ONTARIO RISK SHARING POOL

OCTOBER 2017 OPERATIONAL REPORT

ACTUARIAL HIGHLIGHTS

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ACTUARIAL HIGHLIGHTS

RSP ONTARIO

OPERATIONAL REPORT

OCTOBER 2017

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1 Summary

1.1 Valuation Schedule (Fiscal Year 2017)

The October 2017 Operational Report incorporates the results of an updated valuation (as at September 30, 2017) – the impact of the implementation of the valuation is discussed in section 1.2. The table immediately below summarizes the implemented valuations and future scheduled valuations for fiscal year 2017.

ONTARIO RISK SHARING POOL
FISCAL YEAR 2017 – SCHEDULE OF VALUATIONS

Valuation Date	Discount Rate (per annum)	Operational Report	Description of Changes
Sep. 30, 2016 (completed)	0.62% mfad: 25 bp	Oct. 2016	updated valuation (roll forward): accident year 2016 loss ratio increased 0.8 points to 119.2%; discount rate decreased by 6 basis points; no change to selected margins for adverse deviations
Dec. 31, 2016 (completed)	1.12% mfad: 25 bp	Mar. 2017	updated valuation: accident year 2016 loss ratio increased 0.5 points to 119.7%; accident year 2017 loss ratio increased 0.4 points to 117.9%; discount rate increased by 50 basis points; no change to selected margins for adverse deviations
Mar. 31, 2017 (completed)	1.04% mfad: 25 bp	May 2017	updated valuation (roll forward): accident year 2017 loss ratio increased 0.7 points to 118.6%; discount rate decreased by 8 basis points; no change to selected margins for adverse deviations
Jun. 30, 2017 (completed)	1.23% mfad: 25 bp	Aug. 2017	updated valuation: accident year 2017 loss ratio increased 1.3 points to 119.9%; discount rate increased by 19 basis points; selected margins for adverse deviations were updated
Sep. 30, 2017 (completed)	1.75% mfad: 25 bp	Oct. 2017	updated valuation (roll forward): accident year 2017 loss ratio increased 1.4 points to 121.3%; discount rate increased by 52 basis points; no change to selected margins for adverse deviations

Under the proposed schedule for fiscal year 2017, the "off-half" valuation quarters ending March 31, 2017 and September 30, 2017 would not reflect a full valuation update of assumptions, but would rather "roll-forward" key assumptions from the previous valuation.

1.2 New Valuation

A valuation of the Ontario Risk Sharing Pool ("RSP") as at September 30, 2017 has been completed since last month's Operational Report and the results of that valuation have been incorporated into this month's Report. The valuation was completed by the Facility Association's internal actuarial group in conjunction with, and approved by, the Appointed Actuary, under the hybrid model for actuarial services. Additional detail will be provided in an "Actuarial Highlights – Quarterly Valuation" report which we anticipate will be posted to the FA website in early December.

The valuation implementation impact is summarized in the tables below.

Summary of Impact ($000s) of Implementing Result of Valuation as at September 30, 2017[1]

Ontario	unfav / (fav) for the month and ytd					
	IMPACT in $000s from changes in:					
	ults & payout patterns			dsct rate	margins	
	Nominal	apv adj.	sub-tot	apv adj.	apv adj.	TOTAL
	[1]	[2]	[3]	[4]	[5]	[6]
PAYs	3,067	571	3,638	(10,324)	-	(6,686)
CAY	4,396	208	4,604	(5,025)	-	(421)
Prem Def	816	103	919	(3,701)	-	(2,782)
TOTAL	8,279	882	9,161	(19,050)	-	(9,889)

As indicated in the table above, the incorporation of the new valuation had an estimated ***$9.9 million favourable impact*** on the month's net result from operations, subtracting an estimated 3.2 points (see table immediately below) from the **year-to-date Combined Operating Ratio** to end at **129.6%.**

Summary of Impact (% YTD EP) of Implementing Result of Valuation as at September 30, 2017

Ontario	ytd EP 312,806 (actual)					
	IMPACT unfav / (fav) as % ytd EP from changes in:					
	ults & payout patterns			dsct rate	margins	
	Nominal	apv adj.	sub-tot	apv adj.	apv adj.	TOTAL
	[1]	[2]	[3]	[4]	[5]	[6]
PAYs	1.0%	0.2%	1.2%	(3.3%)	-	(2.1%)
CAY	1.4%	0.1%	1.5%	(1.6%)	-	(0.1%)
Prem Def	0.3%	-	0.3%	(1.2%)	-	(0.9%)
TOTAL	2.6%	0.3%	2.9%	(6.1%)	-	(3.2%)

The impact of the nominal changes is shown in column [1] of the two preceding summary tables. The change in the selected nominal ultimates was unfavourable by $8.3 million overall. This reflects the impact attributable to the changes in the selected ultimate loss ratios (i.e. for each accident year, it is the product of life-to-date earned premium for the accident year and the change in the selected ultimate loss ratio).

The prior accident years overall showed a $3.1 million unfavourable variance, which is attributed to older accident year unfavourable claim development partially offset by the impact of a member's

[1]In these tables, "PAYs" refers to prior accident years, "CAY" refers to the current accident year, and "Prem Def" refers to the provision for premium deficiency or the deferred policy acquisition asset (as applicable). "Nominal" refers to changes excluding any actuarial present value adjustments, whereas "apv adj." refers to actuarial present value adjustments.

The columns under the heading "ults & payout patterns" reflect the impact of changes in the valuation selected ultimates and claims payment patterns (i.e. based on unchanged selection of discount rates and margins for adverse deviation). The column "dsct rate" reflects the impact of the change in the selected discount rate and the column "margins" reflects the impact of any changes in selected margins for adverse deviations.

corrections of historical claims transactions. The total <u>un</u>favourable impact is 0.5% of the prior accident years' nominal unpaid balance of $635.1 million determined at the end of last month (September 2017).

The current accident year and premium deficiency impacts are a result of the change in the selected loss ratio for accident year **2017** (up 1.4 points from 119.9% to **121.3%**). There was no change to the selected loss ratio for accident year **2018** (remains at **122.5%**).

The impacts related to actuarial present value ("apv") adjustments are split into the impact prior to any change in the selected discount rate and selected margins for adverse deviations or "MfADs" (at the level they were selected i.e. coverage and accident half-year), the impact of then updating the discount rate, and finally the impact of any changes to the MfADs (at the level they were selected). The changes in actuarial present value adjustments are shown in the summary tables in columns [2], [4], and [5].

Column [2] recognizes that changing the nominal selections also changed the unpaid estimates (including changes to the relative mix by government line, which had an impact on the weighted-average MfADs). It also reflects the fact that we updated the projected emergence of claims payments, resulting in a change in the projected cash flows. These changes generated an <u>un</u>favourable change of $0.9 million in the actuarial present value adjustments, prior to any changes in the selected discount rate and/or MfADs.

Claims payment emergence patterns were updated and cash flows were reviewed against the selected risk-free yield curve, derived from Government of Canada benchmark bond yields monthly series using values for September 2017. Column [4] accounts for the change in the **discount rate** selected (<u>in</u>creased 52 basis points to **1.75%**), indicating a favourable impact of $19.1 million. The impact *related only to claims liabilities* (i.e. PAYs plus CAY) was $15.3 million at October 2017 (projected $15.6 million impact at December 31, 2017) – this compares to the $15.9 million change one would estimate as the impact by interpolation using the interest rate sensitivity table provided in last month's Actuarial Highlights.

Column [5] accounts for any changes to selected MfADs. The selected **investment rate MfAD** was **left unchanged at 25 basis points** and the selected **claims development MfADs** at the coverage and accident year level were **left unchanged** as well.

Consideration was given to recent legal decisions and changes in legislation / regulation as noted above and outlined in section 1.4.

1.3 Appointed Actuary and Hybrid Actuarial Services Model

Liam McFarlane of Ernst & Young LLP is Facility Association's Appointed Actuary (effective as of June 1, 2013).

Facility Association operates under a "hybrid" model in relation to the management and provision of actuarial services. Under this model, actuarial services are performed by both Facility Association's internal staff and its external actuarial consulting firm. The hybrid model approach maximizes the efficiency of resource allocation while providing access to additional expertise and capacity as needed.

1.4 Consideration of Recent Legal Decisions and Changes in Legislation / Regulation[2]

Consideration and assessment of potential impacts of legal decisions and changes in legislation / regulation constitutes a regular part of the valuation process. Descriptions of some of the more recent changes are provided below (with the current valuation, as at September 30, 2017, the impact of recent Ontario Court of Appeal decisions in relation to the application of changes to the prejudgement interest rate on general damages for non-pecuniary loss (further discussed in section 1.5) was reviewed and a nominal valuation adjustment was included impacting accident years 2014 and prior, further discussion will be provided in the "Actuarial Highlights – Quarterly Valuation" report which we anticipate will be posted to the FA website in early December. Other than mention of this nominal valuation adjustment and updating the current valuation references, there have been no significant changes in these descriptions since last month's Highlights).

Ontario Bill 15 (Fighting Fraud and Reducing Automobile Insurance Rates Act, 2014) was introduced into the Legislature by the Minister of Finance on July 15, 2014 and **received Royal Assent on November 20, 2014**. Bill 15 includes various amendments and provisions such as moving the Ontario Automobile Dispute Resolution System (DRS) for statutory accident benefits from the Financial Services Commission of Ontario to the Ministry of the Attorney General (Licence Appeal Tribunal), regulation of the Tow and Storage Industry (amendments to the Consumer Protection Act and Repair and Storage Liens Act), regulations related to licensing of insurance agents and adjusters, changes the applicable interest rate applied to overdue payments in the Statutory Accident Benefits Schedule (SABS), and changes to the prejudgment interest rate on general damages for non-pecuniary loss from the rate as set out in the Courts of Justice Act to rates linked to market conditions. With the current valuation (September 30, 2017), reform adjustments (originally introduced with the June 30, 2015 valuation) specifically related to changes in the non-pecuniary prejudgment interest provision calculation impacting the bodily injury coverage and the applicable interest rate applied to overdue payments in the SABS impacting the accident benefits coverage, were included with the updated industry trend analysis (completed using industry data as at December 31, 2016) and nominal valuation selections, impacting the selection of ultimates. Additional discussion in relation to the application of changes to the prejudgement interest rate on general damages for non-pecuniary loss can be found in section 1.5.

Ontario Bill 91 (Building Ontario Up Act (Budget Measures), 2015) was introduced into the Legislature by the Minister of Finance on April 23, 2015 and **received Royal Assent on June 4, 2015**. Bill 91 announced a number of amendments to regulations made under the Insurance Act, including: updating the Catastrophic Impairment Definition and changes to the standard benefit level under the Statutory Accident Benefits Schedule (SABS); restrictions on insurance premium increases and lowering of the maximum interest rate charged on monthly auto insurance premium payments; and adjustments to the monetary threshold beyond which the tort deductible does not apply to reflect inflation (adjustments to reflect inflation in the associated tort deductible were undertaken via an update to regulation 461/96). On August 26, 2015, the Ontario government filed Ontario regulations 250/15 and 251/15 implementing reforms set out in Bill 91. With the current valuation (September 30, 2017), reform adjustments (originally introduced with the September 30, 2015 valuation) specifically related to changes in the tort threshold and deductibles

[2] How bills become laws in Ontario is described in detail in the publication: http://www.ontla.on.ca/lao/en/media/laointernet/pdf/bills-and-lawmaking-background-documents/how-bills-become-law-en.pdf.

impacting the bodily injury coverage and changes to the SABS impacting the bodily injury and accident benefits coverages, were included with the updated industry trend analysis (completed using industry data as at December 31, 2016) and nominal valuation estimates, impacting the selection of ultimates. Additional discussion in relation to the application of changes in the tort threshold and deductibles can be found in section 1.5.

The **Supreme Court of Canada** rendered its judgment on **Saadati v Moorhead** (**2017** SCC 28, **rendered on Jun 2, 2017**). Saadati was involved in a collision in July of 2005 in British Columbia and sued the at-fault driver for damages. According to the Supreme Court decision, "*The trial judge found that the ... accident caused S[aadati] psychological injuries, including personality change and cognitive difficulties. ...and awarded S[aadati] $100,000 for non-pecuniary damages*." The trial decision was appealed to the BC Court of Appeal where the trial's $100,000 non-pecuniary award was dismissed. The Supreme Court upheld the $100,000 non-pecuniary award, determining:

- "*A finding of legally compensable mental injury need not rest, in whole or in part, on the claimant proving a recognized psychiatric injury.*"
- "*...a trier of fact adjudicating a claim of mental injury is not concerned with diagnosis, but with symptoms and their effects*."
- "*Expert evidence can assist in determining whether or not a mental injury has been shown, but where psychiatric diagnosis is unavailable, it remains open to a trier of fact to find on other evidence adduced by the claimant that he or she has proven on a balance of probabilities the occurrence of mental injury*."

At the current time, no adjustments have been made to our valuation estimates or views based on the judgment as rendered, but we continue to review and consider the implications of the judgment.

1.5 Ontario RSP Bodily Injury Case Reserve summary

With the current valuation, as at September 30, 2017, the impact of recent Ontario Court of Appeal decisions in relation to the application of changes to the prejudgement interest rate on general damages for non-pecuniary loss was reviewed and a nominal valuation adjustment was included impacting accident years 2014 and prior, further discussion will be provided in the "Actuarial Highlights – Quarterly Valuation" report which we anticipate will be posted to the FA website in early December.

As indicated in the previous section, reform adjustments, specifically related to changes in the non-pecuniary prejudgment interest provisions in **Ontario Bill 15** and the changes in the tort threshold and deductibles in **Ontario Bill 91** impacting the third party liability - bodily injury coverage for accident year 2015 and subsequent, was included with the updated Ontario Private Passenger Vehicle industry trend analysis (completed using industry data as at December 31, 2016).

In the **Ontario Court of Appeal** decisions in **El-Khodr v. Lackie** (September 19, 2017; 2017 ONCA 716) and **Cobb v. Long Estate** (September 19, 2017; 2017 ONCA 717), the court of appeal ruled that the change to prejudgment interest for non-pecuniary[3] losses from a set level of 5% to the

[3]**Pecuniary** awards are defined on the Ontario Attorney General's website as "Damages that can be measured in money (i.e., special damages)" with special damages further defined as "Damages intended to compensate a plaintiff for a quantifiable monetary loss. Examples of such losses include: lost earnings, medical bills, and repair costs." In contrast, **non-pecuniary** awards defined as "Damages that cannot be measured in money, but nevertheless are compensated for with money (i.e., general damages)" with general

level that applies to pecuniary losses were implemented to achieve particular policy objectives and therefore should have retrospective application (i.e. to be applied to all settlements on or after January 1, 2015). During the **current valuation** (as at September 30, 2017**), a reform adjustment in relation to the application of changes to the prejudgement interest rate on general damages for non-pecuniary loss was included**. The reform adjustment, a 2% decrease applied retroactively (using negative IBNR) against bodily injury nominal unpaid claims amounts (outstanding case reserve and selected IBNR) impacting accidents years 2014 and prior, will be reduced at each successive valuation, assuming the impact of this product reform change will be fully reflected in outstanding case reserves by the September 30, 2018 valuation (that is, as this adjustment is unwound, it is anticipated that member settlement and case adjustment activity will occur simultaneously, neutralizing the adjustment unwind).

In addition to the above, in the **Ontario Court of Appeal** decisions in **El-Khodr v. Lackie** (September 19, 2017; 2017 ONCA 716) and **Cobb v. Long Estate** (September 19, 2017; 2017 ONCA 717), the court of appeal ruled that the changes to the tort deductible and monetary threshold were implemented to achieve particular policy objectives and therefore should have retrospective application (i.e. to be applied to all settlements on or after January 1, 2015). The Facility Association view, consistent with these decisions, is that the changes to the bodily injury tort threshold and deductibles are on a settlement date basis. With the current valuation (as at September 30, 2017), no additional reform adjustment was included as we have assumed the retroactive impact of this product reform change has been fully reflected in outstanding case reserves.

Recognizing that individual members may interpret these results differently, we have included a table at the top of the next page displaying the levels of Ontario RSP Third Party Liability – Bodily Injury Case Reserves (as at December 31, 2016[4]) by accident year as well as projected average duration, from accident date to projected settlement date, from the December 31, 2016 valuation paid emergence projection model. No attempt has been made to distinguish case reserves held for pecuniary versus non-pecuniary losses, nor in estimating the amount of prejudgment interest, if any, is included in the case reserve estimates.

damages further defined as "Damages for non-monetary losses suffered by a plaintiff. These damages are not capable of exact quantification. Examples of such losses suffered include pain, suffering, and disfigurement."

[4]This table will be updated to December 31, 2017 with the 2017 Q4 valuation which is anticipated to be implemented with the March 2018 Operational Report.

ON RSP (Amounts in $000s; as at Dec. 31, 2016)

AY	Curr BI Case	avg yrs to Dec 2016	projected avg # yrs to settlement	projected avg duration
[1]	[2]	[5]	[6]	[7]
1993	-	23.5	-	-
1994	-	22.5	-	-
1995	-	21.5	-	-
1996	168	20.5	2.0	22.5
1997	-	19.5	-	-
1998	-	18.5	-	-
1999	-	17.5	-	-
2000	-	16.5	-	-
2001	-	15.5	-	-
2002	-	14.5	-	-
2003	8	13.5	6.0	19.5
2004	-	12.5	-	-
2005	50	11.5	7.4	18.9
2006	123	10.5	8.0	18.5
2007	907	9.5	5.2	14.7
2008	2,289	8.5	1.7	10.2
2009	6,856	7.5	1.7	9.2
2010	14,342	6.5	2.1	8.6
2011	15,171	5.5	2.0	7.5
2012	27,936	4.5	2.0	6.5
2013	44,461	3.5	2.2	5.7
2014	44,176	2.5	2.6	5.1
2015	44,279	1.5	3.1	4.6
2016	29,519	0.5	3.9	4.4
TOTAL	**230,285**	**3.2**	**2.6**	**5.8**

In the above table, the column referenced as [7] ("projected avg duration") is an estimate of the number of years from claim occurrence[5] to claim settlement, via summing the average number of years from claim occurrence to December 31, 2016 (column [5]) and from December 31, 2016 to settlement (column [6]).

1.6 Current Provision Summary

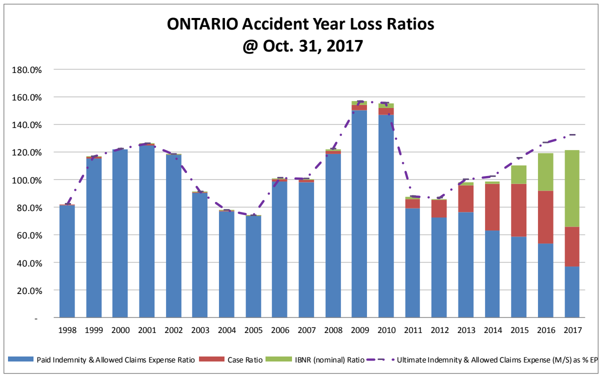
The charts at the top of the next page show the current levels of claim liabilities[6] booked by accident year[7]. The left chart displays life-to-date payments, case reserves, IBNR, and the total including actuarial present value adjustments against accident year earned premium. The right chart shows the

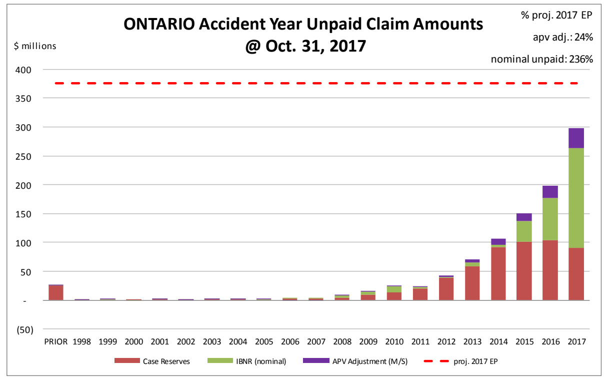
[5]Prejudgment interest in Ontario applies to the period from the date the claim is reported, not from the time of occurrence. We have provided the latter to allow actuarial judgment to be applied in estimating the lag between occurrence and reporting.

[6]Claim liabilities refer to provision for unpaid indemnity and allowed claims expenses. Allowed claims expenses are first party legal and other expenses as listed in the RSP Claims Guide. Claims expenses paid through the member company expense allowance are NOT included in this discussion.

[7]The loss ratio chart has been limited to show the most recent 20 accident years; the unpaid provision chart has been limited to show the most recent 20 accident years, and show all accident years older than 20 years collectively as "PRIOR".

associated dollar amounts for the components of the claim liabilities and the current projected amount of 2017 full year earned premium (the red hash-mark line) to provide some perspective.





"M/S" refers to "Member Statement" values – that is, actuarial present value adjustments at the selected discount rate.

The current actuarial present value adjustments provision for claims liabilities ($91.5 million – see table below) represents 24% of the earned premium projected for the full year 2017 (see the upper right corner of the right chart above). If our current estimates of the nominal unpaid amounts prove to match actual claims payments, the actuarial present value adjustments will be released into the net operating result over future periods.

claim liabilities ($000s)

	amt	%
case	565,305	57.7%
ibnr	322,419	32.9%
M/S apv adjust.	91,522	9.3%
M/S total	979,246	100.0%

The table to the left breaks down the Member Statement (M/S) claim liabilities total into component parts, indicating case reserves represent the largest portion. Approximately 77% of the IBNR balance relates to accident years 2016 and 2017 (see Exhibit B). Approximately 84% of the M/S total claim liabilities are related to accident years 2013-2017 inclusive (i.e. the most recent 5 accident years), and approximately 4% is related to accident years 2007 and prior (i.e. prior to the most recent 10 accident years).

The tables immediately below summarize the premium liabilities and the total policy liabilities.

premium liabilities ($000s)

	amt	%
unearned prem	190,424	74.3%
prem def/(dpac)	42,603	16.6%
M/S apv adjust.	23,311	9.1%
M/S total	256,338	100.0%

policy liabilities ($000s)

	amt	%
claim	887,724	71.8%
premium	233,027	18.9%
M/S apv adjust.	114,833	9.3%
M/S total	1,235,584	100.0%

2 Activity During the Month of October 2017

2.1 Recorded Premium and Claims Activity

The table at the top of the next page summarizes the extent to which premiums and claims amounts recorded during the month differ from projections reflected in the prior month's Operational Report[8].

[8]There may be rounding differences in values in this document compared with the associated Bulletin and/or Operational Report.

Ontario RSP Actual vs Projected Summary: Recorded Transaction Amounts ($ thousands)

Table 01	Earned Premium		Paid Indemnity & Allowed Claims Expense		Case increase / (decrease)		Recorded increase / (decrease)	
Accident Year	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected
Prior	(3)	(3)	9,326	1,169	(868)	6,235	8,458	7,404
2015	(3)	(3)	2,847	(1,366)	(2,137)	238	711	(1,127)
2016	(9)	(9)	2,367	(2,933)	1,891	2,702	4,258	(231)
2017	32,322	(563)	16,136	(228)	12,402	(1,218)	28,538	(1,445)
TOTAL	32,307	(578)	30,675	(3,358)	11,289	7,958	41,964	4,600

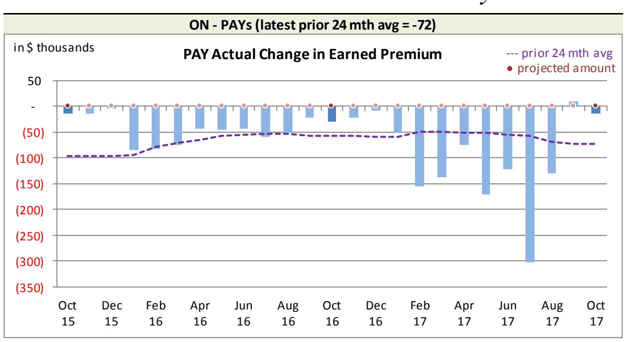
(Recorded transaction amounts exclude IBNR & other actuarial provisions)

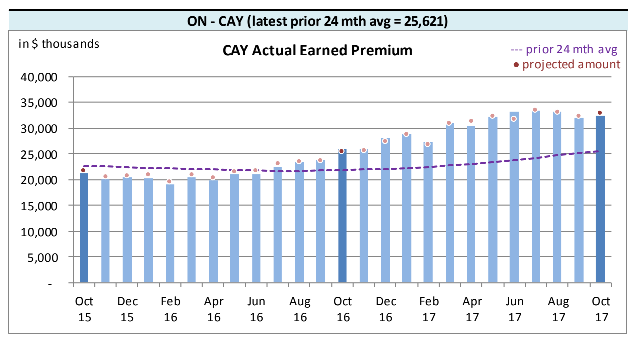
Claims transaction activity is generally volatile and changes from one month to the next are anticipated due to this natural "process variance" (i.e. random variation). Each month, the projection variances are reviewed for signs of projection bias and to identify potential ways to reduce the level of the variance. Commentary from our review is provided in the sub-sections that follow.

2.1.a Actual vs. Projected (AvsP): Earned Premium

The charts immediately below show actual **earned premium**[9] activity in each of the most recent 25 calendar months, along with a "prior 24-month average" to show how each month's actual compares with the average amount of the preceding 24 calendar months.

*Ontario RSP Actual **Earned Premium** by Calendar Month*





Earned premium changes during a given calendar month in relation to prior accident years tend to be at modest levels (note the different scales in the charts above), although relatively high levels generally occur at the beginning of each year.

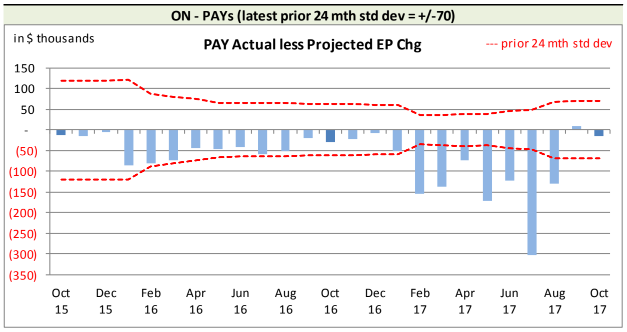
We have noted and investigated the unusually high level of PAYs earned premium activity earlier in 2017. Our investigation identified eligible risks incorrectly removed from the pool by a member company and management has asked the member to correct this. The member has advised that these risks and associated premium and claims transactions will be reinstated to the pool by the end of the calendar year.

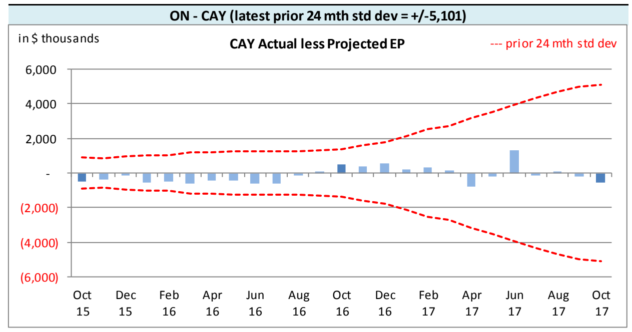
The associated variance between the actual changes and the projections from the previous month are shown in the charts at the top of the next page. **Earned premium** change projections are all

[9]Premium is earned on a daily basis based on the transaction term measured in days. As a result, months with 31 days earned relatively more than those with 30 days, and February earns the least.

attributed to the current accident year as the projection upload does not accept **earned premium** changes for other accident years. We do not see this limitation as being significant for our purposes, but it does mean that the actual less projection variance will equal the actual **earned premium** change in relation to prior accident years

Ontario RSP Actual vs. Projected Summary: ***Earned Premium*** *Variances by Calendar Month*





On Latest $ thousands		
Earned Premium	PAYs	CAY
Mthly Avg EP Chg (prior 24 mths)	(72)	25,621
std dev	70	5,101
A-P <> std dev	7	-
% <> std dev	28.0%	0.0%
norm <> std dev	31.7%	31.7%

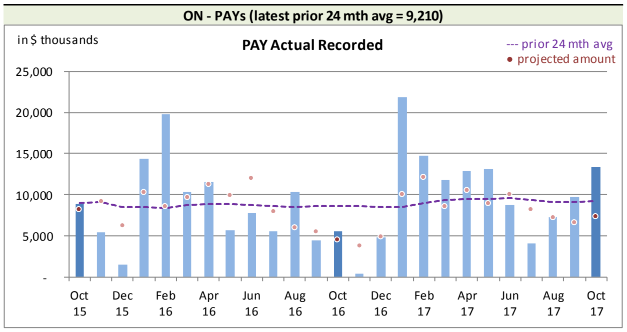
We project **earned premium** changes from known unearned premium and projected written premium levels, but upload the total projections as current accident year (CAY). This process has generated prior accident years' (PAYs) bias[10], with actuals generally lower than projected. However, the magnitude is not high relative to monthly premium, and the variances are within the prior 24-month standard deviation for monthly earned premium more often than indicated by a normal distribution (left table above). In addition to the PAYs' bias, the CAY had also shown bias up until August 2016, with actuals being generally lower than projected. Starting with the August 2016 projections, we have modified our projections processes in an attempt to account for CAY bias. Over time, we may consider other projection approaches to narrow monthly variance levels further, but it is not currently deemed a priority. Readers will also note the significant widening of the CAY standard deviation band, reflecting the recent and sustained volume increases and the impact as those increases are earned.

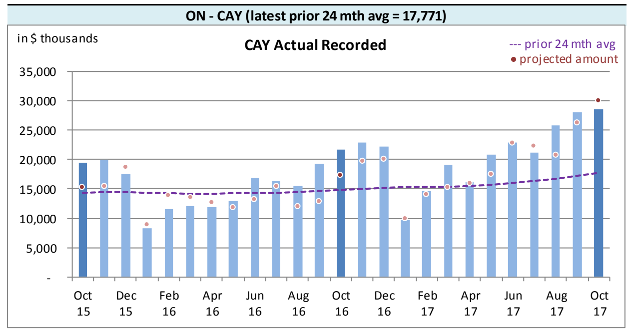
2.1.b AvsP: Recorded Indemnity & Allowed Claims Expense

The charts at the top of the next page show actual **recorded** activity (**paid** and case reserve changes), in each of the most recent 25 calendar months, along with a "prior 24-month average" to show how each month's actual compares with the average amount of the preceding 24 calendar months.

[10]The PAYs' variances will show bias as the projection upload forces all earned premium projections to be attributed to the CAY.

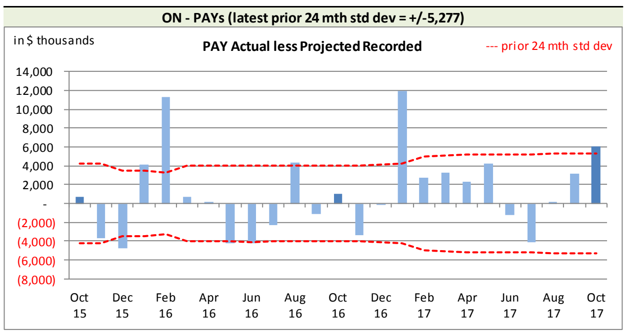
Ontario RSP Actual ***Recorded*** *by Calendar Month*

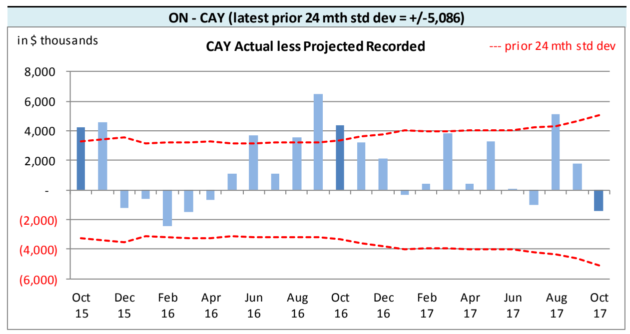




Recorded activity variances from the previous month's projections are shown in the charts below, including the "prior 24-month standard deviation" levels to show how the variances from projection compare with historical standard deviations.

Ontario RSP Actual vs Projected Summary: ***Recorded*** *Variances by Calendar Month*





On Latest $ thousands		
Recorded	PAYs	CAY
Mthly Avg Recorded (prior 24 mths)	9,210	17,771
std dev	5,277	5,086
A-P <> std dev	8	7
% <> std dev	32.0%	28.0%
norm <> std dev	31.7%	31.7%

With respect to **recorded** indemnity & allowed claims expense, 32% of the prior accident years' (PAYs) variances (left chart above) were outside of one standard deviation over the period, suggesting the projection process has performed no better than simply projecting the prior 24-month average amount.

The PAYs **recorded** variance for the current month was outside the one standard deviation band. The activity was reviewed and confirmed.

The current accident year (CAY) **recorded** variances (right chart above) fell outside of one standard deviation 28% of the time over the entire period, suggesting that the projection process performs no better than simply projecting the prior 24-month average amount. There does appear to be evidence of some bias as fifteen times in the past eighteen months our projections were below the actual CAY **recorded** amount. Among these fifteen months, five variances were outside the one standard deviation band. The CAY **recorded** during the month as a percentage of the year-to-date **earned premium** table (bottom right table at the top of the next page) does show consistently higher ratios during 2016 than 2015. This is also occurring in relation to the **paid**-to-ytd-**earned premium** ratio (next section).

In fact, the averages of monthly ratios for **recorded** and **paid** to year-to-date earned premium have been on the rise generally since 2012, as is evident in the tables below. These tables show, in each row, the average monthly ratio for each calendar year. That is, each row in the left table (as at Dec) provides the average of the 12 monthly-ratios (i.e. Jan, Feb, ... Dec) for that row's calendar year, whereas each row in the right table (as at October) provides the average of the 10 monthly ratios (i.e. Jan-Oct) for that row's calendar year.

With respect to the left table below (average of 12 months to Dec for each year), the 2016 average **recorded** ratio at 15.8% and the **paid** ratio at 7.6% were both at their highest levels since 2010. For the right table (average of 10 months to October for each year), the average ratios for 2016 were up from 2015 for both **recorded** and **paid**, and although the 2017 **recorded** ratio is down in relation to 2016 while the **paid** ratio remains unchanged from 2016, they remain at "elevated" levels compared with the ratios for the 3 calendar years immediately following the 2010 reforms.

CAY avg of mthly ratios for yr

as at	Rec'd	yr-on-yr chg	Paid	yr-on-yr chg
Dec 2009	18.5%		7.0%	
Dec 2010	23.2%	4.7%	8.0%	1.0%
Dec 2011	11.5%	(11.7%)	5.0%	(3.0%)
Dec 2012	11.4%	(0.1%)	4.6%	(0.4%)
Dec 2013	12.0%	0.6%	5.1%	0.5%
Dec 2014	13.7%	1.7%	5.9%	0.8%
Dec 2015	14.4%	0.7%	6.4%	0.5%
Dec 2016	15.8%	1.4%	7.6%	1.2%

CAY avg of mthly ratios for yr

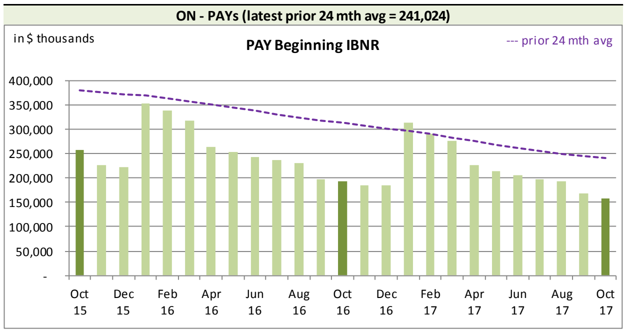
as at	Rec'd	yr-on-yr chg	Paid	yr-on-yr chg
Oct 2009	20.1%		7.4%	
Oct 2010	25.6%	5.5%	8.3%	0.9%
Oct 2011	12.6%	(13.0%)	5.4%	(2.9%)
Oct 2012	12.4%	(0.2%)	5.0%	(0.4%)
Oct 2013	13.0%	0.6%	5.5%	0.5%
Oct 2014	14.9%	1.9%	6.4%	0.9%
Oct 2015	15.7%	0.8%	7.0%	0.6%
Oct 2016	17.3%	1.6%	8.1%	1.1%
Oct 2017	16.0%	(1.3%)	8.1%	0.0%

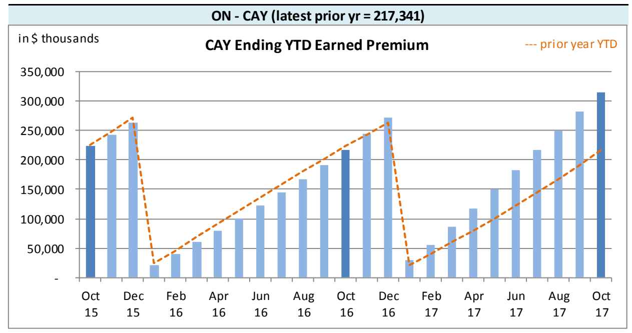
These ratios may be signalling an actual increase in claim amounts generally, signalling a change in the pattern of **recorded** / **paid** activity, or signalling belated impacts of rate decreases (reducing **earned premium** level per loss cost level). The CAY **recorded** activity will be monitored to determine if this is an ongoing trend.

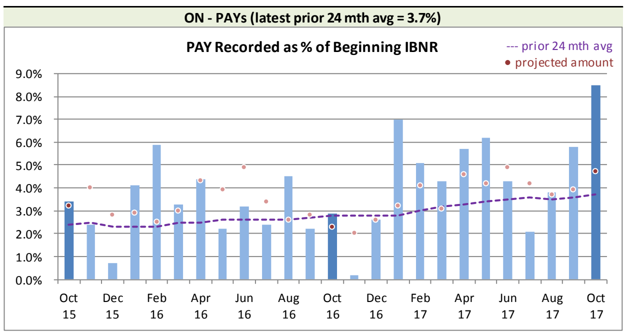
The method for establishing IBNR adjusts automatically for changes in **earned premium** and **recorded** claims activity level (see sections 2.2 and 3).

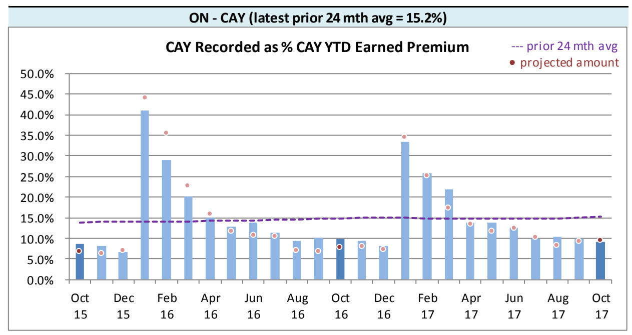
We have included, for reference, additional charts at the top of the next page related to levels influencing **recorded** activity. Note in particular the reduction in the level of PAY beginning IBNR over the months, as a response to valuations and showing up as a beginning IBNR change one month after the valuation is implemented (i.e. April, June, September, and November).

Ontario RSP Levels that influence[11] ***Recorded*** *activity by Calendar Month*









We track beginning prior accident years' IBNR as **recorded** activity "comes out of" IBNR. Changes in the prior accident years' beginning IBNR (see upper left chart above) occur for several possible reasons:

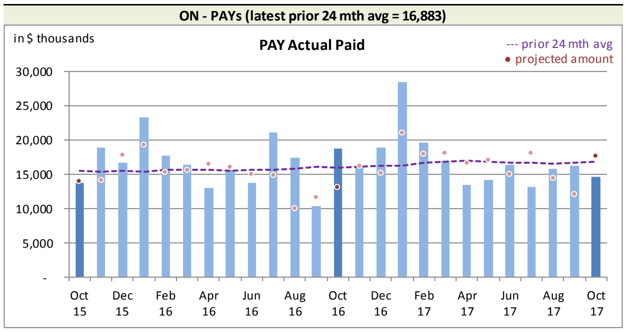
- to offset actual **recorded** activity (through loss ratio matching);
- the annual switchover as a current accident year becomes a prior accident year (occurs in January); and
- when a new valuation is implemented, where the valuation resulted in changes to the selection of prior accident years' ultimate (will show up as a beginning IBNR change one month after the valuation is implemented, i.e. the change will generally show in April, June, September, and November).

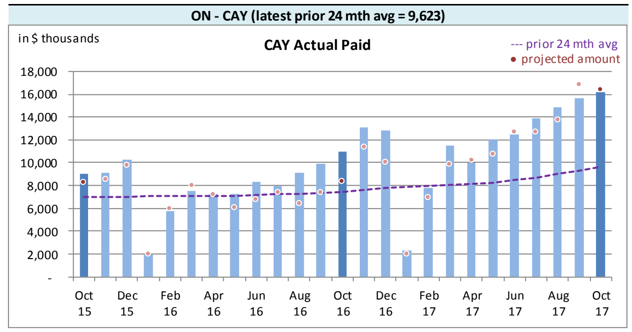
2.1.c AvsP: Paid Indemnity & Allowed Claims Expense

The charts at the top of the next page show actual **paid** activity in each of the most recent 25 calendar months, along with a "prior 24-month average" to show how each month's actual compares with the average amount of the preceding 24 calendar months.

[11]Our recorded activity projections for the prior accident years are based on selected ratios of recorded activity to beginning unpaid balances, whereas the current accident year projections are based on selected ratios of year-to-date IBNR to year-to-date selected ultimate (i.e. selected LR x earned premium), deriving year-to-date recorded as selected ultimate less IBNR. In both cases, the ratio selection is based on our review of the more recent recorded activity and recent AvsP analyses.

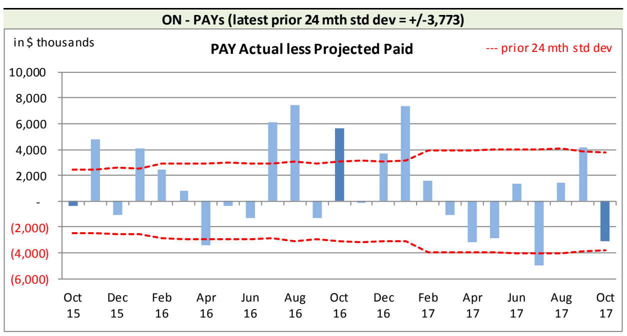
*Ontario RSP Actual **Paid** activity by Calendar Month*

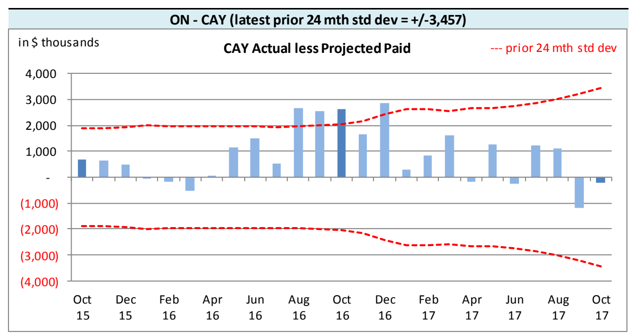




Paid activity variances from the previous month's projections are shown in the charts below, including the "prior 24-month standard deviation" levels to show how the variances from projection compare with historical standard deviations.

*Ontario RSP Actual vs Projected Summary: **Paid** Variances by Calendar Month*





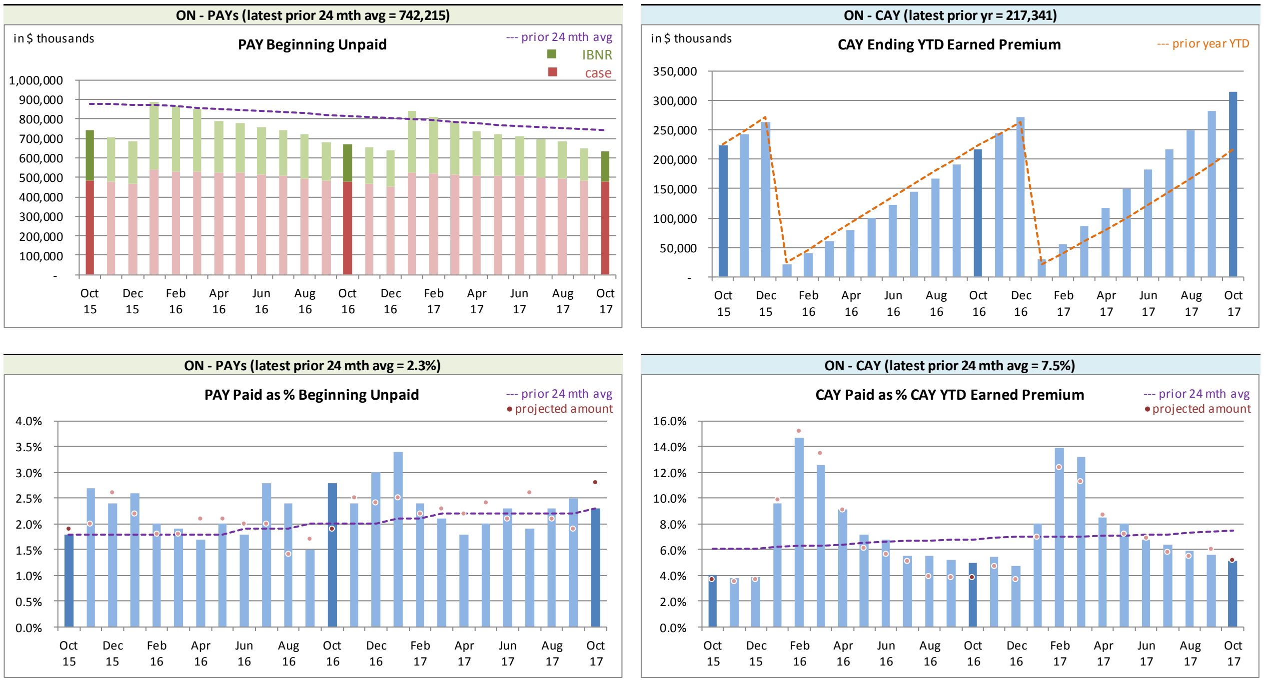
On Latest $ thousands		
Paid	PAYs	CAY
Mthly Avg Paid (prior 24 mths)	16,883	9,623
std dev	3,773	3,457
A-P <> std dev	10	4
% <> std dev	40.0%	16.0%
norm <> std dev	31.7%	31.7%

With respect to **paid** indemnity & allowed claims expense, 40% of the prior accident years' (PAYs) variances (left chart above) over the last 25 calendar months have fallen outside of one standard deviation, suggesting the projection process has performed worse than projecting simply based on the preceding 24-month average. There does appear to be some evidence of bias, with actuals coming in higher than our projections (of the 10 occurrences where the variance was outside of a standard deviation, 8 had actuals higher than our projection). Efforts to address this bias seem to be working.

The current accident year (CAY) **paid** variances (right chart above) show that actuals have been higher than projected for fifteen of the past nineteen months, four of which were also outside the one standard deviation band. The bottom right chart at the top of the next page shows that the rolling 24-month ratio of CAY **paid** to ytd **earned premium** has been increasing, which adds to the difficulty in projecting **paid** activity. We have made adjustments to our assumption selections in an attempt to account for these issues, but recognize, as discussed in the previous section, that the results may be signalling a change in paid patterns, a change in claims levels in general, or the impact of rate changes.

We have included, for reference, additional charts immediately below related to levels influencing **paid** activity.

Ontario RSP Levels that influence[12] Paid activity by Calendar Month



We track beginning prior accident years' unpaid balance (case and IBNR) as **paid** activity "comes out of" the unpaid balance. Changes in the prior accident years' beginning unpaid balance (see upper left chart above) occur for several possible reasons:

- to offset actual **paid** activity (may reduce case or IBNR or both);
- the annual switchover as a current accident year becomes a prior accident year (occurs in January); and
- when a new valuation is implemented, where the valuation resulted in changes to the selection of prior accident years' ultimate (will show up as a beginning unpaid balance change one month after the valuation is implemented, i.e. the change will generally show in April, June, September, and November).

2.2 Actuarial Provisions

An "ultimate loss ratio matching method" (described in section 3) is used to determine the month's IBNR[13], and factors are applied to the nominal unpaid claims liability (case plus IBNR) to determine the discount amount (shown as a negative value to indicate its impact of reducing the liability) and

[12]Our paid projections for the prior accident years are based on selected ratios of paid to beginning unpaid balances, whereas the current accident year projections are based on selected ratios of year-to-date paid to year-to-date selected ultimate indemnity (i.e. selected LR x earned premium). In both cases, the ratio selection is based on our review of the more recent recorded activity and recent AvsP analyses.

[13]For ease of discussion, "IBNR" is used in place of "provisions for incurred but not recorded (IBNR) and development".

the Provisions for Adverse Deviations. The loss ratios and the factors used to determine the projections and actuals were based on the applicable valuation. The table immediately below summarizes variances in provisions included in the October 2017 Operational Report and the associated one-month projections from last month's Report.

Ontario RSP Actual vs Projected Summary: IBNR and APV Amounts ($ thousands)

Table 02

	IBNR		actuarial present value adjustments: Discount Amount		actuarial present value adjustments: Provisions for Adverse Deviations		IBNR + actuarial present value adjustments	
Accident Year	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected
Prior	40,331	(5,723)	(15,744)	(4,042)	37,789	(636)	62,376	(10,401)
2015	34,990	73	(6,280)	(1,785)	20,225	(350)	48,935	(2,062)
2016	72,987	2,654	(9,190)	(2,849)	30,222	305	94,019	110
2017	174,111	5,166	(14,528)	(4,120)	49,028	(765)	208,611	281
TOTAL	322,419	2,170	(45,742)	(12,796)	137,264	(1,446)	413,941	(12,072)

The IBNR provision is $2.2 million higher than projected from last month, counterbalancing the recorded claims activity and adjusting for the earned premium variance impacts indicated in section 2.1, and due to the valuation implementation.

Exhibit G shows the accident year IBNR amount change from last month to this month broken down into:

(i) the change projected last month;

(ii) the additional change due to variances in earned premium (because we apply a loss ratio to earned premium in determining ultimate level) and/or recorded claims (as IBNR is calculated as ultimate less recorded) differences; and

(iii) the additional change due to valuation implementation impacts (as applicable)

The variances associated with (ii) above are discussed in sections 2.1.a and 2.1.b.

The table at the top of the next page summarizes the variances in the provisions for the premium deficiency amounts included in the October 2017 Operational Report and the one-month projections from last month's Report. This RSP is in a premium deficiency position (shown as a positive amount) prior to and after actuarial present value adjustments. Actuarial present value adjustments increase the liability value as the adjustments increase the expected future policy obligations (costs) associated with the unearned premium. The variances noted are mainly driven by the unearned premium variance and due to valuation implementation.

Ontario RSP Actual vs Projected Summary: Premium Deficiency / (DPAC) Amounts ($ thousands)

Table 03	Premium Deficiency / (Deferred Policy Acquisition Costs)		actuarial present value adjustments		Premium Deficiency / (DPAC) including actuarial present value adjustments	
	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected
balance:	42,603	420	23,311	(3,850)	65,914	(3,430)
balance as % unearned premium:	22.4%	0.5%	12.2%	(2.0%)	34.6%	(1.5%)
actual unearned premium:	190,424					
less projected:	(1,768)					

3 Ultimate Loss Ratio Matching Method

An "ultimate loss ratio matching method" continues to be applied to the current month and two projected months shown in the Operational Reports, with IBNR determined by accident year as follows:

(a) Earned premium to-date
(b) Ultimate loss[14] ratio per latest valuation
(c) Estimated ultimate incurred = (a) x (b)
(d) Recorded indemnity & allowed claims expense to-date
(e) IBNR = (c) – (d)

4 Calendar Year-to-Date Results

The table at the top of the next page summarizes the calendar year-to-date results for indemnity & allowed claims expenses[15], including IBNR.

In calculating the amounts as percentages of earned premium, the calendar year-to-date earned premium has been used, which includes earned premium associated with the current accident year but also earned premium adjustments related to prior accident years. Specifically, the current accident year (CAY) ratio in the table is 121.7% rather than 121.3% (the valuation ultimate ratio for accident year 2017), as the calendar year-to-date earned premium includes prior accident year earned premium adjustments. (Note that the ratios in this table may differ slightly from those shown in the Ontario RSP Summary of Operations due to rounding.)

[14] "Loss" here refers to indemnity and allowed claims expenses, but does not include the claims expense allowance included in member company overall expense allowances ("Expense Allowance" in the Operational Report).

[15] Allowed claims expenses are first party legal and other expenses as listed in the RSP Claims Guide. Claims expenses paid through the member company expense allowance are NOT included in this analysis.

Ontario RSP Calendar Year-to-Date Indemnity & Allowed Claims Expense Summary ($ thousands)

Table 04	YTD Nominal Values		YTD actuarial present value adjustment		YTD Total		Change from Prior Month YTD	
	Amount	% EP	Amount	% EP	Amount	% EP	Amount	LR pts
PAYs	(46,624)	(14.9%)	(64,129)	(20.5%)	(110,753)	(35.4%)	(8,240)	1.1%
CAY	380,830	121.7%	34,500	11.0%	415,330	132.8%	41,757	(0.4%)
TOTAL	334,205	106.8%	(29,629)	(9.5%)	304,576	97.4%	33,517	0.8%

(“% EP” based on 2017 calendar year-to-date earned premium; ratios may not total due to rounding)

The prior accident years (PAYs) changes from last month are due to the release of the actuarial present value adjustments with claims payments and due to valuation implementation. The loss ratio change year-to-date reflects not only changes in the prior accident year levels, but also the increase in the calendar year-to-date earned premium with an additional month’s earned premium and the valuation implementation.

For the current accident year (CAY), changes in the year-to-date total reflects the additional month’s exposure and regular changes to actuarial present value adjustments as the year ages and due to the valuation implementation.

5 Current Operational Report – Additional Exhibits

Section 6 provides exhibits pertaining to the actuarial provisions reflected in the current month’s Operational Report.

IBNR (including actuarial present value adjustments) presented in section 6, Exhibit A, were derived on a discounted basis, and therefore reflect the time value of money and include an explicit provision for adverse deviations in accordance with accepted actuarial practice in Canada.

IBNR presented in section 6, Exhibit B, does NOT include any actuarial present value adjustments. The “Total IBNR” from this exhibit is shown in the Operational Report as “Undiscounted IBNR”.

The ultimate loss ratios presented in section 6, Exhibit B, refer to the estimates derived on the basis of various actuarial methodologies applied to the experience of the Ontario Risk Sharing Pool for the purposes of the most recent quarterly valuation. As discussed in section 3, IBNR in the current month’s Operational Report was derived as the difference between the estimated ultimate for the claims amount (i.e. earned premium x ultimate loss ratio) and the associated current recorded amounts (life-to-date payments plus current case reserves).

6 EXHIBITS

The exhibits listed below are provided on the pages that follow:

EXHIBIT A	IBNR for Member Sharing – includes Actuarial Present Value Adjustments
EXHIBIT B	IBNR
EXHIBIT C	Premium Liabilities
EXHIBIT D	Projected Year-end Policy Liabilities
EXHIBIT E	Discount Rate & Margins for Adverse Deviations
EXHIBIT F	Interest Rate Sensitivity
EXHIBIT G	Components of IBNR Change During Month

EXHIBIT A

IBNR for Member Sharing – includes Actuarial Present Value Adjustments

TABLE EXHIBIT A

IBNR + M/S actuarial present value adjustments

discount rate 1.75%

interest rate margin 25 basis pts

Accident Year	Actual Sep. 2017	Actual Oct. 2017	Projected Nov. 2017	Projected Dec. 2017	Projected Dec. 2018
	Amounts in $000s				
prior	1,627	2,067	2,007	1,945	1,549
1998	70	60	59	56	43
1999	48	138	135	130	99
2000	72	(4)	(4)	(4)	(4)
2001	200	96	94	90	72
2002	282	266	263	252	194
2003	(439)	279	275	265	174
2004	620	574	568	545	471
2005	709	683	676	649	504
2006	1,487	1,222	1,209	1,160	911
2007	2,199	1,410	1,397	1,340	1,037
2008	3,961	3,206	3,171	3,045	2,234
2009	7,528	6,552	6,481	6,224	4,621
2010	10,623	10,812	10,686	10,268	7,693
2011	4,009	4,373	4,312	4,148	3,113
2012	6,844	4,092	4,012	3,871	2,583
2013	11,517	11,831	11,292	11,025	7,661
2014	23,179	14,719	13,974	13,594	8,223
2015	53,333	48,935	45,158	41,913	20,052
2016	99,127	94,019	91,409	88,872	48,384
2017	195,392	208,611	217,338	224,767	135,611
2018	-	-	-	-	213,464
TOTAL	422,388	413,941	414,512	414,155	458,689
Change		(8,447)	571	(357)	

Please see Exhibit G, page 1 for Components of Change during Current Month

EXHIBIT B

IBNR

TABLE EXHIBIT B

Amounts in $000s

IBNR

Ultimate Loss Ratio	Accident Year	Actual Sep. 2017	Actual Oct. 2017	Projected Nov. 2017	Projected Dec. 2017	Projected Dec. 2018
-	prior	(3)	125	123	118	89
82.1%	1998	20	20	20	19	15
116.4%	1999	(8)	95	94	90	67
122.0%	2000	66	(4)	(4)	(4)	(4)
126.1%	2001	145	64	63	60	46
118.3%	2002	248	248	246	236	181
91.2%	2003	(459)	211	209	201	153
77.9%	2004	547	549	544	522	401
73.9%	2005	678	678	671	644	496
101.0%	2006	1,376	1,230	1,218	1,169	898
100.4%	2007	2,074	1,429	1,415	1,358	1,043
122.3%	2008	3,607	3,097	3,066	2,943	2,258
156.7%	2009	6,668	6,143	6,082	5,839	4,482
155.2%	2010	9,297	9,960	9,860	9,466	7,269
87.4%	2011	2,655	3,501	3,466	3,327	2,556
86.0%	2012	4,031	2,169	2,147	2,061	1,581
98.0%	2013	5,025	6,491	6,166	6,104	4,687
98.7%	2014	11,141	4,325	3,892	3,814	1,648
110.5%	2015	36,755	34,990	31,491	28,657	9,726
118.8%	2016	74,822	72,987	70,797	68,673	31,561
121.3%	2017	159,499	174,111	180,133	185,077	102,970
122.5%	2018	-	-	-	-	173,129
	TOTAL	318,184	322,419	321,699	320,374	345,252
	Change		4,235	(720)	(1,325)	

Please see Exhibit G, page 2 for Components of Change during Current Month

EXHIBIT C

Premium Liabilities

TABLE EXHIBIT C

Premium Liabilities	Actual Sep. 2017	Actual Oct. 2017	Projected Nov. 2017	Projected Dec. 2017	Projected Dec. 2018
	Amounts in $000s				
(1) unearned premium (UP)	197,408	190,424	187,582	180,255	213,457
FOR MEMBER SHARING					
(2) expected future costs ratio {% of (1)}	135.7%	134.6%	134.8%	135.0%	140.0%
(3) expected future costs {(1) x (2)}	267,888	256,338	252,868	243,377	298,760
(4) premium deficiency / (deferred policy acquisition cost)	70,480	65,914	65,286	63,122	85,303
Excluding Actuarial Present Value Adjustments					
(5) expected future costs ratio {% of (1)}	121.6%	122.4%	122.5%	122.7%	127.2%
(6) expected future costs {(1) x (5)}	240,067	233,027	229,870	221,243	271,588
(7) premium deficiency / (deferred policy acquisition cost)	42,659	42,603	42,288	40,988	58,131

EXHIBIT D

Projected Year-end Policy Liabilities

The table below presents the projected policy liabilities as at December 31, 2017, broken down by component.

Ontario	**Projected Balances as at Dec. 31, 2017 ($000s)**								
ending 2017	**nominal values**			**actuarial present value adjustments (apvs)**					
Acc Yr	Case	IBNR	Total Unpaid	discount	investment PfAD	nominal development PfAD	development PfAD discount	Total apvs	TOTAL
prior	23,750	118	23,868	(597)	97	2,386	(59)	1,827	25,695
1998	614	19	633	(27)	4	63	(3)	37	670
1999	679	90	769	(38)	5	77	(4)	40	809
2000	15	(4)	11	(1)	-	1	-	-	11
2001	814	60	874	(59)	8	87	(6)	30	904
2002	316	236	552	(41)	6	55	(4)	16	568
2003	848	201	1,049	(42)	5	105	(4)	64	1,113
2004	1,118	522	1,640	(146)	20	164	(15)	23	1,663
2005	167	644	811	(79)	11	81	(8)	5	816
2006	2,225	1,169	3,394	(360)	48	339	(36)	(9)	3,385
2007	2,305	1,358	3,663	(399)	55	366	(40)	(18)	3,645
2008	4,271	2,943	7,214	(642)	87	721	(64)	102	7,316
2009	8,182	5,839	14,021	(1,052)	140	1,402	(105)	385	14,406
2010	12,562	9,466	22,028	(1,454)	198	2,203	(145)	802	22,830
2011	18,489	3,327	21,816	(1,396)	175	2,182	(140)	821	22,637
2012	35,954	2,061	38,015	(2,053)	266	3,802	(205)	1,810	39,825
2013	53,457	6,104	59,561	(2,561)	357	7,445	(320)	4,921	64,482
2014	86,991	3,814	90,805	(3,814)	545	13,621	(572)	9,780	100,585
2015	101,125	28,657	129,782	(5,970)	779	19,337	(890)	13,256	143,038
2016	101,063	68,673	169,736	(8,826)	1,188	29,364	(1,527)	20,199	189,935
PAYs (sub-total):	454,945	135,297	590,242	(29,557)	3,994	83,801	(4,147)	54,091	644,333
CAY (2017)	118,815	185,077	303,892	(16,714)	2,127	57,436	(3,159)	39,690	343,582
claims liabilities:	573,760	320,374	894,134	(46,271)	6,121	141,237	(7,306)	93,781	987,915
	Unearned Premium	Premium Defiency / (DPAC)	Total Provision	discount	investment PfAD	nominal development PfAD	development PfAD discount	Total apvs	TOTAL*
premium liabilities:	180,255	40,988	221,243	(10,157)	1,325	32,459	(1,493)	22,134	243,377
				*Total may not be sum of parts, as apvs apply to future costs within UPR					
policy liabilities:			**1,115,377**	**(56,428)**	**7,446**	**173,696**	**(8,799)**	**115,915**	**1,231,292**

EXHIBIT E

Discount Rate & Margins for Adverse Deviations

The tables below present selected margins for adverse development by coverage (the total is a weighted average, based on the unpaid claims projection for December 31, 2017 from the valuation), followed by the selected discount rate and the associated margin for investment income.

Selected Claims Development MfADs (Sep. 30, 2017)

Accident Year	Third Party Liability	Accident Benefits	Other Coverages	Total
1994	10.0%	10.0%	10.0%	10.0%
1995	10.0%	10.0%	10.0%	10.0%
1996	10.0%	10.0%	10.0%	10.0%
1997	10.0%	10.0%	10.0%	10.0%
1998	10.0%	10.0%	10.0%	10.0%
1999	10.0%	10.0%	10.0%	10.0%
2000	10.0%	10.0%	10.0%	10.0%
2001	10.0%	10.0%	10.0%	10.0%
2002	10.0%	10.0%	10.0%	10.0%
2003	10.0%	10.0%	10.0%	10.0%
2004	10.0%	10.0%	10.0%	10.0%
2005	10.0%	10.0%	10.0%	10.0%
2006	10.0%	10.0%	10.0%	10.0%
2007	10.0%	10.0%	10.0%	10.0%
2008	10.0%	10.0%	10.0%	10.0%
2009	10.0%	10.0%	10.0%	10.0%
2010	10.0%	10.0%	10.0%	10.0%
2011	10.0%	10.0%	9.9%	10.0%
2012	10.0%	10.0%	9.3%	10.0%
2013	12.5%	12.5%	12.0%	12.5%
2014	15.0%	15.0%	13.6%	15.0%
2015	14.9%	15.0%	12.1%	14.9%
2016	17.4%	17.5%	10.8%	17.3%
2017	18.9%	20.0%	6.4%	18.9%
2018	14.4%	20.0%	5.2%	14.7%
prem liab	14.4%	20.0%	5.2%	14.7%

discount rate:	1.75%
margin (basis points):	25

EXHIBIT F

Interest Rate Sensitivity

The tables below present sensitivity to the member statement claims liability as projected to Dec. 31, 2017 from the latest valuation date (projections in exhibits A to D are also to Dec. 31, 2017, but are based on more up-to-date information). We have included the most recent valuation selection (1.75%), the prior valuation assumption (1.23%) and the prior fiscal year end valuation assumption (0.62%) for comparative purposes. A 25 basis point margin for investment return adverse deviation is used in all scenarios presented.

$ Format: $000s

	Actuarial Present Value of Provisions at Various Discount Rates - Dec. 31, 2017 projected Unpaid							
AY	0.75%	1.25%	1.75%	2.25%	2.75%	3.25%	1.23%	0.62%
2002 & prior	28,356	28,118	27,882	27,654	27,433	27,209	28,126	28,418
2003	369	364	360	356	352	348	365	370
2004	1,781	1,734	1,689	1,646	1,604	1,564	1,736	1,793
2005	862	837	813	790	769	747	838	869
2006	3,770	3,651	3,538	3,430	3,326	3,227	3,656	3,803
2007	3,882	3,756	3,637	3,523	3,415	3,312	3,762	3,916
2008	7,348	7,155	6,971	6,798	6,632	6,474	7,162	7,401
2009	15,125	14,792	14,475	14,175	13,890	13,617	14,805	15,217
2010	23,123	22,677	22,250	21,846	21,460	21,092	22,695	23,245
2011	23,996	23,543	23,112	22,701	22,312	21,937	23,562	24,120
2012	39,275	38,658	38,066	37,504	36,967	36,452	38,681	39,443
2013	67,622	66,780	65,965	65,189	64,438	63,716	66,810	67,849
2014	102,940	101,698	100,479	99,316	98,184	97,094	101,742	103,291
2015	147,916	145,946	144,029	142,194	140,406	138,681	146,014	148,441
2016	195,630	192,674	189,824	187,093	184,401	181,831	192,804	196,430
2017	361,988	356,152	350,525	345,078	339,824	334,756	356,405	363,552
Total	1,023,983	1,008,535	993,615	979,293	965,413	952,057	1,009,163	1,028,158
	curr - 100 bp	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	prior val assumption	prior fyr end assumption

	Dollar Impact Relative to Valuation Assumption							
AY	0.75%	1.25%	1.75%	2.25%	2.75%	3.25%	1.23%	0.62%
Total	30,368	14,920	-	(14,322)	(28,202)	(41,558)	15,548	34,543
	curr - 100 bp	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	prior val assumption	prior fyr end assumption

	Percentage Impact Relative to Valuation Assumption							
AY	0.75%	1.25%	1.75%	2.25%	2.75%	3.25%	1.23%	0.62%
2002 & prior	1.7%	0.8%	-	(0.8%)	(1.6%)	(2.4%)	0.9%	1.9%
2003	2.5%	1.1%	-	(1.1%)	(2.2%)	(3.3%)	1.4%	2.8%
2004	5.4%	2.7%	-	(2.5%)	(5.0%)	(7.4%)	2.8%	6.2%
2005	6.0%	3.0%	-	(2.8%)	(5.4%)	(8.1%)	3.1%	6.9%
2006	6.6%	3.2%	-	(3.1%)	(6.0%)	(8.8%)	3.3%	7.5%
2007	6.7%	3.3%	-	(3.1%)	(6.1%)	(8.9%)	3.4%	7.7%
2008	5.4%	2.6%	-	(2.5%)	(4.9%)	(7.1%)	2.7%	6.2%
2009	4.5%	2.2%	-	(2.1%)	(4.0%)	(5.9%)	2.3%	5.1%
2010	3.9%	1.9%	-	(1.8%)	(3.6%)	(5.2%)	2.0%	4.5%
2011	3.8%	1.9%	-	(1.8%)	(3.5%)	(5.1%)	1.9%	4.4%
2012	3.2%	1.6%	-	(1.5%)	(2.9%)	(4.2%)	1.6%	3.6%
2013	2.5%	1.2%	-	(1.2%)	(2.3%)	(3.4%)	1.3%	2.9%
2014	2.4%	1.2%	-	(1.2%)	(2.3%)	(3.4%)	1.3%	2.8%
2015	2.7%	1.3%	-	(1.3%)	(2.5%)	(3.7%)	1.4%	3.1%
2016	3.1%	1.5%	-	(1.4%)	(2.9%)	(4.2%)	1.6%	3.5%
2017	3.3%	1.6%	-	(1.6%)	(3.1%)	(4.5%)	1.7%	3.7%
Total	3.1%	1.5%	-	(1.4%)	(2.8%)	(4.2%)	1.6%	3.5%
	curr - 100 bp	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	prior val assumption	prior fyr end assumption

EXHIBIT G

Components of Member Statement IBNR (i.e. "Discounted") Change During Month

RSP	Ontario
AccountCode Desc	IBNR - Discounted

M/S IBNR - in $000s

AccYear	Sum of Prior Month Actual Amount	Sum of Projected Change	Sum of Change Due to AvsP Variances	Sum of Change Due to Valuation Implementation	Sum of Total Change	Sum of % Total Change	Sum of Current Month Final Amount
prior	1,627	(31)	(6,359)	6,830	440	27.0%	2,067
1998	70	(1)	-	(9)	(10)	(14.3%)	60
1999	48	(1)	104	(13)	90	187.5%	138
2000	72	(1)	1	(76)	(76)	(105.6%)	(4)
2001	200	(4)	4	(104)	(104)	(52.0%)	96
2002	282	(6)	2	(12)	(16)	(5.7%)	266
2003	(439)	8	992	(282)	718	(163.6%)	279
2004	620	(12)	14	(48)	(46)	(7.4%)	574
2005	709	(14)	14	(26)	(26)	(3.7%)	683
2006	1,487	(31)	49	(283)	(265)	(17.8%)	1,222
2007	2,199	(44)	(57)	(688)	(789)	(35.9%)	1,410
2008	3,961	(80)	205	(880)	(755)	(19.1%)	3,206
2009	7,528	(149)	1,185	(2,012)	(976)	(13.0%)	6,552
2010	10,623	(213)	1,139	(737)	189	1.8%	10,812
2011	4,009	(80)	306	138	364	9.1%	4,373
2012	6,844	(165)	(915)	(1,672)	(2,752)	(40.2%)	4,092
2013	11,517	(360)	1,801	(1,127)	314	2.7%	11,831
2014	23,179	(575)	(6,058)	(1,827)	(8,460)	(36.5%)	14,719
2015	53,333	(2,336)	1,285	(3,347)	(4,398)	(8.2%)	48,935
2016	99,127	(5,218)	621	(511)	(5,108)	(5.2%)	94,019
2017	195,392	12,938	702	(421)	13,219	6.8%	208,611
Grand Total	**422,388**	**3,625**	**(4,965)**	**(7,107)**	**(8,447)**	**(2.0%)**	**413,941**

EXHIBIT G

Components of IBNR (i.e. "Undiscounted") Change During Month

RSP: Ontario
AccountCode Desc: IBNR - Undiscounted

IBNR - in $000s

AccYear	Sum of Prior Month Actual Amount	Sum of Projected Change	Sum of Change Due to AvsP Variances	Sum of Change Due to Valuation Implementation	Sum of Total Change	Sum of % Total Change	Sum of Current Month Final Amount
prior	(3)	-	(6,383)	6,511	128	(4,266.7%)	125
1998	20	-	-	-	-	-	20
1999	(8)	-	103	-	103	(1,287.5%)	95
2000	66	(1)	1	(70)	(70)	(106.1%)	(4)
2001	145	(3)	2	(80)	(81)	(55.9%)	64
2002	248	(5)	5	-	-	-	248
2003	(459)	9	947	(286)	670	(146.0%)	211
2004	547	(11)	13	-	2	0.4%	549
2005	678	(14)	14	-	-	-	678
2006	1,376	(28)	46	(164)	(146)	(10.6%)	1,230
2007	2,074	(41)	(61)	(543)	(645)	(31.1%)	1,429
2008	3,607	(72)	206	(644)	(510)	(14.1%)	3,097
2009	6,668	(133)	1,177	(1,569)	(525)	(7.9%)	6,143
2010	9,297	(186)	1,133	(284)	663	7.1%	9,960
2011	2,655	(53)	339	560	846	31.9%	3,501
2012	4,031	(81)	(875)	(906)	(1,862)	(46.2%)	2,169
2013	5,025	(101)	1,866	(299)	1,466	29.2%	6,491
2014	11,141	(334)	(5,940)	(542)	(6,816)	(61.2%)	4,325
2015	36,755	(1,838)	1,124	(1,051)	(1,765)	(4.8%)	34,990
2016	74,822	(4,489)	220	2,434	(1,835)	(2.5%)	72,987
2017	159,499	9,446	770	4,396	14,612	9.2%	174,111
Grand Total	**318,184**	**2,065**	**(5,293)**	**7,463**	**4,235**	**1.3%**	**322,419**