## 2014 Competition Statistics Discovery Grants (DG) and Research Tools and Instruments (RTI) Programs


#### Abstract

This report includes tables and figures that provide summary information on the 2014 Discovery Grants and Research Tool and Instruments Competitions. More detailed statistics are also included in this document.


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## SECTION 1 - FISCAL YEAR STATISTICS

This section presents data on a fiscal year basis and is inclusive of ongoing installments.
Figure 1 Expenditures in the Discovery Grants Program Elements, 2005-06 to 2014-15*

*Projected Expenditures for 2014-15
Figure 2 Number of Grants Funded through Individual and Team Discovery Grants (including those in Subatomic Physics) and Subatomic Physics Projects, 2005-06 to 2014-15*

*Projected Numbers of Grants for 2014-15

Figure 3 Average Grant for Individual and Team Discovery Grants (including those in Subatomic Physics) and Subatomic Physics Projects, 2005-06 to 2014-15*

*Projected Average for 2014-15

## SECTION 2 - COMPETITION STATISTICS

The total awarded amount for the 2014 DG competition was $\$ 68.3$ million. The number of DG applications in 2014 was 3,190 . Going into the competition, there were 1,668 renewal applicants who held grants of, on average, $\$ 34,450$; after the competition, there are 2,031 funded researchers, at an average grant level of \$33,612.

NSERC continued to put a strong emphasis on giving early career researchers (ECR) a chance to demonstrate their potential and exceeded the minimum target success rate of 50 percent recommended in the International Review of the DG Program. In Budget 2011, NSERC was allocated additional funding "to support outstanding research in the natural sciences and engineering fields, such as the Strategy for Partnerships and Innovation (SPI)." NSERC is devoting half of this money to enhance the DGs of ECRs in the form of supplements to their grants. These supplements, of a value of up to \$5,000 per year, are included in the awarded amount and reflected in the following statistics.

## Table 1 Overall Comparative Statistics 2014 Discovery Grants Competition ${ }^{1}$

| Data $^{1}$ | Success <br> Rate | Average <br> Grant (\$) |
| :--- | :---: | :---: |
| Early Career Researchers (ECR) | $66 \%$ | $\$ 26,999$ |
| Established Researchers (ER) |  |  |
| $\quad$ Renewing their grant (ER-R) | $80 \%$ | $\$ 36,550$ |
| $\quad$ Not Holding a Grant ${ }^{2}($ ER-NHG $)$ | $37 \%$ | $\$ 28,463$ |

1. Includes Discovery and Subatomic Physics (Individual and Team) Grants, but excludes the

Subatomic Physics Projects. It cannot therefore be compared with data presented in Figure 3.
2. Includes returning established unfunded applicants and experienced researchers submitting a first application

Figure 4 Distribution of Grant Levels to Successful Applicants, 2014 Competition


Figure 5 Change in Grant Level, 2014 Competition


Figure 6 Percentage Change in Grant Level for Established Researchers Renewing a Grant, 2014 Competition


Figure $7 \quad$ Success Rate ${ }^{1}$ by Category of Individual Applicants, Competition Years 2005-2014

${ }^{1}$ Only includes Discovery Grant Individual

Table 2 Number of Applications and Awards by Category of Applicants, 2005-14

| Competition Year | Number of Applications ${ }^{1}$ |  |  |  | Number of Awards ${ }^{1}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ECR | ER-R | $\begin{gathered} E R- \\ N H G \end{gathered}$ | Total | ECR | ER-R | $\begin{array}{r} \hline E R- \\ N H G \\ \hline \end{array}$ | Total |
| 2005 | 683 | 1,731 | 713 | 3,127 | 457 | 1,592 | 309 | 2,358 |
| 2006 | 672 | 1,805 | 703 | 3,180 | 410 | 1,638 | 291 | 2,339 |
| 2007 | 768 | 2,053 | 699 | 3,520 | 436 | 1,810 | 249 | 2,495 |
| 2008 | 710 | 1,944 | 680 | 3,334 | 426 | 1,718 | 252 | 2,396 |
| 2009 | 503 | 1,850 | 819 | 3,172 | 298 | 1,481 | 278 | 2,057 |
| 2010 | 513 | 1,864 | 902 | 3,279 | 305 | 1,348 | 264 | 1,917 |
| 2011 | 457 | 1,835 | 1,137 | 3,429 | 250 | 1,363 | 373 | 1,986 |
| 2012 | 480 | 1,848 | 1,102 | 3,430 | 298 | 1,438 | 399 | 2,135 |
| 2013 | 474 | 1,853 | 1,128 | 3,455 | 284 | 1,404 | 338 | 2,026 |
| 2014 | 427 | 1,647 | 1,060 | 3,134 | 280 | 1,324 | 401 | 2,005 |

${ }^{1}$ Only includes Discovery Grant Individual

Table 3 Discovery Grants ${ }^{1}$ Competition Results by University, 2014 Competition

|  | Early Career Researchers |  |  | Established Researchers - Renewing |  |  | Established Researchers - Not Holding a Grant |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Universities | Success Rate (\%) | Total Awarded (\$) | Average <br> Grant (\$) | Success Rate (\%) | Total Awarded (\$) | Average Grant (\$) | Success Rate (\%) | Total Awarded (\$) | Average <br> Grant (\$) |
| Acadia University | N/A | N/A | N/A | * | * | * | 20\% | 27,000 | 27,000 |
| Algoma University | N/A | N/A | N/A | N/A | N/A | N/A | * | * | * |
| Athabasca University | N/A | N/A | N/A | * | * | * | 0\% | 0 |  |
| Bishop's University | N/A | N/A | N/A | * | * | * | * | * | * |
| Brandon University | * | * | * | N/A | N/A | N/A | * | * | * |
| British Columbia Institute of Technology | N/A | N/A | N/A | * | * | * | * | * | * |
| Brock University | N/A | N/A | N/A | 82\% | 216,000 | 24,000 | 20\% | 59,000 | 29,500 |
| Cape Breton University | * | * | * | * | * | * | * | * |  |
| Carleton University | 88\% | 177,000 | 25,286 | 78\% | 1,087,096 | 43,484 | 47\% | 364,000 | 26,000 |
| Centre de recherche informatique de Montréal | N/A | N/A | N/A | N/A | N/A | N/A | * | * | * |
| Concordia University | * | * | * | 75\% | 859,000 | 35,792 | 68\% | 321,000 | 24,692 |
| Dalhousie University | 69\% | 242,000 | 26,889 | 77\% | 998,500 | 36,981 | 29\% | 197,000 | 28,143 |
| École de technologie supérieure | 67\% | 143,900 | 23,983 | 65\% | 307,000 | 27,909 | 50\% | 179,000 | 22,375 |
| École Polytechnique de Montréal | 82\% | 244,000 | 27,111 | 93\% | 901,500 | 32,196 | 36\% | 84,000 | 21,000 |
| Grant MacEwan University | 60\% | 54,000 | 18,000 | N/A | N/A | N/A | * | * | * |
| HEC Montréal | N/A | N/A | N/A | 83\% | 134,000 | 26,800 | * | * | * |
| Institut national de la recherche scientifique | * | * | * | 91\% | 806,000 | 40,300 | * | * | * |
| Lakehead University | 57\% | 87,000 | 21,750 | 56\% | 117,000 | 23,400 | 21\% | 64,000 | 21,333 |
| Laurentian University | N/A | N/A | N/A | 40\% | 61,000 | 30,500 | 14\% | 63,000 | 31,500 |
| McGill University | 63\% | 478,000 | 28,118 | 86\% | 2,731,000 | 36,905 | 43\% | 653,736 | 32,687 |
| McMaster University | 60\% | 153,000 | 25,500 | 90\% | 1,997,000 | 36,309 | 40\% | 403,000 | 33,583 |
| Memorial University of Newfoundland | 50\% | 135,000 | 22,500 | 74\% | 474,000 | 27,882 | 39\% | 367,000 | 28,231 |
| Mount Allison University | N/A | N/A | N/A | 80\% | 132,000 | 33,000 | 60\% | 87,000 | 29,000 |
| Mount Royal University | * | * | * | * | * | * | N/A | N/A | N/A |
| Mount Saint Vincent University | N/A | N/A | N/A | N/A | N/A | N/A | * | * | * |
| Nipissing University | * | * | * | * | * | * | * | * | * |
| Queen's University | 60\% | 67,172 | 22,391 | 81\% | 1,646,000 | 38,279 | 44\% | 217,000 | 31,000 |
| Redeemer University College | N/A | N/A | N/A | N/A | N/A | N/A | * | * | * |
| Royal Military College of Canada | * | * | * | 71\% | 137,000 | 27,400 | 0\% | 0 |  |
| Royal Roads University | N/A | N/A | N/A | * | * | * | N/A | N/A | N/A |
| Ryerson University | 17\% | 22,000 | 22,000 | 66\% | 567,000 | 27,000 | 30\% | 161,000 | 23,000 |
| Saint Mary's University | * | * | * | 71\% | 107,052 | 21,410 | 14\% | 33,000 | 33,000 |
| Simon Fraser University | 83\% | 146,000 | 29,200 | 97\% | 1,992,000 | 34,947 | 54\% | 382,000 | 27,286 |
| St. Francis Xavier University | N/A | N/A | N/A | 63\% | 169,300 | 33,860 | 33\% | 45,000 | 22,500 |
| Télé-université | * | * | * | * | * | * | N/A | N/A | N/A |
| The King's University College (Edmonton) | * | * | * | N/A | N/A | N/A | N/A | N/A | N/A |
| The University of British Columbia | 73\% | 474,000 | 29,625 | 85\% | 3,645,380 | 37,973 | 44\% | 554,100 | 27,705 |
| The University of Western Ontario | 73\% | 357,800 | 32,527 | 86\% | 1,638,348 | 32,767 | 47\% | 712,738 | 29,697 |
| The University of Winnipeg | * | * | * | * | * | * | 22\% | 49,000 | 24,500 |
| Thompson Rivers University | * | * | * | * | * | * | 38\% | 74,000 | 24,667 |
| Trent University | N/A | N/A | N/A | * | * | * | 33\% | 39,000 | 39,000 |
| Trinity Western University | * | * | * | N/A | N/A | N/A | * | * | * |
| TRIUMF | N/A | N/A | N/A | * | * | * | * | * | * |
| Université de Moncton | * | * | * | 43\% | 93,000 | 31,000 | 11\% | 19,000 | 19,000 |
| Université de Montréal | 69\% | 343,000 | 31,182 | 90\% | 2,112,000 | 40,615 | 42\% | 342,000 | 34,200 |
| Université de Sherbrooke | 60\% | 156,000 | 26,000 | 73\% | 1,290,300 | 44,493 | 33\% | 154,000 | 25,667 |
| Université du Québec à Chicoutimi | * | * | * | 100\% | 111,000 | 22,200 | 40\% | 43,000 | 21,500 |
| Université du Québec à Montréal | 60\% | 73,000 | 24,333 | 93\% | 491,000 | 35,071 | 36\% | 105,000 | 26,250 |
| Université du Québec à Rimouski | * | * | * | 83\% | 183,000 | 36,600 | * | * | * |
| Université du Québec à Trois-Rivières | * | * | * | 50\% | 146,000 | 29,200 | 33\% | 75,000 | 25,000 |
| Université du Québec en Abitibi-Témiscamingue | * | * | * | * | * | * | * | * | * |
| Université du Québec en Outaouais | * | * | * | * | * | * | * | * | * |
| Université Laval | 74\% | 437,000 | 31,214 | 71\% | 1,284,000 | 37,765 | 32\% | 388,000 | 25,867 |
| University of Alberta | 74\% | 523,000 | 26,150 | 81\% | 3,145,600 | 37,448 | 54\% | 545,000 | 25,952 |
| University of Calgary | 75\% | 333,900 | 27,825 | 81\% | 2,074,000 | 37,036 | 39\% | 506,919 | 26,680 |
| University of Guelph | 100\% | 312,000 | 28,364 | 84\% | 1,104,000 | 35,613 | 42\% | 414,000 | 27,600 |
| University of Lethbridge | * | * | * | 75\% | 237,000 | 39,500 | 45\% | 152,000 | 30,400 |
| University of Manitoba | 44\% | 210,000 | 26,250 | 72\% | 985,000 | 31,774 | 38\% | 395,000 | 30,385 |
| University of New Brunswick | * | * | * | 53\% | 248,000 | 27,556 | 21\% | 107,000 | 26,750 |
| University of Northern British Columbia | N/A | N/A | N/A | 60\% | 80,000 | 26,667 | * | * | * |
| University of Ontario Institute of Technology | 75\% | 137,500 | 22,917 | 40\% | 149,000 | 24,833 | 31\% | 95,000 | 19,000 |
| University of Ottawa | 53\% | 212,000 | 26,500 | 78\% | 1,837,500 | 39,946 | 41\% | 343,950 | 28,663 |
| University of Prince Edward Island | * | * | * | * | * | * | 13\% | 54,000 | 54,000 |
| University of Regina | 20\% | 27,000 | 27,000 | 62\% | 164,000 | 20,500 | 8\% | 25,000 | 25,000 |
| University of Saskatchewan | 57\% | 227,000 | 28,375 | 74\% | 1,119,807 | 36,123 | 27\% | 293,000 | 32,556 |
| University of the Fraser Valley | * | * | * | N/A | N/A | N/A | N/A | N/A | N/A |
| University of Toronto | 75\% | 476,000 | 26,444 | 84\% | 5,453,884 | 44,704 | 51\% | 1,164,386 | 33,268 |
| University of Victoria | * | * | * | 83\% | 1,466,000 | 41,886 | 44\% | 195,000 | 27,857 |
| University of Waterloo | 80\% | 468,000 | 23,400 | 87\% | 2,945,000 | 36,358 | 50\% | 379,000 | 31,583 |
| University of Windsor | * | * | * | 71\% | 439,000 | 29,267 | 32\% | 169,000 | 28,167 |
| Vancouver Island University | N/A | N/A | N/A | N/A | N/A | N/A | * | * | * |
| Wilfrid Laurier University | * | * | * | 80\% | 119,000 | 29,750 | 56\% | 124,000 | 24,800 |
| York University | 80\% | 203,000 | 25,375 | 81\% | 646,400 | 29,382 | 20\% | 103,000 | 25,750 |
| Grand Total | 66\% | 7,586,708 | 26,999 | 80\% | 49,123,367 | 36,550 | 37\% | 11,555,829 | 28,463 |

1 Includes Discovery and Subatomic Physics Individuals and Team Grants but, excludes Subatomic Physics Projects

* Less than five applications

Table 4 Statistics by University Size, 2014 Competition

| Category of Applicants | Data | University Size |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Large | Medium | Small |
| Early Career Researchers | Success Rate | 70\% | 62\% | 48\% |
|  | Total Amount | \$5,961,872 | \$913,900 | \$710,936 |
|  | Average Grant | \$27,730 | \$24,700 | \$24,515 |
| Established Researchers - Renewing | Success Rate | 83\% | 74\% | 63\% |
|  | Total Amount | \$40,366,819 | \$5,924,496 | \$2,832,052 |
|  | Average Grant | \$38,010 | \$33,284 | \$27,231 |
| Established Researchers - Not Holding a Grant | Success Rate | 42\% | 37\% | 23\% |
|  | Total Amount | \$8,323,829 | \$1,941,000 | \$1,291,000 |
|  | Average Grant | \$29,517 | \$26,230 | \$25,820 |

Table 5 Success Rate by Category of Applicants and University Size, 2010-14

|  | Large |  |  |  |  | Medium |  |  |  |  | Small |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2010 | 2011 | 2012 | 2013 | 2014 | 2010 | 2011 | 2012 | 2013 | 2014 | 2010 | 2011 | 2012 | 2013 | 2014 |
| Early Career Researchers | 61\% | 59\% | 66\% | 64\% | 70\% | 57\% | 57\% | 64\% | 58\% | 62\% | 42\% | 34\% | 48\% | 43\% | 48\% |
| Established Researchers Renewing | 76\% | 78\% | 81\% | 80\% | 83\% | 69\% | 52\% | 72\% | 69\% | 74\% | 65\% | 55\% | 63\% | 57\% | 63\% |
| Established Researchers - Not Holding a Grant | 35\% | 38\% | 42\% | 34\% | 42\% | 36\% | 36\% | 33\% | 24\% | 37\% | 18\% | 19\% | 19\% | 21\% | 23\% |

As a result of peer review, applications are placed in 16 "quality bins" based on their merit against the three selection criteria using a six point scale - Excellence of Researcher (EoR), Merit of Proposal (MoP), and Contribution to the Training of High Quality Personnel (HQP). Figure 8 shows the distribution of applications for Early Career Researchers (ECR), Established Researchers Renewing their grant (ER-R), and Established Researchers Not Holding a Grant (ER-NHG) at the time of application between 2009 and 2013, and the same distribution for the 2014 competition. Budget permitting, NSERC aims to support Established Researchers to Bin J (which corresponds to ratings of Strong on three criteria or equivalent) and ECR to Bin K or Bin L.

Figure 8 Distribution of Applications ${ }^{1}$ by Quality Bin
a) 2014 Competition

b) 2009-2013 Competitions

${ }^{1}$ Does not include results for Subatomic Physics
Table $6 \quad \begin{aligned} & \text { Number of applications }{ }^{1} \text { by Quality Bins by University Size, } 2014 \\ & \text { Competition }\end{aligned}$

|  | University Size |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Large |  | Medium |  | Small |  |
|  | Number | Percentage | Number | Percentage | Number | Percentage |
| A | 1 | $0.0 \%$ |  | $0.0 \%$ |  | $0.0 \%$ |
| B | 5 | $0.2 \%$ | 1 | $0.2 \%$ |  | $0.0 \%$ |
| C | 16 | $0.7 \%$ | 1 | $0.2 \%$ |  | $0.0 \%$ |
| D | 44 | $2.0 \%$ | 5 | $1.0 \%$ | 1 | $0.2 \%$ |
| E | 86 | $3.8 \%$ | 8 | $1.6 \%$ | 3 | $0.7 \%$ |
| F | 123 | $5.5 \%$ | 16 | $3.2 \%$ | 6 | $1.4 \%$ |
| G | 198 | $8.9 \%$ | 28 | $5.7 \%$ | 10 | $2.3 \%$ |
| H | 245 | $11.0 \%$ | 47 | $9.5 \%$ | 19 | $4.3 \%$ |
| I | 317 | $14.2 \%$ | 55 | $11.1 \%$ | 43 | $9.8 \%$ |
| J | 419 | $18.7 \%$ | 99 | $20.0 \%$ | 81 | $18.4 \%$ |
| K | 335 | $15.0 \%$ | 88 | $17.8 \%$ | 89 | $20.2 \%$ |
| L | 248 | $11.1 \%$ | 86 | $17.4 \%$ | 84 | $19.0 \%$ |
| M | 140 | $6.3 \%$ | 40 | $8.1 \%$ | 66 | $15.0 \%$ |
| N | 38 | $1.7 \%$ | 13 | $2.6 \%$ | 22 | $5.0 \%$ |
| O | 18 | $0.8 \%$ | 3 | $0.6 \%$ | 11 | $2.5 \%$ |
| P | 4 | $0.2 \%$ | 5 | $1.0 \%$ | 6 | $1.4 \%$ |
| Total | 2237 | $100.0 \%$ | 495 | $100.0 \%$ | 441 | $100.0 \%$ |

${ }^{1}$ Does not include results from Subatomic Physics

The rating pattern of applications in Bin K, which usually is the first bin not funded for Established Researchers is presented in Figure 9. Bin K generally corresponds to receiving two ratings of Strong and one Moderate. Other combinations - such as a Very Strong, a Strong, and an Insufficient; or two ratings of Moderate and a Very Strong make up the rest of the cases.

Figure 9 Percentage of Occurrences of Various Combinations of Ratings ${ }^{1}$ in Bin K by University Size

${ }^{1}$ MSS: Moderate for EoR, Strong for MoP, Strong for HQP
SMS: Strong for EoR, Moderate for MoP, Strong for HQP
SSM: Strong for EoR, Strong for MoP, Moderate for HQP

## SECTION 3 - STATISTICS BY EVALUATION GROUP

Table 7 Success Rate, Average Grant and Total Amount Awarded by Category of Applicant for Each Evaluation Group, 2014 Competition

|  | Early Career | Established Researchers |  |
| :--- | :---: | :---: | :---: |
| 1501 - Genes, Cells and Molecules |  | Renewing | Not Holding a Grant |
| Success Rate | $55 \%$ | $69 \%$ | $39 \%$ |
| Average Grant | $\$ 37,527$ | $\$ 44,601$ | $\$ 39,409$ |
| Total Amount Awarded | $\$ 1,163,336$ | $\$ 5,218,271$ | $\$ 3,034,469$ |


| 1502 - Biological Systems and | Early Career | Established Researchers |  |
| :--- | :---: | :---: | :---: |
| Functions | Researchers | Renewing | Not Holding a Grant |
| Success Rate | $59 \%$ | $84 \%$ | $41 \%$ |
| Average Grant | $\$ 30,733$ | $\$ 36,767$ | $\$ 27,579$ |
| Total Amount Awarded | $\$ 1,383,000$ | $\$ 6,324,000$ | $\$ 2,151,124$ |


| $\mathbf{1 5 0 3}$ - Evolution and Ecology | Early Career | Established Researchers |  |
| :--- | :---: | :---: | :---: |
|  | Researchers | Renewing | Not Holding a Grant |
| Success Rate | $52 \%$ | $79 \%$ | $52 \%$ |
| Average Grant | $\$ 26,563$ | $\$ 37,592$ | $\$ 25,875$ |
| Total Amount Awarded | $\$ 425,000$ | $\$ 3,571,196$ | $\$ 828,000$ |


| $\mathbf{1 5 0 4}$ - Chemistry | Early Career | Established Researchers |  |
| :--- | :---: | :---: | :---: |
|  | Researchers | Renewing | Not Holding a Grant |
| Success Rate | $58 \%$ | $87 \%$ | $18 \%$ |
| Average Grant | $\$ 34,273$ | $\$ 61,359$ | $\$ 35,667$ |
| Total Amount Awarded | $\$ 377,000$ | $\$ 6,074,500$ | $\$ 428,000$ |


|  | Early Career | Established Researchers |  |
| :--- | :---: | :---: | :---: |
| 1505 - Physics* | Researchers | Renewing | Not Holding a Grant |
| Success Rate | $67 \%$ | $94 \%$ | $45 \%$ |
| Average Grant | $\$ 25,500$ | $\$ 44,747$ | $\$ 28,043$ |
| Total Amount Awarded | $\$ 357,000$ | $\$ 5,190,600$ | $\$ 645,000$ |

*Includes Subatomic Physics Discovery Individual and Group, but not Projects

| $\mathbf{1 5 0 6}$ - Geosciences | Early Career | Established Researchers |  |
| :--- | :---: | :---: | :---: |
|  | Researchers | Renewing | Not Holding a Grant |
| Success Rate | $69 \%$ | $71 \%$ | $32 \%$ |
| Average Grant | $\$ 27,750$ | $\$ 40,697$ | $\$ 34,821$ |
| Total Amount Awarded | $\$ 666,000$ | $\$ 3,622,000$ | $\$ 975,000$ |


| $\mathbf{1 5 0 7}$ - Computer Science | Early Career | Established Researchers |  |
| :--- | :---: | :---: | :---: |
|  | Researchers | Renewing | Not Holding a Grant |
|  | $69 \%$ | $74 \%$ | $23 \%$ |
| Average Grant | $\$ 25,072$ | $\$ 36,835$ | $\$ 25,594$ |
| Total Amount Awarded | $\$ 626,800$ | $\$ 4,236,000$ | $\$ 409,500$ |


| 1508 - Mathematics and Statistics | Early Career Researchers | Established Researchers |  |
| :---: | :---: | :---: | :---: |
|  |  | Renewing | Not Holding a Grant |
| Success Rate | 61\% | 86\% | 42\% |
| Average Grant | \$14,579 | \$18,354 | \$15,989 |
| Total Amount Awarded | \$277,000 | \$2,698,000 | \$399,736 |
| 1509 - Civil, industrial and Systems Engineering | Early Career Researchers | Established Researchers |  |
|  |  | Renewing | Not Holding a Grant |
| Success Rate | 80\% | 81\% | 44\% |
| Average Grant | \$22,549 | \$25,644 | \$21,250 |
| Total Amount Awarded | \$721,572 | \$3,026,000 | \$850,000 |
|  |  |  |  |
| 1510 - Electrical and Computer Engineering | Early Career Researchers | Established Researchers |  |
|  |  | Renewing | Not Holding a Grant |
| Success Rate | 93\% | 81\% | 33\% |
| Average Grant | \$25,000 | \$35,183 | \$24,741 |
| Total Amount Awarded | \$650,000 | \$3,835,000 | \$668,000 |
|  |  |  |  |
| 1511 - Materials and Chemical Engineering | Early Career Researchers | Established Researchers |  |
|  |  | Renewing | Not Holding a Grant |
| Success Rate | 59\% | 80\% | 41\% |
| Average Grant | \$25,353 | \$32,959 | \$24,042 |
| Total Amount Awarded | \$431,000 | \$2,834,500 | \$577,000 |
|  |  |  |  |
| 1512 - Mechanical Engineering | Early Career Researchers | Established Researchers |  |
|  |  | Renewing | Not Holding a Grant |
| Success Rate | 81\% | 74\% | 36\% |
| Average Grant | \$24,238 | \$30,781 | \$24,583 |
| Total Amount Awarded | \$509,000 | \$2,493,300 | \$590,000 |

The distribution of applications by quality bins is presented in Figure 9 for each Evaluation Group (EG). The bin value illustrated represents the value of the bin for the normal cost of research for Establish Researchers (ER). For EGs marked with a star (*), a differential for the cost of research was used and, as a result, individual grant values within a bin may be lower or higher than indicated.

Figure 10 Distribution of the Fraction of Applications by Quality Bin for Each Evaluation Group, 2014 Competition

Gene, Cells and Molecules*


Biological Systems and Functions*


## Evolution and Ecology*



Chemistry


Physics* (excluding Subatomic Physics)


Geoscience*


## Computer Science



Mathematics and Statistics


Civil, Industrial and Systems Engineering*


Electrical and Computer Engineering



## SECTION 4 - STATISTICS BY GENDER

As part of NSERC's commitment to gender equality, processes and competitions are monitored to ensure that no potential bias affects the evaluation of any submission. Data has been pooled over four competitions to ensure sufficient numbers in each category. Regular analysis of the outcomes of the Discovery Grants competitions reveals that male and female applicants have relatively similar success rates (66 percent for males, 61 percent for females); and average grants (\$34,757 for males; \$32,634 for females). The difference in average grant is largely attributable to the career stage of applicants, with a larger proportion of female applicants who are assistant or associate professors as compared to male applicants (Table 8).

Table 8 Proportion of Applicants by Gender and Career Stage, 2011-14 Competitions

|  | Gender |  |
| :--- | :---: | :---: |
|  | Male | Female |
| Assistant Professor | $22 \%$ | $35 \%$ |
| Associate Professor | $30 \%$ | $33 \%$ |
| Professor | $40 \%$ | $26 \%$ |
| Adjunct, Emeriti \& Other | $9 \%$ | $6 \%$ |

Similar results are observed for both males and females for applicants at equivalent career stages (Figure 11) and of the same applicant status (Figure 12). Success rates vary between the disciplines (Figure 13).

Figure 11 Discovery Grant Success Rate and Average Awarded Amount by Career Stage and Gender, 2011-14 Competitions


Figure 12 Discovery Grant Success Rate and Average Grant by Applicant Status and Gender, 2011-14 Competitions


Figure 13 Discovery Grant Success Rate by Gender and Evaluation Group, 2011-14 Competitions


## SECTION 5 - RESEARCH TOOLS AND INSTRUMENTS

Table $9 \quad$ Overall Comparative Statistics, 2012-2014 Research Tools and Instruments Competitions

|  | $\mathbf{2 0 1 2}$ | $\mathbf{2 0 1 3}$ | $\mathbf{2 0 1 4}$ |
| :--- | :---: | :---: | :---: |
| Requested Amount | $\$ 125,220,062$ | $\$ 101,958,582$ | $\$ 51,330,842$ |
| Awarded Amount | $\$ 24,926,407$ | $\$ 24,343,810$ | $\$ 17,546,570$ |
| Funding Rate | $20 \%$ | $24 \%$ | $34 \%$ |
| Number of Applications | 1,538 | 1,262 | 468 |
| Number of Awarded <br> Applications | 301 | 295 | 157 |
| Success Rate | $20 \%$ | $23 \%$ | $34 \%$ |

