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ABSTRACT

The concept of socioeconomic impact, as it relates to two-year colleges, is examined in terms of studies that have been conducted. Measures of socioeconomic impact, such as personal income, occupational status, levels of education, are discussed and studies focusing on these measures are cited. Additional studies are pointed to which define economic impact in terms of local services and capital expenditures, jobs, employee salaries, local expenditures by staff and students, and property tax revenues. The concept of human capital and the different ways it can be measured are then introduced. The paper concludes with a five-component model which provides specific measurement indicators and categories in which data can be placed. The components are: (1) social mobility, which is defined in terms of comparative measures of income and employment of two-year college graduates and other groups; (2) cost benefits, comparing the cost of institutional programs and services and the market value of graduates; (3) economic development, which considers the college as a provider of trained manpower for the regional labor market; (4) community renewal, which assesses the college's impact on community demography, employment, social organization, and taxable property; and (5) social control, which assesses the absorption and conversion of undeveloped manpower into human capital to meet community needs. (Author/AYC)

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SOCIOECONOMIC IMPACT OF TWO-YEAR COLLEGES

Stabilizing enrollments and dwindling resources have signaled the close of the period of growth that characterized community college development in the 1960s. Now cost effectiveness — using resources to maximize the social and economic benefits to the individual in return for investment in education — is the watchword. Many colleges aver that their programs are a stimulus for community growth and development. This argument holds that the two-year college is an economic contributor to the community as it funnels human and financial resources into local business organizations and eventually to the consumer in the form of personal income and marketable job skills. The quality of life is improved, the economists argue, as federal, state and private dollars flow through the college to the community and are converted into discretionary monies that yield benefits to the individual.

This issue of *Resource Review* examines the concept of socioeconomic impact as it relates to the two-year college. Variables such as economic impact, student outcomes, and the cost benefits of two-year college education are discussed. The concept of human capital and the different ways it can be measured is introduced. The paper concludes with a set of categories in which data useful in examining the socioeconomic impact of community colleges can be placed.

Socioeconomic Impact

Measures such as personal income, occupational status, and the level of education have been employed traditionally as the index of socioeconomic impact. Two-year college faculty and administrators can use the same measures to examine the socioeconomic impact of a college by reporting changes in income and employment among currently and previously enrolled students. Following is the general formula to organize the data that should be considered in analyses of impact:

level of education • status of occupation • personal income → purchasing power of the individual

purchasing power of the individual • community of residence • individual expenditures for durable/non-durable goods → economic benefits for the community

Previous research has shown that advances in the level of education are correlated with changes in occupational status and personal income (Clark, 1960; Feldman and Newcomb, 1969; Innes and Others, 1965; Jencks and Riesman, 1968; Trent and Medsker, 1968). As income rises, individual expenditures for goods and services increase proportionally and economic benefits accrue to the community. In other words, economic development is a direct outcome of change in the socioeconomic status of the individual which, in turn, is influenced by college attendance.

Several researchers have gathered information on changes in income and employment resulting from advanced levels of schooling. Alfred (1976), Gell and Armstrong (1977), Lach (1978), Williams and Snyder (1974), among others, have investigated the types of jobs and salaries and the purchasing power obtained by two-year college attendees. These studies provide insight into the benefits of two-year college education to the individual but much additional information is required to establish a relationship between the outcomes of two-year college programs and the economic development of the community.

Measuring Economic Impact

Most studies of economic impact define the service region of the college as a beneficiary of college spending in five areas: local services and capital expenditures, jobs, employee salaries, local expenditures by staff and students for housing rental and personal expenses, and property tax revenues. A simple circular cash-flow model is used to examine college expenditures and a relationship is established between institutional spending and the economic benefits accruing to the community. Since expenditures by one party become disposable income for another party, a multiplier effect occurs and the direct economic impact of a college can be determined.

This form of study was conducted by Moore (1975) who investigated the economic impact of Chemeketa Community College in Oregon, Baum (1978) who did the same for Mercer County Community College in New Jersey, and Poris and Eskow (1978) for Rockland Community College in New York. Jackson and Others (1978) investigated the impact of the 27-campus Washington State Community College system on the local economy over a seven-year period (1969-1976). The results indicated that the college system yielded a 31 percent return on tax investments; system operations generated over $147 million in out-of-state funds; $690 million in business revenues were generated for the reporting period representing 147 percent of the amount allocated to the college system by the state legislature; and during a severe recession in 1975-76, system operations produced jobs for 15,837 people. In 1976, $161 million in personal income resulted from system operations, and in 1969-76 the average contribution to personal income was 171 percent of the state's general community college expenditure fund.

Human Capital

The concept of human capital differs from economic impact in that it focuses on change in the community produced through mobility of its residents on measures of income, employment, and purchasing power. Knowledge related to economic impact is important for assessing economic development in a community stimulated by the college, but what about the human products of two-year college programs? How do students enrolled in or graduated from two-year college programs affect the local economy?

Human capital is produced through investment in education. This investment assumes a relationship between education and income with benefits accruing to the community as a result of improvements in the socioeconomic status of the population. Linthicum (1978a, b), in a study of the economic impact of Maryland Community Colleges, found that community college students, on the average, will receive almost a 27 percent return on their investment in higher education during their lifetime. Socioeconomic gains, in return for the costs of education to students and the public, averaged about 15 percent. A college student will earn more money than a high school graduate. The additional tax revenues generated from increased earnings will result in economic benefits for the community. Gooder and MacMillan (1979) reached a similar conclusion in finding that a direct benefit of education in California community colleges was that the mean income of a male with one to three years of college was $2,118 more than that of a high school graduate.

Data published by the Illinois Community College Board (1978) also support the thesis of a relationship between education, occupation and income. A large majority (83 percent) of the students entering Illinois community colleges in Fall 1974 obtained jobs with only a small percentage unemployed. Students completing one to two years of education had a median salary $90 per month higher than students completing one year or less. More than 60 percent of the graduates obtained jobs in their community college district. The proportion of graduates obtaining employment in the college service region was found to be critical for economic development because graduates (and currently enrolled students) tend to spend money in the community of residence.

Assessing Socioeconomic Impact

From a conceptual standpoint, socioeconomic impact assumes that the college has a positive effect on the social status of the individual as well as the economic development of the community. Organized data related to socioeconomic impact, however, are not available in most two-year colleges. A single college may have information on the economic impact of its programs on the community or it may have published reports on the social gains experienced by its students after graduation, but these variables have not been linked. Needed is a model for assessing socioeconomic impact which joins variables integral both to the concepts of human capital and economic impact.

The model presented below identifies the factors critical for assessing socioeconomic impact in two-year colleges. This model is divided into five components with measurement indicators presented for each.

COMPONENT: SOCIAL MOBILITY

DEFINITION
Comparative mobility on measures of income and employment among individuals classified into three patterns of interaction with two-year institutions: 1) high school graduates/no record of college attendance, 2) currently enrolled students, and 3) two-year college graduates.

INCOME
- personal income of: high school graduates, currently enrolled students, and two-year college graduates
- property ownership of: ____________
- availability of discretionary income to: ____________
- spending patterns of: ____________

EMPLOYMENT
- types of positions held on regional labor market by: high school graduates, currently enrolled students, and two-year college graduates
- number of job offers at point of entry to regional labor market received by: ____________
- starting salary of: ____________
- current salary of: ____________
- supervisory position(s) held by: ____________

COMPONENT: COST BENEFITS

DEFINITION
Cost of institutional programs and services in relationship to the market value of students upon exit from college.

INPUT FACTORS

Cost per FTE
- instruction (cost per FTE)
- non-instructional support services (cost per FTE)

Market Value of Students Upon Entry to College
- regional labor market needs
- student qualifications for job entry on basis of current level of education and experience
- personal income of students at point of college entry
- purchasing power in community (discretionary income)

OUTCOMES

Revenue per FTE
- revenue generated in the community (local taxes, property rental, personal expenditures, etc.) per FTE enrollment in college

Market Value of Students Upon Exit from College
- student capacity to fill critical jobs in regional labor market
- personal income of students at point of exit from college
- purchasing power in the community

COMPARISON OF INPUT FACTORS TO OUTCOMES ON ALL OF ABOVE ITEMS

COMPONENT: ECONOMIC DEVELOPMENT

DEFINITION
Status of the two-year college as a contributor to community economic development through providing trained manpower for the regional labor market.

INSTITUTIONAL PRODUCTIVITY IN RESPONDING TO REGIONAL MANPOWER NEEDS
- job titles required by regional business and industry in specific occupational categories/next year, next two years, next five years
- college programs available to meet manpower requirements of regional business and industry
- number of students currently enrolled in college programs bearing a direct relationship to manpower needs of regional business and industry
- number of graduates employed in key job titles
- job mobility of graduates in regional labor market

CAPACITY OF COLLEGE TO ATTRACT AND RETAIN INDUSTRY IN SERVICE REGION
- training programs available to attract new industry
- cost benefits of college training to business and industry

  industry training costs *with* college programs
  industry training costs *without* college programs

CAPACITY OF COLLEGE TO IMPROVE COMPETITIVENESS OF REGIONAL BUSINESS AND INDUSTRIAL ORGANIZATIONS FOR FEDERAL, STATE AND LOCAL CONTRACTS
- availability of trained faculty to build skills in satisfactory performance of competitive bid contracts
- availability of faculty with unique trade skills to serve in a consulting capacity with regional industry on competitive bid contracts

CAPACITY OF COLLEGE TO REDUCE UNEMPLOYMENT AND IMPROVE ECONOMY OF SERVICE REGION
- absorption of unemployed into college programs
- employment record of previously unemployed after contact with college programs
- changes in income and spending patterns of unemployed after college attendance

COMPONENT: COMMUNITY RENEWAL

DEFINITION

Impact of the college on the community in relationship to key indicators of economic development: community demography, employment, social organization, and taxable property.

STATUS OF COMMUNITY ON KEY DEMOGRAPHIC INDICATORS

- unemployment
- out-migration of population
- dwellings vacant and used
- family disorganization
- business and industrial installations
- tax base

STATUS OF COLLEGE AS A FORUM FOR COMMUNITY DEVELOPMENT

- off-campus educational programs offered by college
- college services in response to community needs
  - health services
  - career and vocational guidance
  - family counseling
  - business and industrial development
  - financial planning
- community use of college facilities

OUTCOMES GENERATED BY COLLEGE LEADING TO COMMUNITY RENEWAL

- reduction of unemployment
- reduction in out-migration of population
- improvement in family organization
- attraction and retention of business and industry
- improved consumer spending patterns

COMPONENT: SOCIAL CONTROL

DEFINITION

Status of the college as a contributor to community development through absorption and conversion of undeveloped manpower into human capital to meet community needs.

ABSORPTION OF UNDEVELOPED LEARNERS INTO COLLEGE PROGRAMS

- number of new learners with no immediate career potential enrolled in college programs
- projected entry into regional economy of undeveloped learners
- cost economy of two-year college in preparing undeveloped learners for entry into economy as compared to other institutions (e.g., municipal and federal training programs, apprenticeship programs, four-year colleges, industry training programs, proprietary institutions, etc.)

MARKET CONTROL

- selective funding of new workers into job market with appropriate job skills
- bridging of gap between socioeconomic aspirations and individual limitations of new learners
- reduction of frustration in undeveloped learners as evidenced in data related to indicators of social organization/disorganization in the community (e.g., criminal activity, broken families, large proportion of population on public assistance, abandoned property, etc.)

REDUCTION OF HUMAN AND FINANCIAL WASTE

- reduction of financial waste through absorption of undeveloped learners into college programs and relief of taxpayer costs for individual processing in social institutions (municipal or state, and federal court systems; penal institutions, municipal assistance programs, welfare programs, etc.)
- reduction of human waste through provision of marketable skills to individuals for entry into the regional labor market

Two-year colleges can no longer afford to function in isolation from the political and economic base that is the community. Measures of the socioeconomic impact of community colleges are necessary for improving relationships with the community which, in turn, provide the college with the resources necessary for developing human capital. Individuals in a position to make funding decisions will be motivated to commit resources to the institutions they believe yield the greatest benefits to them. These benefits are largely economic in nature. If the two-year colleges can demonstrate their role as a catalyst for social and economic development of the community, then a case can be put forward for financing these institutions as a vital force in state and local government. Success or failure, according to this scheme, depends on high performance levels by the college in developing the human capital that is essential to the community for economic development.

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BIBLIOGRAPHY

Alfred, Richard L. *Measuring the Outcomes of Higher Education: Two Approaches Based on Program Characteristics and Perceived Needs of External Agencies.* Unpublished paper, 1976. 13pp. ED 139 459.

Baum, Stanley. *The Economic Impact of Mercer County Community College on the Local Community.* Trenton, N.J.: Mercer County Community College, 1978. 33pp. ED 160 178.

Clark, Burton. *The Open Door College: A Case Study.* New York: McGraw-Hill Book Co., 1960.

Feldman, Kenneth A., and Newcomb, Theodore M. *The Impact of College on Students.* San Francisco: Jossey-Bass, Inc., 1969.

Gell, Robert L., and Armstrong, David F. *Montgomery College Student Follow-up Study: First-Time Students, Fall 1972.* Rockville, Md.: Montgomery College, 1977. 60pp. ED 140 921.

Gooder, Glenn G., and MacMillan, Thomas F. *Costs in California Community Colleges: Summaries and Analyses.* Sacramento: California Community and Junior College Association, Association of California Community College Administrators, California Community Colleges, 1979. 57pp. ED 165 841.

Illinois Community College Board. *Illinois Public Community College Statewide Occupational Student Follow-up Study. Second Progress Report.* Springfield, Ill., 1978. 85pp. ED 148 427 (Available in microfiche only).

Innes, Jon T., and Others. *The Economic Returns to Education. A Survey of the Findings. CASEA Monograph No. 3.* Eugene: University of Oregon, Center for Advanced Study of Educational Administration, 1965. 53pp. ED 089 396.

Jackson, Sally, and Others. *Washington State Community Colleges: Impact on the Economy of the State.* Seattle: Washington State Board for Community College Education, 1978. 14pp. ED 156 250.

Jencks, Christopher, and Riesman, David. *The Academic Revolution.* Garden City, N.Y.: Doubleday, 1968.

Lach, Ivan J., and Others. *User's Handbook for Phase I — FY 1979, ICCB Statewide Follow-Up Survey of FY 1978 Occupational Program Graduates.* Springfield: Illinois Community College Board, 1978. 33pp. ED 160 147.

Linthicum, Dorothy S. *Economic Impact Manual for Maryland Community Colleges.* Annapolis: Maryland State Board for Community Colleges, 1978a. 69pp. ED 160 167.

Linthicum, Dorothy S. *Economic Impacts of Maryland Community Colleges: A Closer Look.* Annapolis: Maryland State Board for Community Colleges, 1978b. 168pp. ED 160 170.

Moore, George P. *The Economic Impact of Chemeketa Community College on the Local Economy.* Salem, Ore.: Chemeketa Community College, 1975. 20pp. ED 134 261.

Poris, Marilyn, and Eskow, Seymour. *The Impact of Rockland Community College on the Economy of Rockland County.* Suffern, N.Y.: Rockland Community College, 1978. 49pp. ED 164 049.

Trent, James, and Medsker, Leland. *Beyond High School: A Psychosociological Study of 10,000 High School Graduates.* San Francisco: Jossey-Bass, Inc., 1968.

Williams, William G., and Snyder, Fred A. *Follow-up Studies of Former Occupational-Technical Students at Community Colleges.* Richmond: Virginia State Department of Community Colleges, 1974. 69pp. ED 104 499.

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