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## Supplemental Analysis of National Survey on Contracting Transit Services

*This digest summarizes the findings from TCRP Project J-6/Task 39, "Supplemental Analysis of National Survey on Contracting Transit Services." The information contained herein supplements that contained in "TRB Special Report 258: Contracting for Bus and Demand-Responsive Transit Services." This work was performed by Dan Boyle and Associates. Daniel Boyle served as the principal investigator.*

### INTRODUCTION

This digest describes findings from a follow-on study designed to analyze in greater detail the data obtained from the agency and general manager surveys on contracting conducted as part of the study, "Contracting for Bus and Demand-Responsive Transit Services: A Survey of U.S. Practice and Experience." The original study was published as *TRB Special Report 258*.

This introductory section describes the purpose of the follow-on study. Following this section, the findings of the original study are summarized. The final section presents the results of the detailed analyses undertaken in the follow-on study.

*TRB Special Report 258* provided a wealth of information on the state of contracting practices in the United States for fixed-route bus and demand-responsive transit services. An unexpectedly high response rate to the surveys in the original study and a very tight schedule limited the exploration of all relationships of interest. This digest focuses on key additional findings generated by the follow-on study. These include

- Correlation of overall satisfaction (as measured by meeting expectations) with benefits/problems and reasons for contracting, as well as correlation of willingness to contract now with benefits/problems and reasons for contracting;
- An in-depth analysis of advice offered by general managers;
- Individual and joint effects of system size and type of service contracted;

- Further analysis of factors related to responsibilities for various functions associated with contracting transit service.

In the follow-on study, certain changes were made to the database used in the original study. Inclusion of contracting experience with service types other than fixed-route bus and demand-responsive transit services complicated the previous analysis, so responses related to commuter rail, ferryboat, and vanpool contracting have been deleted. In a few cases, this changed the way that agencies were categorized in terms of contracting. For example, in the original study, an agency that contracted only vanpool service was categorized as a contracting agency; in the follow-on study it was categorized as an agency that does no contracting. Additional responses received from several agencies also have been included in the database.

Several findings in this digest are presented by system size and type of service contracted. System size is categorized according to peak vehicle requirement, as reported in the National Transit Database (NTD). Three categories are used: small (less than 50 vehicles), medium (50 to 249 vehicles), and large (250 or more vehicles). Responses regarding specific contracts or service types address fixed-route bus and demand-responsive transit services, whereas responses regarding the overall contracting experience (primarily on the Part 2 Survey) were provided irrespective of service type. Overall contracting experience responses can be categorized by whether the

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agency contracts for fixed-route bus service, demand-responsive services, or both. An attempt was made to analyze these responses in three separate categories—fixed-route bus, demand-responsive, or both—but very few agencies contract only for fixed-route bus service.

The next section summarizes the original research, quoting extensively from the executive summary of *TRB Special Report 258*.

## **TRB SPECIAL REPORT 258: SUMMARY OF STUDY AND FINDINGS**

Each year, more than 500 state, regional, and local government agencies receive federal aid from the FTA for the provision of public transportation. Given this assortment of system types and services, it is not surprising that one finds great variety in the way transit agencies deliver their services to the public—from the use of their own vehicles and personnel to the use of outside contractors for some or all services.

In the interest of learning more about contracting as a method of transit service delivery, the 1998 Transportation Equity Act for the 21st Century (TEA-21) called on the TRB to conduct a study of contracting by recipients of federal transit grants. The act called for an examination of the extent and practice of transit service contracting and its effects on operating costs, customer service, safety, and other aspects of service quality and quantity.

To conduct the study, TRB convened a 12-member committee of experts in public transportation management, labor, economics, and public policy. In carrying out the study, the committee reviewed previous reports on transit service contracting; conducted its own nationwide survey of public transit systems and their general managers; and interviewed transit managers, labor union leaders, contractors, and members of transit policy boards.

The study focused on fixed-route bus and demand-responsive transit services, which account for the vast majority of transit service contracts. Most of the findings and conclusions presented in this report emerged from the committee's survey of transit systems and their general managers. In the first part of the survey, transit systems from around the country were asked to provide information on the extent to which they contract for fixed-route bus and demand-responsive services and to describe their individual contracts and contracting programs. In the second part of the survey, general managers were asked to explain why they contract or do not, to relate their experiences with contracting, and to offer advice on how to make contracting work better. Part 1 yielded much detail on the amount of contracting that goes on and how contracts are obtained and structured; the results from Part 2 offer important insights about the effects of transit contracting on cost, quality, and other aspects of service. More than 250 systems, accounting for more than half of all federal aid recipients, responded to the

survey. The committee believes that the survey results in and of themselves are an important contribution to the field and anticipates their use by others to better understand and quantify the practice and effects of transit contracting.

The committee drew on its own varied expertise and experience to interpret the large amount of empirical information obtained from the survey. Resulting findings and conclusions are summarized in the following pages.

### **Extent of Transit Service Contracting in the United States**

The survey findings, augmented by NTD data, reveal that transit contracting is neither rare nor monolithic in practice. Hundreds of transit systems—of all sizes and types—now contract for some transit services, and many have done so for a number of years. About one-third of all federal aid recipients contract for more than 25 percent of their services, and about one-quarter contract for a smaller share. The remaining 40 percent do not currently contract at all; yet, about one-third of these systems have done so in the recent past. Altogether, about 15 percent of all vehicle-hours of fixed-route bus and demand-responsive service are provided by contractors, a percentage that has changed very little over the past 5 or 6 years.

#### *Contracting by System Size and Service Type*

Larger systems (those with more than 50 total vehicles) are more likely than smaller ones to contract for some transit services. Yet when small systems do contract, they are much more likely to contract for all services. Many small transit systems are run by city and county agencies that do not specialize in transit. These general governmental agencies are twice as likely as regional transit agencies to contract for all their transit services. A corollary is that whereas regional transit agencies are even more likely than city and county agencies to have some contracted services, they seldom contract for most of their services.

A majority of both small and larger transit systems contract for demand-responsive services; however, they differ significantly in their propensity to contract for fixed-route bus services. About half of small systems and two-thirds of larger systems contract for all of their demand-responsive services. By comparison, one-third of smaller systems contract for all fixed-route bus services, whereas only one-sixth of larger systems do.

Overall, contracting is much more common for demand-responsive transit than for fixed-route bus services. About 60 percent of transit systems that provide demand-responsive service contract for 25 percent or more of this service, and more than half contract for all of it. By comparison, only about 30 percent of systems that provide fixed-route bus service contract for 25 percent or more of this service, and about 25 percent contract for all of it. Altogether, about two-thirds of demand-responsive service is provided through

contractors, compared with only 6 percent of fixed-route bus service.

### *Possible Reasons for Contracting*

The findings reported above suggest some plausible reasons why transit agencies choose to contract. That a large number of systems contract for a relatively small proportion of services suggests that many are using the practice to fill service niches or to add or expand services quickly. Likewise, the findings suggest that many small systems, run by city and county agencies that do not specialize in transit, may be contracting for highly pragmatic reasons, such as the need to obtain specialized expertise.

Yet statistical data on the magnitude and incidence of contracting are not sufficient for assessing the validity of these possible reasons for contracting. Part 2 of the survey was therefore designed to elicit from general managers of transit systems the factors influencing their decisions about contracting. Their answers are summarized in the next section.

### **Transit General Managers' Rationales for Contracting**

The committee chose to survey transit general managers because they are highly identifiable participants in the decision to contract and because they can provide specific information on contracting procedures and effects. Although recognizing that the survey results represent the particular vantage point of transit management, committee members nonetheless believe the results offer valuable insight into why some transit agencies contract and others do not.

### *Chief Reasons for Contracting*

Survey respondents included general managers of systems that currently contract and those that do not, among them some that have contracted in the recent past but have since stopped doing so. The general managers of systems that presently contract gave several reasons for the practice. The most prevalent reasons included starting new services, reducing operating costs, and improving service cost-efficiency. Relatively few cited state and federal laws and policies as a main or important reason for contracting.

### *Chief Reasons for Not Contracting*

In explaining why they do not contract, general managers cited a desire to maintain control over their operations, low anticipated cost savings, and little reason for changing current practice. Like the general managers of agencies that do contract, few general managers of agencies that do not contract cited state and federal laws and policies, including the labor protection provisions in Section 13c of the Federal Transit Act, as influencing their decision.

### *Interest in Change?*

Nearly 80 percent of the general managers of transit systems that currently contract reported that they would do so now given their experience; about 15 percent said they would not, and 5 percent were uncertain. Likewise, more than 70 percent of the general managers of systems that do not contract reported that they are not interested in adopting the practice to replace or supplement current methods of in-house service delivery; 25 percent said they are interested in doing so, and 5 percent were uncertain.

To be sure, some general managers indicating no desire to change may be defending or rationalizing their current approach. Yet, the reports also suggest a fair amount of satisfaction with existing practice. It is certainly plausible that those systems whose circumstances make them best suited to contracting are now doing it, while those with less favorable circumstances are not. Taking a somewhat different perspective, however, the results also reveal that a sizable minority of general managers—one in seven who are now contracting, and one in four who are not—have an interest in at least considering a change in their current approach to service delivery.

### **Methods of Structuring and Obtaining Contracts**

The surveyed transit systems were asked to provide details about their two largest fixed-route bus and two largest demand-responsive contracts. The survey asked about the length of each contract, the basis of payment, the use of performance incentives and penalties, and other details of contract terms and provisions. In addition, respondents were asked about the methods used to obtain the contract and the degree of competition experienced, including the number of bidders and contractor changes that have occurred during each bid cycle. The answers to these questions, gleaned for nearly 300 contracts reported by more than 150 systems, reveal much about the way service contracts are structured and the degree of competition for contracts today.

### *Contract Specificity*

Most transit service contracts not only define the kinds of services to be offered, but also prescribe how those services are to be provided; how service quantity and quality are to be measured and monitored; and who will provide the vehicles, facilities, maintenance, and support services. Survey findings suggest that detailed contracts are especially important as a means of ensuring that all parties understand each other's responsibilities and expected performance.

### *Contract Provisions*

Most transit service contracts include provisions that prompt the contractor to control costs and pay attention to

service quality. Contractors are usually compensated on the basis of the amount of service they provide according to a specified rate, such as a charge per revenue-hour; relatively few are compensated based on the costs they claim to have incurred in supplying the service. This approach shifts cost-containment responsibilities to the contractor. Furthermore, contract terms are often designed to foster competition. The most common contract duration is 3 years with two 1-year options. This interval is apparently long enough to avoid repeated transaction costs associated with frequent re-bidding, but short enough to ensure that incumbent contractors do not become complacent and that competitor interest is sustained. Most contracting agencies provide the vehicles and facilities for the service, especially in bus contracts. This practice, too, may foster competition by reducing contractors' capital risks and by allowing the agency to retake and re-bid the service if the winning contractor fails to perform as required.

### *Competition for Contracts*

The survey results indicate that the majority of transit systems obtain service contracts through procedures intended to attract competing bidders. Most reported contracts, especially the largest contracts and those for bus services, have attracted multiple bidders. As might be expected, larger contracts, more prevalent among the bigger transit systems, tend to attract greater numbers of bidders and involve changes in contractors more often than do smaller contracts. In general, however, the numbers of bidders on contracts have been stable in recent years, and many contracts continue to change hands even after having been re-bid numerous times, suggesting that incumbent contractors are frequently subject to competition.

### **Effects of Contracting on Service Costs and Quality**

A comprehensive analysis and synthesis of previous research in this area could not be undertaken within the time frame and resources available. Instead of attempting to formulate such judgments about the effects of contracting by reviewing past studies, the committee chose to ask the transit general managers surveyed for their own assessments of those effects. Respondents received no guidance on what constitutes a cost saving or a high quality of service; instead, they were simply asked to use their judgment in identifying and rating various effects of transit service contracting.

Most of the general managers of systems that are now contracting reported that their contracting programs are meeting expectations. More than half stated that their expectations for contracting have been fully met overall, and another 38 percent reported that their expectations have been partially met.

Almost all of the general managers of systems that are now contracting reported cost savings from the practice. Small agencies reported benefits from contractors' assumption of supervisory and administrative burdens.

The negative effects of contracting mentioned most frequently by general managers of systems that have contracted, including those that do so now and those that have done so in the past, were the loss of operational control, shortcomings in service quality, and problems with customer service. More than half the general managers that reported having their expectations for contracting partially met identified service quality as an important problem. General managers from systems that no longer contract also cited problems with service quality.

### **General Managers' Advice on Contracting**

By and large, the general managers from transit agencies that are now contracting are satisfied with the cost savings achieved, and less satisfied with the quality of service provided. Yet often through practical experience, the transit systems that are contracting today have found ways of achieving acceptable levels of both cost savings and service quality. Many have advice to offer other agencies that are considering contracting, including the following:

- Anticipate the advantages and disadvantages of contracting, and set realistic expectations.
- Establish a competitive procurement process that invites high-quality proposals and screens out unrealistic proposals and unqualified contractors.
- Prepare an internal analysis of the cost of service contracting as a baseline for examining bids.
- Spell out all contractor responsibilities clearly, monitor performance closely, and communicate with the contractor frequently and openly.

### **KEY FINDINGS OF SUPPLEMENTAL ANALYSIS**

This section presents findings of the supplemental analysis. As seen in the previous section, the original report provided extensive information for assessing transit service contracting. The committee felt that additional areas could be addressed with a more detailed examination of the survey results. These areas are listed below.

**Contracting Methods**—The focus in this area of analysis was specifically on how contracts are obtained. The question in Part 2 of the survey (the general managers' survey) addressing how contracts were obtained provided choices that were too broad. Several respondents took the opportunity to write in a more specific response. Recoding of

responses and a reanalysis of results has provided better information on the extent to which contracting methods are competitive or noncompetitive.

**General Satisfaction with Contracting**—The surveys did not include a question directly asking about how satisfied agencies were with the contracting experience. The survey completed by the general managers did include two questions that can be used as surrogates for assessing satisfaction. The first asked general managers about the degree to which their expectations were met, and the second asked about how willing general managers would be to contract now if they were solely responsible for the decision. Multiple analyses of these two questions were performed.

**Extent of Contracting**—City and county transit agencies appeared much more likely than regional transit agencies to contract all of their services, but size may be an intervening variable.

**Contracting Terms and Provisions**—When systems are categorized by size and type of service contracted, do differences emerge with regard to issues of contract size; responsibility (agency or contractor) for providing vehicles, other equipment, and facilities; and penalties or incentives included in contracts?

**Contracting Competition**—When systems are categorized by size and type of service contracted, can a difference in number of bidders be seen? Does the number of bidders change over time in different ways? Do agencies that change contractors receive more or fewer proposals in subsequent re-bids? Has the number of bidders for transit service contracts changed in 2000 and 2001? For which types of contracts is competition increasing, and for which types is competition decreasing?

Each of these areas is addressed separately on the following pages. A summary at the end of the section notes important findings of this supplementary analysis.

## Contracting Methods

The question in Part 2 of the survey addressing how contracts were obtained provided four answers to choose from: competitive bidding, negotiated procurement, combination of the two, and other. When the committee met to review results, committee members quickly realized that these options were too broad. Competitive bidding includes contracts awarded in three different ways: solely on the basis of low bid, through a process where price is one of several factors considered, or through a two-phase process in which the lowest bid among qualified entries is accepted. Negotiated procurement may include franchise arrangements, other sole-source negotiations, periodic renegotiations with a long-time contractor, or interlocal agreements with other

governmental agencies. A combination of competitive bidding and negotiated procurement may include a request for proposal (RFP) process (which could also be considered a competitive bid process) or a situation in which an agency negotiates terms of a best and final offer with the low bid or most qualified bidder.

For this study, responses to the question addressing how contracts were obtained were reviewed, taking particular note of additional comments provided in the margin by several respondents. Approximately 10 percent of the 205 responses to this question could be placed specifically into three additional categories: RFP process, interlocal agreement, and franchise arrangement. Results were then grouped into competitive and noncompetitive categories. A competitive process included competitive bidding, a combination of competitive bidding and negotiated procurement, and an RFP. A noncompetitive process included negotiated procurement, interlocal agreements, and franchise arrangements.

**The main finding concerning contracting methods was that the vast majority of transit agencies that contracted for transit services used a competitive process.** Figure 1 presents the results by service type and size. Nearly 80 percent of all responses indicated a competitive process, while over 20 percent of responses indicated a noncompetitive process. Only slight differences emerged between service types (83 percent of fixed-route bus service procurements were characterized as competitive versus 76 percent for demand-responsive services). In general, fixed-route bus contracts were slightly more likely to be obtained through a combination of methods and slightly less likely to be obtained through negotiated procurement than demand-responsive service contracts. Among the three additional categories, an RFP process was more likely to be used for fixed-route bus contracts and an interlocal agreement was more likely to be used for demand-responsive service contracts; however, the number of responses was small.

## General Satisfaction with Contracting

Analyses of the survey questions asking about (1) the degree to which general managers' expectations were met, and (2) their willingness to contract now fall roughly into two groups. The first set of analyses looked at how the degree to which general managers' expectations were met and their willingness to contract now were affected by

- System size and service type,
- Aspects of contracting,
- Number of bidders and bidding process,
- Contractor type,
- Provision of vehicles and other services,
- Penalties and incentives in contracts, and
- Purpose in contracting.

A second set of analyses looked at

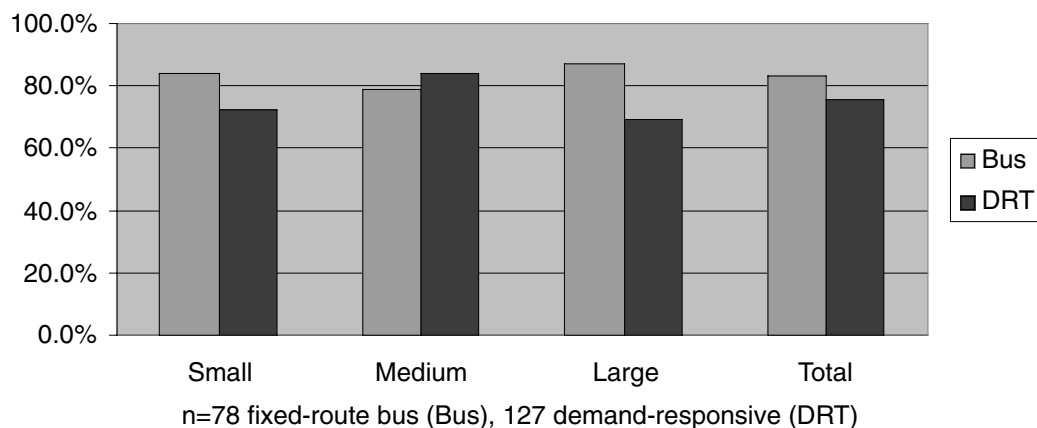


Figure 1. Percentage of agencies obtaining contracted service through competitive means, by system size and service type.

- The relationship between the degree to which general managers' expectations were met and their willingness to contract now;
- Benefits/problems of contracting correlated with the degree to which general managers' expectations were met and their willingness to contract now;
- Reasons for contracting and not contracting correlated with the degree to which general managers' expectations were met and their willingness to contract now; and
- Difference in general managers' advice to an agency thinking about contracting for the first time by the degree to which their expectations were met and their willingness to contract now.

#### System Size and Service Type

The percentage of agencies reporting fully met expectations was consistently between 55 and 60 percent

for nearly all system size/service type categories. The only real variations were in large bus and medium bus systems. Over two-thirds of large bus systems reported fully met expectations, while barely a majority of medium bus systems reported that contracting fully met their expectations (Figure 2).

Large systems that contract services were more likely to indicate a willingness to contract now than medium and small systems. This finding applies to both fixed-route bus and demand-responsive service (Figure 3).

#### Aspects of Contracting

The most commonly cited reasons that contracting did not fully meet expectations were contractor issues and poor service quality. The relative emphasis given to these two primary reasons differed among fixed-route bus and demand-responsive general managers. As Figure 4 shows, contractor issues were more likely to be

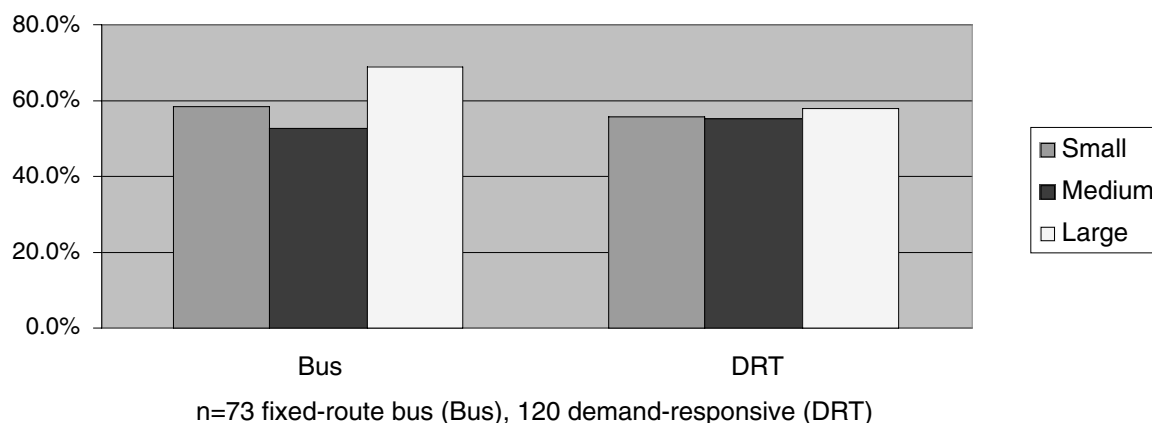


Figure 2. Percentage of agencies reporting fully met expectations, by system size and service type.

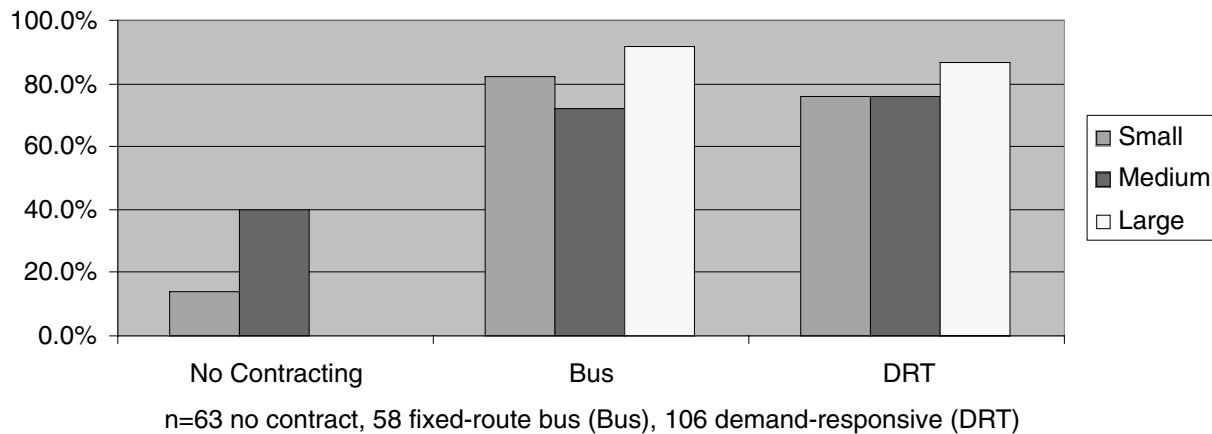


Figure 3. Percentage of agencies willing to contract now, by system size and service type.

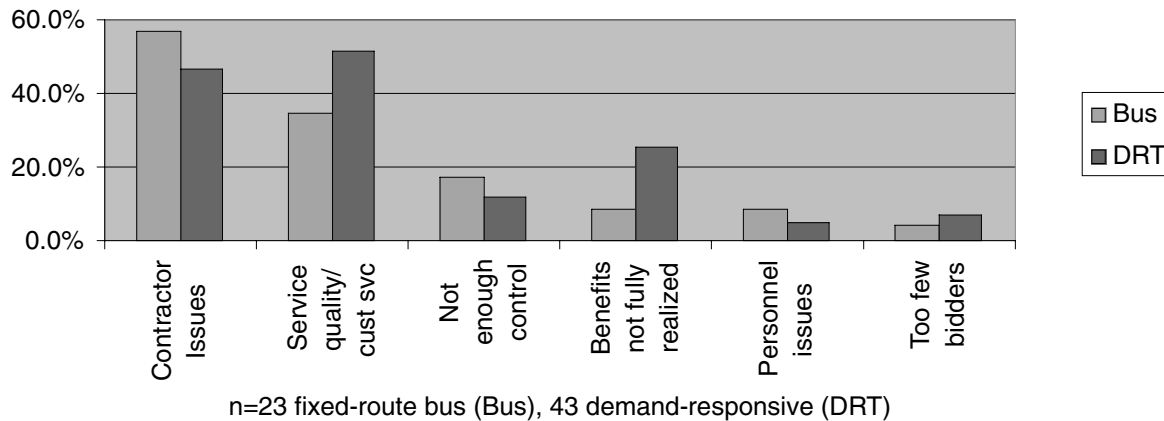


Figure 4. Percentage of agencies reporting reasons why contracting did not fully meet expectations, by service type.

mentioned as a reason why contracting results did not fully meet initial expectations by bus general managers. Service quality/customer service was much more of an issue among demand-responsive service general managers, as well as benefits not being fully realized.

**General managers who viewed the ability to provide more fixed-route bus or demand-responsive service as a positive effect of contracting were very likely to report fully met expectations.** In addition, all general managers of bus systems who cited avoidance of capital costs as a positive effect (a relatively small number) reported fully met expectations. On the other hand, very few general managers who reported reduced hiring/staff needs as a positive effect reported fully met expectations. Reduced operating cost was the most frequently reported positive effect, but general managers citing this effect were somewhat less likely to report fully met expectations. Figure 5 presents these results.

**Flexibility was an important positive effect associated with the willingness to contract now.** Figure 6 pre-

sents the differences in positive effects reported by agencies that would contract now and agencies that either would not or were uncertain. The most striking difference is related to flexibility: over one-quarter of the agencies that would contract now reported flexibility as a positive aspect of contracting, compared to less than 5 percent of other agencies. Avoidance of capital costs was also more likely to be cited as a positive effect by agencies willing to contract now. On the other hand, the only positive effect of contracting more likely to be reported by agencies unwilling to contract now or unsure about it was reduced hiring and staff needs, suggesting that this positive effect was not highly valued.

**General managers who cited service quality/customer service, contractor issues, diminishing returns, and turnover/low wages as negative effects of contracting were more likely to report partially met or unmet expectations.** At least 60 percent of the general managers who cited these issues as negative effects reported either partially met or unmet expectations (Figure 7). Service qual-



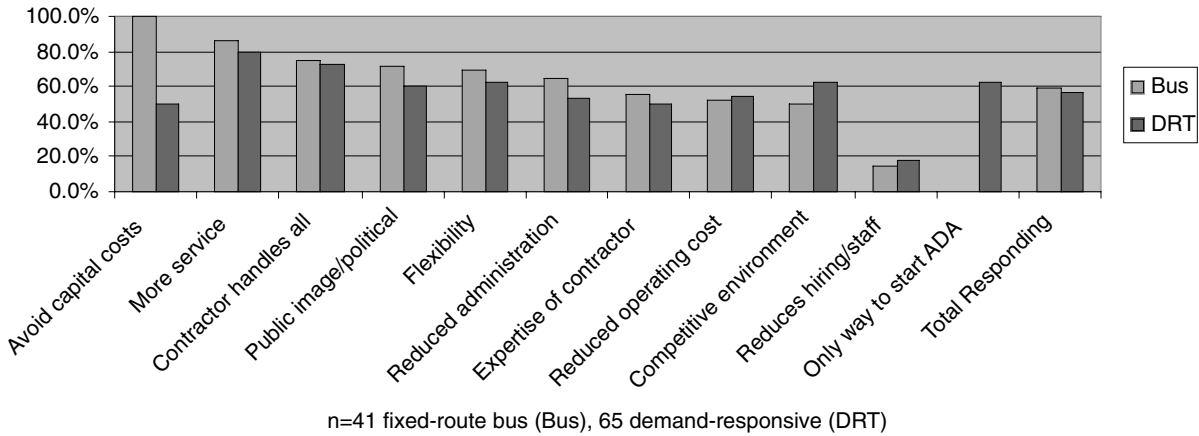


Figure 5. Percentage of agencies reporting fully met expectations, by positive impacts and service type.

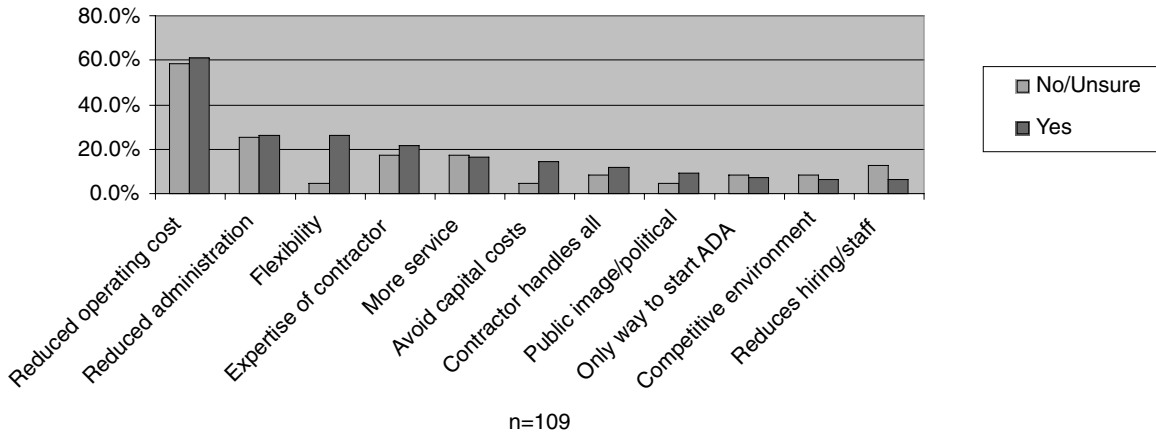


Figure 6. Percentage of agencies reporting positive effects, by willingness to contract now.

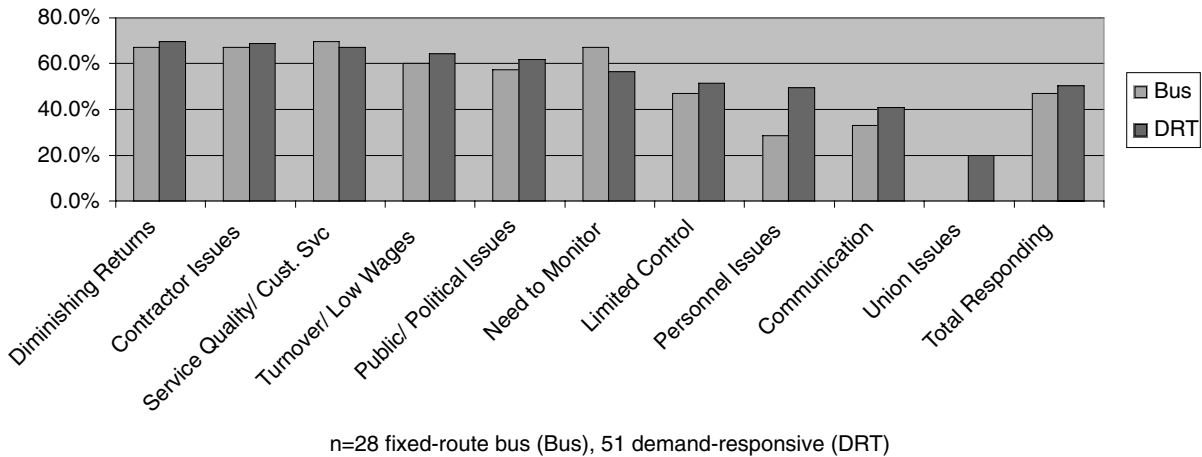


Figure 7. Percentage of agencies reporting partially met or unmet expectations, by negative impacts and service type.

ity issues appeared particularly tied to less than fully met expectations among small systems.

Limited control was among the most frequently reported negative effects of contracting. However, general managers noting limited control as a negative effect were not more likely to report partially met or unmet expectations, suggesting that this was not a defining factor in the contracting experience.

**Contractor and personnel issues, need to monitor, and diminishing returns were important negative effects influencing willingness to contract now.** Agencies willing to contract now were more likely to report turnover/low wages as a negative effect, but this does not appear to have had an adverse effect on willingness to contract (Figure 8).

Contractor and personnel issues, need to monitor, and diminishing returns were all more likely to be reported by agencies unwilling to contract now or undecided. On a percentage basis, public/political issues as a negative effect was also more likely to be reported by agencies unwilling or uncertain whether to contract now, but the number of agencies reporting this as a negative effect was very low.

**Among agencies that do not contract, those citing control, cost-effectiveness, and satisfaction with the status quo were very unlikely to contract now.** Very few agencies that reported the most common reasons not to contract (maintain control, not cost-effective, and no reason to change) were willing to contract now (Figure 9). On the other hand, over 40 percent of agencies that reported Sec-

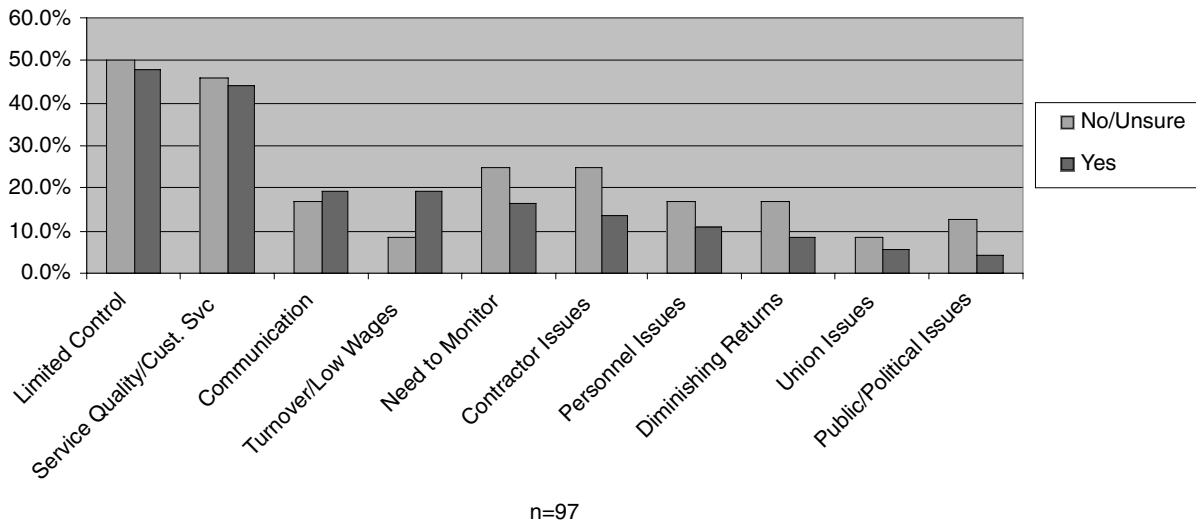


Figure 8. Percentage of agencies reporting negative effects, by willingness to contract now.

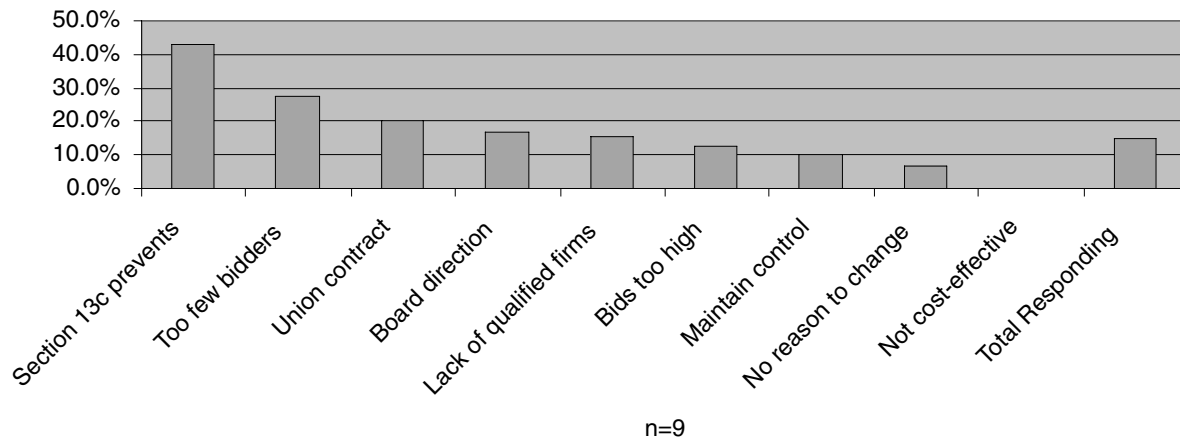


Figure 9. Percentage of agencies that do not contract reporting a willingness to contract now, by major or important reasons for not contracting.

tion 13c of the Federal Transit Act as a major or important reason not to contract indicated a willingness to contract now. Please note that these findings are based on a small number of responses.

*Number of Bidders and Bidding Process*

**Receipt of multiple bids on contracts did not necessarily mean a greater likelihood that expectations would be fully met. However, multiple bidders did encourage a willingness to contract now among small and medium demand-responsive systems.** Surprisingly, an agency was

more likely to report fully met expectations in all size and service-type categories for those contracts with only one bidder. Figure 10 indicates that agencies were satisfied with the contracting experience in cases in which there was only one bidder. Of course, if the agency’s satisfaction was known throughout the industry, then other firms may have been less likely to bid, so it is difficult to ascribe causality in this instance.

Figure 11 indicates that multiple bidders can affect the willingness to contract now. Small and medium demand-responsive systems that reported only one bidder were less likely to contract now.

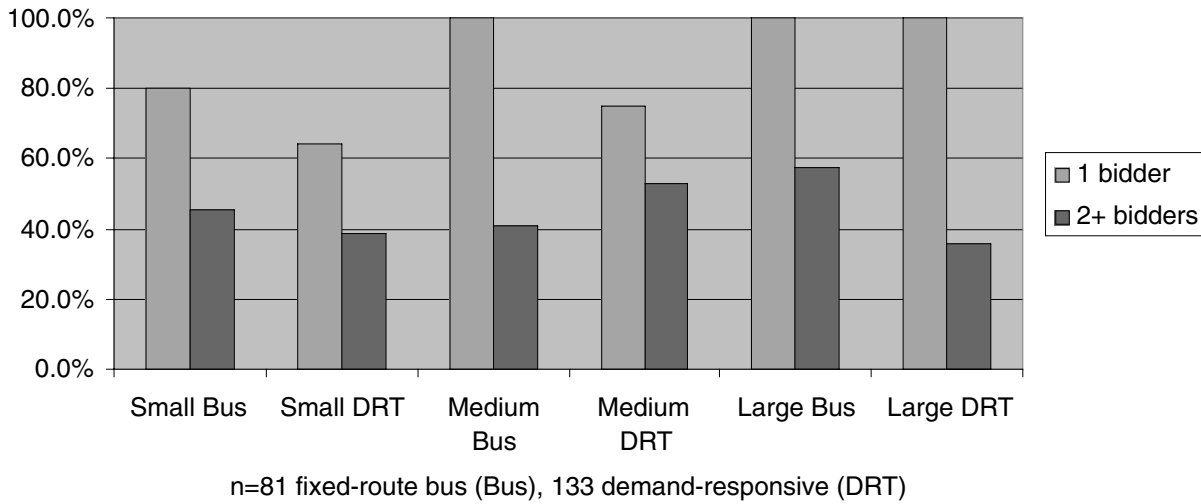


Figure 10. Percentage of contracts where agencies report fully met expectations, by number of bidders and type of service.

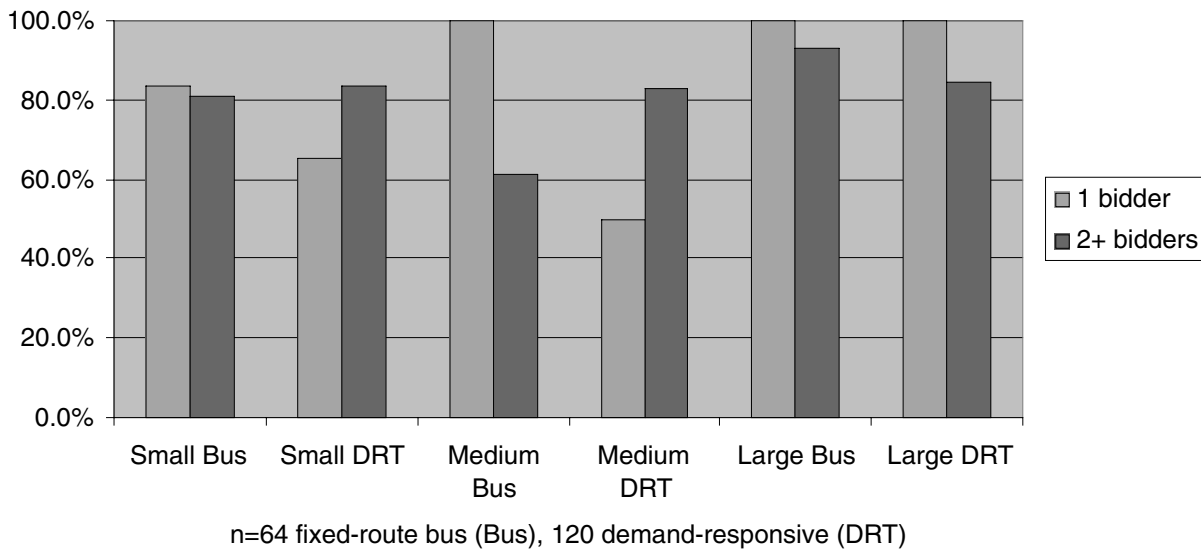


Figure 11. Percentage of contracts where agencies are willing to contract now, by number of bidders and service type.

**The change in number of bidders had different effects for fixed-route bus and demand-responsive contracts in terms of the degree to which expectations were met and willingness to contract now.** For fixed-route bus systems of all sizes, the change in number of bidders had little effect on the degree to which expectations were met (Figure 12). For demand-responsive services, all systems that reported an increased number of bidders had their expectations fully met. For medium and large demand-responsive systems, the percentage reporting fully met expectations was markedly lower for those reporting a decreased number of bidders than for those reporting no change, whereas for small demand-responsive systems the percentages for those reporting a decreased number of bidders and no change were similar.

There was no clear relationship between a change in number of bidders and willingness to contract now for medium and large fixed-route bus systems. For small fixed-route bus systems and demand-responsive systems of all sizes, those that reported an increase in number of bidders were more willing to contract now than those that reported a decrease (Figure 13).

**Agencies obtaining contracted fixed-route bus service through a competitive process were more likely to report fully met expectations, but the opposite was true for contracted demand-responsive service. Agencies utilizing competitive methods in obtaining contracted service of both types were slightly more willing to contract now.** Figure 14 presents the degree to which contracting met expectations for service obtained through competitive and

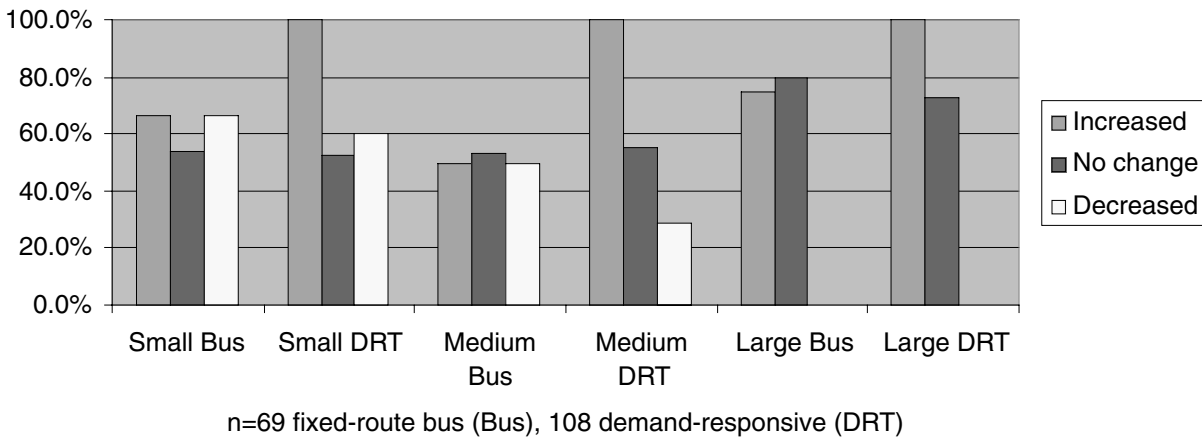


Figure 12. Percentage of agencies with fully met expectations, by change in number of bidders, system size, and service type.

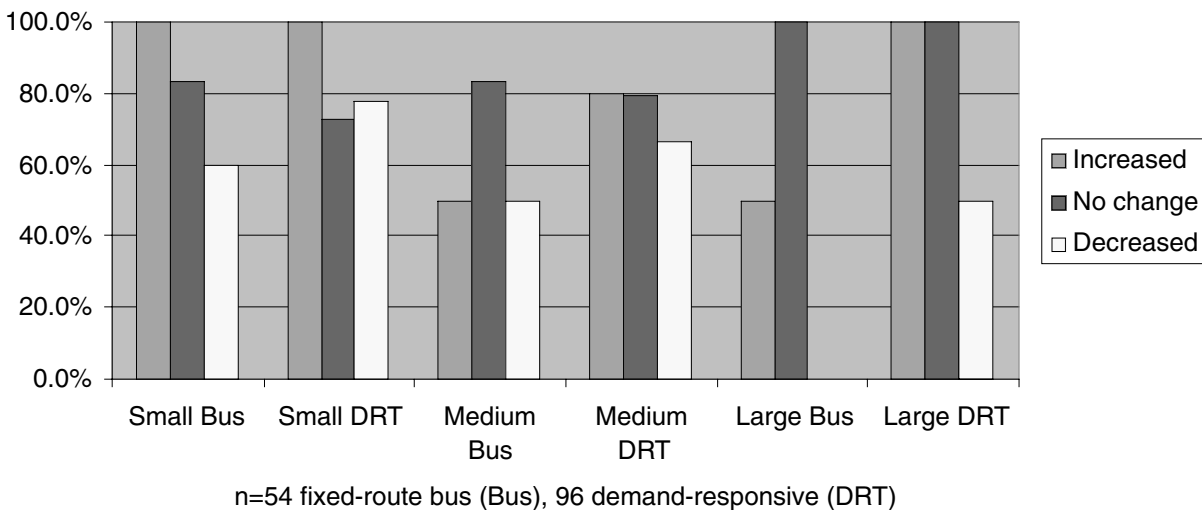


Figure 13. Percentage of agencies willing to contract now, by change in number of bidders, service type, and system size.

noncompetitive processes. For fixed-route bus contracts, 63 percent of agencies using a competitive process (competitive bidding, combination, or RFP) reported that their expectations were fully met; only 39 percent of agencies using a noncompetitive process (negotiated procurement, interlocal agreement, or franchise arrangement) reported fully met expectations. However, the opposite occurred with demand-responsive service contracts—63 percent of agencies using a noncompetitive process and 53 percent of those using a competitive process reported that their expectations were fully met.

Figure 15 indicates how fixed-route bus or demand-responsive agencies' willingness to contract now varied by method of obtaining service. Agencies utilizing competitive methods to contract both fixed-route bus and demand-responsive service were slightly more willing to contract now than agencies using noncompetitive methods (82 percent versus 75 percent for fixed-route bus service, 79 percent versus 73 percent for demand-responsive service).

*Contractor Type*

**Agencies contracting for fixed-route bus contracts with private for-profit contractors were more likely to report fully met expectations, and agencies contracting for fixed-route bus contracts with the private sector (profit and nonprofit) were more willing to contract now. The type of contractor used for demand-responsive service contracts did not affect the likelihood that expectations would be fully met or the willingness to contract now.** Figure 16 presents the degree to which contracting met expectations categorized by contractor status. For fixed-route bus contracts, 62 percent of agencies utilizing private for-profit contractors reported fully met expectations; only 50 percent utilizing other types of contractors reported fully met expectations.

Figure 17 presents agencies' willingness to contract now categorized by contractor status. For fixed-route bus contracts, agencies' willingness to contract now was greater

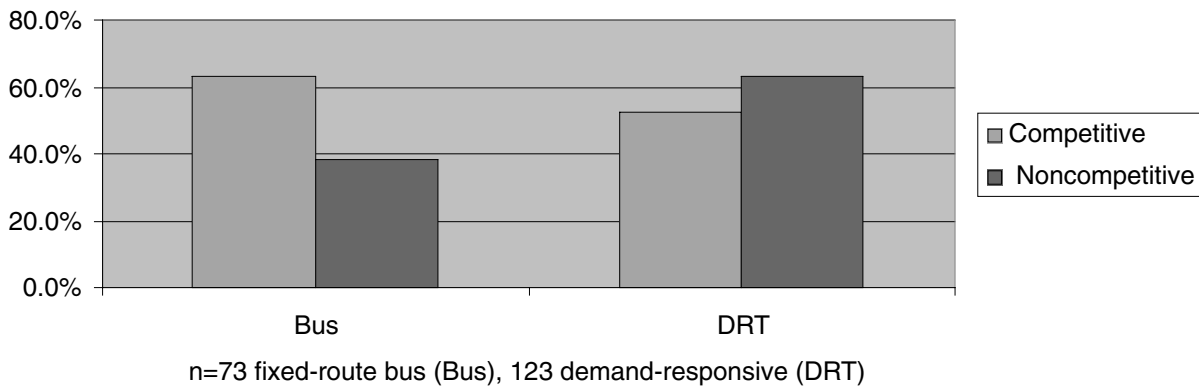


Figure 14. Percentage of agencies with fully met expectations, by method of obtaining service and service type.

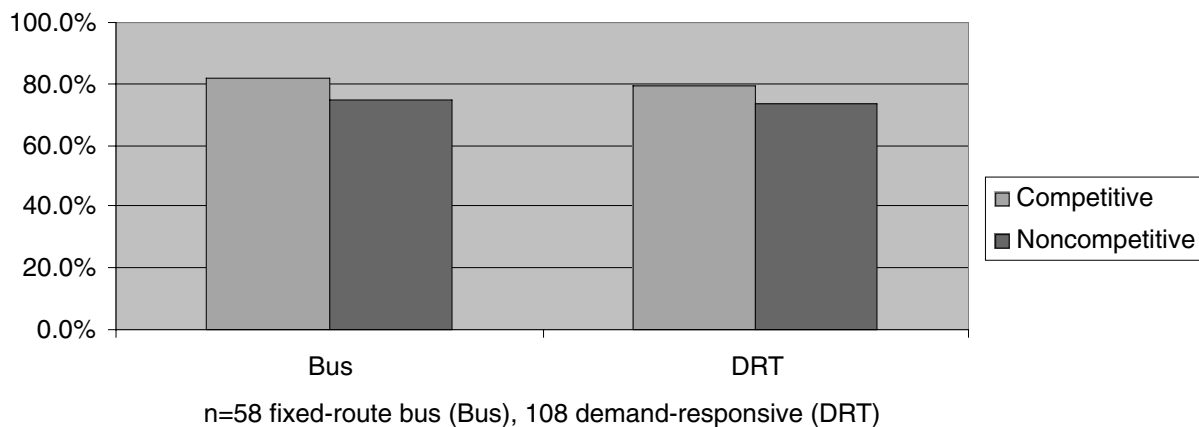


Figure 15. Percentage of agencies willing to contract now, by method of obtaining service and service type.

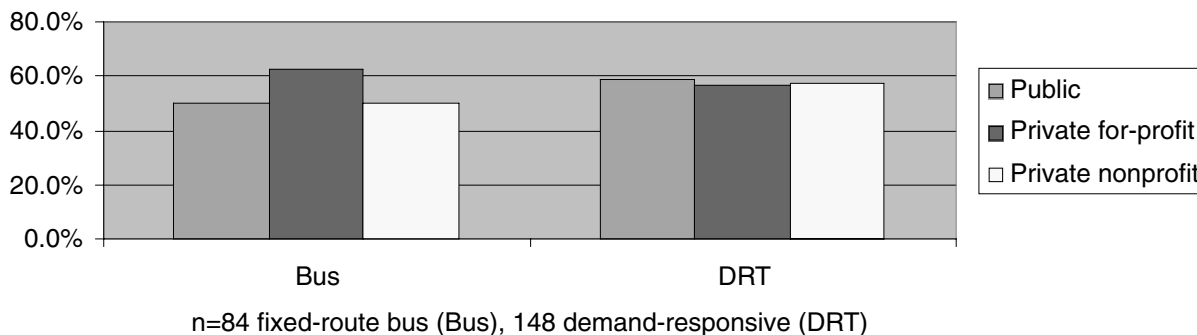


Figure 16. Percentage of contracts where agencies report fully met expectations, by type of contractor and type of service.

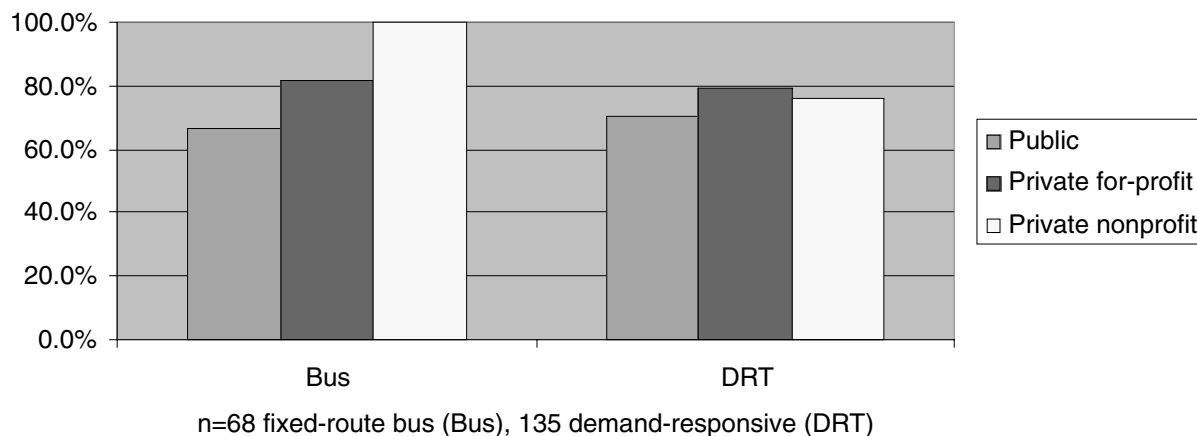


Figure 17. Percentage of contracts where agencies are willing to contract now, by type of contractor and service type.

among those utilizing private nonprofit and private for-profit contractors. Figures 16 and 17 indicate that type of contractor did not seem to affect either the percentage of agencies reporting fully met expectations or willingness to contract now for demand-responsive service contracts.

**National for-profit companies were rated more highly than local companies for fixed-route bus contracts in willingness to contract now and degree to which expectations were met. Local for-profit companies fared better than their national counterparts for demand-responsive service contracts in the degree to which expectations were met, but not in willingness to contract now. Transit agencies were ranked highly as fixed-route bus and demand-responsive service contractors.** Table 1 provides an additional breakdown based on contractor names provided by respondents. The following categories were developed:

- National for-profit (if a contractor was mentioned at least three times in different metropolitan areas)
- Taxicab companies (including taxicab and limousine companies)
- Local for-profit/non-taxi (if a contractor was mentioned only once or twice or in only a single metropolitan area, and was not a taxicab company)
- Social service agency—aging (including councils on aging and elderly services departments)
- Social service agency—other (public agencies not dedicated to the elderly)
- Transit agency
- Other public agency (councils of government, metropolitan planning organizations, and other non-social service agencies)
- Other private nonprofit

One interesting result presented in Table 1 is that demand-responsive service contractors were more varied than fixed-route bus contractors, given the nature of demand-responsive service. More than two-thirds of respondents contracting fixed-route bus service with either a transit agency or a national for-profit company reported fully met expectations; only half of those contracting fixed-route bus service with a local for-profit company reported fully met expectations. For demand-responsive service contracts, however, local for-profit companies fared better than national companies. Surprisingly, social service agencies focused on the elderly as contractors of demand-responsive service received the lowest percentage of fully met expectations. For demand-responsive services, other social service agencies, taxicab

companies, and transit agencies were rated highest in terms of fully met expectations.

Table 2 presents agencies' willingness to contract now for both fixed-route bus and demand-responsive contracts categorized by contractor types. Over 80 percent of respondents contracting for fixed-route bus service with transit agencies or national for-profit companies were willing to contract now. For demand-responsive service, the highest percentages of respondents willing to contract now were contracting with transit agencies, other private nonprofit agencies, and national for-profit companies.

There is a surprising difference in how other social service agencies (not including agencies specifically focused on the elderly) were ranked in degree which expectations

**TABLE 1 Type of contractor by degree to which expectations were met for each service type**

Type of Contractor	Type of Service	Partially/ Unmet	Percent	Fully Met	Percent	Total Agencies	Percent
Transit agency	Bus	3	30.0%	7	70.0%	10	100%
National for-profit		10	28.1%	22	68.8%	32	100%
Local for-profit/non-taxi		12	48.0%	13	52.0%	25	100%
Other		2	50.0%	2	50.0%	4	100%
Total		27	36.6%	44	62.0%	71	100%
Social service agcy-other	DRT	1	14.3%	6	85.7%	7	100%
Taxicab		3	23.1%	10	76.9%	13	100%
Transit agency		2	33.3%	4	66.7%	6	100%
Local for-profit /non-taxi		15	28.2%	24	61.5%	39	100%
Other private nonprofit		5	41.7%	7	58.3%	12	100%
National for-profit		20	50.0%	16	44.4%	36	100%
Social service agcy-aging		5	62.5%	3	37.5%	8	100%
Other public		4	66.7%	2	33.3%	6	100%
Total		55	38.6%	72	56.7%	127	100%

NOTE: Bus=fixed-route bus, DRT=demand-responsive.

**TABLE 2 Type of contractor by willingness to contract now for each service type**

Type of Contractor	Type of Service	No/ Unsure	Percent	Yes	Percent	Total Agencies	Percent
Transit agency	Bus	1	11.1%	8	88.9%	9	100%
National for-profit		4	16.0%	21	84.0%	25	100%
Local for-profit /non-taxi		4	22.2%	14	77.8%	18	100%
Other		1	33.3%	2	66.7%	3	100%
Total		10	18.2%	45	81.8%	55	100%
Transit agency	DRT		0.0%	5	100.0%	5	100%
Other private nonprofit		1	8.3%	11	91.7%	12	100%
National for-profit		6	20.0%	24	80.0%	30	100%
Taxicab		3	23.1%	10	76.9%	13	100%
Local for-profit /non-taxi		9	25.0%	27	75.0%	36	100%
Social service agcy-aging		2	28.6%	5	71.4%	7	100%
Other public		2	40.0%	3	60.0%	5	100%
Social service agcy-other		4	57.1%	3	42.9%	7	100%
Total		27	23.5%	88	76.5%	115	100%

NOTE: Bus=fixed-route bus, DRT=demand-responsive.

were met and willingness to contract now. Transit agencies contracting demand-responsive service with other social service agencies were most likely to report that their expectations were fully met, but were least likely to indicate a willingness to contract now. It should be noted that only seven other social service agencies were identified as contractors.

*Provision of Vehicles and Other Services*

**Agencies were more likely to report fully met expectations for contracts in which they provided vehicles rather than the contractor. The relationship between**

**vehicle provision and willingness to contract now is not clear.** Figure 18 indicates that for all categories except fixed-route bus contracts at small agencies, agencies that provide their own vehicles were more likely to report fully met expectations than agencies that obtained their vehicles from the contractor. Small and medium demand-responsive service contracts showed only a slight difference in terms of fully met expectations between agency and contractor provision of vehicles. As only a few contracts involved provision of vehicles by both the agency and the contractor, these contracts are not included in Figure 18.

As presented in Figure 19, the relationship between willingness to contract now and vehicle provision is not

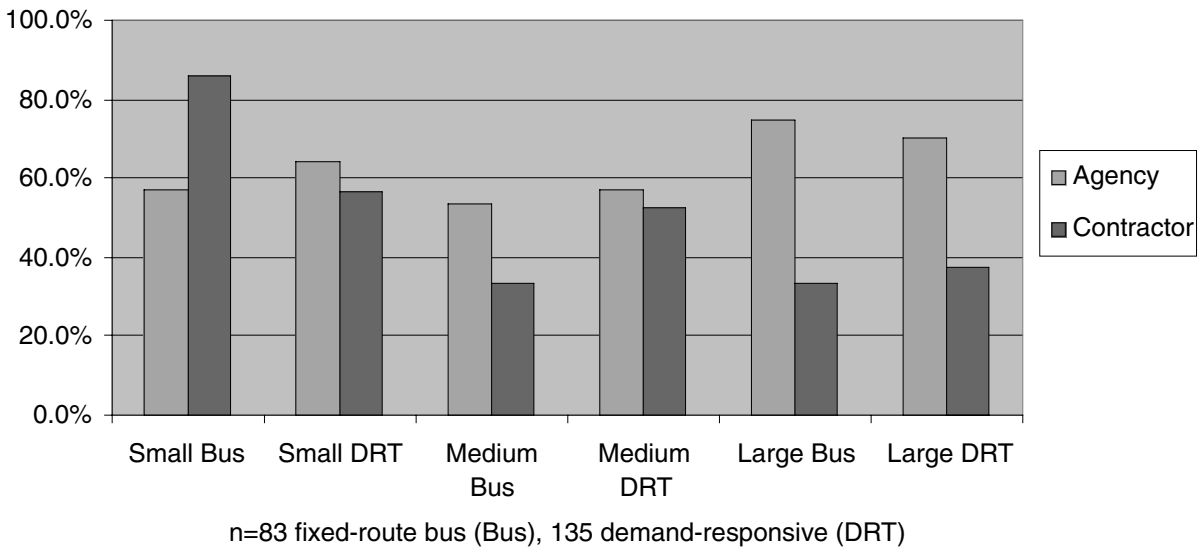


Figure 18. Percentage of contracts where agencies report fully met expectations, by vehicle provision, system size, and service type.

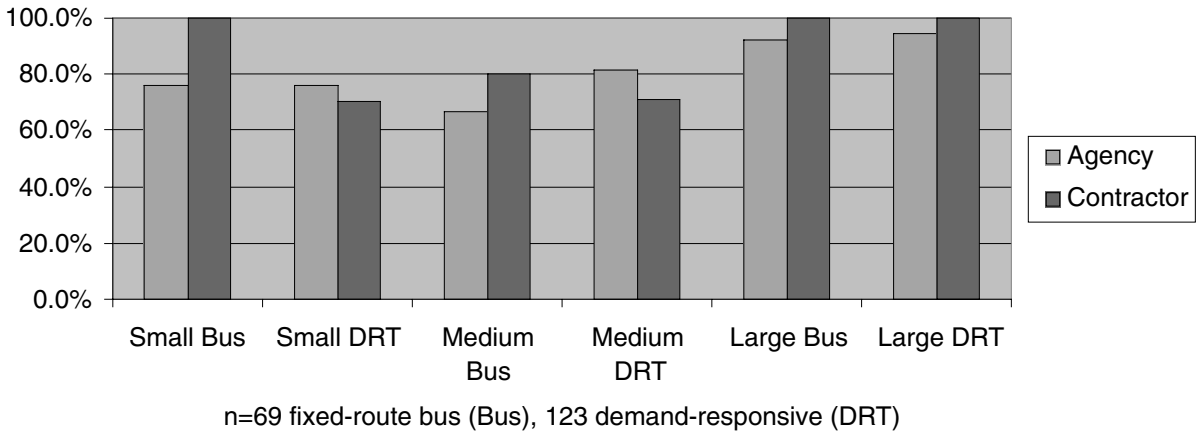


Figure 19. Percentage of contracts where agencies are willing to contract now, by vehicle provision, system size, and service type.



clear. In four of the six categories, agencies that obtained their vehicles from the contractor were more willing to contract now than those who did not, but the difference was small in most categories.

**Demand-responsive service agencies were less likely to report fully met expectations when the contractor provided various equipment, facilities, and services. Differences were less pronounced for fixed-route bus agencies. However, among fixed-route bus agencies for which the contractor provided equipment and facilities there was a greater willingness to contract now.** As presented in Figure 20, the only exceptions to this among the equipment, facilities, and services included in the survey were reserva-

tions and eligibility (functions that few agencies contract). Fixed-route bus agencies were also less likely to report fully met expectations when the contractor provided various equipment, facilities, and services (with the exception of scheduling), but the differences in their satisfaction level with contractor and agency provision were smaller (Figure 21). This unexpected result may be related to a loss of agency control as the contractor provides additional functions, or it may reflect a greater opportunity for dissatisfaction as the contractor assumes additional functions.

The finding that contractor provision of equipment, facilities, and services was associated with a lower percentage of agencies reporting fully met expectations does not

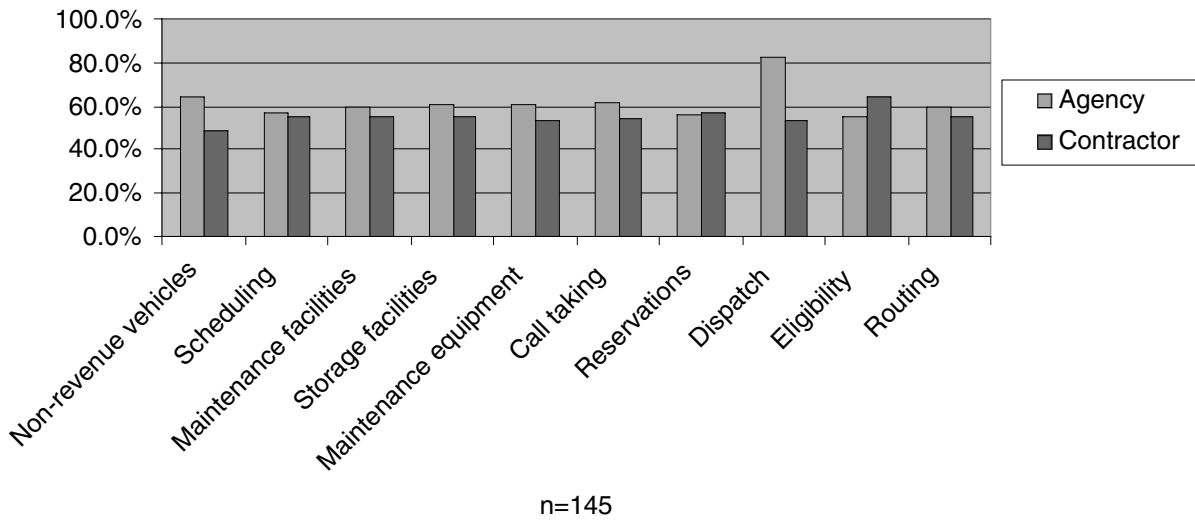


Figure 20. Percentage of demand-responsive (DRT) contracts where agencies report fully met expectations, by provision of DRT equipment, facilities, and services.

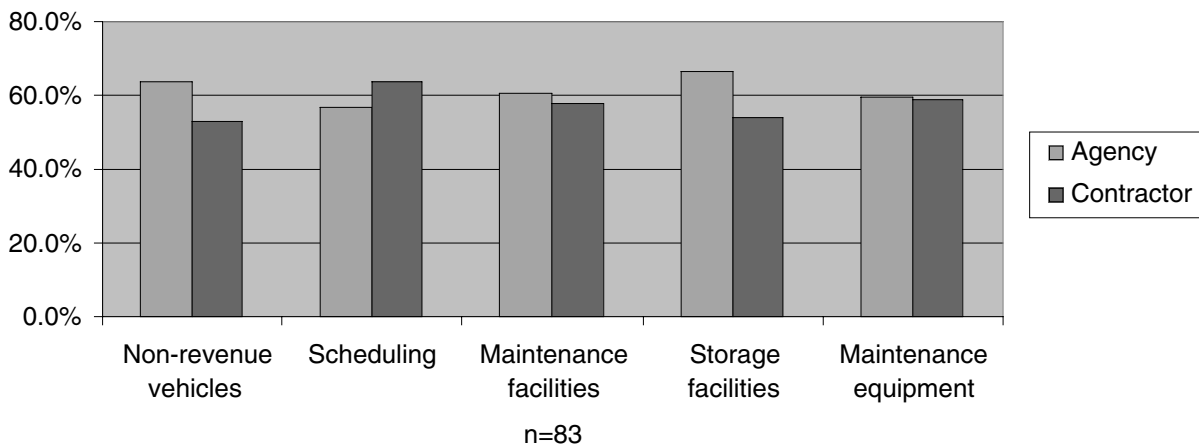


Figure 21. Percentage of fixed-route bus contracts where agencies report fully met expectations, by provision of bus equipment and facilities.

hold in terms of willingness to contract now. Figure 22 indicates a somewhat greater willingness to contract now with contractor provision of bus equipment and facilities, whereas Figure 23 indicates that with demand-responsive service contracts willingness to contract now does not seem clearly related to whether the contractor or the agency provides equipment, facilities, and services.

*Penalties and Incentives in Contracts*

**Contracts combining penalties and incentives were less likely to result in fully met expectations than contracts that included only penalties or only incentives.** This finding was surprising in light of the tendency for agencies

to advise including both penalties (liquidated damages or penalty clauses) and incentives in contracts. Figure 24 indicates that at least 60 percent of agencies with fixed-route bus and demand-responsive service contracts that included only penalties or only incentives reported fully met expectations. It should be noted that only a very small number of contracts included incentives only.

However, agencies that combined incentives and penalties were equally as likely to report a willingness to contract now as agencies that only included penalties (Figure 25). Agencies that did not include either penalties or incentives in their contracts (particularly fixed-route bus agencies) were much less willing to contract now than those including only penalties, only incentives, or both.

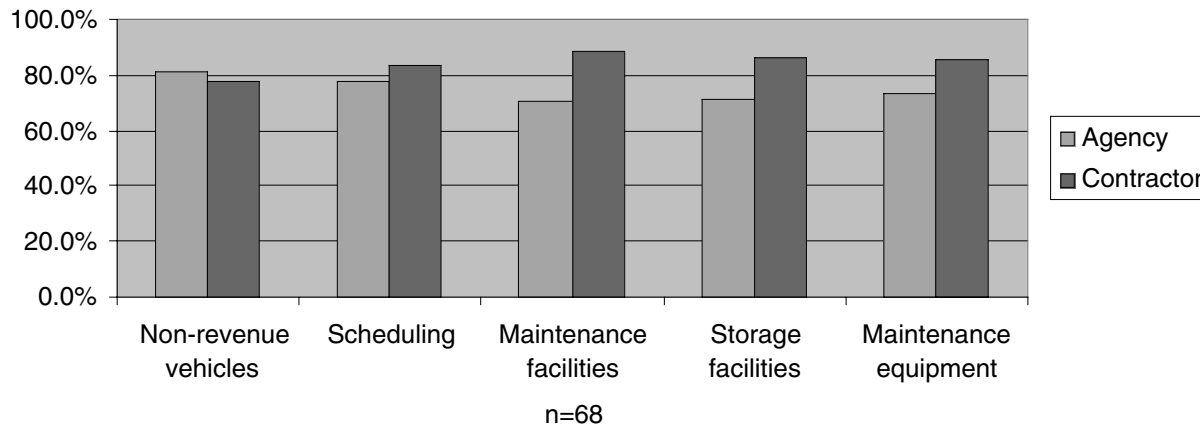


Figure 22. Percentage of fixed-route bus contracts where agencies are willing to contract now, by provision of bus equipment and facilities.

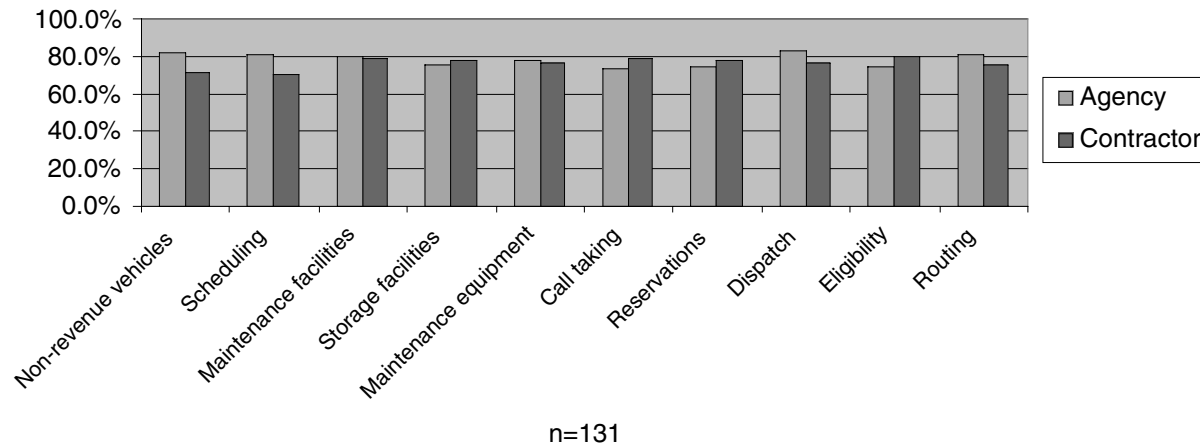


Figure 23. Percentage of demand-responsive (DRT) contracts where agencies are willing to contract now, by provision of DRT equipment, facilities, and services.

*Purpose in Contracting*

Agencies whose purpose in contracting was to replace directly operated service or add new service were more likely to report fully met expectations, whereas those replacing directly operated service were more willing to contract now. Figure 26 indicates how purpose in contracting affected likelihood of fully met expectations, showing similar findings for both fixed-route bus and demand-responsive service contracts. Results related to willingness to contract now are presented in Figure 27. Agencies with supplemental or ongoing demand-responsive service contracts were likely to report fully met expectations and willingness to contract now.

*Relationship Between the Degree to Which General Managers' Expectations Were Met and Their Willingness to Contract Now*

Agencies reporting fully met expectations were more likely to indicate a willingness to contract now than agencies reporting partially met or unmet expectations. Conversely, agencies willing to contract now were much more likely to report fully met expectations. These results are not surprising. It is interesting to note in Table 3 that even among agencies with partially met or unmet expectations, nearly two-thirds of responding agencies were willing to contract now. Table 4 shows a clearer break, with nearly two-thirds of agencies willing to contract now reporting fully

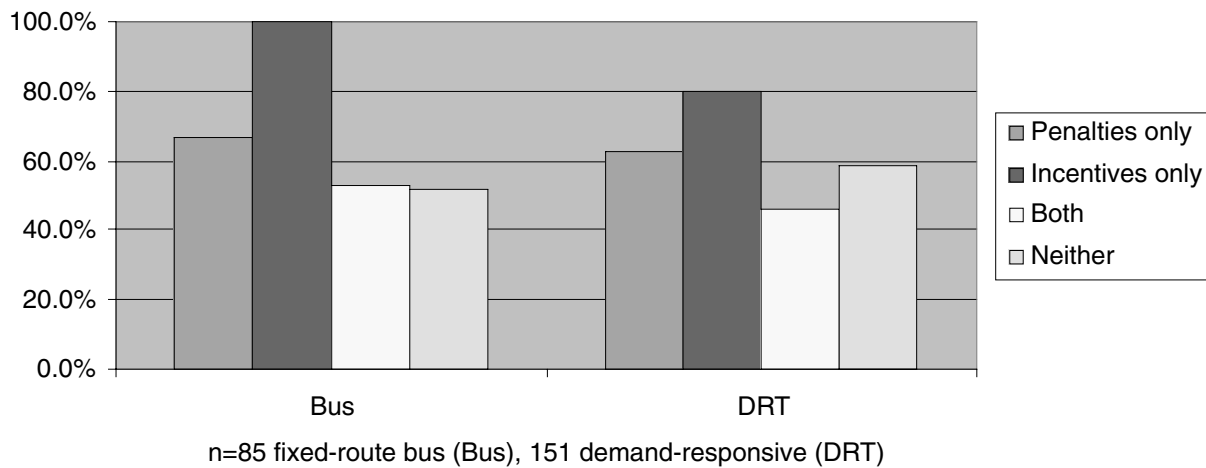


Figure 24. Percentage of demand-responsive (DRT) contracts where agencies report fully met expectations, by inclusion of penalties/incentives in contracts and by service type.

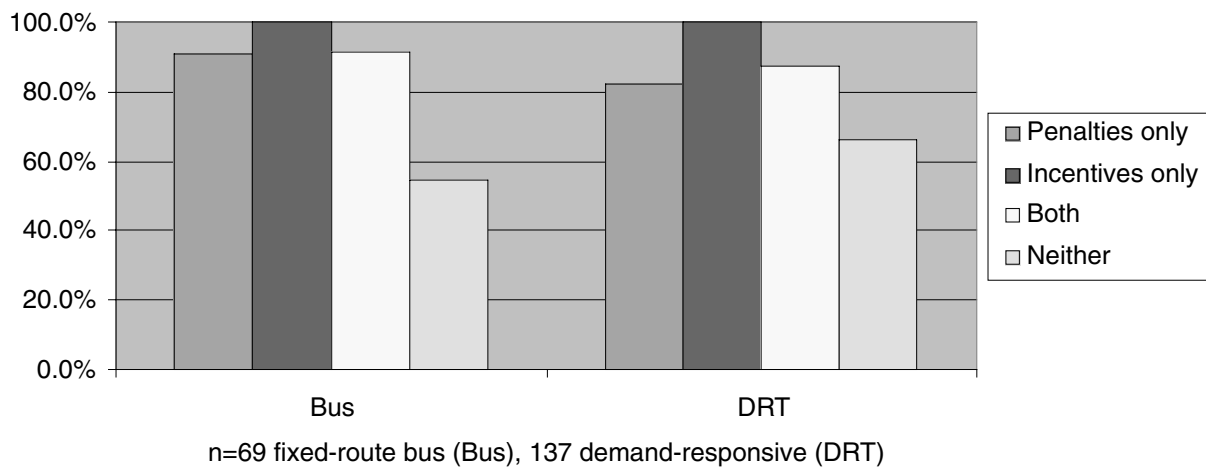


Figure 25. Percentage of contracts where agencies are willing to contract now, by inclusion of penalties/incentives in contracts and by service type.

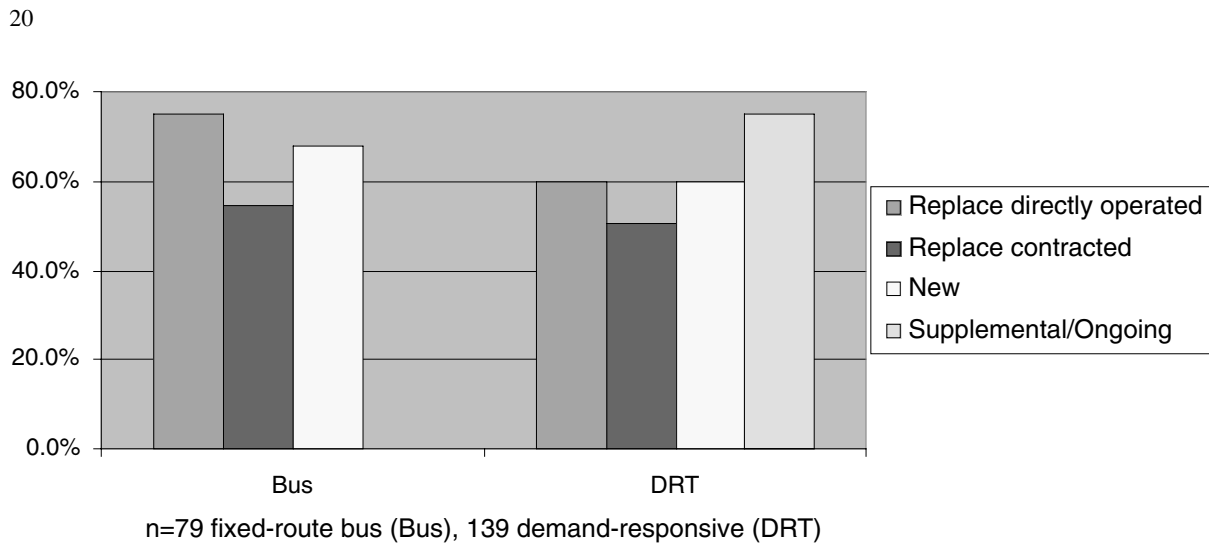


Figure 26. Percentage of contracts where agencies report fully met expectations, by purpose of contracting and type of service.

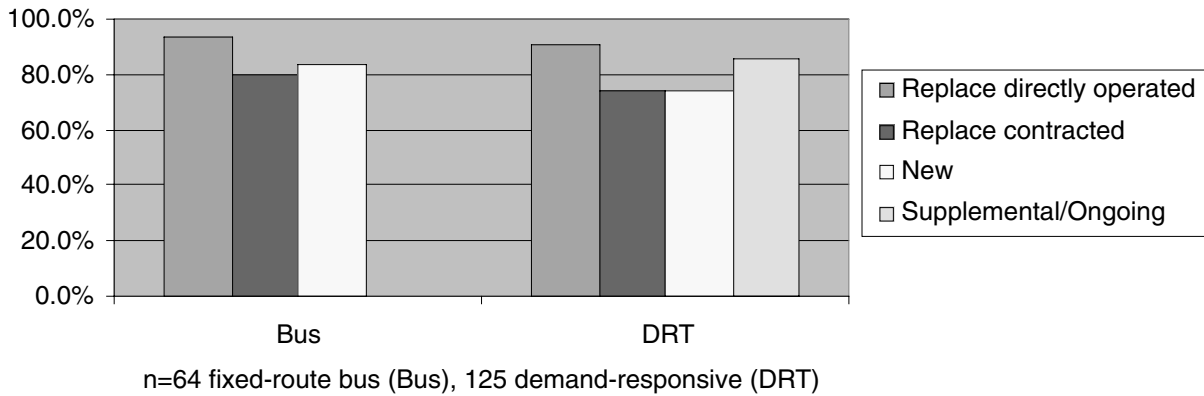


Figure 27. Percentage of contracts where agencies are willing to contract now, by purpose of contracting and type of service.

TABLE 3 Would contract now by degree to which expectations were met (for agencies that currently contract)

Would Contract Now	Partially/ Unmet	Percent	Fully Met	Percent	Total Agencies	Percent
Yes	32	65.3%	57	89.1%	89	78.8%
Unsure	7	14.3%	1	1.6%	8	7.1%
No	10	20.4%	6	9.4%	16	14.2%
Total Responding	49	100.0%	64	100.0%	113	100.0%

NOTE: Bus=fixed-route bus, DRT=demand-responsive.

TABLE 4 Degree to which expectations were met by would contract now (for agencies that currently contract)

Expectations	No/ Unsure	Percent	Yes	Percent	Total Agencies	Percent
Fully Met	7	29.2%	57	64.0%	64	56.6%
Partially/Unmet	17	70.8%	32	36.0%	49	43.4%
Total Responding	24	100.0%	89	100.0%	113	100.0%

NOTE: Bus=fixed-route bus, DRT=demand-responsive.

met expectations, whereas less than 30 percent of agencies unwilling or unsure whether to contract now had their expectations fully met.

*Benefits/Problems of Contracting Correlated with Degree to Which Expectations Were Met and Willingness to Contract Now*

**There was a high degree of correlation between nine of the rated benefits/problems and the degree to which expectations were met.** Table 5 shows the benefits or problems in order of correlation with the degree to which expectations were met for all contracts. Correlations are reported

in the table as “very high,” “high,” and “low.” (See Table A-1 in Appendix A for more detailed information.)

The highest correlation was for service quality, indicating a strong relationship between this variable and whether contracting met expectations. After service quality, the ranking of variables with a very high correlation includes time demands on staff, customer service, on-time performance, labor productivity, employee turnover, cost efficiency, workforce retention, and amount of service.

**There was a high degree of correlation between six of the rated benefits/problems and the willingness to contract now.** Table 6 shows the benefits or problems in order of correlation with the willingness to contract now for all

**TABLE 5 Correlations between degree to which expectations were met and benefits/problems of contracting**

Benefit/Problem	Correlation with Degree to Which Expectations Were Met		
	All	Bus	DRT
Service quality	Very high	Very high	Very high
Time demands on staff	Very high	Very high	Very high
Customer service	Very high	Very high	Very high
On-time performance	Very high	Very high	Very high
Labor productivity	Very high	Very high	Very high
Employee turnover	Very high	Very high	Very high
Cost efficiency	Very high	Very high	Very high
Workforce retention	Very high	Very high	Very high
Amount of service	Very high	Very high	Very high
Employee morale	High	Very high	Low
Operating cost	High	Very high	High
Transit ridership	High	Low	Low
Contract/bid disputes	Low	Low	Low
Labor-mgmt relations	Low	High	Low
Accidents	Low	Low	Low

NOTE: Bus=fixed-route bus, DRT=demand-responsive. See Table A-1 in appendix for further detail.

**TABLE 6 Correlations between willingness to contract now and benefits/problems of contracting**

Benefit/Problem	Correlation with Willingness to Contract Now		
	All	Bus	DRT
Cost efficiency	Very high	Very high	Very high
Customer service	Very high	Low	Very high
Contract/bid disputes	Very high	High	Very high
Operating cost	Very high	Very high	Very high
Time demands on staff	Very high	Very high	Very high
Service quality	Very high	Low	High
Employee turnover	High	High	High
Labor-mgmt relations	High	Very high	High
Labor productivity	High	Low	Very high
Workforce retention	High	Low	High
Amount of service	High	High	High
On-time performance	High	Low	Low
Employee morale	High	Low	Low
Accidents	Low	Low	Low
Transit ridership	Low	Low	Low

NOTE: Bus=fixed-route bus, DRT=demand-responsive. See Table A-2 in appendix for further detail.

contracts. The highest correlation was for cost efficiency, indicating a strong positive relationship between this variable and the willingness to contract now. (See Table A-2 in Appendix A for more detailed information.)

Following cost efficiency, the variables with a very high correlation include customer service, contract/bid disputes, operating cost, time demands on staff, and service quality. All variables with a very high correlation in the overall analysis also showed a high or very high correlation by service type, except for customer service and service quality, which were not significant for fixed-route bus service.

For fixed-route bus service, a very high correlation was also reported for labor-management relations. For demand-responsive service, labor productivity was very highly correlated with willingness to contract now.

**Service quality, time demands on staff, customer service, and cost efficiency were highly correlated with both the degree to which expectations were met and willingness to contract now.** A comparison of Table 5 and Table 6 reveals that these four variables were highly correlated with both the degree to which expectations were met and a willingness to contract now for all service contracts. Agencies that ranked these variables highly as benefits of contracting were also likely to report fully met expectations and a willingness to contract now.

Several variables were very highly correlated with either the degree to which expectations were met or willingness to contract now, but not with both. On-time performance, labor productivity, employee turnover, workforce retention, and amount of service were very highly correlated with the degree to which contracting met expectations, but only highly correlated with willingness to contract now. Operating cost was very highly correlated with willingness to contract now, but only highly correlated with degree to which

expectations were met. Contract/bid disputes showed a very high correlation with willingness to contract now, but a low correlation with the degree to which expectations were met.

*Reasons for Contracting and Not Contracting Correlated with Degree to Which Expectations Were Met and Willingness to Contract Now*

**The only reason for contracting correlated very highly with degree to which expectations were met was federal emphasis and the coefficient sign was negative.** (See Table 7 and, in Appendix A, Table A-3.) The negative correlation indicates that as federal emphasis became more important as a reason for contracting, the degree to which expectations were met decreased. The variable of new services was highly positively correlated with the degree to which expectations were met. Among fixed-route bus systems, no significant correlations were found.

**Reduced costs, a more competitive environment, and cost efficiency were the only reasons for contracting highly correlated with the willingness to contract now.** As indicated in Table 8, no reasons for contracting were very highly correlated with the willingness to contract now. (See Table A-4 in Appendix A for more detailed information.) Table 8 also shows that all factors with a high degree of correlation for both service types showed a high degree of correlation for demand-responsive systems as well.

**There was a very high negative correlation between “not cost-effective” and willingness to contract now among agencies that did not contract.** Table 9 shows the correlations between reasons for not contracting and willingness to contract now. (See Table A-5 in Appendix A for more detailed information.) The only significant correlation

**TABLE 7 Correlations between degree to which expectations were met and reasons for contracting**

Reasons for Contracting	Correlation with Degree to Which Expectations Were Met		
	All	Bus	DRT
Federal emphasis	Very high	Low	High
New services	High	Low	High
State mandate or law	Low	Low	Low
Competitive environment	Low	Low	Low
Reduce costs	Low	Low	Low
Higher quality service	Low	Low	Low
Board direction	Low	Low	Low
More flexible service	Low	Low	Low
Expand services	Low	Low	Low
Improve cost efficiency	Low	Low	Low

NOTE: Bus=fixed-route bus, DRT=demand-responsive. See Table A-3 in appendix for further detail.

was for “not cost-effective,” indicating that agencies citing this as a reason not to contract were very unlikely to change their minds.

*Difference in General Managers' Advice by the Degree to Which Their Expectations Were Met and Their Willingness to Contract Now*

General managers were asked what advice they would offer to an agency thinking about contracting for the first time. The open-ended responses were coded into nearly 20 relevant categories.

**Agencies with fully met expectations were somewhat more likely to advise teamwork and communication with the contractor, a competitive selection process not based solely on cost, a combination of rewards and penalties, and flexibility.** Figure 28 presents these results. It also indicates that agencies with only partially met or unmet expectations were more likely to emphasize specific performance requirements, monitoring of contract performance, penalty clauses and liquidated damages, and a clear mechanism to make changes.

**Agencies willing to contract now were more likely to advise talking to other agencies, scrutinizing contractors before contracting, and combining rewards and penalties.** As shown in Figure 29, these same agencies were less likely to advise specifying performance requirements and outlining specific duties and responsibilities than agencies unwilling or uncertain whether to contract now.

**A greater or lesser tendency for agencies with fully met expectations to include a certain piece of advice was nearly always matched by a similar tendency among agencies willing to contract now.** The only variables that were exceptions to this trend were having the contractor provide vehicles, fuel, and routing (or one or two of these services), and broad involvement in the RFP process. However, it is important to note that these two advice items were mentioned infrequently. For all other advice, if agencies with fully met expectations were more likely to include it than those in the partially met or unmet categories, then agencies willing to contract now were also more likely to include it than those not willing or unsure. This suggests congruence in advice from agencies with more positive contracting experiences.

**TABLE 8 Correlations between willingness to contract now and reasons for contracting**

Reasons for Contracting	Correlation with Willingness to Contract Now		
	All	Bus	DRT
Competitive environment	High	Low	High
Reduce costs	High	Low	High
Improve cost efficiency	High	Low	High
Higher quality service	Low	Low	Low
More flexible service	Low	Low	Low
State mandate or law	Low	Low	Low
New services	Low	Low	Low
Federal emphasis	Low	High	Low
Board direction	Low	Low	Low
Expand services	Low	Low	Low

NOTE: Bus=fixed-route bus, DRT=demand-responsive. See Table A-4 in appendix for further detail.

**TABLE 9 Correlations between willingness to contract now and reasons not to contract (noncontracting agencies)**

Reasons for Not Contracting	Correlation with Willingness to Contract Now
	All
Not cost effective	Very high
Section 13c prevents	Low
Union contract	Low
Maintain control	Low
No reason to change	Low
Too few bidders	Low
Proposed bids too high	Low
Lack of qualified firms	Low
Board direction	Low

NOTE: Bus=fixed-route bus, DRT=demand-responsive. See Table A-5 in appendix for further detail.

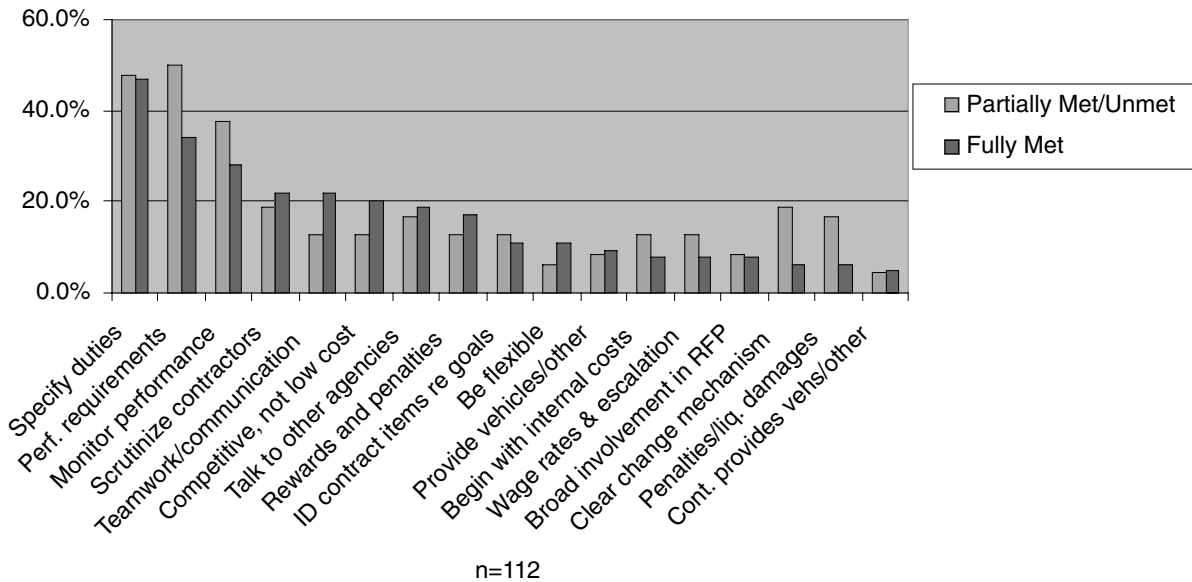


Figure 28. Percentage of agencies offering specific advice, by degree to which expectations were met.

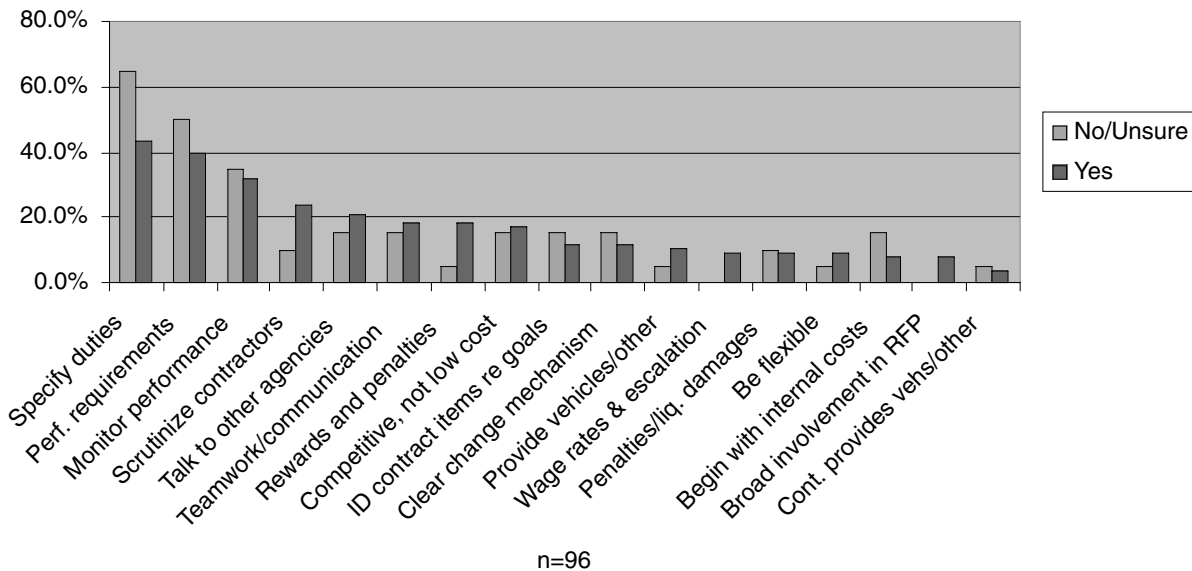


Figure 29. Percentage of agencies offering specific advice by willingness to contract now.

**Extent of Contracting**

The major finding concerning extent of contracting was that the difference noted between city or county transit agencies and regional transit agencies in terms of contracting for all services is explained by the fact that city and county agencies were much more likely to operate small systems. Figure 30 shows that 88 percent of city-operated and 73 percent of county-operated transit agencies are small systems. Among agencies that contract all service,

91 percent of city-operated and 83 percent of county-operated transit agencies are small systems. As noted in the original study, small agencies contract less often than large agencies, but when they do they are much more likely to contract for all their services.

**Contract Terms and Provisions**

Analysis revealed several findings concerning contract terms and provisions.



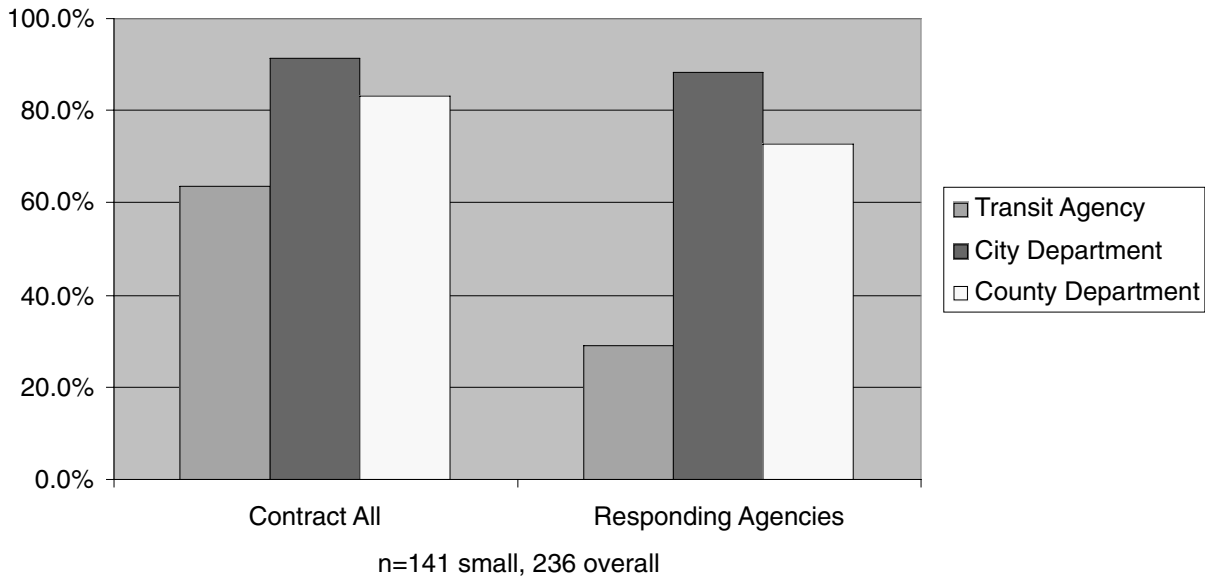


Figure 30. Percentage of small systems, by type of organization for agencies that contract all service and for all agencies.

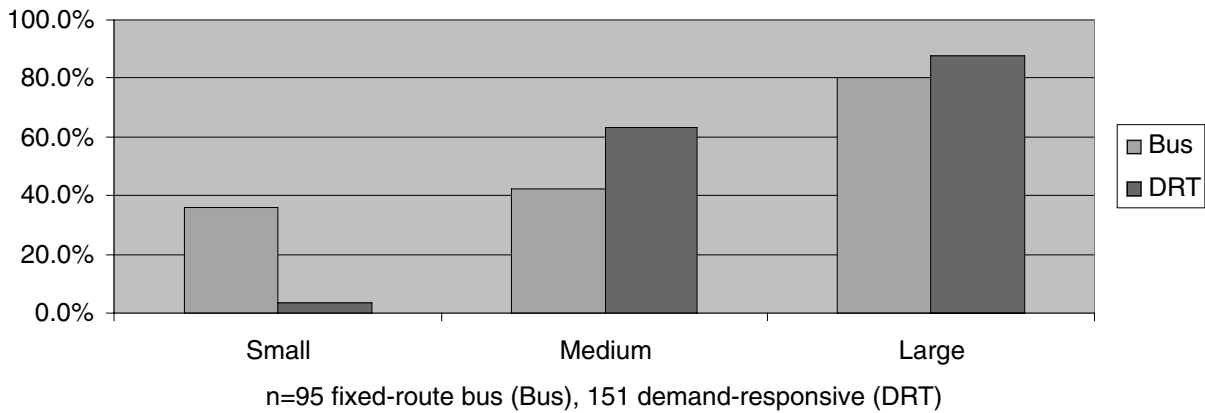


Figure 31. Percentage of contracts over \$1 million in value, by system size and service type.

The assumption that fixed-route bus contracts are more likely than demand-responsive service contracts to exceed \$1 million was not borne out by the data. Among smaller systems, a much greater percentage of fixed-route bus contracts exceeded \$1 million than demand-responsive service contracts, but this pattern was reversed in other categories (Figure 31). Among medium-sized systems, for example, over 60 percent of demand-responsive service contracts exceeded \$1 million.

Agencies were more likely to provide vehicles for fixed-route bus service than for demand-responsive service. Figure 32 shows that while this was true in all size categories, the gap between service types narrowed with increasing system size.

Contractors were more likely to provide other types

of equipment and facilities related to vehicles and maintenance as system size increased. Figure 33 indicates that this was true for all types of equipment and facilities with the exception of scheduling hardware and software. This finding may be related to the tendency of larger systems to contract for only a portion of service, in which case a distinction between agency-owned and contractor-owned facilities and equipment may be necessary. Contractors were somewhat more likely to provide these assets in demand-responsive contracts than in fixed-route bus contracts.

Small demand-responsive systems were more likely to use penalties only, while large systems had a greater tendency to combine penalties and incentives. As shown in Table 10, about one-third of all contracts contain neither penalty nor incentive clauses.

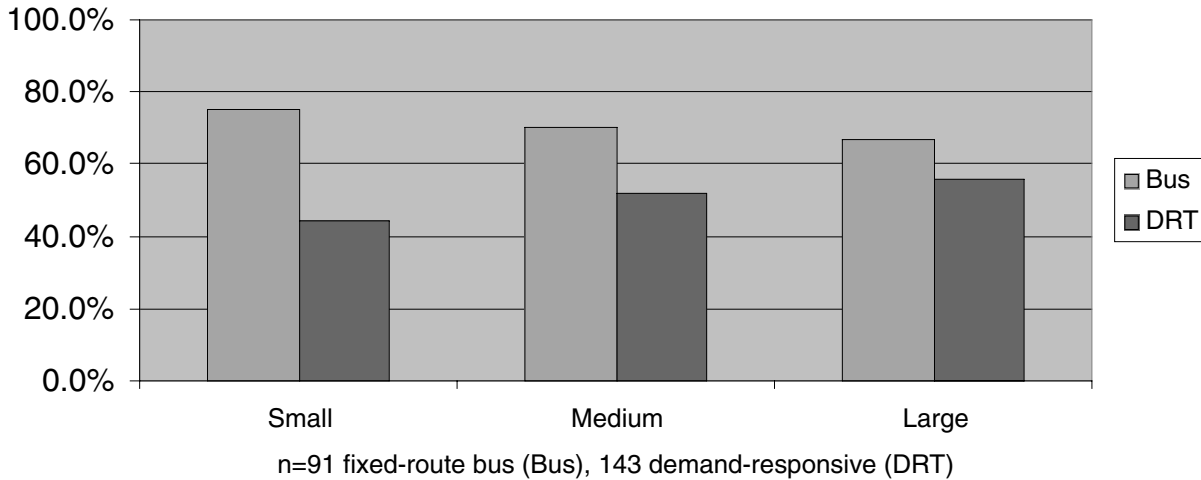


Figure 32. Percentage of contracts where agencies provide vehicles, by system size and service type.

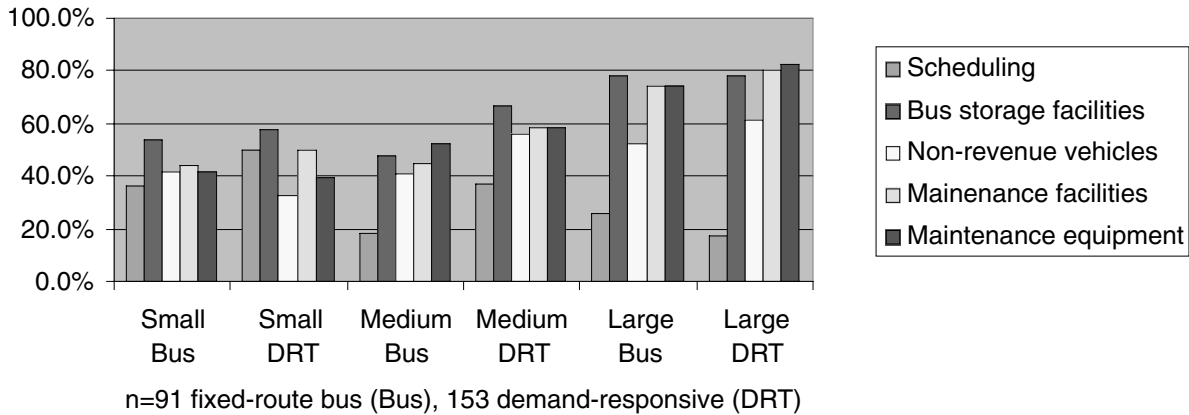


Figure 33. Percentage of contracts where contractor provides certain equipment/facilities, by system size and service type.

### Contracting Competition

Important findings concerning contracting competition were focused on the area of bidding.

**Among small and medium systems, demand-responsive service contracts were much more likely to attract only one or two bidders.** Figure 34 presents these findings. There was no discernible difference in number of bidders between fixed-route bus and demand-responsive service contracts for large systems.

**Small systems were more likely to experience a decline in the number of bidders after the first cycle, and demand-responsive service contracts were more likely to see a decline in bidder interest over time.** Figure 35 indicates the change in number of bidders by system size. Figure 36 presents the change in number of bidders by service type. It is worth noting that even with the decline over

time, close to half of all demand-responsive service contracts received at least three bids in the third and fourth bid cycles (Figure 36).

**Bid experience in 2000 and 2001 suggests that there is still competition, but a significant proportion of contracts received only one or two bids.** Among fixed-route bus contracts bid in 2000 and 2001, a majority still attracted at least three bidders, but over 40 percent received only one or two bids. On the other hand, over half of reported demand-responsive service contracts put out to bid in 2000 and 2001 (including first-time contracts and re-bids) attracted only a single bidder (Figure 37).

**For both types of service, the biggest difference in terms of attracting three or more bidders was between contracts that had never changed hands and those that had changed once.** Figure 38 presents these results. A possible explanation for these results is that for prospective bid-

**TABLE 10 Use of penalties and incentives in contracts by system size and service type**

Performance Provisions	Size	Small	Percent	Medium	Percent	Large	Percent	Responding Contracts	Percent
Penalties Only	Bus	20	45.5%	12	44.4%	10	37.0%	42	42.9%
Incentives Only		1	2.3%	0	0.0%	1	9.1%	2	2.0%
Combination		9	20.5%	3	11.1%	11	40.7%	23	23.5%
No Provisions		14	31.8%	12	44.4%	5	18.5%	31	31.6%
Total Responding		44	100.0%	27	100.0%	27	100.0%	98	100.0%
Penalties Only	DRT	39	54.2%	16	29.6%	11	25.0%	66	38.8%
Incentives Only		1	1.4%	4	7.4%	0	0.0%	5	2.9%
Combination		7	9.7%	13	24.1%	20	45.5%	40	23.5%
No Provisions		25	34.7%	21	38.9%	13	29.5%	59	34.7%
Total Responding		72	100.0%	54	100.0%	44	100.0%	170	100.0%
Penalties Only	Total	59	50.9%	28	34.6%	21	29.6%	108	40.3%
Incentives Only		2	1.7%	4	4.9%	1	1.4%	7	2.6%
Combination		16	13.8%	16	19.8%	31	43.7%	63	23.5%
No Provisions		39	33.6%	33	40.7%	18	25.4%	90	33.6%
Total Responding		116	100.0%	81	100.0%	71	100.0%	268	100.0%

NOTE: Bus=fixed-route bus, DRT=demand-responsive.

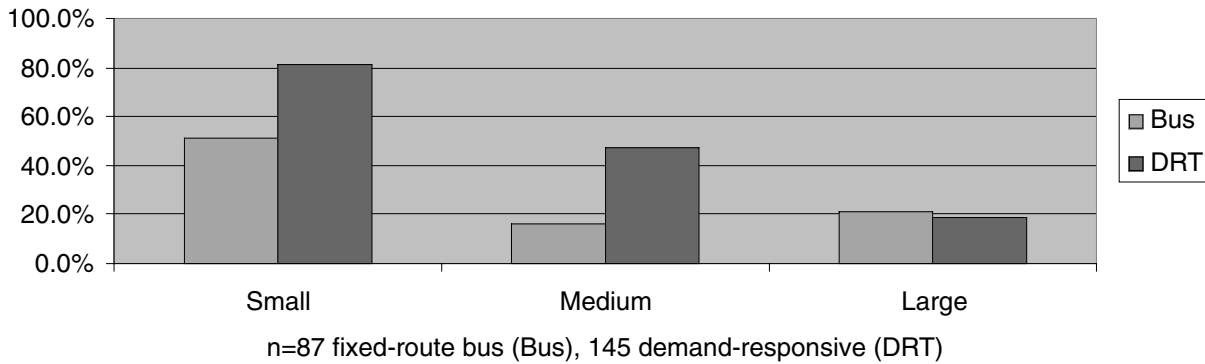


Figure 34. Percentage of contracts with one or two bidders, by system size and service type.

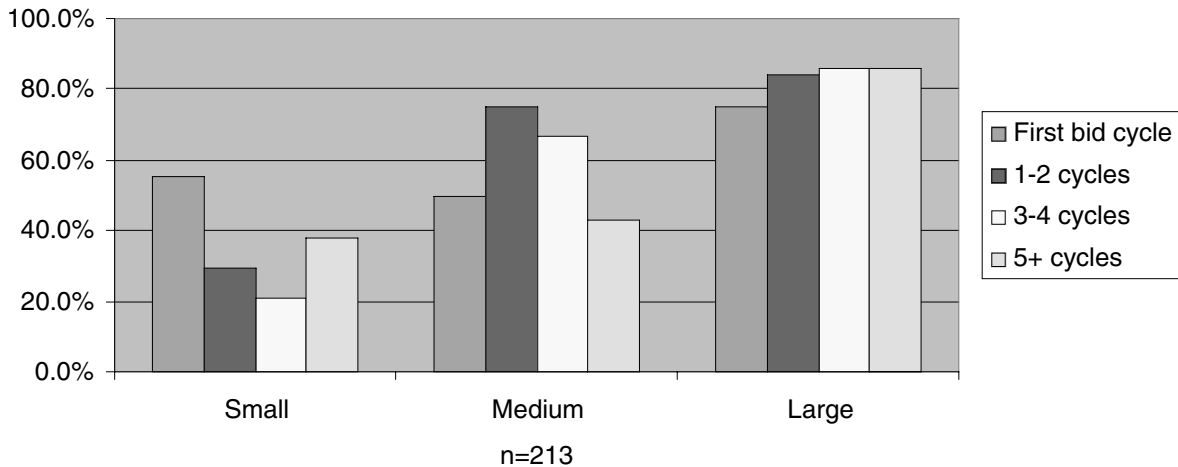


Figure 35. Percentage of contracts with three or more bidders, by number of bid cycles completed and system size.

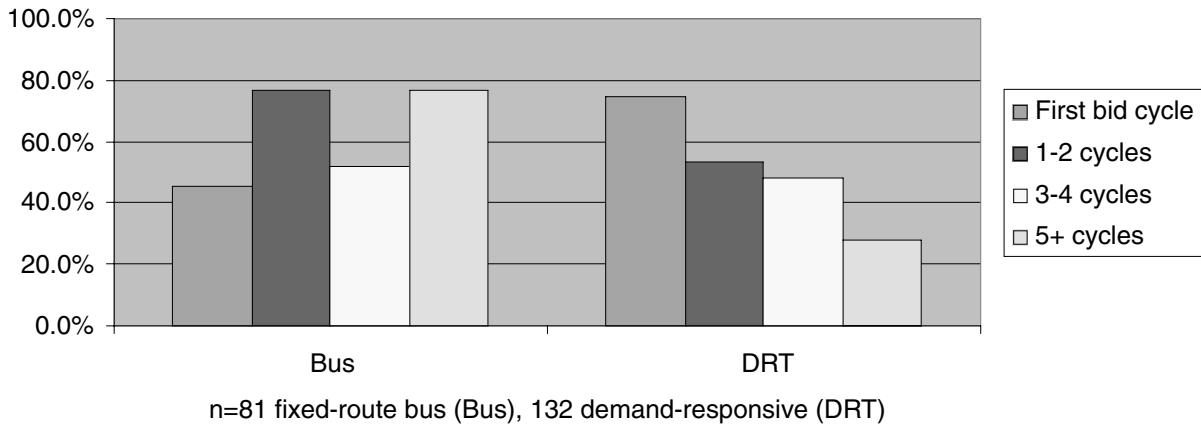


Figure 36. Percentage of contracts with three or more bidders, by number of bid cycles completed and service type.

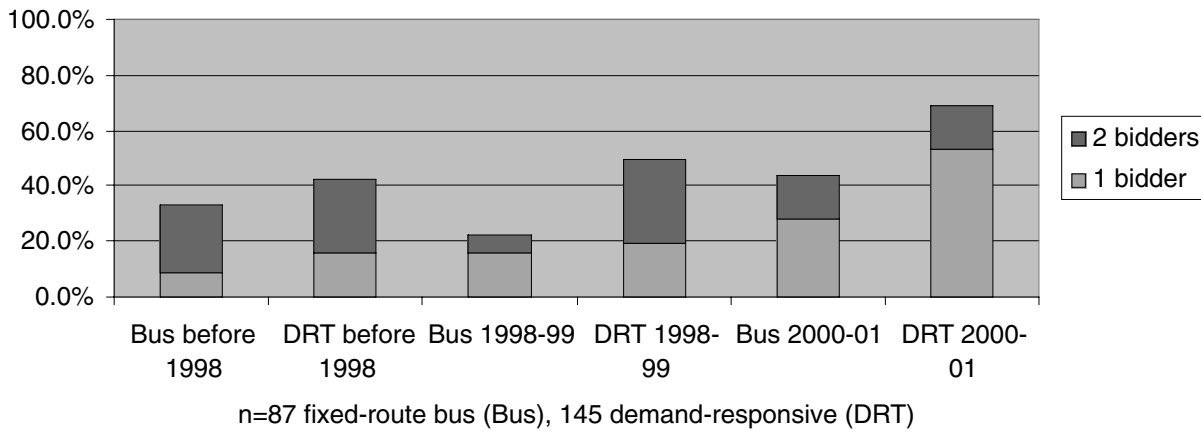


Figure 37. Percentage of contracts with one or two bidders, by year of current contract and service type.

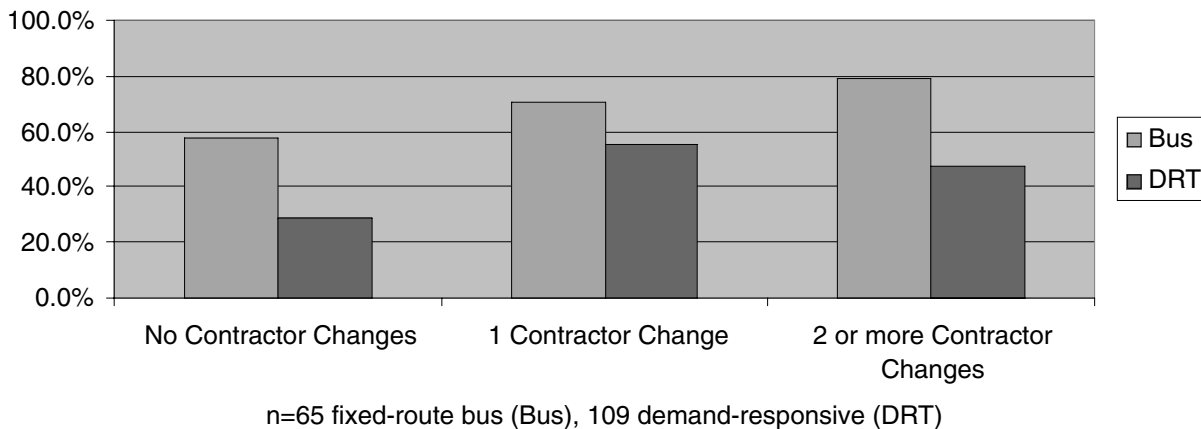


Figure 38. Percentage of contracts with three or more bidders, by number of contractor changes and service type.

ders at least one change in contractors may suggest a level playing field. Also, more than half of the fixed-route bus contracts that have not changed hands receive at least three bids, but only 29 percent of similar demand-responsive service contracts receive at least three bids.

## SUMMARY

This follow-on study has provided additional analyses of the data that were collected in the original study. Important findings include the following:

- **Contracting methods.** The vast majority of transit systems that contract for transit services use a competitive process.
- **Factors affecting satisfaction with contracting.** General managers who viewed the ability to provide more fixed-route bus or demand-responsive service as a positive effect of contracting were very likely to report fully met expectations, whereas flexibility was an important positive effect associated with the willingness to contract now. General managers who cited service quality, contractor issues, diminishing returns, and turnover/low wages as negative effects of contracting were more likely to report partially met or unmet expectations. Contractor and personnel issues, need to monitor, and diminishing returns were important negative effects influencing willingness to contract now.

Contractor issues and poor service quality were the most commonly cited reasons that contracting did not fully meet expectations. Contractor issues were more likely to be cited for fixed-route bus service, while service quality was mentioned more often for demand-responsive service. Among agencies that did not contract, those citing control, cost-effectiveness, and satisfaction with the status quo were very unlikely to contract now.

- **Correlation of satisfaction with benefits/problems related to contracting.** Service quality, time demands on staff, customer service, and cost efficiency were very highly correlated with both the degree to which expectations were met and willingness to contract now. There was a very high negative correlation between not cost-effective and willingness to contract now among agencies that do not contract.
- **Competition and satisfaction.** Receipt of multiple bids on contracts did not necessarily mean a greater likelihood that expectations would be fully met. However, multiple bidders did encourage a willingness to contract now among small and medium demand-responsive systems.

Agencies obtaining contracted fixed-route bus service through a competitive process were more likely to report fully met expectations, but the opposite was true for contracted demand-responsive service. Agencies

utilizing competitive methods in obtaining contracted service of both types were slightly more willing to contract now.

- **Types of contractors and satisfaction.** For fixed-route bus contracts, agencies contracting with private for-profit contractors were more likely to report fully met expectations, and agencies contracting with the private sector (for-profit and nonprofit) were more willing to contract now. For demand-responsive service contracts, the type of contractor affected neither the likelihood that expectations would be fully met nor the willingness to contract now. National for-profit companies were rated more highly than local companies for fixed-route bus contracts in terms of both degree to which expectations were met and willingness to contract now. Local for-profit companies fared better than their national counterparts for demand-responsive contracts in terms of degree to which expectations were met. Transit agencies ranked highly as both fixed-route bus and demand-responsive contractors.
- **Provision of vehicles/facilities and satisfaction.** In general, agencies were less satisfied with the contracting experience when the contractor provided vehicles, other equipment, facilities, and services. Possible reasons for this include greater exposure for the contractor (more things can go wrong) and a perceived loss of control on the part of the agency.
- **Advice and satisfaction.** Agencies with fully met expectations were more likely to advise teamwork and communication, flexibility, a combination of rewards and penalties, and inclusion of factors other than cost in the selection process. In view of this advice, it is surprising to note that contracts combining penalties and incentives were less likely to result in fully met expectations than contracts that included only penalties or only incentives. Agencies willing to contract now were also more likely to advise talking to other agencies and scrutinizing contractors before making a selection.
- **Purpose of contracting and satisfaction.** Agencies whose purpose in contracting was to replace directly operated service or add new service were more likely to report fully met expectations, whereas those replacing directly operated service were more willing to contract now.
- **Extent of contracting.** The difference noted between city or county transit agencies and regional transit agencies in terms of contracting for all services is explained by the fact that city and county agencies were much more likely to operate small systems.
- **Contract terms and provisions.** The assumption that fixed-route bus contracts were more likely than demand-responsive service contracts to exceed \$1 million was not borne out by the data. Agencies were more likely to provide vehicles for fixed-route bus service than for demand-responsive service. Contractors were more likely to provide other types of equipment and facilities

related to vehicles and maintenance as system size increased. Small demand-responsive systems were more likely to use penalties only, whereas large systems had a greater tendency to combine penalties and incentives.

- **Contracting competition.** Among small and medium systems, demand-responsive service contracts were much more likely to attract only one or two bidders. Small systems were more likely to experience a decline in the number of bidders after the first cycle, and demand-responsive service contracts were more likely to see a decline in bidder interest over time. Bid experience in 2000 and 2001 suggests that there is still competition, but a significant proportion of contracts received only one or two bids.

Taken as a whole, the findings support the conclusions of *TRB Special Report 258* and provide additional detail on contracting procedures, trends in the number of bidders for fixed-route bus and demand-responsive service contracts, and factors affecting the overall contracting experience. Agencies that established a balance between (1) working with their contractors to ensure high quality service and to address issues as they arose, and (2) invoking appropriate penalties for unsatisfactory performance appear to have had the most positive contracting experiences. Nonetheless, the findings also suggest that contractor performance strongly influenced agencies' views regarding the success of contracting.

## APPENDIX A: PEARSON CORRELATION COEFFICIENTS

**TABLE A-1 Correlations between degree to which expectations were met and benefits/problems of contracting**

Benefit/Problem		Pearson Correlation Coefficient re Degree to Which Expectations Were Met		
		All	Bus	DRT
Service quality	Correlation	.538(**)	.525(**)	.544(**)
	Sig. (2-tailed)	0.000	0.000	0.000
	N	126	72	115
Time demands on staff	Correlation	.476(**)	.397(**)	.485(**)
	Sig. (2-tailed)	0.000	0.001	0.000
	N	117	67	108
Customer service	Correlation	.446(**)	.437(**)	.449(**)
	Sig. (2-tailed)	0.000	0.000	0.000
	N	121	65	111
On-time performance	Correlation	.438(**)	.511(**)	.406(**)
	Sig. (2-tailed)	0.000	0.000	0.000
	N	122	67	111
Labor productivity	Correlation	.434(**)	.464(**)	.440(**)
	Sig. (2-tailed)	0.000	0.000	0.000
	N	113	68	102
Employee turnover	Correlation	.406(**)	.421(**)	.376(**)
	Sig. (2-tailed)	0.000	0.001	0.000
	N	105	64	95
Cost efficiency	Correlation	.355(**)	.423(**)	.333(**)
	Sig. (2-tailed)	0.000	0.000	0.000
	N	127	72	116
Workforce retention	Correlation	.343(**)	.374(**)	.335(**)
	Sig. (2-tailed)	0.000	0.003	0.001
	N	102	60	94
Amount of service	Correlation	.274(**)	.316(**)	.261(**)
	Sig. (2-tailed)	0.003	0.009	0.006
	N	119	68	108
Employee morale	Correlation	.227(*)	.344(**)	0.19
	Sig. (2-tailed)	0.016	0.005	0.054
	N	112	66	103
Operating cost	Correlation	.211(*)	.320(**)	.190(*)
	Sig. (2-tailed)	0.019	0.007	0.044
	N	124	70	113
Transit ridership	Correlation	.195(*)	0.236	0.14
	Sig. (2-tailed)	0.036	0.051	0.155
	N	116	69	105
Contract/bid disputes	Correlation	0.179	0.175	0.197
	Sig. (2-tailed)	0.066	0.181	0.051
	N	107	60	98
Labor-mgmt relations	Correlation	0.169	.288(*)	0.174
	Sig. (2-tailed)	0.080	0.022	0.085
	N	108	63	99
Accidents	Correlation	0.108	0.188	0.034
	Sig. (2-tailed)	0.252	0.124	0.733
	N	115	68	105

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

**TABLE A-2 Correlations between willingness to contract now and benefits/problems of contracting**

Benefit/Problem		Pearson Correlation Coefficient re Would Contract Now		
		All	Bus	DRT
Cost efficiency	Correlation	.363(**)	.456(**)	.398(**)
	Sig. (2-tailed)	0.000	0.000	0.000
	N	111	56	103
Customer service	Correlation	.305(**)	0.22	.301(**)
	Sig. (2-tailed)	0.001	0.120	0.002
	N	107	51	100
Contract/bid disputes	Correlation	.288(**)	.373(*)	.280(**)
	Sig. (2-tailed)	0.005	0.011	0.009
	N	93	46	87
Operating cost	Correlation	.279(**)	.354(**)	.324(**)
	Sig. (2-tailed)	0.003	0.008	0.001
	N	109	55	101
Time demands on staff	Correlation	.274(**)	.416(**)	.305(**)
	Sig. (2-tailed)	0.005	0.002	0.003
	N	102	53	95
Service quality	Correlation	.257(**)	0.207	.249(*)
	Sig. (2-tailed)	0.007	0.126	0.012
	N	110	56	102
Employee turnover	Correlation	.257(*)	.285(*)	.242(*)
	Sig. (2-tailed)	0.014	0.045	0.028
	N	91	50	83
Labor-mgmt relations	Correlation	.256(*)	.377(**)	.251(*)
	Sig. (2-tailed)	0.013	0.008	0.018
	N	94	49	88
Labor productivity	Correlation	.255(*)	0.187	.287(**)
	Sig. (2-tailed)	0.012	0.185	0.006
	N	97	52	89
Workforce retention	Correlation	.242(*)	0.225	.245(*)
	Sig. (2-tailed)	0.025	0.137	0.028
	N	86	45	81
Amount of service	Correlation	.240(*)	.315(*)	.253(*)
	Sig. (2-tailed)	0.015	0.023	0.013
	N	103	52	95
On-time performance	Correlation	.220(*)	0.17	0.197
	Sig. (2-tailed)	0.023	0.234	0.052
	N	106	51	98
Employee morale	Correlation	.205(*)	0.187	0.175
	Sig. (2-tailed)	0.046	0.194	0.099
	N	95	50	90
Accidents	Correlation	0.169	0.180	0.156
	Sig. (2-tailed)	0.094	0.203	0.136
	N	99	52	92
Transit ridership	Correlation	0.125	0.219	0.141
	Sig. (2-tailed)	0.214	0.115	0.179
	N	100	53	92

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).



**TABLE A-3 Correlations between degree to which expectations were met and reasons for contracting**

Reasons for Contracting		Pearson Correlation Coefficient re Degree to Which Expectations Were Met		
		All	Bus	DRT
Federal emphasis	Correlation	-.224(**)	-0.196	-.237(*)
	Sig. (2-tailed)	0.002	0.099	0.010
	N	189	72	117
New services	Correlation	.183(*)	0.145	.207(*)
	Sig. (2-tailed)	0.012	0.225	0.025
	N	189	72	117
State mandate or law	Correlation	-0.121	-0.091	-0.130
	Sig. (2-tailed)	0.098	0.446	0.163
	N	189	72	117
More competitive environment	Correlation	-0.078	-0.077	-0.078
	Sig. (2-tailed)	0.289	0.522	0.404
	N	189	72	117
Reduce costs	Correlation	-0.076	-0.08	-0.078
	Sig. (2-tailed)	0.299	0.506	0.402
	N	189	72	117
Higher quality service	Correlation	-0.061	-0.036	-0.078
	Sig. (2-tailed)	0.405	0.766	0.405
	N	189	72	117
Board direction	Correlation	-0.055	-0.115	-0.019
	Sig. (2-tailed)	0.452	0.336	0.842
	N	189	72	117
More flexible service	Correlation	0.039	0.109	-0.002
	Sig. (2-tailed)	0.596	0.361	0.985
	N	189	72	117
Expand services	Correlation	-0.031	-0.061	-0.014
	Sig. (2-tailed)	0.668	0.610	0.880
	N	189	72	117
Improve cost efficiency	Correlation	0.025	0.007	0.034
	Sig. (2-tailed)	0.737	0.952	0.718
	N	189	72	117

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

**TABLE A-4 Correlations between willingness to contract now and reasons for contracting**

Reasons for Contracting		Pearson Correlation Coefficient re Would Contract Now		
		All	Bus	DRT
More competitive environment	Correlation	.200(*)	0.165	.224(*)
	Sig. (2-tailed)	0.011	0.221	0.022
	N	161	57	104
Reduce costs	Correlation	.199(*)	0.148	.225(*)
	Sig. (2-tailed)	0.011	0.272	0.021
	N	161	57	104
Improve cost efficiency	Correlation	.172(*)	0.112	.208(*)
	Sig. (2-tailed)	0.029	0.407	0.035
	N	161	57	104
Higher quality service	Correlation	0.148	0.179	0.14
	Sig. (2-tailed)	0.060	0.182	0.155
	N	161	57	104
More flexible service	Correlation	0.125	0.195	0.101
	Sig. (2-tailed)	0.114	0.147	0.309
	N	161	57	104
State mandate or law	Correlation	-0.092	-0.057	-0.094
	Sig. (2-tailed)	0.244	0.673	0.340
	N	161	57	104
New services	Correlation	0.05	0.006	0.072
	Sig. (2-tailed)	0.529	0.966	0.469
	N	161	57	104
Federal emphasis	Correlation	-0.042	-.305(*)	0.061
	Sig. (2-tailed)	0.598	0.021	0.537
	N	161	57	104
Board direction	Correlation	-0.04	0.042	-0.085
	Sig. (2-tailed)	0.615	0.759	0.393
	N	161	57	104
Expand services	Correlation	0.013	-0.02	0.032
	Sig. (2-tailed)	0.873	0.885	0.748
	N	161	57	104

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

**TABLE A-5 Correlations between willingness to contract now and reasons not to contract (among agencies that do not currently contract)**

Reasons for Not Contracting		Pearson Correlation Coefficient re Would Contract Now–All
Not cost-effective	Correlation	-.583(**)
	Sig. (2-tailed)	0.000
	N	63
Section 13c prevents	Correlation	0.244
	Sig. (2-tailed)	0.053
	N	63
Union contract	Correlation	0.184
	Sig. (2-tailed)	0.149
	N	63
Maintain control	Correlation	-0.174
	Sig. (2-tailed)	0.173
	N	63
No reason to change	Correlation	-0.164
	Sig. (2-tailed)	0.200
	N	63
Too few bidders	Correlation	0.104
	Sig. (2-tailed)	0.419
	N	63
Proposed bids too high	Correlation	-0.063
	Sig. (2-tailed)	0.622
	N	63
Lack of qualified firms	Correlation	-0.033
	Sig. (2-tailed)	0.799
	N	63
Board direction	Correlation	-0.007
	Sig. (2-tailed)	0.955
	N	63

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).