

2009 Casualty Loss Reserve Seminar



Personal Automobile Loss
Reserving considerations
and issues



“A problem is a chance to do your best.”

-- Duke Ellington

Loss reserving projections are a chance to
minimize your errors.

Personal Automobile Loss Reserving considerations and issues.

- | Setting auto insurance reserves has its pot holes, which differ from other lines of business.
 - High frequency, low severity
 - Working layer exposure
 - | Process change is a big consideration when evaluating the needed reserves.

Personal Automobile Loss Reserving considerations and issues.

- I The measure of success for a Reserving Actuary is the reserve runoff or development.



Personal Automobile Loss Reserving considerations and issues.

SCHEDULE P - PART 2B - PRIVATE PASSENGER AUTO LIABILITY/MEDICAL INCURRED LOSSES AND PAID DCC EXPENSES REPORTED AT YEAR END

	2004	2005	2006	2007	2008	One Year	Two Year	
PRIOR	565,832	563,271	563,700	562,006	562,312	306	(1,389)	
1999	2,148,846	2,149,398	2,149,781	2,148,459	2,148,861	402	(920)	
2000	2,405,770	2,405,074	2,404,998	2,405,078	2,405,423	344	425	
2001	2,327,968	2,319,278	2,320,846	2,322,516	2,321,844	(672)	998	
2002	2,746,241	2,711,128	2,706,531	2,709,107	2,708,827	(280)	2,296	
2003	3,288,782	3,248,931	3,215,033	3,216,531	3,217,787	1,256	2,754	
2004	2,988,562	2,912,071	2,884,317	2,863,135	2,852,454	(10,681)	(31,863)	
2005	.....XXX	2,977,673	2,929,679	2,944,596	2,931,976	(12,620)	2,298
2006	.....XXX	.....XXX	2,877,221	2,909,063	2,939,964	30,901	62,743
2007	.....XXX	.....XXX	.....XXX	2,898,268	2,922,428	24,159	.....XXX
2008	.....XXX	.....XXX	.....XXX	.....XXX	2,846,614	.....XXX	.....XXX
TOTAL					12. Totals	33,116	37,342	
					total loss and DCC reserves at Dec 2008	2,545,393	1.3%	1.4%
					total loss and DCC reserves at Dec 2007	2,621,698		

Sch P Part 2: the statutory exhibit that communicates accuracy of reserves to the regulators.

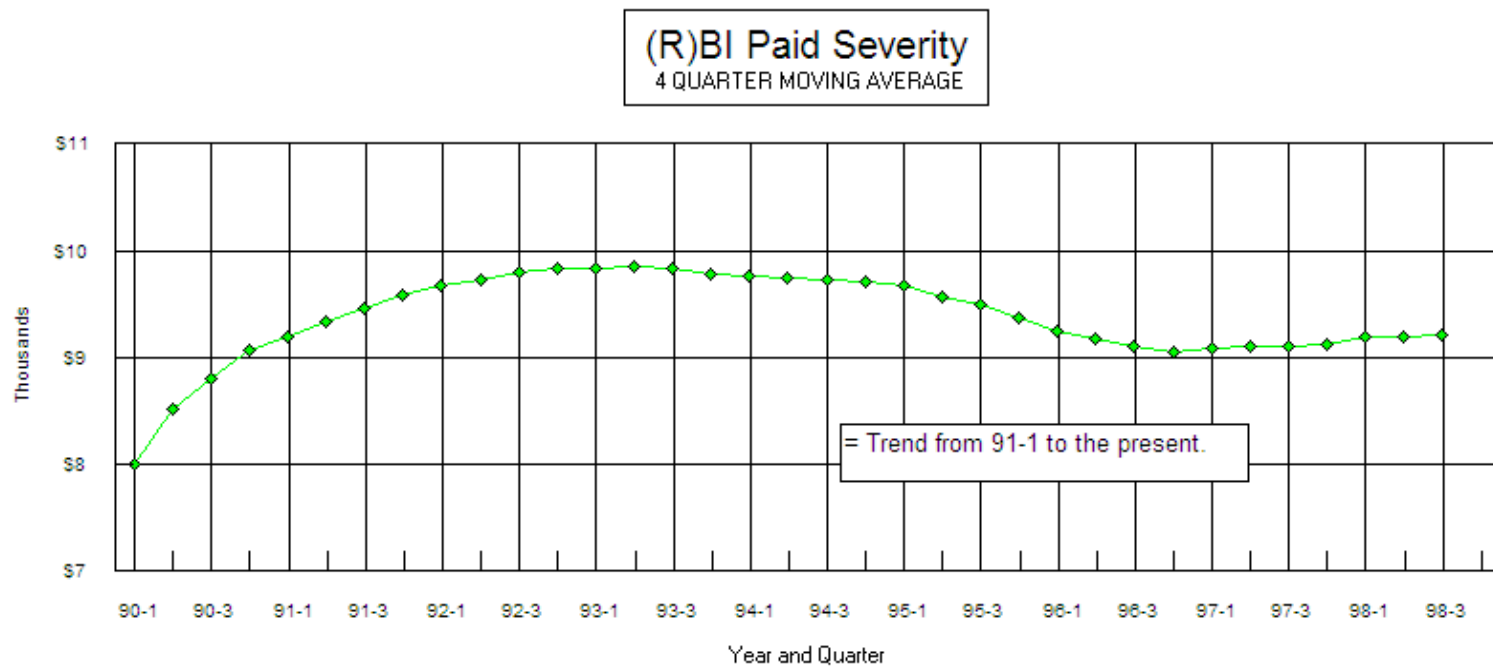
Personal Automobile Loss Reserving considerations and issues.

SCHEDULE P - PART 2B - PRIVATE PASSENGER AUTO LIABILITY/MEDICAL INCURRED LOSSES AND PAID DCC EXPENSES REPORTED AT YEAR END

	2002	2003	2004	2005	2006	One Year	Two Year	
PRIOR	385,137	387,765	386,560	386,263	385,907	(357)	(653)	
1997	1,377,924	1,380,692	1,378,220	1,377,649	1,378,934	1,285	714	
1998	1,694,864	1,695,601	1,697,870	1,696,205	1,695,711	(494)	(2,159)	
1999	2,159,630	2,144,111	2,147,244	2,147,861	2,148,236	375	992	
2000	2,444,573	2,412,129	2,403,439	2,402,723	2,402,698	(25)	(741)	
2001	2,361,684	2,353,771	2,324,881	2,316,228	2,317,745	1,518	(7,136)	
2002	2,746,819	2,753,508	2,741,703	2,706,853	2,702,259	(4,594)	(39,444)	
2003	.....XXX	3,301,746	3,281,543	3,241,952	3,208,359	(33,593)	(73,184)
2004	.....XXX	.....XXX	2,978,099	2,902,935	2,875,326	(27,610)	(102,773)
2005	.....XXX	.....XXX	.....XXX	2,968,833	2,921,005	(47,828)	.....XXX
2006	.....XXX	.....XXX	.....XXX	.....XXX	2,869,249	.....XXX	.....XXX
TOTAL						(111,322)	(224,383)	
					total loss and DCC reserves at Dec 2005	2,621,698	-4.2%	-8.3%
					total loss and DCC reserves at Dec 2004	2,694,725		

**Very favorable development as shown on Schedule P part 2B.
What are drivers of development?**

Personal Automobile Loss Reserving considerations and issues.



We generally do not establish reserves that anticipate non-increasing severity for the Bodily Injury coverage.



Personal Automobile Loss Reserving considerations and issues.

“The roughest thing about being a success is that you’ve got to keep on being a success.”

-- Irving Berlin

Setting reserve levels is an attempt to reduce and understand your degree of failure.

Personal Automobile Loss Reserving considerations and issues.

- I Those outside of Loss Reserving (both internal and external to the Company) provide input and questions as to how well we are doing with our reserve setting.
 - The SEC
 - State DOI's
 - Our PM's
 - Our Claims Organization

Personal Automobile Loss Reserving considerations and issues.

The SEC

Personal Automobile Loss Reserving considerations and issues.

I The SEC:

- Critical Accounting Policies in your Company's MD&A require commentary on the carried reserves.
- Our responses to their questions go through a great deal of scrutiny?



Personal Automobile Loss Reserving considerations and issues.

- I 20 years ago the MD&A was a short document.
 - There were only a few items discussed in the Critical Accounting Policies section, Loss Reserves being one.
- I The required commentary has expanded considerably in the last 10 years.
 - Especially around sensitivity related to the reserve estimate and the impact of the financial results.

Personal Automobile Loss Reserving considerations and issues.

- I The accident year severity estimate is generally the parameter with the most error for auto liability.
- I Our approach:
Show the range of the reserve estimate based on misses in the accident year estimated severity.



Personal Automobile Loss Reserving considerations and issues.

Estimated Change in Severity for Accident year 2008

	-2%	-1%	0%	1%	2%
PRIVATE PASSENGER AUTO	4,289.3	4,341.3	4,393.4	4,445.4	4,497.5
COMMERCIAL AUTO/TRUCK	1,356.9	1,366.3	1,375.6	1,385.0	1,394.4
Other	163.9	163.9	163.9	163.9	163.9
Total	5,810.1	5,871.5	5,932.9	5,994.3	6,055.7

Every % point on 2008 Severity impacts Pers Liab Res \$52.0 million and Com Liab Res \$9.4 million.

Estimated Change in Severity for total of Accident years 2006, 2007, 2008

	-2%	-1%	0%	1%	2%
PRIVATE PASSENGER AUTO	4,082.4	4,237.9	4,393.4	4,548.9	4,704.4
COMMERCIAL AUTO/TRUCK	1,320.6	1,348.1	1,375.6	1,403.2	1,430.7
Other	163.9	163.9	163.9	163.9	163.9
Total	5,566.9	5,749.9	5,932.9	6,116.0	6,299.0

Every % point on the total 2006, 2007, 2008 severity impacts Pers Liab Res \$155.5 million and Com Liab Res \$27.5 million.

Personal Automobile Loss Reserving considerations and issues.

MD&A Severity impacts				<u>ComA severity</u>	
as of 2008		2005-2007	@ 2007	9,404	
<u>PPA + ComA</u>	<u>PPA</u>	2005-2007	@ 2008	9,577	1.8%
69,504	33,043	Impact on 2008 if same as 2007		36,461	3.9%
101,846	51,037	If same in 2009 as in 2008		50,809	for last 3 years

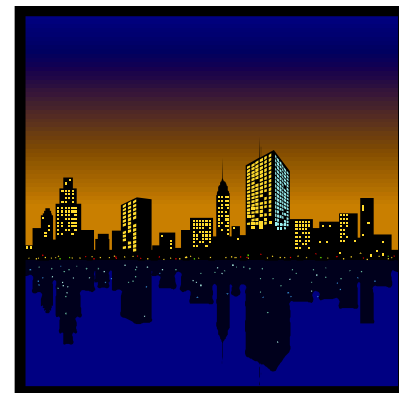
We also discuss the potential error if we missed with our estimate by the same magnitude as in the previous year.

Personal Automobile Loss Reserving considerations and issues.

State DOI's

2009 CLRS - Chicago

- I The DOI's for the states in which your Companies are domesticated ask several questions.



2009 CLRS - Chicago

SCHEDULE P - PART 2C - COMM AUTO LIABILITY

INCURRED LOSSES AND ALLOCATED EXPENSES REPORTED AT YEAR END

	2004	2005	2006	2007	2008	One Year	Two Year	
PRIOR	3,515	3,539	3,544	3,498	3,505	7	(39)	
1999	1,539	1,548	1,542	1,537	1,536	(1)	(5)	
2000	643	627	626	629	634	5	8	
2001	753	774	847	844	831	(13)	(17)	
2002	1,290	1,164	1,341	1,380	1,383	3	42	
2003	2,099	1,219	1,385	1,306	1,291	(14)	(94)	
2004	3,799	2,325	2,088	1,826	1,794	(32)	(293)	
2005	.....XXX	3,437	1,863	1,559	1,522	(37)	(342)
2006	.....XXX	.....XXX	13,415	13,204	14,262	1,058	847
2007	.....XXX	.....XXX	.....XXX	40,640	48,249	7,608	.....XXX
2008	.....XXX	.....XXX	.....XXX	.....XXX	65,708	.....XXX	.....XXX
TOTAL					12. Totals	8,584	107	
					total loss and DCC reserves at Dec 2008	42,323	20.3%	0.7%
					total loss and DCC reserves at Dec 2007	14,458		

Unfavorable development raises many questions by the DOI.

**Personal Automobile Loss Reserving
considerations and issues.**



The Product Managers

2009 CLRS - Chicago

- I What makes your Product managers happy or unhappy with the Loss Reserving group?



2009 CLRS - Chicago

Accident Semesters Ending	Ultimate Severity	Change In Severity	Ultimate Frequency	Change In Frequency	Pure Premium	Loss Ratio
Dec-2005	5,388	1.8%	2.22%	-2.8%	120	53.6%
Jun-2006	5,292	-1.8%	2.21%	-0.3%	117	54.5%
Dec-2006	5,302	0.2%	2.19%	-0.9%	116	56.4%
Jun-2007	5,090	-4.0%	2.14%	-2.6%	109	55.3%
Dec-2007	5,334	4.8%	2.17%	1.6%	116	63.4%
Jun-2008	5,452	2.2%	2.08%	-4.0%	114	65.0%
Dec-2008	5,697	4.5%	2.07%	-0.6%	118	66.6%
Jun-2009	5,823	2.2%	2.19%	6.0%	128	70.8%
					119	66.5%

Point Ann Exp Trend	2.3%	Chg Jun 09 vs. Jun 08	0.6%	Chg Jun 09 vs. Jun 08	2.9%
Point Ann Exp Trend	1.4%	0.2%	-1.3%	5.4%	0.1%

Providing an Indicated Severity to compare to pricing's indication!

Personal Automobile Loss Reserving considerations and issues.

Accident Periods Ending	NEW VS. PRIOR Indicated SEVERITY			NEW VS. PRIOR ULT LOSSES (\$000)		
	Prior Select Ult Severity at 12/31/08	New Select Ult Severity at 06/30/09	Select Ult Diff Severity	Prior Selected Ult Losses at 12/31/08	New Selected Ult Losses at 06/30/09	Select Ultimate Difference Losses
Dec-05	5,376	5,388	12	54,613	54,732	118
Jun-06	5,312	5,292	(20)	54,328	54,065	(263)
Dec-06	5,332	5,302	(30)	52,284	51,977	(307)
Jun-07	5,207	5,090	(117)	48,802	47,696	(1,106)
Dec-07	5,300	5,334	35	49,712	50,010	299
Jun-08	5,411	5,452	41	49,960	50,446	486
Dec-08	5,544	5,697	154	51,700	54,169	2,469
Jun-09	NA	5,460			57,314	
Total Difference in Selected Ultimates						1,566

Changing your estimate of Severity does not make the PM happy! In this case we say that indicated needed reserve at Dec 2008 should have been higher by \$1.6 million.

Personal Automobile Loss Reserving considerations and issues.

Summary of Retro Changes

6 Month Difference in Selected Ultimates:			
	<u>\$ CHG</u>	<u>% CHG</u>	<u>Loss (\$000)</u>
2 yr Average Severity	28	0.53%	1,038
3 - 7 yr Average Severity	(6)	-0.11%	(515)
Counts	183		<u>1,042</u>
Losses (\$000)			1,566
Actual Difference Due to 6 Months' Development:			
	<u>\$ CHG</u>	<u>% CHG</u>	<u>Loss (\$000)</u>
2 yr Average Severity	69	1.34%	2,565
3 - 7 yr Average Severity	(9)	-0.17%	(808)
Incurred Counts	175		<u>949</u>
Incurred Losses (\$000)			2,706

The most recent link factors suggest that our estimate was even lower than ultimate selected indicated needed reserve.

**Personal Automobile Loss Reserving
considerations and issues.**

The Claims Organization

Personal Automobile Loss Reserving considerations and issues.

- I Are your reserve changes a score card for your claims organization?
 - No, but we can show how the changes in their processes have an impact on the historical data and thus on our projections.



Personal Automobile Loss Reserving considerations and issues.

- I Information for the Claims Organization:
 - Closure Rate
 - Average Case Reserves
 - Large Loss Exposure
 - % of Large Losses to Total Losses

Personal Automobile Loss Reserving considerations and issues.

Semiannual Accident Periods Ending	CLOSURE RATE			
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Dec-06	20.6%	48.2%	67.5%	80.1%
Jun-07	25.4%	52.8%	68.7%	80.8%
Dec-07	25.0%	50.5%	69.5%	80.4%
Jun-08	23.5%	50.4%	66.9%	
Dec-08	22.7%	50.5%		
Jun-09	28.2%			
vg Last 6 x HiLo	24.1%	49.9%	67.5%	79.9%
Avg Last 4	24.8%	51.1%	68.1%	80.3%
Last Diagonal	28.2%	50.5%	66.9%	80.4%

Closure rate is the # of losses closed with payment divided by the ultimate of losses for each accident period.

Personal Automobile Loss Reserving considerations and issues.

Acc Semester Period Ending	AVERAGE CASE RESERVE			
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Oct-02	11,591	17,764	21,485	23,137
Apr-03	13,989	19,741	25,221	27,560
Oct-03	10,895	17,532	18,928	25,859
Apr-04	13,729	17,418	21,527	22,679
Oct-04	10,704	17,492	19,473	24,422
Apr-05	13,837	17,856	22,875	25,688
Oct-05	12,776	19,500	20,324	26,693
Apr-06	14,532	23,908	34,216	39,664
Oct-06	11,696	19,901	24,347	28,989
Apr-07	16,892	25,946	31,593	42,038
Oct-07	14,954	26,970	29,114	37,416
Apr-08	13,928	22,163	26,712	
Oct-08	15,927	23,687		
Apr-09	12,522			

The higher the average case reserve may indicate that we expect less future development.

Personal Automobile Loss Reserving considerations and issues.

Acc Semester Period Ending	INCURRED COUNTS OF AT LEAST \$100,000				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Jan-07	15	23	25	29	27
Jul-07	13	22	26	24	31
Jan-08	31	33	32	41	
Jul-08	28	37	39		
Jan-09	14	18			
Jul-09	14				

Calendar Semester Data

	# Incurred	# Emerged	# Paid	\$ Incurred	\$ Paid
Jan-08	38	7	26	5,312,000	3,120,000
Jul-08	35	7	25	4,610,001	2,830,000
Jan-09	13	(1)	35	1,893,949	4,900,950
Jul-09	32	18	23	3,614,700	2,569,700

Changes in the early recognition of large losses impact our future expected loss development factors.

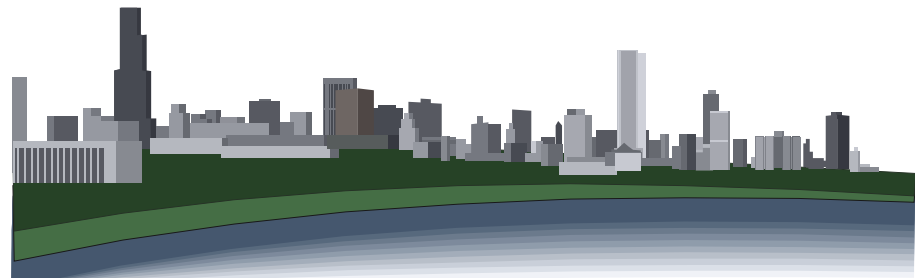
Personal Automobile Loss Reserving considerations and issues.

Acc Semester Period Ending	% OF TOTAL INCURRED \$ FOR FEATURES OF AT LEAST \$100,000				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Jan-05	9.0%	10.6%	11.0%	12.6%	15.8%
Jul-05	9.0%	10.4%	13.4%	15.8%	17.0%
Jan-06	12.9%	12.7%	15.1%	21.1%	20.8%
Jul-06	12.7%	17.0%	15.4%	16.5%	15.9%
Jan-07	12.9%	16.9%	17.2%	20.6%	18.3%
Jul-07	11.0%	17.9%	20.4%	19.2%	23.3%
Jan-08	26.2%	25.9%	24.8%	29.1%	
Jul-08	22.3%	26.3%	26.0%		
Jan-09	12.8%	14.1%			
Jul-09	11.9%				

By looking at the large losses as % of the total incurred losses we normalize the relative levels to prior accident periods.

Personal Automobile Loss Reserving considerations and issues.

- I The case reserve runoff over time
 - A scorecard of showing the accuracy of the past carried outstanding case.
 - Compares original outstanding reserve dollars to the amount paid and the current O/S case reserves on the outstanding cases from that reserve date at a later date.



Personal Automobile Loss Reserving considerations and issues.

RES DATE	CASE RES	# cases	Booked Incurred Losses Evaluted as of			# O/S cases
			Jan-09	Apr-09	Jul-09	Jul-09
Apr-07	34,618,999	2,159	40,996,120	41,395,945	41,161,465	119
Jul-07	33,966,490	2,128	41,908,707	42,305,103	42,371,092	170
Oct-07	33,664,652	2,006	41,486,427	42,356,430	42,661,387	225
Jan-08	34,448,683	1,914	40,588,176	41,561,940	41,960,765	296
Apr-08	36,485,807	1,903	40,741,935	42,254,362	42,518,584	394
Jul-08	37,828,487	1,911	40,975,603	42,500,658	43,005,178	547
Oct-08	34,949,166	1,812	37,640,387	39,710,306	40,293,457	703
Jan-09	35,918,518	1,801		38,075,336	38,727,297	942
Apr-09	37,747,066	1,762			38,286,153	1,275
Jul-09	39,022,800	1,798				1,798

RES DATE	CASE RES	# cases	Avg Runoff Case Reserve as of			Orig avg O/S
			Jan-09	Apr-09	Jul-09	
Apr-07	34,618,999	2,159	18,988	19,174	19,065	16,035
Jul-07	33,966,490	2,128	19,694	19,880	19,911	15,962
Oct-07	33,664,652	2,006	20,681	21,115	21,267	16,782
Jan-08	34,448,683	1,914	21,206	21,715	21,923	17,998
Apr-08	36,485,807	1,903	21,409	22,204	22,343	19,173
Jul-08	37,828,487	1,911	21,442	22,240	22,504	19,795
Oct-08	34,949,166	1,812	20,773	21,915	22,237	19,288
Jan-09	35,918,518	1,801		21,141	21,503	19,944
Apr-09	37,747,066	1,762			21,729	21,423
Jul-09	39,022,800	1,798				21,703

Avg runoff - amount in each column divided by the original # cases.

Personal Automobile Loss Reserving considerations and issues.

Environmental Considerations

I Late Emergence

Personal Automobile Loss Reserving considerations and issues.

- I Changes in Late Emergence patterns
 - Impact your runoff of carried reserves
 - Impact your projections of future needed IBNR reserves.



Personal Automobile Loss Reserving considerations and issues.

- I Definition of Late Emerging losses:
 - Any transaction that is reported into the database where the outstanding case reserve equals zero (i.e. closed or not reported) following the accident period.
 - Includes:
 - I Late reported Losses
 - I Reopened Losses
 - I Salvage and Subrogation recoveries



Personal Automobile Loss Reserving considerations and issues.

through March 2009	IBNR Emergence		
Calendar Year 2009	<u>AY 2008</u>	<u>AY 2007</u>	<u>AY (2008,2007)</u>
Incurred Dollars	97,677,106	18,164,650	115,841,756
Incurred Counts	19,246	2,287	21,533
Severity	5,075	7,943	5,380
Frequency	0.174%	0.021%	0.099%
Pure Premium	8.84	1.68	5.31
through March 2008			
Calendar Year 2008	<u>AY 2007</u>	<u>AY 2006</u>	<u>AY (2007,2006)</u>
Incurred Dollars	81,258,928	16,546,205	97,805,133
Incurred Counts	17,638	2,311	19,949
Severity	4,607	7,160	4,903
Frequency	0.164%	0.022%	0.093%
Pure Premium	7.54	1.56	4.57

Note the severity and the frequency of the late emerging losses are higher than experienced in the prior year.

Personal Automobile Loss Reserving considerations and issues.

	Total Case Reserves		Reopen Case Reserves		Percent of Reopens	
	Amount	Number	Amount	Number	Amount	Number
05-09	165,773,085	15,304	11,866,132	834	7.16%	5.45%
05-12	165,485,911	15,099	12,834,815	891	7.76%	5.90%
06-03	169,704,402	15,217	12,920,594	932	7.61%	6.12%
06-06	174,730,637	15,220	13,505,990	1,007	7.73%	6.62%
06-09	176,851,355	14,752	14,382,920	1,019	8.13%	6.91%
06-12	174,203,742	14,121	13,534,015	981	7.77%	6.95%
07-03	176,215,908	14,025	13,940,680	1,001	7.91%	7.14%
07-06	173,090,106	13,610	13,903,987	976	8.03%	7.17%
07-09	176,552,379	13,085	15,089,367	944	8.55%	7.21%
07-12	173,245,671	12,378	15,806,616	940	9.12%	7.59%
08-03	176,022,343	12,104	16,256,487	938	9.24%	7.75%
08-06	177,912,246	11,965	16,989,851	937	9.55%	7.83%

The amount and the number of reopened case reserves are a growing portion of the total outstanding case inventory.

Personal Automobile Loss Reserving considerations and issues.

through July 2009	Collision - Salvage Recoveries		
Calendar Year 2009	<u>AY 2008</u>	<u>AY 2007</u>	<u>AY (2008,2007)</u>
Incurring Dollars	19,231,266	488,959	19,720,225
Incurring Counts	14,344	385	14,729
Severity	1,341	1,270	1,339
Frequency	0.340%	0.009%	0.173%
Pure Premium	4.56	0.11	2.32
through July 2008			
Calendar Year 2008	<u>AY 2007</u>	<u>AY 2006</u>	<u>AY (2007,2006)</u>
Incurring Dollars	28,302,595	187,794	28,490,389
Incurring Counts	16,827	114	16,941
Severity	1,682	1,647	1,682
Frequency	0.392%	0.003%	0.196%
Pure Premium	6.60	0.04	3.30

The severity and the number of salvage recoveries is lower than in the prior year thus unfavorable development of the Collision loss reserves.

Personal Automobile Loss Reserving considerations and issues.

- I To summarize:
 - Reserve development is a measure of success
 - SEC wants to know the sensitivity on the financial results of estimate changes for the reserves
 - DOI only wants to see favorable development
 - PM's want information that does not change
 - Need for communication with the Claims Org as their impact on the historical data and projections.
 - Environment-why do late emerging patterns change?

2009 CLRS - Chicago

I don't know the secret to success but the key to failure is to try to please everyone.



Thank you

