

Enrolment Planning & Analytics: Using System-Wide Data to Help Recruit and Retain Students

Presented by:

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Format of Presentation

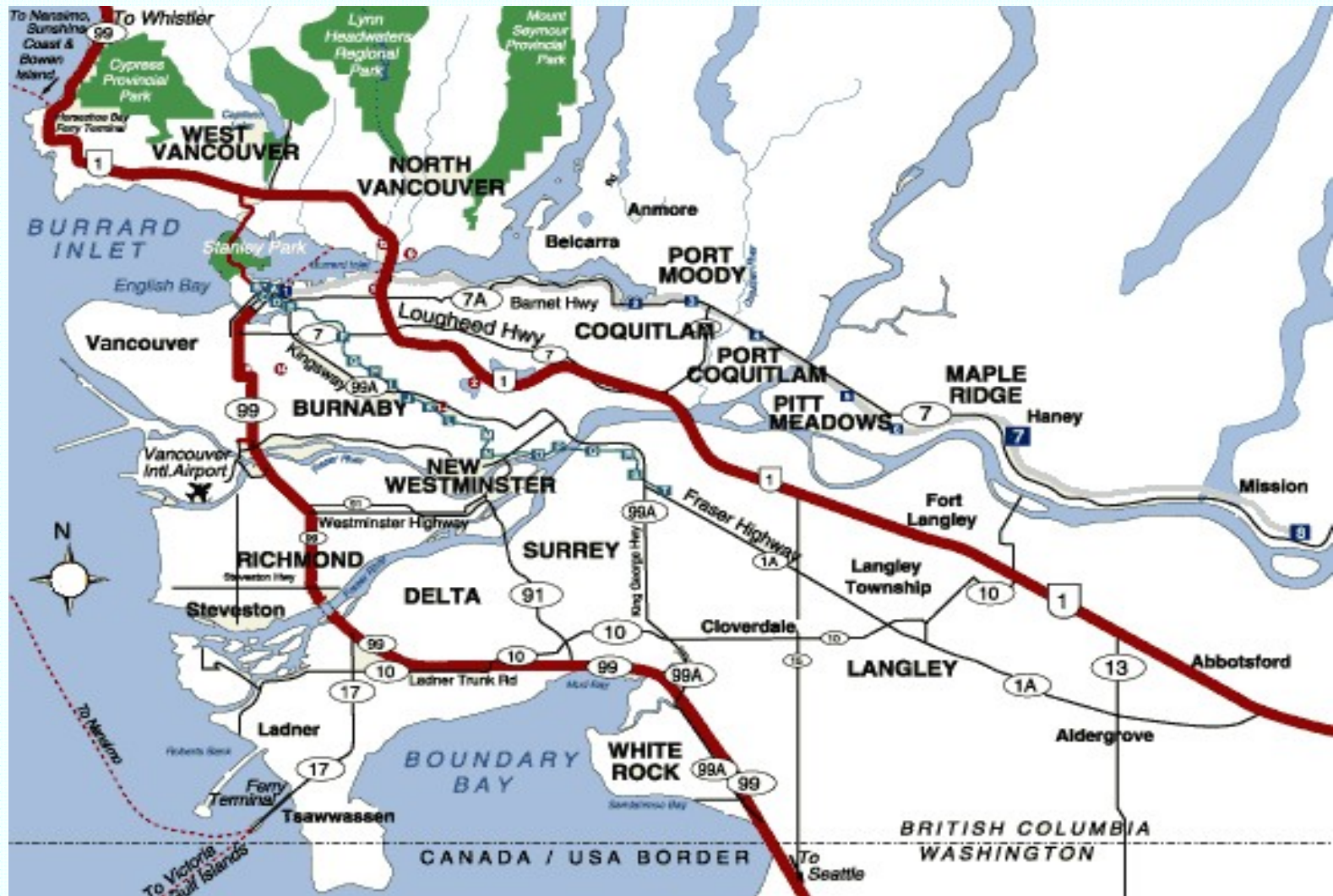
We will:

- Describe BCCAT, Kwantlen University College (soon to be Kwantlen Polytechnic University), and their roles
- Introduce the concept of analytics
- Provide a description of the Student Transitions Project (STP) and recent research findings from this project
- Describe how these research findings at a provincial level are being used to drive decision making at Kwantlen University College

Where is **BCCAT** and **Kwantlen**?



Where is **BCCAT** and **Kwantlen**?



BCCAT Mandate and Role

Mandate:

- To provide leadership and direction in facilitating articulation, transfer, and admission arrangements among BC post-secondary institutions

Major Roles:

- To facilitate transferability of post-secondary credit courses so that credit granted at one institution can be applied toward credentials at other institutions
- To examine issues pertaining to capacity, demand, and student mobility and recommend policies and practices that facilitate the admission process for direct entry and transfer students within the BC post-secondary system

Focus on Student Mobility

- BCCAT has increased focus on Admissions side of its mandate since 2003
- Students' ability to move among and be admitted to institutions is integrally linked to ability to transfer credit
- Main focus of research has been on student mobility and applicant flows
- Admissions work has morphed with that of Student Transitions Project (STP)

Inter-Institutional Data and Enrolment Planning

Kwantlen & other institutions can make better enrolment planning decisions if they know:

- Which PS institutions local high school students are choosing to attend
- Whether high school students from across the province are choosing to attend Kwantlen
- Whether high school students attend Kwantlen directly after graduation or in subsequent years
- Which PS institutions Kwantlen students transitioned to and vice versa
- Whether transfer students are completing degrees at Kwantlen or going elsewhere
- Whether students are “swirling” among PS institutions

Enter a Culture of Accountability, Outcomes and Evidence

Accountability

- Government imposed accountability measures – 3 year reporting
- Increased competition has resulted in an increased demand from prospects (and their parents) for “ROI” proof (how many of your grads get jobs?)

Accountability, Outcomes and Evidence

Outcomes

- New government defined success measures based on timely completion and graduation rates – outputs now as important as inputs
- Pressure on services to demonstrate contribution to student success.
- Focus on effectiveness not just activity

What Analytics Measure

(Davenport and Harris, 2007)

Optimization	What's the best that can happen?
Predictive Modeling	What will happen next?
Forecasting	What will happen next if these trends continue?
Statistical Analysis	Why is this happening?
Alerts	What actions are needed?
Query/Drill Down	Where exactly is the problem?
Ad hoc Reports	How many, how often, where?
Standard Reports	What happened?

Applications for Analytics

INTERNAL SOURCES

- Schedule/Timetable
- Course Supply/Section count
- Available Faculty
- Room Inventory
- Historical Enrolment data

EXTERNAL SOURCES

- Applications
- Registrations
- Students' program and course needs
- Course load
- Student availability

Student Transitions Project (STP)

- A collaborative effort of BC's Ministries of Education and Advanced Education, BC's public post-secondary institutions, and BCCAT
- Purpose of STP is to collect, analyze, and report on data from the K-12 and post-secondary education systems to answer research questions on student mobility
- Meets Freedom of Information requirements
- Steering Committee and subcommittee structure
- Provides reports and underlying pivot tables
- Goal is to provide **reliable information** at **predictable times** and in a **timely manner** to assist institutions and government with planning

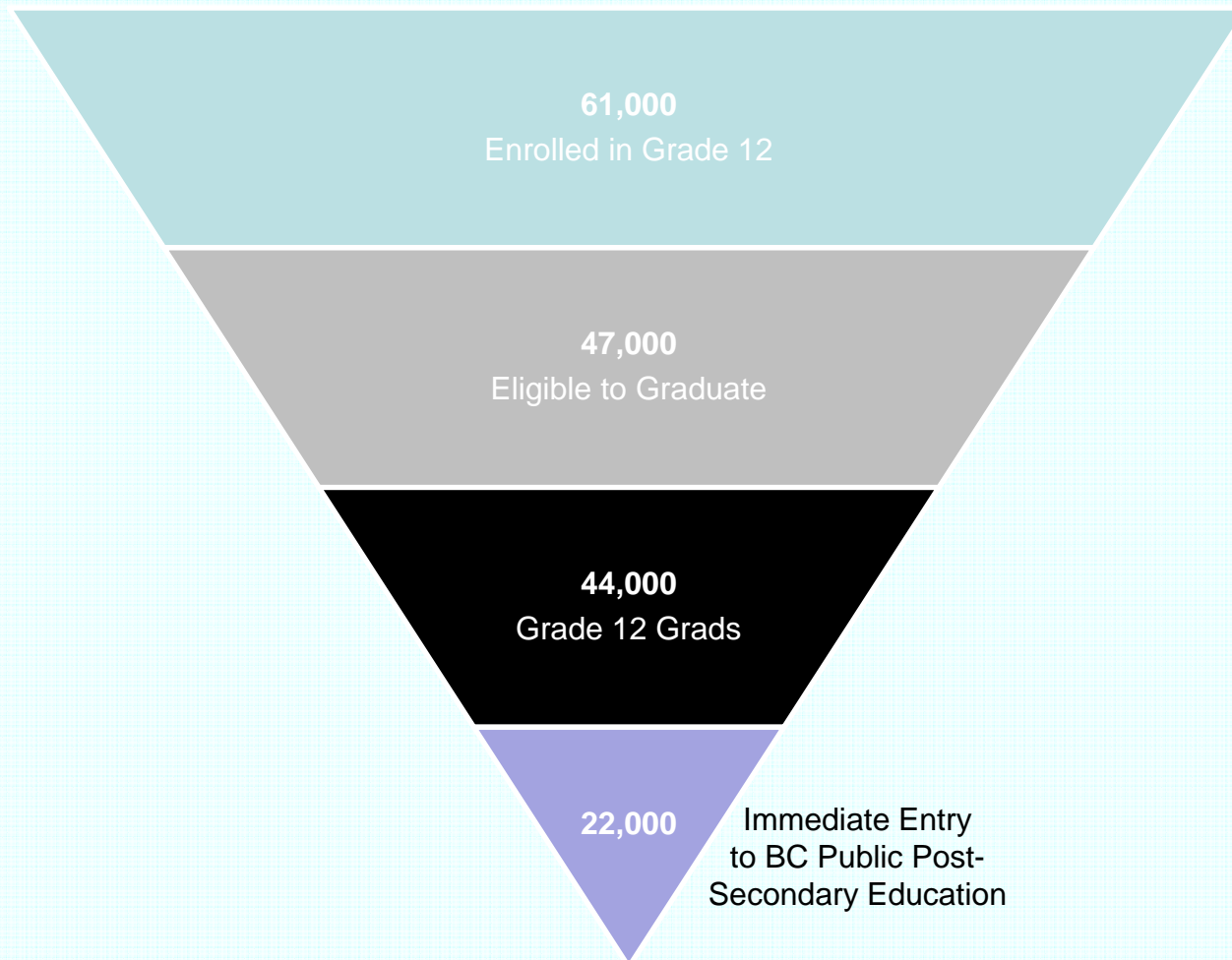
Types of STP Research Projects

- Grade 12 graduates immediate and delayed entry **into** post-secondary
- Student flows **into and among** post-secondary institutions
- Mobility of **transfer** students
- Transition of high school **non-graduates** into post-secondary
- **Applicant** research

Immediate and Delayed Entry to Post-Secondary Institutions

- What is the transition of graduates from the K-12 education system into BC public post-secondary institutions over a multi-year period (K-12 data 2001/02 to 2005/06 and post-secondary data 2002/03 to 2006/07)?
- Updated annually
- Results have been somewhat surprising

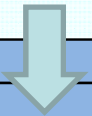
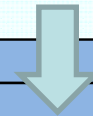
Volume and Flow of Students from Grade 12 Enrollment to Post-Secondary Registration



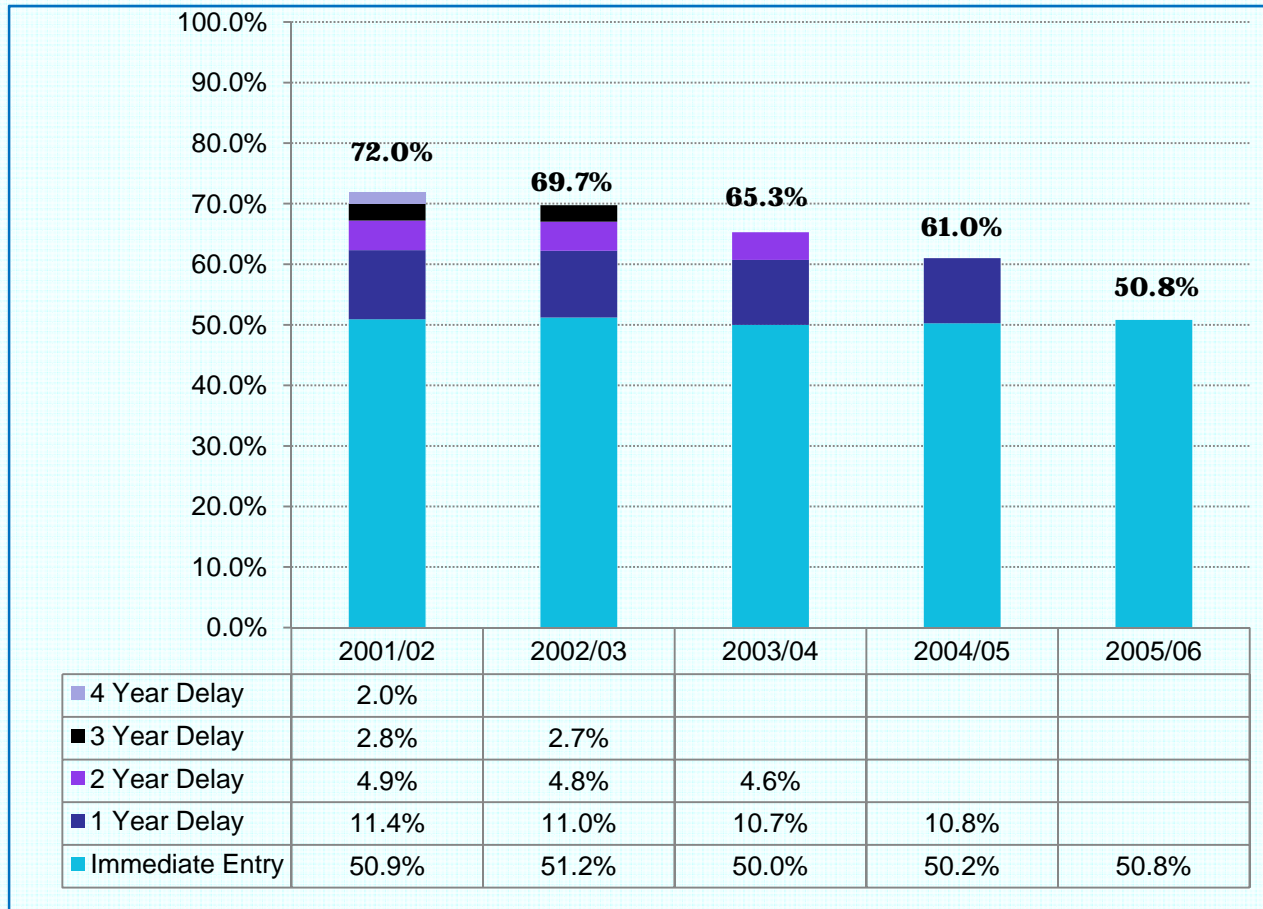
First Transitions from BC12 Graduation to BC Public PSI



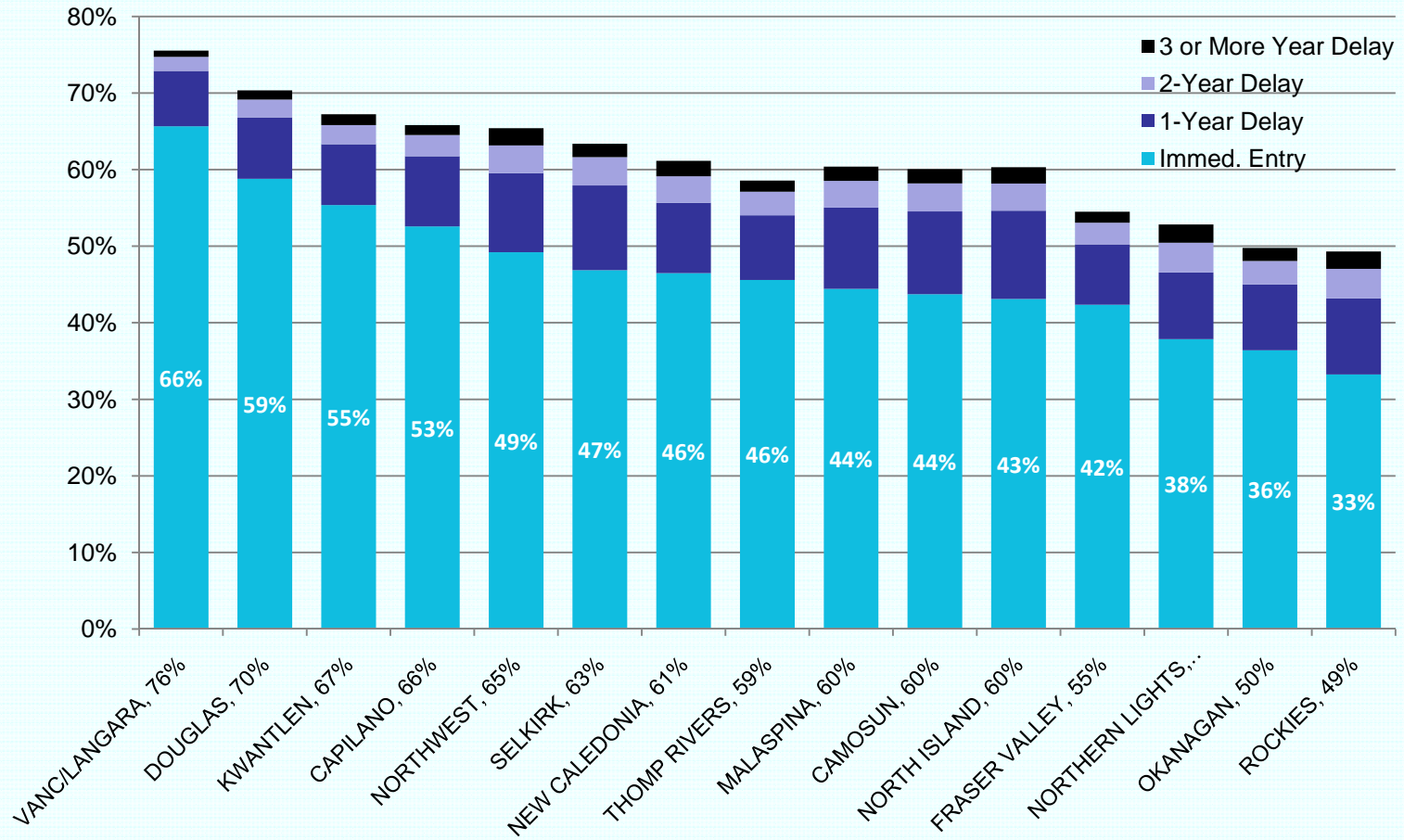
High School Grad Year		Year of Entry Into BC Public Post-Secondary Education						No Post-Sec Yet	Grand Total
		2002/2003	2003/2004	2004/2005	2005/2006	2006/2007			
2001/2002	Count of HS Grads	22,076	4,953	2,116	1,220	857	12,138	43,360	
	% of HS Grad Class	50.9%	11.4%	4.9%	2.8%	2.0%	28.0%	100.0%	
2002/2003	Count of HS Grads		22,704	4,885	2,127	1,203	13,417	44,336	
	% of HS Grad Class		51.2%	11.0%	4.8%	2.7%	30.3%	100.0%	
2003/2004	Count of HS Grads			21,155	4,539	1,932	14,686	42,312	
	% of HS Grad Class			50.0%	10.7%	4.6%	34.7%	100.0%	
2004/2005	Count of HS Grads				21,991	4,711	17,062	43,764	
	% of HS Grad Class				50.2%	10.8%	39.0%	100.0%	
2005/2006	Count of HS Grads					22,848	22,130	44,978	
	% of HS Grad Class					50.8%	49.2%	100.0%	



Cumulative Transition Rate to Post-Secondary Education: % of BC12 Grads Who Register at BC Public PSI Over Time

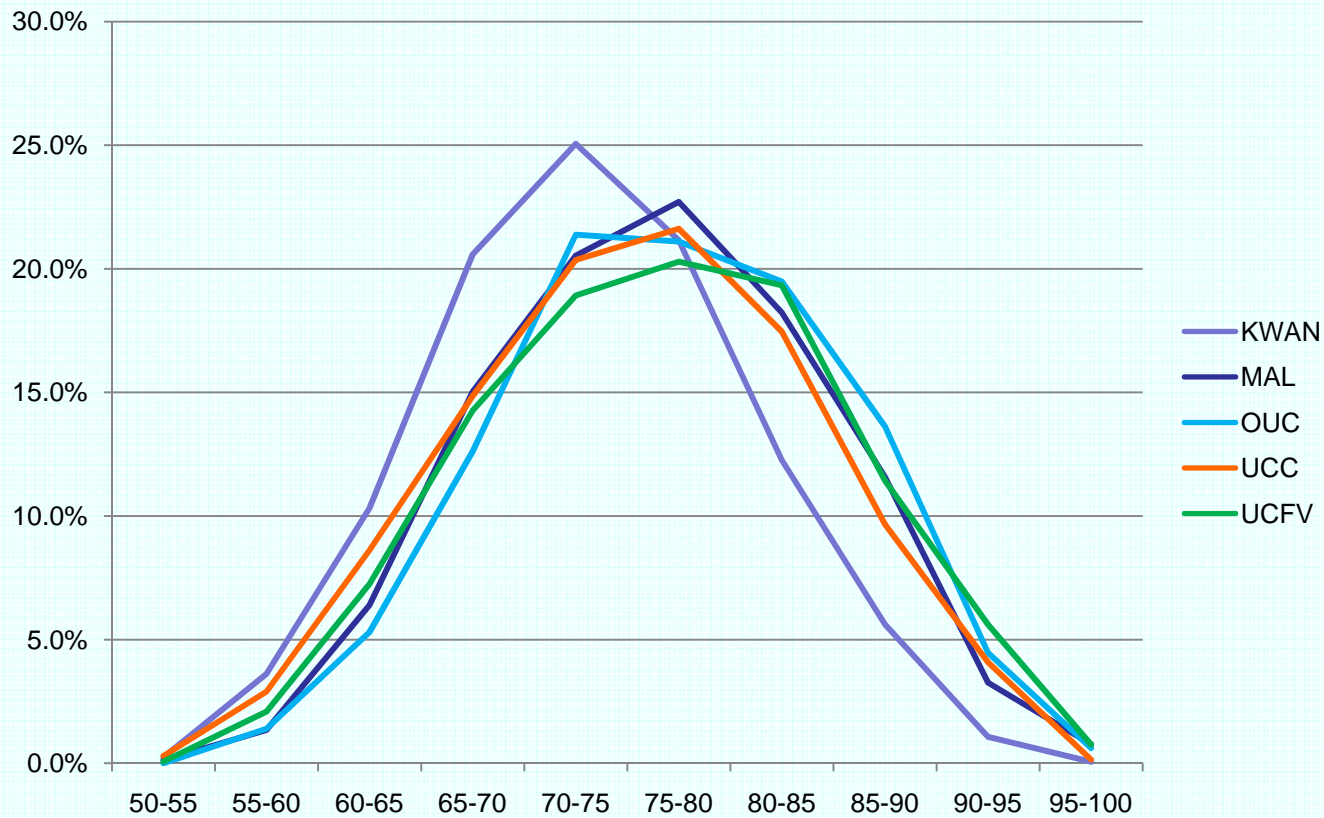


Regional Transition Rates to BC Public Post-Secondary Education of Grade 12 Graduates of 2001/02 - 2005/06 by 2006/07



GPA Distributions of High School Graduates Who Made Immediate Transitions to BC University-Colleges

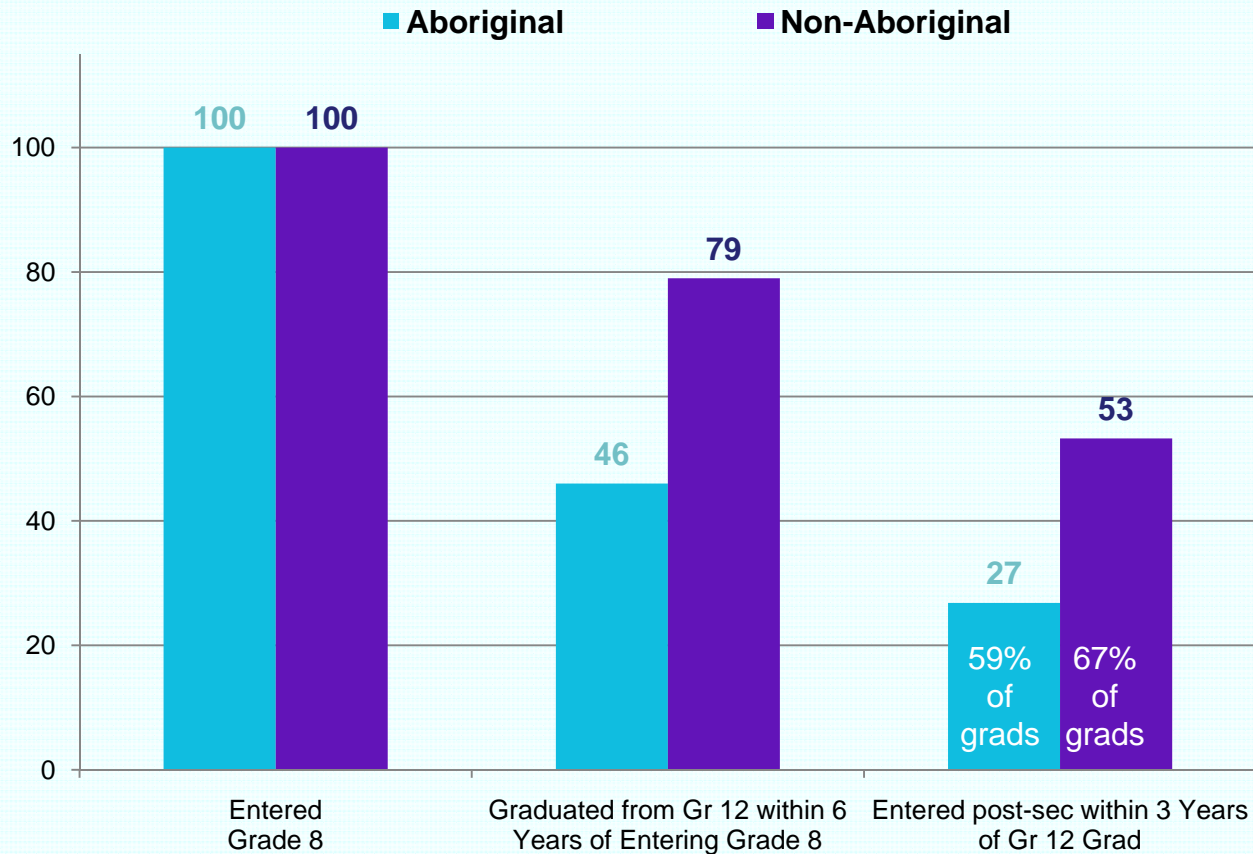
(2002/03 to 2006/07)



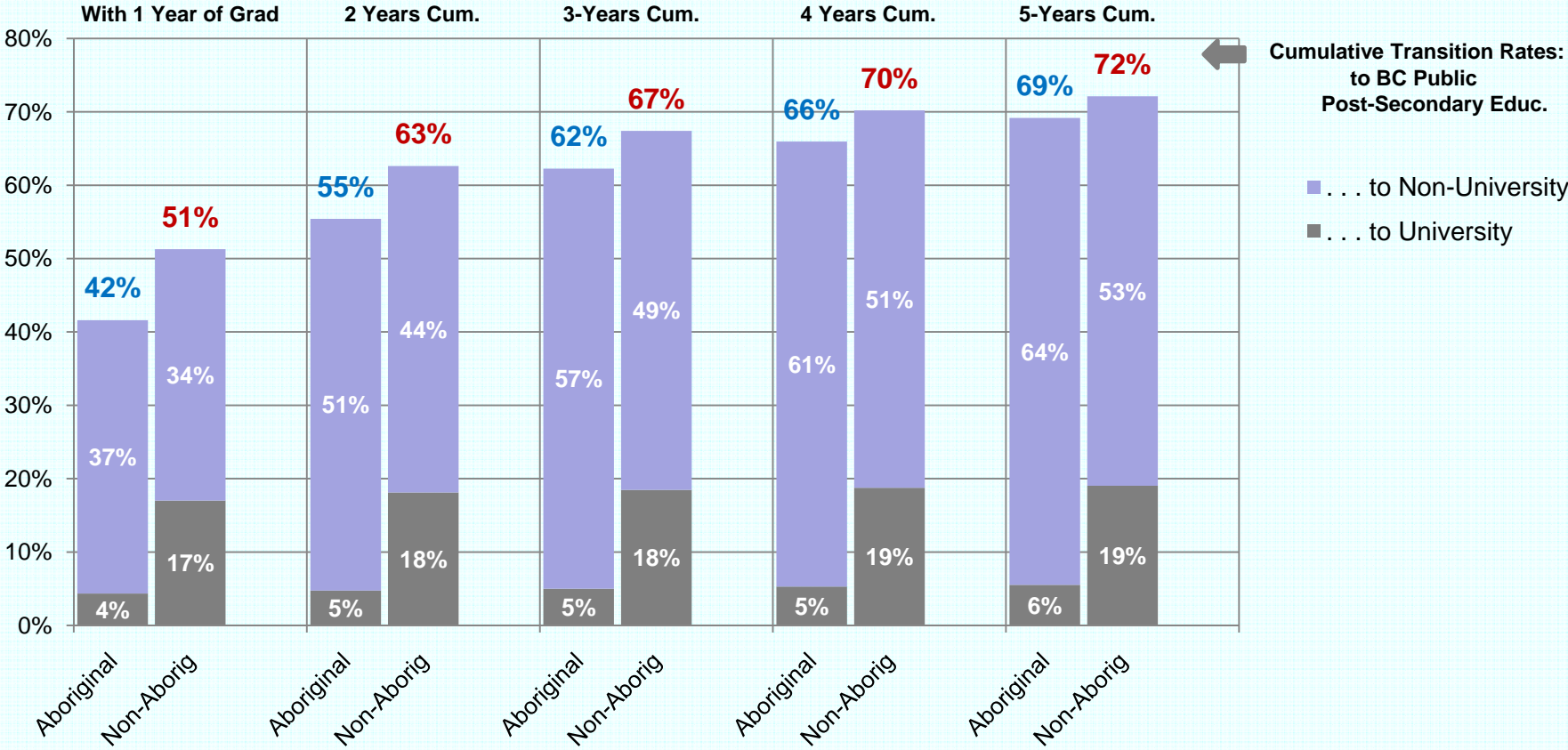
Out of 100 students entering grade 8, how many will . . .

(a) Graduate from grade 12 within six years of entering grade 8?

(b) Enrol in post-secondary education within three years of grade 12 graduation?



Cumulative Transition Rates of 2001/02 BC High School Graduates to BC Public Post-Secondary Education (University and Non-University), Aboriginal versus Non-Aboriginal



Immediate and Delayed Entry to Post-Secondary Institutions (cont'd)

- Kwantlen University College Context
 - Of the 2002/2003 graduating class, 2,295 came to Kwantlen. Of the 2005/2006 graduating class that number had dropped to 2,117 students.
 - We are seeing no increase in the number of high school graduates immediately entering post- secondary.

Immediate and Delayed Entry to Post-Secondary Institutions (cont'd)

- Kwantlen
 - High school graduation rate not increasing and low overall transition rate to post-secondary compared to some regions would equal lower application and enrolment rates.
 - While application counts have dropped over the past few years, Kwantlen's overall enrolment grew in Fall 2006 by 3.5%, grew in Summer 2007 by 2%, remained stable in Fall 2007 and Spring 2008 and grew in Summer 2008 by 2%. Why?

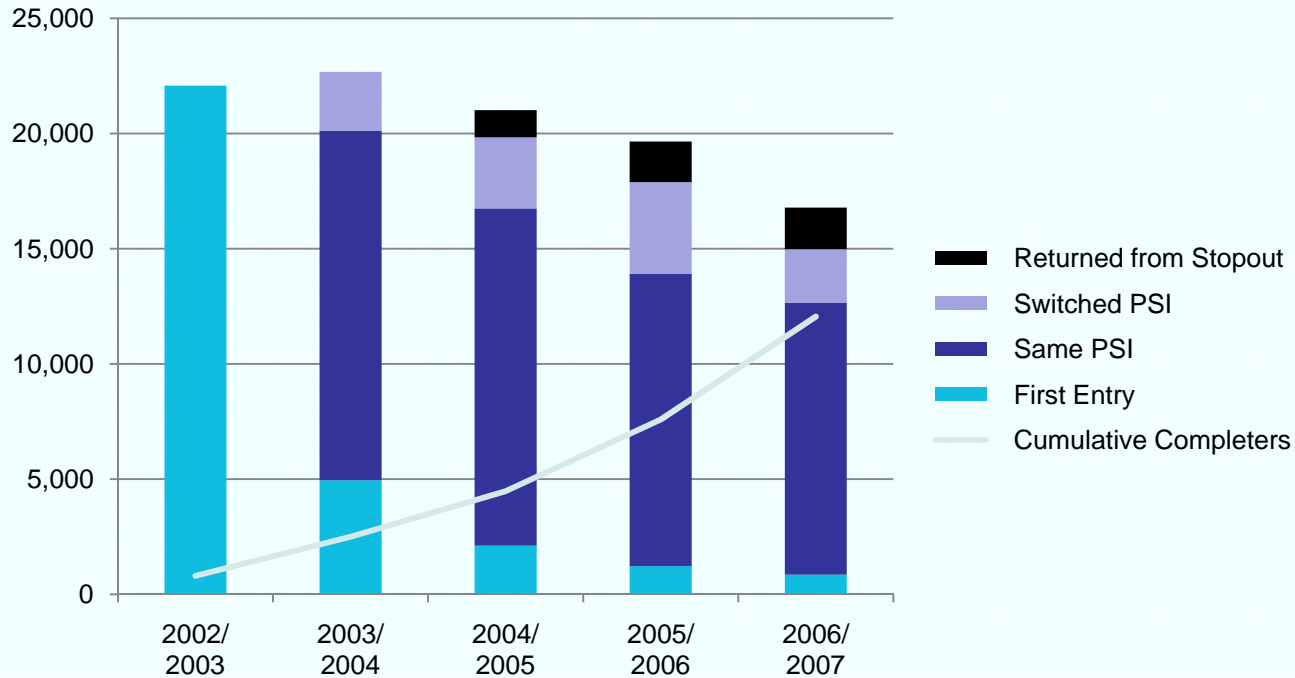
Immediate and Delayed Entry to Post-Secondary Institutions (cont'd)

- Kwantlen
 - With data brings action and impetus for change.
 - Tracking and nurturing our “suspects” to “prospects” to applicants to registrants to graduates through brand management, engagement initiatives and personalized contact.

Movement Among PS Institutions

- Once these graduating cohorts arrive at a post-secondary institution, what happens to them?
- What is the flow of Grade 12 graduates into **and among** public post-secondary institutions in multiple directions over a multi-year period (from 2001/02 to 2006/07)?
- Includes retention, graduates, stop outs, drop outs, and movement among institutions
- Important evidence of inter-institutional student movement (updated annually)

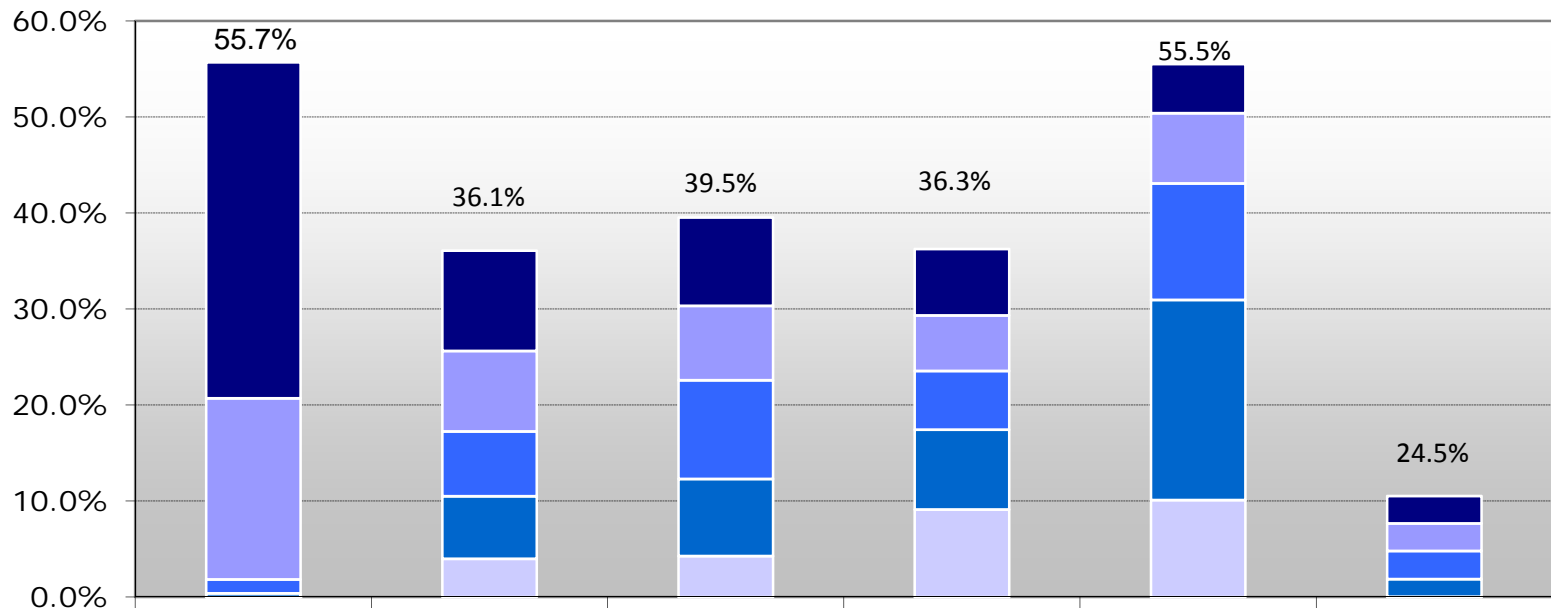
To What Extent Do Post-Secondary Registrants Switch Institutions Over a Five-Year Period?



PSI Switching:

2001/02 Grad Class (Curr Year vs. Prev Year):	<u>2002/</u> <u>2003</u>	<u>2003/</u> <u>2004</u>	<u>2004/</u> <u>2005</u>	<u>2005/</u> <u>2006</u>	<u>2006/</u> <u>2007</u>
First Entry	100.0%	27.9%	11.2%	6.6%	5.4%
Same PSI	0.0%	85.6%	77.4%	68.8%	74.1%
Switched PSI	0.0%	14.4%	16.3%	21.6%	14.6%
Returned from Stopout	0.0%	0.0%	6.3%	9.6%	11.3%
Subtotal Registrants	100.0%	100.0%	100.0%	100.0%	100.0%

**Five-Year Post-Secondary Credential Completion Rate of
Students Who Graduated from BC Secondary Schools in 2001/02 and
First Entered BC Public Post-Secondary Institutions in 2002/03
(by Post-Secondary Sector First Entered)**



	UNIVERSITY	UNIVERSITY COLLEGE	URBAN COLLEGE	SMALL COLLEGE	INSTITUTE	No Immed. Transition
■ 2006/07	35.0%	10.5%	9.2%	6.9%	5.1%	2.9%
■ 2005/06	18.9%	8.4%	7.7%	5.8%	7.3%	2.9%
■ 2004/05	1.4%	6.7%	10.3%	6.1%	12.1%	2.9%
■ 2003/04	0.4%	6.5%	8.0%	8.3%	20.8%	1.8%
■ 2002/03	0.0%	4.0%	4.3%	9.1%	10.1%	0.0%
# Who Entered Post-Sec 2002/03	7,168	6,465	5,071	2,008	1,367	21,274

Note: Credential completion rate is the unique number of credential completers divided by the number of 2001/02 BC12 grads who first entered post-secondary institutions in 2002/03 (by sector of first entry). Credentials can be awarded in a sector different from the sector where students first registered. Completed credentials are attributed to the post-secondary sector where the student initially registered (i.e. college transfer students who graduate at university are attributed to the college sector credential completion rate).

Patterns of Student Mobility

2001/02 Grads	Enrolled Yr 2				
Enrolled Yr 1	Institute	Small College	Urban College	University College	University
Institute	64%	1%	6%	3%	2%
Small College	1%	46%	4%	3%	5%
Urban College	3%	0%	67%	2%	4%
University College	3%	0%	4%	63%	3%
University	1%	0%	3%	1%	89%

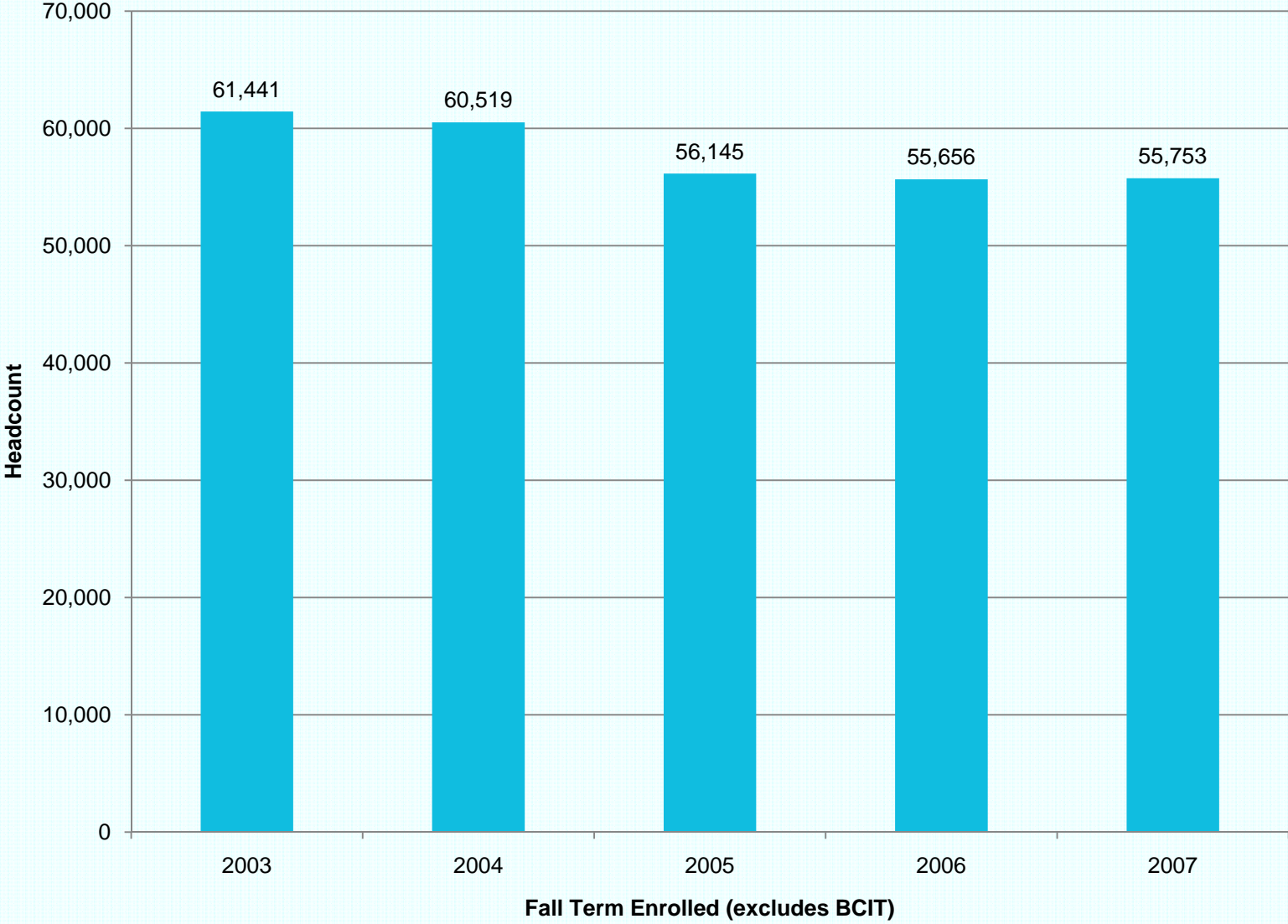
Movement Among PS Institutions

- Kwantlen
 - Our largest draw is still certificate and diploma students
 - Places more emphasis on our ability, where applicable, to convert these students into degree seekers. Only 16% of those living in our region hold a bachelor's degree compared to the provincial average of over 24% and in Vancouver 30%.
 - Bringing out stop-outs back to Kwantlen

Mobility of Transfer Students

- What is the number of potential and eligible transfer students in colleges, university colleges, and institutes in the fall of each year and the number that enrolled in a university in the subsequent year with transfer as the basis of admission?
- Builds on research conducted by BCCAT
- Four years of findings mean trend data beginning to emerge

Trends - BC Potential Transfer Students (Headcount)
Fall 2003 - Fall 2007



Mobility of Transfer Students (cont'd)

- Kwantlen
 - From 2004 to 2006, a decline in the number of students who transferred from Kwantlen to another University
 - Decrease in the number of students transferring out of Kwantlen due to the launch of our B.A. degrees
 - Retention rates increase from traditional 2 years to 4 years plus
 - This past year we launched our first ever Post Baccalaureate diploma to respond to a need by degree holders in our region for further studies.

Transition of High School Non-Graduates into Post-Secondary

- Students who do not graduate from high school can attend post-secondary institutions (mature student, ABE, trades)
- Study will follow students who did not graduate within 6 years of Grade 8 into post-secondary institutions over a multi-year period
- An important population that has not been the subject of past research
- Will result in report and pivot tables (updated annually)

Transition of High School Non-Graduates into Post-Secondary (cont'd)

- Kwantlen

- This type of data will guide our decisions on continuing studies offerings, “Weekend ‘U’” and part-time evening studies.
- We can also determine the types of Kwantlen programs that non-graduates enrol in and at what point they do so after leaving school to determine how to improve access.

Applicant Research

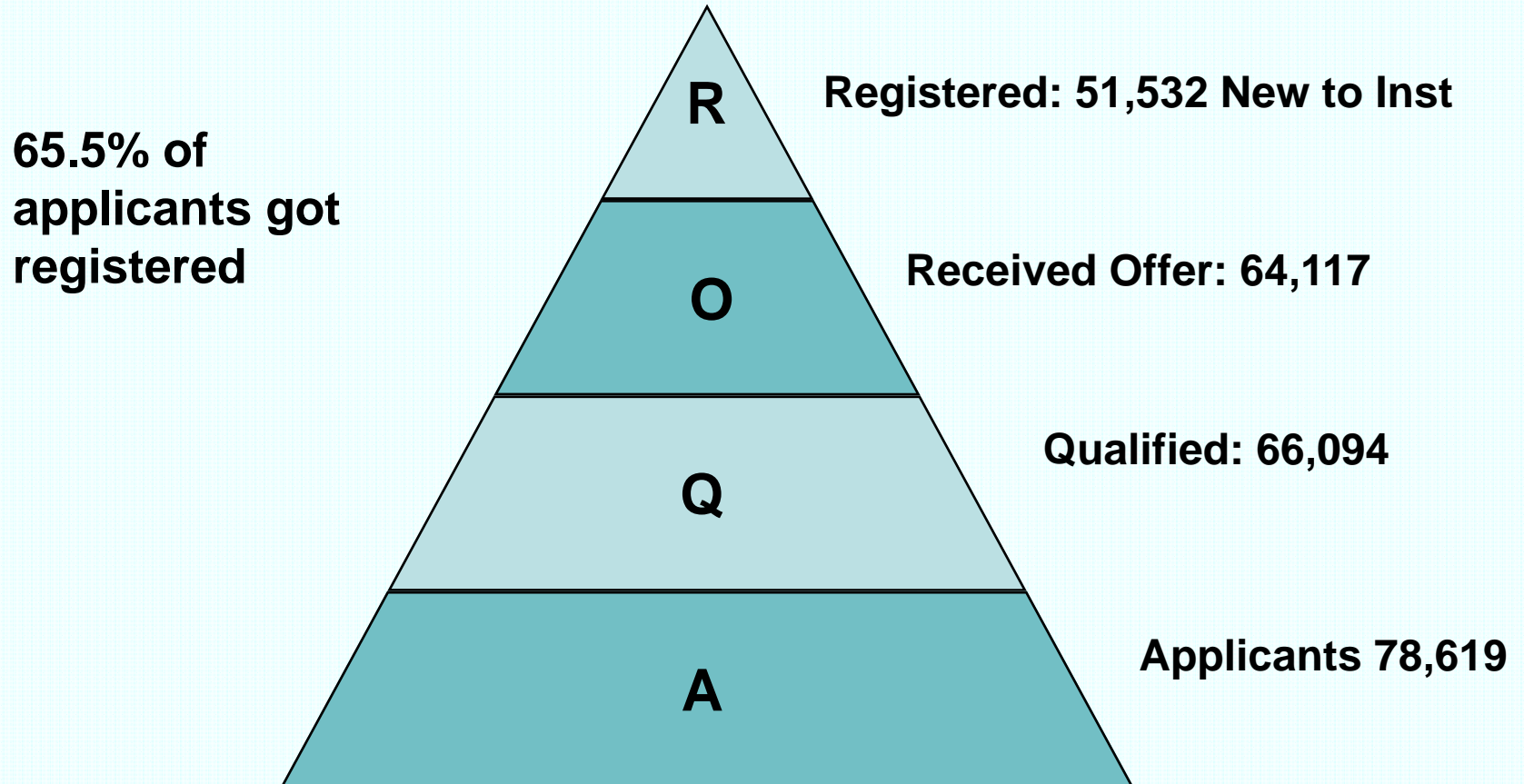
- Universities have done applicant flow studies for several years
- Builds an **applicant funnel** using unduplicated headcount: applied, qualified, given an offer, registered
- BCCAT-led study on applicant flows to universities and university colleges (2002/03 data)
- 27% of qualified applicants who received offer of admission from a university or university college did not register

Applicant Research (cont'd)

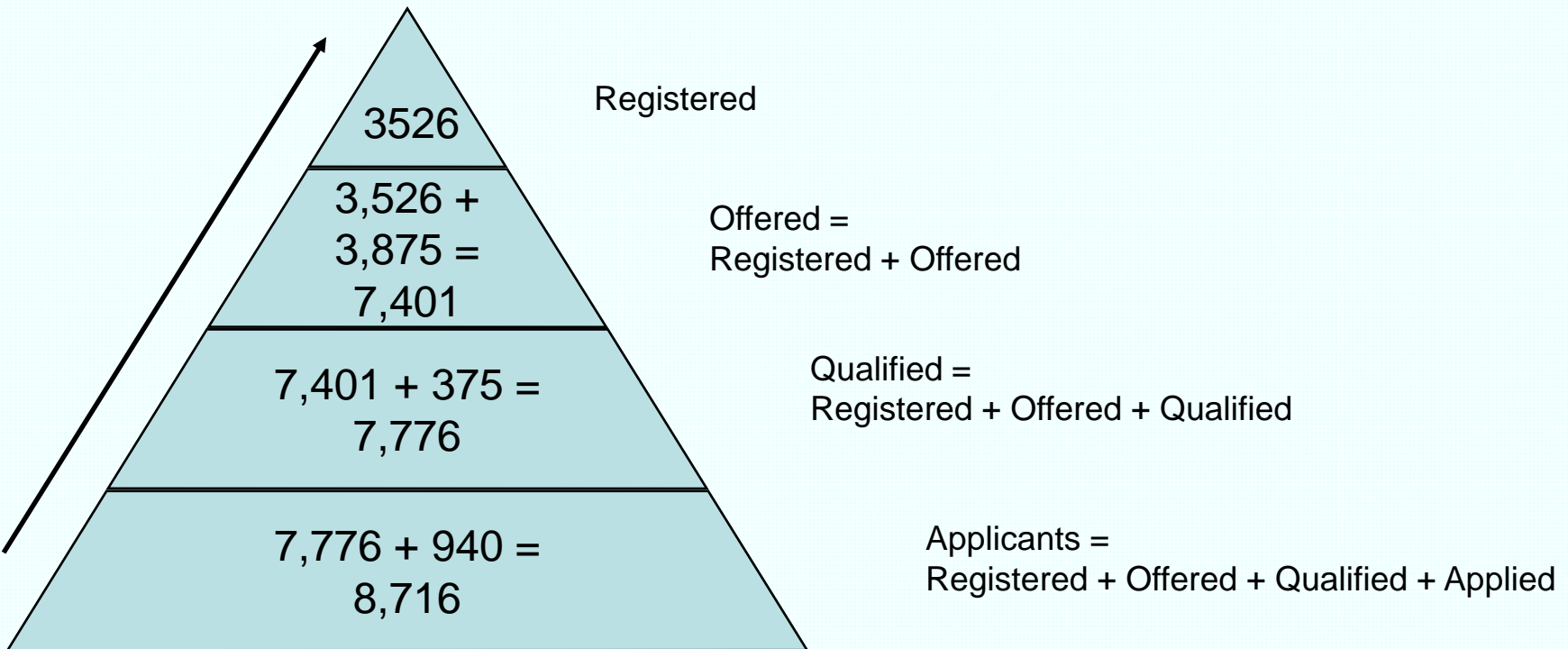
- STP has formed subcommittee to explore conducting system-wide applicant study
- All Central Data Warehouse (CDW) institutions submitted applicant data for first time in Fall/07
- AVED matched CDW applicant data with CDW and university registrant data from STP
- Pilot applicant study being explored in a few program areas
- Alberta already doing annual applicant studies

System Pyramid

Fall 2007 - 18 institutions



Applicant Pyramid



Of those offered a seat that did not register at Kwantlen (3,875), 973 attended another University but 2,075 did not register at all at a public post secondary University or College in B.C.

Applicant research (cont'd)

- Kwantlen
 - Why did 27% of qualified applicants who were offered a seat not register?
 - No courses offered that they wanted?
 - Courses they wanted full?
 - Courses not offered when the student was available?
 - These are questions we need to find answers to and respond through student influenced scheduling.

Summary

- Moving towards systematic analyses and reporting of data at **predictable** times and in a **timely** manner to assist institutions and government with planning
- Understanding student mobility at an institutional, regional, and provincial level is critical to decisions affecting course and program offerings

Where to Find STP Research Results

Results available to public at:

www.aved.gov.bc.ca/student_transitions/

Questions and Comments?

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