SPECIAL REPORT

Increasing Productivity: The Key to Transportation's Future

Kenneth E. Cook

Real income for transportation has been declining since the mid-1970s. Recently user tax receipts dedicated to transportation have also declined. Inflation is driving up operating and capital costs and challenging the continued viability of segments of the transportation industry. Government is facing ever-increasing deficits for public transportation while the public is demanding a reduction in taxes.

The response to escalating costs is twofold: to search for added sources of revenue and to cut costs and increase productivity. To cut costs public and private agencies have been reducing the size of their work forces. At the same time, there has been little total reduction in costs because inflation has driven wage rates up as rapidly as staff has been reduced. In other cases, frustrated with labor protection agreements that are prerequisite for government aid programs, management has been unable to effectuate labor-saving practices.

With a public outcry against continually raising taxes, public and private decision makers are looking for ways to increase productivity. Productivity means reducing costs or increasing units of output given the same amount of resources.

In transportation, the labor costs may exceed the national average of 75 percent of total operating costs. As we shift from a production-centered to a service-centered activity, this percentage may increase even more. The issue is straightforward: costs must be reduced or at least held constant and per-unit output must be increased. Since one unit of labor has three times as much impact on output as one unit of capital, according to studies done by Paul Douglas and Robert Solow, the biggest lever on productivity is labor rather than technology.

How do we make labor more productive? First, we reduce and eliminate unnecessary activities and the labor needed to perform them. This means not only productive positions but also management and supervisory positions. Second, lost time must be reduced. Absenteeism and nonproductive time of all types need to be curtailed. Labor needs to be stimulated to a greater level of sustained effort. Technological innovations to improve productivity are needed, and the supply of services has to be better matched with the demand through an improved pricing system

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This issue of "Transportation Research News" is departing from its usual format by devoting an unusual amount of space to a special section on the importance of increased productivity. Although the five articles in this section are not specifically oriented to transportation, the subject is of vital importance to all who are attempting to carry out today's projects with yesterday's budget allocation and tomorrow's prices. The erosive effects of inflation can be largely offset by minimal increases in productivity. These increases may be caused by mechanical or management changes, or by personal motivation. The Transportation Research Board hopes that you will find the key to increased productivity in your own operations within these pages.

Such emphasis on the part of TRB has historically resulted from observation of interest at the grass roots level. We have experienced very little interest at this level on the subject of increased productivity, although we are aware of a great deal of activity within our sponsoring organizations, whether governmental, academic, or industrial. We invite your comments and information on your activities in this field.

Editor

where market and welfare considerations are clearly delineated.

There are a number of major impediments to increasing labor productivity. Most important probably is the historical adversary relationship in this country between labor and management. A major dichotomy between management and labor objectives has developed in all sectors of the economy, including transportation. Concepts of individual success are changing, and there is a growing lack of unanimity among individual aspirations. Even where traditional monetary-based objectives remain, inequities between individual effort and reward may mitigate increased productivity.

To gain comparative economic advantage, the labor force has become specialized. Such specialization has brought boredom and lack of attentiveness to quality or pride in craftmanship. As the economy shifts from a production- to a service-oriented economy, traditional concepts of specialization of labor and the comparative advantage gained by it will have to be reconsidered.

To increase labor productivity will require major attitudinal changes by both management and labor. A new approach toward participatory management is now required. Management will have to better understand labor's needs and objectives, and labor in turn must understand and accept its responsibility to see that it is responsive to market and political forces. Both parties must learn to listen to each other, both must be willing to share in the gains and the losses. Both will have to review the work situation to mutually improve it. To a great extent government regulation exists because labor and management have failed in their responsibilites toward each other. Finally, both need to better understand and manage risk in order to assure a more predictable future.

It is easy to state what is necessary; it is difficult to alter institutional arrangements to accomplish goals. When past behavior patterns are no longer successful, instead of abandoning them and searching for more appropriate responses, people generally redouble their efforts with old but unsuccessful response patterns. There is a growing body of knowledge, primarily outside transportation, that can assist the transportation sector to look toward new cooperative arrangements between management and labor in order to achieve the desired level of increased productivity and to improve the quality of work.

The articles that follow discuss attempts at improving productivity both in transportation and in industry through innovative employee-management arrangements. The articles were prepared for recent TRB Annual Meetings or for the Task Force on Employee-Management Relations and the Quality of Working Life. Some apply directly to transportation. Others examine the private sector. The purpose in presenting them here is to disseminate information on changing employee-management relationships and to suggest that they may be equally as applicable in the public sector of transportation as well as in the private sector.

SPECIAL REPORT

Productivity Improvement Programs and Techniques in Transportation

Linda R. Laughlin and Rhoda Pauley

Like many other government activities, transportation agencies are expected to maintain, improve, or even add services at the same time that they are facing revenue constraints brought on by high inflation, soaring energy costs, reduced tax bases, and shortages of capital funds. In the public mind, they are being asked to demonstrate that they operate efficiently and effectively.

Because the largest share of government expenditures is for salaries and related costs of personnel—as much as 80 percent of costs in the transit industry—the greatest potential for productivity improvement obviously is on the people-management side. More is being done than catches the public eye to reduce costs, improve job satisfaction and, thereby, performance, and tap workers' and unions' potential for joint problem-solving. Several examples of this are noted here.

- In Syracuse, New York, to increase the desirability of first-line supervisory positions and maintain its promote-from-within policy, CNY Centro introduced alternative work schedules, making the position a 4-day/10 h job. Shifts were rotated to make sure no supervisor would work nights or weekends on a regular basis, which had the added benefit of enlarging the job by requiring familiarization with all facets of all shifts.
- In Cincinnati, cleaning production was increased 300 percent in quantity. Buses were cleaner when handicapped personnel were hired through special agencies and trained to do this work. Pay scales were determined with the union. Job turnover of these positions has totaled 3 (of 14) in a 3-year period.

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