

Analyzing Financial Information Using Ratios

A resource article by Kate Barr, executive director, Nonprofits Assistance Fund

Leaders of nonprofits who seek to understand the organization's financial situation usually start by reviewing the financial reports. Understanding the financial information is the building block of any financial discussion. Beyond understanding the reports, much can be learned from analysis of the information and interpretation of what it is telling you. The basic analysis includes comparing financial reports to a benchmark such as the budget or the financial report from the previous year. One essential question is: does this information match our expectations?

For a more technical financial analysis, ratios can be used to deepen the understanding and interpretation. Financial ratios are an established tool for businesses and nonprofits. While there are dozens of ratios that can be calculated, most nonprofits can use a handful of them to learn more about their financial condition. This tool provides the description and calculation of 14 ratios including a mix of balance sheet and income statement ratios. Individual nonprofits must decide for themselves which calculations are valuable. To make the most of ratio calculations, start with some fundamental guidelines.

Financial ratios are useful if they are:

- Calculated using reliable, accurate financial reports (such as an annual audit or final report)
- Calculated consistently from period to period
- Used in comparison to benchmarks or goals
- Viewed both at a single point in time and as a trend over time
- Interpreted in the context of both internal and external factors

Nonprofit Financial Ratios

Fourteen of the most frequently used financial ratios for nonprofit organizations are defined on these pages. A spreadsheet with the ratio calculations is also available on the website at www.nonprofitsassistancefund.org/pages/resources

Calculating and Using Financial Ratios – Income

Ratio	What it tells us
<p>Reliance on sources of income</p> <p>$\frac{\text{Largest type of income}}{\text{Total income}} = \text{Reliance ratio}$</p>	<p>Awareness of the risk of a major reduction in income if this source of contributed income is reduced or stopped. May be helpful for more than one source of income, including special events.</p>
<p>Reliance on govt. funding</p> <p>$\frac{\text{Total grants \& contracts from government}}{\text{Total income}} = \text{Reliance on govt. funding}$</p>	<p>Awareness of risk in both reliance & autonomy. Govt. funding is often closely tied to specific contracts & budgets with limited cost allocations & flexibility.</p>
<p>Earned income as a percentage of total income</p> <p>$\frac{\text{Total earned income}}{\text{Total income}} = \text{Earned income ratio}$</p>	<p>Organizations with earned income have more autonomy and flexibility</p>
<p>Self-sufficiency ratio</p> <p>$\frac{\text{Total earned income}}{\text{Total expense}} = \text{Self-sufficiency ratio}$</p>	<p>The proportion of operating expenses that are covered by earned income.</p>

Calculating and Using Financial Ratios – Expense & Management

Ratio	What it tells us
<p>Percentage of budget for personnel</p> $\frac{\text{Total wages, taxes \& benefit expense}}{\text{Total expenses}} = \text{Personnel costs ratio}$	<p>Since staff cost is usually the largest part of the budget, any changes in the percentage of budget used for staff is notable.</p>
<p>Benefit expense rate</p> $\frac{\text{Total taxes, insurance \& fringe benefits}}{\text{Total salary \& wages}} = \text{Benefit cost ratio}$	<p>Benefit costs are driven by many external factors and can increase at a different pace than other costs.</p>
<p>Functional cost allocation</p> $\frac{\text{Total fundraising, general \& admin expense}}{\text{Total expenses}} = \text{Admin cost ratio}$	<p>Since this is a ratio that is frequently calculated by others, including donors & nonprofit watchdogs, nonprofits should be aware of their ratio & any changes over time.</p>
<p>Fundraising efficiency</p> $\frac{\text{Contributed income}}{\text{Fundraising expense}} = \text{Fundraising efficiency}$	<p>The average dollar amount of contributions raised from each dollar spent on fundraising.</p>
<p>Cost per unit of service</p> $\frac{\text{Program expense}}{\text{Units of service}} = \text{Cost per "unit" of service}$	<p>If the nonprofit uses program-based recordkeeping and has an identifiable "unit" of service, this ratio is very helpful in evaluating financial efficiency & identifying any changes of costs over time.</p>
<p>CUNA (Profitability)</p> $\frac{\text{Change in Unrestricted Net Assets}}{\text{Total Unrestricted Income (Including release from restriction)}} = \text{CUNA ratio}$	<p>The percentage of income that is available to build reserves, invest in infrastructure, and provide a cushion for the future.</p>

Calculating and Using Financial Ratios – Balance Sheet

Ratio	What it tells us
<p>Current ratio</p> <p>$\frac{\text{Current assets}}{\text{Current liabilities}} = \text{Current ratio}$</p>	<p>An indication of the organization's ability to pay obligations in a timely way (within 12 months).</p> <p>A useful indicator of cash flow in the near future.</p>
<p>Days cash on hand</p> <p>Step 1:</p> <p>Annual expense budget</p> <p>(-) depreciation</p> <p>(-) in-kind expense</p> <p>(-) pass-through funds</p> <p>(-) <u>unusual, one-time expenses</u></p> <p>Annual cash requirement</p> <p>$\div 365 = \text{One day cash requirement}$</p> <p>Step 2:</p> <p>$\frac{\text{Cash \& current investments}}{\text{One day cash requirement}} = \text{Days cash on hand}$</p>	<p>A quick test of the operating cash or adequacy of the operating reserve. Include all unrestricted cash accounts such as savings and money market accounts.</p> <p>Setting a target for cash accounts should take several factors in to account, including reliability of income</p>

When calculating ratios from the balance sheet, be aware of Temporarily or Permanently Restricted funds and how they might affect the ratios. Calculating the ratios using only Unrestricted Assets yields the most useful results.

Calculating and Using Financial Ratios – Balance Sheet

Ratio	What it tells us
<p>Debt ratio</p> $\frac{\text{Total liabilities}}{\text{Total unrestricted net assets}} = \text{Debt ratio}$	<p>How much the organization is relying on funding from others, such as loans, payables, and obligated funds. Indication of how much of a cushion there is.</p>
<p>Accounts receivable aging</p> $\frac{\text{Accounts receivable} > 90 \text{ days overdue}}{\text{Total accounts receivable}} = \text{Aged AR ratio}$	<p>As receivables get older and more delinquent, it indicates potential collection or billing problems and cash flow issues.</p>
<p>Accounts payable aging</p> $\frac{\text{Accounts payable} > 90 \text{ days overdue}}{\text{Total accounts payable}} = \text{Aged AP ratio}$	<p>An indication that the organization has cash flow problems and potentially severe financial problems.</p>

This article is authored by Kate Barr, executive director, Nonprofits Assistance Fund. Nonprofits Assistance Fund helps nonprofits realize their visions. Other resources and articles on nonprofit financial management topics can be found at www.nonprofitsassistancefund.org. You can contact Kate Barr at 612.278.7187.