

support, must be able to convince employees that their future security rests in their willingness to provide a

full day's work for a full day's pay. Labor simply must do more for what it is earning if transit is to survive.

## Controlling Transit Costs in Medium-Sized Cities

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There has been a recent reemphasis on increasing productivity and controlling costs. The objective, in broad terms, is to develop, maintain, and operate the most efficient and most cost-effective transportation system possible, within the institutional and policy constraints.

Transit management, which has been defined as the acquisition, allocation, and control of resources (human, physical, financial, and informational) to achieve given standards for transit service, has undergone a significant transformation during the last 10 years. The focus and orientation of transit have acquired a public-service dimension that has introduced new complexities and demands for transit management. The transit manager has a new role; he or she must balance the need for efficiency and productivity with a growing public commitment to serve the totality of urban mobility needs.

This expanded view of transit management combines the responsibilities of effective business management with those of public service. It attempts to reconcile the operation of transit with the needs of the marketplace, while seeking to maximize efficiencies and economies of operation.

Between 1970 and 1976, total transit operating costs increased 101 percent; transit passenger revenue increased only 24 percent. Total transit operating expenses went up 27 percent in 1974 and 14 percent in 1975 but only increased 8.5 percent in 1976, as did transportation account expenses. Maintenance and garage expenses increased 10 percent in 1976. Although the energy crisis has had some impact on transit, it cannot be assumed that further energy crises will significantly affect the situation.

It is becoming clear that transit, even with the support of federal and state governments, needs efficient management in order to increase productivity and control costs. There are areas of potential productivity gain and cost control in every transit operation. The challenge to management is to identify those specific areas and assess their potential for improvement. Some examples follow.

### TRANSPORTATION

1. The ratio of staff to peak-service buses.
2. The effective use of employee overtime—Many systems are spending too much money on overtime; they could hire some additional drivers—even at the cost of 30 to 40 percent in fringe benefits—and still save money.
3. Absenteeism due to sickness, oversleeping, and general misses.
4. Evenhandedness in the dispatching process—Both favoritism, which occurs almost everywhere, and dealing with grievances, which consumes time, cost money.
5. Vehicle accidents—Better safety and operating procedures and training and retraining programs can control costs and save money.

6. Cash control and fare-handling procedures—Better methods can prevent the diversion of revenue.

7. Service planning and bus scheduling—By studying the system, developing a good data bank, and learning more about the service product, the same or better service can be offered at a lower cost.

8. Run cutting—Computerized scheduling can permit cutting runs in order to save significant amounts of money.

### MAINTENANCE

1. Servicing ratios—The ratio between buses and maintenance employees is important, but it is more important to know the number of maintenance hours required per distance traveled.

2. Scheduling staff—Can regular employees be used at night or on weekends, and what is their pay scale? Are drivers on duty when the buses should be being serviced?

3. Equipment servicing—The maintenance program holds important savings potentials.

4. Training and industrial safety.

5. Purchasing, stores, and inventory control—Many operations have inventories they will never use.

6. Garage layout, design, and servicing equipment.

7. Assignment of supervision responsibility—Having too many supervisors raises the wage bill; working foremen often can get the work done at less pay.

8. Such other areas as absenteeism in the maintenance shop, heating and cooling of garages, fleet retirement, location of garages, deadheading, and the number of buses used out of each facility.

### LABOR RELATIONS AND PERSONNEL

1. Application of the labor agreement to operations—If it is possible, wage dollars should be matched in negotiations to some productivity items. The wording in the labor contract should be examined and its precise meaning understood.

2. Contract negotiation, pricing, and analysis—Many operators never find out until later what has really been given away in union negotiations.

3. Work rules—Many rules are not strictly applied; informal understandings become the rules.

4. The size of the administrative staff required to support the overall operation.

5. Pension programs—Many managements are giving away more than they have to in administering their pension programs.

6. Management organizational structure.

7. Management information systems and computerized employee files—These are important tools in problem identification.

8. Management-by-objectives program—Managers often waste money by lacking consistent direction.

#### BUDGET AND FINANCE

1. The budget plan—The budget is not something to play with but a real management tool. Many budgets are not realistic statements of what there is to operate with; they are overstated in anticipation of being cut.

2. Budget reporting program—The budget should be developed by all department heads.

3. Cash and cash-flow controls—Some systems cannot anticipate when they are going to run out of money.

4. Use of financial assistance—Many systems let federal, state, and local assistance pass them by.

5. Insurance costs—Closer monitoring of safety and claims costs can save money. Alternative forms of insurance should be compared.

#### MARKETING AND PLANNING

1. Using focused programs—Marketing programs can be tested on a small group before they are developed into large, expensive programs.

2. Assigning public relations activities. Defining which public relation activities are to be conducted under contract can save money; do it yourself, if possible.

3. The planning process—Most planning agencies in the major cities are overstaffed and could be cut back.

#### SOME CASES IN POINT

Our firm has been able to realize cost savings in all these areas. The following are a few examples of significant cases.

1. The development of a better servicing plan, performed sequentially with new washers and cyclone cleaners, permitted the reduction of servicing personnel by five people on every shift.

2. After a cutback in operators, an agreement was worked out with the local labor union to bring back some operators to help cover some part-time work; the guarantee provision for these people was eliminated, but they were covered again by the guarantee when they were returned to regular work assignments.

3. An analysis of absenteeism and overtime pay showed that 10 of the top 20 employees on each list were on both lists because they were not showing up on their regular work days and then working on their scheduled days off at time and a half. Additional operators were hired to cover the absenteeism and overtime work, so that regular operators were forced to work their scheduled days or lose income. The result was greater productivity, less absenteeism, and a yearly saving of more than \$70 000 in overtime pay.

4. A savings of \$85 000 was realized by redefining the scope of a marketing budget and a contract with an outside marketing firm. Most of the press releases and some of the promotional work previously done outside was done in-house.

5. A check of procedures for collecting fares and cash showed blatant dishonesty. Some drivers were fired, keys were changed, and the cashier's room was redesigned. As a result, revenue doubled almost immediately.

6. Operators' platform time was reduced by 2 percent following a comprehensive study of servicing time.

7. A study of dispatching procedures suggested changes that provided for equal work assignments; these were implemented, eliminating favoritism and costly grievance procedures.

8. Pilot groups were used to test various promotional and marketing programs, so that only worthwhile programs were implemented. A significant amount of money was saved by eliminating wasteful or poorly conceived programs.

9. Data on accidents were analyzed by using an effective computer file, and it was discovered that a large number of accidents involved operators who wore glasses. When all operators who wore glasses were given eye examinations, it was found that 80 percent needed to be refitted with new glasses. The new glasses reduced accidents and saved a significant amount of money.

10. On one system, all operators under 30 years of age who had more than 18 months of service were put through a retraining program that dramatically decreased accidents.

11. A total reclamation system that used a series of reservoirs and filters was built in order to reclaim all wash and rinse water for two washbays. Without this reclamation system, every bus washed would require at least 380 L (100 gal) of wash water and 470 L (125 gal) of rinse water. The system not only saves water but eliminates emptying tremendous quantities of unclean water into the sewer system.

12. With union approval, a lower initial wage rate with a periodic progression to reach the top rate was established for new employees. Raises were made at 4-month intervals. This affected only new employees but resulted in cost savings.

13. A study showed that only 15 percent of all operators were taking sick leave without being sick. The computer file identified these specific people to top management, and a discipline program was established with the union. There was an immediate 16 percent reduction in sick leave.

14. The computer file also showed that only 13 percent of the total operating force was habitually late to work. A discipline program concentrated on this group and reduced the problem by 20 percent.

#### BASIC CONSIDERATIONS

There are some basic tenets that are important to consider in these programs to improve costs and productivity.

1. It is imperative that the entire management group be involved in the program and that true costs be known, understood, and monitored daily.

2. The overall goal should be to have the smallest possible margin between pay hours and production hours.

3. Often the most neglected functional area in transit operations is personnel administration; a comprehensive management information system that can quickly retrieve personnel data is very helpful.

4. Extensive training is the key to improving productivity of the existing work force; retraining helps ensure that existing skill levels are maintained.

5. It has been estimated that 5 to 8 percent of all transit revenue never reaches the bank; fare-handling procedures must include a continual methodical surveillance program.

6. Purchasing procedures and practices must be carefully examined; purchasing departments have very important functions that warrant continual attention.

There are opportunities for improvement in productivity and cost savings on every transit property. It is the responsibility of the entire management staff to continually search out these areas.