

Seneca



The impact of labour market and policy changes on university transfer: the case study of Early Childhood Education.

Ursula McCloy and Mitchell Steffler

Presentation to ONCAT Conference, Toronto, ON

April 20-21, 2015

About Early Childhood Education

- Early Childhood Education is the largest college program in Ontario, with almost 4000 graduates in 2013, and it continues to grow.

“Early childhood educators plan, organize and implement programs for children between the ages of infancy and 12 years”. They “are employed in child-care centres, daycare centres, kindergartens, agencies for exceptional children and other settings” (Statistics Canada occupation description)

- Traditionally ECE graduates experience strong employment rates, but comparatively low wages.
- It has the highest numbers of graduates continuing on to university, but this has dropped sharply in recent years.

Research Questions

Why has transfer to university decreased so sharply for ECE?

1. Provincial analysis

- What are significant changes in the profession and programs?
- How has the labour market responded?

2. Institutional level (Seneca case study)

- What are the academic and socio-demographic backgrounds of ECE graduates who transfer to university?
- What is the role of aspirations for university?
- Is the decrease in transfer to university a result of a changing student profile, or are there other external factors?

Project funded by ONCAT

Labour market and policy changes may have resulted in a reduction in transfer to university



- In **2007**, the Ontario government passed the [*Early Childhood Educators Act, 2007*](#), establishing the College of Early Childhood Educators (the College) in 2008.
- **2010-2011**, Ontario introduced full-day kindergarten, increasing the demand for the registered Early Childhood Educators (***The Full-Day Early Learning – Kindergarten Program***).
- Reduced demand for certified teachers in K-12. In 2001, 70% of Ontario's teaching graduates obtained a regular teaching job, dropping to 19% by 2014 (OCT, 2015). This likely reduces the demand for ECE graduates to use the university transfer pathway to ultimately attend Teacher's College.
- **2008 to present:** The introduction of related college degrees in Child Development, Early Childhood Leadership, and Early Learning Program Development across several Ontario colleges.

Provincial Analysis

Labour market and transfer trends based on the MTCU KPI Graduate Satisfaction Survey

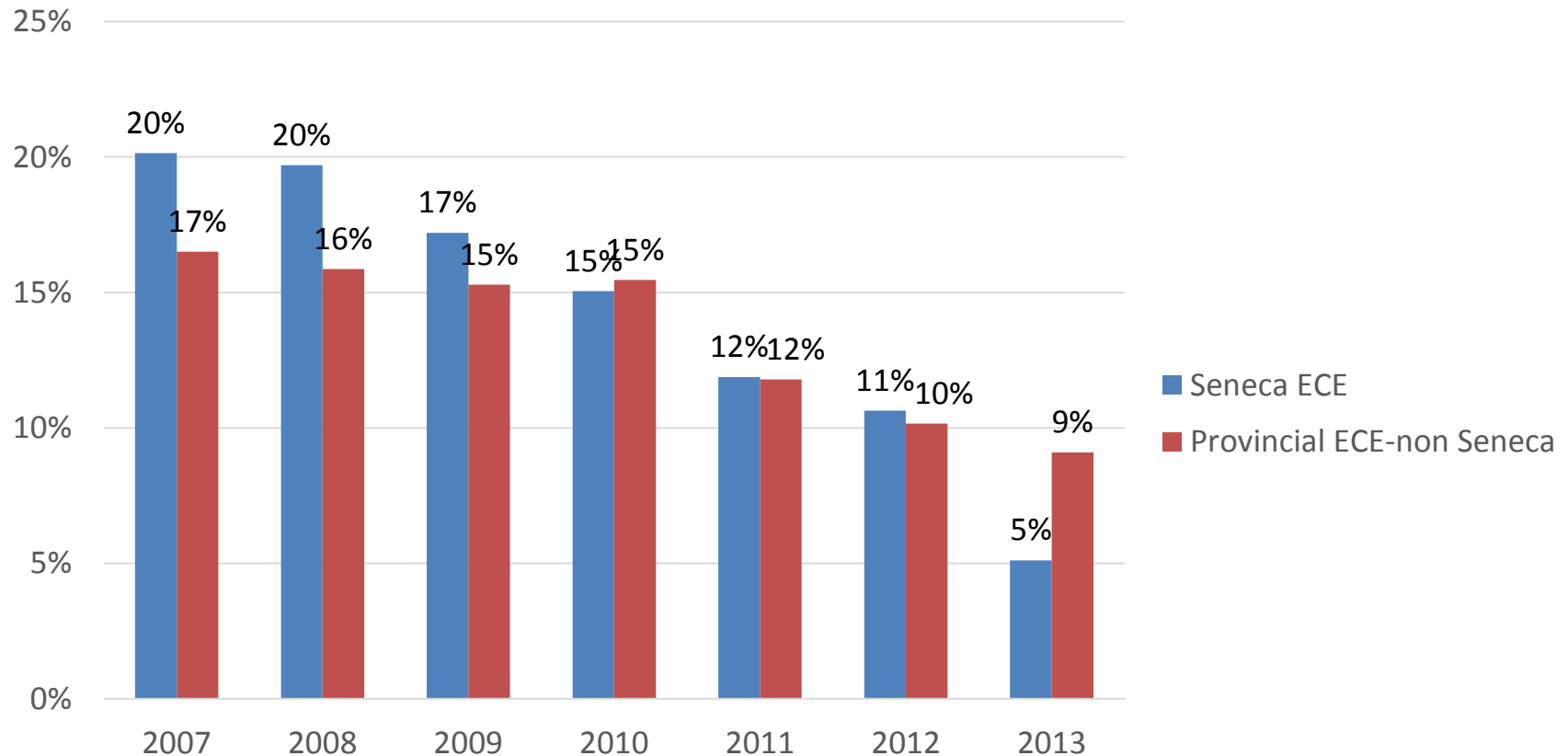
Provincial analysis: KPI Graduate Satisfaction Survey



- Telephone survey administered to all Ontario college graduates six months after graduation since 1999.
- Response rates are high, typically 70%
- Consists of detailed labour market, satisfaction, and further education questions.
- Contains a case number that can be linked back to a Seneca student ID so that the survey can be attached to Seneca records within the college (following ethical and privacy guidelines) (cannot be done provincially).

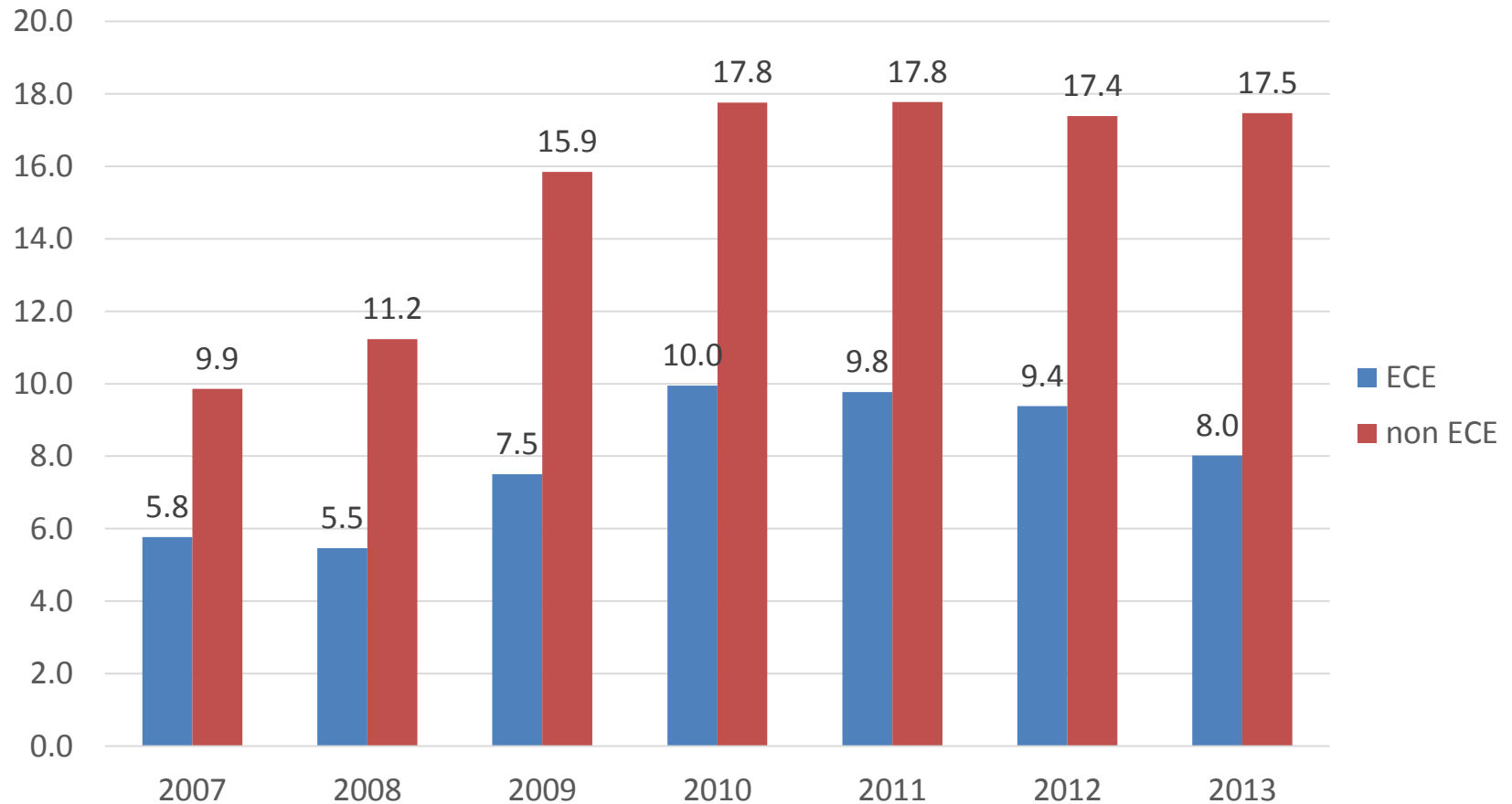
University transfer rate for Ontario's ECE graduates is decreasing

Percentage of ECE graduates who attend university, 6 months after graduation



Employment strong for Ontario Early Childhood Graduates

Unemployment Rate for Ontario Graduates, %



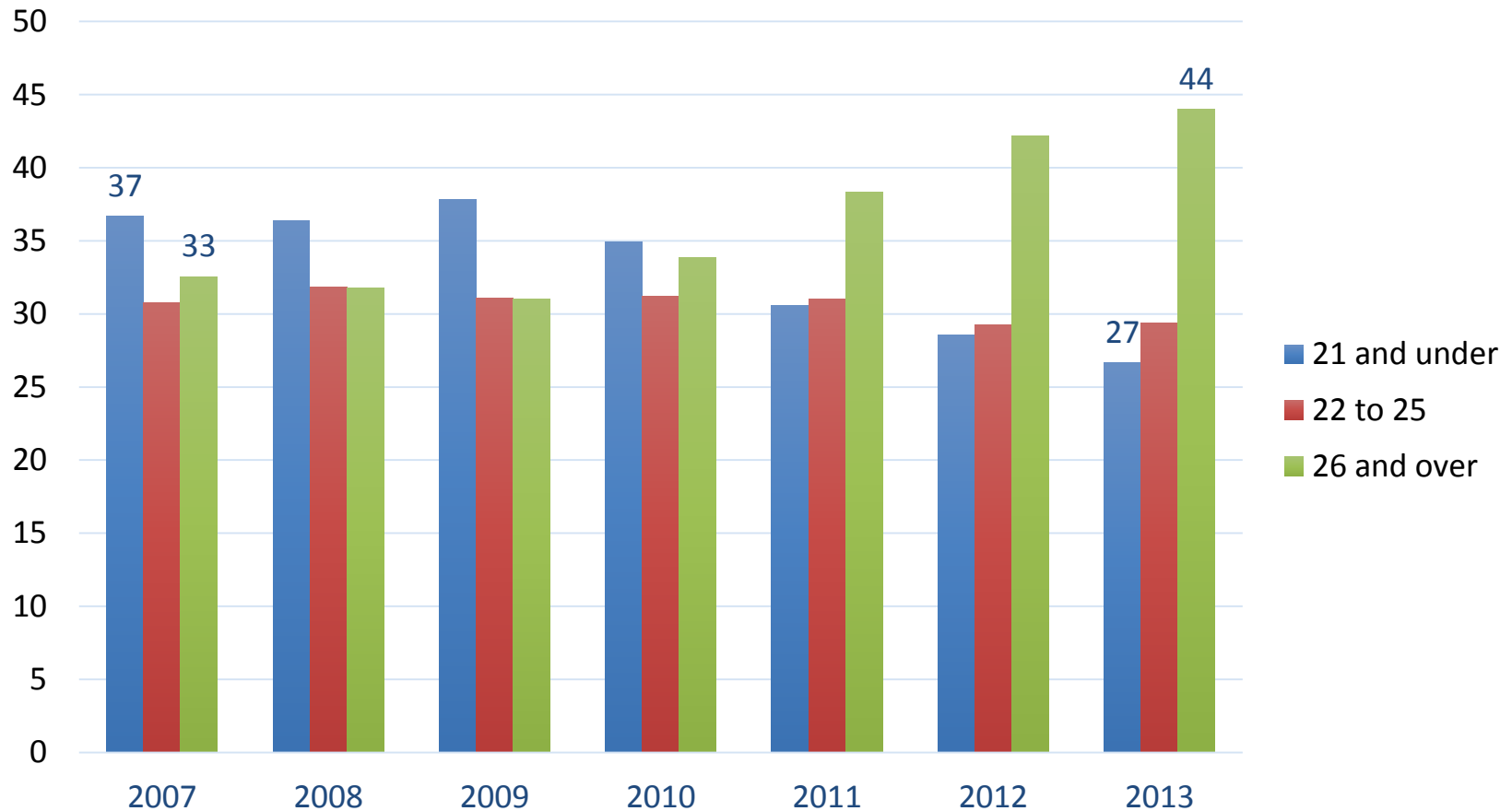
Salary Gap Is Narrowing For Ontario Early Childhood Graduates

Hourly Salary for Ontario Graduates, \$



ECE Graduates are getting older

Age distribution of Ontario ECE graduates, %



Ontario Colleges have introduced ECE related degree programs



MTCU Title	Colleges offering it	College Title	Initiation date	Total # graduates by 2013-14
Bachelor of Applied Arts (Child Development)	SENE	Bachelor of Child Development	2008	126
	HUMB	Bachelor of Child and Youth Care	2011	
Bachelor of Early Childhood Leadership	FANS	Bachelor of Early Childhood Leadership	2010	14
	GRBR	Bachelor of Early Childhood Leadership	2010	9
	SHER	Bachelor of Early Childhood Leadership	2010	35
Bachelor of Early Learning Program Development	CONS	Bachelor of Early Learning Program Development	2014	
Total # graduates				184

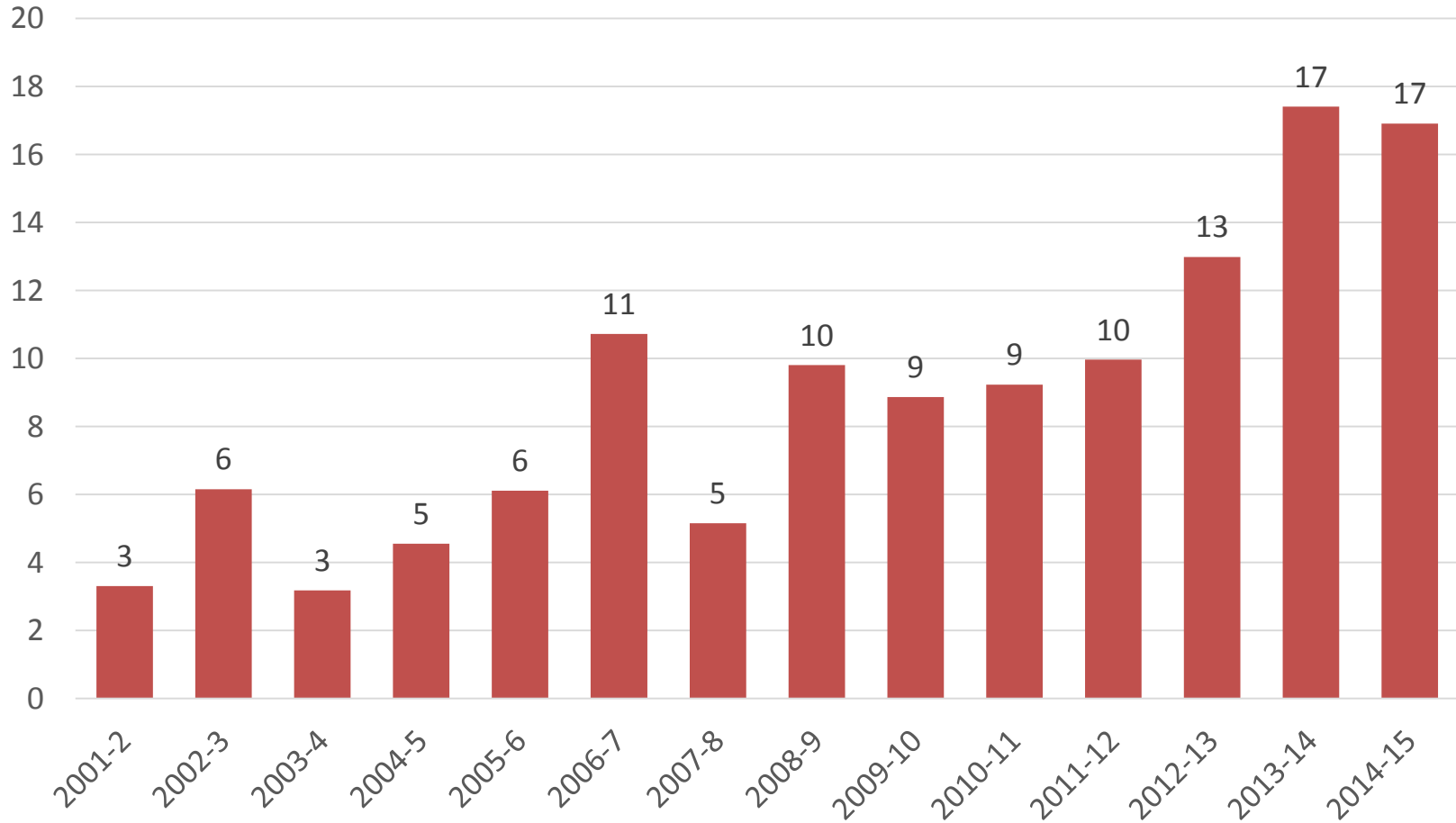
Entering ECE Students at Seneca

A detailed analysis of ECE students and graduates using Seneca as a case study

Seneca's ECE students increasingly have previous university experience

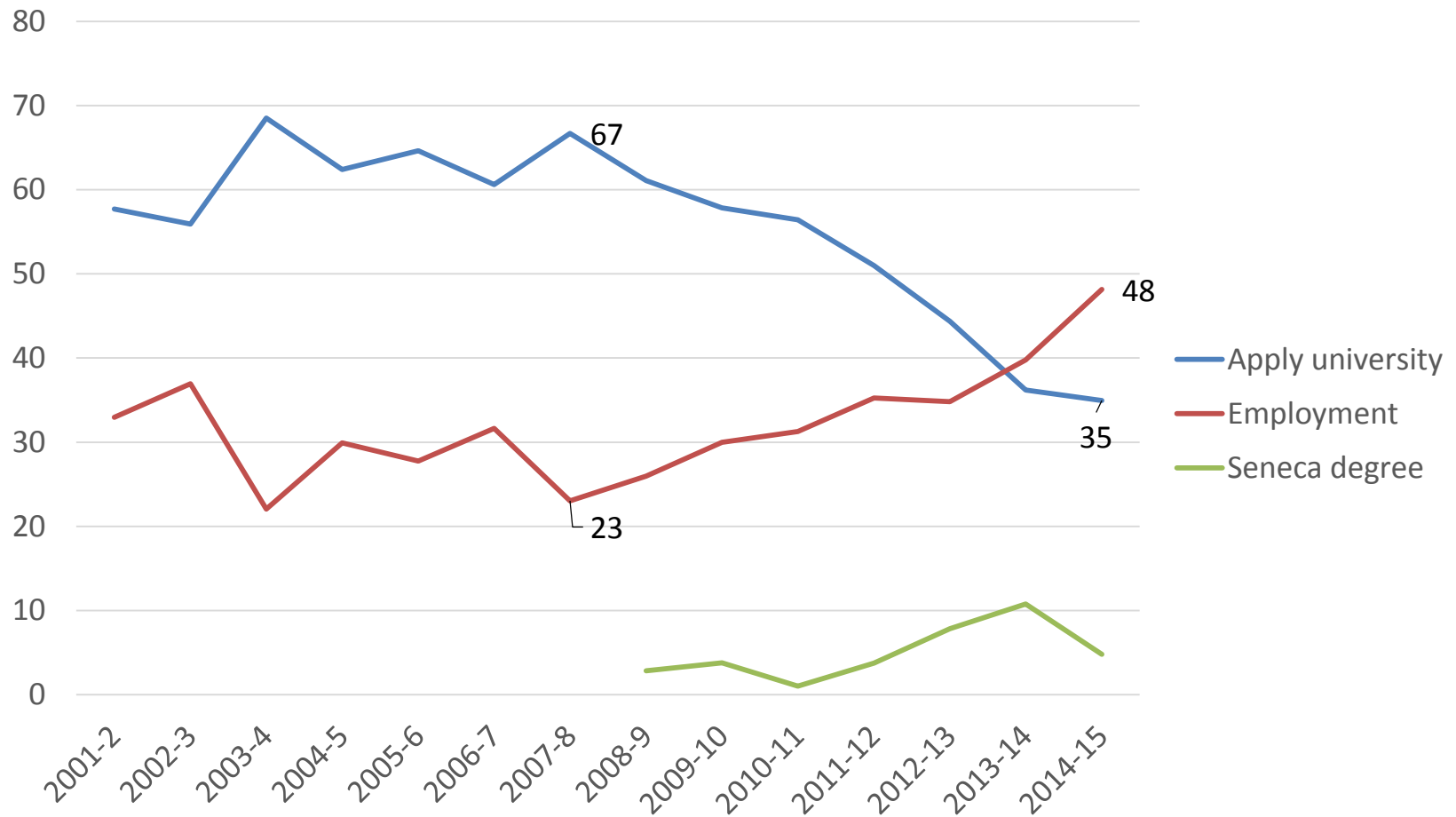


% of Seneca entering students who previously attended university



Plans for attending university after graduation declining

Post-graduate plans for entering ECE students at Seneca, %



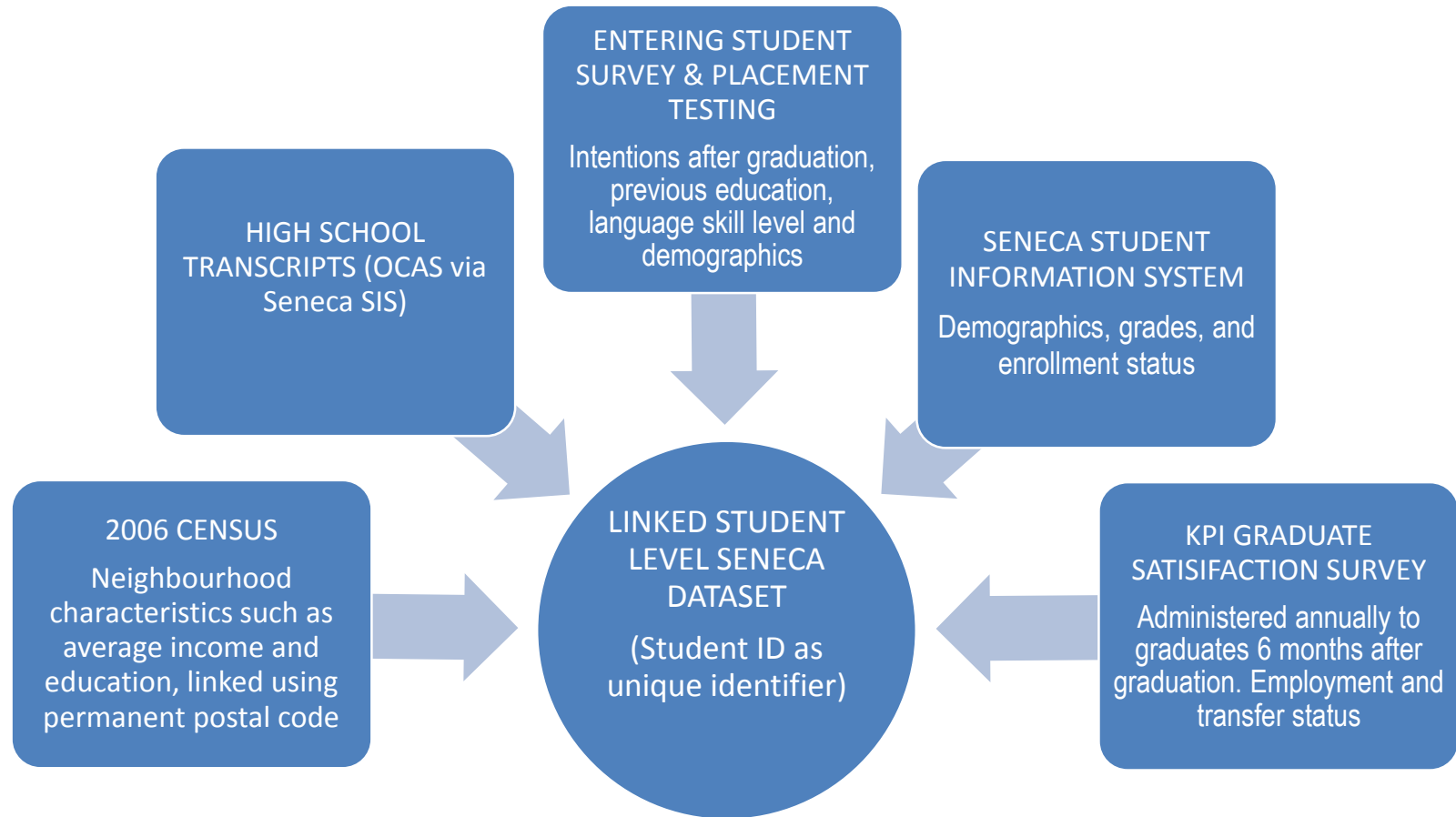
From aspirations for university to reality: following Seneca's ECE students

Linking survey and administrative data for 2007-2013 ECE graduates

Ethics and privacy

- Ethics approval from Seneca was granted in January, 2015, for the purpose of creating a multi-year, panel dataset, from five separate data sources. Seneca's privacy office also was notified.
- Three types of safeguards to prevent unauthorized access:
 - Technical
 - Administrative
 - Physical
- Once data linking has been completed, the personal identifiers will be removed, and a "working" dataset will be created.
- The personal identifiers will be kept in a secure location, and encrypted. If new or updated data is required, the identifiers will be de-encrypted and used for additional linking.

Creation of the linked dataset



Seneca sample description

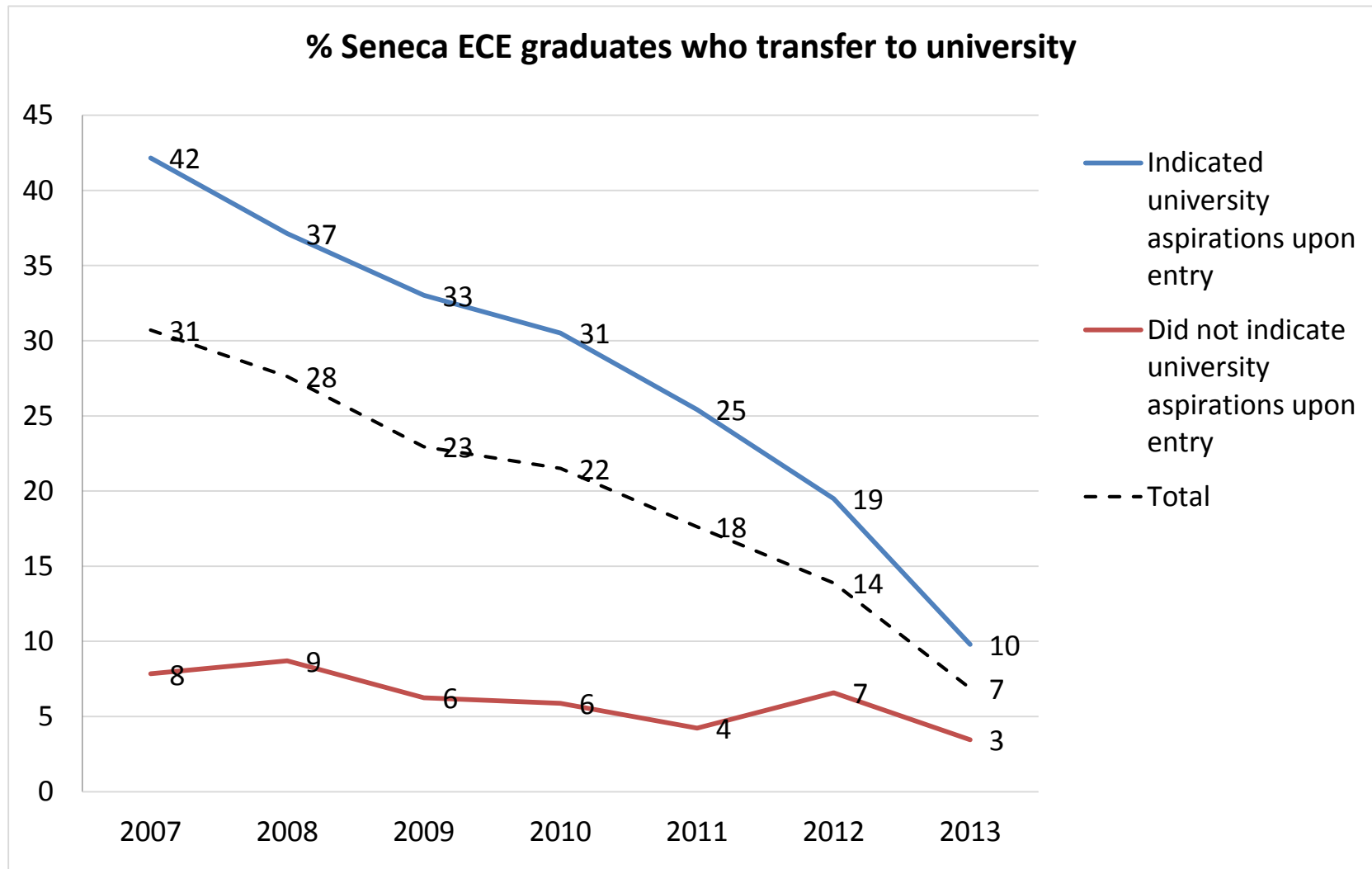
Sample Selection Criteria

Total number of Seneca graduates from the MTCU Early Childhood Education program, 2006-07 to 2012-13 (MTCU code 51211)	2,883
<i>less:</i>	
<i>Graduate Survey non-respondents</i>	474
<i>Graduates of Early Childhood Education (Fast Track) (ECEE)</i>	4
<i>Graduates of Child Development Practitioner (ECEP) (OTAB apprenticeship)</i>	632
<i>Entering student survey not completed</i>	463
Sample used for Analysis	1,310

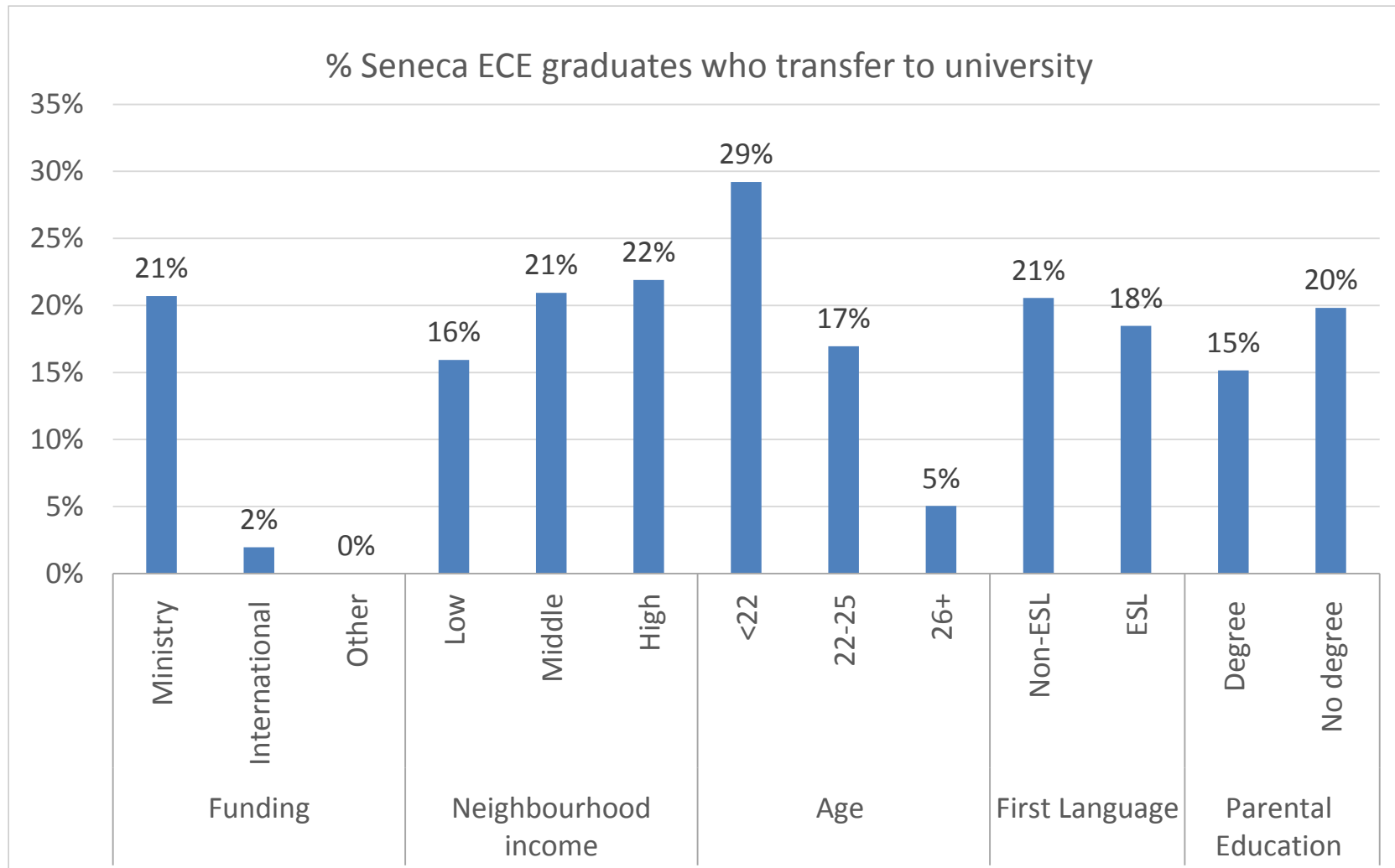
Who transfers to university?

The characteristics and trends of Seneca's ECE graduates who continue to university

Transfer rate by plans for university

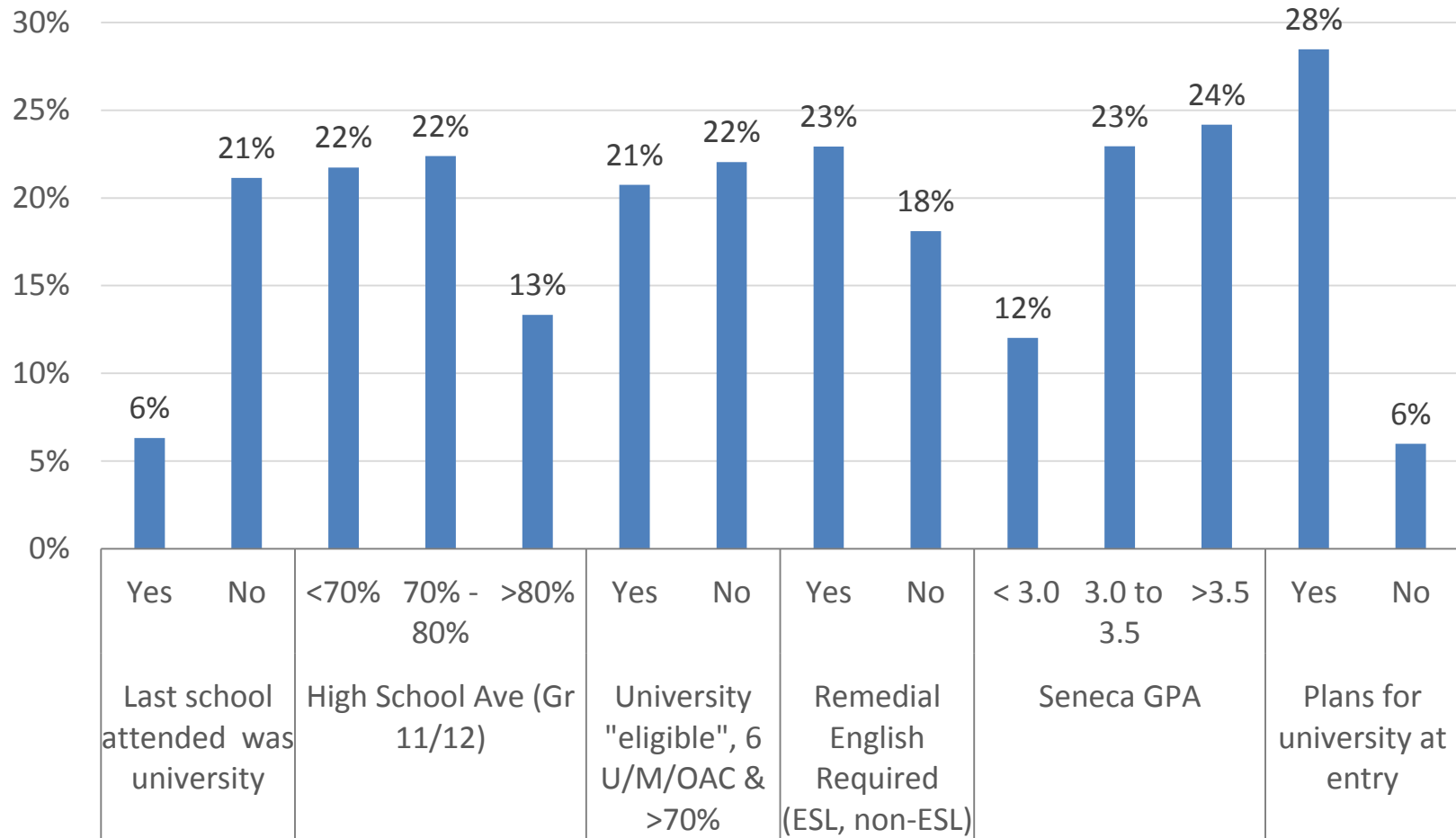


Transfer rate by socio-demographic characteristics



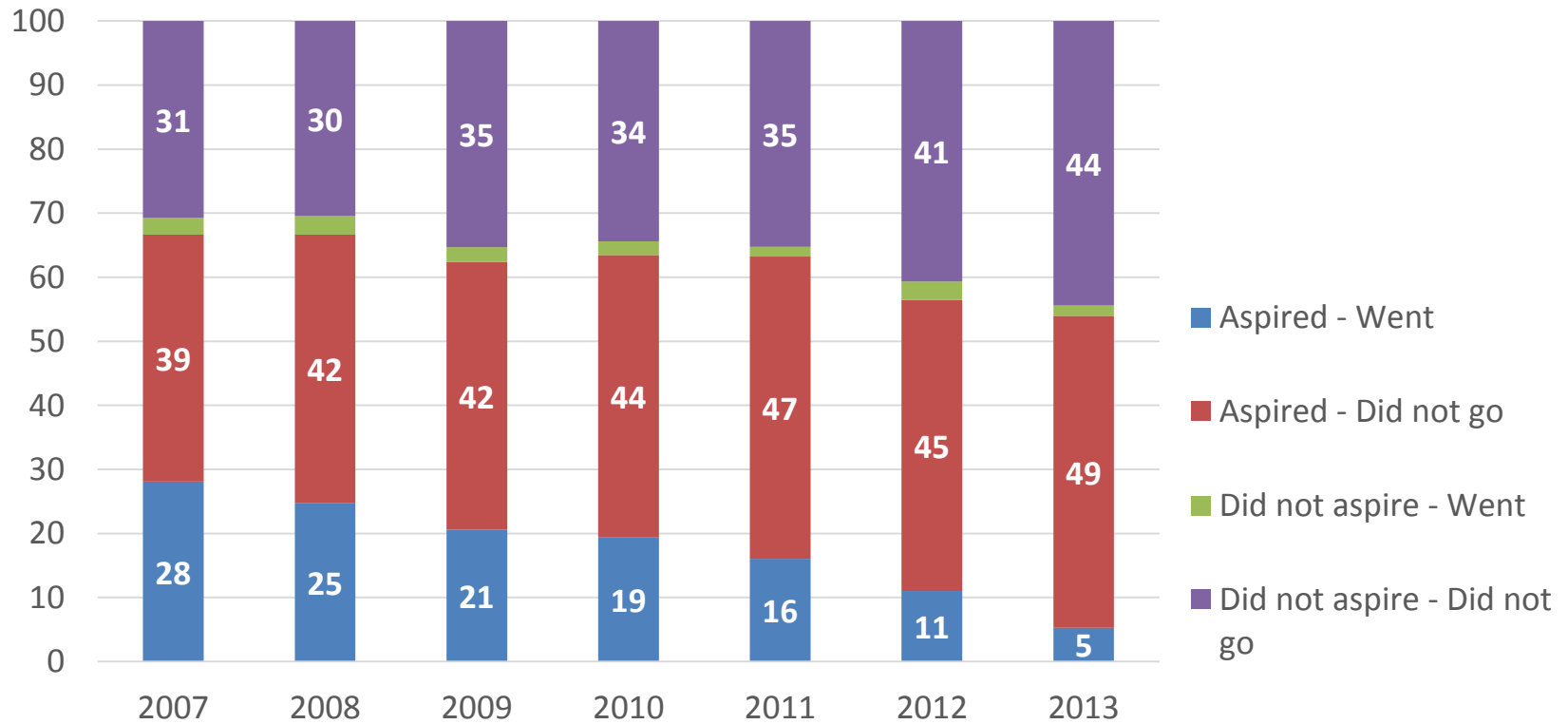
Transfer rate by academic background

% Seneca ECE graduates who transfer to university



From aspirations to reality

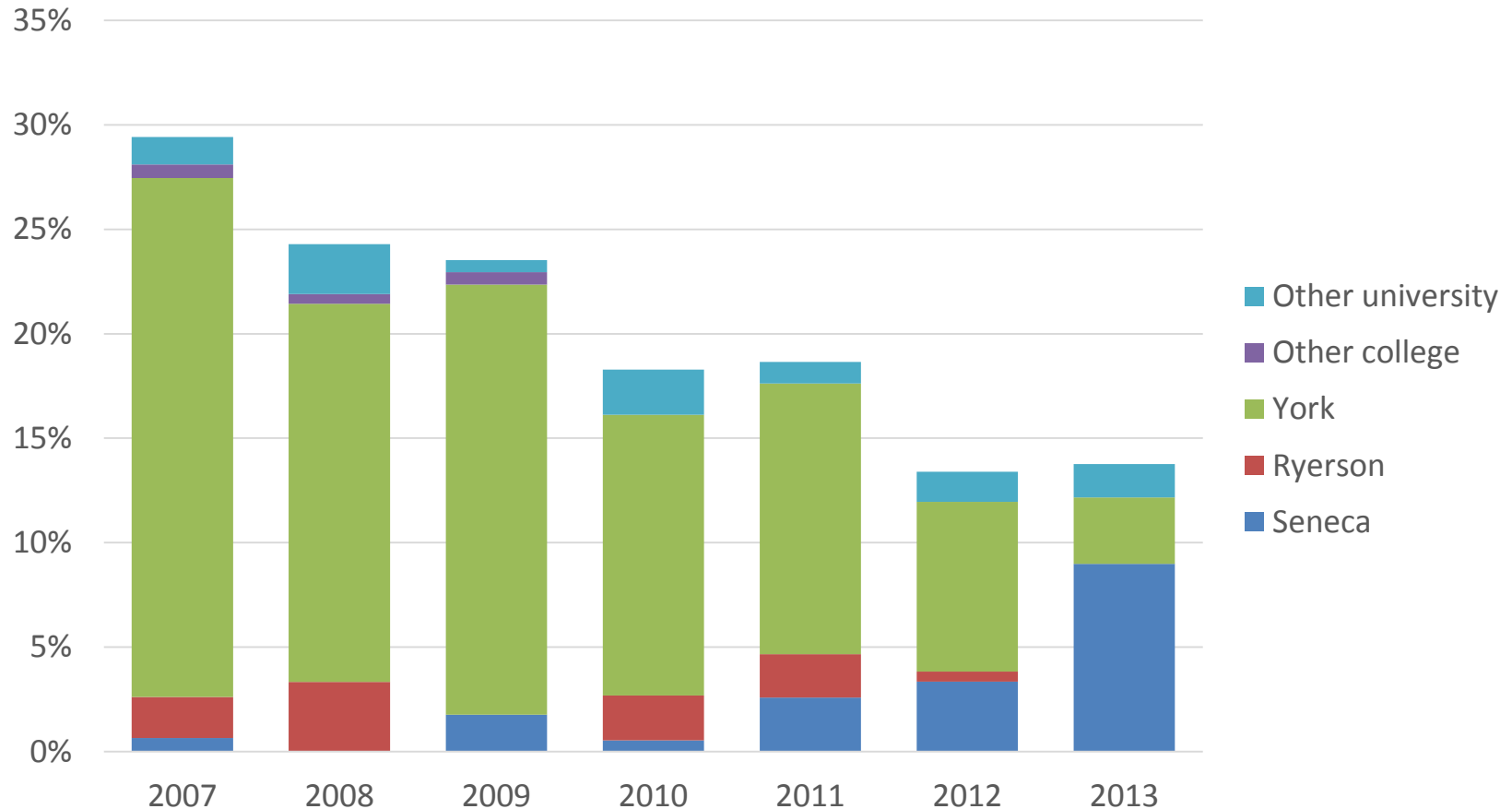
Percent of students who ultimately transfer to university by initial aspirations



Seneca's ECE graduates are increasingly continuing degree studies at Seneca



% of ECE graduates continuing on to a degree at university or college



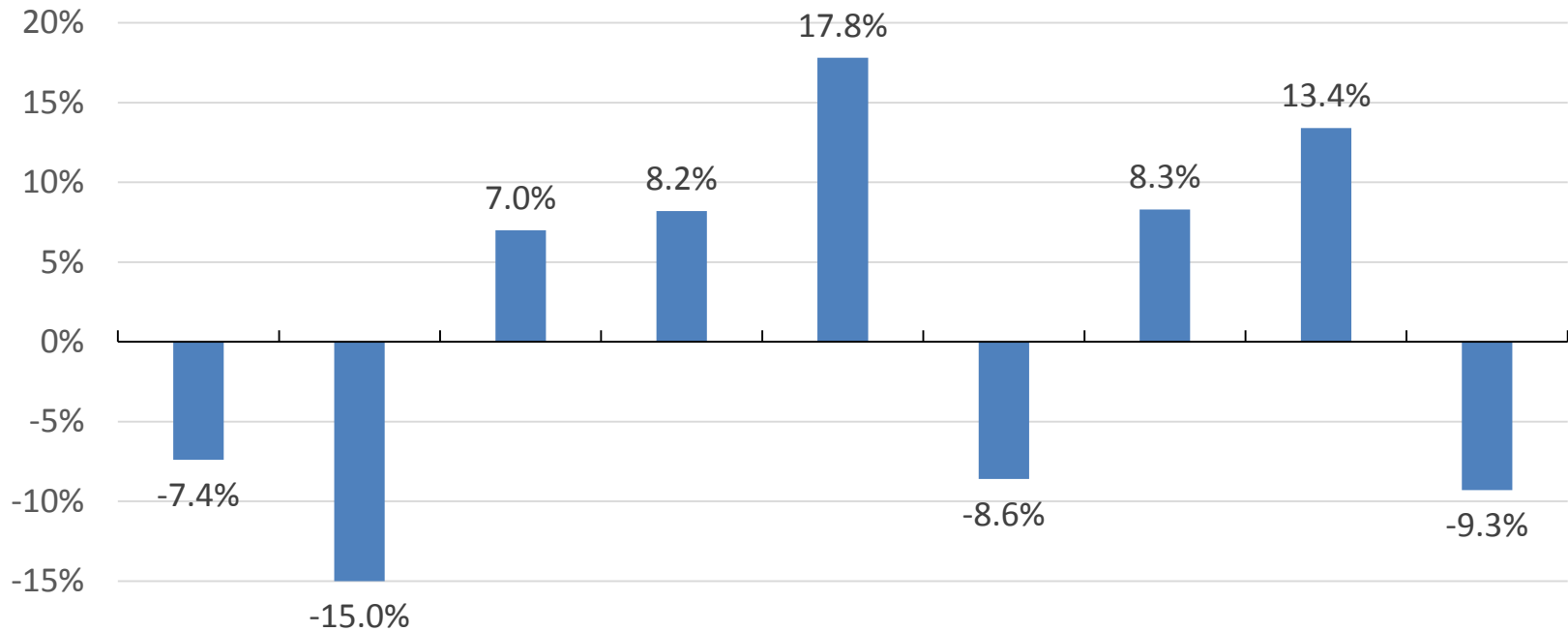
Regression Analysis

What do our results tell us?

Regression summary: multiple models

Reference Group	Variables	1. Full population + Seneca Grades	2. Domestic graduates + Census + Seneca Grades	3. Domestic graduates + Census + HS Grades
	International (y/n)	-5.9%	---	---
Age (Ref: Under 22 yrs)	22-25	-7.0%	-7.4%	-10.7%
	26+	-13.6%	-15.0%	-17.0%
	English as first language (y/n)	ns	ns	ns
Census neighbourhood income (Ref: Low income)	Middle	---	7.0%	8.0%
	High	---	8.2%	8.2%
	Census neighbourhood unemployment rate	---	ns	ns
	Plans for university at entry (y/n)	17.9%	17.8%	16.8%
	Remedial English required (y/n)	ns	ns	ns
	Last school attended university (y/n)	-8.2%	-8.6%	ns
	Majority HS were U/M/OAC (y/n)	---	---	ns
High School ave (Gr 11/12) (Ref: < 70%)	70-80%	---	---	ns
	>80%	---	---	ns
	University "eligible", 6 U/M/OAC & >70%	---	---	ns
Seneca GPA (Ref: <3.0)	3.0 to 3.5	8.4%	8.3%	---
	>3.5	12.9%	13.4%	---
	Graduated after 2009 (y/n)	-9.1%	-9.3%	-11.0%
	Observations	1,293	1,221	1,047
	R-squared	0.132	0.131	0.102

Regression summary: Model 2, estimated differences in transfer propensity



22-25	26+	Middle	High	Yes	Yes	3.0 to 3.5	>3.5	Yes
Age (Ref: Under 22 yrs)		Census neighbourhood income (Ref: Low income)		Plans for university at entry (y/n)	Last school attended university (y/n)	Seneca GPA (Ref: <3.0)		Graduated after 2009 (y/n)

Regression conclusions

Factors **increasing** likelihood of transferring:

- Plans for university when they started their studies, younger age group, higher grades at college

Factors **decreasing** likelihood of transfer:

- Previous university experience, being an international student, or coming from a low income neighbourhood.
- Graduating after 2009.

Factors **not** significantly related to transferring:

- high school academic background, or placement in remedial English

Potential impact of external policy and labour market



- Even when controlling for socio-demographic and academic factors (and composition changes over time) the amount of transfer has dropped significantly for Seneca's ECE graduates since 2009, relative to 2007-2009 graduates.
 - This remains significant when transfer to college degrees are incorporated into the transfer measure. However the introduction of colleges degrees do partially explain the decrease in transfer to university.
 - The timing of decrease in transfer aligns with the changes the ECE profession has undergone in the late 2000's.
 - Job prospects have improved, the profession has attracted older students with previous education, and interest in transfer to university has decreased.
- *Overall, when observing student mobility trends need take into account both the labour market and surrounding policy considerations.*

Next Steps

Early Childhood Education analysis:

- Look more closely at labour market program/ regional unemployment trends
- Add 2013-14 graduates (data available shortly)
- Obtain feedback and discuss findings with ECE professionals and education providers

Overall:

- Conduct a similar analysis on a non-occupation based program, Liberal Arts Transfer
- Look more closely at mature, first generation and international students in the Seneca-wide dataset
- Research province wide trends in mobility
- Potentially partner with other institutions to share data and research capacity

Seneca



Thank you!

Ursula McCloy

ursula.mccloy@senecacollege.ca

Mitchell Steffler

mitchell.steffler@senecacollege.ca