature of work; the level of technology; the pace of automation; the degree of environmental abuse; the available forms of transportation; the thrust of schooling and education, health, medical care, urbanization, personality development, and sexuality; and the structure of familial, kin, and community relationships. Under Society A these are all fundamentally and continuously shaped by the internal nature and dynamics of production" (Kelman, 1980:136).

In "Society B" the dimensions of social development are deliberated and targeted independent of accumulation, subordinating the production system to support the achievement of preferred goals. In this case these goals (must) be quantitatively commensurate with the capabilities of the system of production but not, as in Society A, qualitatively subordinate" (p.141-142). Society B has been infrequently demonstrated in the western world though it

continues as the ideal of many intentional and cooperative communities, as the goal of socialist movements, and the secret yearning of North Americans who feel captive to, and their health threatened by, the demands of Society A.

Autonomy appears to be valued in both society types: for production goals in "A", and for organismic integrity in "B", though, paradoxically, in Society A it frequently becomes subordinated to the demands of production.

The World Health Organization (WHO) defines "health" in somewhat utopian terms as "...a complete state of physical, mental, and social well-being, not merely the absence of disease or infirmity" (Antonovsky, 1979:52).

A general summary of health perspectives reflecting Blum (1974) and adapted from an unpublished paper by The Mental Health Division of the City of Edmonton Health Department, states that in terms of the medical position, health is seen as the state prior to disorder or disease, or as a newly acquired state resulting from eradication of a disorder. Public Health sees it as a state in which avoidable hazards have been avoided and unavoidable hazards have been found early and treated. The humanitarian sees health in terms of society and believes that a society is healthy if man is at the center of its concerns. The economist tends to view health as a social necessity and works to reduce disability, incapacity, and premature death that would represent loss to the workforce or contribute to poor performance in the work setting. The mental health view sees health as movement toward self-realization or

self-fulfillment (Sterk et al., 1981).

RESOURCE TOWN LITERATURE

In Canada.

The literature on resource towns in Canada is largely a phenomenon of the last decade, with a few exceptions. "Single Enterprise Communities In Canada" (1953), under the auspices of The Central Mortgage and Housing Corporation, and another in the early sixties by Robinson (1962), provided valuable, earlier documentation, but they were aimed at the town planner and engineer rather than the community planner. The assumption, it seems, was that town planning would take care of community needs. Social problems were dealt with in terms of specific physical facilities that were provided for certain "problem groups" such as wives, adolescents, and pensioners.

A dissertation on "Stress and Socio-Cultural Change In A New Town", begun in the early seventies, revealed that "research into the socio-cultural features of Canada's industrial new towns is still in its infancy" (Morrison, 1977:15). An early study on Canadian industrial towns, "Minetown, Milltown, Railtown" (Lucas, 1971), documents behaviors and problems common to such developments.

An extensive literature search of planning for resource towns in the mid-seventies claimed that "no examples could be found where comprehensive social planning accompanied physical town planning" (Johnson, 1976:11). Federal legislation since then requires a social component

in new resource town planning, but if based solely on social statistics, can be grossly inadequate. Two social impact studies in the same period include one on northern problems (Van Dyke et al., 1975), and one on social characteristics (Himelfarb, 1976). Several specific community profiles were also done by Van Dyke and colleagues (1978) in the Fort McMurray area which confirm the "boom town" stereotype.

A quality-of-life study (Riffel, 1975) has been much quoted for its summaries of economic, demographic, and social characteristics, but Riffel acknowledges that there is little data on individual or family well-being. His work was based on one of the few studies that incorporated resident perceptions as legitimate data (Mathiasson, 1970). Larson (1979) observed that Mathiasson's work may be "the only survey that attempted to obtain opinions directly from community residents on quality-of-life issues in resource towns. An exception is an assessment of health and social services in Fort McMurray (Co-West, 1978) which interviewed both professionals and other residents of the town on issues related to community well-being.

A recent study (Nickels & Sexton, 1976) deals specifically with quality-of-life factors influencing population stability, but without exploring subjective or psychological dimensions. Indices were primarily social and environmental, as determined by the interview instrument.

A British Columbia study by The Northern B.C. Women's Task Force (1977), focuses on women's concerns in new

resource towns. About the same time, a book of readings, "New Communities In Canada" (Pressman, 1976), features extensively and descriptively the commonly negative features of resource-based settlements in the North.

On the local scene, the recent literature includes a baseline study, "Northeast Alberta Regional Plan: Information Base" (1976), and extensive environmental research sponsored by Alberta Oil Sands Environmental Research Program. That group also sponsored "The Impact of Resource Development on Individual and Family Well-Being (Larson, 1979), which documents demographic characteristics and gives particular attention to family stress and the impact of mobility on family life.

The Co-West study already mentioned (1978) documents the many faces of mobility and identifies the cause/effect cycle of the "mobility-stress syndrome" (p.25-38). The study probes health and social conditions/services in the Fort McMurray oil sands region of Alberta, where a boom town atmosphere was sustained for 15 years prior to the study.

Most recently Gartrell et al. (1980) conducted an extensive study in Fort McMurray based on the sociological theory of human adjustment. The study involved some 430 resident interviews. However, subjective psychological dimensions that may contribute to "optimal adjustment" were not considered. It looked primarily at external factors such as housing, services, incomes and living standard, quality of employment, social participation and family life.

In the United States.

In the drive for energy self-sufficiency in the U.S. since OPEC, boom towns and related literature have both emerged during the 1970's. The literature is based largely on the experience in the Rocky Mountain and Northern Plains states (Colorado, Wyoming, Montana, Utah, New Mexico, Arizona, Nebraska, and North and South Dakota) and is assembled in three excellent books of readings, two of which are edited by J. & J. Davenport of the University of Wyoming. The titles are: "Boom Towns and Human Services" (1979) and "The Boom Town: Problems and Promises in the Energy Vortex" (1980).

The third, "Energy Resource Development: Implications for Women and Minorities In the Inter-Mountain West", is a selection of papers presented to the U.S. Commission on Civil Rights (1979) at a consultation with representatives of mid-western states impacted by energy projects. Once again, resource town problems are highlighted.

Most Relevant Studies.

No resource town studies have been found that probe the factors of community well-being directly. The following empirical studies are highlighted for their relevance to community well-being and the impetus they provide for the current study.

"Stress and Mental Health In a Boom Town" (Weisz, 1979) represents a study undertaken in NE Wyoming in the town of Gillette and Campbell County to assess energy-related impacts and mental health consequences in that area

of rapid development. The findings provide relevant empirical evidence of the stressful impacts that boom towns are known for (pp.31-47). By using the Holmes-Rahe Readjustment Rating Scale and a locally developed "sources of stress" measure, (originating from stressors identified by key informants as specific to the Gillette community), high levels of stress were indicated "not only by the amount of change in their lives, but also from the needs and frustrations produced by deficits in community services, the demands of adjusting to life in a new community, family needs, plus a variety of other stressors stemming from a boom town situation" (p.39). The most telling evidence of the overall impact was documented by the increased need for mental health services which was far in excess of what might legitimately be expected from the population increase.

For example, referrals to the local mental health centre in Rock Springs, Wyoming, increased ninefold in a three-year period while the population only doubled. Admissions for the Northern Wyoming Mental Health Centre (NE Wyoming) serving a five county area that included Gillette/Campbell Counties, the center of energy developments since 1974, reflected a 10.6 percent increase in this region without Campbell County, while Campbell County itself experienced an increase of admissions by 101.2%. The population had only increased by 62.5% in that county. An index of more severe cases of mental illness, admitted to the Wyoming State Hospital, reflected a 70.5% increase for the region without Campbell County, while that

county itself showed a 610% increase (p.42).

Weisz observes that "when the people in an impacted community display high levels of stress in their lives, a predictable increase in health problems is likely to develop. Such problems/illnesses manifest themselves through job-related deficits like absenteeism and high accident rates, and by increased demands for medical and mental health services" (p.39). He emphasizes the need for "highly adaptive, imaginative solutions" other than just more services alone, which he says are like "the fingers thrust into a bursting dike, --they may temporarily plug the leaks but they do not and cannot cope with the flood".

In a "Regional Economic Impact Assessment, Volume 2 Summary" (Alsands Project Group, 1979), it was stated that "the rate of Mental Health out-patient registrations per 1000 population (Fort McMurray) is two and one half times as high as for Alberta, 11.0 as compared with 4.4" (p.144). There is some indication that this is a conservative figure based on a short-staff situation for the period (August 1976 to April 1979) covered by these statistics.

The report states further that "analysis of the out-patient registrations presented in the Alsands Impact Assessment shows that the proportion of patients diagnosed as having situation disturbance (meaning that their emotional problems are a function of the situation they are in), and having neurosis and related disturbances, is very much higher than the rest of the province, more than twice

as relatively frequent as in all of Alberta. Also, the proportion of female patients is substantially higher than the rest of Alberta (64% in the first half of 1978, as compared to 52% for all of Alberta in 1977)".

"The Impact of Resource Development On Individual and Family Well-Being" (Larson, 1979) represents a recent and comprehensive review of the literature, both published and unpublished, that pertains to impacts on individual and family well-being in resource development towns. Of particular relevance here are studies dealing with mobility, mental health, and adjustment issues.

Immigration literature provides substantive evidence that mobility and mental health are related, and Larson (p.21,22) cites a number of studies to document higher mental illness and hospitalization rates among both immigrants and migrants than with the general population. Also, citing Wolpert (1966), it was noted that "the degree of environmental stress associated with a move led to careless and hasty mobility decisions"; and, according to Weinberg (1961) "...the stress factor, regardless of whether a move is voluntary or involuntary, is less significant than the relative ability of the mover to cope with stress. He found that adjustment among migrants is a function of inner security." Fried (1964:23), on the other hand, suggests that the issue is interactive, that mental health does not inhere in the individual alone, but in the relationship between individual and environment.

Larson's references to psychological problems found

to be common in rapid development areas are particularly germane: "Nickels and Kehoe (1972) describe a variety of behavior disorders and stress reactions resulting from unsettled and changing social structures. In their Whitehorse study, they found that while social needs were fulfilled, the needs of autonomy, esteem and self-actualization were typically unfulfilled. In a similar study by Cram (1972), of 228 mine workers in five geographically isolated camps in the Yukon and Northwest Territories, esteem and autonomy need fulfillment, the self-actualization scores were consistently low. The Jackson and Poushinsky study in northern Ontario (1971) found that, among miners with high rate of past job instability and mobility, there were high levels of alienation. Among professional migrants, high rates of personal alienation were associated with high occupational level, high father's occupation, attaching strong value to having things to do, concern about recreational facilities, and concerns about climate" (Larson, 1979:61).

In "The Sociological Analysis of Boom Towns" (Cortese & Jones, 1977:76-90), it is clearly shown that the social impact of boom town growth involves changes beyond the mere increase in population. Strain on municipal services, and mental health problems commonly associated with such strains, usually constitute the bulk of "socio-economic" assessments. Considerably more important for the long range, though less visible, are the underlying changes in

the social structure and cultural systems that are precipitated by energy-related resource town development.

Resource Town Literature Overview.

The literature on resource towns has emerged mostly since 1970 and has been "redundantly descriptive" (Larson, 1979) of what can be called the boom town syndrome, encompassing rapid growth, high mobility and a variety of community, family, and individual stresses. The distressing similarity of these towns has spawned a literature that is repetitious. While generally authentic, the record has been incomplete by its preoccupation with negative characteristics. A consequence has been to stereotype such towns so that there has been little else to inform expectations or planning.

Siemans offers the assessment that such towns are usually planned for the economic function they have to perform and for the administrative responsibility they have to assume, more than for the people who inhabit them (Pressman, 1976), and so the same scenario has kept being repeated. The model for financial success that informs economic planners in such settings appears to be much clearer than any model of community well-being that would specify community priorities in that context.

Larson (1979) observed that "little information has been obtained from the citizens of communities concerning ways of solving the problems and their dissatisfactions. 'John Public' does have something to offer. ." (p.131).

COMMUNITY QUALITY-OF-LIFE ASSESSMENT

In a recent review of the literature assessing quality-of-life in community settings (Zautra & Goodhart, 1979:3-10), two complementary approaches are elaborated. One utilizes "social indicators" to identify and describe the social forces impinging on the community and its residents; the other is concerned with psychological assessments of community residents which "provide psychological indicators of the ways in which individual behavior, aspirations, and also discontent affect well-being and guide the creation, maintenance, and evolution of community settings" (p.3). See also Campbell et al. (1976).

Social indicators in historical context is provided in this section, including their application to community mental health studies, and their value and limitations. Psychological Indicator Research is then reviewed, several models noted, and some limitations identified. The section concludes with a brief review of Impact Assessment research.

Social Indicators Overview.

Historical Perspective. Social Indicators initially represented an attempt to correct the distorted image (and assessment) of society presented by economists (Bunge, 1976:150-151), based on monetary values (Moberg, 1979:2), and to provide an alternative or "supplemental" assessment to the traditional economic indicators. As such they initially represented all non-economic indicators including some that were not specifically "social". The confusion that is apparent in the "indicators" literature that followed

during the 1970's may be seen as a process of finding its meaning and application.

Impetus for social reporting had arisen during President Kennedy's "War on Poverty" and President Johnson's "Great Society" in the United States during the 1960's, and gained momentum during the 1970's after the release of "Toward A Social Report" (U.S. Dept. of Health, Education & Welfare, 1969). That report defined "social indicators" as statistics "of direct normative interest which facilitates concise, comprehensive, and balanced judgments about the condition of major aspects of a society. It is in all cases a direct measure of welfare..."(p.97). A somewhat different "definition" was offered a few years later in "Social Indicators" (U.S. Office of Management and Budget, 1973), as "statistics selected and organized to describe social conditions and trends"; so also Sheldon & Freeman (1970:97).

Social indicators have been variously referred to as "measurements of social systems performance" (Hoffenberg, 1970:B779); "as descriptive of the social system" (Carlisle, 1972:25); as "measures of social conditions" (Sawhill, 1969), or "symptoms" (Bunge, 1976:144); as "objective" measures (Andrews & Withey, 1976:5); and as "value-free" measures (Campbell et al., 1973:3).

Out of this process also emerged the concept of "quality-of-life" which very quickly required some distinctions between social and psychological indicators (Zautra & Goodhart, 1979:2; between descriptive and

prescriptive (normative) assessments (Bunge, 1976:142); between objective and subjective measures (Andrews & Withey, 1976:5), and between quantitative and qualitative research.

Social Indicators In Mental Health Studies. Social and demographic information compiled for census tracts, school districts etc. have been studied extensively for indicators of a community's mental health (Zautra & Goodhart, 1979:3; Bloom, 1975), to determine what community characteristics tend to covary with mental health needs.

Bloom (1975) tried to identify neighborhood social characteristics that might account for changing admission rates to psychiatric facilities. Based primarily on census data he identified four demographic clusters: socioeconomic affluence, social isolation, social disequilibrium, and young marrieds. Neighborhoods characterized by socioeconomic affluence and young marrieds had fewer psychiatric admissions. (Zautra & Goodhart, 1979:3). The limitations of this approach are illustrated by several resource town studies (Alsands Project Group, 1979; Weisz, 1979) that found just the opposite to be true there.

For some other characteristics, like poverty-stricken areas and those characterized by social disruption, considerable consistency has been shown between the variation of mental health service rates with that of the demographic and social conditions of those areas (e.g. Levy & Rowitz, 1973; Zautra & Goodhart, 1979:4).

Value and Limitations of Social Indicators. Extension of well-being assessment beyond economic measures

has been an important contribution of social indicators. Their relative objectivity; the advantage of being counted without involving a judgment of value from the reporting individual (Campbell et al., 1973); and their capability to reveal trends, are all important in specific applications.

Distinct limitations are also apparent: first, there are important quality-of-life indicators that are neither economic nor social, i.e., water, soil and air quality, and psychological dimensions; second, social indicators have been aptly called "symptoms" because they have most often been lists that indicated problems of life, such as percentage unemployed, infant deaths per 1,000, suicides per 100,000 etc.(Flax, 1972; Schneider, 1976; Zautra & Goodhart, 1979:3; third, social indicators are abstract quantifications (Roszak, 1979:53), which don't always indicate what is expected (Bunge, 1976:144); fourth, there has been a common failure to distinguish between descriptive and prescriptive (normative) assessment (p.142); fifth, they are limited to after-the-fact data; sixth, their heavy reliance on census data imposes time limitations on their use (Warheit et al., 1979:102); seventh, census district rankings are unreliable predictors of individual scores, i.e., "uncertain validity" (Schneider, 1976). Supplemental data via field surveys, key informants, etc. are required (Warheit et al.,1979:102); eighth, they tend to limit perception to what can be quantified; ninth, they do not include psychological dimensions; and finally, they can only

document the past and the status quo. They cannot project alternative futures.

Psychological Indicators.

Subjective reactions to life experience --to social indicator events, are referred to in terms of psychological indicators. Four models and a synthesis are documented by Zautra & Goodhart (1979:5,6):

An epidemiological model. The focus here is on the incidence and distribution of disorder (much as in medicine), i.e., stressful life events such as family disruption, and job loss, etc. (Cassel, 1975) are thought to be instrumental in development of psychopathology (Selye, 1956; Dohrenwend & Dohrenwend, 1974; Holmes & Masuda, 1974). Mental health is seen as the result of maintaining internal homeostasis. (Zautra & Goodhart, 1979:5).

A life-crisis model. This is based on a theory of adjustment that sees potential outcomes other than breakdown or illness (Caplan, 1964; Antonovsky, 1979), depending on whether the individual resolves the crisis successfully or unsuccessfully.

A competency model. This is in the tradition that assumes humans possess an inherent tendency to develop skills, to seek learning and to be actively in charge of their own lives (Jahoda, 1958; Bandura, 1977; Rogers, 1961). Environments that demand too little as well as those demanding too much are seen as reducing a sense of well-being (Wildman & Johnson (1977); "underload as well as overload" (Antonovsky, 1979:86,87).

An adaptation-level model. This model suggests that experienced events are compared with an individual "baseline" determined by previous experience (Brinkman & Campbell, 1971), and that with each new experience the adaptation-level is reset.

Synthesis: A positive mental health model. Zautra and Simons (1979) bring together aspects of the foregoing models into one framework by identifying two sets of needs: (a) to diminish, avoid, and/or adjust to painful life events, and (b) to develop and sustain life satisfaction by increasing competence, skills and mastery over the environment. Adjustment and competence needs are seen as independent of each other, and meeting both needs is essential.

In an oblique way the independence of the dual needs just mentioned is corroborated by "Quality of Life In Alberta" (Hewitt et al., 1977:Foreword), which observed that differences in objective conditions are not related in any simple or direct way to reported feelings of life satisfaction or perceived well-being; that levels of satisfaction do not vary directly with, for example, levels of social services or income, nor indirectly with crime or unemployment rates. Implicit is the presence of both objective and subjective dimensions of well-being which may not both be satisfied by external means or services.

Impact Assessments.

Social Impact Assessment. The history of "social impact assessments" is very recent. In a bibliography of

several hundred studies (Bowles, 1979:141-175), the earliest titles addressing "social impacts" directly were published in 1974 (Gold, 1974; Wolf, 1974).

Social Impact Assessment (SIA) "is an application of social science methodology to assist in social planning" (Bowles, 1979); "a mode of applied social science" (Wolf, 1974). It arose in the tradition of social indicator research, but in the context of rapid industrial development. With the pace of industrial development in the last two decades, and heightened public awareness about ecological damage and its impact on quality of life, more immediate information to inform planners became necessary. Social Indicators based on census data proved too slow and often too late. "Environmental Impact Assessment" was the first response (Environmental Assessments Division, 1977) in Alberta to anticipate and "mitigate adverse environmental effects". This was followed by "Social Impact Assessments", and most recently "Community Impact Assessments" (Alberta Environment Research Proposal, June, 1981). All of these have been initiated to facilitate prior planning of "mitigating measures" (EIA Guidelines, 1977:6).

Bowles (1979:134) identifies the objectives and steps of Social Impact Assessment as: (1) "anticipating the future consequences of intentional interventions (industrial projects) in the present; and, (2) to help shape policies which will guide these intentional interventions in such a way that desirable impacts will be maximized and undesirable impacts will be minimized". The steps are: describing the

social (community) activities in an area prior to a project; describing the activities associated directly with the project itself; and forecasting the patterns of social (community) activity that will result from the interaction of pre-project and project activities. (Bowles, 1979:134).

Community Impact Assessment. In Alberta, Community Impact Assessment is distinguished from Social Impact Assessment in two ways: "CIA is concerned with all types of impacts that affect the defined area...", but not strictly social dimensions. The second difference is that in a CIA "the affected community plays a key role in the impact assessment process". The main goals of a CIA are:

> --to provide information to facilitate the decision-making for the project;
>
> --to provide opportunities for individuals, groups and communities to become involved in decisions which effect them;
>
> --to educate the affected community, proponent and government on the potential effects of the proposed development and the type of measures which could be adopted to maximize the benefit and minimize the negative impacts;
>
> --to facilitate planning (and) working relationships between the local community, government agencies and the proponent... (Alberta Environmemt Research Proposal, 1981:1,2).

Impact assessments, whether "environmental", "social", or "community", imply some kind of norm or ideal that is being threatened. In the current study that norm is "community well-being".

The current study is consistent with these goals and moves beyond to engage a community in defining the implied

norm that is being impacted, or to which they aspire.

THEORETICAL PERSPECTIVES

Change Theory.

"Change Theory" offers some understanding for the repetition of typical boom town conditions, and at the same time some rationale for the shift in focus represented by this study. Watzlawick et al., (1974) identify three ways in which mishandling of problems often maintains them: (1) action necessary, but not taken; denying that a problem exists; (2) action taken when it should not be; and (3) action taken at the wrong level of intervention.

It is not difficult from the history and literature of boom towns to illustrate all three, and to identify how problem definition and intended solution have sometimes conspired to keep people busy maintaining the problem with their "solutions" in a "game without end". Intervention at a different level could free them to deal with causes or to direct energies of planning and action toward a more productive and more positive target.

Image Theory.

The general theory of images, "eidetics", is rooted in the Greek word "eidelon" which Plato, Epicurus and Democritus used to refer to knowledge and the learning process. (Polak, 1973:11). Image Theory provides a framework for understanding the behavior of an organism or organization. One of its basic theorems is that the image determines the behavior. The image itself is built up from

all past experience (Boulding, 1973:6), including both images of fact and images of value (pp.11,12). The image acts as a field, and behavior consists in gravitating toward the most highly valued part of the field (p.115), reflecting Lewin's Field Theory. The image is seen as "the great intervening variable" between incoming and outgoing messages. This means that behavior is the result of the image, not merely the result of incoming messages or stimuli. The latter can change behavior only as it succeeds in modifying the image (p.28).

The image is a psychological phenomenon which has been referred to as "the picture in our heads" (Lippman, 1922:3); it is frequently future directed; and value determined, containing "not only what is, but what might be" (Boulding, 1973:26). Polak observes that "whereas all experiences are of the past, all decisions are about the future....The image of the future is the key to all choice-oriented behavior" (Polak, 1973:v). He views social change as a "push-pull process in which a society is at once pulled forward by its own magnetic images of an idealized future and pushed from behind by its realized past" (p.1).

Polak states further that "awareness of ideal values is the first step in the conscious creation of images of the future and therefore...of culture, for a value is by definition that which guides toward a 'valued' future. The image of the future reflects and reinforces these values" (Polak, 1973:10). He emphasizes that society must give thought to practical methods of image change and the kinds

of images that it needs; it must also examine and be vigilant concerning those images of the future in the minds of politicians, scientists, industrialists and professionals in every field (p.15), lest society be victimized by unworthy vested interests.

Boulding identifies three possible effects of messages on an image: the image may remain unaffected as with noise that is ignored; the image may be changed as with new information that is accepted and integrated; and, revolutionary change as when a message hits some sort of nucleus or supporting structure of an image and the whole thing changes in a radical way, --as in a religious conversion (Boulding, 1973:7,8), or the whole new way of seeing represented by a paradigm shift (Kuhn, 1970; Smith, 1975; Ferguson, 1980).

Image Theory incorporates ideas in the tradition of Allport, Maslow, Rogers and other theorists in psychology. Allport said that "we have paid more attention to the pathology of becoming than to its normal course, focusing upon disease rather than health..." (Allport, 1955:33); also, that "value-schemata are decisive factors in becoming"...that "values are the termini of our intentions" (p.90), and that "every man... has his own ultimate presuppositions...whether they be called ideologies, philosophies, notions, or merely hunches about life, exert creative pressure upon all conduct (p.95).

Maslow declared that "the study of the crippled,

stunted, immature, and unhealthy specimens can yield only a cripple psychology.... The study of self-actualizing people must be the basis for a more universal science of psychology" (Maslow, 1954).

Rogers, echoing Polanyi, speaks of "man being pulled by his subjective vision" (Rogers, 1980:238), and of turning from "a past-oriented remedial technology to focusing on future-oriented planning" (p.257).

Boorstin (1962) in a lament of the loss of the American Dream, sees the "image" as based on "what is" rather than "what might be", on modes rather than the ideal event or possibility. He observes that humanists had aimed at individualized portrait while the modal approach produced "group caricature"...."Naive emphasis on ideals had at worst tempted men to unrealistic pursuit of an abstract standard of perfection; emphasis on modes and images now tempts us to pursue the phantoms of ourselves" (p.202). In any case, he identifies as one of our "deepest unspoken beliefs...the belief in the malleability of the world" (p.204).

To the extent that the image is informed by the classical model of the physical sciences, an extreme use of quantification, a capitulation to positivism, and to value-free judgments (Polak, 1973:244), it will be limited to the modal past. The alternative, increasingly espoused and reflected in the foregoing literature, is to also inform the image with a realistic ideal, a future possibility.

While such studies have been uncommon, an appropriate paradigm for this current one was provided by Lewis et al.

(1976) in a family systems study. Two things are noteworthy: the study focus is on the interaction of the family system rather than the identified patient; and it studies healthy rather than problem families. The study establishes the feasibility of probing for well-being data in contrast, and in addition, to the more traditional focus.

"Community" and "Community Development" Theory

Nisbet says that "community is the product of people working together on problems, of autonomous and collective fulfillment of internal objectives, and of the experience of living under codes of authority which have been set in large degree by the persons involved" (Nisbet, 1970:xvi). He suggests that what is commonly established in the real world is "a kind of suburban horde" that lacks common functions and authority because "under a kind of 'rotten' borough system, effective control is vested elsewhere...". "What else", he asks, "but the social horde and alienation can be the result? --since "where power is external or centralized, where it relieves groups of persons of the trouble of making important decisions, where it is penetrating and minute, then, no matter how wise and good it may be in principle, it is difficult for a true community to develop. Community thrives on self-help (and also a little disorder), either corporate or individual, and everything that removes a group from the performance of, or involvement in, its own government can hardly help but weaken the sense of community" (Nisbet, 1970:xvi).

Klein (1968) defines community as "patterned interaction within a domain of individuals seeking to achieve security and physical safety, to derive support at times of stress, and to gain selfhood and significance throughout the life cycle". Franken (1975) points out that this definition rests on interactions of individuals rather than on the social organization, and that research confirms that "the community remains as the physical or psychological 'huddling place' wherein some semblance of safety and basic security can be found" (p.14).

Gutheim suggests that the idea that governments do things for people was once a great idea that is now passe' and that "the idea that a city should be organized primarily to make it convenient and efficient to do things for people (should be replaced by) the idea that it should facilitate people's doing things for themselves" (Gutheim, 1976:28). He asks, in effect, what it is in the move from the "organic community" to the urban community that has obliged us to sacrifice this capability? How can people be organized and communities strengthened in the ability to do things for themselves in the new setting?

Packard, echoing Nisbet, says: "The quest for community will not be denied, for it springs from some of the powerful needs of human nature --need for clear sense of cultural purpose, membership, status and continuity. Without these, no amount of mere material welfare will serve to arrest the developing sense of alienation in our society" (Packard, 1972:289). Eric Fromm asserts that "alienation in

abundance may be as inimical to human happiness as alienation in misery" (quoted by Goulet, The Myth Of Aid, 1971:17).

On the community relative to economic interests, Jose' Conrado Benitez observes that "economic growth spelled out in GNP does not measure the welfare of people living in communities. Considerations which in traditional economics are related to those of the business firm, can and must be translated to relate to the community" (Benitez, 1976:19).

The importance of the community to national planning is emphasized by The United Nations Environment Program (UNEP) Advisory Group. "A human settlements approach is a key conceptual instrument... national planning, through strategies for settlements, is a means of humanizing and socializing the whole development process. (It) sees man -in totality- in work, in play, at home, and in relationship with nature and the environment. Its objective is to ensure the spread of development efforts -the quality of life- to the people" (Bell, 1976:xvii).

Ward and Dubos assert that "there is no single policy that deals more adequately with full resource use, an abatement of pollution, and even the search for more labor-intensive activities than a planned and purposive strategy for human settlements" (Ward & Dubos, 1972:180).

Central concerns of the community, of development, and of community development are integrated by Goulet (1971): "The demand for development's benefits cannot be

silenced. The challenge is to be liberating rather than alienating in the process" (p.327).... "How development is obtained determines whether men are liberated or alienated....To achieve the benefits of development at the cost of sacrificing human freedom and critical intelligence is to negate the very good life and good society development seeks to produce" (p.298).... "Creativity (in development) must be the joint accomplishment of partners enjoying reciprocity in their mutual relations. Otherwise relationships are structurally exploitative" (p.37).... "As important as the goals themselves, are the means and their consequences on human life" (p.219).... "There's a difference between being the agent of one's development as defined in one's own terms, and being a mere beneficiary of development as defined by someone else" (p.19).... "The community should be the principal agent of its own development" (p.59).

Carl Rogers suggests that industry has done some limited experimenting with "person-centered" communities, and quite successfully, "until a point is reached where the goal of personal growth confronts --or appears to confront-- the goal of profit making.... There has been a ferment at work in our culture that has brought about many efforts to give more prominence to the dignity and strength and self-determination of the individual. As a culture, we are groping for future forms of community" (Rogers, 1980:184).

A source of hypotheses about community well-being is found in some theoretical writings about family systems

based in part on General Systems Theory as reviewed by Buckley (1967). He introduced a conceptual framework from which to view socio-cultural phenomena. Lewis et al.(1976:10) reflecting on Speer's (1970) review of Buckley, questions whether the concept of homeostasis is adequate for complex, adaptive systems. He suggests that disturbances of homeostasis may well be positive and that homeostasis itself may in some circumstances be a form of dysfunction. Speer postulates a relationship between flexibility, autonomy and absence of rigidity on the one hand, and system viability on the other. This would appear to have relevance to a community situation despite the fact that a resource town is not generally known for homeostasis.

SUMMARY

The literature reviewed has reflected the inherent problem of defining a general construct like well-being, whether of community or individual, and documented a variety of perspectives across disciplines and over time. The description-oriented literature of resource towns was then noted, and its preoccupation with community problems and pathology. Conventional quality-of-life studies in community settings were reviewed, tracing briefly the history, value and limitations of social and psychological indicator research, and the subsequent impact assessments in rapid growth areas. Finally, some theoretical perspectives were reviewed based on Change Theory, Image Theory, and theories of Community, and Community Development.

CHAPTER III

METHODOLOGY FRAMEWORK AND DESIGN

This chapter is presented in two major sections. Under "The Method Shapes the Inquiry" the Delphi method is characterized, followed in turn by a sketch of its history and applications, and by its advantages and limitations. The second section, "The Inquiry Shapes the Method", begins with the philosophical assumptions that have variously shaped Delphi studies. This is followed with a list of objectives derived from the literature review that helped shape the current study. The application of Delphi in this study is reflected in the design overview and in the step-by-step procedures of each Round. The chapter concludes with an overview of the study process.

THE METHOD SHAPES THE INQUIRY

Delphi Characteristics

Generally defined, the Delphi is "a structured, multistep, anonymous communication process which allows a group of individuals to deal with a complex problem" (Barrington, 1981:58). Defining characteristics of the method are summarized by the same author (p.59) to include:

1. Iteration or controlled feedback at various stages of the process;

2. Anonymous response ensured by questionnaire or computer;

3. Statistical analysis of group responses;

4. Revision of judgment in the light of added

information;

5. Reliance on intuitive judgment which may or may not be "expert"; and

6. A goal of consensus or the delineation of pros and cons of an issue.

Usually there are three groups of individuals involved in the process: the design and monitor team; the group of respondents sometimes referred to as the Delphi panel; and the user group that has commissioned the study.

Linstone and Turoff (1975) distinguish two types of Delphi. The "Conventional Delphi" is a paper-and-pencil version where a small monitor team designs a questionnaire that is sent to a larger respondent group. When the questionnaire is returned, the monitor team summarizes the results and on that basis develops a new questionnaire for the same respondent group. The respondents are usually given at least one opportunity to reevaluate their original answers based on examination of the group response. This form of Delphi combines a polling procedure with a conference procedure and shifts "a significant portion of the effort needed for individuals to communicate from the larger respondent group to the smaller monitor team" (p.5).

A more recent type, the "Real-time Delphi" replaces the monitor team to a large degree by a computer which is programmed to carry out the compilation of group results. The advantage is the elimination of delay caused by summarizing each round of Delphi. It makes more crucial that the characteristics of the communication be well

defined before Delphi is undertaken. In the paper-and-pencil version these characteristics can be adjusted as a function of the group responses (Linstone & Turoff, 1975:5).

Characteristics common to both types are represented by four distinct phases. Phase One explores the subject under discussion with opportunity for each participant to contribute additional information he feels is pertinent to the issue; Phase Two seeks to reach an understanding of how the group views the issue, i.e. the extent of agreement or disagreement and/or what they mean by relative terms such as importance, desireability, feasibility, etc. Phase Three seeks to elicit the underlying reasons for disagreement or differences in responses, and assesses them. The Fourth Phase is one of evaluation when all previously gathered material and analysis is fed back to participants for consideration and final response (Linstone & Turoff, 1975:6).

History and Applications of Delphi

An Air Force-sponsored Rand Corporation study in the early 1950's concerning the use of expert opinion marks the beginning of what is now known as "The Delphi Method". The objective of that study was to "obtain the most reliable consensus of opinion of a group of experts...by a series of intensive questionnaires interspersed with controlled opinion feedback" (Linstone & Turoff, 1975:10).

Due to the classified military nature of "Project Delphi" it was more than a decade later in 1964 that Olaf

Helmer, involved in the original Delphi, together with J. Gordon, drew the attention of persons outside the defense community to the potential of the Delphi method. In this case it was applied to a forecasting study. Its aim was to assess "the direction of long-range trends, with special emphasis on science and technology, and their probable effects on our society and our world" (Helmer, 1966).

While much of Delphi's use has been in "futures" studies, it has also seen application in many other contexts where subjective judgments were indispensable. These have included, observes Helmer in retrospect over 20 years after "Project Delphi", "normative forecasts; the ascertainment of values and preferences; estimates concerning the quality of life; simulated and real decision making; and what may be called 'inventive planning' by which is meant the identification...of potential measures that might be taken to deal with a given problem situation and the assessment of such proposed measures with regard to their feasibility, desirability, and effectiveness" (Foreword by Helmer in Linstone & Turoff, 1975:xix). Polak (1971) has identified the latter application of Delphi as a "brainstorming technique" involving exchange of ideas in a controlled way.

Helmer identified two areas where "further solidification of the Delphi technique clearly would be desirable...: to provide judgmental input data for use in studies in the social science area where hard data are not available or too costly to obtain; and to gather expert

opinions among the nationwide 'advice community' on which governmental decision-makers frequently rely" (Linstone & Turoff, 1975:xix-xx).

This latter application has since come to be known as the Policy Delphi (Linstone and Turoff, 1975), though it was already introduced in 1969 (Turoff, 1970). This application represented a departure from previous ones in two ways: policy input was not a technical topic, and the Policy Delphi sought to generate the strongest possible opposing views on the potential resolution of policy issues. The Policy Delphi is a tool for analysis of policy issues rather than a mechanism for making a decision per se. Generating consensus is not a prime objective (Linstone & Turoff, 1975).

Increased use of the Delphi in the social sciences has since been noted. In 1977 it was suggested that while Delphi studies had been conducted mainly in the physical sciences and engineering, it was projected that increased use would be made in the social sciences such as "assessing social values, measuring the quality of life and society, and determining the social worth of various occupations in comparison with current wages and salaries" (Brockhaus & Mickelsen, 1977:107).

Advantages of Delphi

The distinguishing features of Delphi which consistently run through the diverse studies cited, also comprise its primary advantages. They are: anonymity of participation, controlled communication and feedback, time

and cost efficiency, and pedagogical effect.

Anonymity of Participation. Recognizing certain costs of not having face-to-face discussion, the advantages are: influence of strong personalities is minimized; group pressure is avoided; persons who would be quiet in a group have equal opportunity; and the factions and frictions of politically and personally diverse individuals are avoided (Ascher, 1978:191).

Controlled Communication and Feedback. The structured communication process has advantage over a round-table discussion for maintaining focus on topic. The researcher's role of monitor, facilitator, and editor aids in simplifying and clarifying issues (Barrington, 1981:64).

Time and Cost Efficiency. A large number of individuals can participate in grappling with a complex issue at their own convenience. Problems of distance and schedules are minimized by bringing "discussion" (usually by mail) to the individual. Administration costs of the method are relatively low. The time required is in concentrated time blocks which allows for other work in between.

Pedagogical Effect. This feature was recognized as the single major advantage of the Delphi method by its most condemning critic (Weaver, 1970:3). While documented measurement of the learning that occurs among participants has been minimal, Delphi designers continue to believe that respondents regard participation as an interesting and worthwhile task (Weatherman & Swenson, 1974,112). In the

current study approximately 85% of those responding to the yes or no mail-out reply card invitation to participate replied in the affirmative.

Diversity of Application. The broad application of the Delphi tool in very diverse fields has already been noted. It also lends itself to involving individuals of very diverse education, age, income levels, cultural roots, and employment shifts. It is equally useful for a homogeneous group as for a very diverse sample. In the current study, representatives of industry, government, high school students, and other community residents could all participate equally.

Delphi Limitations

The limitations to be cited are not consistently applicable to all studies that employ Delphi procedures. The orientation of the critic and the purpose of the study both determine whether some of the following are seen as limitations. Those listed have been summarized by Barrington (1981) as "disadvantages" based largely on the critique of Weaver (1970) who was a severe critic of the Delphi method. Not all of these apply to the current study as limitations.

Convergence. This was sharply criticized by Weaver (1970:2) and refers to the procedure, especially of earlier Delphis, to seek consensus. Panel members were provided group response means and their own former answer with a chance to revise their response. Generally, revised estimates tended toward the group norm regardless of what might be considered a "true" answer.

The risk in seeking convergence is that it may stifle conflict and debate when they are most needed. Mitroff and Turoff (1975) suggest that while the consensus-oriented Delphi may be appropriate to technological forecasting, it may be inappropriate for such things as technology assessment, objective policy formulation, strategic planning, and resource allocation analyses. These latter applications of Delphi often, or should, involve the necessity to explore or generate alternatives, which is very different from generation of consensus.

The judgments that survive a Delphi convergence procedure may represent a compromise position rather than the "best" judgments. Most Delphi of the seventies have down-played the importance of convergence of opinion and in Policy Delphi it has been eliminated (Barrington, 1981:66).

For the current study the interest was not to generate convergence, but to determine what commonality existed in their views about community well-being.

Explanatory Power. The failure to share the assumptions behind responses that happen to agree with the norm, produce results of dubious value. There is no way of knowing whether "agreements were based on false or naive assumptions, linear thinking, or coincidence" (Weaver, 1970:37-38).

Panel Selection. A long-standing issue has been the qualification of panel members. Brooks (1979:379) declared that an inadequate panel represents pooled ignorance. In a

study that is seeking information based on technological or professional expertise, this looms as a greater disadvantage than in the current study where resident experience in a resource town constituted the qualification required to serve as an "expert".

The best approach to panel selection is to match "panel expertness...to the objective of the study in question, representing as many viewpoints as feasible while maintaining manageability" (Barrington, 1981:67).

Predictive Accuracy. Some evidence has been cited by Weaver (1970) that found accuracy of group responses to increase with iteration in some cases while in others convergence tended to lose the "correct" answer. Recent Delphi, like the current one, have been more exploratory of complex issues to uncover options than to find a single "right" answer.

Process Weaknesses. In 1974 under the auspices of the same corporation that introduced the Delphi method in the early fifties, Sackman, in a searing attack on the method, concluded that it should cease to be used. He argued that in view of current standards of social experimentation, test design, sampling, use of experts, and interpretation of findings, the Delphi was unreliable and unscientific.

In a rebuttal, Coates (1975:193) points out that Sackman had missed the important point that the Delphi is not a scientific tool in the traditional sense and, for that reason, must not be judged by the scientific canons that

apply to survey research. Sackman had conveniently limited his comments to the traditional Delphi and had missed or ignored the many variations and advances that have occurred since the late sixties (Barrington, 1981:68).

Process weaknesses that have been documented include; lack of certainty in guidelines for design; the character of Round 1, i.e., whether to have respondents react to prepared statements, mind sets or other input, or to respond in a non-structured fashion; the process of summarizing and editing, since some study monitors have indicated uneasiness that the construction of subsequent questionnaires may not sufficiently reflect respondent views and comments in the process of summarizing and providing some structure (Rasp, 1974:324); and finally, time frame. The process can run from four to eight months and should not be rushed (Barrington, 1981:69).

For the current study, the flexibility of the Delphi design has been an important strength. The weaknesses suggested about Round 1 were avoided by conducting in-depth interviews for the first round of data. The cautions about summarizing and editing are appropriate, but by careful, methodical content analysis the weakness can be minimized. In terms of time frame, this study projected a ten-month period.

"The value of the Delphi is not in reporting high reliability consensus data, but rather in alerting the participants to the complexity of issues by forcing,

cajoling, luring them to think, by having them challenge their assumptions" (Coates, 1975:193). Similarly, "the Delphi method is more of an art than a science, a structured conversation or communication technique for drawing forth ideas, options, alternatives" (Linstone & Turoff, 1975:3).

THE INQUIRY SHAPES THE METHOD

Philosophical Assumptions

The Delphi has been influenced by more than one philosophical ancestor. This is of symbolic, as much as philosophic, interest since it anticipates a central conclusion about community well-being that has emerged from this study, i.e., that there is no one way to guarantee or achieve it. Of practical importance is its call for a more holistic framework for the methodology employed than is provided by any one of the traditional inquiry systems whether based on Leibnitz, Locke, Kant or Hegel.

Mitroff and Turoff (1975) suggest that Delphi users are "no less remiss" than others in "hiding behind catchwords and fancy names" that obscure not only different philosophical images of reality, but also their common interest in establishing the validity or "truth content" of a communication act or acts (p.18).

In view of the relevance or impact on Delphi of each of the traditions named, as well as their fundamental differences, a comparative overview is provided in Figure 1 which summarizes an extensive discussion by Mitroff and Turoff (1975:19-35).

INQUIRING SYSTEM	TRUTH IS. . .	COROLLARY IS:	THE EPITOME OF:	IMPACT ON DELPHI
LOCKE	experiential	truth of model does not rest on theory; emphasis is on data	experimental, consensual systems	basis for Delphi's use of large N for adequate treatment
LEIBNITZ	analytic	truth of model does not rest on any external considerations; emphasis on theory	formal, symbolic systems	Delphi accused of being unscientific
KANT	synthetic	neither theory nor data has priority over the other; they are inseparable	multimodel, synthetic systems; gives mahy explicit views of problem situation.	seeks to elicit alternatives; allows for many informed persons in different disciplines to contribute
HEGEL	conflictual	data input totally meaningless until coupled with a dialectic, a plan and counterplan	conflictual, synthetic systems	Policy Delphi; consensus not sought
SINGER-CHURCHMAN	pragmatic	system forms inseparable whole; holistic; designer himself part of system; integrates facts of science with values of ethics	synthetic, multimodel, interdisciplinary system; a meta-inquiry system; a theory about all the others	future oriented; projections based on views of many disciplines, professions, personalities; self-reflective questions; study process as important as product

Figure 1. Philosophical and Methodological Foundations of Delphi. Compiled from Mitroff & Turoff (1973), In Linstone & Turoff, 1975.20-35.

To show that there is no one system of inquiry that can satisfy our every requirement, i.e, best in all senses and for all circumstances, is not to say that each of these modes does not appear to be "better suited" for some special set of circumstances" (Mitroff & Turoff, 1975:18). For example, social problems seem to call for at least a Kantian approach. The concept of "technology assessment" as a vehicle for determining the relationships between technology and social consequences would seem to call for no less. The Singerian system presents the most appropriate model for the current study though parts of the others have been shown to be relevant for specific purposes. Distinctions between the philosophical systems named are differentiated in the kind of characteristic question that each would raise concerning any given proposition (Figure 2). Each question embodies the major philosophical criterion that would have to be met before that Inquiring System would accept the propositions as valid or true (Mitroff & Turoff, p.19).

Mitroff and Turoff's concluding reflections on the strengths and weaknesses of the Singerian system affirm a Delphi approach for the current study and provide an appropriate bridge to the objectives that helped to shape the design:

> The strength of Singerian inquiry is that it gives the broadest possible modeling of any inquirer on any problem. The weakness is the potentially prohibitive cost involved in comprehensive modeling efforts. However, given the increased fear and concern with our environment, we may no longer be able to afford the continued "luxury" of building large-scale Leibnizian and Lockean technological models that are devoid of serious and explicit ethical considerations and which

The LEIBNIZIAN analyst or inquiry system would ask something like:

> How can one independently of any empirical or personal considerations give a purely rational justification of the proposed proposition or assertion? Can one build or demonstrate a rational model which underlies the proposition or assertion? How was the result deduced; is it precise, certain?

The LOCKEAN analyst or inquiry system would ask something like:

> Since for me data are always prior to the development of formal theory, how can one independently of any formal model justify the assertion by means of some objective data or the consensus of some group of expert judges that bears on the subject matter of the assertions? What are the supporting "statistics"? What is the "probability" that one is right? Are the assertions a good "estimate" of the true empirical state of affairs?

The KANTIAN analyst or inquiry system would ask something like:

> Since data and theory (models) always exist side by side, does there exist some combination of data or expert judgment plus underlying theoretical justification for the data that would justify the propositions? What alternative sets of propositions exist and which best satisfy my objectives and offer the strongest combination of data plus model?

The HEGELIAN (Dialectical) analyst or inquiry system would ask:

> Since every set of propositions is a reflection of a more general theory or plan about the nature of the world as a whole system, i.e., a world view, does there exist some alternate sharply differing world-view that would permit the serious consideration of a completely opposite set of propositions? Why is this opposing view not true or more desirable? Further, does this conflict between the plan and the counterplan allow a third plan or world-view to emerge that is a creative synthesis of the original plan and counterplan?

The SINGER-CHURCHMANIAN analyst or inquiry system would ask:

> Have we taken a broad enough perspective of the basic problem? Have we from the very beginning asked the right question? Have we focused on the right objectives? To what extent are the questions and models of each inquirer a reflection of the unique personality of each inquirer as much as they are felt to be a "natural" characteristic or property of the "real" world?

Figure 2. Characteristic Questions of Five Inquiry Systems
By Mitroff & Turoff, (1973) In Linstone & Turoff, 1975:19.

> fail to raise the self-reflective question. We certainly no longer seem able to afford the faulty assumption that there is only one philosophical base upon which a technique can rest if it is to be "scientific". Indeed if our conception of inquiry is "fruitful" (notice, not "true" or "false" but "productive") then to be "scientific" would demand that we study something (model it, collect data on it, argue about it, etc.) from as many diverse points of view as possible. In this sense strict Leibnizian and Lockean modes of inquiry are "unscientific" because they inhibit this effort...(Mitroff & Turoff, 1975: 35-36).

Objectives For the Study

The literature review established the need for a study approach that would meet the following objectives:

1. Resident perceptions would be the basic data source;

2. Subjective as well as objective dimensions would be considered valid;

3. Qualitative as well as quantitative data would be used;

4. Well-being criteria besides medical and economic ones would be identified;

5. Data of relevance would not be limited to social indicators of what is past;

6. It would reflect a collective vision of what is possible, and what residents consider essential for community well-being;

7. It would be exploratory in nature to contribute to or facilitate an "image" of community well-being that would act as a field toward which expectations, planning, and behavior could be drawn and/or directed.

8. Residents of a community would be engaged in a process of reflecting and identifying appropriate

community well-being aspirations and the actions required to move in that direction.

Design Overview

Restatement of the Problem. The central problem of this study has been to identify the factors of "community well-being" in terms of its characteristics, what helps it happen, and what hinders its occurrence.

Focus of the Study. The focus of this study has been "community well-being" in a resource town. The study was not designed to measure the level of community well-being nor individual life-satisfaction in the data source community. The focus precedes that and contributes to identifying the factors of community well-being in terms of what characterizes, what helps, and what hinders it. The principles and many of the criteria identified are believed to apply in any community.

Preliminary Procedures. The first step at the community level was to discuss the proposed study with the chairman of a community task force on health and social services, now called The Fort McMurray Coordinating Council for Health and Social Services. A meeting was arranged with that group and their endorsement obtained which included a letter of recommendation to The Government of Alberta that the project be funded. This was achieved via Alberta Environment's Impact Assessments Division.

A meeting with the mayor and one with a representative of the Northeast Alberta Commissioner in Fort McMurray were also held, both to inform and to enlist their support.

This was granted and in the mayor's case was confirmed by letter.

The Application of Delphi. A Delphi approach was attractive for this study for the communication and discovery process it facilitates as much as the research product that it generates. Also, the method "lends itself to problems which cannot be solved by precise analytical techniques but which benefit from subjective judgments on a collective basis" (Linstone & Turoff, 1975:4). It serves to engage a large number of persons in finding solution to a problem that concerns them all, a solution that may elude the trained experts. Collective input is considered essential to overcome the limitations of the trained specialist whose training does not enable him to reflect on all the factors which the decision-maker must account for in the process of reaching a decision. In line with a Hegelian perspective the expert's view is better seen as just one component of the decision analysis process.

In this study the first step was to meet with two knowledgeable residents of Fort McMurray who had lived in the area for over a decade, to have them identify other current residents who have lived there during at least one of the boom periods. From that list a sample of 30 persons was selected for in-depth interviews. They were selected with consideration for a range of occupations, age, and experience. Both women and men were interviewed.

The personal interview represents a departure from Delphi precedent for Round One data collection. It was done

here, despite the additional costs, in order to overcome some of the "process weaknesses" of Delphi identified earlier. Also, because of the understandable tendency of some to answer questions specifically in terms of Fort McMurray instead of "community well-being" in the abstract, the personal interview permitted some control on that tendency that would not have been possible in Round One by mail.

The Round Two sample was made up of a broad cross-section of persons involved in the community in some way. Names and addresses were derived from a community resources information booklet, a random sample from the local telephone directory, plus the thirty persons interviewed in Round One, for a total of just over 400 initial mailouts.

Round Three invitations went out to all who actually participated in Rounds One and Two, 30 and 99 respectively. The number who attended the seminar was 24.

RESEARCH PROCEDURES

Round One

Instrument Development and Validation. An interview schedule was designed (Appendix A) to stimulate reflection and imagination and to facilitate a personal (community) "futures orientation" (Linstone & Turoff, 1975) with respect to community well-being in a resource town.

An early draft of the interview schedule was circulated with several advisors and a research colleague for validation. It was then field tested and some wording

revisions made prior to its use for in-depth interviews.

The format was open-ended with a series of questions to guide the interviews uniformly. The questions were designed to encourage reflection and to elicit responses related to the central focus of this study. They were varied and open-ended to allow optimum freedom of response, while contributing to what describes, what helps, and what hinders community well-being.

Data Collection. Individual interviews were pre-arranged by personal contact or phone call to explain the project; to request an interview; to indicate why he/or she was selected; and the approximate time required. Interviews ranged between one and three hours. There were no refusals. Twenty-nine interviews were conducted with 30 individuals. One married couple was interviewed together.

Data Analysis Procedures. Since the responses were based on open-ended questions a careful content analysis procedure was followed in order to appropriately summarize the results into eventual lists that Phase Two participants could respond to by mail. The procedure included the following:

1. Transferring each response for each question to a data card and arbitrarily giving the first entry on a card a tentative title. The use of cards was to facilitate sorting later;

2. Adding similar responses to categories (cards) already started;

3. Summarizing responses on each card;

4. Sorting of cards to bring together related categories;

5. Naming of a general descriptor title thatcould appropriately represent each of the related categories;

6. Validating of categories and descriptors.

Round Two

Instrument Development. A rating instrument was developed that incorporated in two lists the results of the Round 1 content analysis, i.e., what the people interviewed had identified as the significant factors of community well-being (Appendix B).

Originally three lists were anticipated to parallel the three questions given above in the "Statement of the Problem". But in summarizing the results of Round I, the overlap between "What characterizes..." and "What facilitates..." community well-being was so extensive, that the distinction for Round 2 participants would have been virtually meaningless. It was then decided to integrate those results into one list, subsequently identified as "List #1". The responses to "What hinders..." were summarized as "List #2".

For List #1, respondents were asked to indicate their rating of each item's importance to community well-being. Similarly, List #2 items were rated to reflect perceived hindrance to community well-being. Ratings were done on a 5-point scale.

Instrument Validation. A rather extensive procedure was followed before the rating instrument was released to the mailout sample. The following steps were involved:

1. Circulation of an early draft to several advisors for comment.

2. Field testing of instrument with two grade 12 social studies classes in Fort McMurray.

3. Final wording revisions and a few changes in category descriptors followed the field test.

Data Collection. This phase was carried out by mail in the following steps:

A mailing list of approximately 400 names was assembled from three sources. The names and addresses listed in the Fort McMurray Community Resources Information Booklet represents a broad cross section of ethnic, professional, and volunteer groups. This made up about two thirds of the sample. A random sample from the local telephone directory added another 120 names. The first and middle names on each page were selected. The 30 Round 1 participants constituted the third source for this mailing list.

A letter of explanation and invitation was mailed to the above mailing list with a postage paid reply card on which individuals could indicate with a check mark whether or not they wished to participate (Appendix C). Table 1 summarizes how people responded to the invitation.

The persons who checked "yes" were immediately sent the two lists of the Round 1 results, to receive their "importance" and "hindrance" ratings of the factors listed.

Table 1

Round Two Sample Record

Sample Record		Sample N	N Returns	% Returns
Population Lists:				
Round One Interviews		30	18	60%
Community Resources Information Book		255	69	27%
Telephone Directory (random)		129	12	9%
		414	99	
Eliminations:				
List Duplications	20			
Postal "unclaimed" returns	18			
Total	38	- 38		
Net population invited to take part		376	99	26%
Process losses:				
No response to invitation	205			
I-will-not-take-part replies	26			
Yes replies but no follow thru	46			
Total process losses	277	- 277		
Actual Sample of completed returns		99		
Percentage returns of net starting population			-	26%
Percentage returns of "yes" replies (144)			-	69%

A brief news report was arranged to appear in the Fort McMurray TODAY a few days prior to the mailout. The intent was to provide some prior awareness concerning the study that was underway. It was hoped that such awareness would stimulate interest and readiness to participate in the study. There has been no way of knowing what effect the news item had on participation. The news release was very general in content so as not to influence participants in their responses. The final number of completed returns was 99.

Data Analysis Procedures. Since the data in Round Two were based on the mail-out Rating Questionnaire, the analysis procedure involved summarizing and computing the responses. This was to determine the relative significance - "importance"or"hindrance" - of the various factors identified by Round One participants, as seen by the larger sample of Round Two. The procedures involved computing the results in terms of the following:

1. The number and percentage of Round Two respondents that agreed, yes or no, that any given item on the lists was a factor of community well-being;

2. The most frequently indicated rating, i.e., the mode;

3. The extent of convergence or divergence of view between Round Two respondents and their neighbors of Round One, based on mean scores;

4. The percentage of Round Two respondents that rated List #1 items as either "extremely" or "very" important, and List #2 items as either "extreme" or a "major" hindrance to community well-being;

5. The rank order of factor importance/ hindrance, based both on mean scores, and on percentage of sample making a given rating.

The results of the various analysis procedures are elaborated in Chapter IV.

Round Three

Round Three involved a Feedback Seminar with participants of Rounds One and Two. The procedures were designed to serve three functions: to report findings of Rounds One and Two to participants; to invite comment and interpretation of the findings; and to obtain participants' assessment of the study process as a tool for adult educa-

tion or fostering public awareness about issues such as community well-being. Overhead transparencies of key tables were prepared for presenting the findings; a discussion period was arranged to elicit responses from participants; and a short questionnaire was presented to obtain their assessment of the study process. See Appendix D for handouts presented.

OVERVIEW OF STUDY PROCESS

It is more appropriate to identify this study process as within the Delphi framework than to refer to it as a Delphi "technique". A number of approaches were identified by Linstone & Turoff (1975), but they avoided a specific definition of Delphi on the philosophical basis that "when something has attained a point at which it is explicitly definable, then progress has stopped" (p.3). Their view is that the Delphi method is still evolving and may be seen as both an art and a science.

In terms of the inquiry systems outlined earlier in this chapter, the current study is most identifiable as Singerian, though generally, Singerian inquiry has been conspicuously absent from the field of Delphi design. Mitroff & Turoff's (1975) projection of what a Singerian inquiry system would be like is descriptive of this study. "In a Singerian Delphi, one of the prime features of the exercise would not only be to add to our 'substantive knowledge' of the subject matter under investigation, but just as much to add to the participants' knowledge of

themselves...to raise the self-reflective question" (in Linstone & Turoff, 1975:35).

An affinity between this study and the Singerian Inquiry System has been apparent in several ways. This system seeks to base its projections on as many diverse disciplines, professions, and personality types as possible; it assumes that values and science are inseparable, that the scientist's world of facts (the language of "is") and the ethicist's world of values (the language of "ought"), go together; and finally, it is open-ended. "Singerian inquirers never give final answers...although at any point they seek to give a highly refined and specific response" (p.33). Each of these statements is descriptive of this study.

CHAPTER IV

DATA DESCRIPTION AND ANALYSIS

INTRODUCTION

In line with one of the objectives listed in the previous chapter, this study has obtained resident perceptions concerning the factors of community well-being. Results of the three rounds of data gathering are summarized and discussed in this chapter. An overview of each round includes its purpose and a brief description of the instruments and procedures employed. This is followed for Rounds One and Two with a profile of respondents, and for all three rounds, a description and analysis of the data.

Round One involved content analysis of the interview data. The resulting lists became instrumental for obtaining ratings in Round Two from a larger population. Analysis of Round Two included tabulating responses in terms of simple totals, the most frequently selected ratings, the level of agreement by Round Two respondents concerning factors identified in Round One, the factors of greatest importance and hindrance to community well-being, and assessment of each factor's importance relative to others in the same category.

ROUND ONE

Overview

The purpose of Round One was summarized in a written statement that was presented to respondents prior to the interview:

> "Our interest is to learn from persons who have experienced life in a resource town during a boom period, what you see as most essential to achieve community health and stability, a condition we call 'community well-being'. Since community well-being may mean different things to different people, and may even change over time for the same person, our task is to find out what are the most central or important elements of community well-being as seen by most residents" (Appendix A).

Round One interviews were kept uniform by an interview schedule of open-ended questions. Prior to any structured questions, each respondent was invited to free associate on the concept of "community well-being" or a "well community". They were asked, "What first comes to your mind? What synonyms? What descriptive words or phrases? What do you associate with community well-being?" (Interview Schedule, p. 2, Appendix A).

Residence during at least one boom period was required to qualify as a respondent. This conveniently identified persons in Fort McMurray that had no less than a five-year commitment to, and perspective of, that community, including the Syncrude boom period. It was assumed that a boom period identifies a community at its most stressful time, and that people who survive that, --perhaps even thrive on it, but also those who do not, must have something to share about community well-being. The product of Round One was data for two lists of factors relevant to community well-being. These became the basis for ratings by the larger community sample of Round Two.

Profile of Round One Respondents

There were 12 women and 18 men interviewed. They

collectively represented 417 years residence in Fort McMurray for an average of 13.9 years per person. Length of residence ranged from 5 years to 30 years.

Thirteen individuals said they had moved to Fort McMurray intending to stay while an equal number did not see it as a permanent move when they came. Most of these became involved and committed to stay some time later. Four reported growing up there, and four others came because of a transferred spouse.

In terms of formal education, four reported less than grade 12, nineteen had 12 to 16 years of school, and seven reported graduate study. The range of occupations and professions represented by this group is summarized in Table 2.

How respondents feel about living in Fort McMurray, more than half (17) reported being "delighted" (7) or "pleased" (10). An additional ten indicated "mostly satisfied". Two reported "mixed" feelings, i.e., "equally satisfied and dissatisfied". One was "mostly dissatisfied" and expects to move out within two years.

Respondents were asked to indicate their feelings about life in a resource town during a boom period. While most reported somewhat less satisfaction then, than now, again only one indicated being "mostly dissatisfied", but it was not the same person. The latter is currently filling a prominent civic position and sees himself as a permanent resident of the community.

Table 2

Occupations and Professions Represented
By Round One Participants

Occupation or Profession	Number
Small Business - - -	9
Ready Mix cement	
Auto dealership	
Motor Hotel hostess	
Pharmacy	
Newspaper	
Restaurant food services	
Grocery	
Real Estate	
Author	
Government - - -	4
City (2)	
Provincial (1)	
Federal (1)	
Homemakers/Volunteers - -	6
Education - - -	3
Health - - -	3
Nurses (2)	
Physician (1)	
Industry - - -	2
Social Services - - -	2
Clergy - - -	1
Total	30

The age profile of Round One respondents is shown in Table 3.

Table 3

Age Profile of Round One Respondents

Age	20-29	30-39	40-49	50-59	60-69	Total
Number of Persons	6	5	10	7	2	30
Sample %	20	17	33	23	7	100
'81 Census %	47	32	13	5	2	

To summarize, the interview sample comprises a cross-section of community interests, occupations, and age groups of men and women. The primary qualification was residence experience. In a few cases their residence experience spanned two major boom periods. Most indicated satisfaction with life in this resource town. Their educational training was above average though that was considered incidental for this study. The sample's age deviation from the '81 census is considered favorable for the purposes of this study, assuming that it reflects more seasoned community perspectives than a sample aligned with the city's younger average age.

Data Description and Analysis for Round One

The content analysis outlined in Chapter III involved the integration of responses to the various open-ended questions of the Round One interviews. The result was two lists of factors which were identified as being positively or negatively related to community well-being (Tables 4 & 5).

In the nature of Delphi, the results of Round One (the following lists) became instrumental for Round Two. The Round Two instrument (Appendix B) elaborates the listings in more detail by including phrases from the interviews that gave rise to and support the factors listed.

Table 4

List #1 Summary of Interview Responses Concerning What "Helps", "Goes With", or "Describes" Community Well-Being

Table 4 summarizes 42 items in 6 categories that respondents said help community well-being. The organizing categories are Personal Attributes, Value Assumptions, Leadership Arrangements, Collective Actions (involving government, community, and industry), Environmental Factors, and Community Conveniences and Necessities.

1. Personal Attributes:
   - Initiative
   - Involvement
   - Responsibility
   - Imagination
   - Commitment
   - Cooperation
   - Compatibility
   - Self-Reliance

2. Value Assumptions:
   - Opportunity (choice)
   - Diversity (contrasts)
   - Reciprocity (mutual give and take)
   - Autonomy (freedom for local government)
   - Identity (uniqueness)
   - Variety
   - Creativity
   - Viability (ability to thrive & grow)
   - Integrity (trustworthiness)
   - Purpose

3. Leadership Arrangements:
   - Shared responsibility
   - Local government
   - Government that enables
   - Government that avoids conflict-of-interests
   - Industry that supports community

4. Collective Actions (of gov't., community, & industry)
   - Informed Planning
   - Setting Priorities
   - Communication and Responsibility Networks
   - Organizing Locally
   - Recruiting for Community
   - Information Sharing
   - Environmental Stewardship

5. Environmental Factors:
   - Social Environment "good place to put down roots"
   - Natural Environment of clean air, water, and soil
   - Visual Environment that appeals
   - Viable Economic Environment
   - Spiritual Environment that values more than money
   - Psychological Environment of trust and contentment

6. Community Conveniences and Necessities:
   - Basic facilities & services at affordable cost
   - Physical Infrastructure
   - Social Infrastructure
   - Commercial Infrastructure
   - Cultural Infrastructure
   - Services

Table 5

List #2 Summary of Interview Responses Concerning What "Hinders" or "Prevents" Community Well-Being

Table 5 summarizes 35 items in three categories which respondents said hinder community well-being. Those categories are Personal Issues, Leadership Issues, and Impact Issues.

1. Personal Issues:
   A. Spouse and family
      Spouse dissatisfaction
      Marriage breakdown
      Little to hold family together

   B. Personal finance issues
      Mismanagement of finances
      Fast-buck artists

   C. "Putting Life on Hold" attitudes
      No commitment to community building
      Very little community involvement

   D. Motivation and Qualifications
      Losers ("beer and television" aspiration level)
      "Here for wrong reasons"

2. Leadership Issues:
   A. Leadership patterns
      "Ivory Tower" decision-making (too far removed)
      "Crisis Management"
      "Vested Interests" and "Conflict of Interests"
      "Colonial" Arrangements (control outside community)
      Bureaucracy Difficulties

   B. Leadership procedures
      Inadequate planning
      Ineffective organization(s)
      Inappropriate recruitment practices
      Unfair publicity
      Inept administration
      Lack of coordination

   C. Leadership priorities
      When economic advantage of investing in community health and stability is overlooked;
      Failure to recognize the importance of the family
      When only money incentives are offered

3. Impact Issues:
   A. "Too Much Too Fast" factors
      The Pace
      The Costs
      The Isolation
      The Transience (mobility & turnover)
      The Crowding
      The Stress
   B. "Too Little Too Slow" factors
      Inadequate information
      Inappropriate funding arrangements
      Single industry limitations
      Discouragements for small business
      Unsatisfactory transportation systems
      Hindrances to responsible local government

ROUND TWO

Overview

The purpose of Round Two was to have a large cross-section of community residents rate the significance of the items or issues identified in Round One, in terms of "importance" or "hindrance" to community well-being. A five-point rating scale was presented. Two other options of "No opinion/don't understand" and "Does not apply" were also included. Space was provided to add items to either list that respondents felt were missed by Round One participants. Since this round was administered by mail, a personal data sheet was included to determine the characteristics of respondents (Appendix B).

Note that totals in the following summaries do not consistently reflect 99 participants. There are several reasons. One person chose not to return the "Personal Data Sheet". Others left an occasional item unanswered. In two cases respondents appeared to have turned two pages at once thus skipping a whole page. Since this study has not been based primarily on statistical reporting, incomplete returns were not discarded. The most frequently unanswered question had to do with salary level considered necessary for satisfactory living in a town like Fort McMurray in 1982. Calculations in the following section are based on the actual number (N) reporting on any given question.

Profile of Round Two Respondents

Given the nature of the mailing list sources, no control was imposed to guarantee an equal number of males

and females on the original list. No control of respondents could have been maintained by mail in any case. Of the 99 respondents in Round Two, 38 percent were female and 61 percent were male. Marital status and number living in the same household are summarized in Tables 6 and 7. Nearly 84 percent reported a married or common law status. The average number per household of 3.5 compares to 3.4 of the 1981 census.

Table 6

Marital Status of Round Two Respondents

Marital Status	Single	Married or Common law	Separated Divorced	Widowed	Totals
Number Reporting	9	82	5	2	98
Percentage of total	9.2	83.7	5.1	2	100%

Table 7

Number Living In Same Household As Respondent

Size of Household	One	Two	Three	Four	Five	Six or more	Totals
Number Reporting	4	21	20	29	13	6	93
Percentage of total	4.3	22.6	21.6	31.2	13.9	6.4	100%

Tables 8 and 9, reporting length of residence and projected plans to stay, reflect a relatively stable population. Over half of 98 reporting, lived in Fort McMurray more than five years (compared to 28% of the '81 census); nearly 25 percent, more than ten years; five percent arrived within the last two years; and six percent have resided

there less than a year.

Table 8

Length of Residence in Fort McMurray
Sample Compared to 1981 Census

Time Period	Sample N	Sample %	1981 Census %
Less than 12 months	6	6	11
Between 1 and 2 years	5	5	19
2 and 5 years	34	35	41
5 and 10 years	29	30	19
10 and 15 years	11	11	7
15 and 20 years	9	9	3 (15 yrs.
More than 20 years	4	4	or more)
	98	100%	100%

Regarding plans to stay, 53 per cent of 96 reporting plan to stay indefinitely. Only 2 per cent indicated current plans to leave. About 24 per cent projected staying 2 to 5 years, and just under 21 per cent expect to stay 5 to 10 years (Table 9). Sixty-one per cent of 98 respondents said they saw it as a fairly permanent move when they came.

Table 9

Projected Plans to Continue Residence in Fort McMurray

Projected Stay	Arranging to move	2 to 5 years	5 to 10 years	Indefinitely	Totals
N Reporting	2	23	20	51	96

A large number (nearly 89%) reported being satisfied with living in Fort McMurray. Approximately 8 per cent reported "neither satisfied nor dissatisfied", and three individuals reported dissatisfaction (Table 10). More than 75 percent of respondents reported being satisfied with

their 1982 income for living in a resource town like Fort McMurray.

Table 10

Satisfaction With Living In Fort McMurray

Level of Satisfaction	Very Sat.	Sat.	Neither Sat. nor DisSat.	DisSat.	Very DisSat.	Totals
Number Reporting	37	50	8	2	1	98
Percentage of total	37.8	51	8.2	2	1	100

The reasons indicated for coming to Fort McMurray are summarized in Table 11. Some checked more than one reason.

Table 11

Reasons For Coming To Fort McMurray

Reasons Indicated	N
Transferred here by employer	17
Applied and was offered job here	44
Came looking for a job	9
Natural environment appealed to me	13
The isolation appealed to me	5
My spouse had a job here	20
My parents moved here	7

In addition to the foregoing categories, six respondents explicitly mentioned the "challenge" of "building a community we would want our children to be part of"; "...being involved in a growing and unique community"; "...the excitement of a boom town"; and, "the opportunity offered here". Two mentioned the appeal of friends or relatives already living here. One person mentioned "wages and benefits", and another the "slower pace of life in a small town atmosphere". One was attracted by the

opportunity to work in a teaching role with Indian and Metis people, and another came to set up a business.

The level of formal education of respondents is summarized in Table 12. Just over half, fifty-one percent, reported a University degree, eight of which indicated post-graduate study. Another 17 percent reported some University or Technical training beyond high school. Fifteen percent completed matriculation Grade 12 and a similar number completed between 10 and 12 grades. One person completed between 7 and 9 grades.

Table 12

Level of Formal Education Completed

N Reporting	Percentage of total	Formal Training Completed
0	0	Grade 6 or less
1	1	Between 7 and 9 grades
15	15.3	Between 10 and 12 grades
15	15.3	Matriculation grade 12
17	17.3	Some University of Tech School
42	42.9	University Degree
8	8.2	Post-Graduate study
98	100 %	

Data Description and Analysis for Round Two

The data of immediate interest in Round Two was whether, and to what extent, respondents agreed with their neighbors of Round One concerning the factors of community well-being summarized in the two lists mailed to them. Ultimately the interest of this study is in the collective vision or image of community well-being that emerges from the responses.

Assessment of the responses was made in several ways. First, a simple "yes" or "no" response was obtained to determine whether the respondent regarded a given item to be a "help" (List #1), or a "hindrance" (List #2) to community well-being. With only one exception, 90 percent or more agreed that the items on List #1 "help" community well-being (Table 13). The reliability of the exception is in some doubt due to a possible double negative reading of "government that avoids conflict-of-interests". The items about which there was unanimous agreement (note asterisks, Table 13) among respondents of List #1 were: Personal Attributes "initiative", "involvement" and "cooperation"; Value Assumptions "reciprocity" and "integrity"; Leadership Arrangements "local government" and "industry that supports community"; Collective Actions "informed planning", "communication/responsibility networks", and "environmental stewardship"; and, Community Conveniences & Necessities "basic facilities and services at affordable costs", "physical infrastructure", "commercial infrastructure", "cultural infrastructure", and a variety of public community "services".

For List #2, items that "hinder" community well-being, the agreement with Round One respondents was slightly less than for List #1, but again, on only one item was there less than ninety percent agreement, i.e., thirteen percent did not agree that "single industry limitations" represented a hazard to community well-being. Ten percent did not consider "isolation", or "ivory tower

Table 13

Round Two Responses to Question Concerning Factors That "Help...". Question: "Does this item 'help', 'go with', or 'describe' community well-being?"

Factors that "help..." (List #1)	Yes	%	No	%	N
1. Personal Attributes that help...:					
Initiative	*98	100	0	0	98
Involvement	*97	100	0	0	97
Responsibility	97	99	1	1	98
Imagination	96	98	2	2	98
Commitment	96	98	2	2	98
Cooperation	*98	100	0	0	98
Compatibility	94	97	3	3	97
Self-reliance	94	96	4	4	98
2. Value Assumptions that help...:					
Opportunity (Choice)	94	96	4	4	98
Diversity (Contrasts)	96	99	1	1	97
Reciprocity	*98	100	0	0	98
Autonomy	93	95	5	5	98
Identity	97	99	1	1	98
Variety	94	97	3	3	97
Creativity	95	97	3	3	98
Viability	97	99	1	1	98
Integrity	*98	100	0	0	98
Purpose	94	98	2	2	96
3. Leader[illegible]angements that help...:					
Shared [illegible]sibility	90	94	6	6	96
Local gov[illegible]ment	*95	100	0	0	95
Government that enables	93	99	1	1	94
Gov't that avoids conflict-of-interests	85	89	11	11	96
Industry that supports community	*97	100	0	0	97
4. Collective Actions that help...:					
Informed planning	*96	100	0	0	96
Setting priorities	95	99	1	1	96
Communication/Responsibility networks	*97	100	0	0	97
Organizing locally	96	99	1	1	97
Recruiting for community	94	98	2	2	96
Information sharing	94	97	3	3	97
Environmental stewardship	*96	100	0	0	96
5. Environmental Factors that help...:					
Social environment "to put down roots"	*97	100	0	0	97
Clean natural envir'mnt air/water/soil	96	98	2	2	98
Attractive visual environment	97	99	1	1	98
Stable economic environment	97	99	1	1	98
Spiritual envir'mnt -values besides $$	96	98	2	2	98
Psychological environment -trust and contentment	97	99	1	1	98
6. Community Conveniences/Necessities that help...:					
Basic facilities and services at affordable costs	*97	100	0	0	97
Physical infrastructure	*97	100	0	0	97
Social infrastructure	97	99	1	1	98
Commercial infrastructure	*98	100	0	0	98
Cultural infrastructure	*98	100	0	0	98
Services	*98	100	0	0	98

*Unanimous "Yes" (N varies)

decision-making" a hindrance (Table 14). There was unanimous agreement about three factors on List #2 being a hindrance. They were "lack of commitment to community building" by residents, a "failure to affirm the family" by the leadership, and the high level of "transience" associated with boom periods. (Note Table 14 asterisks.)

Other assessments of Round Two responses were based on the "importance" and "hindrance" ratings made by respondents. Assessments were made (a) by observing which ratings were most frequently indicated; (b) by computing the mean to determine what relative agreement was indicated by Round Two respondents concerning factors identified in Round One; (c) by determining the percentage of respondents that rated List #1 items as either "extremely" or "very" important, and List #2 items as either "extreme" or "major" hindrance, to community well-being; and (d) by rank ordering the "importance" and "hindrance" ratings.

Most Frequent Ratings. The circles drawn around the mode in Tables 15 and 16 portray graphically the most frequently made ratings on each scale. More unanimity is apparent between Rounds One and Two respondents about factors that help community well-being than about those that hinder. With only one exception (compatibility) all help factors received the highest number of ratings in either the "very" or "extremely" important categories. With the factors that hinder there were 7 exceptions, all in the "moderate" category.

Table 14

Round Two Responses to Question Concerning Factors That "Hinder...": "Does this item 'hinder', 'interfere with', or 'prevent' community well-being?"

Factors that "hinder..." (List #2)	Yes	%	No	%	N
1. Personal Issues.					
A. Spouse & family:					
Spouse dissatisfaction	94	97	3	3	97
Marriage breakdown	93	97	3	3	96
Little to hold family together	97	99	1	1	98
B. Personal finance					
Mismanagement of finances	94	96	4	4	98
Fast-buck artists	93	94	6	6	99
C. "Putting life on hold" attitudes					
No commitment to community building	*99	100	0	0	99
Very little community involvement	97	99	1	1	98
D. Motivation and Qualifications					
Losers ("beer & television" outlook)	95	96	4	4	99
"Here for wrong reasons"	97	98	2	2	99
2. Leadership Issues.					
A. Leadership patterns:					
"Ivory Tower" decision making	89	90	10	10	99
"Crisis Management"	93	95	5	5	98
Vested & Conflict-of-interests	96	97	3	3	99
"Colonial" arrangements	93	95	5	5	98
Bureaucracy difficulties	93	95	5	5	98
B. Leadership procedures:					
Inadequate planning	94	95	5	5	99
Ineffective organization(s)	90	92	8	8	98
Inappropriate recruitment practices	89	93	7	7	96
Unfair publicity	92	94	6	6	98
Inept administration	94	97	3	3	97
Lack of coordination	91	94	6	6	97
C. Leadership priorities:					
Overlooking value of community health and stability investments	89	95	5	5	94
Overlooking importance of family	*99	100	0	0	99
When only $$ incentives are offered	91	95	5	5	96
3. Impact Issues.					
A. "Too much too fast"					
The Pace	95	96	4	4	99
The Costs	97	98	2	2	99
The Isolation	89	90	10	10	99
The Transience (mobility/turnover)	*99	100	0	0	99
The Crowding	94	96	4	4	98
The Stress	93	95	5	5	98
B. "Too little too slow"					
Inadequate information	90	94	6	6	96
Inappropriate funding arrangements	95	99	1	1	96
Single industry limitations	85	87	13	13	98
Discouragements for small business	86	91	9	9	95
Unsatisfactory transportat'n systems	93	94	6	6	99
Hindrances to responsible local govt.	92	95	5	5	97

* Unanimous "Yes"

Table 15

Importance Ratings Highlighting the Mode*
What Respondents Said "Helps", "Goes With", or "Describes" Community Well-Being

Factors that "Help...":	Extremely Important 1	Very Important 2	Moderately Important 3	Slightly Important 4	Not at all Important 5	N
1. Personal Attributes that help...:						
Initiative	38	(49)	15	0	8	98
Involvement	28	(55)	13	1	0	97
Responsibility	28	(40)	28	1	0	97
Imagination	15	(44)	29	8	0	96
Commitment	(53)	34	9	0	0	96
Cooperation	36	(40)	17	5	0	98
Compatibility	11	30	(42)	12	1	96
Self-reliance	19	(37)	27	12	0	95
2. Value Assumptions that help...:						
Opportunity (Choice)	16	(45)	28	4	0	93
Diversity (Contrasts)	23	(37)	30	6	0	96
Reciprocity	27	(45)	21	4	0	97
Autonomy	20	(41)	26	6	2	95
Identity	24	(38)	24	11	1	98
Variety	28	(41)	19	6	2	96
Creativity	12	(36)	32	15	1	96
Viability	29	(51)	16	0	1	97
Integrity	(48)	36	12	2	0	98
Purpose	34	(37)	15	8	1	95
3. Leadership Arrangements that help...:						
Shared responsibility	30	(35)	20	5	3	93
Local government	(46)	36	11	1	1	95
Government that enables	35	(43)	13	1	0	92
Gov't that avoids conflict-of-interest	27	27	23	7	0	84
Industry that supports community	37	(41)	17	2	0	97
4. Collective Actions that help...:						
Informed planning	(38)	37	19	2	0	96
Setting priorities	32	(40)	19	4	0	95
Communication/Responsibility networks	28	(39)	24	6	0	97
Organizing locally	25	(51)	16	4	1	97
Recruiting for community	32	(35)	23	4	2	96
Information sharing	33	(37)	20	4	1	95
Environmental stewardship	(32)	30	27	6	1	96
5. Environmental Factors that help...:						
Social environment "to put down roots"	(48)	32	16	1	0	97
Clean natural envir'mnt air/water/soil	35	(39)	17	5	1	97
Attractive visual environment	24	(41)	21	11	0	97
Stable economic environment	33	(50)	13	1	0	97
Spiritual envir'mnt -values besides $$	29	(34)	19	13	3	98
Psychological environment -trust and contentment	(41)	40	14	2	1	98
6. Community Conveniences/Necessities that help...:						
Basic facilities and services at affordable costs	(47)	36	12	1	0	96
Physical infrastructure	(42)	41	11	3	0	97
Social infrastructure	23	(45)	20	6	4	98
Commercial infrastructure	23	(48)	21	6	0	98
Cultural infrastructure	24	(46)	22	4	1	97
Services	(52)	36	9	0	0	98

* Circled numbers indicate the Mode, the rating made by more respondents than any other.

Table 16

Hindrance Ratings Highlighting the Mode * What Respondents Said "Hinders", "Interferes With" or "Prevents" Community Well-Being

Factors that "Hinder...":	Extreme Hindrance 1	Major Hindrance 2	Moderate Hindrance 3	Slight Hindrance 4	No Hindrance 5	N
1. Personal Issues.						
A. Spouse & family:						
Spouse dissatisfaction	28	(43)	19	4	0	94
Marriage breakdown	29	(35)	20	9	1	94
Little to hold family together	(44)	42	8	3	1	98
B. Personal finance						
Mismanagement of finances	23	(38)	27	6	2	96
Fast-buck artists	(31)	(31)	20	11	4	97
C. "Putting life on hold" attitudes						
No commitment to community building	(45)	37	15	2	0	99
Very little community involvement	32	(48)	15	1	0	96
D. Motivation and Qualifications						
Losers ("beer & television" outlook)	16	35	(36)	7	0	94
"Here for wrong reasons"	27	(40)	23	8	0	98
2. Leadership Issues.						
A. Leadership patterns:						
"Ivory Tower" decision making	26	(41)	18	5	3	93
"Crisis Management"	29	(40)	21	3	1	94
Vested & Conflict-of-interests	26	(41)	25	4	0	96
"Colonial" arrangements	(37)	31	20	4	2	94
Bureaucracy difficulties	20	(39)	28	6	1	94
B. Leadership procedures:						
Inadequate planning	25	(42)	22	5	2	96
Ineffective organization(s)	14	28	(42)	7	3	94
Inappropriate recruitment practices	23	(31)	25	11	4	94
Unfair publicity	(32)	25	19	15	4	95
Inept administration	22	(42)	21	9	2	96
Lack of coordination	17	30	(40)	4	2	93
C. Leadership priorities:						
Overlooking value of community health and stability investments	22	24	(28)	15	0	89
Overlooking importance of family	(49)	27	16	6	0	98
When only $$ incentives are offered	27	(34)	22	8	3	94
3. Impact Issues.						
A. "Too much too fast"						
The Pace	25	(33)	31	4	2	95
The Costs	(36)	35	20	7	1	99
The Isolation	24	19	(28)	18	2	91
The Transience (mobility/turnover)	16	(44)	35	4	0	99
The Crowding	12	(44)	30	8	1	95
The Stress	20	(43)	25	5	4	97
B. "Too little too slow"						
Inadequate information	8	30	(41)	9	4	92
Inappropriate funding arrangements	31	(42)	17	5	1	96
Single industry limitations	23	(26)	23	12	6	90
Discouragements for small business	17	(34)	18	17	2	88
Unsatisfactory transportat'n systems	29	(35)	21	8	1	94
Hindrances to responsible local govt.	11	34	(37)	10	2	94

* Circled numbers indicate the Mode, the rating made by more respondents than any other

Several reasons are possible. This may indicate less clarity about things that hinder than about things that help community well-being; it may represent more fundamental disagreement about things that hinder than about things that help; or it may be due to ambiguity about the wording of the factors. Nonetheless, the factors identified in the interviews of Round One have been overwhelmingly affirmed by the respondents of Round Two. This is further confirmed in the paragraphs that follow.

Measure of Agreement. A measure of the agreement of Round Two respondents with their Round One neighbors, concerning the factors identified in Round One, is reflected in the mean scores listed and graphically presented in Tables 17 and 18. The higher the mean, the greater the divergence between Rounds One and Two respondents; and conversely, the lower the mean, the greater the convergence of view between the two rounds on any given factor. While a spread is indicated from 1.5 to 2.6, the "importance" scores cluster around 2.0, indicating that on average the items listed are affirmed by Round Two respondents as "very important".

The "hindrance" scores cluster around 2.2, affirming List #2 items as a "major hindrance" with a slight tendency on the scale toward "moderate hindrance". The range of scores for List #2 is from 1.7 to 2.7.

Factors Rated Highest. The factors receiving the greatest number of ratings in the top two rating categories of both lists, are reported below in percentages and are

Table 17

Importance Ratings Portraying the Mean* and Rank Order of What Respondents Said "Helps", "Goes With", or "Describes" Community Well-Being

Factors that "Helps...":	Extremely Important 1	Very Important 2	Moderately Important 3	Slightly Important 4	Not at all Important 5	N	Mean	Mean Rank
1. Personal Attributes that help...:								
Initiative	38	45	15	0	0	98	1.8	2
Involvement	28	55	13	1	0	97	1.9	3.5
Responsibility	28	40	28	1	0	97	2.0	5
Imagination	15	44	29	8	0	96	2.3	6.5
Commitment	53	34	9	0	0	96	1.5	1
Cooperation	36	40	17	5	0	98	1.9	3.5
Compatibility	11	30	42	12	1	96	2.6	8
Self-reliance	19	37	27	12	0	95	2.3	6.5
2. Value Assumptions that help...:								
Opportunity (Choice)	16	45	28	4	0	93	2.2	6.5
Diversity (Contrasts)	23	37	30	6	0	96	2.2	6.5
Reciprocity	27	45	21	4	0	97	2.0	3.5
Autonomy	20	41	26	6	2	95	2.3	8.5
Identity	24	38	24	11	1	98	2.3	8.5
Variety	28	41	19	6	2	96	2.1	5
Creativity	12	36	32	15	1	96	2.6	10
Viability	29	51	16	0	1	97	1.9	2
Integrity	48	36	12	2	0	98	1.7	1
Purpose	34	37	15	8	1	95	2.0	3.5
3. Leadership Arrangements that help...:								
Shared responsibility	30	35	20	5	3	93	2.1	4.5
Local government	46	36	11	1	1	95	1.7	1
Government that enables	35	43	13	1	0	92	1.8	2.5
Gov't that avoids conflict-of-interest	27	27	23	7	0	84	2.1	4.5
Industry that supports community	37	41	17	2	0	97	1.8	2.5
4. Collective Actions that help...:								
Informed planning	38	37	19	2	0	96	1.8	1
Setting priorities	32	40	19	4	0	95	1.9	2
Communication/Responsibility networks	28	39	24	6	0	97	2.1	6
Organizing locally	25	51	16	4	1	97	2.0	3.5
Recruiting for community	32	35	23	4	2	96	2.1	6
Information sharing	33	37	20	4	1	95	2.0	3.5
Environmental stewardship	32	30	27	6	1	96	2.1	6
5. Environmental Factors that help...:								
Social environment "to put down roots"	48	32	16	1	0	97	1.7	1
Clean natural envir'mnt air/water/soil	35	39	17	5	1	97	1.9	4
Attractive visual environment	24	41	21	11	0	97	2.2	5
Stable economic environment	33	50	13	1	0	97	1.8	2.5
Spiritual envir'mnt -values besides $$	29	34	19	13	3	98	2.3	6
Psychological environment -trust and contentment	41	40	14	2	1	98	1.8	2.5
6. Community Conveniences/Necessities that help...:								
Basic facilities and services at affordable costs	47	36	12	1	0	96	1.7	2.5
Physical infrastructure	42	41	11	3	0	97	1.7	2.5
Social infrastructure	23	45	20	6	4	98	2.2	6
Commercial infrastructure	23	48	21	6	0	98	2.1	4.5
Cultural infrastructure	24	46	22	4	1	97	2.1	4.5
Services	53	36	9	0	0	98	1.6	1

* Mean indicated numerically in middle column at the right, and graphically by a dot • on the 5-point Rating Scale

Table 18

Hindrance Ratings Portraying the Mean* and Rank Order of What Respondents Said "Hinders", "Interferes With", or "Prevents" Community Well-Being

Factors that "Hinder...":	Extreme Hindrance 1	Major Hindrance 2	Moderate Hindrance 3	Slight Hindrance 4	No Hindrance 5	N	Mean	Mean Rank
1. Personal Issues.								
A. Spouse & family:								
Spouse dissatisfaction	28	42	19	4	0	94	2.0	4
Marriage breakdown	29	35	20	9	1	94	2.1	5.5
Little to hold family together	44	42	8	3	1	98	1.7	1.5
B. Personal finance								
Mismanagement of finances	23	38	27	6	2	96	2.2	7.5
Fast-buck artists	31	31	20	11	4	97	2.2	7.5
C. "Putting life on hold" attitudes								
No commitment to community building	45	37	15	2	0	99	1.7	1.5
Very little community involvement	32	48	15	1	0	96	1.8	3
D. Motivation and Qualifications								
Losers ("beer & television" outlook)	16	35	36	7	0	94	2.4	9
"Here for wrong reasons"	27	40	23	8	0	98	2.1	5.5
2. Leadership Issues.								
A. Leadership patterns:								
"Ivory Tower" decision making	26	41	18	5	3	93	2.1	5
"Crisis Management"	29	40	21	3	1	94	2.0	2.5
Vested & Conflict-of-interests	26	41	25	4	0	96	2.1	5
"Colonial" arrangements	37	31	20	4	2	94	2.0	2.5
Bureaucracy difficulties	20	39	28	6	1	94	2.2	8
B. Leadership procedures:								
Inadequate planning	25	42	22	5	2	96	2.1	5
Ineffective organization(s)	14	28	42	7	3	94	2.5	14
Inappropriate recruitment practices	23	31	25	11	4	94	2.4	12
Unfair publicity	32	25	19	15	4	95	2.3	10
Inept administration	22	42	21	9	2	96	2.2	8
Lack of coordination	17	30	40	4	2	93	2.4	12
C. Leadership priorities:								
Overlooking value of community health and stability investments	22	24	28	15	0	89	2.4	12
Overlooking importance of family	49	27	16	6	0	98	1.8	1
When only $$ incentives are offered	27	34	22	8	3	94	2.2	8
3. Impact Issues.								
A. "Too much too fast"								
The Pace	25	33	31	4	2	95	2.2	4
The Costs	36	35	20	7	1	99	2.0	1.5
The Isolation	24	19	28	18	2	91	2.5	9
The Transience (mobility/turnover)	16	44	35	4	0	99	2.3	5.5
The Crowding	12	44	30	8	1	95	2.4	7
The Stress	20	43	25	5	4	97	2.3	5.5
B. "Too little too slow"								
Inadequate information	8	30	41	9	4	92	2.7	12
Inappropriate funding arrangements	31	42	17	5	1	96	2.0	1.5
Single industry limitations	23	26	23	12	6	90	2.5	9
Discouragements for small business	17	34	18	17	2	88	2.5	9
Unsatisfactory transportat'n systems	29	35	21	8	1	94	2.1	3
Hindrances to responsible local govt.	11	34	37	10	2	94	2.6	11

* Mean indicated numerically in middle column at the right, and graphically by a dot • on the 5-point rating scale.

generally shown in parentheses. The most highly rated factors from each category are reported here, and are highlighted by asterisk in Tables 19 and 20. Table 21 presents the factors of List #1 rated "extremely" or "very" important, and those of List #2 that were rated "extreme" or a "major" hindrance, by 75 percent or more of Round Two respondents.

List #1:

Personal Attributes. The personal attributes receiving the highest endorsement by Round Two respondents were "commitment", "involvement", and "initiative". Over half the respondents (55%) rated commitment as "extremely important" and an additional 35%, "very important" for a total of nearly 91% of the sample. Commitment was described on the questionnaire as "perceiving and experiencing the community as 'home', as a place to 'put down roots'; and, working to make it a desireable place to live".

"Involvement" and "Initiative" were highlighted by 86 and 85 percent of the sample respectively. These emphasize the traits of self-starting readiness to participate in neighborhood and/or local government responsibilities.

Value Assumptions. The value assumptions most frequently indicated were "integrity" (86%) and "viability" (83%). The former was described with reference to community residents as well as government and industry. Viability referred to current and projected economic base and the ability to operate within one's means both as a community and as individuals.

Table 19

Number and Percentage of Respondents that Rated List #1 Items as "Extremely" or "Very" Important for Community Well-Being Also Rank Based on Percentages

Factors that "Help..."	Total N	Extremely or Very Important	Percentage of Total N	Rank Based on Percentage
1. Personal Attributes that help...:				
Initiative*	98	83	84.7	3
Involvement*	97	83	85.6	2
Responsibility	97	68	70.1	5
Imagination	96	59	61.5	6
Commitment*	96	87	90.6	1
Cooperation	98	76	77.6	4
Compatibility	96	41	42.7	8
Self-reliance	95	56	58.9	7
2. Value Assumptions that help...:				
Opportunity (Choice)	93	61	65.6	5
Diversity (Contrasts)	96	60	62.5	7
Reciprocity	97	72	74.2	4
Autonomy	95	61	64.2	6
Identity	98	62	63.3	7
Variety	96	69	71.9	3
Creativity	96	48	50.0	8
Viability*	97	80	82.5	2
Integrity*	98	84	85.7	1
Purpose	95	71	74.7	3
3. Leadership Arrangements that help...:				
Shared responsibility	93	65	69.9	4
Local government*	95	82	86.3	1
Government that enables*	92	78	84.8	2
Gov't that avoids conflict-of-interest	84	54	64.3	5
Industry that supports community*	97	78	80.4	3
4. Collective Actions that help...:				
Informed planning*	96	75	78.1	1
Setting priorities*	95	72	75.8	2
Communication/Responsibility networks	97	67	69.1	5
Organizing locally*	97	76	78.4	1
Recruiting for community	96	67	69.8	4
Information sharing	95	70	73.7	3
Environmental stewardship	96	62	64.6	6
5. Environmental Factors that help...:				
Social environment "to put down roots"*	97	80	82.5	2
Clean natural envir'mnt air/water/soil	97	74	76.3	3
Attractive visual environment	97	65	67.0	4
Stable economic environment*	97	83	85.6	1
Spiritual envir'mnt -values besides $$	98	63	64.3	5
Psychological environment*-trust and contentment	98	81	82.7	2
6. Community Conveniences/Necessities that help...:				
Basic facilities and services at affordable costs*	96	83	86.5	2
Physical infrastructure	97	83	85.6	3
Social infrastructure	98	68	69.4	5
Commercial infrastructure	98	71	72.4	4
Cultural infrastructure	97	70	72.2	4
Services*	98	89	90.8	1

* most highly rated factors

Table 20

Number and Percentage of Respondents that Rated List #2 Items as "Extreme" or "Major" Hindrance to Community Well-Being Also Rank Based on Percentages

Factors that "Hinder..."	Total N	Extreme or Major Hindrance	Percentage of Total N	Rank Based on Percentage
1. Personal Issues.				
A. Spouse & family:				
Spouse dissatisfaction*	94	71	75.5	3
Marriage breakdown	94	64	68.1	4
Little to hold family together*	98	86	87.8	1
B. Personal finance				
Mismanagement of finances	96	61	63.5	5
Fast-buck artists	97	62	63.9	5
C. "Putting life on hold" attitudes				
No commitment to community building*	99	82	82.8	2
Very little community involvement*	96	80	83.3	2
D. Motivation and Qualifications				
Losers ("beer & television" outlook)	94	51	54.3	6
"Here for wrong reasons"	98	67	68.4	4
2. Leadership Issues.				
A. Leadership patterns:				
"Ivory Tower" decision making*	93	67	72.0	3
"Crisis Management" *	94	69	73.4	2
Vested & Conflict-of-interests	96	67	69.8	4
"Colonial" arrangements*	94	68	72.3	3
Bureaucracy difficulties	94	59	62.8	7
B. Leadership procedures:				
Inadequate planning	96	67	69.8	4
Ineffective organization(s)	94	42	44.7	12
Inappropriate recruitment practices	94	54	57.4	9
Unfair publicity	95	57	60.0	8
Inept administration	96	64	66.7	5
Lack of coordination	93	47	50.5	11
C. Leadership priorities:				
Overlooking value of community health and stability investments	89	46	51.7	10
Overlooking importance of family *	98	76	77.6	1
When only $$ incentives are offered	94	61	64.9	6
3. Impact Issues.				
A. "Too much too fast"				
The Pace	95	58	61.1	5
The Costs*	99	71	71.7	2
The Isolation	91	43	47.3	10
The Transience (mobility/turnover)	99	60	60.6	5
The Crowding	95	56	58.9	6
The Stress	97	63	64.9	4
B. "Too little too slow"				
Inadequate information	92	38	41.3	11
Inappropriate funding arrangements*	96	73	76.0	1
Single industry limitations	90	49	54.4	8
Discouragements for small business	88	51	58.0	7
Unsatisfactory transportat'n systems	94	64	68.1	3
Hindrances to responsible local govt.	94	45	47.9	9

* most highly rated factors

Table 21

Factors Rated EXTREMELY or VERY Important for,
and EXTREME or MAJOR Hindrance to, Community Well-Being
by 75% or More of Round Two Respondents

Categories	Factors	Percentage
That "Help...":		
Personal Attributes	Commitment	90.6
	Involvement	85.6
	Initiative	84.7
	Cooperation	77.6
Value Assumptions	Integrity	85.7
	Viability	82.5
	Purpose	74.7
Leadership Arrangements	Local Government	86.3
	Government that Enables	84.8
	Industry that Supports Community	80.4
Collective Actions	Organizing Locally	78.4
	Informed Planning	78.1
	Setting Priorities	75.8
Environmental Factors	Stable Economic Environment	85.6
	Psychological Env.of Trust/Contentment	82.7
	Social Environment "to put down roots"	82.5
	Clean Natural Env. air/water/soil	76.3
Community Conveniences/Needs	Services	90.8
	Basic Facilities at Affordable Costs	86.5
	Physical Infrastructure	85.6
That "Hinder...":		
Personal Issues	Little to Hold Family Together	87.8
	Very Little Community Involvement	83.3
	No Commitment to Community Building	82.8
	Spouse Dissatisfaction	75.5
Leadership Issues	Overlooking Importance of the Family	77.6
Impact Issues	Inappropriate Funding Arrangements	76.0

Leadership Arrangements. The factors here were "local government" (86%), "government that enables" (85%), and "industry that supports community" (80%). Local government was described as "competent local leadership to engage the skills and commitment of residents in community building; primary commitment to community well-being and self-reliance". This was rated as extremely important by more than half of the 86% indicated. Government that enables, accents a facilitative, resourcing role and style that fosters local responsibility and initiative. Industry that supports community implies a stance that sees the industry's interests as best served by a healthy, viable, stable community to the point of employing persons to help achieve such an objective.

Collective Actions. The factors here receiving the highest endorsement were "organizing locally" (78%), "informed planning" (78%), and "setting priorities" (76%). Organizing locally was described as "encouragment of volunteer organizations, service clubs, and community leagues, and working from the start to set up effective local government".

Informed planning was presented as planning "that engages local input at the start and periodically thereafter; that is well in advance for financing, for facility needs, for town plan, and for community organization; that anticipates 'the unplannables' of rapid growth and the 'community of strangers' of that period; and

when dealing with the rapid growth of a resource town".

Setting priorities was described as "enough restraint on economic pursuits to allow for legitimate family and community concerns; government and industry support for community priorities; and adding community facilities at a pace realistic with available revenues (pay as you go)".

Environmental Factors. These factors were "stable economic environment" (86%) that offered security and was characterized by "development at a manageable pace"; a "psychological environment" where a sense of "pulling together prevails...in an atmosphere of trust and contentment; where people feel that 'there's a future here'; and there is a sense that things are under control, and that control is where it should be".

The "social environment" (83%) was portrayed as "a good place to 'put down roots and raise a family...and for grandparents too; a safe place to live; a place where ethnic variety is valued and respected; where the population is relatively stable and includes friends and relatives".

Community Conveniences & Necessities. These factors included a range of public "Services" (91%) such as education, health, transportation, recreation; and, "Basic facilities and services at affordable costs" (87%).

The foregoing listings include only the factors given the "extremely important" and "very important" ratings by 75% or more of the respondents. As noted elsewhere, all the List #1 factors were affirmed by Round Two respondents, as

important for communmity well-being, by yes or no responses (Table 13), and confirmed by percentages (Table 19). Consult Rating Questionnaire (Appendix B) for detailed description of all the "help" factors that make up List #1. Implications of the findings are discussed in Chapter V.

List #2:

Personal Issues. The personal issues most often given the "extreme" and "major" hindrance ratings include, "Little to hold the family together" (88%). This was characterized as "both parents working to survive or to maximize the fast buck before moving on; children left to fend for themselves; home life and parenting falls apart". "Very little community involvement" (83%) was described as "no real 'ownership' in community; unwilling to be involved; apathy about community and its future; lack of initiative for community; and complaining but doing nothing".

"No commitment to community building" (83%) was presented as "no intention of putting down roots; short term interests only; always poised to get away at every opportunity; and never seeing community as a place to live".

Leadership Issues". The leadership issues identified by the greatest number to be an extreme or major hindrance to community well-being include, "leadership priorities that fail to recognize the importance of the family" (78%). This was described to say "that men need time to be fathers and husbands; that needs of spouse and family are as necessary to provide for as the worker's needs; that special

needs of young families (day care, et cetera) are especially prominent in a resource town where extended family is absent and the population is predominantly in its 20's; that a stable refuge called "home" is especially important when everything around it is moving at a boom town pace".

"Crisis Management" (73%) was presented as "action determined by emergency or political expedience; 'band-aid' (short-term) solutions; and inadequate planning, (e.g., overcrowded classrooms)".

"Colonial Arrangements" (73%) were portrayed as "agreements between government and industry that affect community without the community's participation; outside control that frustrates local initiative and responsibility; actions and policies that foster dependence; decisions made for the community without local participation; too much outside control of land, of housing, and of the town itself; government or industry goals that make community well-being secondary or irrelevant."

Impact Issues. These factors most often rated as an extreme or major hindrance included "inappropriate funding arrangements" (76%). This was presented as "up-front funding through New Town legislation not adequate to prevent heavy debt load; grant formula based on census figures that "works" for a slow growth community but is not realistic where there is rapid growth; province gets rich on local resource royalties while local municipality is forced into debt to make it possible; unfair tax burden carried by local citizens; tax holiday for the industry at the beginning,

thus postponing revenue needed by the community in the early stage as well; lack of government initiative to deal with local tax burden."

"The Costs" (72%) referred to "above average living costs for individuals and families, and the size of investment for the industry, resulting in a drivenness for both; excessive overtime, long shifts (that) become necessary to pay high taxes, interest, and mortgages".

The above listings summarized only the items given the highest hindrance ratings in each category. Other factors were also confirmed as a hindrance, by yes or no responses on the questionnaire (Table 14), and by percentage of respondents making the rating on an item (Table 20). All the factors listed are elaborated on the Rating Questionnaire for List #2 (Appendix C).

The most highly rated factors of both lists, affirmed by 75 percent or more of respondents, are listed in Table 21. They form the basis for an emerging conceptual image of community well-being, developed in Chapter V.

Relative Importance. A collective measure of the importance of each item, in relation to the others listed within the same category, was obtained by rank ordering them. This was done in two ways. One was based on the mean scores (Tables 17 & 18); the other on the percentage of respondents that rated List #1 items as either "extremely" or "very" important for community well-being (Table 19), and List #2 items as either an "extreme" or "major" hindrance to

community well-being (Table 20).

ROUND THREE

Overview

The purpose of Round Three in this study was not to seek convergence, but to report back to participants the results of Rounds One and Two; to obtain resident assistance with interpretation of the findings; and to invite their assessment of the study process for its public awareness or education value.

A one-page summary of preliminary findings was presented, along with some quotations of "community wisdom" gleaned from the interviews. Overhead transparencies of key tables facilitated discussion, and elicited local comment and interpretations. A one-page questionnaire was distributed to obtain their assessment of the study process. See Appendix D for materials presented.

Respondents

Twenty-four persons participated in two feedback seminars. For the convenience of any study participant who wished to attend, one was scheduled for the evening and one in the afternoon of the day following. Five individuals came for the evening session despite its conflict with Premier Lougheed's TV special on the economy. Seventeen assessment questionnaires were completed by participants. One person had been interviewed in Round One; four had participated in Rounds One and Two; nine were only involved in Round 2; and three had taken part in neither round.

Data Description and Analysis

Assessment of Process. All except one affirmed the study process as having adult educational value in a community. The following specific suggestions of its value were made by respondents:

1. Useful for assisting residents to look at positive aspects and potential of their community;
2. With a study-action group following such a process, a community could influence development planning;
3. It raises interesting conversation at home;
4. It increases awareness which heightens quality of involvement;
5. It broadens peoples' understanding about the community they live in, and how similar their neighbors' concerns are like their own;
6. Becoming aware of state of community can help people take more responsibility;
7. Can help develop a practical model that assists people to make a positive community, or to look at resource communities from a well-being standpoint;
8. Helpful if results are made available to municipality, budget planners, and helping services;
9. Can point up what adult courses should be offered;
10. More valuable if larger segment of community is involved.
11. Can provide positive characteristics for industry (and government) to incorporate in their planning as opposed to (or in addition to) the current impacts/mitigation approach.

It was generally agreed that a process similar to that of the current study, would be helpful to a community if its residents were so engaged before major development initiatives were taken. Two persons were unsure about this,

and two others said it would have little value.

A few limitations or frustrations were mentioned by seminar participants. Several felt that the spectrum of response options on the rating questionnaire was too narrow, or limited to one end of a continuum. "It was too difficult to disagree"..."like having to support motherhood statements". Two felt some of the items to be rated were too "vague" or "amorphous". One questioned the use of research as a public awareness tool. Another almost "threw the rating questionnaire in the garbage" due to lack of prior knowledge of the study. This person had apparently missed the brief, low key notice in the paper.

Suggestions included: greater mass participation in the process, "should reflect all the community", "larger sample", a "stratified random sample"; one recommended more demographic data for possible correlations; another, suggested less structuring of responses; instead of two lists, a continuum scale that is not loaded at one end.

Two persons felt that because of the median age of 25 in Fort McMurray (1981 Census), more persons from the under-25-half of the city should have been interviewed in Round One. Another pointed out that "people who have lived in a community longer are possibly in older age bracket, but are probably in a better position to identify the factors involved in community well-being. So age may not be a debilitating bias". One suggested that "family" should be more carefully defined in future since family factors rated

so high in the current study.

Possible evidence of sample bias in Round One was suggested by the relative absence of reference to housing concerns, perhaps indicating that for long time residents, that is no longer an issue. It was implied that for many others it still is, despite the fact that it did not appear on the open-ended portion of the rating questionnaires where respondents were invited to add what had been missed.

It was reported that a few people were reluctant to, or did not, participate due to the numbering of the questionnaires that would allow tracing of identity.

CHAPTER V

FINDINGS AND IMPLICATIONS

In this chapter selected findings from the literature are integrated with relevant theory; limitations and strengths of the study process are summarized; and "image characteristics" of community well-being as derived from the findings are presented. Practical and theoretical implications are included throughout. In the final section a continuum model is presented as a conceptual tool.

FROM THE LITERATURE

Well-Being.

The well-being literature reflects the inherent problem of defining such a general construct. The concept has been given many names across disciplines and over time. Each may be regarded as one facet of a prism, representing the value priority of an era or discipline.

It was noted that education, medicine, the economy, the environment, biological health, or social utopia, may contribute to, but do not determine, well-being. Well-being was shown to have both subjective and objective dimensions, requiring nurture from within as much as nourishment from without.

A renewed interest in holistic assumptions was indicated in several disciplines, seeded perhaps by the "Third Force" in psychology, but apparent also in community development, the health field, and in the bid for reintegrating economics with philosophy and values. This

interest appears to be nudged by a growing question of whether the values required for the survival, development and growth of our economy, may at times conflict with the survival, development, and well-being of our species.

A conclusion of previous research, that most people have rather definite ideas about characteristics of well-being, even though they have difficulty defining it, lent support to seeking resident perceptions for this study.

Resource Towns.

The resource town literature revealed a repetitious occurrence and description of the boom town syndrome, which includes rapid growth, high mobility, and a variety of individual, family, and community stresses and symptoms. Several studies documented high levels of boredom, especially among women; and high rates of alienation, especially among professionals. This appears to relate to the needs of autonomy, esteem, self-determination and need fulfillment, which were reported in two other studies as "typically unfulfilled". The record appears skewed by an almost exclusive treatment of negative characteristics, despite evidence that some people thrive in those settings. The negative focus may arise from the prevailing preference for quantitative rather than qualitative investigations. Since such studies are used to guide planners, they may help perpetuate the syndrome in practice. Another factor suggested was that such towns are planned for the economic and administrative functions they must perform rather than for the people who inhabit them. Notably absent from the

literature were studies based on resident perceptions about conditions and alternative possibilities in that context.

Community Quality-of-Life Assessments.

The literature review traced the historical sequence of economic, social, and psychological indicators; and of environmental, social, and community impact assessments.

Social Indicators. During the 1960s, social indicators emerged to supplement the assessment of society's well-being based on economic indicators. Their relative objectivity and capacity to reveal trends confirmed their value. Limitations besides those documented in chapter three were that they do not include psychological dimensions, and they can only document the past or status quo. They cannot project alternative futures.

Psychological Indicators. In historical sequence, psychological indicators soon followed, using the same quantitative, "incidence of...", reporting. Subjective measures were devised and results incorporated in quality-of-life reporting. The Zautra & Simons (1979) synthesis provided a framework for considering the range of factors identified in this study as central to community well-being. Two sets of human needs were identified: (1) to diminish, avoid, and/or adjust to painful life events, e.g., external stressors illustrated by resource town circumstances, and (2) to develop or increase competence, skills, and mastery over the environment, e.g., individual and community competence. The two needs are seen as independent in that

meeting one does not necessarily gratify the other (Hewitt et al.1977), but individual (psychological) and community well-being are enhanced to the extent that both adjustment and competence needs are met. These needs reflect both the objective and subjective dimensions of life. In philosophy they represent the tension between necessity (determinism) and freedom; in psychology, between behaviorism and humanism.

The model also provided a framework for looking at the issue and the related roles of "facilitating" or "mitigating" discussed earlier. Mitigating measures relate primarily to adjustment needs (to diminish, avoid, or adjust to painful life events), to deal with objective factors. In a resource town these are the actions taken to minimize impacts of industrial developments. Facilitating measures respond to competence needs (skills and mastery of life circumstances), reflecting the subjective domain. Respondents may have emphasized the latter, in part, because mitigating requirements are much less a current issue than during the rapid growth period. There is also evidence, in the combination of factors identified, that "competence needs" represent a nudge toward, or an invitation to, expanded opportunity and challenge to develop competence. To respond, in turn, is believed to contribute to a sense of personal and community well-being.

"Facilitating" or "mitigating" must not be seen in either/or terms. Both are essential, but measures that facilitate or release the energies, commitment, and

community involvement of residents themselves, reduce the demand for mitigating measures. The record of almost exclusive attention to adjustment and mitigating measures, represents a defensive stance that has been short on offense for scoring community well-being goals.

Impact Assessments. Impact Assessments arose in the context of rapid industrial development for which social indicator research, based on census data, was far too slow to guide planners. These were designed to anticipate consequences of industrial interventions, and to help shape policies that minimize negative impacts.

In Community Impact Assessments, distinguished in Alberta from Environmental and Social Impact Assessments, the affected community plays a key role in the assessment process. Obtaining resident perceptions in this study has tested the feasibility of such a role by the community, and has identified what they regard as goal-worthy characteristics of community well-being. In so doing, this study has begun to make explicit a community norm or ideal that has only been implied in the language and literature of impact assessments.

Theoretical Underpinnings.

Image and Change Theories. Besides the practical rationale just mentioned for obtaining resident perceptions, there are theoretical grounds for the approach taken in this study. Both focus and process represent a departure from previous studies in resource towns. The recurring scenario

in practice, expectations, and in the research done to study resource towns, appears to illustrate a "game without end" (Watzlawick, 1974), where the intended solution becomes a self-perpetuating part of the problem.

Change theory calls for intervention at a different level based on a perceptual "reframing" of the problem; according to Image theory it involves a projection toward "ideal values". The latter may be seen as instrumental to achieve the former. In the current study a projected, idealized "future" served as both the object for research and a statement of the problem. Awareness of ideal values is the first step, for a value is by definition that which guides toward a valued future. The image reflects and reinforces these values (Polak, 1973). Perceptual reframing involves an adjustment in underlying assumptions, recently referred to as a paradigm shift (Ferguson, 1980). This study, in its bid to formulate a conceptual image of community well-being, fosters such a shift and constitutes an intervention at a different level.

Community Development Theory. This literature identified many factors to characterize thriving communities, not unlike recent holistic health and wellness emphases, and remarkably parallel to resident perceptions in this study: self-help and whatever strengthens a group in performance of, or involvement in, self-government (Nisbet, 1970); a clear sense of purpose, membership, status and continuity (Packard, 1976); a physical and psychological "huddling place" where safety and basic security is found

(Franken, 1975); economics related to the community rather than solely to the business firm (Benitez, 1976); human settlements (communities) as a key conceptual planning instrument (Bell, 1976); residents as agents of their own development versus being beneficiaries of development as defined by someone else (Goulet, 1971); values and ethics, freedom and liberation (versus alienation), and creativity (Goulet, 1971); person-centered (Rogers, 1980); people working together on problems, autonomous and collective fulfillment of internal objectives, and the experience of living under codes of authority which have been set in large degree by the persons involved (Nisbet, 1970); a deliberate shift from organizing cities (communities) and governments to do things *for* people, to facilitating people to do things for themselves (Gutheim, 1976). Illich (1973) warned that contemporary institutional purposes frequently hallow industrial productivity at the expense of convivial effectiveness, thus becoming a factor in the amorphousness and meaningless that plague society.

General Systems Theory. Along the lines of General Systems Theory, Buckley (1967) devised a conceptual framework for viewing a viable social system. An optimally viable social system, such as a healthy community, would be characterized by: complex structural relationships for communication and interactions; a highly flexible organization capable of change from within the system; highly autonomous components with a minimum of constraint in

intercomponent relationships; considerable intrasystem determinism of system and component behavior; the ability to tolerate basic change in the system; and, the necessity of a constant flow of a wide range of information, experience, and input into the system. Each of these has been affirmed, directly or indirectly, by the respondents.

The systems view, much like the view of modern physics, emphasizes the interrelatedness and interdependence of all phenomena and the dynamic nature of living systems (Capra, 1982), including viable communities.

FROM THE STUDY PROCESS

Exploratory in method as much as in content, an important finding was respondents' endorsement of the process for helping a community, prior to a major development, consider what kind of community they really want, and what initiatives are needed to achieve it. Process limitations and strengths are summarized in this subsection, followed by implications concerning the level of agreement among respondents.

Limitations.

Since convergence was not being sought, the limitations concerning it (Chapter III) do not apply. It was of greater interest to learn what agreement already existed. One limitation concerned the method of initiating Round One, with what materials to introduce the process. This was overcome by interviewing Round One participants. Despite added costs, this was an advantage for this study.

The process of summarizing and editing Round One

responses for Round Two rating purposes posed a potential limitation in view of the risk of inadequately representing what the original respondents said. This risk was minimized by a procedure of content analysis involving two advisors.

The time required for an unhurried Delphi process can be a limitation, though in this exploratory study, time frame was not a crucial issue. There may have been some loss of local interest in the process because of it. Specific procedural limitations follow:

Limited sample and involvement. The size can be rationalized as appropriate for this test-run of the process, but more extensive community involvement would be essential to optimize public awareness or the learning potential of the process, especially for a community concerned about its quality-of-life in the face of imminent major and rapid development. A study based on resident perceptions would gain local credibility with more extensive participation. Less than one third of one percent of the city population participated in this study, though more than one percent did have the opportunity to do so.

No advance publicity. There was good rationale for not publicising this study, since it was not about, nor directly in behalf of, Fort McMurray. Publicity might have generated unwarranted expectations, and in a context where there was considerable concern about the city's public image, publicity might have influenced the results. In other settings, where the process is explicitly for that

community, the process should be authorized locally and advance information widely distributed, to facilitate interest and participation.

Rating spectrum too narrow. It is not clear that asking respondents to discriminate between important items only in their ratings, is actually a limitation, or whether it merely felt like that to respondents accustomed to thinking in opposites, or who prefer to answer on a full-range continuum. There may be advantage to presenting what helps and what hinders in a single, randomly mixed, list. The scale could accommodate both kinds of items on two halves of a continuum. In any case, a single list would have facilitated factor analysis of the data.

Age of Round One respondents. This group was above the median and mean ages in Fort McMurray. This was regarded as a necessary limitation, given the focus and objectives of the study. To have the essential factors of community well-being identified for a resource town, placed a higher priority on experience and the perspectives that brings, than on representation based on mean or median age. Approximately one sixth (17%) of persons interviewed were in their 20s. The mean age of Fort McMurray residents in 1981 was 30 and the median age was 25 (Municipal Census 81, City of Fort McMurray).

Sample Bias. Despite the foregoing rationale for an experienced sample in Round One, sample bias is not thereby eliminated. For example, little attention was given to housing issues in the responses, even though that continued

to be of major concern in Fort McMurray for young families. Silence on housing by persons old enough, or resident long enough to be settled in, is not surprising, but it illustrates age bias that may have missed other issues of importance to younger residents. An extra page was provided for Round Two respondents to add what they felt was missing, but few additions were made and housing was not mentioned.

Fort McMurray Bias. In this study the probe was for factors of community well-being generally, not Fort McMurray specifically. Not surprising, some respondents appeared to slip into Fort-McMurray-specific responses at certain points. In Round One interviewing, this could be checked, but there was no control possible in Round Two, conducted by mail. Some sub-points on the questionnaire, intended only to illustrate, were Fort-McMurray-specific and should not have been used.

Wording Limitations. Several persons at the seminar and two or three in the questionnaires, indicated uncertainty about intended meanings because of ambiguity between category heading and sub-points in a few cases.

Representation. To encourage discussion and joint efforts toward community well-being, more personnel from industry and government at senior levels should be involved than were arranged for in this study. Another imbalance was the proportion of the random sample drawn from the telephone directory, compared to that drawn from the Community Resources Information Booklet which included many

professionals. The disparate rate of returns from each group added to the imbalance, and is reflected in Table 22.

Table 22

Population Components of Sample, Reflecting the Number (N), Percentage of Returns, and Sample Percentage, of Each

Components	Starting Sample N	Net Sample N	Percentage Returns	Sample Percentage
Interview group	30	18	60%	18%
CRIB*	240	69	29%	70%
Phone book	121	12	10%	12%
Totals	391	99	100%	100%

*Community Resources Information Booklet

Strengths.

The features of the Delphi framework that commended it for this study are summarized below:

1. It permitted exploration of an issue that cannot be resolved by precise analytical techniques, and that may elude trained experts, but would benefit from subjective judgments on a collective basis. Community well-being is that kind of issue.

2. It structured a communication and discovery process among people that may not normally interact, but whose lives affect one another. Persons from different work shifts, levels of society, education, age, income; persons who might be quiet in a group meeting, as well as those who might speak too much, all received equal opportunity.

3. It encouraged collective self-reflection and brainstorming about assumptions, aspirations, and appropriate actions.

4. It facilitated reaching a large number of people at their convenience (by mail), thus minimizing issues of time, scheduling, costs, and administration, that apply to some other methods.

5. It was flexible for matching design with study objectives.

6. It assumed a holistic, open-ended frame of reference symbolized by a built-in provision for feedback and refinement.

7. It permitted a shift of research emphasis from documenting what is or what was, toward "imaging" and implementing what could be, thereby augmenting what a community and its planners have to work with.

8. It facilitated obtaining resident perceptions of the issue from a large group at a relatively modest cost.

9. It permitted the current local situation to "speak" and take priority over imported precedents.

Implications of Respondent Agreement.

Accurate Representation. The level of agreement by Round Two respondents, about factors identified in Round One, was very high. One person suggested the lists represented "motherhood" items with which it was hard to disagree. An alternate view is that persons in the interviews were accurately representing locally held perceptions about what helps or hinders community well-being.

Credibility of Participants. A related factor is the credibility of Round One participants in the eyes of the raters in Round Two. While their identity was not disclosed, it was known by the raters that the items on the lists were based on interviews with "neighbors" that had lived in Fort McMurray for some time. A list developed locally would have more credibility than one generated elsewhere. This assumption is based on evidence of a strong local solidarity vis-a-vis the "outside", and, on the widespread local concern just prior to this study about their city's image outside. This may impose bias in the

results.

Significance of Agreement. To the extent that any citizen agreed with the list of factors identified, the results might seem predictable to that individual, but learning the level of agreement on an issue of common community interest like community well-being, represents new information that lends local significance to the process. This is of pragmatic interest to community leaders and planners, but heightened local awareness of relative community agreement on an issue, should also contribute to a community's sense of identity and common purpose.

FROM THE RESPONDENTS

Factors That Frustrate Community Well-Being.

The negative factors were not the primary interest in this study, but several observations are important to note. Responses in Round One to questions like, "What hinders Community Well-Being?" and "Why did people leave the community?", had little to say about lacking amenities. Most responses noted personal or leadership deficits and some impact issues. In the ratings of Round Two, personal factors were again highlighted above impact features commonly described in the literature, i.e., pace, stress, transience, crowding, isolation, and sometimes climate. Residents apparently consider these "boomstress" factors to have less bearing on a community's well-being status than the literature and the media have implied, and less important than the personal attributes highlighted.

Negative factors receiving the highest ratings by 75 per cent or more of respondents highlighted: (1) Personal and Family Issues such as "little to hold family together"; "very little community involvement", "no commitment to community building", and "spouse dissatisfaction"; (2) the Leadership Issue when powers-that-be overlook the importance of the family; and, (3) the Impact Issue of "inappropriate funding arrangements". All of these represent the flip side of items identified that foster community well-being.

Generally, there was less unanimity about factors that frustrate community well-being than about those that describe and facilitate its occurrence. According to this finding, most attention has traditionally been given to matters about which there is least agreement, and less attention to matters about which there is most agreement. An implication is that community leadership should give less priority to mitigating impacts, and more attention to actions that facilitate community well-being. This could net greater community support, and achieve better results, than with actions about which agreement is less clear.

"Image Characteristics" of Community Well-Being.

No simple, single, or even several factors emerged to guarantee community well-being. Many were identified that indicate or foster its achievement. Those receiving the highest ratings (Table 21, Chapter IV) place major emphasis on local and shared responsibility, and provide the basis for an emerging conceptual image of community well-

being. The seven "image characteristics" (Figure 3) that carry the 26 factors listed in the table, and their implications, are elaborated below.

ECONOMIC VIABILITY. The importance of "Economic Viability" need hardly be defended, since a community cannot thrive, and can scarcely survive, without it. The findings place economics in a broader social and ecological context than is apparent in the "growth" model of a "healthy" economy that often disregards the surrounding ecosystems.

LOCAL RESPONSIBILITY, GOVERNMENT and INDUSTRY IN FACILITATING ROLE, and **PARTNERSHIP BETWEEN COMMUNITY and POWERS-THAT-BE.** A general congruence is noted between these characteristics. Findings suggest that residents consider the facilitating role of leadership, in support of local initiative and responsibility, to be more important than the traditional attention to mitigating measures designed to diffuse impacts. The personal attributes highlighted, such as involvement, initiative, commitment, and cooperation, imply an assumption among residents that community well-being is primarily a personal and local responsibility; and, to the extent government and industry recognize community well-being to be in their own best interests, they will find community residents an important resource and significant partner in such endeavor. In psychological terms, where these attributes flourish, they represent an antidote for the boredom and alienation often found in resource towns.

Figure 3. "Image Characteristics" of Community Well-Being

The "plus" factors from Table 21 are listed in the right hand column, and the "minus" factors from the same table appear in the left hand column.

"Minus" Factors	"IMAGE" CHARACTERISTICS	"Plus" Factors
	ECONOMIC VIABILITY	-viability -stable economic environment -basics at affordable costs
-very little community involvement -no commitment to community building	LOCAL RESPONSIBILITY	-commitment -involvement -initiative -local government -organizing locally
-inappropriate funding arrangements	GOVERNMENT & INDUSTRY IN FACILITATING ROLE	-government that enables -industry that supports the community -physical infrastructure
	PARTNERSHIP BETWEEN COMMUNITY & POWERS-THAT-BE	-cooperation -integrity -informed planning -setting priorities -psychological environment of trust and contentment
-little to hold family together -spouse dissatisfaction -overlooking importance of family	FAVORABLE FAMILY ENVIRONMENT	-services -social environment to put down roots
	SAFE PLACE TO LIVE	-clean natural environment (air/water/soil)
	REASON TO BE	-purpose

These attributes are encouraged, or hindered, by the psychological environment of a community. In a resource town, that "environment" is especially vulnerable to decisions and operating style of government and industry, notwithstanding the responsibility of the local community. Since government and industry generally "hold the cards" in major resource developments, local initiatives will be thwarted unless matched by reciprocal sharing of information in a spirit of partnership and mutual trust. In the same way that community residents are important to industry, so industry and government are important to the community.

Resident responses imply that government and industry can facilitate a community's well-being, but cannot provide it. Related implications accent local input in resource town planning, local responsibility for its administration, and a style of government and industry that optimizes "opportunity" in ways that foster, rather than frustrate, the highly rated personal attributes mentioned above.

What people do, or do not do, for their own well-being is vastly more consequential to a community or nation's well being than the number, arrangement, quality and/or cost of professional providers and services (Ardell, 1980). The relative importance of imported mitigating measures compared to local responsibility and facilitative leadership, should be clear.

Local control for its own sake did not appear to be the concern of respondents, given their emphasis on "Partnership Between the Community and the Powers-that-Be",

which included such factors as cooperation, integrity, informed planning, and trust. A sense of "coherence" (Antonovsky 1979), more completely represents the findings.

This concept arose as a hypothesis of medical sociologist Antonovsky when he found no satisfactory answer in the stress literature for the apparent good health of some individuals and groups, in circumstances that overcame others. Still being tested, a sense of coherence is thought to be "a crucial element in the basic personality structure of an individual and in the ambiance of a subculture (resource town?), culture, or historical period" that determines how stressful life events are experienced. It is perceptual, with both cognitive and affective components. Since its referent is not this or that area of life, this or that situation, this or that stressor, it precludes looking only, or primarily, for external solutions.

The application of this concept to community well-being in a resource town is apparent at several points: (1) some people thrive where others break down; (2) the subjective (and/or local) dimension of responsibility is recognized; (3) partnership between a community and "the powers..." is implicit. Antonovsky distinguished between "sense of coherence" and "locus of control", suggesting that the latter concept reflects a cultural bias. He says that the crucial issue is not whether control lies in one's own hands or elsewhere, but that power resides where it legitimately belongs. This may be within oneself, the head

of the family, community leaders, formal authorities, industry, provincial government, history, or deity. The element of legitimacy assures one that issues will be resolved by the legitimized authority, in the collective interest. A strong sense of coherence is not endangered by not personally being in control of every area. This implies relationships of trust and a sense of partnership and shared responsibility, in line with the findings here.

A FAVORABLE FAMILY ENVIRONMENT. The role of the family in a resource town emerged as both a personal and a leadership issue with far reaching implications. For town planning, it means appropriate housing for families, ready access to parks and playgrounds for mothers and small children, public transportation that permits a parent with small children to get away from the house and for shopping even though the spouse has the family car at work. For recruitment, it means meeting with both spouses (where applicable) to discuss the interests, concerns, and skills of both, even though only one is being hired. Making meaningful connections in the community for the spouse could thereby be facilitated, thus fostering family satisfaction and stability. For parents, it means giving some priority to children's needs and home life, above maximizing income. For employers, it means recognizing, when length or number of work shifts are being assigned, that men/women need time to be parents and spouses; and it may mean providing day care, or encouraging noon breaks at home to overlap with children in cases where both parents are working. It may

also mean hiring-incentives that are oriented toward family and community well-being instead of an isolation bonus or other individual cash rewards. For governments it means giving attention to family needs in the commitments and priorities for infrastructures that governments provide.

A SAFE PLACE TO LIVE represents the concern by respondents for appropriate stewardship of the natural environment to assure clean air, water, and soil; and appropriate management of the social environment with a suitable level of protection services.

REASON TO BE refers to a sense of purpose that respondents identified as essential for community well-being. Indirectly, respondents hereby affirmed the focus of this inquiry since "purpose" is more appropriately nurtured by an explicit well-being target, and identifiable actions that move in that direction, than one that merely aims to diffuse negative impacts.

Collectively, residents defined community well-being more broadly than the materialistic well-being of economics, or the biological well-being of medicine; more precisely than the "average" well being of sociology, and more explicitly than the implied norm of impact assessments. Their "image" is more inclusive also than either the behaviorist or the humanist models in psychology. Needs and aspirations are experienced in the community rarely align themselves for academic convenience [illegible] disciplines nor parade themselves in rank order.

A CONCEPTUAL MODEL

"Community well-being" is a kind of myth that holds the various ideals people have about vital communities. Conceptually, this "myth" of many disciplines may be pinned down at the positive end of a continuum to symbolize peoples' aspirations.

Wellness theorists, Ryan & Travis (1977), have conceptualized an illness-wellness continuum (Figure 4) that posits high-level wellness and premature death at opposite poles. Not being ill, the goal of the traditional treatment model, is seen as merely the neutral midpoint of the wellness model that aims for "high level wellness".

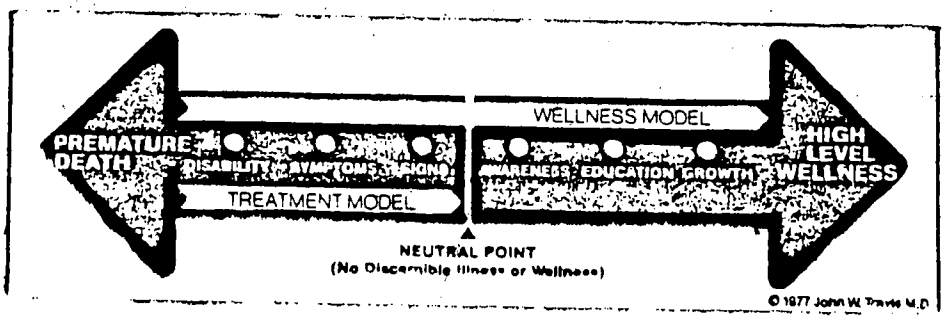

Figure 4. Illness-Wellness Continuum *

Similarly, one may conceive a model that posits community well being and community disintegration at opposite poles, the mid-point representing the undefined community norm that is just assumed in an impact assessment model. This model aims at high-level community well-being.

The current study explored a way of bringing together people's community ideals in order to provide specific content for collective community well-being aspirations and actions, and a basis for setting priorities. This study has confirmed the utility of such a model, as a research and

* From THE WELLNESS WORKBOOK by Regina Ryan & John W. Travis, M.D. Used with permission. Copyright 1980, published by Ten Speed Press, Berkeley, California, USA.

planning tool, because it facilitates a shift in research focus from specific pathologies, or at best, how to prevent this or that ailment, to a search for the factors that move a person or community toward well-being. The model assumes process and represents a holistic paradigm. Further work is needed to provide content for the facilitating factors in this model.

In the "health ease/disease" continuum proposed by Antonovsky (1979), movement toward health is indicated by identifying and reducing or eliminating the stressors of daily life, and by identifying and reinforcing the life/health giving forces. This model responds to the "adjustment" and "competence" needs of the Zautra & Simons model discussed earlier, and guided the current study.

The next chapter features personal reflections, recommendations, and conclusions.

CHAPTER VI

PERSONAL REFLECTIONS, RECOMMENDATIONS, AND CONCLUSIONS

To probe for community well-being has been somewhat like Phaedrus's search for "Quality" (Pirsig, 1974). For him, quality was scientific reality as well as the goal of art, and it remained only to work those concepts into a practical, down-to-earth context. For Phaedrus there was nothing more down-to-earth than maintaining the "well-being" of an old motorcycle. In his musings he concluded that a formal acknowledgment of the role of quality in the scientific process does not destroy the empirical vision at all. Rather, it lifts the inquiry above the dualistic focus on subjects and objects, and above any specific discipline, except, perhaps, philosophy. He observed that when one is "stuck", it is quality, not any subjects or objects, that reveals where one needs to go. This is both symbolic and descriptive of the current study.

This final chapter includes: several caveats, based on the findings, against pop psychology and the empirical vision of reliability; perspectives from psychology and philosophy; and confirmation of findings from experience. In the last section, a summary overview, recommendations, and a reflective conclusion are presented.

CAVEATS BASED ON THE FINDINGS

Against Pop Psychology

The findings file a caveat against pop psychology found within both behaviorist and humanist traditions; --

against the former when community well-being is assumed to result from externally provided "goodies", a form of conditioning; and against the latter when self-fulfillment is made the supreme value regardless of how other people are impacted. In each extreme the personal attributes highlighted in the findings, i.e. initiative, involvement, commitment, and responsibility, tend to be either unnecessary or ignored.

Respondents affirmed what is recognized in both philosophy and psychology, notwithstanding the foregoing extremes, that personal and interpersonal factors are also important. Implied is a potential integration or oneness, sometimes referred to as community, that is larger than the individualistic oneness of self-fulfillment that has emerged in a segment of the humanist tradition. The person-centered emphasis of Carl Rogers was not to emphasize the self at the expense of other humans, but to deemphasize what is non-human in an industrial, technological society.

Against Conventional Replication

Conventional resource town research has given evidence of a strong commitment to "reliability", but this commitment has kept attention confined to that which can be quantified, to that which is present or past, and consequently, to negative features. That focus has not provided a view of alternative opportunities. Resource town theory and practice has been stuck.

The concern of this study has been to move beyond the onesided "stuckness" of resource town theory and practice,

by helping to focus a positive target toward which community aspirations and expectations may be directed. From a community development framework it is more important that a community be engaged in "discovering" a direction for itself, than to be given a reductionist definition of "reliable" truth about community well-being. For this reason, replication of the product is less relevant here than replication of the process. The writer is satisfied that with similar disciplined procedures and instruments, with a sample of similar age and experience in the same community, the results would be replicated, (to what extent this would occur elsewhere would need to be tested), but the importance of replicating data is seen by the author as secondary to the value of engaging another community in a similar process of grappling with its own aspirations and priorities.

The Lewis study of healthy families cited in Chapter II, found no single quality (similar to findings here) that "optimally functioning families" demonstrated and less fortunate families missed. On the contrary, competent families appeared to be so because of the presence and interrelationship of many factors. The point of interest here is that this mixture accounted for impressive differences in style and patterning among optimal families as well. At this level they were dissimilar. There was no one way. To press for replication would be to err as the writer observed during his residence and work in northern

Alberta. When something seemed to work in one community, the reflex of civil servants, and of northerners, was to duplicate it in other settlements. It rarely worked. Attempts to replicate externals are doomed to fail, apart from the prior process and subjective factors that led to success in community A. Replication does not necessarily assure reliability in research nor viability in practice. A distinction is made between the "logic of discovery" and the "logic of demonstration" (Nisbet, 1976); between theory generation and verification (Glaser et al., 1967). Innovation (essential to the former), is not served by following the rules of accumulation (descriptive of the latter). A qualitative quest is not adequately served by quantitative data and conventional replication.

PSYCHOLOGICAL AND PHILOSOPHICAL PERSPECTIVES

Personal Responsibility and Choice

Respondents' emphasis on personal factors legitimized the underlying psychological question raised in the study. Why do some persons thrive where others break down? Why do some pursue as opportunity, and experience as life-giving, what others perceive as stressful and oppressive?

In daily life it is easier to identify stressors of external origin, and more comfortable to assume they are external, than to accept responsibility for personal ones. External ones are more tangible, which may explain in part why boom town literature has dealt primarily with external forces. But the foregoing questions imply, as the findings confirm, that there are personal factors that become

determinants of how an individual experiences and manages potentially stressful situations. Of central importance is the human potential for "tension management", for making conscious choices that determine the experienced outcome. This is believed to be true in chosen tension situations such as the disciplined athlete, and in unchosen circumstances as in a stalled traffic line during rush hour.

Freedom and Necessity

Ultimately, well-being of an individual or a community, and whatever is perceived to facilitate it, is interwoven with the nature of man. Is mankind free or determined? --or both? This issue has teased philosophers and theologians for centuries, though distinction between freedom of choice, a metaphysical issue, and the freedom to choose, a psychological issue, has not always been clear.

The notion of free will (choice) is deeply ingrained in common experience, language, literature, religions and law, but this is in tension with an equally common commitment to a deterministic environment (Westcott, 1977). The paradox of freedom and necessity is fundamental in the western world. Assumptions of science on the one hand, and the aspirations of democracy on the other, represent the polarities of the issue in daily life. It is indicated by the dualism of mind and body, and by the tension between what is personally decided and that which is imposed by the environment beyond personal control.

Resource towns commonly illustrate the stress and

mental anguish of autonomy (choice) that has been either disallowed by undue outside control, or personally/locally abdicated. The paradox is expressed pathologically when individuals or communities seek freedom or demand autonomy, while simultaneously taking refuge in a deterministic, fatalist mind set that prevents it.

Responsibility and choice are closely linked. Freedom to choose is the antecedent of responsibility, for society generally holds one accountable for what he chooses, not ordinarily for what is forced upon him. The person who lacks the experience of being able to choose, as in psychosis, has lost a large part of potential selfhood. Experience of choice requires a sense of self; reciprocally, the exercise of choice is an affirmation of self. It follows that choices that are forced are not really choices and do not affirm either the self or a sense of responsibility in the individual or community.

Imposed choices or lack of choice options in a resource town due to external forces, real or imagined, give rise to the mere cog-in-the-wheel feeling of powerlessness. Abdicating choices, a personal or community responsibility, contributes to a sense of alienation or slipping away from meaningful connections. An experience so fundamental to human well-being as making choices, and its attendant responsibilities, cannot be lightly cast aside without serious personal and/or community consequences. If freedom goes, responsibility goes. Personal and community well-being are rooted in both. It is no coincidence that

respondents, from their experience, emphasized both.

CONFIRMATIONS FROM EXPERIENCE

A kind of "validation" of the findings is derived from several sources in the writer's own experience, first as resident for a decade in a northern Alberta community, and from professional involvement with Native and northern communities, including several resource towns (Slave Lake, Grande Cache, and Fort McMurray) for an additional 15 years.

This experience has included working with communities (1) to set up community organizations (Calling Lake, Grande Cache); (2) to organize a community health association and nursing service (Calling Lake), which involved the construction of a health centre by the community at their own expense with mainly volunteer labor; (3) to establish school districts (Pelican Mountain [Sandy Lake], Chipewyan Lake), which included negotiations with the Department of Education and, in the first instance, arranging to build a school with local labor; (4) to negotiate land tenure (Grande Cache) when lifestyle, livelihood, grazing lands and traplines were suddenly threatened by a new coal mining town in 1970; and, (5) to facilitate local leadership and other community development skills (Slave Lake area, Janvier, Grande Cache) under the auspices of the Alberta Human Resources Development Authority. Recent experience has involved social research in resource towns (Fort McMurray, Slave Lake, Grande Cache), including an evaluative follow-up study for Keyano College,

an assessment of health and social services in Fort McMurray, and follow-up research in Grande Cache for a British Columbia firm assigned to do preliminary studies for a proposed coal mining town at Tumbler Ridge, B.C.

The writer's residence in the North spanned a period before and after the advent of social assistance. This permitted first hand observation of specific individuals known to the writer as they shifted from a pattern of self-reliance and interdependence in the community, to one of individual dependence on outside assistance. The transition was made more debilitating by the threat of being "cut off" of assistance if any part time work was undertaken, thus stifling whatever initiative had helped sustain the individual until then. At issue here is not the intent of the provider nor even the assistance per se, but the insidious erosion of spirit, self reliance, and pride that followed as a consequence. The issue is quite outside the conventional defense of and diatribes against the work ethic. The case is made, as in the current findings, for distribution of opportunity rather than simple redistribution of wealth, so that the personal factors highlighted in the current study are facilitated rather than discouraged and ultimately extinguished.

In another instance, an isolated Native community suddenly became an "example", for a provincial native organization and a provincial government. A consequence was a continuous descent of government service personnel, administrators, engineers, construction contractors, such

that, on occasion, as many as four or five planes sat waiting on the forestry airstrip while professionals delivered their service to the community. While this fed local humor, usually in the vernacular, the cost of such uncoordinated flights became a concern for government. The "solution" was to coordinate the flights from the point of origin, which proved quite effective for the problem as it was defined.

Several points of interest may be noted: The whole scenario was based on a perception of the community's need as one that could be met with provisions and expertise from the outside. When things didn't seem to work, the reflex was to increase the "solution", "to try harder" in a "game without end" that reached ridiculous proportions, as symbolized by the aircraft poised on the airstrip.

The coordination issue was seen as strictly an administrative problem, so it was solved in the simplest manner to expedite service delivery more efficiently. A clearing house phone number in the city of origin was agreed upon to handle coordination. Since the issue was not considered in community well-being terms, no attention was given to how coordination might be community based, thus enlisting local involvement as well as providing some local awareness of when the next plane was coming. The local humor and cynicism was based on a feeling of being "done to", notwithstanding the fact that the services were well intended, and in themselves, excellent services. Some of

the same feelings and frustrations were expressed there about inadequate information and outside control, that emerged in the current study. Implicit are the issues of local responsibility, partnership between community and the powers-that-be, and government in a facilitating role, which emerged as "image characteristics" of community well-being in this study.

SUMMARY AND RECOMMENDATIONS

An Overview

This study was designed to probe for community well-being alternatives to the almost exclusively negative image portrayed in the resource town literature. It was assumed that since negative impacts have been anticipated, identified, and mitigating measures introduced, it would be equally possible to anticipate and identify positive community options, and to facilitate movement of individuals and communities in that direction. The research design was developed on that assumption, and the findings have confirmed its usefulness.

A conclusion, based in part on the writer's previous experience, is that the "stuckness" of the recurring resource town scenario has three main causes: (1) an underlying, undefined conflict of purpose, priorities, and expectations among the various actors involved, i.e. governments, industry, and community; (2) the absence of a clear vision of achievable community "quality" in a resource town; and, (3) a preoccupation with the "empirical vision" and its tools. This study has been concerned with all

three. The focus and the findings have addressed the first two in that the "image characteristics" generated may serve as unifying operational goals for the three parties involved. The method, by raising the "self-reflective question", opened the inquiry to include subjective and qualitative data, thereby confronting the third.

By shifting the research focus to positive values, this study challenged the prevailing paradigm that is preoccupied with causes of illness more than "causes" of health; with what explains business failures, more than what assures success; and, in resource towns, with that which mitigates impacts, rather than what facilitates well-being.

The literature has shown that there is no single cause for a resource town's problems. Similarly, this study confirmed that there is no single means to achieve community well-being, though it points the direction, and the "image characteristics" specify some targets.

Change theory has helped in understanding how intended solutions sometimes "conspire" to perpetuate a negative cycle (Figure 5). Image theory has provided some clue for breaking into the cycle (at the point of "the image molds expectations"), by changing the image on which people's assumptions and actions rest. Community development theory clarified the importance of local initiatives and involvement stressed by respondents.

The process and the findings of this study provide a basis for moving the cycle into a new trajectory. The next

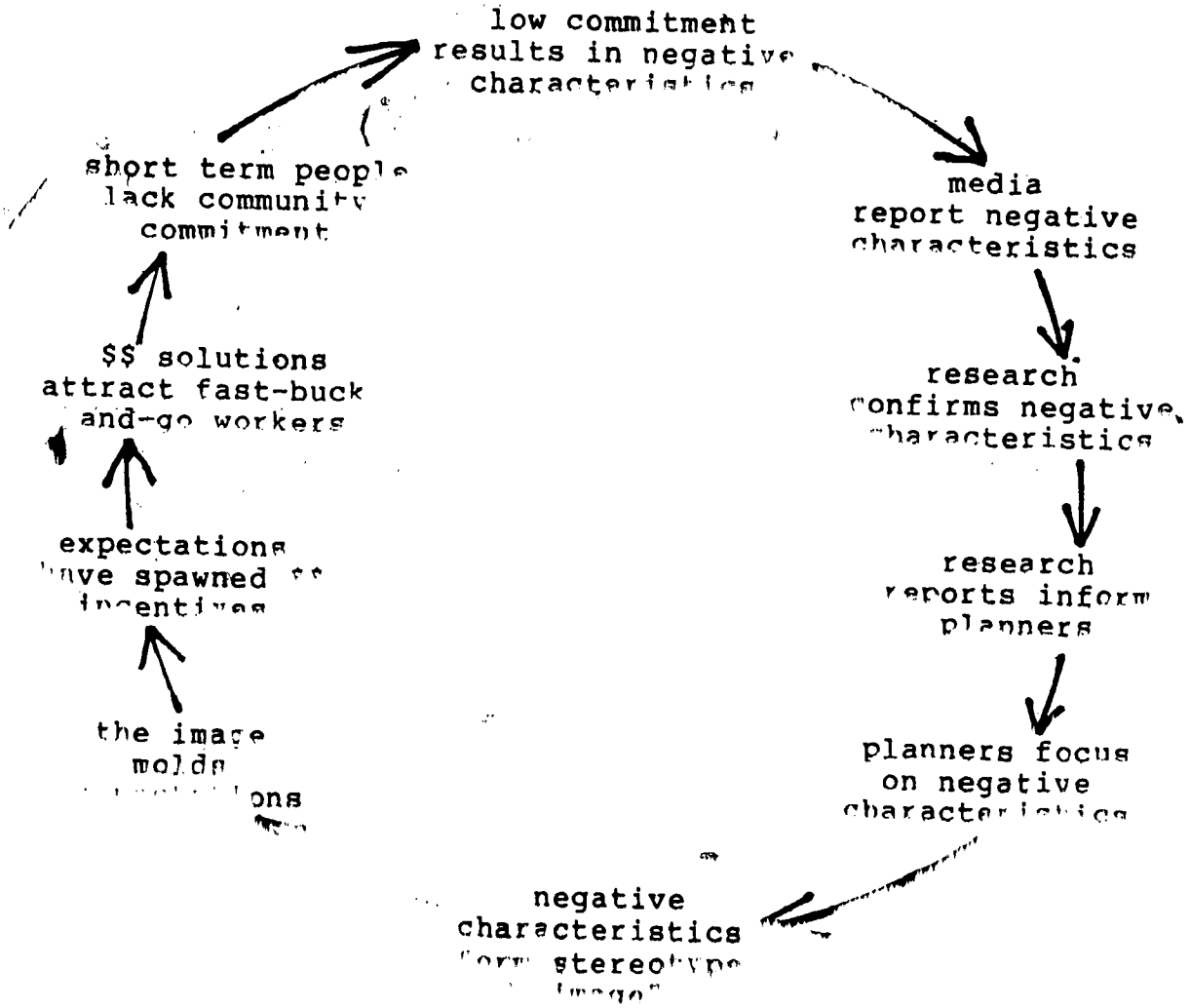

Figure 5. A Self-perpetuating Cycle in the Traditional Resource Town Scenario

steps are for a community and its planners, at whatever level, to consider how the factors identified in this study can be facilitated, and to identify what subsequent actions are called for. Specific to the single example of Figure 5, community well-being expectations could be met with other types of incentives that are more congruent with such aspiration. Family and community building incentives would deter the "fast-buck-and-run" type of individual that comes only for the money, but would appeal to a different type as well as to families. It is believed that these people would bring more commitment to their new community, which would begin to change the characteristics, and permit corresponding changes in the cycle from there on.

The findings suggest that it may be less important to guarantee benefits than to facilitate opportunity. People are shapers of, as well as shaped by, their environments; while driven by their needs, they are also motivated by their ideals and directed by their choices.

Recommendations.

The "road most travelled" in resource towns has been well documented. This study represents a kind of map that identifies the destination of "community well-being", and some possible routes for getting there. Two things appear essential for further exploration of "the road not taken". One is a resource-community-based project in which there is a shared commitment by government, industry, and community to deliberately pursue community well-being objectives. This would need to be simultaneous with, and of parallel

priority, to development of the energy resource. Second, is a commitment to applied research in that context to monitor such an undertaking and to test the findings of this study.

The writer acknowledges that the conclusions reached are based on personal experience as well as on the data generated by the study. The thrust and the arguments are inescapably, and the writer believes legitimately, rooted in both. For that reason studies to replicate product as well as process will be important, notwithstanding the relative importance of each indicated earlier in this chapter.

A REFLECTIVE CONCLUSION

In this study a number of interlocking themes emerged, illustrated in Chapter II by the many terms used to describe "well being" and by its interdisciplinary, multilevel application. well-being was shown to be personal and interpersonal, local and global, having dimensions that are physical, psychological, spiritual, social, and economic.

The scope and pace of recent world-scale industrial and technological developments, and their impacts on people and communities, has shown the separate models of well-being to be too narrow. This study proceeded from a more holistic paradigm, with an exploratory research design that would accommodate both objective and subjective data, and both quantitative and qualitative analyses in a search for determinants of well-being that might be either internal or external to individual and community.

"Community well-being" became the key conceptual instrument for both synthesis and focus in the study. As a goal, it can likewise be instrumental for humanizing the whole development process if industries, governments, and resource towns will be guided by it. The self-reflective question was raised, in the author's belief that a qualitative vision is essential for optimum living and for human survival; and that more people will choose to become involved in their community, and assume appropriate responsibilities, when awareness about themselves, their options, and their potential future, occurs in a democratic way.

-- BIBLIOGRAPHY --

BIBLIOGRAPHY

Adams, D.L.
1969 "Analysis of a Life-satisfaction Index". Journal of Gerontology, 24, 470-474.

Alberta Environment
1981 Alberta Environment Research Proposal. Edmonton: Impact Assessment Division, Alberta Environment, June.

Alberta Oil Sands Environmental Research Program
1976 Northeast Alberta Regional Plan: Informational Base.

Allardt, E.
1973 About Dimensions of Welfare. Helsinki: Research Group for Comparative Sociology, University of Helsinki.

Allport, G.W.
1955 Becoming. New Haven: Yale U. Press.

Allport, G.
1960 Personality and Social Encounter. Boston: Beacon Press.

Allport, G.
1968 The Person In Psychology. Boston: Beacon Press.

Alsands Project Group.
1979 Regional Economic Impact Assessment, Vol. 2 Summary. Edmonton: Alsands.

Andrews, F.
1974 "Social Indicators of Perceived Life Quality." Social Indicator Research. 1, 279-299.

Andrews, F., and S.B. Withey.
1976 Social Indicators of Well-Being. New York: Plenum Press.

Antonovosky, A.
1979 Health, Stress and Coping. San Francisco: Jossey-Bass Publishers.

Ardell, D.B.
1980 "Wellness Promotion: A Proposed Focus for Regional Planning in Canada". Canadian Journal of Public Health. Vol. 71, September/October: 299-301.

Ascher, Wm.
1978 Forecasting: An Appraisal for Policy Makers and Planners. Baltimore: John Hopkins University, 1978.

Audy, J.R.
1971 "Measurement and Diagnosis of Health." Environmental Essays on the Planet as a Home. Shepherd, P.D. McKinley (Eds.) Boston: Houghton Mifflin Co.

Backman, C. & P. Secord
1966 Problems In Social Psychology. Toronto: McGraw-Hill.

Bandura, A.
1977 "Self-efficacy: Toward a Unifying Theory of Behavior Change." Psychological Review, 84: 191-215.

Barrington, G.
1981 The Impact of Environmental Forces on Alberta Community Colleges 1980-1990. (A thesis). Edmonton: U. of A.

Bell, D.
1973 The Coming of Post-Industrial Society. New York: Basic Books.

Bell, G.
1976 Strategies For Human Settlements. Honolulu: University of Hawaii.

Benitez, J.
1976 "National Planning for Human Settlements." In G. Bell (ed.) Strategies for Human Settlements. Honolulu: U. Press of Hawaii.

Berle, A.
1954 The Twentieth Century Capitalist Revolution. Harcourt Brace & Co.

Berliner, H.S., & J.W. Salmon
1980 "The Holistic Alternative to Scientific Medicine: History & Analysis." International Journal of Health Services. Vol. 10, No. 1.

Blair, W.R.N.
1973 Mental Health in Alberta: A Report on the Alberta Mental
1968 Health Study, Vol. 1, 1968; Vol. 2, 1973. Edmonton: The Queen's Printer.

Bloom, B.L.
1975 Changing Patterns of Psychiatric Care. New York: Human Sciences Press.

Bloomfield, H.
1978 "Holistic: The New Reality to Health". New Realities,
- 79 Vol. II, No. 1.

Blum, H.L.
1974 Planning for Health: Development and Application of Social Change Theory. New York: Human Sciences Press.

Boorstin, D.
1962 The Image. New York: Atheneum.

Boulding, K.E.
1973 The Image. Ann Arbor: U. of Michigan Press.

Bowles, R.T.
1979 Social Impact Assessment in Small Communities. Peterborough: Trent University.

Bradburn, N.
1969 The Structure of Psychological Well-Being. Chicago: Aldine Publishing Co.

Bradburn, N., & D. Caplovitz
1965 Reports on Happiness. Chicago: Aldine.

Brinkman, P., & D. Campbell
1971 "Hedonic Relativism and Planning the Good Society." In M.H. Appley (Ed.) Adaptation Level Theory: A Symposium. New York: Academic Press.

Brockhaus, Wm. L., & J.F. Mickelsen
1977 "An Analysis of Prior Delphi Applications and Some Observations on its Future Applicability". Technological Forecasting and Social Change, 10: 103-110.

Brooks, Kenneth W.
1979 "Delphi Technique: Expanding Applications". North Central Associations Quarterly. 53:3, 377-385.

Buckley, W.
1967 Sociology and Modern Systems Theory. Englewood Cliffs, N.J.: Prentice-Hall, Inc.

Bunge, M.
1976 "Indicators: Judging the Quality of Life." In King-Faslow & Shea (Eds), Values and the Quality of Life. New York: Neale Watson Academic Publications.

Campbell, A., & Philip E. Converse (Eds.)
1972 The Human Meaning of Social Change. New York: Russel Sage Foundation.

Campbell, A., P.E. Converse & W.L. Rodgers.
1976 The Quality of American Life. New York: Russell Sage Foundation.

Caplan, G.
1964 Principles of Preventive Psychiatry. New York: Basic Books.

Capra, F.
1982 "The Turning Point: A New Vision of Reality, in The Futurist, Dec. 1982.

Carlisle, E.
1972 "The Conceptual Structure of Social Indicators". In Social Indicators & Social Policy. A. Shonfield & S. Shaw (Eds.) London: Heineman Educational Books.

Carlson, J., & N. Konn, M. Sargent
1981 "Population Growth and Community Satisfaction: Attitudes of Idaho Residents." Progress Report No. 220, Agricultural Experiment Station, College of Agriculture, U. of Idaho. June.

Cassell, J.
1975 "Social Science in Epidemiology: Psycho-social Processes and Stress: Theoretical Formulation." In E.G. Struening & M. Guttentag (Eds.) Handbook of Evaluation Research, Vol. 1. Beverly Hills California: Sage Publications.

Central Mortgage & Housing Corporation
1953 Single Enterprise Communities in Canada. Ottawa: Queen's Printer.

Coates, Joseph J.
1975 "In Defense of Delphi: A Review of Delphi Assessment, Expert Opinion, Forecasting, and Group Process, by H. Sackman". Technological Forecasting and Social Change, 7: 193-194.

Cortese, C., and B. Jones
1977 The Sociological Analysis of Boom Towns. Western Sociological Review 8: 76-90.

Cousins, N.
1979 The Anatomy of An Illness. New York: W.W. Norton.

Cousins, N.
1979 The Holistic Health Explosion. Saturday Review, March 31.

Coutts, H.T. and Stanley C. Clarke.
1972 The Goals of Teacher Education. Edmonton: The Alberta Teachers Association, Barnett House.

Co-West Associates.
1978 Social Planning Implications for Health & Social Services: N.E. Alberta Region. Edmonton: Alberta Social Services and Community Health.

Cracroft
1867 "Essays on Reform", In The Great Society, G. Wallas. New York: Macmillan, 1914.

Crain, Wm. C.
1980 Theories of Development, Englewood Cliffs, N.J.: Prentice-Hall.

Cram, J.
1972 "Differential Needs Satisfaction of Mine Workers in Northern Canada." Canadian Journal of Behavioral Science 4:2.

Dalkey, N.
1972 Studies in the Quality of Life: Delphi & Decision Making. Lexington, Mass.: Lexington Books.

Davenport, J. & J. (Eds.)
1979 Boom Towns and Human Services. Laramie: U. of Wyoming.

Davenport, J. & J. (Eds.)
1980 The Boom Town: Problems and Promises in the Energy Vortex. Laramie: U. of Wyoming.

Dean, Lois R.
1967 Five Towns: A Comparative Community Study. New York: Random House.

DeGroot, P.
1975 "The Field of Community Psychiatry and Community Health" (Unpublished Paper). Edmonton: Community Development, U. of Alberta.

Dohrenwend, B., & B. (Eds.)
1974 Stressful Life Events: Their Nature & Effects. New York: John Wiley & Sons.

Drews, E.M., & Leslie Lipson
1971 Values and Humanity. New York: St. Martins Press.

Dubos, R.
1959 The Mirage of Health. New York: Anchor Books, Doubleday & Co.

Elkes, J.
1983 "New Findings Are First Signs of Science of Well-Being," in Center Magazine, Jan.-Feb. Santa Barbara, CA. University of California.

English, H., & A. English
1958 A Comprehensive Dictionary of Psychology and Psychoanalytically Terms. New York: D. McKay.

Environmental Assessment Division
1977 Environmental Impact Assessment Guidelines. Edmonton: Alberta Environment.

Environmental Protection Agency (EPA)
1973 The Quality of Life Concept. Washington, D.C.: E.P.A.

Feather, F.
1980 Through the '80s. Washinton, D.C.: World Future Society.

Ferguson, M.
1980 The Aquarian Conspiracy. Los Angeles: J.P. Tarcher, Inc.

Flax, M.
1972 A Study in Comparative Urban Indicators: Conditions in 18 Large Metropolitan Areas. Washington, D.C.: The Urban Institute.

Franken, R.
1975 "The Nature of Human Needs and Aspirations" in Human Aspirations and Design Excellence, F.J. Hawkes et al. Calgary: School of Social Welfare, U. of Calgary.

Frankl, V.
1959 Man's Search for Meaning. New York: Washington Square Press.

Freudenburg, Wm. R.
1980 "The Effects of Rapid Population Growth on the Social and Personal Well-Being of Boom Town Residents". Paper prepared for the Western Rural Development Center's conference on "Coping With the Impacts of Rapid Growth". Scottsdale, Arizona, Feb. 26-27.

Fried, M.
1964 "Effects of Social Change on Mental Health." American Journal of Orthopsychiatry, XXXIV, 3-28.

Friedman, M.
1978 "Holistic Health: Is Washington Listening?" New Realities,
- 79 Vol. II, No. 1.

Funk & Wagnalls.
1947 New College Standard Dictionary. New York: Funk & Wagnalls.

Galbraith, J.K.
1958 The Affluent Society. New York: Mentor.

Galbraith, J.K.
1968 The New Industrial State. New York: Signet.

Gartrell, J.W., H. Krahns, and F.D. Sunahara.
1980 A Study of Human Adjustment in Fort McMurray. Ednonton: Environment Alberta.

George, L.
1979 "The Happiness Syndrome: Methodological and Substantive Issues in the Study of Social-Psychological Well-Being in Adulthood." The Gerontologist. Vol. 19, No. 2.

Glaser, B.G., and A.L. Strauss.
1967 The Discovery of Grounded Theory: Strategies for Qualitative Research. Chicago: Aldine Publishing Co.

Glick, I.
1979 "Freedom and Determinism, Paradox or Paradigm". Unpublished Paper. Edmonton: University of Alberta, Educational Psychology.

Glick, I. and M.
1981 Boom Towns: A Quest for Well-Being. Edmonton: Canadian Mental Health Association.

Goble, F.
1972 The Third Force. New York: Pocket Books.

Gold, R.
1974 "Social Impacts of Strip Mining and Other Industrializationsd of Coal Resources." In C.P. Wolf (Ed.) Social Impact Assessment, Environment, Interactions: Evaluations and Applications. The State of the Art in Environmental Design Research - 1974, edited by D. Carson, Vol. 2. Milwaukee: Environmental Design Research Assoc.

Gordon, J.
1980 "The Paradigm of Holistic Medicine", in Health for the Whole Person, Hastings et al. (Eds.). Boulder, Colorado: Westview Press.

Goulet, D.
1971 The Cruel Choice. New York: Atheneum.

Goulet, D.
1974 A New Moral Order. Maryknoll, N.Y.: Orbis Books.

Goulet, D., and Michael Hudson
1971 The Myth of Aid. Maryknoll, N. Y.: Orbis Books.

Gurin, G., J. Veroff, & S. Field
1960 Americans View Their Mental Health. New York: Basic Books.

Gutheim, F.
1976 "The Value of Community Self-Help," in G. Bell (Ed.) Strategies for Human Settlements: Habitat and Environment. Honolulu: U. Press of Hawaii.

Harman, W.
1976 An Incomplete Guide to The Future. San Francisco: San Francisco Book Co. Inc.

Hartman, L.
1979 "The Primary Prevention of Behavior Pathology: An Empirical Investigation." The Psychiatric Journal of the University of Ottawa, Vol. IV, No. 3, September.

Hastings, A.C., J. Fadiman & J.S. Gordon (Eds.)
1980 Health for the Whole Person. Boulder: Westview Press.

Hawkes, F.J. et al.
1975 Human Aspirations and Design Excellence. Calgary: Research Unit, School of Social Welfare, University of Calgary.

Helmer, O.
1966 Social Technology, Basic Books: New York.

Henchey, S.P., & Jas. R. Yates (Eds.)
1974 Futurism in Education Methodologies. Berkley: McCutchan.

Hetman, F.
1973 Society and the Assessment of Technology. Paris: OEDC.

Hewitt, G.L., et al
1977 Quality of Life in Alberta, Technical Report. Edmonton: Alberta Bureau of Statistics.

Himelfarb, A.
1976 The Social Characteristics of One-Industry Towns in Canada. Fredericton: U. of New Brunswick.

Hoffenberg, M.
1970 "Comments on 'Measuring Progress Towards Social Goods: Some Possibilities at National and Local Levels'". Management Science 16:12 (August).

Holmes, T., and M. Masuda
1974 "Life Change and Illness Susceptibility", in Dohrenwend & Dohrenwend (Eds.) Stressful Life Events: Their Nature and Effects. New York: John Wiley & Sons.

Holsti, O.
1969 Content Analysis For the Social Sciences and Humanities. Reading, Mass: Addison-Wesley

Hovland, C., I. Janis & H. Kelley
1953 Communication and Persuasion. New Haven, Conn.: Yale University Press.

Illich, I.
1973 Tools for Conviviality. New York: Harper & Row.

Jackson, J & N. Poushinsky
1971 Migration To Northern Mining Communities: Structural & Social Psychological Dimensions. Winnipeg: Centre for Settlement Studies, U. of M.

Jahoda, M.
1958 Current Concepts of Positive Mental Health. New York: Basic Books.

Jillson, Irene A.
1975 "The National Drug Abuse Policy Delphi: Progress Report & Findings to Date", in H.A. Linstone and Murray Turoff (Eds.), The Delphi Method: Techniques and Applications. Reading, Mass: Addison-Wesley, 124-167.

Johnson, H.
1976 "An Exploratory Study of Deviance in the Athabasca Oil Sands Area" (Unpublished Manuscript). Available from N.E. Alberta Commissioner, Ft. McMurray, Alberta.

Kanter, R.M.
1972 Commitment and Community. Cambridge: Harvard University Press.

Kelman, S.
1980 "Social Organization and the Meaning of Health." The Journal of Medicine & Philosophy. Vol. 5, No. 2

King-Farlow, J., & Wm. R. Shea (Eds.)
1976 Values and the Quality of Life. New York: Science History Publications.

Klein, C.
1968 Community Dynamics and Mental Health. New York: John Wiley & Sons.

Krutch, J.W.
1929 The Modern Temper. New York: Harcourt, Brace & World, Inc.

Kuhn, T.
1970 The Structure of Scientific Revolutions. Chicago: Phoenix Books, U. of Chicago Press.

Larson, L.E.
1979 The Impact of Resource Development on Individual and Family Well-Being. Edmonton: Alberta Environment.

Laszlo, E., & Judah Bierman
1977 Goals in a Global Community. New York: Pergamon Press.
(Background Papers for "Goals for Mankind - Report to Club of Rome)

Leiss, Wm.
1976 The Limits to Satisfaction. Toronto: U. of T. Press.

Levi, L, and Lars Andersson
1975 Psychosocial Stress: Population, Environment and Quality of Life. New York: Spectrum Publications.

Levy, S., and L. Guttman
1975 "On the Multivariate Structure of Well-Being." Social Indicators Research 2, 361-388.

Levy, L., and L. Rowitz
1973 The Ecology of Mental Disorder. New York.

Lewis, S.B., W.R. Beavers, J.T. Gossett, & V.A. Phillips
1976 No Single Thread. New York: Brunner/Mazel, Inc.

Linstone, H., & M. Turoff
1975 The Delphi Method: Techniques and Applications. Don Mills, Ontario: Addison-Wesley Publishing Co.

Lippman, W.
1922 Public Opinion. New York: The Free Press. (Paperback Ed. 1965)

Lucas, R.
1971 Minetown, Milltown, Railtown: Life in Canadian Communities of Single Industry. Toronto: U. of Toronto Press.

Maslow, A.
1968 Toward a Psychology of Being. New York: Van Nostrand Reinhold Co.

Mathiasson, J.
1970 Resident Perceptions of Quality of Life in Resource Frontier Communities. Winnipeg: Centre for Settlement Studies, U. of Manitoba.

McCall, S.
1976 "Human Needs and the Quality of Life." In King-Farlow & Shea (Eds.), Values and the Quality of Life. New York: Neale Watson Academic Publications.

McRobie, G.
1981 Small is Possible. New York: Harper & Row.

Meadows, D., et al
1972 The Limits to Growth, Club of Rome, New York: New American Library.

Merton, R.K.
1949 Social Theory and Social Structure. Glencoe, Ill.: Free Press.

Merton, T.
1953 Disputed Questions. New York: Farrar, Straus and Cudahy.

Michalos, A.
1976 "Measuring the Quality of Life," in King-Farlow & Shea (Eds.) Values and the Quality of Life. New York: Neale Watson Academic Publications.

Misiak & Sexton
1973 Phemonenological, Existential, and Humanistic Psychologies: An Historical Survey. N.Y: Grune & Stratton.

Mitroff, I & M. Turoff
1973 "Technological Forecasting and Assessment: Science and/or Mythology?" Technological Forecasting and Social Change, 5,(1)

Mitroff, I & M. Turoff
1973 "Philosophical and Methodological Foundations of Delphi." In The Delphi Method. Linstone & Turoff (eds.), Don Mills: Addison-Wesley. 1975.

Moberg, D.O.
1979 Spiritual Well-Being: Sociological Perspectives. Washington: University Press of America.

Monaco, A.
1978 "Coming! Holistic Medicine." Hospital Topics. July/August.

Morrison, R.
1977 Stress and Socio-Cultural Change in a New Town. Unpublished Doctoral Thesis, Dept. of Anthropology, U. of A.

Mumford, L.
1961 The City in History. New York: Harcourt, Brace & World, Inc.

Municipal Census 81. The City of Fort McMurray. Fort McMurray: 1981.

Neubert, R.
1978 "Association for Holistic Health." New Realities, Vol. II,
- 79 No. 1.

Nickels, J., & J. Kehoe
1972 "Northern Communities: Mental Health and Social Adaption." Occasional Paper No. 4. Winnipeg: Center for Settlement Studies, U. of M.

Nickels, J.B. & D.L. Sexton
1976 "Use of Quality of Life Factors To Predict Residents' Intentions To Remain In Resource Frontier Communities." pp. 95-150 In J.B. Nickels (ed.) Studies of Expected and Effected Mobility. Center For Settlement Studies, U. of M. Winnipeg.

Nisbet, R.A.
1953 The Quest for Community. New York: Oxford University Press. (Reprint 1970)

Nisbet, R.A.
1973 The Social Philosophers. New York: Thos. Y. Crowell Co.

Nisbet, R.A.
1976 Sociology As An Art Form. New York: Oxford University Press.

Northern B.C. Women's Task Force
1977 Report on Single Industry Resource Communities. Vancouver: Women's Research Centre.

O'Manique, J.
1976 "Values for Survival." In King-Farlow & Shea (Eds.) Values and the Quality of Life. New York: Neale Watson Academic Publications.

Packard, V.
1972 A Nation of Strangers. New York: David McKay Co., Inc.

Pirsig, R.M.
1974 Zen and the Art of Motorcycle Maintenance. An Inquiry into Values. Toronto: Bantam Books, (New Age Edition 1981)

Poincare, H.
The Foundations of Science.

Polak, F.
1971 Prognostics. New York: Elsevier Pub. Co.

Polak, F.
1973 The Image of the Future. New York: Elsevier Scientific Publishing Co.

Pressman, N. (Ed.)
1976 New Communities in Canada. Waterloo: Contact Faculty of Environmental Studies.

Proshansky, H.
1976 Environmental Psychology: People & Their Physical Settings. New York: Holt, Reinhart & Winston.

Rank, O.
1945 Will Therapy and Truth and Reality. New York: Knopf. (Originally published 1929, 1931)

Rasp, Jr., A.
1974 A New Tool for Administrators: Delphi and Decision-Making. North Central Association Quarterly, 48:3.

Richards, I. (Translators Ed.)
1966 Plato's Republic Cambridge: Cambridge University Press.

Riffel, J.A.
1975 Quality of Life in Resource Towns. Ottawa: Information Canada.

Rifkin, J.
1980 Entropy. New York: Viking Press.

Robertson, Jas.
1979 The Sane Alternative. St. Paul: River Basin Publishing Co.

Robinson, I.
1962 New Industrial Towns on Canada's Resource Frontiers. Chicago: U. of Chicago Press.

Robinson, T.
1976 "Plato and the Quality of Life." In King-Farlow & Shea (Eds.) Values and the Quality of Life. New York: Neale Watson Academic Publications.

Rogers, C.
1951 Client-Centered Therapy. Boston: Houghton Mifflin Co. (1965)

Rogers, C.
1961 On Becoming a Person. Boston: Houghton Mifflin Co.

Rogers, C.
1980 A Way of Being. Boston: Haughton Mifflin Co.

Roszak, T.
1979 Person/Planet. Garden City, N.Y.: Anchor Press.

Ryan, S. & J. Travis
1981 The Wellness Workbook: A Guide to Attaining High Level Wellness. Berkely: Tenspeed Press.

Sackman, Harold
1974 Delphi Assessment, Expert Opinion Forecasting and Group Process. Rand Report R-1283-PR. Santa Monica, Calif.: Rand Report Abstracts. Spring.

Satin, M.
1978 New Age Politics: Healing Self & Society. W. Vancouver: Whitecap Books.

Sawhill, I.
1969 "The Role of Social Indicators and Social Reporting in Public Expenditure Decisions". In The Analysis & Evaluation of Public Expenditures: The PPB System. Washington: U.S. Government Printing Office.

Schneider, M.
1976 "The Quality of Life and Social Indicators Research." Public Administration Review, 36: 297-305.

Schumacher, E.G.
1973 Small is Beautiful. New York: Harper & Row.

Schweitzer, D. & G. Ginsburg
1966 "Factors of Communicator Credibility." In Problems In Social Psychology. C. Backman & P. Secord (Eds.). Toronto: McGraw-Hill.

Selltiz C., & M. Joahoda, M. Deutsch, S. Cook
1959 Research Methods In Social Relations. Toronto: Holt, Rinehart & Winston.

Selye, H.
1956 The Stress of Life. New York: McGraw-Hill.

Shea, W.
1976 "The Quest for a High Quality of Life." In King-Farlow & Shea (Eds.) Values and the Quality of Life. New York: Neale Watson Academic Publications.

Sheehan, R.
1973 "Self-actualizing Persons and the Ideal Society." Philosophy Forum, Vol. 13.

Sheehy, G.
1981 Pathfinders. New York: Wm. Morrow & Co.

Sheldon, E. & H. Freeman
1970 "Notes on Social Indicators: Promises and Potential." Policy Sciences, 1:1, 97-111, Spring.

Shepard, P., & D. McKinley (Eds.)
1971 Environmental Essays on the Planet as a Home. Boston: Haughton Mifflin Co.

Sills, D. (ed.)
1968 The International Encyclopedia Of The Social Sciences. 17 v. New York: Macmillan.

Simonton, C., S. Simonton & J. Creighton
1978 Getting Well Again. Los Angeles: Tarcher.

Skinner, B.F.
1971 Beyond Freedom & Dignity. New York: Bantam Book.

Smith, A.
1975 Powers of the [redacted] New York: Ballantyne Books.

Smith, Adam
1920 The Wealth of Nations, E. Cannan (Ed.). London: Methuen 1776. (1904)

Smith, J.
1980 A Theoretical Framework for Studying the Adjustment of Migrants to their New Environment. Edmonton: U. of A. Sociology.

Speer, D.
1970 "Family Systems: Morphostasis & Morphogenesis, or is Homeostasis Enough?" Family Process, 9: 259-278.

Sterk, J. et al
1981 "Health: A Literature Review." (Unpublished paper) Mental Health Division, City of Edmonton Health Department.

Sward, K.
1980 "Self-Actualization and Women: Rank and Freud Contrasted." Journal of Humanistic Psychology, Vol. 20, No. 2, Spring.

Szasz, T.
1963 The Myth of Mental Illness. New York: Harper.

Temerlin, M.
1965 "On Choice and Responsibility In A Humanistic Psychotherapy". In F.T. Severin (Ed.) Humanistic Viewpoints In Psychology. New York: McGraw-Hill.

U.S. Commission on Civil Rights.
1979 Energy Resource Development Implications for Women in the Inter-Mountain West. Washington, D.C.: U.S. Government Printing Office.

U.S. Department of Health, Education & Welfare
1969 Toward a Social Report. Washington, D.C.: U.S. Government Printing Office.

U.S. Office of Management & Budget
1973 Social Indicators. Washington, D.C.: U.S. Government Printing Office.

Van Dyke, E., et al.
1975 Resource Development Problems Study: Phase One. Report prepared for the Northern Development Group by Applied Research Associates Ltd.

Vickers, G.
1959 "The Predicament of the Industrial Society". The Undirected Society: Essays on the Human Implications of Industrialization in Canada. Toronto: U. of Tor. Press.

Vickers, G.
1968 Value Systems and Social Process. New York: Basic Books.

Wallas, G.
1920 The Great Society. New York: MacMillan. (1914)

Ward, B., & R. Dubos
1972 Only One Earth. New York: W.W. Norton & Co.

Warheit, G., C. Holzer & L. Robbins
1979 "Social Indicators and Mental Health Planning: An Empirical Case Study." Community Mental Health Journal, Vol. 15(2).

Watts, A.W.
1963 Psychotherapy East and West. New York: Mentor Books.

Watzlawick, P., C. Weakland & R. Fisch.
1974 Change: Principles of Problem Formation & Problem Resolution. New York: W.W. Norton & Co.

Weatherman, R. & Karen Swenson
1974 "Delphi Technique", in Stephen P. Hencley & Jas. R. Yates (eds.) Futurism in Education Methodologies. Berkley: McCutchan.

Weaver, W. Timothy
1970a The Delphi Method: Background and Critique. Report I (Working Draft). Syracuse: Educational Policy Research Center.

Weaver, W. Timothy
1970b The Delphi Method: Research Design and Analysis of Results. Report II (Working Draft). Syracuse: Education Policy Research Center.

Weinberg, A.
1961 Migration & Belonging. The Hague, Netherlands: Martinus Nijhoff.

Weisz, R.
1979 "Stress and Mental Health in a Boom Town." Boom Towns and Human Services. Davenport & Davenport (Eds.). Laramie: U. of Wyoming.

Westcott, M.
1977 "Free Will: An Exercise in Metaphysical Trust or Psychological Consequences." Canadian Psychological Review.

Wildman, R., and D. Johnson
1977 "Life Change & Langner's 22 Item Mental Health Index: A Study of Partial Replication." Journal of Health and Social Behavior, 18: 179-188.

Wilkinson, L. (Ed.).
1980 Earth Keeping. Grand Rapids: Eerdmans.

Wolf, C.
1974 "Social Impact Assessment," Sec. 2 of Part 1, in Man-Environment Interactions, Daniel Carson (Ed.). Milwaukee: Environmental Design Research Association.

Wolpert, J.
1966 "Migration as an Adjustment to Environmental Stress." Journal of Social Issues, 22: 92-102.

Zautra, A., & D. Goodhart
1979 "Quality of Life Indicators: A Review of the Literature". Community Mental Health Review, Vol. 4, No. 1, Spring.

Zautra, A., & L. Simons
1979 "Some Effects of Positive Life Events on Community Mental Health," in Zautra & Goodhart, Community Mental health Review, Vol. 4, No. 1, Spring.

APPENDIX A

Round One Interview Schedule

INTERVIEW SCHEDULE

"Community Well-Being" Study

In this study, our interest is to learn from persons who've experienced life in a resource town during a boom period, what they (you) see as most essential to achieve community health and stability, --a condition we'll call "community well-being".

Since "community well-being" may mean different things to different people, and may even change over time for the same person, our task is to find out what are the most central or important elements of "community well-being" as seen by most residents.

It is believed that if appropriate community aspirations can be clarified, "community well-being" could become a legitimate goal for all to plan and work toward in a resource town. By so doing, less attention would need to be focused on the negative side of boom towns.

This investigation is being conducted in Fort McMurray because of the experience that many of you represent. In a way, this is an exercise in mining "community wisdom" that can benefit other Alberta communities that are facing major development.

INTERVIEW SCHEDULE

"Community Well-Being" Study

No._____ Date:_____

Name_____ Phone:_____

Address _____ Sex: ____f ____m

Age: _____

In a moment I'll have some structured questions for you, but to begin, I'm inviting you to do some free associations around "community well-being" or a "well community". What first comes to your mind?. . . What synonyms? . . . What descriptive words or phrases?. . . What do you associate with "community well-being"?

Now, what describes the opposite of community well-being?. . . What characteristics come to mind?

3. How long have you lived in Port McHurray?

_____years _____months, or since:_____

A. What were you doing before you came here? _____

B. How did your decision to move here come about? _____

C. Are you still in the same job? ____yes ____no

Explain _____

4. How did you feel about the quality of community life here during the boom period?

____delighted
____pleased
____mostly satisfied
____mixed (about equally satisfied and dissatisfied)
____mostly dissatisfied
____unhappy
____terrible

A ____neutral (neither satisfied nor dissatisfied)
B ____I never thought about it
C ____does not apply to me

Explain your choice_____

5. More personally, how did you feel about living here during the boom period. (Select/Name appropriate category from #4 above).

_____

6. What were the "plusses" that attracted you to move here?

_____

7. Was what you found here different from what attracted you to come? ____yes ____no Positive surprises?_____

Negative surprises?_____

8. What, if anything, did you feel was lacking? _____

9. Have you ever lived an any other resource town? ___yes ___no

If "yes", Where? _____

How long? _____

What contrasts or comparisons in community quality-of-life between that town and Fort McHurray stand out in your mind?

_____

10. What, if anything, that was important to you in the community from which you came, have you missed since coming here?

11. What, if anything, did you dislike about the community from which you came?

12. If you were to relocate, what community characteristics would you particularly hope to find in the new location?

Explain:

13. I understand that during the boom period, many people that moved here, stayed only a year or two; some even less. Did you know people like that personally? ____yes ____no

Why do you think they left?

This section represents the heart of our investigation and deals with basically three questions:

14. What specific features or characteristics of "community well-being" would you identify that industry, government, and community residents may legitimately hope and plan for in a resource town?

15. What factors commonly interfere with such community characteristics being attained?

A. What community factors?

B. What "outside" factors?

C. What personal factors?

16. What can best facilitate the attainment of "community well-being", i.e. desirable community characteristics such as you've identified?

A. What in the community. . .?

B. What outside the community. . .?

C. What personal attributes. . .?

17. Who can best facilitate the attainment of "community well-being?

A. Who in the community. . .?

B. Who outside the community. . .?

18. What resources are essential to facilitate "community well-being"?

A. What community resources. . .?

B. What "outside" resources. . .?

C. What personal resources. . .? _____

19. What processes or activities are essential to facilitate "community well-being"? _____

A. What community processes or activities. . .? _____

B. What "outside" processes or activities. . .? _____

C. What personal processes or activities. . .? _____

17. When you moved here, did you see it then as a fairly permanent move? ____yes ____no How do you see it now? _____

18. How do you feel about living in Fort McMurray currently?

____ delighted
____ pleased
____ mostly satisfied
____ mixed (about equally satisfied and dissatisfied)
____ mostly dissatisfied
____ unhappy
____ terrible

A. Neutral (neither satisfied nor dissatisfied)
B. I never thought about it
C. Does not apply to me

19. How many years of formal education have you completed?

____less than 12
____between 12 and 16
____more than 16

20. One more question, If you were to identify the two or three most important ingredients or dimensions of "community well-being", what would they be?