



Approaches to net tuition: an environmental scan

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Context: OSAP transformation

On February 25, 2016, the Ontario government announced a major redesign of the Ontario Student Assistance Program (OSAP) with the goal of making postsecondary education more accessible, affordable and cost transparent. In launching the redesign, the government said that “for Ontario to thrive in the knowledge-based economy, the government needs to ensure all members of society are given the opportunities, as well as the tools, they need to succeed” (Ontario Ministry of Finance, 2016).

OSAP is Ontario’s umbrella financial-aid program for students at publicly-assisted colleges and universities and approved private institutions. OSAP is jointly funded by the province and the federal government, and offers students combinations of repayable (loan) and non-repayable (grant) assistance for eligible education related and living costs on a needs-tested basis.

OSAP’s transformation is a two-phase reform process. The first, to be implemented for the 2017-18 academic year, will combine existing provincial grants — like the 30% Off Ontario Tuition Grant (available to the majority of Ontario undergraduate and college students), the Ontario Access Grant (an up-front needs-tested grant) and the Ontario Student Opportunity Grant (which pays down outstanding OSAP loan balances at the end of the academic year) — into a single up-front grant called the Ontario Student Grant. OSAP weekly assistance levels will also be increased. The second phase, to be implemented for the 2018-19 academic year, will reduce parental and spousal contributions by aligning them with the Canada Student Loans Program and introduce a net-tuition billing system. Details about the transformation are available in the Ontario Ministry of Finance’s 2016 Budget documents (Ontario Ministry of Finance, 2016).

Net tuition simply means that a student’s up-front OSAP grant as well as any aid provided by the college or university will be taken into consideration when calculating the student’s tuition fee bill. The student will receive communication on what is owed once the value of OSAP and institutional scholarships and bursaries have been deducted. This is a change from current practice, where institutions bill students for the gross or “sticker price” amount of tuition, and students separately negotiate student aid to help pay that amount.¹

The advantages of communicating the net-tuition amount to students are important. Despite benefiting from one of the most generous financial-aid programs across Canada, many Ontarians are unaware of the net price of tuition and grossly overestimate the costs of attending postsecondary education, especially those from low-income families (Usher, 2005).

Ontario has the highest sticker price undergraduate tuition in Canada (Weingarten et al, 2015). But even under the current OSAP program, once the financial supports students receive from the 30% Off Ontario Tuition grant, non-repayable OSAP grants and federal and provincial tuition tax credits are factored in, the net cost of tuition for Ontarians is around half the sticker price (Hicks, 2014). The Ministry of

¹ The current OSAP rules include an option whereby a student can apply to have OSAP redirect financial aid directly to an institution to pay down the gross tuition balance owing. This is a limited form of net payment, but it is neither automatic nor transparent in the manner envisaged for the new net-tuition transformation.

Advanced Education and Skills Development (MAESD) has calculated that under the transformed OSAP program, net tuition will be nil for low-income Ontarians. We believe this will increase access for low-income and marginalized Ontarians (Hicks & Deller, 2016).

Research questions

Net tuition is a clear and simple concept, but a challenging one to implement. It requires that the currently separate institutional and OSAP application processes be integrated so that students receive timely information on all costs and assistance, both institutional and government sourced, as early as possible in the application cycle.

To help with the implementation process, MAESD asked HEQCO to examine whether net billing has been implemented in other jurisdictions. The ministry posed the following research questions of us:

- Have other jurisdictions attempted or successfully implemented net billing? What lessons can be learned?
- Is net billing implemented by institutions or governments, or a combination of both? What issues have arisen from the integration of multiple sources of information?
- To what extent has “prior-prior”² year income been used in other jurisdictions? What are the pros and cons associated with using prior-prior year income?

Other jurisdictions and net tuition

Ontario’s vision for net tuition is comprehensive. Most of the design details have yet to be worked out. For the sake of having a target to aim for, and against which to assess what other jurisdictions are doing, we begin by imagining what an ideal post-2018 model might look like from a hypothetical student’s perspective. The model is HEQCO’s own, and does not purport to presuppose the final program design that will be implemented by the Ontario government over the next two years:

“I applied through the Ontario College Application Service/Ontario Universities’ Application Centre in the late fall to start school the following September. I picked the institutions and programs I was interested in. I was prompted within the same session to apply for student aid. I gave them permission to look up my income tax data for last year. Right on the screen I got a calculation of the amount of government and institutional student aid I qualified for and of the net tuition applicable to each of the program choices I made. I was surprised at how affordable it was going to be. I was

² Prior-prior year income refers to the date of income information used to calculate student-aid entitlements. Currently, OSAP uses income information from the year prior to the study year to estimate aid entitlements. A potential benefit of the transformation is to provide students with an aid estimate much earlier than before, to assist applicants in planning for their education and be aware of the costs. To do this effectively would require reliance on income information two years prior (hence “prior-prior”) to the year of study.

also presented with a link to some helpful information about my choices: graduation rates, graduate employment rates and loan default rates.

When I got my offers of admission in the spring, they each included an updated net-tuition calculation. They showed the same sticker-price tuition fee I had seen before, along with the same aid amount I would receive and the resulting net-tuition fee I would be required to pay for each offer. Two of the letters included an additional new offer of an institutional scholarship, which was netted off. Nothing changed after that. After I accepted one of the offers and started school, there were no surprise “clawbacks” during or after the school-year.

When I got to school and compared what I was paying to what others were paying, I discovered that it was different for each of us, but as far as I can tell it also seemed fair given what I think I know about other peoples’ circumstances.”

Achieving all the elements of our model by as early as 2018-19 is unlikely. The administrative challenges are daunting. In many instances, not all of the required information from the applicant, government and institutions will be available at the time of application.³ There are also some inherent policy tensions between ensuring that the information given to students is timely and stable (no last-minute surprise changes in student-aid entitlements and consequent net-tuition levels) and at the same time fair (able to accommodate changes in fortune that occur subsequently to the initial needs assessment). Compromises will be required.

Our research questions, and the reason we imagined our ideal scenario, is to investigate whether any other jurisdiction has come close to incorporating all the elements of a comprehensive net-tuition scenario. Others will work to strike a balance between our ideal vision and what is ultimately possible; the consultations between MAESD and institutions to do so are ongoing.

To our knowledge, the United States is the only jurisdiction that has successfully implemented a net-billing program similar to what Ontario is proposing. There are a few other jurisdictions around the world that have implemented some components of a net-tuition program, but these do not fully integrate government and institutional aid. What follows is an outline of the types of net-tuition systems used in other jurisdictions, how they are implemented, and the lessons that Ontario can learn.

³ Examples of some of the possible challenges in achieving our ideal vision include: inability to query the federal government’s taxation data in real time, inability to align the federal Canada Student Loans Program to using prior-year income assessment, tuition fee policy and/or ancillary fees not always settled at the time of application, institutional merit-based scholarships determined or updated as acceptances cumulate, early offers made ahead of the normal cycle — and there are many more.

United States

The motivation for net-tuition⁴ billing in the United States is the same as Ontario's. Most US undergraduate students receive some level of financial aid to reduce their educational burden regardless of whether attending a private or public institution⁵ (NCES, 2016). Yet many high school students "indicated they look at college costs based on the total cost of attendance without taking financial aid into account"⁶ (College Board and Art & Science Group, 2013). Equally problematic is a concern that the student aid system "delivers information about aid for college too late for it to affect schooling decisions" (Dynarski & Scott-Clayton, 2007).

In this section of the report, we look at three tools used in the United States to help address these concerns:

- Net tuition – the production and presentation of net-cost bills to admitted applicants
- Net-price calculator – an earlier individualized estimate of net cost, available before a student applies to an institution or to student aid
- College Scorecard – always-available public information on average net costs of attending US institutions

Net tuition

Most postsecondary institutions across the United States employ a net-tuition approach to billing students. The bill first sets out the full cost of tuition fees, incidental fees, and any applicable housing and campus fees. Non-repayable aid from the federal and state governments, from institutions and from outside sources is then listed and deducted from this total. Students are only billed the net amount (if any) they owe the institution after these deductions have been made. Any excess of financial-aid deductions over the full cost of attendance is refunded to the student by the institution.

The US net-billing scheme is an integrated feature of the federal student-aid program. Every year more than 20 million prospective and returning students complete and submit a Free Application for Federal Student Aid (FAFSA) form. Administered by the Department of Education, the FAFSA includes more than 100 questions, on topics such as student and parental finances, demographic characteristics and

⁴ In the United States the term "net price" is commonly used. In this report, we use the term "net tuition," as our audience is primarily an Ontario audience and "net tuition" has been adopted by the Ontario government. At a high level the two terms have the same meaning. As we shall see in the balance of the paper, the details as to what is included in determining net tuition (tuition costs alone or living costs as well; just government grants or also institutional grants and loan assistance) will vary from jurisdiction to jurisdiction.

⁵ In 2013-14, the percentage of first-time, full-time degree/certificate-seeking undergraduate students that received financial assistance was 85% at four-year, degree-granting institutions and 78% at two-year, degree-granting institutions. The sources of financial assistance include federal, state/local, and institutional grants and student loans.

⁶ The College Board, in collaboration with the Art & Science Group LLC, has conducted a number of national surveys to measure the perceptions and behaviour of college-bound high school senior students and their parents. The results from the 2012 survey found that of the 1,138 respondents, 54% indicated that they ruled out colleges on the basis of the sticker price without taking financial aid into account. These results are consistent with the survey results from 2011.

educational aspirations. The responses are used to determine eligibility for federal aid as well as most state and institutional needs-based aid.

Students are required to complete the FAFSA for each year of study. As part of the application, returning students list their college of attendance and incoming students can list up to ten colleges that they are considering. Information reported on a student's FAFSA, including the Expected Family Contribution⁷ calculated by the Department of Education, is sent directly to each institution listed on the application.

FAFSA is also the trigger for the majority of state and institutional student-aid programs. While federal student aid is available for the duration of the academic year, state and institutional aid is often awarded on a first come, first served basis until the money allocated to needs-based financial aid is exhausted. To be eligible for state and institutional needs-based aid, the FAFSA must be submitted to the Department of Education before college and state deadlines, which vary by state and institution. Some colleges further require students to complete additional forms that are used in conjunction with the FAFSA when determining the allocation of their needs-based grants.

Most federal and state funding including the Pell Grant program, which is the largest federal grant program across the US, is awarded to a specific student. But the award is forwarded to the institution rather than the student, and is then applied by the institution against the student's costs. There are a small number of federal programs like the Federal Perkins Loan, Federal Work-Study, and Federal Supplemental Educational Opportunity Grant that are campus-based programs; the federal government awards these to institutions as a pool of money to be allocated to students at the institution's discretion, within certain parameters.

Students receiving outside scholarships and tuition benefits from a non-governmental organization are required to report these scholarships to their institutional financial-aid office. Their value is then used to reevaluate a student's financial-aid package. Most institutions require outside scholarships to be sent to them directly or be endorsed to them, and then integrate these amounts into the net-billing arrangement.

Each college communicates the details of a prospective or current student's anticipated aid through a financial-aid award letter. The letter is typically sent in the spring or early summer prior to the start of studies in September, after both the institutional application and FAFSA have been processed.⁸ The following figure shows a snapshot of a student's college account at the University of Pittsburgh. The full sticker price tuition and ancillary fees are clearly stated, followed by the amounts of federal, state and institutional aid the student is eligible to receive. The net price the student owes to the institution once all sources of financial aid are deducted is also displayed.

⁷ The Expected Family Contribution (EFC) is an estimate of how much students and families are expected to contribute towards the cost of their education. The amount of financial aid awarded by the federal government depends on students' EFC and the cost of attendance (tuition, ancillary fees, living expenses, and other educational related expenses) for a particular university or college.

⁸ Further into the report we will discuss a US initiative to make the FAFSA available earlier in time to applicants and returning students. As a result, institutions could soon be making financial-aid award letters available to students earlier than the spring/summer prior to the start of the study year.

Figure 1: Example of a student’s college bill reflecting net tuition

Selected eBill

Account: **Tuition & Fees** Account Actions: [Select Action](#)

Statement of Account as of 07/23/14

Due Date: 08/17/14
Total Amount Due: \$3,870.00
Tuition Rate: Pennsylvania Resident
Student ID: [Redacted]
Campus: PIT

Student eBill notification sent to [Redacted]@pitt.edu

Statement Details

Date	Term	Description	Amount
Account Balance as of Last Statement			0.00
07/18/14	2014 Fall	Undergraduate Activity Fee	80.00
07/18/14	2014 Fall	Security & Transportation Fee	90.00
07/18/14	2014 Fall	Wellness Fee	105.00
07/18/14	2014 Fall	Computer/Network Service Fee	175.00
07/18/14	2014 Fall	UG Tuition A&S PA	8,436.00
07/18/14	2014 Fall	Admission Tuition Deposit	(200.00)
Anticipated Aid			
	2014 Fall	Pell Grant	(1,340.00)
	2014 Fall	SEOG	(250.00)
	2014 Fall	Perkins Loan	(1,000.00)
	2014 Fall	Direct Stafford Sub 01	(2,226.00)
Total Amount Due			3,870.00

Net Tuition

Tuition + Ancillary Fees (includes Undergraduate Activity Fee, Security & Transportation Fee, Wellness Fee, Computer/Network Service Fee, UG Tuition A&S PA)

(Minus) Federal Aid (includes Pell Grant, SEOG, Perkins Loan, Direct Stafford Sub 01)

Printable Bill PDF icon

Use this link to view and print a paper bill. Make a screen print of the Current Account Details screen if it reflects the most current account information. Employers and 529 plans will accept the Current Account Details screen print without question.

The design of institutional bills and the presentation of net-tuition amounts vary between institutions, and this can make price comparisons difficult. In July 2012, the Obama Administration unveiled a Financial Aid Shopping Sheet, which is a standardized institutional-aid award letter template designed to help students and families better understand the net cost of attending postsecondary, and more easily compare the net price and financial-aid packages offered by different institutions. The Shopping Sheet is currently voluntary, but is used by more than 2,900 institutions (US Department of Education, 2016). Figure 2 provides a template of the Shopping Sheet.

The Shopping Sheet identifies both non-repayable (grant) and repayable (loan) assistance available to the student, but distinguishes between the two. Only grant assistance is used to calculate the “net costs” of attendance. Loan assistance, along with work-study amounts and Expected Family Contributions, are all shown as available to help pay that net cost.

In addition, the Shopping Sheet includes information for applicants on institutional graduation rates, loan default rates and median borrowing, supplied by the Department of Education.

Figure 2: Financial Aid Shopping Sheet template

University of the United States (UUS)
Student Name, Identifier
MM / DD / YYYY

Download

Costs in the 2015-16 year

Estimated Cost of Attendance **\$X,XXX / yr**

Tuition and fees _____	\$ X,XXX
Housing and meals _____	X,XXX
Books and supplies _____	X,XXX
Transportation _____	X,XXX
Other education costs _____	X,XXX

Grants and scholarships to pay for college

Total Grants and Scholarships ("Gift" Aid; no repayment needed) **\$X,XXX / yr**

Grants and scholarships from your school _____	\$ X,XXX
Federal Pell Grant _____	X,XXX
Grants from your state _____	X,XXX
Other scholarships you can use _____	X,XXX

What will you pay for college

Net Costs **\$X,XXX / yr**
(Cost of attendance minus total grants and scholarships)

Options to pay net costs

Work options

Work-Study (Federal, state, or institutional) _____ \$ X,XXX

Loan Options*

Federal Perkins Loan _____	\$ X,XXX
Federal Direct Subsidized Loan _____	X,XXX
Federal Direct Unsubsidized Loan _____	X,XXX

*Recommended amounts shown here. You may be eligible for a different amount. Contact your financial aid office.

Other options

Family Contribution **\$X,XXX / yr**
(As calculated by the institution using information reported on the FAFSA or to your institution.)

• Payment plan offered by the institution	• Military and/or National Service benefits
• Parent or Graduate PLUS Loans	• Non-Federal private education loan
• American Opportunity Tax Credit *	

*Parents or students may qualify to receive up to \$2,500 by claiming the American Opportunity Tax Credit on their tax return during the following calendar year.

Graduation Rate

Percentage of full-time students who graduate within 6 years

XX.X%

Low
Medium
High

Loan Default Rate

Percentage of borrowers entering repayment and defaulting on their loan

This institution

National

X.X%

Median Borrowing

Students who borrow at UUS typically take out \$X,XXX in Federal loans for their undergraduate study. The Federal loan payment over 10 years for this amount is approximately \$X,XXX per month. Your borrowing may be different.

\$

Repaying your loans

To learn about loan repayment choices and work out your Federal Loan monthly payment, go to:
<http://studentaid.ed.gov/repay-loans/understand/plans>

For more information and next steps:

University of the United States (UUS) Financial Aid Office

123 Main Street
 Anytown, ST 12345
 Telephone: (123) 456-7890
 E-mail: financialaid@uus.edu

Customized information from UUS

Figure 2 (continuation)

Glossary

Cost of Attendance (COA): The total amount (not including grants and scholarships) that it will cost you to go to school during the 2015–16 school year. COA includes tuition and fees; housing and meals; and allowances for books, supplies, transportation, loan fees, and dependent care. It also includes miscellaneous and personal expenses, such as an allowance for the rental or purchase of a personal computer; costs related to a disability; and reasonable costs for eligible study-abroad programs. For students attending less than half-time, the COA includes tuition and fees; an allowance for books, supplies, and transportation; and dependent care expenses.

Total Grants and Scholarships: Student aid funds that do not have to be repaid. Grants are often need-based, while scholarships are usually merit-based. Occasionally you might have to pay back part or all of a grant if, for example, you withdraw from school before finishing a semester.

Net Costs: An estimate of the actual costs that you or your family will need to pay during the 2015–16 school year to cover education expenses at a particular school. Net costs are determined by taking the institution's cost of attendance and subtracting your grants and scholarships.

Work-Study: A federal student aid program that provides part-time employment while you are enrolled in school to help pay your education expenses.

Loans: Borrowed money that must be repaid with interest. Loans from the federal government typically have a lower interest rate than loans from private lenders. Federal loans, listed from most advantageous to least advantageous, are called Federal Perkins Loans, Direct Subsidized Loans, Direct Unsubsidized Loans, and Direct PLUS Loans. You can find more information about federal loans at StudentAid.gov.

Family Contribution (also referred to as Expected Family Contribution): A number used by a school to calculate how much financial aid you are eligible to receive, if any. It's based on the financial information you provided in your Free Application for Federal Student Aid (FAFSA). It's not the amount of money your family will have to pay for college, nor is it the amount of federal student aid you will receive. The family contribution is reported to you on your Student Aid Report, also known as the SAR.

Graduation Rate: The percentage of students who graduate from an institution. This shows students who began their studies as first-time, full-time degree- or certificate-seeking students and completed their degree or certificate within 150 percent of "normal time." For example, for a four-year school, the graduation rate would be the percentage of students who completed that program within six years or less.

Loan Default Rate: The percentage of student borrowers – undergraduate and graduate – who have failed to repay their federal loans within three years of leaving a particular school. A low loan default rate could mean that the institution's students are earning enough income after leaving school to successfully repay their loans.

Median Borrowing: The amount in federal loans the typical undergraduate student takes out at a particular institution. It also indicates the monthly payments that an average student would pay on that amount using a 10-year repayment plan.

Customized information from UUS

Net-price calculator

Since 2011, the Education Opportunity Act requires each university and college in the United States that participates in federal student-aid programs to post a net-price calculator on its institutional website. This online tool allows prospective students and families to estimate the net price of postsecondary education prior to any formal application to either the institution for admission or to FAFSA for student aid.

To use the calculator, prospective students and families are prompted to provide information on the student's demographics and finances, living arrangements, and information about parental income and assets. The net-price calculator then displays a summary of the estimated cost of attendance and financial-aid eligibility for first-time, full-time, incoming students and the expected parental and student contribution required towards a student's college costs.

Net-price calculators are not standardized across institutions, but must meet minimum requirements including displaying:

- Total cost of attendance (broken down into estimates for: tuition and fees, room and board, books and supplies, and other personal expenses that students might incur during the school year, but are not billed by the institution)⁹
- Total grant and scholarship aid
- Net price (total cost of attendance minus grants and scholarships)

The total grant aid revealed by the calculator need only be an estimate, based on the median amount of non-repayable grant aid received by students in a similar category at that particular college or university. The grant aid includes federal, state and institutional sources. Some institutional net-price calculators require additional information on high school grade point averages and admission test scores that are used to estimate eligibility for institutional merit-based scholarships.

We tested net-price calculators at three institutions: a two-year public institution (Santa Barbara City College), a four-year public institution (University of Michigan), and a four-year private institution (University of Delaware). In all three scenarios we assumed the student is a US citizen, is applying from out-of-state, is a dependent student who is not married and does not have children, will be living on campus (unless noted otherwise), has two parents who had a combined income of US\$50,000 and an additional US\$10,000 in savings, has one other sibling attending postsecondary education, earned US\$1,500 from working and has US\$500 in assets. The amount of information required of the user is extensive, and it takes some time to complete the online information request.

Table 1 provides an overview of the three institutional net-price calculators examined, the number of fields that must be completed by the user, the net-price estimate generated, and any additional information students are required to provide besides basic demographic characteristics (such as age, residency, marital status, dependent children), living arrangements, number of family members in college, parental income, and student earnings and savings.

⁹ The estimates for the cost of attendance should coincide with what institutions report to the National Center for Education Statistic's Integrated Postsecondary Education Data System (IPEDS).

Table 1: Examination of Three Net-Price Calculators

Institution	Type	# of Fields	Annual Estimated Net Price (US \$)	Additional Information Required
Santa Barbara City College	2-year Public	9	\$19,239	Net-price calculator is very basic. Students need only to provide a range for parental income. No other information on parental assets or investments is required. Estimated living accommodations are for off-campus accommodation.
University of Michigan	4-year Public	49	\$10,342	Students can specify an anticipated academic major. The net-price calculator incorporates more detail about parental income and assets (such as interest and dividend income, business income or losses, amount claimed in itemized deductions, value of parents' home if they own one)
University of Delaware	4-year Private	43	\$38,530	The calculator requests additional information on high school GPA and admission test scores that is used to calculate institutional merit-based scholarships. Includes more detail about parents' financial situation (such as contributions to tax-deferred pensions and savings plans, additional sources of income besides wages, ownership of investment accounts, real estate, a farm or a business)

The following three figures show the screen presentation of net-price calculations from each of the three institutional websites we examined: Santa Barbara City College (Figure 3), the University of Michigan (Figure 4), and the University of Delaware (Figure 5). The appearance and output of the screen presentations differ across the three institutions reflecting the different templates used for their net-price calculators. The net-price calculator for the Santa Barbara City College is based on a federal template provided by the Department of Education, the calculator for the University of Michigan is provided by a third party organization (the College Board), and the calculator for the University of Delaware has been customized by that particular institution.

In all three examples, loan assistance is also referenced but not in a manner that suggests loans contribute to the net price. The Santa Barbara screen notes that, unlike grants and scholarships, loans must be paid back. The University of Michigan screen posts the value of loans as a form of "self-help"

below the calculation of net price. The University of Delaware screen also posts loan amounts below the calculation of net price, as “other aid programs.”

Figure 3: Two-year public - Estimated net price for Santa Barbara City College

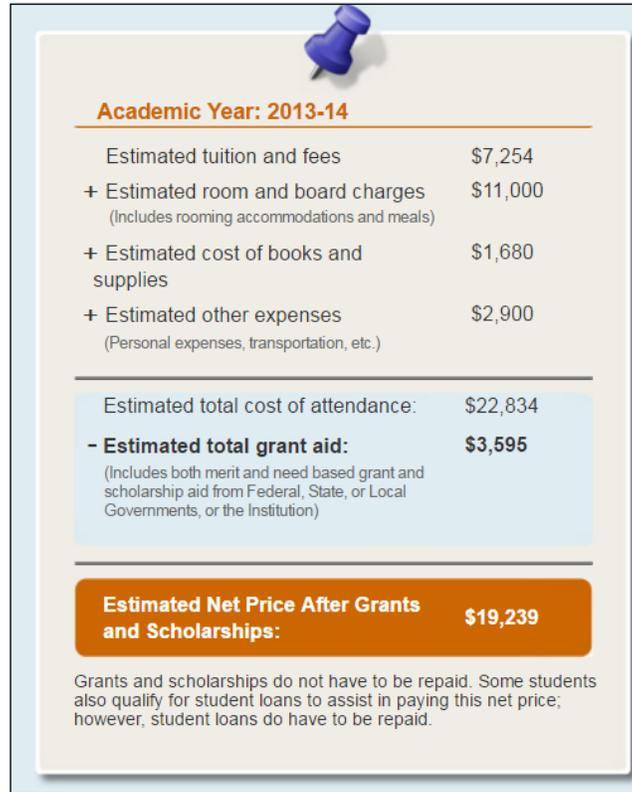


Figure 4: Four-year public - Estimated net price for the University of Michigan

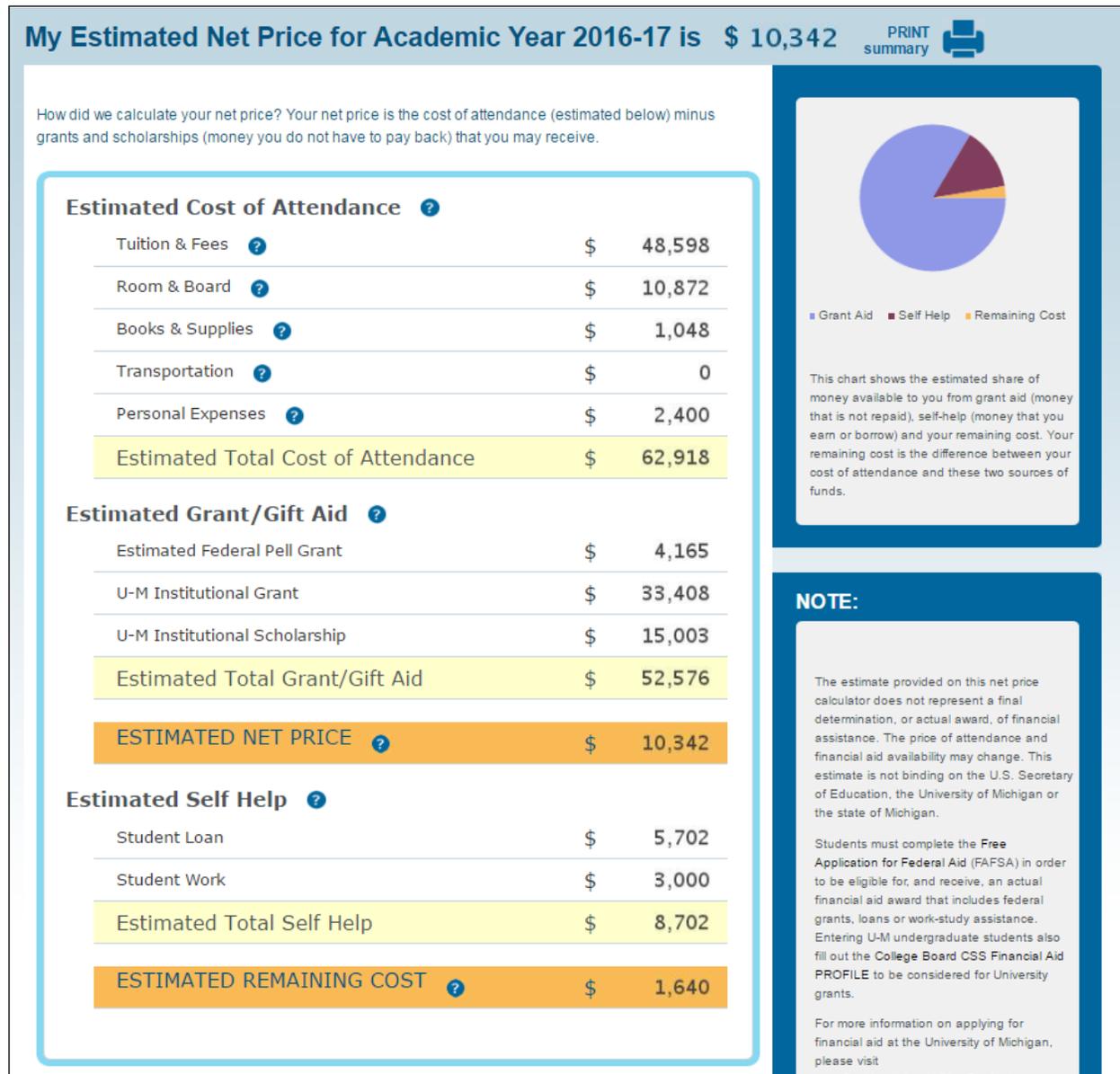


Figure 5: Four-year private - Estimated net price for the University of Delaware

Congratulations, you may be eligible for \$7,020 in grants and/or scholarships.	
University Charges:	Total
Tuition & Fees	+ \$31,420
Room & Board	+ \$11,830
Cost Paid Directly to University of Delaware ⓘ	\$43,250
Estimated Personal Expenses	
Books & Supplies	+ \$800
Other Expenses	+ \$1,500
Total Estimated Personal Expenses	\$2,300
Total Cost of Attendance ⓘ	\$45,550
Your estimated grants and scholarships:	
Federal Aid	
Pell Grant	- \$4,125
University of Delaware Awards	
Out-of-State Student Need Grant	- \$2,895
<small>University of Delaware scholarships and merit-based awards are renewable for three additional years (four years total) if a student meets all renewal requirements.</small>	
Your Estimated Net Price ⓘ	\$38,530
Your estimated eligibility for other aid programs:	
Loans	
Perkins Loan	- \$1,500
Federal Direct Subsidized Loan	- \$3,500
Federal Direct Unsubsidized Loan	- \$2,000
Federal Parent PLUS Loan ⓘ	- \$31,530
UD's Monthly Institutional Payment Plan	
<small>UD's Monthly Institutional Payment Plan gives students the opportunity to split the remaining out-of-pocket expenses into four monthly payments each term or eight payments over the course of the year. To help with financial planning, we have estimated both the remaining balance and monthly payment amount spread over the full eight months for the academic year.</small>	
Total Institutional Payment Plan Balance	\$29,330
Monthly Institutional Payment Plan Amount	\$3,666
<small>Please note there is a \$50 installment payment fee per semester, so we have added \$100 to the total amount due for the year.</small>	

A year after universities and colleges were required to post net-price calculators on their website, the Institute for College Access & Success analyzed how easy it was to find, use and understand net-price calculators at 50 randomly-selected postsecondary institutions. The authors concluded that net-price

calculators were not user-friendly as they were not “reliably easy for prospective college students and families to find, use, and compare” (Institute for College Access & Success, 2012).

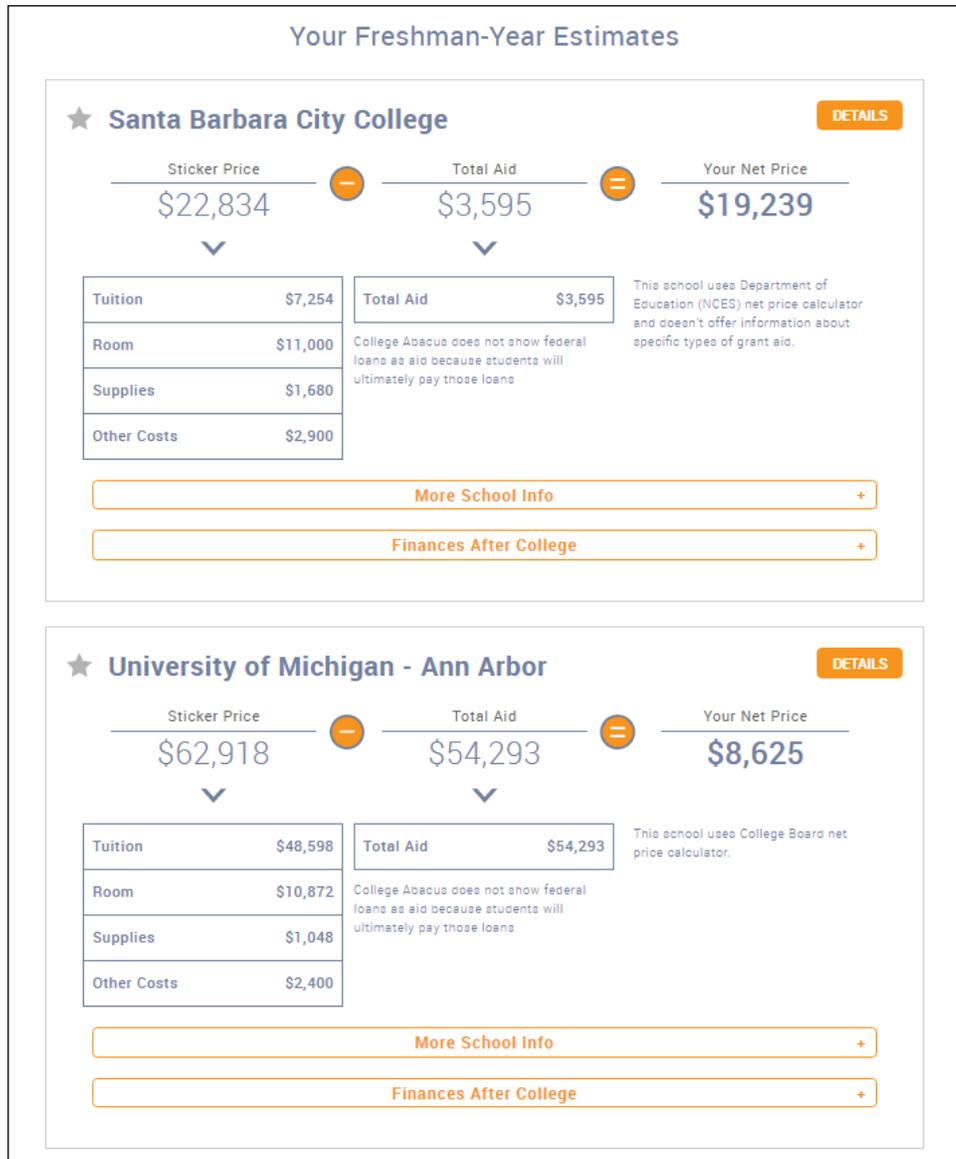
In an effort to improve ease of use and comparability of net-price calculators for students and families, the non-profit education company ECMC Group has created the College Abacus tool. This free, online tool connects with more than 5,000 institutional net-price calculators and allows students to compare the estimated net-price results of multiple institutions.

Students using Abacus can select and then compare the estimated net price of up to three institutions at a time. We tested it using the same three institutions included in our examination of institutional net-price calculators (Santa Barbara City College, University of Michigan and the University of Delaware). One of the benefits of this tool is that users are only required to fill in common information relating to their demographic characteristics and their financial situation once. If any of the selected institutions’ calculators requires additional information, the College Abacus tool then prompts students to fill out institution-specific questions (for example, the University of Michigan offers on-campus housing options while the Santa Barbara City College does not). All in all, our test required us to fill in 52 fields of information. The tool then connects with the selected institutional net-price calculators to provide a comparison of their estimated net price.

Using the same information required to fill out the institutional net-price calculators, the College Abacus tool provides a comparison of the net-price estimates for Santa Barbara City College and the University of Michigan as shown in Figure 6. The University of Delaware could not be included in our comparison as the company that operates Delaware’s net-price calculator is currently preventing College Abacus from accessing its individualized cost estimates.

The estimated net price for Santa Barbara City College (US\$19,239) is identical to our previous estimate using its institutional net-price calculator (see Figure 3). For the University of Michigan, while the cost of attendance (tuition, room, supplies, and other costs) matches up with the costs posted on its net-price calculator, there were some discrepancies in the estimated total aid, which resulted in different net price estimates (US\$8,625 using the College Abacus tool compared to US\$10,342 using the University of Michigan’s net-price calculator).

Figure 6: College Abacus comparison net-price estimates for the Santa Barbara City College and the University of Michigan



College Scorecard

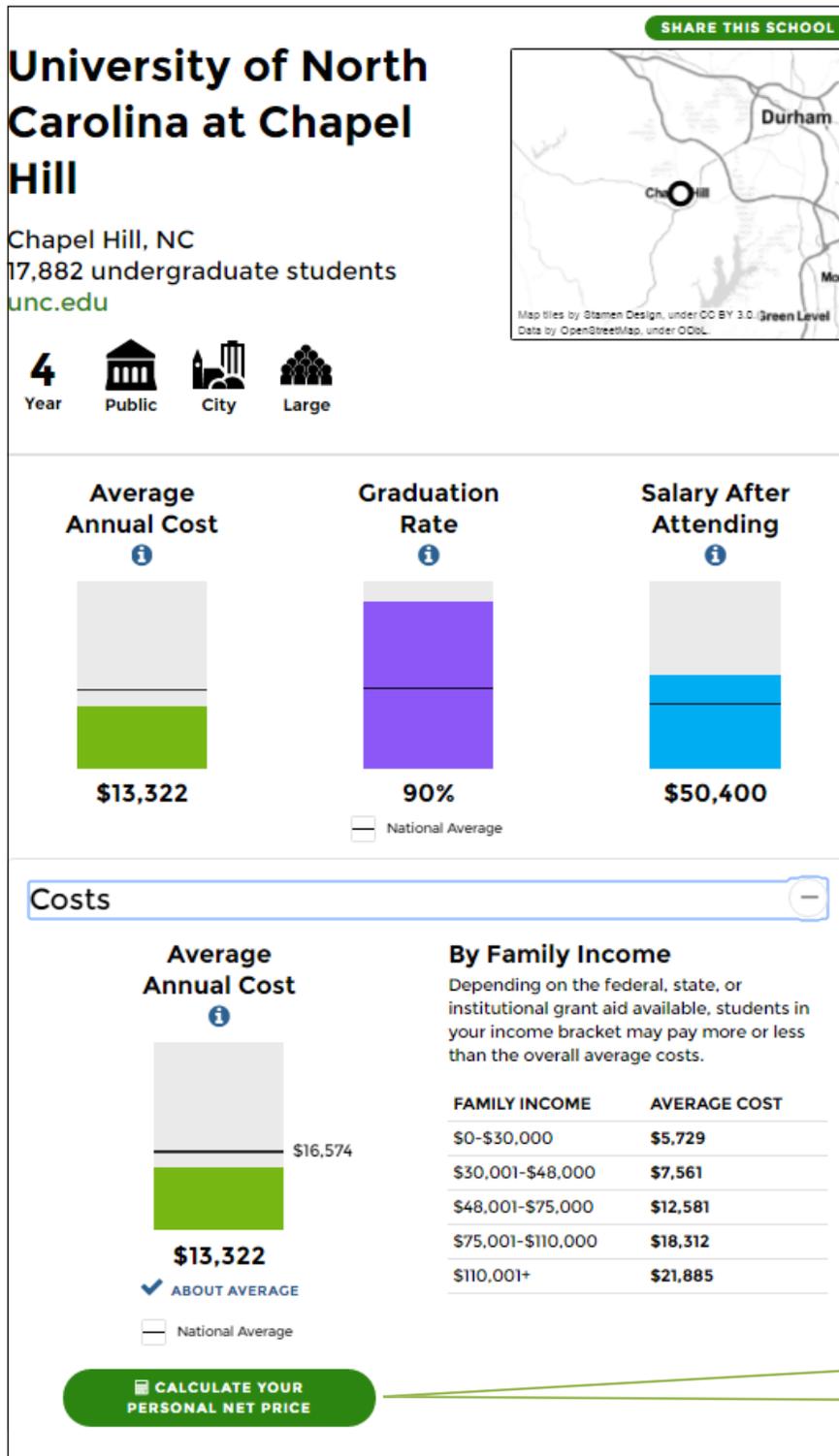
Recently, the Department of Education introduced the College Scorecard, which provides prospective students from across the United States with institution specific information relating to the average net price of attendance, average debt loads and loan repayment rates, retention and graduation rates, median earnings of former students who received federal financial aid, the socio-economic and race/ethnicity breakdown of the student body, and standardized (SAT/ACT) entrance test scores.

The average net price of attendance is calculated as the sticker price of tuition minus any institutional, state or federal aid, for in-state students. A further breakdown of the average net annual price of attendance by family income bracket for federal financial-aid recipients is also provided. Average costs are shown for parental income of less than US\$30,000; between US\$30,001 and US\$48,000; between US\$48,001 and US\$75,000; between US\$75,001 and US\$110,000; and more than US\$110,001.

There is also a link to each institution's net-price calculator, and to an online "FAFSA4caster" tool that provides estimates of financial-aid availability.

Figure 7 shows the College Scorecard for the University of North Carolina at Chapel Hill.

Figure 7: College Scorecard for the University of North Carolina at Chapel Hill



Note: There are additional sections of the College Scorecard on financial aid and debt, graduation and retention, earnings after graduation, characteristics of the student body, SAT/ACT admission scores, academic programs offered.

Lessons for Ontario:

- The US experience demonstrates that the integration of data and administrative cooperation between students, governments and institutions necessary to operate the type of net-tuition scheme envisaged for Ontario is possible.
- The presentation of data to students in US net-billing and net-price calculators is comprehensive. Costs shown include not just educational costs (tuition and ancillary costs), but also estimates for the cost of living, so students see a comprehensive picture of their obligations. Aid shown includes federal, state, institutional and third party aid. Ontario may wish to consider a similar approach.
- The various US tools we canvassed present both non-repayable (grant) and repayable (loan) assistance. These are not the same kind of benefit: grants truly reduce the cost of attendance, whereas loans only shift payment from the time of attendance to post-graduation. This difference is reflected in the various US examples: typically, loan assistance is shown “below the line” after net tuition has been calculated. Ontario will need to determine whether it wishes to include and, if so, distinguish between both types of assistance in its new initiative.
- The look and features of net-price calculators and net-billing/institutional-award letters vary from institution to institution. This has been identified as a weakness. Additional tools have been developed (College Abacus and Financial Aid Shopping Sheet) to try to remedy this issue. Ontario has an opportunity to build a high level of standardization and comparability across all institutions into the initial design of its new net-tuition initiative.
- There is an inherent trade-off between providing early and easily available information, on one hand, and fully individualized and accurate information, on the other. The US has a variety of tools that span the spectrum. College Scorecard net-cost data is publicly available and requires no information about the user to be provided, but it delivers only average estimates of costs at each institution. Institutional net-price calculators are accessible without the need for a formal application, require that the user provide personal and family-related information, and provide a more customized and accurate estimate of costs and assistance. Finally, net billing, which follows from a formal application to both the institution (for admission) and the government (for aid), provides a fully accurate accounting of all costs and benefits, but comes late in the game. The sooner Ontario can deliver an accurate estimate based on individual data to an applicant, the better.
- The US College Scorecard presents net tuition as one of several metrics of interest to prospective students, along with entrance test scores, retention and graduation rates, debt loads and loan repayment rates, and after school earnings. Ontario already collects and publishes graduation rates, graduate employment rates and loan default rates at the institutional and program levels. These data, however, are typically buried in obscure corners of institutional websites and are not intuitively accessible to applicants. The OSAP redesign

presents Ontario with an opportunity to integrate and directly link to these data within the new OSAP/institutional application process.

Singapore

In 1980 the Ministry of Education in Singapore introduced a Tuition Grant Scheme to subsidize the costs of higher education. The amount of the tuition grant is based on field of study, institution, and the nationality of the student. The tuition grant is paid directly to an institution by the Singapore government. Eligible students are required to cover only the non-subsidized portion (i.e. the net price) of their tuition fees.

The Tuition Grant Scheme is currently open to any full-time student, domestic or international, enrolled in an eligible undergraduate or diploma program at an approved institution. The Tuition Grant Scheme is available across all public postsecondary institutions in Singapore, but there are differing levels of eligibility based on credential and program of study. Students studying at a private foreign institution in Singapore are ineligible to receive the subsidized tuition grant. The following table provides an overview of the eligible postsecondary institutions and level of student eligibility for the Tuition Grant Scheme.

Table 2: List of postsecondary institutions where eligible students can participate in the tuition grant scheme

Institution	Type	Tuition Grant Scheme Eligibility
<ul style="list-style-type: none"> National University of Singapore Nanyang Technological University Singapore Management University Singapore University of Technology and Design Singapore Institute of Technology 	Autonomous Universities	Open to students enrolled in an approved full-time undergraduate course.
<ul style="list-style-type: none"> Singapore Polytechnic Ngee Ann Polytechnic Temasek Polytechnic Nanyang Polytechnic Republic Polytechnic 	Polytechnics	Open to students enrolled in a full-time diploma course.
<ul style="list-style-type: none"> Nanyang Academy of Fine Arts LASALLE College of the Arts 	Arts Institutions	Open to citizens and permanent residents of Singapore in an approved Ministry of Education subsidized undergraduate program.
<ul style="list-style-type: none"> SIM University Institute of Technical Education 	Other Institutions	Open to Singapore citizens studying the Technical Diploma course at these institutions.

Eligible students are entitled to receive the tuition grant for up to 10 semesters if they have not already earned a diploma or degree through another subsidy or sponsorship by the Singapore government.

Singapore citizens are automatically awarded the tuition grant but are required to submit a Declaration for Tuition Grant Eligibility form for proof of enrolment. Permanent residents and international students are further required to sign a Tuition Grant Agreement that requires them to work in a Singapore-based company for at least three years post-graduation. While students can opt out of the program at any time, they are required to repay the grant money they have already received, plus a 10% annual compound interest rate, in a lump sum to the Singapore government.

Starting in the 2014 academic year, a cohort-based tuition fee system was introduced. Under this system tuition in the first-year of study will remain unchanged for the entire program duration in an effort to make the cost of postsecondary education more transparent and clear to students and families.

The subsidies under the Tuition Grant Scheme are substantial. For example, at the National University of Singapore, the subsidized annual tuition for full-time undergraduate new students admitted in the 2016-17 academic year for an Arts and Social Sciences program is S\$8,050 (Singapore dollars) for Singapore citizens, S\$11,250 for Singapore permanent residents, and S\$17,100 for international students, whereas the non-subsidized tuition fee is S\$29,350 for all students regardless of their nationality. At the Singapore Polytechnic, the average annual subsidized tuition for a full-time diploma course for new students enrolling in 2016 is as follows (with the unsubsidized tuition grant in parenthesis): S\$2,600 (S\$20,469) for Singapore citizens; S\$5,200 (S\$23,069) for permanent residents; and S\$9,050 (S\$26,919) for international students.

Tuition fees, both subsidized (net) and unsubsidized, are clearly posted on each eligible institution's website. The following table showing course and incidental fees for full-time, diploma courses was taken from Singapore Polytechnic's website.

Table 3: Singapore Polytechnic - Course fees for full-time diploma courses for new students enrolling in the 2016 academic year

	COURSE FEES	TOTAL PER ACADEMIC YEAR		
		SINGAPOREAN	SINGAPORE PR	INTERNATIONAL
	Tuition Fee (TF)	\$2,600.00	\$5,200.00	\$9,050.00
	Other Fees:			
	-Examination	-	\$30.00	\$32.10
	-Sports	\$25.68	\$25.68	\$25.68
	-Insurance	\$3.96	\$3.96	\$3.96
	-GHSI	-	-	\$40.00
	-Miscellaneous	\$14.98	\$14.98	\$14.98
	-Statutory Licence Fee (CLASS)	\$7.49	\$7.49	\$7.49
	Students' Union:			
	-Entrance Fee	\$5.00	\$5.00	\$5.00
	-Subscription	\$18.00	\$18.00	\$18.00
	-FO Packet	\$16.00	\$16.00	\$16.00
Net Tuition ➔	FEES PAYABLE FOR STUDENT WHO ACCEPTS "TG"	\$2,691.11	\$5,321.11	\$9,213.11
Sticker Price ➔	Add: Tuition Grant (TG)*	\$17,869.00	\$17,869.00	\$17,869.00
	Add: GST Tuition Grant/Fee and/or Exam Fee	\$182.00	\$366.10	\$0
	FEES PAYABLE FOR STUDENT WHO REJECTS / NOT ELIGIBLE FOR TG	\$20,742.11	\$23,556.21	\$27,082.21

Students can further apply for financial assistance from the Ministry of Education to cover the non-subsidized portion of tuition, miscellaneous or other fees and living expenses. Singapore's Financial Assistance Scheme is needs-based. Students who apply for the Tuition Grant Scheme but also require additional funding must fill out an additional application form for financial assistance.

The current postsecondary system in Singapore incorporates elements of a net-tuition system that Ontario is proposing. Tuition fees for prospective and returning students in Singapore are transparent and clearly show the difference between sticker-price tuition and net-price tuition after applying the Tuition Grant Scheme. There is some integration of multiple sources of information between the Singapore government and institutions under the Tuition Grant Scheme, but additional funding provided by the government under its financial assistance program is separate and not deducted from a student's tuition statement.¹⁰

¹⁰ Though not related to the mechanics of its net-tuition program, it is worth also noting that there are a number of growing concerns about Singapore's Tuition Grant Scheme. The grant scheme is regressive, as it is not means-tested, and as a result, "poorer students are more likely to be rejected by the flagship universities and lose out on subsidies altogether" (Ng, 2007). Further, there are concerns that excellent international students might be deterred from attending a Singapore postsecondary institution because of the required agreement to work at a Singapore-based company for a minimum of three years after graduation or pay "the most expensive university tuition fees in the high-income countries" (Yi Ling, 2013). On the other hand, if international students do decide to study in Singapore, "there are warning signs that growth in student numbers may become more difficult to achieve moving forward" (ICEF Monitor, 2014).

Lessons for Ontario:

- A simple, transparent net-tuition “bill,” including ancillary fees, is featured on institutional websites.
- True “net tuition” is shown for Singapore’s Tuition Grant Scheme. Needs based student aid, however, is not integrated. Ontario will do better.
- Cohort-based tuition stability (the tuition paid in first year remains unchanged for the rest of the program) provides an additional planning horizon to applicants and students.

Income-contingent loan plans

The Australian government provides financial assistance to postsecondary students through the Higher Education Loan Program (HELP), formally known as the Higher Education Contribution Scheme (HECS). HECS-HELP is an example of an income-contingent student loan plan (ICLP). Eligible students can opt to take out a HECS-HELP loan instead of paying the up-front tuition fee.¹¹ Repayment is managed through the Australian Taxation Office, based on annual income tax filings. A progressive repayment scale is applied to the outstanding principal whenever a borrower’s income rises above the compulsory payment threshold (set at A\$54,869 in 2016-17). Interest on the outstanding balance is indexed to the rate of inflation.

ICLPs like Australia’s look like net-tuition schemes, in that the government pays the institution directly for the tuition fees that would otherwise be payable by the student at the time of study. Like all loan programs they are, however, only a “study now, pay later” time-shifting mechanism. Rather than being reduced, tuition is deferred and a debt payable to the government is established. The actual amount payable to discharge the debt is unknown at the time of enrolment, as it will depend on the rate of inflation, the borrower’s future earnings and the time taken to repay the loan.

Lessons for Ontario:

- ICLPs like Australia’s are loan programs, not grant programs. As such, they merely defer tuition, rather than netting it down.
- Well-designed ICLPs can provide more assurance than traditional loan programs regarding the affordability of repayment, as the rate of repayment is geared to post-study income. But as a consequence, ICLPs provide less up-front transparency about the total amount that is to be

¹¹ Up to and including 2016, the Australian HECS-HELP program also features an option for students to pay some or all of their tuition up front. If they choose to do so, the government subsidizes a percentage of the up-front payment made – currently 10%. (For example, a student opting to pay all tuition up front only needs to pay 90% of the sticker price; the government pays the remaining 10%.) The subsidy is paid directly by the government to the institution, and therefore reduces the tuition fee payable by the student. This feature of HECS-HELP is being discontinued in 2017. Needs tested assistance for living costs is provided under a separate government program.

repaid, as the amortization period and the total amount of interest costs are unknown at the time of borrowing.

- Administratively, HECS-HELP is a good example of successful program integration between institutions, the Department of Education and the Australian Taxation Office.

Concluding thoughts on net tuition

Of the jurisdictions examined, the United States has the most comprehensive approach to a net-tuition system that achieves some of the ideal vision we set out at the beginning of this report. There is no reason Ontario cannot also implement many elements of the ideal for 2018-19. The devil is in the details. But to our advantage, Canada, while not yet delivering on net tuition (two provinces, Ontario and New Brunswick, are in the developmental stages) has a longstanding tradition of integrating the delivery of student aid between the two orders of government, and with institutions through their student-aid offices.

From a student's perspective, the fact that Ontario student aid is provided both by the province and the federal government, each with its own program design parameters, is invisible. There is one unified application, one unified assessment, one unified stream of payment. The fact that the most obvious and frequent point of contact for this government program is across an institutional counter, staffed by institutional employees, is also seamless. These successes bode well for the kind of enhanced, integrated implementation partnership between Ontario and institutions that is required to implement and optimize a net-tuition billing system. It also simplifies the negotiation process with institutional partners.

The fact that the United States, with some of the highest global tuition costs, has pioneered approaches to net tuition is no surprise. The cost of education is a topic of ongoing debate in the US. Ontario's sticker-price university tuition, while considerably lower than most US private institutions, is the highest in Canada, and discussions about cost in general and tuition specifically dominate much of the province's dialogue with students. Presenting the true cost — and that is precisely what presenting net tuition accomplishes — is equally critical for Ontario.

Impact and implications of switching to prior-prior year income in calculating financial-aid eligibility

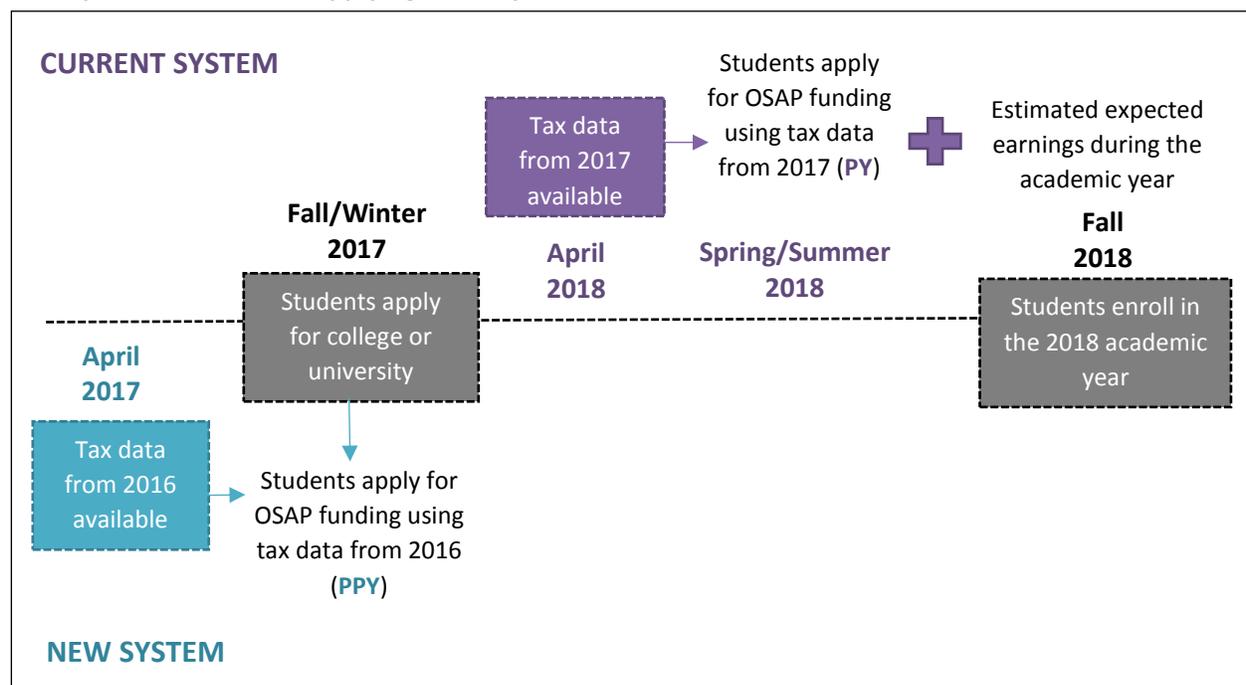
Currently, prospective Ontario students planning to enrol in the fall (say September 2018) can apply for university and college as early as the preceding fall (late 2017). Applicants must then wait until the spring (of 2018) to apply for OSAP, through a separate process. OSAP relies on tax information from the

prior year (PY, in our example 2017) as well as an estimate of the applicant’s expected earnings¹² during the academic year to calculate an award. Applicants do not get definitive information about their financial-aid eligibility until after they have applied and been admitted to an institution.

This will change for the 2018-19 school year. The OSAP application cycle will be moved to align with institutional admissions. Online applicants to university and college will be seamlessly redirected to the OSAP website during the session to also complete an application for financial aid. At this earlier point in time, income from the preceding year cannot yet be accessed through the income tax system, as Canadians are not required to complete their tax returns until the following April. Instead, income from the prior-prior year (PPY, in our example 2016) will be used to generate the OSAP assessment. Students will also no longer be required to estimate their expected earnings during the academic year.

The following figure compares the current and proposed new application timelines to study and receive aid for the 2018-19 academic year.

Figure 8: Comparison of the timing of tax data in determining OSAP funding under the current and new system for students applying to study in the fall of 2018



Shifting the OSAP application cycle to align with the institutional application cycle and using PPY to calculate the award has advantages and challenges. Applicants will learn how much aid they are eligible to receive at the same time they are contemplating their institutional and programmatic choices. Streamlining the application process to study and receive aid will reduce a layer of complexity and

¹² Students are required to estimate their expected earnings during the academic year for the prior to pre-study period (January to April), pre-study period (May to August), and study period (September to April). Students can update these estimates as their earned income becomes available to ensure their assessment is as accurate as possible.

motivate eligible students who previously may not have applied for financial aid, to submit and complete an OSAP application. However, relying on income data from two years prior may not accurately reflect a student's financial situation in the year of study. And there are extensive administrative challenges on the road to co-ordinating the institutional and OSAP application processes.

Exploring the extent to which prior-prior year income is being used in other jurisdictions and understanding the benefits and concerns associated with this approach is valuable for Ontario as it redesigns its OSAP program. To our knowledge the United States is the only other jurisdiction that, starting in the 2017-18 academic year, will use income information from two years prior when determining a student's financial-aid eligibility.

United States

On September 14, 2015 President Obama announced significant policy changes to the financial-aid application (FAFSA) process. Starting in 2017-18, students will be able to complete a FAFSA earlier, based on tax information from two years prior to the year of study. A student planning to enroll in college in the fall of 2017 can complete the FAFSA in October 2016 (instead of January 2017) using income information from 2015 (instead of 2016). Students filling out the FAFSA will also be able to electronically import verified tax information from the Internal Revenue Service (IRS) using an existing IRS Data Retrieval Tool (DRT). In essence, the US will implement the prior-prior year approach one year earlier than Ontario.

A "Fact Sheet" released by the White House a day before Obama's announcement set out the benefits to college applicants of completing FAFSA earlier and using PPY income information to do so:

Figure 9: Benefits outlined by the Obama Administration to allow students to file a FAFSA earlier using PPY

- i. **Earlier information:** Students and families will get a reliable understanding of their aid eligibility as early as the fall — the same time many high school students are searching for, applying to, and even selecting colleges.
- ii. **Simpler applications:** More students and families will be able to complete their FAFSA using information retrieved electronically directly from the IRS a few months after they and their parents file their 2015 tax returns, reducing the number of applicants who need to estimate income or taxes paid, only to correct their application later.
- iii. **More students receiving Pell Grants and other aid:** Over the next several years, the simpler FAFSA filing process could encourage hundreds of thousands of additional students to apply for and claim the aid they are eligible for — and enroll in college.
- iv. **Reduced burden on colleges:** In recent years, colleges and universities have spent as many as 3 million total hours each year verifying FAFSA information, including income and other tax return data. These colleges and universities will be able to avoid much of the burden of verifying tax-return information when students apply using data retrieved directly from the IRS.

Source: White House (2015)

Data Retrieval Tool

The ability to electronically populate a FAFSA with income information retrieved from the IRS is already in place in the United States. Since January 2012, applicants for federal financial aid who filed their tax returns prior to completing their FAFSA could use an IRS Data Retrieval Tool to electronically populate income information from their federal income tax return. The initiative was intended not only to provide accurate income information but to streamline the FAFSA application process. It had been pointed out that the “complexity in the aid application rivals the complexity they [families targeted by needs-based aid] experience in the income tax system” (Dynarski & Scott-Clayton, 2006).

Implementing the DRT feature using prior-year income has limitations due to a timing mismatch between tax filings and aid application cycles. “Students in many states were unable to use the IRS Data Retrieval Tool because the filing deadline for state aid [which is largely driven off FAFSA] is too early” (NASFAA, 2013) and many families had yet to submit their federal income tax returns. It is estimated that only 24% of applicants used the Data Retrieval Tool in the first year to import their verified tax return data (Dynarski & Wiederspan, 2012). As a result, the majority of aid applicants have continued to complete the full FAFSA form. With over 100 questions, the FAFSA is time-consuming¹³ and “perhaps due to the complexity of the system and the lack of information about the availability of aid, 850,000

¹³ It is estimated to take up to 10 hours to complete an application (Dynarski & Scott-Clayton, 2008)

students who would have been eligible for federal financial aid in 2000 did not complete the necessary forms to receive such aid” (Bettinger, Long & Oreopoulos, 2013). Moving to PPY tax data is seen as an important opportunity to make DRT available to a greater proportion of the applicant pool.

To extend the reach of the initiative further, the Department of Education is urging institutions to also begin to use the new PPY income data when calculating institutional needs-based aid, so applicants benefit from earlier information about their entire student-aid package. Resources to help streamline and implement these proposals are under development by the Department of Education, the National Association of Student Financial Aid Administrators, the College Board and a number of other organizations.

Below is a summary of a number of US studies that examine the impact and implications of switching from PY to PPY in calculating financial-aid eligibility.

Advisory Committee on Student Financial Assistance

The idea of using two-year-old tax information to calculate financial-aid eligibility was initially recommended during the Clinton administration in the late 1990s. The recommendation was motivated by research conducted by the Office of Postsecondary Education (OPE) that evaluated the impact on aid awards of switching to prior-prior year income, by comparing two years of FAFSA applicant data from 1995 and 1996. The findings from this report suggest that PPY is a good proxy for PY income and that using two-year-old tax information from the IRS would “increase the accuracy of data used in financial-aid calculations” as students and families would not have to provide an estimate of their income in the past year (Gewolb, 1998).

The Advisory Committee on Student Financial Assistance re-examined the OPE’s work and concluded that the OPE had failed to distinguish between increases and decreases in reported income across the two years. The Committee’s own analysis showed that “PPY over- or underestimates PY income to a moderate or significant degree for approximately 63% of all aid applicants — both dependent and independent students.” The Committee did acknowledge, however, that linking tax information with the FAFSA application would reduce some of the burden on the system. But it strongly recommended against using PPY due to the significant variation in reported income year-to-year.

Dynarski & Wiederspan

Dynarski & Wiederspan published a report in 2012 recommending the use of prior-prior year income to determine aid eligibility. The authors concluded that allowing students to use prior-prior year income “has little impact on the targeting of aid while increasing its simplicity and certainty” (Dynarski & Wiederspan, 2012).

Using data from the National Postsecondary Student Aid Survey (NPSAS), a nationally representative survey on how students finance their postsecondary education, the authors examined the effect of using PPY in the calculation of financial aid. Their sample consisted of 20,280 undergraduates who applied for FAFSA and attended college full-time for the entire 2007-08 and 2008-09 academic years.

The authors found a strong correlation (0.858) between PY (2007 tax data) and PPY (2006 tax data) for undergraduate students who applied for FAFSA in 2008-09. According to their findings, 67% of

applicants would experience no change in Pell Grants¹⁴ with the introduction of PPY, 10% would experience a change of up to US\$500, and 23% would experience a change of more than US\$500. Overall, the average Pell Grant would increase by 4% (equivalent to US\$87) and overall expenditures on the Pell program would rise by US\$300 million with a shift to PPY.

Using more recent data from the NPSAS, Dynarski & Wiederspan updated their analysis in 2015 (Dynarski & Wiederspan, 2015). Their new sample consisted of 40,400 students who filed a FAFSA in both 2011-12 and 2012-13. The authors found no change in Pell Grants awards for 70% of their sample; 11% of applicants would experience a change of up to US\$500 of the baseline; and 19% of applicants would experience a change of US\$500 or more. Under PPY, the average Pell Grant would increase by US\$37 and Pell spending would increase by US\$300 million.

The following table summarizes the results from both studies. The 2012 report used tax data from 2006 to calculate an applicant's Pell Grant eligibility for studies for the 2008 school year. The 2015 report used tax data from 2010 to calculate aid eligibility for the 2012 school year.

¹⁴ The Pell Grant is the largest source of federal grant aid for undergraduate students in the United States. In 2012-13, more than 8.8 million students with financial need received a Pell Grant (College Board, 2013). The amount of the grant depends on a student's cost of attendance, enrolment status, and their Expected Family Contribution (EFC). The maximum Pell Grant, which is US\$5,815 for 2016-17, is awarded to students who have an EFC of \$0 and are enrolled full-time for the entire academic year.

Table 4: Change to Pell Grants using PPY (Dollar amounts are in US\$)

	<u>2012 Report</u> 2006 Tax Data	<u>2015 Report</u> 2010 Tax Data
% applicants whose Pell Grant		
does not change	67%	70%
is within \$100 of baseline	70%	73%
is within \$500 of baseline	77%	81%
increases by \$500 or more	14%	10%
decreases by \$500 or more	9%	9%
Correlation with baseline Pell	0.858	0.897
R ²	0.736	0.805
Increase in average Pell grant	\$87	\$37
Increase in Pell spending	\$300 million	\$300 million

Source: Dynarksi & Wiederspan, 2012 and 2015

Dynarksi & Wiederspan conclude that linking the FAFSA with IRS-verified prior-prior year data would reduce the administrative burden on colleges by minimizing the number of applications to verify. A key benefit to this approach is that students would receive “early, accurate information about college costs [that] would allow students to choose the college that is best for them” (Dynarksi & Wiederspan, 2015).

National Association of Student Financial Aid Administrators

The National Association of Student Financial Aid Administrators (NASFAA) represents nearly 20,000 student financial-assistance professionals from 3,000 postsecondary institutions across the United States. NASFAA has long advocated for a move to prior-prior year income when filing a FAFSA. The association opines that “the numerous potential advantages which have surfaced, in NASFAA’s opinion, far outweigh the concerns” (NASFAA, 2015).

NASFAA published a report in 2013 that analyzed changes in Pell Grant awards when switching from PY to PPY. The sample consisted of just over 70,000 undergraduate students from nine institutions.¹⁵ Students were included in the sample if they submitted a FAFSA for at least two consecutive years between the 2007-08 and 2011-12 school years under the same dependency status.

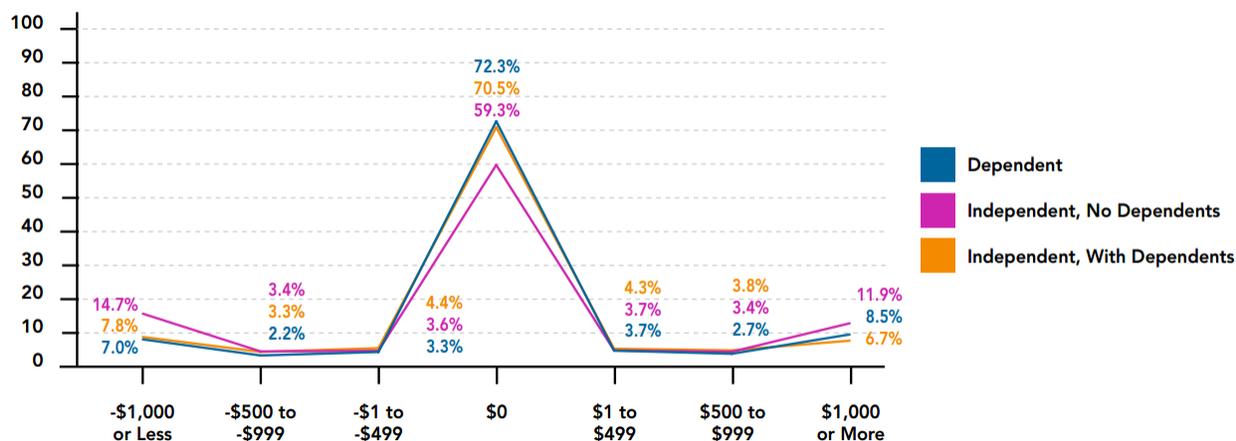
The results from the study suggest that “PPY worked the best for the neediest students: very low-income students, many of whom are independent students with dependents.” The authors find that most students would not see a change in their Pell awards with a switch to PPY (72% of dependent students, 71% of independent students with dependents, and 59% of independent students with no

¹⁵ The nine institutions consisted of two public community colleges, five public doctoral-level universities, and two private four-year colleges. These institutions are considered to be reasonably representative of their sectors on measures such as gender and race/ethnicity.

dependents). The neediest students — independent students with dependents — were the group that experienced the least amount of change in Pell awards under PPY.

The following graph shows the change in Pell awards by dependency status and whether the award amount increased or decreased with a shift to PPY. On the basis of the findings, the authors conclude that “if the income levels of the very poor do not radically change over time, as demonstrated by [NASFAA’s] study, PPY could be a feasible measure to estimate current income and students’ financial strength or ability to pay for college” (NASFAA, 2013).

Figure 10: Change in Pell award by dependency status



Source: NASFAA (2013)

The authors point out several areas for future work and consideration. A future step would be to consider whether taking an average of income over time is more reflective of a student’s ability to pay for school. The authors also suggest that for students who apply for college later, PY could be used since that data would already be available.

In May 2015, on the cusp of the federal government’s announcement of the switch to PPY, NASFAA published another report to respond to four key concerns raised about implementing PPY. In consultation with a working group of financial-aid professionals across the United States, the report outlines the expressed concerns and addresses each in turn. These are presented in the following table:

Table 5: Key concerns of implementing PPY as outlined by NASFAA

Concern	Response
PPY is going to result in increased Pell spending	NASFAA points to its 2013 research report that found that most students would not see a change in their Pell awards with a switch to PPY. While there may be an increase in the number of eligible applicants, which could thereby increase the total cost of the program, this “would represent a mark of success for a move toward PPY” (NASFAA, 2015).
PPY is going to negatively impact state funding	NASFAA conducted a survey of state grant agencies to understand the perceived changes from the introduction of PPY. Results from the survey (which had a response rate of 29/47) indicate that 86% would have no issues related to implementing PPY.
PPY is going to increase administrative burden The concern is that moving to PPY would increase the number of special appeals, or “professional judgement letters,” from applicants whose financial situation changed over the longer two-year period between income verification and the year of study. Professional judgements are dealt with on a case-by-case basis by aid administrators and involve a recalculation of a student’s financial-aid package.	The authors counter that under PPY more students will be eligible to use the IRS-DRT tool to populate income information in their application, and institutions will not need to spend as many resources and as much time verifying those applications. Given that students can apply for FAFSA earlier, financial-aid administrators will also have more time to complete professional judgement requests. NASFAA also recommends having a check box on the FAFSA to denote any significant change in applicant income that has occurred since the tax year being reported.
PPY is going to cause disruptions in the system	NAFSAA believes these challenges can be minimized with advance notice and anticipates that transitional issues will have settled by the end of the first two years of implementation.

Once again, NASFAA concludes that the “benefits and advantages far outweigh any potential drawback” (NASFAA, 2015) of implementing PPY.

Urban Institute

The Urban Institute estimated the potential cost and impact associated with eight recent proposals for simplifying the federal student-aid application process in the United States. Most of the proposals rely on PPY income information to determine aid eligibility and the authors included an examination of the costs and impacts of PPY within their report.

The authors evaluate how expected Pell awards and Expected Family Contributions (EFCs) might change using income information from two years prior to the year of study. Using data from the National Postsecondary Student Aid Survey (NPSAS) for the 2011-12 and 2012-13 academic years, their sample consisted of 37,090 undergraduate students (which represent a weighted population of 7,383,586 students). Students were included in the sample if they submitted a FAFSA application in both years under the same dependency status.

The authors find that a switch from PY to PPY would increase both the number of recipients and the total cost of the Pell program by about 2%, which is the equivalent to US\$0.6 billion. This estimate does not take into account any potential changes in administrative costs that may occur as a result of switching from PY to PPY.

The following table highlights the projected change in Pell awards using PPY: 56% of students would have no change in Pell awards and 10% of students would experience a change in grant size larger than US\$500. The authors further found a strong correlation (0.897) between the calculated EFC in 2011 and 2010.

Table 6: Baseline versus PPY 2012-13 Pell estimates (Dollars amounts are in US\$)

	2012-13 Baseline Pell (2011 IRS data)	2012-13 PPY Pell (2010 IRS data)
Change in Pell for baseline recipients		
No change	100%	56%
Within \$100	100%	63%
Within \$500	100%	75%
Smaller by \$500 or more		15%
Larger by \$500 or more		10%
Average Pell^a	\$3,642	\$3,637
Total cost of Pell awards	\$17.91 billion	\$18.18 billion
Percentage receiving Pell	67%	68%
Correlation with baseline	1.00	0.903
<i>R</i>²	1.00	0.815

Notes: The sample is from NPSAS financial aid applicants in 2011-12 and 2012-13, attending one institution, and with non-missing actual EFC (and non-missing information needed to calculate EFC). Students who are Pell eligible but do not receive actual Pell or who are not Pell eligible but do receive actual Pell have been dropped. Students whose dependency status, filer status, or marital status (independent students only) changed between 2011-12 and 2012-13 are likewise not included in the sample. This restricted sample has 37,090 students (7,383,586 weighted).

^a Average Pell amounts are for students who receive Pell; if we examine for all students (including non-recipients) average awards are \$2,426 using prior year income data and \$2,463 using prior-prior year income data.

Source: Rueben, Gault & Baum (2015)

Additional concerns and questions raised with PPY

Some additional drawbacks and challenges to using two-year-old tax information have been raised by other researchers, policy makers and advocacy groups across the United States:

- While students will be able to submit an earlier FAFSA, institutions will not be required to make offers of financial aid any earlier than before.
- Some colleges face state barriers that could prevent them from converting an earlier PPY-based FAFSA into earlier communications with applicants. For example, New York would require a statutory amendment to achieve consistency between federal and state aid calculations. This disconnect “could be the difference between a student going to college and a student being left behind by [your] state” (Mead & Stump, 2016). Also, as some institutions will be able to send out earlier financial-aid letters, others who cannot may find themselves at a competitive disadvantage.
- To send earlier financial-aid office letters, institutions will need to accelerate the process of finalizing tuition and incidental fees.
- Institutions may pressure students to make earlier acceptance decisions if they are able to expedite their offer letters.
- During the transition, one tax year (2015) will be used in two consecutive FAFSA cycles (for both PY in 2016 and PPY in 2017). For an applicant for whom 2015 family income is exceptionally high or low compared to other years, this will either mean two years of “over-awarding” or two years of needing to request professional judgement reviews.

Summary of the pros and cons associated with PPY

For the implementation of PPY to be successful, the benefits and concerns need to be fully addressed by the federal government, state government and institutions and communicated to students and their families. The table below summarizes the pros and cons raised in the United States using PPY to calculate a student’s eligibility for financial aid.

Figure 12: Summary of the pros and cons associated with introducing PPY in the United States

Pros:

- More time for students to understand their financial-aid eligibility and educational costs, and to make informed decisions about where to enroll and what to study
- Improved access: the changes are designed to encourage more Americans to apply for financial aid and enroll in college
- Simpler application for financial aid as more students will be able to use the IRS Data Retrieval Tool to populate income information on the FAFSA
- Improved accuracy of income information used to determine aid eligibility with the IRS Data Retrieval Tool
- Reduced burden on institutions to verify FAFSA income information
- Application for financial aid may become more closely aligned with application to college

Cons:

- PPY income information is older and therefore not as accurate an estimate of a student's ability to pay for college
- Additional administrative burden on institutions as more students are expected to request a review of changes in income
- Colleges might pressure students to make acceptance decisions sooner
- Institutions may need to finalize tuition and incidental fees sooner
- Some colleges may not be able to communicate financial aid eligibility to students any earlier, thereby becoming competitively disadvantaged
- In the first year of implementation (in 2017) tax data from 2015 will be used twice to determine aid eligibility

Lessons for Ontario:

- The ongoing switch to using prior-prior year income information for the calculation of student aid in the US provides Ontario with good company for its own initiative. The key messages in the White House statement above (earlier information to applicants, simpler application process, more students receiving aid, reduced administrative burden) apply equally to Ontario's reform proposals.
- The US Data Retrieval Tool, which allows student-aid applicants to populate their income information in real time directly from the Internal Revenue Service database of tax returns, contributes to the simplicity, accuracy and timeliness of aid applications. The Revenue Canada Agency should work with Ontario and other provinces to provide a similar accommodation for Canadian student-aid applicants.
- NAFSAA's work on researching and transparently addressing concerns and criticisms of prior-prior year income is a good model for us: it will be important to maintain an open and continuous dialogue about implementation issues and their resolution.

- Income variability between prior year and prior-prior year assessments has been a research obsession as the US contemplated and now prepares for the switch to PPY. In the next section of the paper, we examine this topic in the Ontario context.

Ontario

A research preoccupation for those examining the pending US migration to prior-prior year income data has been assessing the impact on income and award levels. How much volatility is there in the year-to-year income of students and their families? Will this drive changes in award calculations as compared to using prior year data? Will mitigation be required to address these issues?

These questions go to the root of the trade-off that must be managed in adopting PPY. On one hand, the change provides applicants and families a longer, stable financial-planning horizon to prepare for higher education. On the other hand, the use of older income data may lead to mismatches between actual need and calculated need by the time the year of study begins.

These impacts will need to be assessed for Ontario as well. Ontario is significantly redesigning the OSAP needs test at the same time as it is introducing PPY. This work is ongoing. It is therefore not yet possible to model how changes in income between PY and PPY impact the actual award levels calculated under the new program parameters. It is possible, however, to analyze income change within the OSAP population from one year to the next.

Using data provided by MAESD we evaluated the year-to-year variation in income for students who received OSAP in both the 2013 (using 2012 tax information) and 2014 (using 2013 tax information) school year. We examined the change in:

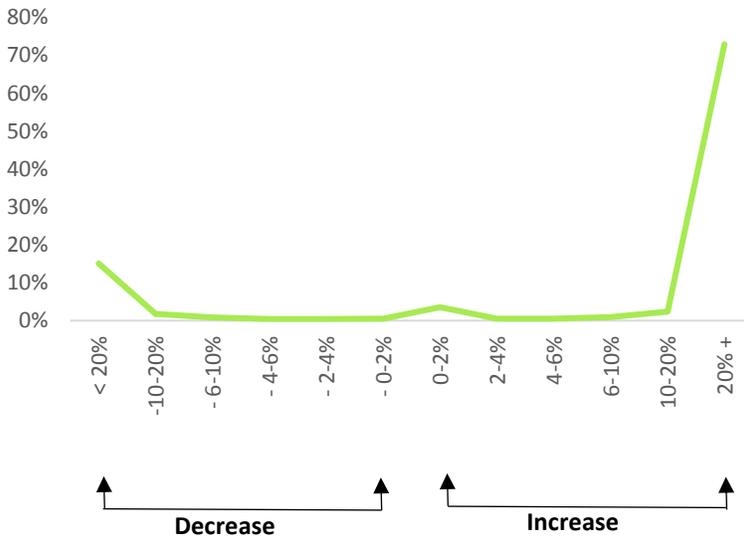
- Student income for all students receiving assistance (Figure 13-A)
- Parental income for dependent students (Figure 13-B); we further broke down the change in parental income for high-income families (above \$100,000) and low-income families (below \$40,000)
- Spousal income for married students (Figure 13-C)

Student income and spousal income experienced the largest percentage volatility from 2012 to 2013. Student income changed by +/- 10% or more for 92% of all students. Spousal income changed by +/- 10% or more for 69% of married students.

Parental income was more stable year-over-year, with a change of +/- 10% or more for 48% of families of dependent students, overall. However, income volatility above our +/- 10% threshold was greater for low-income families (64% of families earning below \$40,000) and less for high income families (33% of families earning \$100,000 or more).

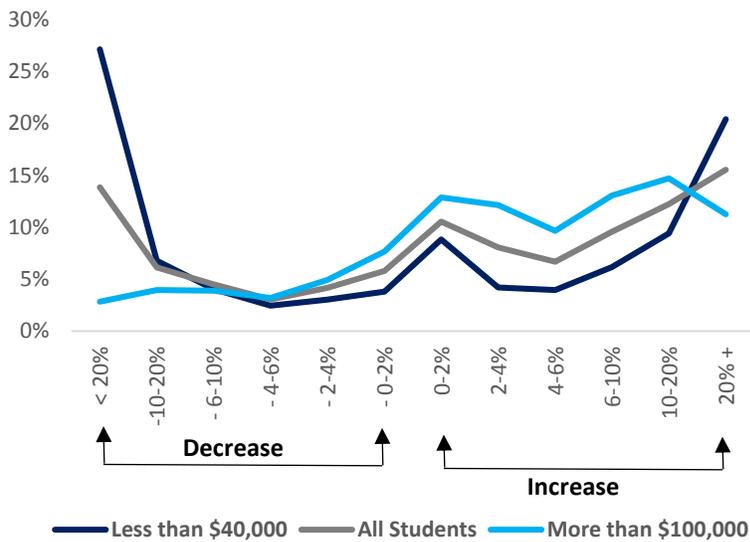
Figure 13: Change in income between 2012 and 2013

A. Change in student income (all students)



Student income changed by **10% or more** for **92%** of all students

B. Change in parental income (dependent students)



Parental income changed by **10% or more** for:

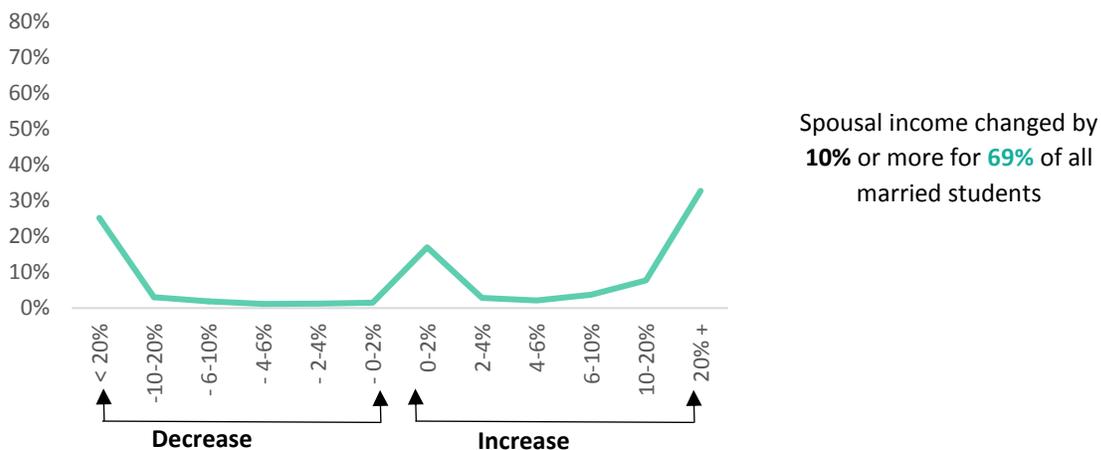
48% of all dependent students

64% for dependent students with parental income under \$40,000

33% for dependent students with parental income above \$100,000

Note: Includes dependent students who received OSAP funding and/or the 30% Off Ontario Tuition Grant; 43% of dependent students had a family income under \$40,000 and 23% had a family income greater than \$100,000 for the 2013 tax year.

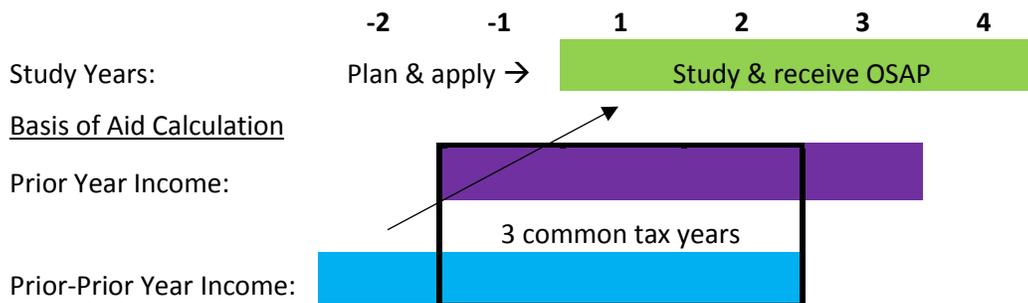
C. Change in spousal income (married students)



Source: MAESD. OSAP data on family income of university and college OSAP recipients. Based on gross income reported in Line 150 and foreign income reported (if any). Only students whose income has been verified with the CRA for both years are included.

Once the new OSAP needs-test parameters are in place, further analysis can be conducted to understand how these variations in income will translate into variations in award levels. Pending that analysis, we make the following observations about the shift from prior year to prior-prior year income:

- Although low-income families show greater year-over-year income volatility than high-income families, the resultant impact on award volatility will likely be compressed and mitigated, as low-income families will also generate lower relative levels of expected family contributions. Students from low-income backgrounds are those specifically targeted by the Ontario redesign initiative. The OSAP program redesign will ensure that most students from families with incomes under \$50,000 will pay no net tuition under the fully-implemented program redesign.
- Year-over-year volatility in income, and consequently in awards, is smoothed out for multi-year programs. For students receiving OSAP throughout a four-year undergraduate degree, three of the years of income data will overlap, mitigating the overall (but not in-year) impact of income volatility over the life of the program:



- The degree of income volatility observed reinforces the need for a robust, efficient appeals mechanism to deal with students who experience a material reduction in personal, spousal or family income, between the PPY year in which income will be measured and the year of study.
- Government must satisfy itself that although moving to PPY will result, in some cases, in a perceived “overpayment” compared to a PY assessment, this is an acceptable trade-off in light of the positive access impact of providing low-income students with more assistance, a reduced or zero net price, and a longer planning horizon through which to imagine and plan to participate in higher education.
- Full implementation of prior-prior year income testing in Ontario would also require the integration of the federal Canada Student Loans Program into the PPY approach.

Concluding observations

We can now return to the ideal model we posited at the outset of this paper, and see how the experience of others in this jurisdictional scan can help Ontario capture as many of the model’s elements as possible in its new program design:

Our Ideal Model

“I applied through the Ontario College Application Service/Ontario Universities’ Application Centre in the late fall to start school the following September.

I picked the institutions and programs I was interested in. I was prompted within the same session to apply for student aid.

I gave them permission to look up my income tax data for last year. Right on the screen I got a calculation of the amount of government and institutional student aid I qualified for and of the

Learnings from Other Jurisdictions

Advantage Ontario: we already have centralized college and university application services. This simplifies the process of co-ordinating admissions and student-aid applications. It will also facilitate the presentation of net-cost information in a standardized, easily comparable manner for applicants selecting multiple institutional and/or programmatic combinations — a feature desired but not achieved in the US.

Commentary from the US suggests it will not be enough to just move the OSAP application cycle forward in time, through the use of prior-prior year income information. OSAP must also be integrated with applications processes for admissions and for other sources of aid, as should the ensuing presentation of expected net cost.

The United States has implemented an IRS Data Retrieval Tool to allow for real time retrieval of income information into aid applications.

net tuition applicable to each of the program choices I made. I was surprised at how affordable it was going to be.

I was also presented with a link to some helpful information about my choices: graduation rates, graduate employment rates, and loan default rates.

When I got my offers of admission in the spring, they each included an updated net-tuition calculation. They showed the same sticker-price tuition fee I had seen before, along with the same aid amount I would receive, and the resulting net-tuition fee I would be required to pay for each offer.

Two of the letters included an additional new offer of an institutional scholarship, which was netted off. Nothing changed after that. After I accepted one of the offers and started school, there were no surprise “clawbacks” during or after the school-year.

The US Department of Education is rolling out student-aid enhancements (the new FAFSA provisions) and the publication of key institutional performance indicators (the College Scorecard) at the same time. They are seen as twin initiatives to help applicants make better decisions and enhance accessibility. Ontario has the opportunity to link its already published KPIs (graduation, employment and loan default rates) directly to the new integrated applications process for admissions and student aid.

Using prior-year income data and sticking to it as proposed by the US means that the initial and much earlier individualized assessment of aid eligibility can remain stable over time as the study year approaches. Students can count on the help they were originally promised.

The co-ordination of government student aid with institutional aid is a feature of US net-price calculators and net-tuition bills. Ontario has the opportunity to move further than the US (which is still trying to get there) in standardizing these kinds of instruments to allow for easier and more meaningful comparisons across institutions.

Although our ideal model has imagined institutional scholarships being added at the time of the offer letter, the design of US net-price calculators illustrate the advantages of being able to provide information about institutional aid and/or scholarships much earlier in the process of individual exploration of higher education options. For example, a tighter integration between OSAP and institutional Student Access Guarantee¹⁶ assistance would facilitate the

¹⁶ The Ontario Student Access Guarantee (SAG) refers to a student assistance fund at each institution, originally generated as a portion of permitted tuition-fee increases. Through SAG, the government requires colleges and universities to provide financial aid to cover a student’s assessed needs for expenses directly related to his or her program, including books, tuition and mandatory fees, that are not fully met by OSAP. Schools also help students who may need additional financial assistance with living expenses or emergency situations.

presentation of both types of assistance at the same point in time.

When I got to school and compared what I was paying to what others were paying, I discovered that it was different for each of us, but as far as I can tell it also seemed fair given what I think I know about other peoples' circumstances."

The move to prior-prior year income in the US has highlighted the importance of a robust appeals mechanism to permit students to mitigate any reduction in financial circumstances between PPY income and study year income.

The opposite issue — that of students' incomes increasing between PPY and the study year — has been recognized as a possible weakness or criticism of implementing PPY. It is being addressed in the US by arguing that the benefits (earlier information, estimates students can count on, increased access) outweigh that concern.

References

- Advisory Committee on Student Financial Assistance. (1997). *Analysis of the Office of Postsecondary Education's Prior, Prior Year (PPY) Income Proposal: PPY Has Serious Negative Implications for Equity, Burden and Program Integrity*. Briefing Paper.
- Bettinger, E.P., Long, B.T. & Oreopoulos, P. (2013). The FAFSA Project: Results from the H&R Block FAFSA Experiment and Next Steps.
- College Board and Art & Science Group, LLC. (2013). *A Majority of Students Look at the College's Sticker Price without Taking Financial Aid into Consideration*.
- Dynarski, S.M. & Scott-Clayton, J.E. (2006). *The Cost of Complexity in Federal Student Aid: Lessons from Optimal Tax Theory and Behavioural Economics*. National Bureau of Economic Research. Working Paper 12227.
- Dynarski, S.M. & Scott-Clayton, J.E. (2007). *College Grants on a Postcard: A Proposal for Simple and Predictable Federal Student Aid*. The Brookings Institution. Discussion Paper 2007-01.
- Dynarski, S.M. & Scott-Clayton, J.E. (2008). *Complexity and Targeting in Federal Student Aid: A Quantitative Analysis*. National Bureau of Economic Research. Working Paper 13801.
- Dynarski, S. & Wiederspan, M. (2012). *Student Aid Simplification: Looking Back and Looking Ahead*. National Bureau of Economic Research. Working Paper 17834.
- Dynarski, S. & Wiederspan, M. (2015). *Revisiting FAFSA Simplification: Expanding Access to the IRS Data Retrieval Tool*. EPI Policy Brief No. 1. Ann Arbor, MI: University of Michigan, Gerald R. Ford School of Public Policy, Education Policy Initiative.
- Hicks, M. (2014). *Stardate 68183.1: Ontarians still do not pay the sticker price*. Toronto: Higher Education Quality Council of Ontario.
- Hicks, M. & Deller, F. (2016). *Free Tuition: Neither a Pig nor a Poke*. Toronto: Higher Education Quality Council of Ontario.
- Gewolb, J.E. (1998). Federal Financial Aid Changes in the Works. The Harvard Crimson. Retrieved on August, 10, 2016 from <http://www.thecrimson.com/article/1998/3/5/federal-financial-aid-changes-in-the/>
- ICEF Monitor. (2014). Singapore Solidifies its Reputation as a Regional Education Hub. Retrieved on August 12, 2016 from <http://monitor.icef.com/2014/06/singapore-solidifies-its-reputation-as-a-regional-education-hub/>
- Institute for College Access & Success. (2012). *Adding it all up 2012: Are College Net-Price Calculators easy to find, use, and Compare?*
- Ontario Ministry of Finance. (2016). *Ontario Budget 2016*. Retrieved on August 15, 2016 from <http://www.fin.gov.on.ca/en/budget/ontariobudgets/2016/>

- Mead, S. & Stump, K. (2016). As Federal Aid Systems Advances, Our Outdated Way Leaves New York Students Behind. Gotham Gazette. Retrieved on August, 11, 2016 from <http://www.gothamgazette.com/index.php/opinion/6127-as-federal-aid-system-advances-our-outdated-way-leaves-new-york-students>
- National Center for Education Statistics. (2016). *Sources of Financial Aid*. Retrieved on August 15, 2016 from https://nces.ed.gov/programs/coe/indicator_cuc.asp
- National Association of Student Financial Aid Administrators. (2015). *Great Expectations: Implications of Implementing Prior-Prior Year Income Data for the FAFSA*. Washington, DC: National Association of Student Financial Aid Administrators.
- National Association of Student Financial Aid Administrators. (2013). *A Tale of Two Income Years: Comparing Prior-Prior Year and Prior-Year Through Pell Grant Awards*. Washington, DC: National Association of Student Financial Aid Administrators.
- Ng, Pin-Quan. (2007). *Education and Excellence through a Fairer Tuition Grant Program. The Online Citizen*. Retrieved from <http://www.theonlinecitizen.com/2007/09/education-and-excellence-through-a-fairer-tuition-grant-program/>
- Rueben, K., Gault, S. & Baum, S. (2015). *Simplifying Federal Student Aid – How Do the Plans Stack Up?* Urban Institute.
- U.S. Department of Education. (2016). Financial Aid Shopping Sheet. Retrieved on August 15, 2016 <http://www2.ed.gov/policy/highered/guid/aid-offer/index.html>
- Usher, A. (2005). *A Little Knowledge is a Dangerous Thing: How Perceptions of Costs and Benefits Affect Access to Education*. Toronto: Educational Policy Institute.
- Weingarten, H.P., Hicks, M., Jonker, L., Smith, C. & Arnold, H. (2015). *Canadian Postsecondary Performance: Impact 2015*. Toronto: Higher Education Quality Council of Ontario.
- White House. (2015). FACT SHEET: The President’s Plan for Early Financial Aid: Improving College Choice and Helping More Americans Pay for College. The White House: Office of the Press Secretary. Retrieved on August 18, 2016 from <https://www.whitehouse.gov/the-press-office/2015/09/14/fact-sheet-president%E2%80%99s-plan-early-financial-aid-improving-college-choice>
- Yi Ling, R. N. (2013). *Singaporeans Pay the Most Expensive University Tuition Fees in the High-Income Countries*. Retrieved from <https://thehearttruths.com/2013/11/25/singaporeans-pay-the-most-expensive-university-tuition-fees-in-the-rich-countries/>



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