

Cañada Student Segmentation Analysis

Information to guide Strategic Planning

Cañada College

Administrators Retreat

July 16, 2009

Student Segmentation Study

Purpose: To create a set of tools to better inform program planning, marketing and enrollment management activities.

Goal: Identify distinct student profiles that will help guide more targeted strategies and interventions.

Approach: Using the student's revealed course taking behavior group students into similar populations.

Outcome: Six Distinct Student Population Segments.

Canada College's Six Student Segments

Segment

Distinguishing Characteristics

1. Concurrently Enrolled Students

High School students taking course for college credit.

2. ESL-Only Students

Students taking ESL courses exclusively.

3. Basic Skills Students

Students taking any *Pre-Transfer* course in Math or English.

4. Career-Tech Directed

Students with course selection and unit load consistent with a Career Development orientation.

5. Transfer Directed

Students with course selection and unit load consistent with a Transfer orientation.

6. Ed Development

Students taking courses for personal enrichment and those having a Bachelors Degree or above

Some important characteristics of these Student Segments

Segment definitions incorporate student stated educational goals into a more comprehensive data profile that includes their actual course taking behavior. This approach greatly improves predictability of outcomes. For example, Transfer Directed students are about 50% more likely to achieve transfer standing than those that claim a transfer orientation on their application.

Another important feature of these segment definitions is the small degree of movement between segments over time. Over the time period studied, students didn't change segment categories too often and when they did they were more likely to not return the following term.

Snapshot of Student Segments in Fall 2008

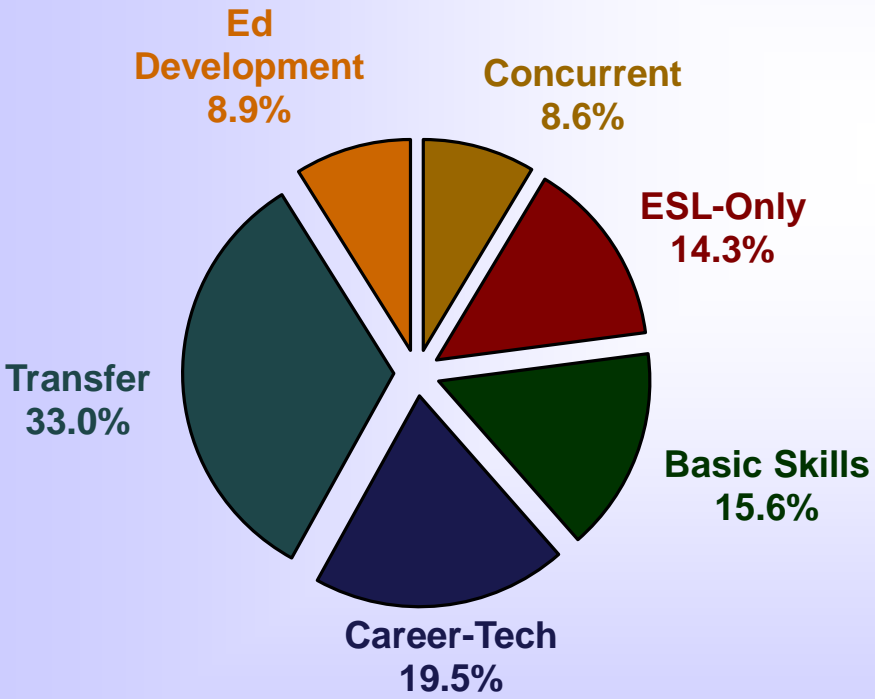
Cohort Description	Headcount	% of Headcount	FTES	% of FTES
Concurrent Enrollment Student	585	9%	142.6	7%
ESL-Only Student	972	14%	293.5	14%
Basic Skills Student	1,062	16%	509.9	24%
Career Tech Directed Student	1,328	20%	323.7	15%
Transfer Directed Student	2,249	33%	722.3	34%
Educational Development Student	606	9%	105.9	5%
Total	6,805	--	2,098	--

Note the relationship between Headcount and FTES varies by Segment

Three segments account for over two-thirds of our headcount and roughly three-fourths of our FTES

Headcount

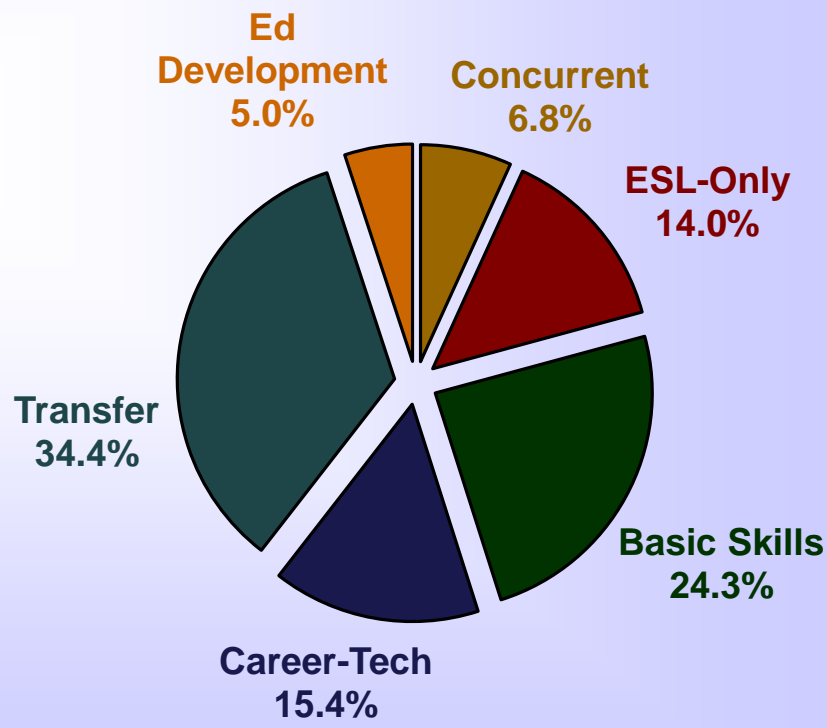
N = 6,805



Largest Three = 68%

FTES

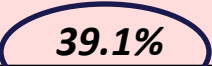
N = 2,098



Largest Three = 74%

There is significant variation in persistence across the six segments.

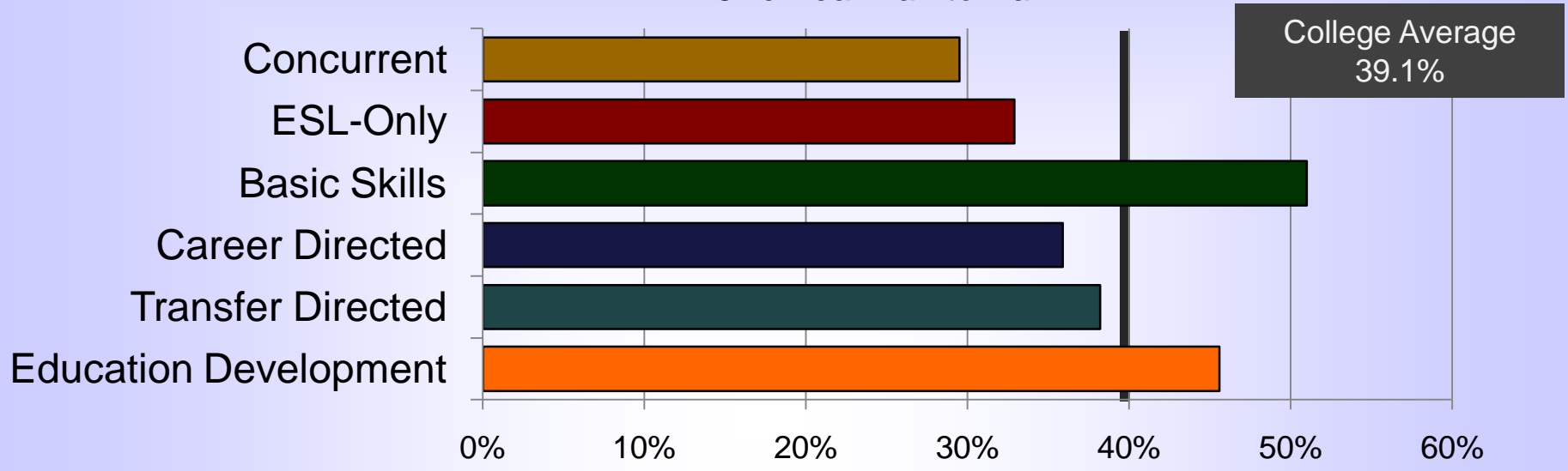
Cohort Description	Headcount	One year Fall-to-Fall Student Persistence	Two year Fall-to-Fall Student Persistence	FTES	One year Fall-to-Fall FTES Persistence	Two year Fall-to-Fall FTES Persistence
Concurrent Enrollment	585	29.5%	15.0%	142.6	43.8%	26.0%
ESL-Only Student	975	32.9%	17.9%	293.5	38.1%	19.9%
Basic Skills Student	1,062	51.0%	35.3%	509.9	48.4%	30.7%
Career-Tech Directed Student	1,328	35.9%	21.3%	304.9	41.8%	21.8%
Transfer Directed Student	2,249	38.2%	23.8%	570.7	40.0%	19.7%
Ed Development Student	606	45.6%	31.9%	117.4	44.6%	26.5%
College Overall	6,805	39.1%	24.4%	2,098	42.4%	23.4%



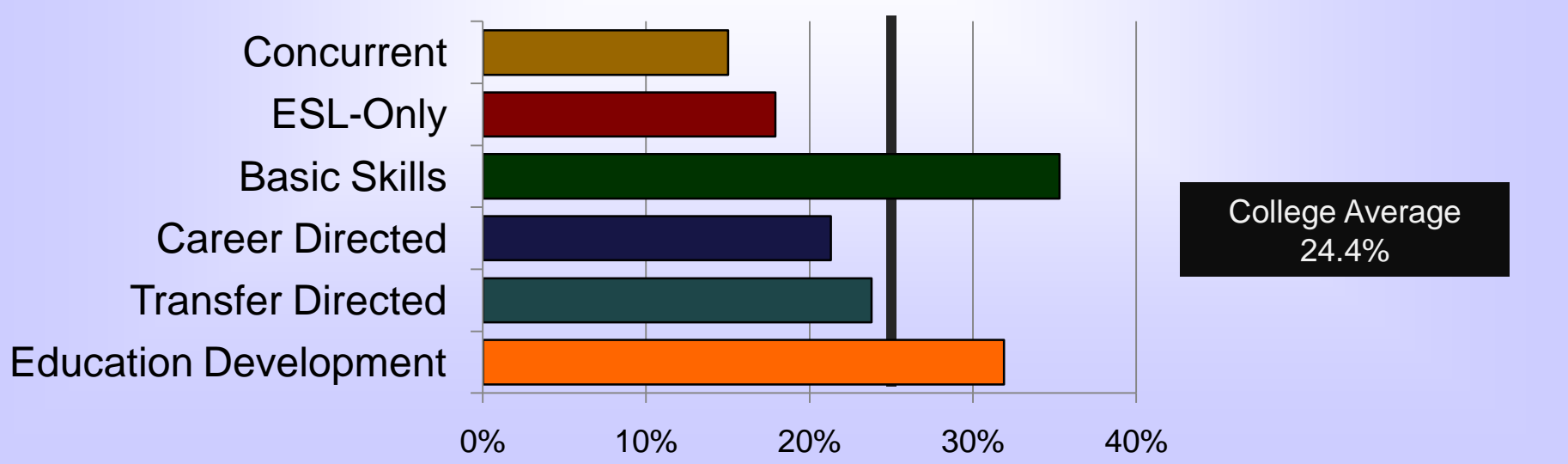
Consider the college persistence benchmark – 3 of every 5 students do not return the following Fall

Segment Persistence

One Year Fall-to-Fall

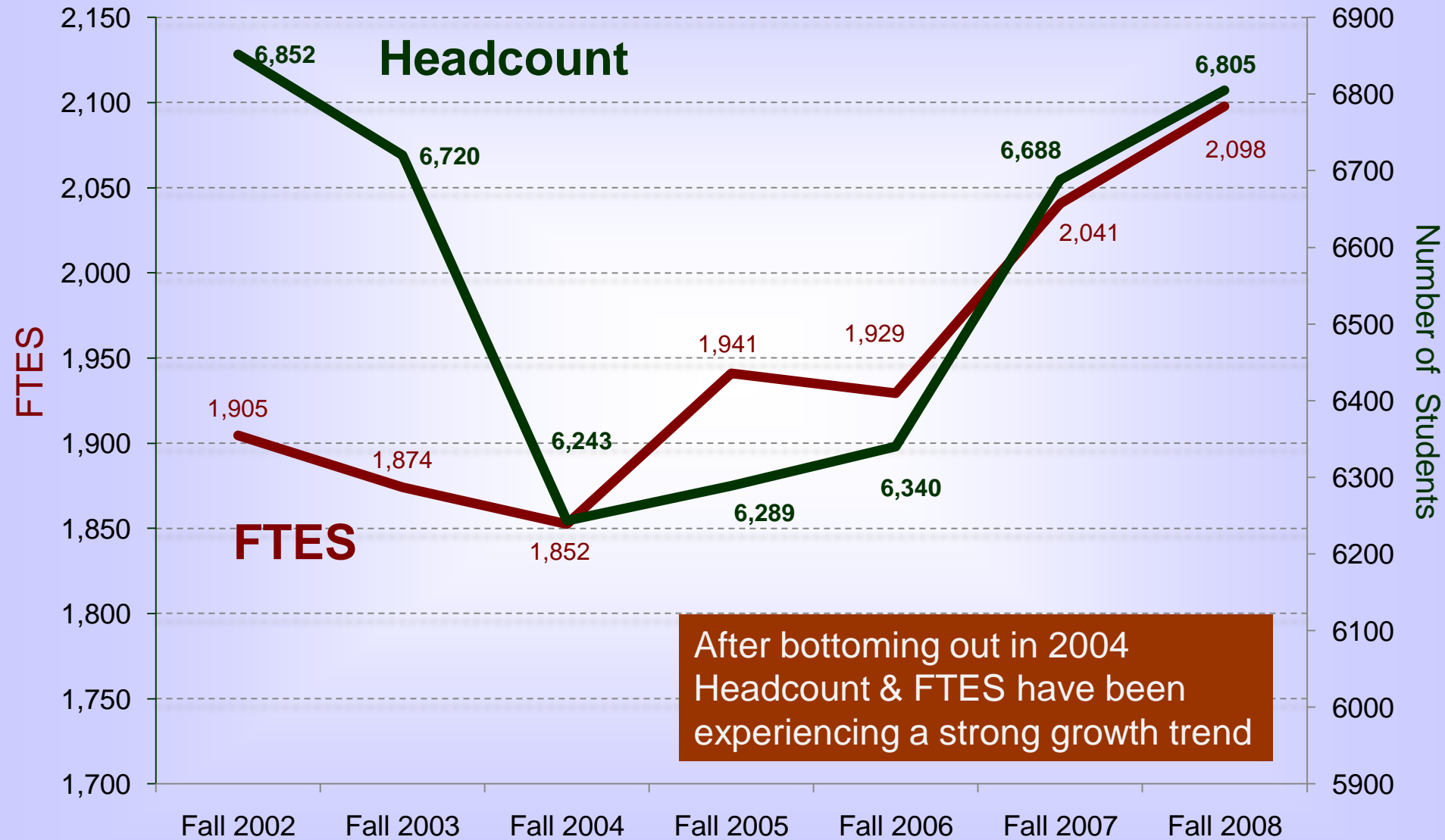


Two Year Fall-to-Fall



Trend Analysis

Our Baseline: Canada College Headcount & FTES

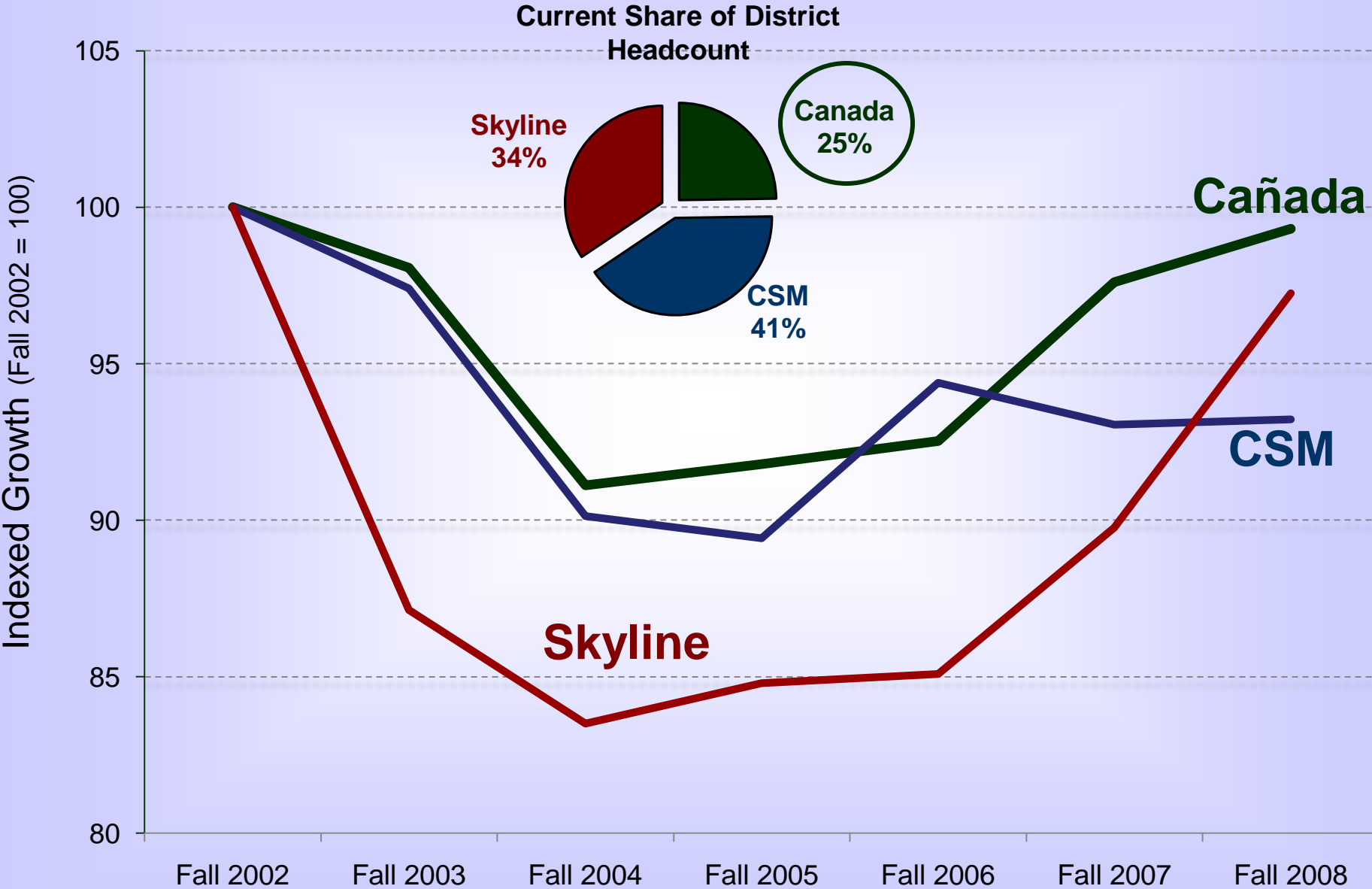


After bottoming out in 2004
Headcount & FTES have been
experiencing a strong growth trend

Interesting Note:

- the ratio of Headcount to FTES ~3.3
- the ratio of Enrollment to FTES ~ 7.2

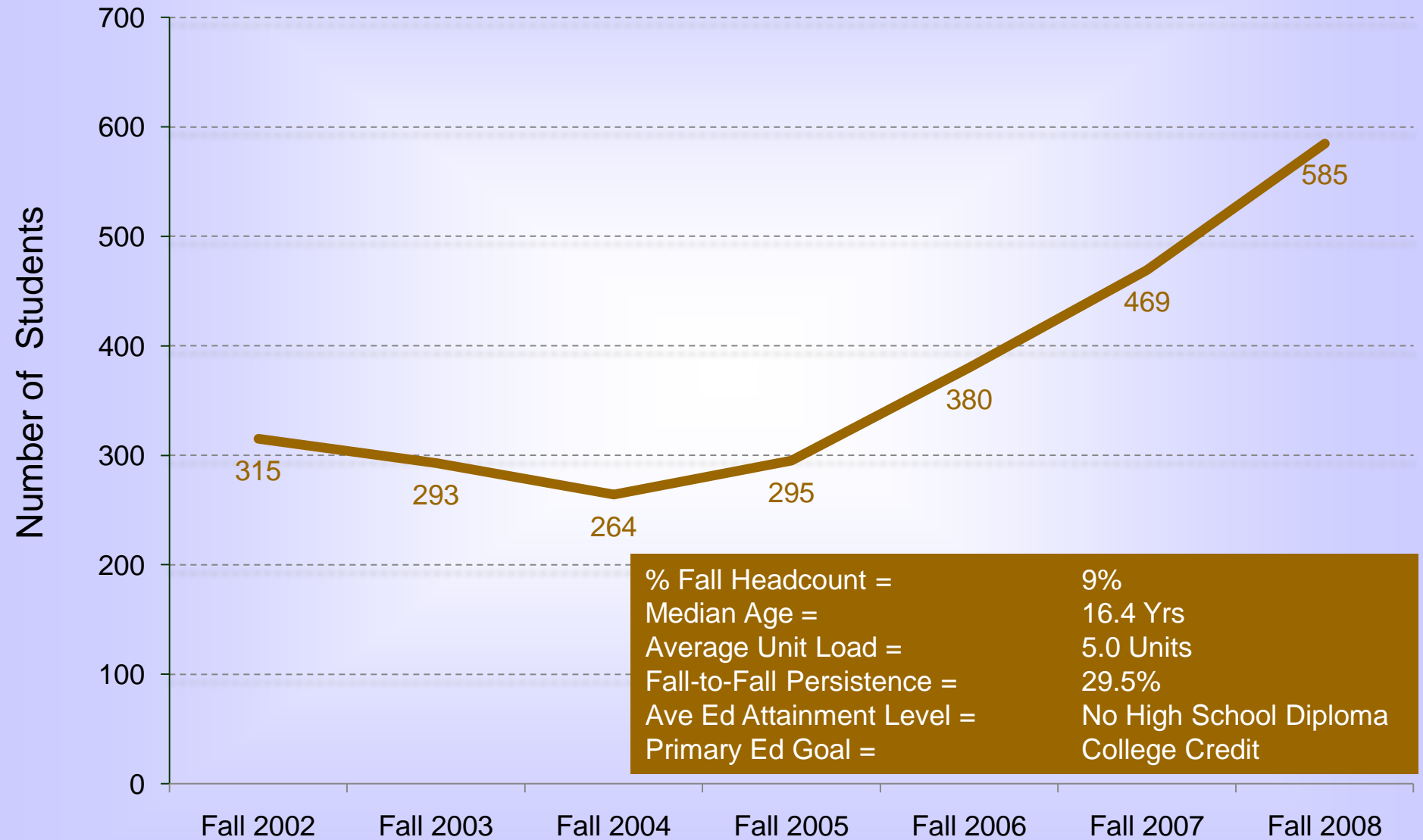
District Profile of Student Headcount



Detailed look at each Segment

The Concurrently Enrolled

Concurrently Enrolled Students



Roughly 10% of our concurrent students ultimately enroll at the college after graduating from high school

Breaking Down Concurrently Enrolled Students

Student Cohort	Student Headcount	FTES	One Year Fall-to-Fall Persistence Rate*
Concurrently Enrolled Students	585	143	29.5%
College Overall	6,805	2,098	39.1%

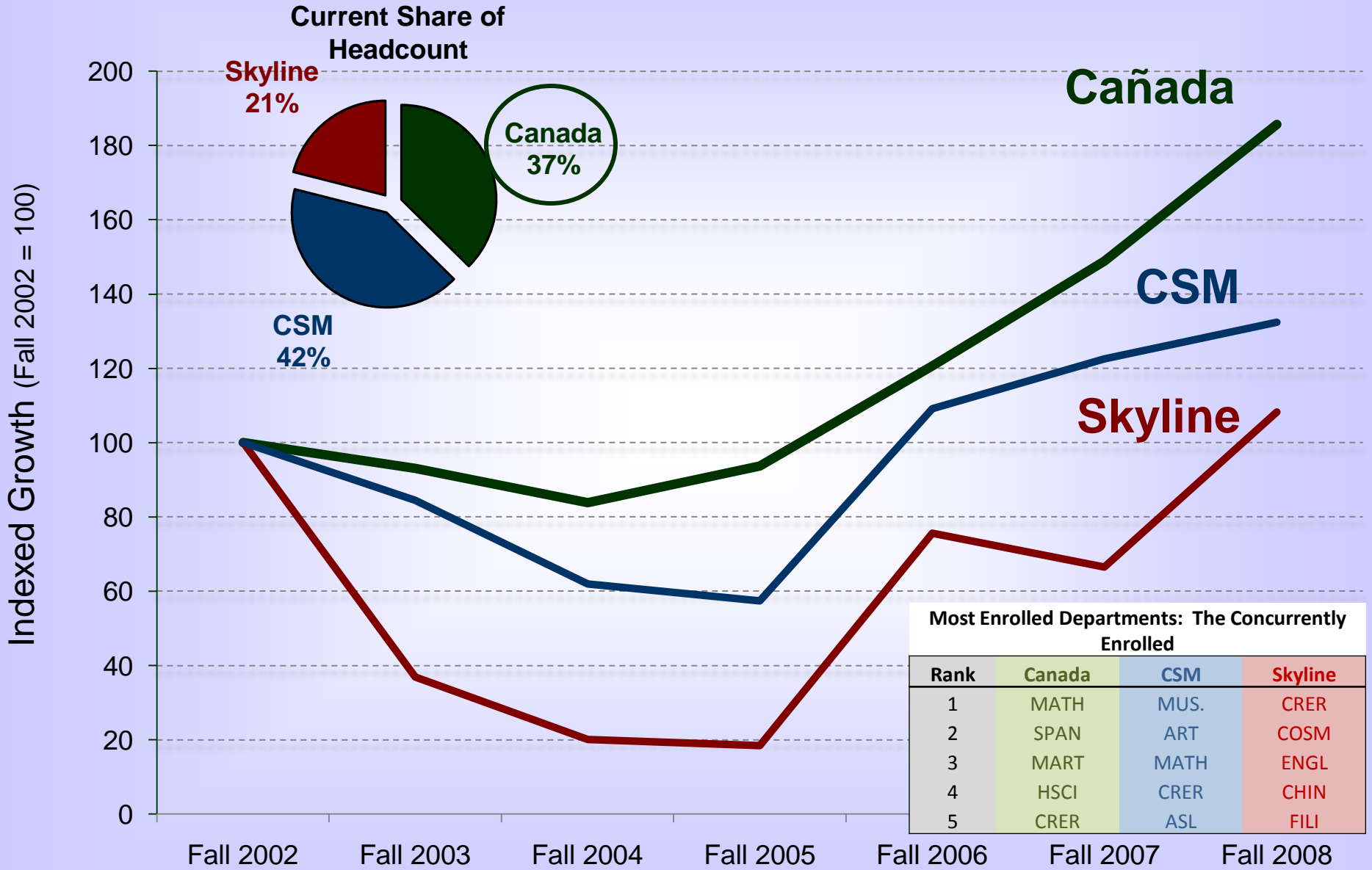
Segment has low persistence and low capture rates

Student Cohort	One Year Capture Rate**
Concurrently Enrolled Students	10.5%

* Persistence Rate refers to student persistence regardless of enrollment status.

** Capture Rate is the percentage of Concurrently Enrolled students that enroll at Canada after High School graduation

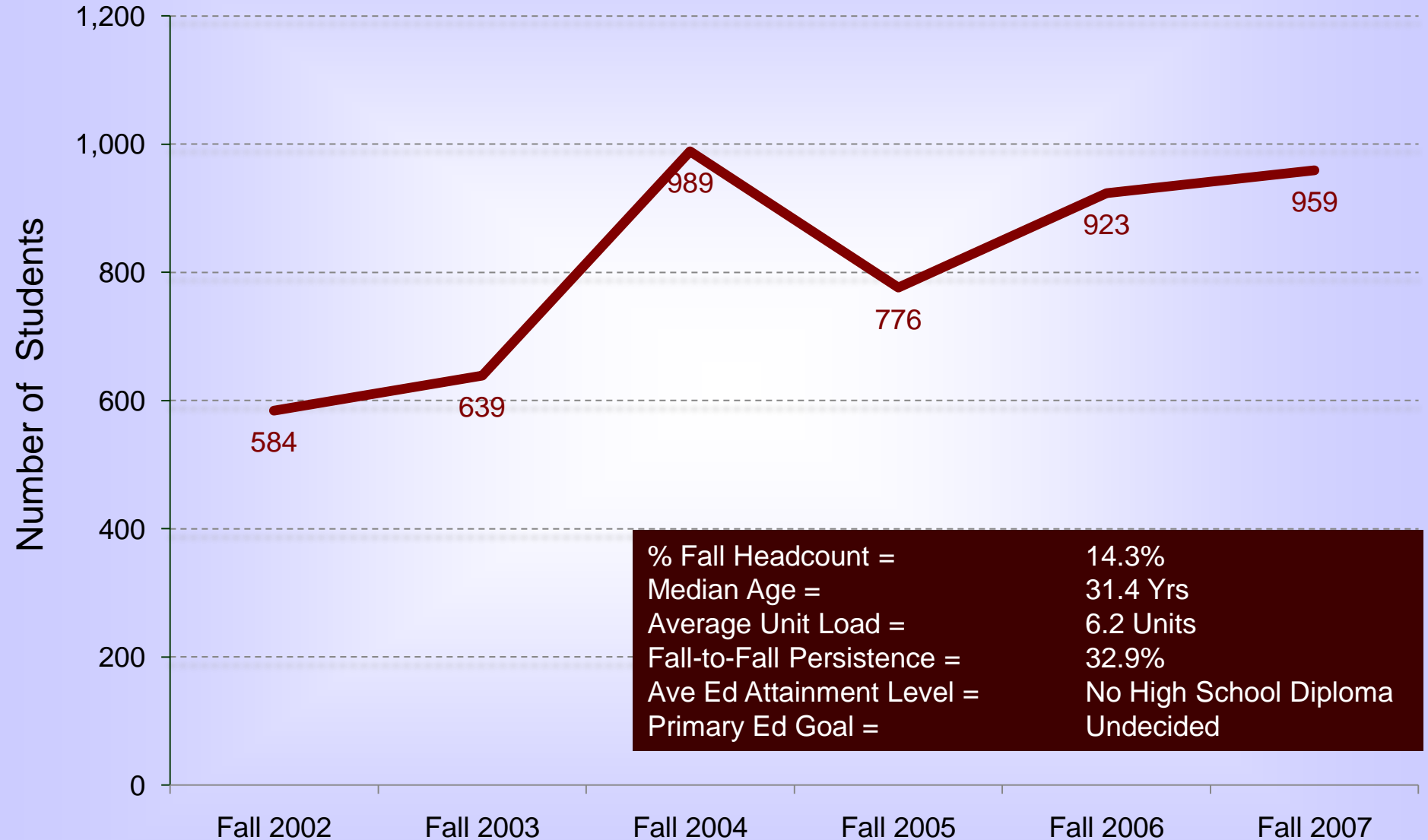
Percent Growth in Concurrently Enrolled Students



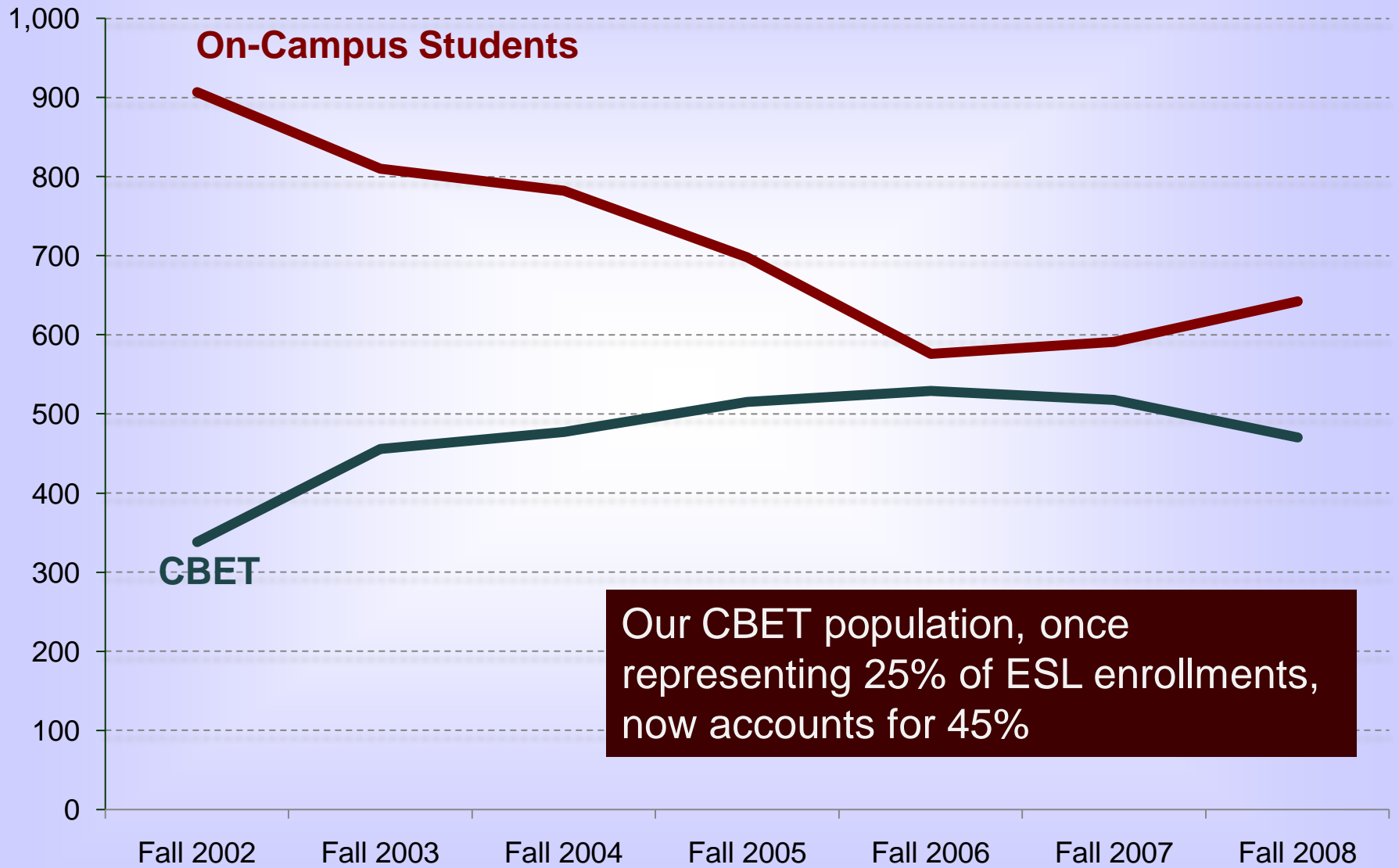
Detailed look at each Segment

ESL Course Takers

ESL-Only Students

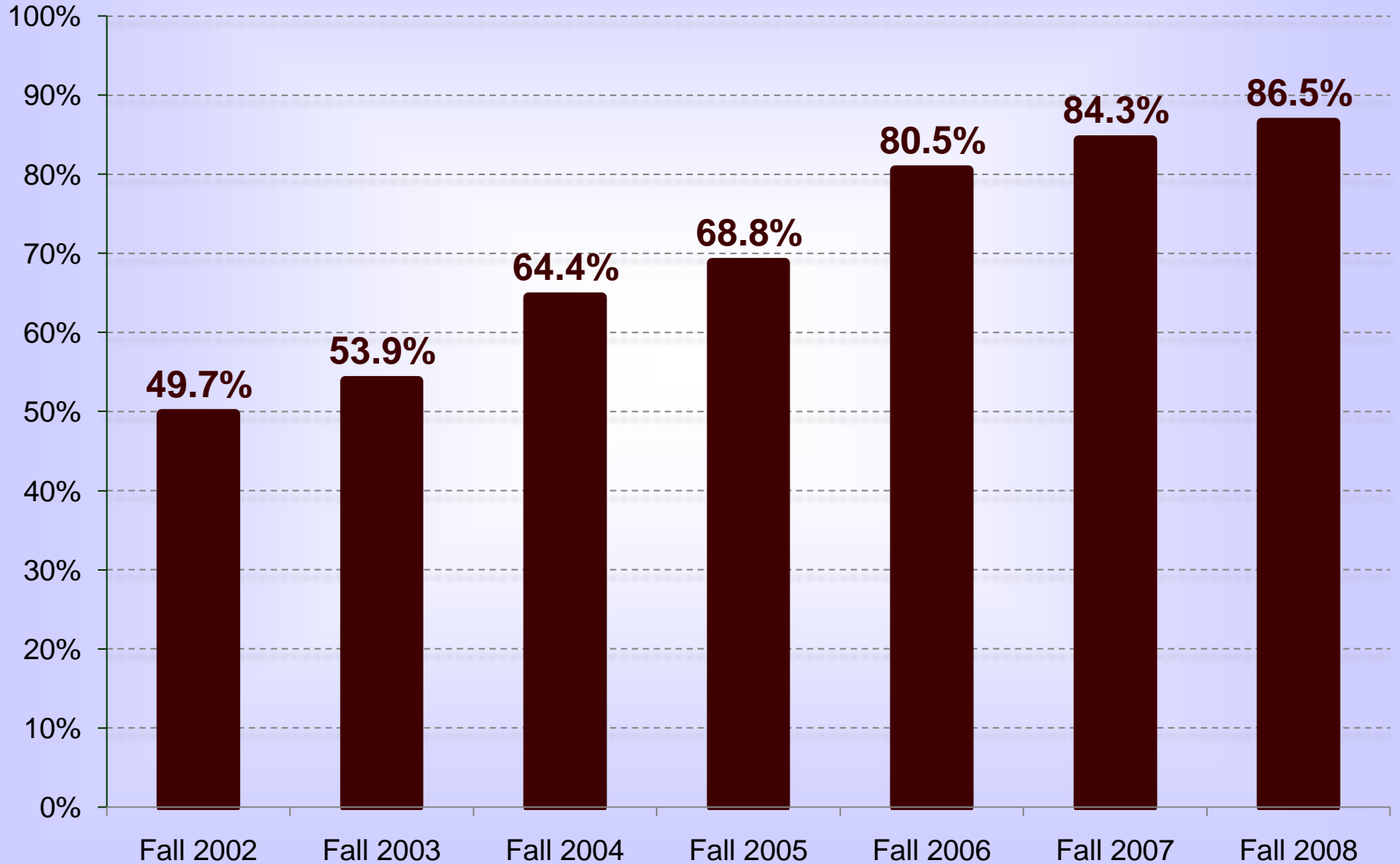


All ESL Students

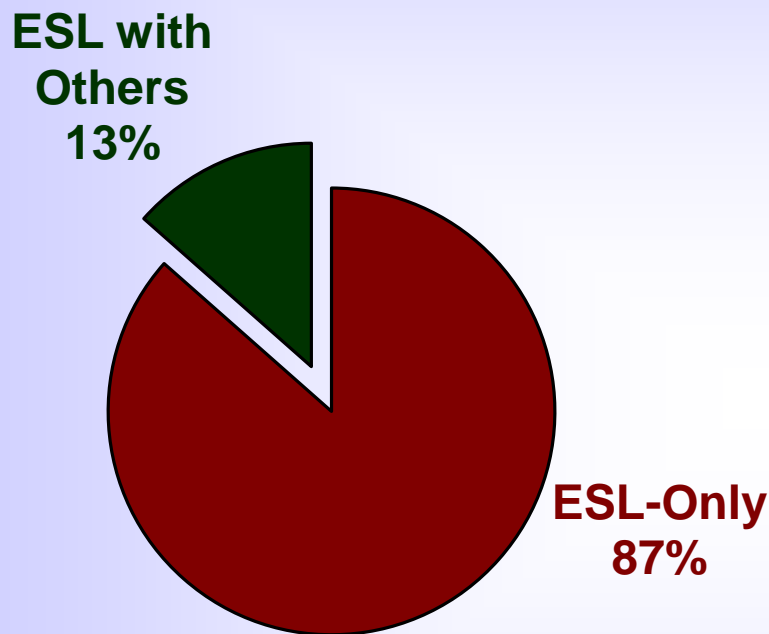


Our CBET population, once representing 25% of ESL enrollments, now accounts for 45%

Percent of ESL Students taking Only ESL Courses

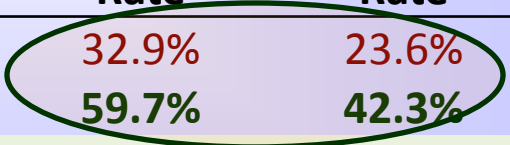


In terms of the segmentation analysis, ESL Course takers were separated into two distinct populations



Persistence is a defining characteristic separating ESL-Only student from those taking ESL in combination with other courses

Student Cohort	Student		One Year Fall-to-Fall Persistence	Two Year Fall-to-Fall Persistence
	Headcount	FTES	Rate	Rate
ESL-Only Course Takers	975	294	32.9%	23.6%
ESL & Other Course Takers	152	29	59.7%	42.3%
Total for All ESL Course Takers	1,127	323	38.1%	32.9%
College Overall	6,805	2,098	39.1%	24.4%



ESL Students have low persistence in part because many navigate long course sequences.

ESL Persistence by Student Entry Level

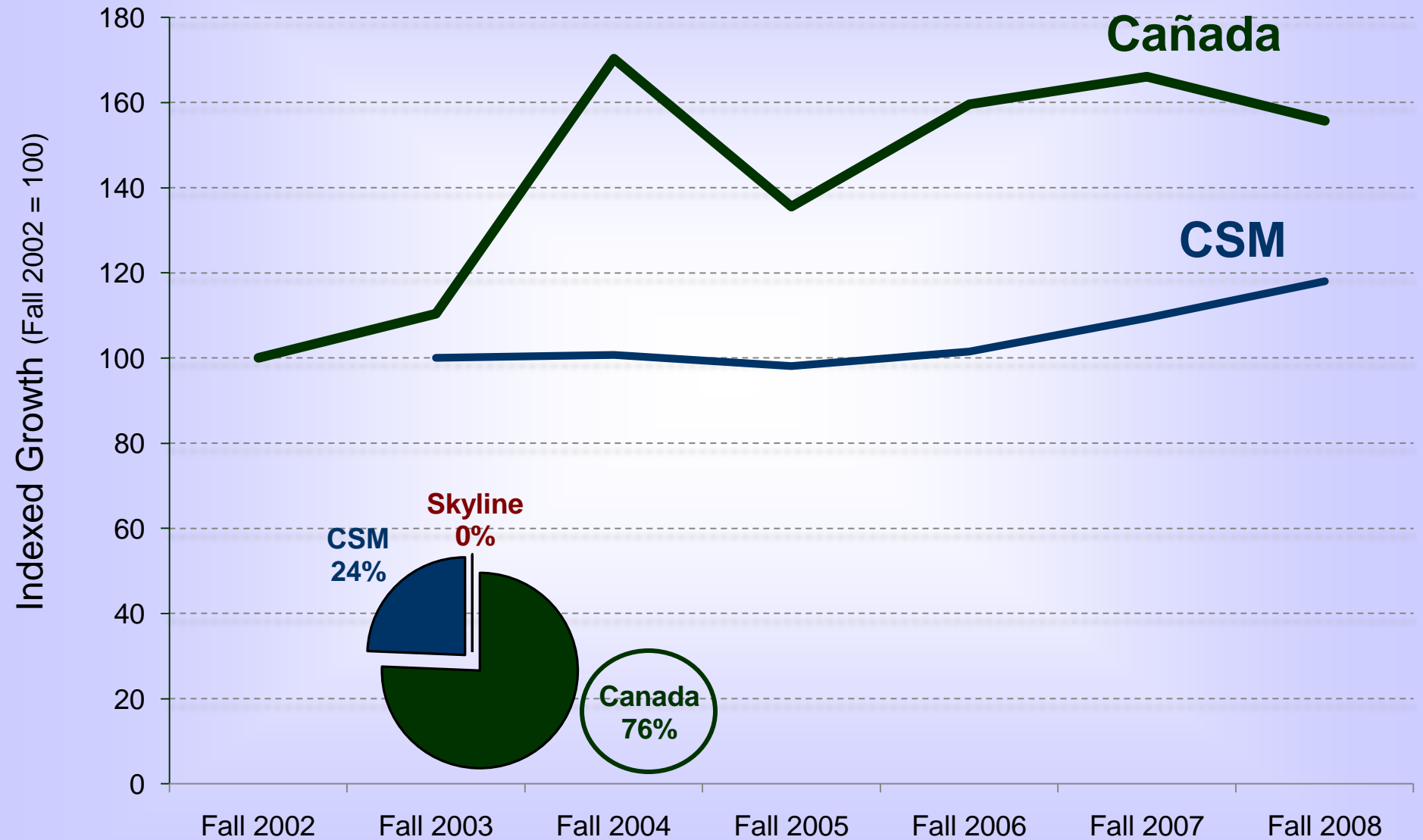
(Tracking Period: Fall 2000 – Spring 2008)

Entry Point for Student Cohort	Metric	ESL / ENGL Sequence						
		Level 0	Level 1	Level 2	Level 3	Level 4	ESL 400*	ENGL 100
Level 0	#	1,881	889	443	227	160	42	16
	%		47.3%	23.6%	12.1%	8.5%	2.2%	0.9%
Level 1	#		2,722	1,424	817	602	167	70
	%			52.3%	29.9%	22.1%	6.1%	2.6%
Level 2	#			2,555	1,425	912	312	147
	%				55.8%	35.7%	12.2%	5.8%
Level 3	#				2,173	1,248	489	241
	%					57.4%	22.5%	11.1%
Level 4	#					1,815	806	403
	%						44.4%	22.2%

Persistence patterns generally follow a 50% Rule

* ESL400 category also includes ENGL 836

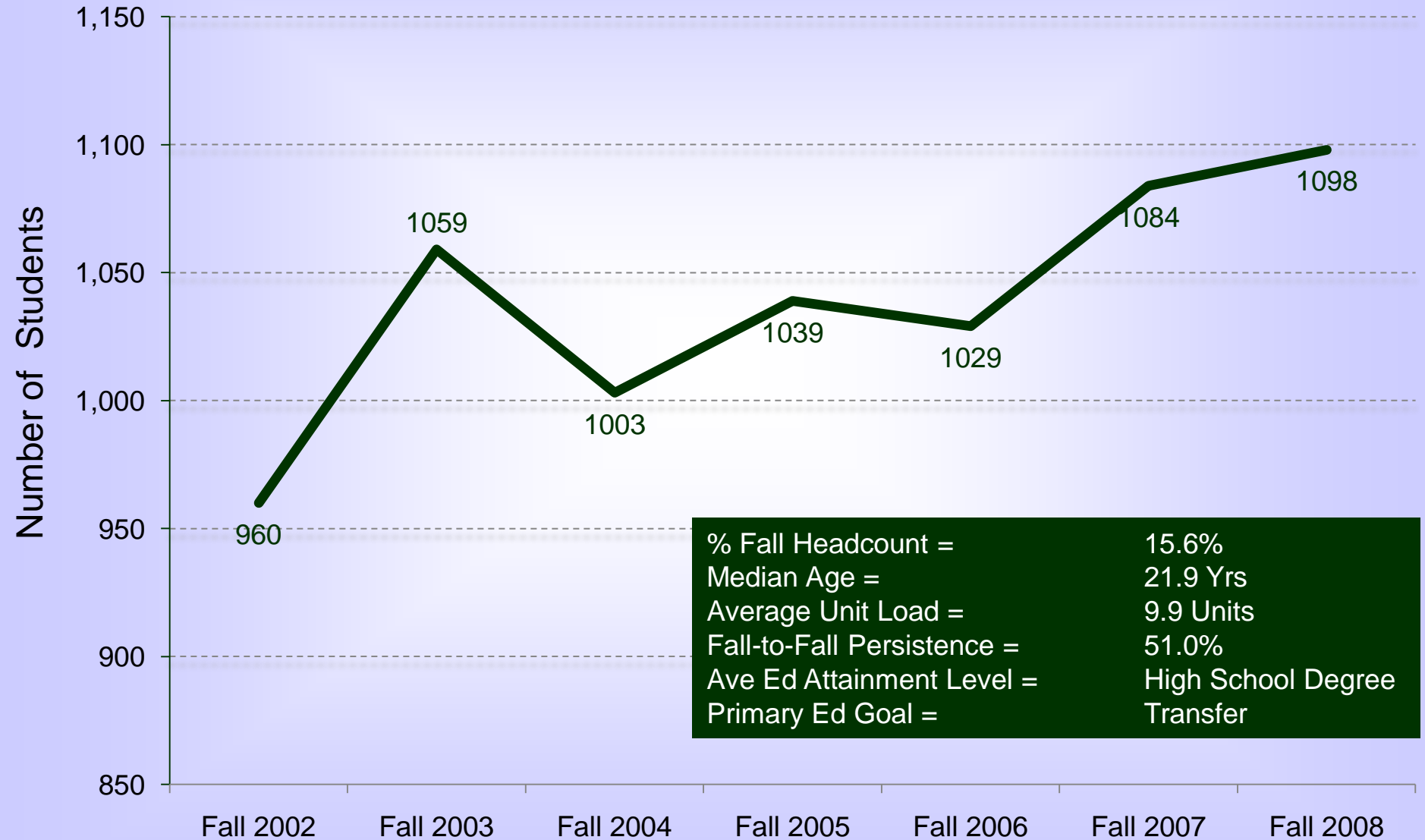
Percent Growth in ESL-Only Students



Detailed look at each Segment

Basic Skills Students

Basic Skills Students



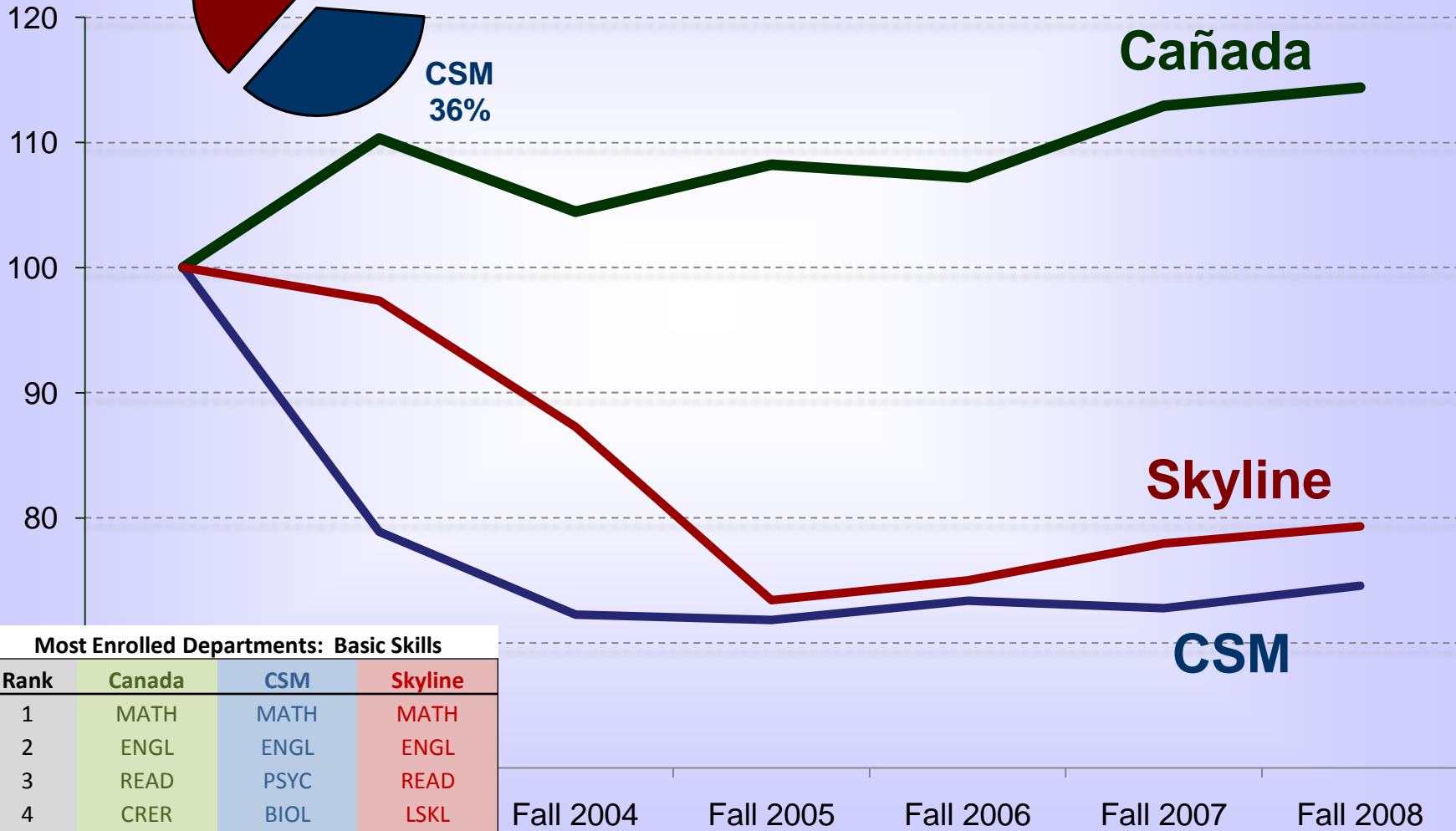
Percent Growth in Basic Skills Students

Skyline
38%

Canada
26%

CSM
36%

Indexed Growth (Fall 2002 = 100)



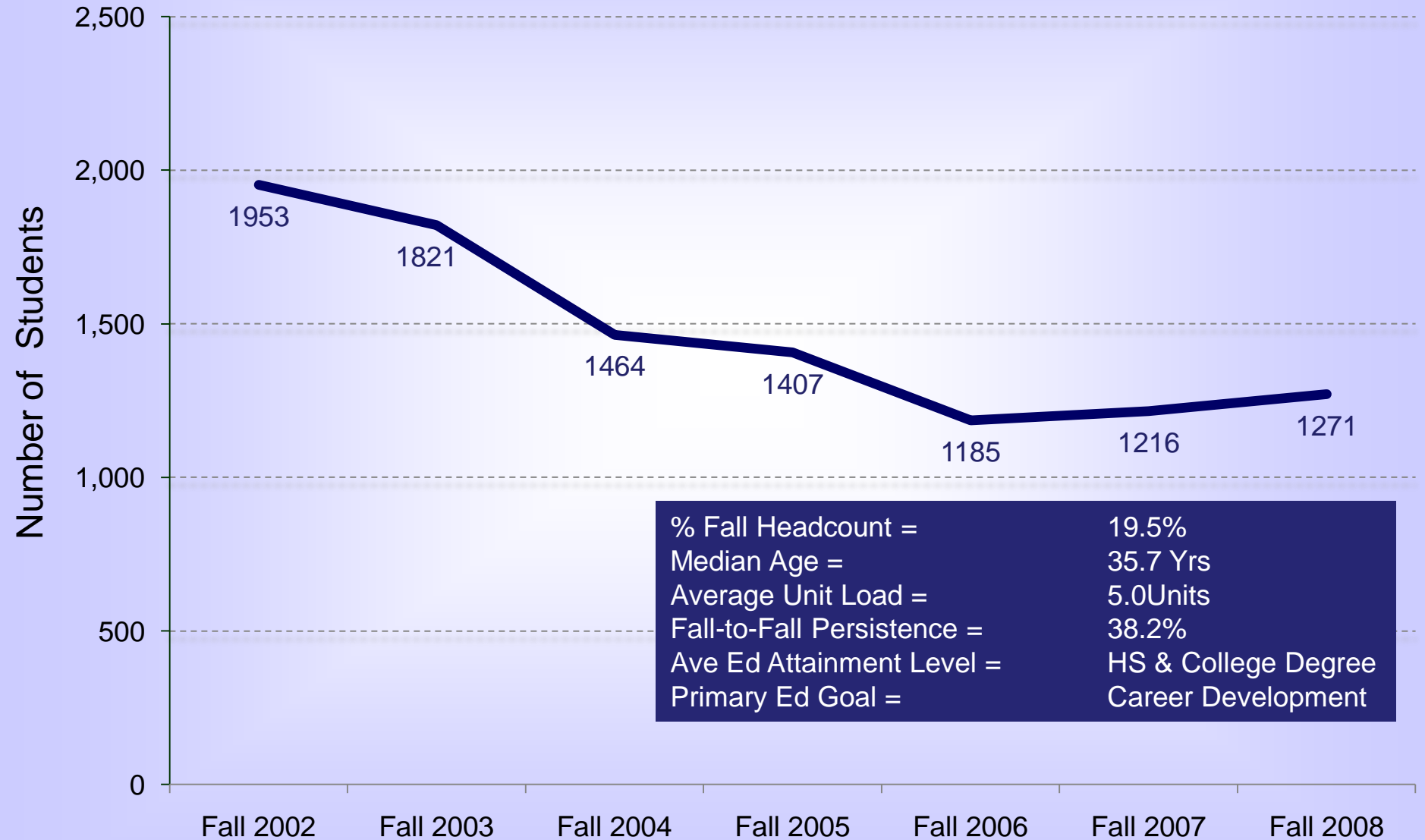
Most Enrolled Departments: Basic Skills

Rank	Canada	CSM	Skyline
1	MATH	MATH	MATH
2	ENGL	ENGL	ENGL
3	READ	PSYC	READ
4	CRER	BIOL	LSKL
5	FITN	READ	COUN

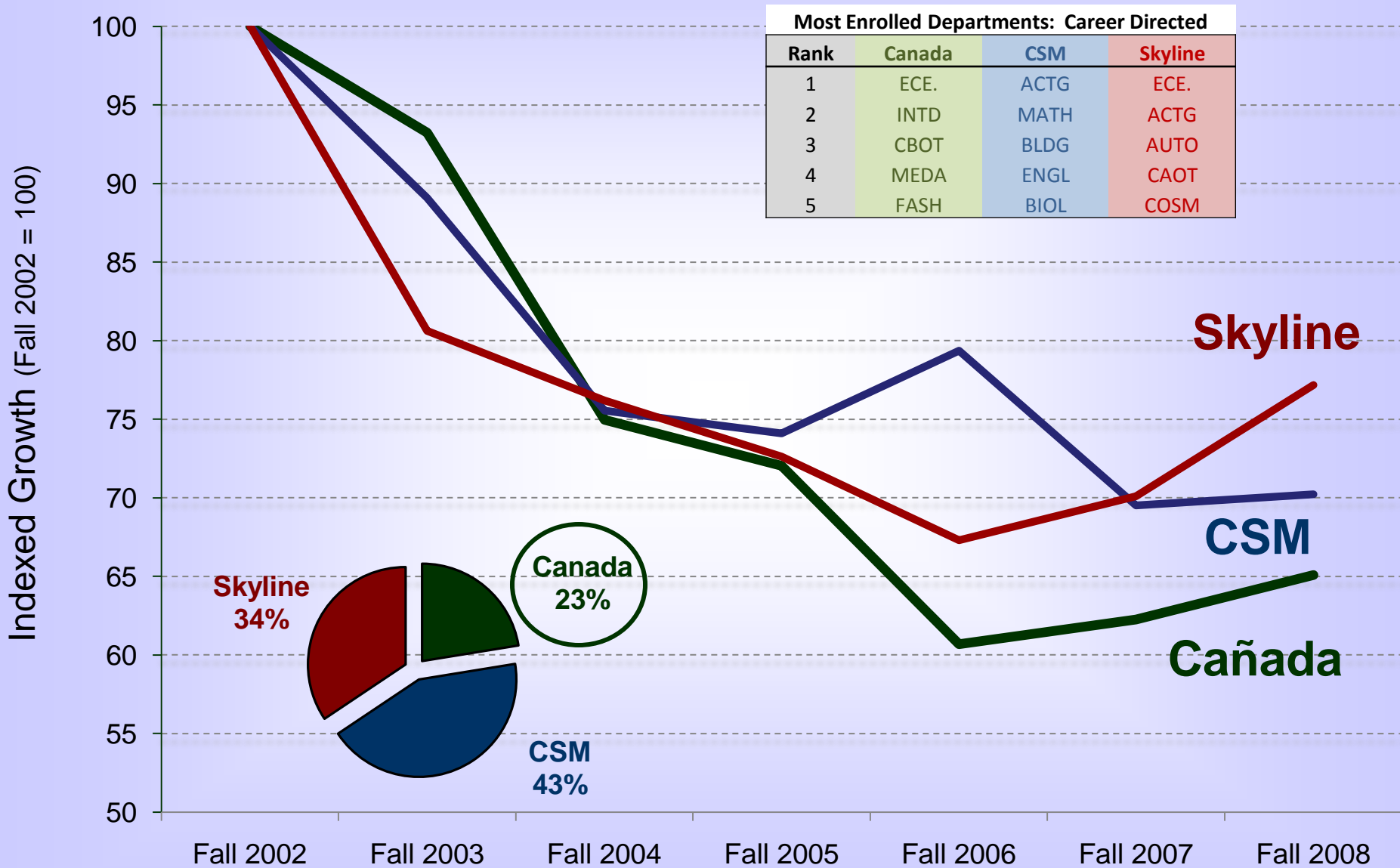
Detailed look at each Segment

Career Directed Students

Career Tech Directed Student



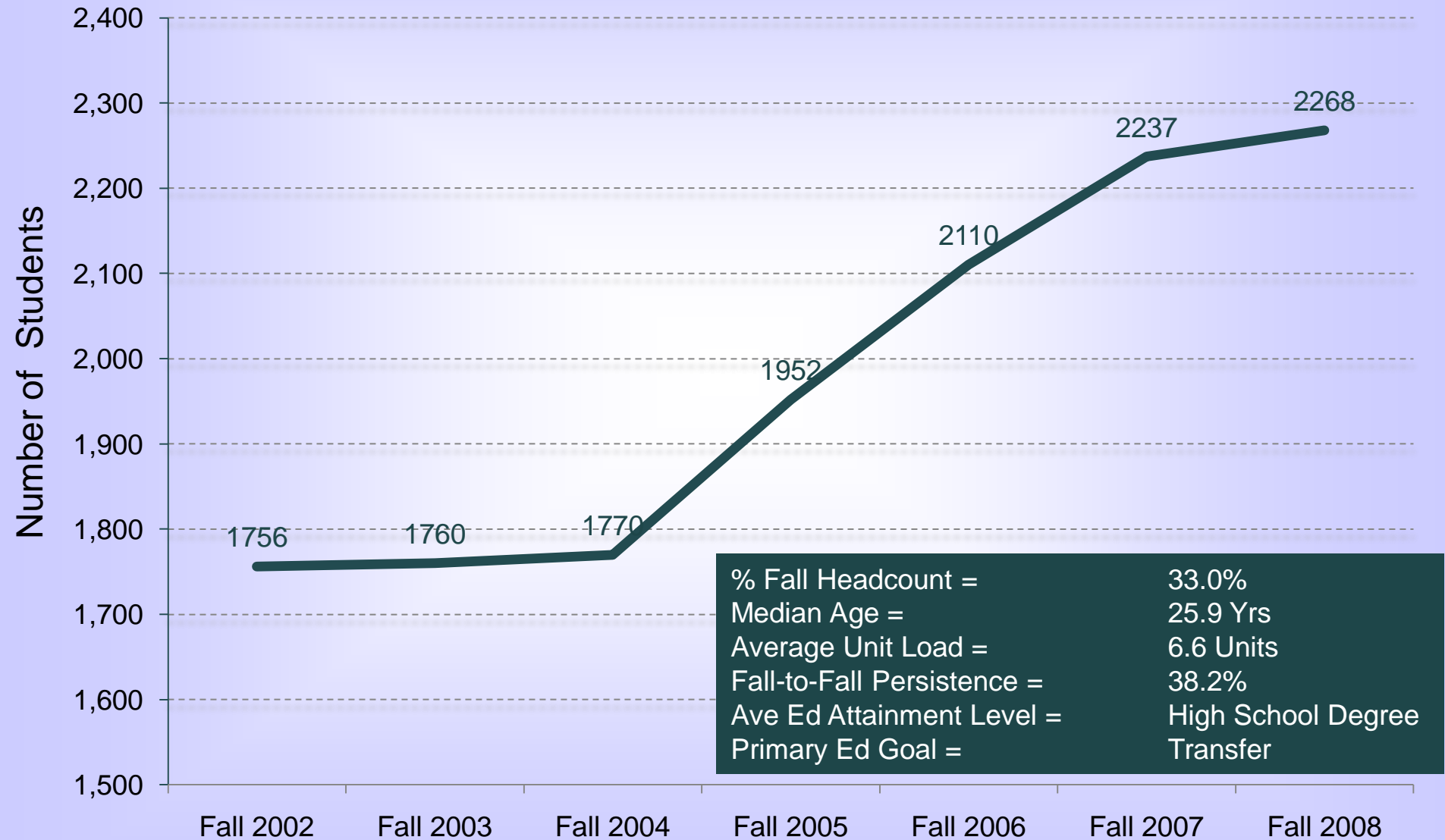
Percent Growth in Career Tech Oriented Students



Detailed look at each Segment

Transfer Directed Students

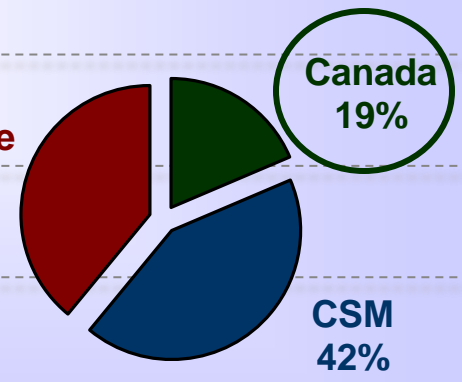
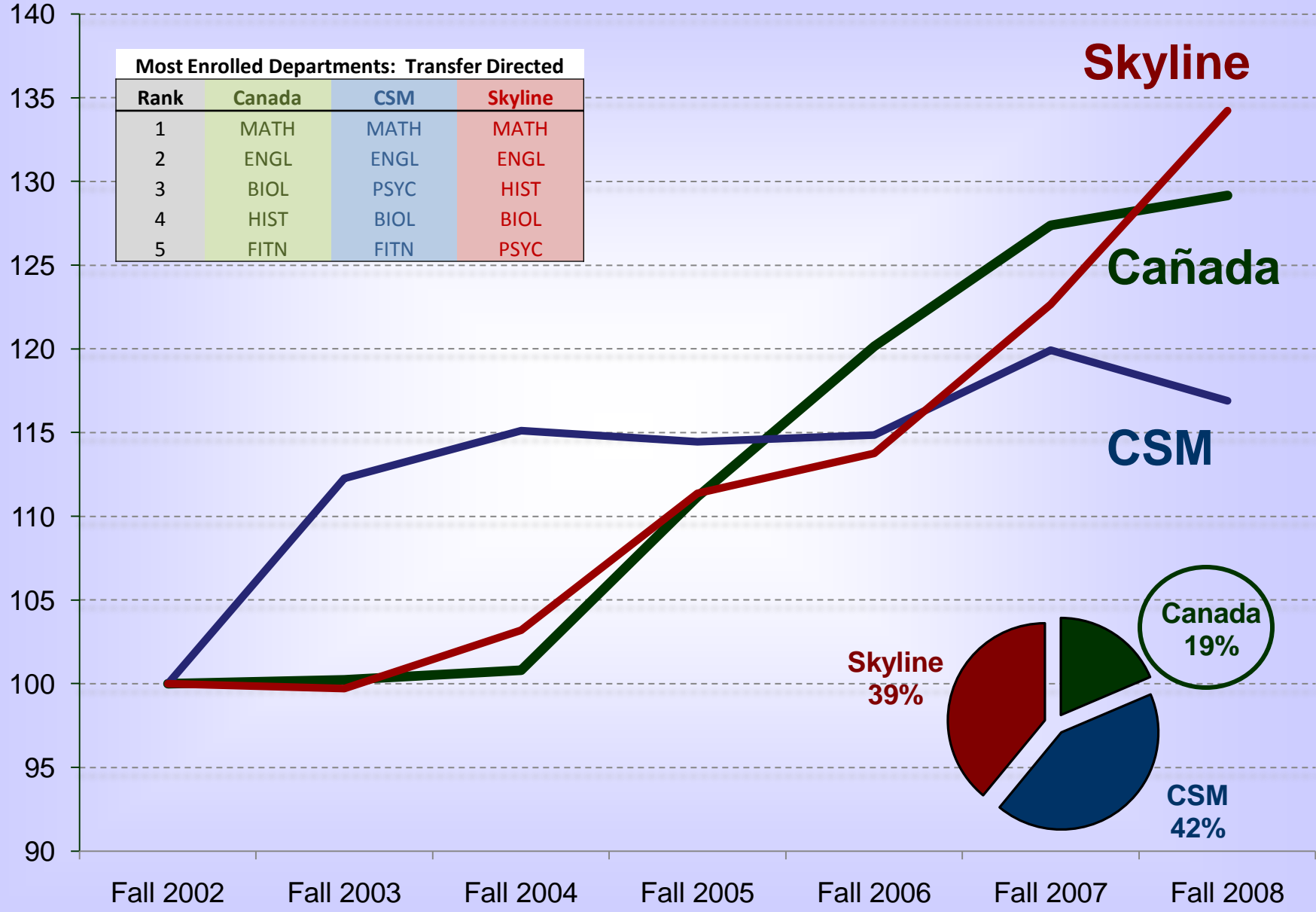
Transfer Directed Student



Percent Growth in Transfer Oriented Students

Most Enrolled Departments: Transfer Directed			
Rank	Canada	CSM	Skyline
1	MATH	MATH	MATH
2	ENGL	ENGL	ENGL
3	BIOL	PSYC	HIST
4	HIST	BIOL	BIOL
5	FITN	FITN	PSYC

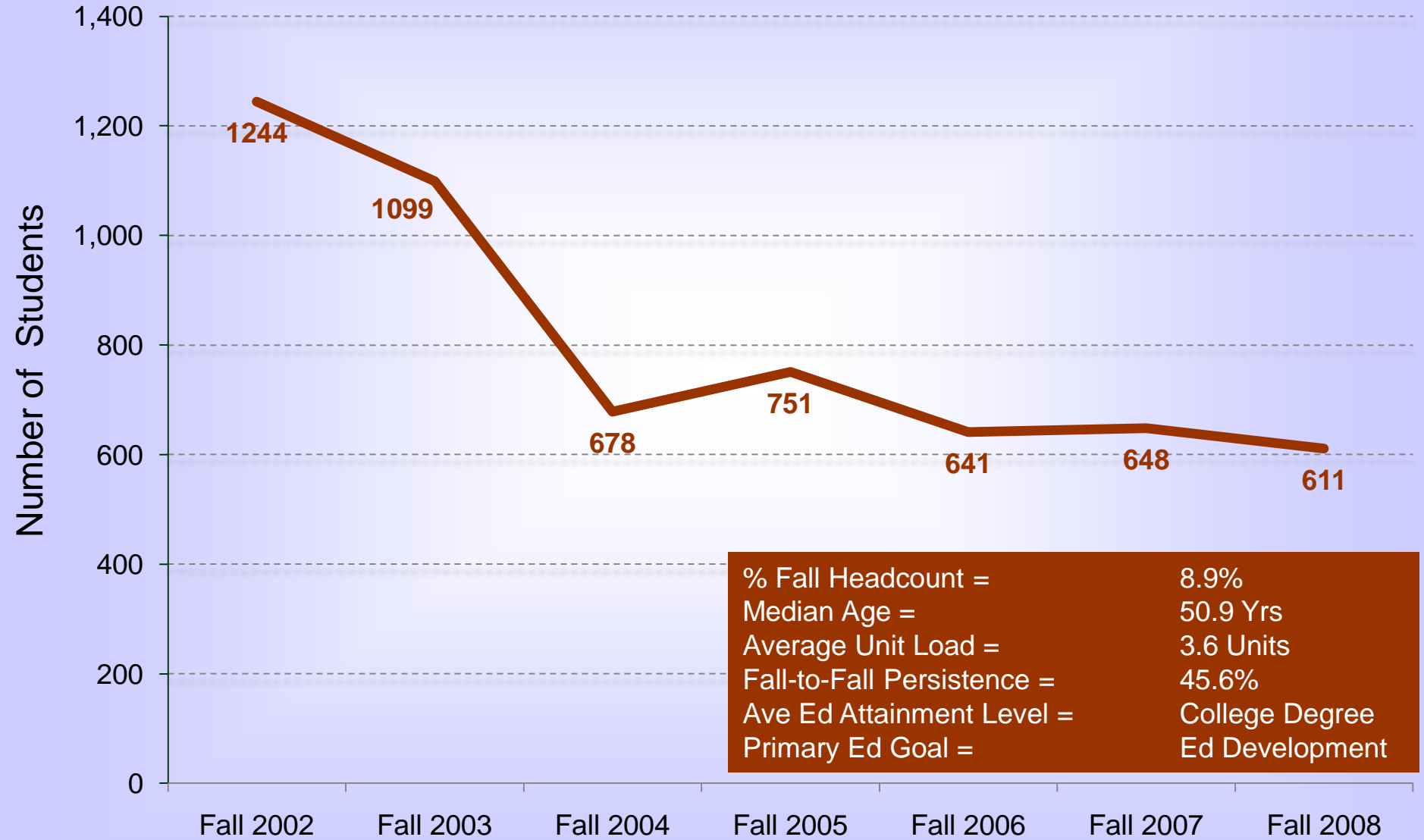
Indexed Growth (Fall 2002 = 100)



Detailed look at each Segment

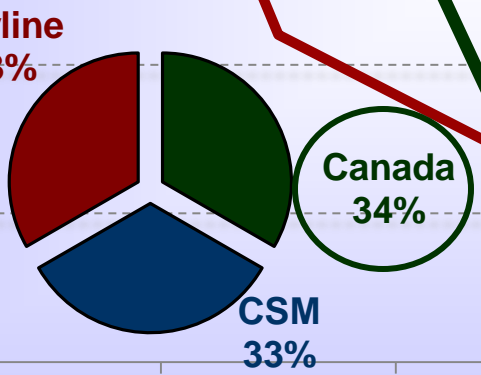
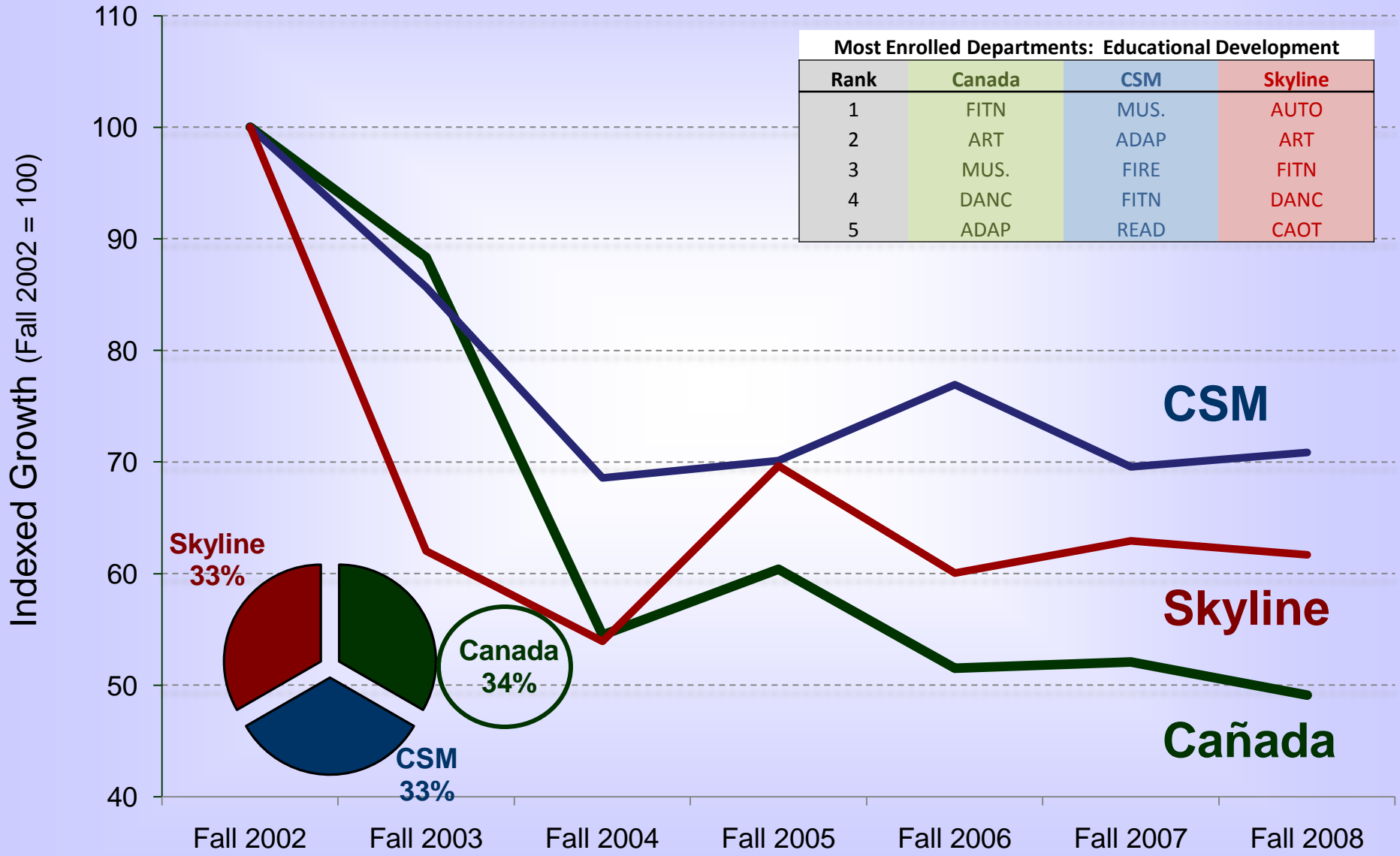
Educational Development Students

Educational Development Student



Percent Growth in Education Development Oriented Students

Most Enrolled Departments: Educational Development			
Rank	Canada	CSM	Skyline
1	FITN	MUS.	AUTO
2	ART	ADAP	ART
3	MUS.	FIRE	FITN
4	DANC	FITN	DANC
5	ADAP	READ	CAOT



Summary Table

Cohort Description	Pct of FTES	Fall-to-Fall Persistence	Six Year Growth Pattern
Concurrent Enrollment Student	8.6%	29.5%	Accelerating Growing
ESL-Only Student	14.3%	32.9%	Mild Growth with some volatility
Intensive Basic Skills Student	15.6%	51.0%	Modest increase with some volatility
Career Tech Directed Student	19.5%	35.9%	Slight recovery after extended decline
Transfer Directed Student	33.0%	38.2%	Several years of steady growth
Ed Development Student	8.9%	45.6%	Flattening after steep decline
College Overall	100%	39.1%	Strong growth following a steep decline

Growth is varied in magnitude but fairly broad based with five of six segments trending upward

Segmentation Highlights

1. Based on size alone it could be said that our base population is composed of three segments – Transfer, Career & Basic Skills students
2. Segment growth has been fairly broad based with five of six segments trending upward.
3. However, because Canada is a small college, different rates of growth across segments can quickly lead to significant changes in overall student composition
4. With a college persistence rate at 40% our growth is contingent on replacing 60% of our students each year

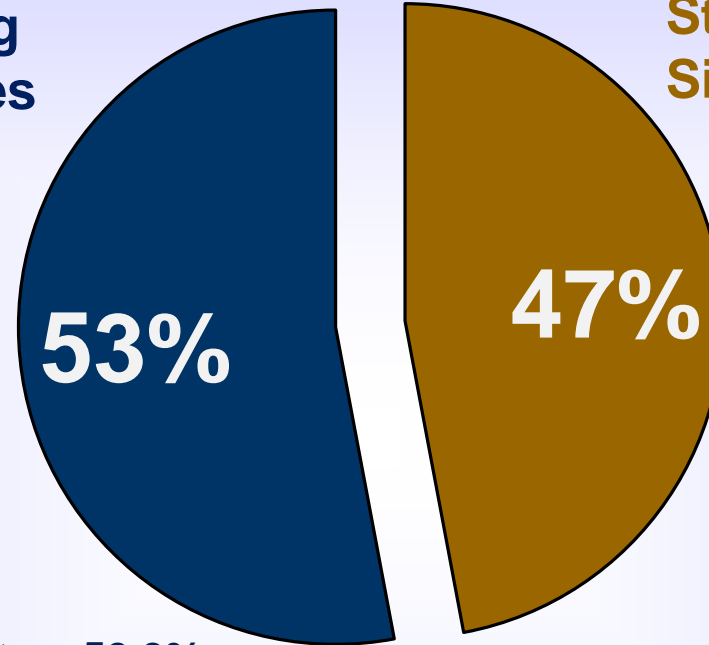
But there's more to this story, info that may help us plan our operational activities

One of the best predictors of support service usage is student course load

Profiling Single Course Takers

In any given term roughly half of our students are Single Course Takers

Students Taking Multiple Courses



Students Taking a Single Course

***Persistence Rate = 50.3%**

***Persistence Rate = 29.8%**

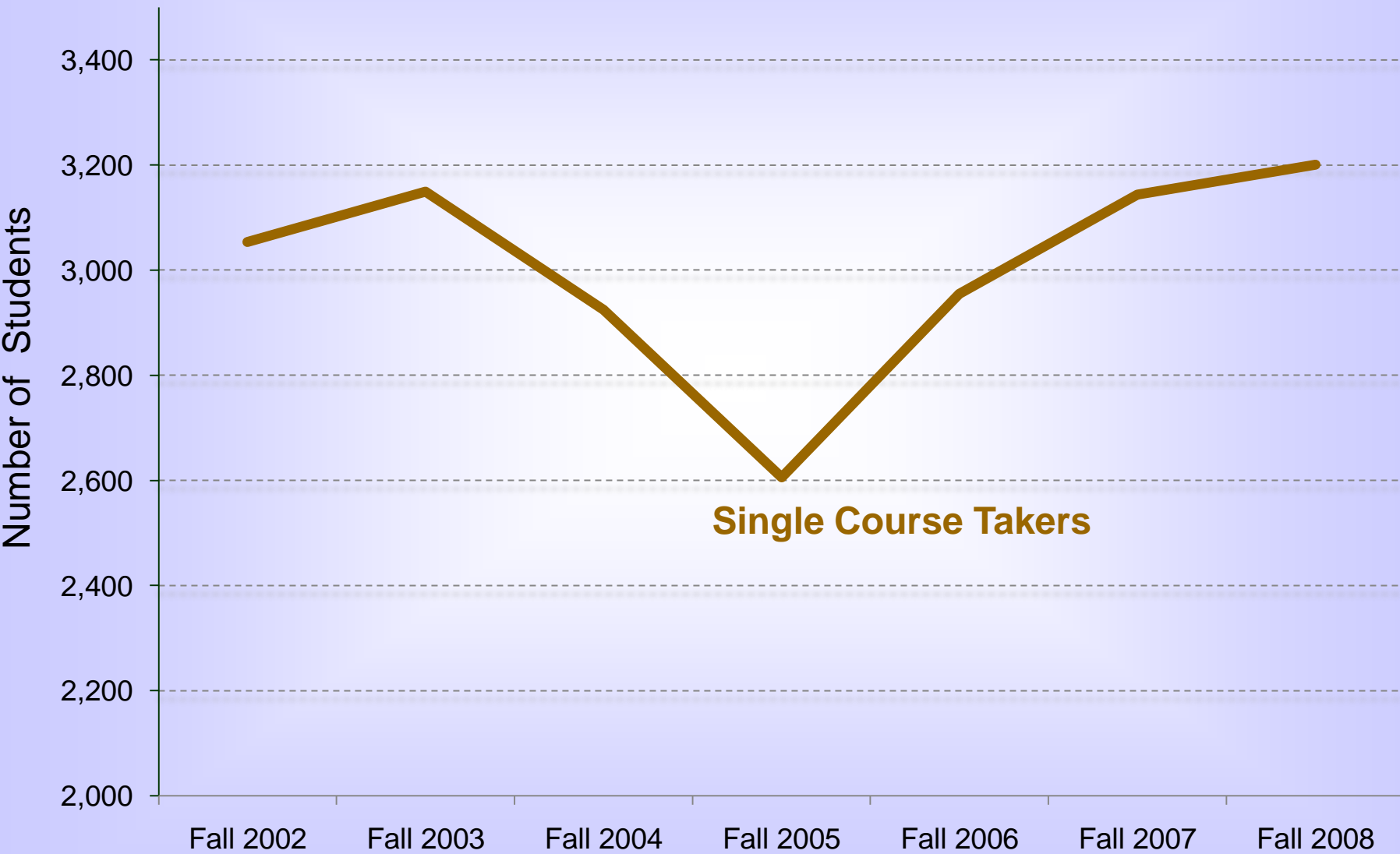
Why is this important?

- Single Course Takers have a more tenuous connection to the college
- Single Course Takers have low persistence
- Returning students that become single course takers are 80% less likely to transfer or obtain a degree†

**Includes only the Base Segment population of Basic Skills, Career Directed & Transfer Directed Students.*

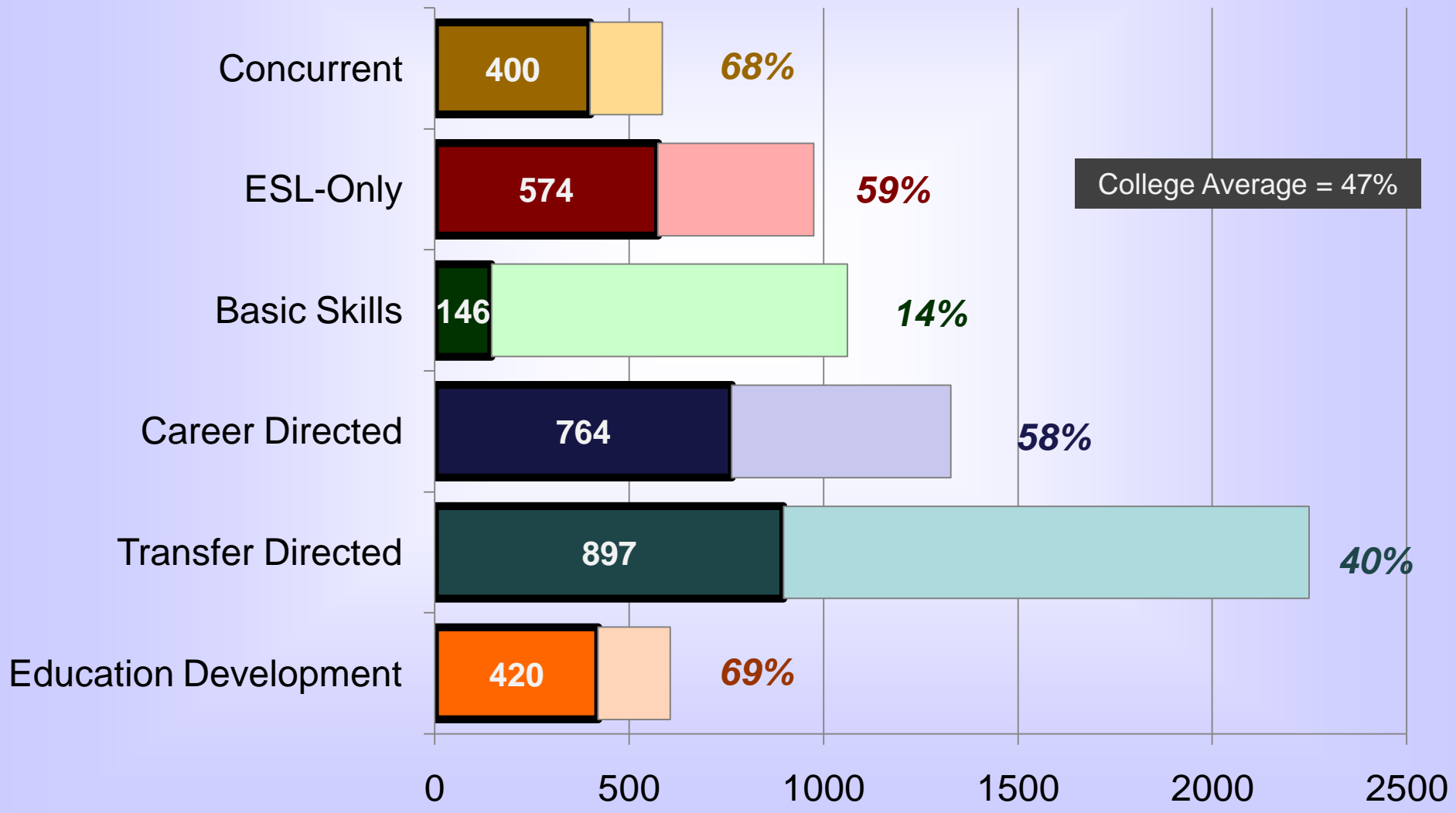
†Adjustments were made to account for students whose course load dropped in the final term before transfer or receiving a degree.

The Single Course Taker population has been growing since 2005 and is also projected to grow in 2009



Single Course Takers are not uniformly distributed across the Student Segments

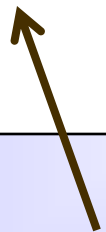
Headcounts of Single Course Takers & Percentage of Segment Population



So how can we use this information to guide our current planning?

Cohort Description	Pct of FTES	Fall-to-Fall Persistence	Percent Single Course Takers	Six Year Growth Pattern
Concurrent Enrollment	8.6%	29.5%	68%	Accelerating Growing
ESL-Only Student	14.3%	32.9%	59%	Mild Growth with some volatility
Basic Skills	15.6%	51.0%	14%	Modest increase with some volatility
Career Directed	19.5%	35.9%	58%	Several years of steady growth
Transfer Student	33.0%	38.2%	40%	Slight recovery after extended decline
Ed Development	8.9%	45.6%	69%	Flattening after steep decline
College Overall	100%	39.1%	47%	Strong growth following a steep decline

Career Directed
Transfer Student



If we are expecting growth to be concentrated here, given the segment profiles how might we plan for that scenario?

Can we build on this information?

Cohort Description	Pct of FTES	Fall-to-Fall Persistence	Percent Single Course Takers	Six Year Growth Pattern	Resource Usage
Concurrent Enrollment	8.6%	29.5%	68%	Accelerating Growing	?
ESL-Only Student	14.3%	32.9%	59%	Mild Growth with some volatility	?
Basic Skills	15.6%	51.0%	14%	Modest increase with some volatility	?
Career Directed	19.5%	35.9%	58%	Several years of steady growth	?
Transfer Student	33.0%	38.2%	40%	Slight recovery after extended decline	?
Ed Development	8.9%	45.6%	69%	Flattening after steep decline	?
College Overall	100%	39.1%	47%	Strong growth following a steep decline	?



An estimate of the resource usage patterns of each segment (*low, medium, high*) might help us develop strategies to more effectively deploy rare resources.

Let's Discuss

EXTRA SLIDES

This approach yielded groupings having intuitively appealing qualities in terms of segment demographics and...

	College	Concurrently		Basic	Transfer	Career	Educat
Student Ethnicity	Overall	Enrolled	ESL-Only	Skills	Oriented	Tech	Development
Am. Indian or Alaskan Native	0.4%	0.2%	0.0%	0.5%	0.3%	0.7%	0.9%
Asian or Pacific Islander	10.9%	10.6%	1.6%	7.5%	10.9%	12.4%	11.7%
Black Non-Hispanic	3.4%	3.6%	0.1%	4.8%	4.3%	5.4%	2.3%
Hispanic	43.8%	43.1%	92.9%	53.5%	38.1%	35.9%	12.8%
White Non-Hispanic	31.9%	26.3%	2.2%	24.4%	36.2%	36.1%	57.7%
Other	9.2%	16.2%	2.7%	8.6%	9.7%	9.1%	14.6%

	College	Concurrently		Basic	Transfer	Career	Educat
Student Age	Overall	Enrolled	ESL-Only	Skills	Oriented	Tech	Development
Less than 20 Yrs Old	21.3%	100.0%	3.9%	46.0%	22.5%	3.0%	1.7%
20 to 24.9 Yrs Old	22.7%	0.0%	16.5%	26.1%	37.8%	17.8%	6.7%
25 to 29.9 Yrs Old	13.9%	0.0%	23.3%	9.7%	13.7%	16.0%	5.2%
30 to 39.9 Yrs Old	17.2%	0.0%	35.8%	8.4%	11.7%	23.2%	14.9%
40 to 49.9 Yrs Old	11.4%	0.0%	13.8%	5.6%	6.6%	21.7%	14.9%
50 Yrs or Older	13.5%	0.0%	6.2%	3.6%	7.2%	17.9%	56.6%

Disproportionately large percentages are shaded

...in terms of stated educational goal and levels of educational attainment

Primary Educational Goal	College Overall	Concurrently Enrolled	ESL-Only	Basic Skills	Transfer Oriented	Career Tech	Educational Development
Transfer	42.7%	6.7%	22.3%	65.5%	78.4%	10.4%	14.3%
Career	21.8%	0.7%	23.0%	18.3%	0.0%	79.1%	10.5%
Ed Development	9.8%	1.7%	10.7%	1.1%	6.2%	5.4%	58.7%
Undecided	9.4%	9.6%	6.2%	10.0%	9.8%	3.5%	8.2%
Other	16.2%	81.4%	37.9%	5.3%	5.5%	1.6%	8.1%

Level of Education Attainment	College Overall	Concurrently Enrolled	ESL-Only	Basic Skills	Transfer Oriented	Career Tech	Educational Development
No High School	23.9%	100.0%	68.4%	7.2%	7.7%	10.2%	5.5%
High School Degree	49.9%	0.0%	16.3%	85.7%	75.4%	46.5%	28.9%
Foreign High School Degree	4.8%	0.0%	11.1%	2.3%	4.3%	6.2%	0.9%
Post-Secondary Degree	21.4%	0.0%	4.2%	4.8%	12.6%	37.1%	64.7%

Disproportionately large percentages are shaded