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Building Brighter Futures: Multiple Award Recipients

By Joshua Thomas, Snuneymuxw First Nation

About Indspire

Indspire is an Indigenous national registered charity that invests in the education of Indigenous people for the long-term benefit of these individuals, their families and communities, and Canada. With the support of its funding partners, Indspire disburses financial awards, delivers programs, and shares resources with the goal of improving educational outcomes for First Nations, Inuit, and Métis students. Through Indspire’s education offerings, we provide resources to students, educators, communities, and other stakeholders who are committed to improving success for Indigenous youth. In 2019-2020, Indspire awarded over \$17.8 million through more than 5,124 bursaries and scholarships to First Nations, Inuit, and Métis youth, making it the largest funder of Indigenous post-secondary education outside the federal government.

About Research Knowledge Nest

The Indspire *Research Knowledge Nest* is the first Indigenous research program of its kind in Canada. With data analysis skills rapidly becoming critical to economic success, the *Research Nest* is poised to seize this exciting opportunity to foster Indigenous engagement and leadership in quantitative research and data science roles. The program will be guided by an Advisory Committee of researchers, leaders, and key stakeholders who will provide direction and input on the development of this important initiative.

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Introduction

Indspire's Building Brighter Futures: Bursaries, Scholarships, and Awards (BBF) program provides financial awards to First Nations, Inuit, and Métis post-secondary students across Canada. Students are permitted to apply for a BBF award once per academic year, regardless of the results of any previous applications. Therefore, many BBF recipients receive multiple awards from Indspire throughout their education. For example, in the 2019/2020 school year, 48% of successful BBF recipients were BBF recipients from a previous year as well (see Table A).

This report will present various tables exploring factors relating to multiple BBF award recipients. To begin, summary numbers, such as how many awards BBF applicants have received, and award amounts are presented. Then, by taking advantage of the ability to track variables for a student over time, the changes in some of these variables over the course of a BBF student's education were investigated. These variables include GPA, and financial figures, such as financial need and student loan amounts. Finally, a summary of the total awards and amounts was calculated for recipients who have graduated from their programs.

This report aims to provide an overview of Indspire's BBF program by describing statistics related to recipients who receive multiple BBF awards. This provides a clearer picture of how the BBF program supports students during their post-secondary education.

Data Sources

The primary source of data used for this report is Indspire's merged BBF database. Previously, Indspire organized its data holdings from BBF applications by distinct academic years since the award program is designed to match awards to students on a yearly basis. Recently, these datasets have been combined to produce a more precise and consistent historic database. This report is one of the first to take advantage of this newly created database.

At the time of writing, the time frame available for analysis consisted of the eight school years from 2012/2013 to 2019/2020. This amounts to a sample size of nearly 32,000 application records. With this large a sample, the timeframe of eight years encapsulated the majority of post-secondary program durations and is sufficient for analyzing multiple BBF award recipients over time.

Data from Indspire's 2020 National Education Survey (NES) was also utilized. The NES was administered to BBF recipients from the past six years to learn more about students' education and employment experiences. For this report's needs, NES data was used to determine which students had graduated from their programs. This information was possible to obtain by merging the NES data with the BBF application dataset to obtain these unique records.

Results

In a given school year, a high percentage of recipients of Indspire’s Building Brighter Futures program have received at least one additional award since the 2012/2013 academic year (see Table A). From 2017 to 2020, the percentage of applicants who previously had received at least one award from Indspire since 2012/2013 ranged from 43 percent to 53 percent. For these years, less than 8 percent of applicants had previously received more than 3 awards. We observe that the proportions of awards received since 2016/2017 are similar, suggesting that a larger timeframe would not affect these figures significantly. Thus, Table A provides a good estimate of how many applicants have received various numbers of awards previously in an application year.

Table A: Percentage of BBF Applicants by Number of Previous Awards Received, by Application Year¹ (n = 31,698)

Number of Awards Received Previously								
	0	1	2	3	4	5	6	7
2016/17	47	23	18	8	4			
2017/18	57	20	11	8	3	1		
2018/19	51	27	10	6	4	2	1	
2019/20	52	23	14	5	3	2	1	0

Financial Need and Student Loans

The wide spectrum of financial situations Indigenous post-secondary students face is something Indspire observes closely. Financial challenges are a significant barrier for Indigenous post-secondary students in Canada (Ottmann, 2017); examples of these challenges include childcare and family expenses, lack of financial supports, relocation and transportation costs, community responsibilities, and high independent living expenses (Environics Institute, 2010). It has been found that BBF recipients experience these challenges as well (Indspire, 2020).

For students who have received multiple awards, we are able to determine how the financial needs of these recipients change throughout their post-secondary program. In Table B, financial need, student loan amounts and changes between years were calculated for number of awards received. To avoid the impact that different levels of study would have on financial related

¹ The years from 2012/2013 to 2015/2016 were not shown since there is a high likelihood that these recipients would have received awards prior to 2012/2013, for which data was not available. In all of this report’s data tables, only recipient records from 2016/2017 onward were presented for this reason. It is also likely that a very small percentage of recipients from 2016/2017 onward have received awards prior to 2012/2013 as well.

figures, the data was only calculated for recipients in a bachelor's program. The bachelor's level was selected as this would yield a large enough sample (n=10,759) because most BBF recipients are in bachelor's programs. Further, these programs are typically completed in four or more years, allowing for a greater likelihood of recipients having received multiple awards.

As shown in Table B, a student's average financial need is generally higher for more awards previously received. However, the average *change* in financial need does not share this trend and is negative for every successive award received. This was an unexpected result, but it tells us that, in these cases, the average financial need of recipients who go on to receive another award is different from those who do not. For example, because the average financial need increases from two previous awards to three, but the average change is negative, it means that the average financial need of students who have received two previous awards and go on to receive a third is higher than those who do not receive another award after their second.

The average change variable likely provides the best estimate of the true change in financial need after successive awards since it is calculated from changes in individual amounts, rather than group averages of varying subsets. When analyzing these average change amounts, there is a clear negative trend suggesting that although recipients' financial need remains high year to year, the amount decreases on average after receiving an award. Investigating the reasoning behind this decrease is beyond the scope of this paper, but possible explanations include students improving their financial planning throughout their education or gaining various forms of employment.

A much more concrete trend can be seen in the outstanding student loan amounts for students after multiple awards received. We find that the median outstanding student loan amount of recipients is higher for a higher number of previous awards received and progression throughout the program of study. Further, the median change in loan amounts shows that recipients' outstanding student loan amounts increase significantly after each successive award received and academic year. For all recipients in a bachelor's program, the median BBF recipient will increase their outstanding student loan by \$6,797 after each successive award received and the academic year(s). Although the median change in student loans is positive after every successive award received, the amount increases by a lesser amount in every year. This is consistent with the earlier finding that recipients' financial need decreases year-over-year. It is reasonable that a student has less financial need after receiving their Building Brighter Futures award. With less financial need, they may apply for a lower loan amount for that year.

Interestingly, not only do student loan amounts increase by awards received, but so does the percentage of recipients who have a prior student loan. In total, 33 percent of BBF recipients in a bachelor's program who have yet to receive an award from Indspire had an outstanding student loan. This percentage increases to 51 percent for those who have received 2 awards previously, and to 64 percent for those that have received 4 previous awards or more. Because the number

of previous awards received during a program is highly correlated with year of study, this shows that most students who already had a student loan continued to carry loan debt throughout their program. Additionally, it is likely there are many recipients who did not have a student loan in earlier years of their program, but acquire one in their program's later years. In summary, these results suggest that despite financial awards from Indspire, recipients in bachelor's programs continually accumulate student loan debt over their post-secondary program to cover their education costs.

Table B: Financial Need and Student Loan Amounts and Changes by Awards Received, Recipients in a Bachelor's Program (n = 10,759)

Cumulative Number of Awards Received	Average Financial Need	Average Change in Financial Need	Median Outstanding Student Loan Amount	Median Change in Outstanding Student Loan Amount	Percentage of Recipients who have a Prior Outstanding Student Loan
0	\$12,955	NA	\$12,149	NA	33%
1	\$12,896	-\$1,013	\$13,000	\$7,000	45%
2	\$13,101	-\$1,099	\$16,000	\$6,807	51%
3	\$13,671	-\$779	\$16,666	\$6,000	53%
4+	\$14,433	-\$333	\$23,000	\$4,939	64%
All Recipients	\$13,040	-\$969	\$14,000	\$6,797	40%

GPA

In addition to financial need, BBF applicants' GPA is a variable considered in many award decisions. The average GPA by the number of awards received as well as the average changes in GPA are presented in Table C. Similar to Table B, these values are for recipients in a bachelor's program to avoid confounding variables. Viewing these results, the average GPA is higher for higher number of previous awards received, except for four or more awards received. The average change in GPA is positive for every successive award received. This shows that on average, BBF recipients are increasing their GPA by 0.67 percentage points after each award received from Indspire throughout their bachelor's program. Similar to the financial need

changes discussed above, a positive average change in GPA – despite the average GPA decreasing – occurs when the GPAs of recipients who do not go on to receive another award are higher than those that do. As before, we would expect the average change variable to be the better estimate of the true GPA change recipients experience throughout their program. As there might be some difference between recipients who do not receive another award causing the positive average GPA changes, and the possibility these changes were due to random variation, the positive trend in average GPA changes should be interpreted with caution.

Table C: Previous Year’s GPA and GPA Change by Awards Received, Recipients in a Bachelor’s Program² (n = 8,187)

Cumulative Number of Awards Received	Average GPA, percent	Average Change in GPA, percent
0	76.32	NA
1	76.48	0.28
2	76.75	0.78
3	77.87	1.31
4+	77.69	0.91
All Recipients	76.60	0.67

Award Amounts

In a given year, Indspire allocates BBF funds by matching awards with specific criteria to applicants who meet these criteria. Each year, the criteria, the total available funds, and the financial needs of students will fluctuate. This may cause BBF recipients to receive different award amounts in different years. It is important to understand how much variation exists between award amounts so that we can understand the support a student receives over time. To investigate the degree of this variation, the average value of an award and changes in award amounts by number of awards received were calculated and are presented in Table D. Once again, these values are for recipients in a bachelor’s program to avoid confounding variables.

Interestingly, we see that the average BBF award amount typically increases with successive awards received (Table D). This could be due to a variety of reasons which cannot be determined in this study. Further investigation may reveal that an increased award amount may be related to increases in financial need, higher merit, or increased funding available over time. To analyze

² The GPA listed for a BBF application is for the previous academic year. Thus, the average change in GPA would be the difference in the applicant’s previous recorded year’s GPA and the applicant’s 2nd previous recorded year’s GPA. Recipients in their first year of study were excluded since their listed GPA would be from a previous program.

the variation in award amounts, the absolute change was calculated³. This reveals the amount that awards vary from year to year for a recipient, either by a positive or negative amount. We found that for any successive award received from Indspire, the median absolute change was \$1200, with 25th and 75th percentiles of \$500 and \$2300 respectively. This shows that 50 percent of the changes in successive award amounts were between \$500 and \$2300. This variation did not change significantly for differing numbers of previous awards received.

Table D: Average Award Amounts and Changes, by Previous Awards Received, Recipients in a Bachelor’s program, n = 10,751

Cumulative Number of Awards Received	Average Award Amount	Median Absolute Change in Award Amount	25 th percentile, Absolute Change in Award Amount	75 th percentile, Absolute Change in Award Amount
0	\$2,828	NA	NA	NA
1	\$2,959	\$1,200	\$500	\$2,300
2	\$3,068	\$1,000	\$500	\$2,000
3	\$3,225	\$1,400	\$500	\$2,350
4+	\$3,348	\$1,500	\$500	\$2,500
All Recipients	\$2,929	\$1,200	\$500	\$2,205

Graduates and Total Awards

To conclude this report’s analysis, BBF recipients who had graduated from their programs were identified; total awards received and total award amounts were calculated. These results are shown below in Table E. Results were broken down by level of study, and only awards that had been received for that program were included. Many recipients had received more total awards than shown in Table E from additional PSE programs completed previously. Several BBF graduates receive multiple awards throughout their post-secondary programs. For example, 54 percent of BBF recipients in a bachelor’s program, typically a four-year degree, have received more than one award from Indspire, with 31 percent receiving three or more. We generally observe similar numbers across different levels of studies, when taking into account the typical durations and costs of these programs. A much higher percentage of recipients had only received one award in apprenticeship, trades, college, and university programs below the bachelor’s level. This is likely mainly due to these programs being one to two years in duration. However, more generally, the reasons why recipients do not receive a BBF award in most or all of their years in PSE is a potential topic for future research.

³ All changes in award amounts were analyzed in absolute terms: i.e., if the change in award amount was negative, this change was converted to a positive value before the median and percentile figures were calculated.

Observing the total amount of funds received over the course of a recipient's program, we can imagine the impact Indspire's BBF program has on Indigenous students throughout their post-secondary education. Across programs, there are considerable amounts of funds awarded to recipients. For example, recipients in a bachelor's program receive an average of \$6,402 in financial awards from Indspire over the course of their program. Viewed through this lens, it is clear that Indspire's BBF program is effective at supporting its recipients over their entire post-secondary journey, despite the program distributing awards year to year independently of each other.

Table E: Total Awards Received and Amounts for BBF Graduates by Level of Study, n = 1,417

Level of Study	Total Awards Received, percent				Average Awards	Average Total Amount Awarded
	1	2	3	4+		
Trades certificate or diploma	79	17	4	0	1.2	\$4,109
Apprenticeship qualification	95	5	0	0	1.0	\$2,350
College, CEGEP or other non-university certificate or diploma	79	16	5	0	1.3	\$3,541
University degree, certificate, or diploma below bachelor's level	74	15	7	5	1.4	\$3,936
Bachelor's degree	46	23	16	15	2.0	\$6,402
University degree, certificate, or diploma above bachelor's level	58	24	16	3	1.6	\$6,239
Professional degree in medicine, dentistry, veterinary medicine or optometry	44	12	20	24	2.2	\$11,317
Master's degree	61	27	8	4	1.6	\$5,704
Doctoral degree	10	24	38	29	2.9	\$10,252
*Only awards received during the respective level of study are included.						

Concluding Remarks

This report provides insights into the characteristics of Indigenous post-secondary students who have received multiple awards from Indspire's BBF program. In summary, its analysis finds that a high percentage of BBF recipients do in fact receive multiple awards over the course of their post-secondary education. Although the BBF program grants awards for single school years, there is no doubt that the program is capable of, and does, financially support its recipients during their entire educational journey. This is an important result to consider when viewing Indspire's BBF program and its effectiveness in supporting First Nations, Inuit, and Métis post-secondary students. Financial support is extremely valuable for Indigenous post-secondary students. Among several other benefits, BBF awards lessen students' financial strain and stress, and by reducing time working, allow students more time to study, spending time with family and the Indigenous community, and participating in volunteering activities (Indspire, 2020). However, this report also finds that despite receiving multiple awards from Indspire, BBF recipients still face high levels of financial need and are forced to accumulate large amounts of debt throughout their studies.

As this is the first report to look into the characteristics of recipients who receive multiple BBF awards from Indspire, there remains plenty of opportunity for future related research. For example, this report found increases in GPA, increases in student loan debts, and decreases in financial need amounts on average among BBF recipients from the year a BBF award was received to the next award-receiving year. Further exploring these types of trends, as well as other longitudinal variables and their potential causes, presents a multitude of areas to investigate.

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