

Skyline College Research Brief
Basic Skills Cohort Tracking
Fall 2009

Purpose: To measure student success and student goal attainment through the basic skills sequences in Mathematics, English, and ESL.

Methodology: Students taking their first course in Mathematics between the 2002-03 and 2006-07 school years were included in the study, and their progression through the basic skills Mathematics sequence were tracked forward for three academic years. The cohorts were defined by the first course taken in Mathematics – not on their initial placement – and students were tracked separately based on their starting course/level. These three levels were Fundamentals (Math 811), Beginning Algebra (Math 110 or 111/112), and Intermediate Algebra (Math 120 or 122/123). Students were tracked through the level at which they started up through Transfer level Mathematics courses, which were defined as Math 130, Math 150, and all 200-level Math courses.

The same methodology was used independently for English Courses and ESL courses. The English course levels were English 826 (two levels below), English 836/846 (one level below), English 100/105 (Transfer A), and English 110/165 (Transfer B). For ESL, we started tracking at the “Pre Intermediate Level” – ESL 820 / 821-822 / 852-862-872, and tracked through Intermediate (830 / 831-832 / 853-863-873), High Intermediate (840 / 841-842), and finally Transfer (ESOL 400 or English 100/105).

Success was also analyzed by ethnicity, to locate potential issues of student equity in goal attainment. These results will be summarized in a future research brief.

Key Findings:

- While 65% of the students starting at the Fundamentals level in Mathematics (see page 5) eventually pass Fundamentals, only 33% pass Beginning Algebra, 11% pass Intermediate Algebra, and 5% pass Transfer-level Mathematics.
 - Note that not all of these students were attempting to achieve Transfer-level success; for much of this time period, Beginning Algebra was the graduation requirement for an AA degree. However, students wishing to transfer would have needed to progress further. In addition, the graduation requirement was raised to Intermediate Algebra in Fall 2009.
- Students starting in Beginning Algebra fared better, with 67% passing Beginning Algebra, 27% passing Intermediate Algebra, and 13% passing Transfer-Level Math (page 6).
- 72% of the students starting in Intermediate Algebra passed that level, with 31% achieving Transfer-level success (page 7).

- In English, cohort tracking rates were as follows:
 - Students starting two levels below (page 15) eventually pass two-levels below English at a 67% rate, one-level below at 40%, and Transfer A at 25%, and Transfer B at 16%.
 - From English one level below (page 16), 74% eventually pass the one-level below course, 46% pass Transfer A, and 29% pass Transfer B.
- In ESL, the cohort tracking rates were as follows:
 - Starting at the Pre-Intermediate level (page 25), 68% pass Pre-Intermediate, 35% pass Intermediate, 22% pass high Intermediate, and 11% pass Transfer.
 - Starting at the Intermediate level (page 26), 69% pass Intermediate, 37% pass High Intermediate, and 22% pass Transfer.
 - Starting at the High Intermediate level (page 27), 66% pass High Intermediate and 34% pass Transfer.

Skyline Basic Skills Cohort Tracking Research Highlights

***December 2, 2009
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Dean of Planning & Research***



Math Cohort Tracking

- Cohorts tracked include students whose first math course at Skyline was between 2002-03 and 2006-07. Students were tracked for three academic years.
- Students were tracked based on the first math course that they took at Skyline (not on their placement).



Math Cohort Tracking – Starting in Fundamentals

Starting Level	Att. Fund	Pass Fund	Att. Beg.	Pass Beg.	Att. Inter.	Pass Inter.	Att. Tran.	Pass Tran.
Fundamentals	1,863	1,215	939	624	331	212	134	99
% of starting cohort	100%	65%	50%	33%	18%	11%	7%	5%
% from previous step	---	65%	77%	66%	53%	64%	63%	74%

*Note: Fundamentals = Math 811, Beginning Algebra = 110 or 111+112, Intermediate Algebra = 120 or 122+123, Transfer = 130, 150, 200-level



Math Cohort Tracking – Starting in Beginning Algebra

Starting Level	Att. Beg.	Pass Beg.	Att. Inter.	Pass Inter.	Att. Tran.	Pass Tran.
Beginning Algebra	3,449	2,306	1,363	934	577	440
% of starting cohort	100%	67%	40%	27%	17%	13%
% from previous step	---	67%	59%	69%	62%	76%
<p>*Note: Beginning Algebra = 110 or 111+112, Intermediate Algebra = 120 or 122+123, Transfer = 130, 150, 200-level</p>						



Math Cohort Tracking – Starting in Intermediate Algebra

Starting Level	Att. Inter.	Pass Inter.	Att. Tran.	Pass Tran.
Intermediate Algebra	2,086	1,494	891	647
% of starting cohort	100%	72%	43%	31%
% from previous step	---	72%	60%	73%
<p>*Note: Intermediate Algebra = 120 or 122+123, Transfer = 130, 150, 200-level</p>				



Math Cohort Tracking & Student Equity

- Next, we looked at the cohort tracking rates for differences by ethnicity
- There are clear and significant differences in goal attainment by ethnicity...



Math Cohort Tracking by Ethnicity – Starting in Fundamentals

Group	Size	Pass Fund	Att. Beg.	Pass Beg.	Att. Inter.	Pass Inter.	Att. Tran.	Pass Tran.
Asian	178	77%	62%	44%	25%	16%	12%	10%
Black	172	41%	35%	19%	10%	5%	4%	3%
Filipino	339	73%	58%	40%	20%	13%	9%	6%
Hispanic	628	61%	47%	30%	15%	10%	6%	4%
Pacific Islander	65	60%	46%	25%	14%	8%	5%	3%
White	336	73%	51%	37%	20%	14%	6%	4%
Other	145	67%	50%	34%	20%	10%	9%	7%



Math Cohort Tracking by Ethnicity – Starting in Beginning Algebra

Group	Size	Pass Beg.	Att. Inter.	Pass Inter.	Att. Tran.	Pass Tran.
Asian	569	67%	48%	36%	24%	19%
Black	152	57%	30%	18%	13%	11%
Filipino	790	68%	41%	28%	17%	12%
Hispanic	795	63%	36%	24%	14%	10%
Pacific Islander	87	62%	34%	20%	10%	8%
White	761	72%	37%	26%	15%	12%
Other	295	67%	43%	27%	20%	16%



Math Cohort Tracking by Ethnicity – Starting in Intermediate Algebra

Group	Size	Pass Inter.	Att. Tran.	Pass Tran.
Asian	502	76%	49%	38%
Black	67	49%	27%	13%
Filipino	502	75%	44%	32%
Hispanic	375	68%	38%	24%
Pacific Islander	61	61%	33%	26%
White	400	72%	40%	30%
Other	179	72%	44%	31%

The Double Whammy...

- In addition to these differential rates by ethnicity, there is also a marked difference in which course students take first.
- Thus, we have a higher % of underrepresented students placing into the lower levels, and differentially lower rates of achievement once they get there.



First Math Course Taken at Skyline by Ethnicity

Group	Size	Fund.	Begin.	Inter.	Transfer
Asian	888	8%	17%	20%	55%
Black	168	31%	36%	21%	13%
Filipino	863	14%	31%	25%	30%
Hispanic	793	25%	36%	22%	17%
Pacific Islander	102	21%	32%	30%	17%
White	696	13%	30%	26%	31%
Other	444	12%	30%	26%	32%

English Cohort Tracking

- Cohorts tracked include students whose first English course at Skyline was between 2002-03 and 2006-07. Students were tracked for three academic years.
- Students were tracked based on the first English course that they took at Skyline (not on their placement).



English Tracking – Starting in Two Levels Below Transfer

Starting Level	Att. Two Below	Pass Two Below	Att. One Below	Pass One Below	Att. Trans. A	Pass Trans. A	Att. Trans. B	Pass Trans. B
Two Levels Below Transfer	2,328	1,566	1,179	924	742	591	440	362
% of starting cohort	100%	67%	51%	40%	32%	25%	19%	16%
% from previous step	---	67%	75%	78%	80%	80%	74%	72%

*Note: Two Levels Below = 826, One Level Below = 836 or 846, Transfer A = English 100 or 105, Transfer B = 110 or 165



English Tracking – Starting in One Level Below Transfer

Starting Level	Att. One Below	Pass One Below	Att. Trans. A	Pass Trans. A	Att. Trans. B	Pass Trans. B
One Level Below Transfer	3,017	2,246	1,666	1,391	1,038	879
% of starting cohort	100%	74%	55%	46%	34%	29%
% from previous step	---	74%	74%	83%	75%	85%
<p>*Note: One Level Below = 836 or 846, Transfer A = English 100 or 105, Transfer B = 110 or 165</p>						

English Tracking – Starting in Transfer A

Starting Level	Att. Trans. A	Pass Trans. A	Att. Trans. B	Pass Trans. B
Transfer A	3,320	2,615	1,641	1,406
% of starting cohort	100%	79%	49%	42%
% from previous step	---	79%	63%	86%
<p>*Note: Transfer A = English 100 or 105, Transfer B = 110 or 165</p>				

English Tracking & Student Equity

- Next, we looked at the cohort tracking rates for differences by ethnicity
- There are clear and significant differences in goal attainment by ethnicity...



English Cohort Tracking by Ethnicity – Starting Two Levels Below (826)

Group	Size	Pass Two Below	Att. One Below	Pass One Below	Att. Trans. A	Pass Trans. A	Att. Trans. B	Pass Trans. B
Asian	499	74%	56%	47%	44%	37%	29%	26%
Black	147	50%	39%	23%	18%	12%	7%	3%
Filipino	563	70%	56%	44%	34%	26%	20%	16%
Hispanic	567	61%	44%	31%	23%	18%	14%	10%
Pacific Islander	89	62%	32%	29%	25%	18%	15%	9%
White	295	71%	54%	45%	32%	27%	18%	16%
Other	168	71%	54%	44%	32%	26%	17%	13%



English Tracking by Ethnicity – Starting One Level Below (836 / 846)

Group	Size	Pass One Below	Att. Trans. A	Pass Trans. A	Att. Trans. B	Pass Trans. B
Asian	645	80%	63%	56%	47%	42%
Black	139	65%	50%	36%	22%	19%
Filipino	690	78%	58%	47%	33%	27%
Hispanic	681	67%	49%	40%	29%	24%
Pacific Islander	71	72%	48%	39%	30%	20%
White	554	74%	51%	43%	29%	25%
Other	237	78%	60%	50%	38%	32%



English Tracking by Ethnicity – Starting in Transfer A (100 / 105)

Group	Size	Pass Trans. A	Att. Trans. B	Pass Trans. B
Asian	1,219	86%	57%	51%
Black	94	70%	46%	34%
Filipino	479	76%	43%	35%
Hispanic	467	71%	44%	37%
Pacific Islander	42	83%	52%	38%
White	728	76%	46%	39%
Other	291	76%	46%	38%

The Double Whammy...

- In addition to these differential rates by ethnicity, there is also a marked difference in which course students take first.
- Thus, we have a higher % of underrepresented students placing into the lower levels, and differentially lower rates of achievement once they get there.



First English Course Taken at Skyline by Ethnicity

Group	Size	Two Below	One Below	Transfer
Asian	1,018	12%	23%	65%
Black	135	30%	44%	25%
Filipino	712	24%	45%	31%
Hispanic	671	27%	43%	30%
Pacific Islander	99	32%	36%	31%
White	593	13%	35%	52%
Other	381	15%	37%	48%



ESL Cohort Tracking

- Cohorts tracked include students whose first ESL course at Skyline was between 2002-03 and 2006-07. Students were tracked for three academic years.
- Students were tracked based on the first ESL course that they took at Skyline (not on their placement).



ESL Tracking – Starting in Pre Intermediate

Starting Level	Att. Pre Inter.	Pass Pre Inter.	Att. Inter.	Pass Inter.	Att. High Inter.	Pass High Inter/	Att. Trans.	Pass Trans.
Pre Intermediate	259	177	123	91	78	56	44	32
% of starting cohort	100%	68%	47%	35%	30%	22%	17%	11%
% from previous step	---	68%	69%	74%	86%	72%	79%	73%

*Note: Pre Intermediate = 820 / 821-822 / 852-862-872; Intermediate = 830 / 831-832 / 853-863-873; High Intermediate = 840 / 841-842; Transfer = 400 or English 100/105

ESL Tracking –Starting in Intermediate

Starting Level	Att. Inter.	Pass Inter.	Att. High Inter.	Pass High Inter/	Att. Trans.	Pass Trans.
Intermediate	361	250	177	133	99	79
% of starting cohort	100%	69%	49%	37%	27%	22%
% from previous step	---	69%	71%	75%	74%	80%

*Note: Intermediate = 830 / 831-832 / 853-863-873; High Intermediate = 840 / 841-842; Transfer = 400 or English 100/105

ESL Tracking – Starting in High Intermediate

Starting Level	Att. High Inter.	Pass High Inter/	Att. Trans.	Pass Trans.
High Intermediate	366	243	158	123
% of starting cohort	100%	66%	43%	34%
% from previous step	---	66%	65%	78%
<p>*Note: High Intermediate = 840 / 841-842; Transfer = 400 or English 100/105</p>				