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A Study into the Costs and the Economic Contributions of St. Cloud State College to the City of St. Cloud (May 1967)

Gerald Gamber
St. Cloud State College

A STUDY
INTO THE COSTS
AND THE ECONOMIC CONTRIBUTIONS
OF ST. CLOUD STATE COLLEGE
TO THE CITY OF ST. CLOUD

SAINT CLOUD STATE COLLEGE
SCHOOL OF ARTS AND SCIENCES
DEPARTMENT OF ECONOMICS

SAINT CLOUD, MINNESOTA

May 22, 1967

From: Gerald K. Gamber
To: President Robert H. Wick

Subj: Study into the costs and the economic contributions of St. Cloud State College to the City of St. Cloud; forwarding of.

1. The subject described study, undertaken at your request, is forwarded.

2. In the preparation of this study, the undersigned has received assistance and information from many sources. My colleagues in the Economics Department have furnished advice, counsel, and assistance, especially Professors Carl Folkerts and Ezzat Alfi. Every person, within or without the college, who was asked to furnish information or data, did so willingly and cheerfully. The Research Bureau, under Dr. Paul Ingwell, performed the difficult task of surveying the student body and obtaining data on student expenditures in the St. Cloud community.

3. It is hoped that the information presented will help to improve understanding of the costs and the benefits of the college to the city.

Gerald K. Gamber

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I. INTRODUCTION

St. Cloud State College has undergone tremendous growth during the past fifteen years. This growth can be measured by the fact that full-time, on-campus enrollment in the fall quarter, 1952, was 1,191; in the fall quarter, 1966, it was 6,752.

This great growth in student enrollment was, of necessity, accompanied by a large increase in physical facilities to accommodate the increased numbers of students. Land for these additional physical facilities was obtained through purchase of residential properties contiguous to the campus.

Statement of the Problem

Increased expenses incurred by local units of government have resulted in ever-increasing tax rates and hence higher tax liabilities for property owners. These higher tax liabilities, coupled with removal from the tax rolls of the residential properties purchased by the State for expansion of the college, have given rise to murmurs of discontent from some local citizens. This dissatisfaction with removal of properties from the tax rolls has been communicated to college officials and faculty members on a number of occasions. A Home Interview Survey conducted during May and June of 1966 elicited such responses

as, "Wouldn't mind continued expansion of college if City were compensated for loss of taxes by State" and, "Do not approve of continued expansion of college due to higher taxes on retired people."[1] On the one hand, the reduction in city tax revenues resulting from the removal of these residential properties from the tax rolls has, for some citizens, assumed an exaggerated importance, in part due to public comments and emotional discussions of the matter. On the other hand, there appears to be a lack of real understanding of the magnitude of the college's economic contribution to the city, in terms of benefits in the form of financial revenue accruing to the city. It should be noted, however, that a large majority of those interviewed in the Home Interview Survey approved the expansion of St. Cloud State College.[2] It is impossible to determine, of course, how much this approval reflects an awareness of the cultural contribution of the college and how much it reflects an awareness of the college's economic contribution.

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[1]Nason, Wehrman, Knight and Chapman, Inc., Community Planning Consultants, St. Cloud, Minnesota Neighborhood Analysis and Housing Study (Minneapolis, Minnesota: December, 1966), Appendix III, pp. i and iv.

[2]Ibid., Appendix Table IIv.

General Purpose of the Study

The general purpose of this study is to improve understanding of the costs and the economic contributions of St. Cloud State College to the City of St. Cloud. To that end, this study purposes (1) to ascertain, for 1966, the loss of property tax revenue by the City of St. Cloud as a consequence of the expansion of St. Cloud State College during the past fifteen years and to estimate certain other college-related costs to the city, and (2), to measure the benefits, in the form of financial revenue, accruing to the City of St. Cloud in 1966.

II. PROPERTY TAX LOSSES AND OTHER COSTS TO THE CITY

Property Tax Losses

From tax ledger sheets made available by the St. Cloud City Assessor, real property taxes were computed on one hundred thirty-five pieces of residential property purchased by the State of Minnesota for expansion of St. Cloud State College. These pieces of property constituted all or parts of Blocks 7, 8, 9, 10, 11, 13, 16, 17, 18, 19, 20, 21, 22, and 30, of Curtis Survey; and parts of Blocks 1, 2, and 17, of Brott and Smith's Addition. These computations indicate that the City of St. Cloud would have received an additional $15,793.92 in real property tax revenue for the taxable year 1966 if these properties had still been on the tax rolls.

Since it could logically be assumed that some of the former property owners had built new residences within the city limits of St. Cloud, thus creating new real property tax revenue for the city, questionnaires were mailed to all such persons who could be located in the local telephone directory and in the city directory. A copy of the questionnaire is in Appendix A.

Eighty-two questionnaires (representing sixty-one per cent of the former property owners) were mailed; replies were received from fifty-eight respondents. This constituted returns from seventy-one per cent of the

intended respondents and was considered adequate. While the questionnaire permitted a variety of responses, the primary purpose was to elicit information as to whether or not the respondent had built a new residence within the corporate limits of St. Cloud. Eighteen respondents, constituting thirty-one per cent of those replying, answered in the affirmative. Therefore, the city's property tax revenue loss in 1966 was less than $15,793.02 -- perhaps as much as thirty per cent less. Implicit here is the assumption that the new residences added at least as much in new property tax revenue as the city had lost when the corresponding old properties had been removed from the tax rolls.

It should be noted that, even before the city's tax loss is reduced for the reason just discussed, property tax revenue lost by the city in 1966 amounted to less than one per cent of 1966 tax levies. The actual figure is .87 per cent (eighty-seven hundredths of one per cent), computed by dividing the tax levy of $1,806,247.40 into $15,793.92.[3] If the 1966 city tax revenue loss of $15,793.92 is reduced by thirty per cent, the tax loss amounted to .61 per cent of the 1966 city tax levy, computed by dividing $1,806,247.40 into $11,055.74.

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[3]City of St. Cloud, Minnesota, 1966 Valuations - Tax Levies and Tax Rates (January 10, 1967), p. 3.

An even more pertinent relationship is disclosed by the fact that the 1966 city tax revenue loss of $15,793.92 was .47 per cent of 1966 total city revenue of $3,372,604 from all sources other than the sale of bonds.[4]

In terms of assessed valuations the removal of the one hundred thirty-five pieces of residential property from the tax rolls reduced non-exempt real estate assessed valuations in the City of St. Cloud by $142,175. However, it should be noted that, notwithstanding this reduction, non-exempt real estate assessed valuations in St. Cloud rose from $7,665,630 in 1952 to $12,911,197 in 1966, an increase of 68.4 per cent.[5] It can be assumed that some of the increase in non-exempt real estate valuations has been caused (1) by new, more expensive residences built by former property owners, (2) by new construction to accommodate new faculty and staff and (3), by new houses built by persons who sold their existing homes to former property owners.

Of course, the taking of residential properties for use by tax-exempt institutions is less prevalent in most other cities than it is in St. Cloud. In most cities

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[4]City of St. Cloud, Minnesota, Annual Financial Statement (Year Ended December 31, 1966), pp. 6-8.

[5]City of St. Cloud, 1966 Valuations - Tax Levies and Tax Rates, op. cit., p. 3.

growth comes at the edges of the cities. Schools, military installations, factories, and so on, usually are built on unimproved land. When factories are built on land formerly in residential use, the property taxes paid by the business organizations more than compensate for the taxes lost from residential property tax revenues. Also, while it will be shown in the instant case that the city has gained much more than it has lost, there is little doubt that the increasing amount of tax exempt property is causing special problems. This phenomenon was remarked on by the Governor's Minnesota Tax Study Committee of 1962: "In recent years there has been a marked increase in the amount of tax exempt property. The growth of schools, church property, hospitals, plus a wide variety of other property used for charitable and public purposes, has been remarkable in the years since World War II. . . . With few exceptions counties in Minnesota have reported more substantial increase in assessed value of exempt property than of non-exempt property."[6]

This Committee made a comparison of assessed values of real and personal property and exempt property for 1956 and 1962, by counties. The study showed that in Stearns County, in the six year span starting with 1956 and

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[6]Report of the Governor's Minnesota Tax Study Committee, 1962, pp. 14-15.

ending in 1962, the total assessed value of non-exempt property increased 6.9%, whereas the total assessed value of exempt property increased 117.6%.[7] The study further showed that in 1962 exempt property assessed value was 38.6% of total property assessed value in Stearns County.[8] The Committee stated that it "wishes to call attention to the increasing amount of tax-exempt property and to suggest further study by the Legislature."[9]

The St. Cloud City Assessor reports that in 1962 the assessor's full and true value of non-exempt property in St. Cloud was $32,774,922, while the assessor's full and true value of exempt property in St. Cloud was $25,937,060. Accordingly, exempt property was 44.2% of total property in St. Cloud in the year 1962. A more current comparison will be obtained in 1968, but the Mayor and the City Assessor have stated that they are quite confident that fifty per cent of total property in St. Cloud is now tax exempt.

It would appear that the Legislature might well give consideration to the special problems of local governments which have a disproportionate ratio of exempt property to non-exempt property.

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[7] Ibid., Table 5.2.

[8] Ibid.

[9] Ibid., p. 15.

Other Costs

The City of St. Cloud Police Department was requested to furnish information pertaining to college-related costs incurred during the year 1966. The following data was furnished:

Traffic and Traffic-Related Activities:	
446 accidents, 2 hours per accident, 892 hours	$ 2,676
884 parking tags, 20 min. per tag, 295 hours	885
1084 traffic tags, 20 min. per tag, 361 hours	1,083
One officer spends 50% of his time in college area on parking control	3,030
Area car spends about one-fourth of time in college area on traffic patrol (traffic shift)	1,515
Area car spends one-quarter of time in college area (patrol shift)	1,515
Escorts, 10 hours	30
Special Events:	
15 basketball and football games, 2 hours per game, 30 hours	90
Parades - Homecoming, 8 men for 2 hours (over-time), 16 hours	72
- Homecoming, 5 men for 2 hours (straight time), 10 hours	30
- Greek Week, 3 men for 1 hour (straight time), 3 hours	9
Criminal Activities:	
Liquor law violations - 144, 2 hours per arrest, 288 hours	900
House and party calls - 20, 2 hours per call	60
Larcenies - 50, 150 hours	450
	$12,345

It should be noted that this figure should be offset, at least partially, by an undetermined amount of revenue from fines and court costs. Records of the St. Cloud Municipal Court do not include an offender's occupation, so city

revenue from college-related fines and court costs cannot be determined. The only identifiable item relating to the college was for student fines during 1966 for illegal parking in college parking lots. College students paid $1,761 in court costs for 583 violations; however, these tags were issued by college police and are not reflected in the report of the St. Cloud City Police Department.

The City of St. Cloud Engineering Department reported that $5,125 was expended during the year 1966 in providing protective inspection of on-campus construction, inspection of rooming houses and enforcement of zoning ordinances in the area of the college, erection and maintenance of parking restriction signs in the college area, and general administrative costs incurred for miscellaneous services to the college, conferences with college officials regarding numerous programs and projects, and so on.

Several other city departments were contacted regarding college-related costs incurred by them, but they reported that costs were not available or were considered to be negligible.

III. BENEFITS ACCRUING TO THE CITY

The other purpose of this study was to measure the benefits, in the form of financial revenue, accruing to the City of St. Cloud by reason of the presence of St. Cloud State College within the city. The major obstacle to this measurement arose from the fact that no direct dollar transactions occurred between the college and the city government. Therefore, the financial benefits to the City of St. Cloud had to be measured in an indirect manner, because direct dollar spending by the college accrued to the community at large in the form of an increase in income.

In creating a model for use in measuring the financial benefits accruing to the City of St. Cloud, an assumption was made that the revenues of the city government are a function of certain variables. The city derives approximately one-half of its revenue from property taxes. The property tax is a function of property values which, in turn, are a function of present market prices for properties. Market prices for properties are determined by supply and demand forces which are directly affected by two variables: population and income. The non-property-tax revenues (from licenses, permits, cigarette and liquor taxes, bank excise and mortgage registration taxes, revenue from the use of money and property, charges for current services,

and revenue from the municipal water and sewerage utility, from the parking system, and from refuse service) are even more obviously a function of population and income. In other words, it is a logical assumption that city revenue is an indirect function of city population and the income of the city population.

To test this assumption, the ten-year period from 1957 to 1966 was selected. City revenue data was obtained from the official annual financial statements of the City of St. Cloud. City population for each of the ten years was computed by taking the official census figures for the years 1960 and 1965, noting that the population increased at an average annual compound rate of 2.225 per cent between 1960 and 1965, and then applying that rate of increase to the other eight years. The income of the city population was estimated by multiplying the per capita gross national product of the United States in each of the ten years[10] by the city population. The resultant figure will be called "gross city product," or G.C.P. Per capita G.N.P.

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[10]U.S. Department of Commerce, Statistical Abstract of the United States, 1962 (Washington: 1962), Table No. 424, p. 314, for years 1957-1959; U.S. Department of Commerce, Statistical Abstract of the United States, 1966 (Washington: 1966), Table No. 456, p. 323, for years 1960-1965; Federal Reserve System, Federal Reserve Bulletin (Washington: April, 1967), p. 655 for 1966 total G.N.P.; and Tax Foundation, Inc., Facts and Figures on Government Finance, 1967 (New York: 1967), Table 19, p. 37, for 1966 United States population.

is considered an adequate measure of per capita G.C.P. under the assumption that the population of St. Cloud is comprised of average U.S. citizens with respect to their incomes. This view is supported by data in the County and City Data Book for 1962 -- the latest edition published. This statistical abstract supplement reveals that in 1959 the median income of families[11] in the United States was $5,660; the median income of families in Minnesota was $5,573; and the median income of families in St. Cloud was $5,592.[12] The results are summarized in Table I.

TABLE I

CITY OF ST. CLOUD GROSS CITY PRODUCT: 1957 TO 1966

Year	City Revenue	St. Cloud Population	United States Per Capita GNP	Gross City Product
1957	$ 1,790,899	31,655	$ 2,586	$ 81,859,830
1958	1,728,335	32,359	2,554	82,644,886
1959	2,140,775	33,079	2,726	90,173,354
1960	2,167,298	33,815	2,788	94,276,298
1961	2,366,771	34,567	2,830	97,824,610
1962	2,535,891	35,336	3,002	106,078,672
1963	2,508,766	36,122	3,111	112,375,542
1964	2,631,111	36,925	3,272	120,818,600
1965	3,474,740	37,746	3,476	131,205,096
1966	3,372,604	38,586	3,757	144,697,602

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[11] Family median income is the amount of income which divides the distribution of families into two equal groups -- one having incomes above the median and the other having incomes below the median.

[12] U.S. Department of Commerce, County and City Data Book, 1962 (Washington: 1962), pp. 3 and 527.

To test the validity of our assumption that city revenue is an indirect function of G.C.P., a coefficient of correlation (r) was computed by means of the standard formula:

$$r = \frac{\varepsilon X_i Y_i - \frac{(\varepsilon X_i)(\varepsilon Y_i)}{10}}{\sqrt{\left(\varepsilon X_i^2 - \frac{(\varepsilon X_i)^2}{10}\right)\left(\varepsilon Y_i^2 - \frac{(\varepsilon Y_i)^2}{10}\right)}}$$

where X_i refers to G.C.P. in years i and Y_i refers to city revenue in years i.

The resultant coefficient of correlation (r) is .94, which is considered very satisfactory.

With this solid foundation for support, the least squares method was chosen to determine a linear relationship between G.C.P. and city revenue. The regression equation which resulted was:

$$Y = -365{,}427 + 0.026717X$$

where Y stands for city revenue and X stands for G.C.P.

Figure 1 shows the trend line computed by the least squares method.

It follows from the equation that $\frac{dY}{dX} = 0.026717$; accordingly, an increase of one dollar in G.C.P. will generate an increase of 2.6717 cents in city revenue.

The next task was to determine the college's contribution to the City of St. Cloud's G.C.P.

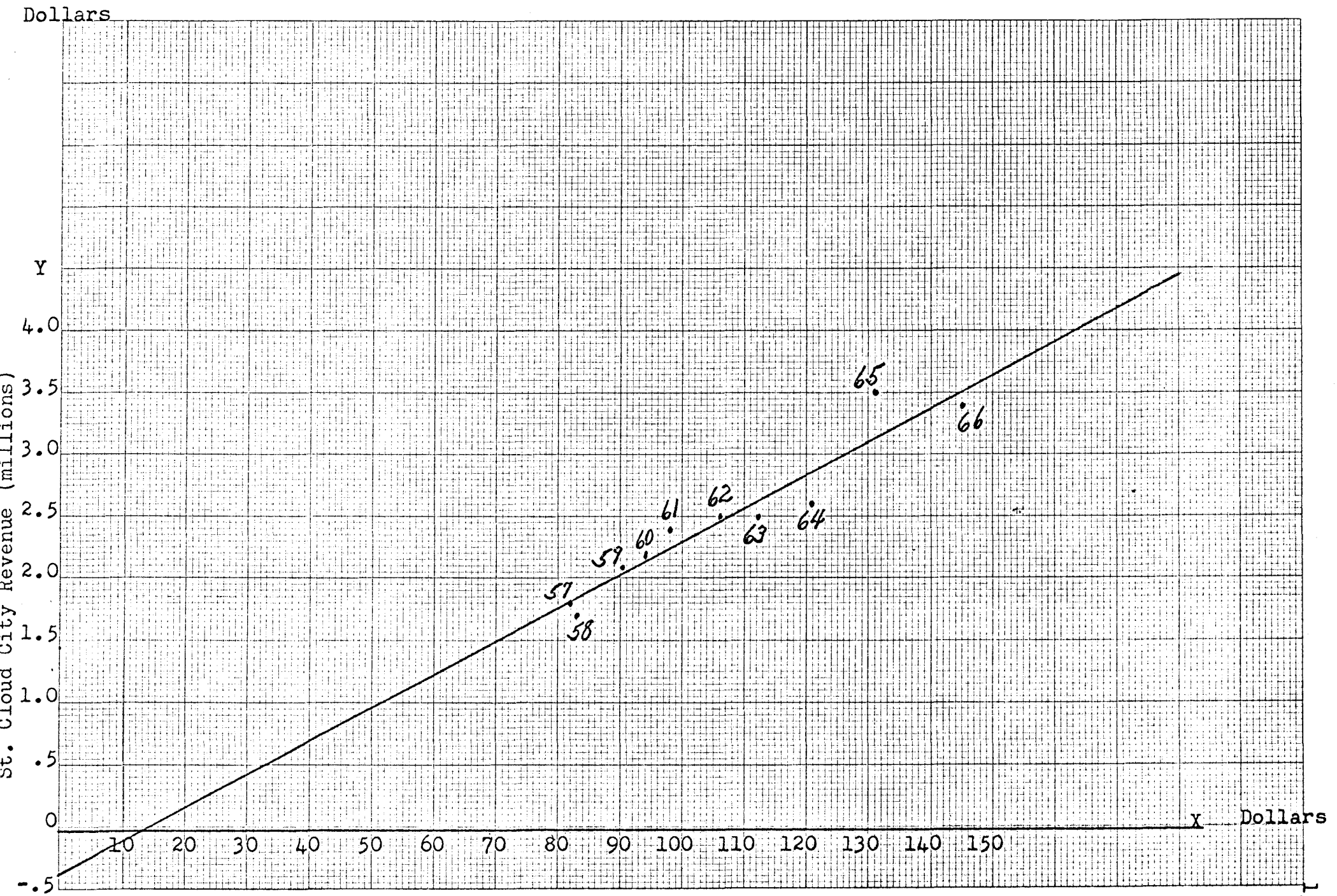

Figure 1 St. Cloud Gross City Product (millions)

Expenditures Other Than Student

The following expenditures were made by the St. Cloud State College and by ARA Slater School and College Services:

	1966
St. Cloud State College:	
Faculty Salaries	$3,023,844
Staff Salaries	707,641
Utilities	181,705
Purchases Locally of Supplies, Equipment, and Services	333,979
Preventative Maintenance, Repairs, and Betterments	124,355
Land Acquisition	160,650
New Buildings	2,746,504
Equipment Associated with the New Buildings	176,937
Steam Generating Units	117,489
ARA Slater School and College Services:	
Labor	280,805
Food	462,927
Supplies and Service	77,701
	$8,394,537

Student Expenditures

The student body was surveyed, using a sampling method, to get an estimate of the expenditures of college students in the City of St. Cloud. The sample comprised five per cent of the student body. In order to get a representative and unbiased sample the selection process was

randomized proportionate selection using seven student classifications, as reflected in Table II.

An information form with an accompanying letter was sent to each student in the sample. Included was a self-addressed and stamped envelope. The letter explained the purpose of the survey and asked for the student's cooperation in completing and returning the form. Directions on the form specified that the amount was to be an estimate of the expenditures only in the City of St. Cloud for a typical academic quarter. Response was approximately eighty per cent and because of the relatively high response a follow-up was not carried out. Students were asked to estimate their expenditures for the following needs: recreation and entertainment; clothing; laundry and dry cleaning; health needs; grooming needs; snacks and refreshments; food; rent; contributions to church and other organizations; automobile expenses; books, stationery, and educational supplies; and miscellaneous expense. A copy of the form is in Appendix A.

The results were tallied by specific need for each of the seven categories of students. The proportions of students in each strata were determined and the average expenditure per student was calculated for each category. The average expenditure was multiplied by three to get the average expenditure for an academic year (three quarters). This figure for each category was multiplied by the number

of students attending college in that category to get the total expenditure for an academic year for each of the seven categories. A similar procedure was followed to obtain an estimate of student spending for the two summer sessions.

The results of the student survey, representing student spending in the City of St. Cloud during 1966, appear in Table II.

Total Spending by College Groups

Spending in the City of St. Cloud by faculty, staff, students, schools, institutes, and bureaus of St. Cloud State College, and by ARA Slater School and College Services totaled approximately $13,439,290 in the year 1966.

Spending by Visiting Groups and Individuals

St. Cloud State College has served as a meeting place for many state and regional organizations and professional groups. Scores of workshops, conventions, conferences, short courses and institutes have been conducted on the campus annually because of its central location and suitable facilities for accommodating large groups. Had it not been for the college most of these meetings would have been held in other cities. It is estimated that persons who attended meetings that lasted more than one day spent in the neighborhood of $10 per day in the city. Thus, a two-day meeting for 200 persons brought approximately $4,000

TABLE II

AVERAGE STUDENT EXPENDITURES IN CITY OF ST. CLOUD IN 1966

Classification	No. of Students	Per Cent of Total	Average Student Expenditure[1]	Total Expenditure
Married and commuting	147	2.2	$ 583.20	$ 85,730.40
Married and residing in St. Cloud temporarily	371	5.5	1,642.59	609,400.05
Married and residing in St. Cloud permanently	161	2.4	1,651.36	265,868.19
Single student and living on campus	2,293	33.9	296.80	680,552.46
Single student and living off campus in St. Cloud	2,422	35.9	885.42	2,144,491.44
Single student and commuting	616	9.1	541.91	333,818.73
Single student and a resident of St. Cloud	742	11.0	572.30	424,646.25
	6,752[2]	100.0		$4,544,507.52
Summer students, 1966	2,483[3]	100.0	Various	500,245.95
				$5,044,753.47[4]

1/ Average student expenditure multiplied by number of students may not exactly equal total expenditure because of rounding.

2/ Based on full-time, on-campus enrollment in the fall, 1966.

3/ The average enrollment for the two summer sessions was 2,483. The average student expenditure during one quarter of the regular academic year (one-third of the fourth column), was applied to the number of summer students in each classification.

4/ Board and room charges for on-campus residents are not included; books, stationery, and educational supplies purchased in the Campus Bookstore are not included.

in business to St. Cloud.

Not only has the college served as a meeting place, but its own concerts, lectures, exhibits, plays, demonstrations, contests, and athletic events have attracted thousands of persons to the campus annually. Also, during each school year hundreds of recruiters for schools, business, and industry have come to the campus to interview students -- and have spent money in the city.

All monies so spent, although not quantified, were additions to the City of St. Cloud's G.C.P. and were made possible by the presence of St. Cloud State College in the city.

IV. SUMMARY AND CONCLUSIONS

Property Tax Losses

Property tax revenue lost by the City of St. Cloud in 1966 as a consequence of residential properties having been removed from the tax rolls incident to the expansion of St. Cloud State College amounted to $15,794, which was .87 per cent of 1966 tax levies and was .47 per cent of 1966 total city revenue. Further, if account is taken of the new residences built within the city limits by some of the citizens whose former residences were purchased by the State, the city tax loss amounted to approximately $11,056, which was .61 per cent of the 1966 city tax levy and was .33 per cent of 1966 total city revenue. Even if the $17,470 in college-related costs incurred by the City of St. Cloud Police and Engineering Departments were added to the adjusted tax loss of $11,056, the resultant total college-related "costs" comprised only .85 per cent of 1966 total city revenue.

Benefits Accruing to the City

As summarized on page 18, total spending in St. Cloud by college groups in 1966 was approximately $13,439,290. Therefore, the indirect contribution of St. Cloud State College to City of St. Cloud revenue in 1966 was approximately $359,057, computed as follows:

$13,439,290 X 0.026717 = $359,057.

It should now be apparent that the expansion of St. Cloud State College has occasioned a level of college-related spending and accompanying increased city revenue which is so much greater than the decreased property tax revenue and concomitant decreased city revenue that no real comparison between the two exists.[13]

Implications for the Future

The projected full-time, on-campus enrollment at the college in the year 1976 is 13,949.[14] This figure is based on known college potential enrollment to 1976 and enrollment trends for the 1956-66 period. A number of factors singly and in combination could operate to alter markedly this projection. These factors are (1) a selective admissions policy of the state colleges, (2) the establishment of additional state colleges such as Southwestern State College at Marshall, (3) junior college lower division

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[13]See Appendix B for a brief description of another approach, based on the multiplied effect of college-related spending on the level of income of the community at large. The income-expenditures approach is placed in a subordinate position because the large but unknown amount of "leakages," as St. Cloud residents spend part of their incomes outside St. Cloud, make it impossible to compute the size of the multiplier for St. Cloud.

[14]St. Cloud State College, Self Evaluation Report, Institutional Data (St. Cloud, Minnesota: May, 1967), Table 6, p.60.

attrition and (4), changes in federal aid to higher education.[15] However, unless these or other factors become operative, St. Cloud State College may have an additional 7,197 full-time, on-campus students in the fall of 1976. Assuming further that student spending and other college-related spending for addition faculty, staff, land, buildings, equipment, and so on, increase at the same rate as in the past, the indirect contribution of St. Cloud State College to the City of St. Cloud revenue in 1976 will be approximately $741,699, computed as follows:

(1) 1966 college-related expenditures of $13,439,290 ÷ 6,752 full-time, on-campus students = $1,990 average per-student expenditure.

(2) $1,990 average student expenditure X 7,197 additional full-time, on-campus students in 1976 = $14,322,030 additional college-related expenditures in 1976.

(3) 1966 college-related expenditures of $13,439,290 + 1976 additional college-related expenditures of $14,322,030 = total college-related spending of approximately $27,761,320 in 1976.

(4) $27,761,320 X 0.026717 = $741,699.

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[15] Ibid.

APPENDICES

APPENDIX A

QUESTIONNAIRE SENT TO FORMER PROPERTY OWNERS

INFORMATION FORM SURVEYING STUDENT EXPENDITURES
IN THE CITY OF ST. CLOUD

St. Cloud State College
St. Cloud, Minnesota

February 1, 1967

Mr. and Mrs. John Q. Citizen
1234 Any Avenue South
St. Cloud, Minnesota 56301

Dear Mr. and Mrs. Citizen:

The St. Cloud State College is conducting a study into the impact upon the local community of the College's rapid expansion in the past several years. As a part of the study, it is necessary that we obtain information regarding actions taken by residents to obtain housing accommodations following the sale of their residences to the College. Accordingly, we would appreciate it very much if you would indicate, by placing a check mark in the appropriate space below, which action was applicable to your case. If none of the listed actions was applicable to your situation, please explain briefly under "Other action."

_____ I built a new residence within the city limits of St. Cloud.

_____ I built a new residence outside the city limits of St. Cloud.

(Note: A new house, built by a developer or contractor, would be considered as having been "built" by you if you were the first owner and occupant.)

_____ I bought an existing house in the St. Cloud area. The former owner, to the best of my knowledge, did _____ did not _____ build a new residence within the city limits of St. Cloud.

_____ I moved into a rented house or apartment.

_____ I did not reside in the house prior to sale to the College. To the best of my knowledge, the tenants at the time of the sale did _____ did not _____ build a new house within the city limits of St. Cloud.

_____ Other action:

A stamped, self-addressed envelope is enclosed for your convenience.

Sincerely yours,

G.K. Gamber
Instructor in Economics

March 7, 1967

Enclosed is an information form that was designed to analyze the expenditures of students who are attending St. Cloud State College to determine as objectively as possible how much students contribute to the economy of the city.

You are one of a representative sample of students who are being asked to provide information that will be the basis for making the analysis. Because this is a sample involving approximately five per cent of the total student body, you are urged to complete and return the enclosed form as soon as possible in the self-addressed, stamped envelope. Failure to respond could have a negative effect on the reliablility of the results.

Paul E. Ingwell, Director
Bureau of Research

STUDENT EXPENDITURES IN THE CITY OF ST. CLOUD

PART I: Please check the category that pertains to you.

_____ 1. Male
_____ 2. Female

PART II: Please check the one category that pertains to you.

_____ 1. Married and commuting
_____ 2. Married and residing in St. Cloud temporarily
_____ 3. Married and residing in St. Cloud permanently
_____ 4. Single student and living on-campus
_____ 5. Single student and living off-campus in St. Cloud
_____ 6. Single student and commuting
_____ 7. Single student and a resident of St. Cloud

PART III: Please complete the following by writing in an estimate of your expenditures for a typical quarter. Include only money you spend in the city of St. Cloud.

_____ 1. Recreation and entertainment

_____ 2. Clothing

_____ 3. Laundry and dry cleaning

_____ 4. Health needs

_____ 5. Grooming needs

_____ 6. Snacks and refreshment

_____ 7. Food

_____ 8. Rent

_____ 9. Contributions to church and other organizations

_____ 10. Automobile expenses

_____ 11. Books, stationery, and educational supplies

_____ 12. Miscellaneous expenses

APPENDIX B

THE INCOME-EXPENDITURES APPROACH TO THE DETERMINATION OF THE LEVEL OF INCOME AND EMPLOYMENT

THE INCOME-EXPENDITURES APPROACH TO THE DETERMINATION OF THE LEVEL OF INCOME AND EMPLOYMENT

Introduction

The major part of the study has been directed to the measurement of the benefits, in the form of financial revenue, accruing to the City of St. Cloud by virtue of the presence of St. Cloud State College in the city. These benefits have been shown to be quite significant.

Another view of spending concerns itself with the question of what the act of expenditure does to the flow of incomes in the economy. How do the payment of faculty and staff salaries, the construction of college buildings, the purchases of goods and services, and the expenditures of students affect the general level of income and employment? As faculty and staff receive their salaries, as building labor and contractors receive payment from the State, as sellers of goods and services receive payment from students and other college groups, what do they do with their income and what difference does it make?

Marginal Propensity to Consume and Multiplier

At this point the concepts of "marginal propensity to consume" and "multiplier" must be explained. The proportion, or fraction, of any change in income which is consumed is called the marginal propensity to consume, marginal

meaning "extra." It was Lord John Maynard Keynes's belief that money, when spent, had a "multiplier" effect on the economy amounting to several times the total amount originally spent. Simply stated, the economy's income will increase not merely by the amount of the new spending but by some multiple of it. If a given amount of new money is spent in the economy, its influence is not limited to that amount alone, but the economic effects are spread widely over large segments of the economy and are somewhat analogous to ripples caused by dropping a pebble into a pool; waves of economic activity are set up which encompass wide areas. Specifically, dollars spent by Mr. White are received as income by Mr. Black. Mr. Black will consume (spend on durable and nondurable consumer goods, and on services) a certain fraction of this increased income, depending upon his marginal propensity to consume (hereinafter referred to as MPC). The MPC is the ratio of a change in consumption to the change in income which brought the consumption increase. Thus, $\text{MPC} = \frac{\text{change in consumption}}{\text{change in income.}}$ The larger the proportion of its additional income that the public respends on consumption, the larger will be the multiplier effect. The size of the multiplier is given precisely by the formula: $\text{Multiplier} = \frac{1}{1-\text{MPC}}$.

A discussion is now in order regarding the size of the St. Cloud multiplier. While the nation's multiplier

is approximately five, based on the marginal propensity to consume personal income (or even larger if based on the marginal propensity to consume disposable income), a multiplier of that size is valid only for a "closed" economy. However, a community such as St. Cloud, which constitutes only a small part of a much larger economy, would have to be characterized as an "open" economy, that is, one which has "leakages" as residents spend part of their incomes outside St. Cloud.

The lack of empirical data regarding the marginal propensity of St. Cloud residents to consume their incomes in St. Cloud makes it impossible to compute the St. Cloud multiplier. It is certainly greater than one, because any initial increase in spending generates an equal amount of wage, rent, interest, and profit income as it is received by businesses and households in St. Cloud. However, strictly for the purpose of illustrating the multiplier concept (without vouching for the accuracy of the assumption), let us assume that the marginal propensity of St. Cloud residents to consume their incomes in St. Cloud is 50%. We would than get a multiplier of two, computed as follows:

$$\text{Multiplier} = \frac{1}{1-\text{MPC}}$$

$$= \frac{1}{1-.50}$$

$$= \frac{1}{.50}$$

$$= 2$$

The significance of the MPC and the multiplier now is apparent. With an MPC of 50%, every additional, or extra, dollar of spending would increase the level of income in the community by $2. To carry out our illustration of the multiplier concept it was necessary to calculate the additional, or marginal, college-related spending which occurred during a given period of time. The period 1961 to 1966 was selected for this purpose.

College-related spending in St. Cloud in 1961, for the same purposes as set forth on page 16 for 1966 spending, totaled $3,212,861. Student spending in St. Cloud in 1961 was approximately $2,615,820, calculated by applying the average student expenditure in Table II to the 3,614 full-time, on-campus students enrolled in the fall of 1961 and to the 1,505 average enrollment for the two summer sessions of 1961. Hence, total college-related spending in 1961 was approximately $5,828,681. Since total college-related spending in St. Cloud in 1966 was $13,439,290 (as previously noted), additional, or marginal, college-related spending between 1961 and 1966 was approximately $7,610,609 (rounded off to $7½ million to make our calculations easier). Thus, the initial increase in spending of $7½ million generated an equal amount of wages, rent, interest, and profit income. If the MPC of St. Cloud residents, as already assumed for illustrative purposes, was 50%, recipients

of the $7½ million in increased income then spent 50% of it, or $3-3/4 million, on consumption. This $3-3/4 million became income to other people who in turn spent 50%, or $1-7/8 million. This chain reaction continued, each recipient consuming 50% of what he received and, although the spending diminished at each successive step, it cumulated to two times the initial amount.

Implications for the Future

Whatever the exact marginal propensity to consume may be, it should be evident that new, additional spending, from whatever source, generates more income and consumption spending through the multiplier. As already noted on page 22, the projected full-time, on-campus enrollment at the college in the year 1976 is 13,949. These additional 7,197 students will spend vast amounts of money which are "new" or additional to the St. Cloud economy. The same can be said for new spending on account of new faculty, staff, buildings, and so on. Further, the economy's income will increase not merely by the amount of the new spending but by a larger amount.

This all too brief description of the income-expenditures model has pointed out that what people spend on consumption depends primarily on the incomes they receive. Any new or additional spending leads to rising incomes and it is rising incomes that are the major foundation for rising

consumption spending. Incomes are passed from hand to hand; the income of Mr. White is spent and becomes income to Mr. Black, and so on. Increased demand for goods and services means increased employment which, in turn, means increased incomes.

The income-inducing effects of spending -- both public and private -- are clearly recognized by Chambers of Commerce, as evidenced by their constant efforts to attract new military installations, businesses, institutions, public projects, and so on, to their communities.