

# Memo

**To:** Acton Health Insurance Trustees  
**From:** John Petersen  
**CC:** Peter Savage, Bill Ryan  
**Date:** January 20, 2009  
**Subject:** Health Insurance Trust – Historical Trends in Claims and Reinsurance

---

## Introduction

Annually the Health Insurance Trustees need to set rates. The purpose of this memorandum is to present an estimate of the rate increase required to cover the trust's costs in FY10 based on the Acton Health Insurance Trust claims history. This approach suffers from the limited size of the covered group but benefits from being based on the historical health and composition of the covered group. The covered group is not expected to change significantly from year to year.

The estimate from this memorandum should be considered along with changes in conditions of our reinsurance, general trends in healthcare inflation, health care utilization and any significant changes expected in the covered group from FY09 to FY10 in the final rate setting process.

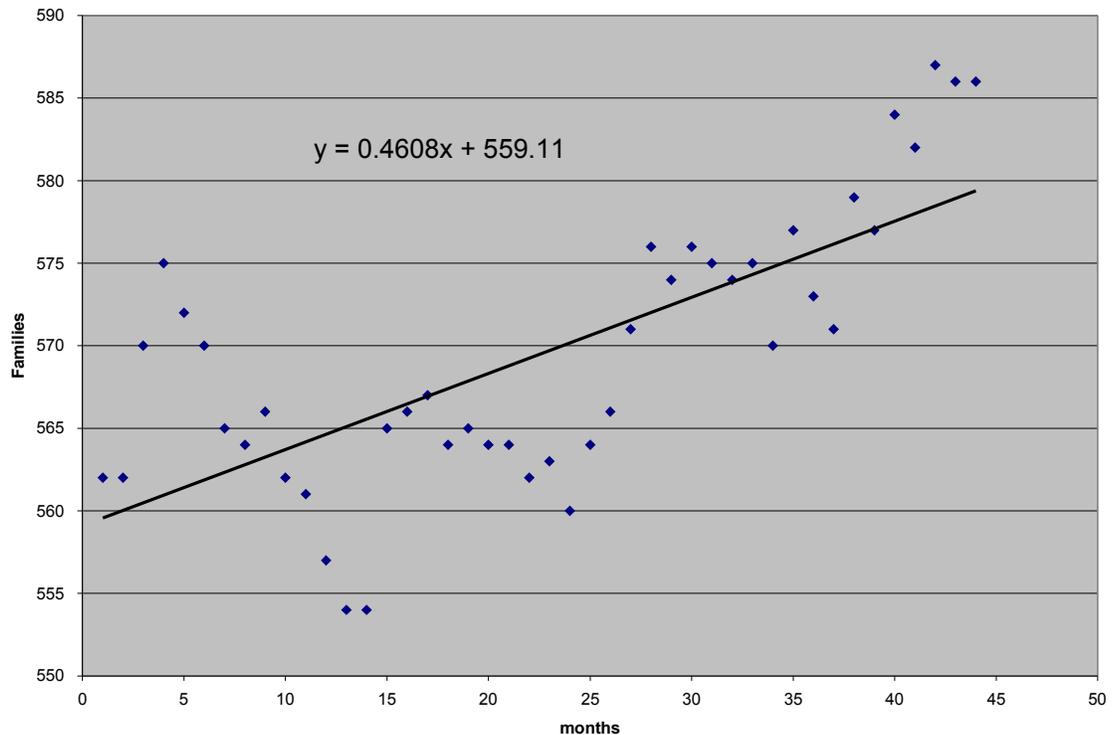
## Historical Health Insurance Trust Costs

The cost of the providing health insurance is the sum of the paid claims (pass through cost), administrative costs, and reinsurance premiums less the amount of reimbursement received from the reinsurance. On an annual basis the administrative costs and reinsurance premiums are fixed while the claims and reimbursement are variable. For the purpose of rate setting, expected administrative costs and reinsurance rates are best estimated by Cook and Company. This memorandum addresses the sum of paid claims and reinsurance reimbursements.

Cook & Co. provided 3.5 years of cash flow reports (Peter Savage email of 11/24/08). An additional two months of data (through Feb 09) were added from the most recent Cash Flow report (Peter Savage email of 1/20/09) to provide a total of 44 months of data. The format of the cash flow report offsets the actual claims by two months (the Feb 09 data is actual claims from Dec08). Thus the Trust fiscal year of JUL07 to JUN08 is best represented by the Cash flow year of SEP07 to AUG08. The cash flow data is attached to the end of this report as Table 1.

The enrollment in the Acton Health Insurance Trust has gradually increased over time. At the present, the trust covers 295 individuals and 586 families. The family enrollment trend is shown in Figure 1, the growth rate based on a linear regression is about 0.9%/year ( $=0.46 \times 12/586$ ).

Figure 1. Family Enrollment in Acton Health Insurance Trust



The primary expense of the trust is paid claims but these expenses are partially offset by reinsurance reimbursements. The change in paid claims, other costs (primarily reimbursement) and the sum of paid claims plus other costs are shown in Figures 2-4.

Paid claims have steadily increased over the 44 months of the analysis. From the slope of the linear regression, the rate of change is 7.2% per year.

There is no trend in reimbursement rates, the slope of the regression line is essentially zero. While the average monthly reimbursement is \$34K, reimbursement tends to show up in large payments. The current fiscal year reimbursement is dominated by a payment of almost \$300K in Oct 2008 which is equivalent to almost 9 average months.

Finally the sum of paid claims plus reimbursements shows the same trend as paid claims, steady increases over time with the rate of change being 7.4% per year.

Figure 2. Acton Health Insurance Trust Paid Claims Jul 05 to Feb 09

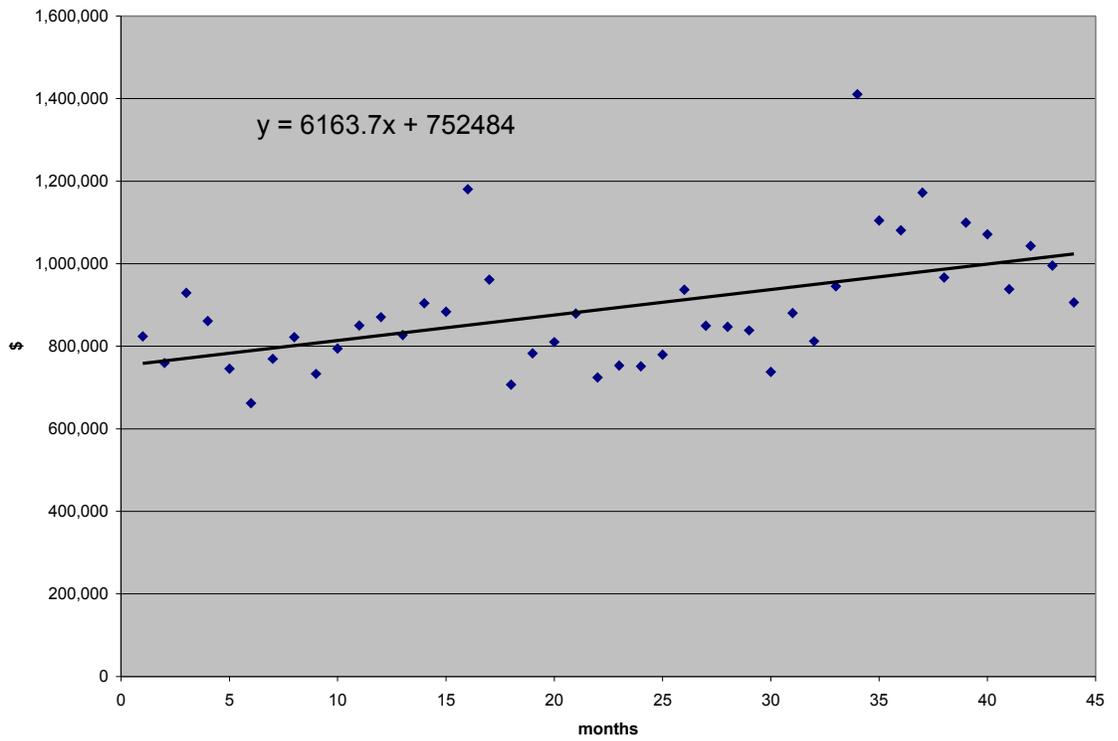


Figure 3. Acton Health Insurance Other Costs (reimbursements) Jul 05 to Feb 09

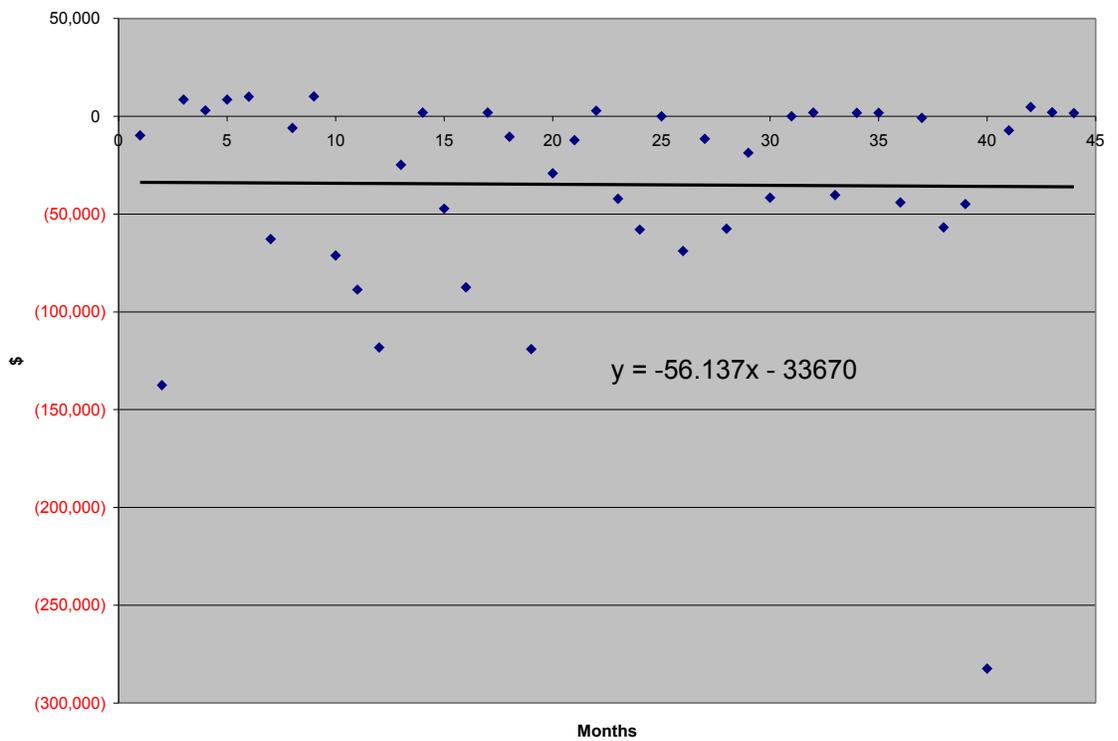
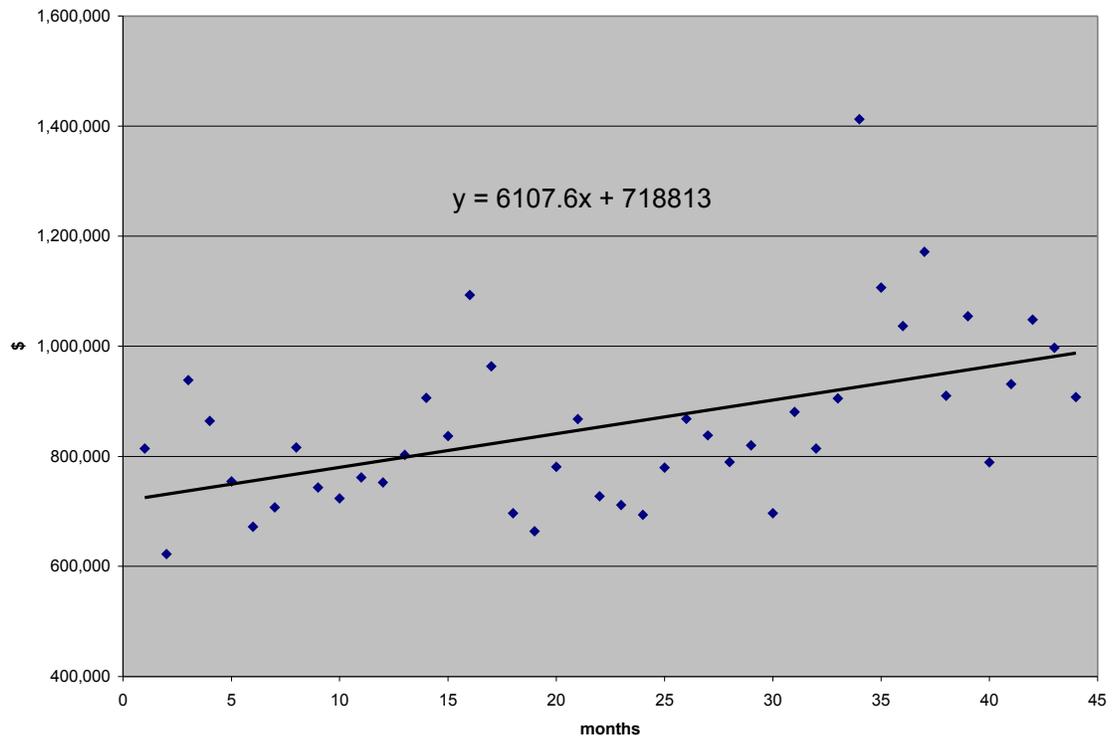


Figure 4. Acton HIT Paid Claims plus Other Costs (reimbursements) Jul 05 to Feb 09



## Conclusion

Trust revenues increase with the number of participants. Thus total expenses must be adjusted for the increase in subscribers to determine the increase in cost per subscriber. Based on an estimate of an increase of subscribers of 0.9% per year, the increase in cost per subscriber has historically been about 6.6% (7.4% less 0.9%). On this basis an increase in the health insurance premiums of approximately 7% for FY10 would be expected to cover the cost of the trust and leave the trust balance unchanged at year end.

Table 1. Cash Flow History July 2005 to June 2007

	Month	Ind.	Fam.	Paid Claims	Admin Fee	Reinsure Premiums	Other Costs	Total Costs	Contribution To Trust	Variance	Level Monthly	Paid Claims plus other costs	
2005	JUL	501	562	823,974	63,394	29,086	(9,809)	906,645	928,306	21,661	796,000	814,165	1
2005	AUG	501	562	759,629	62,547	29,086	(137,413)	713,848	928,306	214,458	796,000	622,215	2
2005	SEP	517	570	929,919	62,989	29,563	8,569	1,031,040	935,473	(95,567)	796,000	938,489	3
2005	OCT	519	575	861,380	65,841	29,854	3,050	960,125	940,822	(19,304)	796,700	864,430	4
2005	NOV	518	572	746,112	65,670	29,708	8,525	850,015	936,641	86,626	796,000	754,637	5
2005	DEC	517	570	662,024	65,824	29,584	10,114	767,547	932,536	164,990	796,000	672,138	6
2006	JAN	519	565	769,930	65,758	29,397	(62,796)	802,289	928,453	126,164	796,000	707,134	7
2006	FEB	525	564	821,981	65,607	29,293	(5,949)	910,932	928,236	17,303	796,000	816,032	8
2006	MAR	524	566	733,134	65,136	29,314	10,149	837,733	929,376	91,643	796,000	743,283	9
2006	APR	525	562	794,790	65,066	29,211	(71,070)	817,997	921,380	103,383	796,000	723,720	10
2006	MAY	529	561	850,303	64,900	29,107	(88,585)	855,724	921,533	65,809	796,000	761,718	11
2006	JUN	536	557	870,616	64,440	29,314	(118,224)	846,145	914,589	68,444	796,000	752,391	12
2006	JUL	536	554	827,277	65,065	30,281	(24,799)	897,824	1,024,064	126,240	885,700	802,478	13
2006	AUG	550	554	904,484	64,885	30,456	2,000	1,001,825	1,030,388	28,563	885,700	906,484	14
2006	SEP	554	565	884,087	66,059	30,980	(47,271)	933,856	1,044,531	110,675	885,700	836,816	15
2006	OCT	560	566	1,180,805	67,646	31,155	(87,482)	1,192,124	1,048,369	(143,755)	885,700	1,093,323	16
2006	NOV	550	567	961,788	68,251	31,045	2,000	1,063,084	1,044,169	(18,915)	885,700	963,788	17
2006	DEC	543	564	706,812	67,588	30,739	(10,395)	794,744	1,037,216	242,472	885,700	696,417	18
2007	JAN	545	565	783,144	67,463	30,827	(118,989)	762,445	1,038,942	276,498	885,700	664,155	19
2007	FEB	541	564	810,244	66,956	30,739	(29,098)	878,841	1,035,018	156,177	885,700	781,146	20
2007	MAR	540	564	879,589	67,104	30,608	(12,129)	965,172	1,033,782	68,610	885,700	867,460	21
2007	APR	538	562	724,477	66,639	30,477	2,869	824,463	1,030,277	205,814	885,700	727,347	22
2007	MAY	540	563	753,538	66,786	30,521	(42,061)	808,783	1,028,139	219,356	885,700	711,476	23
2007	JUN	541	560	751,702	66,596	30,434	(57,931)	790,801	1,029,304	238,503	885,700	693,772	24

Table 1 (continued). Cash Flow History July 2007 to February 2009

	Month	Ind.	Fam.	Paid Claims	Admin Fee	Reinsure Premiums	Other Costs	Total Costs	Contribution To Trust	Variance	Level Monthly	Paid Claims plus other costs	
2007	JUL	280	564	779,452	69,170	39,403	2	888,027	1,138,440	250,413	985,400	779,454	25
2007	AUG	274	566	936,982	69,722	39,383	(68,877)	977,210	1,134,771	157,561	985,400	868,105	26
2007	SEP	286	571	849,628	70,282	39,950	(11,549)	948,311	1,148,177	199,866	985,400	838,079	27
2007	OCT	286	576	847,352	70,304	40,243	(57,444)	900,455	1,154,651	254,196	985,400	789,908	28
2007	NOV	278	574	838,619	71,117	39,943	(18,671)	931,007	1,145,871	214,863	985,400	819,947	29
2007	DEC	276	576	738,127	71,558	40,014	(41,543)	808,156	1,148,075	339,919	985,400	696,584	30
2008	JAN	279	575	880,654	71,115	40,024	18	991,810	1,147,134	155,324	985,400	880,671	31
2008	FEB	281	574	812,235	70,870	40,011	2,000	925,116	1,146,983	221,867	985,400	814,235	32
2008	MAR	282	575	945,694	71,286	40,093	(40,256)	1,016,818	1,148,850	132,033	985,400	905,439	33
2008	APR	281	570	1,410,981	70,811	39,777	1,760	1,523,329	1,141,762	(381,567)	985,400	1,412,741	34
2008	MAY	284	577	1,105,107	71,319	40,256	1,760	1,218,441	1,145,619	(72,822)	985,400	1,106,867	35
2008	JUN	281	573	1,080,835	71,241	39,953	(44,021)	1,148,008	1,135,974	(12,034)	985,400	1,036,814	36
2008	JUL	273	571	1,172,508	71,205	34,855	(843)	1,277,724	1,105,659	(172,066)	1,052,900	1,171,665	37
2008	AUG	275	579	966,809	73,114	35,301	(56,750)	1,018,474	1,117,563	99,089	1,052,900	910,059	38
2008	SEP	294	577	1,099,599	73,463	35,642	(44,829)	1,163,875	1,123,264	(40,611)	1,052,900	1,054,770	39
2008	OCT	293	584	1,071,507	73,612	35,968	(282,456)	898,631	1,132,298	233,668	1,052,900	789,050	40
2008	NOV	293	582	938,618	75,273	35,869	(7,178)	1,042,582	1,136,491	93,909	1,052,900	931,441	41
2008	DEC	296	587	1,043,461	74,765	36,188	4,879	1,159,293	1,137,324	(21,970)	1,052,900	1,048,340	42
2009	JAN	295	586	995,346	75,382	36,115	2,018	1,108,861	1,135,932	27,071	1,052,900	997,364	43
2009	FEB	295	586	906,093	75,090	36,115	1,632	1,018,931	1,135,932	117,001	1,052,900	907,725	44