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ABSTRACT

A study was conducted at Golden West College (GWC) in California to analyze the relationship between first-time students' participation in the college's assessment and orientation programs and their fall-to-spring persistence at the college. The study sample consisted of fall 1991 students who had declared either transfer, degree, or certificate as their educational goal (N=2,670). Primary comparisons were made between students who participated in neither assessment nor orientation (N=734), students who participated in one of these matriculation components (N=671), and students who participated in both of them (N=1,265). The major findings were that participation in either assessment or orientation was found to be consistently associated with higher persistence rates than was participation in neither component and that participation in both components was related to greater persistence than participation in only one component. These trends held across the range of units enrolled, for both genders, as well as for all ethnic and primary language categories; hence, persistence was apparently independent of these factors. Twenty-nine data tables/graphs are appended, making up more than half the report. (MAB)

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From Fall 1991 to Spring 1992
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GOLDEN WEST COLLEGE
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JC 930212

**Participation in Assessment and Orientation and Persistence From
Fall 1991 to Spring 1992 at Golden West College**

Steven Isonio, Ph.D.

ABSTRACT

Participation in the assessment and orientation matriculation components and its relationship to persistence by Fall 1991 first time college students who had declared either transfer, degree, or certificate as their educational goal was analyzed. Persistence rate in this case is defined as the proportion of such students who have an enrollment record in Spring 1992. Primary comparisons were between groups of students who participated in neither assessment nor orientation, one of these matriculation components, or both of them. The major finding was that participation in either assessment or orientation was found to be consistently associated with higher persistence rates than was participation in neither component and that participation in both components was related to greater persistence than participation in only one component. These trends held across the range of units enrolled, as well as for all ethnic and primary language categories, and sex of student. The trend for greater persistence with matriculation participation, therefore, is not attributable to differences in the number of prior units earned (cohort consisted of only new students) or educational goal (transfer, degree, or certificate in all cases). Further, since this trend was found for all ethnic categories, both sexes, and both native and non-native English speakers, as well as across the range of units enrolled, it is apparently independent of these factors. These initial findings at Golden West College can be placed within a broader context of a growing evidence base statewide that matriculation is positively related to student success. Finally, the study should be extended by incorporating other outcomes, such as number of units completed, grade point average, within term retention, performance in targeted courses, and longer term persistence.

**Participation in Assessment and Orientation
and Persistence From Fall 1991 and Spring 1992
at Golden West College**

Steven Isonio, Ph.D.

Background

In accordance with legislative mandates, California Community Colleges are required to develop and implement comprehensive matriculation programs to facilitate student success. Matriculation program components include admissions/registration, assessment/placement, orientation/advisement, follow-up/early alert, and research/evaluation. Like most community colleges in the state, Golden West College has progressed significantly in the implementation of these components, having formalized and/or strengthened existing efforts, or developed new ones. Given this progress in development and implementation, the need for formal evaluation based upon appropriate objective outcomes now exists.

This report documents relationships between participation in two specific matriculation components -- assessment and orientation -- and persistence into a second semester of instruction by new, degree seeking, transfer, or certificate students. It is the first of what will necessarily be a series of reports evaluating the matriculation program at Golden West College. The primary approach in these evaluations will involve an examination of the association between participation in specific matriculation components and a variety of relevant outcomes. This approach will be supplemented by other methods,

including questionnaires of both students and college personnel as well as an examination of institutional level data. Ultimately, a local model of persistence should be developed (Voorhees, 1987). Such a model would reflect the unique characteristics of Golden West College students and reflect the role of an assortment of predictor variables in determining persistence.

It should be stated at the outset that analyses of such associations cannot logically imply causal links. This is an inherent characteristic of this program evaluation design. Nevertheless, while clear statements about the direct causal effects of specific matriculation components cannot be made, the plausibility of such links can be assessed through the systematic evaluation of alternative explanations of the observed relationships and the use of a variety of outcomes. To the extent that there is a convergence between results of these various methods, the argument about treatment effectiveness is strengthened. The analyses reported below constitute the first step in that direction.

Method

All analyses are based on the cohort of students who have records in the Fall 1991 Coast Community College District student database and who were both (1) first-time college students that term and (2) specified an educational goal of a degree, a certificate, or transfer. More specifically, the CCCD student

basic file for Fall 1991 (SB912) was used to identify first time college students (SB15, Student Enrollment Status code 1--"First Time Student") who had a goal of a degree, transfer, or certificate (SB14, Student Educational Goal codes A--"BA w/ AA", B--"BA w/o AA", C--"AA w/o Transfer", D--"2-Year Vocational Degree w/o Transfer", and E--"2-Year Vocational Certificate w/o Transfer"). The cohort was defined in this manner to facilitate comparisons between groups by creating an overall sample that is homogeneous on these important dimensions. (For example, comparisons of persistence rates, to be valid, should be between groups who are at the same point in their educational career.)

Identification numbers for students meeting the above criteria were extracted from the SB912 file and held for matching with the Student Matriculation file (SM912). The Student Matriculation (SM) files contain information that includes the determined need for, and participation in, a range of matriculation activities. Examination of SM912 indicated that in the Fall 1991 file, data for two variables, participation in assessment (SM08, Student Matriculation Assessment Services) and orientation (SM07, Student Matriculation Orientation Services) appeared relatively complete and accurate. Analyses were limited to assessment and orientation because the review indicated that data related to participation in other components was either incomplete or unreliable. Thus, matching the SM912 file to SB912 sub-file containing the target cohort made possible the determination of participation in assessment and/or orientation

for each individual student in the sample. This classification scheme resulted in a "matriculation participation" variable with four mutually exclusive and exhaustive groups to be used for subsequent comparisons.

Only those students with a record of at least one unit attempted in Fall 1991 were included in persistence rate calculations. Further, since they would be especially unreliable and possibly misleading, persistence rates were not calculated if the base (number of students in Fall 1991) was less than ten. Indeed, a degree of caution is appropriate in generalizing about any of the results derived from small samples.

Analyses were conducted on the overall matriculation participation dimension as well as on this dimension further divided by student ethnicity, sex, primary language group, and unit load. Participation rates for these subgroups are presented below, before the persistence rate findings.

Results

Overall Participation in Assessment and Orientation, Fall 1991.

As Table 1 shows, a total of 2,670 students met the selection criteria (new student with a stated educational goal of a degree, transfer, or certificate in Fall 1991). Of these 2,670 students, 1,265 (47.4%) were both assessed and oriented, while 734 (27.5%) did not participate in either assessment or orientation. Of the remaining students, 441 (16.5%) participated in assessment only, and 230 (8.6%) participated in orientation

only. This implies that 1,706 (63.9%) were assessed and 1,495 (56.0%) attended an orientation session. This information is also depicted in Figure 1. (All Tables and Figures appear in the Appendix.)

Participation by Units Enrolled. Table 2a presents data on matriculation participation in Fall 1991 by units taken that term. As can be seen, there is a trend for a greater proportion of full-time students than part-time students to have participated in at least one of the matriculation activities. As an example, about two-thirds of students enrolled in at least 6 units participated in both assessment and orientation compared to less than half of the students enrolled in fewer than six units. These findings are depicted graphically in Figure 2.

Participation by Ethnicity. As shown in Table 2b, just over half (53.5%) of the students in the overall cohort are White. Asian and Hispanic students comprise 24.5% and 11.9%, respectively. All other racial/ethnic categories together represent less than 10% of the cohort. A total of 62.9% of Hispanic students and 54.8% of the Asian students in the cohort were assessed; this rate was 38.9% for Black students. The percentage of students who participated in assessment only was markedly higher than the rate for orientation only, in the cases of Asian, Black and Hispanic students, whereas these rates were approximately equal for White students. This information is presented graphically in Figure 3.

Participation by Sex. Table 2c shows matriculation participation rates broken down by sex of the student. As can be seen, participation rates in assessment and orientation do not differ markedly between females and males (48.9% of females and 46.2% of the males participated in both components; just over one-fourth of each group participated in neither component). A graphical representation of these data appears in Figure 4.

Participation Rates by Primary Language Group. Table 2d presents matriculation participation information by primary language category. About one-third of the cohort indicated that their primary language is one other than English. About half of each of the primary language groups participated in both assessment and orientation. A total of 78.7% of students for whom English is a second language were assessed, compared to 59.6% of students who are native speakers of English. Figure 5 depicts this information graphically.

Persistence From Fall 1991 to Spring 1992.

As noted above, only students with a record of at least one unit attempted in Fall 1991 were included in persistence rate analyses which follow. It was reasoned that since persistence implies a minimal continuation of goal-oriented behavior (in this case enrollment) students who have no record of units attempted in the first semester can not in any way be construed as "persisting" into the next semester. Also, the group distinction "matriculation category" refers to the four groups defined by

participation in assessment and/or orientation, or neither component.

Overall Persistence Rates by Matriculation Category. A total of 1,939 students met the additional criterion of enrollment in at least one unit in Fall 1991. Of these students, 1,391 had enrollment records in the Spring 1992 student basic (SB913) file, for an overall persistence rate of 71.7%. Table 3 depicts persistence rates into the Spring 1992 semester separated by matriculation category. As can be seen, while only about a third (33.8%) of students who had not participated in either assessment or orientation persisted from Fall 1991 to Spring 1992, nearly three-fourths of those who had participated in one of the components persisted (rates of 71.4% for assessment only and 73.3% for orientation only). Students who participated in both components had a persistence rate of 84.0%. This information is also presented in Figure 6.

Persistence Rates by Matriculation Category and Unit Load. The role of unit load in the relationship between matriculation category and persistence rate was examined by further separating the cohort into three unit load categories: enrollment in either 1 to 5.9 units, 6 to 11.9 units, or 12 or more units. As Table 4 shows, the association between matriculation category and persistence rate holds for each of these three unit load groupings. Specifically, regardless of unit load, participation in one of the two components is consistently associated with a higher persistence rate than participation in neither component.

Further, persistence in both components is consistently associated with higher persistence rates than participation in only one of them. Thus, although there is indeed a positive relationship between unit load and persistence, the matriculation category effect appears robust across unit load groupings. This information is also depicted in Figure 7.

Persistence Rates by Matriculation Category and Ethnicity.

As depicted in Table 5, across all ethnic categories, somewhat higher persistence rates from Fall 1991 to Spring 1992 are associated with participation in both assessment and orientation than with participation in neither component. As noted earlier, rates are not calculated in cases where the base is lower than 10, therefore between-category comparisons are not possible for Black students. The conclusion that the effect is clear across ethnic groups is certainly supported. These data are depicted graphically in Figure 8.

Tables 5a and 5b show persistence data for students enrolling in fewer than 6 units, and between 6 and 11.9 units, respectively. For the low-unit enrollees, higher persistence rates are associated with participation in both Assessment and Orientation than with participation in neither component for Asian, Hispanic, White, and "Other" students. Data are too few to yield a reliable conclusion regarding Black students. In the case of the part-time students taking at least 6 units, White students who participated in either Assessment or Orientation, persistence rates ranged from 80.3% to 85.4%; this rate was only

55.2% for White students who participated in neither component. Data are too few to yield reliable conclusions regarding students in other ethnic/racial categories.

Table 5c presents information on persistence rates for full-time students by matriculation participation category and ethnicity. Across all ethnic categories, persistence rates were somewhat high, ranging from 92.9% to 97.8% for full-time students who participated in both Assessment and Orientation. Again, the association between matriculation component participation and greater persistence is clear.

Persistence Rates by Matriculation Category and Sex. For both males and females, there is clearly a greater persistence rate associated with participation in more matriculation components. The rates range from a low of 31.5% and 36.9% (neither component) to a high of 84.1% and 83.8% (both matriculation components), respectively. Figure 9 presents these data graphically.

The association between participation in assessment/orientation activities and higher persistence rates also hold for both male and female students at each of the three unit load categories described above. Tables 6a through 6c depict these relationships. For male and female students taking fewer than six units in the Fall of 1991, participation in assessment and orientation is associated with persistence rates of over 70%, compared with rates of only 14.0% and 32.3%, respectively, for non-matriculants. The advantage for persons enrolled in 6 to

11.9 students is about a 30% greater persistence rate for male students and nearly 40% greater for females. Finally, full-time students of both sexes who were both assessed and oriented persisted at a rate in the mid-90%, compared to rates of 65.4% and 80.0% for males and females, respectively, who had not participated in assessment or orientation.

Persistence Rates by Matriculation Category and Primary Language Category. Students for whom English is a second language have a particularly high persistence rate (91.9%) if they have participated in both matriculation components. Native English speakers in this unit-load category persist at a rate of 81.9%. A graphical representation of this information is presented in Figure 10.

Overall, as shown in Table 7a, students who enrolled in fewer than 6 units and whose primary language is not English have a somewhat higher persistence rate than do their native English-speaking counterparts (rates of 76.8% and 42.9%, respectively). For both primary language categories, participation in assessment and orientation is associated with higher persistence rates than is non-participation. Students in the unit-load range from 6 to 11.9 whose primary language is not English also have a higher persistence rate than do native English-speaking students (rates of 94.5% and 78.0%, respectively), as shown in Table 7b.

Finally, as Table 7c reveals, persistence rates from Fall 1991 to Spring 1992, by matriculation participation category and primary language for full-time students again indicates higher

persistence for assessment and orientation participants relative to non-participants.

Discussion.

The primary finding of this study is the existence of a strong, positive association between matriculation category and persistence -- one that holds across the full range of units enrolled -- and is consistent across student background and demographic categories such as ethnicity, sex, and primary language. Moreover, any possible effects attributable to educational goal or differences in the number of prior units earned are inherently controlled for by the criteria used to define the sample. The extent to which this effect exists with other educational outcomes must be examined. If comparable associations are found between participation in assessment and orientation and other indicators such as the number of units completed, grade point average, within-term retention, performance in targeted courses, and longer term persistence, then evidence for the effectiveness of these components will have been significantly strengthened.

The results described above and depicted in the Tables and Figures clearly only represent associations. The interpretation of these associations is difficult. As noted above, because of the nature of the design where students essentially determine their matriculation category membership by self-selecting components, conclusions about the causal effects of participation

in assessment or orientation are not possible. A "true-experiment" is of course neither ethical nor possible. However, this fact does not imply that the matriculation components have no causal effects on the persistence rate. In short, it is impossible for the design to yield definitive conclusions about cause and effect relationships.

Although the design is not capable of definitively demonstrating causal relationships, the overall analyses gain strength by examining evidence about the plausibility of competing hypotheses (other explanations for the empirically demonstrated associations). The resulting design is similar to what Campbell and Stanley (1963) refer to as an "institutional cycle design". Random assignment to conditions is not possible. Addressing alternative explanations for the observed association therefore results, they say, in "an inelegant accumulation of precautionary checks, which lacks the intrinsic symmetry of the 'true' experimental designs, but nonetheless approaches experimentation (Campbell & Stanley, 1963, p. 57).

As an example, it might be asserted that the higher persistence rates for students participating in both assessment and orientation reflects a greater commitment that might be evidenced by enrollment in more units. Commitment has been shown to be an important predictor of community college student persistence (Okun, Ruehlman & Karoly, 1991). This assertion was tested by examining the relationship between matriculation participation category and persistence rate while controlling for

unit load. The relationship proved to be robust and was found for each unit load level, therefore the argument that it is merely an artifact resulting from differential unit load is refuted. This does not however, imply that the role of commitment is minimal--rather, it probably indicates that unit load is not an adequate/appropriate indicator of commitment.

It should be noted that the findings about the relationship between unit load and persistence into the second semester by members of this Golden West College cohort are rather consistent with results obtained at some other community colleges in the state. Typically, participation in at least one matriculation component beyond admission/registration results in significantly higher rates of persistence into the second term of instruction (e.g., Rudman, 1989; Friedlander, 1991). Thus, these initial matriculation evaluation findings at Golden West College can be placed within the broader context of a growing body of evidence that matriculation is positively related to student success.

Finally, while the relationships described in this report were found to be remarkably consistent and robust, they of course involved dichotomous participation or non-participation in the components. This approach does not lend itself to a consideration of differences due to variations in "treatment". That is, for example, a student is counted simply as an assessment participant whether s/he was administered a test for placement into English, math, or ESL courses and regardless of the outcome of the assessment or its actual effect on course

registration. Similarly, no distinctions are made between the context or focus of the orientation session or reflecting different orientation session leaders. There is a need for a more detailed evaluation that would incorporate some of these particular circumstances of assessment and orientation. Such an evaluation would be "cleaner", and would also serve a formative function in that it might identify the particularly potent elements of each matriculation component.

Recommendations

1. Continue to monitor participation in matriculation components by ethnicity, sex, and primary language. These data are important to the college-wide efforts to promote student equity and reflect efforts such as the offering of a number of orientation sessions in Vietnamese and Spanish as well as the translation of many brochures and forms into these languages.
2. Examine whole-year persistence rates for time periods of Fall 1991 to Fall 1992, and when data are available, for Fall 1992 to Fall 1993. Such longitudinal comparisons would serve to document the effects of full implementation of matriculation.
3. Replicate the design with other outcomes. If strong associations exist between participation in assessment and orientation and outcomes such as retention, persistence over a longer period of time, grades earned, and goal completion, then the case for the potency of these components is strengthened.
4. Continue to test possible alternative explanations for the observed relationship between participation in assessment and orientation and greater persistence. Motivational, affective, and an assortment of background variables could possibly be measured in a sample taken from the cohort.
5. Matriculation evaluations should become more formative in nature. By identifying particular elements of the various matriculation components that are especially effective, future development and planning can emphasize these elements resulting in an improved matriculation program.
6. There is a clear need to improve the process of accessing data for this type of analysis. The process is currently too cumbersome and fraught with limitations. Support for matriculation evaluation should better reflect its critical role as an equal component in the full matriculation program.

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Table 1

Participation in Assessment and Orientation, Fall 1991

Matriculation Category:	n	%
Neither Assessment nor Orientation	734	27.5%
Assessment Only	441	16.5%
Orientation Only	230	8.6%
Both Assessment and Orientation	1,265	47.4%
Total	2,670	100.0%

Note: Numbers reflect students meeting criteria for inclusion in the cohort being analyzed--first-time students appearing in the SB912 file, with a declared goal of transfer/degree/certificate.

Table 2a

Participation in Assessment and Orientation, By Units Enrolled,
Fall 1991

Matriculation Category	Units Enrolled, Fall 1991		
	1 to 5.9 n (%)	6 to 11.9 n (%)	12 or more n (%)
Neither Assessment nor Orientation	614 (43.0%)	88 (11.3%)	32 (6.9%)
Assessment Only	290 (20.3%)	88 (11.3%)	63 (13.6%)
Orientation Only	78 (5.5%)	80 (10.3%)	71 (15.3%)
Both Assessment and Orientation	447 (31.3%)	521 (67.1%)	298 (64.2%)
Total	1429	777	464

Table 2b

Participation in Assessment and Orientation, By Ethnicity, Fall 1991

Matriculation Category:	Ethnicity						Overall n %
	Asian n %	Black n %	Hispanic n %	White n %	"Other" n %		
Neither Assessment nor Orientation	110 16.8%	18 33.3%	102 32.1%	432 30.2%	72 33.6%	734 27.5%	
Assessment Only	173 26.4%	11 20.4%	52 16.4%	170 11.9%	34 15.9%	441 16.5%	
Orientation Only	13 2.0%	4 7.4%	19 6.0%	177 12.4%	17 7.9%	230 8.6%	
Both Assessment and Orientation	359 54.8%	21 38.9%	145 45.6%	650 45.5%	91 42.5%	1265 47.4%	
Column Totals: (number)	655	54	318	1429	214	2670	

Note: Cohort is Fall 1991 first time students with an educational goal of either transfer, degree or certificate.

Table 2c

Participation in Assessment and Orientation, By Sex of Student,
Fall 1991

Matriculation Category:	Sex	
	Female n %	Male n %
Neither Assessment nor Orientation	336 26.2%	393 28.5%
Assessment Only	206 17.0%	234 16.5%
Orientation Only	113 8.8%	114 8.3%
Both Assessment and Orientation	627 48.9%	637 46.2%
Column Totals: (number)	1282	1379

Table 2d

Participation in Orientation and Assessment, By Primary Language Category, Fall 1991

	Primary Language		
	English	Not English	Unknown
Matriculation Category:	n %	n %	n %
Neither Assessment nor Orientation	581 29.3%	120 20.0%	32 37.2%
Assessment Only	250 12.6%	162 27.0%	28 32.3%
Orientation Only	218 11.0%	8 1.3%	4 4.7%
Both Assessment and Orientation	932 47.0%	311 51.7%	22 25.6%
Column Totals (number)	1983	601	86

Table 3

Persistence Rates From Fall 1991 to Spring 1992, By Matriculation
Participation Category

Matriculation Category:	F91	Sp92	Persistence Rate
Neither Assessment nor Orientation	361	122	33.8%
Assessment Only	280	200	71.4%
Orientation Only	195	143	73.3%
Both Assessment and Orientation	1103	926	84.0%
Total:	1939	1391	71.7%

Note: The data in this Table, as with all persistence rate analyses in this report include only students who have a record of at least one unit attempted in the base (Fall 1991 cohort enrollment).

Table 4

Persistence Rates From Fall 1991 to Spring 1992, By Matriculation Participation Category and Number of Units Enrolled, Fall 1991

Matriculation Category:	Unit Load										
	1 to 5.9 Units				6 to 11.9 Units				12 or More Units		
	F91	SP92	P-Rate		F91	SP92	P-Rate		F91	SP92	P-Rate
Neither Assessment nor Orientation	241	56	23.2%		89	45	50.6%		31	21	67.7%
Assessment Only	130	79	60.8%		87	72	82.8%		63	49	77.8%
Orientation Only	43	17	39.5%		80	61	76.3%		72	65	90.3%
Both Assessment and Orientation	284	206	72.5%		521	439	84.3%		298	281	94.3%
Total:	698	358	51.3%		777	617	79.4%		464	416	89.7%

Table 5

Persistence Rates from Fall 1991 to Spring 1992, By Matriculation Participation Category and Ethnicity

Matriculation Category	Asian			Black			Hispanic			White		
	F91	S92	P-Rate	F91	S92	P-Rate	F91	S92	P-Rate	F91	S92	P-Rate
Neither Assessment nor Orientation	37	10	27.5%	7	4	---	42	9	21.4%	234	88	37.6%
Assessment Only	92	71	77.1%	4	2	---	27	18	66.7%	132	88	66.7%
Orientation Only	9	7	---	4	1	---	17	12	70.6%	151	117	77.5%
Both Assessment and Orientation	304	277	91.1%	16	13	81.3%	123	100	81.3%	576	469	81.4%
Total	442	365	82.6%	31	20	64.5%	209	139	81.3%	1093	762	69.7%

Table 5a

Persistence Rates from Fall 1991 to Spring 1992, By Matriculation Participation Category and Ethnicity
(Students Enrolled in 1 to 5.9 Units)

Matriculation Category	Asian			Black			Hispanic			White			Other		
	F91	S92	P-Rate	F91	S92	P-Rate	F91	S92	P-Rate	F91	S92	P-Rate	F91	S92	P-Rate
Neither Assessment nor Orientation	23	5	21.7%	4	1	---	32	4	12.5%	158	44	27.8%	24	2	8.3%
Assessment Only	53	39	73.6%	3	1	---	8	3	---	58	29	50.0%	8	7	---
Orientation Only	2	1	---	2	0	---	4	2	---	32	13	40.6%	3	1	---
Both Assessment and Orientation	124	106	85.5%	2	1	---	33	22	66.7%	104	65	62.5%	21	12	57.1%
Total	202	151	74.8%	11	3	27.3%	77	31	40.3%	352	151	42.9%	56	22	39.3%

Table 5b

Persistence Rates from Fall 1991 to Spring 1992, By Matriculation Participation Category and Ethnicity
(Students Enrolled in 6 through 11.9 Units)

Matriculation Category	Asian			Black			Hispanic			White			Other		
	F91	S92	P-Rate	F91	S92	P-Rate	F91	S92	P-Rate	F91	S92	P-Rate	F91	S92	P-Rate
Neither Assessment nor Orientation	8	2	---	3	2	---	7	2	---	58	32	55.2%	13	7	53.8%
Assessment Only	24	20	83.3%	0	0	---	12	9	75.0%	41	35	85.4%	10	8	80.0%
Orientation Only	4	3	---	1	0	---	6	3	---	64	53	82.8%	5	2	---
Both Assessment and Orientation	135	127	94.1%	9	7	---	61	50	82.0%	274	220	80.3%	42	35	83.3%
Total	171	152	88.9%	13	9	69.2%	86	64	74.4%	437	340	77.8%	70	52	74.3%

Table 5c

Persistence Rates from Fall 1991 to Spring 1992, By Matriculation Participation Category and Ethnicity
(Students Enrolled in 12 or More Units)

Matriculation Category	Asian			Black			Hispanic			White			Other		
	F91	S92	P-Rate	F91	S92	P-Rate	F91	S92	P-Rate	F91	S92	P-Rate	F91	S92	P-Rate
Neither Assessment nor Orientation	6	3	---	1	1	---	3	3	---	18	12	66.7%	3	2	---
Assessment Only	15	12	80.0%	1	1	---	7	6	---	33	24	72.7%	7	6	---
Orientation Only	3	3	---	1	1	---	7	7	---	55	51	92.7%	6	3	---
Both Assessment and Orientation	45	44	97.8%	5	5	---	29	28	96.6%	198	184	92.9%	21	20	95.2%
Total	69	62	89.9%	8	8	---	46	44	95.7%	304	271	89.1%	37	31	83.8%

Table 6

Persistence Rates From Fall 1991 to Spring 1992, By Matriculation
Participation Category and Sex of Student

Matriculation Category:	Male			Female		
	F91	SP92	P-Rate	F91	SP92	P-Rate
Neither Assessment nor Orientation	190	60	31.5%	168	62	36.9%
Assessment Only	142	96	67.6%	138	104	75.4%
Orientation Only	96	69	71.9%	97	73	75.3%
Both Assessment and Orientation	553	465	84.1%	549	460	83.8%
Total	981	690	70.3%	952	699	73.4%

Table 6a

Persistence Rates From Fall 1991 to Spring 1992, By Matriculation Participation Category and Sex (Students Enrolled in Fewer Than 6 Units)

Matriculation Category:	Male			Female		
	F91	SP92	P-Rate	F91	SP92	P-Rate
Neither Assessment nor Orientation	114	16	14.0%	124	40	32.3%
Assessment Only	57	30	52.6%	73	49	67.1%
Orientation Only	24	11	45.8%	19	6	31.6%
Both Assessment and Orientation	150	109	72.7%	134	97	72.4%
Total	345	166	48.1%	350	192	54.9%

Table 6b

Persistence Rates From Fall 1991 to Spring 1992, By Matriculation
Participation Category and Sex (Students Enrolled in 6 to 11.9
Units)

Matriculation Category:	Male			Female		
	F91	SP92	P-Rate	F91	SP92	P-Rate
Neither Assessment nor Orientation	50	27	54.0%	39	18	46.2%
Assessment Only	45	37	82.2%	42	35	83.3%
Orientation Only	40	29	72.5%	39	32	82.1%
Both Assessment and Orientation	257	218	84.8%	263	220	83.7%
Total	392	311	79.3%	383	305	79.6%

Table 6c

Persistence Rates From Fall 1991 to Spring 1992, By Matriculation
Participation Category and Sex (Students Enrolled in 12 or
More Units)

Matriculation Category:	Male			Female		
	F91	SP92	P-Rate	F91	SP92	P-Rate
Neither Assessment nor Orientation	26	17	65.4%	5	4	0.80%
Assessment Only	40	29	72.5%	23	20	87.0%
Orientation Only	32	29	90.6%	39	35	89.7%
Both Assessment and Orientation	146	138	94.5%	152	143	94.0%
Total	244	213	89.3%	219	202	92.3%

Table 7

Persistence Rate From Fall 1991 to Spring 1992, By Matriculation
Participation Category and Primary Language

Matriculation Category:	Primary Language					
	English			Not English		
	F91	S92	P-Rate	F91	S92	P-Rate
Neither Assessment nor Orientation	307	105	34.2%	35	14	40.0%
Assessment Only	184	128	69.6%	82	62	75.6%
Orientation Only	186	138	74.2%	6	3	---
Both Assessment and Orientation	824	675	81.9%	260	239	91.9%
Total	1501	1046	69.7%	383	318	83.0%

Table 7a

Persistence Rate From Fall 1991 to Spring 1992, By Matriculation
Participation Category and Primary Language (Students Enrolled in
Fewer Than 6 Units)

Matriculation Category:	Primary Language					
	English			Not English		
	F91	S92	P-Rate	F91	S92	P-Rate
Neither Assessment nor Orientation	203	48	23.6%	23	7	30.4%
Assessment Only	76	40	52.6%	42	31	73.8%
Orientation Only	41	16	39.0%	1	1	---
Both Assessment and Orientation	165	104	63.0%	111	97	87.4%
Total	485	208	42.9%	177	136	76.8%

Table 7b

Persistence Rate From Fall 1991 to Spring 1992, By Matriculation Participation Category and Primary Language (Students Enrolled in 6 to 11.9 Units)

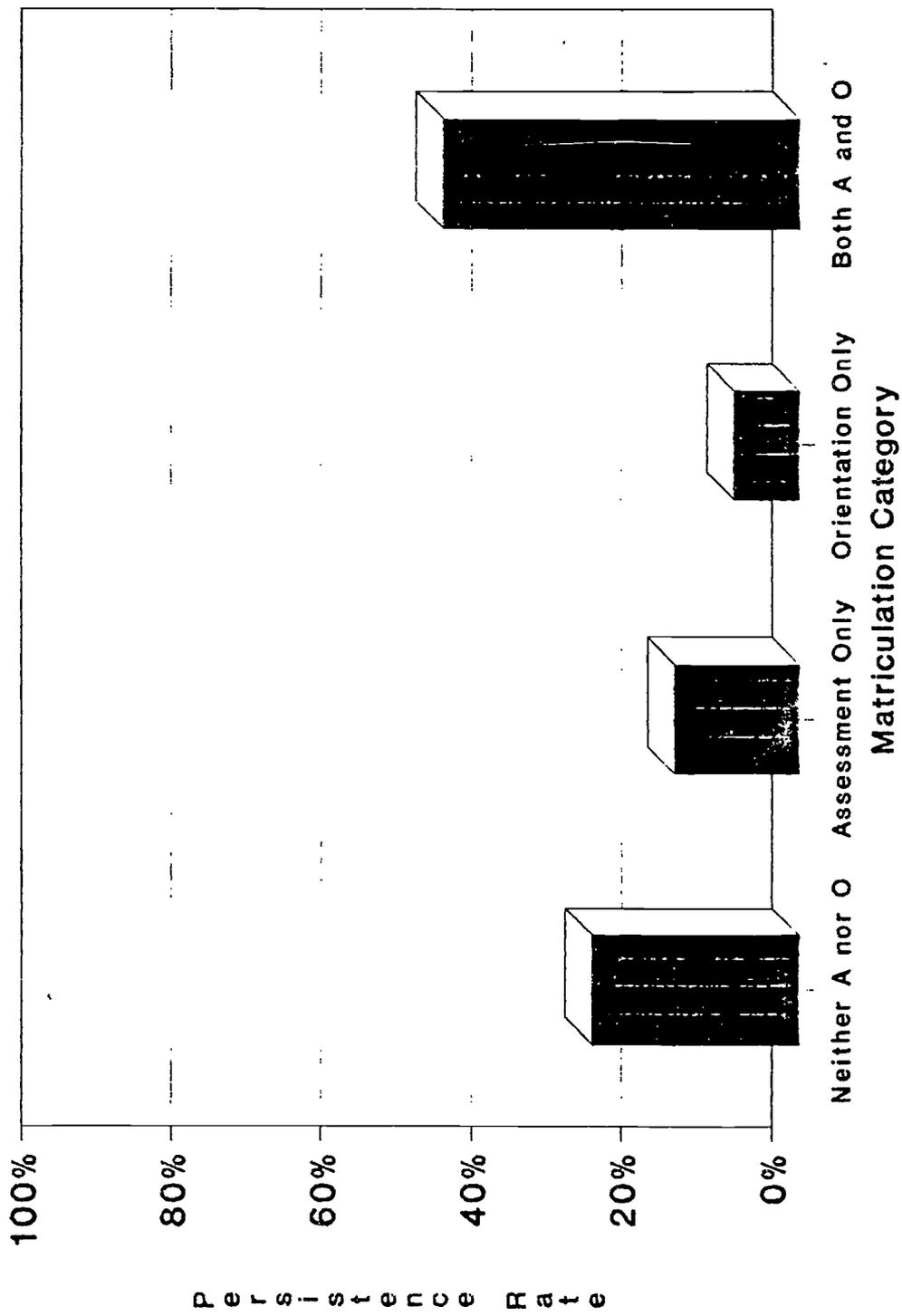
Matriculation Category:	Primary Language					
	English			Not English		
	F91	S92	P-Rate	F91	S92	P-Rate
Neither Assessment nor Orientation	77	39	50.6%	8	4	---
Assessment Only	59	51	86.4%	28	21	75.0%
Orientation Only	75	59	78.7%	5	2	---
Both Assessment and Orientation	402	329	81.8%	110	104	94.5%
Total	613	478	78.0%	147	131	89.1%

Table 7c

Persistence Rate From Fall 1991 to Spring 1992, By Matriculation Participation Category and Primary Language (Students Enrolled in 12 or More Units)

Matriculation Category:	Primary Language					
	English			Not English		
	F91	S92	P-Rate	F91	S92	P-Rate
Neither Assessment nor Orientation	27	18	66.7%	4	3	---
Assessment Only	49	37	75.0%	12	10	83.3%
Orientation Only	70	63	90.0%	0	0	---
Both Assessment and Orientation	257	242	94.2%	39	38	97.4%
Total	403	360	89.3%	55	51	92.7%

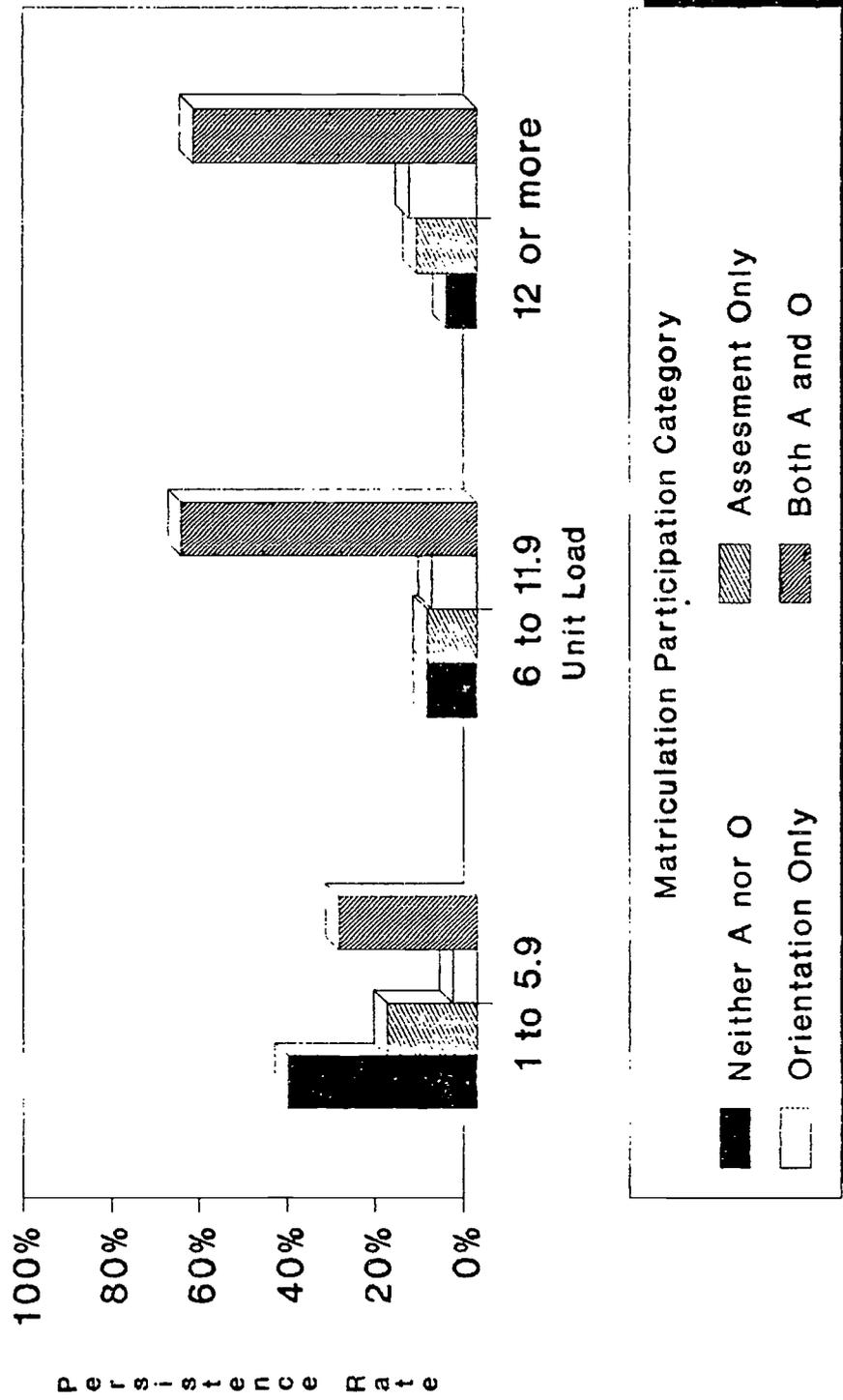
Participation in Assessment and Orientation, Fall 1991



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Figure 1

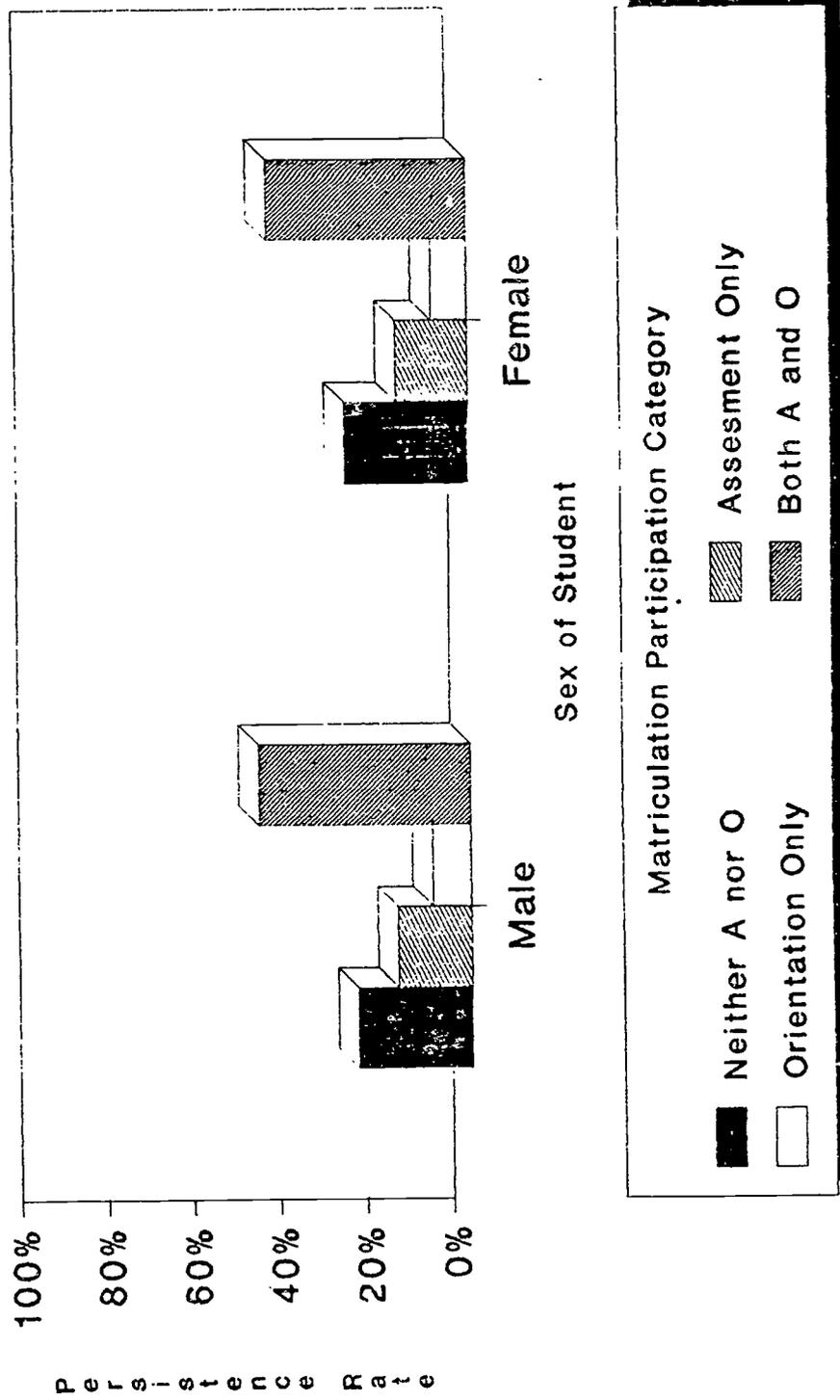
Participation in Assessment and Orientation, By Unit Load, Fall 1991



GWC Matriculation Research, 5/93

Figure 2

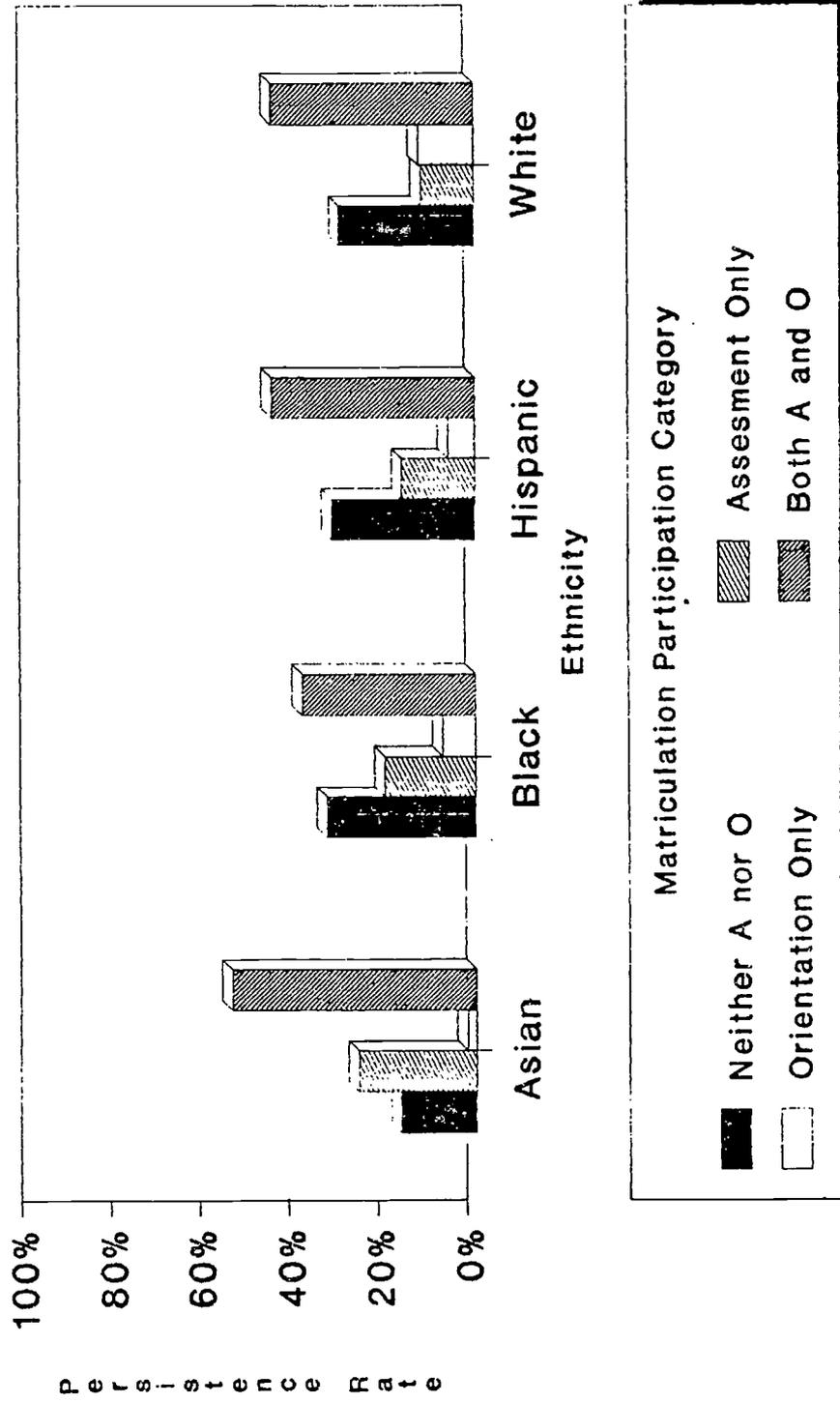
Participation in Assessment and Orientation, By Sex of Student, Fall 1991



GWC Matriculation Research, 5/93

Figure 3

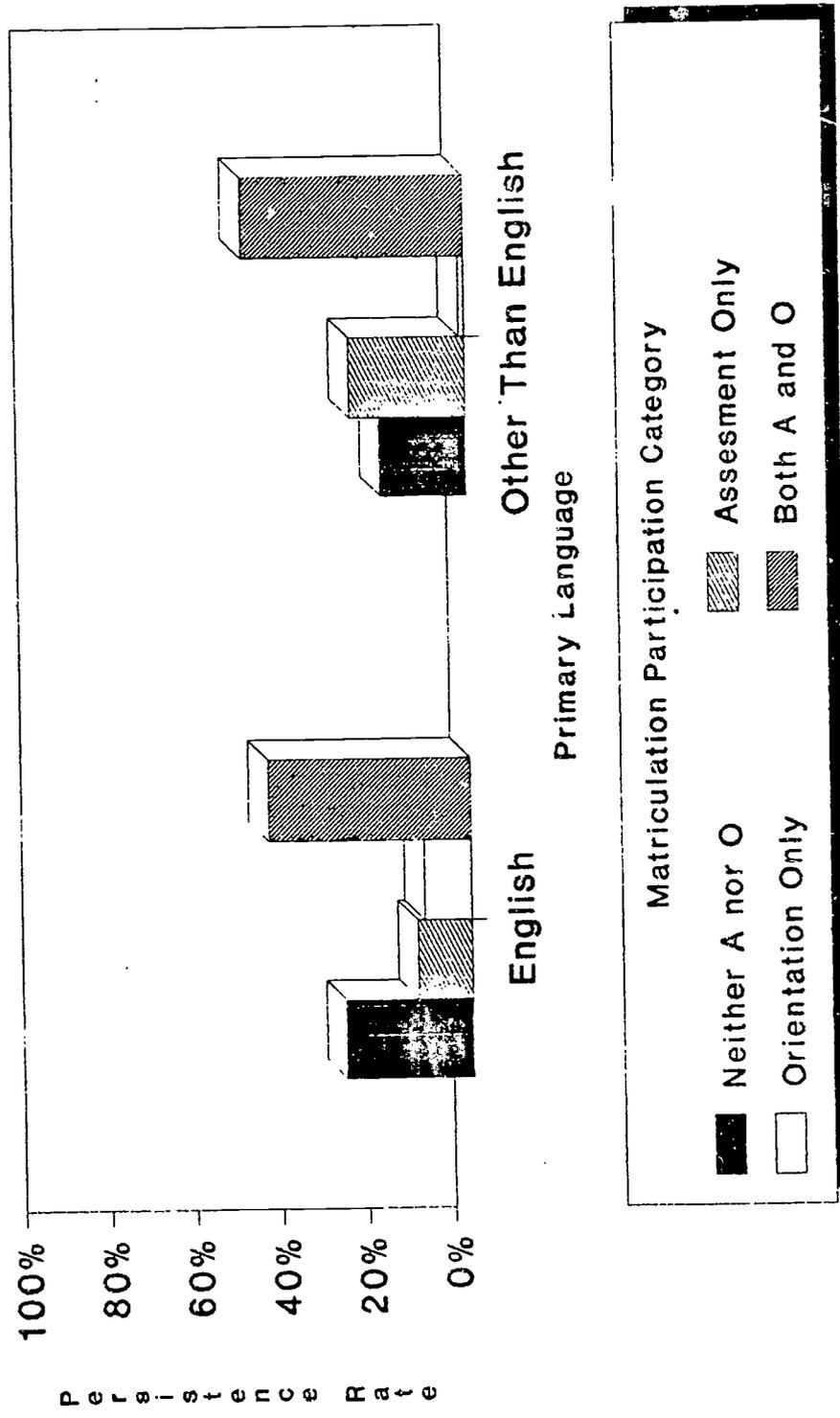
Participation in Assessment and Orientation, By Ethnicity, Fall 1991



GWC Matriculation Research, 5/93

Figure 4

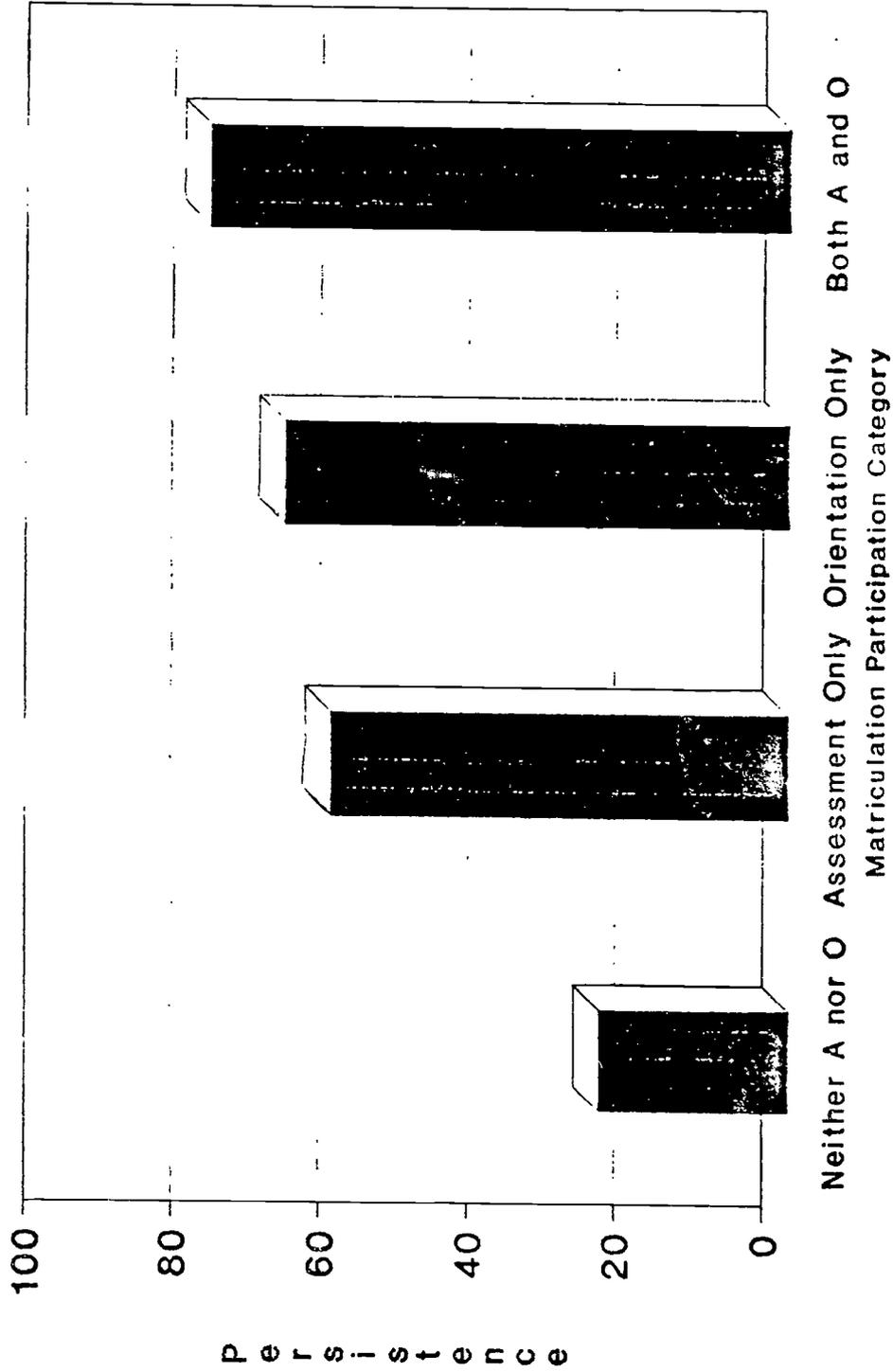
Participation in Assessment and Orientation, By Primary Language Category, Fall 1991



GWC Matriculation Research, 5/93

Figure 5

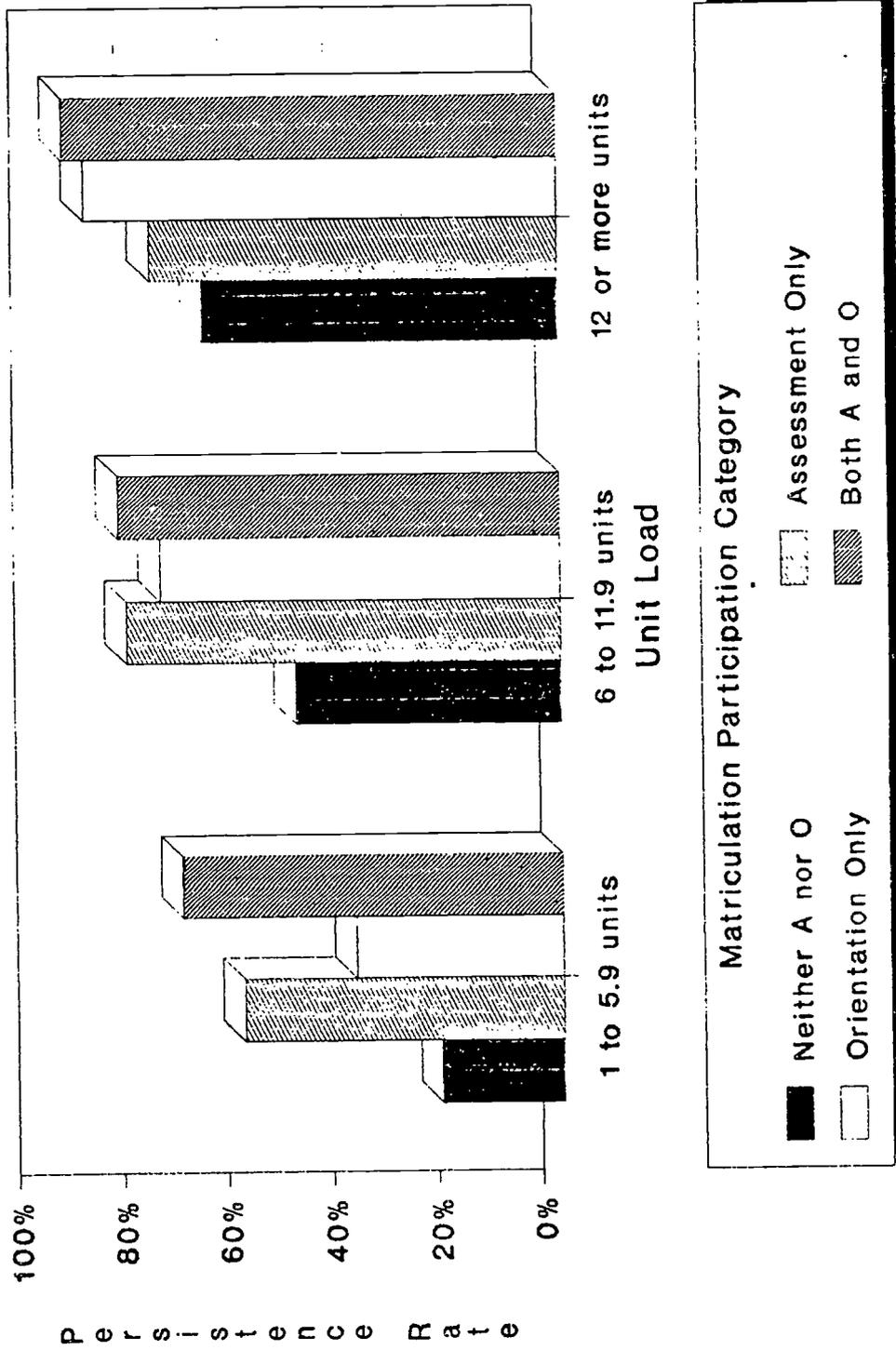
Persistence Rates from Fall 1991 to
Spring 1992, By Matriculation
Participation Category



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Figure 6

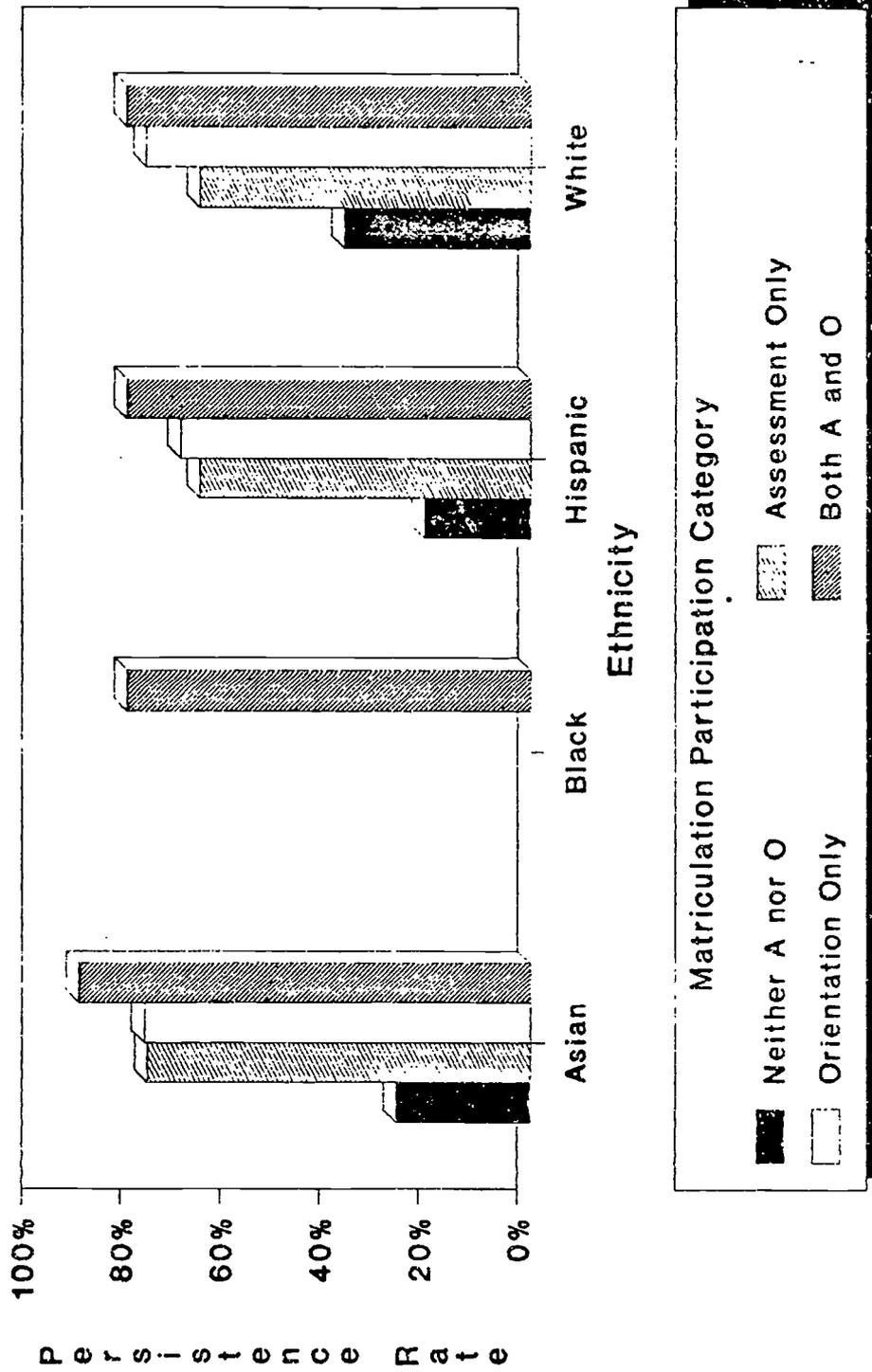
Persistence by Matriculation Category and Unit Load (Fall 1991 to Spring 1992)



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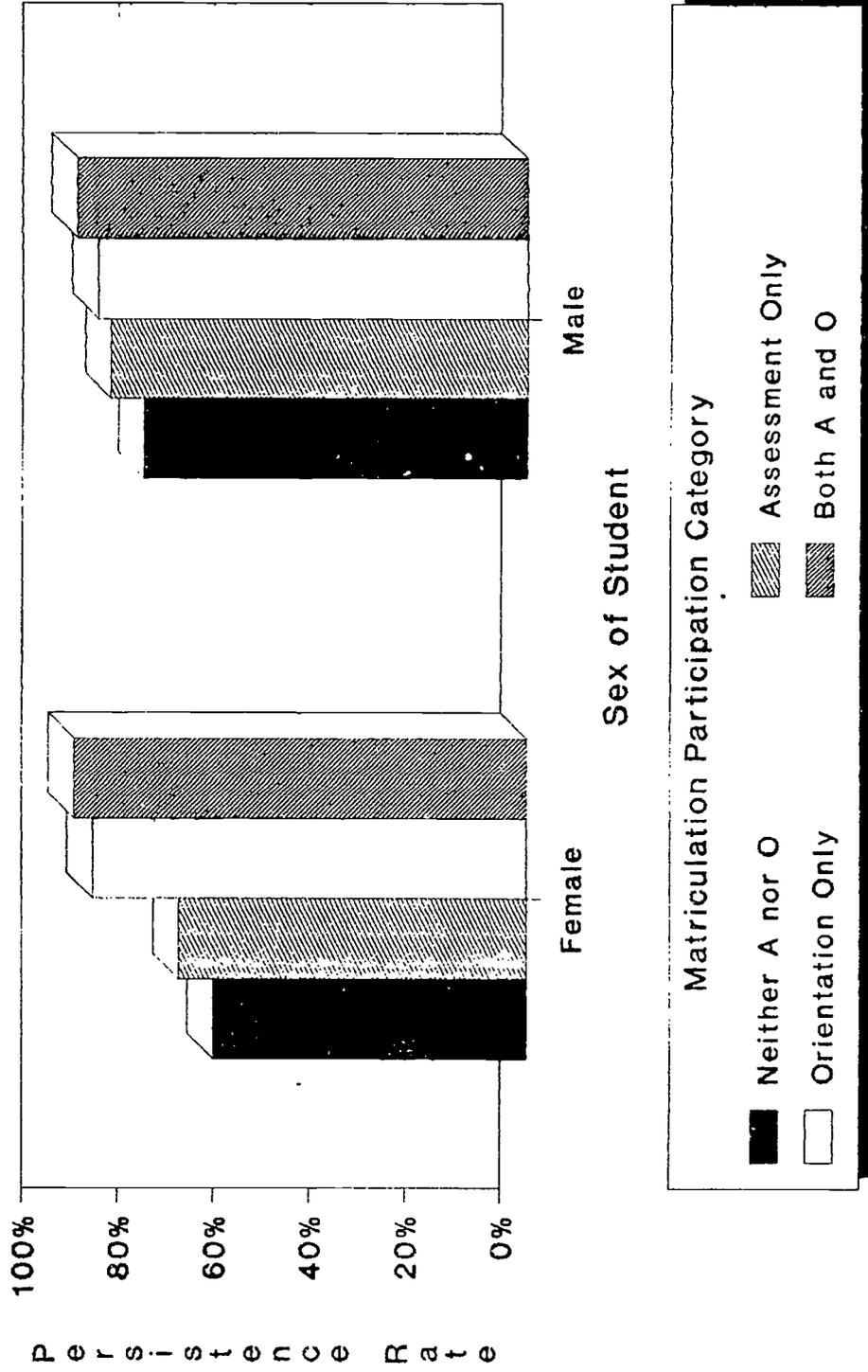
Figure 7

Persistence by Matriculation Category and Ethnicity (Fall 1991 to Spring 1992)



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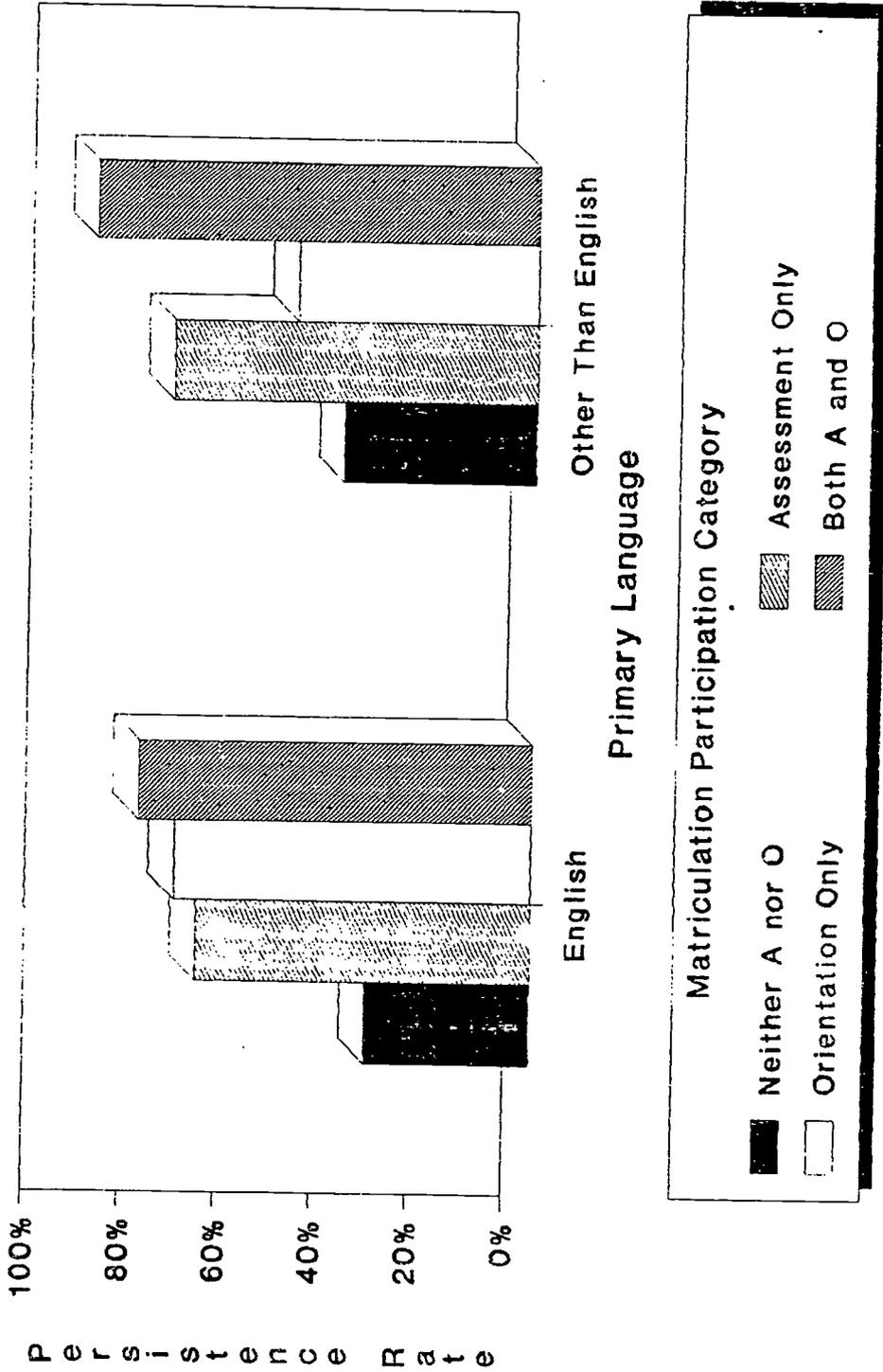
Persistence by Matriculation Category and Sex of Student (Fall 1991 to Spring 1992)



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Figure 9

Persistence by Matriculation Category and Primary Language Category (Fall 1991 to Spring 1992)



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Figure 10

Acknowledgments

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