Rare is the institution whose finances are not sensitive to the business cycles of the nation’s economy. In the current economic downturn, the need for contingency planning to address the effects of recession on institutional budgets is clear. Craig Aase and Gary Krueger, vice president for administration and treasurer, and associate professor of economics, respectively, at Macalester College, began to develop a financial crisis plan for their institution in the summer of 2000. Their efforts have helped Macalester make the difficult choices that inevitably accompany economic downturns.

“Off to the Banks,” Marsden Hartley. The Phillips Collection, Washington, DC
BUDGET BASICS AND HISTORY

Macalester College is in many ways a typical national liberal arts college, with high fixed operating costs in the form of tenured faculty, a well-developed shared governance structure, reputational concerns sensitive to campus morale, and a recent history of prosperity. On the other hand, Macalester is atypical in its revenue stream, with 50 percent of operating revenues coming from net tuition and fees, 40 percent from endowment spending, and 10 percent from all other sources, including gifts.

Macalester’s operating budget is shown in Figure 1.

In the summer of 1997, Macalester did face a serious reduction of revenues when it received notice that a $4 million revenue stream (out of a $40 million net operating budget) would terminate by year’s end. Although successfully managed—fortunately this revenue stream had been used primarily for capital projects and had not been placed in the operating budget—the administration was forced to react to events on an ad hoc basis. The experience motivated the president and senior officers of the college to develop a deliberative plan to guide Macalester’s budgetary decisions in times of crisis or recession, in a manner analogous to a rehearsed evacuation plan in the event of a fire. The planning effort was designed to complement an ongoing strategic planning process in that it would force members of the community to confront difficult budgetary choices and, ideally, establish clear priorities.

ESTIMATING THE IMPACT OF A RECESSION

To capture the effects of a recession on the college’s finances, we attempted to quantify the relationship of our operating revenue sources to changes in the overall economy. Because Macalester’s revenue is derived primarily from three sources—the endowment, tuition and fees, and annual gifts—economic changes that directly affect the college will do so through shifts in the return on the endowment and in our ability to raise tuition (net of financial aid) and to generate gifts.

An economic downturn affects the college in two ways. First, most likely it will reduce endowment returns and gifts. Second, net tuition revenue is likely to decline as the college’s financial aid obligations rise in response to the deterioration of family income. In this regard, Macalester’s need-blind admissions policy limits its short-term ability to adapt to changes in families’ ability to pay.

Methods and Assumptions

Our model estimates Macalester’s operating revenue as a function of the nation’s gross domestic product (GDP) and the level of the Dow Jones Industrial Average. Based on Macalester’s financial data over the last 25 years, the historical relationships between GDP, the Dow, and the college’s revenue were calculated. The data reveal, for
example, high elasticities of both gross revenue and financial aid with respect to changes in GDP: a rise in GDP indicated significant increases in gross revenue and even greater decreases in financial aid.

To generate forecasts, a baseline was projected using the historic annual average GDP growth of 2.7 percent and an 8 percent appreciation in the Dow. The effects of these changes in GDP and the Dow on revenue were calculated based on the elasticities derived from the exercise described above. Three recession scenarios were then generated based on values of GDP and the Dow during the recessions of the 1980s (1980 to 1983) and the 1990s (1990 to 1993), and by plugging in best guess values for the current recession, beginning in 2001.

Results
Table 1 shows the forecasts’ effects on institutional net revenue.

<table>
<thead>
<tr>
<th>Year</th>
<th>Baseline</th>
<th>1980s Recession</th>
<th>1990s Recession</th>
<th>2001 Recession</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>$61,940,732</td>
<td>$60,310,651</td>
<td>$61,143,577</td>
<td>$59,703,089</td>
</tr>
<tr>
<td>2002</td>
<td>65,338,159</td>
<td>60,612,408</td>
<td>62,301,944</td>
<td>60,041,485</td>
</tr>
<tr>
<td>2003</td>
<td>69,124,643</td>
<td>59,964,406</td>
<td>65,111,076</td>
<td>63,217,617</td>
</tr>
<tr>
<td>2004</td>
<td>73,101,880</td>
<td>60,401,254</td>
<td>69,142,244</td>
<td>66,878,078</td>
</tr>
<tr>
<td>2005</td>
<td>77,355,819</td>
<td>64,596,492</td>
<td>72,958,445</td>
<td>70,760,594</td>
</tr>
<tr>
<td>2006</td>
<td>81,848,581</td>
<td>68,460,068</td>
<td>77,434,102</td>
<td>74,883,522</td>
</tr>
</tbody>
</table>

Clearly, the impact of a recession on the college’s finances can be quite significant. The estimated impact of a severe recession similar to that of the 1980s is dramatic, with a $10 million shortfall on net revenue relative to the base case forecast. A 1990s-type recession, in which GDP fell only slightly but the Dow continued to increase, has the least impact on net revenue. Nevertheless, two years after the onset of the recession, net income is some $4 million below the baseline. The 2001 recession, in which the Dow fell significantly while GDP growth slowed but remained positive, is surprisingly more severe than the 1990s-type recession—more or less the reverse situation with the Dow increasing and GDP falling slightly.

Note that the 2001 recession is assumed to be very brief by historic standards (one year or so), yet operating revenue is roughly $6 million below baseline three years after the onset of the recession. To place this in perspective, the $6 million difference equals roughly half the entire faculty salary line in the budget.

In sum, our results show that a recession can have a profound impact on a college’s financial situation. Our worst-case scenario predicts net revenue nearly 20 percent below the baseline forecast, a shortfall that clearly would require some difficult budget choices.

PLANNING FOR PAIN
Macalester’s Long Range Planning Committee (LRP) was charged with developing a plan that would help the college make difficult choices in the event of a recession. After settling quickly on a model estimating revenue reductions of approximately $4 million, or 10 percent, by year four of an economic downturn, the LRP turned its attention to “exit strategies,” again based on the metaphor of a fire in the building.

The committee identified several strategies to address this severe 10 percent decrease in revenues. After much discussion, a consensus developed to offset the decrease via the following measures:

- capping opportunities for study abroad,
- limiting salary increases and associated growth in fringe benefits,
- reducing growth in program budgets,
- increasing summer facility rentals, and
- managing financial aid with an eye toward revenue maximization.

The last item, concerning financial aid, was discussed at length. Keeping the college open to students of all economic backgrounds is a widespread and cherished value at Macalester, one the community would be willing to
make significant sacrifices to preserve. Tactics such as being partially need aware or limiting the number of students admitted on a need-blind basis were identified for further consideration.

In the end, specific levels were agreed upon for each of these measures that, when applied, resulted in a combined impact that fully offset the projected 10-percent revenue decrease.

**CONCLUSION**

Although the planning exercise described here achieved its budgetary goals, the committee was compelled to recognize the lasting negative impact the reductions would have on the quality of the faculty, staff, students, and, likewise, of the college. In that sense, they are survival tactics that ultimately do not preserve Macalester as we know it today.

The real value of such an exercise is that it helps to raise consciousness among faculty and staff who generally don’t concern themselves with budgetary matters, thus laying the groundwork for making difficult choices while still retaining the fabric of the college community. The more difficult question may be whether our shared governance system will enable us to pursue the reduction strategies identified when and if the nation’s economy makes those steps necessary.

Craig Aase is vice president for administration and treasurer of Macalester College. He is a recipient of a Joyce Foundation grant to examine pricing and financial trends in selective liberal arts colleges.

Gary Krueger is associate professor of economics at Macalester College. He chaired Macalester’s committees on Strategic Direction and Long Range Planning.