**Profitability Ratios**

1. Return on Net Assets

* Definition: Change in net assets / net assets (EOY)
* Numerator: (Net assets, EOY) – (Net assets, BOY)
  + On 990: (Part X, line 32B) – (Part X, line 32A)
  + On EZ: (Part II, line 27B) – (Part II, line 27A)
* Denominator: Net assets, EOY
  + On 990: Part X, line 32B
  + On EZ: Part II, line 27B
* Notes: Starting in 2019, the line item for (total) net assets on Part X is 33, not 32. When the two categories of restricted net assets were combined into one, as of FY 2019, one line item disappeared and the numbering changed. See the note for #2 below for more details.

1. Return on Unrestricted Net Assets

* Definition: Change in unrestricted net assets / unrestricted net assets (EOY)
* Numerator: (Unrestricted net assets, EOY) – (Unrestricted net assets, BOY)
  + On 990: (Part X, line 27B) – (Part X, line 27A)
  + On EZ: Not available
* Denominator: Unrestricted net assets, EOY
  + On 990: Part X, line 27B
  + On EZ: Not available
* Notes: The newest 990 (effective 2019) requires organizations to subdivide net assets into unrestricted (no donor restrictions) and restricted (donor restrictions). The pre-2019 990 asks organizations to subdivide restricted net assets into permanently restricted net assets and temporarily restricted net assets. The new 990 form removes this second subdivision from the reporting requirements (on the audited financial statements, too). The 990-EZ form doesn’t require organizations to subdivide net assets at all, but (empirical claim, not sure how testable) I would bet that most, if not all, of the net assets for a given EZ filer are unrestricted.

1. Return on Assets

* Definition: Change in total assets / total assets (EOY)
* Numerator: (Total assets, EOY) – (Total assets, BOY)
  + On 990: (Part X, line 16B) – (Part X, line 16A)
  + On EZ: (Part II, line 25B) – (Part II, line 25A)
* Denominator: Total assets, EOY
  + On 990: Part X, line 16B
  + On EZ: Part II, line 25B
* Notes: No problems here!

1. Operating Margin

* Definition: Change in unrestricted net assets / unrestricted revenues and support
* Numerator: (Unrestricted net assets, EOY) – (Unrestricted net assets, BOY)
  + On 990: (Part X, line 27B) – (Part X, line 27A)
  + On EZ: Not available
* Denominator: (Total – Contributions, Gifts, Grants and Other Similar Amounts) + (Total – Program Service Revenue) + (Other revenue)
  + [My old formula] On 990: Part VIII, line 1H(A) + Part I, line 11
  + On 990: Part VIII, line 1H(A) + Part VIII, line 2G(A) + Part I, line 11
  + On EZ: Part I, line 1 + Part I, line 2 + Part I, line 8
* Notes:
  + Unrestricted revenues and support – original formula from Prentice is the sum of the following line items on the pre-2008 form:
    - Lines 1d (Government contributions not included in line 1a, contributions to DAFs)
    - Line 2 (Program service revenue including government fees and contracts)
    - Line 3 (Membership dues and assessments)
    - Line 11 (Other revenue)
  + Part VIII, Line 1H(A) on the new 990 is the sum of the following line items:
    - Federated campaigns
    - *Membership dues*
    - Fundraising events
    - Related organizations
    - *Government grants (contributions)*
    - All other contributions, gifts, grants, and similar amounts not included above
  + Part VIII, Line 2G(A) on the new 990 is the sum of all the line items for *program service revenue* (with open field to describe each revenue source)
  + Part I, line 11 of the new 990 is the sum of the following line items:
  + Royalties
  + Net rental income or (loss)
  + Net income or (loss) from fundraising events
  + Net income or (loss) from gaming activities
  + Net income or (loss) from sales of inventory
  + *All other revenue*
  + Prentice’s definition of “unrestricted revenues and support” is too narrow – why not just include total revenues? To exclude restricted revenues and support (revenues or pledges that carry donor restrictions) we could subtract any positive change in [temporary or permanent] restricted net assets
    - Total revenues on 990: Part VIII, line 12(A)
    - On 990-EZ: Part I, line 9

1. Total Margin

* Definition: Change in total net assets / unrestricted revenues and support
* Numerator: (Total net assets, EOY) – (Total net assets, BOY)
  + On 990: (Part X, line 32B) – (Part X, line 32A)
  + On EZ: (Part II, line 27B) – (Part II, line 27A)
* Denominator: (Total – Contributions, Gifts, Grants and Other Similar Amounts) + (Total – Program Service Revenue) + (Other revenue)
  + On 990: Part VIII, line 1H(A) + Part VIII, line 2G(A) + Part I, line 11
  + On EZ: Part II, line 27B
* Notes: May need to adjust the denominator once we agree on a definition of “unrestricted revenues and support”

**Liquidity Ratios**

1. Current Ratio

* Definition: Current assets / current liabilities
* Numerator: (Cash + short-term investments + current receivables + inventories + prepaid expenses)
  + On 990: (Part X, line 1B) + (Part X, line 2B) + (Part X, line 3B) + (Part X, line 4B) + (Part X, line 8B) + (Part X, line 9B)
  + On EZ: Part I, line 22 [cash and short-term investments only]
* Denominator: (Accounts payable + grants payable)
  + On 990: (Part X, line 17B) + (Part X, line 18B)
  + On EZ: Not available
* Notes:
  + Current assets – original formula from Prentice is the sum of the following line items on the pre-2008 form:
    - Cash – non-interest bearing (line 45B)
    - Savings and temporary cash investments (line 46B)
    - Accounts receivable (net of “doubtful accounts”) (line 47cB)
    - Pledges receivable (net of “doubtful accounts”) (line 48cB)
    - Grants receivable (line 49B)
    - Inventories for sale or use (line 52B)
    - Prepaid expenses and deferred charges (line 53B)
  + Current liabilities – original formula from Prentice is the sum of the following line items on the pre-2008 form:
    - Accounts payable and accrued expenses (line 60B)
    - Grants payable (line 61B)
  + The line item numbers on the 990 form are the same on old and new editions
  + The EZ form only asks filers to report on cash, savings and investments; all receivable accounts, inventories, and prepaid expenses are reported in the line item “other assets” (Part II, line 24), and details are reported in Schedule O
  + Similarly, the EZ form asks filers to report on total liabilities, with details about payable accounts reported in Schedule O

1. Quick Ratio

* Definition: (Cash + short-term investments + current receivables) / current liabilities
* Numerator: (Cash + short-term investments + current receivables)
  + On 990: (Part X, line 1B) + (Part X, line 2B) + (Part X, line 3B) + (Part X, line 4B)
  + On EZ: Part I, line 22 [cash and short-term investments only]
* Denominator: (Accounts payable + grants payable)
  + On 990: (Part X, line 17B) + (Part X, line 18B)
  + On EZ: Not available
* Notes:
  + See above for notes on numerator and denominator
  + The EZ form only asks filers to report on cash, savings and investments (line 22); all receivable accounts, inventories, and prepaid expenses are reported in the line item “other assets” (Part II, line 24), and details are reported in Schedule O
  + Similarly, the EZ form asks filers to report on total liabilities, with details about payable accounts reported in Schedule O

1. Days of Cash on Hand

* Definition: (Cash + short-term investments + current receivables) / ((Operating expenses – bad debts – depreciation) / 365)
* Numerator: (Cash + short-term investments + current receivables)
  + On 990: (Part X, line 1B) + (Part X, line 2B) + (Part X, line 3B) + (Part X, line 4B)
  + On EZ: Part I, line 22 [cash and short-term investments only]
* Denominator: ((Operating expenses – bad debts – depreciation) / 365)
  + On 990: Part IX, line 25A – Part IX, line 22A
  + On EZ: Part I, line 17 [operating expenses only]
* Notes:
  + See above for notes about numerator for EZ filers; we have cash + short term investments, but not current receivables
  + The original ratio gives you years of cash on hand – you need to divide the denominator by 365, or multiply the ratio by 365, to get days of cash on hand
  + The 990 doesn’t record bad debts (the amount listed as uncollectible for receivable accounts); it just asks organizations to report grants/pledges/accounts receivable net of bad debts, so this term is missing from the denominator
  + On the 990, everyone interprets total expenses as total operating expenses; I don’t think the 990 is set up to capture non-operating expenses, but these are sometimes reported on audited financial statements
  + The 990-EZ instructs filers to report depreciation expenses under “other expenses” on line 16 of Part I, so the denominator for EZ filers is just total expenses

**Leverage Ratios**

1. Debt to Assets Ratio

* Definition: Total liabilities / total assets
* Numerator: Total liabilities, EOY
  + On 990: Part X, line 26B
  + On EZ: Part II, line 26B [not a typo]
* Denominator: Total assets, EOY
  + On 990: Part X, line 16B
  + On EZ: Part II, line 25B
* Notes: Should be equivalent for 990 and EZ filers

1. Debt to Equity Ratio

* Definition: Total liabilities / total net assets
* Numerator: Total liabilities, EOY
  + On 990: Part X, line 26B
  + On EZ: Part II, line 26B
* Denominator: Total net assets, EOY
  + On 990: Part X, line 32B
  + On EZ: Part II, line 27B
* Notes: Should be equivalent for 990 and EZ filers

**Expense Ratios**

1. Program Service Ratio

* Definition: Program service expenses / total expenses
* Numerator: Program service expenses
  + On 990: Part IX, line 25B
  + On EZ: Not available
* Denominator: Total [functional] expenses
  + On 990: Part IX, line 25A
  + On EZ: Part I, line 17
* Notes: The EZ form does not break expenses down into functional categories (program, management & general and fundraising) so we can’t compute this ratio

1. Administrative Service Ratio

* Definition: Management and general expenses / total expenses
* Numerator: Management and general expenses
  + On 990: Part IX, line 25C
  + On EZ: Not available
* Denominator: Total [functional] expenses
  + On 990: Part IX, line 25A
  + On EZ: Part I, line 17
* Notes: The EZ form does not break expenses down into functional categories (program, management & general and fundraising) so we can’t compute this ratio

**Asset Turnover Ratios**

Total Asset Turnover

Fixed Asset Turnover

Inventory Turnover

Days of Inventory on Hand

Receivables Turnover (total operating revenue)

Average Collection Period (total operating revenue)

* Notes: These indicators are not covered in Prentice, but might be useful for certain types of organizations

**Coverage Ratios**

Times Interest Earned (TIE) Ratio

* Notes: Meant to capture the ability to make interest payments with changes in unrestricted net assets
* Interest payments are recorded on Part IX, line 20A on the 990, but not broken out on the 990-EZ (they are included in “other expenses,” part I, line 16)

**Wilder Foundation report[[1]](#footnote-1) – measures used:**

Overall aggregate debt ratio (total liabilities divided by unrestricted net assets)

* Notes: Same as debt to equity ratio (measure #10) except denominator is unrestricted net assets (Part X, line 27B on the 990; not available on 990-EZ)

Current ratio (current assets divided by current liabilities)

* Notes: Measure #6

Days cash on hand (the number of days a nonprofit is able to cover their budgeted operational expenses with their liquid assets)

* Notes: Measure #8

Changes in the following quantities:

Revenue from contributions and grants

* Location on 990: Part VIII, line 1H(A)
* Location on 990-EZ: Part I, line 1

Program service revenue

* Location on 990: Part IX, line 25B
* Location on 990-EZ: Not available (see notes for measure #11)

Total expenses

* Location on 990: Part IX, line 25A
* Location on 990-EZ: Part I, line 17

Short-term expenses (accounts payable and accrued interest)

* Location on 990: Part X, line 17(B)
* Location on 990-EZ: Not available (see notes for measures #6 and #7)

1. <http://seachangecap.org/wp-content/uploads/2014/10/Success-Factors-in-Nonprofit-Mergers-A-Study-of-41-Minnesota-Nonprofit-Mergers-1999-2010-Full-Report.pdf> [↑](#footnote-ref-1)