

# **Achieving the Dream Data Team**

**Meeting: February 20, 2008**

# **Achieving the Dream – Data Team**

## **Agenda – February 20, 2008**

1. Unfinished business – questions from all previous meetings
  2. The new Key Performance Indicators (KPI's)
  3. ESL cohort tracking: Fall 2004 to Fall 2007
  4. Paper – The Effect of Registration Dates on Course Completion Rates
  5. Expanded version of “The Effect of Registration Dates on Course Completion Rates”
  6. Paper – The Effect of Taking Developmental Courses Immediately Upon Receipt of Assessment Results on Three Year Positive Persistence Rate
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# Fall 2006 - Modified NECC - KPI's

Draft #4

11-Feb-08

T. Fallon

## KPI #1 - Transition & Developmental Course Completion rates

<b>All - Fall 2006</b> students that took:	Number that took	Number that passed (received an A - C grade)	Course Completion Rate	Two Year Goal	Four Year Goal	<b>Spring 2007</b> Those that passed & then took:	Number that took	Number that passed	Course Completion Rate	Two Year Goal	Four Year Goal
REA021	262	153	58%			PSY/SOC 101	63	39	62%		
WRT010	406	214	53%			ENG101	153	98	64%		
MAT022	901	491	54%			MAT 120/130	213	94	44%		
ESL 044 & ESL 115	124	74	60%			WRT010	17	13	76%		

<b>Hispanic Fall 2006</b> students that took:	Number that took	Number that passed	Course Completion Rate	Two Year Goal	Four Year Goal	<b>Spring 2007</b> Those that passed & then took:	Number that took	Number that passed	Course Completion Rate	Two Year Goal	Four Year Goal
REA021	71	40	56%			PSY/SOC 101	17	12	71%		
WRT010	149	71	48%			ENG101	51	28	55%		
MAT022	174	82	47%			MAT 120/130	31	13	42%		
ESL 044 & ESL 115	91	52	57%			WRT010	12	9	75%		

<b>Male Fall 2006</b> students that took:	Number that took	Number that passed	Course Completion Rate	Two Year Goal	Four Year Goal	<b>Spring 2007</b> Those that passed & then took:	Number that took	Number that passed	Course Completion Rate	Two Year Goal	Four Year Goal
REA021	92	45	49%			PSY/SOC 101	22	15	68%		
WRT010	179	81	45%			ENG101	56	35	63%		
MAT022	367	188	51%			MAT 120/130	105	46	44%		
ESL 044 & ESL 115	42	25	60%			WRT010	8	6	75%		

<b>Age &lt;= 25 Fall 2006</b> students that took:	Number that took	Number that passed	Course Completion Rate	Two Year Goal	Four Year Goal	<b>Spring 2007</b> Those that passed & then took:	Number that took	Number that passed	Course Completion Rate	Two Year Goal	Four Year Goal
REA021	213	99	46%			PSY/SOC 101	50	32	64%		
WRT010	317	155	49%			ENG101	118	75	64%		
MAT022	744	373	50%			MAT 120/130	186	77	41%		
ESL 044 & ESL 115	58	32	55%			WRT010	10	8	80%		

**KPI #2 - Gatekeeper Course Completion Rates**

<b>All Fall 2006</b> students that took:	Number that <u>took</u>	Number that <u>passed</u>	Course Completion <u>Rate</u>	Two Year <u>Goal</u>	Four Year <u>Goal</u>
ENG101	1,021	572	56%		
MAT 120/130	326	172	53%		
BIO 103,121 & 122	747	444	59%		

<b>Hispanic Fall 2006</b> students that took:	Number that <u>took</u>	Number that <u>passed</u>	Course Completion <u>Rate</u>	Two Year <u>Goal</u>	Four Year <u>Goal</u>
ENG101	173	88	51%		
MAT 120/130	47	29	62%		
BIO 103,121 & 122	96	49	51%		

<b>Male Fall 2006</b> students that took:	Number that <u>took</u>	Number that <u>passed</u>	Course Completion <u>Rate</u>	Two Year <u>Goal</u>	Four Year <u>Goal</u>
ENG101	443	250	56%		
MAT 120/130	147	65	44%		
BIO 103,121 & 122	153	88	58%		

<b>Age &lt;= 25 Fall 2006</b> students that took:	Number that <u>took</u>	Number that <u>passed</u>	Course Completion <u>Rate</u>	Two Year <u>Goal</u>	Four Year <u>Goal</u>
ENG101	881	474	54%		
MAT 120/130	264	127	48%		
BIO 103,121 & 122	420	215	51%		

**KPI #3 - Retention**

	Fall 2006 Students	Graduated	Transferred to a 4 year college	Returned in Fall 2007	Total Positive	Retention Rate	Two Year Goal	Four Year Goal
<b>All</b> first-time, full-time, degree seeking <b>Fall 2006</b> students	1,450	8	73	758	839	58%		
<b>Hispanic</b> first-time, full-time, degree seeking <b>Fall 2006</b> students	313	0	6	161	167	53%		
<b>Male</b> first-time, full-time, degree seeking <b>Fall 2006</b> students	589	2	30	312	344	58%		
<b>Age &lt;= 25</b> first-time, full-time, degree seeking <b>Fall 2006</b> students	1,140	4	64	594	662	58%		

**KPI #4 - Degrees & Certificates****Conferred**

	AY 2005-06	AY 2006-07	Delta	Two Year Goal	Four Year Goal
<b>Total</b> # of degrees and certificates conferred	826	748	-9%		
Degrees & Certificates conferred: <b>Hispanic</b>	80	72	-10%		
Degrees & Certificates conferred: <b>Male</b>	250	214	-14%		
Degrees & Certificates conferred: <b>Age &lt;=25</b>	358	309	-14%		

**KPI #5 - Diversity of Faculty and****Staff**

	Fall 2006 # Minority	Total Employees	% Minority	Two Year Goal	Four Year Goal
Full-time faculty	11	103	10.7%		
All Full-time employees	44	316	13.9%		
All employees - full and part-time	83	850	9.8%		

# Northern Essex Community College

## ESL Writing Analysis

	Enrolled Fall 2004	Completed Successfully (Grade A-C) in Fall 2004	Completion Rate	Graduates AY 04-05	Transfer to 4-Year College Between Spring 05 and Fall 05	Graduates AY 05-06	Transfer to 4-Year College Between Spring 06 and Fall 06	Graduates AY 06-07	Transfer to 4-Year College Between Spring 07 and Fall 07	Fall 07 Remaining Students	Positive Persistence Rate (PPR)*
ESL Writing (Levels 1-4)	195	141	72%	0	1	0	2	2	5	33	22%
ESL Writing Level 1	36	27	75%	0	0	0	0	0	2	2	11%
ESL Writing Level 2	47	37	79%	0	0	0	1	0	2	9	26%
ESL Writing Level 3	52	41	79%	0	0	0	0	1	0	10	21%
ESL Writing Level 4	60	36	60%	0	1	0	1	1	1	12	27%

\*Those students who completed ESL Writing successfully (Grade A-C) in Fall 2004.

	Enrolled Fall 2004 & Did Not Complete Succssfully**	Graduates AY 04-05	Transfer to 4-Year College Between Spring 05 and Fall 05	Graduates AY 05-06	Transfer to 4-Year College Between Spring 06 and Fall 06	Graduates AY 06-07	Transfer to 4-Year College Between Spring 07 and Fall 07	Fall 07 Remaining Students	Positive Persistence Rate (PPR)*
ESL Writing (Levels 1-4)	54	0	0	0	2	0	2	7	20%
ESL Writing Level 1	9	0	0	0	0	0	0	0	0%
ESL Writing Level 2	10	0	0	0	0	0	0	2	20%
ESL Writing Level 3	11	0	0	0	0	0	0	0	0%
ESL Writing Level 4	24	0	0	0	2	0	2	5	38%

\*\*Those students who completed ESL Writing with a Grade of C- thru FN or who Withdrew from the course.

**SUMMARY:**

**Fall 04 Successful Completers of  
ESL Writing Enrolled at NECC in  
Fall 07 (N=33)**

**Fall 04 Unsuccessful or Non-  
Completers of ESL Writing Enrolled  
at NECC in Fall 07 (N=7)**

**Gender**

Male	9	2
Female	24	5

**Ethnicity**

Majority	1	0
Hispanic	22	6
Minority (A,B,I)	3	0
Missing or Unknown	7	1

**Age**

<=25	18	2
>25	15	5

Average Credits Earned	79	59
Average GPA	3.21	2.61

**Major**

General Studies	11	1
General Studies: ESL	7	3
Accounting	2	0
Rad Tech	2	0
Other	11	3

**Fall 04 Successful Completers of ESL Writing Enrolled at NECC in Fall 07 (N=33)**

MajorCode	MajorDesc	GENDER	ETHNICITY	AGE	Earned Hours	GPA
0100	Liberal Arts	F	Hispanic	23	97	3.67
0131	LA: Biology	F	Hispanic	26	98	3.34
0137	LA: Psychology	F	Hispanic	31	132	2.99
0180	General Studies	F	Hispanic	29	50	2.46
0180	General Studies	M	Black, Non-Hispanic	27	78	3.06
0180	General Studies	F	Hispanic	39	71	3.67
0180	General Studies	F	Hispanic	22	72	3.71
0180	General Studies	F	Hispanic	21	103	2.72
0180	General Studies	F	Hispanic	20	92	3.61
0180	General Studies	F	Hispanic	34	79	3.97
0180	General Studies	M	Hispanic	21	47	2.48
0180	General Studies	F	Non-Resident Alien	33	72	3.8
0180	General Studies	F	Unknown, did not respond	37	85	2.77
0180	General Studies	M	Hispanic	28	63	3.11
0200	Criminal Justice	M	Hispanic	20	100	3.03
0214	Respiratory Care	M	Asian or Pacific Islander	23	135	3.43
0260	Medical Assistant (Day)	F	Hispanic	43	119	3.49
0300	Accounting	F	Hispanic	19	97	2.97
0300	Accounting	F	Unknown, did not respond	22	93	3.74
0507	Engineering Science	M	Other	25	79	3.73
0544	Computer Networking Cert	M	Hispanic	34	108	3.6
0660	General Studies: ESL Studies	F	Hispanic	26	23	3.08
0660	General Studies: ESL Studies	M	Hispanic	24	72	2.77
0660	General Studies: ESL Studies	F	Hispanic	22	56	2.98
0660	General Studies: ESL Studies	F	Hispanic	41	81	2.99
0660	General Studies: ESL Studies	F	Hispanic	20	34	2.69
0660	General Studies: ESL Studies	F	Unknown, did not respond	21	78	3.75
0660	General Studies: ESL Studies	F	Hispanic	21	68	3.26
7212	Gen Studies: Radiologic Tech	F	Hispanic	21	47	2.36
7212	Gen Studies: Radiologic Tech	F	Other	21	53	3.59
7213	Gen Studies: Nursing	F	White, Non-Hispanic	22	59	2.63
7218	Gen Studies: Dental Assisting	M	Black, Non-Hispanic	41	94	2.7
7255	Gen Studies: Human Services	F	Non-Resident Alien	27	60	3.77

**Fall 04 Unsuccessful or Non-Completers of ESL Writing Enrolled at NECC in Fall 07 (N=7)**

MajorCode	MajorDesc	GENDER	Ethnicity_Code	AGE	Earned Hours	GPA
0103	LA: Physical Ed/Recreation	F	Hispanic	28	57	2.43
0141	LA: Social Work	F	Hispanic	34	77	2.53
0180	General Studies	F	Hispanic	36	21	1.51
0192	General Studies: Multi-Media	M	Hispanic	21	62	3.18
0660	General Studies: ESL Studies	F	Hispanic	35	63	2.57
0660	General Studies: ESL Studies	M	Unknown, did not respond	25	72	2.66
0660	General Studies: ESL Studies	F	Hispanic	26	58	3.37



# Achieving the Dream Report Series



February 1, 2008

## The Effect of Registration Dates on Course Completion Rates

This week's Achieving the Dream report will examine Fall 2007 course and grade data to determine how the date when the student registers for courses impacts successful completion. "Success" is defined as course completion with a grade of C or better (for the purposes of this analysis, C- is excluded).

The first day of classes for the Fall 2007 semester was September 5, 2007. Students who registered through August 15, 2007 were more likely to complete developmental and gatekeeper courses successfully than those who registered after August 15.

The most significant disparities were seen in Developmental and Reading Basic Writing where there were 12% and 11% differences (respectively) between successful completions when students registered through August 15<sup>th</sup> compared with those that

registered after August 15<sup>th</sup>. In the Natural Sciences students who registered through August 15<sup>th</sup> had a 10% higher completion rate than their counterparts. In the remaining courses examined by this study (English 101, Developmental Math and College Math), students who registered in the earlier time-frame were at least 5% more likely to complete the coursework successfully.

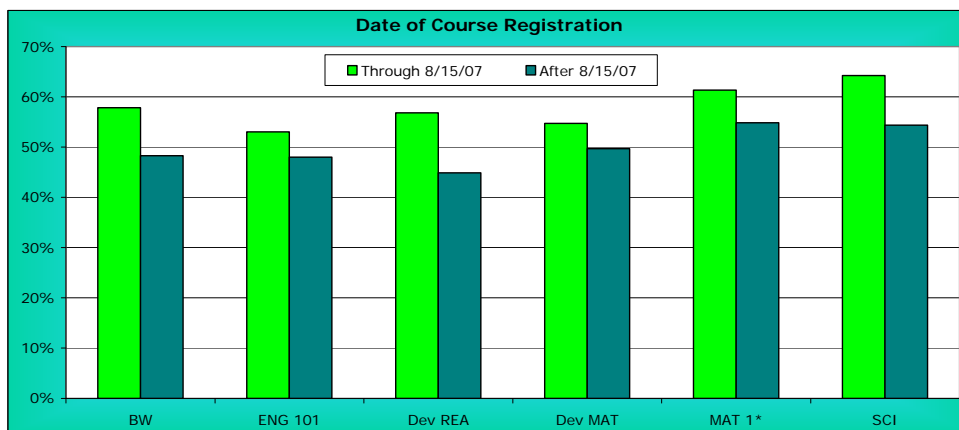
As can be seen from all of the courses examined in this study, when students register early they achieve higher course completion rates.

*Interpretations of these findings as well as suggestions for further analysis are always welcome. Please direct questions and comments to Thomas Fallon, Dean of Institutional Research and Planning, via phone at 978-556-3866 or email at [tfallon@necc.mass.edu](mailto:tfallon@necc.mass.edu).*



<http://www.necc.mass.edu/irp/planning/dream.php>

**Fall 2007 Course Completion Rates**  
Completed = grades A-C (C- is excluded)



	Basic Writing		ENG 101		Dev Reading		Dev Math		College Math (1*)		Natural Sciences	
	# Enrolled	% Complete	# Enrolled	% Complete	# Enrolled	% Complete	# Enrolled	% Complete	# Enrolled	% Complete	# Enrolled	% Complete
Through 8/15/07	268	58%	673	53%	368	57%	689	55%	559	61%	1,228	64%
After 8/15/07	176	48%	344	48%	176	45%	499	50%	279	55%	445	54%

## Fall 2007 Course Completion Rates By Date of Course Registration

*Completed = grades A-C (C- is excluded)*

First day of classes was September 5, 2007.

### Basic Writing - WRT 010

	# Enrolled	# Completed	% Completed
Prior to August 15	259	152	59%
August 15 - August 22	54	23	43%
August 23 - August 30	78	39	50%
August 31 - September 5	36	18	50%
<b>Total</b>	<b>427</b>	<b>232</b>	<b>54%</b>

### English Comp I - ENG 101

	# Enrolled	# Completed	% Completed
Prior to August 15	649	345	53%
August 15 - August 22	133	58	44%
August 23 - August 30	135	70	52%
August 31 - September 5	55	29	53%
<b>Total</b>	<b>972</b>	<b>502</b>	<b>52%</b>

### Developmental Math

	# Enrolled	# Completed	% Completed
Prior to August 15	666	363	55%
August 15 - August 22	163	84	52%
August 23 - August 30	206	112	54%
August 31 - September 5	89	39	44%
<b>Total</b>	<b>1,124</b>	<b>598</b>	<b>53%</b>

### Natural Sciences

	# Enrolled	# Completed	% Completed
Prior to August 15	1,209	777	64%
August 15 - August 22	173	101	58%
August 23 - August 30	130	68	52%
August 31 - September 5	79	43	54%
<b>Total</b>	<b>1,591</b>	<b>989</b>	<b>62%</b>

### Developmental Reading

	# Enrolled	# Completed	% Completed
Prior to August 15	352	200	57%
August 15 - August 22	62	31	50%
August 23 - August 30	82	36	44%
August 31 - September 5	27	10	37%
<b>Total</b>	<b>523</b>	<b>277</b>	<b>53%</b>

### College Math (100 level courses)

	# Enrolled	# Completed	% Completed
Prior to August 15	540	329	61%
August 15 - August 22	104	64	62%
August 23 - August 30	102	55	54%
August 31 - September 5	49	24	49%
<b>Total</b>	<b>795</b>	<b>472</b>	<b>59%</b>

# Achieving the Dream Report Series

December 14, 2007



## *The Effect of Taking Developmental Courses Immediately Upon Receipt of Assessment Results on Three-Year Positive Persistence Rate*

NECC has a well developed and active assessment office. All entering students are tested using the Accuplacer Placement Test to determine their academic level for Writing, Reading and Mathematics. All students take the tests unless they have received an exemption. Students who receive scores above the cut-off score are allowed to take college-level "gatekeeper" courses such as English Composition I, Psychology, Sociology or College Algebra. Those that test below the cut-off score are directed to take various developmental courses.

This study follows two cohorts of students from the Fall 2004 semester.

Cohort 1: Students who assessed into one or more of the developmental courses (Writing, Reading or

Mathematics) and then registered for and completed the course with a grade of A through C (excluding C-) in Fall 2004.

Cohort 2: Students who assessed into one or more of the developmental courses and then either registered for and completed the course with a grade less than C, withdrew from the course, or chose not to take the course in Fall 2004 (**Figure 1**).

The cohorts were then followed for three years to determine their respective Positive Persistence Rate (PPR). The PPR is a measure that combines the positive outcomes of graduation, transfer to a 4 year college and remaining students enrolled after a three-year period (*final calculations for Fall 2004 PPR will be available in January 2008*).

**Figure 1.**

	COHORT 1		COHORT 2
	Tested Into Developmental Course in Fall 2004	Took Course & Completed Successfully (Grade A-C) in Fall 2004	Did Not Take or Did Not Complete Course Successfully (Grade <C or Withdrew) in Fall 2004
Basic Writing	218	106	112
College Reading	125	55	70
Basic Algebra 2	636	166	470

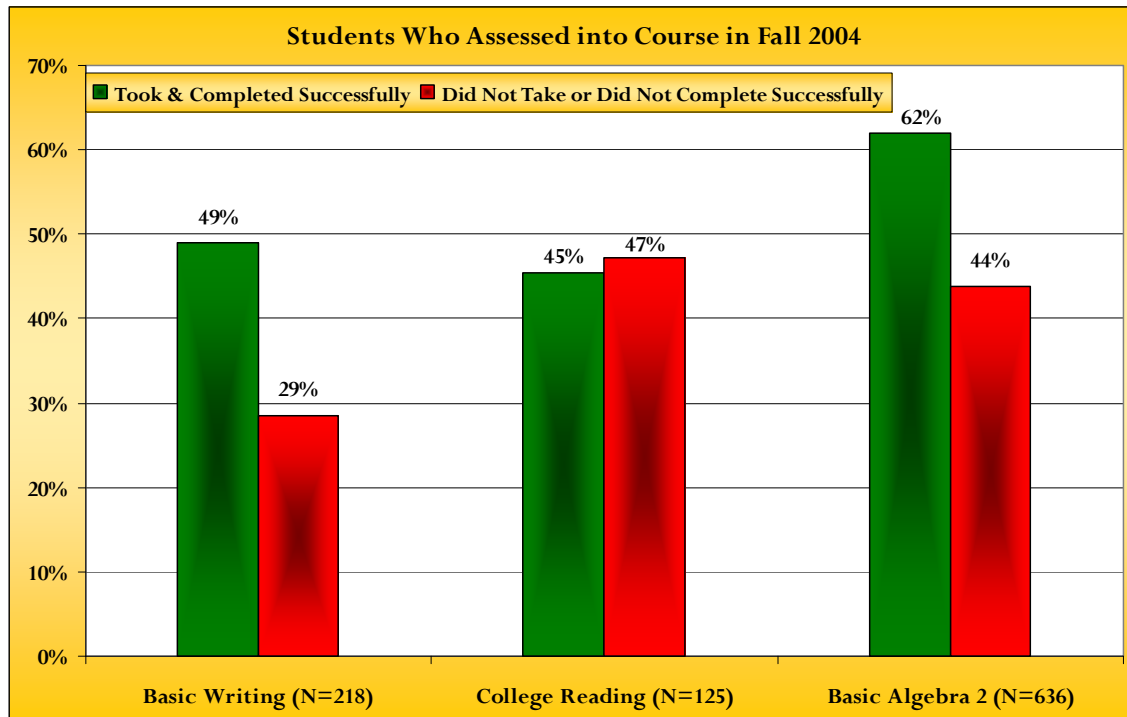
Students in Cohort 1 represent 49% of those that assessed into Basic Writing; 44% for College Reading and 26% for Basic Algebra II. **These rates show that less than half of our first-time students (only a quarter of Basic Algebra) move into their second semester having completed one or more of the developmental courses they assessed into.**

Next, the three year PPR was determined for each cohort. One would suspect that those students who completed developmental courses on schedule would persist for a longer period in college and attain better outcomes as measured by cumulative credits earned and overall GPA.

For Basic Writing and Basic Algebra II, students in Cohort 1 attain higher PPR rates (**Chart 1**). College

Reading does not show the same relationship for the PPR at this time.

**Chart 1.**



Another way of quantifying student success is to identify the number of earned credits and the overall GPA of the two cohorts for each course over the three-year period. The differences between cohorts are large for these two measures and the positive relationship between taking prescribed developmental courses in a timely fashion and

overall student success is evident for all three courses. **Students who register for the developmental course that they tested into in the same semester and complete with a grade of A – C, earned almost twice as many credits and achieved a much higher GPA over the three-year period (Figure 2).**

**Figure 2.**

	COHORT 1			COHORT 2		
	Overall Cumulative Credits Earned (as of Sp07)	Average Credits Earned per Student	Overall GPA (as of Sp07)	Overall Cumulative Credits Earned (as of Sp07)	Average Credits Earned per Student	Overall GPA (as of Sp07)
Basic Writing	3,425	32	2.62	1,216	11	1.27
College Reading	2,048	37	2.63	1,521	22	1.81
Basic Algebra 2	6,294	38	2.69	11,172	24	2.03

In summary, successful completion of developmental courses in a timely fashion appears to increase rates of student success. Further study will take place, especially in College Reading, to determine why the PPR did not increase. Basic Reading outcomes will be added to the study.

*Interpretations of these findings as well as suggestions for further analysis are always welcome. Please direct questions and comments to Thomas Fallon, Dean of Institutional Research and Planning, via phone at 978-556-3866 or email at [tfallon@necc.mass.edu](mailto:tfallon@necc.mass.edu).*

