Contracting with Private Providers by the Public Transportation Industry

Outline

• Organizational Schemes (Also see 1.201, Lecture 19)
• Services Typically Contracted
• Contract Economics
• Contracting Issues and Practices
• Types of Transit Contracts
• Contract Management
• Case Studies
• Final Thoughts on Performance Regimes
Primary Organizational Schemes in the U.S.

1. Standard Public Ownership & Operations

* Simplest structure
* Theoretically has maximum accountability and control
* Political and labor issues may introduce inefficiencies
* Innovation often tied to individual GM skills and future ambitions
Primary Organizational Schemes in the U.S.

2. Management Contract

* Mostly in smaller areas/not growing in number
* Provides expertise and/or experience via a manager or team who are not available locally
* 3-5 year contract duration typical—usually fixed fee
* Large incentive difficult to justify
* Employees either public employees or hired by a locally-incorporated private entity
* Implementation can be flawed; few incentives for private managers; very similar to first model
Primary Organizational Schemes in the U.S.

3. Service Contracting

* Various components of service can be contracted out
* Provision of actual bus or paratransit service most common
* Vehicles, facilities, and equipment may or may not be included in contractor-provided services
* Objectives of public agencies key to determining type of procurement and contract
U.S. Transit Industry Structure

• Remarkably little change since the early 1970s:
  • regional transit authorities regulating, planning and directly operating most services in larger urban areas (> 100 buses + rail)
  • municipalities operate transit in many small cities (< 100 buses)
  • principal use of private sector is in providing limited types of purchased services to transit authorities
Ancillary Services Typically Contracted

- Ancillary or support services: cleaning, advertising, real estate, etc.
  * relatively straightforward and easy to define & administer

- Maintenance of way and vehicles
  * limited examples in U.S. (London PPPs)
  * labor issues can be tricky
  * more examples in the private sector

<table>
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<th>Mode</th>
<th>Directly Operated</th>
<th>Purchased</th>
<th>Total</th>
<th>% Purchased</th>
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<td>Bus</td>
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<td>1,646</td>
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<td>Heavy Rail</td>
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<td>Light Rail</td>
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<td>72</td>
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<td>Paratransit</td>
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<td>2,255</td>
<td>4,421</td>
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<td>4,268</td>
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Source: American Public Transit Administration Fact Book 2009 (for 2007)
Transportation Services Typically Contracted

- Fixed route bus and rail services
  * limited examples but increasing—Denver, Dallas, Southern California, San Juan, D.C. suburban services
  * generally has been proposed to reduce costs and/or to provide new services
  * since market is relatively small, # of bidders usually low
  * rail market just starting—quality of service seems to be the emphasis here
Services Typically Contracted

• Paratransit (i.e., demand-responsive) services
  * contracting much more prevalent here with a range of outcomes
  * small but growing portion of public agency budget often consumes a disproportionate amount of management attention and public scrutiny
  * transition difficulties are frequent, especially in areas with only one provider
  * technology and customer relations play an important role
Contract Economics: Basic Principles

• Deals with situation of asymmetric information:
  • important information available to only one of parties
  • important information cannot be independently verified

• Basic question: how can the party (the principal) with limited information:
  (a) create a mechanism (contract) and
  (b) behave, such that a party (the agent) with desired traits:
    i) wants to enter into the contract and
    ii) then wants to behave as desired by the principal
Difficulties in Applying Contract Economics

- Complexity of agent's task is great, simple incentives are risky
- The principal may have difficulty determining the utility function
- A great deal of information is required of both parties
- Outcomes are often not under the agent's control
- Resulting contracts may be unfeasibly complex
- The more possible actions, possible outcomes, and uncertainty between the action and the outcome, the more difficult the problem.
- There are limits to contract complexity in practice -- they are difficult and costly to design and enforce.
Applications to Transit Service Contracting

Traditional approaches to contract design:

- identify desirable performance by contractor
- define measures for performance
- devise incentives/penalties based on measures

Obstacles to applying contract economics:

- agency has multiple objectives for contracting
- contractors have a great range of actions to choose from
- contractors also have multiple objectives
Fundamental Contracting Issues

- Maximize competition
- Understand the potential contractors
- Consider risk premiums
- Consider implications of fixed and variable costs
- Provision of equipment and facilities
- Performance standards, incentives, and penalties
- Compensation provisions (startup costs and cash flow)
- Contract length (normally 3-5 years)
US Transit Agency Contracting Practices

- Contracting is relatively stable, and still a small share of all service (13% overall, 51% of paratransit)
- Increasing use of competitive selection processes
- Structuring bids to minimize contractor's risk can increase competition
- Incentives and penalties are often included in contracts, but enforced much less frequently
- Contract extension/renewal a common implicit incentive
- Impact on reputation is a major factor
Types of Service Contracts

1. “Cost Plus” (~ 20%)
   * provider is reimbursed for all costs (usually up to a “ceiling”) plus a negotiated profit
   * contractor generally cannot suffer a loss
   * thought to provide little inducement to keep costs low
   * often associated with quality of service objective
2. “Fixed Price” (~ 80%)
   * ~ 60% based on service provided (vehicle hours or miles)
     - revenue versus non-revenue
     - can result in less emphasis on quality
   * ~ 20% based on service consumed (passenger trips or miles)
     - short trips versus long trips
     - measurement becomes a critical item
   * shifts much more risk to contractor and various mechanisms have been used to reduce this risk
     - “floors” on service or passenger units
     - combination of fixed and variable payments
     - full cost template specification and "shadow" bids at TfL
Contract Management/
Contractual Relationships

- Key to success is competent management on both sides
- Mutual respect and fair dealings most important aspects of relationship
- Regular reporting by contractor, thorough review by agency necessary
- Hands-on, frequent interaction reduces “games”
• Achievable, significant incentives more important than penalties except in extreme cases

• Reputation/recommendation more important than minor financial incentives

• “Cost-plus” form of contract with revenue/cost savings sharing may be cheapest in the long run
Case Study 1: New Suburban Fixed-Route Bus Services

- 5-year fixed-price for new services (compensation based on revenue-hours)

- Low-bid selected (a penny an hour difference!)

- Vehicles purchased by public agency and maintenance-facility provided midway through contract

- Contract economics change drastically as service expands and vehicles age
Case Study 1: New Suburban Fixed-Route Bus Services

- Drivers hired by public agency
- No interest within agency in renegotiating terms
- Penalties and incentives were insignificant
- Major loss could cripple small company
- Resulted in: new operator with substantially increased costs
Case Study 2: State-Sponsored Paratransit/Medicaid Transportation

- Competition for each county or groups of counties every 3-5 years
- Public, private-not-for-profit and private-for-profit companies compete
- Compensation on basis of price per passenger-mile with COL adjustments
- Quality of service initially an explicit factor; later reduced to a “qualification”
- Private providers pushed out due to public cross-subsidies
Case Study 3: Paratransit Brokerage

- One of longest-running private contracts in U.S. for one of the largest ADA/elderly paratransit programs
- Private broker has a “cost-plus” contract with public agency and in-turn contracts on a vehicle-hour basis with 6-12 private providers (by region)
- Significant incentive for productivity; small penalties for poor service
- Year-to-year semi-formal cost-based renegotiations of rates and adjustments of service areas
- Proven result-lower costs per passenger and per-hour and excellent service quality
Case Study 4: TfL Overground Service

- Transfer of 4 commuter rail services from UK National Rail to TfL, to be combined with a newly-built service (ELL)
- Complete cost specification including explicit overheads and profits through TfL-supplied templates
- Evaluators and consultants complete a "shadow bid"
- Performance regime is difficult because of enormous uncertainty
- BAFO included "Dynamic Benchmarking Revenue Share Incentive," but TfL never "bought in"
Final Thoughts on Performance Regimes

- Carefully consider aspects of performance you want to reward or discourage
- Can you justify significant monetary incentives?
- Rule of Thumb from Contractor's Perspective:
  - Put no more than 2/3 of profit at risk
  - Will work harder if profit can be doubled
- The more uncertainty in future performance, the more dynamic benchmarks make sense