

Variations of Health Claims by Month

Introduction

The actuary created six samples of self-funded health plan claims below the specific which samples were deemed to be statistically acceptable. The samples were sufficiently large and broad so as to earn the right of being deemed representative. The study was performed by sample as opposed to one large study so as to measure dispersion.

Reasons for and Conclusions of the Study

The traditional technique of projecting, e.g., 10 months of claims to 12 months by using a 1.2 factor was questioned by the actuary as being inaccurate for ERISA plans where *prudence* is the watchword.

The study showed that the traditionally projected claims in the above example might be in error by +/- 3.5%. The comparable error range for an 11 month projection is +/- 2.3%; for a 9 month projection the error range is +/- 3.9%.

While judgment has its role, this actuary asserts that if experience shows the correct funding factor is \$250 per month for an individual, it is not proper by ERISA prudence standards, to use \$258 (or \$242) where the more accurate funding factor is readily available. This logic is all the more compelling if the funding factors serve as a basis for COBRA premiums.

Reasons for Monthly Claims Variations

The actuary concludes, having examined the samples with statistical and logical techniques, that the following forces are the reasons for most of the variations:

1. Slowdown in elective medical care during the winter (or holiday) months result in low claims for January and February.
2. Family planning (vacations, e.g.) during the summer months results in less medical demand which appears as lower claims in the fall months.
3. Return-to-school care contributes to the heavy December claims.

A host of other factors (flu season, e.g.) were considered but fail to be statistically measurable.

Comments on the Study

The study measured for each of the 12 calendar months, for each plan and for each sample three indices:

1. Number of individuals
2. Number of families
3. Paid claims below specific.

The three indices were reduced to a single index equal to $(3) \div \{(1) + 2.4 (2)\}$.

The mean of the five samples in a raw and adjusted (or smoothed) form are shown below:

<u>Calendar Month</u>	<u>Raw Index</u>	<u>Smoothed Index</u>
Jan	149	144
Feb	138	144
Mar	192	197
Apr	192	197
May	203	197
June	198	197
July	190	197
Aug	208	197
Sep	173	187
Oct	203	187
Nov	185	187
Dec	218	218
Total	2249	2249

Table of Seasonally-Adjusted Projection Factors

Plan Year <u>Ending</u>	<u>Number of Months of Reported Claims Experience</u>					
	<u>6 Months</u>	<u>7 Months</u>	<u>8 Months</u>	<u>9 Months</u>	<u>10 Months</u>	<u>11 Months</u>
12-31	2.09	1.77	1.53	1.36	1.23	1.12
11-30	2.05	1.74	1.51	1.33	1.20	1.09
10-31	2.07	1.75	1.52	1.34	1.20	1.09
9-30	2.09	1.77	1.53	1.35	1.21	1.09
8-31	2.11	1.78	1.54	1.36	1.21	1.10
7-30	2.01	1.78	1.54	1.36	1.21	1.10
6-30	1.92	1.71	1.54	1.36	1.21	1.10
5-31	1.95	1.64	1.49	1.36	1.21	1.10
4-30	1.94	1.67	1.44	1.31	1.21	1.09
3-31	1.92	1.65	1.45	1.27	1.18	1.09
2-28	1.90	1.64	1.45	1.29	1.15	1.07
1-31	1.99	1.70	1.49	1.32	1.19	1.07
Composite	2.00	1.71	1.50	1.33	1.20	1.09

