## Budgeting

*The following materials were part of Sorrel R. Paskin's presentation at the seminar, "Budgeting as a Proces Expressing the Mission of the School," in December 2002 at the Biennial Conference of the Solomon Sche Day School Association of the United Synagogue of Conservative Judaism. The presentation was made po by a partnership between the SSDSA and PEJE (Partnership for Excellence in Jewish Education) to increa strength of Boards of Trustees of Solomon Schechter Day Schools.*

*Sorrel R. Paskin is President of Resource Associates, Inc., a firm specializing in providing business administration, accounting and employee benefits administration services to smaller independent and Jewis day schools. He can be contacted at:*

*Resource Associates*

*P.O. Box 796*
*North Kingstown , RI 02852*
*P: (401) 295-4255*
*Or via email:* flexcomp@cox.net.

**CONTENTS:**



### BASIC FINANCIAL RESPONSIBILITIES OF GOVERNING BOARDS

- **Maintain intergenerational equity:**
    1. Maintain the physical and financial assets of the institution – establish endowment-spending policies that preserve its purchasing power and ensure that the institution's physical plant – i buildings, grounds and equipment – is properly maintained.

- **Monitor strategic planning:**
    1. Provides context within which to evaluate financial results;
    2. Enables focus on priorities and effective resource allocation decisions;
    3. Maintains attention to important, long-term issues.

- **Establish financial controls:**
    1. Ensure that financial record keeping and reporting are carried out in accordance with genera accepted accounting principles;
    2. Ensure that independent audits of the institutionR 17;s books and records occur;
    3. Ensure that a compliance review of relevant laws and contractual commitments takes place.

- **Manage risk:**
    1. Ensure that the institution is protected against catastrophic loss: adequate property and casu insurance must be in place and the administration must develop policies covering the wide ra of matters that can lead to lawsuits.

1. **Oversee, critique and support institutional budget preparation:**
    1. In considering institutionally prepared budgets, the Board appropriately asks:
        1. Is the institution spending its money in accordance with its mission and core values?
        2. Does this budget move the institution closer to or away from financial equilibrium?

(Financial equilibrium: (i) revenues equal or exceed expense, all expenses included; the growth rates of revenue and expense are balanced; (iii) the value of financial cap preserved or augmented; (iv) the value of physical capital is preserved or augmented the value of human capital is preserved or enhanced; (vi) the value of program servic students and their families is preserved or enhanced.)
    1. Committee members set policy guidelines, participate in activities that suppor policy implementation, understand that they are expected to make personal contributions, and are involved in soliciting other trustees or major gift prospe
2. Reviewing and approving annual operating (and capital) budgets are central to board control influence.
    1. Boards should help set basic parameters, financial principles, and overall guidelines, they should ask probing questions about trends, priorities, and pressures.
    2. However, unless the institution is in financial crisis, the board should resist becoming involved in budget decisions at the department or line-item level.
3. The budget process is as much about setting institutional priorities as it is about control and accountability.
4. The budget is prepared in the context of a long-range strategic financial plan accompanied b financial model that projects the important operati ng parameters several years into the futur
5. The more significant financial parameters that affect the operating budget include:
    1. enrollment and class size;
    2. the tuition price and the projected tuition growth rate;
    3. financial aid policy and administration; character-based awards, merit awards, need-l awards; other discounts; projected growth rates in financial aid;
    4. staffing levels – faculty, administration, service staff employees; numbers of employe assignments of responsibilities, productivity considerations;
    5. gift support – operating and capital gifts;
    6. salary and compensation objectives;
    7. endowment spending rate;
    8. program improvement and new program costs;
    9. major maintenance;
    10. debt financing for capital projects;
    11. accumulation of reserves – PPRRSM; reinvestment in endowment; innovation fund (operating reserves available for “rainy day,” program services enhancement, or othe operating use).
6. Board committees typically involved in budget deliberations:
    1. **Finance Committee** – ensures fiscal stability and long-term economic health of the institution;
    2. **Buildings and Grounds (or Facilities) Committee** – determines the amount of maj maintenance required on campus including renewal and adaption needs and delibera what of the costs to be incurred should be charged against operations and what represents capital additions and enhancements to be included within the capital budg depending upon building age, architecture and degree of maintenance required, 1.5% 3.0% of the building’s replacement value should be funded annually for major maintenance, this amount set aside as the PPRRSM reserve (provision for plant rene replacement and special maintenance).
    3. **Investment Committee** – establishes the endowment investment and management and program, sets an appropriate endowment spending rate in support of the operati budget and the goal of preserving intergenerational equity, and specifies the manner which the institution shall invest its short-term cash and accumulated reserves;
    4. **Development Committee** – establishes annual fund raising goals and participates in process of determining short-term and long-term fund raising projects.
    5. The Committee deliberates questions such as: What size of gift is required to establis named endowment fund or to endow a scholarship or chair of distinguished teaching? How will gifts of property and real estate be credited and disposed of? Should naming opportunities have a strict dollar amount (a percentage of the building’s cost, for exam or should such matters be negotiated case-by-case? Should the institution recognize by level (the Headmaster’s Club, for example)? Do individuals receive credit for corpo matching gifts?

6. Establishing fund raising goals is a delicate process that requires matching institution needs with a realistic assessment of donors' interests, readiness and capacities.
7. All trustees should understand the financial implications of fund-raising objectives. Ho much is for budget relief and how much supports new programs? Will new programs self-sustaining, or will the operating budget absorb additional costs to provide ongoin support for them? Fund-raising objectives should mirror strategic objectives and less the financial load on the operating budget. A gift should always leave the institution in stronger financial position, not a weaker one. If the institution's operating budget ultim must absorb additional costs because of the gift – either through additional operating costs, sustaining a new program, or supporting a new building – the board should be assured that the benefits of the gift outweigh the costs.

back to top

**BASICS OF BUDGETING**

**I. The purpose of budgets**

1. Provides a financial plan for the period
2. Communicates institutional priorities
3. Provides a control structure
4. Establishes a framework for negotiation (tradeoffs, deferrals, etc.)
5. Makes a political statement

**II. Elements of budgeting**

1. Setting priorities
2. Estimating revenues
3. Projecting expenses
4. Funding reserves
5. Balancing revenues with expenses and reserves funding

**III. The budget development process**

A. Connect the annual budget to the strategic plan

1. Based upon the school's strategic plan (three-to-five year cycle), establish institutional goals define objectives to achieve those goals for the budget period
2. Define measurable actions (strategies) that will achieve the objectives
3. Estimate the cost of implementing the proposed strategies
4. Select the strategic initiatives to be implemented
5. Estimate revenue inflows
6. Tuition
7. Auxiliary service fees
8. Endowment earnings
9. Short-term investment earnings
10. Contributions revenue
11. Special events and other income, net
12. Project expenditures
13. Compensation – salaries and benefits
14. Instructional supplies, materials and expense
15. Professional development expense
16. Student activities expense
17. Summer and other programs expense
18. Property and casualty insurance premiums
19. Audit and accounting services

20. Professional services fees

B. Office supplies expense

1. Dues and subscriptions
2. Conferences and meetings
3. Hospitality
4. Head's office expense
5. Admissions office expense
6. Development office expense
7. Business office expense
8. Maintenance, repair and purchased services expense
9. Utilities expense
10. Housekeeping expense
11. Auxiliary services expense
12. Transfers to plant (for capital acquisitions and PPRRSM funding)
13. Transfers to quasi-endowment (per spending policy)
14. Balance revenues and expenditures

C. Common strategies:

1. Increase tuition
2. Defer plant maintenance
3. Reduce professional development opportunities
4. Reduce staff

D. More analytical strategies:

1. Increase faculty and administrative productivity
2. Evaluate auxiliary enterprise functions
3. Evaluate pricing structures
4. Evaluate financial aid policies and practices
5. Eliminate duplication and unnecessary functions (business process redesign)
6. Report operating financial results to departments and administrative offices on a monthly bas
   hold management accountable for significant variances incurred – both favorable and unfavo
7. Evaluation of the budget process
8. Analyze and explain all variances between the budget and actual financial results
9. Document expenditure and revenue trends
10. Update the school's strategic plan

- **Techniques for projecting expenses:**
- Incremental budgeting
- Zero-base budgeting
- Formula budgeting (e.g., physical plant maintenance: one custodial position to maintain 15,600 gros
  square feet; one working supervisor per 6 custodial positions; for wood frame construction, maintena
  and repair will be 1.9% of building replacement value; for masonry-concrete construction, maintenar
  and repair will be 1.25% of building replacement value).

- **Benchmarking best practices within the peer group – a means of assessing performance goa
  and present practices; the goal is to identify practices in competitive institutions that can imp
  present school performance within the areas of comparison**

- **Assessment of performance via ratio analysis – identification of long-term trends, short-term**

**discontinuities and outlying indices**

back to top

## ENDOWMENT INVESTMENT RETURN PAYOUT POLICIES

Payout or endowment return spending policies take a variety of forms throughout independent schools and colleges. Some schools spend investment yield (interest and dividends) only, reinvesting realized and unrea gains; others spend a percentage of the ending market value of the endowment investment portfolio. In an to smooth the volatility associated with either of these approaches, many schools utilize a moving average technique, spending a predetermined percentage of a three-year or five-year trailing average market value investment portfolio. Another approach adopted by a smaller number of schools is to increase the amount s each year by a preset increment (percentage factor) applied to last year's appropriation. Thus, if in 2000-20 the endowment investment return included in operations is $1,000,000 and the preset increment is 5%, ther appropriation for 2001-2002 would be $1,050,000.

The amount of reinvestment delivered by a **spend-only-yield** policy bears no relation to the amount necess to offset internal cost-rise; the actual amount reinvested may be more than or less than the amount required Such a policy may also bind investment strategy to the school's need for current funds thereby dictating por management strategy.

The **ending market value technique** is based upon total return and has the advantage of separating portfo management issues from current spending needs. However, the results of its application are also subject to volatility. Consider that a portfolio invested 70% in equities and 30% in fixed income securities has an expe nominal total return of 9% (expected real return is 5.5%); however, expected volatility for this investment se allocation is 12 percentage points (i.e., there is a 1 in 3 chance that annual investment return will fall outside range of 5.5% +/- 12%). Such volatility can produce unacceptable swings both in the annual amount spent f operations and in the amount reinvested in the portfolio.

The **moving average technique** dampens volatility but increases the divergence between actual and equilibrium spending levels as the number of years included in the average increases. Moreover, the effect large total-return deviation in one year remains in the moving average with undiminished weight until it is dropped at the end of the last year included, thereby producing a kind of "jerkiness" in the determination of actual spending level for that next year.

Finally, while the **preset increment method** matches endowment return spending to the growth in the budg contains no "feedback" mechanism for deviations of total re turn from expectation and can result in spendin levels in excess of the equilibrium rate and reinvestment levels below the amount necessary to maintain fin equilibrium. For example, if real portfolio return in a given year is -6.5% and the preset increment is 5% (i.e. amount to be spent next year is 5% more than the amount spent this year), the amount spent as a percenta ending portfolio value will significantly exceed the equilibrium spending rate.

It is possible to **combine the moving-average and percentage-increment methods** into a technique that exploits the strengths of each and minimizes their individual weaknesses. This hybrid method[1] is applied o per-share basis, not to the overall market value of the portfolio. The procedure simultaneously takes accoun the equilibrium spending rate and the desired spending increment based upon budgetary growth. The actua spending appropriation resulting from the calculation tends to converge to its equilibrium value.

The calculation formula is actually an exponentially weighted moving average; the influence of each prior ye total return declines exponentially. For example, the weight applied to the current year's marketvalue is 0.33 for last year's is 0.332, the one for the previous year's is 0.333, and so on. This avoids the problem with the simple moving average technique that a given data point may vanish abruptly. Spending growth is continuo adjusted in response to market results.

The method is applied through the following procedure:

1. Calculate per-share spending under the pre-set increment method, setting the escalator equal to the

expected budget growth.

1. Calculate equilibrium rate spending, which is the product of the equilibrium spending rate an beginning per-share market value.
2. Set next year's per-share spending equal to a weighted average of the pre-set increment an equilibrium values. The weight applied to the equilibrium spending level usually runs betwee 0.25 and 0.4. A weight of 0.33 is used at Stanford and Yale.

For example, if last year's spending appropriation is 50 cents per share, this year's beginning market value $10 per share, total cost-rise is 5.0%, the equilibrium spending rate is 4%, and the weighting factor is 0.33, year's spending appropriation is given by the following expression[2]:

**[(Weighting factor) X (equilibrium spending rate) X (beginning per share market value)] + [(1 - weigh factor) X (preset spending increment) X (prior year per share amount)]**

(0.33)(0.04)($10.00) + (1 - 0.33)(1 + 0.05)($0.50) = $0.483

In this example, per-share spending declined from 50 cents to 48.3 cents instead of increasing by the desir 5%. This is because the current per-share market value of $10 will sustain an equilibrium spending level of 40 cents. The smoothing rule phases in the lower spending level a little at a time. On the other hand, if the t return on the endowment had been higher -- so that the market value had been $13, for instance -- the form would yield 52.3 cents per share. This compares favorably with the desired value of 52.5 cents.

The degree of smoothing is de termined by the weighting factor selected for the calculation. At a value of 1. there is no smoothing at all and the calculation produces the equilibrium spending level with maximal variat the amount spent. At a value of 0, there is no smoothing and the calculation produces the pre-set incremen amount.

back to top

FINANCIAL PLANNING AND MANAGEMENT:

FINANCIAL EQUILIBRIUM GOALS

1. Annually, revenues equal or exceed expenditures including operating expense; transfers to plant for renovation, (ii) adaption activities, (iii) asset acquisition, and (iv) reserves funding; and transfers to endowment for reinvestment;

1. Year over year, the annual rate of growth in revenues equals or exceeds the annual rate of growth i expenditures including transfers to plant and endowment, and reserves funding;

1. The value of financial capital is preserved or enhanced;

1. The value and functional adequacy of physical capital are preserved or enhanced;

1. The value of human capital is preserved or enhanced;

1. The quality of the curriculum, programs and services to students is preserved or enhanced.

---

[1] Massey, William F. et. al., *Resource Allocation in Higher Education.*

Ann Arbor , University of Michigan Press, 1996. Pp. 107-108.

[2] The first line of the expression represents an unsmoothed version of the moving average technique; the second line reflects the preset percentage increment method. The weighting factor (0.33 in this example) determines the relative "influence" of each of the methods utilized on the final outcome. Note that this appro provides important feedback to the determination of next year's spending level.

Jewish Day School Budget Jewish School Planning Model

back to top

HOME · CONTACT US · HOW TO USE THIS SITE · FLASH INTRO · DONATE · SITE MAP