

Using Financial Ratios to Improve Institutional Health

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UNDERSTANDING THE CFI AND CALCULATING RATIOS

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Today we'll explain **financial ratio basics** with particular attention to the **Composite Financial Index (CFI)** and how its calculated.

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**Next week, we'll discuss
how to analyze these
calculations to assess and
improve financial health.**

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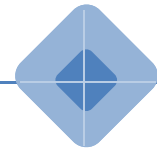
**CONTEXT FOR FINANCIAL RATIO
ANALYSIS**

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Why calculate financial ratios?

- “We believe the fundamental concept of assessing financial health by using a *limited number of ratios* has improved the financial health of colleges and universities.” (emphasis added) from *Strategic Financial Analysis for Higher Education, Sixth Edition...*

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Why calculate ratios? *(contd.)*

- Ratios are valuable for those who do not understand how to interpret and analyze higher education financial statements
 - Trustees, faculty, students, and other interested parties can use the ratios to gain an understanding of the institution’s financial health...

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Why calculate ratios? *(contd.)*

- Reduces complexity of GAAP-basis financial statement analysis
- Facilitates peer assessment
- Shifts focus to a more global level
- Enables strategic decision making...

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Why calculate ratios? *(contd.)*

- Supports a long-term institutional view
- Assists with performance assessment of
 - Creditworthiness
 - Relative liquidity, financial viability, and leverage of resources
 - Financial assets' performance

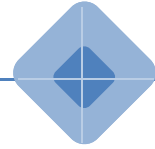
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Principles

- Use ratios to measure acquisition / use of resources in support of mission
- Focus on summary information to address key questions
- Present limited number of key ratios
 - Additional detail when necessary...

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Principles *(contd.)*


- Focus on trends in ratios
- Some trends evident from internal assessment
 - Other trends arise through comparisons with others
- Never compare with others using CFI—only underlying ratios

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COMPOSITE FINANCIAL INDEX (CFI)

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CFI

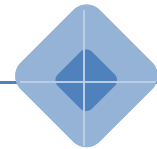
- Published by Prager, Sealy & Co. LLC, KPMG, and BearingPoint in 1999
- Seventh edition of *Strategic Financial Analysis for Higher Education* released summer 2010
 - Revises some secondary ratios; adds others, including liquidity ratio

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CFI

- Combines four primary ratios
 - Primary reserve ratio
 - Viability ratio
 - Return on net assets ratio
 - Net operating revenues ratio

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CFI *(contd.)*

- Standard weighting for each ratio, but can be adapted for unique situations
 - Weighting should remain fairly static over time
- In addition to four primary ratios, seventh edition presents various secondary ratios

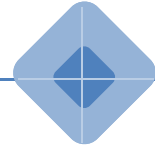
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Primary Reserve ratio—35 percent

- Indicates the sufficiency of resources and their flexibility
 - Expendable net assets / total expenses
 - Unless otherwise specified, expendable net assets restricted for plant purposes are excluded...

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Viability ratio—35 percent

- Indicates the capacity to repay total debt through reserves
 - Expendable net assets / long-term debt

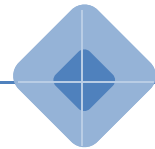
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Return on Net Assets ratio—20 percent

- Indicates whether the institution is better off financially this year than last
 - $\text{Change in net assets} / \text{beginning net assets}$

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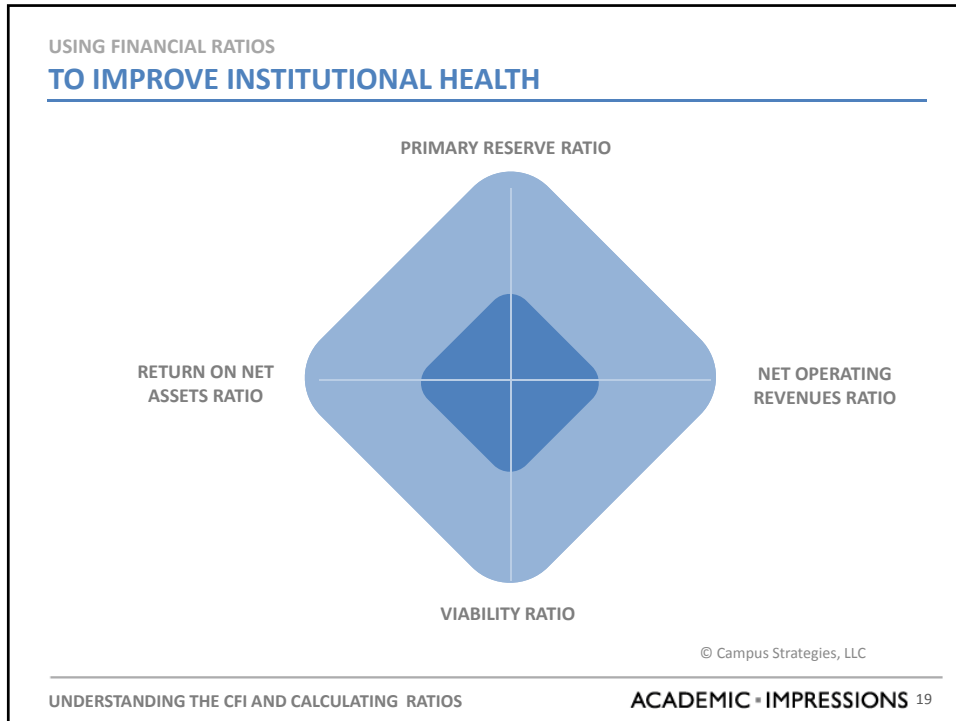
Net operating revenues ratio—10 percent

- Indicates whether institution is living within available resources
 - $\text{Operating surplus or deficit} / \text{operating revenues}$

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QUESTIONS?

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SECONDARY RATIOS

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Primary Reserve secondary ratio

- The primary reserve ratio is the sole component of the CFI that is not supported by secondary ratios

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Viability secondary ratios

1. Debt burden ratio

- Debt service (annual principal and interest payments) / total expenditures (total expenses, less depreciation, plus debt service principal payments)...

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Viability secondary ratios *(contd.)*

2. Debt service coverage ratio

- Adjusted unrestricted net operating revenues (net unrestricted operating revenues plus depreciation expense) / debt service (annual principal and interest payments)...

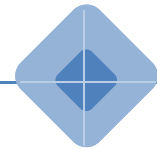
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Viability secondary ratios *(contd.)*

3. Interest burden ratio

- Interest expense / total expenditures (total expenses, less depreciation, plus debt service principal payments)

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Return on Net Assets secondary ratios

1. Physical asset reinvestment ratio

- Capital expenditures / depreciation expense...

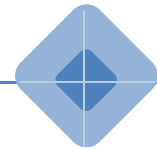
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Return on Net Assets secondary ratios (contd.)

2. Age of facilities ratio

- Accumulated depreciation / depreciation expense...

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Return on Net Assets secondary ratios (contd.)

3. Facilities burden ratio

- Facilities-related expenses (depreciation expense, interest expense, and plant operations & maintenance expense) / total property, plant, and equipment (or total capital assets)...

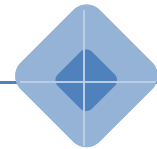
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Return on Net Assets secondary ratios (contd.)

4. Deferred maintenance ratio

- Outstanding deferred maintenance requirements / expendable net assets

Note: this ratio cannot be calculated from information presented in the audited financial statements

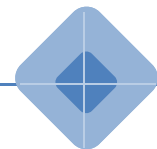
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Net Operating Revenues secondary ratios

1. Cash income ratio

- Net cash provided by operating activities / total unrestricted revenues excluding gains and losses...

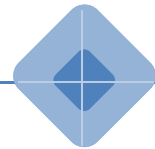
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Net Operating Revenues secondary ratios (*contd.*)

2. Contribution ratios

- *Revenue* / total expenses
 - With *revenue* representing the amount of a specific type of revenue (e.g., tuition & fees, investment income)...

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Net Operating Revenues secondary ratios (*contd.*)

3. Net tuition dependency ratio

- Net tuition and fees / total unrestricted operating revenues...

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Net Operating Revenues secondary ratios (*contd.*)

4. Demand ratios

- *Expense* / total unrestricted operating revenues
 - With *expense* representing the amount of a specific type of expense (e.g., instruction, compensation)

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QUESTIONS?

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SOURCING THE DATA

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Private Institutions

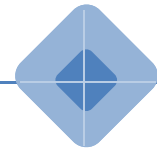
- Audited financial statements (FASB model)
 - Statement of financial position
 - Statement of activities
 - Statement of cash flows
 - Notes to the financial statements...

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Private Institutions *(contd.)*

- Most items referenced in ratios are clearly labeled in one of the financial statements
 - Exception is net investment in plant
 - Frequently buried in unrestricted net assets
 - Net property, plant & equipment less long-term debt...

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Private Institutions *(contd.)*

- No requirement for classified statement of financial position—may combine current with noncurrent
 - If not, you should combine them
- No requirement for operating measure
 - You should calculate one

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Public Institutions

- More complicated than private institutions
- Most public institutions have component units
 - These are affiliated entities (e.g., foundations) reported with the college and university financial statements
 - If present, their data must be included...

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Public Institutions *(contd.)*

- Potential for double counting some items
 - Foundation revenues ultimately remitted to institution represent revenue to institution
 - Foundation expenses remitted to institution and subsequently expended by institution represent expense for both...

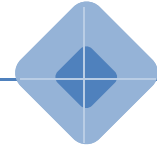
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Public Institutions *(contd.)*

- Two acceptable approaches for reporting component units
- Combined—totals are added across resulting in double counting
- Consolidated—duplicate items are eliminated
- Consolidated is best but may not be available

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Public Institutions *(contd.)*

- Audited financial statements (GASB model)
 - Statement of net assets
 - Statement of revenues, expenses, and changes in net assets
 - Statement of cash flows
 - Notes to the financial statements...

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Public Institutions *(contd.)*

- Component unit's audited financial statements
 - May be same format as institution (GASB) or similar format to that of private institution (FASB)...

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Public Institutions *(contd.)*

- GASB reporting model requires that some revenues supporting operations be reported as nonoperating revenues
- As a result, adjustments are required for operating appropriations, non-endowment gifts, and investment income

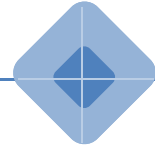
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CALCULATING THE RATIOS

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Templates

- There are two pages of instructions followed by two pages of primary templates
 - Page 1 is for private institutions / component units following the FASB model
 - Page 2 is for public institutions / component units following the GASB model...

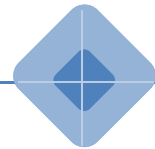
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Templates *(contd.)*

- If the institution reports more than one component unit, complete separate primary templates for each unit
 - Then combine the amounts from all templates and carry it forward to page 4...

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Templates *(contd.)*

- Page 3 is the adjustments page which likely will apply to everyone due to restricted amounts for plant purposes...

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Templates *(contd.)*

- Page 4 is used to calculate the primary ratios which comprise the CFI
 - It relies on data that is carried forward from pages 1 and/or 2

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Templates *(contd.)*

- Information from page 4 is carried forward to page 5 and is used to calculate the CFI
 - This is where the CFI weights are adjusted for institutions that do not have material amounts of outstanding debt or capital lease obligations

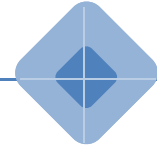
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Next Steps

- Complete the CFI calculation using the appropriate primary template(s)
- Submit all completed templates to larry.goldstein@campus-strategies.com **asap but not later than Friday, November 12**
- Contact Larry via email with any questions...

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Next Steps *(contd.)*

- Completion and submission of the templates is essential to obtaining full value during next week's session
- The session will be highly interactive and you will join with others during a breakout to discuss your results

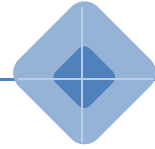
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