TOTAL COSTING: LESSONS FROM TRANSPORTATION SERVICES IN THE SAN DIEGO CITY SCHOOLS

By Janet R. Beales

EXECUTIVE SUMMARY

Tight budgets are prompting many public agencies to consider competitive contracting for support services. To make an informed decision about competitive contracting, public officials must first identify the total cost of in-house service.

Public agencies routinely underestimate their true costs by as much as 30 percent. Common mistakes in estimating total costs include: cross-subsidizing, failing to allocate overhead, improperly depreciating capital assets, ignoring cost of capital, and excluding or underestimating costs such as pension plans, legal fees, insurance, and administration.

The San Diego City Schools encountered many of these public-costing problems. In December 1994, the district's Board of Education voted to discontinue competitive contracting for busing and expand its in-house transportation department believing the new arrangement would save money.

Its decision, however, was based on a flawed financial analysis prepared by the district's in-house transportation department. The district's analysis of expansion costs ignored key cost categories, ranging from property acquisition to office supplies. Moreover, instead of looking at total cost, the analysis only considered the marginal cost of expanding in-house services. By doing so, the analysis sidestepped the more important consideration of overall cost efficiency.

A thorough analysis of the district's costs is beyond the scope of this policy paper, but a preliminary review of state and district-expenditure data show that private contract carriers currently operate pupil-transportation services at a lower total cost than the district's in-house transportation provider in San Diego.
Table 1: Cost Comparison: Pupil Transportation in the San Diego City Schools (1993-94)

<table>
<thead>
<tr>
<th></th>
<th>Contract Providers</th>
<th>In-house Providers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pupil Transportation</td>
<td>287 buses</td>
<td>282 buses</td>
</tr>
<tr>
<td>Expenditure</td>
<td>$8.7 million*</td>
<td>$15.6 million</td>
</tr>
<tr>
<td>Spending per Bus</td>
<td>$30,373</td>
<td>$55,461</td>
</tr>
</tbody>
</table>

Total pupil-transportation expenditures: $24,357,214

* Includes contract-administration, routing and scheduling costs.

Expressed in terms of spending per bus, the cost of operating district-owned buses is 83 percent higher than the cost of operating contractor buses. In several areas, the district incurs higher costs. These include labor costs, utilization of resources, and fleet acquisition and owning costs.

By eliminating competitive contract service, the school board has placed itself in a weaker bargaining position with respect to its employee-labor union because it no longer has alternative providers. Under these conditions, the transportation services department will have little incentive to control costs.

Although cost savings should not be the only consideration in the decision of how to provide services, it was the key argument advanced by the district's transportation department in favor of expanding its own operations. This study is devoted to the subject of public-sector costing.
I. INTRODUCTION: DETERMINING TOTAL COST

Ever-tightening budget constraints are prompting many public agencies to consider innovative approaches to providing services. One option is competitive contracting. Competitive contracting involves the purchase of services from an outside provider.

Cost is not the only consideration when thinking about contracting for services. Factors such as service quality, administrative ease, and community support should be weighed as well. But most government agencies cite cost savings as the number-one reason for competitive contracting. Before agencies can make an informed decision about competitive contracting, they must first identify the total cost of in-house service.

The task is not an easy one. Often, the cost of a single good or service is shared by several departments or activities so administrators must decide how much of the cost to allocate to each part of the organization. Public-policy professor E.S. Savas of Baruch College/City University in New York, notes that public agencies routinely underestimate their true costs by as much as 30 percent. He points out that many public agencies lack a consistent methodology for reporting costs. A survey of the contracting practices of 120 cities, counties, and district governments nationwide found that half of the respondents had no formal method for analyzing and comparing costs.

Public schools also lack useful accounting systems for making cost comparisons. A California school-transportation cost study conducted by the consulting firm then known as Deloitte, Haskins & Sells stated, "Our attempts to isolate cost factors for this study were hampered by the following problems: The (database) maintained by the State Department of Education does not contain the level of necessary detail; Local agencies do not record costs in a consistent manner; Many local agencies have not defined transportation costs by program...."

A 1990 legislative audit found that one-third of Minnesota public schools could not correctly identify how much they spent on instructional programs. Reported the Star Tribune in 1995, "For five years, auditors have known that the (accounting) system the state uses to keep track of school spending is inaccurate and unreliable....Worse, the information is misleading to public officials who use it to make spending decisions that affect thousands of school children."

A. Why Total Cost

When private business decides to expand operations, it asks, "Should I make or buy the additional output needed " Standard business practice directs that the additional cost of providing the service in-house (also called marginal cost) should be compared to the cost of purchasing the service outside. In private business, this is a sensible method for minimizing total cost.

But government agencies do not operate in the private sector with the same competitive pressures as private business. They often maintain excess productive capacity or overhead and allocate resources inefficiently. For this reason, public-sector estimates of the marginal cost of expansion are often unrealistically low.

To better assess the relative efficiencies of public and private service, the total cost or fully allocated cost of both should be compared. Box 1 lists some common problems in identifying total or fully allocated costs. (See Appendix I for a more detailed discussion of when to use total and marginal costing.)
II. TRANSPORTATION OPERATIONS IN THE SAN DIEGO UNIFIED SCHOOL DISTRICT

To see how government agencies often have difficulty assessing their own costs, the Reason Foundation examined a cost analysis of transportation operations prepared by the San Diego City Schools.

A. Background

Each year, 515 yellow school buses travel 9.5 million miles transporting some 21,000 students to and from school in the San Diego City Schools. Total annual cost for pupil-transportation services in the San Diego district is $24.4 million.

Since 1980, the San Diego City School District has run school-bus operations using a combination of in-house and private carriers. Currently, it contracts for pupil transportation with three private companies: Laidlaw Transit, Inc.; Ryder Student Transportation Services, Inc.; and Goodall's Charter Bus Service, Inc.

In 1993-94, the cost of contractor provided pupil transportation was $8,063,077 million. To assess the total cost of contractor service, however, contract administration costs and any other costs associated with contractor service must also be included. Contract administration costs include: procurement, contract negotiations, contract award, the processing of amendments and change orders, the resolution of disputes, the processing of contractor invoices, and contract monitoring and evaluation.

The Transportation Services Department budget does not break out the cost of contract administration, which is difficult to assess. For purposes of this study, we used guidelines from the federal Office of Management and Budget to calculate annual contract-administration costs at $499,000.

Because of the complexity of federal contract procurement laws, the OMB guidelines may overestimate the actual cost of contract administration for school districts. A report prepared by the American Federation of Teachers to help union leaders understand contracting for non-instructional services, states, "Usually not sizeable, contract administration costs nevertheless add four to five percent to the cost of a contract." (Using the AFT guidelines, the cost of contract administration would range between $324,000 and $405,000.)

In addition to contract administration totaling $499,000, the district also provides routing and scheduling services for private carriers valued at roughly $155,000.

Adjusting for the costs of routing and scheduling, and contract administration, brings the total cost of using contractor service to $8,717,077 from $8,063,077. Conversely, the district's in-house costs have been adjusted down from $16,294,137 to $15,640,137 to account for the costs attributed to contract service. Total pupil-transportation costs from both sectors combined are $24,357,214.

The disparity in total costs between the in-house and contract provider is quite large. It becomes especially apparent when expressed on a per-bus basis. As shown in Table 1, the annual cost contractor operations in the San Diego City Schools is $30,373 per bus versus $55,461 per district-operated bus. Expressed in percentage terms, district-provided service is 83 percent more costly than contractor service.

<table>
<thead>
<tr>
<th>Table 1: Cost Comparison: Pupil Transportation in the San Diego City Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>District-Operated Bus</td>
</tr>
<tr>
<td>Contractor Operations</td>
</tr>
<tr>
<td>Disparity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Pupil-Transportation Costs</th>
<th>$24,357,214</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-House Costs</td>
<td>$15,640,137</td>
</tr>
<tr>
<td>Contractor Costs</td>
<td>$8,717,077</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Adjusted Total Pupil-Transportation Costs</th>
<th>$24,357,214</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-House Costs</td>
<td>$15,640,137</td>
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<tr>
<td>Contractor Costs</td>
<td>$8,717,077</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Per-Bus Costs</th>
<th>$30,373</th>
<th>$55,461</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Percent Disparity</th>
<th>83%</th>
</tr>
</thead>
</table>
Despite the evident cost efficiencies of contract service, in December 1994, San Diego’s Board of Education voted to discontinue contract service and expand the district’s in-house Transportation Services Department. By implementing a number of cost-cutting strategies, including a lower starting wage for the district's in-house drivers, which went into effect in 1992, the Transportation Services Department contended that expanding in-house services would be more cost effective than using private carriers. According to the Transportation Services Department:

In recent cost studies of contractor rates and district services, it has become apparent that the opportunity now exists to eliminate use of private contractors and simultaneously reduce the cost of transportation operations. This prospect is indeed gratifying as it runs counter to the prevailing notion that private operation of pupil transportation will yield significant savings to public school districts. Through the bold efforts of its employees and the foresight of CSEA [California School Employees Association], San Diego Unified School District has turned this notion on its head.

The Board's decision was based on a financial analysis prepared by the district’s own Transportation Services Department. The Continuous Improvement Strategy for Student Transportation Services compared the marginal costs of expanding in-house service with the total cost of contract service. Based on that comparison, the department stated that, "The district can operate the routes currently assigned to contractors at an annual savings exceeding $1.2 million beginning in 1998-99." As this study shows, these future savings are unlikely to materialize.

Employing roughly 400 people, the Transportation Services Department operates a fleet of 290 buses and 412 units of other rolling stock (i.e. food-service trucks, mail vans, and maintenance vehicles). Contract carriers operate 245 buses. When the Continuous Improvement Strategy is fully implemented, the district will own and operate an expanded fleet of roughly 513 buses.

**Figure 1: Fleet Expansion Plan**
### Buses

<table>
<thead>
<tr>
<th></th>
<th>District</th>
<th>Contractors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1994–94 Fleet</strong></td>
<td>286</td>
<td>260*</td>
</tr>
<tr>
<td></td>
<td>245</td>
<td>223</td>
</tr>
<tr>
<td><strong>Future 1998–99 Fleets</strong></td>
<td>513</td>
<td>467**</td>
</tr>
<tr>
<td></td>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>

*155 FTE drivers **284 FTE drivers

FTE: Full-time equivalent of 8 hours per day.

### III. THE EXPANSION PLAN

*The Continuous Improvement Strategy* describes the Transportation Service Department’s expansion plan for in-house service. The analysis compares the district’s *marginal* cost of expanding operations with *total* contractor costs for current service. As explained above, the marginal-cost approach is not an appropriate methodology to assess the relative efficiency of contract and in-house services because it understates in-house costs.
The department's financial analysis, however, is twice flawed because it also excludes a number of costs from the marginal-cost analysis. Table 2 lists some of these excluded marginal costs. It also lists the categories that belong to a fully-allocated cost analysis, which should have been used for comparison purposes with private providers.

<table>
<thead>
<tr>
<th>Table 2: What's Missing</th>
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</table>

The Transportation Services Department reported the following costs of expanding in-house operations. (Figures are for 1998-99 when the plan is fully implemented.)

<table>
<thead>
<tr>
<th>Driver wages &amp; benefits</th>
<th>$3,734,956</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support Staff &amp; Supplies</td>
<td></td>
</tr>
<tr>
<td>• Supervisors</td>
<td>126,000</td>
</tr>
<tr>
<td>• Dispatchers</td>
<td>52,500</td>
</tr>
<tr>
<td>• Clerical</td>
<td>22,500</td>
</tr>
<tr>
<td>• Mechanics</td>
<td>150,000</td>
</tr>
<tr>
<td>• Fuel</td>
<td>489,038</td>
</tr>
<tr>
<td>• Parts/Tires/Misc. Maintenance</td>
<td>331,200</td>
</tr>
<tr>
<td>• General Liability Insurance</td>
<td>86,526</td>
</tr>
<tr>
<td>Bus Purchase</td>
<td>2,253,930</td>
</tr>
</tbody>
</table>

Source: San Diego City Schools

The following cost categories, however, also should have been included in the financial analysis in order to compare the overall efficiency of contract and in-house service provision. Dollar amounts have not been calculated.
IV. EXCLUDED AND UNDERESTIMATED MARGINAL COSTS

In its analysis of the marginal cost of expanding in-house busing operations, the Transportation Services Department did not report a number of significant costs directly attributable to the expansion of in-house services. These include property acquisition and the cost of capital, workers' compensation claims, and some overhead, equipment, and staffing costs.

A. Land Acquisition and Cost of Capital

To accommodate its expanded fleet, the San Diego City Schools purchased 3.1 acres of additional parking space adjoining the current transportation facilities. Cost for the land acquisition and improvements is projected to total $3.25 million (excluding interest on borrowed funds). The cost of the land is $2.55 million. Relocation costs are $198,000; demolition costs are projected at $185,000. The appraisal, CEQA report and closing costs totaled less than $50,000. The remaining $267,000 of the budgeted amount will be used for civil engineering fees, grading, surfacing, landscaping, and lighting. The department contends it will pay for the property through savings generated by the transportation plan, recouping the $3.25 million financial outlay within eleven years. In the meantime, financing will be accomplished through a combination of private and public sources.

The department does not include the cost of the property or its financing in its cost analysis. But the $3.25 million in property acquisition and improvements is a real cost and must be included as part of the cost of expanding operations. Had the department not acted to take over service from contract carriers, it would not have incurred this cost. The cost of property—including parking lots and maintenance facilities—is included in the rate charged by contractors. For cost-comparison purposes, property costs must be included in the analysis of district costs.

City University of New York professor E.S. Savas points out that although land has an infinite useful life, and therefore does not depreciate, it does represent an opportunity cost to the district. The $3.25 million cost for land acquisition and improvements is the opportunity cost of applying these funds to land acquisition rather than something else. Once the district owns the land, the opportunity cost is the lease or sale value of the land, the revenue from which could be used for some other purpose. Savas suggests that the rents on the land, if it were leased, be used to calculate the opportunity cost and cost.
of capital. Using land that could be put to other revenue-enhancing purposes is a cost of operating services in-house.

In this example, we conservatively estimated the leased value of the property purchased by the Transportation Services Department at $1.13 per square foot annually (assuming lease-hold restrictions). Calculating the lease price on the 3.1 acres property for one year yields $153,000. Adding in costs for site preparation and improvements brings the total annual cost of the property needed for expansion to $180,300. (See Table 3.)

<table>
<thead>
<tr>
<th>Table 3: Cost of Property</th>
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</thead>
<tbody>
<tr>
<td><strong>Calculating the Annual Cost of Property</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Property Purchase Price</strong></td>
</tr>
<tr>
<td><strong>Demolition (site preparation)</strong></td>
</tr>
<tr>
<td><strong>Fees and Improvements</strong></td>
</tr>
<tr>
<td><strong>Total Annualized Cost of Property</strong>*</td>
</tr>
</tbody>
</table>

* Excludes relocation costs totaling $198,000.

The Transportation Services Department states that, "The property and improvements required can be accomplished with no increase of budget." Although the Transportation Services Department may be able to use surplus funds in its budget to pay for the property, the property is not free. It must be included in the cost of expanding services. Furthermore, the department plans to finance the property acquisition by borrowing from its Special Education Bus Replacement Fund, which it will replenish through public and private financing. Yet the interest cost of these loans appears nowhere in the financial analysis prepared by the Transportation Services Department. Here again, the cost of capital is a real cost and must be included in the cost of expanding operations. Closing costs, including attorney's fees, architectural and engineering inspectors, and other fees, were also omitted from the analysis of in-house costs but should be included.

Privately paid property taxes, at 1.1 percent of assessed value, are an important source of local and state-government revenue. Public agencies do not pay property tax, but private-sector firms do. When the public agencies own property and provide services that could have been performed by a private provider, they lose tax revenue. This foregone revenue should be considered in the decision of whether or not to contract for services. (See Section VI: Other Cost Considerations.)

**B. Workers’ Compensation**

San Diego is self-insured for workers' compensation. Instead of paying an insurance premium to an insurance company, the district sets aside money, based on the amount of the prior year's claims, to
pay workers' compensation claims directly. In 1993-94, the Transportation Services Department reported expenditures of $144,431 for workers' compensation. Total claims for the department, however, amounted to $236,694 in 1993-94 and $750,411 in 1992-93. (See Table 4.)

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Number of Claims</th>
<th>Total Incurred Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991–92</td>
<td>86</td>
<td>$572,599</td>
</tr>
<tr>
<td>1992–93</td>
<td>83</td>
<td>$750,411</td>
</tr>
<tr>
<td>1993–94</td>
<td>64</td>
<td>$236,694</td>
</tr>
</tbody>
</table>

Because the district uses a district-wide average of 1.85 percent of payroll in computing workers' compensation rates, departments with low rates of injury among their employees, such as secretarial and administrative staff, end up subsidizing those departments with high injury rates, such as transportation. By averaging costs this way, the district has made it difficult to identify the total costs of any single department. In fact, workers' compensation data for this study had to be specially calculated by the district to obtain the dollar amount of the claims for the Transportation Services Department.

The result of the district’s accounting practices is that the full cost of workers' compensation does not show up in the Transportation Services Department budget. However, it does drive up total district costs. Not only is this cost under-reported for current operations, it is also excluded from the cost of future, expanded operations.

C. Support Staff and Overhead

Expansion of the Transportation Services Department will nearly double the size of San Diego City Schools' pupil-transportation operations. To support the 207 new drivers and 227 new buses, the department has budgeted for only minimal increases in staff. The department has not included any additional costs for such items as payroll processing, administration, utilities, office supplies, custodial maintenance, and facilities costs.

By its own admission, the department currently operates with excess overhead. Current excess overhead creates unrealistically low estimates of marginal costs and contributes to the misleading perception that in-house operations are more efficient than the contract carriers.

The department states that expanding the fleet will give it "better utilization of existing staff...operations and fleet maintenance facilities." In other words, the department's expansion will justify—and reduce per bus—its high overhead costs. This contradicts sound business practices. The Transportation Services Department is allowing excess overhead to drive its expansion plan, rather than simply cutting back its overhead costs to competitive levels. Expanding an inefficient operation will not make it more efficient. In addition, current employees, accustomed to working at current output levels, are unlikely to welcome an increase in their workload without additional compensation or additional staff assistance. Increases in staff will increase the labor cost of in-house service even if wage levels are maintained.

The Transportation Services Department's calculations of future costs are based on increasing the number of mechanics from 22 to 25 (three additional mechanics to support a fleet expansion of 227 additional buses), increasing the number of dispatchers from six to 7.5, and the number of clerical staff from 14 to 15. The department will hire three new supervisors to add to its ten existing supervisors. No
other increases in staffing have been budgeted. (Note: The Transportation Services Department is an authorized warrenty station. Performing all warrenty work in house will further increase the demand for mechanics; sending the work out may require the department to increase its spare ratio for buses.)

The demand for bus monitors, extraboard (substitute) drivers, driver trainers, clerks, and dispatchers typically rises with an increase in service levels as well. The Transportation Services Department has not made allowances for increases in any of these positions. The department has no plans to increase its training staff despite the addition of 207 new drivers.

D. Supplies

The Transportation Services Department makes no allowance for the cost of additional central office or custodial supplies, such as paper, copying, postage, cleaning supplies, and data processing supplies. In 1993-94, the Transportation Services Department spent $14,000 for office supplies, $1,700 for custodial supplies and $35,000 for pupil-transportation supplies. It spent $22,000 a year for disposal of hazardous waste; dry cleaning and laundry expenses totaled $7,000 for mechanics uniforms. These costs were not included in the cost of expanded transportation operations. Since supplies are considered a variable cost—that is, greater quantities are used as service expands—they should be included in the cost of expanding in-house service.

E. Miscellaneous Equipment Costs

A significant equipment cost excluded from the department's analysis of marginal costs is the cost of two-way radio. Every bus must be fitted with this equipment, which is purchased separately from the vehicle itself. The cost of two-way radio equipment generally runs between $500 and $700 per vehicle, according to one contract carrier, which recently purchased the equipment. For all 205 new buses, radio equipment would cost over $102,500. Because two-way radios are considered major capital items, their cost (including interest) should be depreciated over their useful life.

V. TOTAL COSTS

While a marginal cost analysis may be useful for making decisions in the short run, it is not a good method for evaluating the overall efficiency of public-sector operations. As explained earlier and in Appendix I, the more appropriate cost methodology for a government agency is to compare total costs of public and private-service delivery. When it comes to making sound financial decisions about public-sector operations, the question is not "How much will it cost to expand a particular type of service by one unit " Instead, the question should be, "What is the most cost-effective way to provide that service "

This is answered by comparing total costs, or fully-allocated costs, among different ways of providing a service. Total costs include operations costs plus the costs of facilities, central office personnel and supplies, support-service personnel, utilities, equipment, and insurance used to support the target activity.

While a comprehensive cost analysis of transportation operations in San Diego is beyond the scope of this study, the preliminary research presented above shows that the Transportation Services Department has significantly underestimated the true costs of expanding in-house services. It also operates current services at a cost far in excess than that of contract carriers for equivalent units of service.
In several key areas, private carriers are more cost efficient than the district's in-house operation. These include the costs of employee wages and benefits, and vehicle purchase—the two largest single expenses in busing operations. The following discussion illuminates some of these cost differences.

VI. PRIVATE CONTRACTOR COST EFFICIENCIES

Unlike their public-sector counterparts, private companies typically cannot depend on public funding for their existence. Instead, they must compete to win business and carefully control costs to remain profitable. That kind of market pressure fosters the private-sector cost advantages described below.

A. Labor Costs

The cost of labor is the largest single cost of transportation operations. Labor costs (including benefits) make up roughly 70 percent of transportation costs in the San Diego City Schools. The district spends $5.9 million annually for in-house driver wages and benefits alone.

Because the district is paying above-market rates for labor, it is in effect subsidizing public employees at the expense of students and taxpayers. Money that could be spent in the classroom is instead being diverted to pay higher-than-necessary compensation packages for district staff. School funding is an inherently limited resource; spending more for one area means that less money is available for other purposes. School administrators must set priorities when making budgetary decisions. If the goal is to channel the maximum amount of financial resources into the classroom, then schools should spend no more than necessary for support services.

The Transportation Services Department and the California School Employees Association negotiated a new salary schedule in 1992 which lowers the starting salary for classified bus drivers. The new schedule, however, still maintains higher labor costs than the private carriers (whose drivers were represented by the Teamsters union). For example, starting wages for district employees were $9.27 an hour in 1993-94 compared to $7.40 for employees of private carriers. Over the course of a year, the higher cost of public-employee wages results in significant additional costs to the district. For example, the cost of a single driver working the district average of 6.3 hours per day for 207 days is $2,439 higher for the district employee than for the private, contract-carrier employee earning market-level wages.

Figure 2 compares the hourly wages of drivers in the public and private sector. District drivers are guaranteed payment for 207 days of service with a guaranteed minimum work schedule of 25 hours a week. (See Table 4)

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**Figure 2: Hourly Wages of School-Bus Drivers in the San Diego City School District, 1993-94**
Transportation labor costs make up over 70 percent of total district transportation expenditures so any cost savings generated here can have a significant impact on the bottom line.

<table>
<thead>
<tr>
<th>Years of Service</th>
<th>District Drivers*</th>
<th>Contract Drivers</th>
<th>Ryder</th>
<th>Laidlaw</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$9.27</td>
<td>$7.78</td>
<td>$7.40</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>9.50</td>
<td>8.00</td>
<td>7.85</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>9.74</td>
<td>8.35</td>
<td>8.05</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>9.98</td>
<td></td>
<td>8.25</td>
<td></td>
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<tr>
<td>5</td>
<td>10.23</td>
<td></td>
<td>9.00</td>
<td></td>
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<tr>
<td>6</td>
<td>10.47</td>
<td></td>
<td>9.62</td>
<td></td>
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<tr>
<td>7</td>
<td>10.74</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>8</td>
<td>11.00</td>
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<td></td>
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<tr>
<td>9</td>
<td>11.28</td>
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<td></td>
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<tr>
<td>10</td>
<td>11.55</td>
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<td></td>
<td></td>
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<tr>
<td>11</td>
<td>12.13</td>
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</tbody>
</table>
Beyond above-market hourly wages and salaries, the cost of benefits for district employees is substantially greater than that of private-sector employees. School-bus drivers employed by the San Diego Unified School District receive the following holiday, vacation, and leave benefits each year:

- Fourteen paid holidays • Three to five days paid bereavement leave
- Ten to twenty days paid vacation • Paid leave for jury duty
- Ten to twelve days of paid sick leave • Thirty days paid military leave
- 110 days of sick leave at half-salary pay

In a single year, district employees technically could receive up to 134 days in fully or partially-paid leave representing 65 percent of the employees’ work days.

Public employees also have more generous health and pension-plan benefits than private-sector employees. In the San Diego City Schools, employees and their dependents (spouse and children) may choose from among several comprehensive medical plans. In most cases, the district pays the full cost of health insurance, dental insurance, and life insurance for employees and their dependents. The district provides the following medical benefits:

- Health insurance • Dental insurance
- Vision insurance • Life insurance
The district's cost per transportation-services employee of these benefits is $4,140 for medical, vision, and dental insurance plus an additional 22.86 percent of wages for retirement benefits, social security, medicare, unemployment insurance, and workers' compensation insurance. District employees are also covered by the state Public Employees' Retirement System, or PERS, which provides pension and health-care benefits during retirement. Even employees working less than full-time are eligible for these benefits. Regular employees who work less than eight hours but more than four hours per day receive the same medical, vision, and dental insurance for themselves and their dependents as their full-time co-workers.

Compensation for the district's transportation employees is far in excess of market rates and what similarly skilled employees earn in the private sector. Bus drivers employed by Ryder Student Services, for example, receive no paid vacations, bereavement, military, or sick leave. Benefits do include five paid holidays, and employer-paid life insurance. Health insurance is paid for by the employee as is the retirement fund, although the employer does match employee contributions to it. Employees may be reimbursed for some tuition expenses. Drivers for Laidlaw Transit receive a similar benefits package which includes five paid sick days, seven paid holidays, one to three days bereavement leave, and partial employer-contributed health insurance benefits. Laidlaw employees receive no dental or vision care insurance, paid military leave, tuition, or retirement benefits.

Taxpayers fund the compensation and benefits that school district—and other public-sector—employees receive. To justify their worth, the public-sector must provide a dollar's worth of necessary services for a dollar's worth of tax. But when the wages of public-employees are above those of private employees, and when public-sector costs exceed private-sector costs, then taxpayers are not receiving the full value of the services for which they paid. Making private-sector employees and taxpayers pay for the higher-than-market wages of public employees raises issues about equity and fairness. It may also not be financially sustainable in the face of tightening budgets.

B. Fleet Acquisition and Owning Costs

In 1988, the Transportation Services Department implemented a new bus-replacement schedule designed to lower maintenance costs and increase resale value on new buses. The department also began purchasing more expensively equipped buses and more buses with the same specifications.

These and other changes led to a decline in maintenance costs for the Transportation Services Department. According to the department director, maintenance costs per bus declined from $4.00 per mile to $.17 per mile after these changes were implemented. (The $.17 per mile figure probably applies only to small buses, not large buses, say industry consultants.) The number of road calls, or breakdowns, has declined from 40 per month to roughly five. Consequently, the spare factor (the percentage of "substitute" buses relative to "on-line" buses) declined from 12 percent to six percent. And by standardizing vehicles and eliminating obsolete parts, the district's parts inventory costs declined from $600,000 to roughly $200,000. The department also reduced the number of full-time mechanics it employed from 46 in 1988 to 29 positions in 1995.

While maintenance costs have declined, they have not declined to a level making the Transportation Services Department competitive with private carriers. On an average per-bus basis, overall costs of district bus operations operate at 83 percent above the cost of private carriers even after the above-mentioned reductions in maintenance costs occurred. Vehicles in the district’s fleet may incur lower maintenance costs because of the six-year replacement schedule and warranty provisions, but the tradeoff is a higher initial purchase price and higher fleet turnover costs. Some of the factors contributing to higher vehicle costs are discussed below.
C. Bus Specifications

In the stated interest of lowering workers' compensation claims, maintenance costs, and maintaining high resale value, the San Diego City Schools purchase top-of-the-line vehicles. The purchase price of these vehicles can be $15,000 to $20,000 higher than same-sized vehicles used by private carriers in San Diego as Table 5 shows. Although the district purchases far better-equipped buses, the buses purchased by both public and private carriers all meet state requirements for school bus safety as detailed in the California Vehicle Code and California Code of Regulations.

### Table 5: What They Pay Per Bus

<table>
<thead>
<tr>
<th></th>
<th>48-Passenger</th>
<th>65-Passenger</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1995 Purchase Price</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>San Diego City Schools</td>
<td>$57,703</td>
<td>$60,504</td>
</tr>
<tr>
<td>Laidlaw*</td>
<td>$39,098</td>
<td>$43,355</td>
</tr>
<tr>
<td>Ryder*</td>
<td>N/A</td>
<td>$42,809</td>
</tr>
</tbody>
</table>

* Conventional-style buses. Excludes sales tax.

Source: San Diego City Schools, Ryder Student Transportation Services, Laidlaw Transit

Jim Wilkins, of the California-based Wilkins & Associates, Vehicle Management Consultants, specializes in helping government agencies write bid specifications for vehicle procurement. He reviewed the San Diego City Schools' bid specifications for school-bus acquisition and made the following comments.

"The body specifications are full of special items, including detailed construction techniques, that increase the price very significantly." The Transportation Service Department's strict warranty requirements also increase the price of the vehicles. The department requires that the manufacturer's warranty cover most major repairs for a six-year period. "San Diego Unified has its own particular definition of warranty. It considers almost any failure, regardless of cause except an accident, to be warrantable. While some vendors may accept these special terms and conditions, it comes at the cost of significantly raising the initial purchase price of the bus," says Wilkins.

D. Competition

Cost-efficiency is fostered when competition is present. Public officials can take steps to create conditions for competitive bidding. These include soliciting bids from as many qualified vendors as possible, writing open bid specifications that are not proprietary to any one company, and evaluating
bids on the basis of objective criteria. The San Diego City Schools appear not to have created conditions favorable to a competitive bid for bus purchase.

Says Wilkins:

(T)he body specifications put forth by San Diego Unified are almost totally proprietary to one company. Blue Bird is the only brand of (bus) body responding to recent bids, which is what San Diego has written their bid specifications around.

In fact, the bid specification issued by the San Diego City Schools breaks a cardinal rule of competitive contracting by naming the products—including specific model numbers—of a potential competitor in the bid specification.

Noted one vendor in a letter to the San Diego City Schools, "United Bus Corporation regrets to have no choice but to submit a 'no-bid'....Unfortunately for the taxpayers of San Diego City and County, these (specifications) preclude any bidders, save possibly one, from even having their bids considered....(V)endors cannot survive without an open, objective marketplace." At least one other vendor submitted a similar letter to the district.

Ranging from $40,000 to $80,000 each, bus-procurement costs represent a substantial part of the Transportation Services Department's expenditures, so every attempt should be made to keep the process competitive.

E. Fleet Turnover Costs

Central to Transportation Services Department operations is its practice of reselling conventional-style buses after six years and transit-style buses after ten years—far short of their useful life. Most school districts and private contractors use their buses over the full life of the vehicles—ten to fifteen years. According to the Transportation Services Department, which implemented the accelerated bus-replacement schedule in 1988, selling on a six and ten-year schedule results in lower maintenance costs and higher resale value.

In its most recent sale of used buses, the Transportation Services Department sold most of its six-year-old wheelchair-equipped buses for 48 percent of their original purchase price—significantly higher than the 25 percent resale value it had expected. As Table 6 shows, on the basis of purchase price, resale value, and major maintenance costs alone, Transportation Services comes very close to cost justifying its replacement schedule. In this example, the cost of owning two buses for six years apiece over a twelve-year period is compared with the cost of operating a single bus for the full twelve-year period.

<table>
<thead>
<tr>
<th>Table 6: Bus Replacement Schedule: Two Scenarios</th>
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</thead>
<tbody>
<tr>
<td><strong>(Bus Purchase Price: $58,843 depreciated over 10 years)</strong></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Depreciation Expense</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Option A:</strong> Replace Every 6 Years</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales Proceeds</th>
<th>Book Value</th>
<th>Net Gain (Loss)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bus 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 1</td>
<td>$5,884</td>
<td>$5,884</td>
<td>$5,884</td>
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<tr>
<td>Year 2</td>
<td>$5,884</td>
<td>$5,884</td>
<td>$5,884</td>
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<tr>
<td>Year 3</td>
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<td>$5,884</td>
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<tr>
<td>Year 4</td>
<td>$5,884</td>
<td>$5,884</td>
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<tr>
<td>Year 5</td>
<td>$5,884</td>
<td>$5,884</td>
<td>$5,884</td>
</tr>
<tr>
<td>Year 6</td>
<td>$5,884</td>
<td>$5,884</td>
<td>$5,884</td>
</tr>
<tr>
<td>Sales Proceeds:</td>
<td>$23,000</td>
<td>$23,536</td>
<td>($536)</td>
</tr>
<tr>
<td>Book Value:</td>
<td>$23,000</td>
<td>$23,536</td>
<td>($536)</td>
</tr>
<tr>
<td>Net Gain (Loss):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bus 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 7</td>
<td>$5,884</td>
<td>$5,884</td>
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<tr>
<td>Year 8</td>
<td>$5,884</td>
<td>$5,884</td>
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<tr>
<td>Year 9</td>
<td>$5,884</td>
<td>$5,884</td>
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<tr>
<td>Year 10</td>
<td>$5,884</td>
<td>$5,884</td>
<td>$5,884</td>
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<tr>
<td>Year 11</td>
<td>$5,884</td>
<td>$5,884</td>
<td>0</td>
</tr>
<tr>
<td>Year 12</td>
<td>$5,884</td>
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<tr>
<td>Sales Proceeds:</td>
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<td>($536)</td>
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<tr>
<td>Book Value:</td>
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<td>$23,536</td>
<td>($536)</td>
</tr>
<tr>
<td>Net Gain (Loss):</td>
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<tr>
<td>Major Maintenance:</td>
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<tr>
<td>$0</td>
<td></td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>
In order for Option A to be cost effective, the Transportation Services Department must save at least $3,637 in maintenance and related costs, beyond the cost of the transmission overhaul and engine replacement, per bus over the second six-year period. The department may very well realize these savings in maintenance costs. As Transportation Budget Supervisor Kay McElrath points out, the department was also able to reduce its spare-bus ratio because of increased vehicle reliability due to the accelerated fleet-replacement program. The department's experience so far indicates that maintenance costs decline significantly with a newer fleet as indicated in the discussion earlier. Success of the overall accelerated replacement strategy, however, also depends on the following conditions:

- Resale value must total at least 48 percent of original purchase price for all used buses, assuming the depreciation schedule in Table 6. Any reduction in sales proceeds, due to commission costs or lower resale values, will increase the cost of Option A.

- Resale must occur rapidly to minimize value lost through depreciation and interest on buses waiting to be purchased. (See below.)

- Sufficient demand for the type of buses offered for sale must exist. Changes in environmental regulations, district preferences, or availability of replacement parts could alter the demand for San Diego's buses.

Across the industry, the experience of private providers indicates that the best approach to minimizing overall fleet costs is to purchase new buses and maintain and operate them over their ten-year (or more) useful life. "We've done that exercise over and over on when to replace old buses. [Early resale] doesn't trade off against maintenance costs if you buy smart and have a good maintenance program," say Jim Murchie, Regional Finance Director of Laidlaw Transit, Inc.

The average age of a bus in the Transportation Services Department is four years versus 7.6 years for Ryder and seven years for Laidlaw buses operating in San Diego. Clearly the older the bus the more its appearance diminishes and the more likely breakdowns become. But the benefits of a younger bus fleet are not without cost. Administrators must identify the costs and benefits—both measurable and intangible—of both options before making the best decision in the public interest.

**F. The Used-Bus Business**

With higher turnover in its fleet, due to shorter ownership periods, the Transportation Service Department is also generating a substantial inventory of used buses, which it must sell. Market demand for used buses is unclear; some industry experts claim that California has low demand for the conventional-type buses being sold by the San Diego City Schools. On the other hand, tightening budget constraints may prompt more school districts to purchase used, rather than new, buses. The success of the Transportation Services Department's replacement strategy is highly dependent on continued high demand for used conventional-type buses.

The Transportation Services Department has its own marketing program for selling its used fleet. It advertises through direct mail and at trade shows. Beyond these marketing and selling costs, interest
and depreciation costs also accumulate on unsold vehicles. None of these costs is included in the fleet-expansion plan. Of seventy buses available for sale in August 1995, the Transportation Services Department sold all but 28 of them within four months, according to the department. Depreciation costs on all the remaining vehicles total roughly $13,700 for every month the vehicles remain unsold.

G. Fleet-Replacement Costs

As part of its expansion plan, the Transportation Services Department is increasing the size of its vehicle fleet by 227 buses (see Figure 1). Not only will the expanded fleet entail a higher initial capital outlay and more maintenance support, it will also result in higher fleet-replacement costs because the district will be replacing a larger number of buses and replacing them more frequently than in the past.

VII. OTHER COST CONSIDERATIONS

A. Foregone Tax Revenue

Private contractors pay taxes. They pay corporate income tax, property tax, sales tax, user fees, and other taxes, which accrue to the public. Public-sector providers pay very few, if any, of these taxes. When public-sector agencies are used to provide a particular service, the public experiences a net loss in tax revenue over that which would be realized if the services were provided by tax-paying private enterprise.

Public officials should consider the tax revenue generated through private-sector contracting in the decision of whether or not to contract for services. The tax revenues that would have been generated as a result of contracting should be used to offset any cost associated with private contracting. In other words, tax revenues should be deducted from the cost of private contract service delivery (or included as foregone revenue for the public sector) when comparing costs.

B. Contracting for All or Some Services

One option the Board of Education should explore is to contract for the entire pupil-transportation operation. Doing so would relieve the district of such administrative tasks as collective bargaining negotiations, payroll processing, and maintaining a large transportation department. The existing bus fleet and some or all of the transportation facilities could be sold generating a one-time cash infusion for the San Diego City Schools.

The Transportation Services Department could still maintain the district's other vehicles—automobiles, vans, trucks, etc.,—and oversee and monitor contract carrier service. Contracting does not mean the district can abdicate all responsibility for pupil transportation. It's incumbent on the school district to enforce high standards of safety and compliance with regulations. Public agencies are also responsible for creating the conditions necessary for a competitive bid. (See Appendix II.)

Some districts have opted to maintain ownership of their capital assets, contracting for operations only. The Hart Union High School District in California leases its 50-vehicle fleet to a private operator which then supplies the district with pupil-transportation operations. The arrangement has saved the district $250,000 annually since it began contracting in 1984.

School districts should treat their own in-house transportation departments as bidders on equal footing with their private-sector counterparts. Inviting the participation of both public and private providers will further enhance competition and helps ensure that the district is getting the best value from its
transportation provider. If district-owned capital assets are involved, they could be leased to the winning provider(s).

In San Diego, the large disparity between district-operated and contract carrier costs indicates that the in-house provider has been protected from competition. Holding in-house providers to a different cost standard than private providers has resulted in unnecessarily higher costs of in-house service. Instead, all providers—public and private—should be made to bid on the same cost and other criteria used for selection of a provider.

There are many options available in the provision of pupil transportation. School districts may competitively contract for none, all, or a portion of their bus routes. They may own, lease, share, or sell capital assets. They may competitively contract for maintenance, management, operations, training, or a combination of services. Like any good management decision, a plan for providing transportation services should be based on thorough and careful study of the relative costs and benefits of a variety of service options.

C. Flexibility in Staffing and Scheduling

Contract service brings added flexibility to school-district operations. Changes in staffing, enrollment, and school schedules all impact service levels, which can be met by private contractors on an as-needed basis. As the Transportation Services Department points out, "Staffing fluctuations due to year-round schools starting and stopping have largely been absorbed by carriers. Education Code restrictions on layoffs/reductions will make adjusting to these fluctuations much more difficult in-house." Because of this lack of flexibility, the Transportation Services Department may have to over staff its department in order to meet periodic surges in demand for busing. This will contribute to higher-than-necessary costs overall.

VIII. THE IMPORTANCE OF COMPETITION

None of the cost efficiencies of private or public carriers can last in the absence of competition. Private bus companies can often provide lower cost services because competition forces them to keep close watch on their expenditures. Likewise, competition from private providers forces public providers to control their costs. The issue isn't public versus private; it's monopoly versus competition. Competitive markets can lead to efficient operations in both the public and private sector.

The Transportation Services Department correctly points out that a lack of competition in private industry will result in higher costs. However, the department fails to recognize its own responsibility for creating a competitive environment for service providers and for holding down costs. Thoughtfully designed bid specifications can help ensure a competitive bid. To encourage competition, public agencies should follow the guidelines listed in Appendix II. Careful oversight of any provider is also essential to make sure that the services promised are in fact delivered. Financial penalties, bonding requirements and the prospect of non-renewal can be used as incentives to pressure contractors to meet agreed-upon performance and cost standards. Knowledgeable personnel should be used to review bid proposals and negotiate contracts.

The irony of the San Diego City Schools action is that the concessions made by the transportation services union, which where necessary for the implementation of the Continuous Improvement Strategy, never would have come about in the absence of competition. The union agreed to a restructuring of its salary scale in order to compete with the private providers. Now that competition from the private sector is gone, the public provider will have even less incentive to control costs. The Transportation Services Department clearly states that competition will be eliminated. According to
the Continuous Improvement Strategy. "The district would begin taking routes in-house in September 1995 with all carrier contracts phased out at the end of the 1997-98 school year. If the plan is adopted, no new contracts with carriers will be initiated." Lacking an alternative provider, the district will have little power to fight public-employee union demands for higher compensation, increases in the number of employee positions, and changes to employee work rules.

The experience of the transit industry illustrates the importance of competition in controlling costs. Between 1970 and 1991, costs for public-transit monopolies increased 88 percent over competitive private-sector busing costs during the same period, representing an average annual cost difference of 3.05 percent.

IX. SUMMARY OF SAN DIEGO

The San Diego City Schools provide a case study illustrating the common mistakes made in assessing public-sector costs. Not only did its Transportation Services Department underestimate or exclude a number of cost categories, such as property acquisition, workers compensation claims, and supplies and equipment, it also failed to recognize the limitations of using a marginal-cost analysis in assessing overall cost efficiency.

The Board of Education voted for the transportation services expansion plan believing the district would save $1.2 million annually. However, the marginal cost analysis used does not consider total cost efficiency. The cost savings the board anticipates are unlikely to materialize.

In addition, preparation of the financial analysis involved a conflict-of-interest since it was prepared by the in-house transportation provider. The Board of Education voted unanimously in favor of the plan without questioning the assumptions in the report. Although board members had received copies of the twelve-page Continuous Improvement Strategy in advance of the meeting, there was virtually no public discussion of the plan at the board meeting prior to the vote. The only statement made the evening of the vote was a one-sentence endorsement of the expansion, promising better service at lower cost, made by the director of the Transportation Services Department.

Pupil-transportation services cost over $24 million annually and represent four percent of the district's $646 million budget. For an operation of that magnitude, the board should have obtained a financial analysis prepared by a disinterested third-party with no stake in the outcome. Such an analysis might also estimate the cost of expanding contract carrier operations beyond their current service level in case that option is pursued.

In key areas, private contractors currently operate more efficiently than the in-house provider for the San Diego City Schools. These include:

• Lower labor costs, including benefits.
• Better utilization of vehicles over useful life.
• Lower vehicle purchase price.

There is nothing wrong with public agencies per se that prevents them from matching the cost efficiencies of the private sector. In fact, public agencies may have a competitive advantage over their private counterparts because they pay fewer taxes, can reinvest "profits", and usually do not have to spend for marketing and advertising. But for market efficiencies to materialize, the public sector must
reduce labor costs and restructure its operating environment to incorporate strong and consistent cost-control incentives. This means introducing competition and eliminating special public-sector protections and preferences in the provision of services.

Just the opposite is occurring in San Diego. By terminating competitive bidding for transportation services, the Board of Education leaves the schools with no alternatives to the district's single, expensive, protected provider. The San Diego City Schools have eliminated the beneficial forces of competition and have transformed transportation operations into a public-sector monopoly. Buffered from competitive challenges, the public-provider has little incentive to control costs or maintain service quality in the future.

X. CONCLUSION

Downsizing, rightsizing, and streamlining are the operative terms for competitive government around the country. At a time when many public agencies are facing fiscal restraints, competitive efficiency is more of an imperative than ever.

Before any action to competitively contract for services can be taken, public agencies must first assess their own in-house costs. This involves accounting for the total cost of performing a certain operation. Only when all costs are accounted for can the cost of public and private service provision be compared. The overarching goal should be to provide quality services at the lowest possible cost. Doing so will help ensure that the public is getting the most value for its money.

RECOMMENDATIONS FOR SAN DIEGO BOARD OF EDUCATION

1. Halt further expansion plans until costs are fully identified.
   2. Invite independent auditor to evaluate total costs of the Transportation Services Department and the cost of other service alternatives. Along with cost, service quality must also be considered.
   3. Implement fully-allocated costing methods into the district's accounting system so total costs are easily identified.
   4. Make the Transportation Services Department bid for the opportunity to provide transportation services. Award service contracts based on the same performance and cost criteria for all bidders, public or private. Rebid periodically to maintain the competitive pressure on the service provider(s) selected.
   5. Enhance competition among carriers by creating a healthy environment for competitive bidding. (See Appendix II.)
   6. Enhance competition for vehicle procurement by using non-proprietary bid specs.

RECOMMENDATIONS FOR PUBLIC AGENCIES

1. Implement fully-allocated costing systems.
Identify areas that could be competitively contracted.

Invite public and private providers to bid for the provision of the target service.

Avoid conflict of interest.

Follow guidelines for competitive contracting.

ABOUT THE AUTHOR

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APPENDIX I: ANALYZING COSTS

There are many different ways to analyze costs. One might examine long-term costs, average costs, total costs, unit costs, or department costs, for example. All of these cost methodologies have their uses, but they are not appropriate in every situation. This section focuses on two methodologies—marginal and total cost analysis—and discusses the conditions under which each are appropriate.

A. Marginal Cost Analysis

The marginal-cost approach asks the question, "What is the cost of expanding operations by some incremental amount" Marginal cost looks at the cost of changing, or increasing the level of service rather than looking at the cost of an existing unit of service. Marginal costs typically are concerned with variable costs since a marginal cost analysis assumes that fixed costs—for land, buildings, and heavy equipment—are "sunk costs" and cannot be recovered.

B. Fully-Allocated Cost Analysis

Fully-allocated costs look at the total cost of owning and running an operation or a portion of that operation. Fully-allocated costs don’t distinguish between fixed and variable costs (as does the
marginal cost approach). The fully-allocated cost analysis is more appropriate for making long-term operations decisions since it allows for consideration of changes in fixed costs. The fully-allocated cost method answers the question, "What are all the costs associated with a particular operation?"

**C. Discussion**

An organization deciding to expand its operations has a choice of either expanding in-house operations or contracting for the service. In the private sector, standard business practice calls for comparing the marginal, or additional, cost of in-house expansion with the total cost of purchasing the service. In a competitive, profit-seeking business, this is the right approach to minimize total costs. But public agencies do not operate in a competitive market. They are not subject to the same incentives and cost-control pressures as a profit-seeking firm.

Public-administration professor Lawrence Martin points out that standard business practices in the private sector are not necessarily appropriate in the public sector. The following is reprinted from Martin’s study, *How To Compare Costs Between In-House and Contracted Services*, published by the Reason Foundation.

Public agencies interested in identifying the most efficient means of operating a particular service do better to look at fully-allocated costs, which come closer to creating a "level-playing field." Unlike a competitive enterprise, a public provider often maintains excess productive capacity. Business accounting theory assumes an efficient allocation of resources, and this assumption is not often valid for monopolistic providers. The existence of surplus capacity in public providers tends to make estimates of the marginal cost unrealistically low. Assuming that an in-house department has surplus capacity and justifies it expanding its service based on marginal costs rather than fully-allocated costs, it is difficult to imagine many scenarios in which a private provider would appear competitive.

This is true even for private providers that are far less expensive. The practice of comparing in-house marginal costs with the total cost of contracting has the practical effect of precluding private contracting. Therefore, in the case of new or significantly expanded service, governments wishing to promote competition should compare the fully allocated costs of the government agency against the total cost of the contracted service.

The only occasion in which it makes sense to consider marginal costs for a new or expanded service is when the extent of the privatization is extremely small. Otherwise, fully allocated in-house costs should be compared to total contract costs.

Furthermore, it is best to have in-house costs calculated by a disinterested third party, rather than the department seeking the contract. This third party can either be another governmental agency or an outside consultant.

**D. Comparing Costs**

The importance of fully-allocated costing, as a basis for decision making, cannot be overstated. The goal of school administrators in examining expenditures should be to determine the total cost of each school activity. Such an analysis will give school-decision makers a better idea of how schools spend money, how costs compare, and what is the level of efficiency of a particular operation. Total cost, or fully-allocated cost, is the sum of the direct and overhead costs of providing a particular activity. (See Box).
When actually deciding whether or not to competitively contract for a particular service, the total avoidable cost of performing a particular activity should be compared to the cost of using contract service, less any additional costs associated with the transition to contract service, plus any new revenues.

Total In-House Costs should be compared to:

**Contractor Cost + Contract Administration Cost + Conversion Cost (Amortized) - New Revenue.**

**DEFINITIONS**

**Avoidable Costs** Section II of this report and the discussion above describe how to calculate fully-allocated costs, which can be used to compare the relative efficiency of public and private providers. To estimate the savings realized by contracting, however, total avoidable cost should be considered. Avoidable costs are those costs that would not have been incurred had the agency not provided the service. A cost-analysis guide prepared for the California Department of Education directs public agencies to ask:

If the (agency) stops providing its own pupil transportation services and begins to rely on an alternative provider, will this cost continue

**Contractor Costs** From the standpoint of a public agency, contractor costs are relatively easy to figure out. They are simply the price charged to the agency for performing a service. Contract-administration costs should also be included in contractor costs. Contract administration costs can include the costs of bidding, contract negotiations and any other costs the agency would not have incurred had it not contracted for service. The cost of monitoring and evaluating performance is incurred by in-house and contract providers alike and therefore should not be viewed as part of the additional cost of contract administration.

**Conversion Costs** Sometimes a public agency will incur one-time conversion costs when it switches from in-house to contract service, such as legal fees or employee incentives. Or the provider may require certain changes in existing facilities before it can begin service. If these costs are paid by the public agency, they should be included in the total contract cost on an amortized basis.

**Direct Costs** Direct costs are those costs that are exclusive to the target activity. Direct costs are 100 percent chargeable to the activity they support. Examples of direct costs include: the labor cost of employees working exclusively on that activity, supplies, materials, and any other cost which is expended for the exclusive purpose of the target activity. Frequently overlooked direct costs include: interest on capital, pensions, facilities, and insurance premiums and deductibles. Direct and overhead costs combine to make up total costs.

**Fixed Costs** In the short term, fixed costs are costs which remain the same regardless of changes in service levels. Capital assets, such as owned facilities and heavy equipment, are considered fixed costs. The cost of owning a maintenance garage, for example, would be the same whether the garage services two vehicles or two hundred. In the long run, however, fixed costs become variable costs because fixed
assets can eventually be expanded, sold, or replaced. Fixed costs may be considered as direct or indirect costs.

**New Revenue** Some contracting of services will create new revenue for the public agency. New revenue should be deducted from the total cost of contract service for comparison to the cost of in-house service. Revenues may be the result of government asset sales, income from operations, or new tax revenues generated by the private contractor.

**Overhead Costs** Overhead costs are those costs shared by the target activity and other activities performed by the agency. Overhead costs must be allocated, or assigned, to different activities because they are not exclusive to just one activity. The cost of the administration department is often considered an overhead item, because it may oversee more than one activity. Rent, utilities, communications, and equipment, may also be overhead costs if they are used by more than one activity. Overhead and direct costs make up total costs. Overhead costs are usually allocated based on how much each activity consumes of them. For example, overhead costs might be allocated as a percentage of direct costs or of personnel costs.

**Variable Costs** Variable costs are those costs which change with fluctuations in service levels. Bus fuel, for example, is a variable cost. Increasing the number of miles driven results in increased fuel usage. Likewise, fuel costs will drop with a scaling back in bus service. Variable costs may either be direct or indirect costs.

If the answer is "no," then the cost is avoidable. Buildings, land, and heavy equipment may be considered avoidable costs if they can be sold, leased or otherwise disposed.

**APPENDIX II: RECOMMENDED READING**


*Competitive Contracting of Transit Services*, Jean Love and Wendell Cox, Reason Foundation How-To Guide No. 5, March 1993. Details the process government officials should follow to contract for transit services.


*Doing More with Less: Competitive Contracting for School-Support Services*, Janet R. Beales, Policy Study No. 179, Reason Foundation, September 1994. Shows how school districts are improving quality or lowering costs by contracting for non-instructional support services. Provides step-by-step guide to the "make or buy" analysis and describes the components of the RFP and contract.


Pupil Transportation Guide: Cost Analysis, Service Options, and Contract Administration, 1990, California Department of Education. This comprehensive guidebook is applicable for any state considering contracting for school transportation. The Guide was prepared by the consulting firm KPMG Peat Marwick and contains an extensive cost-allocation worksheet, a model contract and Request for Proposal (RFP), and all-around useful information. It is available for $16 from the California Department of Education, Bureau of Publications Sales Unit, P.O. Box 271, Sacramento, CA 95812-0271. Tel. (916) 445-1260. Request item No. 0898.

APPENDIX III: CREATING A COMPETITIVE ENVIRONMENT FOR TRANSPORTATION SERVICES

The benefits of contracting will only be realized in an environment of open and fair competition. It is the responsibility of public administrators to structure the bidding process so that true competition is ensured, not just among private providers, but among public providers as well. The following guidelines can help public administrators in this process.

1. Publicize and distribute Requests for Proposal (RFP) widely to attract as many qualified bidders as possible.

2. Make public-sector providers compete on the same basis as private providers. Public-sector proposals should be subject to same contract terms, conditions, and performance criteria as private providers.

3. Prohibit public employees who have a financial or other interest in the contract from participating in the preparation of the RFP or the evaluation of proposals.

4. Each RFP should cover the smallest increment of service practicable so that the maximum number of qualified proposers may respond.

5. No single provider should be permitted to contract for an excessive percentage of the service.

6. Contracts should be rebid at least every five years, whether the incumbent is a private company or a public-agency.

7. Contract expiration dates should be rotated to minimize the increment of service being contracted at any one time.

8. Prohibit negotiations over price once the contract has been awarded. No payment adjustment should be permitted except as specified in the contract or under extremely unusual circumstances outside the control of all providers.

9. Public-sector proposals should include the fully allocated operating and capital costs for the provision of the service in question.
10. When available, public capital facilities should be leased to the public or private provider delivering the service. This will minimize capital and financing costs and encourage small businesses to compete.

11. Public administrators should impose no contractor-employee requirements beyond compliance with applicable labor laws.

(Source: Jean Love and Wendell Cox, *Competitive Contracting of Transit Services*, Reason Foundation.)

Encourage Providers to Bid

To attract a wide variety of potential transportation providers, including small businesses, keep these guidelines in mind when crafting the Request for Proposal.

- Avoid specifications proprietary to a single provider in the Request for Proposal.
- Provide candidates with accurate and thorough information about service-level requirements for determining realistic costs.
- Allow enough time for candidates to respond to the RFP with a well-researched bid.
- Give careful thought to contract length. In general, contract terms should be as short as practicable to maximize competition. However, extremely short contract periods, such as one-year, will not allow providers to amortize start-up costs over more than one year and may discourage contractors from bidding. In some cases, however, one-year terms have been used successfully.
- Avoid interfering with contractor operations that don’t pertain directly to service quality such as mandating wage structures or technology acquisition.
- Mandating excessively short bus-replacement schedules, higher-than-normal insurance coverage requirements, alternative fuel vehicles, or liability for pre-existing environmental hazards could discourage potential candidates, especially small operators, and increase total costs.
- Set realistic performance criteria for assessing liquidated damages. Allow provider the opportunity to rectify performance issues before termination.

Source: Excerpted and modified from paper prepared by Durham Transportation, Inc.

APPENDIX IV: DISCUSSION OF THE CONTINUOUS IMPROVEMENT STRATEGY

As part of its *Continuous Improvement Strategy*, the Transportation Services Department discussed some of the advantages and disadvantages of expanding in-house service. Portions of that discussion are reprinted below. The statements in italics are those of the Transportation Services Department (TSD) report. Reason Foundation (RF) responses and clarifications are printed just below.

A. Potential Advantages of Expanding the Transportation Services Department

TSD: The property and improvements required can be accomplished with no increase of budget.
RF: The cost of property acquisition and improvements totals $2.95 million. The Transportation Services Department believes it can recoup this outlay in eleven years with savings generated through more efficient operations of its services. However, as this study has shown, these savings are unlikely to materialize. Moreover, the school district will incur interest expenses on borrowed funds.

TSD: With all buses operated by district staff, Transportation Services will have greater direct control from which better safety and customer service may be achieved.

RF: The Transportation Services Department may have less control over the staff because union work rules and personnel policies give it little discretion over firing and disciplinary actions. The process for dismissing a public employee, for example, requires advanced written notice to the employee and the presence of a union representative at the dismissal conference. A grievance procedure, should the affected employee decide to file one against the district, involves four different levels of appeal and is governed by over 30 different rules outlined in the collective bargaining agreement. By contrast, the district's contracts with private carriers specify that any driver can be immediately removed at the discretion of the Transportation Services Department from all district routes.

TSD: Due to a shrinking supply of contract vendors, Transportation Services anticipates substantial increases in new bid rates over the next five years. This plan would avoid the impact of the shrinking market.

RF: Transportation Services is concerned that consolidation in the transportation industry will lead to less competitive rates. It is partly the public administrators' responsibility to ensure competition, even among a very small number of carriers, through a properly structured bid process in which no single carrier—public or private—is allowed to control the service. Knowledgeable staff should evaluate bid proposals and negotiate rates. The plan by Transportation Services eliminates all competition. For an agency interested in avoiding "the impact of the shrinking market," eliminating the market entirely makes little sense. With no competitive pressure holding down costs, the cost of transportation is bound to rise more quickly than it would have in a competitive market of even a very small number of providers.

TSD: Annual inspections of carrier buses could be eliminated.

RF: Public agencies often fail to evaluate and monitor their own operations. Annual inspections of carrier buses would cease, but overall inspections will not decrease because the department is still responsible for inspecting its own buses. In addition, the California Highway Patrol, under state law, is required to conduct annual inspections of all school buses, both public and private.

TSD: Existing facilities are capable of accommodating the small increase in support staff. Better utilization of existing staff. Better utilization of existing operations and fleet maintenance facilities.

RF: These statements indicate that Transportation Services Department has excess staffing and facilities, which are being underutilized. These are unnecessary costs. In the private sector, excess overhead and bureaucracy would have immediately been eliminated. Instead, excess overhead is being used to justify an expansion of operations. This defies sound business principles and wastes taxpayer money for schools.

TSD: Purchasing power for buses and bus parts improves.
RF: For some items, the district may realize greater purchasing power due to economies of scale. The San Diego City Schools district, however, owns one of the largest public, yellow-school bus fleets in the state even without the expansion so it already enjoys many economies of scale.

TSD: Appearance of buses will improve under district control.

RF: This is certain to be true because the district will own and operate a fleet with newer, more expensive buses than private carriers. Appearances, however, are not without cost. Because of limited school resources, excess costs come at the expense of other school programs. Appearances have little, if any, impact on school-bus safety or reliability.

TSD: Property will remain a district asset long after the investment is repaid.

RF: Although the property can be counted as an asset, it is not without cost. The opportunity cost of the $3.25 million in capital investment must be considered—that is, what could the money have bought if it were not used to purchase a bus-parking facility?

TSD: The district will no longer be subject to carrier increases tied to the Consumer Price Index.

RF: Increases in the CPI have been relatively modest in recent years, tracking closely with inflation at about 3 percent. Tying carrier increases to the changes in the CPI is more preferable than allowing rate increases to be negotiated in the absence of some objective—and predictable—measure of economic growth. As Transportation Services itself points out, eliminating contractors will increase union bargaining power significantly, "thereby possibly negating some of the cost efficiencies already achieved."

B. Potential Disadvantages of the Expanding Transportation Services Department

TSD: Union bargaining power would increase significantly, thereby possibly negating some of the cost efficiencies already achieved. The incentive to "do it better and cheaper" than the carriers would disappear.

RF: Elimination of competition could reduce the incentive to contain costs and maintain quality.

TSD: Loss of less effective/efficient service providers eliminates a measurement of the true value/quality of the services provided by district staff.

RF: This statement is puzzling given the fact that the average cost per bus of operating in-house services is 83 percent higher than the cost of carrier service.

TSD: Staffing fluctuations due to year-round schools starting and stopping have largely been absorbed by carriers. Education Code restrictions on layoffs/reductions will make adjusting to these fluctuations much more difficult in-house.

RF: The California School Employees Association is unlikely to grant the district additional scheduling flexibility if such action requires reductions in paid work hours or positions unless wage and other concessions are granted by the district. The state Education Code includes a provision which in effect ratchets up the number of paid hours drivers earn (regardless if their services are needed or not) by prohibiting reductions in paid hours (for the balance of the year) once a driver has worked at least 20 consecutive days for a given number of hours per day. This regulation is especially problematic for the San Diego City Schools district, which operates on a year-round schedule with heavy fluctuations in student attendance schedules.
TSD: Carriers currently provide a flexible source of additional buses. Unanticipated growth in programs might necessitate short-term leasing of buses as time lines for purchase and delivery of new equipment usually exceeds 10 months.

RF: Carriers also provide a flexible source of additional drivers and staff. Hiring, leasing and bus-purchase will increase administrative costs. If the district experiences an unanticipated decrease in demand for programs, temporary or permanent, the district could be left with excess capital and staff.

TSD: An increase in fleet size will ultimately increase the number of used vehicles to be marketed. A strategy for marketing the used fleet will be needed to meet salvage value targets.

RF: Beyond meeting salvage value targets, the district must sell its buses in a timely fashion. Unsold vehicles incur costs of depreciation and interest. Success in meeting salvage-value targets is also heavily dependent on the demand for the district's conventional-type used buses.

TSD: Employee parking requirements already exceed available space. Employee parking will become a greater issue as the fleet and workforce expand.

RF: The district could incur costs of leasing additional space for employee parking unless it implements new policies such as carpooling or user fees.

TSD: Removal of a school bus driver from a route will be more difficult. The district has the latitude in its carrier contracts to ask for the removal of any driver from all district routes.

RF: No such provision exists in the district's collective bargaining agreement with its in-house drivers.

TSD: Negotiations with the union will have to take place to correct workhour language. Current language precludes the district from assigning work after 5:30 pm without an employee waiver. For this reason, many evening routes have been assigned to contractors.

RF: The district may be successful in changing workhour language. Or it may incur additional costs of doing so such as being required to pay overtime for evening routes.