

## Review of Dalhousie Salary Data

This report reviews salary data for Dalhousie faculty in two ways.

1. We compare Dalhousie salaries to the national, regional, and U15 comparator groups.
2. We look at Dalhousie salaries in terms of inflation (consumer price index) and the Income Maintenance Change (IMC) negotiated with the Board through collective bargaining.

### 1. Statistics Canada Salary Data<sup>1</sup> for Dalhousie and Regional, National, and U15 Comparator Groups

In September 1989, Allan Shaw, Board Chair, noted in the Fourth Progress Report of the Financial Strategy Committee that Dalhousie should establish a faculty salary policy to ensure faculty salaries reach parity with comparable universities across the country. This comparator group is the group of national comparator universities.

Recommendation 3: The University should establish a faculty salary policy with the following components:

- a) the objective of the policy should be parity over time between mean salaries by rank and age for Dalhousie faculty and those for comparable groups at selected Canadian universities;
- b) where corrective measures are currently required to meet the policy objective, adjustments should be phased in over a reasonable period of time, perhaps three to five years, as resources become available to increase the faculty salary budget; and
- c) the Board should join with the Dalhousie Faculty Association in the preparation and publication of annual statistical reports on faculty salaries so that all concerned members of the University community may have access to a commonly accepted data bank.

The Sub-committee has estimated the cost of this recommendation, on an ongoing basis, to be about \$950,000.

(Dalhousie University Financial Strategy Committee,  
Fourth Progress Report, September 1989, p. 9)

In the years since, the Board and the DFA have used the national comparator group to determine Dalhousie's ranking among 'selected Canadian universities'.

This analysis in this report used Statistics Canada mean salary data (excluding senior administrative positions) for universities in the national, regional, and U15 comparator groups<sup>1</sup>. The tables and graphs on pages 4-12 show Dalhousie salaries (mean values) at the Assistant, Associate, and Full Professor ranks over the past eight years. Statistics Canada does not report

data for Instructors, Counsellors, and Librarians, which is why these groups are not included in the analysis.

Page	Comparator group	Rank (Professoriate)
4	National	Assistant
5	National	Associate
6	National	Full
7	Regional	Assistant
8	Regional	Associate
9	Regional	Full
10	U15	Assistant
11	U15	Associate
12	U15	Full

Pages 13, 15, and 17 indicate the mean salaries by rank and year (2011-2018) for the national, regional, and U15 comparator groups. The difference between Dalhousie's means and each comparator group's means are shown in terms of a 'gap' in dollar and percentage values (pages 14, 16, and 18). A positive value means Dalhousie is below the comparator group mean and a negative value means Dalhousie is above the comparator group. Dalhousie is below the national and U15 groups and above the regional group. The highlighted right columns on pages 14, 16, and 18 indicate the amounts the Board would need to apply, in both dollar and percentage amounts, for the mean Dalhousie salaries to reach parity with the national comparator group, as recommended in the Shaw report of 1989.

## **2. Dalhousie IMC increases compared to Nova Scotia and Canada inflation rates (2000-2019)**

The second analysis (pages 19-24) looks at the growth in Dalhousie faculty salaries as a result of negotiated IMC increases since 2001, and compared this to inflation (CPI). The analysis shows inflation in Nova Scotia (pages 19-21) and Canada (pages 22-24).

The mean 9 year differences (rightmost column, pages 19 and 22) show that IMC was ahead of CPI in both NS (0.75) and Canada (0.88) from 2001-2009 but the IMC-CPI difference was negligible in 2010-2018 (-0.02 in Nova Scotia and 0.02 in Canada).

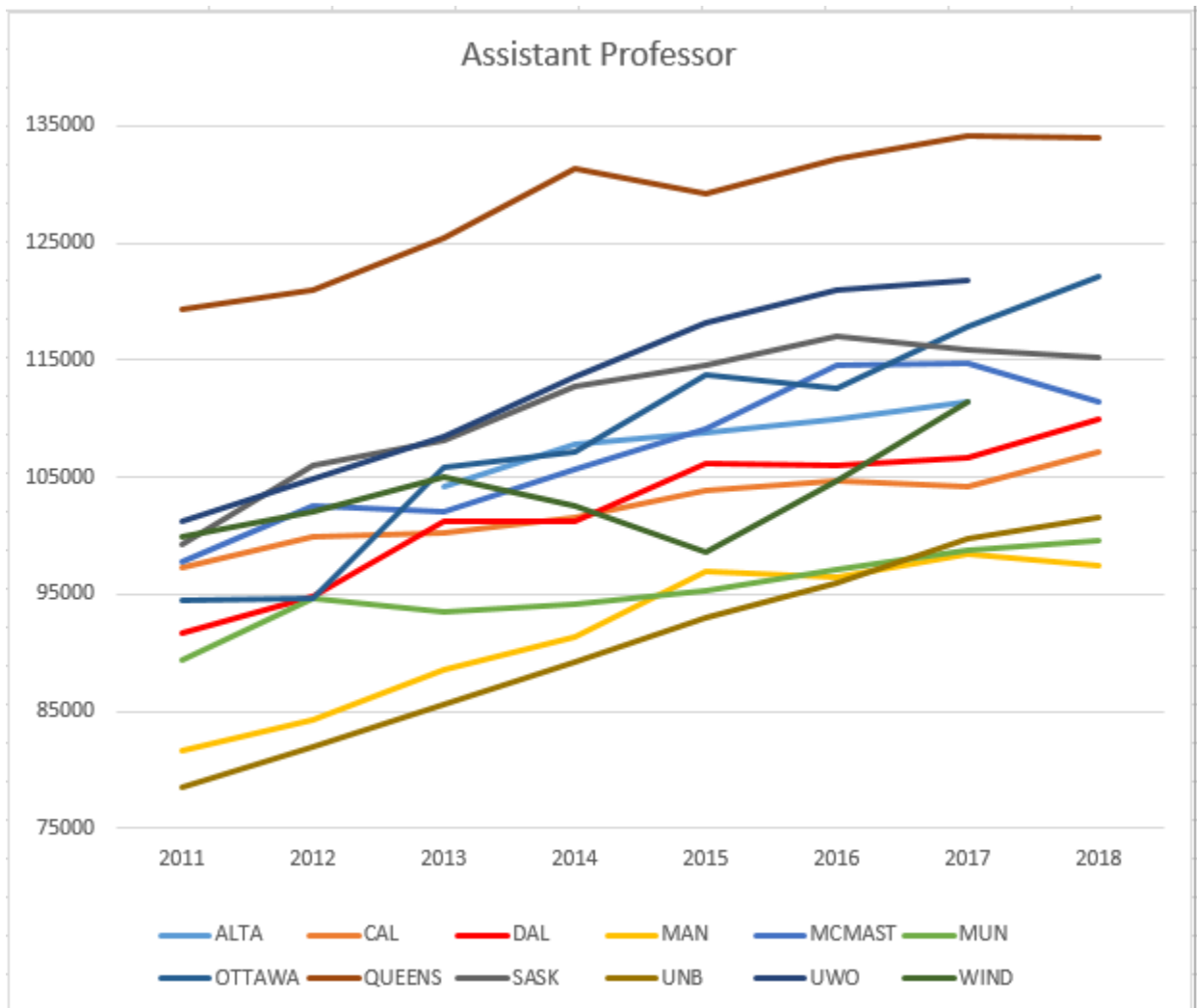
Inflation and IMC do not covary. IMC was generally above inflation before 2010 (page 20 for Nova Scotia and page 23 for Canada) but thereafter the relationship was mixed. The trend lines for the last 18 and last 10 year periods show that gains in the 2000-2010 years allowed IMC to remain above CPI but the intersection of the two trend lines show that these gains are not sustainable.

The tables (pages 19 and 22) and graphs (pages 21 and 24) show buying power ('Index' columns) based on CPI and IMC changes. Buying power as a result of IMC grew faster than CPI buying power in the first 10 years of the 18 year analysis; in contrast, IMC increases in the last 10 year period have kept buying power close to that of inflation.

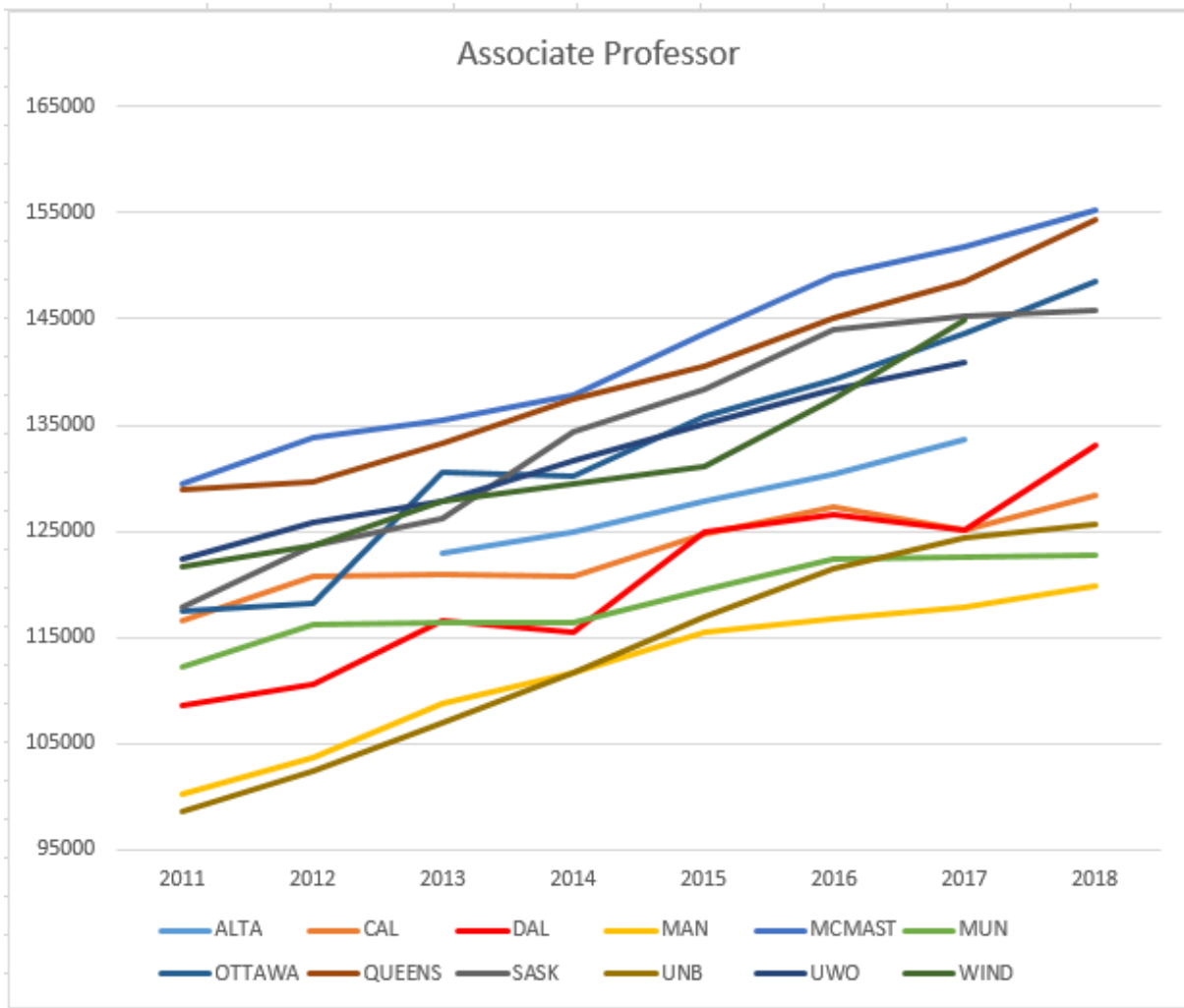
---

<sup>1</sup> Statistics Canada. Table: 37-10-0108-01 Number and salaries of full-time teaching staff at Canadian universities

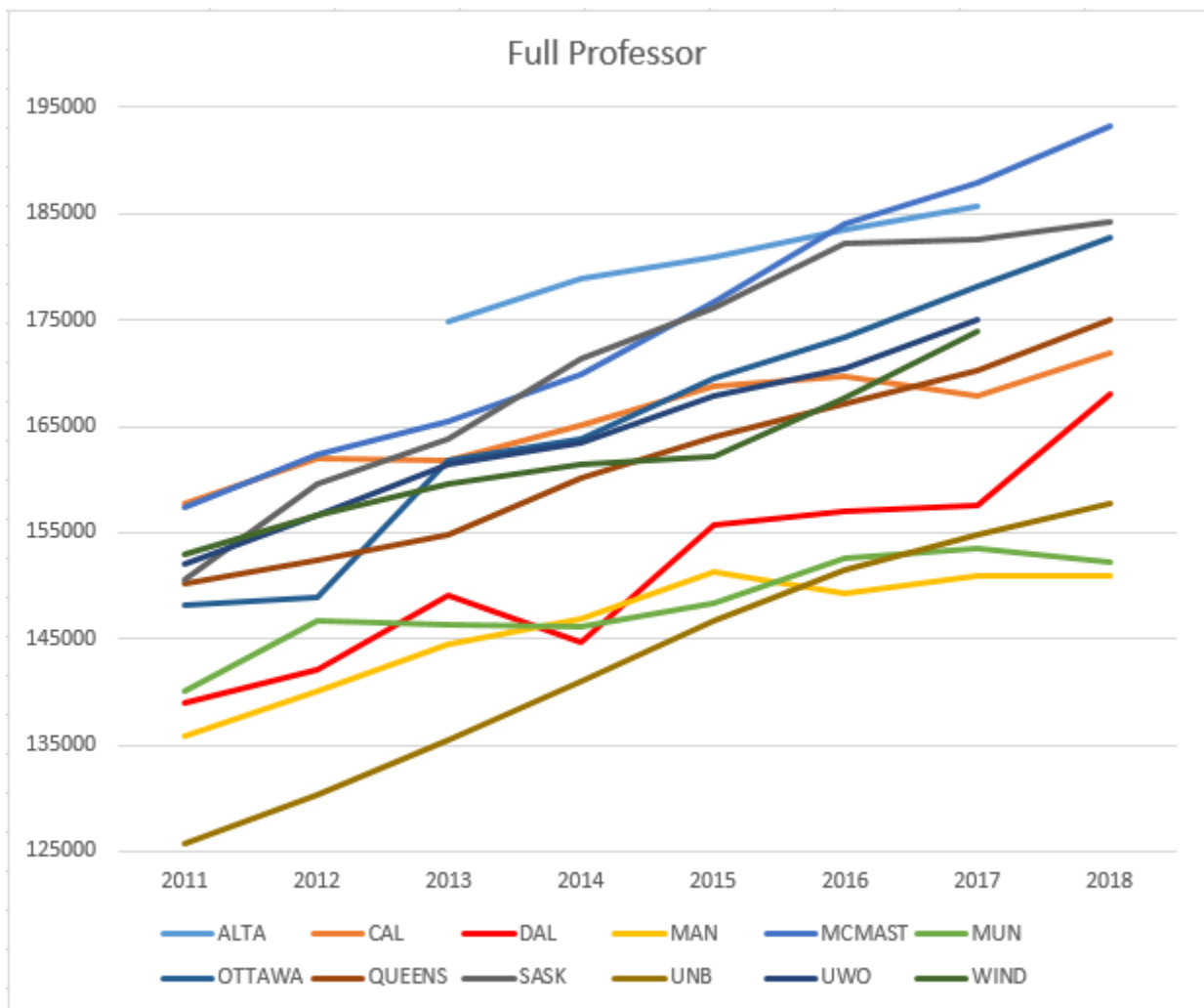
National - Mean - Assistant Professor								
	2011	2012	2013	2014	2015	2016	2017	2018
ALTA			104,200	107,775	108,825	109,925	111,375	
CAL	97,325	99,875	100,200	101,550	103,925	104,750	104,125	107,100
<b>DAL</b>	<b>91,725</b>	<b>94,825</b>	<b>101,200</b>	<b>101,275</b>	<b>106,200</b>	<b>105,975</b>	<b>106,625</b>	<b>109,900</b>
MAN	81,575	84,225	88,525	91,375	96,975	96,475	98,400	97,450
MCMAST	97,850	102,500	101,975	105,700	109,150	114,500	114,750	111,425
MUN	89,425	94,725	93,425	94,125	95,325	97,050	98,750	99,575
OTTAWA	94,500	94,575	105,800	107,200	113,675	112,650	117,775	122,175
QUEENS	119,350	120,950	125,475	131,325	129,250	132,125	134,150	133,925
SASK	99,225	106,025	108,175	112,825	114,500	116,950	115,800	115,200
UNB	78,575	81,925	85,550	89,200	92,925	96,025	99,675	101,575
UWO	101,200	104,875	108,500	113,525	118,225	121,000	121,800	
WIND	99,925	102,075	104,950	102,500	98,675	104,650	111,500	
Mean - excl. Dal	95,895	99,175	102,434	105,191	107,405	109,645	111,645	111,053



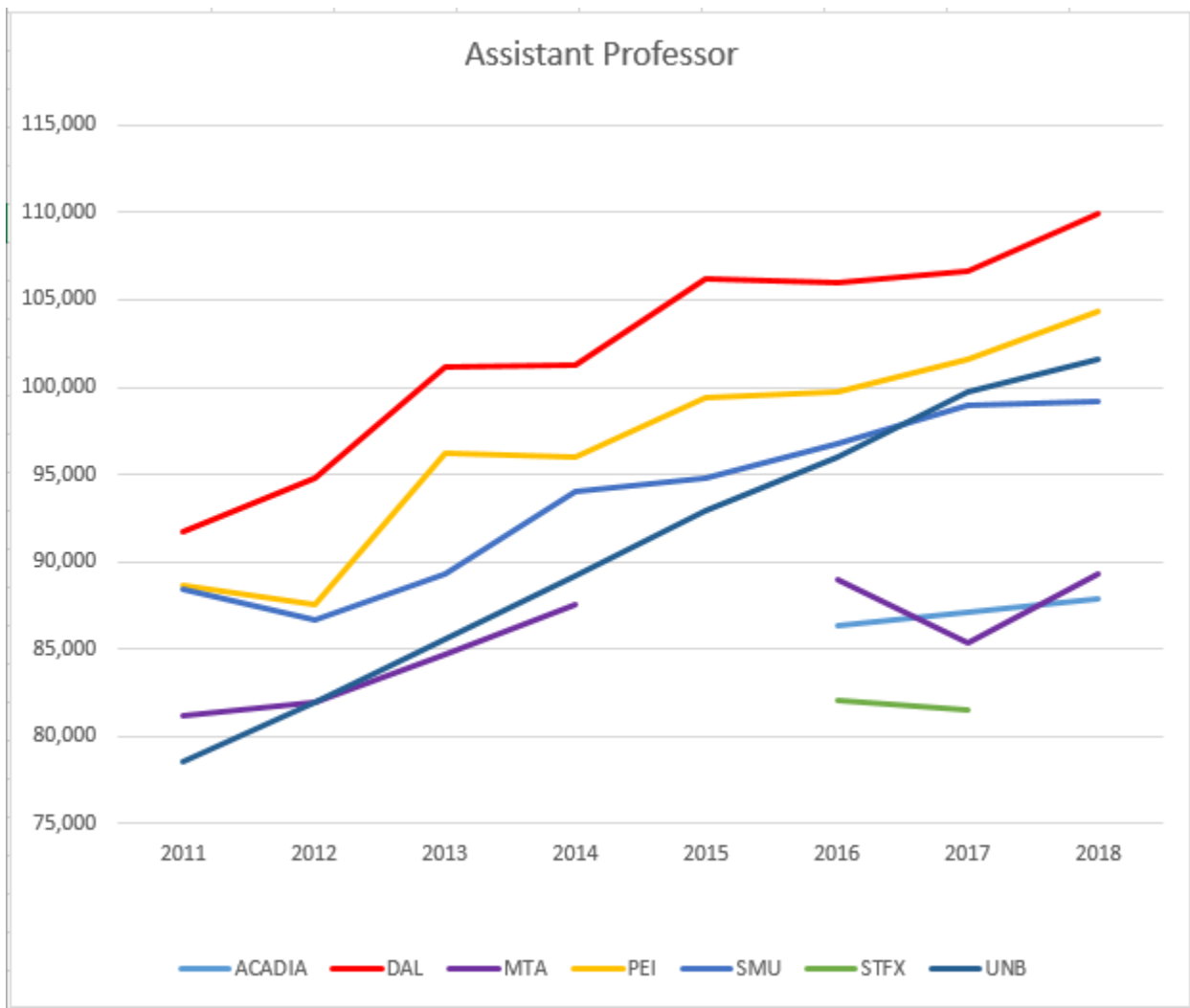
National - Mean - Associate Professor								
	2011	2012	2013	2014	2015	2016	2017	2018
ALTA			122,825	125,000	127,750	130,350	133,725	
CAL	116,475	120,775	120,975	120,700	124,725	127,325	125,150	128,375
<b>DAL</b>	<b>108,600</b>	<b>110,550</b>	<b>116,550</b>	<b>115,375</b>	<b>124,975</b>	<b>126,575</b>	<b>125,175</b>	<b>133,175</b>
MAN	100,275	103,600	108,750	111,725	115,475	116,775	117,750	119,750
MCMAST	129,425	133,800	135,400	137,800	143,600	149,025	151,825	155,300
MUN	112,150	116,150	116,400	116,300	119,475	122,425	122,525	122,750
OTTAWA	117,375	118,125	130,525	130,225	135,825	139,350	143,625	148,550
QUEENS	128,900	129,700	133,325	137,525	140,525	145,075	148,500	154,375
SASK	117,825	123,650	126,250	134,375	138,425	143,975	145,225	145,775
UNB	98,600	102,400	106,900	111,700	116,850	121,475	124,350	125,725
UWO	122,400	125,875	127,875	131,625	135,150	138,450	140,850	
WIND	121,675	123,675	127,850	129,475	131,125	137,500	144,900	
Mean - excl. Dal	116,510	119,775	123,370	126,041	129,902	133,793	136,220	137,575



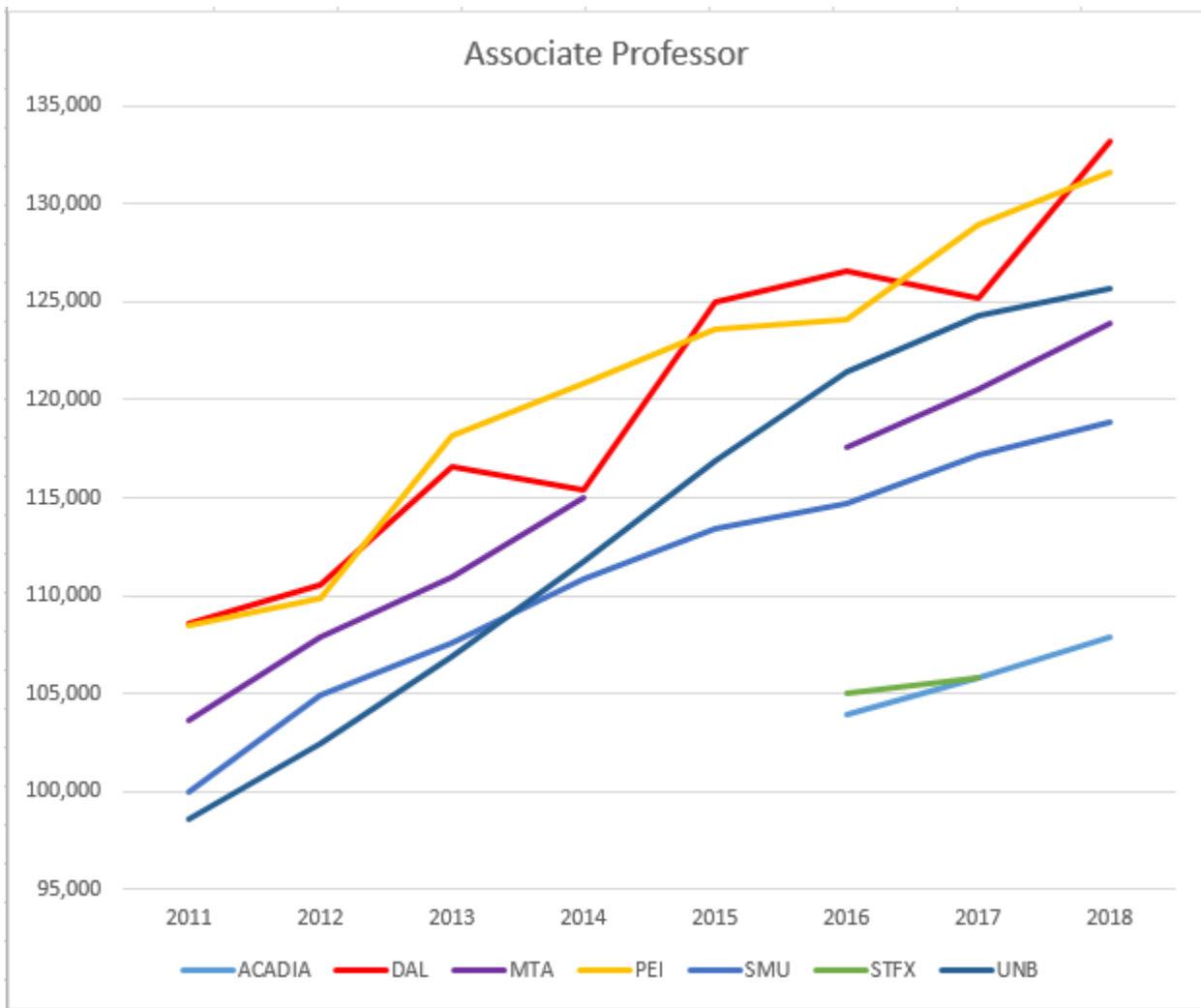
National - Mean - Full Professor								
	2011	2012	2013	2014	2015	2016	2017	2018
ALTA			174,800	178,825	180,950	183,575	185,750	
CAL	157,775	161,925	161,750	165,175	168,700	169,750	167,825	171,875
<b>DAL</b>	<b>138,975</b>	<b>142,125</b>	<b>149,050</b>	<b>144,600</b>	<b>155,625</b>	<b>156,950</b>	<b>157,525</b>	<b>168,075</b>
MAN	135,800	140,150	144,425	146,950	151,350	149,200	150,975	151,000
MCMAST	157,400	162,325	165,450	169,900	176,700	184,025	187,925	193,325
MUN	140,025	146,700	146,375	146,125	148,300	152,500	153,575	152,225
OTTAWA	148,250	148,900	161,850	163,850	169,575	173,350	178,100	182,750
QUEENS	150,125	152,450	154,825	160,200	164,000	167,025	170,325	175,000
SASK	150,600	159,600	163,875	171,300	176,050	182,225	182,650	184,175
UNB	125,650	130,300	135,525	140,975	146,775	151,500	154,750	157,775
UWO	152,075	156,675	161,400	163,525	167,925	170,375	175,000	
WIND	152,900	156,575	159,600	161,475	162,225	167,675	173,850	
Mean - excl. Dal	147,060	151,560	157,261	160,755	164,777	168,291	170,975	171,016



Regional - Mean - Assistant Professor								
	2011	2012	2013	2014	2015	2016	2017	2018
ACADIA	80,450					86,350	87,125	87,900
<b>DAL</b>	<b>91,725</b>	<b>94,825</b>	<b>101,200</b>	<b>101,275</b>	<b>106,200</b>	<b>105,975</b>	<b>106,625</b>	<b>109,900</b>
MTA	81,150	82,000	84,725	87,550		89,025	85,350	89,275
PEI	88,675	87,575	96,175	96,050	99,450	99,725	101,600	104,350
SMU	88,475	86,625	89,275	94,075	94,800	96,750	99,000	99,175
STFX	78,925					82,100	81,550	
UNB	78,575	81,925	85,550	89,200	92,925	96,025	99,675	101,575
Mean - excl. Dal	82,708	84,531	88,931	91,719	95,725	91,663	92,383	96,455

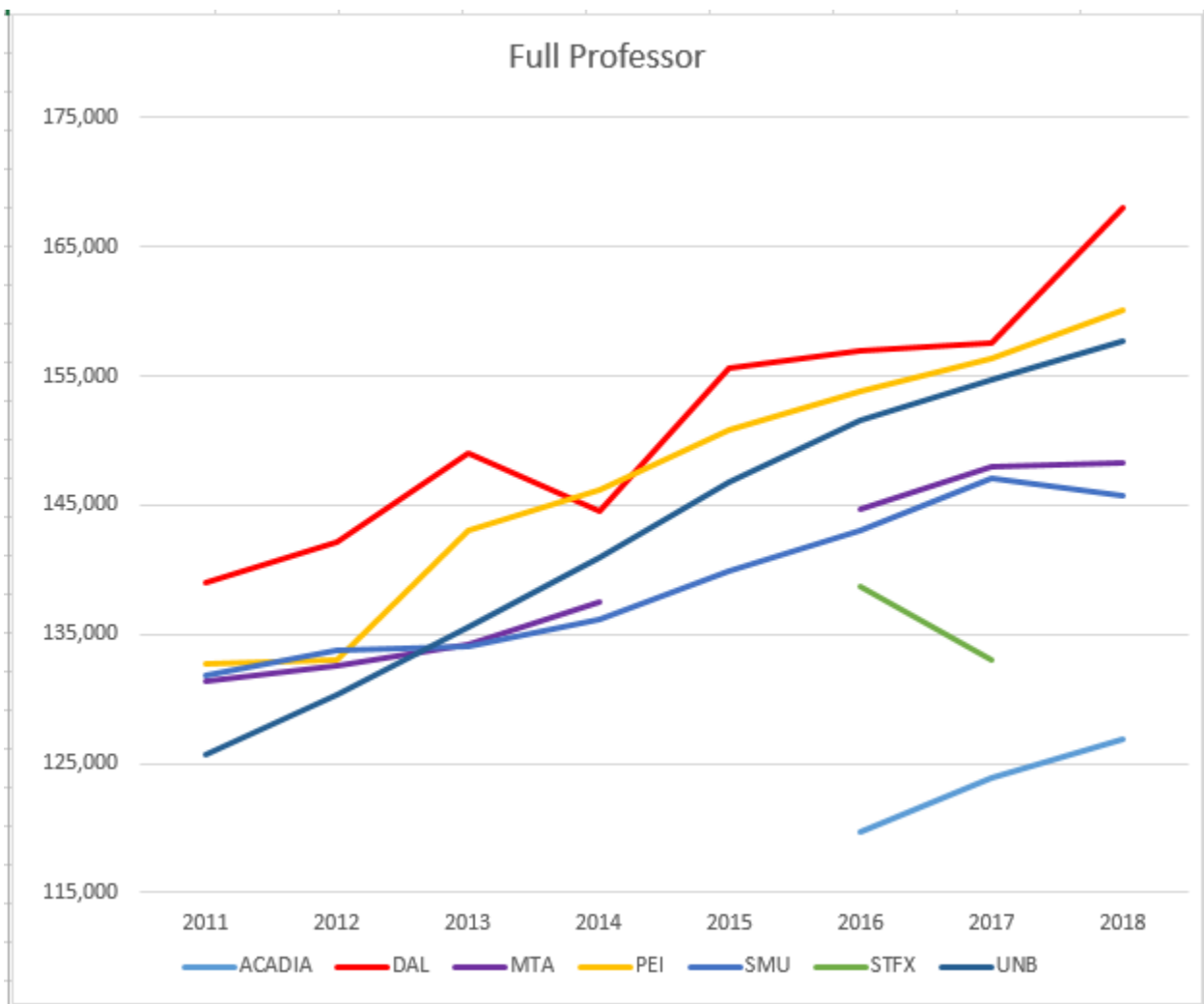


Regional - Mean - Associate Professor								
	2011	2012	2013	2014	2015	2016	2017	2018
ACADIA	92,850					103,900	105,775	107,825
<b>DAL</b>	<b>108,600</b>	<b>110,550</b>	<b>116,550</b>	<b>115,375</b>	<b>124,975</b>	<b>126,575</b>	<b>125,175</b>	<b>133,175</b>
MTA	103,575	107,850	110,925	115,000		117,600	120,550	123,950
PEI	108,425	109,875	118,175	120,800	123,575	124,125	128,925	131,650
SMU	99,975	104,900	107,550	110,825	113,375	114,725	117,150	118,875
STFX	96,675					105,025	105,825	
UNB	98,600	102,400	106,900	111,700	116,850	121,475	124,350	125,725
Mean - excl. Dal	100,017	106,256	110,888	114,581	117,933	114,475	117,096	121,605

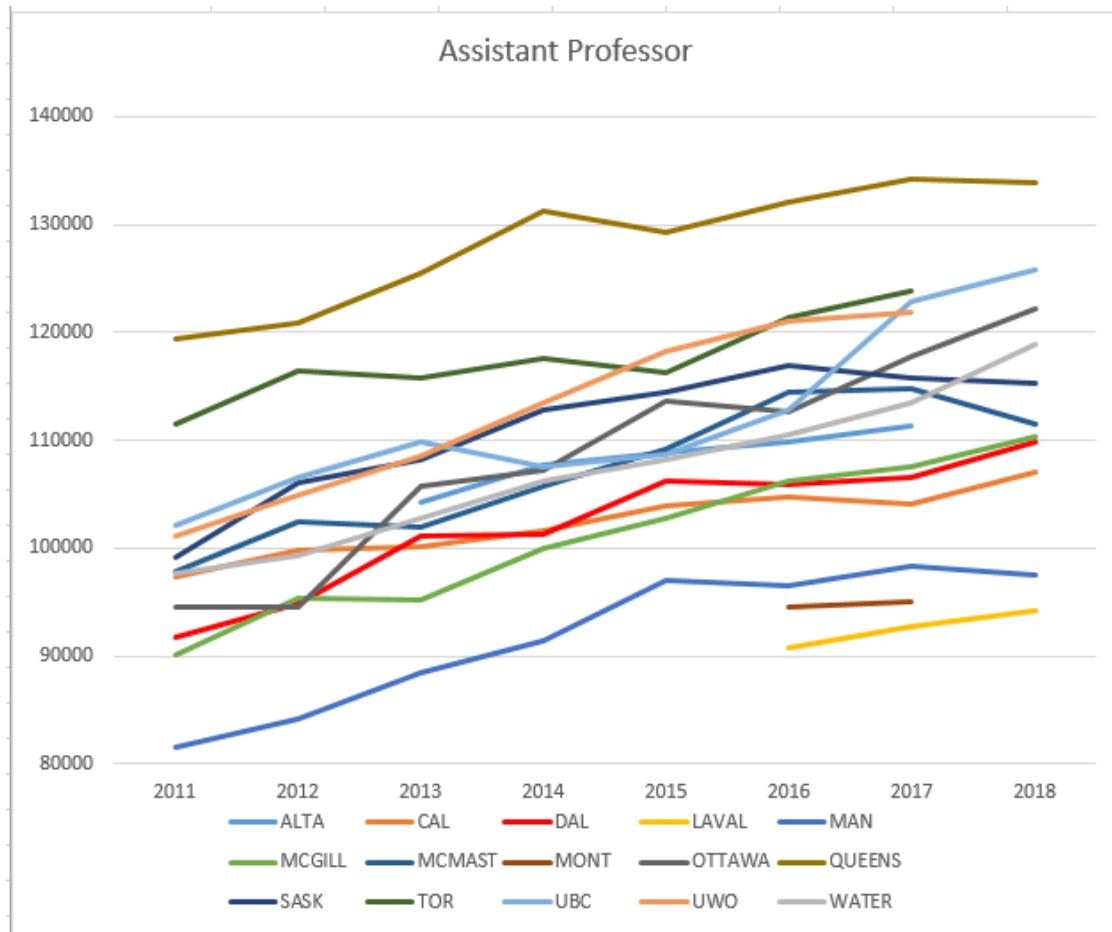




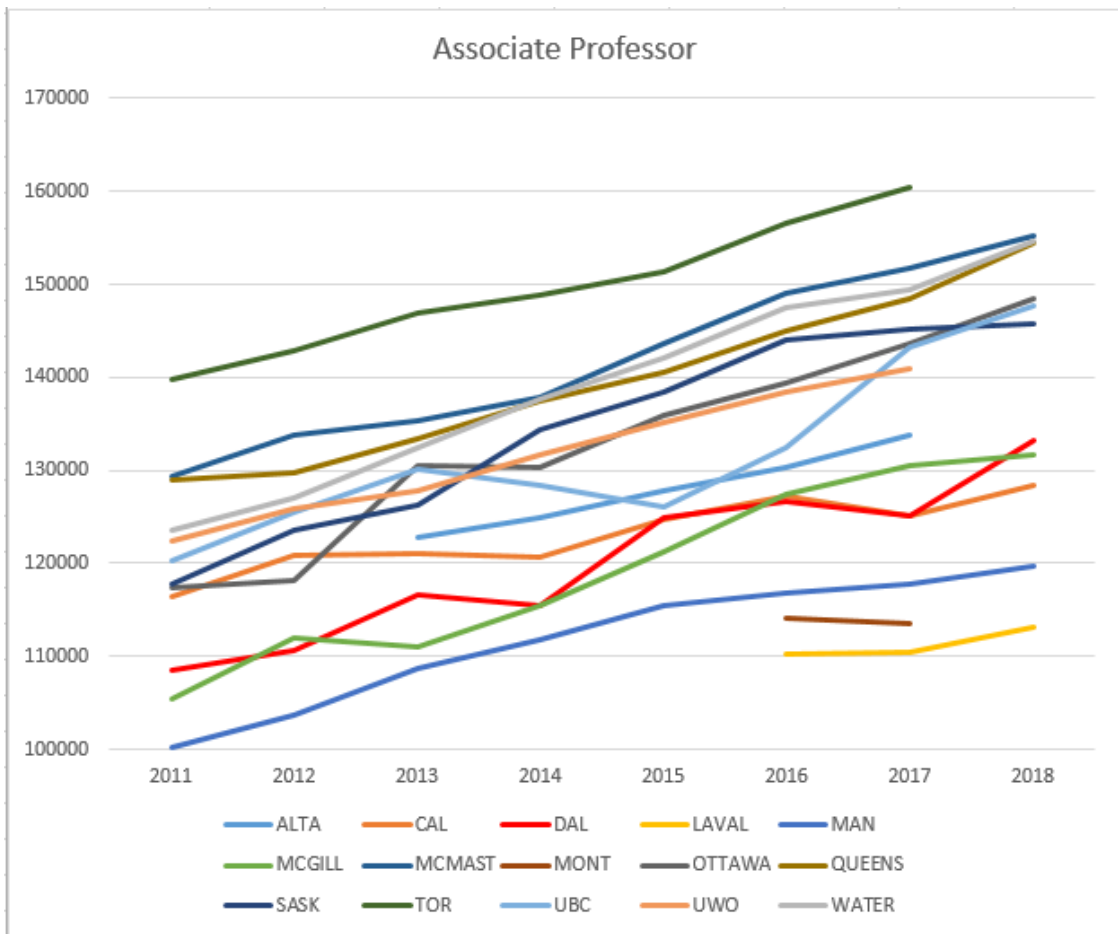
Regional - Mean - Full Professor								
	2011	2012	2013	2014	2015	2016	2017	2018
ACADIA	115,425					119,700	123,850	126,825
<b>DAL</b>	<b>138,975</b>	<b>142,125</b>	<b>149,050</b>	<b>144,600</b>	<b>155,625</b>	<b>156,950</b>	<b>157,525</b>	<b>168,075</b>
MTA	131,425	132,500	134,225	137,525		144,675	148,025	148,250
PEI	132,725	132,975	142,975	146,200	150,775	153,800	156,400	160,150
SMU	131,775	133,800	134,100	136,100	139,950	143,050	147,050	145,700
STFX	126,575					138,725	133,025	
UNB	125,650	130,300	135,525	140,975	146,775	151,500	154,750	157,775
Mean - excl. Dal	127,263	132,394	136,706	140,200	145,833	141,908	143,850	147,740



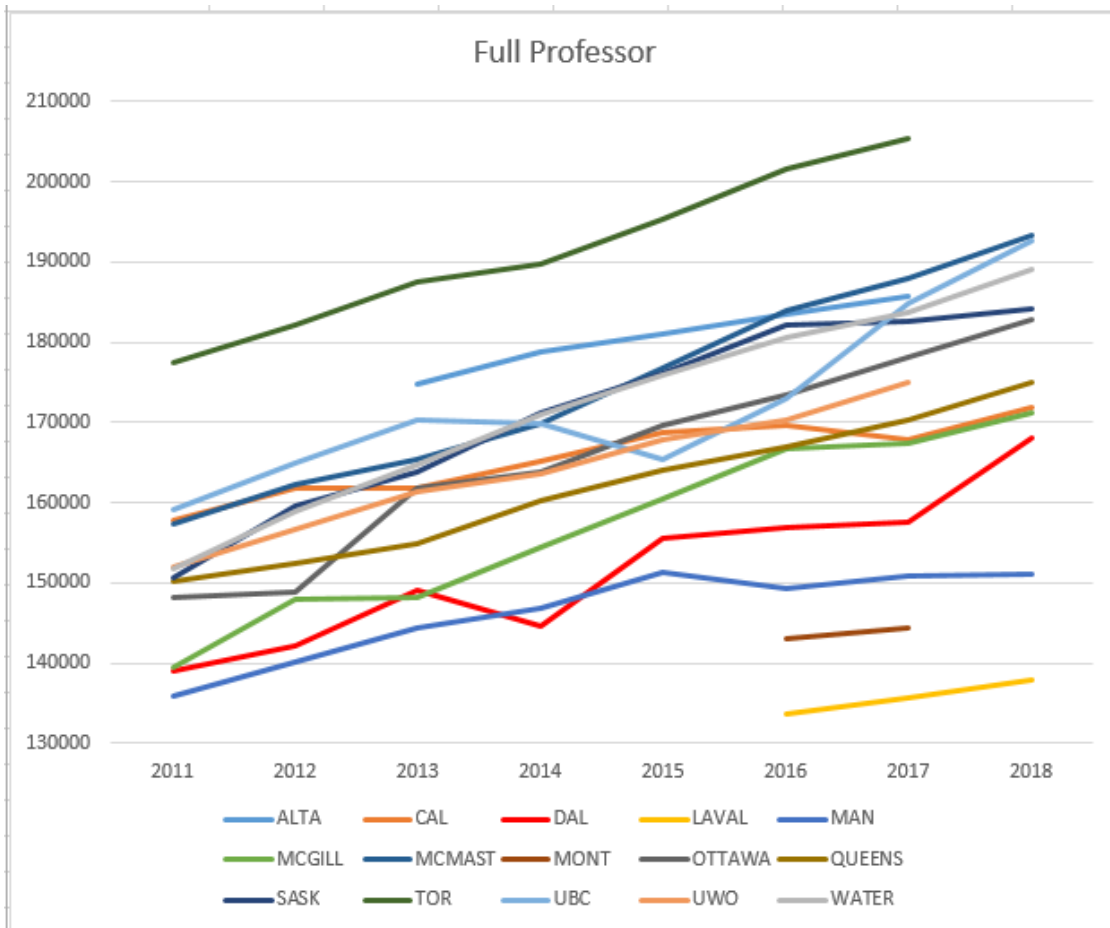
U15 Rank - Mean - Assistant Professor								
	2011	2012	2013	2014	2015	2016	2017	2018
ALTA			104,200	107,775	108,825	109,925	111,375	
CAL	97,325	99,875	100,200	101,550	103,925	104,750	104,125	107,100
<b>DAL</b>	<b>91,725</b>	<b>94,825</b>	<b>101,200</b>	<b>101,275</b>	<b>106,200</b>	<b>105,975</b>	<b>106,625</b>	<b>109,900</b>
LAVAL						90,825	92,775	94,225
MAN	81,575	84,225	88,525	91,375	96,975	96,475	98,400	97,450
MCGILL	90,100	95,325	95,275	100,050	102,700	106,175	107,625	110,350
MCMAST	97,850	102,500	101,975	105,700	109,150	114,500	114,750	111,425
MONT						94,600	94,975	
OTTAWA	94,500	94,575	105,800	107,200	113,675	112,650	117,775	122,175
QUEENS	119,350	120,950	125,475	131,325	129,250	132,125	134,150	133,925
SASK	99,225	106,025	108,175	112,825	114,500	116,950	115,800	115,200
TOR	111,450	116,375	115,725	117,575	116,225	121,300	123,900	
UBC	102,175	106,500	109,800	107,575	108,700	112,825	122,775	125,875
UWO	101,200	104,875	108,500	113,525	118,225	121,000	121,800	
WATER	97,650	99,275	102,750	106,300	108,175	110,550	113,475	118,825
Mean - excl. Dal	99,309	102,773	105,533	108,565	110,860	110,332	112,407	113,655



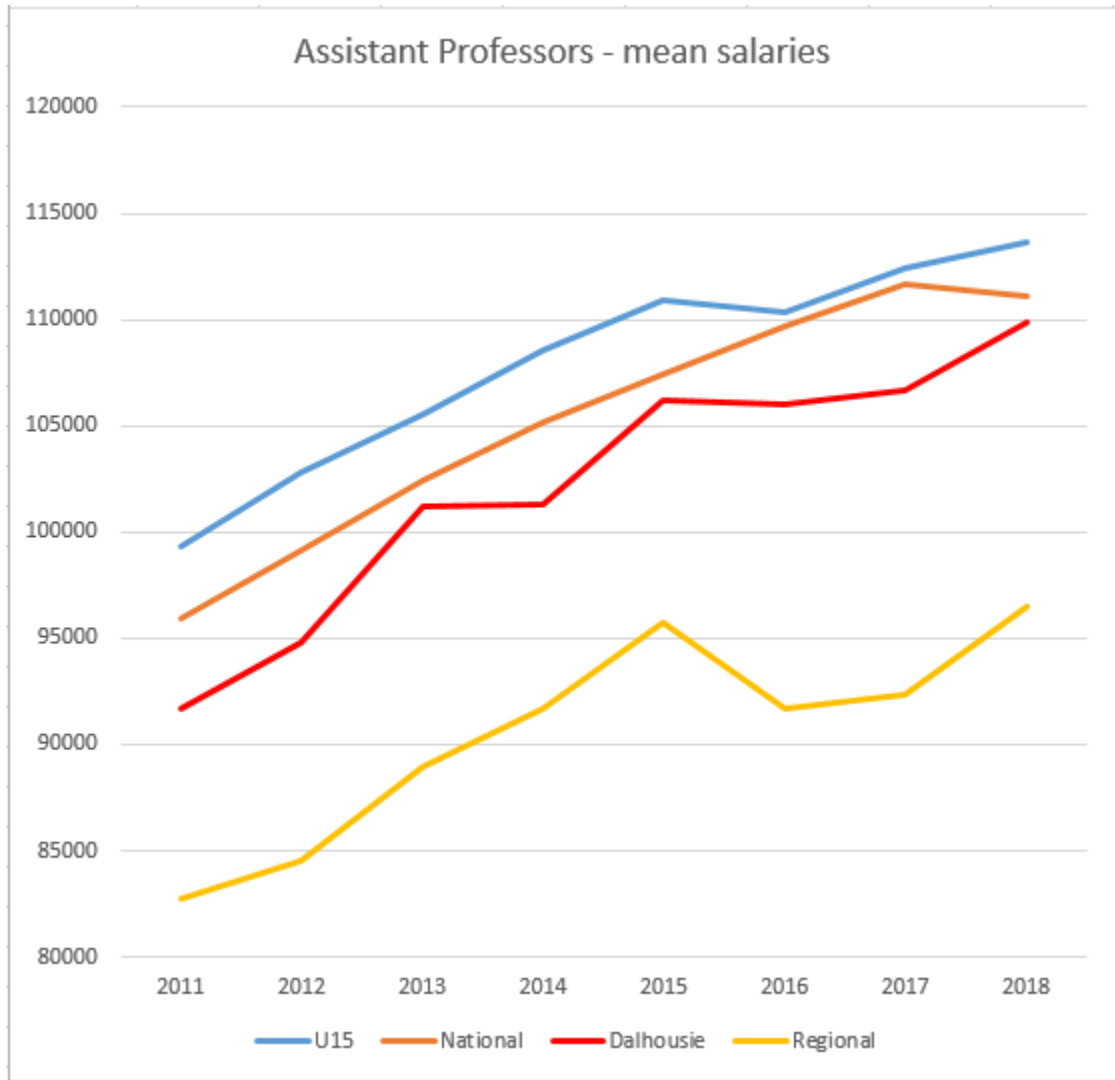
U15 Rank - Mean - Associate Professor								
	2011	2012	2013	2014	2015	2016	2017	2018
ALTA			122,825	125,000	127,750	130,350	133,725	
CAL	116,475	120,775	120,975	120,700	124,725	127,325	125,150	128,375
<b>DAL</b>	<b>108,600</b>	<b>110,550</b>	<b>116,550</b>	<b>115,375</b>	<b>124,975</b>	<b>126,575</b>	<b>125,175</b>	<b>133,175</b>
LAVAL						110,150	110,475	113,050
MAN	100,275	103,600	108,750	111,725	115,475	116,775	117,750	119,750
MCGILL	105,425	111,975	110,975	115,550	121,250	127,500	130,575	131,725
MCMAST	129,425	133,800	135,400	137,800	143,600	149,025	151,825	155,300
MONT						114,025	113,475	
OTTAWA	117,375	118,125	130,525	130,225	135,825	139,350	143,625	148,550
QUEENS	128,900	129,700	133,325	137,525	140,525	145,075	148,500	154,375
SASK	117,825	123,650	126,250	134,375	138,425	143,975	145,225	145,775
TOR	139,775	142,900	146,925	148,775	151,300	156,550	160,425	
UBC	120,375	125,425	130,100	128,450	126,100	132,350	143,250	147,775
UWO	122,400	125,875	127,875	131,625	135,150	138,450	140,850	
WATER	123,650	127,025	132,375	137,600	142,025	147,500	149,475	154,600
Mean - excl. Dal	120,173	123,895	127,192	129,946	133,513	134,171	136,738	139,928



U15 Rank - Mean - Full Professor								
	2011	2012	2013	2014	2015	2016	2017	2018
ALTA			174,800	178,825	180,950	183,575	185,750	
CAL	157,775	161,925	161,750	165,175	168,700	169,750	167,825	171,875
<b>DAL</b>	<b>138,975</b>	<b>142,125</b>	<b>149,050</b>	<b>144,600</b>	<b>155,625</b>	<b>156,950</b>	<b>157,525</b>	<b>168,075</b>
LAVAL						133,625	135,625	138,000
MAN	135,800	140,150	144,425	146,950	151,350	149,200	150,975	151,000
MCGILL	139,400	147,925	148,100	154,350	160,450	166,675	167,500	171,125
MCMAST	157,400	162,325	165,450	169,900	176,700	184,025	187,925	193,325
MONT						143,050	144,500	
OTTAWA	148,250	148,900	161,850	163,850	169,575	173,350	178,100	182,750
QUEENS	150,125	152,450	154,825	160,200	164,000	167,025	170,325	175,000
SASK	150,600	159,600	163,875	171,300	176,050	182,225	182,650	184,175
TOR	177,400	182,125	187,600	189,800	195,300	201,575	205,350	
UBC	159,175	165,000	170,425	169,800	165,350	172,975	184,850	192,725
UWO	152,075	156,675	161,400	163,525	167,925	170,375	175,000	
WATER	151,700	158,950	164,750	171,075	175,925	180,500	183,675	189,200
Mean - excl. Dal	152,700	157,820	163,271	167,063	171,023	169,852	172,861	174,918



Assistant Professors - mean salaries								
	2011	2012	2013	2014	2015	2016	2017	2018
U15	99,309	102,773	105,533	108,565	110,860	110,332	112,407	113,655
National	95,895	99,175	102,434	105,191	107,405	109,645	111,645	111,053
Dalhousie	91,725	94,825	101,200	101,275	106,200	105,975	106,625	109,900
Regional	82,708	84,531	88,931	91,719	95,725	91,663	92,383	96,455



<b>Dalhousie Salary Gap</b>												
<b>Assistant Professors</b>												
	2011	2012	2013	2014	2015	2016	2017	2018	Mean 2011-2018	Mean 2015-2018	<b>To Reach Shaw (1989) Goal</b>	
											Last 8 years	Last 4 years
U15	7,584	7,948	4,333	7,290	4,660	4,357	5,782	3,755	5,714	4,639	\$ 3,090.00	\$ 2,762.00
National	4,170	4,350	1,234	3,916	1,205	3,670	5,020	1,153	3,090	2,762		
Regional	(9,017)	(10,294)	(12,269)	(9,556)	(10,475)	(14,313)	(14,242)	(13,445)	(11,701)	(13,119)		
<b>Dalhousie Salary Gap as Percentage</b>												
<b>Assistant Professors</b>												
	2011	2012	2013	2014	2015	2016	2017	2018	Mean 2011-2018	Mean 2015-2018		
U15	8.27	8.38	4.28	7.20	4.39	4.11	5.42	3.42	5.68	4.33	3.07%	2.59%
National	4.55	4.59	1.22	3.87	1.13	3.46	4.71	1.05	3.07	2.59		
Regional	(9.83)	(10.86)	(12.12)	(9.44)	(9.86)	(13.51)	(13.36)	(12.23)	(11.40)	(12.24)		

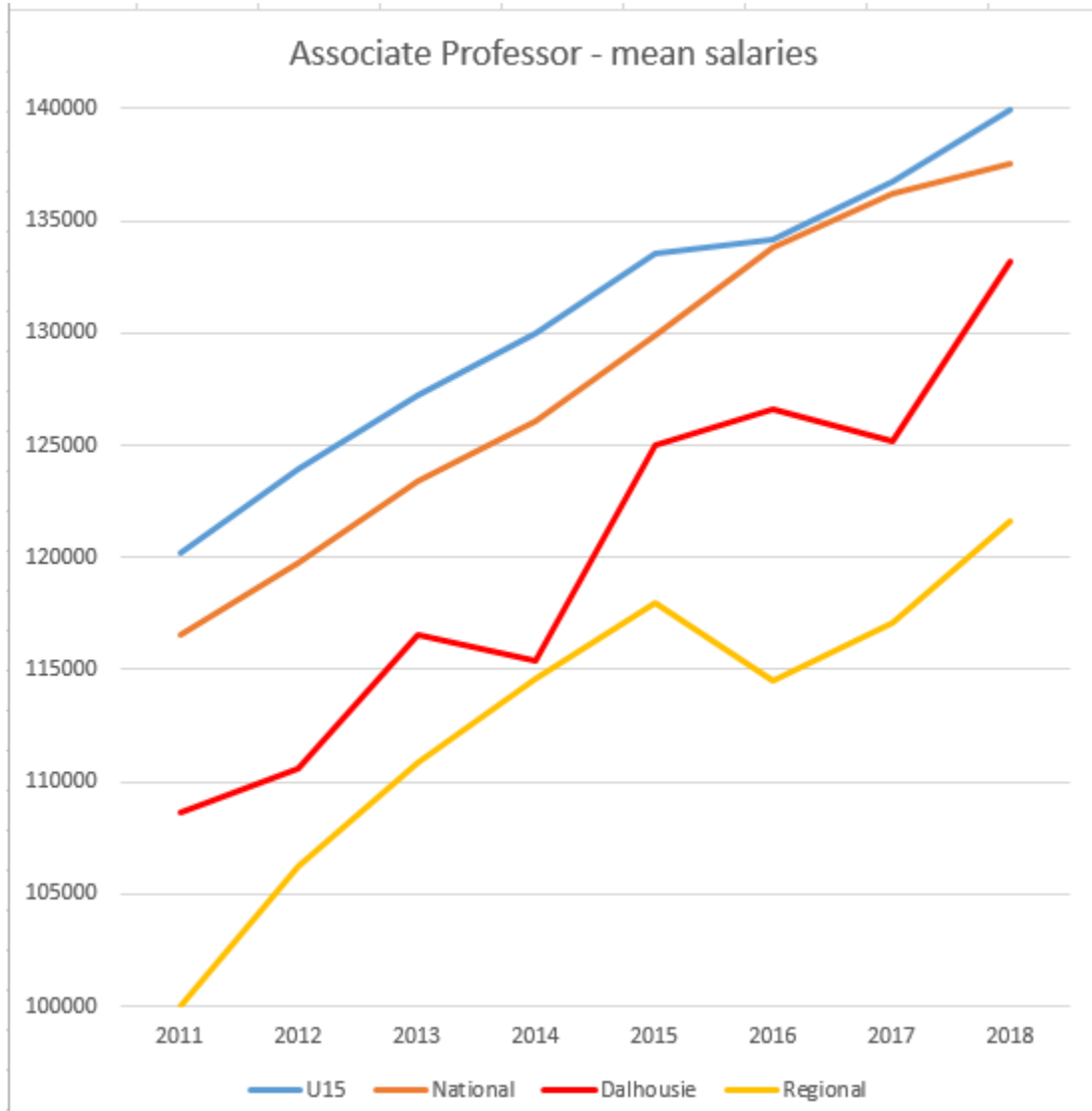
**Notes:**

Data from Statistics Canada

Comparator group data show means for each group of universities, excluding Dalhousie

"Gap" analyses show comparator group minus Dalhousie: Dal lags behind/(Dal is ahead)

Associate Professors - mean salaries								
	2011	2012	2013	2014	2015	2016	2017	2018
U15	120,173	123,895	127,192	129,946	133,513	134,171	136,738	139,928
National	116,510	119,775	123,370	126,041	129,902	133,793	136,220	137,575
Dalhousie	108,600	110,550	116,550	115,375	124,975	126,575	125,175	133,175
Regional	100,017	106,256	110,888	114,581	117,933	114,475	117,096	121,605



<b>Dalhousie Salary Gap</b>												
<b>Associate Professors</b>												
									Mean	Mean	<b>To Reach Shaw (1989) Goal</b>	
	2011	2012	2013	2014	2015	2016	2017	2018	2011-2018	2015-2018	Last 8 years	Last 4 years
U15	11,573	13,345	10,642	14,571	8,538	7,596	11,563	6,753	10,572	8,612	\$ 7,777.00	\$ 6,898.00
National	7,910	9,225	6,820	10,666	4,927	7,218	11,045	4,400	7,777	6,898		
Regional	(8,583)	(4,294)	(5,663)	(794)	(7,042)	(12,100)	(8,079)	(11,570)	(7,266)	(9,698)		
<b>Dalhousie Salary Gap as Percentage</b>												
<b>Associate Professors</b>												
									Mean	Mean		
	2011	2012	2013	2014	2015	2016	2017	2018	2011-2018	2015-2018		
U15	10.66	12.07	9.13	12.63	6.83	6.00	9.24	5.07	8.95	6.79	6.56%	5.44%
National	7.28	8.34	5.85	9.24	3.94	5.70	8.82	3.30	6.56	5.44		
Regional	(7.90)	(3.88)	(4.86)	(0.69)	(5.63)	(9.56)	(6.45)	(8.69)	(5.96)	(7.58)		

**Notes:**

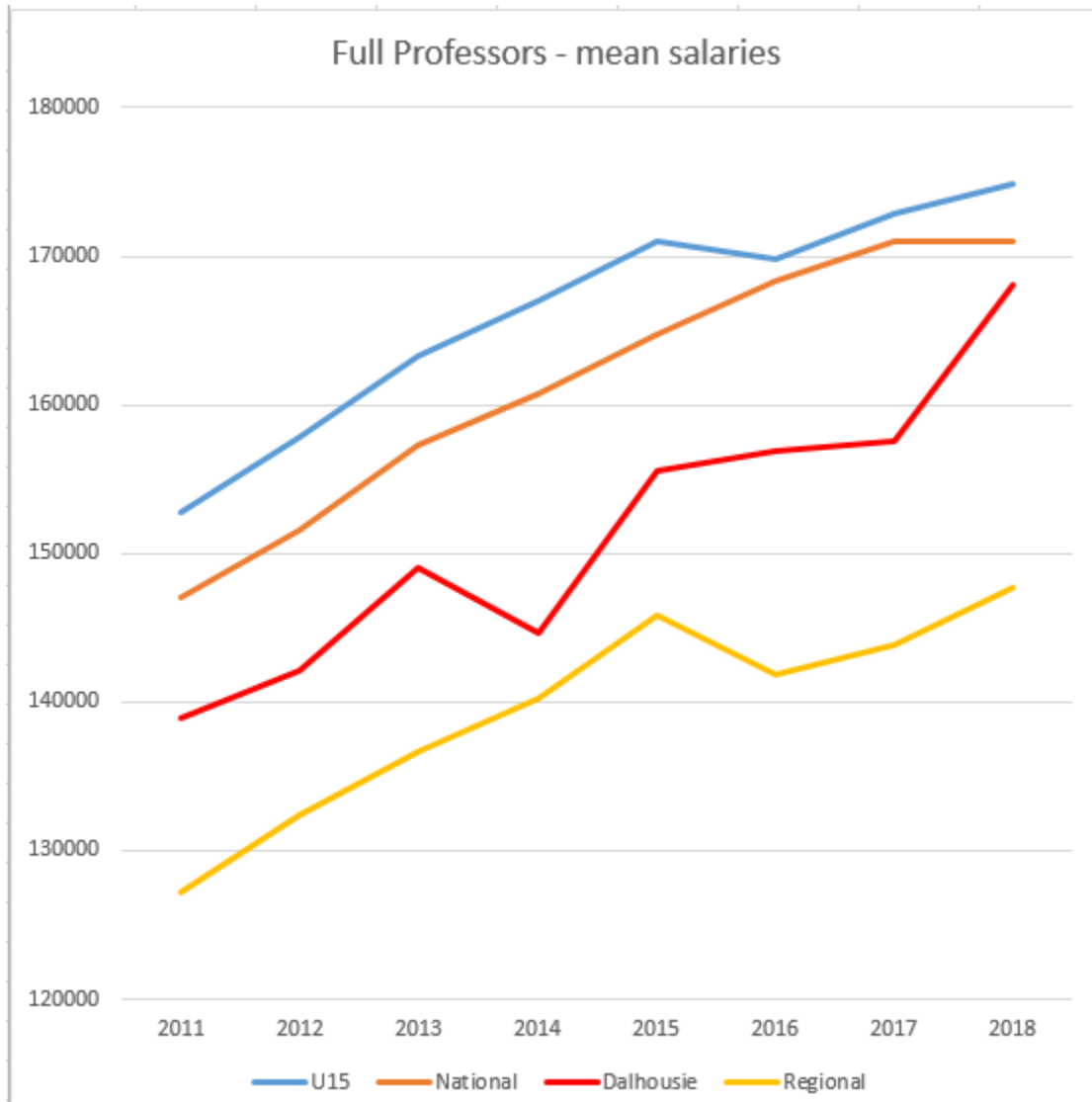
Data from Statistics Canada

Comparator group data show means for each group of universities, excluding Dalhousie

"Gap" analyses show comparator group minus Dalhousie: Dal lags behind/(Dal is ahead)



Full Professors - mean salaries								
	2011	2012	2013	2014	2015	2016	2017	2018
U15	152,700	157,820	163,271	167,063	171,023	169,852	172,861	174,918
National	147,060	151,560	157,261	160,755	164,777	168,291	170,975	171,016
Dalhousie	138,975	142,125	149,050	144,600	155,625	156,950	157,525	168,075
Regional	127,263	132,394	136,706	140,200	145,833	141,908	143,850	147,740



Dalhousie Salary Gap												
Full Professors												
	2011	2012	2013	2014	2015	2016	2017	2018	Mean 2011-2018	Mean 2015-2018	To Reach Shaw (1989) Goal	
											Last 8 years	Last 4 years
U15	13,725	15,695	14,221	22,463	15,398	12,902	15,336	6,843	14,573	12,619		
National	8,085	9,435	8,211	16,155	9,152	11,341	13,450	2,941	9,846	9,221	\$ 9,846.00	\$ 9,221.00
Regional	(11,713)	(9,731)	(12,344)	(4,400)	(9,792)	(15,042)	(13,675)	(20,335)	(12,129)	(14,711)		
Dalhousie Salary Gap as Percentage												
Full Professors												
	2011	2012	2013	2014	2015	2016	2017	2018	Mean 2011-2018	Mean 2015-2018		
U15	9.88	11.04	9.54	15.53	9.89	8.22	9.74	4.07	9.74	7.98		
National	5.82	6.64	5.51	11.17	5.88	7.23	8.54	1.75	6.57	5.85	6.57%	5.85%
Regional	(8.43)	(6.85)	(8.28)	(3.04)	(6.29)	(9.58)	(8.68)	(12.10)	(7.91)	(9.16)		

**Notes:**

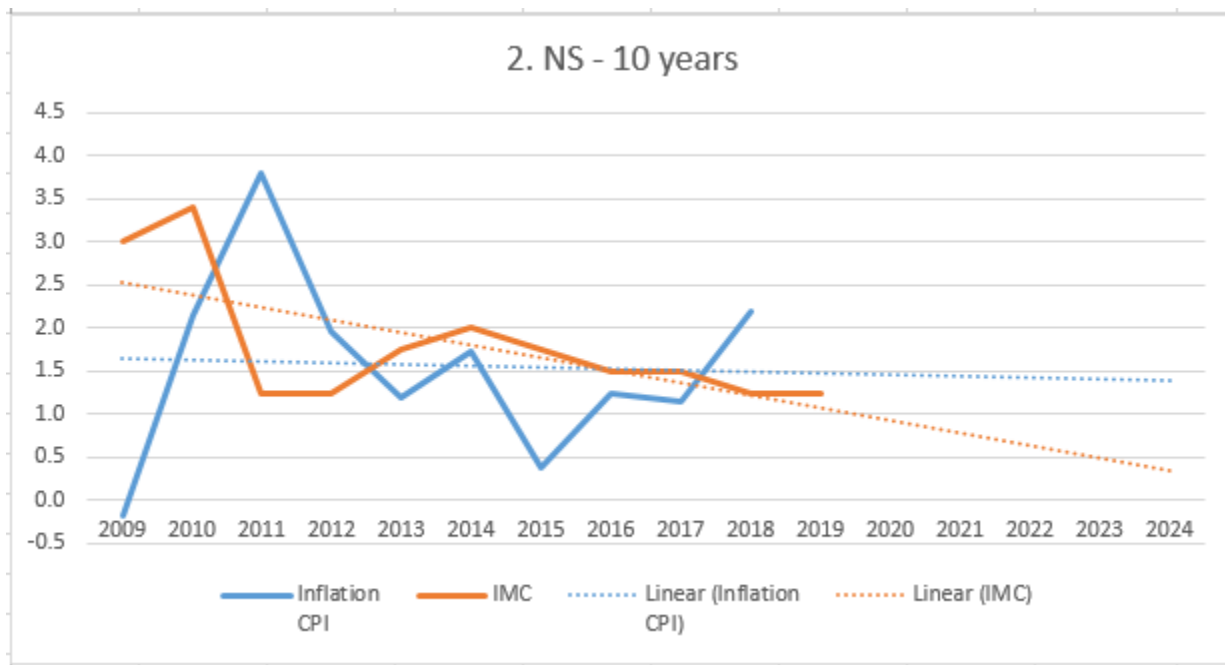
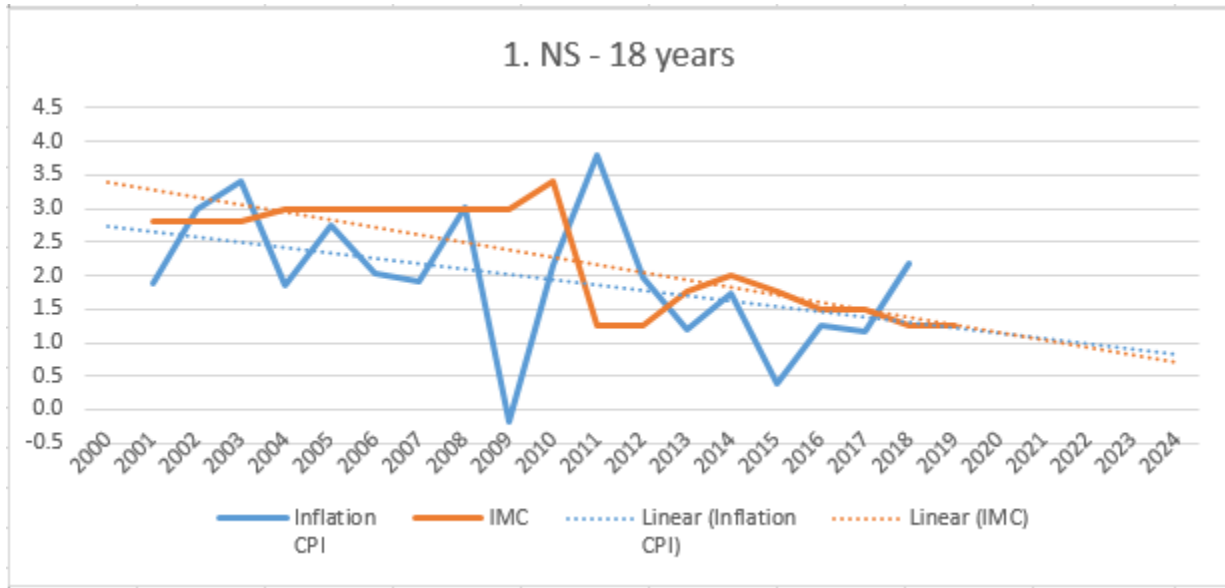
Data from Statistics Canada

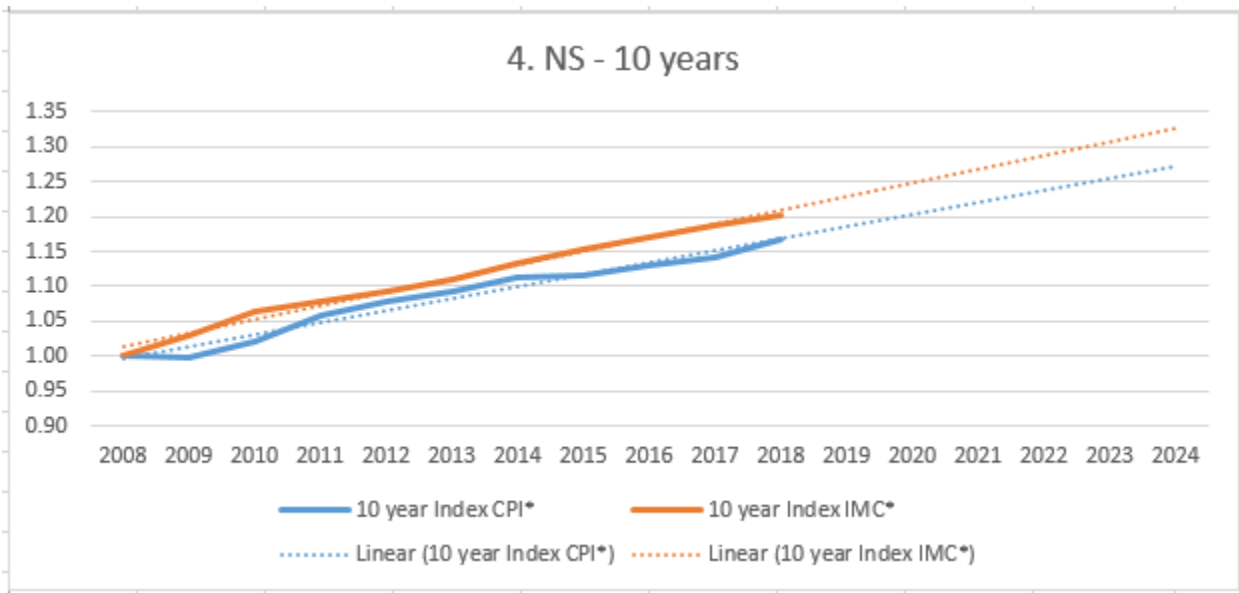
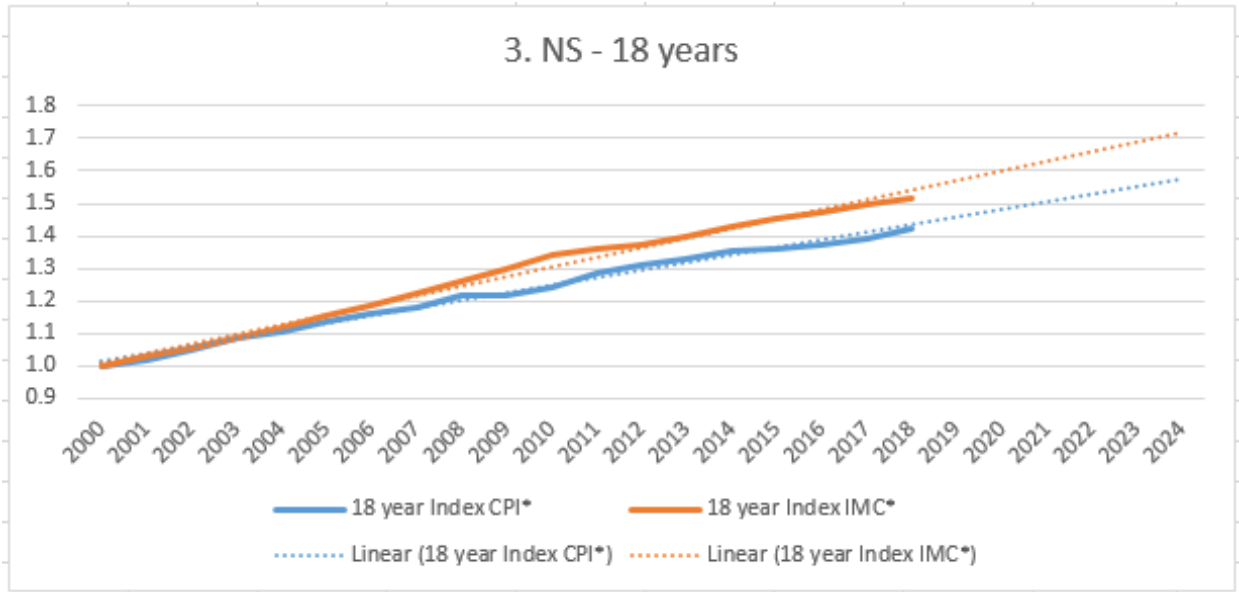
Comparator group data show means for each group of universities, excluding Dalhousie

"Gap" analyses show comparator group minus Dalhousie: Dal lags behind/(Dal is ahead)

Nova Scotia								
	Inflation CPI	18 year Index CPI*	10 year Index CPI*	IMC	18 year Index IMC*	10 year Index IMC*	IMC-CPI	Mean 9 year difference
2000		1.00			1.00			
2001	1.89	1.02		2.80	1.03		0.91	} 0.75
2002	2.99	1.05		2.80	1.06		-0.19	
2003	3.40	1.09		2.80	1.09		-0.60	
2004	1.84	1.11		3.00	1.12		1.16	
2005	2.75	1.14		3.00	1.15		0.25	
2006	2.03	1.16		3.00	1.19		0.97	
2007	1.90	1.18		3.00	1.22		1.10	
2008	3.02	1.22	1.00	3.00	1.26	1.00	-0.02	
2009	-0.17	1.21	1.00	3.00	1.30	1.03	3.17	
2010	2.16	1.24	1.02	3.40	1.34	1.07	1.24	
2011	3.81	1.29	1.06	1.25	1.36	1.08	-2.56	
2012	1.96	1.31	1.08	1.25	1.38	1.09	-0.71	
2013	1.20	1.33	1.09	1.75	1.40	1.11	0.55	
2014	1.74	1.35	1.11	2.00	1.43	1.13	0.26	} -0.02
2015	0.39	1.36	1.12	1.75	1.45	1.15	1.36	
2016	1.24	1.37	1.13	1.50	1.47	1.17	0.26	
2017	1.15	1.39	1.14	1.50	1.50	1.19	0.35	
2018	2.19	1.42	1.17	1.25	1.51	1.20	-0.94	
2019				1.25				

\* \$ value over time (indexed to CPI or IMC)





	Canada							
	Inflation CPI	18 year Index CPI*	10 year Index CPI*	IMC	18 year Index IMC*	10 year Index IMC*	IMC-CPI	Mean 9 year difference
2000	2.72	1.00			1.00			
2001	2.53	1.03		2.80	1.03		0.27	
2002	2.26	1.05		2.80	1.06		0.54	
2003	2.77	1.08		2.80	1.09		0.03	
2004	1.86	1.10		3.00	1.12		1.14	
2005	2.21	1.12		3.00	1.15		0.79	0.88
2006	2.01	1.14		3.00	1.19		0.99	
2007	2.14	1.17		3.00	1.22		0.86	
2008	2.37	1.20	1.00	3.00	1.26	1.00	0.63	
2009	0.31	1.20	1.00	3.00	1.30	1.03	2.69	
2010	1.78	1.22	1.02	3.40	1.34	1.07	1.62	
2011	2.91	1.26	1.05	1.25	1.36	1.08	-1.66	
2012	1.52	1.28	1.07	1.25	1.38	1.09	-0.27	
2013	0.94	1.29	1.08	1.75	1.40	1.11	0.81	
2014	1.91	1.31	1.10	2.00	1.43	1.13	0.09	0.02
2015	1.13	1.33	1.11	1.75	1.45	1.15	0.62	
2016	1.43	1.35	1.13	1.50	1.47	1.17	0.07	
2017	1.60	1.37	1.14	1.50	1.50	1.19	-0.10	
2018	2.27	1.40	1.17	1.25	1.51	1.20	-1.02	
2019	1.90			1.25				

