

# Some Traditional BLC Measures

Doug Aldrich, Feb 9, 2009

## Confidential to EC and Council

For the period of 2003-9, I analyzed some traditional metrics for BLC, and also included some financials as well. This was done by using a simple linear regression model which generates an equation that correlates two sets of data with each other to the best of its ability. It has indicators of good or bad correlation, but I won't belabor that except on one measure. You can see the scatter or consistency of data better in plots, which I will bring to the EC meeting because they're hand-drawn.

The purpose of this analysis is to look at 7-year trends, but not conclude what causes the ups/downs in numbers. There may be broad inferences; I've mentioned a couple. The enclosed spreadsheet lists the data points, calculates an average, range, the trend, and estimates a 2010 number. The trend is the slope of the line, so larger numbers (positive or negative) indicate the steepness of the trend.

**Baptisms:** There is reasonable correlation statistically, with higher numbers in earlier years. The steep slope indicates a dramatic decrease. This may be a sign of demographics changes in the congregation (age distribution, fewer babies, etc).

**Confirmations:** This is a tight set of data, with little variation over/under the average. The correlation is virtually flat (slightly down) over the seven years.

**Funerals:** The same can be said about this measure as with confirmations. The only difference is a slight up-tick in the numbers. We are getting older at BLC.

**New Members:** This analysis used six years, since 2003 had a statistically significant "outlier" data point. Even without that point, we are considerably down in this measure, as evidenced by both the range and trend. New members in 2009 amounted to 50% below our historic average. This is an area that deserves critical attention.

**Transfers Out:** Despite perceptions, this metric displays a wide variation in data over the past seven years with an equal plus/minus range. The correlation is forced, but the trend is only somewhat negative. This analysis suggests more explanations are needed but there is no real basis of belief in continually increasing transfers, unless the 2009 number is an upturn. Whether it's due to the ELCA vote, dissatisfaction or what is the reason for my analysis.

**Weddings:** Statistically, the data have decent correlation, but there is a downward trend. This might be due to demographics and/or pastoral preferences, or a combination.

**Weekly Worship:** This measure is significantly down over the past seven years, as seen somewhat in range disparity and but more in the trend numbers. It supports, but does not explain, anecdotes heard in town hall meetings. On a macro basis, we are down 20% since 2003 and 6-7% in the most recent year. I split the total worship into two components, Sunday and Wednesday. While the latter is trending down somewhat, the former has the bulk of the impact on the negative slope. The correlation on all three sets of numbers is quite acceptable.

**Financials:** These numbers over the past seven years are more difficult to analyze using linear regression analysis, since the average dollars of a giver is an inverse curve rather than a straight line. However, I reported all three measures after forcing a linear curve to correlate the data, no matter how statistically difficult.

This means that when a relatively constant number of givers are multiplied by their average dollars, the total dollars show a similar inverse curve. The peak of average dollars was in 2006-7 and the peak of total dollars was in 2006-8. I also used another analysis tool (x squared) which showed a more complicated set of results but definitely an inverse curve.

The number of givers shows a somewhat positive upward trend, from a bottom point in 2006. However, their average dollar giving and thus the total dollars do not have good correlations, so the predictions for 2010 are fairly "gamey".

In summary, the vital metrics to examine openly and quickly are New Members and Weekly Worship. The most recent Transfers Out deserves analysis as to why, which can be perhaps noted from letters of request. The dollar giving may continue to be affected by the economy, unless several large givers were in the transfer numbers.

The other metrics should not be of concern statistically about their trends, other than to continue routine tracking in the future.

"Just the Facts" for some traditional BLC measures Doug Aldrich 2/2/2010

Metric	2003	2004	2005	2006	2007	2008	2009	Average	Range	Trend	"2010"
Baptisms	119	111	80	57	71	43	51	76	+43, -33	-12.46	26
Confirmations	40	52	27	43	33	37	40	39	+13, -12	-0.86	35
Funerals	30	22	25	21	23	31	30	26	+5, -5	0.57	28
New Members	240	133	98	131	89	106	53	102	+31, -49	-11.94	60
Transfers Out	72	99	56	99	59	49	91	75	+24, -26	-1.43	69
Weddings	36	22	16	28	17	16	14	21	+15, -7	-2.75	10
Sunday Worship	929	873	820	825	834	794	734	830	+99, -96	-26.04	717
Wednesday	145	120	108	136	117	124	123	125	+20, -17	-1.75	118
Weekly Worship	1,074	993	929	960	951	918	857	955	+119, -98	-27.82	843
Givers #	1,045	1,051	1,001	984	1,019	1,078	1,046	1,032	+46, -31	2.68	1,037
Average \$	1,638	1,714	1,786	1,947	1,993	1,816	1,744	1,805	+188, -91	26.04	1,910
Total \$K	1,712	1,801	1,788	1,916	2,031	1,958	1,824	1,861	+97, -60	31.89	1,989