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A Fine Balance: Integrated resource planning helps Brandeis University achieve equilibrium between institutional strategy and resources.

By Peter B. French, James M. Hurley, Gerald B. Finch, and David J. Woodward

Back in 2000, Brandeis University was on a roll. Three years earlier, the Waltham, Massachusetts-based university had appointed a new executive vice president and chief operating officer who, in turn, had recruited a new controller, treasurer, and associate vice president for budget and planning. The new team had introduced a more rigorous budget management process that helped curtail endowment spending as a percentage of market value. In addition, annual giving had doubled.

Buoyed by these significant financial accomplishments, the university's trustees, president, and faculty looked forward to even greater gains in the new century. Their optimism, however, proved premature.

By early 2001, the nation's economy had begun to soften, while competitive pressures on faculty salaries and financial aid were increasing. At the same time, Brandeis found itself with nearly obsolete information technology resources and a sizable backlog of deferred maintenance that remained largely unfunded.

Concerned about the problems an economic downturn would create, the finance staff began searching for a financial planning model that would provide a dynamic, comprehensive representation of the university's total resource base. Conventional financial management tools, such as operating and capital budgets, just couldn't do the job because they don't measure the impact on fund balances of operations, debt issues, investment returns, and fundraising.

Figure 1 IRP Model

An All-Asset Approach

The university's objective was to develop a resource-planning model that encompassed its universe of assets, liabilities, and financial transactions. Specifically, Brandeis sought to build a conceptual framework that could:

- display the interrelationships of operating and capital budgets, financial statements, market value of tangible assets, and performance ratios;
- facilitate analysis of transactions among the asset classes; and
- enable forecasting of asset values over time in budgets, financial statements, and performance ratios.

Although the financial team's first thought was to build such a model internally, it quickly became apparent that the necessary time and technical expertise were not available. Redirecting its efforts toward identifying consultants, the team examined financial models in use or under development at several colleges and universities.

After considering proposals from several firms, the team selected the Stillwater Consulting Group, which had previously assisted Brandeis with financial aid modeling and responsibility center budgeting. Stillwater presented Brandeis with a conceptual framework called Integrated Resource Planning (IRP), which is based on earlier work with John Curry, executive vice president at MIT, and by Gordon Winston at Williams College.

TABLE 1

FY01–FY12
REAL AVERAGE ANNUAL COMPOUND GROWTH RATE

Financial Wealth	1.3%
Physical Wealth	0.4%
Total Wealth (wtd)	0.9%

The IRP Model

Although tailored to an institution's unique activities, reporting practices, and fund restrictions, the IRP model operates under the following economic logic: *Inflows – Outflows = Change in Wealth*. Figure 1 illustrates how this works.

Wealth has two components. *Financial wealth* equals the financial net assets reported in the institution's most recent audited statement of financial position. *Physical wealth* equals the replacement value of facilities, less any maintenance that remains deferred on these facilities, less any associated debt. (Note that transfers do not increase or decrease wealth; they simply reallocate it.)

Each inflow, outflow, and transfer represents a sub-model, or module, that can be as simple or sophisticated as management requires (or as an institution's information systems allow). For example, a sub-model for financial aid might include line items for self-help thresholds, endowment or federal grant support, and average need per student. In the construction module, you could include the cost, schedule, financing, and operating impact of new buildings. The line items under faculty salaries might include the number of faculty and the projected rates of attrition, hiring, and salary growth.

In the case of Brandeis, the financial team needed about six months to build the basic IRP model; enter data for operating and capital budgets, financial statements, and physical assets; and test the model for reliability and performance. Simply building the model contributed to fundamental changes in financial planning information. For example, Brandeis now values physical assets at replacement value and presents its annual budget, or "P&L," with references to its balance sheet's unrestricted liquid net assets (excluding net investment in plant) expressed as reserves.

Financial Indicators

Once an IRP model has been built and planning assumptions have been entered, the fun begins. You can use the model to project numerous financial indicators, such as total resources, unrestricted reserves, endowment distribution rates, budget surpluses or deficits, debt-rating ratios, and facilities' condition index (FCI).

The FCI divides an institution's deferred maintenance backlog by the facilities' replacement value. A rising index indicates that an institution's facilities, in total, are deteriorating. The Association of Physical Plant Administrators (APPA) has developed a rating scale for the index's results: If the difference between deferred maintenance costs and replacement value ranges from 1 to 5 percent, the facilities are in excellent condition. At the other end of the spectrum, if the difference is more than 20 percent, the facilities are in poor condition. (At the time, Brandeis registered fair on this scale.)

With such indicators on hand, an institution's leaders are better able to assess the true resource implications of undertaking a particular initiative. Leaders can also use the indicators to establish and monitor resource goals, such as 5 percent for endowment spending or 12 percent for FCI.

Interestingly, IRP does not assume that a wealth-accumulation strategy is preferable to investing in academic enrichment. Wealth is simply the means to achieving an institution's broader mission and quality objectives. At times, decisions that reduce wealth may best advance these objectives.

Resolving a Tug-of-War

TABLE 2
FY01–FY12 CHANGE IN PHYSICAL REAL WEALTH

Component	Millions
New Construction (1)	40
Economic Depreciation (2)	(120)
Replacement & Renewal (3)	75
Debt Payments	25
Total	20

(1) Includes a campus center and investments in technology.

(2) Brandeis' facilities are projected to depreciate at a rate of 2% of the facilities' replacement value.

(3) Annual amount for facilities restoration was set at a fixed percentage of book depreciation.

While its IRP model was under construction, Brandeis launched the silent phase of a \$470 million capital campaign. While the monetary goal was clear, expectations for the campaign differed.

For example, many academic leaders advocated fundraising for new programs and buildings. In contrast, several senior officers argued in favor of building an endowment for budget relief. They believed the funds raised should be used to address underfunding of deferred maintenance and of faculty salaries—goals that, admittedly, are not as attractive to potential donors as a new building.

At this point, Brandeis introduced the IRP model into the debate as a means of analyzing the potential effects of the campaign. First, the financial team used the model to develop a “base case”—in other words, to project the university’s resources without the capital campaign.

The base-case projection assumed that all current programs, trends, and policies would continue unchanged. As shown in Table 1, this exercise projected that Brandeis would experience a modest increase in real wealth. (Note: Numbers throughout have been changed to preserve the privacy of Brandeis University’s financial information.)

The IRP model projected that Brandeis’ real financial wealth would increase at an average annual rate of 1.3 percent through FY12. While this suggested that the university had satisfied one of the common rules of resource management—maintaining the purchasing power of financial assets—several considerations pointed to the 1.3 percent rate as being too low. For example:

- A significant portion of the growth rate of financial wealth was attributable to gifts intended to establish new programs or expand existing ones, thus increasing total expenses.
- The projected spending rate from endowment would exceed Brandeis’ target throughout the 10-year projection period.
- The university’s financial flexibility, as measured by real unrestricted liquid net assets, would decline in the first several years of the projection.
- Physical wealth was projected to increase at an average annual rate of 0.4 percent through FY12 (see Table 2).

Although new construction and debt repayment led to an increase in physical wealth of \$20 million, this projected increase was accompanied by a \$45 million increase in the university’s deferred maintenance backlog. (The \$45 million equals the \$75 million replacement and renewal investment, less the \$120 million economic depreciation expense.) As a result, the university’s FCI was projected to deteriorate from good to fair.

Clearly, the base-case projection indicated that Brandeis faced significant challenges. Despite a projected increase in real wealth, its facilities would deteriorate, financial flexibility would decline, and spending from endowment would exceed target.

Tinkering With Campaign Targets

Next, Brandeis measured the impact of the capital campaign on its base case by classifying the financial effect of each major gift. Gifts that would support current operations were classified as “budget relieving,” while gifts that would add new expenses were considered “budget augmenting.” In addition, the university had developed targets for gifts that would be endowed, annual, or capital, and for whether the gifts would be received as cash or pledges.

Once these targets had been incorporated into the IRP model, senior executives and trustees saw an undesirable reality. While the capital campaign would bring substantial benefits to Brandeis, it would not, in itself, enable the university to achieve its objectives for added financial flexibility, reduced endowment spending, improved faculty salaries, and reduced deferred maintenance.

For example, the IRP model provided a clearer picture of the full costs of capital projects. Decision makers saw that fundraising to support the planning, design, and construction of a new academic building had to be accompanied by either gift funding or a plan for sustainable revenues to support the incremental annual costs associated with operating that new building (such as depreciation, utilities, and housekeeping).

Over the course of a few months, based on the results of the initial IRP analysis, university policymakers reviewed scenarios that reallocated or increased the original targets of the capital campaign. They selected three scenarios for comparison with the base case:

Original Plan: Campaign achieves total goal of \$470 million with no change in targets.

Enhanced Plan: Campaign achieves original goal of \$470 million with fundraising redirected from budget augmenting to budget relieving.

Very Enhanced Plan: Enhanced plan plus \$75 million in budget-relieving endowment.

As the campaign analysis deepened, the IRP model matured—and leaders’ confidence in its capabilities and usefulness increased. Eventually, senior executives agreed to pursue the “enhanced” plan, which maintained the campaign’s original monetary goal but shifted the fundraising emphasis toward budget-relieving endowment.

A heightened awareness of the full economic consequences of proposed new buildings and programs prompted Brandeis’s trustees to make another significant decision. They adopted a university policy that requires the identification of all costs (both capital costs and ongoing), annual operating costs, and funding sources before accepting a gift.

Thinking Strategically

Beyond capital campaign planning, IRP has proved a useful tool for exploring strategic initiatives. Beginning in FY04, recognizing the need to finalize a comprehensive, integrated plan to guide Brandeis, President Jehuda Reinharz appointed a senior planning group. He charged this new Integrated Planning Group with “considering all strategic options” and “evaluating the pros and cons of each option from the mission, quality, and resource perspectives” so that reasoned, well-informed goals could be set for the university for the next decade.

Initially, some classic stereotypes prevailed within the group. A few of the academics saw the financial managers as bean counters who hide resources and lack strategic vision. In turn, a few of the financial managers expressed the view that academics are irresponsible spendthrifts who

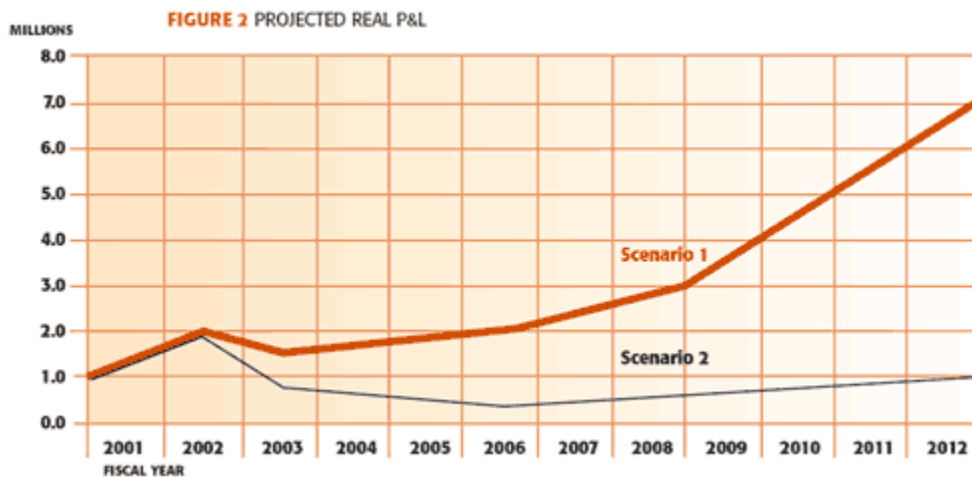
lack strategic vision.

The compartmentalized partisanship began to fade as each participant, as required by the IRP planning process, presented individual unit needs and perspectives. With IRP as the framework, discussions shifted away from whether the financial staff was being “honest” and toward the university’s resource base, capacities, and limitations.

As all the group members learned more about the university’s overall program structure and needs, common understanding—and trust—grew within both the group and the university community at large. IRP served as the basis for presentations to faculty and faculty committees, trustees and trustee committees, and community forums regarding university assets and the implications of resource choices.

In view of the forecasts and projections that grew out of the IRP model, the group members felt better equipped to evaluate the university’s competing resource priorities. Those included increasing graduate student stipends, closing curricular gaps, enhancing academic buildings in the School of Arts & Sciences, improving residence facilities, and reducing the deferred maintenance backlog.

After the group completed its analysis, Brandeis considered two scenarios: 1) base case with enhanced capital campaign, and 2) base case with enhanced capital campaign and selected strategic initiatives. Each scenario was evaluated from the perspective of key financial indicators, such as total resources, unrestricted reserves, endowment distribution rates, deferred maintenance backlog, and FCI. As an example, Figure 2 compares each scenario’s projected trends for the operating budget surplus/(deficit).



Ongoing Analysis

Brandeis has found that IRP integrates an institution’s operating, facilities, fundraising, debt financing, and investment activities into a single, comprehensive view of resources. IRP provides a much broader and more complete view of institutional resources than either traditional budgets or audited financial statements. Senior officers, board members, and other stakeholders are provided with a framework for developing strategy within the constraints of anticipated resources. Other benefits that IRP may yield include:

- **Education**—IRP can provide trustees, academics, and administrators with an analytical

tool that enhances their understanding of institutional resources and the relationships among resources.

- **Planning**—By measuring the implications of strategic initiatives on resources over time, IRP can inform decision making. University leaders can better understand, for example, the various long-term implications of constructing a new building.
- **Communication**—Data gathered through the IRP process can help inform the community of the resource constraints under which the institution operates. Financial managers often speak a different language than academics, trustees, or other stakeholders; IRP provides a set of common definitions that makes conversations more productive.
- **Confidence**—IRP offers a sophisticated and comprehensive analysis of resources, which can greatly increase trustee and community confidence in financial leaders and managers.
- **Accountability**—The IRP format enables users to assess progress toward resource goals and to hold managers accountable.

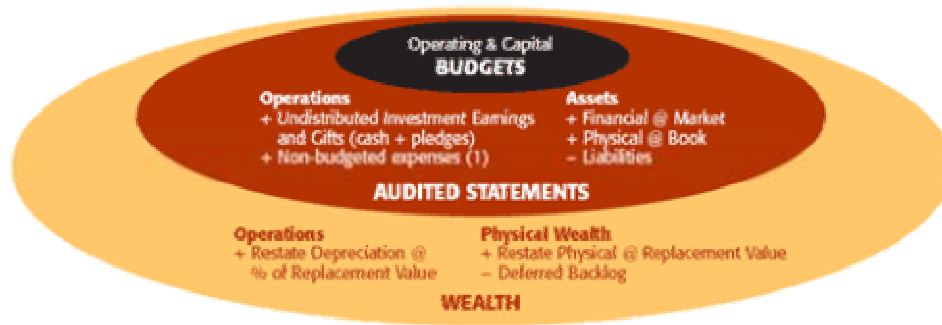
Brandeis continues to use the IRP model as an integral element of its multiyear planning and annual budgeting processes. This analytical tool, which the university's budget and planning office continuously updates to reflect end-of-year results and budget adjustments, helps senior executives develop strategic and financial objectives and monitor progress toward those objectives.

Brandeis has employed IRP throughout its current capital campaign to evaluate results versus projected results. Now 80 percent complete, the capital campaign is projected to achieve its goal by the end of 2005.

What to Have on Hand

To engage in Integrated Resource Planning, you'll need to gather the following information:

- Audited financial statements for the past four years.
- Current university budget, including auxiliaries, activities that may be supported by designated or sponsored funds, and views by department and by type of expense (such as salaries and materials).
- Endowment distribution policy with expected average annual total return, plus a six-year history of quarterly market values, annual distributions to the operating budget, and any additional withdrawals to fund special projects or operating deficits.
- Any capital campaign objectives for endowment, facilities, and current funds. Include an approximate schedule of receipts and a rough history/expectation of patterns in pledging versus cash giving.
- Facilities' replacement value and deferred maintenance backlog.
- Schedule, cost estimates, and funding plan for any new construction.
- Policies governing funds management (e.g., taxes, internal borrowing).



(1) For some institutions, actual expenses on the budget report do not equal total expenses on the audited statement of changes in net assets. IRP forces institutions to reconcile and model the difference.

Integrated Resource Planning captures the relationships among an institution's budgets, audited financial statements, and wealth. IRP models generate projections for each oval in the diagram, with the outermost oval providing the comprehensive perspective that is best for institutional planning.

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