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ABSTRACT

A study was conducted at St. Louis Community College to disaggregate statistics for fall 1985 nonreturning students by educational goal and full-time/part-time status in order to provide more meaningful data for both internal and external evaluation of student retention and outcomes. Study findings included the following: (1) the comparison of nonreturn rates for goal/status subsets indicated that goals and status each had substantial separate influences on nonreturn rates; (2) within each goal category, nonreturn rates for part-time students were approximately twice as large as those for full-time students; (3) associate in applied science and associate in arts degrees and general transfer were the goals of 82% of the district's full-time enrollment; (4) 18% of the full-time students and 34% of the part-time students with degree goals were nonreturners; and (5) findings for individual campuses differed somewhat from those for the district as a whole. The study report includes a discussion of the implications of the research and the importance of disaggregating return rates for students with different educational goals in accurately representing student outcomes. Numerous graphs and tables supplement the text. (LAL)

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STUDENT NONRETURN RATES AT ST. LOUIS COMMUNITY COLLEGE: AN EXAMINATION OF THE IMPACTS OF EDUCATIONAL GOALS AND ENROLLMENT STATUS

September 16, 1986

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EXECUTIVE SUMMARY

Aggregate nonreturn rates at the Community College represent a composite of the behavior of the diverse groups within the student body, and include a mixture of positive and negative outcomes. This report disaggregates nonreturn statistics by educational goal and full-time/part-time status to provide more meaningful data for both internal and external evaluation of retention and outcomes.

Comparison of nonreturn rates for goal/status subsets in the District as a whole indicates that goals and status each have substantial separate influences on nonreturn rates. Within each goal category, nonreturn rates for part-time students are approximately twice as large as those for full-time students. Within each status category, nonreturn rates for students with different goals are also substantially different, with the higher rates found in the non-degree goal subsets.

Since there is no documentation of goal completion in the non-degree areas, the associated nonreturn rates necessarily include positive as well as negative outcomes. The degree goals thus provide the most unbiased evidence of goal non-achievement, and true retention problems. The findings with respect to nonreturn rates for degree goals in general are very encouraging in that regard. Those nonreturn rates, 18% for full-time students and 34% for part-time students, probably compare favorably with Freshman and Sophomore nonreturn rates at four-year institutions serving primarily full-time degree-seeking students.

An examination of campus variations for possible problem areas suggests that nonretention of General Transfer students may be a problem area at Forest Park, and that Certificate programs are an area where retention might be improved at Forest Park and Florissant Valley. AA students have nonreturn rates which are fairly low, but consistently higher than those of AAS students, so there may also be room for improved AA retention, particularly at Forest Park. These and other implications of the existing data, will soon be examined in the light of additional data now being gathered by surveying nonreturning students in each subset. Information from this additional study will also be used to estimate the extent to which nonreturn rates include positive outcomes and temporary interruption of progress toward educational goals.

In more general terms, this study provides quantitative evidence that explicit recognition of the diversity of the student body served by the Community College should be an integral part of both internal and external evaluations.



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FULL-TIME/PART-TIME STATUS

- Full-Time: Students carrying 12 or more credit hours in the semester.
- Part-Time: Students carrying less than 12 credit hours in the semester.

EDUCATIONAL GOALS

- AAS Students who indicated a two year degree intent, and have an occupational field of study code.
- AA Students who indicated a two year degree intent, and have a college transfer field of study code.
- <u>Certificate</u> Students who indicated a one year degree intent.
- Career Training Students who indicated that they were preparing for a job to be obtained through selected courses only.
- General Transfer Students who indicated University transfer credit through selected courses only.
- Improve Job Skills Students who indicated improvement of existing job skills through selected courses only.
- Personal Interest Students who indicated that they were enrolled for personal interest only.
- <u>Pre-Entry</u> Students who indicated an intent to be enrolled in a specific degree or certificate program that has entrance requirements, (e.g., Nursing), but do not currently meet those entrance requirements, or are on a waiting list.



Continued

CURRICULA

- <u>College Transfer</u> Students who indicated an AA or General Transfer educational goal.
- Occupational Students with AAS, Certificate, Career Training, Improve Job Skills, or Pre-Entry educational goals.
- Personal Interest Students who indicated a Personal Interest educational goal.

DEGREE STATUS

- Degree Track Students with as AAS, AA Certificate or Pre-Entry educational goal.
- No Degree Intent Students with Career Training, General Transfer, Improve Job Skills or Personal Interest educational goals.



INTRODUCTION

Graduates are commonly viewed as positive "outputs" of an educational institution, while the non-graduates educated by the institution may be viewed quite differently. Internally, significant numbers of students leaving without a degree may be regarded as a retention problem. Externally, it may be taken as evidence that the institution is not producing positive student outcomes, and is, therefore, unworthy of the same public support afforded to "graduate-producing" institutions. Such simplistic interpretations can be misleading, of course, especially when applied to community colleges where the institutional mission includes providing a broad range of educational services other than degree programs. A more in-depth look at the institution's nonreturning non-graduates is required for both a better understanding of the true extent and nature of retention problems, and a more complete accounting of the positive student outcomes provided by a community college.

Recognizing the need for information about these students, the St. Louis Community College Institutional Research and Planning Office began preparing nonreturning student profiles in 1985. The first such report, Nonreturning Student Profile, Fall 1984, looked at the characteristics of students who attended SLCC in the Fall 1984 semester, did not graduate, and did not return for the Spring 1985 semester. It's successor, Nonreturning Student Profile, Fall 1985, examined the Fall 1985 students who neither graduated nor returned for the Spring 1986 semester. Educational goal information was not available for the Fall 1984 students, but the 1985 Profile provides evidence that nonreturn rates are substantially different for students with different educational goals. Data for both years reveals much higher nonreturn rates for part-time students than for full-time students. This evidence plus the fact that diverse educational goals (including many non-degree goals), and a high proportion of part-time students are characteristic of community college enrollment clearly call for a more explicit examination of these factors.

This report disaggregates the nonreturn statistics for Fall, 1985 students by determining nonreturn rates for relevant subsets of the student body. The subsetting is done in terms of both educational goal and full-time/part-time status thereby dividing the student body into sixteen distinct categories. This procedure isolates the separate influences of these two variables, and also develops statistics for subsets which a priori reasoning suggests may be more meaningful units of analysis than the diverse aggregate student body. In addition to examining the individual nonreturn rates for these subsets, the report also examines the percentages of full-time and part-time enrollments represented by each subset, and the subset's impact on aggregate full-time and part-time nonreturn rates. This analysis for the District as a whole is followed by an investigation of campus variations.

METHODOLOGY

Easytrieve retrieval programs were written for multiple sorting of student data by full-time/part-time status and educational goal. These programs were run against both the nonreturning student data file which was developed for the <u>Nonreturning Student Profile</u>, <u>Fall 1985</u>, and the full student body file (Census Date, Fall 1985 semester). Lotus 1-2-3 software was then used to calculate the percentages presented and analyzed below.



FINDINGS

I. ST. LOUIS COMMUNITY COLLEGE DISTRICT

A. Subset Nonreturn Rates

Aggregate statistics for a heterogeneous student population are obviously the net result of the often varied behaviors of more homogeneous sub-populations. Determination of the underlying statistics for each of these student body subsets should permit more accurate interpretation of the aggregate information, and more properly focused policy responses. The first step, of course, is to identify the relevant subsets. In the case of nonreturn (and many other) behaviors, there is reason to believe that both full-time/parttime status and educational goals are appropriate bases for defining subsets. It is a logical extension of that reasoning to breakdown each of the two status subsets into eight goal subsets for a total of sixteen subsets. This section examines nonreturn rates within each of those sixteen segments of the student body.

The subset nonreturn rates are presented in a cross-tabulation format in Table I-A on page 3. The status portion of each subset is indicated at the heading of the table columns, while the goal portion is indicated along the left side at the beginning of the rows. The nonreturn rate for each subset was calculated by dividing the number of nonreturning student with the indicated goal and status by the total number of students with that goal and status combination. For instance, the percentage in the Pre-entry row and the full-time column is the nonreturn rate for full-time Pre-entry students, i.e. the number of full-time students with a Pre-entry goal who did not return/the total number of full-time Pre-entry students.

The cross-tab format facilitates an examination of the separate impacts of educational goals and full-time/part-time status. Reading down either column, in effect, holds status constant, so the differences reflect the impact of varying educational goals. Both columns reveal substantial differences in nonreturns within the designated status categories. Nonreturn rates for full-time students vary from a low of 13% for Pre-entry students to a high of 29% for the Improve Job Skills goal, and part-time rates vary for 26% for Pre-entry students to 65% for those with the Improve Job Skills goal. The variations within status categories can also be seen in the graphic illustration of subset nonreturn rates presented in Graph I-A on page 4.

There is also a notable consistency in the relationship between the various goals. If the goals are ranked from lowest to highest nonreturn rate, the full-time and part-time rankings are very similar. In tables and graphs in this report the goals are presented in the ascending order of their full-time nonreturn rates. As can be seen in Table and Graph I-A, this ordering is only a slight distortion



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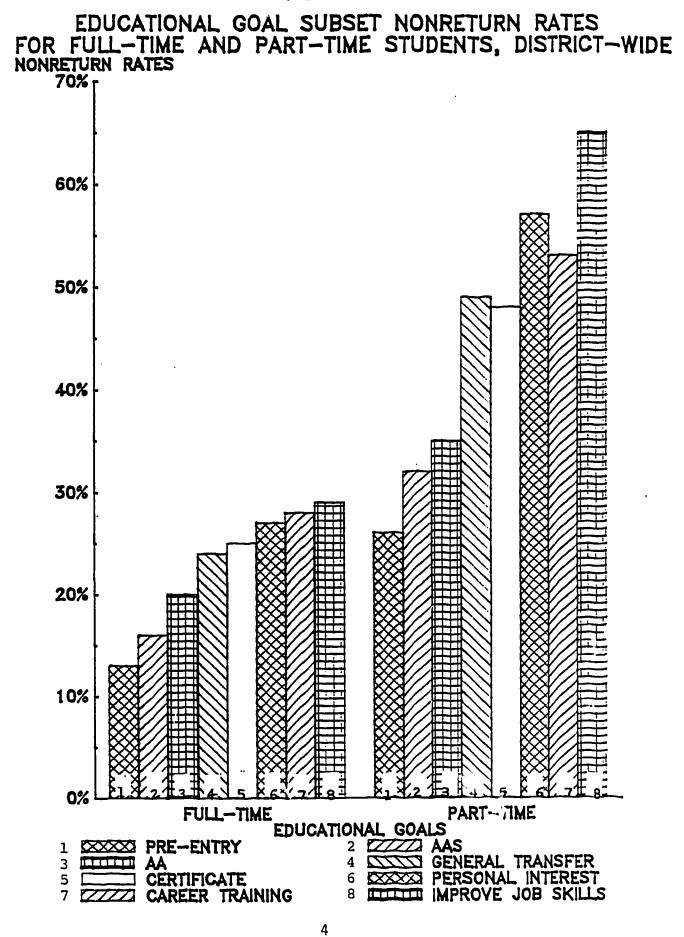
TABLE I-A EDUCATIONAL GOAL SUBSET NONRETURN RATES FOR FULL-TIME AND PART-TIME STUDENTS DISTRICT-WIDE

	FULL-TIME	PART-TIME
EDUCATIONAL GOAL		
PRE-ENTRY	1 3 🛠	26%
AAS	16%	32%
AA	20%	35%
GENERAL TRANSFER	24%	4 9%
CERTIFICATE	25%	4 8%
PERSONAL INTEREST	27%	57%
CAREER TRAINING	28%	53%
IMPROVE JOB SKILLS	29%	6 5 %
UNKNOWN	23%	4 4%
TOTAL	21%	4 5%
CURRICULA		
COLLEGE TRANSFER	22%	4 2%
OCCUPATIONAL	18%	4 5%
DEGREE STATUS		
DEGREE TRACK	18%	3 4%
NO DEGREE INTENT	25%	57%



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GRAPH I-A





of the ascending order for the part-time subsets. Pre-entry, AAS, and AA degree goals are respectively first, second, and third in both rankings, while Improve Job Skills has the highest nonreturn rate for both status classifications. The fourth and fifth ranked goals are General Transfer (4th full-time; 5th part-time) and Certificate (4th part-time; 5th full-time), and the sixth and seventh ranks are shared by Personal interest (6th full-time; 7th part-time) and Career Training (6th part-time, 7th full-time).

Beyond the rank ordering, the relationship between the nonreturn rates for the various goals is more evident if the rates are converted to an index which measures their relative sizes (within each status classification) rather than their absolute sizes. Such an index further eliminates possible confusion between goal impacts and status impacts. For example, it may not be immediately obvious that nonreturn rates of 32% for part-time AAS students and 49% for part-time General Transfer students imply virtually the same educational goal impacts as the 16% and 24% nonreturn rates of their respective full-time counterparts. A relative size index, on the other hand, would reveal that in both cases the General Transfer nonreturn rate is approximately one and one-half times the size of the AAS nonreturn rate.

An inter-goal relational index could use the nonreturn rate for any one of the goals as the base value for the index as long as the same goal is used in both status classifications. Relative sizes are probably most clearly represented, however, when the goal with the lowest rate is taken as the base goal. That would be the Pre-entry goal, but the relatively small number of students in that subset (especially when the discussion moves to the campus level) could give rise to variations which reflect the behavior of a few individuals rather than more general influences. By contrast, the AAS goal which has the second lowest nonreturn rate is held by a very large number of students. The second lowest rate is therefore used as the base value in this report.

Dividing the nonreturn rates for each goal by the AAS nonreturn rate for the same status classification yields the following sets of index numbers for inter-goal relationships.

Index = Indicated Goal Nonreturn Rate/AAS Nonreturn Rate

	Full-time	Part-time
Pre-entry	0.8	0.8
AAS	1.0	1.0
AA.	1.3	1.1
General Transfer	1.5	1.5
Certificate	1.6	1.5
Personal Interest	1.7	1.8
Career Training	1.8	1.7
Improve Job Skills	1.8	2.0



These index numbers indicate quite similar educational goal impacts within the two status classifications. Since this indexing provides the most complete control for the influence of full-time/part-time status it is probably also the most convincing quantitative evidence that educational goals do in fact have an important independent impact on nonreturn behavior.

Given the evidence of differences in nonreturn rates attributable to differences in educational goals, it is important to identify the goal characteristics which are associated with higher nonreturn rates. Two such characteristics are immediately obvious. The goals with relatively high nonreturn rates (e.g. at least one and one-half times the AAS rate) are non-degree goals and/or goals which involve occupational oriented curriculums. Closer examination suggests, however, that degree status is by far the more important attribute.

In addition to information for the individual goals, Table I-A presents nonreturn rates for aggregations corresponding to standard Curricula and Degree Status categories. The College Transfer Curricula category is an aggregation of students with AA and General Transfer goals, while the Occupational category includes all students with Pre-entry, AAS, Certificate, Career Training, and Improve Job Skills goals. The two non-degree goals of the Occupational category have nonreturn rates that are among the very highest, but AAS and Pre-entry, two of the three degree goals, have the lowest rates for individual goals. As can be seen in the table, the nonreturn rates for the Occupational category as a whole are very similar to those for the College Transfer category. The Degree Status columns, on the other hand, show nonreturn rates for students with No Degree intent (those with goals of Career Training, General Transfer, Improve Job Skills, and Personal Interest) which are approximately one and one-half times as large as the rates for Degree Track students (students with AAS, Pre-entry, AA, and Certificate goals). Students with the Certificate goal are the only Degree Track students with nonreturn rates that equal or exceed the rates for any of the non-degree goals.

The table and graph also show full-time/part-time status having a substantial independent impact on nonreturn rates. Reading across any row of Table I-A, in effect, holds educational goal constant revealing differences in nonreturn rates which are attributable to status. The higher rates for part-time students previously observed with respect to the student body as a whole are equally evident within each individual educational goal subset. Here too, the stability of the relationship is particulary notable. A generalization that the nonreturn rates of part-time students are twice as high as those of their full-time counterparts would be a fairly good predictor of the observed relationships in all goal categories. If the intra-goal nonreturn relationships are expressed as an index computed by dividing each part-time nonreturn rate by the corresponding full-time rate, the resulting ratios all fall within an interval of 1.7 (the AA ratio) to 2.2 (the Improve Job Skills ratio). Three of the eight goals (AAS, General Transfer, and Pre-entry) have ratios of 2.0. Two (Certificate and Career Training) have ratios of 1.9, and one (Personal Interest) has a 2.1 ratio.



B. Subset Contributions to Full-time and Part-time Enrollments

In addition to statistics describing subset behavior, information on the composition of the student body with respect to those subsets is important both in its own right, and for an understanding of how subset behavior will impact the corresponding aggregate statistics. Table I-B and Graph I-B describe the composition of full-time and part-time enrollments with respect to educational goals. Each entry was calculated by dividing the total number of students with the indicated goal and status by the total number of students with the indicated status.

Full-time enrollment is concentrated in three goal categories: AAS (33% of full-time enrollment), General Transfer (25%), and AA (24%). None of the other goals account for more than 4% of full-time students. The AAS degree goal is also the single most common goal of part-time students (24% had this goal), but, in general, part-time enrollment is much more evenly distributed among the various goals. Four of the goals, AA, General Transfer, Improve Job Skills, and Personal Interest, account for roughly equal percentages of the part-time enrollment (13%, 12%, 13%, and 11%, respectively), while a fifth, Career Training, also represents a significant percentage (8%). Certificate and Pre-entry, which respectively account for 4% and 2%, are the only goals which are held by as few as 4% of the part-time students. They are also the only goals which account for equal percentages of parttime and full-time enrollments.

C. Subset Impacts on Aggregate Full-time and Part-time Nonreturn Rates

Aggregate nonreturn rates for full-time and part-time students are obviously a composite of nonreturns from individual subsets expressed as a percentage of the total number of students with the same status. The percentages accounted for by each subset are presented in Table I-C and illustrated in Graph I-C. These subset impacts on the aggregate rates are literally and mathematically the product of the subset nonreturn rates and enrollment percentages. The percentages reported in Table I-C were determined by multiplying subset nonreturn rates from Table I-A by the appropriate enrollment percentages from Table I-B. The results are (apart from rounding error) equivalent to dividing the total number of nonreturning students with the indicated goal and status by the total number of students with the indicated status. However, approaching those results from the perspective of the multiplication is more informative because it allows an examination of the relative importance of the underlying components.

As a result of their dominance of full-time enrollment, the AAS, AA, and General Transfer goals are also the dominant influence on the aggregate full-time nonreturn rate. They respectively account for 5, 5, and 6 percentage points of a 21% aggregate rate. Although all of the other goals, except Pre-entry, have higher subset nonreturn rates, none account for more than 1 percentage point of the aggregate rate due to the fact that these goals are held by small percentages of the full-time student body. In the case of the Pre-entry goal, the



TABLE I-B SUBSET ENROLLMENTS AS PERCENTAGES OF TOTAL FULL-TIME AND PART-TIME ENROLLMENTS DISTRICT-WIDE

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	FULL-TIME	PART-TIME
EDUCATIONAL GOAL		
PRE-ENTRY	2%	2%
AAS	3 3%	2 4%
AA	2 4%	13%
GENERAL TRANSFER	25%	12%
CERTIFICATE	4%	4%
PERSONAL INTEREST	2%	1 1%
CAREER TRAINING	4%	8%
IMPROVE JOB SKILLS	1%	13% .
UNKNOWN	6%	1 3%
TOTAL	100%	100%
CURRICULA		
COLLEGE TRANSFER	49%	2 5 %
OCCUPATIONAL	4 4%	5 1%
DEGREE STATUS		
DEGREE TRACK	62%	4 3%
NO DEGREE INTENT	32%	4 4 %



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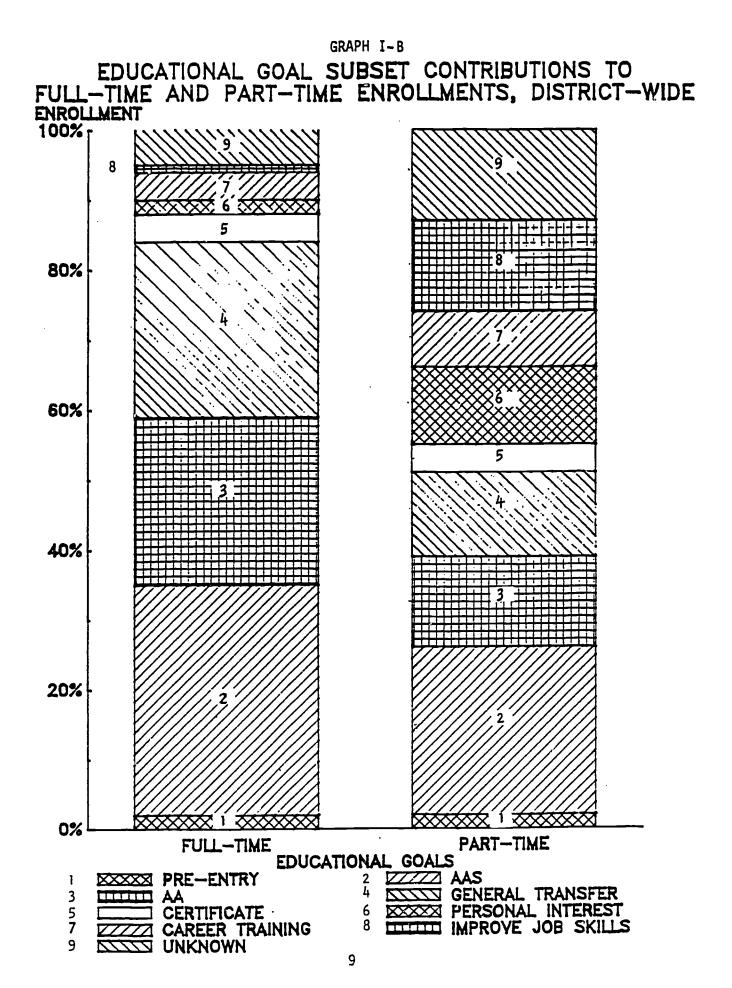


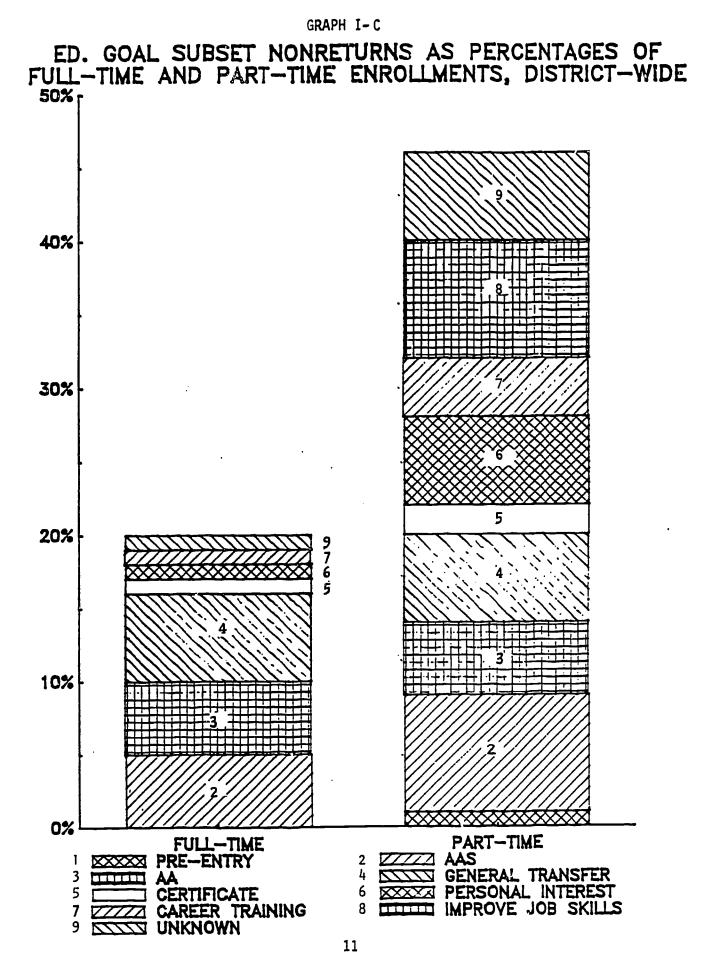


TABLE I-C SUBSET NONRETURNS AS PERCENTAGES OF TOTAL FULL-TIME AND PART-TIME ENROLLMENTS DISTRICT-WIDE

	FULL-TIME	PART-TIME
EDUCATIONAL GOAL		
	•••	``````````````````````````````````````
PRE-ENTRY	0%	1%
AAS	5%	8%
AA	5%	5%
GENERAL TRANSFER	6%	6 %
CERTIFICATE	1%	2%
PERSONAL INTEREST	1%	6%
CAREER TRAINING	1%	4%
IMPROVE JOB SKILLS	0%	8%
UNKNOWN	1%	6%
TOTAL	2 1%	45%
CURRICULA		
COLLEGE TRANSFER	1 1%	1 1%
OCCUPATIONAL	8%	23%
DEGREE STATUS		

DEGREE TRACK 11% 15% NO DEGREE INTENT 8% 25%





ERIC Full first Provided by ERIC small enrollment percentage is combined with a low nonreturn rate. As a result, this goal has virtually no impact on the aggregate rate (0% rounded to the nearest whole percent).

Although less dominant in terms of part-time enrollment, the AAS, AA, and General Transfer goals also have significant impacts of the aggregate nonreturn rate for part-time students. Nonreturning AAS students actually are a larger percentage of part-time enrollment than full-time enrollment, 8% instead of 5%, as the higher subset rate for part-time students more than offsets the smaller part-time enrollment percentage. Nonreturning AA students constitute equal percentages of part-time and full-time students, 5%, as do nonreturning General Transfer students, 6%, because lower part-time enrollment percentages are just offset by the higher subset nonreturn rates for part-time students. However, in the case of the part-time aggregate rate these impacts are accompanied by much greater impacts from the other goals, which raise that rate to 45%.

In contrast to their minor influence on the aggregate rate for full-time students, the goals with the highest subset nonreturn rates make substantial additions to the part-time rate. Nonreturning students with Improve Job Skills, Personal Interest, and Career Training goals, collectively only 2% of full-time students, are, respectively, 8%, 6%, and 4% of the part-time enrollment. These larger impacts reflect both the higher part-time subset rates for these goals, and larger percentages of part-time students in those subsets.

As is true for the full-time rate, Certificate and Pre-entry have the smallest impact on the aggregate part-time rate due to their small enrollment percentages. Their impacts on the part-time rate are, however, proportionally much larger than their full-time impacts as a result of the higher subset nonreturn rates.

II. CAMPUS VARIATIONS

A. Subset Nonreturn Rates

As might be expected the experiences of the individual campuses differ somewhat from that of the District viewed as a whole. Since the total District view provides the larger data base and broader cross-section within each subset, the District-wide experience is probably the most unbiased evidence of the impacts of goals and status on nonreturn rates. By the same token, individual campus rates, or more specifically variations in those rates, provide better evidence of specific areas where other factors not explicitly accounted for in the study may also be influencing nonreturn behavior. The data obviously does not reveal whether variations between campuses are due to endogenous factors subject to institutional control or exogenous differences in the areas and populations served by the individual campuses. The quantitative identification and examination of those variations should, however, provide better focus for more detailed studies that address those questions.



Subset norreturn rates for each of the three campuses are presented in Table II-A which also includes the District rates for purposes of comparison. The variations within and between campuses, and between individual campuses and the District can be seen by appropriate comparisons within this table. Most of the substantial deviations of individual campus experiences from that of the District are, however, more immediately obvious in Graphs II-A-FP, II-A-FV, and II-A-M which illustrate the nonreturn information for Forest Park, Florissant Valley, and Meramec, respectively. In each of the graphs the goals are presented in the same order as that used in the District graph, i.e. ascending order of nonreturn rates for full-time students, District-wide. That ordering necessarily produced a neat "staircase" for the full-time segment of the District graph. Most substantial variations from the District-wide experience, therefore, appear as staircase distortions in the campus graphs.

At Forest Park the major departure from the stairstep relationship is a rather obvious "obstruction" in the center of the staircase, where nonreturn rates for General Transfer, and, to a lesser degree, Certificate students appear disproportionately high. Apart from those rather pronounced exceptions, the Forest Park full-time rates conform to the District order, but the campus staircase is somewhat "steeper", indicating larger differences between goals.

Florissant Valley's experience provides the greatest visual departure from the staircase. After an initial high Pre-entry step, the graph for this campus takes on the appearance of a pyramid, or a dual staircase rising to the center from each side. This variation reflects the combination of a disproportionately high nonreturn rate for Certificate students and relatively low rates for students with Career Training and Improve Job Skills goals.

The graphic representation of Meramec's full-time nonreturn rates is fairly consistent with the District stairstep relationship with the obvious exception of a "dropped step" in the center of the staircase for the Certificate goal. This is clearly quite different from the experience of the other two campuses, where this goal distorts the staircase in the opposite direction. It is also notable that the Meramec full-time experience involves very similar nonreturn rates for all degree goals including Certificate.

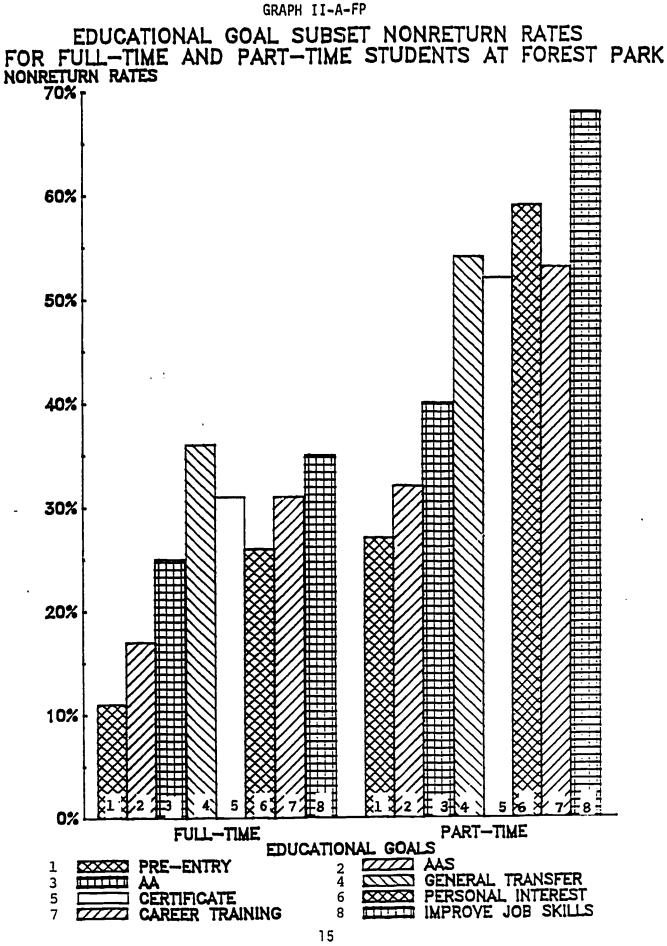
The part-time segment of the District graph shows a staircase with "dropped steps" for the Certificate and Career Training goals. That same general relationship is evident in the part-time segments of the Forest Park and Meramec graphs, except at Meramec the Pre-entry step is missing because there were no nonreturning part-time students with that goal. (There were a total of only nine Pre-entry students attending part-time at that campus.) The Florissant Valley graph displays basically the same general relationship without the dropped steps. In general, variations in campus experiences with respect to part-time nonreturns appear to be much less pronounced than the full-time counterparts.

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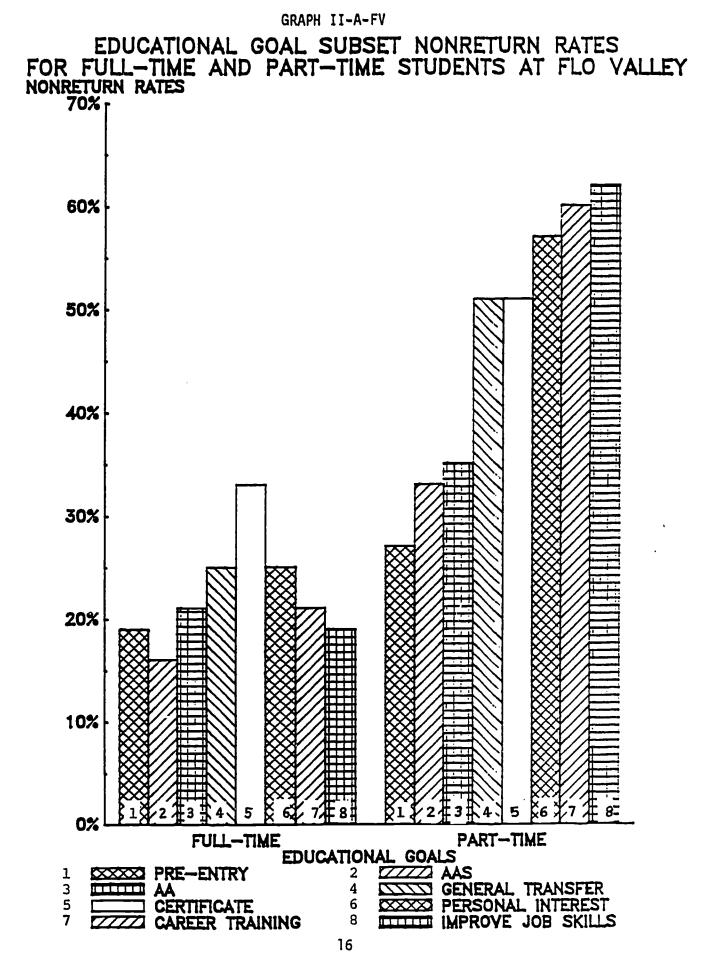


TABLE 11-A EDUCATIONAL GOAL SUBSET NONRETURN RATES FOR FULL-TIME AND PART-TIME STUDENTS DISTRICT AND INDIVIDUAL CAMPUSES

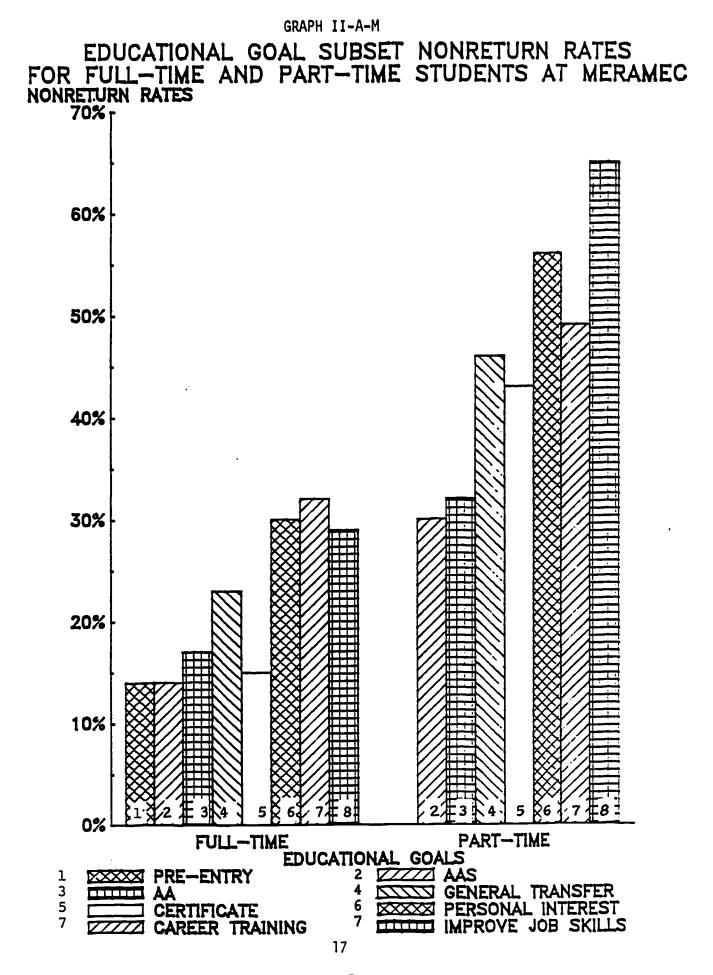
	I	FULL - TIME			PART-TIME			
	DISTRICT	FOREST Park	FLORISSANT Valley	MERAMEC	DISTRICT	FOREST Park	FLORISSANT Valley	MERAMEC
EDUCATIONAL GOAL								
PRE-ENTRY	13%	11%	19%	14%	26%	27%	27%	0%
AAS	16%	17%	16%	14%	32%	32%	33%	30%
AA	20%	25%	21%	17%	35%	40%	35%	32%
GENERAL TRANSFER	24%	36%	25 %	23%	49%	54%	51%	46%
CERTIFICATE	25%	31%	33%	15%	48%	52%	51%	43%
PERSONAL INTEREST	27%	26%	25%	30%	57%	59%	57%	56%
CAREER TRAINING	28%	31%	21%	32%	53%	53%	60%	49%
IMPROVE JOB SKILLS	29%	35%	19%	29%	65%	68%	62%	65%
UNKNOWN	23%	20%	14%	25%	44%	43%	42%	47%
TOTAL	21%	22%	20%	20%	45 %	47%	44%	46%
CURRICULA								
COLLEGE TRANSFER	22%	28%	23%	21%	42%	46%	42%	40%
OCCUPATIONAL	18%	19%	18%	18%	45%	46%	44%	46%
DEGREE STATUS								
DEGREE TRACK	18%	20%	19%	16%	34%	36%	35%	32%
ERIC GREE INTENT 2	2 25%	34%	24%	24%	57 %	60%	57 % 2	^З 54%



ERIC Full Text Provided by ERIC









More precisely quantified examination of variation is facilitated by indexing the information in Table II-A to reflect relative rather than absolute values. An inter-goal relationship index for each campus like that calculated for the District (i.e. indexing each subset nonreturn rate to the corresponding AAS rate on the same campus) would quantify the relationships illustrated in the individual graphs, but a "campus to District" index is even more informative. Dividing each subset nonreturn rate at each campus by the nonreturn rate for the corresponding District subset yields the following index series.

Index = Indicated Goal Nonreturn Rate on Campus/ Same Goal Nonreturn Rate for District

	Full-time				Part-time			
	Dist	FP	F۷	MC	Dist	FP	F۷	MC
Pre-entry	1.0	8.0	1.5	1.1	1.0	1.0	1.0	0.0
AAS	1.0	1.1	1.0	0.9	1.0	1.0	1.0	0.9
AA	1.0	1.3	1.1	0.9	1.0	1.1	1.0	0.9
General Transfer	1.0	1.5	1.0	1.0	1.0	1.1	1.1	0.9
Certificate	1.0	1.2	1.3	0.6	1.0	1.1	1.1	0.9
Personal Interest	1.0	1.0	0.9	1.1	1.0	1.0	1.0	1.0
Career Training	1.0	1.1	0.8	1.1	1.0	1.0	1.1	0.9
Improve Job Skills	1.0	1.2	0.7	1.0	1.0	1.0	1.0	1.0

Comparison of Forest Park's nonreturn rates in Table II-A with those for the District reveals that the campus rates for full-time students exceed the District rates in 6 of the 8 goal subsets, and that the rates for part-time students are equal to or greater than the District rates for all 8 subsets. While this suggests that Forest Park may b. affected by factors (exogenous and/or endogenous) which tend to make nonreturns higher in general, the index numbers presented above provide greater evidence of subset-specific influences. The FP (Forest Park) Full-time column shows that some subsets have notably higher index values than others, while the Part-time column reveals that in the case of all but three goals the differences between part-time rates for the campus and District are proportionately so small that the index values (rounded to the nearest tenth) are 1.0.

Although the three high index values among part-time students are still fairly low, 1.1, there is pattern of consistency in that those goals, AA, General Transfer, and Certificate, have the three highest index values among full-time students where the deviations from the District experience are larger. As might be expected from its prominence in the Forest Park graph, General Transfer has the largest index value for full-time students at this campus, indicating a nonreturn rate one and one-half times that of the District. The Certificate deviation from District experience, also obvious in the graph, is not, however, the second largest deviation as evidenced by the slightly larger index value for the AA goal. The Improve Job Skills goal also has a full-time student index equal to that of the District experience with respect to part-time students.



The index values for Florissant Valley show only one instance in which the campus nonreturn rates are consistently above or below the District rates. Certificate is the only goal with index values that exceed 1.0 for both full-time and part-time students. None are consistently below 1.0. Although Personal Interest, Career Training, and Improve Job Skills have full-time values less than 1.0 for full-time students that experience was not duplicated among part-time students. Similarly, the index for part-time Pre-entry students fails to reflect the higher nonreturns indicated by the high index for full-time students with that goal.

With the notable exception of the index value of 0.6 for the Certificate goal, all of the index values for Meramec fall within a range of 0.9 to 1.1. Along with the Certificate goal, the AAS and AA goals have values of less than 1.0 for both full-time and part-time students. None of the goals have index values above 1.0 for both status classifications.

As can be seen in the graphs, none of the campus variations from the District experience result in a full-time nonreturn rate which is as high as the part-time rate for the same goal, except the Meramec Pre-entry experience where the number of students involved is extremely small. They do give rise to larger variation in campus part-time to full-time ratios than that experienced by the District as a whole. With the noted exception, however, all parttime rates are a minimum of approximately one and a half (1.4) times their full-time counterpart. The full list of part-time to full-time index values is as follows:

Index = Part-time Subset Nonreturn Rate/ Full-time Subset Nonreturn Rate

	District	Forest Park	Flo Valley	Meramec
Pre-entry	2.0	2.5	1.4	0.0
AAS	2.0	1.9	2.0	2.1
AA	1.7	1.6	1.7	1.9
General Transfer	2.0	1.5	2.0	2.0
Certificate	1.9	1.7	1.6	2.8
Personal Interest	2.1	2.3	2.3	1.9
Career Training	1.9	1.7	2.9	1.5
Improve Job Skills	2.2	1 .9	3.2	2.2

Half of the twenty-four campus index values fall within the District range of 1.7 to 2.2. One fourth are in the lower range of 1.4 to 1.6, and one-fourth are in a higher range of 2.3 to 3.2.

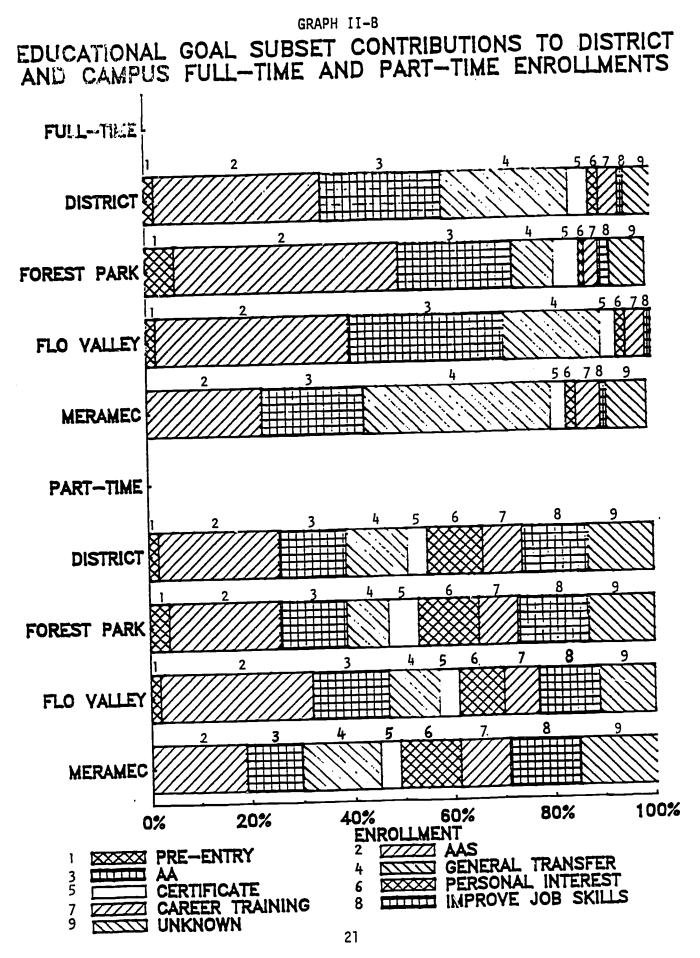
B. Subset Contributions to Full-time and Part-time Enrollments

The percentages of full-time and part-time enrollment at each campus accounted for by each goal subset are presented in Table II-B and portrayed graphically in Graph II-B. The District percentages are repeated in both presentations for easy comparison.



TABLE 11-B SUBSET ENROLLMENT AS PERCENTAGES OF Total full-time and part-time enrollments District and individual campuses

	FULL-TIME				PART-TIME			
	DISTRICT	FOREST Park	FLORISSANT Valley	MERAMEC	DISTRICT	FOREST Park	FLORISSANT Valley	MERAMEC
EDUCATIONAL GOAL								
PRE-ENTRY	2%	6%	2%	0%	2%	4%	2%	0%
AAS	33%	44%	38%	23%	24%	22%	30%	19%
AA	24%	23%	31%	20%	13%	13%	15%	11%
GENERAL TRANSFER	25%	8%	19%	37%	2%	8%	10%	15%
CERTIFICATE	4%	5%	3%	3%	4%	6%	4%	4%
PERSONAL INTEREST	2%	1%	2%	2%	11%	12%	9%	12%
CAREER TRAINING	4%	3%	4%	5%	8%	8%	7%	10%
IMPROVE JOB SKILLS	1%	2%	1%	1%	13%	14%	12%	14%
UNKNOWN	6%	7%	1%	8%	13%	13%	11%	16%
TOTAL	100%	106%	100%	100%	100%	100%	100%	100%
CURRICULA								
COLLEGE TRANSFER	49%	31%	49%	57%	25%	21%	25%	27%
OCCUPATIONAL	44%	61%	48%	33%	51%	54%	55%	46%
DEGREE STATUS								
DEGREE TRACK	62%	78%	73%	47%	43%	45%	51%	34%
NO DEGREE INTENT 29	32%	16%	26%	44%	44%	42%	38% 31	0 51%



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AAS, AA, and General Transfer, the three goals which account for 82% of District's full-time enrollment, are also dominant on each of the individual campuses, accounting for 75%, 88%, and 80% of the full-time enrollment at Forest Park, Florissant Valley and Meramec, respectively. There are, however, notable differences between campuses in the individual importance of these dominant goals. The greatest variation is in the General Transfer enrollment. Students with this goal are only 8% of Forest Park's full-time enrollment, while they comprise 37% of the full-time enrollment at Meramec, where General Transfer is the single most dominant goal. The second largest variation is with respect to the AAS goal. Here too, Forest Park and Meramec are at the opposite ends of the range. The dominance of this goal at Forest Park is such that it accounts for close to half (44%) of the full-time enrollment on that campus, compared to 23% at Meramec. Florissant Valley, with General Transfer and AAS enrollment percentages that fall between those of Forest Park and Meramec, is the campus with the largest percentage of AA students, 31% compared to 23% at Forest Park and 20% at Meramec. However, like Forest Park, the dominant goal at Florissant Valley is the AAS degree sought by 38% of its full-time students.

The AAS goal is the most common goal of part-time students at all three campuses, accounting for almost one-third (30%) of the part-time enrollment at Florissant Valley, and roughly one-fifth (22% and 19%) of that enrollment at Forest Park and Meramec. The degree of dominance by this goal at Forest Park is obviously much less pronounced than is true for the full-time enrollment, while the part-time enrollment percentages at the other two campuses are much closer to their full-time counterparts. The percentages of part-time students pursuing AA degrees are, by contrast, roughly half the full-time percentages at all three campuses. General Transfer students are also smaller proportions of part-time students at Florissant Valley and Meramec, but an equal percentage of part-time and full-time enrollment at Forest Park where the percentage is relatively low (only a little over one-half the Meramec part-time enrollment percentage). Like the District as a whole, each individual campus has much larger percentages of part-time students with the Improve Job Skills, Personal Interest, and Career Training than is true for their full-time enrollment. The relative contributions of these goals to part-time enrollment are also fairly similar at all three campuses.

C. Subset Impacts on Aggregate Full-time and Part-time Nonreturn Rates

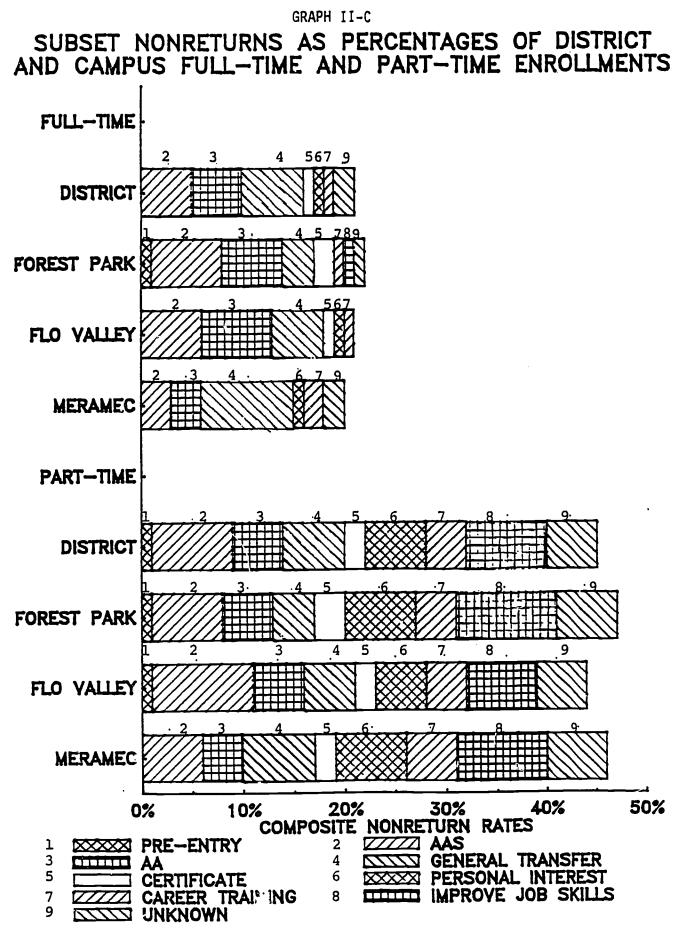
Table II-C presents the nonreturns in each subset as percentages of total full-time and part-time enrollments at each campus, along with the corresponding District percentages. This information is reproduced graphically in Graph II-C. As can be seen in those presentations, the status aggregates at all three campuses are fairly similar to those for the District as a whole, but there are notable differences in the composition of the campus rates.



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TABLE 11-C SUBSET NONRETURNS AS PERCENTAGES OF TOTAL FULL-TIME AND PART-TIME ENROLLMENTS DISTRICT AND INDIVIDUAL CAMPUSES

	FULL-TIME				PART-TIME			
	DISTRICT	FOREST Park	FLORISSANI Valley	Meramec	DISTRICT	FOREST Park	FLORISSANT Valley	MERAMEC
EDUCATIONAL GOAL								
PRE-ENTRY	0%	1%	0%	0%	* 9,	1%	1%	0%
AAS	5%	7%	6%	3%	8%	7%	10%	6%
AA	5%	6%	7%	3%	5%	5%	5%	4%
GENERAL TRANSFER	6%	3%	5%	9%	6%	4%	5%	7%
CERTIFICATE	1%	2%	1%	0%	2%	3%	2%	2%
PERSONAL INTEREST	1%	0%	1%	1%	6%	7%	5%	7%
CAREER TRAINING	1%	1%	1%	2%	4%	4%	4%	5%
IMPROVE JOB SKILLS	0%	1%	0%	0%	8%	10%	7%	9%
UNKNOWN	1%	1%	0%	2%	6%	6%	5%	8%
TOTAL	21%	22%	20%	20%	45%	47%	44%	46%
CURRICULA								
COLLEGE TRANSFER	11%	9%	11%	12%	11%	10%	11%	11%
OCCUPATIONAL	82	12%	9%	6%	23%	25 %	24%	21%
DEGREE STATUS								
DEGREE TRACK 33	11%	16%	14%	8%	15%	16%	18%	11%
ERICEE INTENT	8%	5%	6%	11%	25%	25%	22% 3	4 28%





The three goals which dominate full-time enrollment are also the dominant influences on the aggregate full-time nonreturn rate for each campus. The relative impacts of the three goals are, however, considerably different from their relative contributions to enrollment at two of the three campuses. Due to a higher subset nonreturn rate, nonreturning AA students comprise almost as high a percentage of full-time students at Forest Park as do nonreturning AAS students, even though approximately twice as many students on that campus have an AAS goal. The still higher subset nonreturn rate for General Transfer students, which are less than a fifth as prevalent as AAS students at Forest Park, results in nonreturns with this goal which are almost half the number of nonreturning AAS students. At Florissant Valley (where neither the enrollment percentages, nor the subset nonreturn rates vary as much as those at Forest Park) the higher subset rates for AA and General Transfer students result in nonreturning students with each of the three major goals comprising roughly equal percentages of that campus's full-time student body Meramec's experience differs from the other two campuses in that the dominant goal on that campus is General Transfer which also has the highest subset nonreturn rate of the three major goals. As a result, that goal also has the dominant impact on the campus's aggregate nonreturn rate for full-time students.

The general pattern for the District as a whole with respect to part-time nonreturning students is roughly duplicated on each of the campuses. In all three cases, the nonreturning AAS, AA, and General Transfer students constitute percentages of part-time enrollment which approximate or exceed the corresponding full-time percentages. In each case, they are also accompanied by much larger numbers of nonreturning students from the other goal categories than is true for full-time enrollment. The resulting aggregate part-time nonreturn rates for all three campuses are close to the District rate, and a little more than twice their respective full-time aggregate rates. The variations in the intra-campus specifics of this general pattern can be seen in the graph. Unlike their full-time counterparts, these variations between campuses, are largely a reflection of the composition of their enrollments, since subset nonreturn rates are relatively similar for part-time students on all three campuses.



IMPLICATIONS

Data reported in the Nonreturning Student Profile describes: (1) some substantial differences in nonreturn rates for students with different educational goals, and; (2) a nonreturn rate for part-time students which is more than twice the rate for full-time students. These "findings" are consistent with reasonable a priori hypotheses regarding community college students, but are somewhat tentative in that the descriptive report does not isolate the individual impact of each of these variables. The apparent differences between goals in the descriptive presentation are subject to bias from the mix of fulltime and part-time students in each goal category. Likewise, the apparent differences between full-time and part-time students are subject to bias from the mix of educational goals within the status categories. In the extreme, high correlations between goal and status categories could produce the results described in the Profile even if only one of these variables actually impacted nonreturn rates. The more analytical approach of this report controls for those cross influences. The results support the general hypotheses suggested by both the descriptive data and a priori reasoning, and at the same time correct and refine the quantification of the hypothesized relationships.

One of the major implications of these results is that failure to disaggregate nonreturn statistics could lead to very misleading impressions of Community College student retention and outcomes. During the two years that the Institutional Research Office has monitored the percentage of Fall students not returning for Spring semester, the aggregate nonreturn rate her been approximately 40%. This study shows that percentage to be the net outcome of very diverse subset nonreturn behavior, and a relatively poor approx $t \in \mathcal{M}$ of nonreturn rates in most of the individual subsets.

The aggregate rate appears to be an especially inappropriate percentage for comparisons with four-year institutions serving primarily full-time, degree-seeking students. The Community College student subsets most analogous to students at those institutions demonstrate nonreturn rates which are much lower than the aggregate, and which probably compare favorably with those of Freshmen and Sophomores at four-year institutions.

The relatively low nonreturn rates for the degree goal subsets are also probably a more accurate representation of goal non-achievement in general than is the aggregate rate. Since goal achievement in the non-degree areas is not accompanied by any formal documentation of that achievement, the associated nonreturn statistics necessarily include positive, as well as negative, outcomes. Aggregate statistics are thus also overstatements of the actual percentages of students leaving without obtaining their educational goals. Other sources of overstatement, such as temporary "stop-outs" who will return to complete their goal, are present in non-degree and degree goal subsets alike. Nevertheless, the data for the degree subsets provide the purest measure of goal non-achievement levels available from existing student data files.



Since the higher nonreturn rates are found primarily in the non-degree goal subsets, much of the variation between goals is undoubtedly attributable to goal achievement in those areas. The differences between the nonreturn rates for degree and non-degree goals may, therefore, provide rough approximations of per semester goal completion rates in the non-degree subsets.

Any conclusions based on the use of degree goal data as an indicator of general goal non-achievement, or differences between degree and non-degree subset nonreturn rates as estimates of positive non-degree outcomes must, of course, be considered very tentative. These approximations, in effect, assume away other potentially important differences. This limitation must obviously be kept in mind, but to the extent that decisions are made on the bases of existing data, the bias from this assumption will be less distorting than the often implicit assumption that most non-graduate attrition reflects negative outcomes and retention problems.

While the study suggest that nonreturns in general are less of a negative factor than might be implied by aggregate examinations, it also helps identify areas of potential concern and possible improvement. In the degree goal subsets, the Certificate goal stands out as one such area at two of the three campuses (Forest Park and Florissant Valley). Although AA student nonreturn rates are fairly low, they are also consistently higher than the AAS rates (all campuses for both part-time and full-time students). Therefore, a closer look at AA programs and student needs might show that AA retention could be even better. The comparative data suggests that Forest Park, in particular, may have room for improvement with respect to AA student retention.

The mixture of positive and negative outcomes inherent in the existing nonreturn data severely limits the study's ability to identify potential areas of concern in the non-degree goal areas. Several factors do suggest, however, that General Transfer may be another area where retention at Forest Park might be improved. The size of Forest Park's nonreturn rates for this goal relative to rates for the same goal at other campuses and other goals at the same campus, plus the fact that Forest Park has a relatively low enrollment with respect to this goal would seem to "flag" General Transfer for closer examination.

The greatest immediate increases in aggregate retention will, of course, result from reductions in the (actual negative) nonreturn rates in the goal areas which account for the largest percentages of total enrollment. The study reveals that, for the most part, these are the goal areas which already have relatively low nonreturn rates. Possible further reductions in those rates may, therefore, be somewhat limited. Accordingly, sizable reductions in aggregate nonreturns may not be possible in the short-run, since improved retention in the high nonreturn/low enrollment goal areas will have a fairly small immediate impact on aggregate numbers. If, however, there are actual retention problems in these areas, correction of those problems could have more significant long-run impacts. In addition to the accumulative additions to enrollment from increased retention, the remedies which improve retention may also help increase the College's market share of new students pursuing those goals.





Regardless of the goal category, the study clearly indicates that enrollment would be greatly that encoded if part-time nonreturn rates could be reduced to the size of their full-time counterparts. There are, of course, a number of reasons to believe that higher nonreturns for part-time student are inherent in the part-time status. In the case of non-degree goals, many students may be attending part-time because their goal only requires a course or two. As a result, there may be substantially larger proportions of goal achievement reflected in the part-time nonreturn statistics. In general, jobs and other time commitments which limit students to part-time enrollment may also prevent them from returning for consecutive semesters. In many cases, the resulting nonreturn may be a "stop-out" rather than a final outcome, in others, the nonschool commitments may lead to permanent withdrawal. These factors make it unlikely that part-time nonreturn rates can be reduced to full-time levels. However, given the size of the difference between full-time and part-time rates, there may be some nonreturns which could be eliminated. The possibility of improving retention in a group that comprises roughly three-fourth of the total student headcount certainly merits closer examination.

The findings also have some planning implications. To the extent that variation in subset nonreturn rates are not due to correctable retention problems, those variations are a factor to be considered in enrollment projections as the College experiences shifts in student goals and status. For instance, as the College serves larger percentages of part-time students, and expands non-degree occupational training, projections must allow for larger numbers of nonreturning non-graduates. A related implication is the need for the development of predictive techniques and models that incorporate goal and status information.

Other research implications are found in both the merits and limitations of the study. An even better understanding of nonreturns clearly requires further analysis within each of the study's subsets. The positive outcome components of the nonreturn statistics for non-degree subsets need to be identified, as do the temporary "stop-out" components for all subsets. The reasons underlying negative outcomes in all subsets need to be determined and analyzed with respect to the College's ability to affect a remedy. This further disaggregation obviously requires information beyond that available in student data files. Accordingly, survey research addressing these questions is currently in progress, and the findings will be the subject of a future report. Even those findings will, however, be subject to one of the limitations of those reported here. In some respects, this analysis is attempting to understand a "motion picture" by looking at a "snapshot". For that reason, the Institutional Research Office is also planning a project which will follow the enrollment patterns, and goal achievement of new Fall 1986 students over time.

The broadest implication of the study is that explicit consideration of the diverse student body is vital to any internal or external assessment of the Community College. This less than revolutionary implication is, of course, an ongoing contention of community college administrators as they address individuals who tend to view all higher education from a perspective most appropriate for traditional four-year academic degree-awarding institutions. However, in the absence of quantitative information, that contention is not always fully accepted. The somewhat more specific implication of this study is that



meaningful quantification of that diversity can and should be done in terms of student goals and full-time/part-time status. While this study only directly examines nonreturn rates and enrollment, the additional insights that result from merely subsetting existing student data by student goal/status suggests that other more involved assessments of community colleges and their students will also be more productive if conducted in the context of these subsets. If data for relevant subsets is readily available, there should be less necessity for external evaluators to make judgments on the basis of "apples and oranges" comparisons. Equally important, internal assessments can be more definitive. Areas of concern can be more clearly delineated, and measures for improvement can be more accurately focused.

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