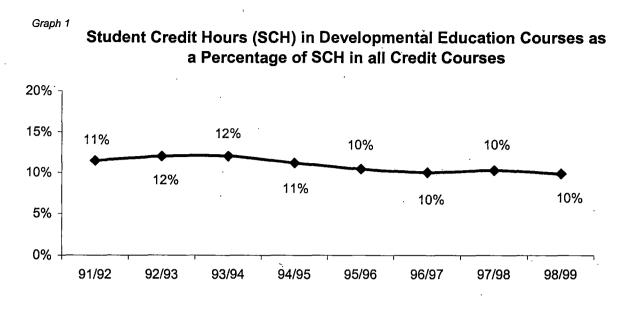


OAKLAND COMMUNITY COLLEGE

# ANNUAL EFFECTIVENESS REPORT ON THE COLLEGE'S DEVELOPMENTAL EDUCATION PURPOSE

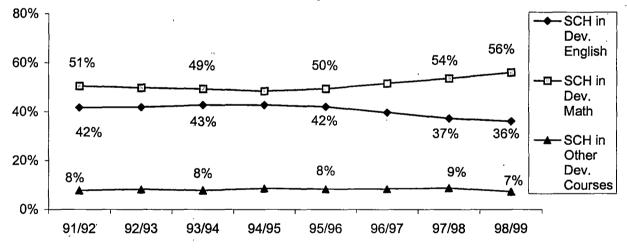
### **1999/00 Preliminary Report**

Prepared by: Andrea Taylor Butts for The Office of Institutional Research Fall 1999/ Winter 2000

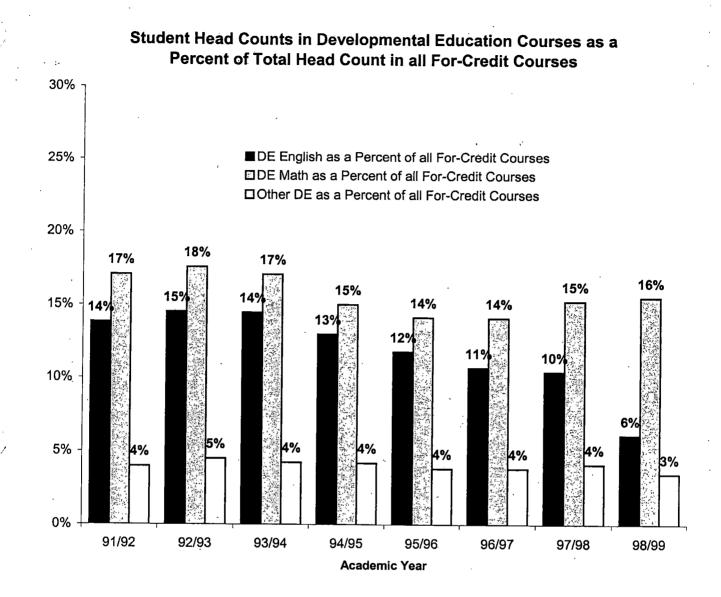


Graph 2

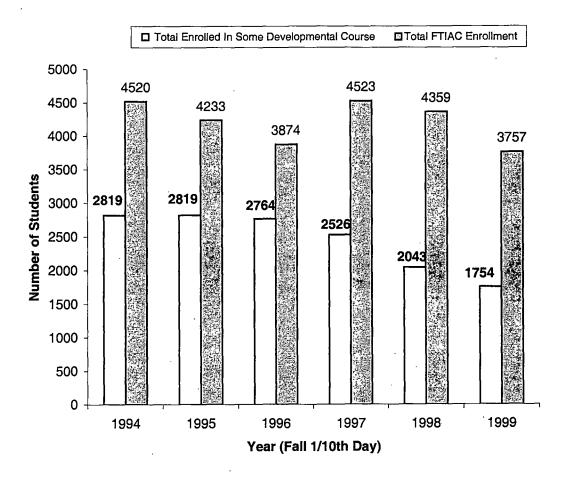
SCH in Developmental English, Math & 'Other' as a Percentage of SCH in All Developmental Courses



Courses which fall into the 'developmental education' category make-up about 10% of all credit hours taken at OCC ( **see Graph1**). Of these developmental courses, Math tends to be the most fruitful in terms of SCHs. For instance, during the 1991/92 academic year, 59, 616 of the year's 518,988 SCHs came from developmental education courses. As **Graph 2** illustrates, in 1991/92 enrollment in Math accounted for 30,115 or 51% of the developmental education credit hours, 42% or 24,890 SCHs came from English and the remaining 8% of SCH in developmental education were the result of enrollment in the 'Other' courses that fall under the developmental umbrella. Courses in developmental Math continuted to represent the largest portion of SCHs for all developmental education courses combined. In fact, by 1998/99, 56% of SCHs in developmental-level courses were now in Math, while just 36% were in English and 8% in 'Other' developmental courses.

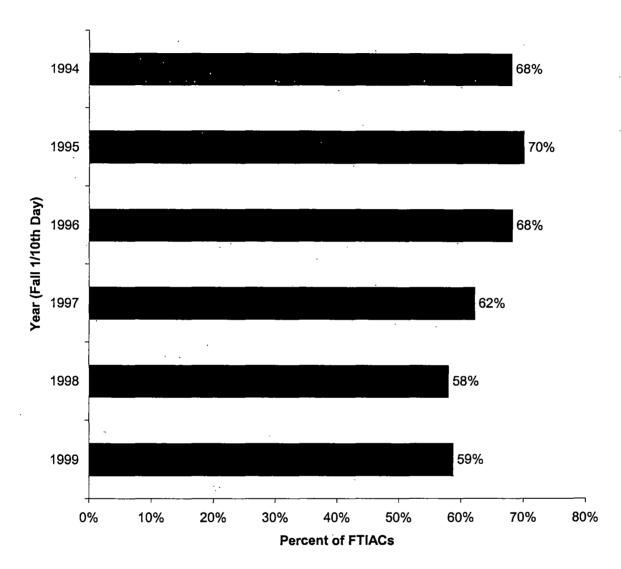


On average, approximately 16% of OCC students enroll in a developmental Math course, and until the 1998/99 academic year, about 13% took a developmental English class. However, in 1998/99 there was a significant decline from the previous year, and developmental English courses went from constituting 10% of all head counts in 1997/98 to representing just 6%. And while enrollments in developmental Math have been relatively stable over the 8 academic years represented above, there has been a steady decline in the number of students enrolling in developmental English. There is little fluctuation in the number of students who chose to enroll in only the alternate developmental education classes.



#### **FTIAC Enrollment in Development Courses**

Until recently, enrollment in courses classified as 'developmental' has remained relatively consistent. Developmental education comprised just over 60% of Fall enrollment among FTIACs, during the Fall of 1994 until Fall 1997. In the Fall of 1994, 62% of 'first time in any college' students took a Developmental Education course -- for the same period in 1995, this figure rose to 67%, in 1996 it was up to 65% and in 1997 61% of FTIACs took a course from the Developmental curriculum. However this trend changed in the Fall of 1998, when the percentage of FTIACs taking Developmental Education classes fell to only 47%, where it remained in Fall 1999. This decline is largely due to a drop in enrollment in Developmental English courses among FTIACs (i.e., In Fall 1997, 33% of FTIACs were enrolled in Developmental English, but in Fall 1998 21% were, and in Fall 1999 only 20% of FTIACs took a developmental English).



Percentage of FTIACs Takeing ASSET Writing and Reading Skills Tests

NOTE: The decline the percentage of students taking Writing and Reading Skills ASSET in 1998 and 1999 co-incides with the change in OCC policy to accept students' ACT and SAT scores in lieu of ASSET.

Graph 2

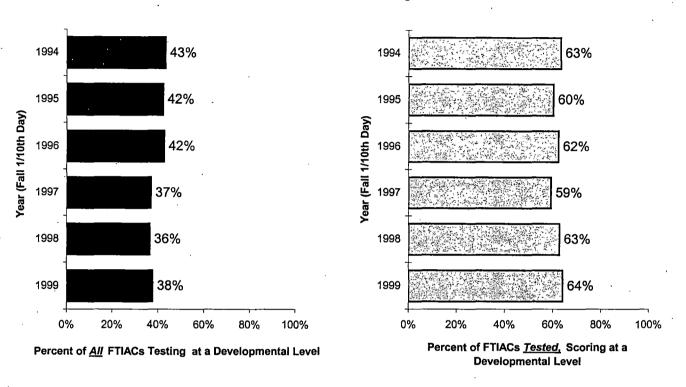
**Reading Skills Tests** 

Percentage of FTIACs Tested, Who Scored at

a Developmental Level on ASSET Writing &

Graph 1

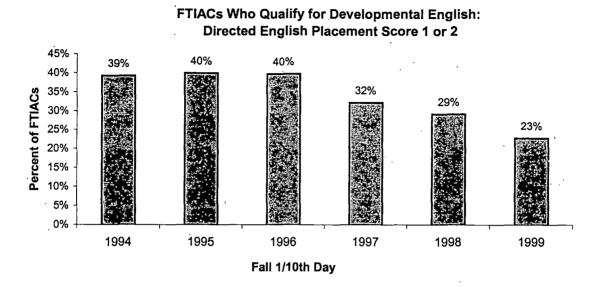
Percentage of <u>All</u> FTIAC\* Students Who Scored at a Developmental Level on ASSET\*\* Writing & Reading Skills Tests



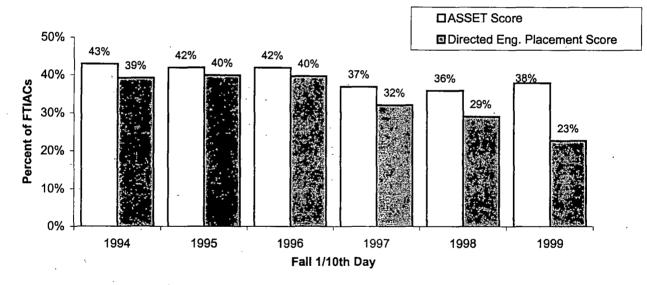
\* 'First Time In Any College'

\*\* Calculations based on combined Writing and Reading Skills ASSET (Assessment for Successful Entry and Transfer) test scores of 85 or less.

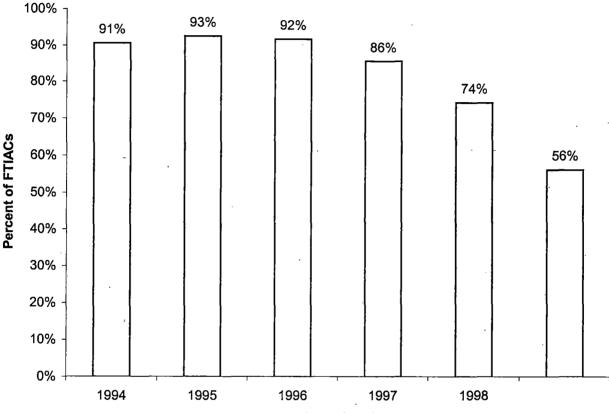
Over the six academic years beginning in Fall 1994 until Fall 1999, the number of 'first time in any college' (FTIAC) students declined from 4520 to 3757. Over this same period, there was also a decrease in the number of FTIACs who qualified for remediation in English. In Fall 1994, 43% of all FTIACs qualified for placement in developmental English, and by the Fall of 1999, this figure had dropped to 38% (see Graph 1). However, there has also been a small (about a 10%) decline in the number of FTIACs who actually took the Writing and Reading Skills ASSET test. In the Falls of 1994, 1995 and 1996, 68-70% of all FTIACs took the ASSET test for English placement. However, during the Fall of 1997 only 62% of FTIACs completed the writing and reading skills ASSET test. By 1998, this figure had further decreased to 58% and similarly in Fall '99, 59% of FTIACs wrote the English portion of ASSET. Among those students tested, the percent earning a combined score of 85 or less has remained relatively consistent, ranging from 59% to 64% over the six years (see Graph 2). Thus, the apparent drop in the proportion of these students being tested.







A Directed English Placement score of 1 or 2 indicates that a student is required to complete Developmental English course(s) before she/he can enroll in college-level English. A score of '1' represented placement in ENG 052 and a '2' placement into ENG 131 until Fall 1998. Starting in Fall of 1998, ENG 105 replaced ENG 052 ( as well ENG 050, ENG 054, ENG 055, & ENG 056) and ENG 131 (and ENG 110) was replaced by ENG 106. A score higher than '2' indicates placement in college-level English. Not surprisingly, the 1994-1999 trend in the percentage of FTIACs placing in Developmental English parallels the trend in FTIAC ASSET scores over the same time period. However, there has been a growing disparity between the percentage of FTIACs testing at the developmental level and the percentage who are placed there. Between 1994 and 1997, this difference only ranged between 2 and 5%. In the Fall of 1998, there was a 7% difference between the percentage of FTIACs with developmental ASSET scores and those who were actually required to enroll in Developmental English prior to taking ENG 151. By Fall 1999, the difference between these figures grew to 15%.



#### Percentage of FTIACs who Tested at Developmental Level on ASSET and also Received Directed English Placement Scores of 1 or 2

Year (Fall 1/10th) Day

An alternate way to understand the difference between the percentage of FTIACs who qualify as Developmental English students according to their ASSET results, versus the percentage who are assigned developmental Directed Placement scores is the look at the first group as a percentage of the second. So for instance, bar one in the graph above demonstrates that in Fall 1994, 91% of all FTIACs who earned a combined score of 85 or less on the English component of ASSET were also given a Directed English Placement score of 1 or 2, thereby putting them into ENG 105 or ENG 106.

Between Fall 1994 and 1997, an overwhelming majority of FTIACs who tested at the developmental level on ASSET, also received Directed English Placement scores which required them to take a Developmental English prior to enrolling in college-level English. In fact, very few (less than 1%) of these FTIACs received Directed Placement scores which placed the out of Developmental English and into college-level English. However, a notable change to this pattern occurred during the Fall of 1998. In 1998, there was only a 74% concordance rate between the number of FTIACs with developmental ASSET and Placement scores. Additionally in the Fall of 1998, 16% of FTIACs who scored at the developmental level on ASSET subsequently received Directed English Placement scores which placed them into college-level English. In 1999, even more FTIACs were disqualified from Developmental English after initially scoring within the developmental range on ASSET. Among Fall 1999 FTIACs, only 56% of those originally classified as developmental were assigned an English Placement Score of 1 or 2. Further, 27% of this group of FTIACs were actually placed out of developmental English and into a college-level English.

Percent of FTIACs Taking Math ASSET

1994 71% 1995 70% Year (Fall 1/10th Day) 1996 69% 1997 60% 1998 44% 1999 39% 0% 10% 20% 30% 40%<sup>.</sup> 50% 70% 60% 80%

Percent of FTIACs

2/14/00

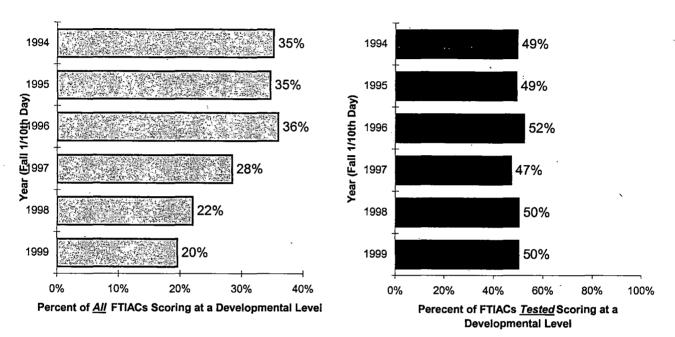
Graph 2

FTIACs Scoring at a Developmental Level on

Math ASSET as a Percentage of those TESTED.

Graph 1

FTIAC\* Students Who Score at a Developmental Education Level on the Math ASSET\*\* Test as a Percent of <u>ALL</u> FTIACs

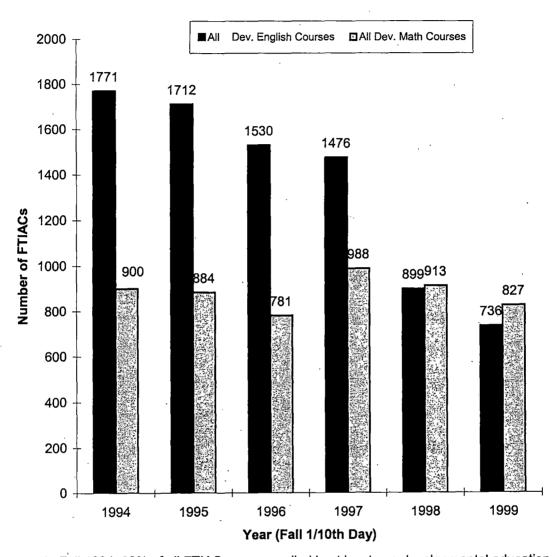


\* 'First Time in Any College

\*\* Calculations based on a Numerical Skills ASSET (Assessment of Skills for Successful Entry and Transfer) test score of 36 or less, Elementary Algebra ASSET score of 39 or less, & Intermediate Algebra score of 37 or less.

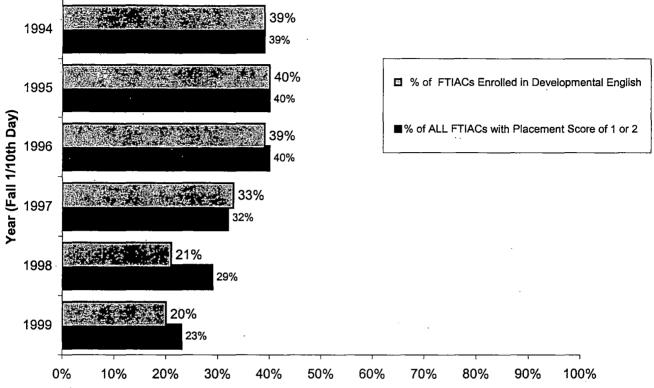
In the fall of 1999, the various components (Numerical, Elementary Algebra, Intermediate Algebra) of the Math ASSET test were administered to 1467 or 39% of all FTIACs. This figure is a notable **32%** below the 1994 percentage, when **71%** of all FTIACs completed at least one section of the Math ASSET test. Thus, fewer FTIACs were tested in absolute as well as relative terms. Along with a declining proportion of FTIACs being tested, there has necessarily been a corresponding reduction in the overall percentage of all FTIACs who might qualify for developmental mathematics (**see Graph 1**). However, what has remained almost unchanged between the Falls of 1994 and 1999, is the proportion of those tested who received a score that would suggest the student consider taking a developmental math course. As **Graph 2** illustrates, in 1994, 49% of FTIACs scored at this level as did 50% of Fall '99 FTIACs. What this signifies is that the decline in the percent of **all** FTIACs who might benefit from developmental math instruction is due to the decline in the proportion of students who have been tested, not any improvement in student performance.





In Fall 1994, 62% of all FTIACs were enrolled in at least one developmental education course. By 1999, only 47% of FTIACs were taking some developmental class during the fall term. Among the FTIACs taking a developmental course during the fall terms of 1994 through 1997, developmental English enrollment significantly exceed enrollment in Math and the 'Other' developmental courses. From Fall 1994 until 1997, 33% to 40% of FTIACs took a developmental English course. (Interestingly, this trend is the reverse of the college-wide enrollment trends in developmental course, where developmental Math enrollment tends to exceed that of developmental English.) However, the popularity of Math began to at least equal that of English among developmental FTIACs as of Fall 1998. In the fall of 1999, enrollment in developmental Math by FTIACs (22% of all FTIACs) slightly exceeded enrollment in developmental English courses (20% of all FTIACs).

### FTIAC\* Students Who are Placed at a Developmental Level\*\* & the Percentage Who Enrolled in a Developmental English Course



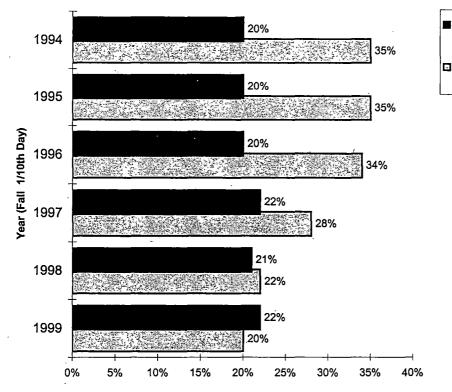
\* 'First Time In Any College'

\*\* Qualification for Dev. English based on Directed English Placement Score of 1 or 2.

Not all students who test and are placed at a developmental level will go on to enroll in developmental English; (Similarly, not all those enrolled in developmental English will have necessarily tested at a developmental level). However, given the mandatory placement process for English, one would expect to find a degree of correspondence between the percentage of FTIACs qualifying for placement in development English and the percentage of FTIACs who enroll. Until 1998, there was a very close correspondence between the percentage of FTIAC students who were placed in developmental English and the percentage of FTIACs who enrolled in a developmental English and the percentage of FTIACs who enrolled in a developmental English and the percentage of FTIACs who enrolled in a developmental English course.

From 1994 to 1997, there was a 0-1% difference in the percentage of FTIACs who qualified for developmental English courses and the number who signed-up for a developmental English class. In 1998, this differential between the number of FTIACs placed at the developmental level compared to the number who actually took an English course that Fall, grew to 8%. In 1999, however, this disparity shrunk to just 3%. This recent increased discrepancy between placement versus enrollment may be explained by the notion that more developmental English course. It is also possible that more students are being disqualified from developmental English through the placement process accompanying the new Academic Literacy program implemented in Fall '98. Whatever the reason, more long-term tracking of this trend is needed before any definitive causal attributions can be made.

#### Percentage of FTIAC\* Students Who Enrolled in a Developmental Math Course



%of FTIACs Enrolled in Developmental Math

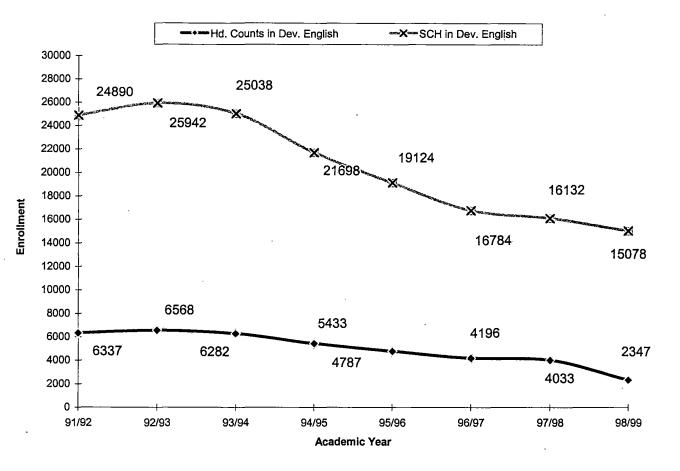
Those Who Tested 'Developmental' As a % of ALL FTIACs

\* 'First Time In Any College'

\*\* Calculations based on Numerical Skills ASSET (Assessment for Successful Entry and Transfer) test scores of 36 or less, Elementary Algebra ASSET score of 39 or less, & Intermediate Algebra score of 37 or less.

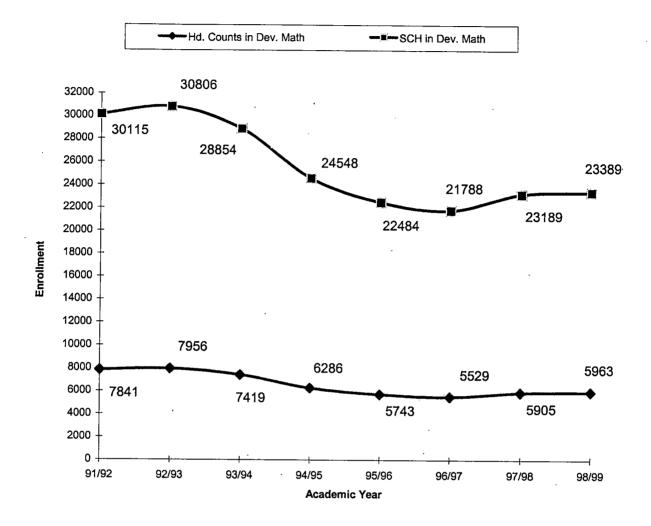
Unlike English, there is no formal placement process for Math. Students are free to enroll in any Math course, irrespective of how well they perform on their ASSET tests. Therefore, there is a very low expectation of correspondance between the percentage of FTIACs who score at the developmental level on Math ASSET and the percentage of FTIACs who enroll in a developmental Math course. From the Fall of 1994 until the Fall of 1999, as the proportion of FTIACs obtaining a score that would make them a candidate for developmental Math declined, the percentage enrolling in a developmental Math course remained fairly steady, around 20%. Superfically it would appear that since 1994, larger proportions of students qualifying for developmental Math are actually going on to enroll in these types of courses. However, recall that over this same time period, there has also been a sizable (32%) drop in the percentage of FTIACs taking the Math ASSET. Thus, the apparent reduction in the disparity between developmental candidacy and actual enrollment among FTIACs is most likely due to the artifically deflated percent of candidates that the shrinking test pool has yielded, and not any increased tendency among candidates to enroll.

#### Enrollment in Developmental English Courses Student Head Counts and Student Credit Hours



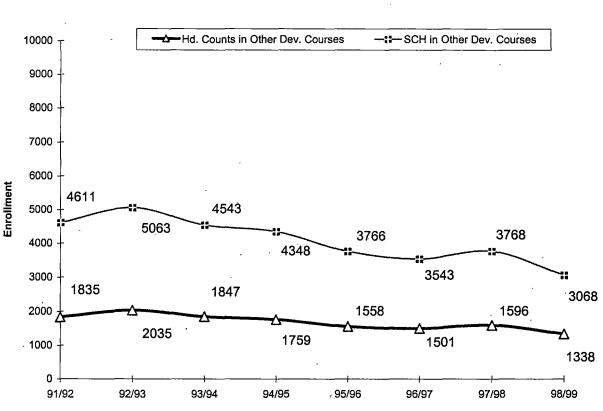
Like general trends in enrollment at OCC as a whole, enrollment in Developmental English Courses has dropped since 1991/92. Student Head Counts in developmental English went down by 42% between 1997/98 and 1998/99 alone, and diminished by a total of 63% over the 8 years from 1991/91 and 1998/99. There has also been a more modest decline of 39% in the number of Credit Hours in developmental English courses. On average, the number of Credit Hours per student remained the same from 1991-92 until 1997/98, with a Student Credit Hour to Head Count ratio of 4 to 1 throughout this 7 year period. However the ratio of SCH to Head Counts increased to 6.4 to 1 in 1998/99. In 1991/92, 42% of all Student Credit Hours in Developmental Education courses were in English. By the 1998/99 academic year, this figure had dropped to 36%.

Enrollment in Developmental Math\* Courses Student Head Count and Student Credit Hours



\*Includes Pre-Apprentice/Math TEM 101 & TEM 102

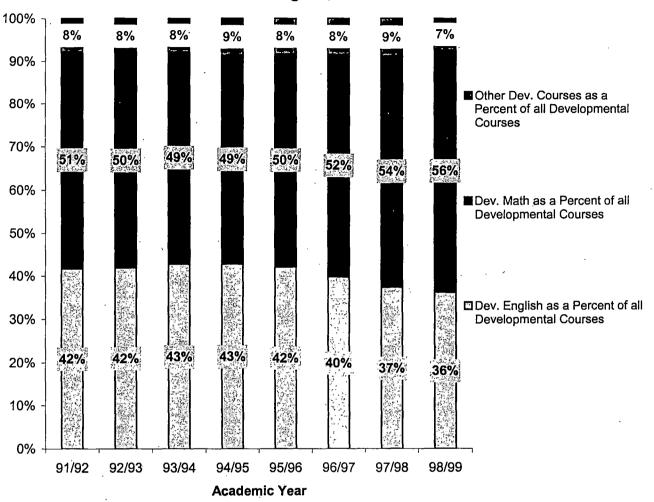
Similar to overall enrollment trends between 1991/92 and 1997/98, Student Credit Hours (SCH) and Head Counts in developmental Math courses were on a general decline. However, the 1998/99 academic year saw a slight (1%) increase in enrollment in developmental Math courses. In the 1991/92, Math courses represented 51% of all SCHs in developmental education, but by the 1998/99 academic year, SCHs in Math constituted 56% of all Student Credit Hours in developmental courses. The ratio of student credit hours to head count has remained almost 4 to 1 throughout the 8-year period from 1991/92 to 1998/99.



Enrollment for all Other Developmental Education Courses Combined Student Head Count and Credit Hours

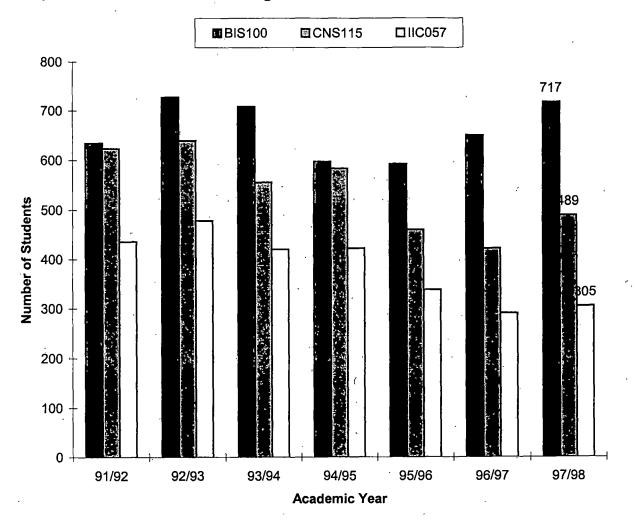
Academic Year

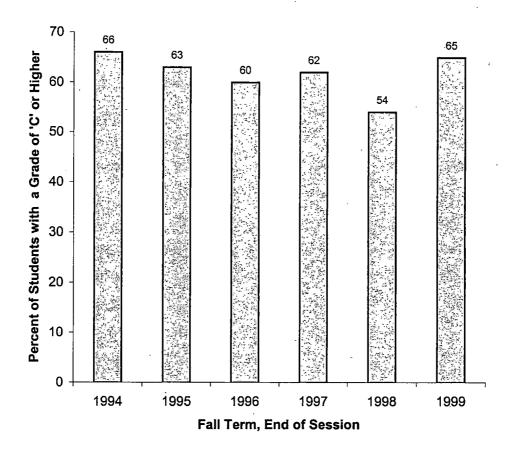
Enrollment in other courses classified as Developmental (other than English and Math) continues to decline at a moderate rate. These 'Other' Developmental Education courses may include: Keyboarding (BIS100), Basic Chemistry (CHE095), Orientation to College (CNS110), Human Potential (CNS114), Career Planning (CNS115), Personal Assertiveness (CNS116), College Success Skills (IIC057), Information Research Methods (LIB100), and Basic Speaking and Listening Skills (SPE100). Keyboarding, Career Planning and College Success Skills are the most popular among these Developmental Education courses. Combining the Student Head Counts for all of these 'Other' Developmental Education, a decrease of 27% from 1991/92 to 1998/99 is seen. Over the 8 academic years, Student Credit Hours for this collection of Developmental Education courses are less popular than Developmental English and Math. The Student Credit Hour to Head Count ratio for this type of Developmental Education course is about 2 to 1. In 1991/92 these courses have comprised between 8% of the SCHs for all Developmental Education courses and similarily in 1998/99, this figure was 7%.



### Allocation of Student Credit Hours Across Developmental Education Courses -- English, Math & 'Other'

Most Popular Informal Developmental Education Courses: Student Head Counts for Keyboarding, Career Planning & College Success Skills





#### **Developmental English: Percent of Satisfactory Completions**

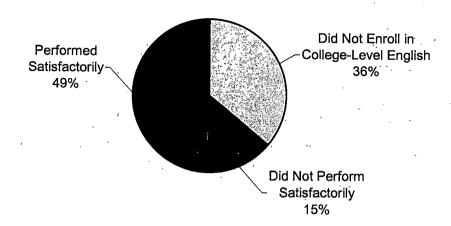
Earning a grade of at least a 'C' constitutes satisfactory performance in a course. Looking at the Fall terms between 1994 and 1999, overall student performance in Developmental English has fluctuated but appears to be on a general downward trend. Over these 5 terms, an average of 61% of students originally enrolled in a Developmental English course, received at least a 'C' in the course. Student performance was best in 1994 when 2031 or 66% of students obtained a grade of 'C' or higher. Conversely, 1998 saw the worst level of achievement among students enrolled in Developmental English classes -- only 743 or 54% performed at a satisfactory level. However, by Fall of 1999 satisfactory completion rates were back up to 65%. It should be noted, that the figures above represent the percentage of 'C' or better students as a percentage of all students enrolled as of the 1/10 day -- Even those who may have eventually withdrawn or received an incomplete in the course.

### Percent of Students with a Grade of 'C' or Higher Fall Term, End of Session

**Developmental Math: Percent of Satisfactory Completions** 

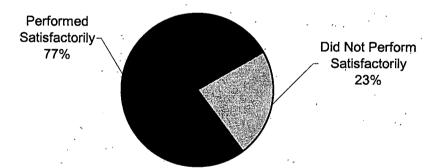
The proportion of students receiving a 'C' or better in their Developmental Math course remained relatively low but stable between the 1994 and 1999 fall terms. During this 6 year time period, an average of only 43% of students registered in a Developmental Math class performed at a satisfactory level, earning at least a 'C' in the course. Looking across the fall semesters from 1994 until 1999, a peak in performance in Developmental Math is seen during the Fall of 1996. In 1996, over half (56%) of the grades awarded to students in a Developmental Math course were at the satisfactory level or higher. Once again it should be noted, that the figures above represent the percentage of 'C' or better students as a percentage of all students enrolled as of the 1/10 day -- even those who may have eventually withdrawn or received an incomplete in the course.

Subsequent Enrollment of Former Developmental English Students in College-Level English



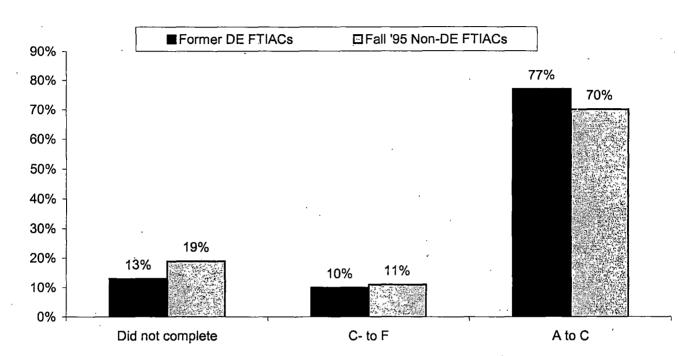
Almost 2/3 of the students who completed developmental English courses with a 'C' or higher, proceeded to enroll in a college-level English course. Furthermore, 54% of these students enrolled in their non-developmental English class the first subsequent semster following their developmental course. Of the FTIACs who satisfactorily completed developmental English, 67% moved into a non-developmental English course, while only 60% of Non-FTIACs did so.





Over 3/4 of former Development English students who advance to a non-developmental course completed that course with a grade of 'C' or higher. The figures above are based on students' initial performance in their first non-developmental English course. However, 60% of students who did not earn a 'C' or better in their first non-developmental English class, re-enrolled and eventually passed at at least a satisfactory level. Therefore, if students who initially failed to reach a satisfactory level of performance, but eventually did so are included, the 'satisfactory performance' rate increases to 84%.

FTIACs earned satisfactory grades at a greater rate than non-FTIACs. In particular, 77% of FTIACs compared to only 75% of non-FTIACs earned at least a grade of 'C' in their first non-Developmental English courses. However this difference was not significant in any statistical sense. Both groups shared an equalllikelihood of completing their non-developmental English classes.

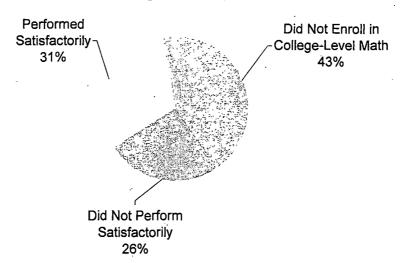


#### Completion Rates of Non-Developmental English Courses by Former Developmental Students vs. Non-Developmental Students

In the Fall of 1995, 70% of 'First Time in Any College' (FTIAC) students took the two components of English ASSET, Language Use and Reading. When the scores from these two portions of ASSET combine to total 85 or less a student is required to enroll in a developmental level English course. Of the students tested, 60% were placed in Developmental English. This figure constitutes 42% of all FTIACs who were enrolled during the Fall '95 semester. And of all the first-timers enrolled that term, only 20% took a pre-college level English class.

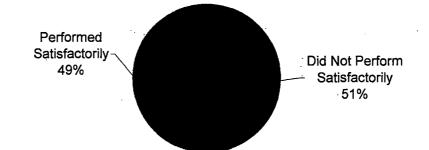
To measure the effectiveness of Developmental English in preparing students for later success in college-level English, the grades of a representative sample of Fall '95 FTIACs who completed a developmental English course with a 'C or higher', were compared to a sample of Fall '95 FTIACs who went directly into college-level English. If the Developmental courses are successful, former Developmental English students should perform at least as well as students who did not require such courses. Overall, the former Developmental English FTIACs were <u>more</u> successful than FTIACs who did not take a developmental English but went directly into ENG 151. Former Developmental English students were significantly more likley than non-Developmental students to perform at a 'satisfactory' level by earning at least a 'C' in their college-level English course. FTIACs who successfully completed a developmental English course prior to enrolling in college-level English were also more likely to complete their non-developmental English course than are non-Developmental students. There was no statistically significant difference between the two groups and their chances of receiving grades in 'C- to F' range.

#### Subsequent Enrollment of Former Developmental Math Students in College-Level Math



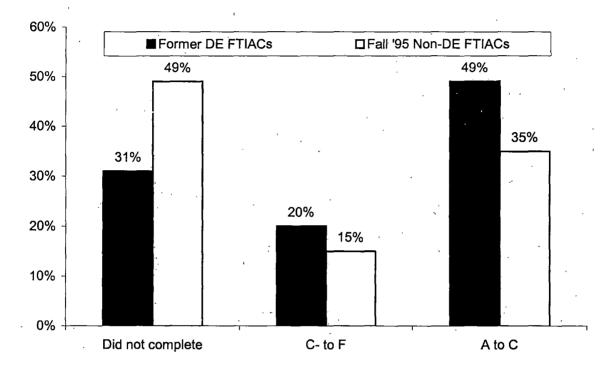
Fifty-seven percent of students who earned a satisfactory grade ('C' or better) in their developmental Math course, taken in Fall '95, went on to a college-level Math. Of the FTIACs who had successfully completed a developmental Math course, 65% enrolled in MAT 114/115. Non-FTIACS were slightly less likely to move into college-level Math with 54% enrolling in a non-developmental Math course after satisfactorily completing their developmental course.

### Subsequent Success of Former Developmental Students who Enrollemd in College Level Math Courses



Of the former developmental Math students who did enroll in MAT 114/115, just under half earned at least a 'C' in their college-level course. Further, of those who enrolled but were not initially successful, 22% re-took their college-level Math and eventually earned a grade of 'C' or better, thereby bringing the 'Satisfactory Completion' rate up to 64%.

Overall, Non-FTIACs (66%) were slightly less likely than FTIACs (69%) to complete MAT 114/115. However, only 49% of FTIACs performed at a satisfactory level, but 54% of Non-FTIACs earned at least a grade of 'C'. Nevertheless, these differences between first-timers and non-first-timers were not statistically significant.



Successful Completions of Non-Developmental Math Courses by Former Developmental Students vs. Non-Developmental Students

In the Fall of 1995, 70% of 'first time at any college' (FTIAC) students took the Math ASSET. Approximately half of these FTIACs tested at a level that would be considered appropriate for enrollment in a pre-college level Math course. These students represented 35% of all first time students. However, in 1995 only 20% of first time students enrolled in a developmental Math course.

Looking at the success of former developmental Math students versus that of their nondevelopmental peers, interestingly, individuals who were once Developmental Education students utlimately out-performed their non-Developmental counterparts. For this analysis, first-time students from the Fall of 1995 were divided into two groups: those who immediately enrolled in college-level Math (MAT 114 or MAT 115) and those who *first* enrolled in a developmental level Math (MAT 104/111, MAT 105, MAT 107/101or MAT 110) course, prior to taking a collegelevel Math course. A 30% sample was randomly drawn from both groups. A comparison of these two groups revealed that a former developmental Math students completed MAT 114/MAT115 at higher rates, received and received grades in the satisfactory grade range of 'A to C' more often than did students who did not first take a developmental course. Furthermore the differences in the performance of two groups was proven to be statistically meaningful.

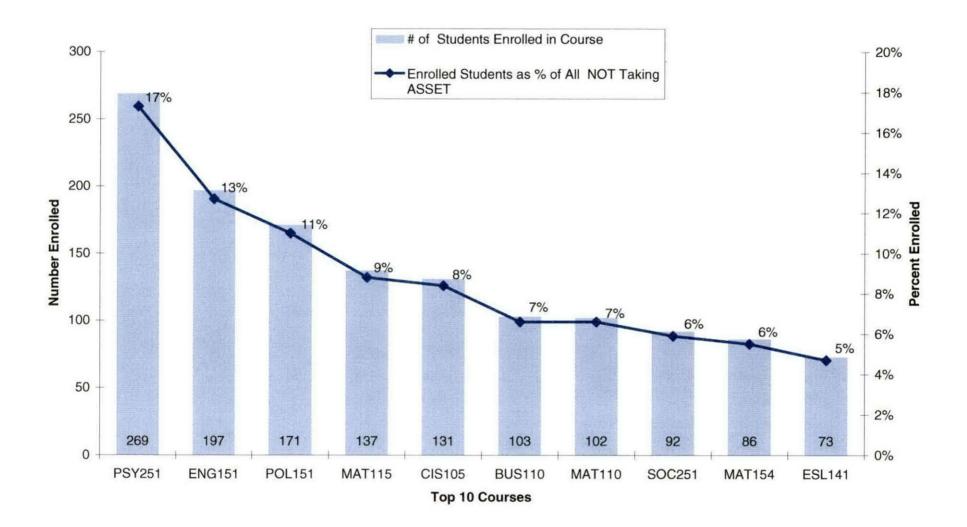
\* because of the nature of the current Math ASSET testing/ Math placement performance comparisons were ONLY made on the basis of actual enrollment in Developmental Math courses.

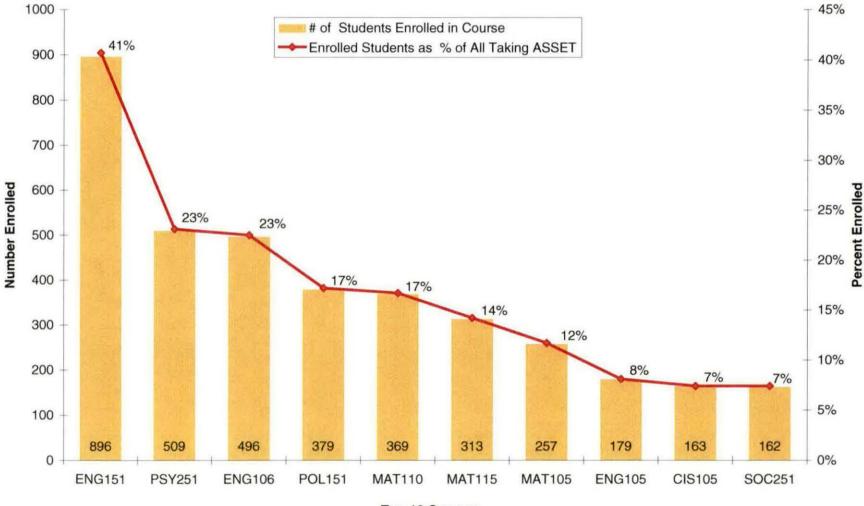
### Top 10 Courses Among Students Who Did NOT Take ASSET vs. Students Who DID Take ASSET

	Students Who Did NOT Take ASSET				Students Who DID Take ASSET				
		# of Students Enrolled in	Enrolled Students as % of All NOT Taking			# of Students Enrolled in	Enrolled Students as % of All Taking		
	Course	Course	ASSET		Course	Course	ASSET		
1	PSY251	<b>269</b>	17%		ENG151	896	41%		
2	ENG151	197	13%		PSY251	509	23%		
3	POL151	171	11%		ENG106	496	23%		
4	<b>MAT115</b>	137	9%		POL151	379	17%		
5	CIS105	131	8%		MAT110	369	17%		
6	BUS110	103	7%		MAT115	313	14%		
7	<b>MAT110</b>	102	7%		<b>MAT105</b>	257	12%		
8	SOC251	92	6%		ENG105	179	8%		
9	<b>MAT154</b>	86	<b>6%</b>		CIS105	163	7%		
10	ESL141	73	5%	,	SOC251	162	7%		
	Total # Students =1553				Total Nu	nber of Stud	ents = 2204		

Among FTIACs NOT taking ASSET, fewer students are dispersed across a greater number of course --1553 students were enrolled in 262 different courses. However, enrollment among those taking ASSET were slightly more concentrated -- 2204 students were dispersed across only 233 courses.

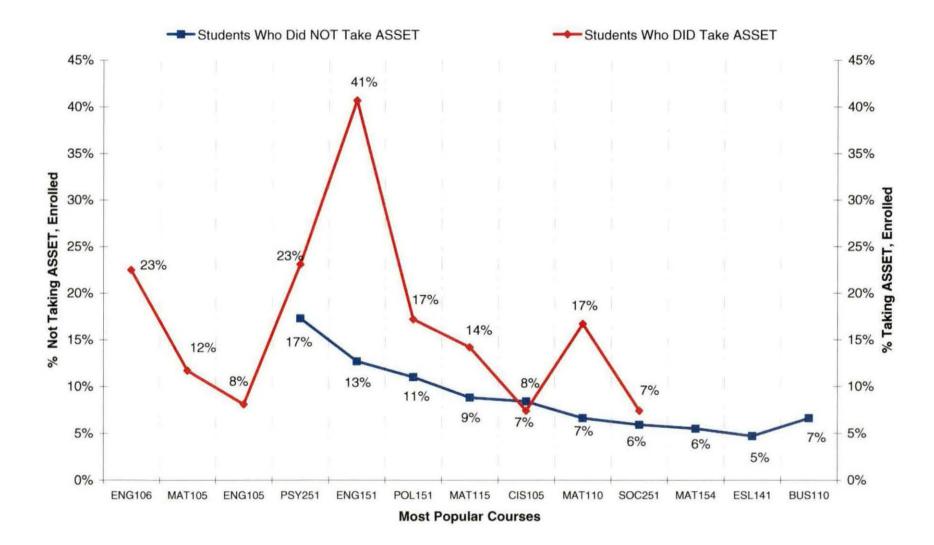
# Top 10 Courses Taken by FTIACs Who Did Not Take ASSET





### Top 10 Courses Taken by FTIACs Who Took ASSET (Fall '99)

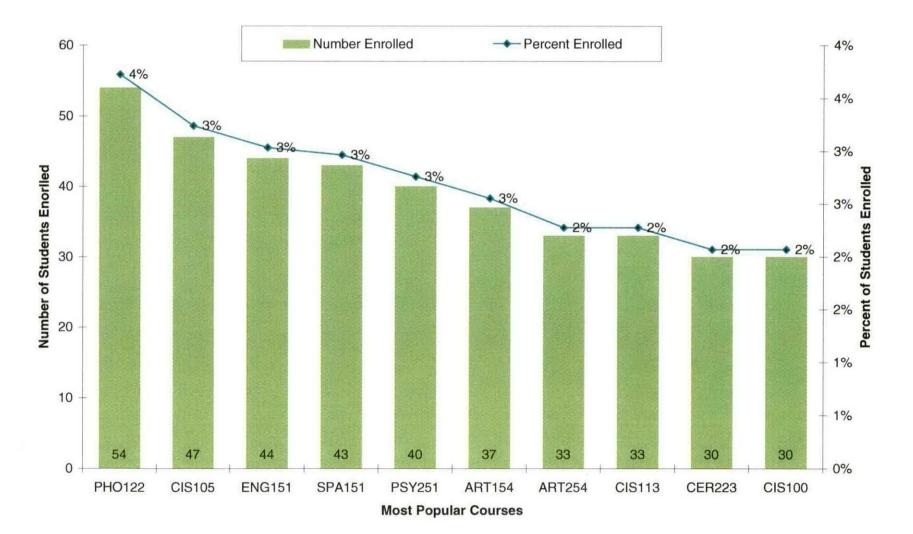
Top 10 Courses



### Enrollment Patterns of FTIACs Who Took ASSET vs. FTIACs Who Did NOT Take ASSET: Top 10 Courses Taken -- Fall 1999

Primary Reason fo	r Attending OCC Fa	ali 1999
	#	%
Degree/Certificate	11302	45%
Transfer	9688	38%
Gain Skills to get Job	971	4%
Upgrade Existing Skills	1005	4%
Personal Enrichment	1450	6%
Other	654	3%
Missng	311	1%
Total	25381	100%

	Top 20 Credit Courses Taken by Those Listing 'Personal Enrichment' as Primary Reason for Attending OCC Fall						
	1999						
	Course	Number Enrolled	Percent Enrolled				
1	PHO122	54	4%				
2	CIS105	47	3%				
3	ENG151	44	3%				
4	SPA151	43	3%				
5	PSY251	40	3%				
6	ART154	37	3%				
7	ART254	33	2%				
8	CIS113	33	2%				
9	CER223	30	2%				
10	CIS100	30	2%				
11	PHO150	28	2%				
12	FRE151	27	2%				
13	PHO2401	26	2%				
14	BUS110	24	2%				
15	CER121	24	2%				
16	MAT110	24	2%				
17	GER151	23	2%				
18	MAT115	23	2%				
19	PHO170	19	1%				
20	PHO2402	19	1%				



### Top 10 Courses Taken by Students Whose Primary Reason for Attending OCC is for 'Personal Enrichment' -- Fall 1999

Fall 1999 Primary Reason For Attending OCC: Personal Enrichment

### **Case Processing Summary**

	Cases					
	Va	lid	Missing		Total	
	· <b>N</b>	Percent	Ν	Percent	Ν	Percent
FPT985 Full-time/Part-time status Fall 1998 * DEVENG1 Enrolled in a Developmental English Course	1581	100.0%	0	.0%	1581	100.0%

### FPT985 Full-time/Part-time status Fall 1998 \* DEVENG1 Enrolled in a Developmental English Course Crosstabulation

	<u>د</u> .	; _ · _ ·	DEVENG1 H Developmental	•	
			1 Enrolled in Developmenta l English	9 Did not Enroll in Dev. English	Total
		Count	255	517	772
		% within FPT985 Full-time/Part-time status Fall 1998	33.0%	67.0%	100.0%
·	1 Part-time	% within DEVENG1 Enrolled in a Developmental English Course	31.1%	68.0%	48.8%
FPT985 Full-time/Part-time		% of Total	16.1%	32.7%	48.8%
status Fall 1998	2 Full-time	Count	566	243	809
status Fall 1998		% within FPT985 Full-time/Part-time status Fall 1998	70.0%	30.0%	100.0%
		% within DEVENG1 Enrolled in a Developmental English Course	68.9%	32.0%	51.2%
		% of Total	35.8%	15.4%	51.2%
		Count	821	760	1581
	x	% within FPT985 Full-time/Part-time status Fall 1998	51.9%	. 48.1%	100.0%
Total		% within DEVENG1 Enrolled in a Developmental English Course	100.0%	100.0%	100.0%
•		% of Total	51.9%	48.1%	100.0%

### **Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	215.845 <sup>b</sup>	1	.000	-	
Continuity Correction <sup>a</sup>	214.368	1	.000		-
Likelihood Ratio	220.980	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	215.709	1	.000		
N of Valid Cases	1581				

a. Computed only for a 2x2 table

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b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 371.11.

# Symmetric Measures

•	-		Value	Approx. Sig.	
	Nominal by	Phi	369	.000	
	Nominal	Cramer's V	.369	.000	
• 1	N of Valid Cases		1581		

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

# **Descriptive Statistics**

<b>DEVENG1</b> Enrolled in		N	Minimum	Maximum	Mean	Std. Deviation
	CREG991A Credits Registered for Winter 99 (1/10 th day Data)	672	0	17	9.97	3.58
	CREG991B Credits registered Winter 99 (End of Session Data)	672	0	17	7.86	4.24
	CREG992A Credits Registered Spring 99 (1/10 day)	280	0	12	4.38	2.53
1 Enrolled in	CREG992B Credits Registered Spring 1999 (End of Session data)	280	0	11	3.81	2.61
Developmental English	CREG994A Credits Registered Summer (1/10 day)	45	0	10	3.24	2.05
	CREG994B Credits Registered Summer (End of Session data)	45	0	10	2.36	2.28
	CREG995A Fall 1999 Credits Registered (1/10 Day Data)	494	0	19	10.02	3.91
	CREG995B Credits Registered 99.5 (End of Session)	499	0	17	8.10	4.35
	Valid N (listwise)	29				
	CREG991A Credits Registered for Winter 99 (1/10 th day Data)	516	0	18	8.89	4.19
	CREG991B Credits registered Winter 99 (End of Session Data)	516	0	21	6.98	4.42
	CREG992A Credits Registered Spring 99 (1/10 day)	175	0	13	4.26	2.52
0.01.0	CREG992B Credits Registered Spring 1999 (End of Session data)	177	0	13	3.88	2.61
9 Did not Enroll in Dev. English	CREG994A Credits Registered Summer (1/10 day)	32	0	7	2.91	1.86
	CREG994B Credits Registered Summer (End of Session data)	33	0	7	2.79	1.88
	CREG995A Fall 1999 Credits Registered (1/10 Day Data)	342	0	17	9.03	4.07
	CREG995B Credits Registered 99.5 (End of Session)	343	0	15	7.33	4.30
	Valid N (listwise)	15				

ToTest

# **Group Statistics**

	DEVENG1 Enrolled in a Developmental English	N	Mean		Std. Error
CREG991B Credits registered Winter 99	1 Enrolled in Developmental English	672	7.86	Std. Deviation	Mean
(End of Session Data)	9 Did not Enroll in Dev. English	516	6.98	4.24	.16
CREG992B Credits	1 Enrolled in Developmental English	280	3.81	4.42	.19
Registered Spring 1999 (End of Session data)	9 Did not Enroll in Dev. English	177	3.88	2.61	.20
CREG994B Credits Registered Summer (End	1 Enrolled in Developmental English	45	2.36	2.28	.34
of Session data)	9 Did not Enroll in Dev. English	33	2.79	1.88	.33
CREG995B Credits Registered 99.5 (End of	1 Enrolled in Developmental English	499	8.10	4.35	.19
Session)	9 Did not Enroll in Dev. English	343	7.33	4.30	.23

# **Independent Samples Test**

		Levene's Test for Equality of Variances		
		F	Sig.	
CREG991B Credits	Equal variances assumed	.479	.489	
registered Winter 99 (End of Session Data)	Equal variances not assumed			
CREG992B Credits	Equal variances assumed	.339	.561	
Registered Spring 1999 (End of Session data)	Equal variances not assumed			
CREG994B Credits	Equal variances assumed	2.671	.106	
Registered Summer (End of Session data)	Equal variances not assumed			
CREG995B Credits	Equal variances assumed	.228	.633	
Registered 99.5 (End of Session)	Equal variances not assumed			

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# **Group Statistics**

	DEVENG1 Enrolled in a Developmental English	N	Mean	Std. Deviation	Std. Error Mean
CREG991B Credits	1 Enrolled in Developmental English	672	7.86	4.24	.16
registered Winter 99 (End of Session Data)	9 Did not Enroll in Dev. English	516	6.98	4.42	.19
CREG992B Credits Registered Spring 1999 (End of Session data)	1 Enrolled in Developmental English	280	3.81	2.61	.16
	9 Did not Enroll in Dev. English	177	3.88	2.61	.20
CREG994B Credits	1 Enrolled in Developmental English	45	2.36	2.28	.34
Registered Summer (End of Session data)	9 Did not Enroll in Dev. English	33	2.79	1.88	.33
CREG995B Credits	1 Enrolled in Developmental English	499	8.10	4.35	.19
Registered 99.5 (End of Session)	9 Did not Enroll in Dev. English	343	7.33	4.30	23

### **Independent Samples Test**

,		Levene's Test for Equality of Variances	
		F	Sig.
CREG991B Credits	Equal variances assumed	.479	.489
registered Winter 99 (End of Session Data)	Equal variances not assumed		_
	Equal variances assumed	.339	.561
CREG992B Credits Registered Spring 1999 (End of Session data)	Equal variances not assumed		
CREG994B Credits	Equal variances assumed	2.671	.106
Registered Summer (End of Session data)	Equal variances not assumed		
CREG995B Credits	Equal variances assumed	.228	.633
Registered 99.5 (End of Session)	Equal variances not assumed		

# Independent Samples Test

		t-test for Equality of Means			
<u> </u>		t	df	Sig. (2-tailed)	Mean Difference
CREG991B Credits registered Winter 99 (End of Session Data)	Equal variances assumed	3.459	1186	.001	.87
	Equal variances not assumed	3.440	1085.120	.001	.87
CREG992B Credits Registered Spring 1999 (End of Session data)	Equal variances assumed	259	455	.796	-6.50E-02
	Equal variances not assumed	259	375.114	.796	-6.50E-02
CREG994B Credits Registered Summer (End of Session data)	Equal variances assumed	889	76	.377	43
	Equal variances not assumed	916	74.842	.363	43
CREG995B Credits Registered 99.5 (End of Session)	Equal variances assumed	2.535	8,40	.011	.77
	Equal variances not assumed	2.541	740.734	.011	.77

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		t-test for Equality of Means		Ieans	
		Std. Error		95% Confidence Interval of the Difference	
		Difference	Lower	Upper	
CREG991B Credits	Equal variances assumed	.25	.38	1.37	
registered Winter 99 (End of Session Data)	Equal variances not assumed	.25	.38	1.37	
CRECOOR Credite	Equal variances assumed	.25	56	.43	
CREG992B Credits Registered Spring 1999 (End of Session data)	Equal variances not assumed	.25	56	.43	
CREG994B Credits	Equal variances assumed	.49	-1.40	.54	
Registered Summer (End of Session data)	Equal variances not assumed	.47	-1.37	.51	
CREG995B Credits	Equal variances assumed	.30	.17	1.37	
Registered 99.5 (End of Session)	Equal variances not assumed	.30	.17	1.36	

# All Fall '98 FTIACs

Statistics

DEVMATHT Tested into Developmental Math/Not

N	Valid	1483
IN I	Missing	2876

#### **DEVMATHT** Tested into Developmental Math/Not

		Frequency	Percent	Valid Percent	Cumulative Percent
	0 No	158	3.6	10.7	10.7
Valid	1 Yes ·	1325	30.4	89.3	100.0
	Total	1483	34.0	100.0	<u> </u>
Missing	9 Missing	2876	66.0		
Total		4359	100.0		

## Frequencies

Statistics

**DEVMATH1** Enrolled in a Developmental Math Course

N	Valid	4359
IN	Missing	0

#### **DEVMATH1** Enrolled in a Developmental Math Course

		Frequency	Percent	Valid Percent	Cumulative Percent
	1 Developmental Math	913	20.9	20.9	20.9
Valid	9 Missing	3446	79.1	79.1	100.0
	Total	4359	100.0	100.0	

### Fall '98 FTIACs who Tested at Developmental Level on Numerical Skills ASSET

Statistics

t		DEVMATHT Tested into Developmenta I Math/Not	DEVMATH1 Enrolled in a Developmental Math Course
N	Valid	1325	1325
	Missing	0	0

### **Frequency Table**

### **DEVMATHT** Tested into Developmental Math/Not

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid   1 Yes	1325	100.0	100.0	100.0

# **DEVMATH1** Enrolled in a Developmental Math Course

		Frequency	Percent	Valid Percent	Cumulative Percent
	1 Developmental Math	397	30.0	30.0	30.0
Valid	9 Missing	928	70.0	70.0	100.0
	Total	1325	100.0	100.0	

# Descriptives

# **Descriptive Statistics**

	Ň	Minimum	Maximum	Mean	Std. Deviation
GPA985 Cumulative GPA End of Fall 1998 (Winter 1/10 Day Data)	991	.00	4.00	2.4725	1.1347
Valid N (listwise)	991				

# **Group Statistics**

	DEVMATHI Enrolled in a Developmental	N	Mean	Std. Deviation	Std. Error Mean
GPA985 Cumulative GPA End of Fall 1998 (Winter 1/10 Day Data)	1 Developmental Math	314	2.2970	1.1730	6.620E-02
	9 Missing	677	2.5538	1.1080	4.258E-02
GPA991 Cumulative GPA	1 Developmental Math	314	2.3151	1.1741	6.626E-02
end of Winter 1999 (End of Session Data)	9 Missing	677	2.5728	1.0966	4.215E-02
GPA992 Cumulative GPA	1 Developmental Math	119	2.5871	.8934	8.189E-02
1999 Spring Session (End of	9 Missing	273	2.6826	.9589	5.803E-02
GPA994 Cumulative GPA	1 Developmental Math	23	2.4835	.7396	.1542
1999 Summer Session (End	9 Missing	42	2.9889	.8706	.1343
GPA995B Cumulative 99.5	1 Developmental Math	225	2.3918	.9368	6.245E-02
GPA (End of Session)	9 Missing	488	2.5215	.9763	4.419E-02

		Levene's T Equality of	
	-	F	Sig.
GPA985 Cumulative GPA	Equal variances assumed	2.413	.121
End of Fall 1998 (Winter 1/10 Day Data)	Equal variances not assumed		
GPA991 Cumulative GPA	Equal variances assumed	3.334	.068
end of Winter 1999 (End of Session Data)	Equal variances not assumed		
GPA992 Cumulative GPA	Equal variances assumed	.366	.545
1999 Spring Session (End of Session data)	Equal variances not assumed		
GPA994 Cumulative GPA	Equal variances assumed	.006	.940
1999 Summer Session (End of Session data)	Equal variances not assumed		
GPA995B Cumulative 99.5	Equal variances assumed	.438	.508
GPA (End of Session)	Equal variances not assumed		



		t-test for Equality of Means			
		t	df	Sig. (2-tailed)	Mean Difference
GPA985 Cumulative GPA	Equal variances assumed	-3.332	989	.001	2569
End of Fall 1998 (Winter 1/10 Day Data)	Equal variances not assumed	-3.263	579.684	.001	2569
GPA991 Cumulative GPA	Equal variances assumed	-3.365	989	.001	2577
end of Winter 1999 (End of Session Data)	Equal variances not assumed	-3.282	574.000	.001	2577
GPA992 Cumulative GPA	Equal variances assumed	926	390	.355	-9.5579E-02
1999 Spring Session (End of Session data)	Equal variances not assumed	952	240:018	.342	-9.5579E-02
GPA994 Cumulative GPA	Equal variances assumed	-2.355	63	.022	5054
1999 Summer Session (End of Session data)	Equal variances not assumed	-2.471	51.993	.017	5054
GPA995B Cumulative 99.5	Equal variances assumed	-1.669	711	.095	1297
GPA (End of Session)	Equal variances not assumed	-1.695	452.332	.091	1297

,		t-test fo	t-test for Equality of Means			
		Std. Error	95% Confidence Interv of the Difference			
	_	Difference	Lower	Upper		
GPA985 Cumulative GPA	Equal variances assumed	7.709E-02	4081	1056		
End of Fall 1998 (Winter 1/10 Day Data)	Equal variances not assumed	7.871E-02	4115	1023		
GPA991 Cumulative GPA end of Winter 1999 (End of Session Data)	Equal variances assumed	7.659E-02	4080	1074		
	Equal variances not assumed	7.853E-02	4119	1035		
GPA992 Cumulative GPA	Equal variances assumed	.1032	2985	.1073		
1999 Spring Session (End of Session data)	Equal variances not assumed	.1004	2933	.1021		
GPA994 Cumulative GPA	Equal variances assumed	.2146	9342	-7.663E-02		
1999 Summer Session (End of Session data)	Equal variances not assumed	.2045	9158	-9.503E-02		
GPA995B Cumulative 99.5	Equal variances assumed	7.768E-02	2822	2.284E-02		
GPA (End of Session)	Equal variances not assumed	7.651E-02	2800	2.068E-02		

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# T-Test for FTIACs Testing at Dev. Level on Numerical Skills ASSET

#### **Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1 GPA985 Cumulative GPA End of Fall 1998 (Winter 1/10 Day Data) GPA991 Cumulative GPA end of Winter 1999 (End of Session Data)	2.4725	991	1.1347	3.605E-02	
	GPA end of Winter 1999	2.4912	991	1.1275	3.582E-02

### **Paired Samples Correlations**

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		N	Correlation	Sig.
Pair 1	GPA985 Cumulative GPA End of Fall 1998 (Winter 1/10 Day Data) & GPA991 Cumulative GPA end of Winter 1999 (End of Session Data)	991	.983	.000

### **Paired Samples Test**

	,	Paired Differences					
				Std. Error	95% Confidence Interval of the Difference		
		Mean	Std. Deviation	Mean	Lower	Upper	t
Pair 1	GPA985 Cumulative GPA End of Fall 1998 (Winter 1/10 Day Data) - GPA991 Cumulative GPA end of Winter 1999 (End of Session Data)	-1.873E-02	.2099	6.668E-03	-3.181E-02	-5.643E-03	-2.809

### **Paired Samples Test**

		df	Sig. (2-tailed)
Pair 1	GPA985 Cumulative GPA End of Fall 1998 (Winter 1/10 Day Data) - GPA991 Cumulative GPA end of Winter 1999 (End of Session Data)	· 990	.005

# **Group Statistics**

	DEVENGI Enrolled in a Developmental	N	Mean	Std. Deviation	Std. Error Mean
GPA985 Cumulative GPA End of Fall 1998 (Winter	1 Enrolled in Developmental English	672	2.4207	1.1298	4.358E-02
1/10 Day Data)	9 Did not Enroll in Dev. English	516	2.2388	1.1683	5.143E-02
GPA991 Cumulative GPA	1 Enrolled in Developmental English	672	2.4412	1.1166	4.307E-02
end of Winter 1999 (End of Session Data)	9 Did not Enroll in Dev. English	516	2.2727	1.1553	5.086E-02
GPA992 Cumulative GPA	1 Enrolled in Developmental English	280	2.5811	.9282	5.547E-02
1999 Spring Session (End of Session data)	9 Did not Enroll in Dev. English	177	2.5600	.9453	7.106E-02
GPA994 Cumulative GPA 1999 Summer Session (End	1 Enrolled in Developmental English	. 45	2.5369	.8272	.1233
of Session data)	9 Did not Enroll in Dev. English	33	2.8307	.8004	.1393
GPA995B Cumulative 99.5	1 Enrolled in Developmental English	499	2.4227	.9153	4.097E-02
GPA (End of Session)	9 Did not Enroll in Dev. English	343	2.3284	1.0180	5.497E-02

	· ·	Levene's Equal Varia	ity of
	١,	F	Sig.
GPA985 Cumulative GPA	Equal variances assumed	1.504	.220
End of Fall 1998 (Winter 1/10 Day Data)	Equal variances not assumed		
GPA991 Cumulative GPA	Equal variances assumed	1.450	.229
end of Winter 1999 (End of Session Data)	Equal variances not assumed		
GPA992 Cumulative GPA	Equal variances assumed	.002	.962
1999 Spring Session (End of Session data)	Equal variances not assumed		
GPA994 Cumulative GPA	Equal variances assumed	.399	.530
1999 Summer Session (End of Session data)	Equal variances not assumed		
GPA995B Cumulative 99.5	Equal variances assumed	3.303	.070
GPA (End of Session)	Equal variances not assumed		

			t-test for Equality of Means				
	_	ť	df	Sig. (2-tailed)	Mean Difference		
GPA985 Cumulative GPA	Equal variances assumed	2.710	1186	.007	.1819		
End of Fall 1998 (Winter 1/10 Day Data)	Equal variances not assumed	2.698	1089.113	.007	.1819		
GPA991 Cumulative GPA	Equal variances assumed	2.540	1186	.011	.1685		
end of Winter 1999 (End of Session Data)	Equal variances not assumed	2.529	1088.831	.012	.1685		
GPA992 Cumulative GPA	Equal variances assumed	.235	455	.814	2.110E-02		
1999 Spring Session (End of Session data)	Equal variances not assumed	.234	369.364	.815	2.110E-02		
GPA994 Cumulative GPA	Equal variances assumed	-1.571	76	.120	2938		
1999 Summer Session (End of Session data)	Equal variances not assumed	-1.579	70.363	.119	2938		
GPA995B Cumulative 99.5	Equal variances assumed	1.403	840	· .161	9.433E-02		
GPA (End of Session)	Equal variances not assumed	1.376	682.870	.169	9.433E-02		

		t-test fo	or Equality of N	leans
		Std. Error	95% Confidence Int Std Error of the Difference	
	_	Difference	Lower	Upper
GPA985 Cumulative GPA	Equal variances assumed	6.712E-02	5.022E-02	.3136
End of Fall 1998 (Winter 1/10 Day Data)	Equal variances not assumed	6.741E-02	4.963E-02	.3142
GPA991 Cumulative GPA	Equal variances assumed	6.635E-02	3.834E-02	.2987
end of Winter 1999 (End of Session Data)	Equal variances not assumed	6.665E-02	3.775E-02	.2993
GPA992 Cumulative GPA	Equal variances assumed	8.978E-02	1553	.1975
1999 Spring Session (End of Session data)	Equal variances not assumed	9.015E-02	1562	.1984
GPA994 Cumulative GPA	Equal variances assumed	.1870	6663	7.864E-02
1999 Summer Session (End of Session data)	Equal variances not assumed	.1861	6649	7.722E-02
GPA995B Cumulative 99.5	Equal variances assumed	6.722E-02	-3.7614E-02	.2263
GPA (End of Session)	Equal variances not assumed	6.856E-02	-4.0278E-02	.2289



		DEVENGT Tested into Developmental English/Not	DEVENG1 Enrolled in a Developmenta l English Course
N	Valid	4359	4359
	Missing	0	0

# **Frequency Table**

### **DEVENGT** Tested into Developmental English/Not

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 No	944	21.7	21.7	21.7
	1 Yes	1581	36.3	36.3	57.9
vanu	9 Missing	1834	42.1	42.1	100.0
	Total	4359	100.0	100.0	

### **DEVENG1** Enrolled in a Developmental English Course

		Frequency	Percent	Valid Percent	Cumulative Percent
	1 Enrolled in Developmental English	899	20.6	20.6	20.6
Valid	9 Did not Enroll in Dev. English	3460	79.4	79.4	100.0
	Total	4359	100.0	100.0	

# Fall '98 FTIACS who Tested Dev. on English ASSET

Statistics

		DEVENGT Tested into Developmental English/Not	DEVENG1 Enrolled in a Developmenta l English Course
N	Valid	1581	1581
	Missing	0	0

# **Frequency Table**

**DEVENGT** Tested into Developmental English/Not

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	1581	100.0	100.0	100.0



# **DEVENG1** Enrolled in a Developmental English Course

		Frequency	Percent	Valid Percent	Cumulative Percent
	1 Enrolled in Developmental English	821	51.9	51.9	51.9
Valid	9 Did not Enroll in Dev. English	760	48.1	48.1	100.0
	Total	1581	100.0	100.0	

# Descriptives

# **Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
GPA985 Cumulative GPA End of Fall 1998 (Winter 1/10 Day Data)	1188	.00	4.00	2.3417	1.1497
Valid N (listwise)	1188				

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# FT-Test - FOR FTIACS testing into Dev. Eng.

### **Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1 GPA End (Winter 1) GPA991 GPA end	GPA985 Cumulative GPA End of Fall 1998 (Winter 1/10 Day Data)	2.3417	1188	1.1497	3.336E-02
	GPA991 Cumulative GPA end of Winter 1999 (End of Session Data)	2.3680	1188	1.1362	3.296E-02

#### **Paired Samples Correlations**

		N	Correlation	Sig.
Pair 1	GPA985 Cumulative GPA End of Fall 1998 (Winter 1/10 Day Data) & GPA991 Cumulative GPA end of Winter 1999 (End of Session Data)	1188	.976	.000

#### **Paired Samples Test**

	······································	Paired Differences						
		·		Std. Error	95% Confidence Interval of the Difference			
-		Mean	Std. Deviation	Mean	Lower .	Upper	t	
Pair 1	GPA985 Cumulative GPA End of Fall 1998 (Winter 1/10 Day Data) - GPA991 Cumulative GPA end of Winter 1999 (End of Session Data)	-2.6263E-02	.2524	7.323E-03	-4.0631E-02	-1.1896E-02	-3.586	

#### **Paired Samples Test**

		df	Sig. (2-tailed)
Pair 1	GPA985 Cumulative GPA End of Fall 1998 (Winter 1/10 Day Data) - GPA991 Cumulative GPA end of Winter 1999 (End of Session Data)	1187	.000



# **Group Statistics**

	<b>DEVENG1</b> Enrolled in a Developmental	N	Mean	Std. Deviation	Std. Error Mean
GPA985 Cumulative GPA	1 Enrolled in Developmental English	672	2.4207	1.1298	4.358E-02
End of Fall 1998 (Winter 1/10 Day Data)	9 Did not Enroll in Dev. English	516	2.2388	1.1683	5.143E-02
GPA991 Cumulative GPA	1 Enrolled in Developmental English	672	2.4412	1.1166	4.307Ē-02
end of Winter 1999 (End of Session Data)	9 Did not Enroll in Dev. English	516	2.2727	1.1553	5.086E-02
GPA992 Cumulative GPA	1 Enrolled in Developmental English	280	2.5811	.9282	5.547E-02
1999 Spring Session (End of Session data)	9 Did not Enroll in Dev. English	177	2.5600	.9453	7.106E-02
GPA994 Cumulative GPA	1 Enrolled in Developmental English	45	2.5369	.8272	.1233
1999 Summer Session (End of Session data)	9 Did not Enroll in Dev. English	33	2.8307	.8004	.1393
GPA995B Cumulative 99.5	1 Enrolled in Developmental English	499	2.4227	.9153	4.097E-02
GPA (End of Session)	9 Did not Enroll in Dev. English	343	2.3284	1.0180	5.497E-02

## **Independent Samples Test**

	·	Levene's Test for Equality of Variances	
		F	Sig.
GPA985 Cumulative GPA	Equal variances assumed	1.504	.220
End of Fall 1998 (Winter 1/10 Day Data)	Equal variances not assumed		<u>.</u>
	Equal variances assumed	1.450	.229
GPA991 Cumulative GPA end of Winter 1999 (End of Session Data)	Equal variances not assumed		
GPA992 Cumulative GPA	Equal variances assumed	.002	.962
1999 Spring Session (End of Session data)	Equal variances not assumed		
GPA994 Cumulative GPA	Equal variances assumed	.399	.530
1999 Summer Session (End of Session data)	Equal variances not assumed		
	Equal variances assumed	3.303	.070
GPA995B Cumulative 99.5 GPA (End of Session)	Equal variances not assumed		



			t-test for Equality of Means				
		t	df	Sig. (2-tailed)	Mean Difference		
GPA985 Cumulative GPA	Equal variances assumed	2.710	1186	.007	.1819		
End of Fall 1998 (Winter 1/10 Day Data)	Equal variances not assumed	2.698	1089.113	.007	.1819		
GPA991 Cumulative GPA	Equal variances assumed	2.540	1186	.011	.1685		
end of Winter 1999 (End of Session Data)	Equal variances not assumed	2.529	1088.831	.012	.1685		
GPA992 Cumulative GPA	Equal variances assumed	.235	455	.814	2.110E-02		
1999 Spring Session (End of Session data)	Equal variances not assumed	.234	369.364	.815	2.110E-02		
GPA994 Cumulative GPA	Equal variances assumed	-1.571	76	.120	2938		
1999 Summer Session (End of Session data)	Equal variances not assumed	-1.579	70.363	.119	2938		
CDA005D Cumulative 00.5	Equal variances assumed	1.403	840	.161	9.433E-02		
GPA995B Cumulative 99.5 GPA (End of Session)	Equal variances not assumed	1.376	682.870	.169	9.433E-02		

		t-test fo	or Equality of N	leans	
		Std. Error	95% Confidence Interval of the Difference		
		Difference	Lower	Upper	
GPA985 Cumulative GPA	Equal variances assumed	6.712E-02	5.022E-02	.3136	
End of Fall 1998 (Winter 1/10 Day Data)	Equal variances not assumed	6.741E-02	4.963E-02	.3142	
	Equal variances assumed	6.635E-02	3.834E-02	.2987	
GPA991 Cumulative GPA end of Winter 1999 (End of Session Data)	Equal variances not assumed	6.665E-02	3.775E-02	.2993	
GPA992 Cumulative GPA	Equal variances assumed	8.978E-02	1553	.1975	
1999 Spring Session (End of Session data)	Equal variances not assumed	9.015E-02	1562	.1984	
GPA994 Cumulative GPA	Equal variances assumed	.1870	6663	7.864E-02	
1999 Summer Session (End of Session data)	Equal variances not assumed	.1861	6649	7.722E-02	
GPA995B Cumulative 99.5	Equal variances assumed	6.722E-02	-3.7614E-02	.2263	
GPA995B Cumulative 99.5 GPA (End of Session)	Equal variances not assumed	6.856E-02	-4.0278E-02	.2289	

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		DEENG Developmental English student	DEMATH developmental math student	ESL ESL student
N	Valid Missing	3387	) 3387 0	3387

#### **Frequency Table**

#### **DEENG Developmental English student**

		Frequency	Percent	Valid Percent	Cumulative Percent
3	no	2751	81.2	81.2	81.2
	yes	636	18.8	18.8	100.0
	Total	3387	100.0	100.0	

#### DEMATH developmental math student

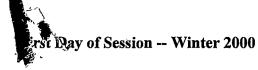
		Frequency	Percent	Valid Percent	Cumulative Percent
3	no	1309	38.6	38.6	38.6
	yes	/ 2078	61.4	61.4	100.0
	Total	3387	100.0	100.0	

#### ESL ESL student

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	2654	78.4	78.4	78.4
	yes	733	21.6	21.6	100.0
	Total	3387	100.0	100.0	

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Page 1



		DEENG Developmental English student	DEMATH developmental math student	ESL ESL student
Ν	Valid	3387	3387	3387
	Missing	0	0	· 0

#### **Frequency** Table

#### DEENG Developmental English student

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	2751	81.2	81.2	81.2
	yes	636	18.8	18.8	100.0
	Total	3387	100.0	100.0	

#### DEMATH developmental math student

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	1309	38.6	38.6	38.6
	yes	2078	61.4	61.4	100.0
	Total	3387	100.0	100.0	

#### ESL ESL student

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	2654	78.4	78.4	78.4
	yes	733	21.6	21.6	100.0
	Total	3387	100.0	100.0	

### Frequencies

Statistics

FILTER\_\$ deeng = 1 & demath = 1 (FILTER)

N Valid 46 Missing 0

#### FILTER\_\$ deeng = 1 & demath = 1 (FILTER)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Selected	/ 46	/ 100.0	100.0	100.0

### Frequencies

FILTER\_\$ esl = 1 & demath = 1 (FILTER)

N Valid 14 Missing 0

#### FILTER\_\$ esl = 1 & demath = 1 (FILTER)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Selected	/ 14	) 100.0	100.0	100.0

#### Frequencies

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I.

Warnings esl=1 & deeng=1

No cases were input to this procedure. Either there are none in the working data file or all of them have been This command is not executed.



		DEMATENG Developmental Math & English student	DEMATESL Developmental Math & ESL student
Ν	Valid	3387	3387
	Missing	0	0

# **Frequency** Table

#### DEMATENG Developmental Math & English student

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	3341	98.6	98.6	98.6
	yes	46	1.4	1.4	100.0
	Total	3387	100.0	100.0	

#### DEMATESL Developmental Math & ESL student

i		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	3373	99.6	99.6	99.6
	yes	14	.4	.4	100.0
	Total	3387	100.0	100.0	

Page 1

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