

WHY “STRAIGHT LINE” OR “CASH FLOW” IS THE WRONG QUESTION

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Periodically we are asked if we use the “straight line” or “cash flow” calculation method. The question is typically posed by someone with strong feelings on the matter, not simple curiosity. But “straight line” or “cash flow” is not an informative or revealing question, because funding objectives are much more important than the computational method used to achieve those results!

Reserve contributions were first computed years ago by the straight line method, one component at a time, on paper or with a calculator. Minor variations in results were possible, depending on how one distributed, or even acknowledged, existing Reserves among the components. It was simple, but generally effective in pointing an association in the right direction. Because each component became prepared for its next expenditure without any sharing of money between components, this resulted in its stereotype as a relatively conservative calculation method.

The cash flow method arrived with the personal computer and its ability to do many calculations almost instantly. With “spreadsheet software” one could very quickly test many different funding scenarios against the association’s timeline of projected Reserve expenses. The earliest uses of the cash flow method were to determine the minimum contributions necessary to maintain positive cash flow over a 20 or 30 year forecast. Reserve contributions developed in this manner were often significantly less than those computed by the straight line method. Thus the cash flow method became stereotyped as an aggressive calculation method.

These stereotypes unfortunately persist to the present, even though they are often inaccurate. Without any concerns for the reality of the association’s “cash flow”, the “conservative” straight line calculation method, if not carefully applied, could still allow an association to run out of money in the short term. And because most Reserve professionals noted that when associations with minimized Reserve balances faced “surprises” they also faced special assessments, those

using the “cash flow” method quickly responded by recommending funding plans well above the stereotypical minimum.

[National Reserve Study Standards](#), established in 1998, include a standardized measurement of Reserve Fund strength. This “Percent Funded” measurement compared actual Reserve cash to the deteriorated fraction of the Reserve components. When Reserve cash equals the fractional Reserve deterioration, the association can be described as being “Fully” (i.e., 100%) Funded. If an association’s Reserve balance is half of the “Fully Funded” balance, the association is 50% Funded, and so on. An association with an objective to become 100% Funded is described as “Fully Funding” their Reserves. On the other hand, the objective to minimize Reserve contributions so that the Reserve Balance or Percent Funded stays above zero (as with early uses of the cash flow method) is defined as “Baseline Funding”. An association selecting a Funding Objective somewhere in-between is described as “Threshold Funding” their Reserves.

While associations using the straight line method will theoretically eventually become “Fully” (i.e., 100%) funded”, an entire range of Percent Funded results is possible when using the cash flow method. Because of this, Reserve Professionals using the cash flow method describe their Funding Objective in Percent Funded terms, ranging from the aggressive Baseline Funding objective to the conservative Fully (100%) funding objective.

The use of a particular calculation method does not dictate a particular result. Because one can run out of cash in the stereotypically conservative straight line method by not paying attention to cash flow, and because one can fully fund their Reserves using the stereotypically aggressive cash flow method, computational stereotypes are broken. With [National Reserve Study Standards](#), we have common terminology to address and identify aggressive or conservative funding “objectives” and move beyond the merits or drawbacks of a particular computation method.

Thus “cash flow or straight line?” is really the wrong question to ask. It is much more appropriate to ask if the association is pursuing a conservative “Fully Funded” objective, an aggressive “Baseline Funded” objective, or a “Threshold Funding” level that lies somewhere in-between.