

# The Many Prices of Knowledge: How tuition & subsidies interact in Canadian higher education

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Higher Education Strategy Associates (HESA) is a Toronto-based firm specializing in research, data and strategy. Our mission is to help universities and colleges compete in the educational marketplace based on quality; to that end, we offer our clients a broad range of informational, analytical, evaluative, and advisory services.

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## INTRODUCTION

Canadians are prone to talking a great deal about the cost of higher education. Every September, Statistics Canada releases a new set of data about university tuition fees in the back-to-school period. This inevitably prompts a round of hand-wringing about costs and accessibility, and throughout the year, there is a regular drumbeat of commentary that focuses on the sticker price of education.

What usually fails to get a mention in these discussions is the fact that not a single student actually pays the full sticker price. That's because every single student is eligible for tax credits covering tuition, fees, monthly "expenses," and textbooks. In no province does this kind of support equal less than \$1,100 for a university student or \$640 for a college student. In some cases, the value of these credits can reach as high as \$3,000. In addition, hundreds of thousands of students are eligible for various forms of government grants and for loan remission, which further reduce students' cost of education. These sums vary by province but can reach close to \$7,000, not including any aid institutions themselves provide to students. All this is before looking at loans, which increase affordability of education by increasing liquidity in the short term, without affecting net cost (in most cases) because they must be repaid.

There have been some previous attempts to look at the issue of net prices in Canada (see: Usher 2006, Usher and Steele 2006, Usher and Duncan 2008, MacLaren 2014), all of which tried to look at the issue of net price by showing fees by offsetting fees (or in the case of Usher and Steele, broader educational costs) minus some combination of tuition tax credits, grants, loan remission, and/or loans. Naturally, these kinds of "net" costs are significantly lower than the sticker price that is typically reported in the media. However, these publications share a common weakness: in all of these publications the resulting "net prices" were calculated (at least in part) by relying on an "average" grant figure (i.e. total dollar value of grants awarded, divided by the student population). While tax credits within any jurisdiction are quite consistent, grants are not. Some students receive them, while others don't; and among those who do receive them, the amount received may vary significantly based on parental income, personal work income, whether one lives with one's parents or not, marital status, and presence of children. In other words, while these publications were good at locating the average net price, the average net price is something that very few people actually pay.

This is an important point to grasp. The existence of grants and loan remission, within a province, means that there is not a single "net tuition" any more than there is a single sticker price. Students with higher need receive more in non-repayable aid, and thus have lower net costs. As such, while it is possible and in some ways illuminating to display "average" net prices, such figures are not necessarily much help in looking at affordability in practice, because individual students do not pay an "average" net price – they pay thousands of highly individualized net prices.

The purpose of this paper is to get away from averages by focusing on prices paid by specific students with distinct profiles in each of the ten provinces. In doing so, we can see how net prices vary between students within a single province; hence, we can not only identify the provinces with higher average aid, but also we can look at the degree to which each province concentrates aid on needier students.

## METHODOLOGY

In this paper, we measure three different types of price for ten student “cases” (see below) in each of the country’s ten provinces. The rationale for using three parallel calculations of price is that in the Canadian higher education system, cost is a multi-dimensional notion. First, there is the sticker-price, equal to tuition plus mandatory fees. Then there is “up-front net price,” which is the amount one actually needs to pay up-front once grants are factored in. Finally, there is the “all-inclusive net price”, which takes account of the very significant amounts of assistance students receive through loan remission and tax credits<sup>1</sup>.

### How prices are calculated

First, we measure *sticker price*. This is the total compulsory fees payable by students to the institution, both through “tuition” and “ancillary fees”. For universities, the tuition and fees data used in this publication are based on the 2013-14 average figures published by Statistics Canada (through its annual Tuition and Living Accommodation Cost survey – TLAC) for the relevant province and field of study. In order to adjust upwards for the 2014-15 academic year, we raise these figures by the upcoming year’s tuition hike percentage, as indicated by each of the provinces. These figures range between 0 and 3% - the exact figures used for adjustment in each province are shown in Appendix A. For college students the source is somewhat different because TLAC does not cover Canadian community colleges. Therefore, we have done our best to come up with numbers based on posted prices on institutional websites, and then – where tuition varies across programs – come up with an enrolment-weighted average fee for diploma-level programs. In Newfoundland, Nova Scotia, Prince Edward Island, and Saskatchewan there is only one institution, and so the calculation is relatively straightforward. In Alberta, an estimated enrolment-weighted figure for diploma-level programs was provided to us by the provincial government. In Ontario, Manitoba, British Columbia, and Quebec, we obtained fee and enrolment data from a representative sample of college institutions, enrolment-

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<sup>1</sup> It is not entirely true that tax credits are “back-ended”. If a student does not work, or works at a job that does not pay more on a weekly basis than would be required over 52 weeks to reach the basic personal exemption (currently \$11,138, meaning \$214 per week), then the tax credits fall entirely at the back-end of a year of study. However, for students who work and make more than this amount, the tax credits decrease the amount of tax paid on every dollar above that threshold. This is a benefit students receive instantly, every time they cash a paycheck – and in that sense tax credits can be very much “up-front”.

weighted the fee data, and assigned it to the entire province (Quebec CEGEPs do not charge tuition but they do charge a variety of fees for things like athletics, student services, etc.).

Second, we measure *up-front net price*. This is the sticker price minus whatever grants students are able to obtain. It therefore does not include non-repayable aid that arrives at the end of studies, such as loan remission and tax credits. In order to derive an up-front net cost, it is necessary to first estimate the amounts of grant to which each student is entitled in each province. This required creating an algorithm for grants in each province based on provincial student aid program manuals. It also required making certain assumptions about a number of things that would affect aid calculations, such as the income split between parents, whether the student lived at home or not, etc. These assumptions – listed in Appendix B – were held constant across all the student cases. The algorithms used to determine each student’s need (and hence the level of grants available) are available upon request.

Third, we calculated the *all-inclusive net price*. This figure is the up-front net price, minus whatever loan remission and tax credits to which each student is entitled. Loan remission is calculated on much the same basis as grants, since they are in all cases a function of need; once a need calculator is created it is a relatively simple thing to calculate the remission for which one is eligible. Tax credits are slightly different: to calculate their value requires knowledge of both the size of the credit and the tax rate at which the credit is charged (two provinces may have similar-sized tax credits, but the value of the credit is higher in the jurisdiction with the higher tax rate). The credits and rates for each province are shown in Appendix C.

For each of these measures of price, we show results both on a provincial and a national basis. The national figure is derived by weighting the various provincial figures by each province’s percentage of total full-time equivalent<sup>2</sup> enrolment. This is necessarily something of an abstraction: we have no way of knowing whether students resembling our “model” student are more prevalent in some provinces than others. Rather, it is a simple way of averaging the treatment that such students would receive in different provinces across the country. For university students, the “national” average is substantially driven by the numbers in Ontario, where over 47% of all FTEs are enrolled (the next largest province is Quebec, which has 17% of all FTEs). For college students, the average is driven by a combination of Quebec (41% of all FTEs) and Ontario (37%). If one only looks at national averages, this will tend to exaggerate the gap between universities and colleges, since Ontario is the most expensive province (at least where sticker prices are concerned) at the university level, and Quebec the cheapest province for colleges.

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<sup>2</sup> Here we use Statistics Canada’s FTE equivalent calculation: 3.5 PT = 1 FT.

Taken together, the forms of aid we count here (grant, remission, and tax credits) cost Canadian governments about \$4 billion each year. However, it should be noted that a number of different forms of student aid are excluded from the calculations of net cost in the following charts. These are:

1. *Student aid in respect of full programs of study delivered in lump sums at the end of studies.* In the following tables, we include only aid that is provided on an annual basis. However, four provinces (Alberta, Nova Scotia, Newfoundland, and Prince Edward Island) have remission schemes that are based on debt obtained over an entire period of studies; three others (Saskatchewan, Manitoba, and New Brunswick) have tuition tax rebate schemes based both on tuition over an entire period of studies and on the student remaining inside the province after graduation. Though these are real offsetting subsidies totaling in the hundreds of millions of dollars, it is both difficult and potentially controversial to apply them on an annual basis. We therefore do not include them in the main tables for this report. We acknowledge, however, that this will tend to make those six jurisdictions more expensive, on an all-inclusive net price basis, than they otherwise would be. We therefore decided to explore this question separately on pages 53-55.
2. *Student aid in respect of savings incentives.* The Government of Canada spends close to \$750 million in Canada Education Savings Grants each year; the Alberta and Quebec governments also have programs that top-up RESP contributions in a similar manner. These subsidies are not included here because they go to accounts that do not belong to present-day students. A more reasonable approach might be to include the federal CESG portion of the “Educational Assistance Payments,” which are withdrawn from RESPs by current-day students every year. Twenty-five percent of full-time students make use of these in any given year and withdraw, on average, about \$7,500 each year; given that roughly 15% of withdrawals would be due to the federal top-up<sup>3</sup> – this would imply about \$1,125 per year per present-day student recipient in assistance. However, it is difficult to know how to apportion these across the kinds of cases we present here, and so we exclude this source as well, despite the fact that it likely accounts for about \$350 million per student per year.
3. *Student aid provided by educational institutions.* We know, thanks to Statistics Canada’s Financial Information of Universities and Colleges (FIUC) survey, that Canadian universities (FIUC is a bit of a misnomer – it does not in fact include any community colleges) pay out something on the order of \$1.7 billion in various forms of student awards, including need-based aid, undergraduate merit scholarships and various types of graduate tuition rebates, fellowships, etc. Nearly half of that money

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<sup>3</sup> It is not possible to come up with a precise number here. Canadians can make up to \$4,000 in contributions to a Registered Education Savings Plan (RESP) each year. The Government of Canada will match the first \$2,500 of contributions at a rate of 20% (i.e. a parent puts in \$2500 and the government will put in \$500). That means that one-sixth of the value of donations under \$2500/year is governmental in origin. To the extent that some people contribute more than \$2500, the federal share would be diluted, to 15% or even below.

(47%) is handed out in the province of Ontario. We do not know exactly how much goes out to college students, but it is unlikely to be very much given that colleges do not tend to have anything like universities' spare financial resources. We also do not know how much of that \$1.7 billion goes to graduate students, though based on a 2008 survey conducted by HESA, our best guess is that graduate students receive between two-thirds and three-quarters of that money. As such, graduate students are excluded from our cases precisely because so much of their funding comes from sources that cannot be determined on the basis of income. But even among the remainder it is difficult to know exactly how much money each of our model cases would receive because the amounts available can differ significantly by institution, as well as by province – this source of income is therefore excluded from our exercise.

4. *Student Loans*. Indirectly, we take account of student loans in the sense that we assume that students who are eligible to take them are applying for them and receiving the grants and remission that can only be obtained in this way. However, because we are trying to look at net prices, and because loans postpone but do not reduce the cost of education, we avoid displaying loans because they complicate the narrative.

What therefore needs to be kept in mind throughout this document is that, for methodological reasons, we have excluded hundreds of millions, or even billions of dollars in aid to undergraduate students. Therefore, whatever estimates of net price contained in this document are surely **overestimates**; the true costs to students are even lower than what is shown here.

## THE STUDENT CASES

Our ten student cases are a diverse mix of students in Canadian post-secondary education<sup>4</sup>. They differ by level of education (a mix of undergraduate and college diploma students), field of study, year of study, living arrangements, marital status, and presence of children.

[Adele](#) is starting her first year of Political Science at university this September. She graduated from high school this past June, and will live at home during the upcoming school year. Her parents earn a combined gross income of \$40,000/year and she has one younger sibling in primary school.

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<sup>4</sup> Some would make the argument that they increase it, due to the cost of interest, but in fact this is a complicated equation because these costs are offset through interest subsidies while in study; there usually is a small extra cost due to interest, but it varies by the length of time a student was in school, the length of time a student takes to repay the loan and the level of interest rates in both periods.

[Ben](#) is starting his third year of International Relations at university this September and will live at home during the upcoming school year. His parents earn a combined gross income of \$40,000/year and he has one younger sibling in primary school.

[Caitlyn](#) is a first-year university student studying Chemical Engineering. She plans to live at home during the school year. Her parents earn a combined gross income of \$80,000/year and she has one younger sibling.

[Damien](#) is a third-year student studying Anthropology at university. His parents earn a combined gross income of \$120,000/year, and he is living away from home also has a younger sibling.

[Edyta](#) is entering third year in a Sociology program at university. Her parents make a combined \$120,000, but because she took two years off school before entering university, she is considered an “independent” student (i.e. no parental resources are considered).

[Farid](#) lives with his common-law spouse, and is entering his third year of Peace and Conflict Studies at university. His spouse recently graduated, and is no longer a student and makes \$40,000/year at an office job.

[Genevieve](#) graduated from high school this past June and is starting her first year of college studying Early Childhood Education this September. She will live at home during the upcoming school year. Her parents earn a combined gross income of \$40,000/year and she has one younger sibling.

[Han](#) is in his first year of an Accounting diploma program at a community college. His parents earn a combined gross income of \$80,000/year and he has one younger sibling.

[Iris](#) is a single, independent student in her second year, studying social services at a community college.

[Joe](#) is enrolled in the second year of his Environmental and Wildlife Management diploma program at a local college. He is also a single parent to a child of minor age.

The ten cases above were chosen in order to represent a variety of different student situations, and to highlight some quirks of the student aid system. They are not, taken as a group, fully representative of Canadian post-secondary students. In universities, for instance, there are a lot more students who resemble Caitlyn, Damien, and Edyta than who resemble Adele and Ben. Readers should therefore take care in overgeneralizing from any given student case.

In order to permit calculation of student aid eligibility while maintaining comparability between cases, a number of assumptions about aspects of their life situation had to be



made. The full list is available in Appendix B; however, one in particular is worth underlining here. We assumed that all the students here worked during the summer months (their pay was set as a function of their province and year of study, based on the most recent surveys of summer work income performed by Higher Education Strategy Associates<sup>5</sup>), and avoided working during the school year. In fact, most surveys suggest that 30% of students do not work in the summer months, and 50% of students **do** in fact work at least a few hours per month during the school year. Because work and loans are perfect substitutes, this decision does put a generous spin on the amount of remission students can receive (that is, if we assumed the students worked, they would have lower need, lower loans, and hence be eligible for less remission). However, very few of our model students receive much remission in the first place (Joe is the only student for whom remission is a major part of his aid package), so this does not create a substantial problem. Grants, increasingly, are based on family income, and so student work income has significant interaction effects only in a couple of provinces (Quebec, Nova Scotia, and New Brunswick).

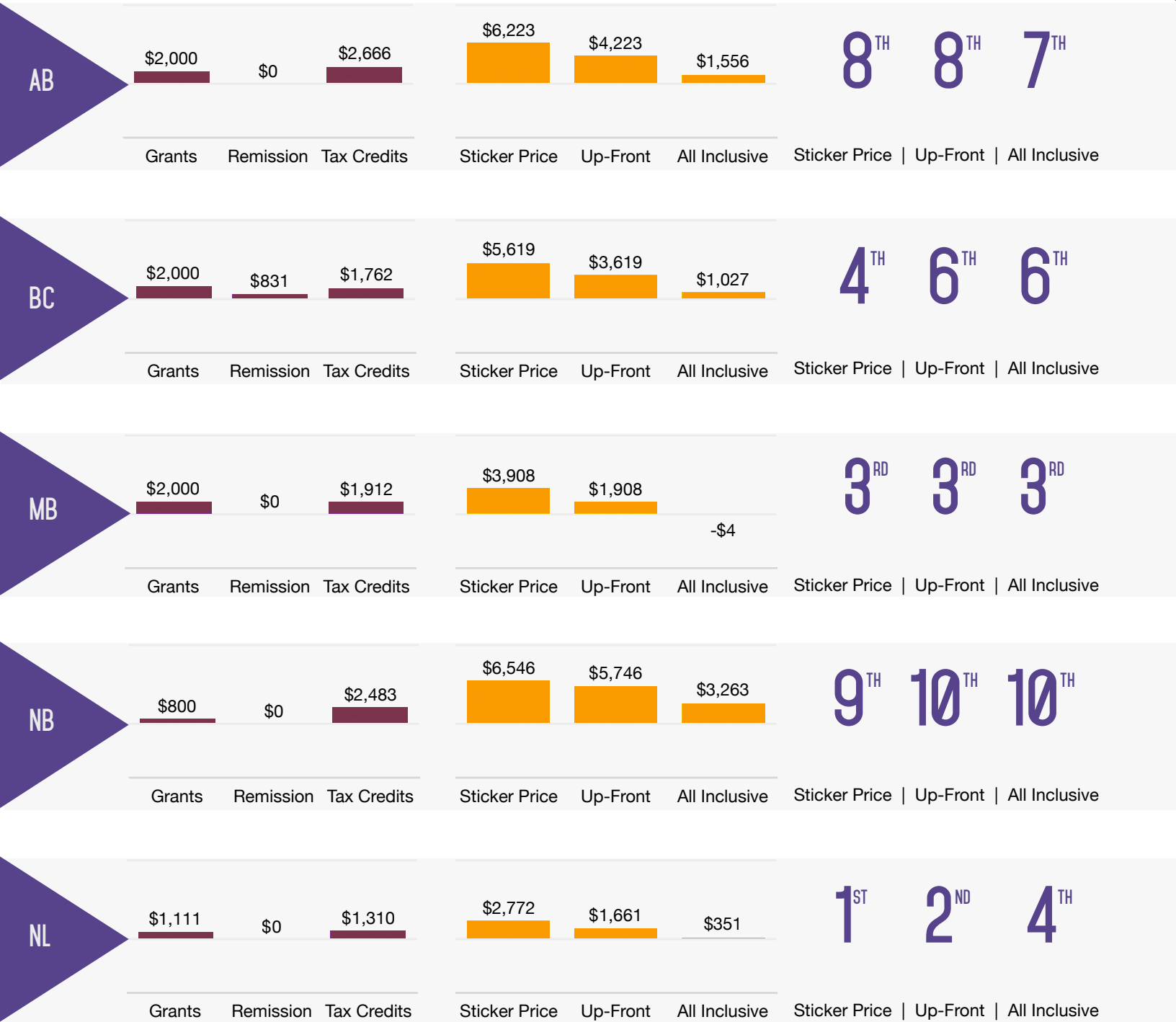
## RESULTS

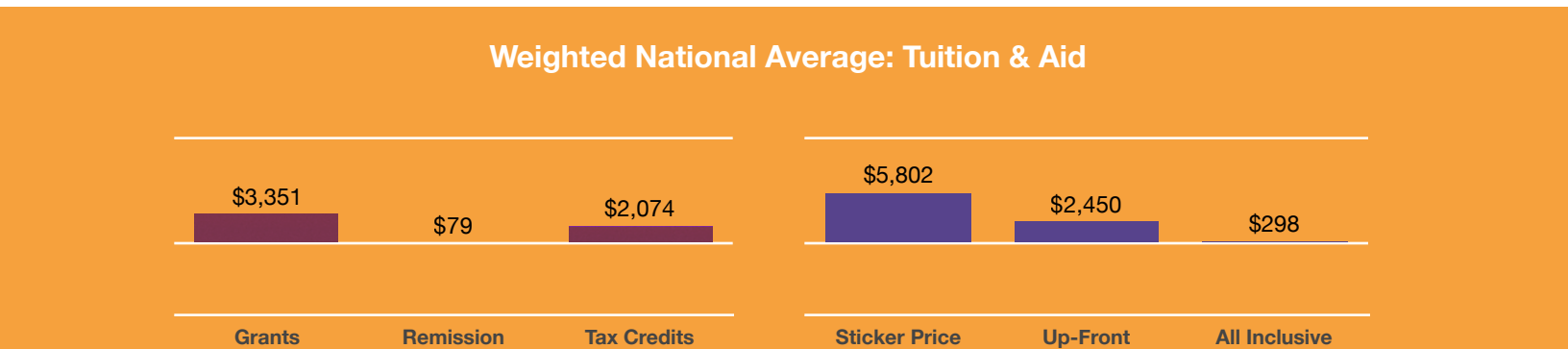
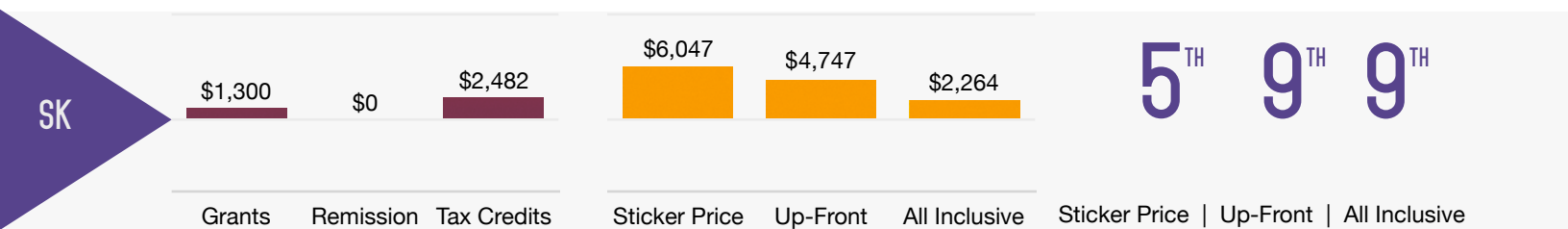
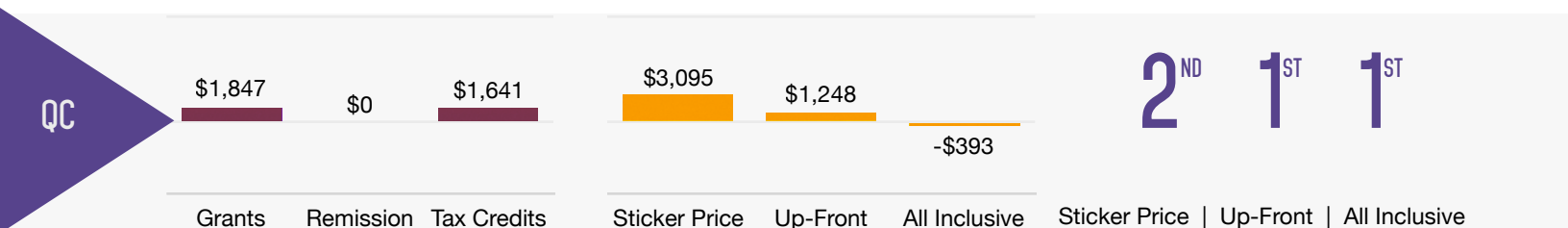
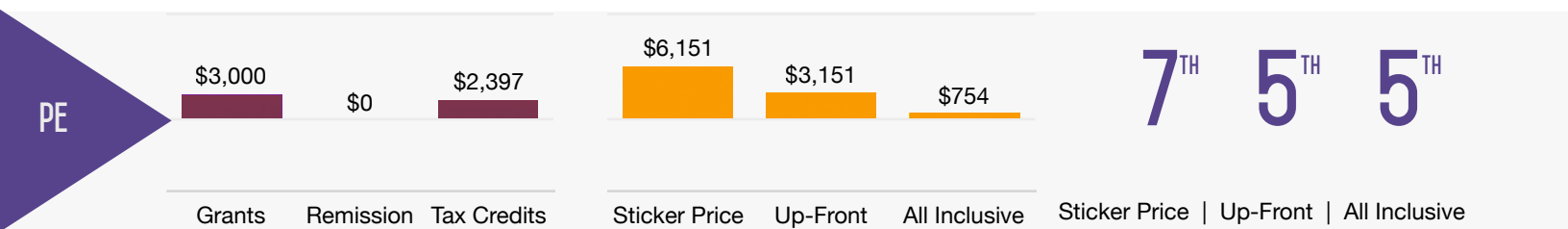
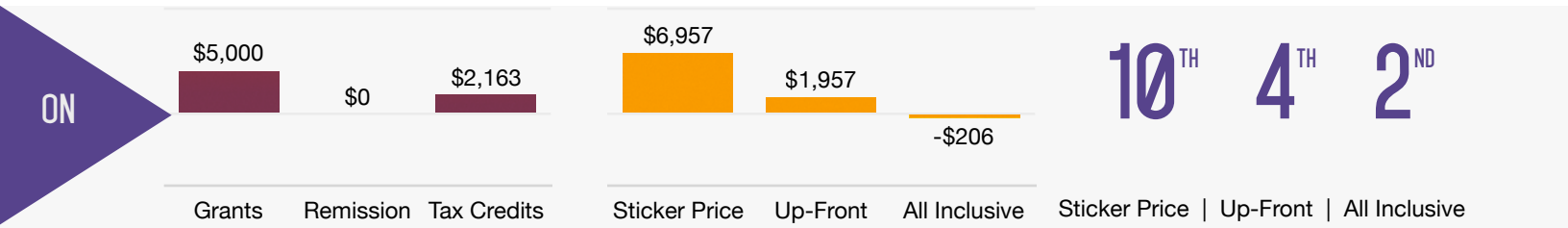
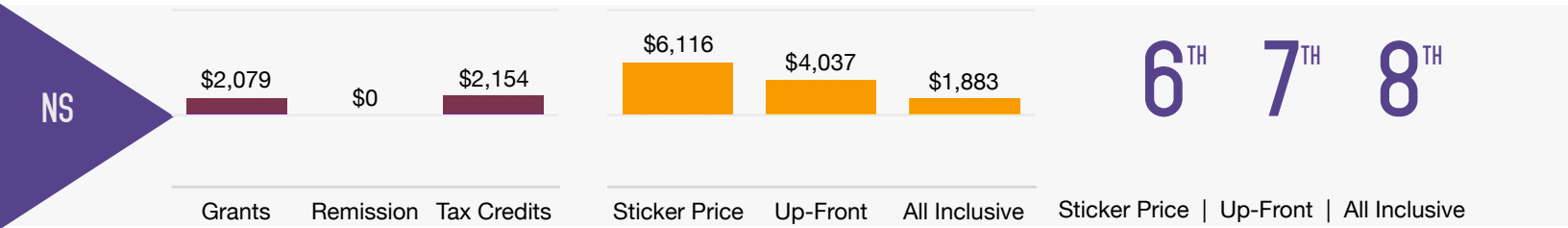
Over the next 20 pages, we present data on how each of the ten students fares in each of the ten provinces. Data is provided for the amount of grants, remission, and tax credit each student would receive in each province; as a function of this, we show what each student pays in terms of sticker price, up-front net price, and all-inclusive net price. We also show how each province ranks on each of these three measures.

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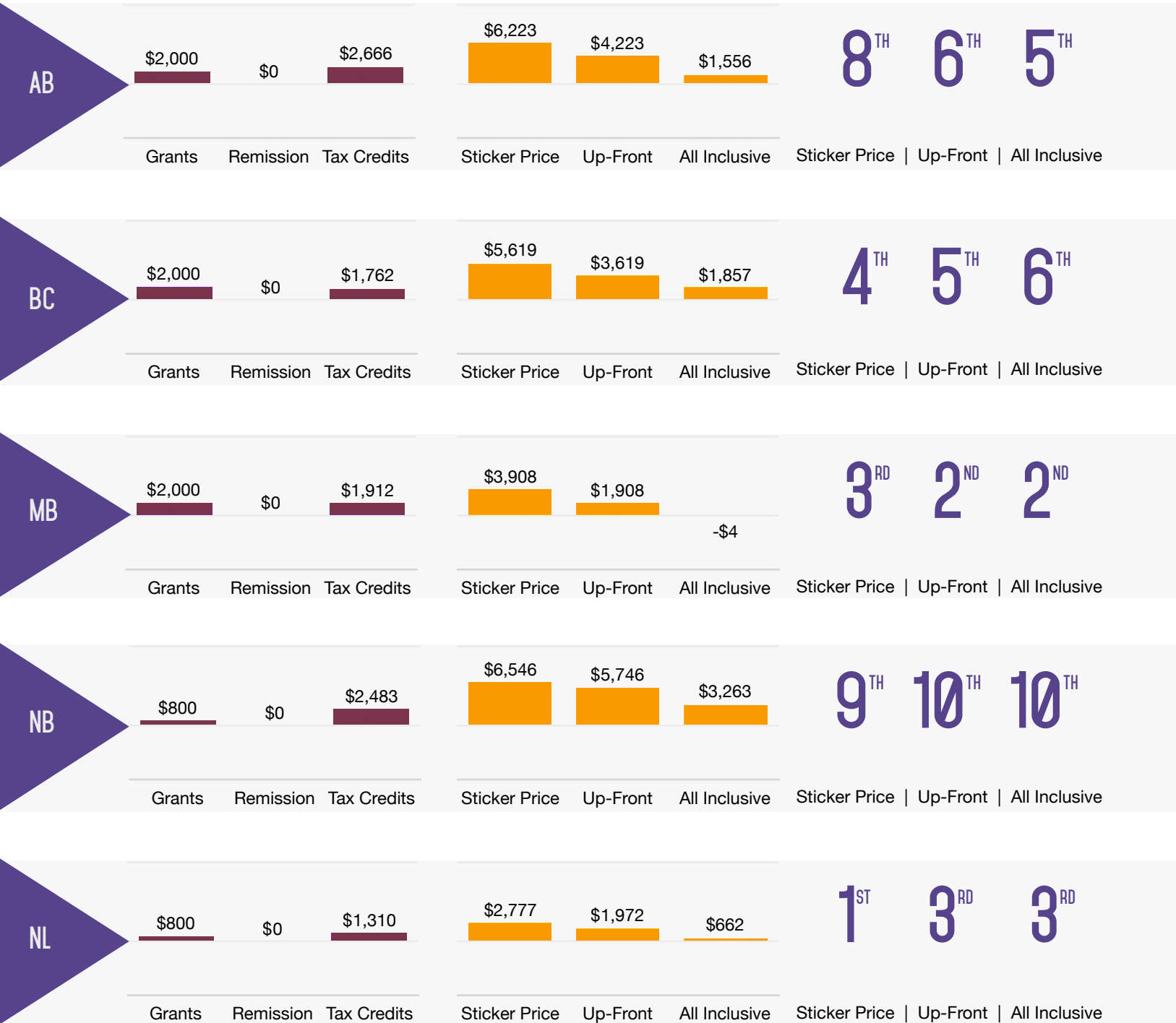
<sup>5</sup> Lambert, J., and Usher, A. (2012). *Making the Most of It: Canadian Student Employment in Summer 2012*. Toronto: Higher Education Strategy Associates.

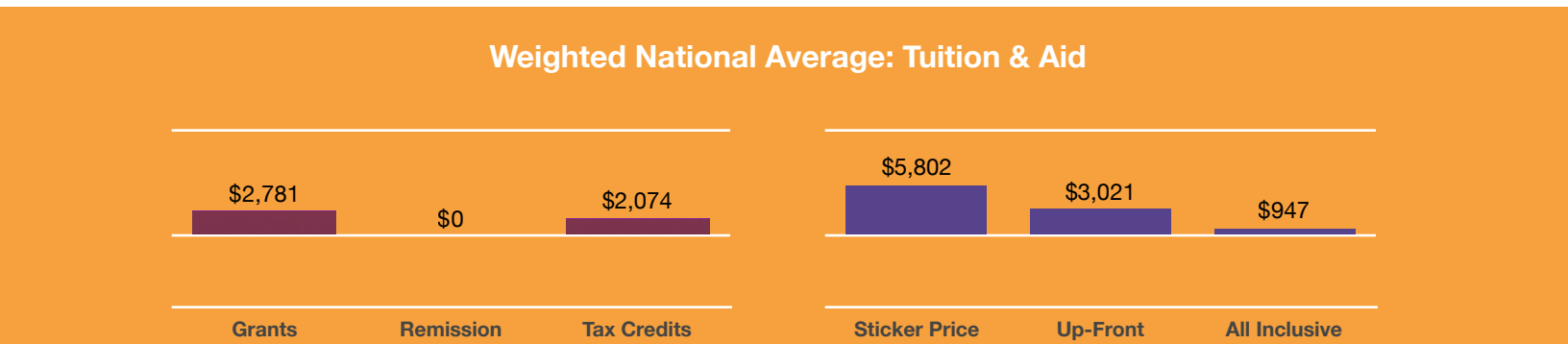
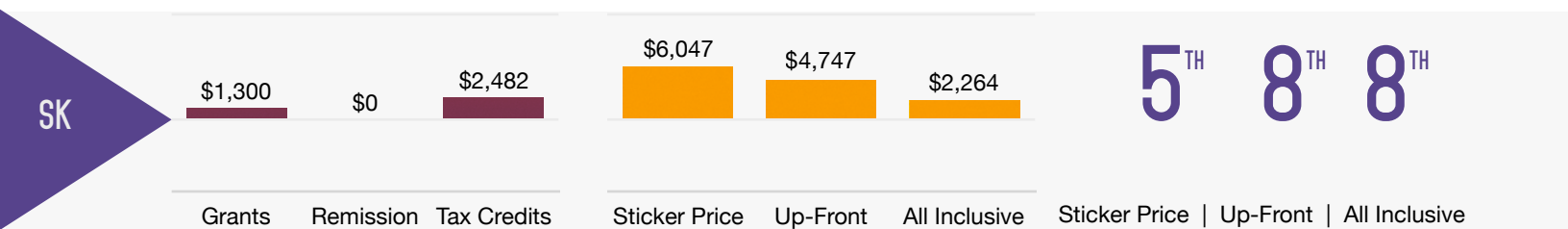
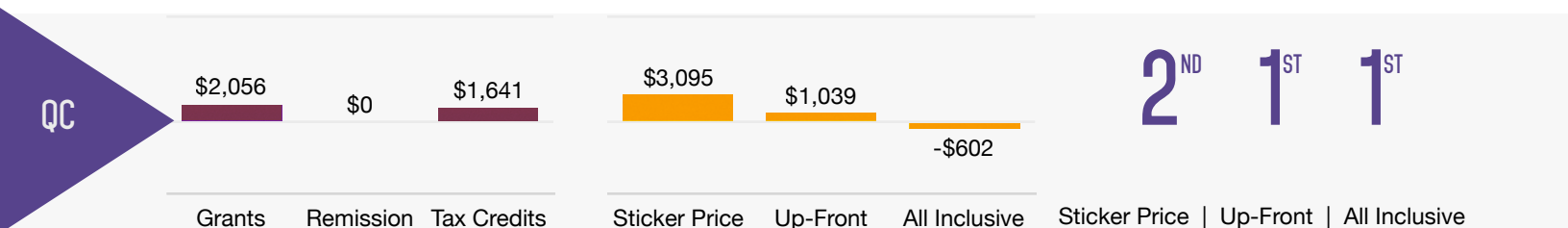
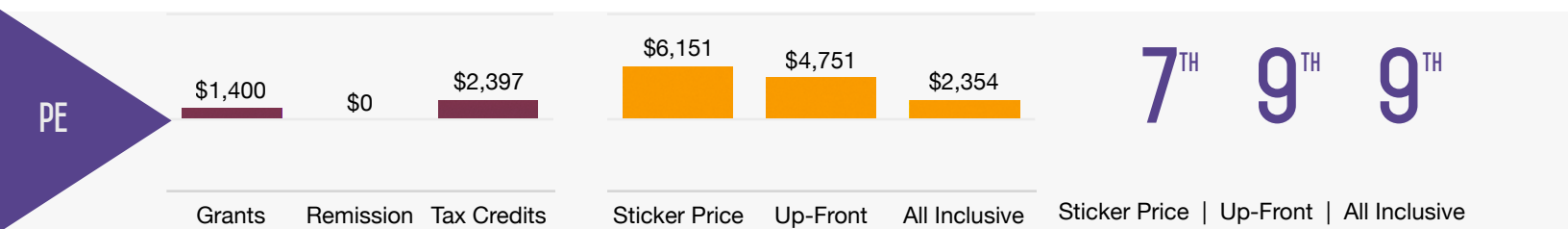
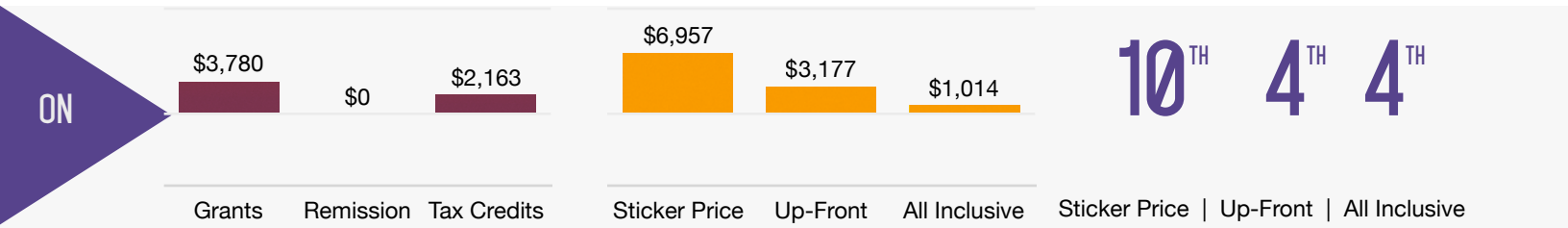
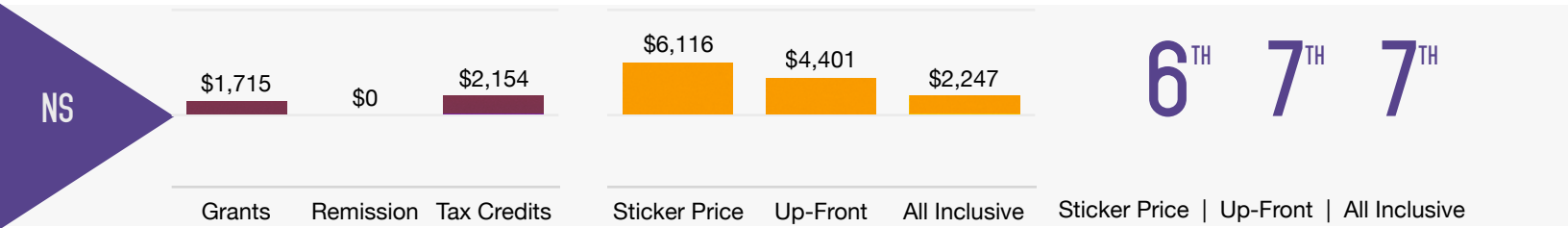
# ADELE



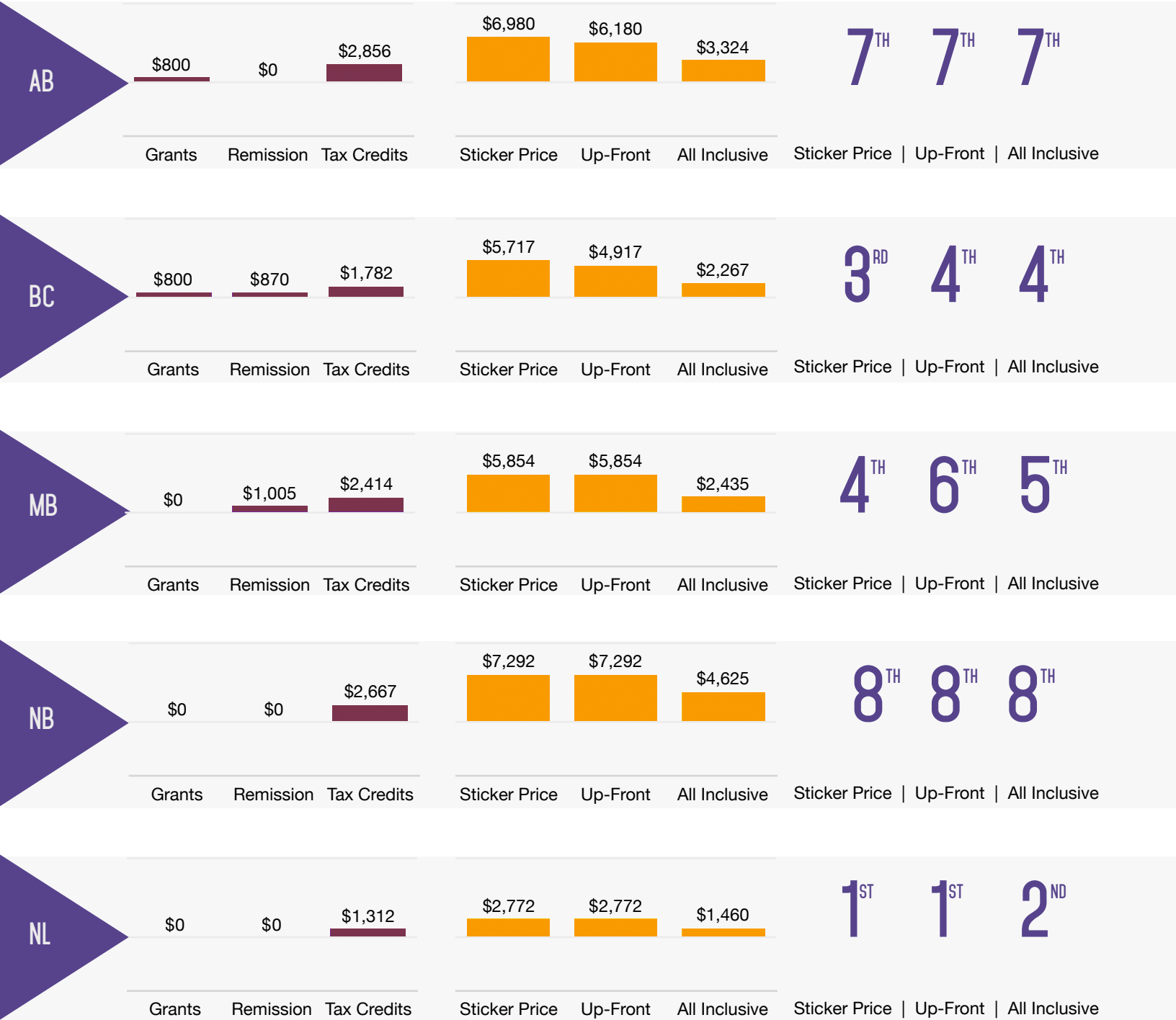


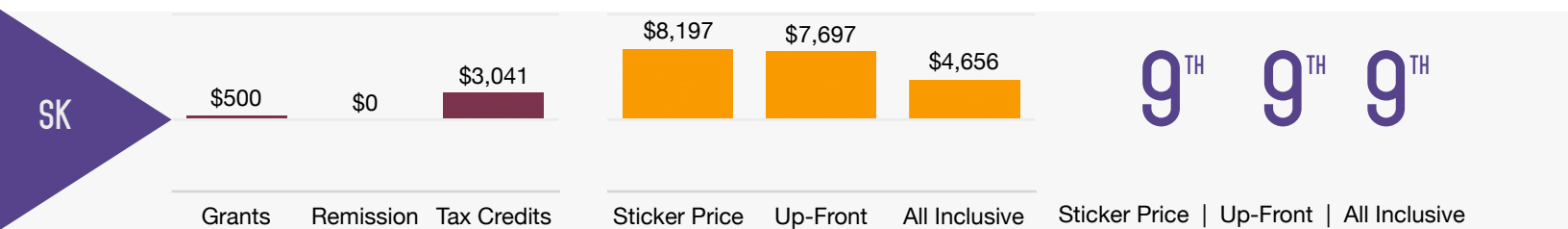
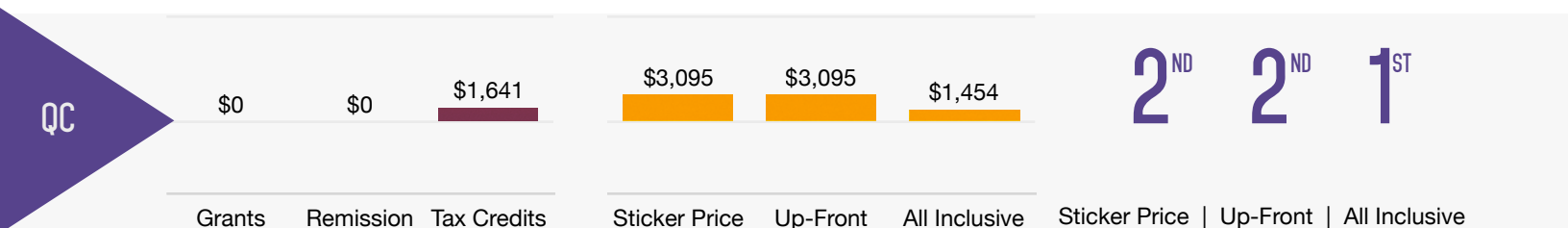
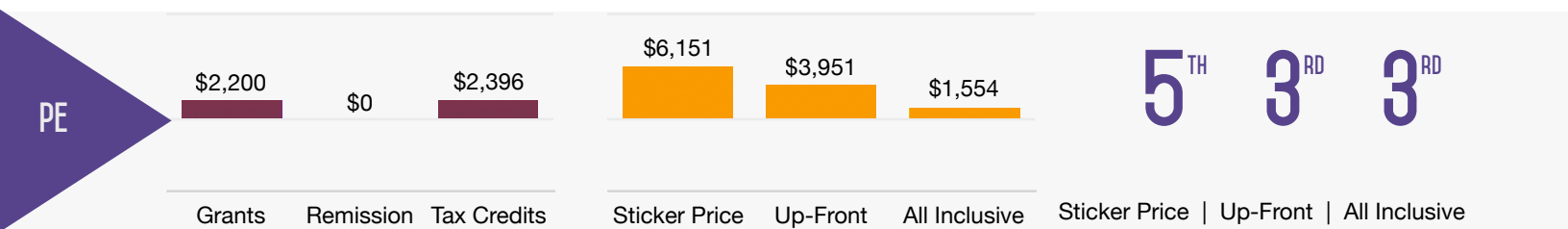
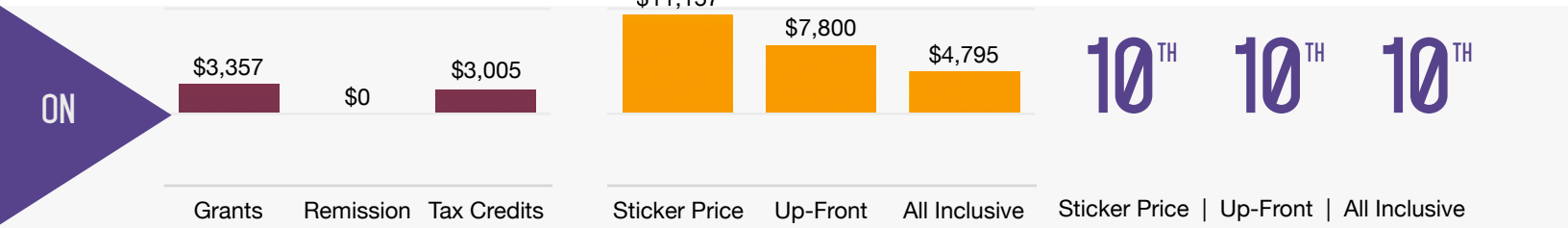
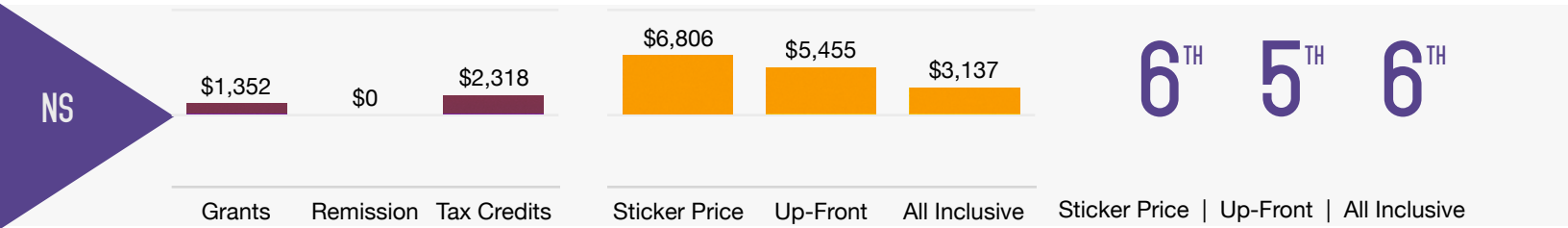
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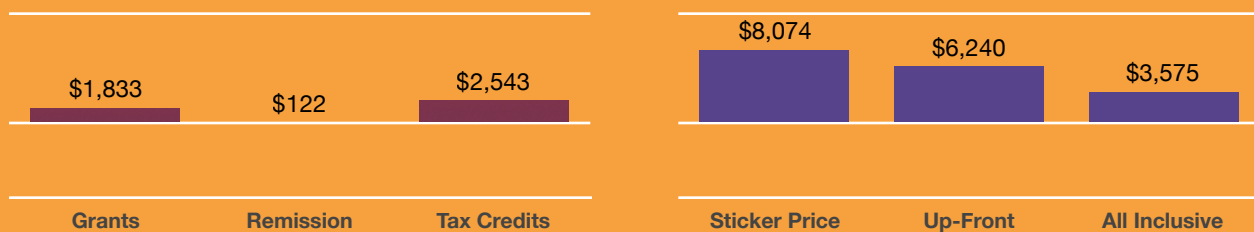


# CAITLYN

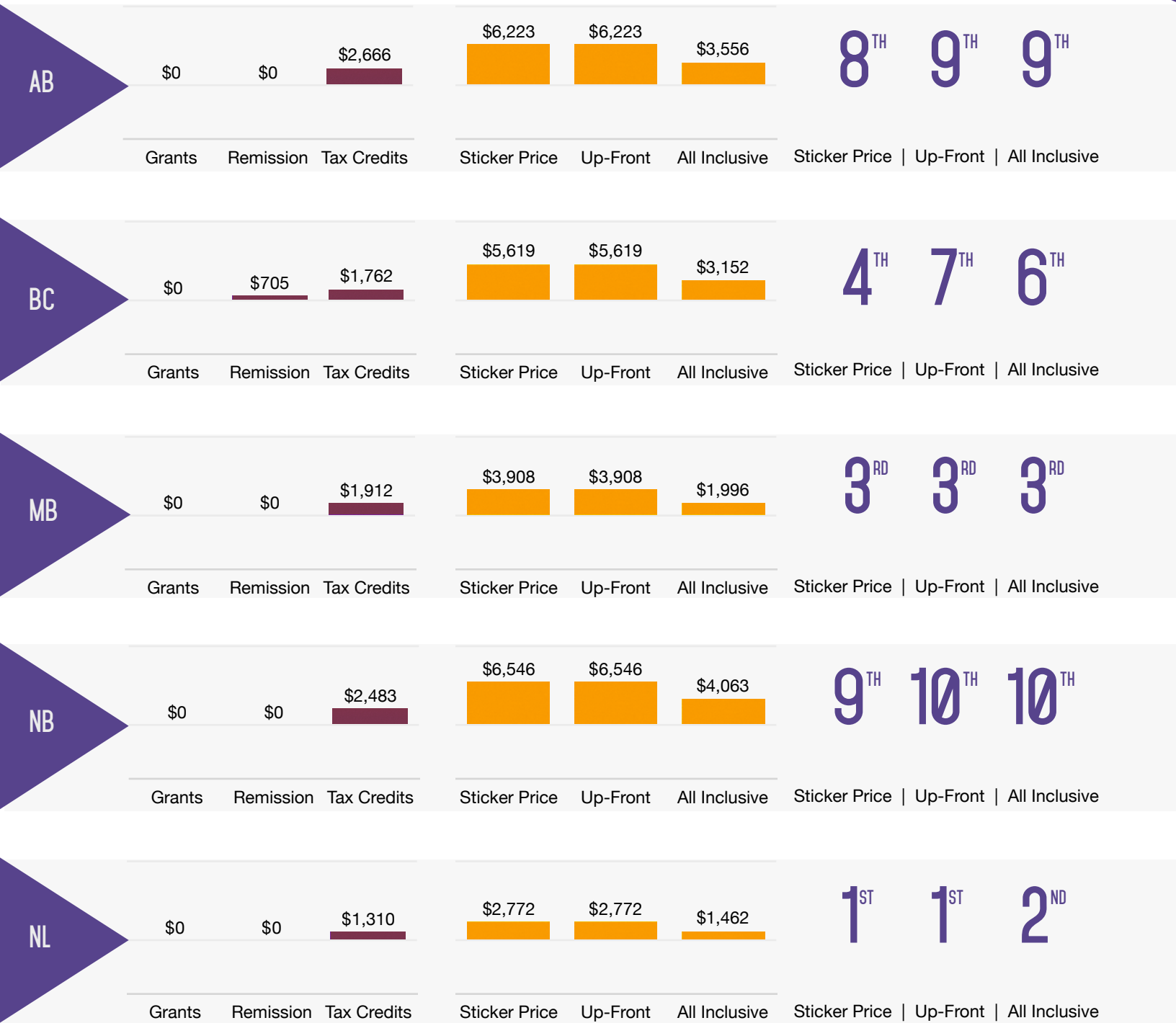




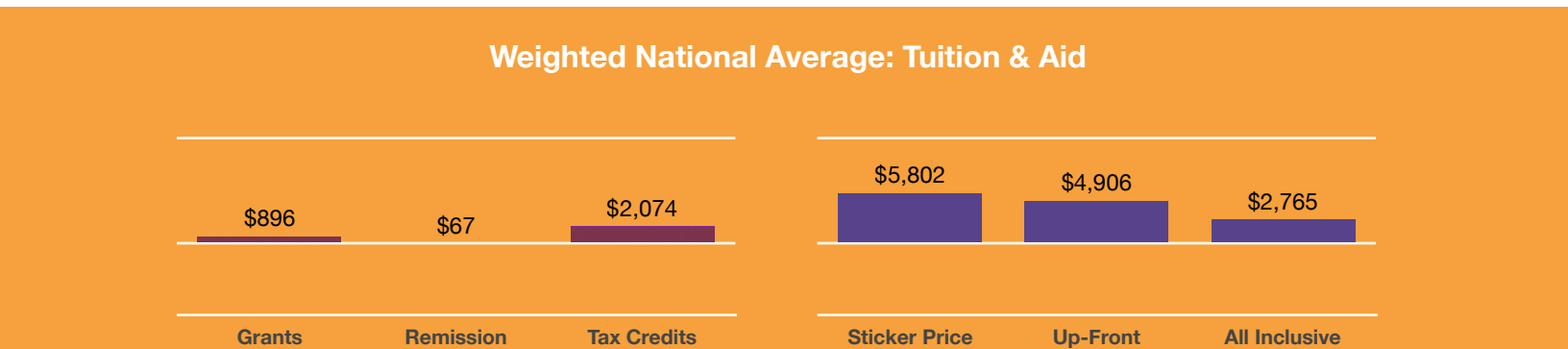
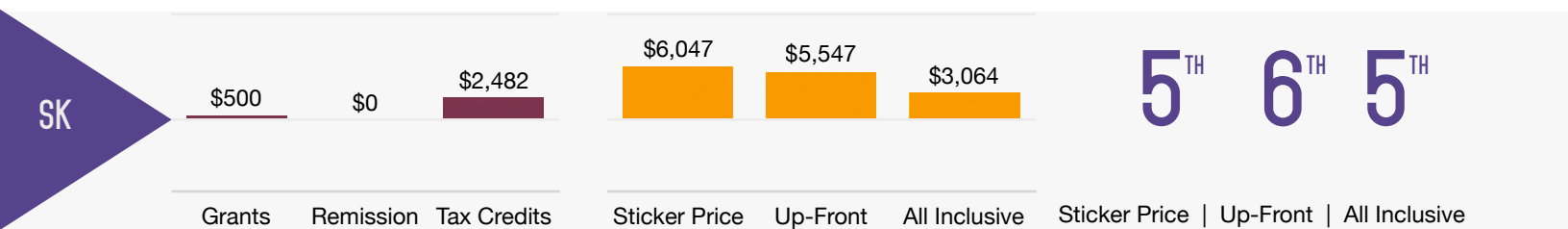
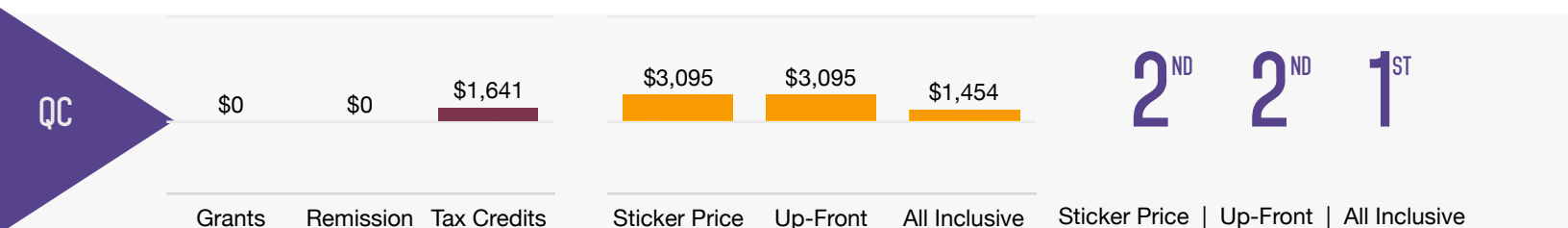
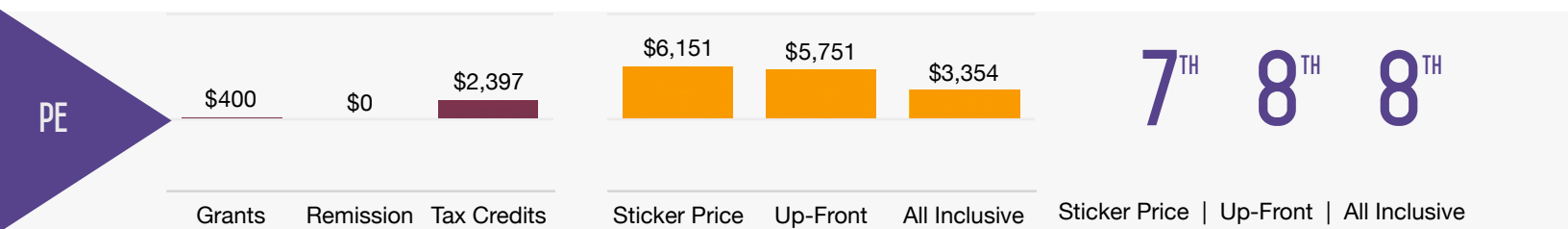
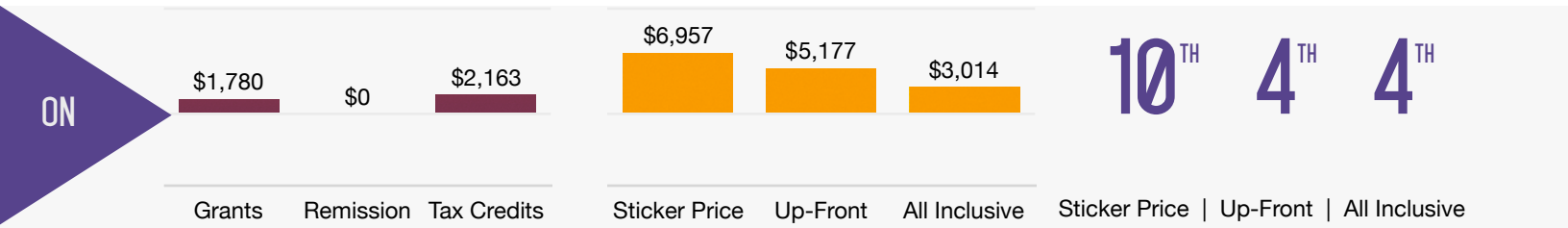
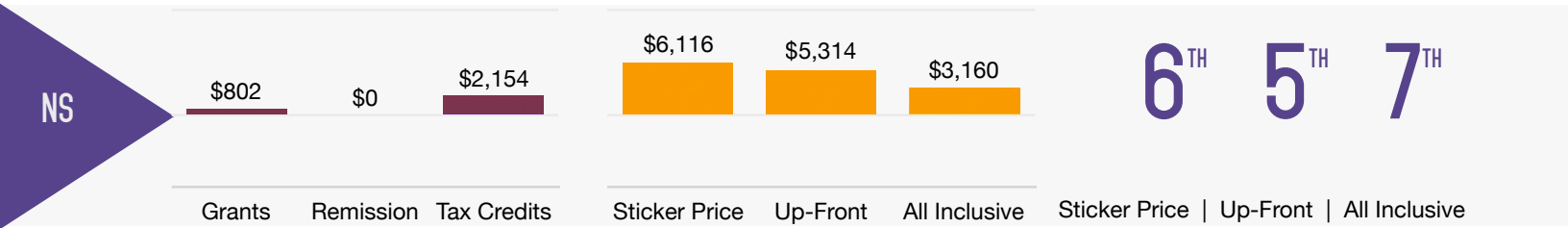
**Weighted National Average: Tuition & Aid**



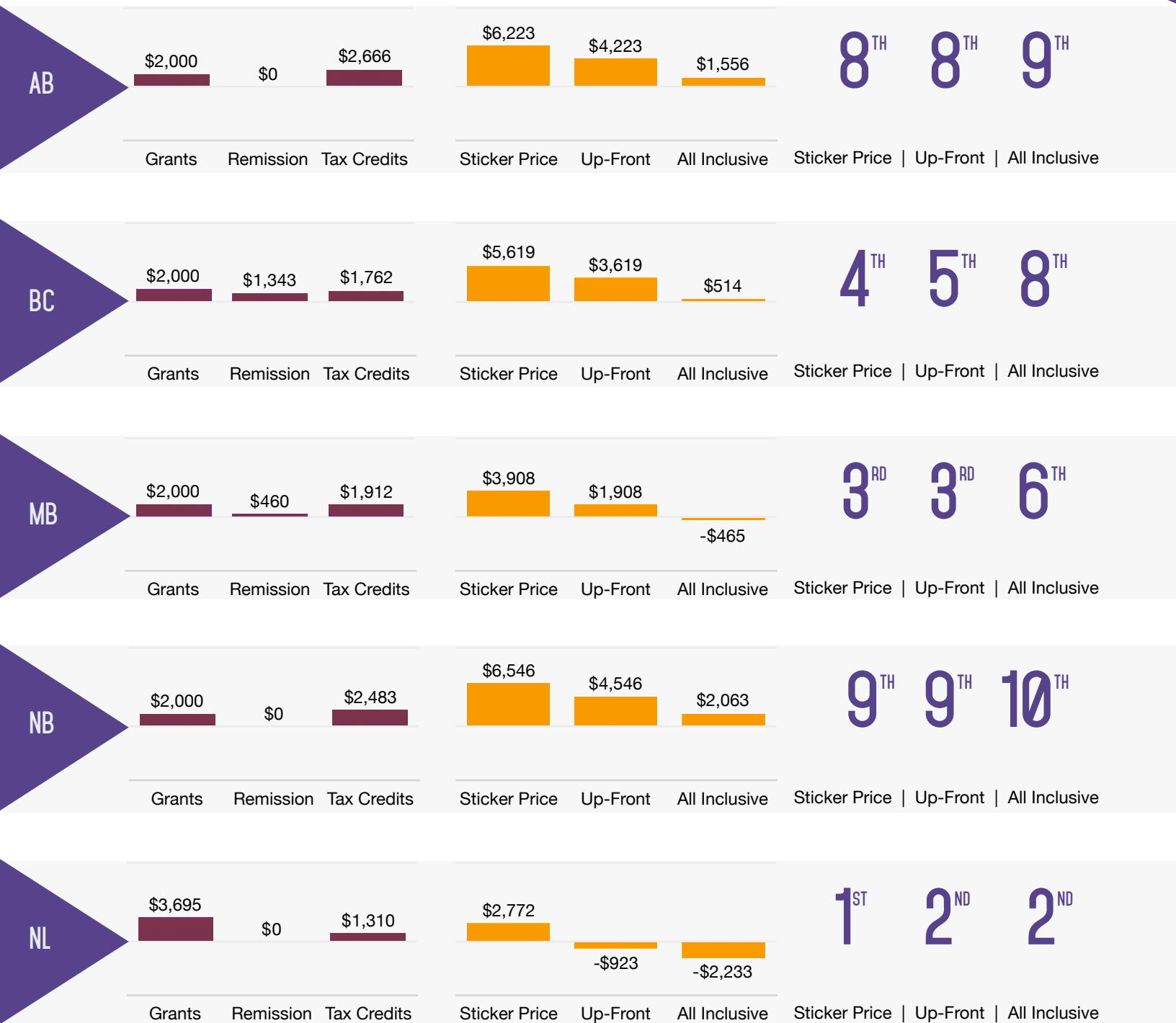
# DAMIAN

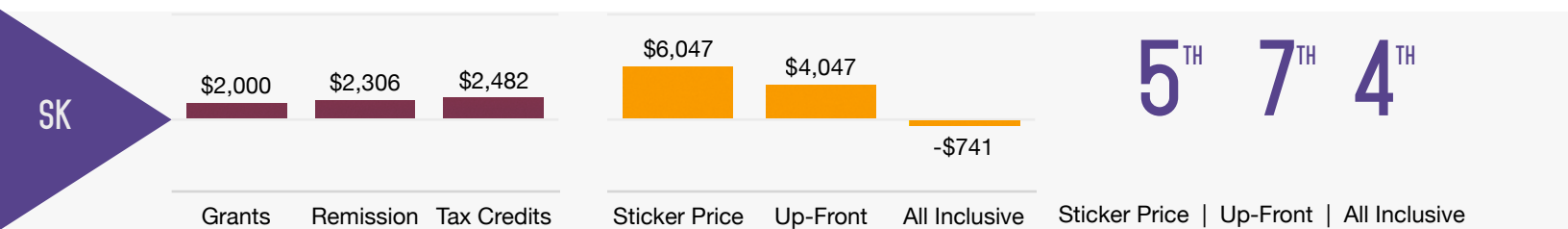
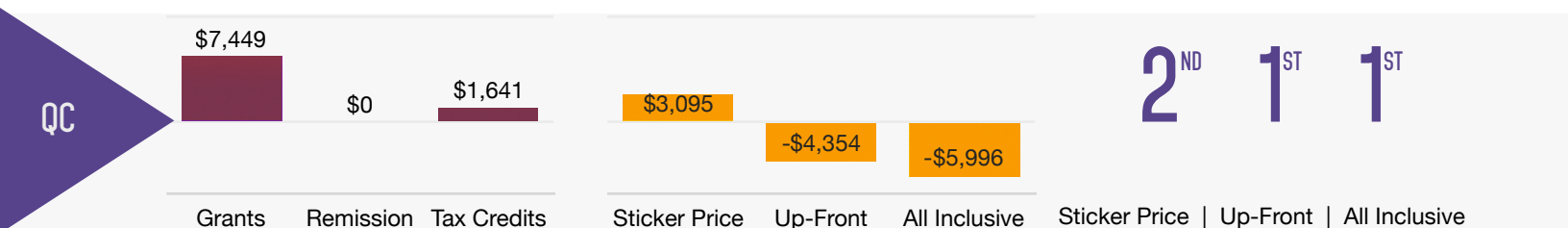
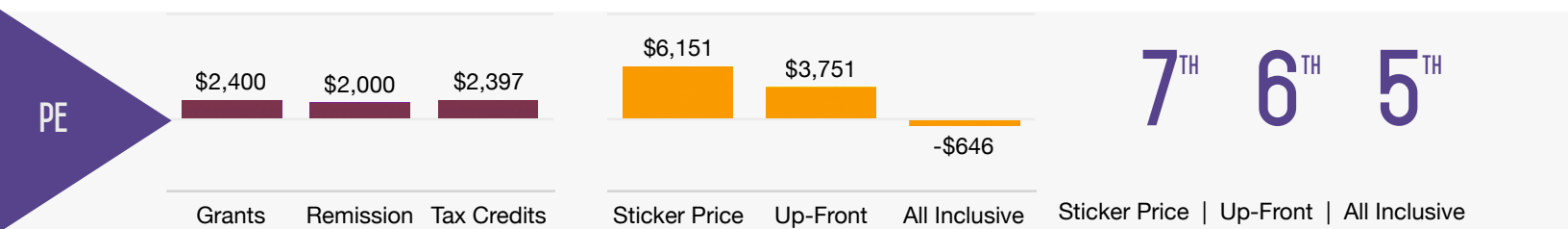
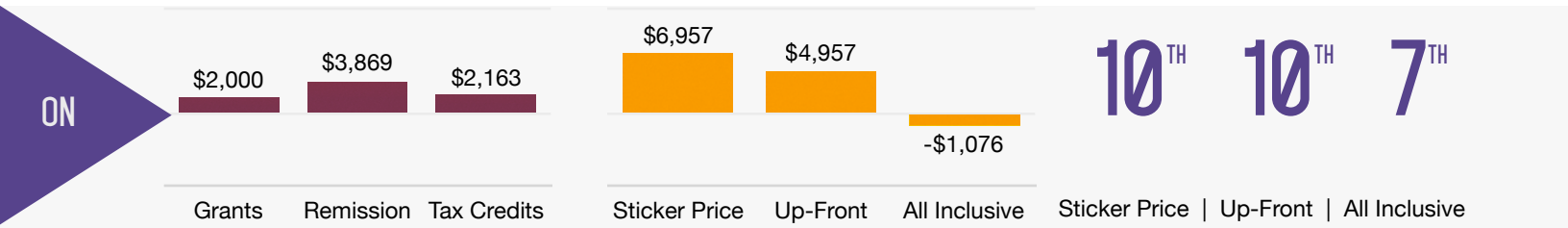
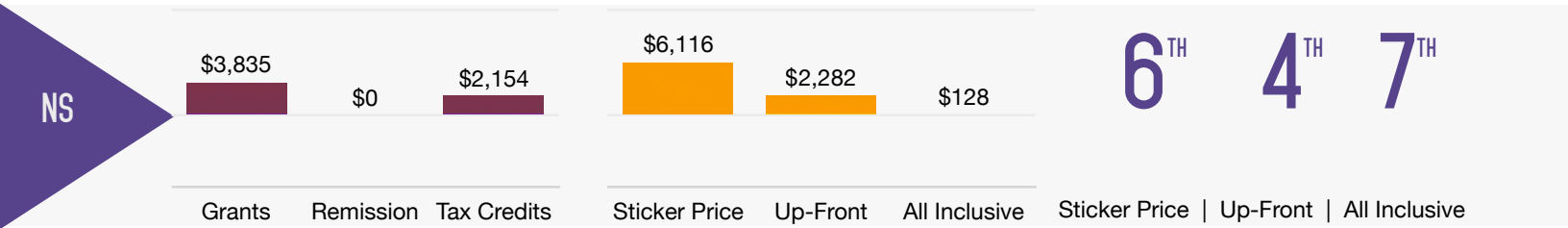




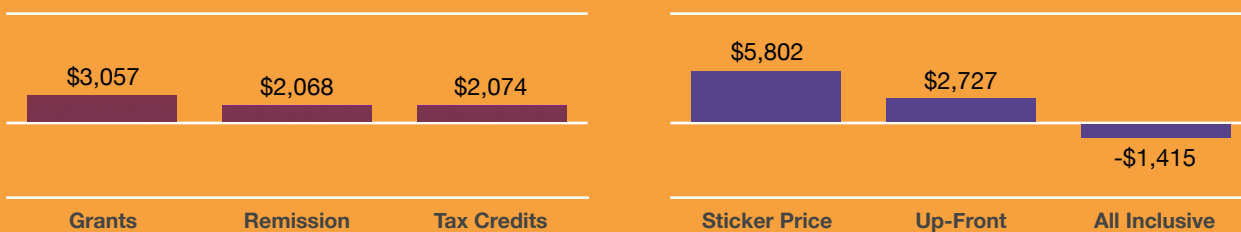


# EDYTA



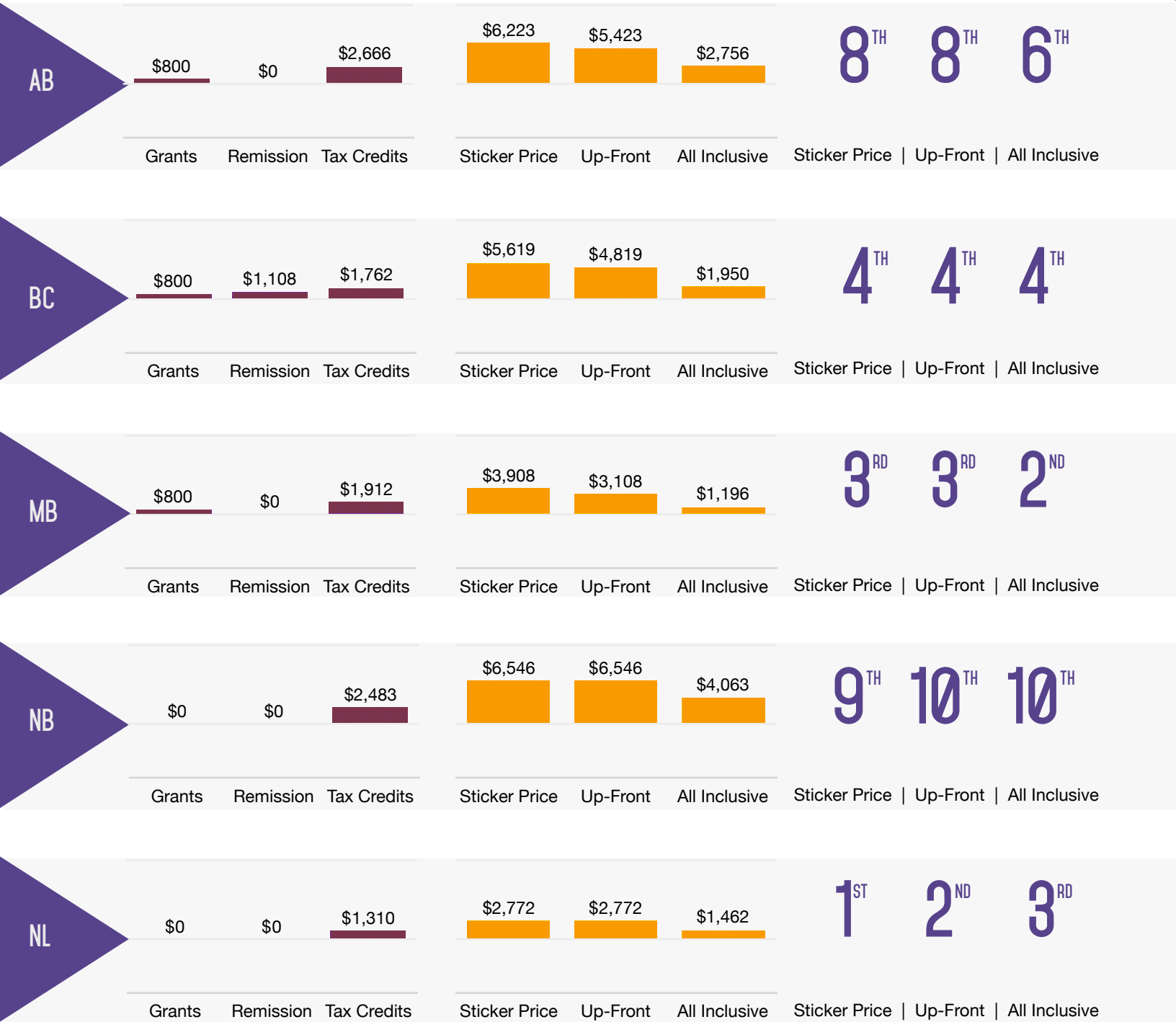


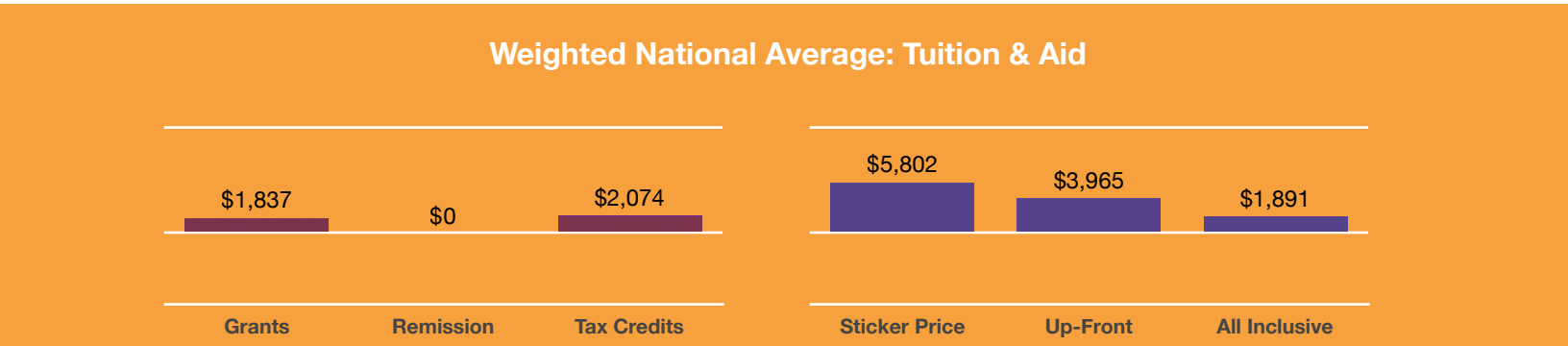
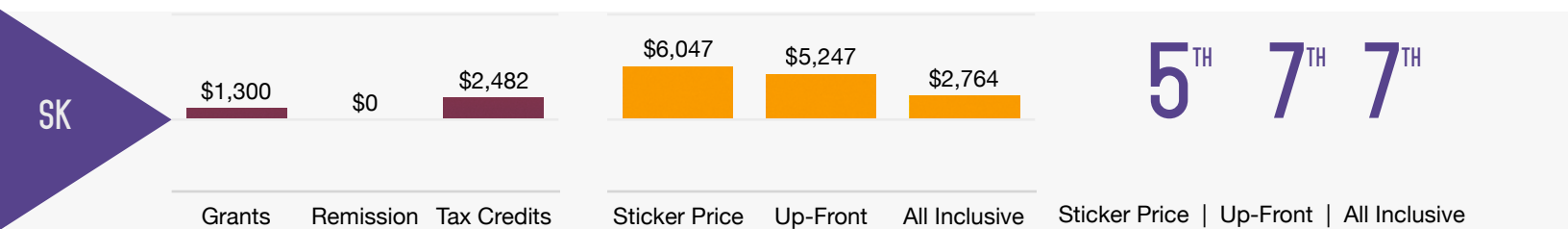
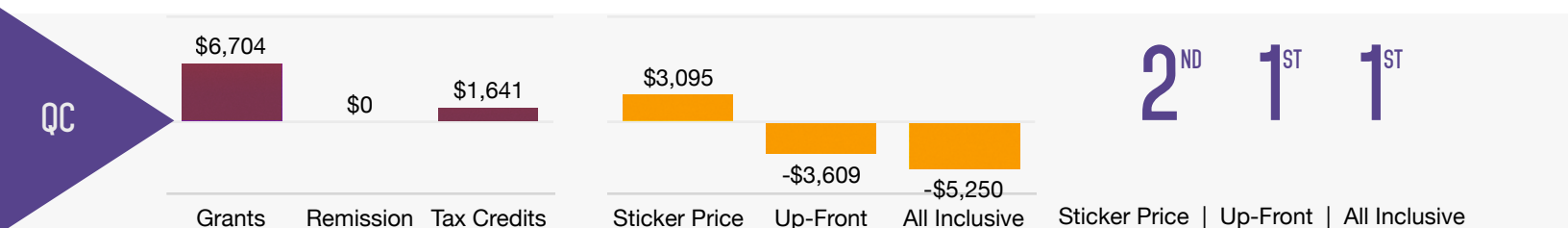
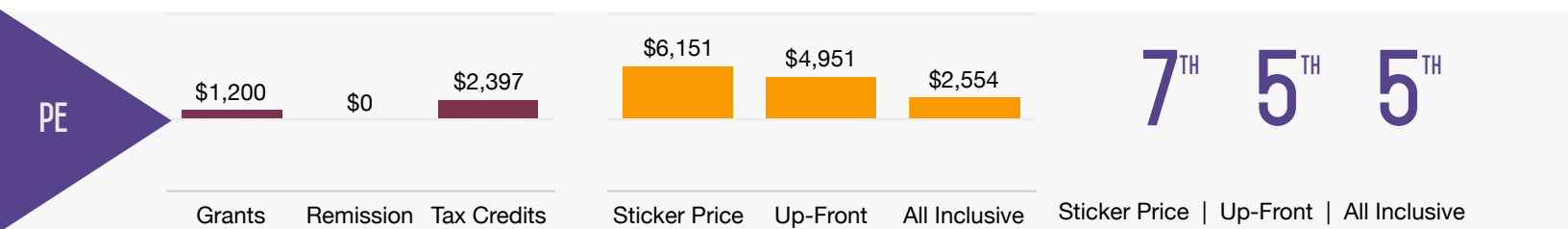
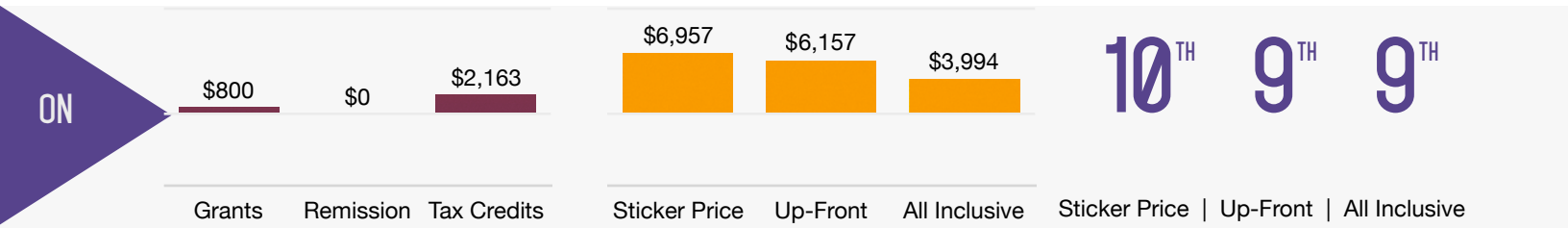
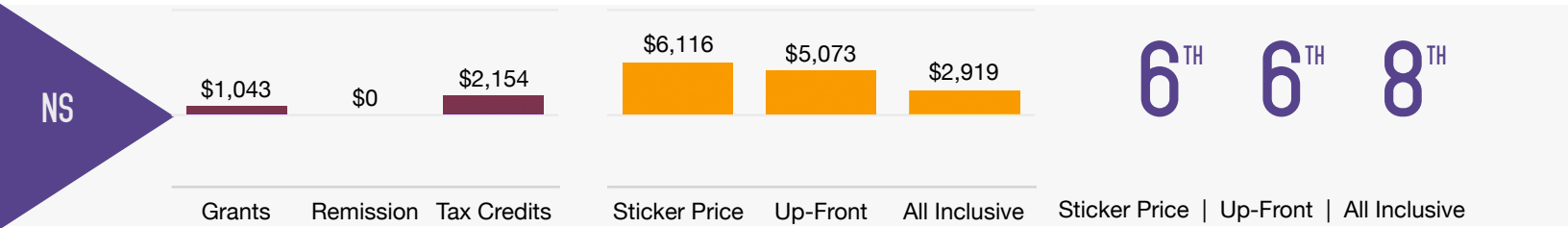
**Weighted National Average: Tuition & Aid**



# FARID

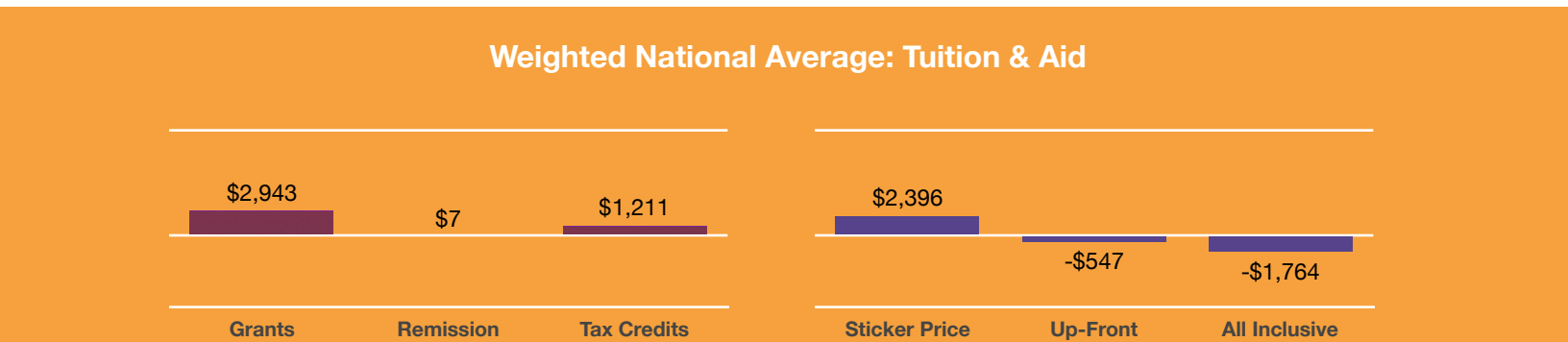
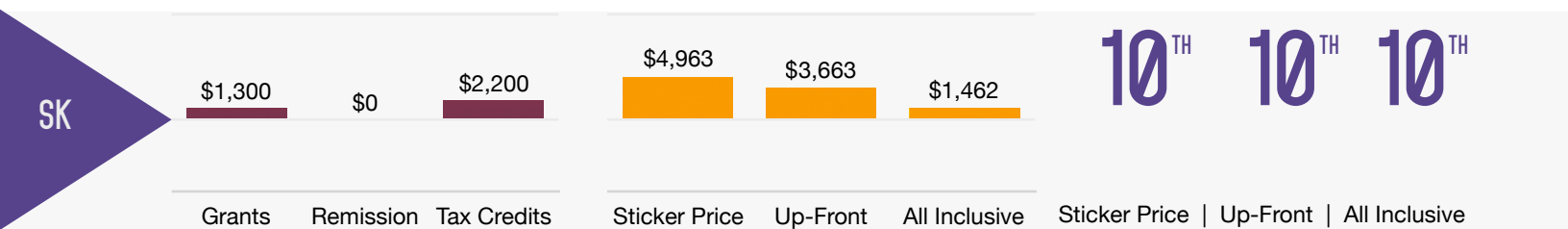
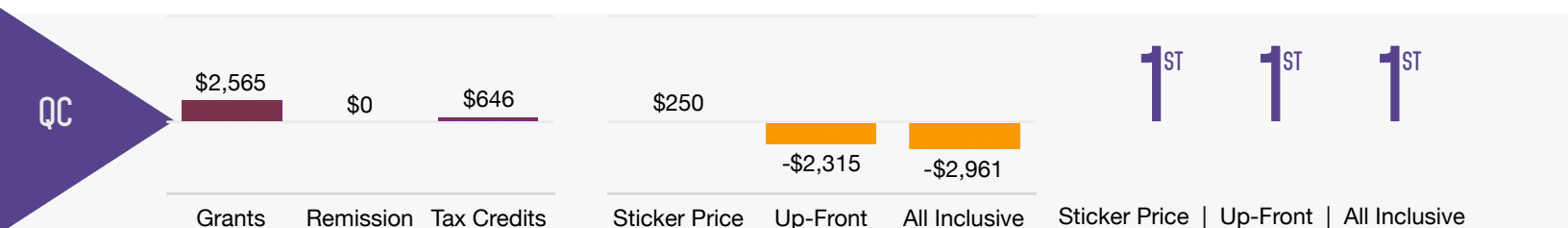
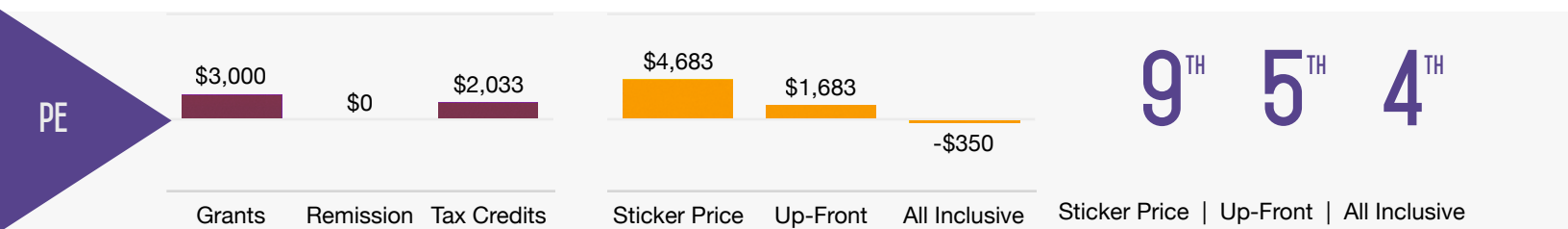
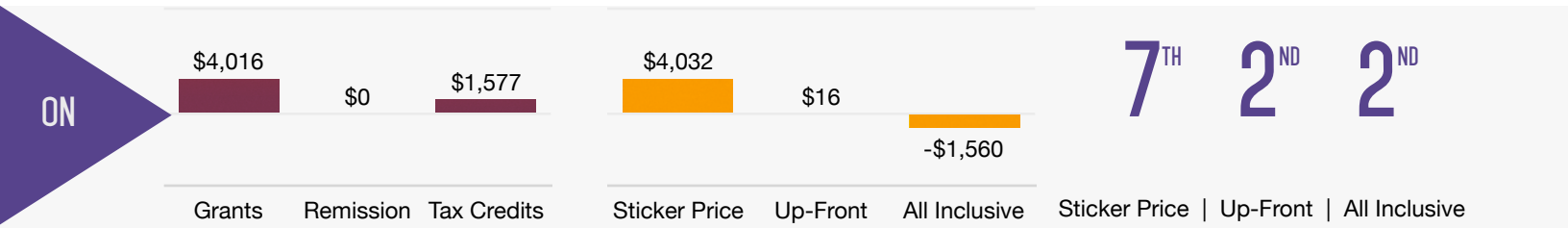
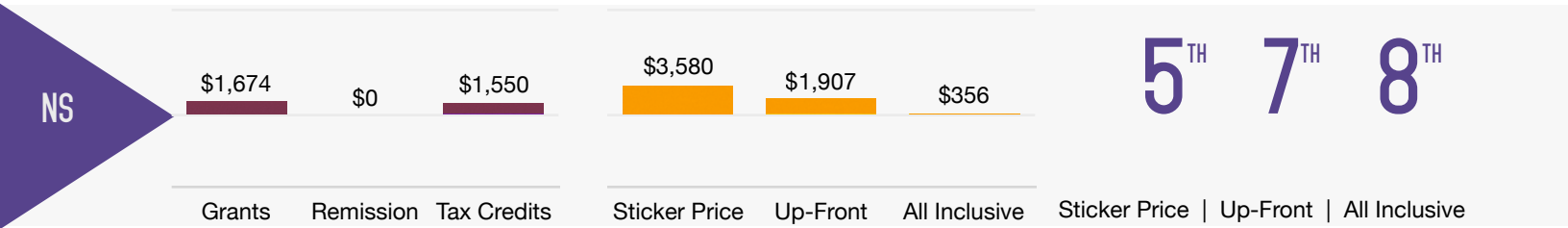
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 Field of Study: peace & conflict studies  
 Institution Type: university  
 Year of Study: 3





# GENEVIEVE

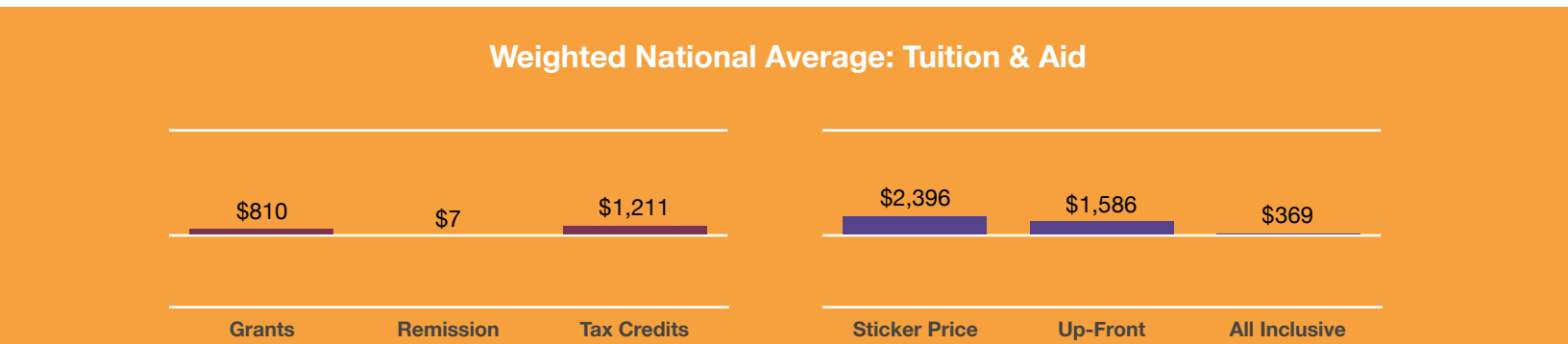
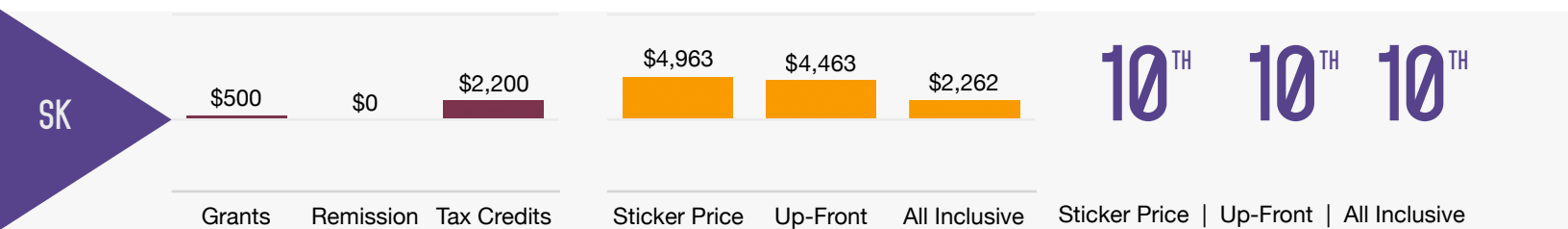
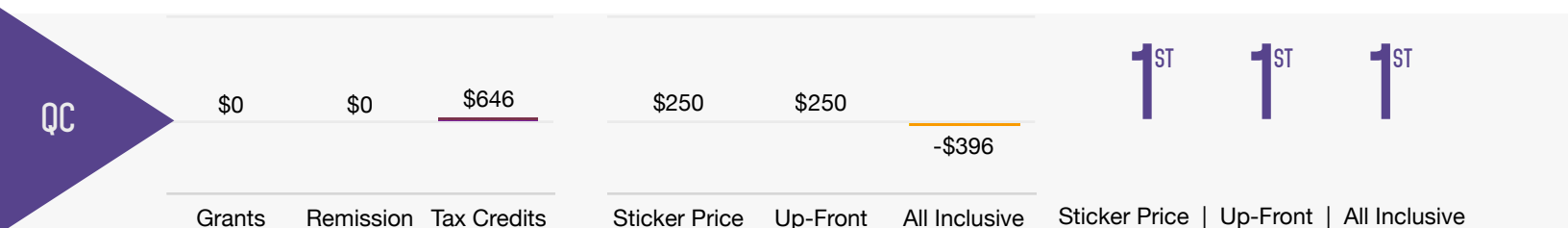
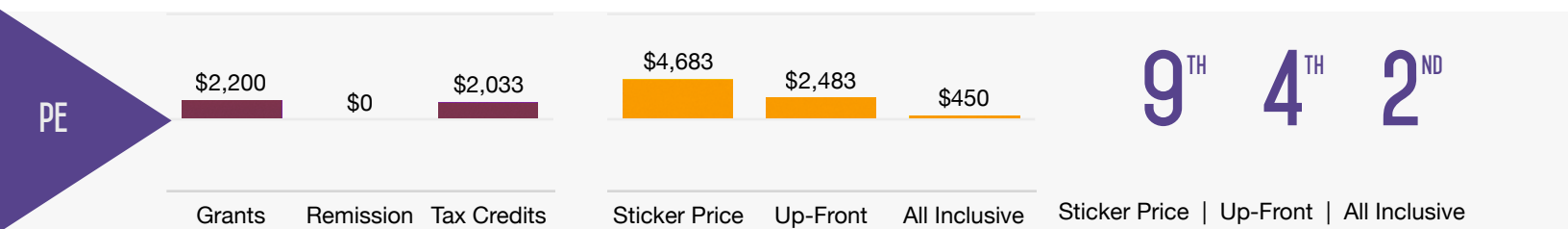
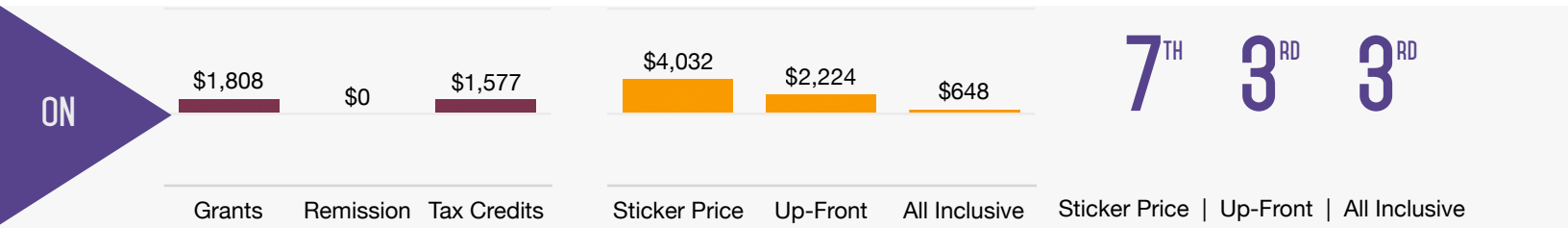
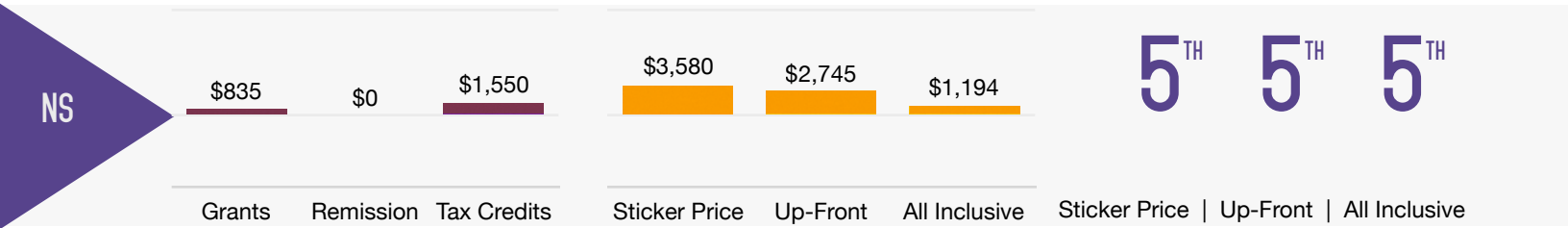
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|----------|---------|-----------|-------------|---------------|----------|---------------|--------------------|-----------------|--------------------|
| AB       | \$2,000 | \$0       | \$2,177     | \$4,267       | \$2,267  | \$89          | 8 <sup>TH</sup>    | 8 <sup>TH</sup> | 6 <sup>TH</sup>    |
| BC       | \$2,000 | \$80      | \$1,387     | \$3,744       | \$1,744  | \$276         | 6 <sup>TH</sup>    | 6 <sup>TH</sup> | 7 <sup>TH</sup>    |
| MB       | \$2,000 | \$0       | \$1,716     | \$3,149       | \$1,149  | \$567         | 3 <sup>RD</sup>    | 4 <sup>TH</sup> | 3 <sup>RD</sup>    |
| NB       | \$800   | \$0       | \$1,706     | \$3,395       | \$2,595  | \$889         | 4 <sup>TH</sup>    | 9 <sup>TH</sup> | 9 <sup>TH</sup>    |
| NL       | \$800   | \$0       | \$1,123     | \$1,946       | \$1,146  | \$23          | 2 <sup>ND</sup>    | 3 <sup>RD</sup> | 5 <sup>TH</sup>    |



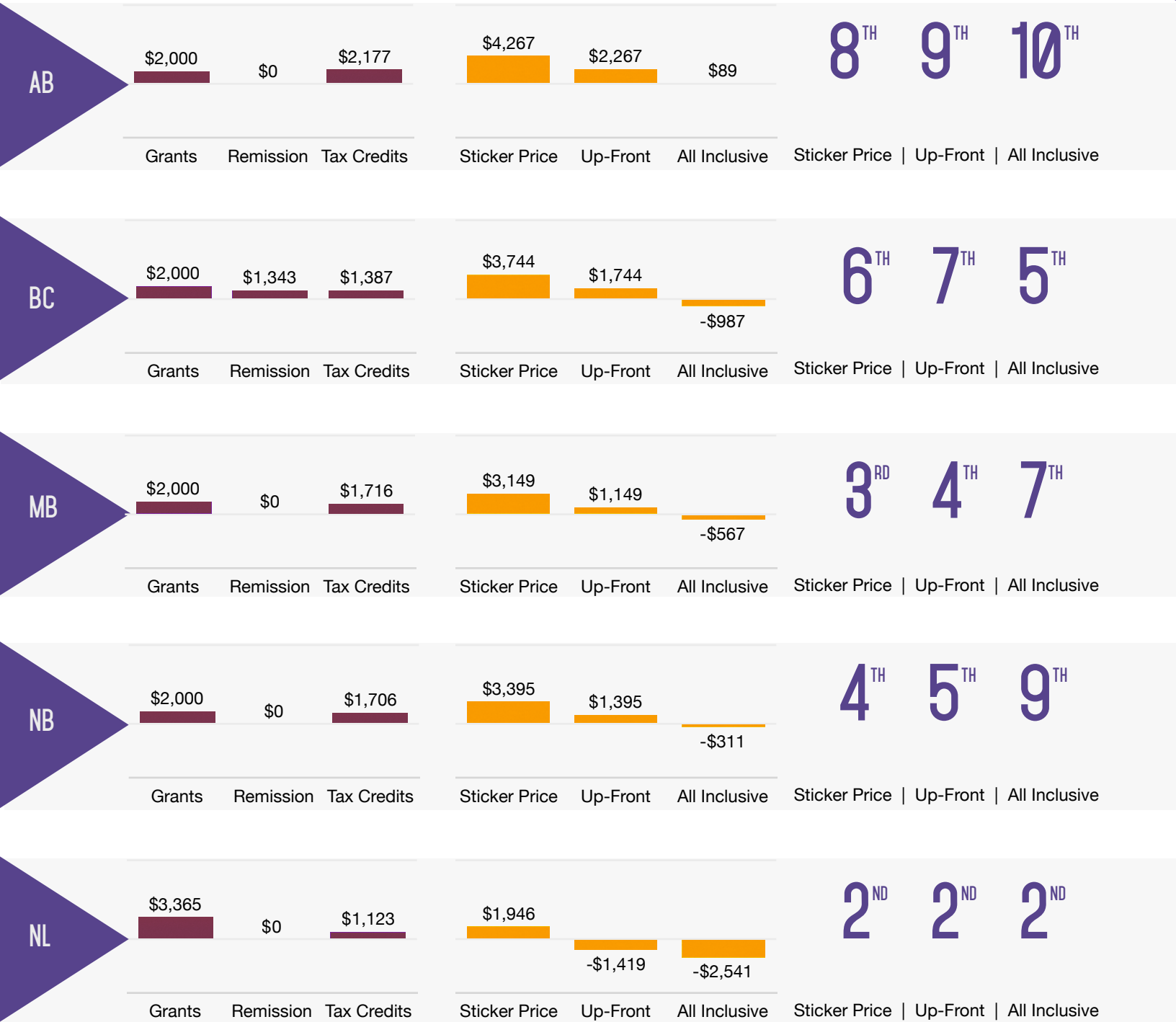
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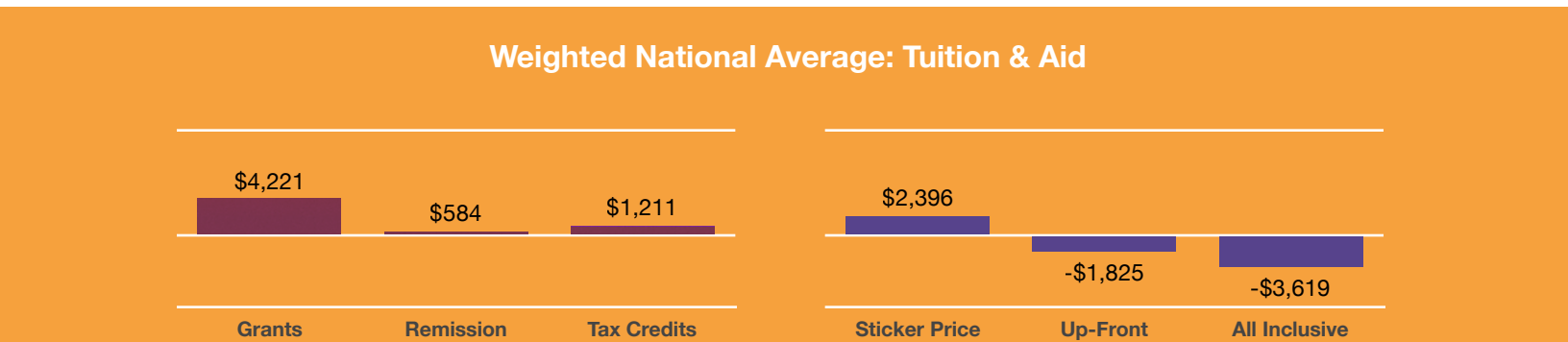
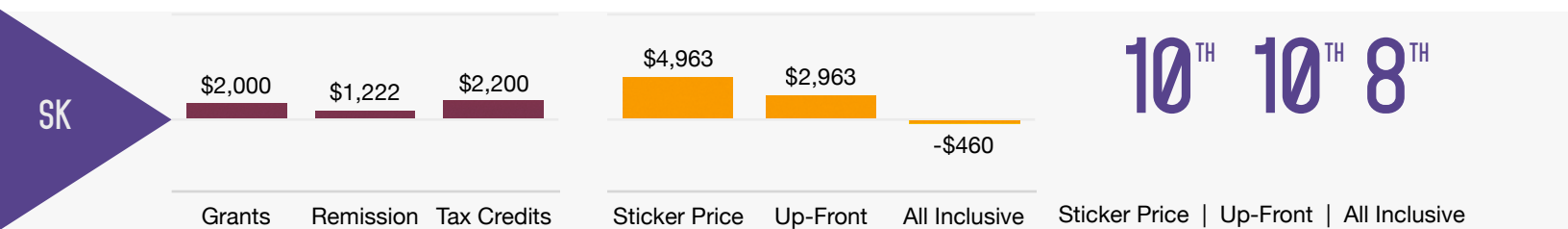
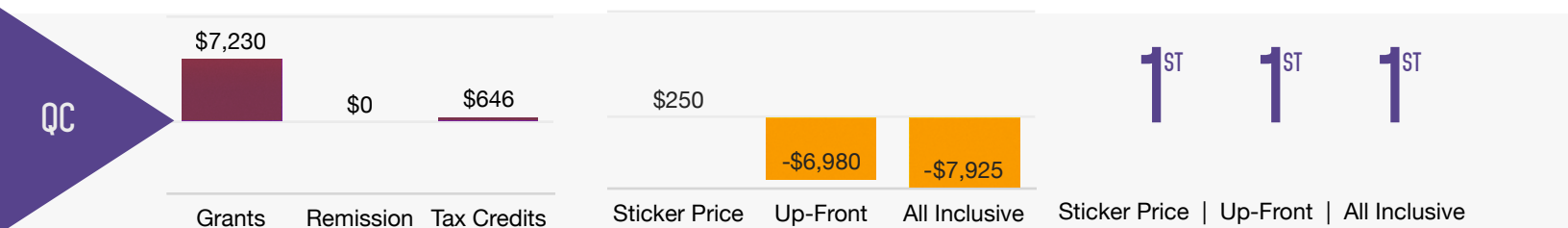
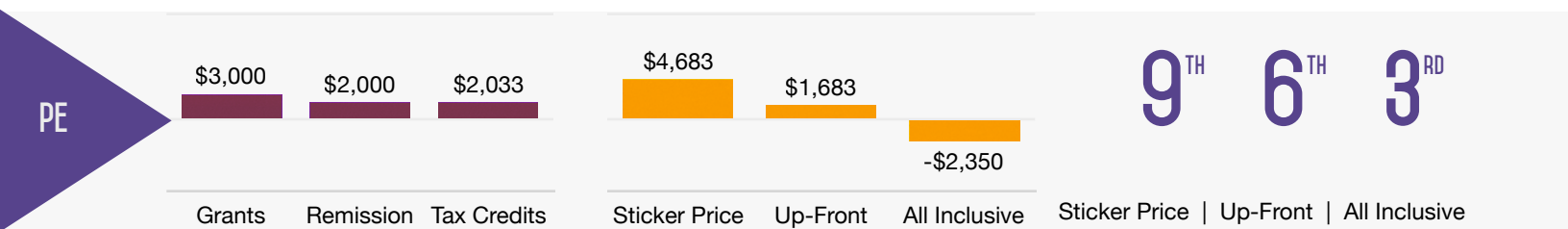
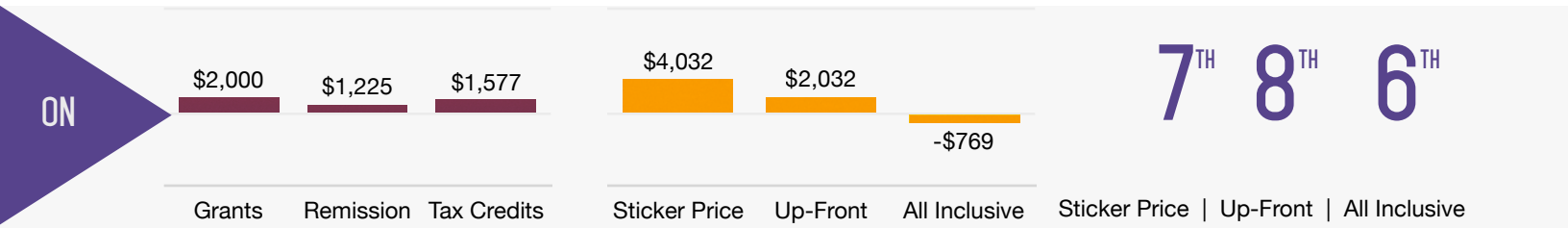
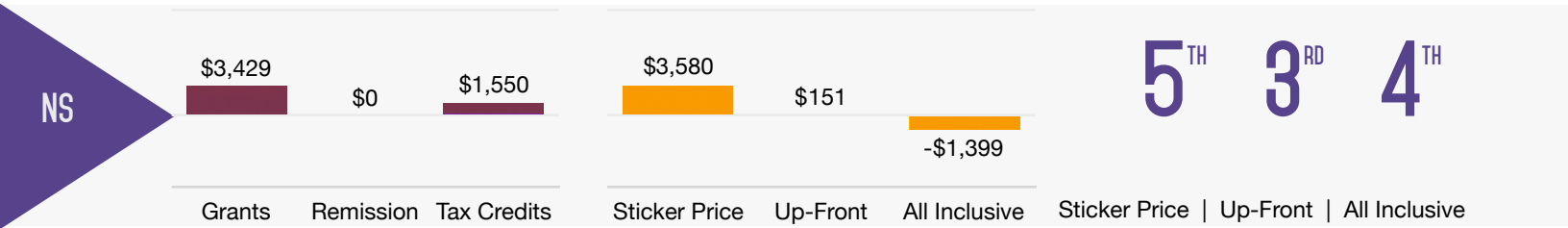
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|----------|--------|-----------|-------------|---------------|----------|---------------|--------------------|-----------------|--------------------|
| AB       | \$800  | \$0       | \$2,177     | \$4,267       | \$3,467  | \$1,289       | 8 <sup>TH</sup>    | 9 <sup>TH</sup> | 6 <sup>TH</sup>    |
| BC       | \$800  | \$80      | \$1,387     | \$3,744       | \$2,944  | \$1,476       | 6 <sup>TH</sup>    | 6 <sup>TH</sup> | 8 <sup>TH</sup>    |
| MB       | \$0    | \$0       | \$1,716     | \$3,149       | \$3,149  | \$1,433       | 3 <sup>RD</sup>    | 7 <sup>TH</sup> | 7 <sup>TH</sup>    |
| NB       | \$0    | \$0       | \$1,706     | \$3,395       | \$3,395  | \$1,689       | 4 <sup>TH</sup>    | 8 <sup>TH</sup> | 9 <sup>TH</sup>    |
| NL       | \$0    | \$0       | \$1,123     | \$1,946       | \$1,946  | \$823         | 2 <sup>ND</sup>    | 2 <sup>ND</sup> | 4 <sup>TH</sup>    |





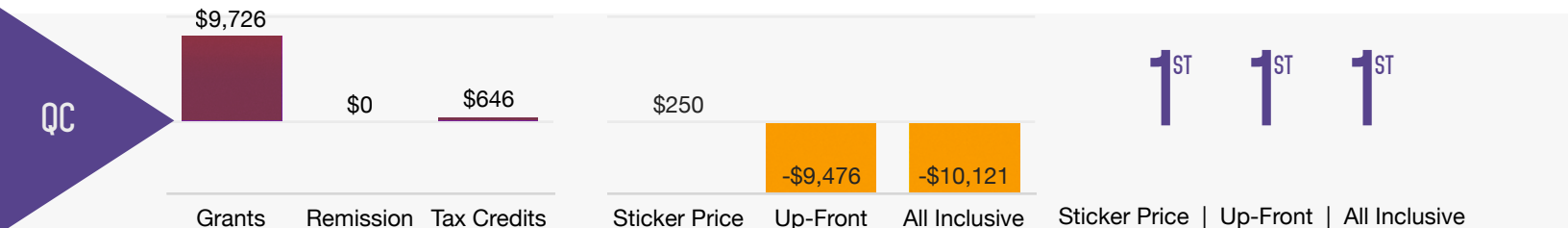
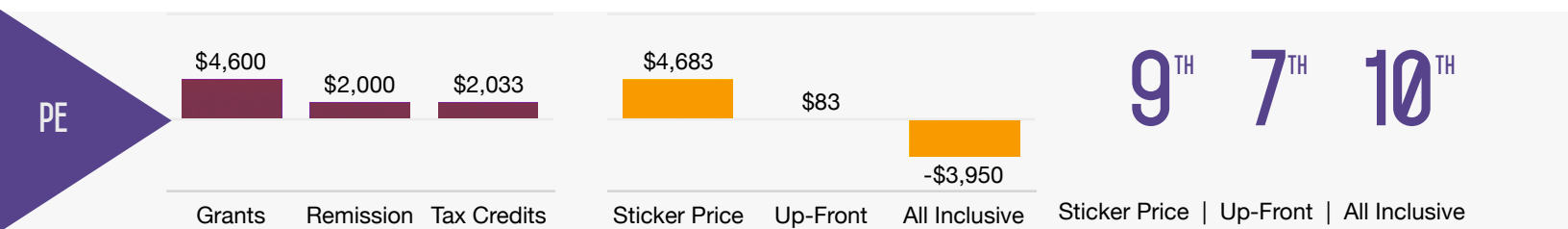
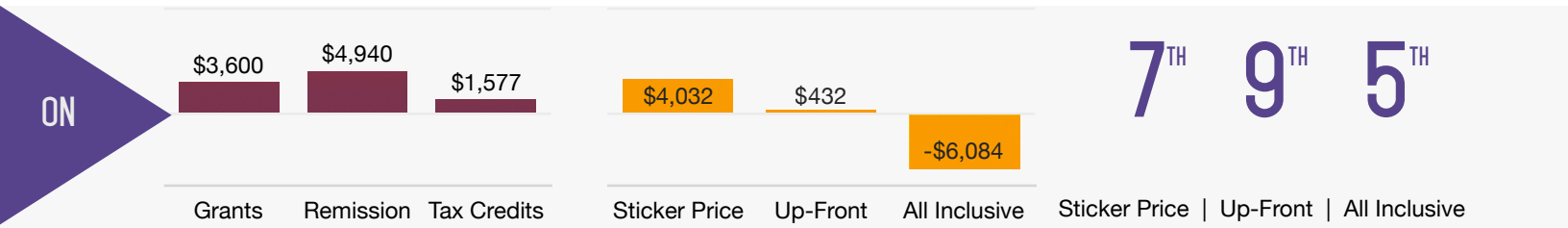
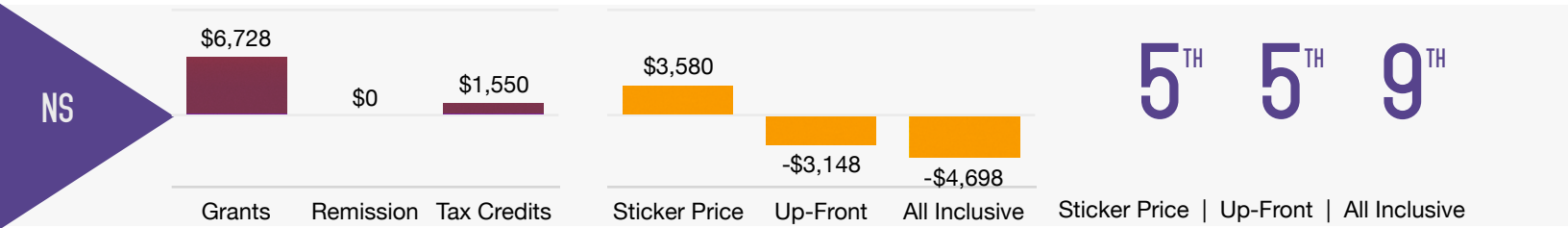
# IRIS



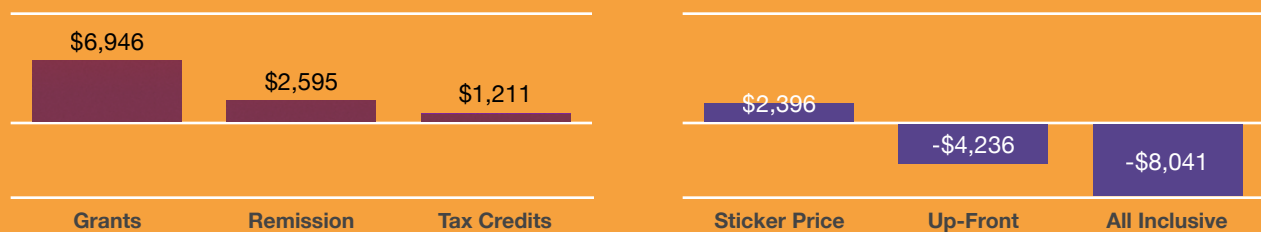


# JOE





**Weighted National Average: Tuition & Aid**



## DISCUSSION OF RESULTS

A number of points can be raised with respect to the individual cases:

[Adele](#) (pages 8-9) is the prototypical low-income, possibly first-generation student that most people think of when they consider those who can be most helped by student aid. By and large, she received quite large amounts of subsidy in most provinces. On average across the country, her up-front net tuition is \$2,456 and her all-inclusive net tuition is just \$303. In three provinces, Quebec, Manitoba and Ontario, she receives more in subsidies than she pays in tuition. Though based on public funding, Adele's all-inclusive costs are slightly lower in Quebec than in Ontario (-\$206 vs. -\$393), it is worth noting here that if this study were to include institutional merit aid, the likelihood is that Adele's cheapest province would be Ontario, not Quebec, because well over two-thirds of first year students in that province receive merit aid – and on average merit aid totals more than \$1,000. Such an award would be enough to bring aid net prices for Ontario down below the level she would pay in Quebec.

[Ben](#) (pages 10-11) is essentially an upper-year version of Adele. On average across the country, his up-front net tuition is \$3,021 and his all-inclusive net tuition is \$947. These higher net costs are due to lower aid availability, and this happens for two reasons. First, some provinces deliberately provide more grant-aid to lower-year students. In Ontario, a first-year university student is eligible for both the Ontario Access Grant and the Ontario Tuition Rebate, which cumulatively are worth up to half of a low-income student's tuition. However, the Ontario Access Grant is not available to students in third year or above; the consequence of this is that, all else held equal, a low-income dependent university student loses about \$1,200 in up-front grants after second year. Similarly, in PEI, a first-year university student receives \$2,200 in repayable grants, but the amount of up-front aid he or she receives is reduced to \$600 and \$400 in second and third year, respectively.

A secondary reason why Ben receives less money than Adele is that upper-year students tend to earn more than first-year students through their summer jobs because: a) their experience commands higher wages affects; and, b) their summers are longer and they can spend more hours working. In a few provinces, this extra income will affect the amount of aid to which Ben is entitled.

[Caitlyn](#) (pages 12-13) is a first-year student like Adele, but she comes from a middle-income family (\$80,000 per year, total). She has also chosen to study Engineering, which in some provinces (again, notably Ontario) is a very high-cost program. On average across the country, her up-front net tuition is \$6,616 and her all-inclusive net tuition is \$4,014. She is one of only two students whose all-inclusive tuition rate is positive in all provinces. She receives the biggest subsidy in Ontario, but that is also the province where she pays the most – over \$5,500.

[Damien](#) (pages 14-15) is an upper-year student in an Arts program like Ben, but differs in two important ways. The first is that his family income is substantially higher (\$120,000), and the second is that he has gone away to school and, so unlike Ben, he lives at home. This pulls his assessed need in two directions – his higher living costs drive his need down, but his decision to live away from home drives it up. The latter has the stronger effect: in fact, after all aid is calculated, it turns out that Damien pays significantly less overall than Caitlyn, who both comes from a lower-income family and receives some extra bursaries because of her first-year status. On average across the country, his up-front net tuition is \$4,916 and his all-inclusive net tuition is \$2,835, compared to Caitlyn's \$6,616 and \$4,014, respectively.

It might strike the reader as odd that Caitlyn – whose family makes \$80,000 per year, compared to Damien's family income of \$120,000/year – pays more in net tuition than Damien. This is largely a function of differing tuition costs between fields of study. Caitlyn is studying in a high-cost program (Engineering), whereas Damien is in Anthropology, which on average charges lower tuition at most Canadian universities.

Outside of Newfoundland, British Columbia, Quebec, and PEI, sticker prices for engineering programs are higher than humanities and social sciences sticker prices. In some provinces, like Nova Scotia and New Brunswick, engineering tuition is up to \$200 more than social sciences tuition. However, the difference in sticker price tuition paid by Damien and Caitlyn is most pronounced in Ontario, where undergraduate engineering tuition and ancillary fees are, on average, over \$4,000/year more than fees charged to social sciences students. While Caitlyn does receive more need-based non-repayable aid than Damien in most provinces, as well as aid based on family income or year of study (i.e. the Ontario Tuition Grant and PEI's George Coles Bursary for first-year students), neither of these forms of non-repayable aid are enough to offset her dramatically higher sticker price, particularly in Ontario. Because Ontario is home to roughly 47% of undergraduate students, Caitlyn's particularly high up-front and all-inclusive net tuition costs are weighted more heavily in the Canadian average.

[Edyta](#) (pages 16-17) is exactly like Damien, with one exception: she took two years off between secondary school and university. This means she qualifies as an "independent" student in all provinces, and her parents' income is not counted in her student assistance package. In all provinces, this gives her access to significantly more resources than Adele, Ben, Caitlyn and Damien. On average across the country, her up-front net tuition is \$2,745 and her all-inclusive net tuition is -\$507. In most provinces, she receives over \$4,000 in subsidies of one kind or another; in Quebec, she receives over \$9,000, meaning she receives almost \$6,000 more in subsidies than she pays in tuition.

By Canadian aid standards, Edyta's package in Quebec looks extraordinarily generous. And this is incontestably true – Quebec's independent students do indeed receive a very good deal from their government. This is no doubt why Quebec makes it so hard to

obtain independent student status – in effect, unless a student spends two consecutive years in the labour market, it is impossible for a CEGEP student to obtain independent status; for undergraduate students it is also very difficult to do so. In effect independent status in Quebec is restricted to students who are married or in graduate school. In the rest of Canada, simply moving into a fifth year of undergraduate studies is sufficient to obtain independent status.

[Farid](#) (pages 18-19) is a married student whose partner is not a student, and earns \$40,000 per year. In some respects, married students resemble Edyta because their parents' incomes are not counted. However, all student loan programs require a contribution from spouses, and this means that Farid's net costs are higher than Edyta's in all provinces. On average across the country, his up-front net tuition is \$3,965 and his all-inclusive net tuition is \$1,891, compared to Edyta's \$2,745 and \$507.

As with Edyta, however, Farid's subsidies are substantially higher in Quebec than they are elsewhere in the country. This is because Quebec's assumed spousal contribution rate is substantially lower than it is in the rest of Canada. In Quebec, Farid's spouse's contribution is only token, and so barely affects need. That, combined with Quebec's policy on capping university students' loans at \$2,440 per year, means that he receives a very substantial amount of grants. In the rest of Canada, the more punishing spousal contribution rates means he has low need, and therefore tends to receive neither enough grants nor loan to qualify for remission. In some provinces, his and his spouse's combined income would even preclude him from getting Canada Study Grants, to which virtually every independent student in the country is eligible.

[Genevieve](#) (pages 20-21) is in essentially the same situation as Adele, only she is enrolled in a college diploma program instead of a university degree program. On average across the country, her up-front net tuition is -\$547 and her all-inclusive net tuition is -\$1,764. In four provinces, her all-inclusive net tuition is negative, and in two others it is less than one hundred dollars – only in Saskatchewan is her total cost over \$1,000.

The reason Genevieve pays so much less than Adele is straightforward – in all provinces, bar Newfoundland, Genevieve pays substantially less in tuition than does Adele. There are some other smaller factors at play as well (in Ontario, lower tuition is partially offset by smaller Ontario Tuition Grants; in PEI, first-year college students receive a \$1,000 grant, while first-year university students receive \$2,200), but tuition remains the main factor.

[Han](#) (pages 22-23) has a family income (\$80,000) and living situation identical to Caitlyn, but like Genevieve he is in a typical college program, not a high-cost program. On average across the country, his up-front net tuition is \$1,638 and his all-inclusive net tuition is \$427. That gives him a set of net costs similar to Adele's. In effect, what he loses from having richer parents (and hence less access to need-based aid) he gains back by having lower tuition.



[Iris](#) (pages 24-25) is an independent student, meaning that she is essentially the same as Edyta, only enrolled in a college program. And just as Edyta received substantial subsidies, so too does Iris and for more or less the same reasons. On average across the country, her up-front net tuition is -\$1,806 and her all-inclusive net tuition is -\$3,129, with the lowest cost by far being in Quebec, due to that province’s generosity towards independent students. These averages are substantially less than what Edyta pays, but as noted for Genevieve, the difference is largely down to lower tuition costs.

[Joe](#) (pages 26-27), the college student who is also a single parent, has perhaps the most surprising story. On average across the country, his up-front net tuition is -\$4,550 and his all-inclusive net tuition is -\$8,355; Joe’s all-inclusive net tuition is negative in all ten provinces, and with the exception of Prince Edward Island, the amount of non-repayable aid is more than twice the value of tuition in all provinces.

The plain fact of the matter is that the Canadian student aid system is very generous to students like Joe. Compared to Iris, Joe – who, from a student aid perspective, is essentially Iris with children – receives on average an extra \$5,000 per year, mainly in remissible loans (that is, governments loan students the money and then quickly forgive it). This represents roughly the amount of the costs of raising a child, at least according to student aid need assessment formulae. In other words, although they do not openly say so, it is effectively the policy of all Canadian provincial governments (bar Prince Edward Island) to both cover tuition for single parents and provide grants to cover their cost of raising children. Though Joe is still in a position where he will likely need to borrow substantial sums, the loan will essentially be only for his personal living costs – everything else is covered by grants.

**Figure 1: Average Canada up-front price and all-inclusive net tuition by case**

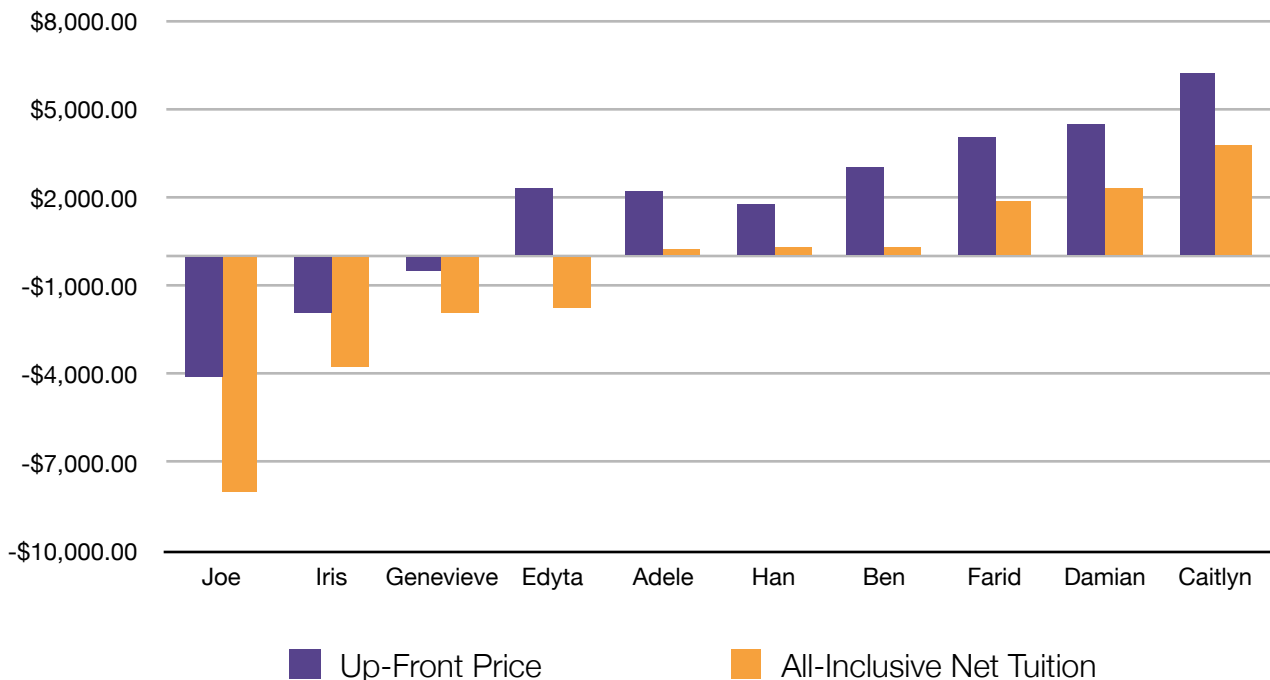
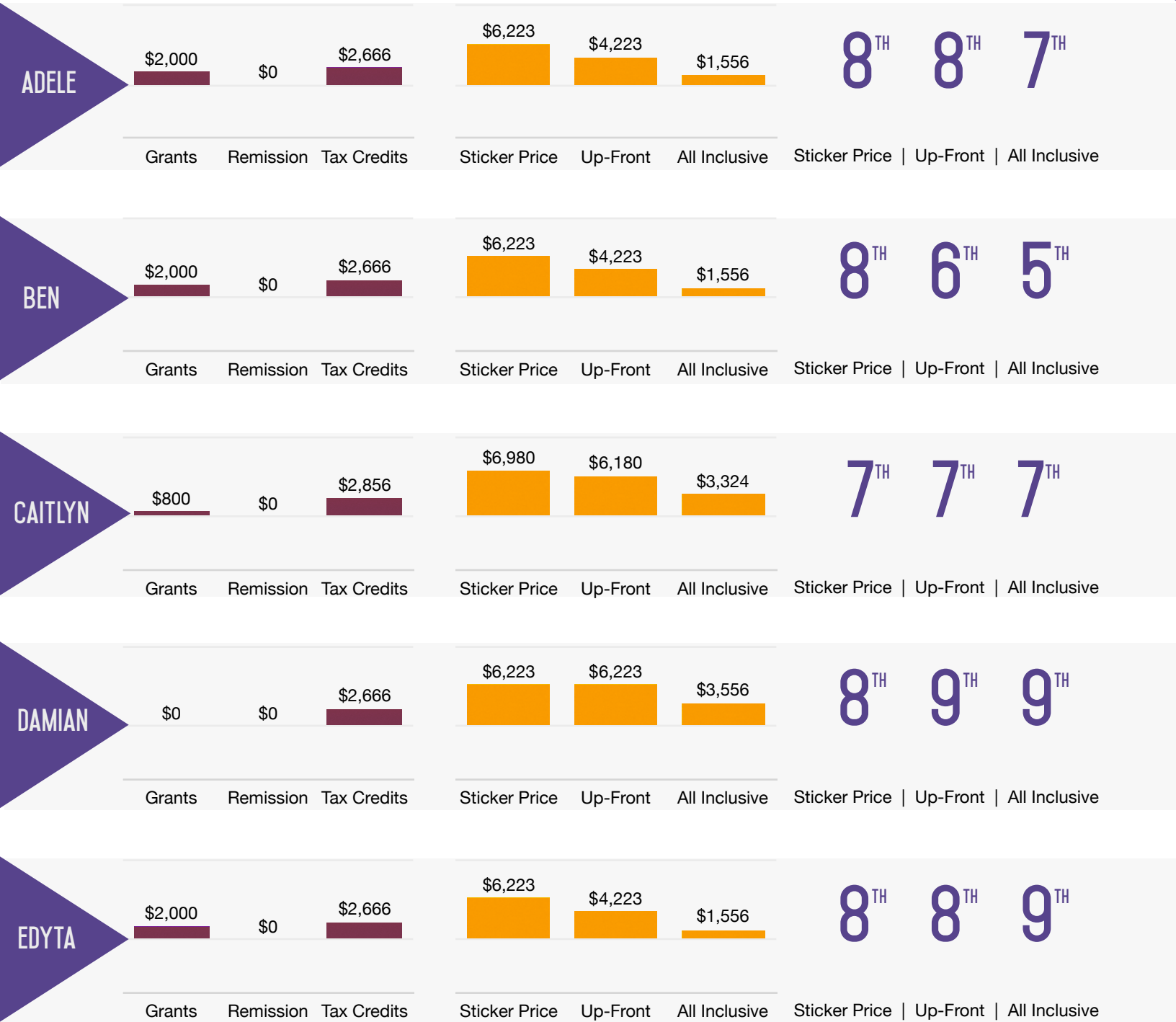
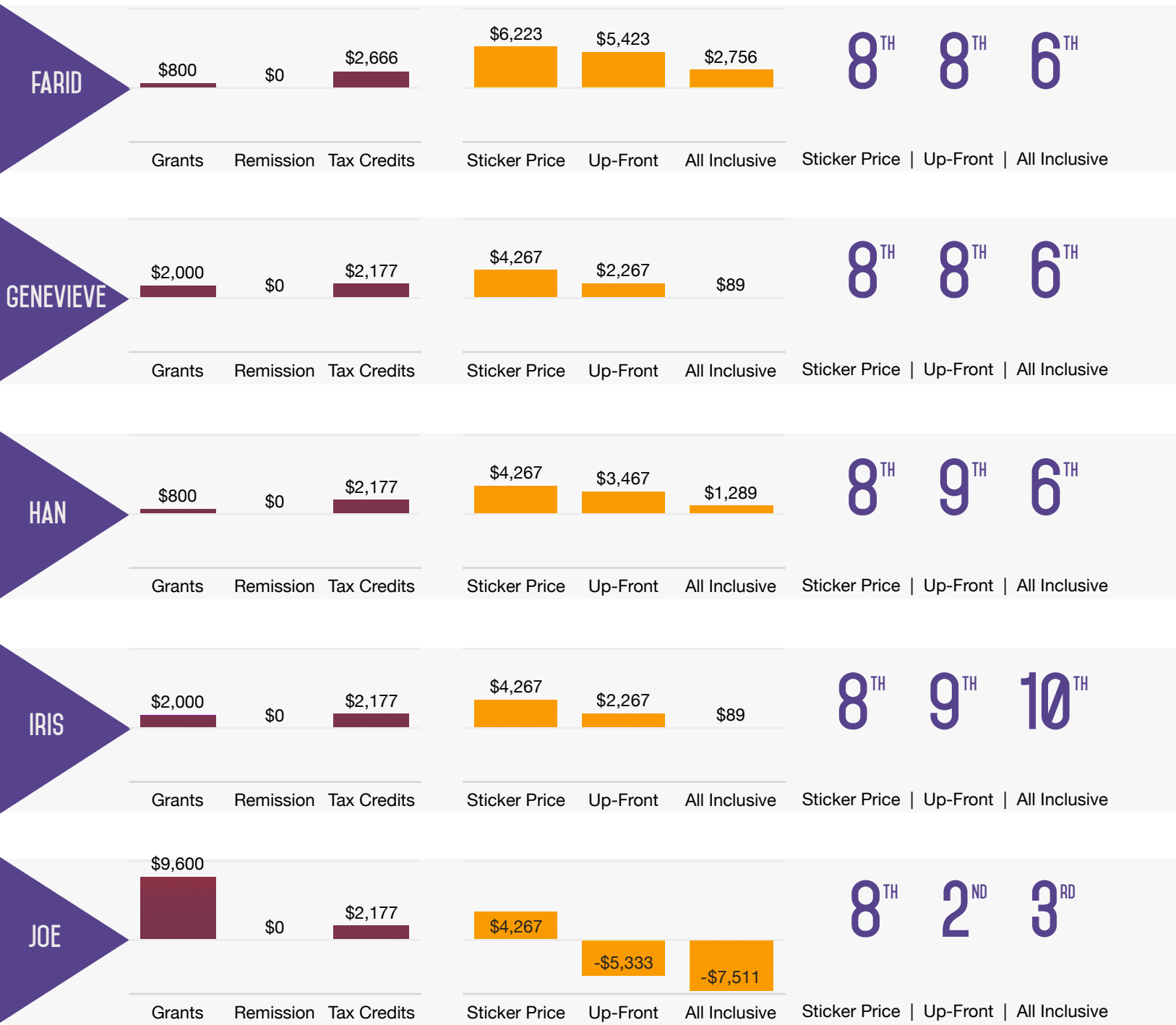


Figure 1, above, shows average up-front net and all-inclusive net prices for our ten profiled students. In general, two trends are evident. The first, already discussed, is that college students (Genevieve, Han, Iris, and Joe) tend to have lower net costs than university students (Adele, Ben, Caitlyn, Damien, and Edyta) because they receive similar subsidies while paying lower tuition. The second is that the single independent students (Edyta, Iris, Joe) have lower net costs than dependent students (Adele, Ben, Caitlyn, Damien, Edyta, and Han). This is because they are assumed – rightly or wrongly - not to be able to receive any assistance from parents, and hence receive greater amounts of aid. Farid, our married student with a working spouse, more resembles a dependent student than an independent student in his net costs because the Canadian student aid system, Quebec apart, assumes that Farid’s spouse is largely subsidizing his education. In most provinces, this “marriage penalty” built into the Canadian system costs Farid between \$1,200 and \$2,000 per year.

Up to this point, we have focussed exclusively on comparisons in the general pattern of subsidies between individual student cases. It is also worth examining regional patterns in subsidies. This is most easily done by flipping the model of pages 7-26 in order to look not at how each student case fares by province, but rather to look at how each province chooses to use its subsidies across the ten model students. This is what we now proceed to do.

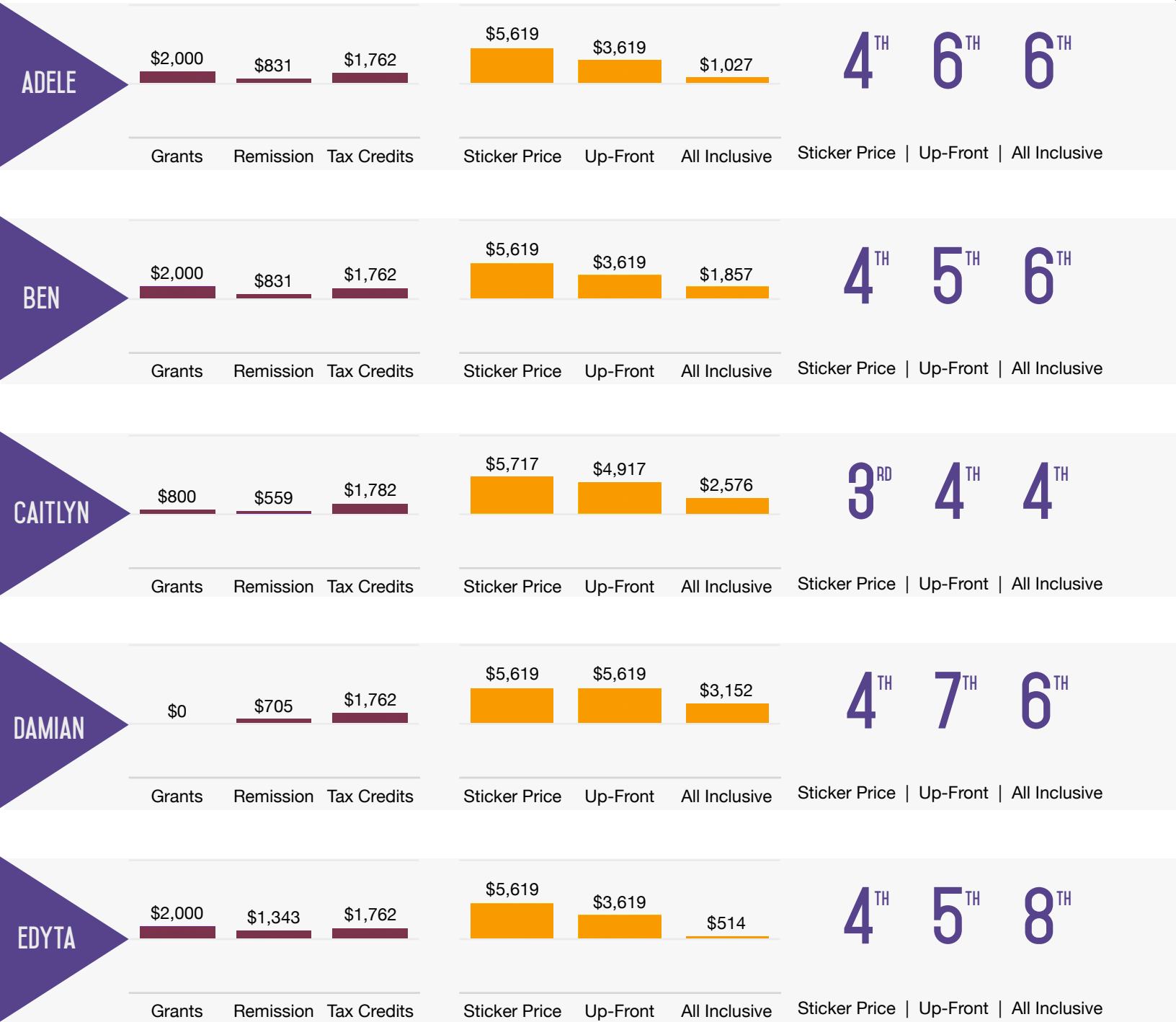
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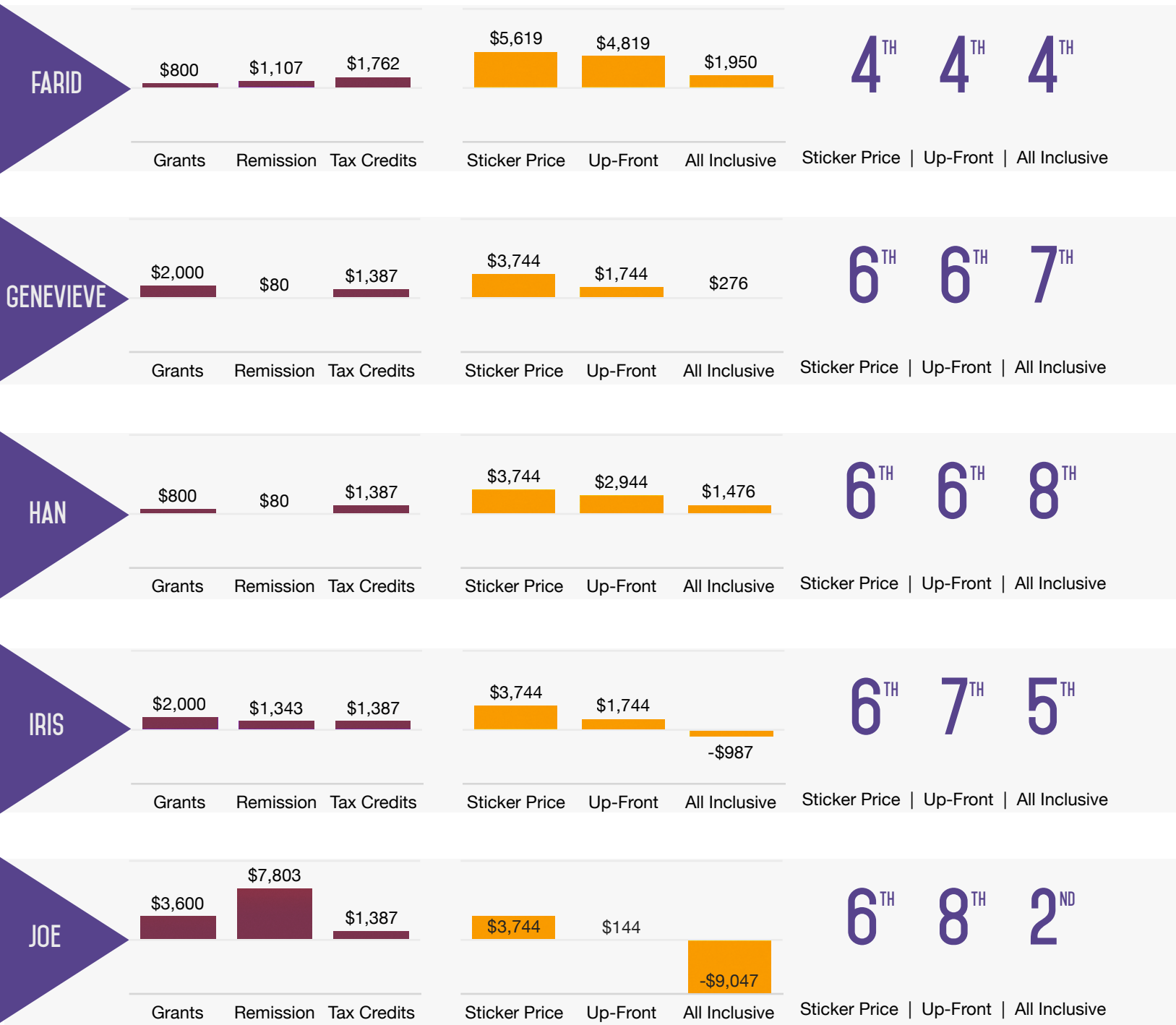




Alberta never looks particularly good in these interprovincial comparisons. It does slightly better on the all-inclusive net tuition, which means that a greater-than-average proportion of aid provided comes at the back-end in the form of tax credits. Only for Joe, the single-parent college student, does Alberta look particularly cheap. But then again, incomes in Alberta are significantly higher – perhaps their students (and their parents) are simply more easily able to afford higher education.

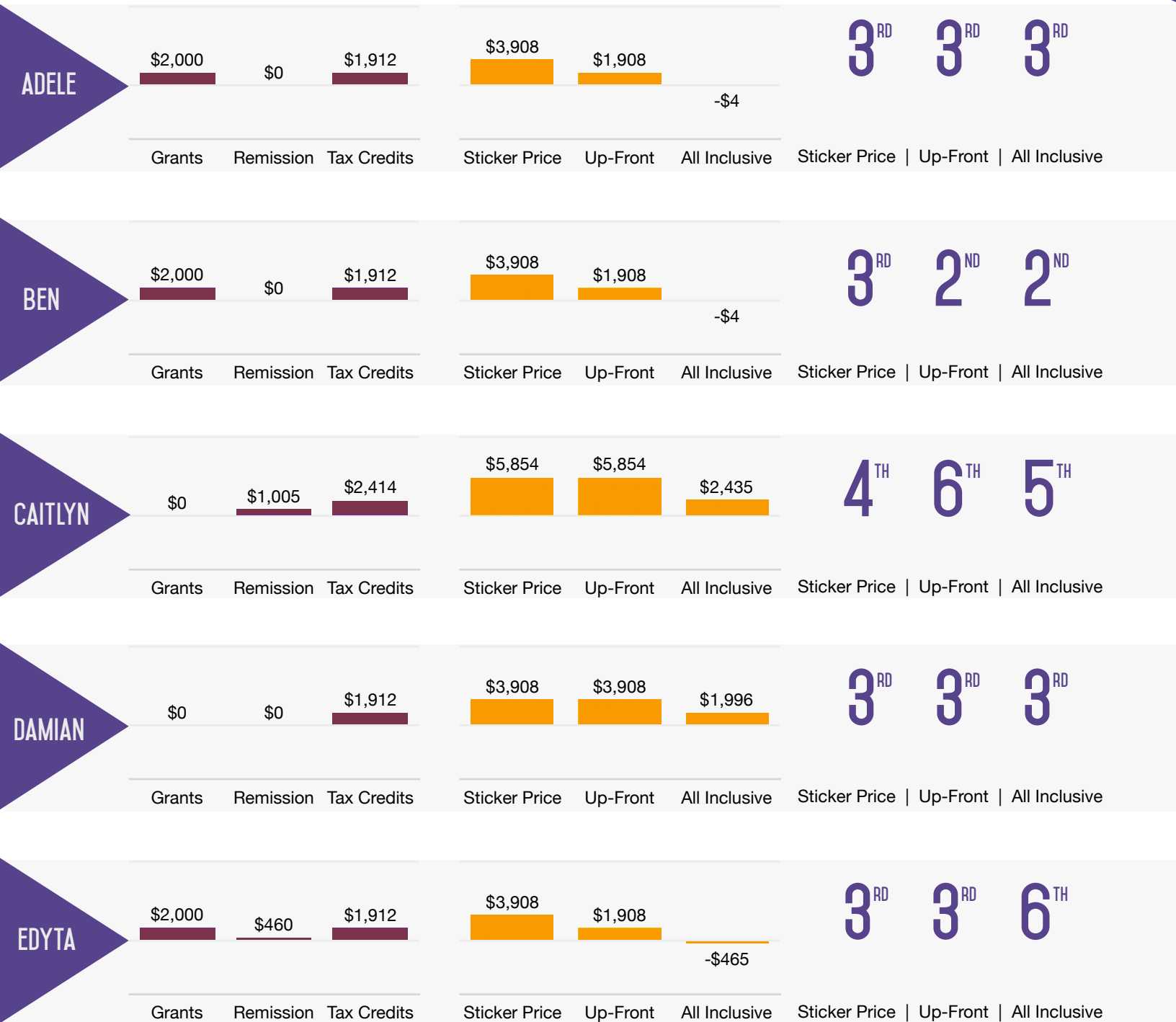
# BRITISH COLUMBIA

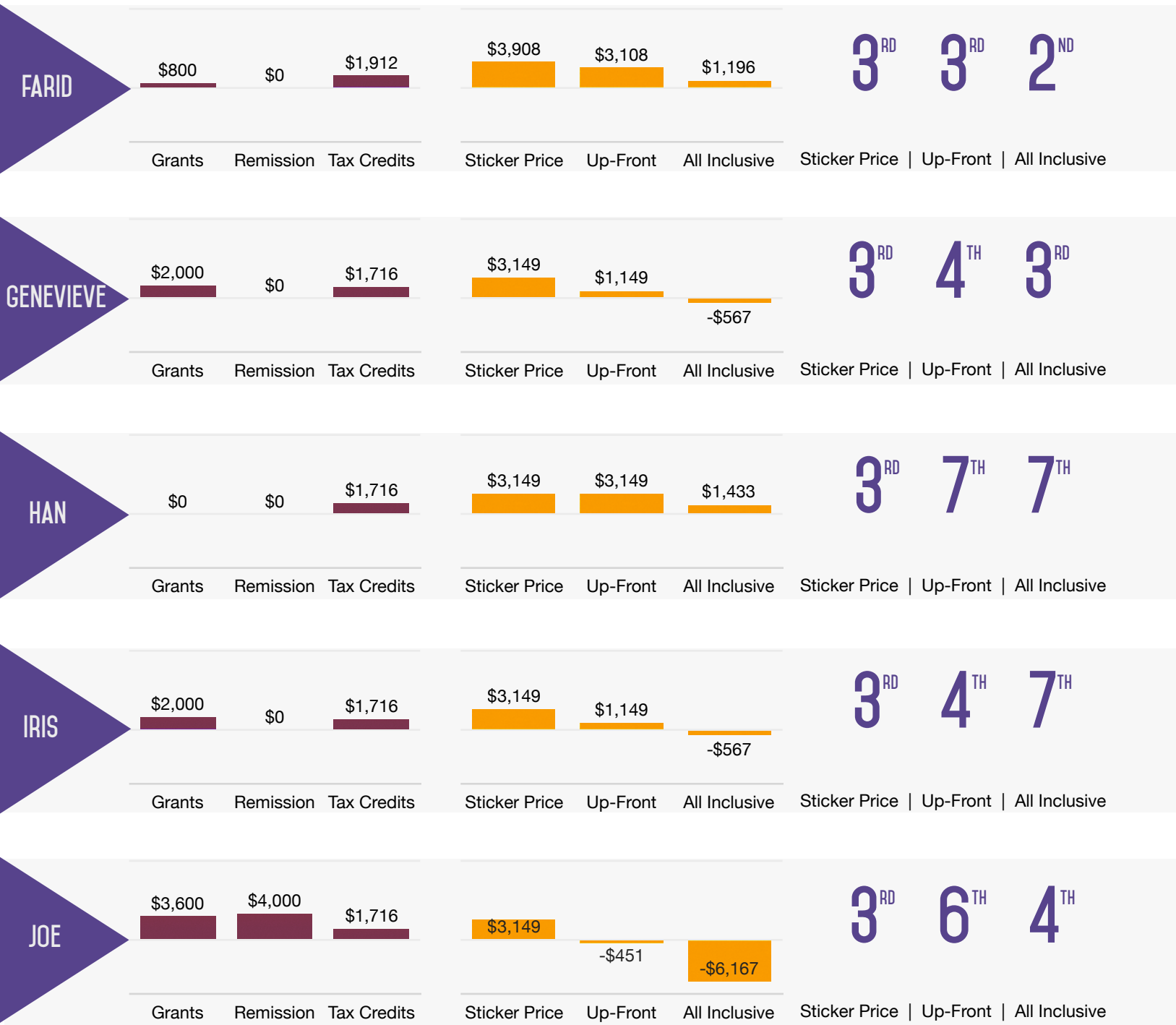




British Columbia is a solidly average province when it comes to price. It ranks 4<sup>th</sup> for most measures of university cost and 6<sup>th</sup> for college price. It often ranks lower for all-inclusive net price, which is another way of saying that its students receive less non-repayable aid than elsewhere – in part because tax credits are not worth as much in BC because the provincial tax rate is very low. The only exception is for Joe, the single parent, who benefits enormously from the province’s remission program.

# MANITOBA

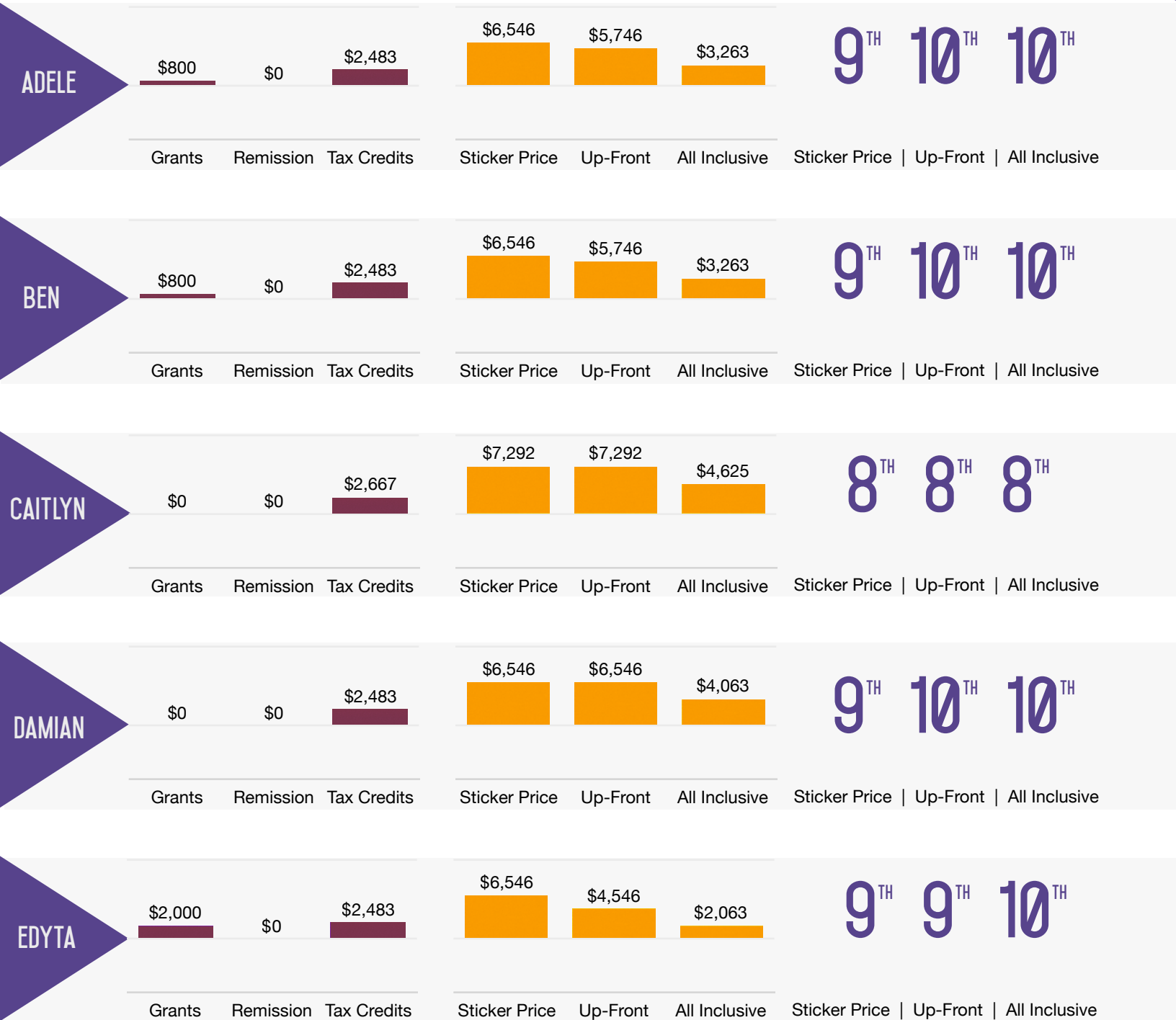


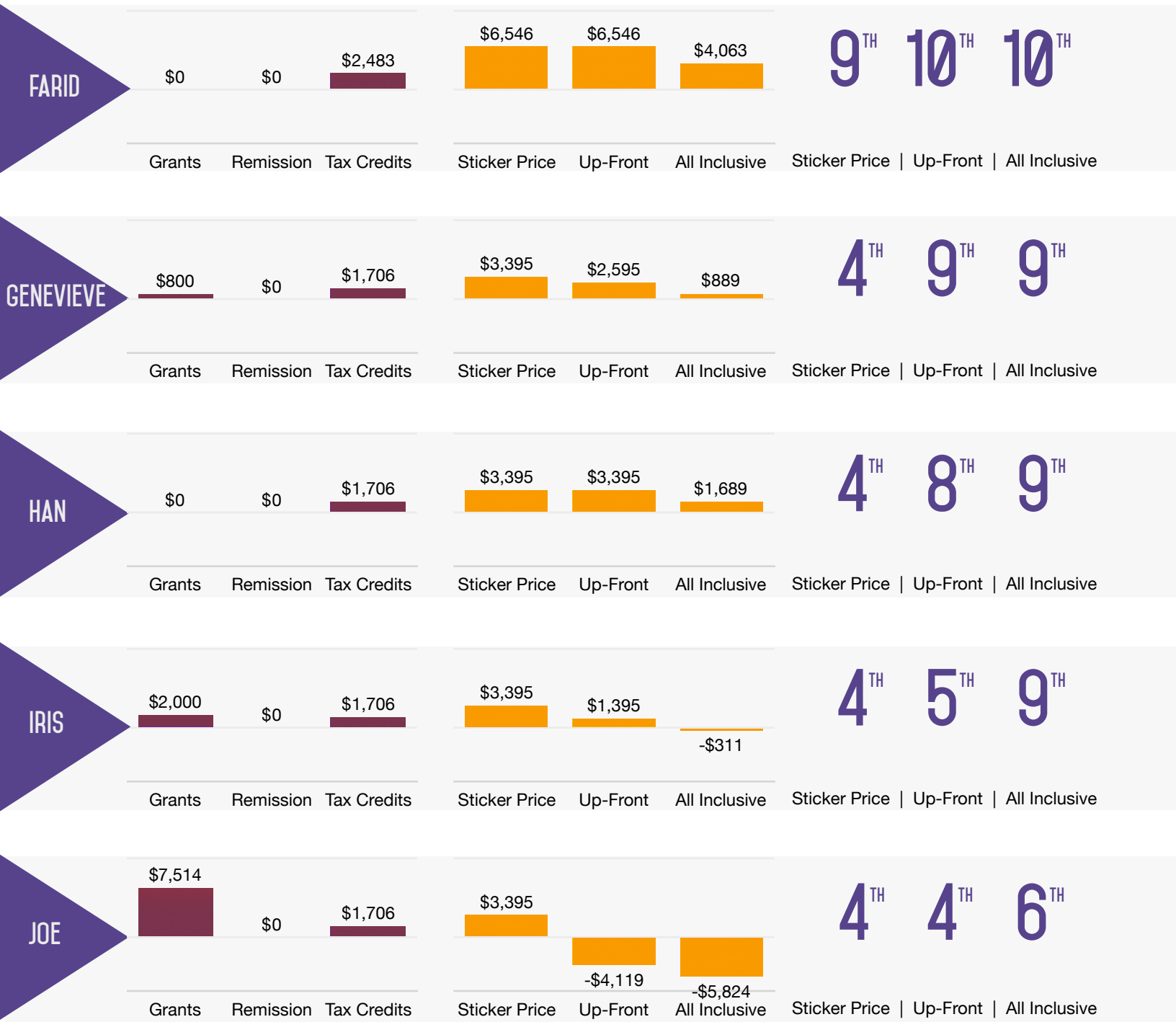


By most measures and for most students, Manitoba ranks 2<sup>nd</sup>-4<sup>th</sup>. This is due to a mixture of lower-than-average tuition and averagely student aid. Middle-income students (Caitlyn, Han), tend to do less well by the province's student aid program than others, and single-parent Joe looks to be somewhat less generously treated because of smaller up-front grants and lower remission eligibility.



# NEW BRUNSWICK

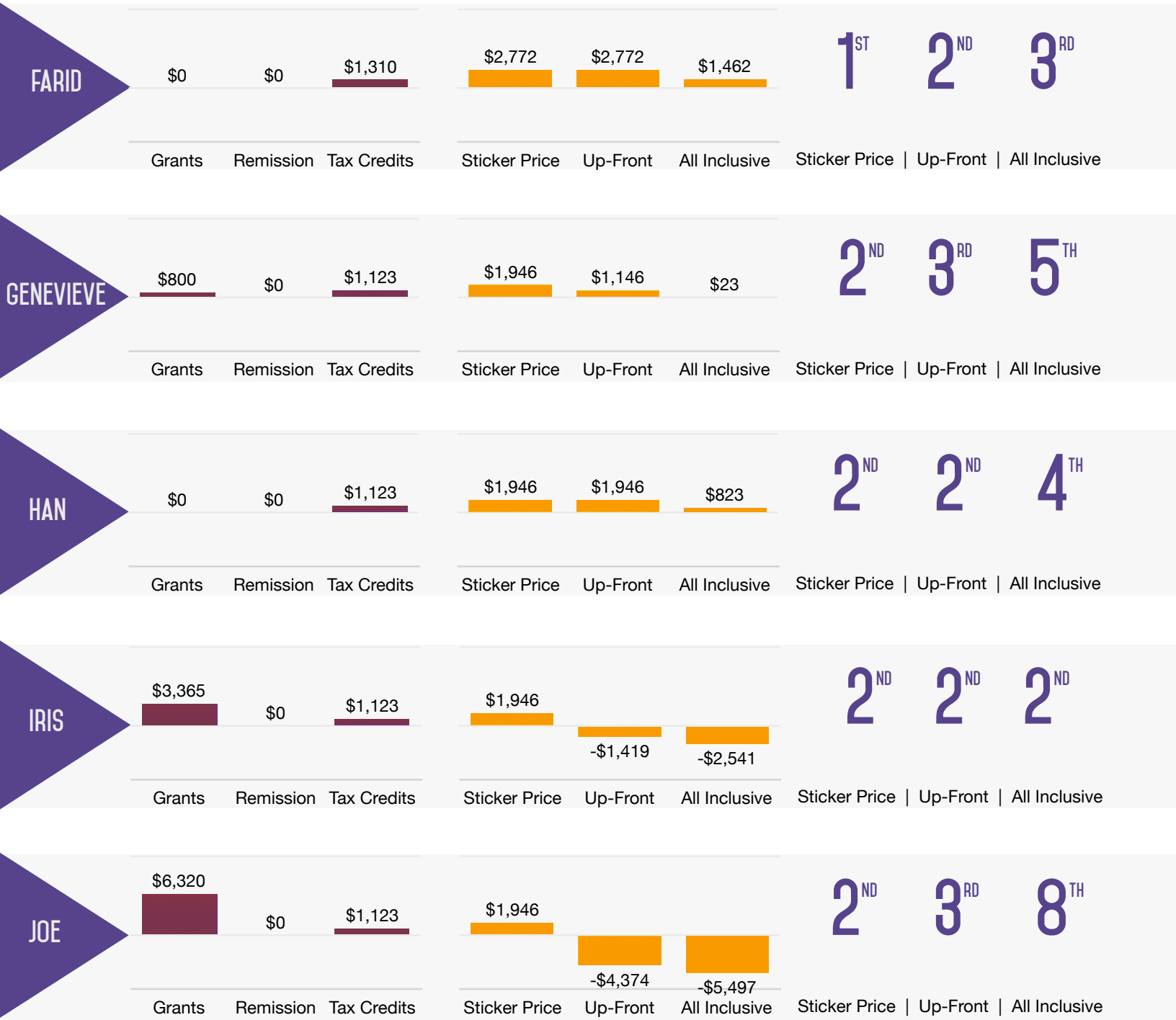




What can you say? For most of the cases in this study, it's better not to be from New Brunswick. On sticker price, NB is 9<sup>th</sup> out of 10 for most university programs and 4<sup>th</sup> for colleges – but on pretty much every other measure, the province ranks 9<sup>th</sup> or 10<sup>th</sup>. Remember: these figures do not include the New Brunswick Tuition Rebate. Once you include those (see page 53-55), the story changes considerably.

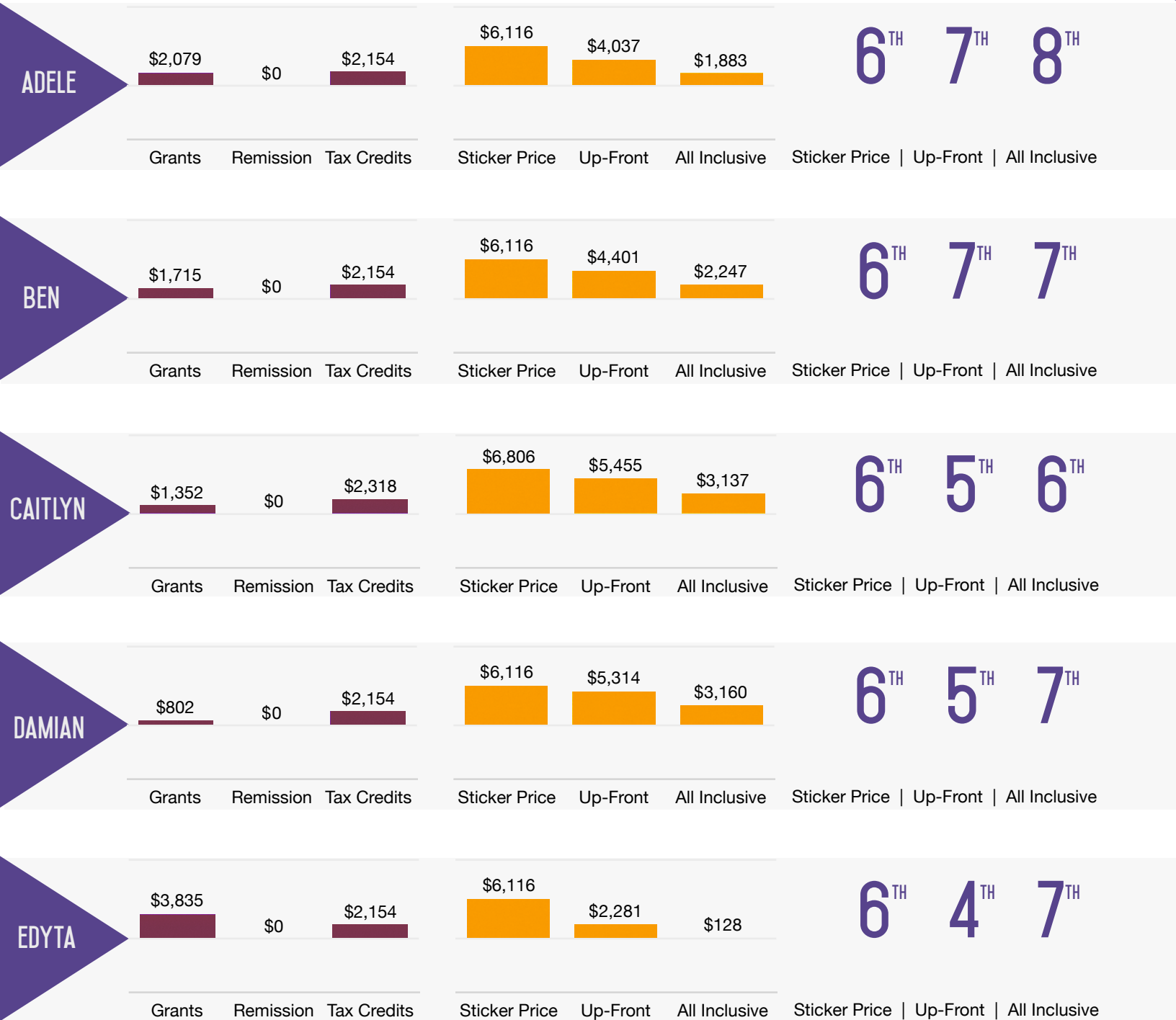
# NEWFOUNDLAND

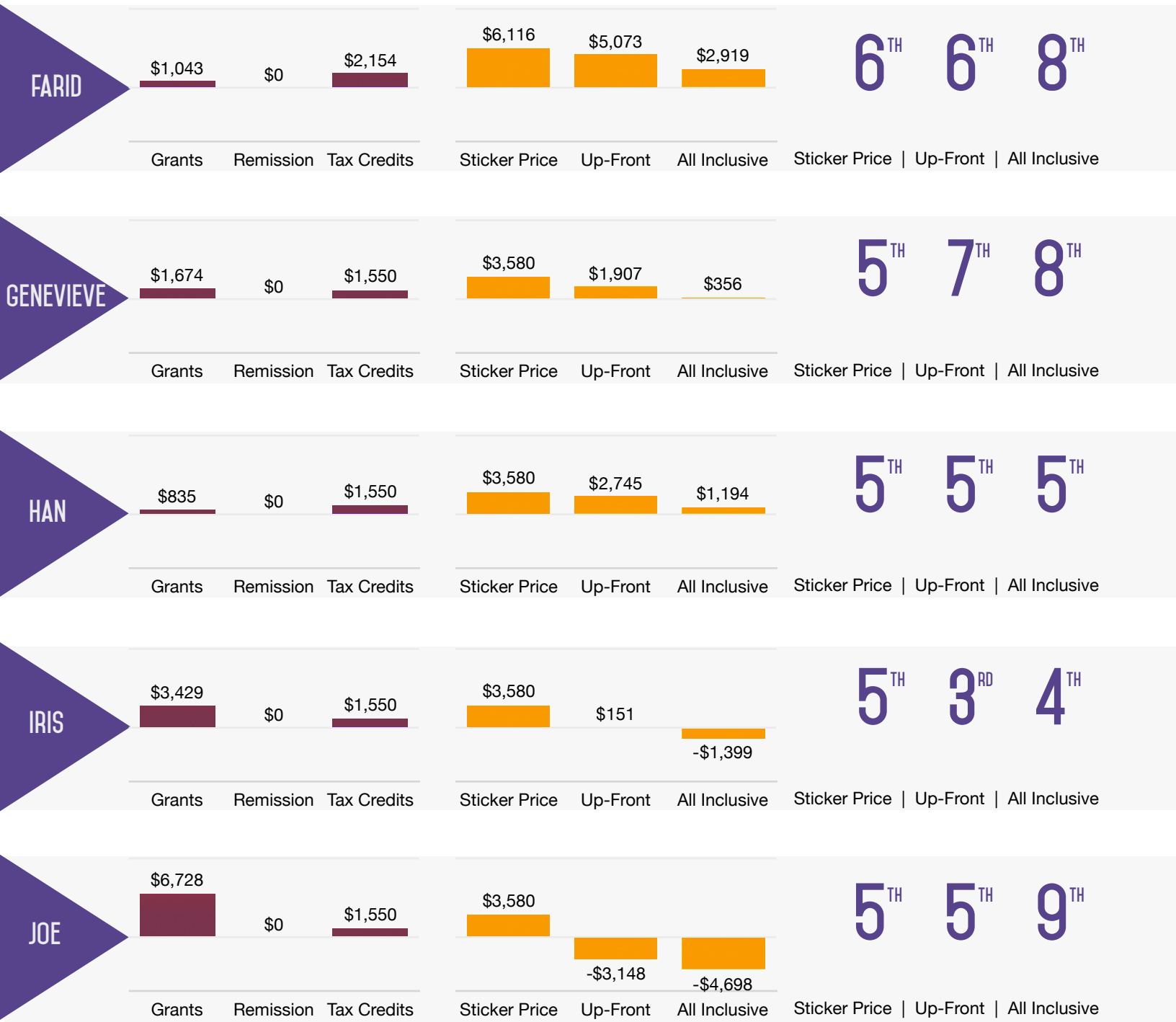
| Name    | Grants  | Remission | Tax Credits | Sticker Price | Up-Front | All Inclusive | Sticker Price Rank | Up-Front Rank   | All Inclusive Rank |
|---------|---------|-----------|-------------|---------------|----------|---------------|--------------------|-----------------|--------------------|
| ADELE   | \$1,111 | \$0       | \$1,310     | \$2,772       | \$1,661  | \$351         | 1 <sup>ST</sup>    | 2 <sup>ND</sup> | 4 <sup>TH</sup>    |
| BEN     | \$800   | \$0       | \$1,310     | \$2,777       | \$1,972  | \$662         | 1 <sup>ST</sup>    | 3 <sup>RD</sup> | 3 <sup>RD</sup>    |
| CAITLYN | \$0     | \$0       | \$1,312     | \$2,772       | \$2,772  | \$1,460       | 1 <sup>ST</sup>    | 1 <sup>ST</sup> | 2 <sup>ND</sup>    |
| DAMIAN  | \$0     | \$0       | \$1,310     | \$2,772       | \$2,772  | \$1,462       | 1 <sup>ST</sup>    | 1 <sup>ST</sup> | 2 <sup>ND</sup>    |
| EDYTA   | \$3,695 | \$0       | \$1,310     | \$2,772       | -\$923   | -\$2,233      | 1 <sup>ST</sup>    | 2 <sup>ND</sup> | 2 <sup>ND</sup>    |



Newfoundland's low sticker-prices (1<sup>st</sup> in universities, 2<sup>nd</sup> in colleges) make an enormous difference here. With tuition that low, you don't need much student aid in order to stay competitive. This is good, because most students in Newfoundland get below-average amounts of non-repayable aid, which is why the province tends to look worse on up-front and all-inclusive price. However, Newfoundland's remission program is not counted here – see pages 53-55 to see how that affects the picture.

# NOVA SCOTIA

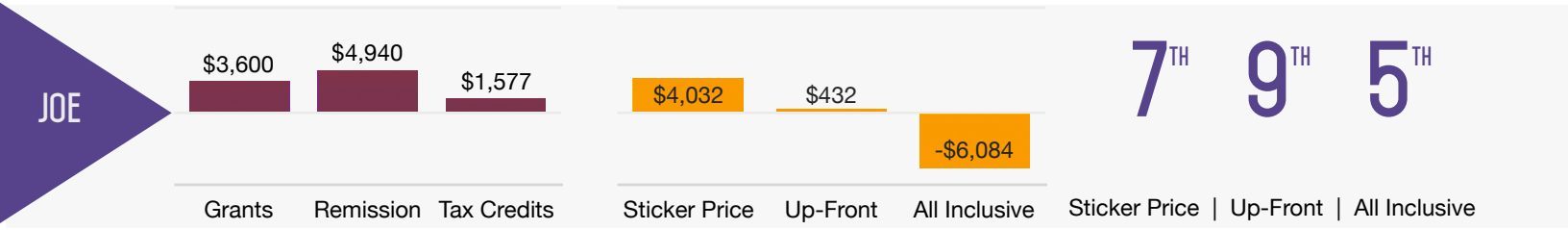
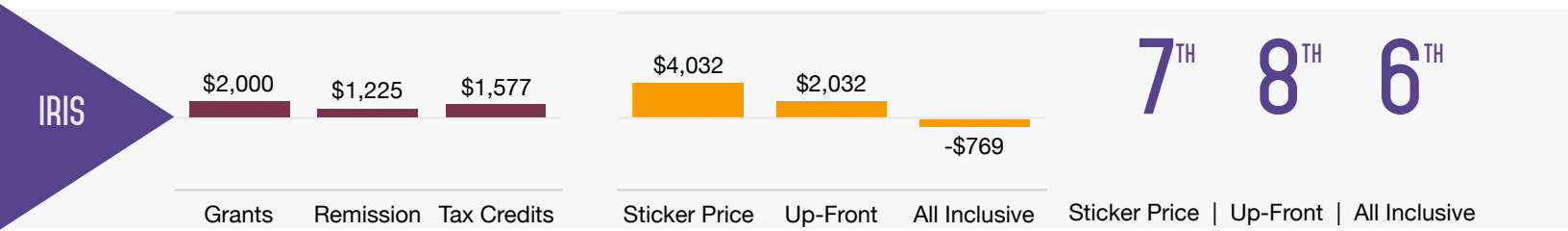
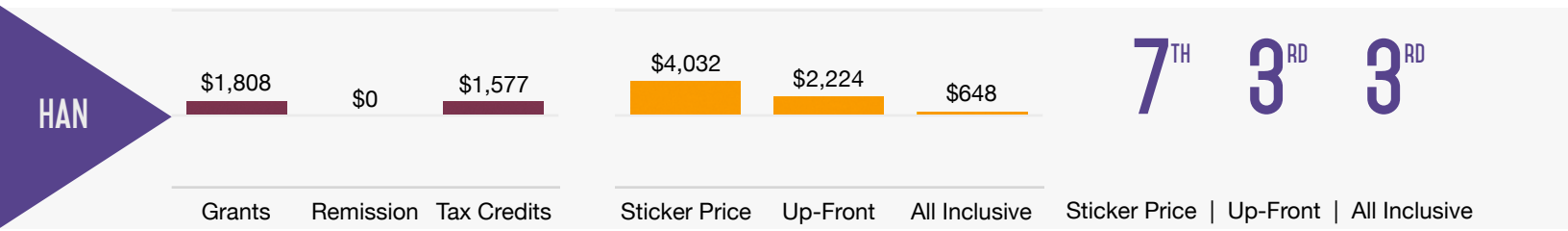
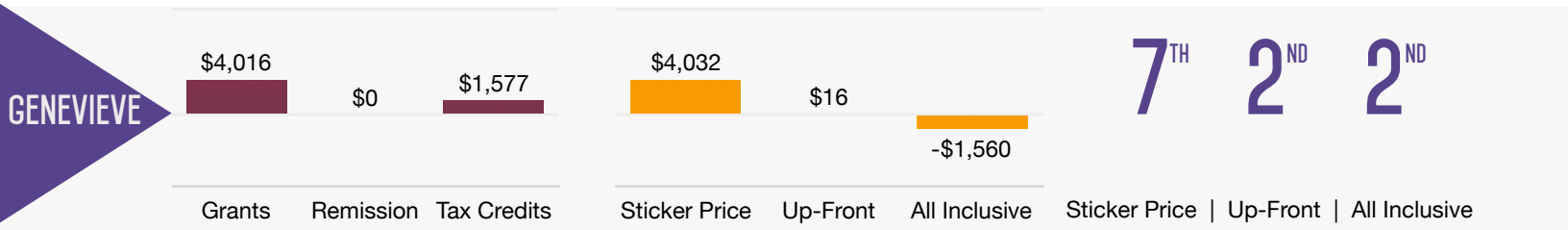
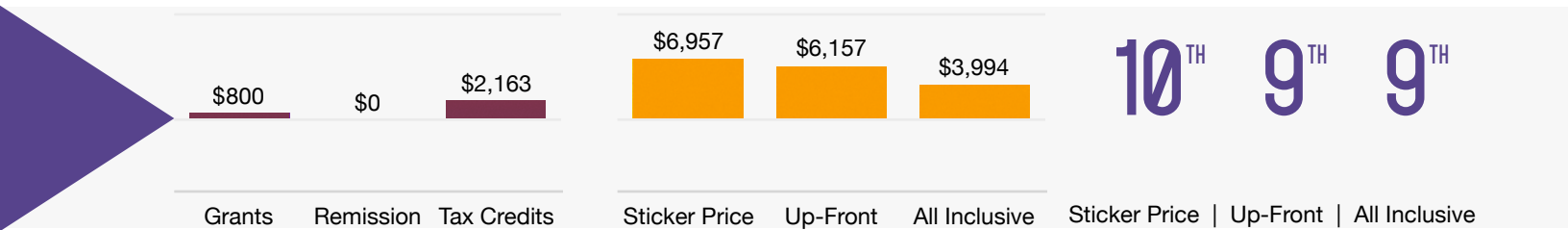




Nova Scotia is middle-of-the-pack when it comes to sticker-price: 5<sup>th</sup> for colleges and 6<sup>th</sup> for universities when looking at in-province tuition. Net and all-inclusive prices, however, are mixed. Iris does very well in Nova Scotia (3<sup>rd</sup> overall) but Adele and Joe fare poorly (8<sup>th</sup> overall). There seems to be little rhyme or reason as to which students do well under in Nova Scotia. Note that Nova Scotia's Debt Cap program is not included in these calculations, an explored in depth on pages 53-55.

# ONTARIO

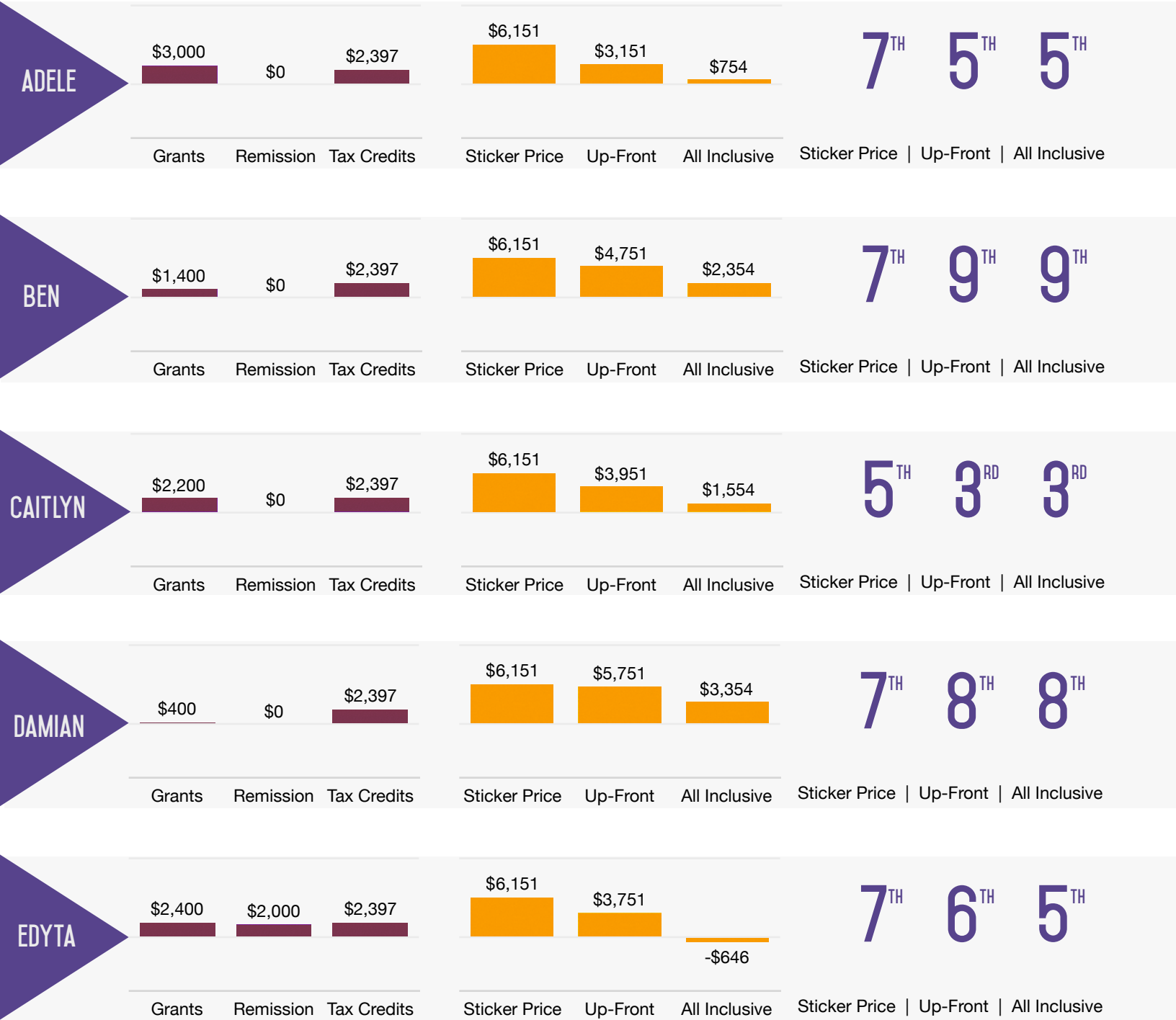


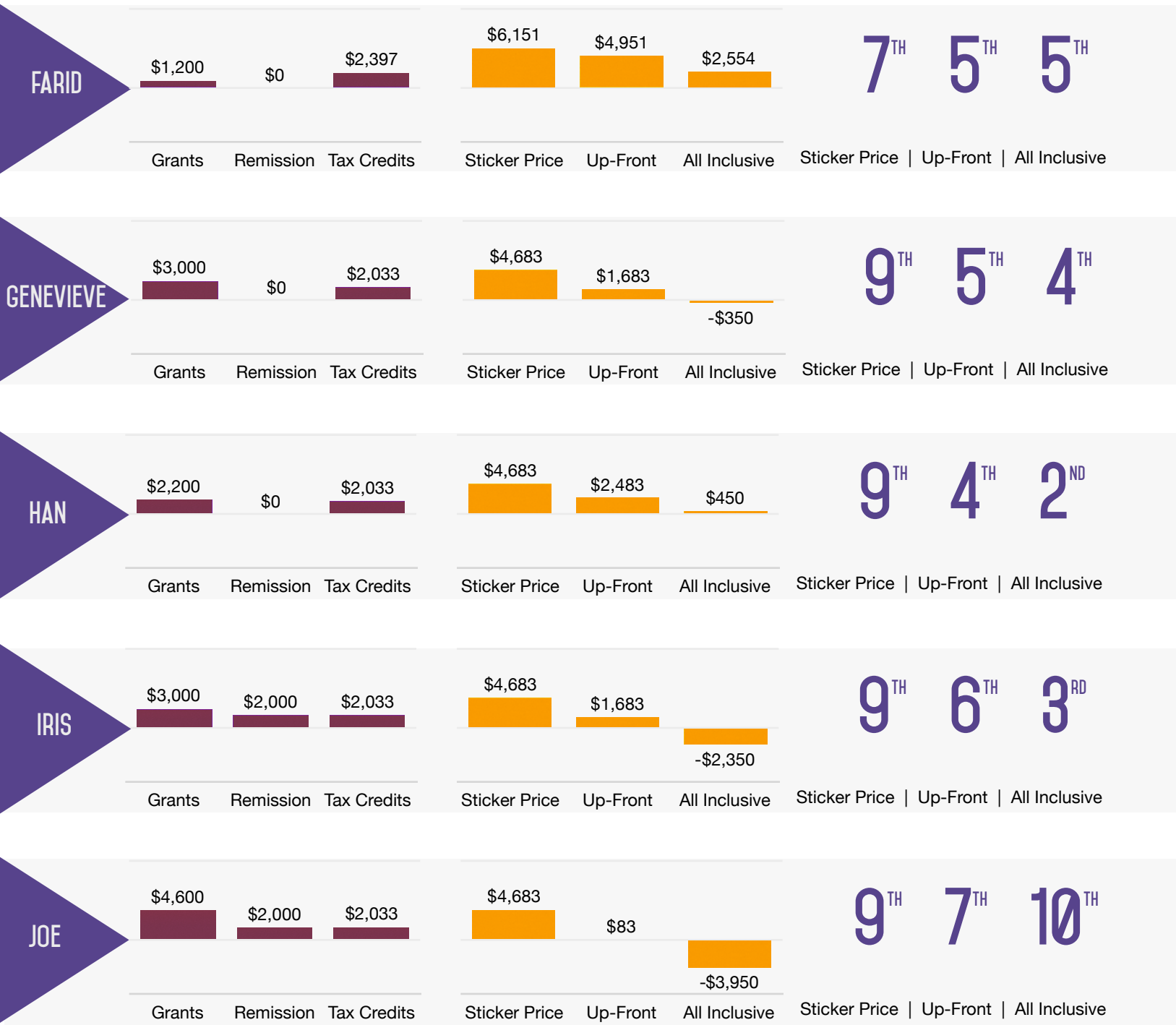


Ontario is indisputably the most expensive province for higher education – if you only look at sticker price – 7<sup>th</sup> for college and 10<sup>th</sup> for university (and a very distant 10<sup>th</sup> for professional programs). However, when you look at up-front and net tuition, it is a very different story. For most dependent students, Ontario actually looks very good: 2<sup>nd</sup> 3<sup>rd</sup> or 4<sup>th</sup> cheapest, rankings that would further improve if institutional grants were considered. For independent students, and students in high-cost programs, however, Ontario is less generous and their relative costs tend to look far worse.



# PRINCE EDWARD ISLAND

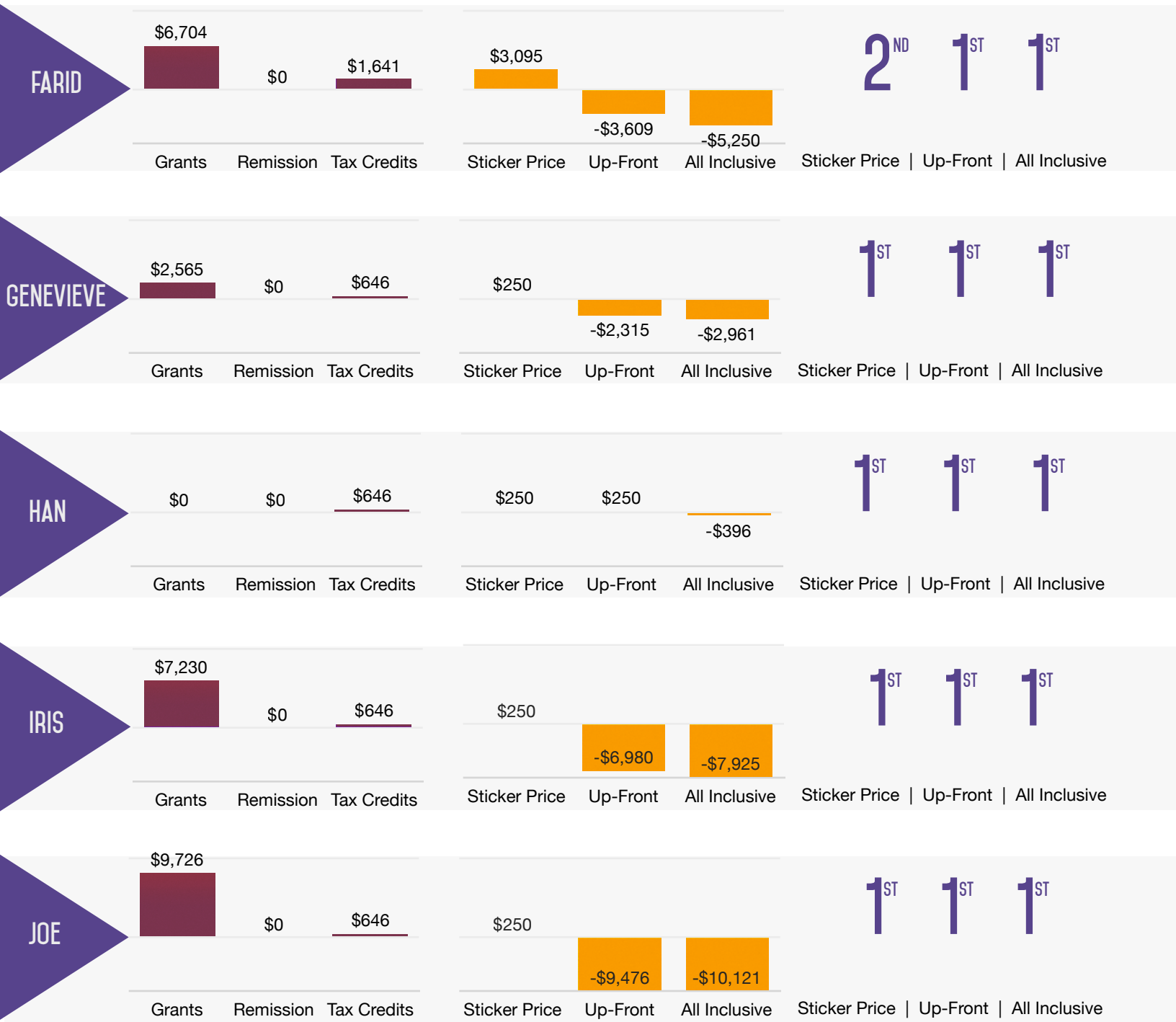




In some respects, Prince Edward Island is identical to Nova Scotia: middle of the pack on most measures, but low-income upper-year students tend to do poorly. Two notable features in PEI are the relatively high college tuition fees and the relatively low amount of support given to Joe, the single parent: he receives less in PEI than in any other province.

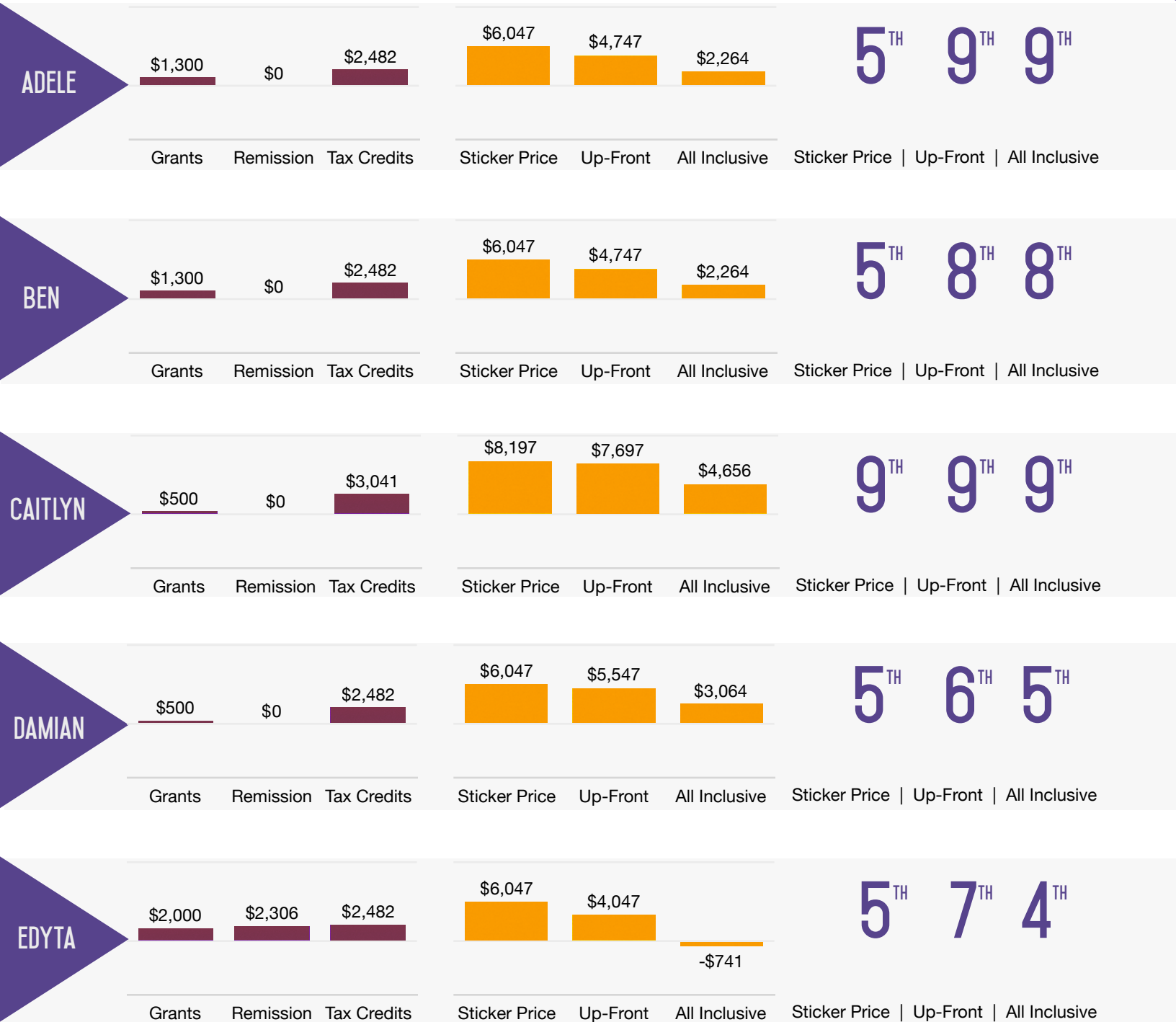
# QUEBEC

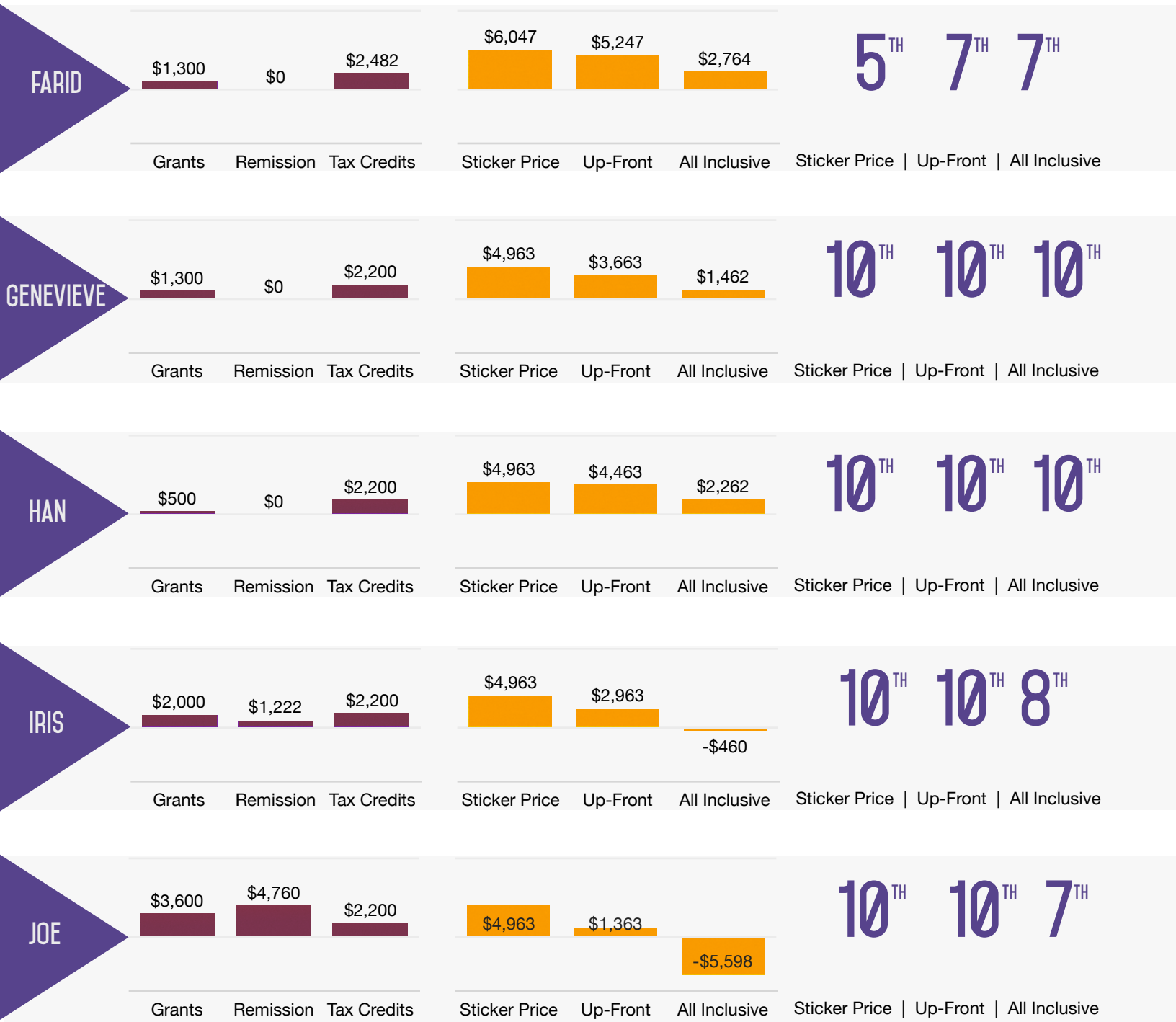
| Name    | Grants  | Remission | Tax Credits | Sticker Price | Up-Front | All Inclusive | Sticker Price   | Up-Front        | All Inclusive   |
|---------|---------|-----------|-------------|---------------|----------|---------------|-----------------|-----------------|-----------------|
| ADELE   | \$1,847 | \$0       | \$1,641     | \$3,095       | \$1,248  | -\$393        | 2 <sup>ND</sup> | 1 <sup>ST</sup> | 1 <sup>ST</sup> |
| BEN     | \$2,056 | \$0       | \$1,641     | \$3,095       | \$1,039  | -\$602        | 2 <sup>ND</sup> | 1 <sup>ST</sup> | 1 <sup>ST</sup> |
| CAITLYN | \$0     | \$0       | \$1,641     | \$3,095       | \$3,095  | \$1,454       | 2 <sup>ND</sup> | 2 <sup>ND</sup> | 1 <sup>ST</sup> |
| DAMIAN  | \$0     | \$0       | \$1,641     | \$3,095       | \$3,095  | \$1,454       | 2 <sup>ND</sup> | 2 <sup>ND</sup> | 1 <sup>ST</sup> |
| EDYTA   | \$7,449 | \$0       | \$1,641     | \$3,095       | \$4,354  | -\$5,996      | 2 <sup>ND</sup> | 1 <sup>ST</sup> | 1 <sup>ST</sup> |



Quebec is famous for its cheap tuition (nearly-free college, 2<sup>nd</sup> lowest university tuition). It also has a relatively generous student aid system, which means that in most cases, up-front prices are the lowest in the country, and all-inclusive net price is negative for all students except Caitlyn and Damien. Quebec is unique in whom it chooses to subsidize the most. Unlike Ontario, which prioritizes young dependent students, Quebec prioritizes independent and married students, giving them upwards of \$8000 each in grants and tax credits.

# SASKATCHEWAN





For most university students, Saskatchewan is in the middle of the pack, ranking 5th except in professional programs. For college students, the province is the country's most expensive, bar none, ranking tenth on nearly every measure (though single-parent Joe gets a bit of a break through the province's remission program). Remember that these figures do not include the province's Graduate Rebate Program. Once that is included (see page 53-55), the story changes drastically.

## CAPTURING THE EFFECTS OF REBATES AND LUMP-SUM REMISSION PROGRAMS.

As noted above, there are seven provinces where substantial amounts of aid are provided to students in respect to their entire period of studies rather than on an annual basis. We did not include these in the main report precisely because they are not annual and so are not received within a given calendar year. Some in those provinces may however argue that by doing so this report unfairly portrays them as having fewer student subsidies – and hence higher all-inclusive net prices – than is truly the case. So, in this section, we demonstrate how the picture would change if these programs were included.

The four remission programs are as follows. The **Newfoundland** Debt Reduction Grant forgives a borrower's provincial loan amount if at any point they borrowed in excess of \$165/week. While remission amounts are determined on a yearly basis, this grant is only provided to students at the end of studies to students who complete their program of study within 10 years of starting. The **Nova Scotia** Debt Cap Program forgives provincial student loan debt above a \$28,560 threshold for borrowers who have completed a 4-year undergraduate degree. **Alberta** provides a Completion Incentive Grant to all graduating students who have ever received Alberta Student Aid. This grant is worth \$2,000 for graduates of undergraduate degree programs and \$1,500 for graduates of most diploma programs. Prince Edward Island has a similar program which forgives \$1,300 for university graduates only.

Three provinces have tuition fee rebate programs which are run through their tax systems. **New Brunswick's** Tuition Rebate pays graduates who remain in the province New Brunswick a non-taxable rebate of 50% of their tuition costs with a maximum lifetime rebate of \$20,000. The Manitoba Tuition Tax Rebate pays graduates who stay in **Manitoba** a refundable tax credit worth up to 60% of their total tuition paid, while **Saskatchewan's** Graduate Retention program provides graduates who stay in Saskatchewan with a refundable tax credit worth up to \$20,000, paid over at least 7 years.

In order to calculate how these programs would affect students, we must make several assumptions about how students behave over a multi-year period. Specifically, we assume for remission programs that students receive the same amount of loan in each year of their studies and for tuition rebates that all students stay in the province indefinitely and will therefore capture the full benefit of the credit. This allows us to calculate the lifetime value of that credit. In order to add this "lifetime benefit" in a coherent way to the annual subsidies we have calculated over the previous pages, we must turn this lifetime amount into an annual amount, which we do by dividing it by the length of the student's program (4 years for universities, 3 for colleges). Thus, a \$2,000 lifetime benefit would equal a \$500 per year benefit to a university student.

Because all six of these programs are back-ended subsidies, they affect neither sticker price nor the net up-front price. Only the all-inclusive net price is affected. This allows us

to display all the new information in a single table, which we do in Table x, which shows the new all-inclusive prices with the above seven programs included.

**Table 1: All-inclusive net price by province and case**

| Student   | BC       | AB       | SK       | MB       | ON       | QC       | NB       | PEI      | NL       | NS       | Canada Weighted Average |
|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-------------------------|
| Adele     | \$1,027  | \$1,056  | -\$2,736 | -\$2,390 | -\$206   | -\$393   | -\$72    | \$404    | \$351    | \$1,883  | -\$63                   |
| Ben       | \$1,857  | \$1,056  | -\$2,736 | -\$2,390 | \$1,014  | -\$602   | -\$72    | \$2,004  | \$662    | \$2,247  | \$586                   |
| Caitlyn   | \$2,266  | \$2,824  | -\$344   | -\$1,078 | \$4,795  | \$1,454  | \$1,290  | \$1,204  | \$1,462  | \$3,137  | \$3,169                 |
| Damian    | \$3,152  | \$3,056  | -\$1,936 | -\$390   | \$3,014  | \$1,454  | \$728    | \$3,004  | \$1,462  | \$3,160  | \$2,404                 |
| Edyta     | \$514    | \$1,056  | -\$5,741 | -\$2,850 | -\$1,075 | -\$5,996 | -\$1,272 | -\$996   | -\$2,233 | \$128    | -\$1,776                |
| Farid     | \$1,950  | \$2,256  | -\$2,236 | -\$1,190 | \$3,994  | -\$5,250 | \$728    | \$2,204  | \$1,462  | \$2,919  | -\$364                  |
| Genevieve | \$276    | -\$411   | -\$3,500 | -\$2,456 | -\$1,560 | -\$2,961 | -\$384   | -\$350   | \$23     | \$356    | -\$1,882                |
| Han       | \$1,476  | \$789    | -\$2,700 | -\$456   | \$648    | -\$396   | \$416    | \$450    | \$823    | \$1,194  | \$251                   |
| Iris      | -\$987   | -\$411   | -\$5,422 | -\$2,456 | -\$769   | -\$7,625 | -\$1,584 | -\$2,350 | -\$2,541 | -\$1,399 | -\$3,737                |
| Joe       | -\$9,047 | -\$8,021 | \$10,560 | -\$8,056 | -\$6,084 | \$10,121 | -\$7,097 | -\$3,950 | -\$6,857 | -\$8,370 | -\$8,240                |

Table 1 presents a completely different picture of net costs than our previous charts because it revises the all-inclusive net price for seven of the ten provinces. The difference in the four provinces with lump-sum remission programs changes only slightly. Alberta's \$2000 completion grant, and PEI's \$1200 completion grant (for university students only), when spread over an entire credential, do not result in a significant drop in net cost.

The Nova Scotia and Newfoundland remission programs are more generous, but they do not touch every student. In fact, because both programs have relatively large up-front components, only one of our students borrows enough to actually qualify for these two programs. In Nova Scotia, Joe's remission increases by \$2040 in Newfoundland and by \$3672 in Nova Scotia. Joe's all-inclusive price therefore drops by a similar amount in both places.

The much larger impacts can be seen with the graduate rebate programs in New Brunswick, Manitoba and Saskatchewan. In New Brunswick, the pro-rated Graduate Rebate is worth \$3334 per year of study to university graduates and \$1273 to college



students. Manitoba's Tuition Fee Income Tax Rebate is worth \$2386 and \$1889, respectively, while Saskatchewan's are a massive \$5000 and \$4963. Because these are across the board credits – every student gets them equally (assuming they stay in the province long enough) – they have a massive effect on all-inclusive net prices.

New Brunswick moves from being dead last for most of our student cases to being middle-of-the-pack. Manitoba goes from being third or fourth most expensive for most student cases to being second. Saskatchewan, remarkably, goes from being towards the back of the pack to being the cheapest for six of our ten students, and second-cheapest in the other four (Quebec remains the cheapest for Edyta, Farid and Iris, and Manitoba is the cheapest for Caitlyn).

Perhaps the most amazing change is that once the Manitoba Tuition Fee Income Tax Rebate and the Saskatchewan Graduate Rebate Program are taken into account, every single one of our student cases in those two provinces ends up receiving more money in subsidies than they pay. In effect, tuition in these provinces is below zero, at least for those who a) complete a program of studies, and b) remain in the province after graduation. While this obviously would disqualify a number of students, it is likely that a majority (or awfully close to it) would still qualify, which is a large number of people to take advantage of such a generous subsidy. This means for instance that Damien, with parents making 120,000 per year, would eventually be eligible for almost \$34,000 in non-repayable aid in respect of his degree – that is, almost \$8000 more than he will pay in tuition. Generous indeed.

## **SUMMARY AND CONCLUSION**

Over the preceding pages, we have looked at how similar students are treated differently across the provinces and how a range of types of students are treated differently within a single province. This is a useful way to examine implied policy choices and whether they make sense. For instance, it is likely that most people would agree that it is a good thing that Adele and Genevieve (low-income, first-year) and Joe (single parent) get subsidies which offset or more than offset their tuition. However, other results may be less obviously reflective of public support. Why do independent students Edyta and Iris get so much more money than the dependent students, especially in Quebec? Why, outside Quebec, is Farid denied so much money simply because he is married? Why does upper-income Damien pay less than middle-income Caitlyn?

Perhaps these situations all reflect deliberate policy positions that have been taken by governments. Or, perhaps they are unintended consequences of overly-complicated algorithms. It is difficult to say since few if any Canadian governments choose to make their funding preferences explicit. It would be a useful exercise in future for Canadian

governments to sit down with stakeholders and have precisely this discussion about who receives higher subsidies and why, to ensure that government policies are reflective of the best possible research on access and retention, and of the preferences of the general public with respect to subsidy preferences.

The main point here is that price is a multi-dimensional concept. Depending on what measure you use, for instance, Saskatchewan can be either the most expensive province or the cheapest. Provinces that are very generous to some students (e.g. Ontario and Adele) can be punishingly expensive to others (E.g. Ontario and Caitlyn). It mostly depends on the student profile and the chosen metric. Averages are important, but so too are the highs and lows.

A second related point here is to note is that the variation in price can be enormous. The difference in up-front price in a single province, between the student paying the most (Caitlyn) and the least (Joe), can be as high as \$8,000; on the all-inclusive net price it can be almost \$12,000. Limiting the discussion to sticker prices is, in most cases, not just one-dimensional and reductive, but profoundly unhelpful as well.

A third and final point to note here is that a number of student cases pay negative tuition. On the broadest measure of subsidy – that is the one including graduate rebates on pages 53-55 – essentially every students in Manitoba and Saskatchewan receives more in subsidies than they pay in fees. Even on more restricted measures, three of our ten student cases pay negative tuition on an up-front basis and four do so on an all-inclusive basis. And of the hundred cases we look at here, only a handful receive less than 50% of their tuition back in one form of subsidy or another. Simply put, governments are handing out a lot of money in education-related subsidies.

The question here is why – given that so much money is going out in subsidies – the dominant discourse is one of prices being “too high” or “out of control”. One reason, of course, is that there are student groups with a deliberate agenda of trying to create a crisis who have an interest in maintaining such a discourse. But this is too simple. A more persuasive answer is that Canadian student assistance is abysmally packaged: too many levels of government trying to multiplying programs to increase the number of campaign “announceables” has left student aid an impenetrable mystery for many. Simplification, and a shift from back-end money (i.e. remission and tax credits) to front-end money (i.e. grants) are likely both necessary in order to bring public perception back into line with reality.

## APPENDIX A: ASSUMPTIONS FOR STUDENT EXAMPLES

To simplify our net tuition calculations, we made a variety of assumptions, detailed below.

All of our example students are full-time students in first-entry programs; student aid eligibility, particularly for non-need-based grants differs greatly for students studying part-time or for those in second-entry or graduate programs. Additionally, none of our example students are in their graduating year; this has important implications for student aid in provinces where graduating students receive an additional grant.

All students are studying in their home province; this has particularly important implications for non-repayable up-front grants, as several provincial grants (i.e. Ontario's 30% Off Tuition Grant or PEI's island Student Award) cannot be awarded to students studying out-of-province.

Our university-level example students are studying in first-entry, 4-year undergraduate degree programs, and our college-level students are assumed to be in 3-year diploma programs, although these may not be the norm in all provinces. The number of weeks in a student's study period tends to differ somewhat between provinces and levels of study (particularly in the Atlantic provinces), but we have assumed that all students will be studying in a 34-week-long program.

Family composition and parental income has a significant effect on student aid eligibility, particularly for need-based. As a simplifying assumption, we have assumed that all of our single dependent students have two employed parents with an earning differential of \$10,000/year. For instance, Ben and Adele, who both have gross family incomes of \$40,000/year, have parents who earn \$25,000 and \$15,000 respectively. Additionally, each of these students come from families that also have one other dependent child not in post-secondary education.

Length of pre-study periods also differ depending on province of study, and whether a student was previously in university, college, or secondary school. In much of the country, this period is roughly 8 weeks for students entering university or college directly from secondary school, and 16 weeks for students returning to upper-year post-secondary education. In PEI, however, the pre-study period for first-year college and university students is 10 weeks, 18 weeks for upper-year university students, and 14 weeks for upper-year college students. In Quebec, however, the pre-study period for first-year college and university students is 9 weeks, and 17 weeks for all upper-year university students. In Quebec, approximate pre-study periods are 12 weeks for first-year university and all college students, and 16 weeks for upper-year university students.

We have also made assumptions about student earning and hours of work. Hours of work and hourly wages for upper-years students have both been based on survey responses

from a previous HESA survey; first-year students are assumed to work similar hours, at their respective province's minimum wage rate. Specific values used are available upon request from the authors.

Lastly, the Saskatchewan Advantage Scholarship was introduced in 2012, meaning that we have assumed that our independent, married, and single parent model students (Edyta, Farid, Iris, Joe) graduated from Grade 12 before the scholarship was implemented. These students therefore do not receive an up-front grant from Student Aid Saskatchewan in addition to any Canada Student Grant amount for which they may be eligible.

## APPENDIX B

Table 2: Tuition and ancillary fees by discipline

| Province             | Social Science tuition and ancillary fees (2013-14 prelim) (\$) | Engineering tuition and ancillary fees (2013-14 prelim) (\$) | Estimated social sciences tuition increase | Estimated Engineering increase value | Estimated 14-15 SS total fees (\$) | Estimated 14-15 eng total fees (\$) |
|----------------------|---|--|--|--------------------------------------|------------------------------------|-------------------------------------|
| Newfoundland         | 2772  | 2772   | N/A  | N/A                                  | 2772                               | 2772                                |
| Prince Edward Island | 5972  | 5972   | 3%   | 3%                                   | 6151                               | 6151                                |
| Nova Scotia          | 6375  | 7045   | 3%   | 3%                                   | 6116*                              | 6806*                               |
| New Brunswick        | 6418  | 7149   | 2%   | 2%                                   | 6546                               | 7292                                |
| Québec               |   |  |  |                                      | 3095*                              | 3095*                               |
| Ontario              | 6754  | 10832  | 3%   | 3%                                   | 6957                               | 11157                               |
| Manitoba             | 3831  | 5739   | 2%   | 2%                                   | 3908                               | 5854                                |
| Saskatchewan         | 5814  | 7520   | 4%   | 9%                                   | 6047                               | 8197                                |
| Alberta              | 6161  | 6911   | 1%   | 1%                                   | 6223                               | 6980                                |
| British Columbia     | 5509  | 5605   | 2%   | 2%                                   | 5619                               | 5717                                |

\*Quebec and Nova Scotia both charge differential tuition to in-province students, which is not reflected in TLAC, which provides a weighted provincial average for all students studying in a given province. To estimate the current year's tuition in Quebec, we imputed total tuition based on currently published values for in-province tuition and added an inflated ancillary fee amount. To estimate in-province tuition in Nova Scotia, we estimated average in-province tuition using information on differential fees and the percentage of students studying in Nova Scotia in-province.

## APPENDIX C

Table 3: Federal and provincial tax credits, by province

| Province             | Federal credits (A) | Federal rate (B) | Provincial credits (C)           | Provincial rate (D) | Total education amount value (A*B) + (C*D) * 8 months of study |
|----------------------|---------------------|------------------|----------------------------------|---------------------|--|
| Alberta              | \$465               | 15%              | \$690.77                         | 10%                 | \$1,111 + 25% of tuition paid                                  |
| British Columbia     | \$465               | 15%              | \$200                            | 5%                  | \$638 + 20% of tuition paid                                    |
| Manitoba             | \$465               | 15%              | \$400                            | 10.80%              | \$904 + 25.8% of tuition paid                                  |
| New Brunswick        | \$465               | 15%              | \$400                            | 9.68%               | \$868 + 24.7% of tuition paid                                  |
| Newfoundland         | \$465               | 15%              | \$200                            | 7.70%               | \$681 + 22.7% of tuition paid                                  |
| Nova Scotia          | \$465               | 15%              | \$200                            | 8.79%               | \$699 + 23.79% of tuition paid                                 |
| Ontario              | \$465               | 15%              | \$520.10                         | 5.05%               | \$768 + 20.05% of tuition paid                                 |
| Quebec               | \$465               | 15%              | (no provincial education amount) | 20%                 | \$558 + 35% of tuition paid                                    |
| Prince Edward Island | \$465               | 15%              | \$400                            | 9.80%               | \$872 + 24.8% of tuition paid                                  |
| Saskatchewan         | \$465               | 15%              | \$400                            | 11%                 | \$910 + 26% of tuition paid                                    |

Note: while this table shows some of the variation across provinces in education amounts, much of the variation in total tax credits received depends on what a student pays in tuition. The student and province pages earlier show the total tax credits received by a student.