Conseil de recherches en sciences naturelles et en génie du Canada

# 2017 Competition Statistics Discovery Grants (DG) and Research Tools and Instruments (RTI) Programs

Welcome to the new NSERC Competition Statistics Package for the Discovery Grants and RTI Programs.

#### What's New?

- All figures and tables are now based on Discovery Grants Individual and RTI only.
- The data used is from a point-in-time in our corporate database. The date used for this year is March 17<sup>th</sup>, 2017.
- This package includes additional funding received resulting from Federal Budgets 2014 and 2016.

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#### SECTION 1 - OVERALL STATISTICS

Figure 1 Competition Funding, Success Rates, Number of Awards and Average Award 2013-2017

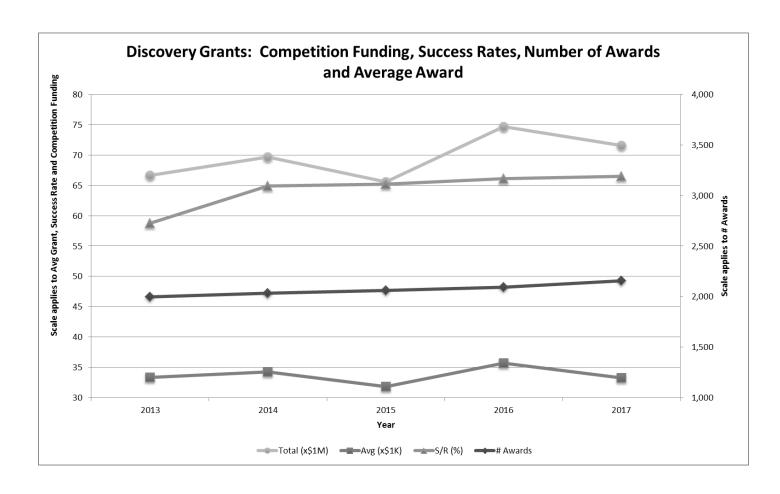


Table 1 Overall Comparative Statistics Discovery Grants Competitions, 2013-17

	2013		2014		2015		2016		2017	
	Success Rate	Average Grant (\$)								
Early Career Researchers (ECR)	60%	\$27,438	70%	\$27,237	65%	\$26,120	75%	\$28,771	69%	\$25,409
Established Researchers (ER)	59%	\$34,323	64%	\$35,477	65%	\$32,903	65%	\$37,138	66%	\$34,948

Table 2 Number of Applications and Awards by Category of Applicants, 2013-17

Competition	ompetition Number of Applications		ompetition Number of Applications					Number of Awards <sup>1</sup>		
Year	ECR	ER-R	ER-NHG	Total	ECR	ER-R	ER-NHG	Total		
2013	471	1,825	1,102	3,398	281	1,382	334	1,997		
2014	427	1,647	1,060	3,134	298	1,328	407	2,033		
2015	489	1,632	1,038	3,159	317	1,342	400	2,059		
2016	494	1,622	1,051	3,167	369	1,333	392	2,094		
2017	562	1,636	1,042	3,240	385	1,360	409	2,154		

Discovery Grants – Applicant Categories: <a href="http://www.nserc-crsng.gc.ca/Professors-Professeurs/Grants-Subs/DGCategories-SDCategories\_eng.asp">http://www.nserc-crsng.gc.ca/Professors-Professeurs/Grants-Subs/DGCategories-SDCategories\_eng.asp</a>

Table 3 Discovery Grants Competition Results by University (including Affiliated University Research Centers), 2017 Competition

	Early	Career Resear	chers	Establishe	d Researchers -	Renewing	Established F	Researchers - N Grant	lot Holding a
Universities	Success Rate (%)	Total Awarded (\$)	Average Grant (\$)	Success Rate (%)	Total Awarded (\$)	Average Grant (\$)	Success Rate (%)	Total Awarded (\$)	Average Grant (\$)
Acadia University	*	*	*	100%	168,050	33,610		*	*
Algoma University	*	*	*	*	*	*	*	*	*
Athabasca University	*	*	*	*	*	*	29%	61,000	30,500
Bishop's University	*	*	*	*	*	*	*	*	*
Brandon University	*	*	*	*	*	*	*	*	*
Brock University	*	*	*	80%	420,000	35,000	50%	90,000	30,000
Cape Breton University	*	*	*	*	*	*	*	*	*
Carleton University	74%	357,501	25,536	81%	776,000	29,846	38%	235,000	26,111
Centre de recherche informatique de Montréal	*	*	*		*	*	·	*	*
Centre for Cold Ocean Resources Engineering	*	*	*	*	*	*	*	*	*
Concordia University	53%	202,000	22,444	83%	1,392,400	34,810	32%	199,000	24,875
Dalhousie University	67%	265,000	26,500	82%	1,042,700	32,584	58%	411,000	27,400
École de technologie supérieure École Polytechnique de Montréal	88%	172,000	24,571	75% 84%	325,000 1,256,000	27,083 39,250	27% 20%	70,000 40,000	23,333
Grant MacEwan University	0070 *	*	24,57 I *	047o *	1,256,000	39,250	20% *	40,000 *	20,000
HEC Montréal	*	*	*	*	*	*	*	*	*
Institut national de la recherche scientifique	80%	122,000	30,500	70%	251,000	35,857	20%	25,000	25,000
Lakehead University	*	*	*	100%	134,000	26,800	27%	71,000	23,667
Laurentian University	*	*	*	56%	120,000	24,000	17%	43,000	21,500
McGill University	77%	561,000	28,050	89%	4,085,000	42,113	51%	714,800	27,492
McMaster University	86%	311,000	25,917	87%	1,671,658	41,791	18%	118,000	39,333
Memorial University of Newfoundland	79%	342,965	22,864	86%	533,723	29,651	32%	212,000	23,556
Mount Allison University	*	*	*	*	*	*	*	*	*
Mount Royal University	*	*	*	*	*	*	*	*	*
Mount Saint Vincent University	*	*	*	*	*	*	*	*	*
Nipissing University	*	*	*	*	*	*	*	*	*
OCAD University	*	*	*	*	*	*	*	*	*
Queen's University	55%	139,000	23,167	83%	1,195,880	47,835	31%	132,000	26,400
Redeemer University College	*	*	*	*	*	*	*	*	*
Royal Military College of Canada	*	*	*	*	*	*	15%	56,000	28,000
Royal Roads University	*	*	*	*	*	*	·	*	*
Ryerson University	71%	115,000	23,000	80%	673,000	33,650	31%	185,000	23,125
Saint Mary's University	60%	77,000	25,667	*	*	*	*	*	*
Simon Fraser University	*	*	*	80%	1,352,000	37,556	22%	86,000	21,500
St. Francis Xavier University	*	*	*	80%	96,000	24,000	•	*	*
St. Thomas University	*	*	*	*	*	*	*	*	*
Télé-université The King's University (Edmonton)	*	*	*	*	*	*	*	*	*
The University of British Columbia	74%	456,000	26,824	91%	4,997,200	43,079	57%	817,000	27,233
The University of Western Ontario	64%	234,000	26,000	87%	2,462,800	39,723	33%	423,500	28,233
The University of Winnipeg	*	*	*	33%	64,000	32,000	0%	0	N/A
Thompson Rivers University	60%	69,000	23,000	*	*	*	*	*	*
Trent University	50%	63,000	21,000	86%	175,000	29,167		*	*
Trinity Western University	*	*	*	*	*	*	*	*	*
TRIUMF	*	*	*	*	*	*	*	*	*
Université de Moncton	67%	89,000	22,250	*	*	*	20%	47,000	23,500
Université de Montréal	52%	304,000	25,333	91%	1,516,000	36,976	38%	430,000	30,714
Université de Sherbrooke	63%	167,000	33,400	79%	1,018,000	37,704	48%	276,000	25,091
Université du Québec à Chicoutimi	*	*	*	*	*	*	38%	66,000	22,000
Université du Québec à Montréal	88%	156,000	22,286	93%	459,000	35,308	56%	263,000	29,222
Université du Québec à Rimouski	*	*	*	83%	152,000	30,400	*	*	*
Université du Québec à Trois-Rivières	*	*	*	40%	128,000	32,000	38%	121,000	24,200
Université du Québec en Abitibi-Témiscamingue	*	*	*	•	*	*	*	*	*
Université du Québec en Outaouais	*							*	*
Université Laval	85%	292,000	26,545	84%	1,753,600	35,788	31%	292,000	26,545
Université Sainte-Anne	6/0/	136 000	24 222	000/	2 012 500	26 720	/E0/	585,000	26 F04
University of Alberta University of Calgary	64% 74%	436,000 383,000	24,222 27,357	90% 78%	3,012,500 1,884,000	36,738 36,231	45% 58%	585,000 679,000	26,591 26,115
University of Guelph	74%	248,000	24,800	78% 76%	933,000	30,231	58%	404,000	25,250
University of Gueiphi University of Lethbridge	100%	165,000	27,500	83%	200,100	40,020	22%	67,000	33,500
University of Manitoba	69%	213,000	23,667	83%	1,256,000	32,205	38%	265,000	26,500
University of New Brunswick	50%	76,000	19,000	65%	332,000	30,182	44%	181,000	22,625
University of Northern British Columbia	*	*	*	63%	162,000	32,400	*	*	*
University of Ontario Institute of Technology	*	*	*	50%	214,000	30,571	58%	165,000	23,571
University of Ottawa	74%	459,000	27,000	80%	1,334,000	40,424	39%	482,000	32,133
University of Prince Edward Island	*	*	*	*	*	*	27%	62,000	20,667
University of Regina	33%	50,000	25,000	79%	296,000	26,909	18%	44,000	22,000
University of Saskatchewan	75%	257,000	21,417	77%	1,105,000	36,833	57%	430,000	26,875
University of the Fraser Valley	*	*	*	*	*	*	*	*	*
University of Toronto	73%	1,056,000	27,789	83%	5,326,900	45,143	44%	818,000	29,214
University of Victoria	89%	200,000	25,000	83%	938,380	31,279	50%	130,000	26,000
University of Waterloo	78%	455,000	25,278	94%	3,656,352	36,933	60%	440,000	29,333
University of Windsor	71%	115,000	23,000	78%	518,000	28,778	32%	207,000	25,875
Vancouver Island University	*	*	*	*	*	*	*	*	*
Wilfrid Laurier University	*	*	*	83%	132,000	26,400	*	*	*
York University	88%	353,000	25,214	77%	797,823	29,549	27%	193,355	27,622
Grand Total	69%	9,782,303	25,409	83%	50,859,066	37,396	39%	10,963,655	26,806

<sup>\*</sup> Less than five applications.

Table 4 Statistics by University Size, 2017 Competition

	_	<u> </u>	Jniversity Size	<u> </u>
Category of Applicants	Data	Large	Medium	Small
	Number of Applications	354	111	97
	Number of grants	255	80	50
Early Career Researchers	Success Rate	72%	72%	52%
	Total Amount	\$6,665,000	\$1,912,466	\$1,204,837
	Average Grant	\$26,137	\$23,906	\$24,097
	Number of Applications	1248	250	138
	Number of grants	1,069	197	94
Established Researchers - Returning	Success Rate	86%	79%	68%
	Total Amount	\$41,796,970	\$6,177,946	\$2,884,150
	Average Grant	\$39,099	\$31,360	\$30,682
	Number of Applications	648	217	177
Established Researchers - Not Holding a	Number of grants	289	72	48
Grant	Success Rate	45%	33%	27%
Gran	Total Amount	\$7,973,300	\$1,813,355	\$1,177,000
	Average Grant	\$27,589	\$25,185	\$24,521

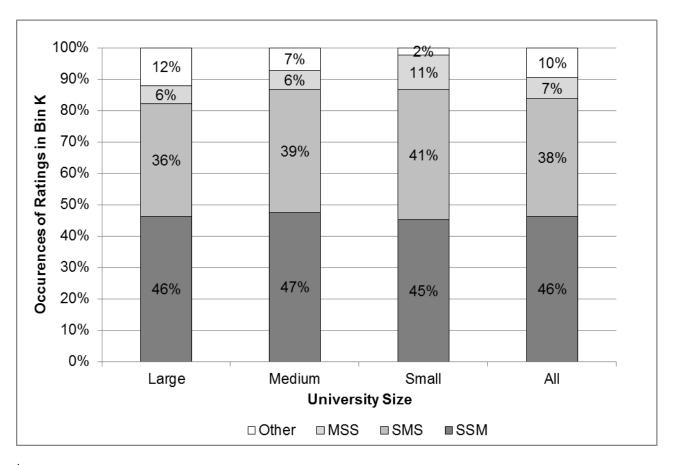
Table 5 Success Rate by Category of Applicants and University Size, 2013-17

		Large			Medium			Small							
	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017
Early Career Researchers	63%	74%	67%	80%	72%	58%	65%	75%	73%	72%	43%	55%	47%	49%	52%
Established Researchers - Returning	80%	84%	85%	85%	86%	69%	76%	75%	77%	79%	57%	64%	72%	66%	68%
Established Researchers - Not Holding a Grant	35%	43%	45%	43%	45%	25%	37%	32%	33%	33%	20%	24%	25%	20%	27%

Table 6 Number of Applications by Quality Bins by University Size, 2017 Competition

	University Size									
	L	arge	Me	edium	Small					
Bin	Number	Percentage	Number	Percentage	Number	Percentage				
Α	4	0.2%	0	0.0%	0	0.0%				
В	17	0.8%	0	0.0%	0	0.0%				
С	33	1.5%	1	0.2%	1	0.2%				
D	59	2.6%	8	1.4%	3	0.7%				
Е	113	5.0%	11	1.9%	3	0.7%				
F	153	6.8%	20	3.5%	6	1.5%				
G	210	9.3%	43	7.4%	17	4.1%				
Н	225	10.0%	48	8.3%	21	5.1%				
I	277	12.3%	53	9.2%	37	9.0%				
J	403	17.9%	112	19.4%	72	17.5%				
K	303	13.5%	97	16.8%	82	19.9%				
L	233	10.4%	91	15.7%	72	17.5%				
М	152	6.8%	68	11.8%	67	16.3%				
N	47	2.1%	13	2.2%	24	5.8%				
0	15	0.7%	9	1.6%	6	1.5%				
Р	6	0.3%	4	0.7%	1	0.2%				
Total	2250	100.0%	578	100.0%	412	100.0%				

Figure 2 Percentage of Occurrences of Various Combinations of Ratings<sup>1</sup> in Bin K by University Size for the 2017 Competition



<sup>1</sup>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 2 - STATISTICS BY EVALUATION GROUP

Table 7 Success Rate, Average Grant and Total Amount Awarded by Category of Applicant for Each Evaluation Group, 2017 Competition

	Early Career	Established Researchers		
1501 - Genes, Cells and Molecules	Researchers	Returning	Not Holding a Grant	
Success Rate	54%	78%	45%	
Average Grant	\$29,705	\$38,534	\$28,847	
Total Amount Awarded	\$1,307,000	\$6,589,338	\$3,202,000	

1502 - Biological Systems and	Early Career	Established	Researchers	
Functions	Researchers	Returning	Not Holding a Grant	
Success Rate	66%	78%	31%	
Average Grant	\$27,500	\$37,850	\$28,857	
Total Amount Awarded	\$1,980,000	\$5,791,000	\$1,616,000	

	Early Career	Established Researchers		
1503 - Evolution and Ecology	Researchers	Returning	Not Holding a Grant	
Success Rate	73%	80%	51%	
Average Grant	\$27,520	\$38,739	\$25,333	
Total Amount Awarded	\$660,489	\$2,982,920	\$532,000	

	Early Career	Established Researchers		
1504 - Chemistry	Researchers	Returning	Not Holding a Grant	
Success Rate	62%	92%	34%	
Average Grant	\$26,625	\$57,131	\$28,133	
Total Amount Awarded	\$426,000	\$5,598,880	\$422,000	

	Early Career	Established Researchers		
1505 - Physics	Researchers	Returning	Not Holding a Grant	
Success Rate	80%	84%	48%	
Average Grant	\$27,928	\$42,043	\$29,167	
Total Amount Awarded	\$446,849	\$4,120,192	\$612,500	

	Early Career	Established Researchers		
1506 - Geosciences	Researchers	Returning	Not Holding a Grant	
Success Rate	62%	85%	39%	
Average Grant	\$26,556	\$36,781	\$26,458	
Total Amount Awarded	\$478,000	\$3,199,980	\$635,000	

	Early Career	Established Researchers		
1507 - Computer Science	Researchers	Returning	Not Holding a Grant	
Success Rate	59%	79%	34%	
Average Grant	\$24,700	\$31,868	\$24,647	
Total Amount Awarded	\$741,000	\$4,557,100	\$838,000	

	Early Career	Established Researchers		
1508 - Mathematics and Statistics	Researchers	Returning	Not Holding a Grant	
Success Rate	83%	97%	57%	
Average Grant	\$19,446	\$26,735	\$19,436	
Total Amount Awarded	\$738,965	\$3,368,633	\$408,155	

1509 - Civil, industrial and Systems	Early Career	Established Researchers		
Engineering	Researchers	Returning Not Holding a		
Success Rate	81%	89%	44%	
Average Grant	\$22,647	\$34,081	\$23,438	
Total Amount Awarded	\$1,155,000	\$3,237,723	\$750,000	

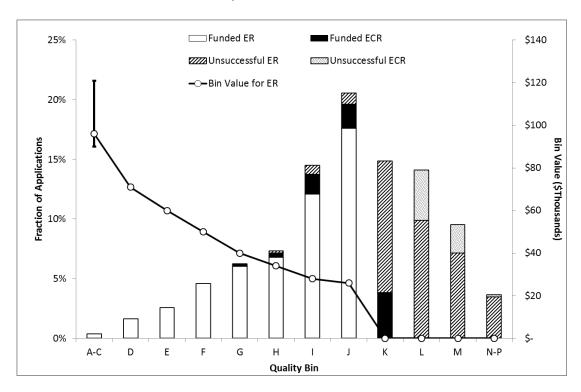
1510 - Electrical and Computer	Early Career	Established Researchers		
Engineering	Researchers	Returning	Not Holding a Grant	
Success Rate	61%	80%	36%	
Average Grant	\$26,182	\$38,961	\$26,563	
Total Amount Awarded	\$576,000	\$4,987,000	\$850,000	

1511 - Materials and Chemical	Early Career	Established Researchers		
Engineering	Researchers	Returning	Not Holding a Grant	
Success Rate	81%	85%	34%	
Average Grant	\$23,720	\$34,215	\$27,870	
Total Amount Awarded	\$593,000	\$3,182,000	\$641,000	

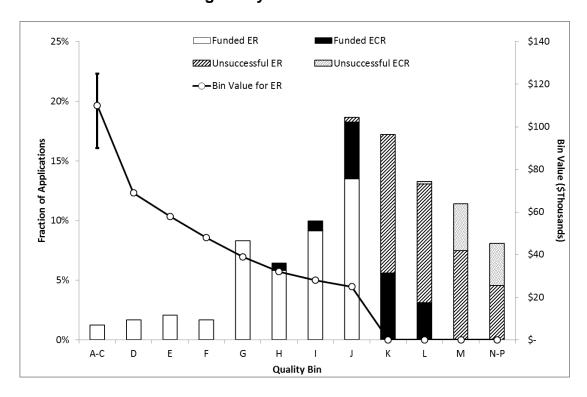
	Early Career	Established Researchers		
1512 - Mechanical Engineering	Researchers	Returning Not Holding a		
Success Rate	78%	79%	31%	
Average Grant	\$23,448	\$35,652	\$24,053	
Total Amount Awarded	\$680,000	\$3,244,300	\$457,000	

Figure 3 Distribution of the Percentage of Applications by Quality Bin for Each Evaluation Group, 2017 Competition

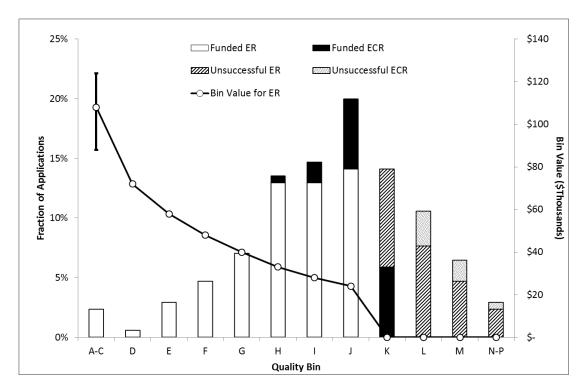
#### Gene, Cells and Molecules



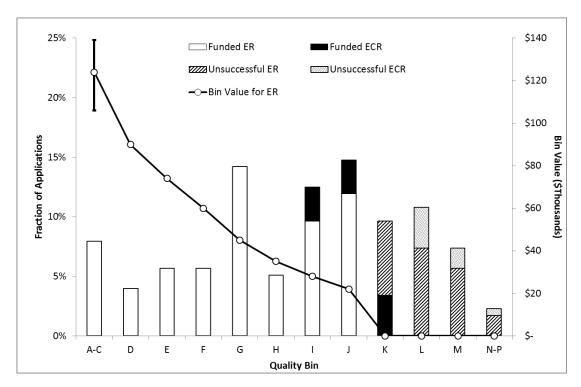
## **Biological Systems and Functions**



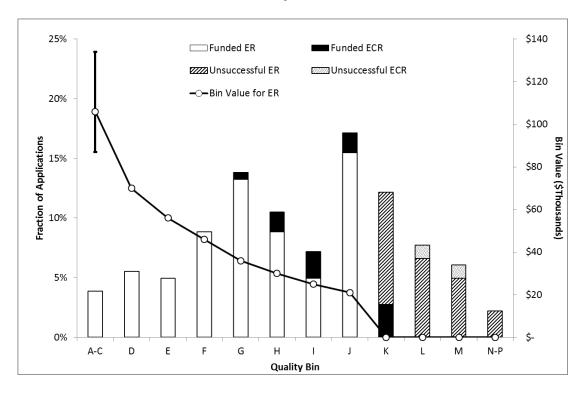
## **Evolution and Ecology**



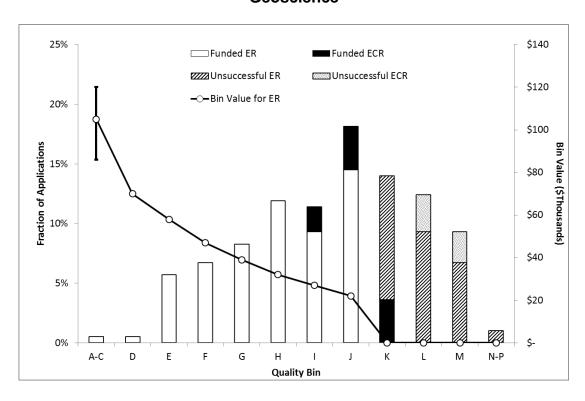
## Chemistry



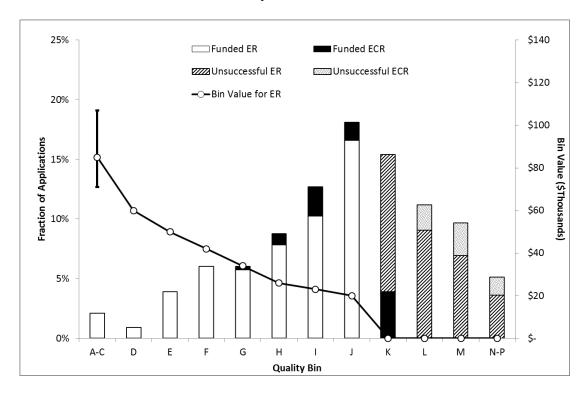
## **Physics**



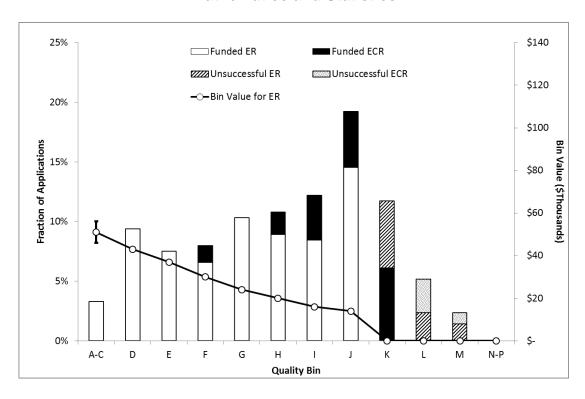
#### Geoscience



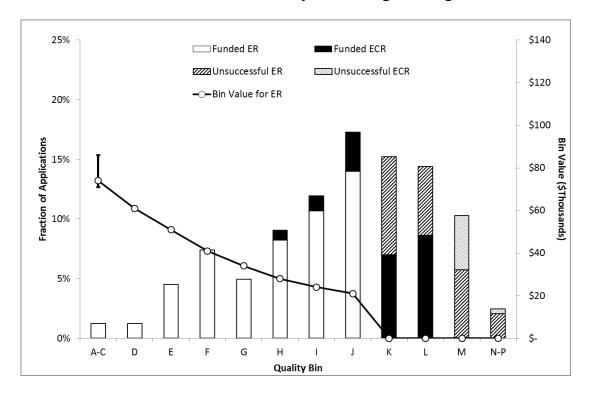
### **Computer Science**



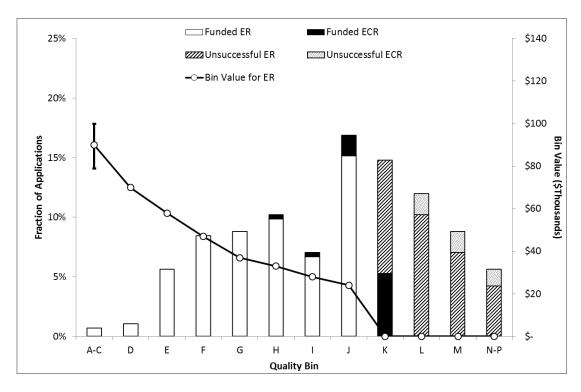
#### **Mathematics and Statistics**



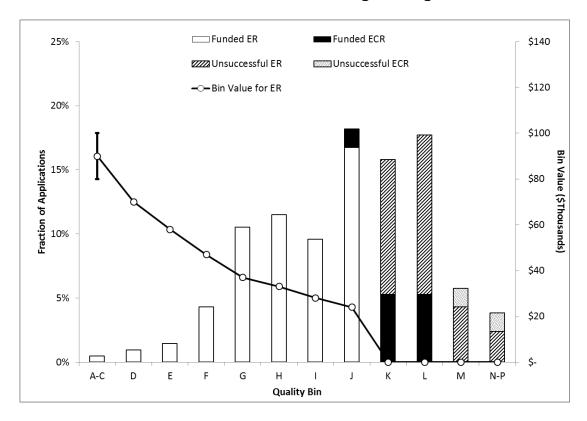
### Civil, Industrial and Systems Engineering



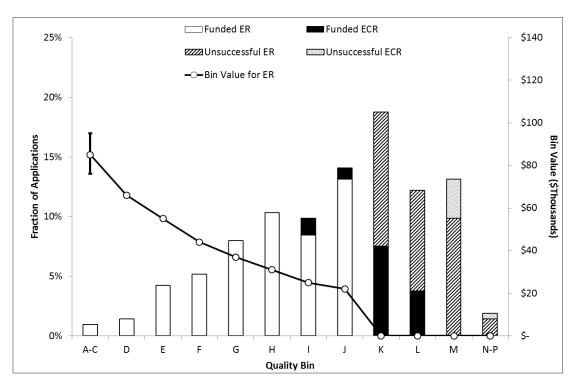
## **Electrical and Computer Engineering**



#### **Materials and Chemical Engineering**



#### **Mechanical Engineering**



What is the distribution of applications by "quality bin": <a href="http://www.nserc-crsng.gc.ca/NSERC-CRSNG/FundingDecisions-DecisionsFinancement/Questions-Questions\_eng.asp">http://www.nserc-crsng.gc.ca/NSERC-CRSNG/FundingDecisions-DecisionsFinancement/Questions-Questions\_eng.asp</a>

#### SECTION 3 – SEX-DISAGGREGATED COMPETITION STATISTICS

The data used in this section was taken from the CCV portion of the 2017 applications where applicants are asked to indicate their sex. NSERC is committed to using more inclusive gender language in the future.

Table 8 Number of Applicants by Sex and Career Stage, 2017 Competition

		Sex	
	Female	Male	Not Indicated
Adjunct, Emereti & Other	17	86	41
Assistant Professor	181	398	162
Associate Professor	166	536	208
Professor	187	1007	251
Total	551	2027	662

Table 9 Discovery Grant Success Rate and Average Awarded Amount by Career Stage and Sex, 2017 Competition

		Success Rate			Average Award	
	Female	Male	Not Indicated	Female	Male	Not Indicated
Adjunct, Emeriti & Other	18%	47%	61%	\$23,000	\$27,663	\$33,324
Assistant Professor	56%	65%	62%	\$25,821	\$25,616	\$25,544
Associate Professor	64%	57%	54%	\$31,674	\$31,168	\$28,000
Professor	80%	75%	77%	\$37,717	\$38,859	\$34,310

Table 10 Discovery Grant Success Rate and Average Grant by Applicant Status and Sex, 2017 Competition

	Success Rate			Ave	rd	
	Female	Male	Not Indicated	Female	Male	Not Indicated
ECR	61%	71%	70%	\$25,962	\$25,261	\$25,268
ER	67%	67%	64%	\$34,330	\$35,922	\$32,103
Total	66%	67%	65%	\$32,475	\$34,294	\$30,565

Table 11 Discovery Grant Success Rate by Sex and Evaluation Group, 2017 Competition

	Success Rate			Percen	tage of Ap	plicants
Evaluation Groups	Female	Male	Not Indicated	Female	Male	Not Indicated
1501 Genes, Cells and Molecules	62.5%	58.6%	63.2%	23.5%	69.5%	7.0%
1502 Biological Systems and Functions	54.4%	61.6%	50.9%	28.2%	60.0%	11.8%
1503 Evolution and Ecology	71.9%	74.7%	66.0%	18.8%	53.5%	27.6%
1504 Chemistry	77.4%	73.3%	68.0%	17.6%	68.2%	14.2%
1505 Physics	80.0%	73.9%	73.9%	11.0%	63.5%	25.4%
1506 Geosciences	69.6%	71.6%	57.4%	11.9%	56.5%	31.6%
1507 Computer Science	66.0%	57.5%	69.5%	14.2%	54.1%	31.7%
1508 Mathematics and Statistics	88.9%	87.0%	85.9%	12.7%	54.0%	33.3%
1509 Civil, Industrial and Systems Engineering	68.6%	76.0%	68.5%	14.4%	63.4%	22.2%
1510 Electrical and Computer Engineering	72.2%	67.0%	54.2%	6.3%	68.3%	25.4%
1511 Materials and Chemical Engineering	64.7%	71.4%	57.1%	16.3%	63.6%	20.1%
1512 Mechanical Engineering	70.0%	65.8%	61.4%	9.4%	70.0%	20.7%

### SECTION 4 – RESEARCH TOOLS AND INSTRUMENTS

Table 12 Overall Comparative Statistics, 2015-2017 Research Tools and Instruments Competitions

	2015	2016	2017
Requested Amount	\$73,990,321	\$79,110,834	\$91,616,517
Awarded Amount	\$25,207,106	\$26,133,975	\$30,471,770
Funding Rate	34%	33%	33%
Number of Applications	666	657	748
Number of Awarded Applications	218	215	241
Success Rate	33%	33%	32%

Table 13 Research Tools and Instruments 2017 Competition Results by Selection Committee

	Requested	Awarded	Funding Rate	Applied	Awarded	Success Rate	Average Requested	Average Awarded
Genes, Cells and Molecules (RTI)	\$11,983,400	\$4,027,855	33.6%	95	29	30.5%	\$126,141	\$138,892
Biological Systems and Functions (RTI)	\$12,526,283	\$4,164,838	33.2%	114	35	30.7%	\$109,880	\$118,995
Environmental Sciences (RTI)	\$9,844,159	\$3,361,197	34.1%	91	33	36.3%	\$108,178	\$101,854
Chemistry (RTI)	\$13,827,418	\$4,540,681	32.8%	107	34	31.8%	\$129,228	\$133,549
Physics (RTI)	\$7,553,476	\$2,553,185	33.8%	60	18	30.0%	\$125,891	\$141,844
Computer, Mathematical and Statistical Sciences (RTI)	\$3,719,621	\$1,257,191	33.8%	34	12	35.3%	\$109,401	\$104,766
Engineering (RTI)	\$32,162,160	\$10,566,823	32.9%	247	80	32.4%	\$130,211	\$132,085
Operation and Maintenance Support for Research Equipment (RTI)	\$18,824,043	\$4,008,624	21.3%	149	28	18.8%	\$126,336	\$143,165
Grand Total	\$110,440,560	\$34,480,394	31.2%	897	269	30.0%	\$123,122	\$128,180