

## OAKLAND <br> COMMUNITY COLLEGE

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

1999/00 Preliminary Report

Graph 1

## Student Credit Hours (SCH) in Developmentǎl Education Courses as a Percentage of SCH in all Credit Courses



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 coürses were now in Math, while just 36\% were in English and 8\% in 'Other' developmental courses.

## Student Head Counts in Developmental Education Courses as a

 Percent of Total Head Count in all For-Credit 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.

# Oakland Community College 1999/2000 Effectiveness Report on Developmental Education 

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 $199821 \%$ 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 1

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


Percent of All FTIACs Testing at a Developmental Level

Graph 2
Percentage of FTIACs Tested, Who Scored at a Developmental Level on ASSET Writing \& Reading Skills Tests


[^0]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 actualiy 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 Developmental English candidates among FTIAC students is attributable, in part, to a reduction in the proportion of these students being tested.

FTIACs Who Qualify for Developmental English:
Directed English Placement Score 1 or 2


FTIACs Directed English Placement vs. ASSET Scores


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



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.

Oakland Community College 1999/2000 Effectiveness Report on Developmental Education


Oakland Community College<br>1999/2000 Effectiveness Report on Developmental Education

Graph 1

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

Percent of All FTIACs Scoring at a Developmental Level

Graph 2

FTIACs Scoring at a Developmental Level on Math ASSET as a Percentage of those TESTED.


* '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 $\mathbf{3 2 \%}$ 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 develomental 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.

FTIAC Enrollment in Developmental English \& Math


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).


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 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 candidates are waiting, at least until the next semester, to enroll in their 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



* '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 enroliment 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.

Oakland Community College 1999/2000 Effectiveness Report on Developmental Education

## 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 <br> Education Courses Combined Student Head Count and Credit Hours



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 have dropped at a slightly greater rate of $33 \%$. Clearly, Other 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.

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 CollegeLevel 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 nondevelopmental English course, while only 60\% of Non-FTIACs did so.

Subsequent Success of Former Developmental Students who Enrölled in College Level English courses.


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 inclu'ded, 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 nonDevelopmental English courses. However this difference was not significant in any statistical sense. Both groups shared an equallikelihood 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 more 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 nondevelopmental 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 initally 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 MȦT 114/115. However, only 49\% of FTIACs performed at a satisfactory level, but $54 \%$ of NonFTIACs 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.

[^1]|  | Students Who Did NOT Take ASSET |  |  | Students Who DID Take ASSET |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Course | \# of Students Enrolled in Course | Enrolled Students as \% of All NOT Taking ASSET | Course | \# of Students Enrolled in Course | Enrolled Students as \% of All Taking ASSET |
| 1 | PSY251 | 269 | 17\% | ENG151 | 896 | 41\% |
| 2 | ENG151 | 197 | 13\% | PSY251 | 509 | 23\% |
| 3 | POL151 | 171 | 11\% | ENG106 | 496 | 23\% |
| 4 | MAT115 | 137 | 9\% | POL151 | 379 | 17\% |
| 5 | CIS105 | 131 | 8\% | MAT110 | 369 | 17\% |
| 6 | BUS110 | 103 | 7\% | MAT115 | 313 | 14\% |
| 7 | MAT110 | 102 | 7\% | MAT105 | 257 | 12\% |
| 8 | SOC251 | 92 | 6\% | ENG105 | 179 | 8\% |
| 9 | MAT154 | 86 | 6\% | CIS105 | 163 | 7\% |
| 10 | ESL141 | 73 | 5\% | SOC251 | 162 | 7\% |
|  | Total \# Students =1553 |  |  | Total Number of Students $\mathbf{= 2 2 0 4}$ |  |  |

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)


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


| Primary Reason for Attending OCC-- Fall 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


Case Processing Summary


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


Chi-Square Tests

|  | Value | df | Asymp. Sig. <br> (2-sided) | Exact Sig. <br> (2-sided) | Exact Sig. <br> (1-sided) |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Pearson Chi-Square | $215.845^{b}$ | 1 | .000 | - |  |
| Continuity Correction |  |  |  |  |  |
| Likelihood Ratio | 214.368 | 1 | .000 |  |  |
| Fisher's Exact Test | 220.980 |  | 1 | .000 |  |
| Linear-by-Linear <br> Association | 215.709 |  | 1 |  | .000 |
| N of Valid Cases | 1581 |  | .000 |  | .000 |

a. Computed only for a $2 \times 2$ table
b. 0 cells $(.0 \%)$ have expected count less than 5 . The minimum expected count is 371.11 .

## Symmetric Measures

|  |  |  |  |
| :--- | :--- | ---: | ---: |
| Nominal by <br> Nominal | Phi | Value | Approx. Sig. |
|  | Cramer's V | -.369 | .000 |
| N of Valid Cases | .369 | .000 |  |

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.

| DEVENG1 Enrolled in |  | N | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 Enrolled in Developmental English | 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 |
|  | CREG992B Credits Registered Spring 1999 (End of Session data) | 280 | 0 | 11 | 3.81 | 2.61 |
|  | 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 |  |  |  |  |
| 9 Did not Enroll in Dev. English | 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 |
|  | CREG992B Credits Registered Spring 1999 (End of Session data) | 177 | 0 | 13 | 3.88 | 2.61 |
|  | 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 |  |  |  |  |

Group Statistics

$\left.$| $\begin{array}{l}\text { DEVENG1 Enrolled in } \\ \text { a Developmental English }\end{array}$ |  |  |  |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: |
| $\begin{array}{l}\text { CREG991B Credits } \\ \text { registered Winter 99 } \\ \text { (End of Session Data) }\end{array}$ | $\begin{array}{l}\text { 1 Enrolled in } \\ \text { Developmental English }\end{array}$ | 672 | 7.86 | Mean | Std. Deviation | \(\left.\begin{array}{c}Std. Error <br>

Mean\end{array} \right\rvert\, $$
\begin{array}{l}\text { 9 Did not Enroll in Dev. } \\
\text { English }\end{array}
$$\right)\)

Independent Samples Test

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

Group Statistics

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

Independent Samples Test

|  | Levene's Test for <br> Equality of Variances |  |
| :--- | :--- | :---: | :---: |
|  |  |  |

## Independent Samples Test

|  |  | t-test for Equality of Means |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 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 <br> Registered Spring 1999 <br> (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 | 840 | . 011 | . 77 |
|  | Equal variances not assumed | 2.541 | 740.734 | . 011 | . 77 |


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

## AAII Fall '98 FTIACs

## Statistics

## DEVMATHT Tested into Developmental Math/Not

| N | Valid | 1483 |
| :--- | :--- | :--- |
|  | Missing | 2876 |

DEVMATHT Tested into Developmental Math/Not

|  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | 0 No | 158 | 3.6 | 10.7 | 10.7 |
|  | 1 Yes | 1325 | 30.4 | 89.3 | 100.0 |
|  | Total | 1483 | 34.0 | 100.0 |  |
| Missing | 9 Missing | 2876 | 66.0 |  |  |
| Total |  | 4359 | 100.0 |  |  |

## Frequencies

## Statistics

DEVMATH1 Enrolled in a Developmental Math Course

| N | Valid | 4359 |
| :--- | :--- | ---: |
|  | Missing | 0 |

## DEVMATH1 Enrolled in a Developmental Math Course

|  |  |  |  | Cumulative <br> Percent |  |
| :---: | :--- | ---: | ---: | ---: | ---: |
| Valid | Frequency | Percent | Valid Percent | 20.9 |  |
|  | 9 MevelopmentalMath | 913 | 20.9 | 20.9 | 100.0 |
|  | Total | 3446 | 79.1 | 79.1 |  |

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

|  |  | DEVMATHT <br> Tested into <br> Developmenta <br> I Math/Not | DEVMATH1 <br> Enrolled in a <br> Developmental <br> Math Course |
| :--- | :--- | :--- | ---: |
| N | Valid | 1325 | 1325 |
|  | Missing | 0 | 0 |

## Frequency Table

DEVMATHT Tested into Developmental Math/Not

|  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| ---: | ---: | ---: | ---: | ---: | ---: |
| Valid | 1 Yes | 1325 | 100.0 | 100.0 | 100.0 |

DEVMATH1 Enrolled in a Developmental Math Course

|  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| :---: | :--- | ---: | ---: | ---: | ---: |
| Valid | I Developmental Math | 397 | 30.0 | 30.0 | 30.0 |
|  | 9 Missing | 928 | 70.0 | 70.0 | 100.0 |
|  | Total | 1325 | 100.0 | 100.0 |  |

## Descriptives

## Descriptive Statistics

|  | $\mathbf{N}$ | Minimum | Maximum | Mean | Std. Deviation |
| :--- | ---: | ---: | ---: | ---: | ---: |
| GPA985 Cumulative <br> GPA End of Fall 1998 <br> (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 end of Winter 1999 (End of Session Data) | 1 Developmental Math | 314 | 2.3151 | 1.1741 | 6.626E-02 |
|  | 9 Missing | 677 | 2.5728 | 1.0966 | 4.215E-02 |
| GPA992 Cumulative GPA 1999 Spring Session (End of | 1 Developmental Math | 119 | 2.5871 | . 8934 | 8.189E-02 |
|  | 9 Missing | 273 | 2.6826 | . 9589 | 5.803E-02 |
| GPA994 Cumulative GPA 1999 Summer Session (End | 1 Developmental Math | 23 | 2.4835 | . 7396 | . 1542 |
|  | 9 Missing | 42 | 2.9889 | . 8706 | . 1343 |
| GPA995B Cumulative 99.5GPA (End of Session) | 1 Developmental Math | 225 | 2.3918 | . 9368 | 6.245E-02 |
|  | 9 Missing | 488 | 2.5215 | . 9763 | 4.419E-02 |

Independent Samples Test

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



## Independent Samples Test

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

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

Paired Samples Statistics

|  |  | Mean | $\mathbf{N}$. | Std. Deviation | Std. Error <br> Mean |
| :---: | :--- | :---: | :---: | :---: | :---: |
| Pair 1 | GPA985 Cumulative <br> GPA End of Fall 1998 <br> (Winter 1/10 Day Data) | 2.4725 | 991 | 1.1347 | $3.605 E-02$ |
|  | GPA991 Cumulative <br> GPA end of Winter 1999 <br> (End of Session Data) | 2.4912 | 991 | 1.1275 | $3.582 E-02$ |

Paired Samples Correlations

|  |  |  |  | N |
| :--- | :--- | :---: | :---: | :---: |
| Pair 1 | GPA985 Cumulative <br> GPA End of Fall 1998 <br>  <br> GPA991 Cumulative <br> GPA end of Winter 1999 <br> (End of Session Data) | 991 | Sig. |  |

Paired Samples Test

|  |  | Paired Differences |  |  |  |  | t |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Mean | Std. Deviation | Std. Error Mean | 95\% Confidence Interval of the Difference |  |  |
|  |  | Lower |  |  | Upper |  |
| 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 | $6.668 E-03$ | -3.181E-02 | -5.643E-03 | -2.809 |

Paired Samples Test

|  |  |  |  |
| :--- | :--- | :---: | :---: |
| Pair 1 | GPA985 Cumulative <br> GPA End of Fall 1998 <br> (Winter 1/10 Day Data) - <br> GPA991 Cumulative <br> GPA end of Winter 1999 <br> (End of Session Data) | . | df |

## Group Statistics

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

Independent Samples Test

|  | 1. | $\begin{array}{\|c\|} \hline \text { Levene's Test for } \\ \text { Equality of } \\ \text { Variances } \\ \hline \end{array}$ |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| GPA985 Cumulative GPA End of Fall 1998 (Winter 1/10 Day Data) | Equal variances assumed | 1.504 | . 220 |
|  | Equal variances not assumed |  |  |
| GPA991 Cumulative GPA end of Winter 1999 (End of Session Data) | Equal variances assumed | 1.450 | . 229 |
|  | Equal variances not assumed |  |  |
| GPA992 Cumulative GPA 1999 Spring Session (End of Session data) | Equal variances assumed | . 002 | . 962 |
|  | Equal variances not assumed |  |  |
| GPA994 Cumulative GPA 1999 Summer Session (End of Session data) | Equal variances assumed | . 399 | . 530 |
|  | Equal variances not assumed |  |  |
| GPA995B Cumulative 99.5 GPA (End of Session) | Equal variances assumed | 3.303 | . 070 |
|  | Equal variances not assumed |  |  |


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

## Independent Samples Test



Statistics

|  | DEVENGT <br> Tested into <br> Developmental <br> English/Not | DEVENG1 <br> Enrolled in a <br> Developmenta <br> 1 English <br> Course |  |
| :--- | :--- | :--- | ---: |
|  | Valid | 4359 | 4359 |
|  | Missing | 0 | 0 |

## Frequency Table

## DEVENGT Tested into Developmental English/Not

|  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| :---: | :--- | ---: | ---: | ---: | ---: |
| Valid | 0 No | 944 | 21.7 | 21.7 | 21.7 |
|  | 1 Yes | 1581 | 36.3 | 36.3 | 57.9 |
|  | 9 Missing | 1834 | 42.1 | 42.1 | 100.0 |
|  | Total | 4359 | 100.0 | 100.0 |  |

DEVENG1 Enrolled in a Developmental English Course

| Valid | Frequency | Percent | Valid Percent | Cumulative <br> Percent |  |
| :---: | :--- | ---: | ---: | ---: | ---: |
|  | 899 | 20.6 | 20.6 | 20.6 |  |
|  | 9 Did not Enroll in Dev. <br> 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 <br> Tested into <br> Developmental <br> English/Not | DEVENG1 <br> Enrolled in a <br> Developmenta <br> 1 English <br> Course |
| :--- | :--- | ---: | ---: |
| N | Valid | 1581 | 1581 |
|  | Missing | 0 | 0 |

## Frequency Table

DEVENGT Tested into Developmental English/Not

|  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| :---: | :---: | ---: | ---: | ---: | ---: |
| Valid | Yes | 1581 | 100.0 | 100.0 | 100.0 |

DEVENG1 Enrolled in a Developmental English Course

|  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| :---: | :--- | ---: | ---: | ---: | ---: |
| Valid | I Enrolled in <br> Developmental English | 821 | 51.9 | 51.9 | 51.9 |
|  | 9 Did not Enroll in Dev. <br> English | 760 | 48.1 | 48.1 | 100.0 |
|  | Total | 1581 | 100.0 | 100.0 |  |

## Descriptives

## Descriptive Statistics

|  | $\mathbf{N}$ | Minimum | Maximum | Mean | Std. Deviation |
| :--- | :---: | :---: | :---: | :---: | :---: |
| GPA985 Cumulative <br> GPA End of Fall 1998 <br> (Winter 1/10 Day Data) | 1188 | .00 | 4.00 | 2.3417 | 1.1497 |
| Valid N (listwise) | 1188 |  |  |  |  |



Paired Samples Statistics

|  |  | Mean | $\mathbf{N}$ | Std. Deviation | Std. Error <br> Mean |
| :---: | :--- | :---: | ---: | ---: | ---: |
| Pair 1 | GPA985 Cumulative <br> GPA End of Fall 1998 <br> (Winter 1/10 Day Data) | 2.3417 | 1188 | 1.1497 | $3.336 E-02$ |
|  | GPA991 Cumulative <br> GPA end of Winter 1999 <br> (End of Session Data) | 2.3680 | 1188 | 1.1362 | $3.296 E-02$ |

## Paired Samples Correlations

|  |  | N | Correlation | Sig. |
| :---: | :--- | ---: | ---: | ---: |
| Pair 1 | GPA985 Cumulative <br> GPA End of Fall 1998 <br>  <br> GPA991 Cumulative <br> GPA end of Winter 1999 <br> (End of Session Data) | 1188 |  |  |

Paired Samples Test


Paired Samples Test

|  |  |  |  |
| :--- | :--- | :---: | :---: |
| Pair 1 | $\begin{array}{l}\text { GPA985 Cumulative } \\ \text { GPA End of Fall 1998 } \\ \text { (Winter 1/10 Day Data) - }\end{array}$ | 1187 | Sig. (2-tailed) |\(\left.| \begin{array}{l}GPA991 Cumulative <br>

GPA end of Winter 1999 <br>
(End of Session Data)\end{array}\right] .000\)

## . OF <br> STUDENTS <br> TESTING <br> LEV.

## Group Statistics

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

Independent Samples Test


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



|  | DEENG <br> Developmental <br> English student | DEMATH <br> developmental <br> math student | ESL ESL <br> student |  |
| :--- | :--- | ---: | ---: | ---: |
| N | Valid <br> Missing | 3387 | 3387 | 3387 |

## Frequency Table

DEENG Developmental English student

|  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valld | 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 <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Vand | 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 <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | no | 2654 | 78.4 | 78.4 | 78.4 |
|  | yes | 733 | 21.6 | 21.6 | 100.0 |
|  | Total | 3387 | 100.0 | 100.0 |  |

## Statistics

|  | DEENG <br> Developmental <br> English student | DEMATH <br> developmental <br> math student | ESL ESL <br> student |  |
| :--- | :--- | :--- | ---: | ---: |
| N | Valid <br> Missing | 3387 | 3387 | 3387 |
|  | 0 | 0 | 0 |  |

## Frequency Table

DEENG Developmental English student

|  |  |  |  |  | Cumulative |
| :--- | :--- | ---: | ---: | ---: | ---: |
|  | Frequency | Percent | Valid Percent | 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

|  |  |  |  |  | Cumulative |
| :--- | :--- | ---: | ---: | ---: | :---: |
|  | Frequency | Percent | Valid Percent | 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

|  |  |  |  |  | Cumulative |
| :--- | :--- | ---: | ---: | ---: | :---: |
| 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)


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

|  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| :---: | ---: | ---: | ---: | :---: |
| Valid Selected | 46 | 100.0 | 100.0 | 100.0 |

## Frequencies

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


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

|  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| :---: | ---: | :---: | :---: | :---: |
| Vand Selected | 14 | 100.0 | 100.0 | 100.0 |

## Frequencies

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.

Statistics

|  | DEMATENG <br> Developmental <br> Math \& English <br> student | DEMATESL <br> Developmental <br> Math \& ESL <br> student |  |
| :--- | :--- | :--- | ---: |
| N | Valid <br> Missing | 3387 | 3387 |
| 0 |  | 0 |  |

## Frequency Table

DEMATENG Developmental Math \& English student

|  |  |  |  | Cumulative |  |
| :--- | :--- | ---: | ---: | ---: | ---: |
|  | Frequency | Percent | Valid Percent | 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

|  |  |  |  |  | Cumulative |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | no | Frequency | Percent | Valid Percent | Percent <br>  <br>  <br> yes |
|  | Total | 14 | 99.6 | 99.6 | 99.6 |
|  |  | 3387 | 100.0 | .4 | 100.0 |


[^0]:    * '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.

[^1]:    * 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.

