

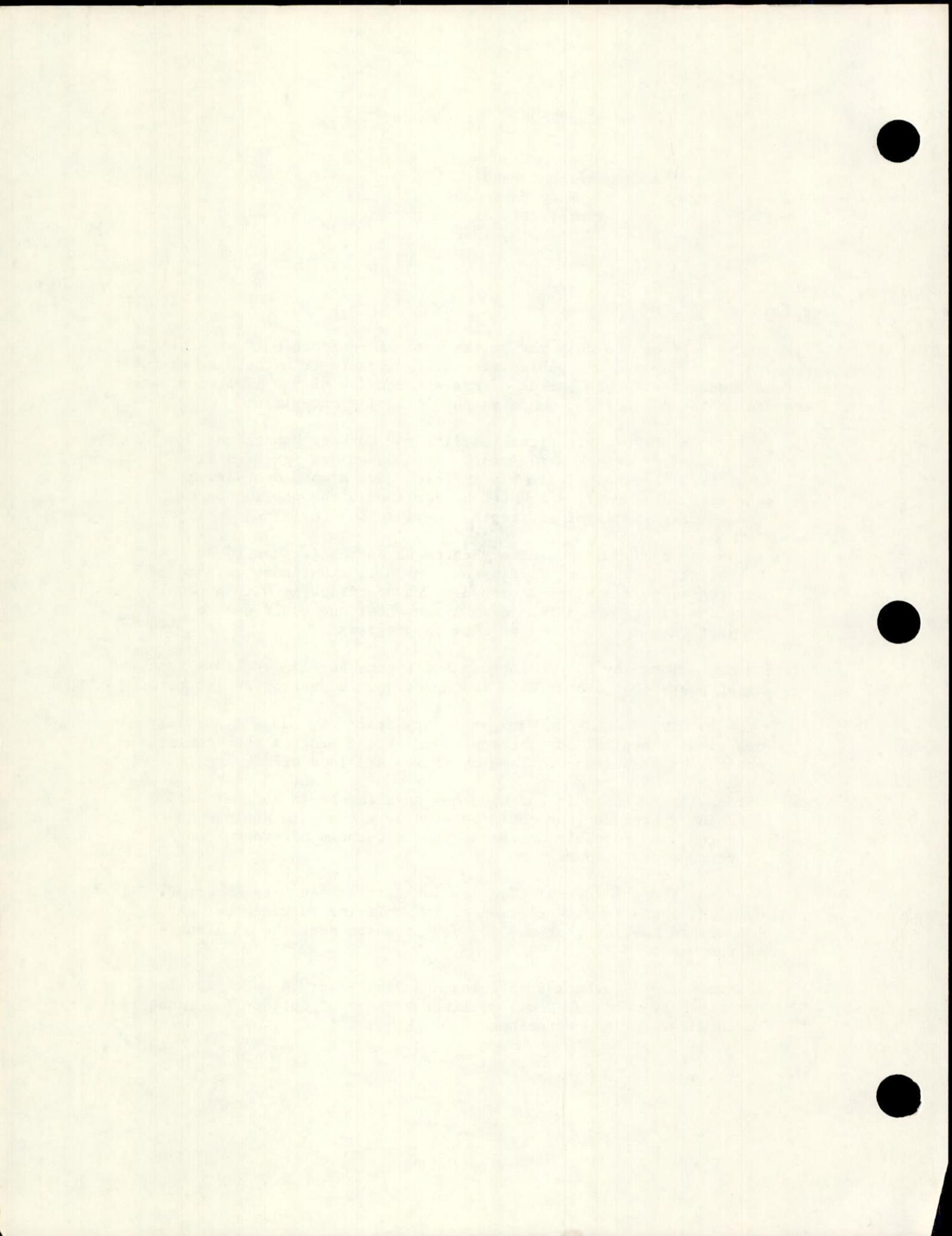
Managing Retrenchment

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Overview

The first half of the 80's may be the "era of retrenchment" as siblings of Proposition 13 abound and public pressure builds to trim the size of public sector bureaucracies. This packet offers an overview of the limited management literature on the subject and contains the following materials:

1. Abstracts of "Organizational Decline and Cutback Management" and "More on Cutback Management: Hard Questions for Hard Times", Charles H. Levine. These two articles give a good overview of the difficult problems created by decline in the public sector and outlines a mix of strategies possible for resisting decline.
2. An abstract of "Management of Scarce Resources (or how to Be a Better Ant)" by Antone G. Singsen, which lays out some generic strategies to resist or smooth decline specifically within Legal Services Programs. Attached is a worksheet one could use to project the impact of budget cuts on programs.
3. "Budget Ploys" by Robert Anthony and Regina Herzlinger lists twenty-eight ploys that can be used to expand your budget or resist cuts.
4. "How to Give Phased-Out Managers a New Start" by Basil R. Cuddily describes a typical outplacement counselling program that could smooth the transition for employees who are laid off.
5. "Cross-Impact Analysis and Outcomes Assessment" is another MBSC planning technique that could be used by a group to analyse the expected, and possibly unexpected, consequences of program cuts or retrenchment plans.
6. Abstract from "Leadership Tactics for Retrenchment" by Robert P. Biller outlines the dilemmas experienced in achieving retrenchment and leadership tactics that must be developed to meet the challenges of retrenchment.
7. Abstract from "Cutback Principles and Practices: A Checklist for Managers" by Carol W. Lewis outlines a range of options for managers to consider during retrenchment.



Abstract "Organizational Decline and Cutback Management," July/August 1978, "More on Cutback Management: Hard Questions for Hard Times," March/April 1979, Charles H. Levine, Public Administration Review.

"Government organizations are neither immortal nor unshrinkable. Like growth, organizational decline and death, by erosion or plan, is a form of organizational change; but all the problems of managing organizational change are compounded by a scarcity of slack resources. This feature of declining organizations — the diminution of the cushion of spare resources necessary for coping with uncertainty, risking innovation, and rewarding loyalty and cooperation — presents for government a problem that simultaneously challenges the underlying premises and feasibility of both contemporary management systems and the institutions of pluralist liberal democracy." p. 316.

Almost all public management strategies are based on assumptions of growth of revenues and expenditures; e.g. budgeting based on incremental additions to a secure base.

A number of agencies have declined or died but little has been learned, e.g. Works Progress Administration, Economic Recovery Administration, Dept. of Defense, NASA, OEO.

ORGANIZATIONAL DECLINE AND ADMINISTRATIVE THEORY

The pervasiveness of the growth ideology makes it difficult for elected officials, public managers or citizens to confront the reality of decline and plan for it.

Under conditions of decline puzzles and paradoxes of management take on new complexity. Examples:

1. The Paradox of Irreducible Wholes An organization cannot reduce piece by piece by reversing the sequence of its growth process. Interdependencies between units and agencies mean that a cut might produce consequences that couldn't be predicted by analyzing the systems growth. The criminal justice system is a prime example of a system that would have difficulty managing cuts because of its fragmented funding, geographic and political bases.

2. The Management Science Paradox states that in times of excess resources when you have analytic and planning capability (policy research units, MISs, planning units) they are usually not needed because decisions are based primarily on political considerations and the costs of error are negligible. When resources dry up through, and these capabilities are most needed to make reasoned decisions about cutbacks, these units are usually the first to go. So when you have them you don't need them and when you need them you don't have them.

3. The Free Exit Problem The term "free riders" was coined by economists for those who take advantage of an organization's collective goods without contributing their share. In times of growth, exclusionary mechanisms are needed to prohibit free riders, in times of contraction inclusionary mechanisms are needed to limit "free exiters". Those with the greatest employment mobility are probably the very staff you want to retain. Mechanisms like long-term contracts with clauses that make pensions non-portable, for example, are needed

to penalize "free exiters" while allowing managers to cut or induce into retirement marginally performing or unneeded employees.

4. The Tooth Fairy Syndrome Initially everyone is optimistic that cuts are temporary and will be restored by some unknown person - the tooth fairy. Management faces resistance and cynicism with calls for voluntary sacrifices countered with "you first, then me."

5. The Participation Paradox How does one single out units for large sacrifices who have people participating in the cut process? The usual answer is to avoid deadlocks and rancorous conflict and allocate cuts across-the-board.

6. The Forgotten Deal Paradox In the private sector it is possible to make bargains for restoring some cuts later on knowing they will be honored by the management team in the future. Public sector managers can't really expect top management to honor promises if they are even still around in several years.

7. The Productivity Paradox It sometimes takes money to save money. Front costs in training and equipment are sometimes hard to find or justify in times of austerity, particularly if they mean laying off employees.

8. The Mandates Without Money Dilemma These often put managers in the uncomfortable position of choosing between responding to local public service preferences and retaining their flexibility to target cuts or non-compliance and the possibility of indictment and jail.

9. The Efficiency Paradox means that equal percentage cuts will have a greater negative effect on efficiently run units than inefficiently run units, punishing those who should be rewarded for good management. This is typical of the disincentives for conserving in the public sector. Frugality doesn't bring rewards or more resources to a program. Quite the opposite it probably means your budget will be cut.

A typology of causes of public organizational decline and a corresponding set of tactics and decision rules available for managing cutbacks follows.

THE CAUSES OF PUBLIC ORGANIZATION DECLINE

Public organizations are unique in that they often deliver services which have no easily measurable monetary value; budgets depend on appropriations not sales. Decline in these organizations are political matters with causes divided along two dimensions;

- a. whether causes are internal or external to the organization,
- b. whether causes are a product of political or economic technical conditions.

Figure 1. Causes and Locus of Organizational Decline

	Internal	External
Political	Political Vulnerability	Problem Depletion
Economic/ Technical	Organizational Atrophy	Environmental Entropy

1. Problem Depletion - most familiar

- government involvement in
 - a. short-term crises -- floods, earthquakes
 - b. medium length interventions -- war mobilization, counter-cyclical employment programs
 - c. longer-term programs -- polio research, space exploration
- has developmental cycle of political definition of problem, committment of resources, contraction after problem "solved" or interest shifts.
- largely caused by forces beyond control of organization; demographic shifts, problem redefinition and policy termination.

2. Environmental Entropy -- capacity of environment to support erodes

- cities or regions with declining economic base, market or technological shifts, transportation changes, mineral depletion, intrametropolitan shifts of economic activities.
- effects most those who cannot move.

3. Political Vulnerability -- internal fragility

- lack of base of expertise, or positive self-image and history of excellence more important than small size, internal conflict or lack of leadership.
- effects new organizations more than old.

4. Organizational Atrophy -- government organizations particularly vulnerable because there is no market mechanism to signal malfunction and pinpoint responsibility

- can be caused by a host of common management failures.

STRATEGIC CHOICES

A choice needs to be made between resisting or trying to smooth the effects of a decline. Often the rhetoric will declare that one is smoothing while in fact a manager is resisting in every way possible. Tactics for either strategy are summarized in Table 2 below.

Figure 2.

	Tactics to Resist Decline	Tactics to Smooth Decline
<i>External Political</i>	<p>(Problem Depletion)</p> <ol style="list-style-type: none"> 1. Diversify programs, clients and constituents 2. Improve legislative liaison 3. Educate the public about the agency's mission 4. Mobilize dependent clients 5. Become "captured" by a powerful interest group or legislator 6. Threaten to cut vital or popular programs 7. Cut a visible and widespread service a little to demonstrate client dependence 	<ol style="list-style-type: none"> 1. Make peace with competing agencies 2. Cut low prestige programs 3. Cut programs to politically weak clients 4. Sell and lend expertise to other agencies 5. Share problems with other agencies
<i>Economic/ Technical</i>	<p>(Environmental Entropy)</p> <ol style="list-style-type: none"> 1. Find a wider and richer revenue base (e.g., metropolitan reorganization) 2. Develop incentives to prevent disinvestment 3. Seek foundation support 4. Lure new public and private sector investment 5. Adopt user charges for services where possible 	<ol style="list-style-type: none"> 1. Improve targeting on problems 2. Plan with preservative objectives 3. Cut losses by distinguishing between capital investments and sunk costs 4. Yield concessions to taxpayers and employers to retain them
<i>Internal Political</i>	<p>(Political Vulnerability)</p> <ol style="list-style-type: none"> 1. Issue symbolic responses like forming study commissions and task forces 2. "Circle the wagons," i.e., develop a siege mentality to retain esprit de corps 3. Strengthen expertise 	<ol style="list-style-type: none"> 1. Change leadership at each stage in the decline process 2. Reorganize at each stage 3. Cut programs run by weak subunits 4. Shift programs to another agency 5. Get temporary exemptions from personnel and budgetary regulations which limit discretion
<i>Economic/ Technical</i>	<p>(Organizational Atrophy)</p> <ol style="list-style-type: none"> 1. Increase hierarchical control 2. Improve productivity 3. Experiment with less costly service delivery systems 4. Automate 5. Stockpile and ration resources 	<ol style="list-style-type: none"> 1. Renegotiate long term contracts to regain flexibility 2. Install rational choice techniques like zero-base budgeting and evaluation research 3. Mortgage the future by deferring maintenance and downscaling personnel quality 4. Ask employees to make voluntary sacrifices like taking early retirements and deferring raises 5. Improve forecasting capacity to anticipate further cuts 6. Reassign surplus facilities to other users 7. Sell surplus property, lease back when needed 8. Exploit the exploitable

Once the choice of strategy is made the choice of where cuts will occur must be made. This almost always involves a tradeoff between "equity and efficiency". A straight forward triage* approach is difficult in the public sector because of civil service and the mandated nature of some programs. Decisions based on equity are easiest to make, but not necessarily the most effective for the long-term survival of the organization. This can be seen by reviewing the five most commonly used cutback methods.

1. Seniority -- Although based on laudable principles it usually gives the manager no control over the differential effects of cuts on subunits. Will probably inflict the most harm to minorities and women who are most recent entrants to public agencies.
2. A Hiring Freeze works in the short run and buys time but can be dysfunctional in the long run. It takes away the manager's choice and ability to plan; is most likely to harm minorities and women who would be hired next; it occurs at differential rates in different units; your most competent staff are the most likely to be attracted elsewhere and not replaced. Average age rises and skill pool is frozen just when younger, more mobile, less expensive and possibly more creative employees are needed.
3. Even-Percentage-Cuts-Across-the-Board are expedient because they transfer decision-making costs lower in the organization. They are insensitive to differential needs of units though. A loss to a large, unspecialized unit that would not be felt could cripple a small, tightly integrated, specialized unit.
4. Productivity Criteria is useful even if difficult to calculate. It assumes that all actors are rational and politics do not enter the picture though.
5. Zero Base Budgeting is useful for several reasons:
 - a. It is future directed and allows for the analysis of both existing and proposed new activities;
 - b. It allows for tradeoffs between programs below their present funding levels;
 - c. It allows a ranking of decision packages by political bargaining and negotiations so it can focus on activities most likely to be affected by cuts.

* Triage is a French military term for the practice of sorting the wounded into three categories: 1. those who will probably die, no matter what; 2. those who will live if given medical treatment; 3. those who will probably live, no matter what. Limited medical resources are only spent on the second category.

Problems include the expenses of analysis, the limitations of cost/benefit analysis, and the internal political bickering which is likely to ensue.

Unfortunately many managers will go along with cuts quietly and later exit. The alternative "to facilitate long term survival is to develop in managers and employees strong feelings of organizational loyalty and loyalty to clients, to provide disincentives for easy exit and encourage participation so that dissenting views on the location of cuts could emerge from the ranks of middle management, lower level employees, and clients." p. 322.

Abstract "Management of Scarce Resources (or How to Be a Better Ant)",
Antone G. Singsen, Clearinghouse Review, Washington: Legal
Services Corp., November, 1979.

Introduction

This article presents some immediate cost cutting maneuvers that can be instituted as well as some specific tools that could continue to be used to cut costs and secure outside funding in the future. These difficult planning, budgeting and priority-setting tasks are often avoided hoping that the predicted period of austerity may never appear, but like the fable of the grasshopper and the ants, one runs the risk of starving to death come winter.

I. Statement of the Problem

The current economic situation, and in some cases the political climate as well, forces one to predict that future funding will, at best, only keep up with inflation causing managers to have to take a no growth stance. At worst, future funding will require mild to drastic cuts in current programs. Experience has shown that responses to these cuts have been largely haphazard and unplanned probably creating more disruption than necessary.

II. Management Options and a Period of Decline

The management tasks of priority setting, budgeting and planning for implementation, that are required in periods of growth become essential in periods of decline. The added difficulty is that almost any decision will require the trade-off of one person's or group's values against another's. Specific strategies depend on a number of factors: style and personalities of the managers involved; a program's structure and style; who the power-brokers are in decisionmaking; the morale, experience and concerns of the staff; the nature of Board/Program relations; the state of client involve-

ment; and the programs' recent history.

Two general strategies need to be balanced: resistance and smoothing a decline.

Resistance

- A program can seek other new sources of funding
- Increase revenue by charging for some services on branching out into areas that would produce a profit.
- Support the corporation's attempt to obtain new funds nationally by:
 1. Showing that programs are currently being efficiently managed and are at peak levels of productivity.
 - This might include experiments with less expensive delivery systems, automation and improved supervision.
 2. Educating the public to the need for legal services as well as mobilizing clients to impress upon Congress the need.
 - Threaten to close programs and withdraw minimum access.
 - Eliminate certain services (housing) to dramatically demonstrate the need.
 - Expand the client base by raising eligibility criteria.

If managers wait until the decline has begun, many options will already have been lost.

Smoothing a Decline

- Change, even in times of growth, threatens all involved; people resist productivity improvements in absence of growth. Professionals' natural skepticism of "management" tends to increase.

- With competing units fighting for shrinking dollars, maintaining a focus on overall organizational goals and the needs of the client constituency as a whole becomes quite difficult. Three leadership styles

seem to produce different results:

1. A passive, figurehead leader, with good middle managers, can be effective in times of growth, but will lead to disaster in times of decline.
 - informal leaders will assert themselves
 - leader's prior inactivity will be blamed
2. A manager who forms coalitions, seeks consensus and acts only when solutions are negotiated will fare better.

Problems:

- Agreements slow, opportunities lost
 - Accomplishing highest program priorities usually requires deep cuts in some activities. Almost impossible with this style.
 - Consequently leaders often leave when coalitions falter.
 - Will try to back down all activities equally which is ok if funding increases shortly but will reduce overall quality drastically.
3. Most successful are managers who view changes as creative opportunities; views all tasks as changes to be managed. Will attempt to maintain the underlying values or mission of the program and stress excellence in some areas instead of survival in all.

Many social service programs, like legal services, seem assured of survival over the long run. Questions remain what their configuration will be in the future and how the transition from here to there will be managed.

III. Priority Setting, Planning and Budgeting

A. Project Alternative Futures

A realistic sense of what the future holds and strategies for coping

with different prospects are essential. The budget is the central tool for developing projections.

After some simplifying assumptions are made, three projections should be produced:

1. a worst case - no budget increases in the future;
2. a middle case - five percent increases in each subsequent year;
3. a good case - ten percent increases in subsequent years.

Possible simplifying assumptions might include:

- all funding comes from one or several fixed sources;
- separate inflation rates for personnel (including fringe benefits) and non-personnel costs;
- personnel rate is a net figure which includes cost of living increases and replacement of departing employees by new hires at lower salaries;
- total expenditures for each year will equal the grant (no surplus or deficit is carried forward)

See Attachment A for an exercise that can be adapted to your situation.

B. Focus on Priorities and Objectives

Scarcity tends to make staff want to cut creative innovation, and pull back to what has been done before and try to ride out the difficult times. Unfortunately the highest priority program objectives and the most exciting ventures may be cut. Given this vulnerability, consider resetting priorities with retrenchment in mind.

True priorities are always reflected in how resources are actually spent. It is useful to estimate if only roughly how resources are spent. When budget breakdowns are not helpful estimate how staff use their time.

C. Prepare the Program's Constituencies

Avoid the rumor mill; involve clients, board and staff in the priority setting or decision making process with clear background information and calculations of the effects of different cost cutting alternatives.

D. Develop a Plan

- Several plans really are needed until future trends become clear.
- Begin to plan before the worst occurs!

E. Utilize Money-Saving and Service-Modifying Devices

- Utilize monitoring visits and periodic meetings of project directors to share cost cutting ideas.

Reserves

- Can be a important resource to smooth decline over several years. Could be unexpected savings that accrue but also could be money purposefully set aside in a fully funded year preceding a precipitous cut. While holding the money, put it in an interest bearing account.

- Difficult to use one-time funds on personnel unless it is someone hired for a specified period of time.

- Alternatively funds available now can be spent to save money in the future. Capitalizing a recurring expense like buying a building, or purchasing a phone system, copier or other equipment can create cost savings. Should consider full life-cycle costing of equipment as well as interest lost by spending the funds now.

Non-Corporation Funds

- Many sources of funds: VISTA, Community Food and Nutrition Program, Title XX, Older Americans Act, state legal services grants, United Way, private bar contributions as well as specific funding from foundations.

- There are problems however:

1. Most funding has narrow restrictions on use;

2. Targeted funding in a specific area doesn't allow you to reallocate current funds elsewhere, often a maintenance of current levels of effort is required.
3. Developing new service areas with targeted funding usually increases overhead expenses that aren't covered in the grants.
4. New funding takes substantial time to develop with lags between application for funds and the receipt of money;
5. Funding can often be withdrawn with little warning;
6. Unexpected personnel costs are incurred for supervision of volunteers like VISTA's.

- The private bar is an often overlooked source of pro-bono assistance, from legal work to secretarial support.

Operating Alternatives

- Some cases can be handled in a highly routinized manner, eg. standard forms for uncontested divorces. This leads to "do-it-yourself" kits that clients or community agency personnel can be trained to use.

- Word processing equipment can increase productivity not only of paper work but also of bookkeeping if appropriate equipment is used.

- Staff can develop time management skills to improve work habits. Office-wide "quiet periods" can increase productivity. Savings can be had by delegating tasks from high salaried to lower-salaried staff.

- Besides using pro bono attorneys, trained community groups could provide lay advocacy skills so that program staff could focus on appeals and test cases. Local groups could also do intake and screening of cases with their clients for a program.

Buying a building with a profitable business or running a legal clinic for those who are not eligible for free service could general profit for the program's use.

- Programs could pool administrative functions such as accounting, to cut costs as well as participate in bulk purchase agreements.

Personnel

- This is the largest part of any budget and the most personally difficult to alter, it has major effects on morale, staff experience level, turnover and productivity. Unionization is also either an reality in some programs or a threat.

- It seems best, in order to retain the most experienced staff, to cut back services to maintain annual salary raises.

- A year-end bonus might cost the same as a raise but provide an incentive to stay through the year.

- Reducing staff through attrition is possible but difficult to do across the board. Staff with crucial skills need to be retained. The random nature of attrition has negative impacts so that lay-offs or forced resignations, although painful, may be best in the long run. If information is shared about the need for lay-offs internal strife is reduced. Unionization is more likely with directed cuts though, and there will often be one-time costs for unemployment benefits.

- Staff sabbaticals can save money without forcing resignations

- Use of part-time workers can save money. Two half-time workers will generally do more than one full-time staff. If near a university, work-study students can be used very cheaply.

Fringe Benefits

- As raises shrink, the importance of fringe benefits packages increases. Shopping around for the best insurance package and instituting several personnel policies can produce substantial savings. Possibilities include:

1. Exploring the market periodically for the most competitive health and life insurance;
2. Paying all of employees' social security which reduces their salary (and taxes) and reduces the program's salary base and hence the amount of total social security payments required.
3. Developing region wide fringe-benefits package;
4. These consortiums or larger programs could self-insure;
5. Have employees contribute some amount towards the costs of dependent coverage to provide incentive for them to utilize a spouse's average if it exists;
6. Scale benefits so that those who have been with the program longest get better benefits like longer vacations and more sick leave.

Non-Personnel

Most of these items were covered previously except:

1. Travel reimbursements could be reduced or program cars purchased if analysis showed it would save.
2. Long distance travel to conferences should be planned so cheaper tickets could be purchased in advance.

Attachment A

Alternative Budget Projections Worksheet*

A realistic sense of what the future holds for a program is fundamental to good planning. Managers should project several different futures that might occur and plan for each of them. The budget is the central tool for such projections. By considering the worst budget future that is likely to develop, the most difficult problems can be anticipated. Projection of more positive possibilities allows a manager to create a plan that includes maintenance of existing efforts and program improvement. Melding the different plans together, so that the program can adapt to whatever actually happens, creates the firmest basis for taking action.

Managers can obtain an easy look at three possible features for their program's budget by completing the exercise that follows. Using the program's current grant and expenditure pattern, together with some simplifying assumptions about the next several years, the exercise produces deficit (surplus) projections for a worst case (no grant increase after 1980), a middle case (five-percent grant increases in 1981 and 1982), and a good case (10-percent grant increases in 1981 and 1982).

Assumptions

The exercise assumes that appropriations will provide a five-percent inflation adjustment in 1980 plus a one-percent one-time grant. It assumes that there is only one source of revenue. It also assumes separate inflation rates for personnel (including fringe benefits) and non-personnel expenses. The personnel rate used is a net figure which includes both increased cost of living and replacement of departing employees by new hires at lower starting salaries. The assumed inflation rates for personnel are seven percent in 1980, eight percent in 1981, and eight percent in 1982. For non-personnel, the assumed rates are 12 percent in 1980 and 10 percent in both 1981 and 1982.

Directions

To complete the exercise, fill in the top line of the table with the program's 1979 grant level and actual distribution of expenses between personnel and non-personnel. Assume that total expenditures for the year will equal the grant. For each of the next three years, fill in the lines according to the directions. This will produce projected expenditure levels for 1980, 1981 and 1982. At the same time, calculate the grant that the program will receive for those years in the worst case, the middle case and the good case. Subtracting the projected grant from the projected expenses will produce the projected deficit.

Comments

Each program's actual distribution of expenses between personnel and non-personnel will result in slightly different deficit projections. In an average program, with 75 percent of the budget in personnel, the exercise shows that, in the worst case, the program will have a two-percent deficit in 1980, an 11 percent deficit in 1981, and a 21-percent deficit in 1982. In the middle case, such an average program will have a two-percent deficit in 1982. In the good case, which involves annual inflation adjustments higher than in any year other than 1977, there is still a two-percent deficit in 1980. 1981 shows a one-percent deficit, and 1982 balances.

* Developed by A.G. Singsen in "Management of Scarce Resources (or How to be a Better Ant)", Clearinghouse Review, (Washington: Legal Services Corp.).

- Another way to view these calculations is to ask what part of existing operations can still be supported in 1982. Using all of the assumptions stated for the worst case, only 82 percent of the 1979 budget is going toward activities that can be maintained in 1982. (For any particular case and program, this figure is created by dividing the expected 1982 grant by the expected 1982 expenses.)

YEAR	ITEM	EXPENSES			GRANTS		
		Personnel	Non-Pers.	Total	Worst	Middle	Good
1979	Expenses and Grant	_____	_____	_____	_____	_____	_____
1980	Expense Increases:						
	Personnel (1979 expense times .07)	_____					
	Non-Personnel (1979 expense times .12)		_____				
	Total Expenses (1979 plus increase)	_____	_____	_____			
	Grant Increase:						
	Worst, middle and good case:						
	Grant up 5% (1979 grant times .05)					_____	
	One-time grant (1979 times .01)					_____	
	Total Grant: (1979 plus two increases)					_____	
	1980 Deficit Projected (expense less grant)					_____	
1981	Expense Increases:						
	Personnel (1980 expense times .08)	_____					
	Non-Personnel (1980 expense times .10)		_____				
	Total Expenses (1979 plus increases)	_____	_____	_____			
	Grant Changes:						
	Worst Case:						
	1980 One-time grant (repeat the figure)				_____	_____	_____
	Total Grant (1980 grant less 1980 one-time grant)				_____	_____	_____
	Middle Case:						
	5% grant increase (1981 worst-case grant times .05)					_____	
	Total grant (1981 worst-case grant plus 1981 middle-case increase)					_____	
	Good case:						
	10% grant increase (1981 worst-case grant times .10)						_____
	Total grant (1981 worst-case grant plus 1981 best-case increase)						_____
	Deficits (Total 1981 Expenses less 1981 grants)				_____	_____	_____
1982	Expense Increases:						
	Personnel (1981 expense times .08)	_____					
	Non-Personnel (1981 expense times .10)		_____				
	Total Expenses (1981 plus increase)	_____	_____	_____			
	Grant Changes:						
	Worst Case (1981/grant)				_____		
	Middle Case:						
	5% increase (1981 middle-case grant times .05)					_____	
	Total grant (1981 middle-case grant plus 1982 middle-case increase)					_____	
	Good case:						
	10% increase (1981 good-case grant times .10)						_____
	Total Grant (1981 good-case grant plus 1982 good-case increase)						_____
	Deficits (Total 1982 expenses less 1982 grants)				_____	_____	_____

MANAGEMENT CONTROL IN NONPROFIT
ORGANIZATIONS,

Robert Anthony and Regina
Herzlinger, (Homewood, IL:
Richard Irwin, Inc.) 1980

BUDGET PLOYS

In order to play the budget game well, each party should be familiar with its ploys and the appropriate responses to these ploys. Ploys can be divided into two main categories: (1) those used primarily within an organization, and (2) those used primarily externally, that is, between the head of the organization and the legislative body or governing board that authorizes funds for the organization. External ploys are so well described in Wildavsky's *The Politics of the Budgeting Process*¹¹ that it would be redundant to repeat them here. (Anyone involved in external negotiations, on either side, would do well to read this book.) The following list is therefore limited to internal ploys. These can be roughly divided into four categories:

1. Ploys for new programs.
2. Ploys for ongoing programs.
3. Ploys to resist cuts.
4. Ploys primarily for supervisors.

There is some overlap among the categories. Some ploys relate to programming as well as to budgeting. Each ploy is described briefly with an appropriate response.

PLOYS FOR NEW PROGRAMS

1. Foot In the Door

Illustration: During the Vietnam War, the Navy proposed reactivation of the battleship New Jersey with a budget estimate of approximately \$8,000,000. At \$8,000,000, there was a slightly favorable trade-off when compared with delivery of the same firepower by aircraft or artillery, so the program was approved. The Navy then proceeded to enhance the program so that the actual cost became \$32,000,000. For example, instead of consuming old ammunition, new munitions were specified.

Response: This ploy can elicit either of two responses: (a) detect the ploy when it is proposed, consider that it is merely a foot in the door and that actual eventual costs will exceed estimates by a wide margin, and therefore disapprove the project (but this is difficult to do); or (b) hold to the original decision, limiting spending to

¹¹ Aaron Wildavsky, *The Politics of the Budgetary Process* (Boston: Little, Brown & Company, 1964).

the original cost estimate, despite pleas for enlarging it. (The latter is effective only if the ploy is detected in time.)

2. Hidden Ball

Illustration: Some years ago it was difficult to get Air Force funds for general purpose buildings but easy to get funds for intercontinental missiles, so there was included in the budget for the missile program an amount to provide for construction of a new office building. Initially this building was used by a contractor in the missile program, but eventually it became a general-purpose Air Force office building.

Response: Break down programs so that such items become visible. Discourage recurrence by special punishment.

3. Divide and Conquer

Illustrations: (a) The City Planning Commission in New York City was so organized that each member was supposed to be responsible for certain specified areas. The distinctions were not clear, however, so budgetees would deal with more than one supervisor, hoping that one of them would react favorably.

(b) A military service requested 13,000 trainees in excess of the number that could be supported by an analysis of actual needs. So many offices in the Office of the Secretary of Defense became involved in the discussion that an agreement among them could not be reached by the budget deadline. The 13,000 extra trainees were therefore retained in the budget.

Response: Responsibilities should be clearly defined, but this is easier said than done.

Caution: In some situations, especially in research, it is dangerous to have a single decision point. It is often desirable to have two places in which a person with a new idea for research may obtain a hearing. New ideas are extremely difficult to evaluate, and a divided authority, even though superficially inefficient, lessens the chance that a good idea will be rejected.

4. Distraction

Illustration: At a big meeting, the Navy presented arguments as to why some buildings at a training base should be replaced with a new set of buildings in order to implement an "approved plan" for doubling the capacity of the training base. The argument was that newer buildings would be more useful and efficient than the existing buildings. The merits were discussed in terms of the return on investment arising from the greater efficiency of the new build-

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ings. This discussion went on for some time until a supervisor thought to ask who had approved the plan for expansion of the training base in the first place. It turned out that the expansion had never been approved; approval of the new buildings would have *de facto* approved the expansion.

Response: Expose the hidden aims, but this is very difficult.

5. Shell Game

Illustration: The budgetee was head of the Model Cities program for a certain city. He wanted available funds to be used primarily for health and education programs, but he knew that his superiors were more interested in "economic" programs (new businesses and housing). He drew up the following chart:

Purpose	Source		Total
	Federal	Other	
Health and education.....	\$2,000,000	\$ 15,000	\$2,015,000
Economic	50,000	2,300,000	2,350,000

He emphasized to the Mayor and interested groups that over half the funds were intended for economic purposes. The catch was that the source of "other" funds was not known, and there were no firm plans for obtaining such funds. This was not discovered by the supervisor until just prior to the deadline for submitting the request for Federal Model Cities funding, at which time the budgetee successfully used the delayed buck ploy (No. 14).

Response: Careful analysis.

6. It's Free

Illustrations: (a) A state decided to build a highway, reckoning the cost as low since the Federal government would reimburse it for 95 percent of the cost. The state overlooked the fact that maintenance of the highway would be 100 percent a state cost.

(b) Title III of the Elementary and Secondary Education Act of 1965 provided for grants of money to school districts for a variety of experimental programs. Many districts rapidly expanded or began instructional and special service programs that would fit under this Title. As funds have become less readily available in recent years, School Boards have had to decide whether to discontinue programs or pay the bill from their own pockets. In the instance of special service programs, the choice has been expensive, and experimental

grants are now being explored carefully to determine their long-run financial implications.

Response: Require an analysis of the long-run costs, not merely the costs for next year.

7. Implied Top-Level Support

Description: The budgetee says that although the request is not something that he personally is enthusiastic about, it is for a program that someone higher up in the organization asked to be included in the budget. Preferably this person is not well known to, and is more prestigious than, the budgetee's superior. The budgetee hopes that the supervisor will not take the time to bring this third party into the discussion.

Response: Examine the documentation. If it is vague, not well justified, or nonexistent, check with the alleged sponsor.

Note: In a related ploy, the end run, the budgetee actually goes to the supervisor's boss without discussing the matter with the supervisor first. This tactic should not be tolerated.

8. You're To Blame

Illustration: It is alleged that the supervisor was late in transmitting budget instructions, or that the instructions were not clear, and that this accounts for inadequacies in the justifications furnished.

Response: If the assertion is valid, this is a difficult ploy to counter. It may be necessary to be contrite, but arbitrary, in order to hold the budget within the guidelines.

9. Nothing Too Good for Our People

Description: Used, whether warranted or not, to justify items for the personal comfort and safety of military personnel, for new cements, for new hospital equipment, for research laboratory equipment (especially computers), and for various facilities in public schools and colleges.

Response: Attempt to shift the discussion from emotional grounds to logical grounds by analyzing the request to see if the benefits are even remotely related to the cost. Emphasize that in a world of scarce resources, not everyone can get all that is deserved.

10. Keeping Up with the Joneses

Illustration: New Haven must have new street lights because Hartford has them.

11. We Must Be Up to Date

Description: This differs from Ploy #10 in that it does not require that a "Jones" be found and cited. The argument is that the organization must be a leader and must therefore adopt the newest technology. Currently, this is a fashionable ploy for computers and related equipment.

Response: Require that a benefit be shown that exceeds the cost of adopting the new technology.

Caution: Sometimes the state of the art is such that benefits cannot be conclusively demonstrated. If this leads to a deferral of proposals year after year, opportunities may be missed.

12. If We Don't, Someone Else Will

Illustration: A university budgetee argued that a proposed new program was breaking new ground, was important to the national interest, and that if her university didn't initiate it, some other university would start it, obtain funds from the appropriate government agency, and thus make it more difficult for her university to start the program later on.

Response: Point out that a long list of possible programs have this characteristic, and the university must select those few which are within its capabilities.

13. Call It a Rose

(a) Defense policy discourages the procurement of aircraft for the personal use of commanding generals because their transportation is supposed to be furnished by the Military Airlift Command or by commercial airlines. Budgetees therefore describe such aircraft as "administrative aircraft," "support aircraft," "logistics aircraft," or "evacuation aircraft." (The latter term, implying transportation of wounded, also uses the "nothing too good for our people" ploy.)

(b) In the early 1960s the National Institutes of Health were unable to obtain approval for the construction of new buildings, but were able to build "annexes." It is said that Building 12A (the annex) is at least double the size of Building 12.

Response: Look behind the euphemism to the real function. If the disguise is intentional, deny the request and, if feasible, discourage recurrence by special punishment.

14. Outside Experts

Description: The agency hires outside experts to support its request, either formally in hearings, or informally in the press.

a present connection with the agency or because they are likely to benefit if the request is approved.

PLOYS FOR MAINTAINING OR INCREASING ONGOING PROGRAMS

15. Show of Strength

Illustration: In the summer of 1968 when the Community Development Agency of New York City was trying to decide which 50 of the 500 summer programs would be funded for the full year, a director of one of these programs got the entire staff of about 150 people to come down to the central office to sit in. The director had told the staff that for no apparent reason the city had not forwarded the last reimbursement, and therefore the payroll could not be met. On leaving the central office, the director dropped the hint that the sit-in might recur if his program was not extended.¹²

Response: Have fair criteria for selecting programs and have the conviction to stand by your decision.

16. Razzle-Dazzle

Illustration: In 1967 both the Army (budgetee) and the Defense Department (supervisor) knew that the amount of supplies needed in Southeast Asia could not be estimated within close limits because of the inadequacies of the data. Records of shipments were inaccurate, and the existing system did not separate material consumed from material added to inventory. Nevertheless, the budgetee made elaborate calculations of "requirements" for thousands of individual items of material, so voluminous that Defense Department analysts could not possibly examine them in detail.

Response: (a) Make equally voluminous (and equally unsubstantiated) calculations using lower consumption factors, and require the budgetee to substantiate the difference between the two estimates; i.e., shift the burden of proof. (b) Find a single soft spot in the original analysis and use it to discredit the whole analysis. (Note: Both of these responses cannot be used together, for the former assumes that the approach is worthwhile, whereas the latter assumes it is not.)

17. Delayed Buck

Illustration: The Army had a procurement category called "minor procurement," which consisted of thousands of items, no one of which was very expensive, but which were substantial in total. The total

¹²This incident was developed in depth in Tom Wolfe, *Radical Chic and Mau-Mauing*

budget estimate was obtained by estimating broad categories of items. In 1967, the Army proposed a refined method of calculation, which would estimate the requirements of each item, using a computer. Once the computer program started to operate, the Army lost the capability of doing the job manually. The computer program developed bugs, however, and it did not produce output by the October deadline. Indeed, it did not produce output until December, too late to permit analysis by the supervisor.

Response: This is a difficult ploy to counter. Complaining about the delay may make the supervisor feel better, but will not produce the data. One possible response, designed to prevent recurrence, is to penalize the delay by making an entirely arbitrary cut in the amount requested, although this runs the risk that needed funds will be denied.

18. Reverence for the Past

Description: Whatever was spent last year must have been necessary in order to carry out last year's program; therefore, the only matters to be negotiated are the proposed increments above this sacred base.

Response: As a practical matter, this attitude must be accepted for a great many programs, because there is not time to challenge this statement. For selected programs, there can be a zero-base review (see Chapter 9).

19. Sprinkling

Description: "Watering" was a device used in the early 20th century to make assets and profits in prospectuses for new stock offerings look substantially higher than they really were. Sprinkling is a more subtle ploy, which increases budget estimates by only a few percent, either across-the-board or in hard-to-detect areas. Often it is done in anticipation that the supervisor will make arbitrary reductions, so that the final budget will be what it would have been if neither the sprinkling nor the arbitrary cuts had been made.

Response: Since this ploy, when done by an expert, is extremely difficult to detect, the best response is to remove the need for doing it; that is, create an atmosphere in which the budgetees trust the supervisor not to make arbitrary cuts.

PLOYS TO RESIST CUTS

20. Make a Study

Illustration: On the basis of a study, the supervisor proposed to

theatre of operations. This proposal was based on an analysis of spending at dozens of bases in this theatre. The proposal was submitted to the budgetee for comment several months prior to the time of budget submission. At budget time, the budgetee asserted that the proposal was too superficial, and that a new study was required to determine whether the reductions were actually possible. (Note: Supervisors can use the same ploy as counters to ploys for new programs.)

Responses: (a) Reject the request. (b) Agree to have the study made but broaden its scope so that it scrutinizes areas not covered in the original proposal. This places the budgetee in the difficult position of deciding whether to accept the smaller, certain reduction, or to run the risk that the new study will lead to a larger reduction.

21. Gold Watch

Illustration: This well-known ploy derives its name from an incident in which Robert McNamara was involved when he was with the Ford Motor Company. In a period of stringency, all division heads were asked to make a special effort to cut costs. Most responded with genuine belt tightening; however, one division manager, with \$100 million sales, reported that the only cost reduction opportunity he had found was to eliminate the gold watches that were customarily given to employees upon their retirement with 30 or more years of satisfactory service. The ploy encompasses any situation where the budgetee attempts to defeat the purpose of the request by taking actions that do more harm than good.

Response: Reject the proposal. (In the illustration, disciplinary action was also taken with respect to the division manager.)

22. Witches and Goblins

Description: The budgetee asserts that if the request is not approved, dire consequences will occur. It is used often by the House Armed Services Committee in its reports to Congress. For example, in 1968, an antiballistic missile system was recommended as a counter-defense to the "Talinin System" that the Soviets were supposed to be building. In fact, the Soviets were not building such a system.

Response: Analysis based on evidence rather than on emotion.

23. We are the Experts

Description: The budgetee asserts that the proposal must be accepted because he has expert knowledge which the supervisor cannot possibly match. This ploy is used by professionals of all types: military officers, college professors, physicians and clergy.

Response: If the basic premise is accepted, the budget process cannot proceed rationally, for the supervisor tends to be a generalist and the budgetee a specialist. The supervisor should insist that the expert express the basis for his judgment in terms that are comprehensible to the generalist.

24. Agreement in Principle

Illustration: In 1967 the Secretary of Defense obtained written agreement from the Services on an inventory policy which in principle was intended to maintain the inventory, consisting of some 5,000,000 items, at about its current level. One Service submitted a budget request that included increases in inventory levels totalling \$4 billion. The increases in particular items were substantiated on the grounds that they were exceptions to the basic policy or were not covered by the wording of the policy statement.

Response: Prevent this from occurring by wording policy statements with great care. Wherever feasible, express the policy in numbers as well as in words. Numbers are more difficult to evade.

POYS FOR THE SUPERVISOR

25. Keep Them Lean and Hungry

Illustration: The supervisor tells the budgetee that the latter's organization will work harder, and possibly more effectively, if it doesn't have to carry so much fat.

Response: Show that the analogy with human biology is false, or go along with the analogy, and show that the cuts represent muscle rather than fat.

26. Productivity Cuts

Description: It is assumed that many capital expenditures are made with the intention of cutting operating costs. Although few systems permit individual cost reductions to be identified, it is reasonable to assume that they, together with continuing management improvements, should lead to lower operating costs in the aggregate. In the Defense Department, for this reason, personnel-related costs were automatically reduced by about 1½ percent from the previous year's level. In the entire economy, productivity increases by about 3 percent annually; the lower percentage assumes that nonprofit organizations are only half as susceptible to productivity gains as the economy as a whole.

In some organizations, the cost reductions can be specifically traced. When an organization makes a large capital expenditure to

convert its recordkeeping to computers, this presumably results in lower operating costs, and the planned savings should be specifically identified. When a program in 1969 reflects a decision to convert to a computer operation by 1971, the programmed clerical costs for 1971 should reflect a cost reduction.

Response: Point out that dismissals are politically inexpedient, and retirements and resignations may not be rapid enough to permit costs to be reduced to the desired level.

27. Arbitrary Cuts

Illustration: The supervisor, who was director of research of a large company, followed the practice of reducing the budget for certain discretionary items (travel, publications, professional dues) in certain departments by approximately 10 percent. The supervisor was careful to do this at random and achieved a reputation for astute analysis.

Response: Challenge the reason for the cuts (but the items tend to be so unimportant and difficult to defend that such challenges may consume more time than they are worth).

28. I Only Work Here

Description: The supervisor says she cannot grant the budgetee's request because it is not within the scope of ground rules that her superiors have laid down.

Response: Carry the issue to higher authority (although never by an end run--see No. 7).

How to give phased-out managers a new start

*A personnel cutback
need not end a man's career;
properly done, it can begin
a new one*

Basil Robert Cuddihy

A few years ago, the Aluminum Company of Canada, Ltd., was faced with a period of adverse business conditions that made massive managerial cutbacks inevitable. Recognizing that the company shared the responsibility for the expendable executives, and that the available, time-tested techniques for firing people did not meet that responsibility, Alcan tried a new approach that attempted to help each dismissed employee find a new job and to understand why he had, in a crisis, become expendable. Since most of the people found new jobs, the procedure Alcan implemented was a success. It also led the company to adopt new performance appraisal procedures to prevent recurrences of this situation.

The author writes from first-hand knowledge. Mr. Cuddihy is, and was at the time of the cutback, Alcan's staff psychologist, specializing in employee emotional rehabilitation and assessment. He is a member of the American Psychological Association and the International Association of Applied Psychology.

At one time, only clerical and blue collar workers fell victim to adverse business conditions or financial setbacks. The executive suite and the laboratory were sacrosanct and their occupants secure. But those days are over. Now it is no longer uncommon for executives, professionals, and administrative personnel to suddenly find themselves out of a job. Unlike clerical and blue collar workers, however, these men and women are simply unprepared for this fate. First, they have always belonged to a secure work force that does not anticipate being laid off. Second, they usually have not given much serious thought to their careers.

Although the dismissals experienced by the increasingly large number of high-level personnel are often precipitated by a profit squeeze or some other financial crisis, the crisis itself does not cause these individuals to be chosen for dismissal. They are ousted because for one reason or another they have fallen into a career slump or have become managerially obsolete. When the squeeze comes, they are the ones who feel it.

Traditionally, there have been two ways to deal with the individual who can no longer contribute to an organization's growth. The first is the gentle, "let's be nice" approach: no one mentions what's happening but everyone knows what's going on. A person suddenly finds his responsibilities reduced, his name removed from routing slips, and his presence no longer required at meetings. The second way is to tell someone bluntly that he is fired. For those who can take it, this may be kinder in the long run, since it certainly leaves a person with no illusions about his place within the company. But there are those who cannot take it, those for whom

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this blunt approach may be the beginning of a serious, even fatal, physical and/or emotional deterioration.

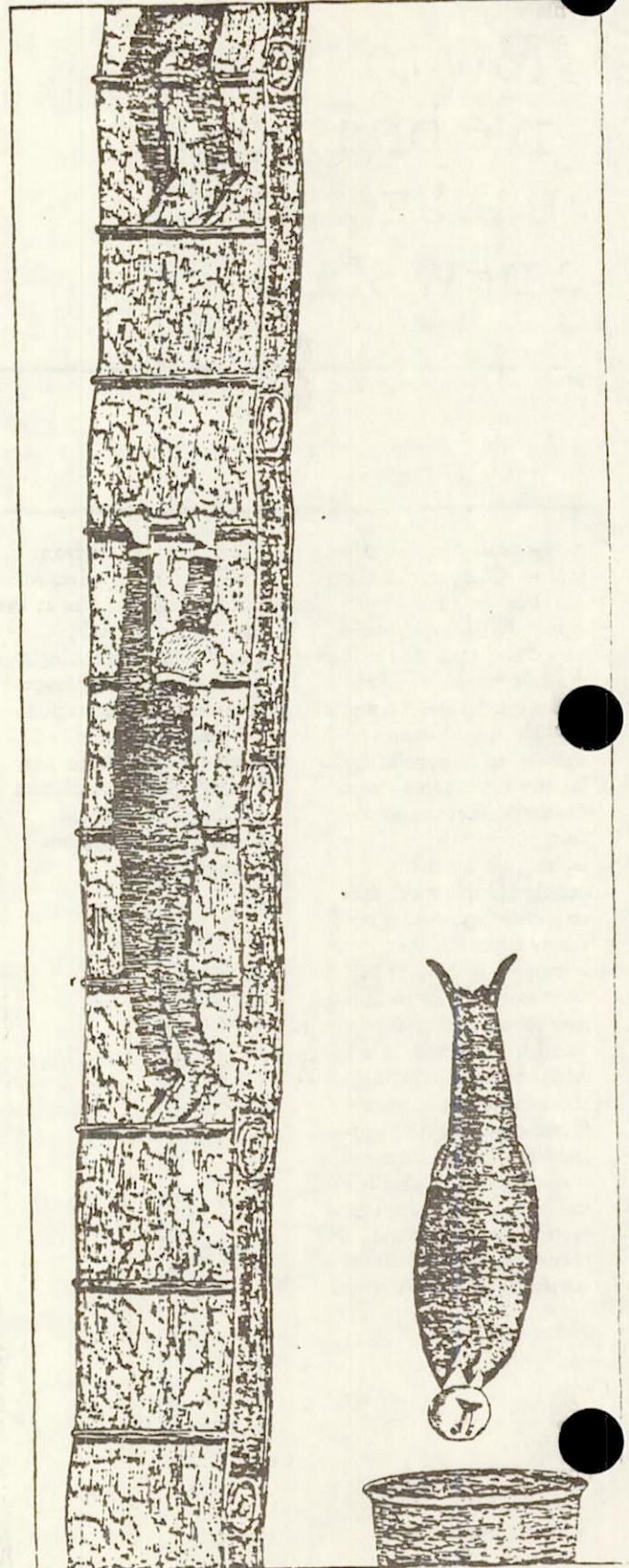
In this article I am going to suggest a different approach to the problem of executive redundancy. It was first tried by my company when over 200 professional and managerial people had to be dismissed because of unalterable business conditions. First, I shall discuss the process by which individuals become expendable and the necessity for sharing the blame for these failures. Next, I shall describe the new, constructive approach my company has taken to make the separation procedure more socially responsible. Finally, I shall recommend steps other companies might follow in order to avoid painful dismissals, with their accompanying bitterness and anxiety.

Crisis by consensus

Alcan is the short name for Alcan Aluminum Ltd., for many of its subsidiaries, and for the Alcan group as a whole. In this paper, we are concerned with the Montreal head office of Alcan Aluminum Ltd., with the Montreal offices of the Aluminum Company of Canada, Ltd., Alcan's largest subsidiary, and with certain of their plants throughout Canada. At the close of 1971, after a prolonged period of business setbacks, Alcan's management decided that at least 200 employees in the head offices would have to go. In trying to devise a method for dealing with the problem, top management decided that both traditional approaches to cutbacks were unacceptable. Both methods assume that the employee is the only one to blame for his situation, whereas Alcan felt that it is the shared responsibility of the company, the employee's boss, and the organization's culture, as well as of the employee himself.

For many years Alcan had provided a very secure career for its employees; it seemed as difficult for anyone to lose a job as it was to get one in the first place. This attitude naturally led to a sense of complacency which the company saw no reason to undermine.

Another factor contributing to employee stagnation, which Alcan recognized as being present in its own offices, is poor communication between a boss and



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his subordinates. Many employees had not received a formal performance review or appraisal for the last 15 or 20 years. Of course, some quite comprehensive appraisals did exist, but once compiled they were merely filed away, without any pertinent information being relayed to the individuals concerned. And even though some appraisals of these employees had been done on an informal basis, the individuals concerned did not hear (or choose to understand) the messages that were being given to them. Many employees, therefore, never really knew what the organization, as represented by their bosses, thought of them. Understandably, they assumed that they were doing fine and that their performances were satisfactory.

Also contributing to a lack of equity between performance and rewards are the subcultures that develop in the surrounding social environment. A company's senior management often becomes a cultural and social elite. Membership in this group is based not on job performance alone, but often on an executive's awareness, activities, and participation in "right things" as well. It is clear that many factors unrelated to competence or ability are weighed when considering someone for promotion.

Finally, individual executives are also responsible for their own plight. Many of them have never done any serious, constructive career planning. In some cases, they got into the habit of making haphazard, undirected decisions as early as their college years, and are still following employment paths chosen years ago in that same youthful fashion. Once embarked on a career within Alcan, these people stopped thinking about the future. They assumed, rightly or wrongly, that the company was looking after them and their careers. Most often these men reported that they had received good annual salary increases throughout their working lives and, having no other performance yardstick, had assumed that they were doing a good job.

If effective career planning had been part of their activities, these people would have asked for feedback on their performance when that information was not volunteered. Unfortunately, most of the executives in question had developed in an era in which one did not question or challenge anyone of greater authority.

Thus most of the employees we laid off were members of the executive, managerial, and professional staffs, mainly in the 40 to 60+ age group. Strictly speaking, many of these men were not incompetent,

but neither they nor their superiors had identified their real strengths and skills. And even when the employees (or their bosses) finally determined that they needed job changes, it was very difficult to sell them to other departments within the company. Most other managers were not willing to take chances with misfits, even when they were presented as having acquired whole new sets of skills.

Regardless, then, of how it happened or who was to blame, Alcan had a real problem. It had to develop a positive, humanitarian, and socially responsible program to help 200 middle-aged employees embark on new careers outside the organization.

Career cul de sacs?

Since neither of the traditional methods of dealing with the redundant employees was acceptable, it was decided that a third-party functional group should be set up to help managers and employees deal constructively with the manpower cutback. This unit included a line manager from personnel, two outside consultants, and the staff psychologist (myself).

The line manager is a crucial member of this unit. Because he is the employee's first point of contact after the termination interview, the success of a program like this depends heavily on his skills. He is a key man because he has credibility within the production end of the organization; not only has he worked as a manager, but his age, years of service, and level in the organization are about the same as those of the people that he will deal with in this kind of termination process.

The traditional professional personnel man would be unable to perform this task very effectively; in protecting the company's interests, he is often tied too closely to the rule book. The job requires a man with a great deal of flexibility, understanding, and common sense. He must be both hard-nosed and empathetic, and he must know the particular organization thoroughly. Although the professional personnel man may be very generous with his sympathy, we have found that this does not help the employee who has just been laid off. Being overly sympathetic or saying such things as "I'll see what I can do for you within the company" will --

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raise the man's hopes of reversing the "awful mistake" that led to his dismissal.

Because of the unit's freedom from daily administrative requirements, it is able to devote a great deal of individual time to each person, and thus understand particular needs far more thoroughly than the employee's own manager could. It should be mentioned, however, that one of the most important factors in making this whole scheme work is the total commitment, both moral and financial, of the company's senior management. Without this the program will fail.

The procedure itself

The actual termination encompasses a great number of steps and in some cases takes up to four months to complete (see ruled insert on page 65). The program begins when an employee's superior identifies him as redundant, meaning that there is no longer a place for him in that division. The personnel department then makes a thorough search in all other departments and divisions within the company for other possible positions. If nothing is found, the man is considered redundant for the entire company.

The immediate supervisor then discusses with the special unit the terms of financial settlement and any other problems involved. All pertinent information about the effective date of termination, financial settlement, pension, life insurance, and medical insurance are then spelled out in detail in a letter that will be handed to the employee by his boss at the time of the termination interview. This letter (1) advises the man to get in touch with the employee benefits people in the company, tax specialists, and so forth, to discuss any further policy details he may want clarified, (2) lists the members of the special unit, and gives their respective telephone numbers, and (3) instructs the employee to get in touch with the unit as soon as possible.

Before the actual interview, the unit asks the company physician to check the employee's medical history to determine if anything in his background would be aggravated by his termination. If there seems to be some evidence in his file that the news of firing would be exceptionally traumatic, a meeting is arranged between the immediate supervisor (who will conduct the initial interview), a member of the special unit, and the medical officer to discuss an appropriate strategy for the termination inter-

view. This is highly important, for the supervisor as well as for the employee to be dismissed. It is no easier to fire than to be fired. We often role play the interview for the supervisor and, if necessary, write out for him exactly what he ought to say. If there are medical problems, arrangements are then made to have the employee visit the medical center as soon as possible after the interview.

If it is felt that some serious emotional or psychological problem may exist, the executive conducting the termination interview will often make an appointment for the employee with the special unit, without waiting for the employee to make the first contact. This appointment is usually scheduled for the same day as the interview, or, at the latest, for the next morning. An employee should be informed of his dismissal as early in the week as possible so that the unit may begin to help him before the weekend; sitting at home on Saturday and Sunday without any assistance can be enormously upsetting.

The man in the machine

At this point I feel that it would be worthwhile to describe the experiences of an individual whom Alcan dismissed, and, at the same time, include some of the relevant dialogue that took place between him and the various members of the special unit during his termination process.

Péter Martin, a 54-year old electrical engineer, had 28 years of service with our company. He worked his way up through the organization—from junior engineer in power house operations to assistant superintendent and then superintendent of electrical maintenance in one of our smelters, and finally to technical customer representative in wire and cable sales. Peter was declared redundant when it was decided to decentralize all of our customer technical-support functions. At the time, he was earning \$24,000 a year. His wife and one of four children were living at home, two other children were attending universities out of town, and his daughter was married.

After his termination interview, Peter was badly shaken. He came almost immediately to see our line manager and said, "I just don't understand how company can do this to a man after 28 years of hard work. I know lots of people who are less competent than me, and they're still working here because someone cared enough about them to find them."

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Steps and timing of the termination process

Identification of redundant employee	Informal - usually three to six months before termination
Internal search for alternate job possibilities	One month before termination
Supervisor's initial discussion with special unit, and preparation of termination letter	One to two weeks before termination
Check of employee's medical history	One week before termination
Coaching supervisor on termination interview strategy	One to two days before termination
Termination interview	Should be held from Monday to Thursday <i>only</i> , and early in the day - <i>never</i> prior to vacation
Meeting of separated employee with line manager of special unit	Immediately after termination interview
Selling and process of relocation toward outside world	Same day as termination interview, continuing for one week, with periodic interviews
Initial interviews with outside consultants and with staff psychologist	Within three days of termination
Possible interview with company doctor	Within three days of termination
Beginning of psychological assessment	Within one week of termination
Relocation to new offices	Within one week of termination
Intensive work with consultants to finalize resumes	Within ten days of termination
Consultation with employee benefits staff for advice and clarification of termination policy	Within ten days of termination
Time lag between circulation of resumes and first job interviews	Usually three to four weeks
Counseling with line manager of special unit and with staff psychologist	Continues for two to three weeks and tapers off as the employee gains confidence
Feedback session - results of counseling and assessment	Within two weeks of termination
Time needed for employment interviews	Usually three to four months
New job found	Usually within four months

job. Why don't you put yourself to work and find me something?" Our line manager explains to the employee that, no matter what he might think to the contrary, the organization has already been thoroughly searched for other possible positions for him. The termination interview is itself an indication that nothing suitable could be found within the company.

The line manager has to emphasize to the employee the importance of realizing that the umbilical cord with the company is severed. He recommends immediate action, advising the employee not to waste time worrying about why he was let go. The important thing is to find a new job as soon as possible. Obviously, only a hard-nosed line manager is capable of such blunt statements—someone committed to making the employee face the facts.

The employee is given a package of written material that outlines the basic do's and don'ts of job hunting. This package includes names and addresses of people in reputable management-placement firms in the city and the major personnel-placement people within government agencies. It has basic information about resumé preparation, financial management, and so forth. The line manager then explains to the employee that he will be given a certain amount of money to cover traveling and miscellaneous expenses that he may incur while searching for a new job.

A very important part of the termination policy is the financial settlement, discussed with the employee at his first interview. Alcan has had an extremely generous termination allowance for all of its executive, managerial, and professional personnel. The settlement is usually based on years of service with the company, and generally amounts to one month's salary for the first year of service and two weeks' salary for every year after that. However, the settlement can vary according to age, quality of service, number of years' participation in the pension plan, physical health, and so on.

This financial settlement helps provide a comfortable cushion for the employee searching for a new job, and it also helps relieve some of the isolation, desperation, and stress he may feel, brought on by termination at this critical stage of life.

After dealing with the immediate practical questions, Peter spoke about more personal concerns: "How can I tell my wife and kids that the 'breadwinner' is out on the street?" We always advise em-

ployees to inform their families as soon as possible of their termination. We realize that this may be very difficult, and on a few occasions we have helped employees explain the situation to their wives. Women at this age are often suffering from the psychological and emotional problems that accompany menopause, and the news that a husband has just lost his job can aggravate these difficulties. Children should also be told right way, if they are old and/or mature enough to grasp the situation. We find that, in their willingness to help reduce expenses during this period, children can be a great source of support.

Peter expressed his exasperation and depression by declaring that he was too tired to look for a job: "I think I'll take a few weeks off to collect my thoughts and gather my strength before I go out job hunting. Maybe I should put my house up for sale, too, to consolidate my assets." This is always discouraged: valuable time is lost and important opportunities are missed by taking a break at this strategic point. And selling a home before knowing the new job location can turn out to be a financial drain.

At some point during this interview, most of the employees we see indicate some concern about their physical condition, and usually ask for a thorough medical checkup, even if they've had one earlier in the year. This is easily arranged through the company medical center. As would be expected, the older the employee, the more worried and, therefore, the more likely to request a physical exam.

One of the final things the line manager suggests to the employee is that he change his base of operation within the company as quickly as possible, moving from his present location to a space provided on a floor of the main building. On that floor the employee has an office, shares a secretary, and has free use of stationery, telephones, and printing and duplicating equipment.

This abrupt move from his old office and friends might at first upset the employee but it has definite positive aspects. First, the employees in this temporary office space soon meet and begin to help each other by exchanging information about jobs, contacts, newspaper ads, and so forth. Second, there is a clear psychological advantage for the employee in being able to look for work from a secure job base while not having to cope with his old job's responsibilities or with the embarrassment of his friends. The space is available to the employee until he finds a job, regardless of how long that takes.

Third, the move emphasizes that a 180-degree turn has been taken: in this new setting the employee is forced to think positively about the challenge ahead of him instead of focusing bitterly on the past.

Cutbacks can be constructive . . .

During the whole procedure, the company's primary goal is to help the employee become active and assertive on his own behalf. Thus, as soon as possible after the initial interview with the line manager, we introduce the executive to one of our outside consultants. The consultants' responsibilities are separate; one handles technical personnel, such as chemists, physicists, and engineers, and the other deals with management and professional people, such as economists, lawyers, accountants, and employees who, because of moves up the administrative ladder, have been away from a technical field for a number of years.

. . . creating new careers . . .

Peter relaxed somewhat when he heard about the consultant help. "Well, I guess they can find a job for me. That's some consolation for a man my age, who's never been on the job market." This notion is dispelled immediately. We try to make it very clear to the employee that the role of these consultants is not to find jobs but to give him the techniques that will enable him to market himself more effectively.

During appointments requested by the employee himself, the consultants spend eight to ten hours with each person, helping him through a series of exercises and trial interviews to pinpoint his job preferences and to strengthen his interviewing weaknesses. They help him prepare his resumés, and occasionally recommend preparing several resumés, each emphasizing different facets of his education or work experience. He is encouraged to follow the local, national, and financial papers and the trade and government publications, where job openings might be advertised. This process has an added advantage, in that it involves a fair amount of activity very soon after the employee's termination, so that he is kept occupied. This is good therapy for that early traumatic period.

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...and confidence

An interview with the company's staff psychologist is the next step in the termination procedure. This usually occurs within a day of the employee's first visit to the outside consultant. The role of the psychologist/counselor is one that is different from but complementary to that of the line manager from personnel in the special unit. The line manager "softens" the man up, to a certain extent, in a fairly firm and direct manner. He gives him the facts he needs to know about what the company is prepared to do. The psychologist tries to help the employee understand both the experience he has just been through and the problems that he will have to face during one of the most difficult periods of his life.

Peter did not feel as threatened as we thought he might when it was suggested that he take advantage of the help and services that the company psychologist might be able to provide. When Peter came to see me, he said, "I've been eating alright, but I'm not sleeping very well; I've had such terrible nightmares since I got the news the day before yesterday." I tried to explain to the employee that anxiety and tension are normal and entirely understandable during this job-hunting period, and that if he has trouble sleeping or keeping his anxieties under control, some mild medication can be prescribed by the company doctor.

Peter's initial reaction was typical. "I don't believe in that sort of thing. What do you think I am—some sort of pill-popping drug addict?" I point out to the employee that all the physical, mental, and psychological resources available to him will have to be mustered during the next few months for this very demanding phase, and that there are times in life when medication can be very helpful.

Every employee is offered a complete psychological assessment. Although we stress the confidentiality of the assessment and the fact that all information will be shown directly to the individual, it is still considered to be a threatening experience. Peter asked the obvious questions: "What will be involved? What will I have to do? How long will it take? Will it do me any good?" I explain that the process involves an interview followed by intelligence, aptitude, interest, and personality tests that should help the individual assess his strengths and weaknesses and enable him to sell his abilities more realistically.

Peter was doubtful. He said, "I had psychological tests once when I was in high school, and I was told I would never make it to a university. Anyway, what good will it do me now to find out I should have been an accountant rather than an engineer? It's much too late to change." I tell the employee that the purpose of the assessment process is not necessarily to make him change, but to help him get a less biased, more objective, and perhaps even scientific view of himself. The assessment should help the individual see what went wrong in the past so that he can avoid the same errors in the new job. It might even help him become aware of a new marketable talent.

Most of the employees, including Peter, accept this assessment offer—if not initially, then at least after a few days of thinking it over. [To reassure the employee of the process's benefits, we refer him to others (with the latter's permission) who have taken advantage of the assessment offer and have found the information useful in finding a new job.]

To avoid putting the man through any more stress than is naturally generated by such a situation, the actual testing is usually spread over a 2-day period. Once the testing is finished, there is a waiting period of 10 to 14 days to get the results. During this time the employee works with the consultants, sends out resumés and letters, and begins the interviewing process.

The psychologist then meets with the individual to discuss his test results. Like most of the men, Peter was very anxious and nervous at this time, and he had begun to lose his self-confidence. He was quite downcast when he came into my office. "I'm not mad at Alcan anymore, but I guess I'm no good. I was just kidding myself all these years. I must really be incompetent." Because very often the individual has as yet received no replies from his initial contacts or job interviews, this attitude gets reinforced.

Now, seeing a psychologist who, by telling him his test results, will probably further increase his loss of confidence and self-esteem is the last straw. Peter said, "All I need right now is someone like you to drive the final nail in my coffin. But after all, I didn't exactly feel up to par when I was writing those tests, so I probably didn't do very well at all." This defensive attitude is typical. In 99% of the cases, the employee will underestimate his intelligence by a fairly substantial margin. When told just where he stands on a national average, he either cannot or will not accept this information. Peter

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responded, "You're just trying to make me feel good because you know I'm out of work." (We found, incidentally, that just about all of the employees Alcan dismissed fell within the top 8% to 10% of the population in terms of measurable intelligence.)

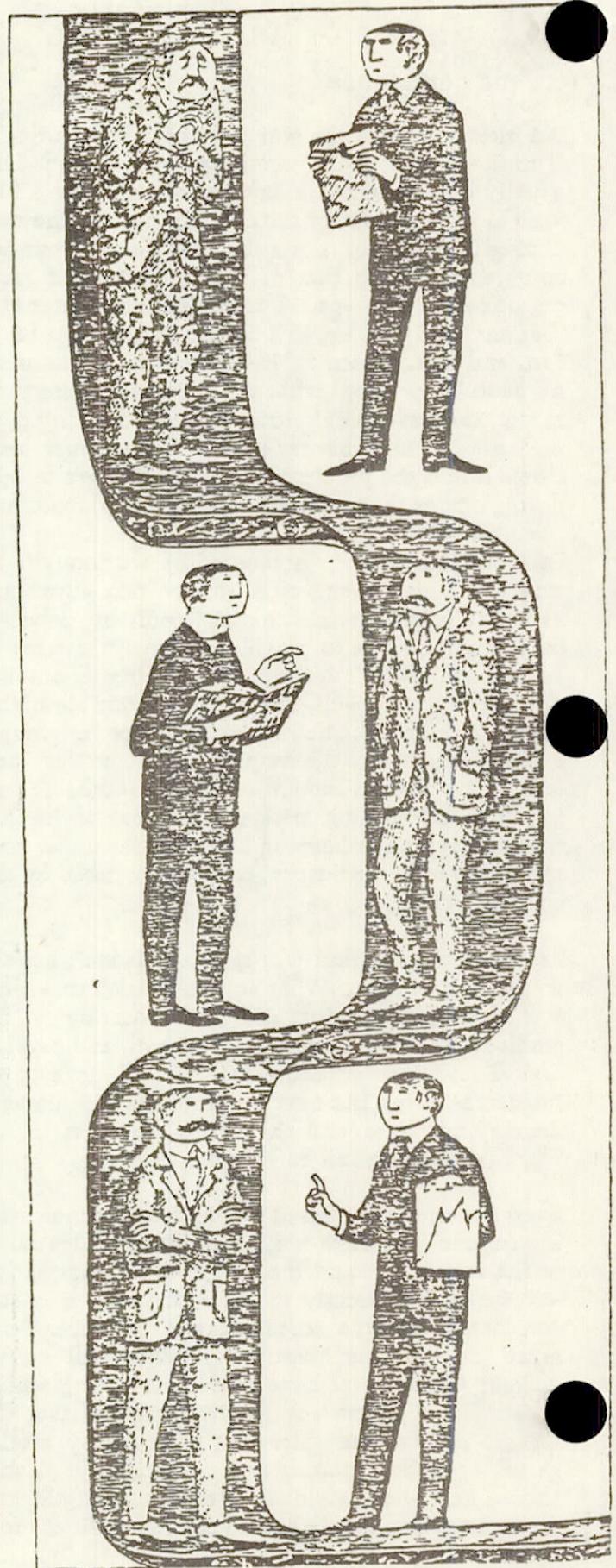
During a session lasting from three to five hours, the test results are explained in great detail. The psychologist should explain what the test was designed to measure as well as how the individual actually performed on it.

Another very important part of the feedback is the dialogue generated between the psychologist and the employee. The employee is encouraged to question, challenge, and discuss what he hears. Very often he himself will give very good illustrations from his experience to explain something that has been mentioned. When this feedback process is finished, the individual is given a verbal summary of the psychologist's findings and recommendations. Some people find it helpful to bring a tape recorder to the session for later reference.

We have found that the most important thing to come out of the assessment process is the restoration of self-esteem and confidence. The employee knows that the psychologist is being as straightforward and objective as possible, and (perhaps for the first time in his working life) he is hearing—and facing—the good and the bad about himself, told honestly. He finds out that he is not as bad as he had begun to think he was; that he is a relatively stable, intelligent, worthwhile human being who has some very valuable, marketable skills to offer, even at age 50 or 55.

There is a metamorphosis in attitude from the time an employee enters the psychologist's office as a hand-wringing, apprehensive individual to the time he leaves. When Peter left, he was in a much happier frame of mind, "Well, I guess I'm not all that bad after all. Too bad I didn't go through a session like this 25 years ago. Maybe I wouldn't be in this jam today if I had been through something like this earlier in my career."

The employee is now in a state of mind to turn his back on the company and move forward in a new direction. He can tell himself that they were wrong, that they missed their chance to use his valuable executive know-how, and that now he will show them by using his new-found enthusiasm to find a job elsewhere.



Conclusions

Our experience with this program taught us two basic lessons: (1) that middle-aged executives do have marketable skills and can find new jobs if they look for them, and (2) that the cost of running such a program is great, both in terms of money and emotion, and that if a few guidelines are put into use, these costs might be lowered.

1 Middle-age skills are marketable

It became so evident to us during this staff cutback that the old, "if you are over 40, you can't get a job" cry is nothing but a myth. Men and women ranging in age from 40 to 62 were able to find jobs. About 90% to 95% of the people who used our relocation services found new jobs in less than four months. Most found employment at salaries equivalent to or better than those of their previous positions. Those who did take a cut in salary usually had the one or more take-home pay for the initial new-employment period because of the generous termination allowance.

It is too early to assess whether all these people will be better off in their new jobs, but early feedback is very encouraging. Many of them have told us that they are pleased with the change, some even admitting that it was the best thing that ever happened to them. Some have expressed great new confidence in themselves, because they feel that, on their own, they found more challenging jobs under adverse conditions.

According to firsthand reports from our outside consultants, the new employers are also very pleased with their new personnel. We hope to be able to do follow-up research to see how the individuals and their new employers feel about each other after the halo effect has worn off.

2 Once is enough

It also became abundantly clear to us that the need for the cutback could have been avoided if our manpower-planning personnel were more systematic and conscientious. It was fortunate that our program worked as well as it did, but the cost—in money and in emotional energy of the people involved—was enormous. And this high cost is unnecessary.

Although we still use the same termination procedure when we have to fire someone, there are

ways it might be improved. Perhaps in the future the termination settlement policy will come under review, and other approaches costing less money will turn out to be more beneficial to both the individuals and the company. But it is my view that the most beneficial step is to prevent the recurrence of situations for which mass cutback is the only answer.

Alcan's managers and employees now see that the development of the individual is a lifelong process, and that they share responsibility for it. To help out from the management side, we have instituted a system whereby managers from all locations who are functionally responsible for certain areas (such as production or maintenance) meet at least twice a year to discuss all their employees. This system helps the managers identify an employee's problems early in his career and helps develop action plans on which they must act before the next meeting is convened. Therefore, group pressure forces the boss to sit down with his subordinates and discuss their career plans.

Alcan has also instituted career-planning programs for its personnel, for groups and individuals. These programs help employees understand their strengths and weaknesses while they are still young and flexible, and they force employees to think seriously and constructively about their careers and to communicate these concerns to their superiors. It is hoped that these two programs will help break down the communication barriers that exist between employees and managers.

Finally, even though they did not personally go through this bitter experience, the employees who are still with our company also learned a lesson that cannot but help them—and Alcan—in the future. They learned that their first responsibility is to themselves and that company loyalty does not guarantee a successful career. How to make use of what one has to offer is a personal decision. Of course, an employee may never realize his full work potential, but if so, it should be for reasons over which neither he nor the corporate system has any control.

CROSS-IMPACT ANALYSIS AND OUTCOMES ASSESSMENT

PURPOSE

To provide a structured way for small or large groups to systematically identify and assess the impact of all of the outcomes of a particular planned strategy.

SUMMARY

All too often strategies are developed and implemented without any more than an ad hoc examination of the consequences, both intended and unintended, that may occur. This occurs, amongst other reasons, because the group dynamics of the planning process can lull one into "going with the flow" or engaging in "groupthink". Further, the apparent complexity of the issues seems to defy analysis. Cross-Impact Analysis or Outcomes Assessment provide a structured way for a group to examine the potential impacts of a plan in a way that invites constructive criticism, often leads to new insights and can build group consensus on issues.

PROCESS

A group activity (that could be done individually) in which the outcomes of a particular plan or sub-plan are systematically listed. The probability of these events occurring are estimated and the "costs" — negative consequences for that group — and the "benefits" — positive consequences — are noted. These results are produced in small groups and the results shared in plenary sessions. In cases in which one stakeholder group's "benefit" might be another's "costs", advocacy roles can be assigned so that the discrepant values can be better articulated.

TIME

2 hours is the minimum amount of time used to address a well bounded strategy. Total time spent using the process depends upon the complexity of the scenario analyzed, the level of detail required and the size of the group.

NUMBERS

A good minimum group size is five. Larger group can divide into groups of five to seven members to analyze different aspects of a proposed strategy or to separately analyze the same scenario and later compare results.

REFERENCES

Carney, T.F., No Limits to Growth: Mind Expanding Techniques, (Winnipeg: Harbeck and Associates Ltd., 1976).

CROSS-IMPACT ANALYSIS*

Cross-impact analysis usually follows from scenario building or the development of action steps in a plan. It's a framework for analyzing the potential impact of one forecast event upon another. The framework involves a matrix that systematically explores all relationships, and a display code that shows clearly what's going on inside each relationship. Also, a definite set of procedures sets out what participants are to do and how they are to do it. Let's review an example, to see how all this works.

PROCESS

Break up your group into unevenly numbered buzz-groups (5 is the best number for such a group). Each buzz-group should have a facilitator. His/her duty is to see to it that the impact of each item on every other item is uniformly assessed in terms of the scoring system described below. Also, the facilitator should see to it that each item has a 'sponsor' (someone who will argue for its importance), and a 'devil's advocate' (someone who will be strongly critical of this item). These pairs are there to ensure that concern is uniformly high for all items; and involvement as sponsor or devil's advocate means that every buzz-group has to participate actively.

A meeting of the entire group, held at the end, compares matrices, to see to what degree there is uniform agreement, disagreement or hazy areas. Also, it lets you (and everyone in the group) compare notes on how the assessment of each cell was arrived at.

INSTRUCTIONS

Suppose a plan has been produced that entails four (or more) specific activities. You now want to see how these "items" would affect one another, if all were in effect at the same time.

STEP 1: Set up a matrix which asks: "What would be the effect of this" (column of items, running down left side) "on this?" (row of same items running across the top).

*This particular format of cross-impact analysis was developed by T.F. Carney in No Limits to Growth: Mind Expanding Techniques, (Winnipeg: Harbeck and Associates, Ltd., 1976). A more technical version of the process in which actual probabilities are calculated is included in the Appendix.

	on this?"			
	1	2	3	4
1	*			
2		*		
3			*	
4				*

*Ignore this cell -- it represents the impact of the item on itself, so is not considered.

STEP 2: Fill all of the squares of the matrix assigning a specific effect to every interaction. This can be done using a process like Nominal Group Technique (NGT) or just by discussion. NGT would speed the process of tabulation so that discussion could focus only on points of disagreement. The real payoff from the process is gained from the discussion usually about points of disagreement.

Scoring System:

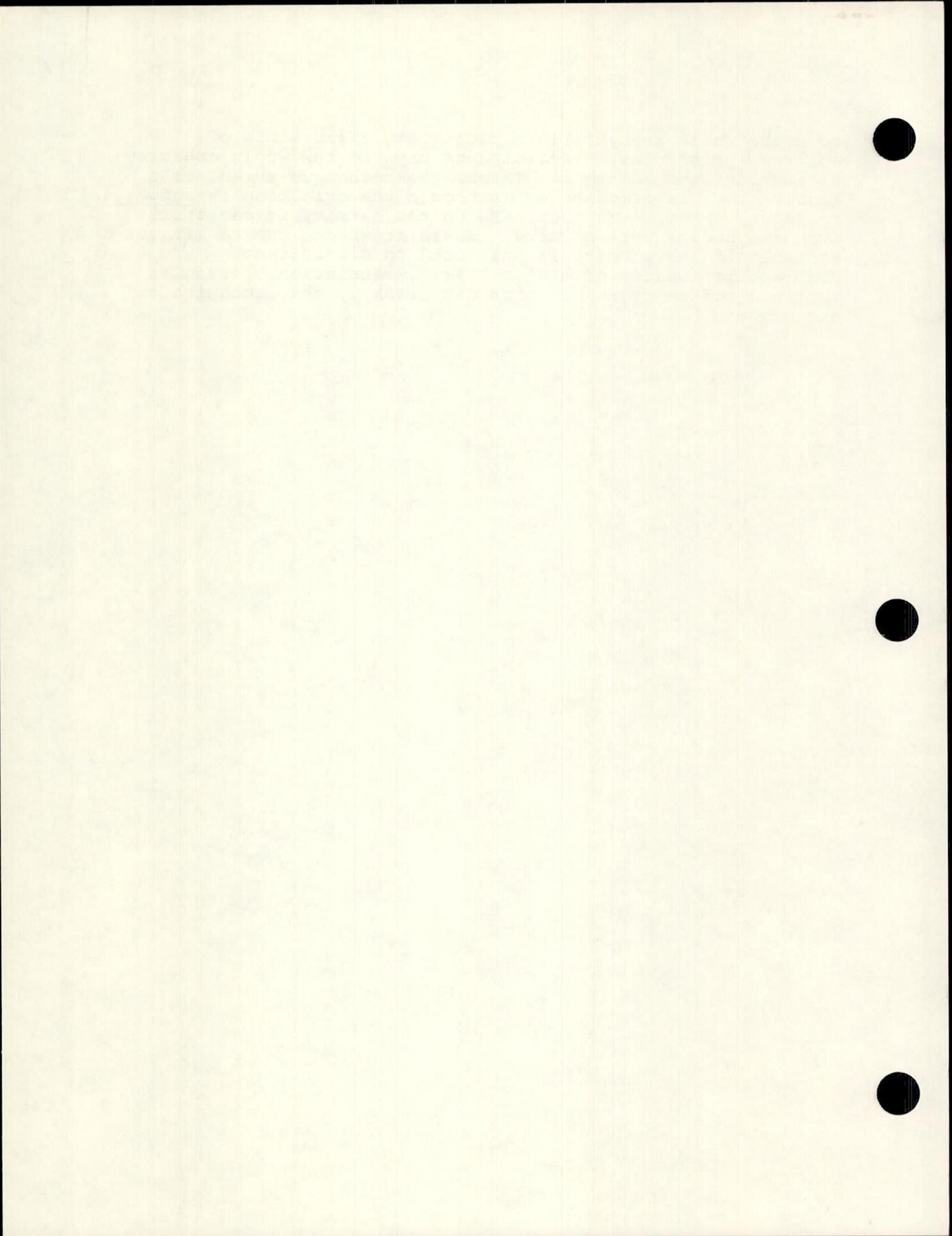
An 'effect' can be positive, neutral or negative: that is, one event may facilitate, promote or speed up a second event (positive effect); or it may have no effect at all upon that second event (neutral); or it may obstruct it, retard it, or downright conflict with it (negative effect). An upwards-pointing arrow (↑) is the drafting device that signifies a positive effect; a dash (-) signifies a neutral effect, and a downwards-pointing arrow (↓) signifies a negative effect. The effect may be strong (signified by 3 'shafts' to the arrow (⤴)), moderate (signified by two shafts (⤵)), or weak (signified by one shaft (↑)). The group may unanimously, or in very large part, agree as to direction and strength of an effect. If so, circle the symbol and shade it in. Or it may just agree -- by a bare majority. If so, just circle the arrow. Or there may be no agreement. If so, put an X (alone -- no arrow) in the relevant cell of the matrix. These cells can be discussed later.

STEP 3: Gather the groups back together and compare results.

USES AND ABUSES

This technique forces a group to do — and to do SYSTEMATICALLY — all the assessment of consequences that it should do (and never, in actual practice, does do). The technique does this at a high cost, though. First, it takes a group a long time to complete the matrix. (This can be speeded up if NGT is used.) Second, there's a tendency for philosophical debates on the criteria to

move the whole analysis into profitless discussions of abstract principles. Participants may see the whole exercise as abstract and academic. Third, the technique engenders a highly critical atmosphere. Although the criticism is supposed to focus on the items that make up the matrix, it can spill over and become personalized. These drawbacks can be mitigated somewhat if the process is only used on significant, problematic impacts of a plan. Also, tabulation of results during a coffee break or lunch can break up the mechanics of the process.



OUTCOMES ASSESSMENT

Outcome Assessment is a technique which flows logically from cross-impact analysis. It does much the same job with far less friction (indeed, it can even bond a group together).

PROCESS

You use outcomes assessment technique when you've got a couple — 2 or 3 — candidate solutions for a given problem, or several problems whose solutions may interact. For example, there are three problems: A, B and C, and each has 2 candidate solutions (1 and 2 for A; 3 and 4 for B; 5 and 6 for C).

INSTRUCTIONS

STEP 1: Split the overall group into buzz-groups of from five to seven people. Each buzz-group should take one candidate solution, each solution being directed at one given problem.

STEP 2: Distribute the COST-BENEFIT SHEET on the next page to each member and using Nominal Group Technique have each member silently write down his or her assessment of the costs and benefits of the "solution". (time: 15 minutes)

STEP 3: These costs and benefits are then collected in each group in a round-robin fashion on two sets of flip charts, one for costs and one for benefits. Each participant gives only one cost or benefit each time around. (time: 30-40 minutes)

STEP 4: The group discusses the lists only to clarify or expand on a point, not to criticize. (time: 10-15 minutes)

STEP 5: Next, each participant uses an ACROSS THE BOARD ASSESSMENT SHEET to independently list the impact of the group's "solution" on the other "solutions" being analyzed by the other groups. (time: 15 minutes, depending on the number of other solutions being examined. If there are a large number, possibly half of a buzz-group could address half of the solutions while the rest could address the remaining solutions).

STEP 6: The material from these ACROSS THE BOARD ASSESSMENT SHEETS are collected in a round-robin fashion with results being placed on flip charts, one flip chart per solution, with two headings "Benefits" and "Costs". As you will see, all kinds of consequences and unanticipated consequences begin to emerge. (time: 30-40 minutes)

COST-BENEFIT SHEET

		Number of solution examined: #.... (indicate the problem to which it's a solution <u>briefly</u> here:	Estimated degree of <u>probability</u> that the event predicted will occur: H(igh)/M(edium)/L(ow)
Benefits - POSITIVE consequences	1		
	2		
	3		
	4		
	5		
Costs - NEGATIVE consequences	1		
	2		
	3		
	4		
	5		

ACROSS THE BOARD ASSESSMENT SHEET

(State number of solution being considered here: #.....)

PROS & CONS	IMPACTED SOLUTION #.....	IMPACTED SOLUTION #.....	IMPACTED SOLUTION #.....
1 2 3 4 5 etc. Benefits - POSITIVE consequences			
1 2 3 4 5 etc. Costs - NEGATIVE consequences			

Solution #6 (Written out in abbreviated form)	
Benefits	Costs

(Hang the sheets "sideways" to provide more room)

- STEP 7: Briefly discuss the group's list only to clarify and expand items. Disagreements should be noted but not focussed on. (time: 15 minutes)
- STEP 8: All material should be displayed in the main room where a plenary session is held. Each group should briefly report on its findings to the others. Each group will display their master lists of: 1. COST-BENEFIT SHEET, displaying the costs and benefits of the solution they focussed on as well as a probability that the predicted event will occur; 2. the ACROSS THE BOARD ASSESSMENT SHEET, outlining the impact their solution will have on all of the other solutions considered. After this, a 20 to 30 minute break should be taken to allow people to circulate. (time: for reporting session, 40-60 minutes)
- STEP 9: Small groups should reconvene and briefly discuss issues raised in the plenary session that relate to their "solution". They should concentrate on the question of which other solutions are necessary to, supportive of, or in conflict with its own solution. Points should be noted by the facilitator either by highlighting points made on the group's master ACROSS THE BOARD ASSESSMENT SHEET or by making a separate list of "headlines". (time: 20-30 minutes)
- STEP 10: Finally, each participant should now individually and silently write up a problem statement. This should state the solution he/she thinks would best deal with the problem he/she has been working on; and it should indicate what the pros and cons of this solution are (considering ALL the problems involved, not just his/her 'own' problem), and why the pros outweigh the cons. The problem statement should also indicate which of the other solutions would have to be adopted (or dropped) if the favoured solution is to work.

FOLLOW-UP STEPS: The director of the exercise — and his/her facilitators — now collects and collates all master charts and problem statements. The director treats the problem statements as a poll and announces the results. He/she also circulates a short version of each set of master charts (generally several days later!) After reading through the poll results and master charts, the group as a whole should be in a position to vote on what it wants to do. Or the object of the exercise may be to prepare a list of alternate impact statements. If so, the poll results and master charts should provide the basis from which the director can do this. Thus this technique provides a very quick way of getting a complicated position paper together.

USES AND ABUSES

Results of the technique are usually quite impressive. The costs of strategies that start off favorites become evident, while the benefits of strategies that were initially little regarded simultaneously begin to appear. The technique encourages you to defect from "your" strategy — the one your buzz-group was assigned to investigate; judgement speedily becomes a straightforward matter of cost/benefit accounting (rather than a defense of your pet "solution"). The technique enables you to allow for spin-offs, trade-offs and saw-offs. So it makes your accounting much more detailed and realistic than it usually is. Finally, this technique prevents the phenomenon of "group think".

But the technique has some disadvantages — though these are much less serious than those that cross-impact analysis has. To start with, it's a very unforgiving technique. If the problems (A, B, C, D above) have been confusedly stated, the technique shows this confusion — cruelly. If the "solutions" are motherhood statements, it's equally brutal with them. Any errors in definition — whether in problems or solutions — are harshly revealed. And, often, the group just can't live with the solution that's revealed as clearly the best one. Defining a workable problem, in fact, has been found in practice, to be the hardest stage of the problem-solving process. So it's absolutely critical that you should have the very best definition possible of problems and solutions before you bring this technique to bear on them.

Also, groups vary greatly in their ability to use this technique. It can be a tremendously exhilarating group-bonding process, or it can produce a great deal of animosity. Partly this depends on having a facilitator for every buzz-group, to prevent a few participants from disrupting things when participants begin to tire with the strain of the long drawn-out intellectual activity (it's a day-long exercise).

Partly it's a matter of the composition of the buzz-groups. Ideally, what you want is a group from much the same kind of background, with just enough outsiders to ensure that you have one outsider in each buzz-group. If the whole buzz-group is homogeneous, you'll have difficulty getting them to think outside their assumed, in-group 'certainties'. If the group is entirely a gathering of strangers united only by their involvement in the problems and solutions, the risk of friction (arising from novelty overdose and talking at cross-purposes because of different jargons) is very great.

Handbook of Forecasting Techniques,
Arnold Mitchell, et al, (Menlo Park, CA:
SRI), 1975.

General Description

Abstract

Cross-impact analysis strives to identify interactions among events or developments by specifying how one event will influence the likelihood, timing, and mode of impact of another event in a different but associated field. Cross-impact analysis is used not only to probe primary and secondary effects of a specified event, but to improve forecasts and to generate single forecasts (or scenarios) from multiple forecasts. Cross-impact analysis is a basic forecasting tool helpful, if not essential, in most sophisticated forecasting. Every forecaster dealing with interacting trends should have an appreciation of the principles involved.

Definition

Cross-impact analysis is a systematic means of studying the interactions among events or developments. The analysis evaluates changes in likelihood of occurrence among an entire set of possible future events in light of limited changes in probability for some of the events in that set (Enser, Boucher, Lazar, 1971). Thus, in using cross-impact analysis, experts strive to identify the few most important chains of events from among the many possible chains.

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Assumptions

The underlying assumption is that a change in technology, social practices, values, or any other area will affect the surrounding environment in three ways. It will:

- Change the probability of occurrence of interconnected events.
- Change the timing of interconnected events.
- Affect the mode of impact of interconnected events.

The analysis is based on the ability of subject specialists to derive subjective estimates of the probability of occurrence of future developments in a given time period.

History

The cross-impact method had its origin in "Future," a simple simulation game invented by Theodore Gordon and Olaf Halmar in the mid-1960s (Gordon, Hayward, 1965). By 1968, a computer-based approach had been designed to consider explicitly the interconnections among events. The method has found widespread use in technological as well as social forecasting. Perhaps the most advanced cross-impact analyses have been carried out by such groups as the Institute for the Future, Monsanto, and The Futures Group. Applications include: Minuteman missile deployment, alternative future environments for education, long-range corporate planning, technology assessments of electric automobiles, and many more.

Main Uses

The main use of the method is to describe and quantify the impact of one development upon others. Most frequently the technique is used to "identify" which events are likely to be most important to some aspect of the future and how these events are likely to interact. Cross-impact analysis is often used to compare the implications of differing forecasts in a given field and to combine separate forecasts in discrete but allied fields into a single forecast.

Results have been used to define primary and secondary effects of a change (or a forecasted change) in one area upon: social trends, new or altered social demands, institutional functions (such as, personnel, production, distribution), developments in urban services, highways, recreation areas, management policies, R&D decisions, and similar areas. The technique provides insight into trade-off options and is useful in testing the consequences of various policy actions. By clarifying the critical events underlying possible future developments, the method helps to identify the contingencies of future proposed programs. Computerized runs of cross-impact matrices establish better estimates of the probability of occurrence of individual events, facilitate tests of the most effective responses under various circumstances, and point to the key events to be monitored.

Limits and Cautions

Cross-impact analyses cannot allow for events not included in the matrix. Therefore, defective or inadequate models of

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interacting elements can yield misleading results. Two other problems are evident. First, assignment of probabilities of interactions are subject to much uncertainty, especially in areas whose origin and anatomy are not clear. Examples include such "ift" trends as alienation, changing priorities and values, political disruption, or crime. Second, it is important to bear in mind that results are probabilistic, not certain occurrences. Indeed, high-probability events in the real world occasionally fail to occur and low-probability events will occasionally occur.

Other Techniques

Intuitively, participants in brainstorming, scenario writing, pattern recognition, and Delphi forecasting make use of cross-impact analysis, although not necessarily in a focused or systematic fashion. The technique is used as part of such forecasting methods as feedback analysis, decision analysis, and relevance trees. It is a central element in interactive simulation techniques of forecasting, such as Ferrister-type dynamic models or KSTM. Trend impact analysis is a further development in impact analysis and is particularly useful in coupling existing trends with a range of possible future scenarios (Gordon, Becker, Gerjuoy, undated). Corps planners may associate this technique with impact assessment.

Credibility of Results

Credibility of results ranges from high to doubtful, depending on the subject matter. Many scenarios based on cross-impact analysis are intended less to be "credible" than to illustrate the consequences of given events. It seems to be a law of human nature that outcomes that we consider desirable are more credible than undesired outcomes.

Span of Forecasts

Forecasts can be of any duration, although, as in most forecasting methods, credibility tends to decline with length of span.

Resources Needed

The most crucial resource is imaginative people knowledgeable in the field being analyzed. This is a difficult combination to find in many areas of engineering and science. The kind of problem selected for cross-impact analysis usually benefits most from imaginative thinking, whatever the person's level of expertise in the subject matter. Some of the more systematic creativity techniques, such as synectics, argument by analogy, or brainstorming, are sometimes helpful in performing cross-impact analysis.

To complete a cross-impact matrix is difficult and taxing work. Computerized assistance is essential if complex simultaneous interaction must be evaluated or if the consequences of alternative trends and options are to be explored. Requirements of time and money for a complete cross-impact analysis depend wholly on the nature of the problem. Estimates range between \$5,000 and \$50,000.

Product or Result

The main output is a table or series of tables showing interactions among items. Major studies may include numerous computer runs showing one-to-one interactions using a variety of assumptions; interactions among events, or among subdivided events. Very often interactions identified on a matrix are strung together on a time basis to create a scenario.

Level of Detail

Results can be detailed or gross, depending upon the subject being forecast and the elements taken into account in the cross-impact matrix.

Level of Confidence

For the most part, results from cross-impact analyses tend to be speculative. The reason is that the technique is selected chiefly in areas where interrelationships are unclear. Simple circumstances, such as the impact of births in one year on population levels a decade later, are seldom subjected to formal cross-impact analysis.

Communicability of Results

Circumstances vary, but in general the communicability of cross-impact analysis is good. The basic concept of interrelating consequences in matrix form is easily grasped. Time-sequencing into scenarios further enhances communications.

An existing cross-impact computer program is available from The Futures Group, Glastonbury, Connecticut. The cost of the program, documentation, and one day of instruction is approximately \$2,000. The cost of actually running the program is minimal-- \$2 to \$5 per run.

Procedures

The skills involved in performing cross-impact analyses range from elementary to beyond the skills of anyone. Most planners will need help from subject specialists if any of the events being evaluated are complex (e.g., institutions, attitudes, technology). Since, as remarked earlier, the technique is usually applied to nonobvious relationships, this means that most cross-impact analyses require a team of specialists working under the direction of the planner.

Case Example

Cross-Impact Analysis of Demographic Factors

In the following discussion, a generalized cross-impact procedure is used to evaluate the probable effects of lower population and related factors on the Corps civil work mission. There are six main tasks:

- Identify issues
- Identify events that affect the issues
- Construct cross-impact matrix
- Calculate new probabilities

- Use the matrix to answer questions
- Evaluate results.

Identify Issues--Flood control, navigation, water supply, beach erosion control, hydropower, recreation, and water quality have been identified as seven major issues in the Corps mission. Work in the areas of recreation, water supply, and water quality seems to be increasing while activity in the area of hydropower has been substantially reduced. Flood control, navigation, and beach erosion projects have remained fairly constant over the past decade.

Identify Events--On December 17, 1972, the Census Bureau issued new population projections for the United States for the year 2000. These were drastically lower than previous projections. The essence of the changes are shown in Figure 21.

The new projections indicate that the total population of the United States may increase by only 20 percent by the year 2000 instead of the 50 percent anticipated by earlier projections. However, even Series F² projections still show a net increase of 42 million people, and the water resource development needs of these people may be different from these for a larger population.

Regardless of which population projection is eventually used for planning, the effect on near-term (1980) water needs is minimal. The projected rate of household formation through the mid-1980s is

* U.S. Department of Commerce, Projections of the Population of the United States, 1970 to 2020, P-25, No. 493, GPO.

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of growth of GNP should be sensitive to a number of interrelated variables that are in turn keyed into population growth (such as population — water quality — investment in pollution control — GNP) and alternative GNPs may be more important than alternative population levels as far as water needs are concerned.

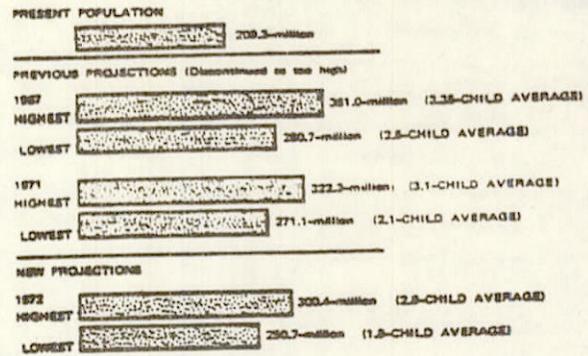
Other interrelated trends could result in mutually supportive or mutually cancelling effects. Increased per capita income (with more discretionary income) plus shorter work weeks could result in a significant increase in recreation demand that could more than counterbalance decreased demand from a smaller and older total population. These relationships are not clear enough at the present time to draw firm conclusions, but these chains of effects could be critical to Corps programs.

The most important effect may center on the distribution of future populations, not on the size of the population itself. A continued concentration of population in coastal regions and out-migration from the interior may intensify water-related problems in some regions and reduce them in others.

If only lower population projection is considered in relation to Corps missions, the effects on current levels or expectations could be assessed as generally negative, as shown in the tabulation on the following page.

However, many economic and demographic factors associated with population growth are both interrelated and interactive. These include: aging, population, GNP growth rate, per capita income, leisure time, urbanization, and increased household formation.

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SOURCE: Bureau of the Census.

FIGURE 21 CHANGES IN POPULATION PROJECTIONS FOR THE YEAR 2000 (Published in the New York Times, December 18, 1972.)

on the order of 1.2 to 1.5 million per year as compared to a 1960s average of 1.0 million per year. The pressure for resource development during this time span is "locked in" by the age distribution of the existing population.

The President's Commission Report² assumes a doubling of GNP regardless of the rate of population growth. This assumption is accepted herein, with reservations about the conclusion. The rate

² Report of the President's Commission on Population Growth and the American Future.

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Mission	Effects
	Lower Population Growth Rate
Flood control	Less
Navigation	No effect
Water supply	Less
Beach erosion control	Less
Hydropower	No effect
Recreation	Less
Water quality	Less

Table 13 expands on the foregoing chart and displays an assessment of the relative importance of selected economic and social indicators on many of the Corps missions. Again, the evaluations shown are with respect to current levels or expectations.

Construct Cross-Impact Matrix--A cross-impact matrix can be completed for the most important events assessed in the effects chart in order to provide insights into the interactions of those events upon each other. Thus, for purposes of illustration, the following events have been selected as the most important³ and assigned initial probabilities as follows:

No.	Event Name	Probability of Occurrence by 1980 (Initial probabilities)
1	Lower population growth rate	0.8
2	More leisure	0.9
3	More urbanization	0.7
4	More household formation	0.6

³ There is, of course, no ban to using any number of factors except the increased complexity of the procedure.

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Table 15
ASSESSMENT OF THE EFFECTS OF POPULATION ISSUES ON COMPS MISSION EVENTS

Mission	Effects of Events					
	Lower Population Growth Rate	Maintain CHP Growth Rate	Increase Per Capita Income	More Leisure	More Urbanization	Increased Household Formation
Flood control	Less	No effect	More	No effect	More	More
Navigation	No effect	No effect	No effect	More	More	No effect
Water supply	Less	No effect	More	No effect	Much more	More
Beach erosion control	Less	No effect	Much more	Much more	Much more	More
Hydropower	No effect	No effect	No effect	No effect	No effect	No effect
Recreation	Less	No effect	Much more	Much more	Much more	More
Water quality	Less	No effect	Much more	More	Much more	More

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Table 16
OCCURRENCE MATRIX

If this event were to occur	... then the "new" probability of occurrence of these events would be:			
	Lower Population	More Leisure	More Urban	More Household
1. Lower population (0.8)		0.99	0.65	0.4
2. More Leisure (0.9)	0.85		0.65	0.6
3. More urban (0.7)	0.8	0.9		0.7
4. More household (0.6)	0.8	0.9	0.8	

Values in parentheses () are the initial probabilities.
Values in the matrix are referred to as conditional probabilities.

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The assignment of probabilities should engage the most knowledgeable people available. The cross-impact interaction values are obtained by using a panel of experts, or inputs from a Delphi. In an intrasite situation, a mini-Delphi survey would be useful for quick approximation.

The cross-impact matrix is set up by listing the events as row and column headings of a table. The initial probabilities of occurrence are shown in parentheses beside the events. Participants are then asked to estimate conditional probabilities, assuming each event in turn were to occur. Thus, the numbers in the matrix are referred to as conditional probabilities. The completed cross-impact matrix with estimates of conditional probabilities is illustrated in Table 16.

Calculate New Probabilities--With no frequency information, a nonoccurrence matrix is calculated using standard statistical definitions.* To illustrate the analysis of such a matrix, we can follow Theodore Gordon's computer process step by step.

- From among the events, one is selected at random, say Event 3.
- A random number (from 0 to 1) is generated by the computer and compared with the initial probability

$$* P(R/C') = [P(R) - P(C/R) \cdot P(C)] / [1 - P(C)]$$

where R represents a row
C represents a column
P(R/C) represents entries in the matrix
P(C) represents initial probabilities
P(R/C') probability of R given C does not occur

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of Event 3. Say the selected number is 0.6. Since the initial probability of Event 3 is greater than the selected number, the event is recorded as having occurred. (That is, for the first pass the value for Event 3 is recorded as 100 percent.)

- The initial probabilities of the remaining events are adjusted* as indicated by the conditional probabilities in the occurrence matrix. Thus, population stays the same--0.8; leisure stays the same--0.9; and households increase to 0.7. Note, if the event is recorded as not having occurred, the probabilities of the remaining events are adjusted as indicated in the nonoccurrence matrix. (The nonoccurrence matrix, calculated from the occurrence matrix, is not illustrated in this example.)
- A second event is selected at random from these remaining events, say Event 4 (excluding Event 3 since, for this sequence, its occurrence has already been decided).
- The procedure described in Step 2 is repeated. Thus, Event 4 is decided on the basis of its new probability. (Note, the new probability for Event 4 is now 0.7.)
- Now, the probabilities of the remaining events are computed depending upon whether Event 4 "occurred" or "did not occur."
- The occurrence or nonoccurrence of the events are decided in this manner. At the end of the sequence a "happen" or "didn't happen" notation is associated with each event. For example, Events 2, 3, and 4 are recorded as "happened," while Event 1 is recorded as "didn't happen."

*For a more detailed discussion of the mathematical adjustment see John Stover, "Suggested Improvements to the Delphi/Cross-Impact Technique," *Futures*, Vol. 5, No. 3, pp. 308-313 (June 1973).

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- The process is repeated many times, typically 1000, to arrive at a final probability estimate: this represents a new scenario. Final probability estimates are computed for each event based on the number of times each appeared during the process. For example, if Event 1 was recorded as having occurred 500 out of the 1000 times, its final probability estimate in the new scenario would be 0.5.

Use the Matrix to Answer Questions--Following the computer run, the initial and final probabilities are adjusted to coincide and the matrix can then be used to answer questions or test policies in the form of "what if" questions.

For example, what if the federal government were to pursue a policy of forceful subsidization of new house construction, such as the \$2,000 tax credit recently adopted? What would the effect be on the other factors being considered?

Evaluate Results--By raising the probability of more household formation to 100 percent (this is to say that the event occurred) the computer would produce results such as the following (this is not a computation and is only intended for illustrative purposes).

No.	Name	Probability of Occurrences by 1980	
		Initial	Household Formation at 100 Percent
1	Lower population growth rate	0.8	0.5
2	More leisure	0.9	0.8
3	More urbanization	0.7	0.9
4	More household formation	0.6	1.0

A similar analysis can be made with respect to each of the other factors.

In order to arrive at an overall assessment of future changes in Corps missions, results from the impact matrix can be compared with the effects of a single population event, as in Table 17.

Table 17

IMPACTS ON CORPS MISSION FROM
OCCURRENCE OF LOWER POPULATION RATES

Corps Mission	In Isolation	With Interacting Events
Flood control	Less	More
Navigation	No effect	More
Water supply	Less	Much more
Beach erosion control	Less	Much, much more
Hydropower	No effect	No effect
Recreation	Less	Much, much more
Water quality	Less	Much, much more

The conclusion implied by the above is that a lower population growth rate, when examined in the light of other interacting events, would create a somewhat different set of water resource needs, and generally in the direction of increases in the Corps missions, with particular emphasis on beach erosion control, recreation, and water quality. Additionally, it might be concluded that the Corps mission is more sensitive to population shifts (concentration or dispersion) than to population growth itself.

Abstract from "Leadership Tactics for Retrenchment"; Robert P. Biller, Public Administration Review, November/December 1980. Vol. 40, No. 6.

In the United States today persons expected to exercise political and administrative leadership report an increasing difficulty in doing so. The language used is of a task that has become less rewarding. A negative reading of this evidence would support a line of analysis that would read the present grounds well of interest in retrenchment, cutback, termination, revenue and expenditure limits as evidence of impatience if not irresponsibility on the citizen's part. A positive reading would support a line of analysis that would read the present grounds well of interest in retrenchment, etc. as evidence of reconstructing a representative democratic society into a more direct democracy in a possibly clumsy but constructive manner. From this, it is clear that our present circumstances stem not from a failure of our resources, but rather from the success with which we have met and increased our aspirations. Retrenchment, then, makes possible the redeployment of resources in potentially more unique and particularistic ways. It would be a principal device for creating the resources to be directed away from more generalized to more particularized uses.

Leadership under the negative reading would be directed towards achieving a return to a status quo ante in which most persons would be willing to settle for the homogenized outcomes brokered from the least common denominators. Retrenchment would corroborate the lowered expectations to which these generalized outcomes are oriented.

Dilemmas in Achieving Retrenchment

Suggesting that retrenchment can have a more positive consequence though does not assure its achievement. The following dilemmas have been experienced:

1. People resist - their status, income, benefits and futures are dependent on the programs that employ or serve them, therefore, they will be at least cautious at the prospect that these programs are going to be reduced or ended.
2. Surprise Abounds - because the source of funding and relationships to other programs in other governments is so complex, the ramifying effects of particular retrenchments are too complex to predict with confidence. Further, programs differ enormously and sometimes unpredictably in their resistance to retrenchment and in their capacity to recover from it.
3. The Poor are Hurt - groups differ substantially in their capacities to be benefited by retrenchment outcomes. Revenue streams are becoming more regressive resulting in a 'relative' transfer of income from poorer to richer people. On the expenditure side, it also appears that there is a tendency to reduce expenditures in ways that 'relatively' advantage less poor persons over poor ones.

4. Flexibility is Decreased - most organizations depend on redundancies and extra capabilities to respond to emergencies and times of stress. As situations change, you may have expanded as surplus what subsequently may have become vital.
5. Innovation is Dampened - If you are not experimenting with some level of innovation, you risk waiting to act until problems have become very large, undeniable, and complex. The preferred strategy would be to construct means of decreasing both continuing and innovational work, or if all continuing programs were decreased at a faster rate than the necessary one, it would create resources necessary for regenerative and innovational investments.
6. Costs Are Increased - the costs of shutting something down are very substantial. Further, per-unit costs of services may rise sharply as any economies of scale are lost through the reduced number of service units across which the fixed costs must be spread.

Tactical Leadership Suggestions

Leadership tactics need to be developed that make it possible to do what needs to be done.

1. Separate Winning From Losing - make sure that the necessary cutbacks are made in a fashion that unites losers in the knowledge that their loss is being fairly and legitimately handled. Then distribute gains to winners in a different arena and at a different time.
2. Integrate Winners and Losers - what you want is the situation where the same people sometimes win and sometimes lose. These attributions should be carried as social phenomena rather than as internalized personal characterizations.
3. Prefer General Reasons For Cutbacks -advancing particular reasons makes the defensive task of mobilizing to prevent the cutback easier. Advancing general reasons has the opposite effect. It makes it harder to organize oppositional coalitions because there are no specific opponents. This also reinforces rather than fragments organizational cohesion.
4. Prefer Some Across-the-Board Cuts - it is important that retrenchment comes to be seen as a regular, normal and fair process that affects everyone more or less equally.
5. Concentrate on Incentives - focus on altering incentives by developing ways through which managers can achieve their own valued purposes as they discover ways of saving resources, some of which are then available for reinvestment in that manager's unit.

6. Encourage Experimentation - adaptive search behavior is needed, not more detailed and elaborate accounting and control systems. Encourage people to develop a certain distance between themselves and the work they do. This allows more experimentation with possible alternatives. Also, allow time for adjustment and experience in order to learn how to deal with the deformations and surprises that will be produced as alternatives are tried out in small experimental and and prototype form.
7. Engage Customers In Search - where you have determined that a public good is going to be allocated centrally, be sure you allow the citizens to learn what the good costs are on some understandable basis such as a per-capita amount. Where you are prepared to tolerate diversity, then allow public service managers to use the attendant market signals of citizen choice to determine who gets how much of what.

Conclusion

We need to discover ways to make retrenchment rewarding and practical, rather than punishing and impractical.

Abstract from "Cutback Principles and Practices: A Checklist for Managers", Carol W. Lewis, and Anthony T. Lozalbo; Public Administration Review, March/April, 1980, Vol. 40, No. 2.

A beginning can be made in facing the task of aligning local budgets with available resources through the adoption of two complementary strategies: cutting services and increasing efficiency.

Budgeting is the project of public revenues and expenditures for a stipulated period and is a continuous process. Therefore, budget implementation is best designed for the provision and application of management information, including monitoring the actual work performed for the money spent and developing the capacity to recognize and respond to new circumstances. However, according to this definition, many local governments do not and cannot budget because:

1. the local legislative body does not make many of the fundamental revenue decisions e.g. state and federal aid might not be known yet.
2. some locally - financed expenditures are really mandated by state and federal governments.
3. recent uncertainty about the funding levels and future of some federal programs - this raises questions about the dependability and magnitude of intergovernmental assistance for local government support.
4. often, external economic constraints are completely beyond the control of local officials.
5. local governments cannot rely on an adequate and dependable infusion of new revenues or new taxes to substitute fully for purchasing power lost to inflation.

Therefore, from a purely reactive posture, policy implications involve two strategies: service cuts and increased efficiency.

Cutting back through increased efficiency imposes new information requirements on local management and on the budgetary process. Answering questions that in the past often have been overlooked, may require analytic and management tools new to many local governments. The organization must be restructured in ways which focus attention on goals, outputs, and controllable costs. Greater efforts must be made to inform the public where the tax dollar is going and to improve citizen comprehension of the jurisdiction's obligations and constraints.

The "rediscovery of the budget constraint" offers an opportunity to realign spending commitments and to establish a sense of priorities. It presents a climate for creative change, wherein management can reevaluate actions previously rejected or implemented.

Unfortunately, a skeptical public thinks that management efficiencies are themselves enough for the job of budget cutting, and that service cuts would be unnecessary if only local governments would introduce relatively simple efficiencies. However, efficiency means spending dollars better, but not necessarily spending fewer of them, particularly in the short-run. Efficiencies take time to implement and rarely are noticeable immediately in the tax rate. Government operations must be reviewed, alternatives analyzed, changes introduced, and then evaluated. Some efficiencies, probably including the most promising, may require higher initial investment outlays for future returns rather than for current service delivery.

Cutback Response

No packaged or standardized response or formula will determine which services are expendable and to what extent. Ultimately, the political process, in each locality determines where cutbacks are appropriate. Common tactics aimed at short-term economies include across-the-board cuts in allocations; reliance on attrition and government-wide hiring freezes; and arbitrary postponement of procurement, hiring, and disbursements. The cutback process can be better structured so as to incorporate incentives that encourage and reward efficiency.

Administrative services are particularly vulnerable because they usually lack support by a vocal client or citizen group. Unfortunately cutting administrative services may reduce overall efficiency and effectiveness.

The short-run problem is to reduce appropriations in a manner immediately apparent on the tax rate. The longer term problem is to reduce expenditures through efficient and effective management.

The following section draws together a range of the more promising and more fundamental options, procedures, and relevant questions that recur as these efforts are undertaken.

In cutting back and withdrawing from services, the local manager may wish to:

1. institute a review of municipal services by preparing a comprehensive schedule of services by output and cost (not by department) and a scheduled, periodic review of all programs and activities (to eliminate those no longer needed).
2. identify alternative service levels and establish a process for setting priorities among activities and levels.
3. subject to detailed scrutiny labor intensive services (since service cuts here mean layoffs); those services subject to steep current and prospective cost increases; and those available from other governments and from the private sector in the community.
4. measure the cost of services in a way the taxpayer can understand (e.g., for garbage collection, calculate the cost per collection point, either household or business, rather than just the number of tons collected).

5. identify mandated services and service levels, federal and state, statutory, administrative, and judicial, that cannot be cut back; explore possibilities for reimbursement and/or for transferring service responsibilities to other local units or the state.
6. consider the effects of cuts on equity, in addition to the effects on efficiency, personnel levels, and legal compliance. The burden of service changes may fall disproportionately on those least able to pay for alternatives.
7. identify and analyze the trade-offs among current and future savings, past expenditures, and revenue impact.
8. examine current and prospective changes in the target population, and changing patterns in the use of services that may suggest terminating the service or shifting resources (e.g., alternative use of public buildings).
9. identify and involve interested and affected parties in the process to change services (e.g., unions and client groups). Make use of public hearings, polls, referenda, questionnaires in newspapers, and other mechanisms for soliciting and informing public opinion and for establishing priorities and policy.
10. evaluate the possibility and advisability of staged reductions such as limiting service hours (e.g., library) or reducing frequency (e.g., garbage collection).
11. use revenue sharing and other federal and state grants as property tax offsets or for non-recurring capital outlays. This minimizes changes in service provision that the local tax base may have to support some time in the future.
12. analyze maintenance of effort and matching fund requirements associated with state and federal assistance programs; exercise greater restraint in accepting federal or state funds that may carry long-term local costs.
13. take into account the effect of lower tax rates on payments in lieu of taxes and ultimately on inter-governmental payments based on tax effort (e.g., general revenue sharing).

In reducing expenditures, the local manager may wish to:

1. establish enterprise funds for services that can be supported by charges and fees (e.g., utilities, parking and recreational facilities). This moves the service or facility off the tax rate and should increase its responsiveness to changes in public demand for particular services. Appropriate administrative and overhead costs can be allocated to enterprise activities.

2. consider regional service and utility agreements, resource recovery systems, and purchasing consortiums. Interlocal management development agreements (e.g., circuit rider grants-man) have the advantage of holding down the investment in expertise for a single, small locality.
3. selectively postpone hiring, procurement and disbursements in accordance with a systematic policy.
4. centralize purchasing and procurement for major and bulk items and institute a competitive bidding policy for certain purchases. Bidding can be limited to periodic occasions to ensure that the main supplier, under a negotiated contract, is still offering competitive prices.
5. analyze the workload in all departments by time of day and day of week and evaluate the use of part-time staffing in recreational, grounds, and maintenance programs. In public safety departments, civilians might replace uniformed employees in support positions.
6. consider using private suppliers of services (e.g., janitorial, sanitation, nursing) in lieu of increasing or maintaining the public payroll with consequent pension payments and fringe benefits.
7. review insurance coverage and patterns of claims to determine appropriate level and mode (e.g., self-insurance, risk pools) of coverage and sources of liabilities.
8. review the alternatives of leasing versus capital purchasing.
9. examine office operations for immediate cost savings in postage, duplication, travel, and telephone expenses.
10. institute an energy conservation program to produce immediate cost savings. Adjust thermostat settings, monitor fuel use, and institute energy-targeted procurement and accounting policies (e.g. smaller police cruisers).

To improve the resource base through planning and development, the local manager may wish to:

1. maximize net collections by sending bills out on time, evaluating delinquencies, and using in-house or other collection agencies.
2. increase licenses, permits, fines, and fees to statutory limits.
3. link locally set fees to price increases in the particular service or to the Consumer Price Index and publicize unit costs of service.
4. institute service charges for services that are inappropriately subsidized by the property tax and where unit costing is relatively feasible. Sliding scale fees can be based on income and use (e.g., recreational facilities).

5. earn revenues from use of money (investment earnings) and from use of property through leasing and rentals. Overall cash and debt management policies can be instituted.
6. take a long-term view of tax resources through negotiated tax agreements designed to stimulate development activity and generate a long-term stream of income to the locality.
7. periodically update the inventory and insurance covered of physical assets, including land, buildings, equipment.
8. approach tax-exempt institutions for payments in lieu of property taxes.

To improve personnel management, the local manager may wish to:

1. publicize the fact that, because of the current burden of personnel services on local budgets, there can be no significant reduction in the operating budget without personnel cutbacks. To maintain service levels, this requires increased productivity and a firm management position in labor negotiations.
2. tie collective bargaining proposals to current and prospective constraints (ability-to-pay). The long-term costing of contracts, including provisions for pension and fringe benefits, can be undertaken. Minimum manning and similar provisions that are

Conclusion

The role of local government and the distribution of resources sustaining that role are outcomes of a dynamic and interdependent intergovernmental system that operates in a broad economic context. All participants in the intergovernmental system can contribute to a systematic and systemic reexamination of structural arrangements, the level and functional distribution of resources and service responsibilities, and statutory relationships affecting local revenue and expenditure decision making.