

The Science of Community Indicators Research: Towards Professional Certification



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The Certification Program

- Course description
- Chapter components
- Certification exam
- Student support
- Fee



Course Content

- Module 1: Theoretical Foundations
- Module 2: An Example
- Module 3: Planning
- Module 4: Data Collection
- Module 5: Dissemination and Promotion
- Bibliographic Resources



Module 1: Theoretical Foundations

- Concept of Personal Utility
- Concept of Opulence
- Concept of the Just Society
- Concept of Human Need Satisfaction
- Concept of Sustainability



Selected Area Rating Guides and Their Description

Publishing Organization	Organization's Mission	Ranking Source	Description of Ranking
American Electronics Association (AEA)	AEA is an industry association involving 3,000+ high tech companies. AEA's mission is to promote and represent the business interests of America's technology industry	<i>Cybercities 2002</i>	Ranks the 60 largest cities in the U.S. in terms of six indicators: <ol style="list-style-type: none"> 1. Air quality rating 2. Number of violent crimes per capita 3. Average commute rate 4. Unemployment rate 5. Number of sunny days per year 6. Number of art & cultural venues



Selected Area Rating Guides and Their Description (cont'd)

Publishing Organization	Organization's Mission	Ranking Source	Description of Ranking
Morgan Quinto Press	This is a publishing company specializing in reference books and monthly reports that compare states and cities in the U.S.	2002 <i>Most Livable States</i>	Ranks the 50 states of the U.S. based on two sub-indices—positive and negative. 43 indicators are included in the two sub-indices. Examples of indicators included in the positive sub-index are <ul style="list-style-type: none"> •% of sunny days per year •normal daily mean temperature •per capita personal income •median household income •home ownership rate •% of population graduated from high school Examples of indicators included in the negative sub-index are <ul style="list-style-type: none"> •Highway fatality rate •Crime rate •% of households receiving food stamps •Unemployment rate •Infant mortality rate •Poverty rate •Death rate



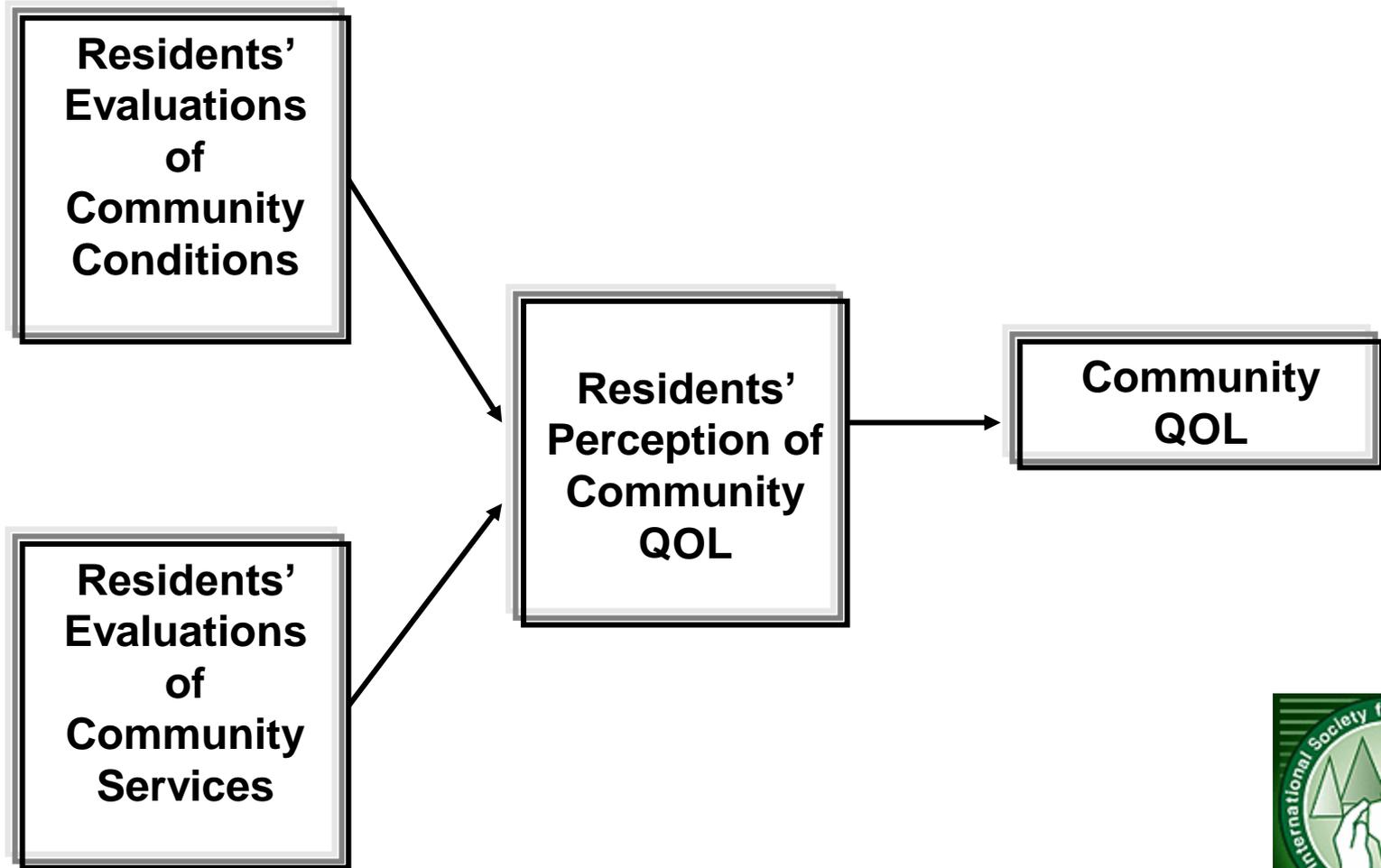
The Concept of Personal Utility

- The basic premise is that a community rated high on quality-of-life dimensions is a community that has *conditions* and *services* that satisfy the needs of community residents.



Community Conditions	Community Services
<ul style="list-style-type: none">• <u>Economic conditions</u> (e.g., job opportunities, quality of jobs, income and wealth, cost of living)• <u>Social conditions</u> (e.g., crime and public safety, racial/ethnic relations, social cohesion, education, leisure and recreation)• <u>Physical conditions</u> (e.g., incidence of disease, air pollution, noise pollution, land pollution, water pollution, population density, traffic and congestion)	<ul style="list-style-type: none">• <u>Government services</u> (e.g., police, fire, refuse, water, transportation, healthcare, education, social services, job training)• <u>Nonprofit services</u> (e.g., religious, healthcare, social services, education)• <u>Business services</u> (e.g., banking, shopping malls, department stores, drug stores, supermarkets, automotive)





The Concept of Opulence

- Many community planners believe that their basic mission is essentially *economic development*. This is because economic development is the foundation for social development. When a community achieves satisfactory levels of economic development, social development follows.
- Therefore, community indicators projects guided by the opulence concept collect data on economic indicators such as household income, unemployment, type of jobs, quality of jobs, cost of living, poverty, and homelessness



Economic indicators of a community

- Household income
- Unemployment
- Type of jobs
- Quality of jobs
- Cost of living
- Poverty
- Homelessness





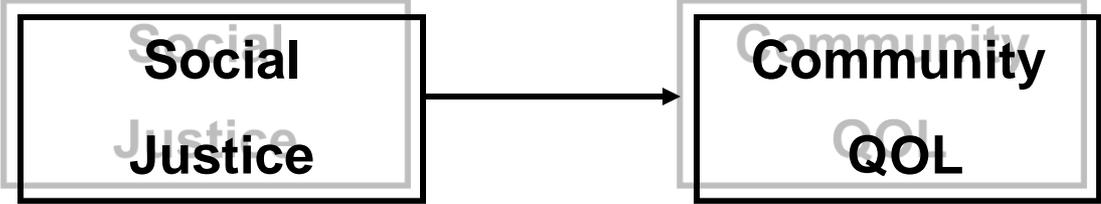
The Concept of Social Justice

- Many community planners and indicator researchers develop community indicators projects guided by the implicit notion that community quality of life is a community in which its residents enjoy a high level of *social justice*.
- Society is considered *just* if two distinct principles are met. The first principle of a *just society* holds when there is equality in the assignment of basic rights and duties. The second principle of the just society holds when inequalities are justified to benefit the least advantaged members of the society.



Equality in basic rights and duties	Inequality to benefit the least advantaged
<ul style="list-style-type: none"> •Right to meet basic needs (e.g., % of population below poverty line; government entitlement programs directed to the poor and equitable appropriations across all community groups) •Right to safety (e.g., crime rate; government programs and expenditures to combat community crime and equitable appropriations across all community groups) •Right to employment (e.g., unemployment, educational attainment; literacy; job skills; job training programs and equitable appropriations across all community groups) •Right to a healthful environment (e.g., air pollution, water pollution, land pollution, noise pollution; incidence of disease; government programs to combat environmental pollution and equitable appropriations across all community groups) •Duty to pay taxes (e.g., measures of corporate welfare; tax evasion indicators; % of undeclared work; government programs to reduce tax evasion and equitable appropriations across all community groups) •Duty to vote (e.g., % of eligible voters voting; government programs to increase voter turnout and equitable appropriations across all community groups) 	<ul style="list-style-type: none"> •Children (e.g., under five mortality rate, one-year olds fully immunized against tuberculosis and measles; teen pregnancy rate, low-birth weight infants, underweight children under age five) •Women (e.g., ratio of females graduating high school to males; ratio of females unemployed to males; ratio of median wage of females to males; educational scholarships available to females relative to males; job training and assistance programs available to females relative to males) •Minorities (e.g., ratio of minorities graduating high school to non-minorities; ratio of minorities unemployed to non-minorities; ratio of median wage of minorities to non-minorities; educational scholarships available to minorities relative to non-minorities; job training and assistance programs available to minorities relative to non-minorities) •The Poor (e.g., educational scholarships available to the poor relative to the non-poor; job training and assistance programs available to the poor relative to the non-poor; government expenditures to the poor relative to the non-poor) •The Disabled (e.g., ratio of disabled graduating high school to non-disabled; ratio of disabled unemployed to non-disabled; ratio of median wage of disabled to non-disabled; educational scholarship available to the disabled relative to the non-disabled; job training and assistance programs for the disabled relative to the non disabled; government expenditures to the disabled relative to the non-disabled)





The Concept of Human Need Satisfaction

- The basic premise underlying the concept of human need satisfaction is the notion that a community characterized as high in quality of life is one that plays a significant role in satisfying residents' developmental needs.
- Developmental needs refer to a hierarchy of lower and higher-order needs such as health, safety, and economic needs (lower-order needs), as well as social, esteem, actualization, knowledge, and aesthetics needs (higher-order needs).



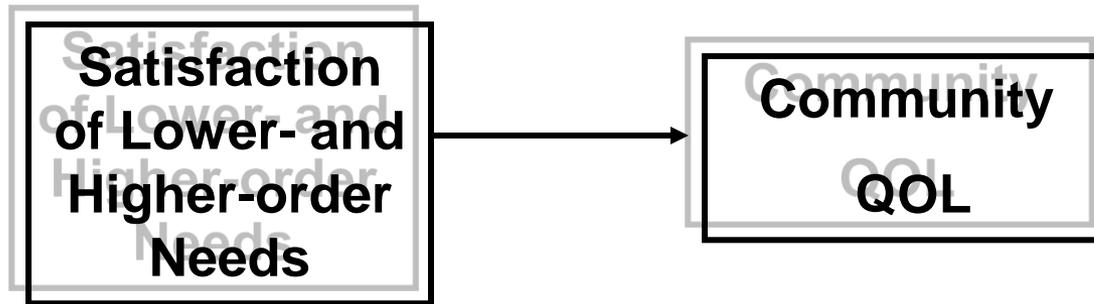
Indicators of satisfaction of lower-order needs

- Measures of environmental pollution (air, water, land, and noise) and environmental programs to reduce environmental ill being
- Measures of disease incidence and healthcare efforts to reduce health-related ill being
- Measures of crime and safety and law enforcement programs to reduce crime and enhance public safety
- Measures of housing conditions and community programs to meet housing needs
- Measures of unemployment and community programs to reduce work ill being
- Measures of poverty/homelessness and community programs to assist the poor and the homeless
- Measures of cost of living related to basic goods and services and community programs to reduce the cost of these basic necessities
- Measures of community infrastructure (e.g., utilities, roads, transportation, telecommunications) and community programs to maintain a minimum level of infrastructure
- Measures of illiteracy and lack of job skills and community efforts to eradicate illiteracy and enhance job skills

Indicators of satisfaction of higher-order needs

- Measures of work productivity and income and community programs to enhance productivity and quality of work life
- Measures of consumption of non-basic goods and services and community programs to enhance consumer well being
- Measures of quality of leisure and recreation activities and community programs to enhance leisure well being
- Measures of educational attainment and community programs to enhance education well being
- Measures of the quality of community landscape and community beautification programs
- Measures of population density and crowdedness and community programs to reduce crowdedness and congestion
- Measure of arts and cultural activities and community programs to enhance cultural well being
- Measures of intellectual activities and community programs to enhance knowledge well being
- Measures of religious activities and community programs to enhance spiritual well being





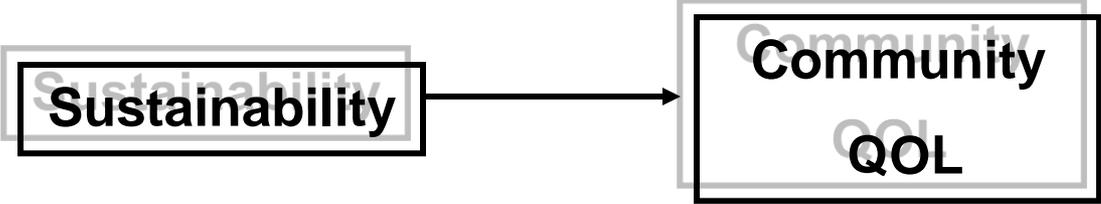
The Concept of Sustainability

- Sustainable communities are those that enhance the economic, environmental, and social characteristics of a community so its residents can lead healthy, productive, enjoyable lives—higher quality of life.
- Two sets of community characteristics are traditionally used to capture community QOL, namely indicators of human well-being and indicators of eco-system well-being



Indicators of Human Well-being	Indicators of Ecosystem Well-being
<p>◇ <u>Health and population</u> (i.e., physical and mental health, disease, mortality, fertility, population change)</p> <p>◇ <u>Wealth</u> (i.e., income, poverty, inflation, employment, infrastructure, basic needs for food, water, and shelter)</p> <p>◇ <u>Knowledge and culture</u> (i.e., education, communication)</p> <p>◇ <u>Community</u> (i.e., institutions, law, crime, racial and ethnic strife)</p> <p>◇ <u>Equity</u> (i.e., distribution of benefits and burdens between social groups)</p>	<p>◇ <u>Land</u> (i.e., diversity and quality of forests, farmland and other land ecosystems, including their modification, conversion, and degradation)</p> <p>◇ <u>Water</u> (i.e., diversity and quality of inland water and marine ecosystems, including their modification by dams and other structures, pollution and water withdrawal)</p> <p>◇ <u>Air</u> (i.e., local and indoor air quality)</p> <p>◇ <u>Resource use</u> (i.e., energy and materials, waste generation and disposal, recycling)</p>





Module 2: An Example (Vital Signs Project)

- Initiating an Indicators Project
- Forming a Committee
- Developing an Initial Set of Indicators
- Refining the Initial Set of Indicators
- Validating Objective Indicators
- Translating System Indicators
- Disseminating the Findings



Initiating an Indicators Project

- In the context of the Vital Signs Project, the Roanoke regions and its surrounding areas experienced high job losses in the early 1990s when more than 8,000 jobs were lost within an 80-mile radius of Roanoke.
- In response to this critical situation, business and community leaders from the New River Valley, Allegheny Highlands, and Roanoke Valley formed an organization to design a strategic plan detailing a brighter economic future. Known as the New Century Region, this area encompasses approximately 500,000 people and originally included 12 counties and five independent cities (an additional county was added in 1998).



Initiating an Indicators Project (cont'd)

- Led by the New Century Council, an organization of community leaders, more than 1,000 volunteers throughout the region participated in a visioning process that identified goals and strategies designed to achieve a desirable, sustainable future.
- Of primary importance to the process was the agreement that the path to this future involved complex interconnections between various aspects of society—economic, environmental, and social—and that these aspects must be monitored.



Initiating an Indicators Project (cont'd)

- To ensure that the area would indeed become Virginia's Technology Corridor, the New Century Council's various visioning committees designated strategies and recommended specific actions.
- One of the major recommendations from the New Century Council's Quality of Life Committee was to establish various community indicators, collect data pertaining to each indicator, compare the data with other areas around the state and nation, and determine where the New Century Region has strengths and weaknesses. This profile could then be used to create programs designed to correct deficiencies and promote strengths in support of a high quality of life for citizens of the region.
- This was the beginning of the Community Indicators Project of the New Century Region (Virginia's Technology Corridor), which was later named Vital Signs.



Forming an Indicators Project Committee

Examples of stakeholders represented in the Vital Signs Project Committee include

- the U.S. Environmental Protection Agency,
- the Virginia Environmental Endowment,
- the Norfolk Southern Corporation,
- the Robins Foundation,
- the Cabell Brand Center,
- Carilion Community Health Fund,
- several colleges, and a number of local governments.



Developing an Initial Set of Indicators

Typically, the selection of the initial set of indicators is guided by two factors:

- the quality of life model and the resulting mission statement of the indicators project committee, and
- the leading quality-of-life researcher on the same committee.



Developing an Initial Set of Indicators (cont'd)

- The key factor that guided the development of an initial set of indicators in the Vital Signs Project was the quality-of-life model. The Vital Signs Project was based on the theoretical notion of sustainability. Specifically, the project was based on the 3 E's of sustainability: Economy, Environment, and Equity.
- The theoretical concept of sustainability was reflected in Vital Signs' mission statement. The overall vision of the New Century Council was embedded in the final phrase of their document: "... decision-making based on the principle of *[sustainable]* development." Based on that vision, the Vital Signs Project Committee stated its mission as follows: *to empower citizens of the New Century Region to understand and develop sustainable communities, which produce strong, healthy families; protect the environment; provide quality education and cultural access; and ensure social justice in a stable and expanding economy.*



Developing an Initial Set of Indicators (cont'd)

- With respect to the Vital Signs Project Committee, Ferrum College Environmental Science Professor John Leffler provided the initial list of indicators to the committee.
- Based on this list of indicators the committee began its work by hosting several public meetings to identify possible indicators.
- Additionally, lists of possible data sets were published in the regional newspapers and citizens were asked to write or call to provide their input about possible indicators.
- Further, community leaders were interviewed to discuss which indicators would be most useful to policymakers in all sectors of the region.



Refining the Initial Set of Indicators and Collecting Data

- Customarily, indicators project committees refine the initial set of indicators by focusing on those indicators in which secondary data are available from the various government agencies in the region.
- Based on this examination, the Vital Signs Project Committee dropped some indicators and others were added.



Vital Signs 1998 Indicators

- **POPULATION**

- Number of Residents
- Age Structure

- **COMMUNITY**

- Residents in Poverty
- Children in Poverty
- Out-of-Wedlock Births
- Births to Teenage Girls
- Children with Divorced Parents
- Child Abuse
- Elder Abuse
- DUI Arrests
- Narcotics Arrests
- Alcohol and Drugs in Schools
- Person-to-Person Crime
- Property Crime
- Juvenile Crime
- Weapons in Schools
- Acres of Recreational Land
- Library Circulation
- Voter Participation

- **ECONOMY**

- Employment Diversity
- Unemployment
- Per Capita Income
- Percent of Jobs Paying a Livable Wage
- Disposable Income
- Income Disparity
- Index of Community Wealth
- Adults with H.S. Diploma
- H.S. Graduates in Continuing Education
- Students in Two-Year Colleges
- Employment in Manufacturing
- Employment in Tourism
- Airport Usage

- **EDUCATION**

- Standardized Test Scores
- Students Enrolled in Public Schools
- Expenditures Per Student
- Funds as a Percent Household Income
- Drop-Out Rate
- Financial Accessibility to Higher Ed.
- Community College Enrollment



Vital Signs 1998 Indicators (cont'd)

- **ENVIRONMENT**

- Violations of EPA Water Standards
- Turbidity of Rivers
- Air Quality
- Particulate Matter in Atmosphere
- Toxic Chemical Release Rate
- Solid Waste Disposal Per Person
- Percent of Land in Agriculture
- Percent of Land in Forests
- Percent of Protected Land
- Ownership of Protected Land

- **HEALTH**

- Infant Mortality Rate
- Students Passing Phys. Fitness Tests
- Financial Accessibility to Healthcare
- Prenatal Care
- Tobacco Usage
- Hospital Admissions for Diabetes
- Coronary Heart Disease
- Accidental Injury Deaths
- Suicide Deaths



Sample Data for Roanoke County

	1991	1992	1993	1994	1995	1996	1997
POPULATION	79,900	80,700	81,600	82,700	81,800	81,800	81,600
COMMUNITY							
Births to Teenage Girls (Age 15-17 – per 1,000)	7	10	10	8	7	10	
Rate of Child Abuse (per 1,000)	1.9	2.3	2.3	2.3	2.9	2	
ECONOMY							
Unemployment Rate	4.1%	4.2%	3.9%	2.8%	2.2%	2.2%	2.4%
Key Sectors:							
Manufacturing		17.2%		15.2%		13.9%	
Tourism		3.6%		4.2%		3.7%	



Sample Data for Roanoke County

HEALTH							
Infant Mortality Rate (Deaths per 1,000 Live Births)	4.2	10.2	5.1	4.6	4.8	3.4	
Percent Women Seeking Prenatal Care in the First Trimester	93.9%	91.7%	92.8%	93.3%	91.9%	94.6%	
ENVIRONMENT							
Solid Waste Disposal (Pounds Per Person/Year)			2,009	1,906	1,892	1,872	1,602
EDUCATION							
Percent of Students in Grades 9-12 Who Dropped Out of School	3%	2%	2%	3%	2%	1%	2%
Financial Accessibility to Higher Ed. (Cost as % of Median Household Inc.)	7.29%	7.63%	7.93%	8.16%	8.18%	8.04%	



Validating Objective Indicators with Subjective Ones

- A survey was conducted to capture residents' perception of various aspects of their community characterizing the quality of life in their local area—an assessment of how people actually felt about living in the New Century Region. The design of the survey questionnaire (subjective indicators) was guided by the personal utility notion. The survey was also designed to complement the objective data.
- A mail survey was conducted during fall, 1999--a survey questionnaire was mailed to a sample of 3,200 households randomly selected from the counties comprising the New Century Region. After three weeks, a second mailing to non-respondents was conducted. This process resulted in 380 completed questionnaires or a response rate of 13 percent.



Validating Objective Indicators with Subjective Ones (cont'd)

- The survey captured satisfaction both globally (overall domains in life, e.g., work, family, etc.) and in very specific areas. It asked individuals to rank their satisfaction on a 7-point scale: “terrible,” “unhappy,” “mostly dissatisfied,” “mixed feelings,” “mostly satisfied,” “pleased,” and “delighted.”
- The results of the survey indicated that people in the region were “mostly satisfied” to “delighted” with their family life, overall financial situation, health, education, friends and associates, leisure life, cultural life, social status, spiritual life, home life, and community life.



Validating Objective Indicators with Subjective Ones (cont'd)

- Perhaps the best testament to the high quality of life in the area is the result of the question regarding satisfaction with “your life as a whole”: 93 percent were “mostly satisfied,” “pleased,” or “delighted.” The one area of “lesser satisfaction” relates to employment. Over half of those currently working had “mixed feelings,” were “mostly dissatisfied” or felt “unhappy” or “terrible” about education/training at the job, and one-third of those currently working felt the same way about health benefits, retirement benefits, and their “future on the job.”



Validating Objective Indicators with Subjective Ones (cont'd)

- Responses to questions regarding community quality of life indicated that, in general, people were satisfied (and many even pleased or delighted) with most aspects of their neighborhoods: cost of living, crime rate, ties with people in the community, home value, housing situation, sense of privacy at home, etc. Two areas, however, where mixed feelings appeared were “race relations” and “rate of change to the natural landscape,” with the latter causing more than one-third of the respondents to indicate they were “unhappy,” “mostly dissatisfied,” or “terrible.”



Validating Objective Indicators with Subjective Ones (cont'd)

- Finally, the survey looked at overall satisfaction with business, government, and nonprofit services in the community. Most of the comments received from all three areas were “mostly satisfied,” “pleased,” or “delighted” with 88 percent, 84 percent, and 83 percent for business, government, and nonprofit respectively. Furthermore, the survey examined satisfaction with specific services provided by business, government, and nonprofit organizations.



Satisfaction w/Business Services in Roanoke and Wise Counties

Service	Roanoke County	Wythe County
Banking	4.83	4.72
Insurance	4.78	5.22
Realtors	4.09	4.35
Investment	4.24	3.88
Legal	4.15	3.71
Department Stores	4.72	3.44
Supermarkets	4.85	4.67
Specialty Stores	4.32	3.83
Entertainment	2.53	2.67
Restaurants	4.78	4.61
Day Care	2.12	2.71
Sports	3.86	4.06
T.V.	4.90	3.50
Radio	4.67	4.28
Newspapers	4.37	4.28
Automobile Services	4.55	5.28
Telephone	4.67	5.17
Electrical Services	5.13	5.33
Schools	2.45	2.83
Health Care	4.26	3.50



Satisfaction w/Gov't Services in Roanoke and Wise Counties

Service	Roanoke County	Wythe County
Fire	5.52	5.67
Safety	5.50	5.22
Rescue	5.73	5.61
Police	5.44	5.33
Crime Rate	4.78	5.47
Water	5.05	3.72
Utilities	4.57	4.06
Sanitation	5.11	2.61
Lights	4.52	2.67
Transportation	3.16	1.83
Library	5.41	4.89
Postal	5.56	4.94
Parks	5.17	5.06
Health Care	4.06	4.39
Education	4.42	3.78
Economic	4.33	3.94
Environment	3.99	3.29
Development	3.71	3.13
Job Assistance	2.95	2.39
Property Taxes	3.66	3.72
Administrators	3.81	3.71



Satisfaction w/Non-profit Services in Roanoke and Wise Counties

Service	Roanoke County	Wythe County
Alcohol	2.72	2.47
Crisis	2.83	2.82
Adoption	2.50	2.94
Family Planning	2.69	2.82
Religious	5.38	5.22
Victim Support	3.22	2.50
Mental	3.64	3.39
Senior	4.03	3.71
Food	3.59	4.00
Handicapped	3.45	3.78
Hospital	4.82	4.17
Youth	3.43	3.22
Volunteer	4.08	3.50
Culture	4.48	3.11
Colleges	5.08	5.28
Commerce	4.05	4.11
Adult Education	4.41	3.56
Housing	3.26	3.22
Family Counseling	2.98	2.61
Childcare	2.84	2.61
Job Training	2.60	2.72
Health	3.40	2.89



Translating System Indicators into Program and Policy Indicators

The Vital Signs report provided three overall recommendations to help institutions begin to plan a sustainable future:

- keep, refine, and use community indicators;
- all sectors must participate in “education for sustainability”; and
- use technology for sustainability.



Translating System Indicators into Program and Policy Indicators (cont'd)

- The concept of “sustainable indicators” was described by highlighting three major components of the indicators project--economy, environment, and society--and their linkages. Environmental concerns cannot be isolated from the economy. Likewise, economic matters have ramifications in the social realm. That is, the economy exists entirely within society, but society is more than just the economy. Human relationships, the arts, religion, etc. are all part of society. Finally, society itself exists within the natural environment.
- The findings were summarized in a regional report card, which compared data for the region with similar data for Virginia and the entire U.S.



Regional Report Card

Indicator	Better than Virginia	Same as Virginia	We need to improve	Better than U.S.	Same as U.S.	We need to improve
Environment						
Days over 8 hr. ozone standard		X		*	*	*
Rec. acres per 1000 population	X			X		
Community Building						
Children living in poverty			X		X	
Domestic abuse			X	*	*	*
Person-to-Person Crime	X			*	*	*
Economy						
Unemployment rate		X		X		
Employment growth			X	*	*	*
Poverty rate			X		X	

NOTES:

Selected indicators from *Vital Signs 2000*.

“*” indicates data not analyzed for report.



Regional Report Card

POPULATION	MOVING AWAY FROM SUSTAINABILITY
ENVIRONMENT: WATER QUALITY	STATIC (NEEDS TO MOVE TOWARD SUSTAINABILITY)
ENVIRONMENT: AIR QUALITY	STATIC (NEEDS TO MOVE TOWARD SUSTAINABILITY)
ENVIRONMENT: LAND USE	SLOWLY MOVING AWAY FROM SUSTAINABILITY
ECONOMY: EMPLOYMENT	STATIC (NEEDS TO MOVE TOWARD SUSTAINABILITY)
ECONOMY: INCOME CONCENTRATION	STATIC (NEEDS TO MOVE TOWARD SUSTAINABILITY)
COMMUNITY BUILDING: SOCIAL SUPPORT	MOVING TOWARD SUSTAINABILITY
COMMUNITY BUILDING: SAFETY	MOVING TOWARD SUSTAINABILITY
COMMUNITY BUILDING: EDUCATION	MOVING TOWARD SUSTAINABILITY
COMMUNITY BUILDING: HEALTH	STATIC: NEEDS TO MOVE TOWARD SUSTAINABILITY)
COMMUNITY BUILDING: CULTURAL PARTICIPATION	MOVING TOWARD SUSTAINABILITY
COMMUNITY BUILDING: POLITICAL PARTICIPATION	STATIC: NEEDS TO MOVE TOWARD SUSTAINABILITY
COMMUNITY BUILDING: UNDERSTANDING SUSTAINABILILTY	STATIC: NEEDS TO MOVE TOWARD SUSTAINABILITY



Disseminating the Indicators' Findings

- The report was widely distributed through a news conference.
- Community leaders received their printed copies by mail and other face-to-face encounters.
- The following year, a formal office for the Vital Signs project was established at Hollins University, additional efforts were made to disseminate the report as widely as possible and to obtain feedback.
- The project was also featured in local media
- Copies of the report were placed in all county and city libraries of the region.
- Presentation of the report was made to the various county boards of supervisors and city councils throughout the region.



Module 3: Planning

- Holding a Feasibility Meeting
- Developing an Org. Structure
 - The Chair
 - The Steering Committee
 - Task Forces
- Finding an Organization
- Securing Funding
- Deciding on Geographic Boundaries
- Selecting the QOL Dimensions
- Selecting the QOL Indicators
 - Criteria for Indicators
 - Process for Selecting Ind.
 - An Optimal # of Indicators
- Considering Subjective Indicators
- Developing a Budget



Module 4: Data Collection

- Secondary Data
 - Dealing w/Time Element
 - Manipulating the Data
- Primary Data
 - Goals Associated with Survey
 - Survey Questionnaire
 - Sampling/Data Collection
 - Validating the Measures
 - Weighting Sample



Module 5: Dissemination and Promotion

- Preparing the Indicators Report
 - The Public Report
 - The Research Report
 - Printing the Reports
- Distributing the Reports
- Promoting the Reports
 - Public Relations
 - E-Marketing
 - Other Forms of Promotion
- Stimulating Community Action
 - Translating Outcome Ind.
- Annual Reviews and Follow-Up
- Measuring Impact of Ind. Reports



Bibliographic Resources

- Publications
- Web Sites of Community Ind. Projects
 - Towns, Cities, and Counties
 - Regions
 - States and Provinces
- Other Web Resources
- In-house Publications

