

Cooperative Highway Services Case Study Report: Number 3

**Cayuga County Vehicle
Maintenance Pool Service
to the
City of Auburn**

*This report was prepared in partial
fulfillment of contract requirements for:*

*“Cost Effectiveness of
Consolidating Government Highway Services”
A New York State Department of
Transportation Research Contract*

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Cayuga County Vehicle Maintenance Pool Service to the City of Auburn

December, 1996

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TABLE OF CONTENTS

Overview.....	1
Importance.....	1
History.....	2
Key Issues: Evidence, Analysis and Conclusions.....	3
Mutual Benefits and Costs	3
Local Government Capacity Issues	6
Leadership	7
Teamwork.....	7
Cooperation.....	8
Legal and Institutional Barriers	8
Implications for Other Governments.....	9
Implications for Legislative and Regulatory Change.....	9
Summary of Key Findings	9
Case Study Documents.....	10
Persons Interviewed.....	11
County Trend Profile.....	Error! Bookmark not defined.
Other Project Reports.....	17
Overview of the Case Study Project.....	17
List of Project Reports	17
Appendix.....	19

FIGURE 1 -Cayuga County Motor Pool Revenue and Expenditure Summary for 1989-1995 (in dollars).....	5
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Cayuga County Vehicle Maintenance Pool Service to the City of Auburn¹

Overview

In 1990 the Cayuga County (population 82,313) motor pool entered into an arrangement with the City of Auburn (population 31,258) to provide maintenance services for a variety of city vehicles. This arrangement eventually led to servicing vehicles for a number of city departments including Police, Sanitation, Streets and Parks. Service has been provided on a fee for standard service rate using industry book rates. In some cases the pool “job’s out” work to private vendors. This arrangement led to a reduction in the staff of mechanics in the City of Auburn Streets and Parks Department from seven to two. One of the remaining city mechanics was assigned for several years to the county motor pool (as a city employee under supervision of the county motor pool). As a component of a broader “quality management” process the City of Auburn created a Vehicle Maintenance Team. This team was charged with looking at ways to improve vehicle maintenance across all city departments. The team made recommendations to the City Council in early 1996. One of the issues addressed by the committee was proposed changes in service arrangements with the county motor pool. In the fall of 1996 the City of Auburn announced that it would stop sending vehicles for servicing to the county motor pool beginning in January of 1997.

Importance

A motor or equipment pool repair service is attractive for a number of reasons. Many highway and public works departments may be too small to efficiently provide adequate repair and maintenance service in-house. Many of these departments do some work in-house and job out portions of their repair work to private firms when they are available. A pooling arrangement is another possible solution to provide maintenance services on an efficient scale for a number of municipalities where there can be adequate staff specialization and a cost effective sharing of needed facilities and equipment. The Cayuga County Motor Pool provides an example of this approach that has been around long enough to identify some of the benefits and difficulties of this kind of sharing arrangement.

¹ This is one of six case study reports prepared under contract with the New York State Department of Transportation (NYSDOT). The cases were selected for their potential in identifying cost savings, key factors and barriers related to opportunities for intergovernmental cooperation in highway services. A list of all project reports is at the end of this report. A draft of this report was reviewed for general content and accuracy by an involved local government official. The report is intended to be useful for: relevant NYSDOT staff, local government officials and those who staff and advise local highway departments.

History

Cayuga County has had a central motor pool for servicing vehicles from county departments for a number of years. It was established sometime in the late 1960s or early 1970s. The pool was created to help stabilize prices paid for vehicle maintenance on cars and other light vehicles (e.g., pickup trucks). The motor vehicle pool also provides a centralized gasoline facility and handles the purchase of new vehicles and reassignment of existing vehicles within the county. Before the pool county departments had discretion over where vehicle maintenance was done and the prices for a given maintenance task often varied significantly.

In 1990 the county wanted to expand their motor pool facility and approached the city about a contract for maintenance on some portion of their vehicles. While a contract was not signed, in 1990-91 the motor pool started to service some city vehicles. They started with police department vehicles for the first 18 months and served more city departments overtime.

The motor pool was part of the county highway department when it was first created. The motor pool was first split off from the county highway department, as an administrative unit of county government in the late 1980s. In the intervening years the motor pool has been recombined with and split off from the highway department several times. In the early 1990s the motor pool was administratively a part of the county highway department.

In 1993 the motor pool became an independent administrative unit again. At this point the county began more aggressively seeking a formal contract for city vehicle maintenance. Throughout the period from 1990 to 1995 the county motor pool continued to do more work for the City, but without a formal contract. In 1994 the motor pool began to add more public and not-for-profit customers to the list of agencies they serve. Also, in 1994 Auburn's City Manager approached the county about doing all of the city's vehicle maintenance work. The size of the motor pool facility was inadequate to handle all of Auburn's vehicle work. The county retained an architect to design a new facility that would be capable of housing the staff and facilities needed to do the additional city work. Building plans were developed predicated on the concept that the county would be taking on a larger portion of the city's vehicle maintenance. The architect's plans came in over cost and county officials began looking at alternative building options.

During this period Auburn Steel Corporation, which owns property directly adjacent to the County Motor Pool's property, offered to trade the county an existing, larger building for the current motor pool building and property. After having the property evaluated, the county believed the building could be efficiently renovated. First, however county officials wanted to secure a contract for city vehicle maintenance to ensure adequate annual revenue to justify investment in building renovation. The county was unable to secure a contract with the city.

During this period the City of Auburn's Vehicle Maintenance Team released their report and recommendations to the city council. The report indicated that the city was being over charged for repair services and gasoline. As a result the city initiated discussions with the county to resolve concerns about overcharges. The county structured a new proposed agreement based on these discussions. A suitable agreement was not reached and the city began to look into in-

house options for vehicle maintenance. Early in 1996 the city installed/updated its own “gasboys” for automated gasoline fueling and took back the maintenance of City police vehicles. The city decided to stop sending all vehicles to the county motor pool effective December 31, 1996. The city has purchased the property of a former automobile dealership in Auburn for around \$250,000 and is planning to invest at least one million dollars in renovations to create a motor vehicle maintenance pool for all city vehicles along with city gasoline facilities and a salt storage facility (the city formerly used county salt storage). With reduced demand for service the county board is restructuring the motor pool and moving it back under the administrative oversight of the County Highway Superintendent.

Key Issues: Evidence, Analysis and Conclusions

Information about this case was collected in four areas: (1) mutual benefits and costs, (2) local government capacity needs and resources, (3) leadership, teamwork and cooperation, and (4) legal and institutional barriers. Important information in each of these areas is discussed in a separate section below.

Mutual Benefits and Costs

Local governments and other organizations cooperate in, contract for or consolidate service activities because they derive mutual benefits. These organizations will weigh the perceived costs or disincentives to change against perceived benefits in making a decision to cooperate, contract or consolidate. What were the anticipated benefits for the local governments participating in this cooperative activity? Have these benefits been realized? What were the presumed costs or disincentives? Have these been realized?

City of Auburn. Auburn began sending vehicles to the county motor pool to achieve reduced vehicle maintenance costs. The physical proximity of the county motor pool, just north of the city, for repair and fueling and the costs charged by the pool were an attractive alternative in the early 1990s. The city was able to eliminate five mechanic positions as they began to use the pool more heavily. No publicly available, detailed cost projections were made to estimate total annual saving for the city by using the county pool. No comparative analysis of previous internal city costs were made to check if the county pool’s service was actually achieving savings. City officials acknowledged satisfaction with the quality of service provided by the county motor pool.

Cayuga County. The county was willing to take on city maintenance work and gasoline supply to increase the utilization rate of the motor pool. It was hoped that with increased volume the motor pool would break-even and not need to be supplemented with general revenues. County officials were also willing to take city vehicles to achieve savings for city tax payers and eliminate duplication of services. Cayuga County attempted to price vehicle maintenance services and gasoline charges to recover costs including administrative and overhead costs.

Standard shop rates were used to price specific maintenance tasks or activities. In 1995-96 the pool was using an hourly shop rate of \$35 per hour. This rate is below the hourly rates for many local private repair facilities. As indicated in Figure 1 below, while the county motor pool used costing procedures that included charges for administrative and overhead costs, the pool has not recovered full costs of operation. In each year of operation the motor has been supported by general tax revenues (see **General Tax Support** at the bottom of Figure 1 below) to cover the excess between operating expenditures and revenues from other departments and agencies for services provided. The trend in General Tax Support figures indicate a general increase in needed tax support until 1992 and a significant drop in needed general revenue support in 1994 to three percent of total expenditures, rising modestly to nine percent in 1995.

The revenue and expenditure information in Figure 1 also gives an idea of the relative magnitude of the impact of the City of Auburn's work on the maintenance pool for the last three full years of available data. Revenues from the City of Auburn include charges for gasoline purchased from the motor pool. The available data did not permit a separation of gasoline and maintenance charges for the city. Total gasoline costs for the motor pool are noted along with the percent of total expenditures these costs represent. The data in Figure 1 indicates that the loss of the City of Auburn's "business" could lead to a loss of over 50% of the motor pool's combined maintenance and gasoline revenues.

An added benefit for the city was improved maintenance record keeping. The county motor pool uses a computerized maintenance recordkeeping system. This is used to provide detailed billing information for organizations using the pool. It also permits up to a three year maintenance history on any vehicle serviced at the pool. It is unclear what kind of recordkeeping and cost information the city used internally before using the county motor pool. The pool's maintenance information system appears to have been an improvement for maintenance management and budgeting purposes. This kind of automated maintenance recordkeeping and reporting is available through many private vendors.

Maintenance and gasoline cost information from the county's motor pool provided an excellent tool for Auburn's Vehicle Maintenance Team to use in evaluating maintenance management. The Team's report identified areas where existing private sector costs were lower than motor pool charges. Other nearby counties and municipalities purchase maintenance services for cars and light trucks from private firms so one would expect that private firms in Cayuga County could provide similar services on a competitive basis with a publicly run maintenance pool. The summary information available in the Vehicle Maintenance Team's report estimates did not provide an explanation of how a new city run maintenance facility would provide services at lower cost than either the county or private vendors. It does not follow that because private sector maintenance and parts costs are lower than the county motor pool's that the City of Auburn can provide maintenance services at lower cost. This would depend on operating cost issues like labor rates and labor productivity and overhead costs for administrative services and capital facilities and other factors.

Figure 1
Cayuga County Motor Pool Revenue and Expenditure Summary
for 1989-1995 (in dollars)

	1989	1990	1991	1992	1993	1994	1995
Total Motor Pool							
Expenditures*	143,748	187,683	228,221	346,725	457,818	513,600	480,810
Gasoline Costs**	50,000	70,000	70,900	75,600	111,993	109,621	114,942
% of total expenditures	35%	37%	31%	22%	24%	21%	24%
Service Based Revenues							
Cayuga County*					223,416	134,406	109,132
% of Total					68%	27%	25%
City of Auburn					102,760	275,485	226,896
% of Total					32%	56%	52%
Other Agencies					0	85,865	99,858
% of Total					0%	17%	23%
Total	110,010	159,296	182,088	238,910	326,176	495,756	435,886
% of total expenditures	77%	85%	80%	69%	71%	97%	91%
General Tax Support	33,738	28,387	46,133	107,815	131,642	17,844	44,924
% of total expenditures	23%	15%	20%	31%	29%	3%	9%

Source: The figures for this table were compiled from the Cayuga County Budget documents for 1989-1997.

* These figures have been adjusted to exclude the total amount for vehicle purchases made by the pool for county departments.

** The pool also provides joint gasoline purchases for participating organizations. The amounts for gasoline purchases are intermingled with amounts for pool maintenance services for **Total Motor Pool Expenditures** and **Service Based Revenues**. Gasoline figures are included to show the rough percentage they represent for overall pool expenditures and revenues. The amounts for 1989, 1990, 1991 and 1992 for gasoline purchases are budgeted not actual figures.

It is important to assure that any unique public sector service needs are factored into quotes for maintenance services. For example, public vehicles may have to be fixed immediately or night servicing may be needed to ensure public safety or health. A private vendor may have to charge a higher price to ensure top priority turn around or to provide on call repair service. These kinds of service conditions need to be factored into comparative costing assessments.

Local Government Capacity Issues

Local governments need to *have* or be able to *access* the capacity to identify, evaluate and take action on potential, desirable highway service changes. Adequate management and governance capacity is required to evaluate possible changes in service delivery, select an alternative and then *revise* or *adjust* policy and service delivery arrangements. A deficit of management capacity can limit and frustrate the ability of decisionmakers to evaluate benefits, costs and other technical issues. Inadequate governance capacity² may lead to indecision, deferral or neglect of important opportunities for service cooperation, contracting or consolidation. Once a new service arrangement is in place, local capacity is required to manage and maintain the activity.

What advice, information and analysis was utilized in making decisions to move forward with this opportunity for service cooperation, contracting or consolidation? How did the process of decisionmaking and policy action unfold in relation to advice, information and analysis? What kinds of decisionmaking help was desired but not available?

Cost Information for Decisionmaking.

Both the city and county have adequate management capacity in their professional staff to help in assessing and making needed changes and adjustments for intergovernmental cooperation. The Auburn City Manager took the initiative in working with county officials to permit city departments to use the county motor pool for gasoline purchases and vehicle maintenance. After the report and decision by city staff to look at other options the county drew upon the existing county staff capacity of the county highway superintendent and the planning department to research and develop a new proposal, in the form of a proposed contract. The existing staff capacity of both municipalities was adequate to meet the management and planning capacity needs of this intergovernmental service arrangement.

² Governance capacity is the ability or extent to which a local government can effectively determine what it should do (what the local community wants it to do) and set organizational processes in motion to accomplish, adjust, and evaluate organizational goals and activities. This would be demonstrated in the ability to make and implement policy, effectively managing the local legislative agenda, and maintaining a planning process for future capital investment. Management and governance capacity are distinct and yet have clear linkages. The smaller the government the more management and governance are intertwined.

As noted earlier the existing automated vehicle maintenance records of the county motor pool provided an excellent tool for officials to use in evaluating overall maintenance budgets and strategies and maintenance cost trends for individual vehicles. This management information made it possible for the City of Auburn's Vehicle Maintenance Team to do a thorough analysis of current costs and trends and recommend alternatives for action. Similar management information capacity is reflected in electronic card systems for gasoline purchase used by the county and the city. These systems, much like those used by private vendors, automatically allocate gasoline purchases by card to the appropriate vehicle and purchasing agency and also link this information with user entered vehicle mileage from the odometer.

Leadership

Leadership is required to initiate concern over existing conditions, generate interest in beneficial change, engage others in service cooperation, contracting or consolidation, and pursue the opportunity through to a service delivery solution. Leadership issues are closely related to the capacity issues discussed in the previous section.

Members of the Cayuga County board initiated discussions with the City of Auburn to increase the volume of maintenance work for the county motor pool and increase the utilization rate or cost recovery of the pool. The former Auburn City manager was receptive to the initiative and opened up the opportunity for city departments to send vehicles to the county pool for maintenance services and gas purchases by city vehicles.

Teamwork

The nature of the relationship between governing board members and relevant operating personnel within each involved unit of government is important when considering changes in service delivery. The earlier and more active the involvement of operating personnel in service delivery considerations the higher the potential for the identification of successful service delivery changes involving other governments. Clearly targeted implementable goals, an early focus on program implementation, a clear locus of responsibility for action within the organization (this usually means the designation of a key person or agency with authority and support) have been identified as keys to successful service delivery change.

It appears that Auburn's former manager pursued the use of the county's motor pool without the full understanding of the city council. The use of the motor pool by the city had grown to the point of eliminating city maintenance jobs and the transfer of one city employee to work at the county motor pool facility. This employee stayed on the city payroll while working at the county facility. All this took place without a written agreement between the county and city. Such a contract would have to have been approved by city council. It seems that the former Auburn city manager did not involve his subordinates either in the process of negotiating or evaluating the relationship with the county for vehicle maintenance. In retrospect these communication issues appear to have been one of the reasons that the then city manager was dismissed by the Auburn city council.

There was a lack of knowledge and an apparent lack of understanding between the manager and the council/mayor. The quality team report on vehicle maintenance pointed up some shortcomings in the informal arrangement. The report cited examples of what were considered excessive cost charges by the county in fueling and maintenance. Presumably, with an agreement and a monitoring mechanism of some kind, cost issues and difficulties could have been resolved as a method of updating and cleaning up an ongoing contractual relationship. Many intergovernmental relationships need a certain amount of tinkering and adjustment overtime. These adjustments help clear up differing expectations, help address unexpected circumstances and permit updating for changing conditions. The maintenance agreement proposed by the county in 1996 for city work contained language to provide such a mechanism. This provision called for city representatives to meet with the County Public Works Committee on a regular basis to discuss “matters and questions” about how the contract was working. Instead of communication and adjustment in the shared motor pool arrangement between the Auburn and Cayuga County, the relationship has been terminated.

Cooperation

Good working relationships between individuals from involved local governments will enhance the opportunity for cooperation. The existence of long-term, good working relationships between governing board members and/or operating personnel in the different involved organizations will improve the potential for successful changes in service delivery that involve cooperation, contracting or consolidation.

Without a clear structure or mechanism to talk about difficulties or even full involvement by the governing bodies, a working relationship to provide efficient vehicle maintenance services was not established. Without a mechanism for dealing with conflicts and issues when the arrangement became a public conflict there was no easy way to resolve problems and look for new solutions. As a result, the conflict between the two municipalities escalated and to some degree began to be reflected in local news articles.

For example, it is very common when new intergovernmental service arrangements are initiated that a fair handling of existing employees is a key issue. In this case the informal process led to an arrangement where a mechanic from the City of Auburn was transferred to the county motor pool for vehicle maintenance work, but remained a city employee. This employee remained on the City payroll with a higher rate of pay than fellow county employees at the motor pool. This situation continued without resolution for several years. Officials differ in their opinion about if or why this was a problem situation. The existence of a signed contract and some kind of mechanism for working out differences would have permitted this and other difficulties to be communicated, discussed and resolved.

Legal and Institutional Barriers

Some observers believe that legal requirements and regulatory and institutional barriers exist which can hinder local government organizations from making changes needed to cooperate, contract or consolidate when mutual benefits exist which outweigh costs and other disincentives.

No significant legal or regulatory barriers were identified in this case study. The absence of a signed agreement (and the implied discussion and understanding that would have preceded the agreement) appears to have been an important factor precipitating an end to Auburn's use of the county motor pool for vehicle maintenance.

Implications for Other Governments

The key findings noted below are relevant for larger local governments exploring options for light vehicle (cars and pickup trucks) maintenance. This case explores some of the issues involved in publicly managed motor pools and the attempt to work together to service vehicles from multiple municipalities.

Implications for Legislative and Regulatory Change

No needed legislative or regulatory changes were identified based on the information collected in this case study.

Summary of Key Findings

1. **Costing Services.** There is a general need for improved cost analysis practices, recordkeeping and tools for use by local governments. Assistance in this area would prove beneficial for local governments in assessing opportunities for cooperation and in developing costing approaches to guide contractual relationships. The Cayuga County Motor Pool provides excellent maintenance information for management purposes. The computerized reporting system maintains detail and reporting capability by organizational unit or vehicle. This is an example of the kind of recordkeeping capacity that is needed to support improved management decisionmaking and cost analysis by local governments. It is unclear whether county management has used this resource in helping to make needed changes in vehicle maintenance practices and motor pool arrangements.
2. **Mechanisms for Monitoring and Maintaining Agreements.** Even well structured agreements require fine tuning and adjustment over time. Agreements should include mechanisms (a process for mutual agreement on annual statements of planned work, regular meetings, etc.) for board members and/or operating personnel to communicate and accommodate need for adjustment and change. The decision by the City of Auburn to stop using the Cayuga County Motor Pool demonstrates how intermunicipal arrangements can deteriorate when:
 - The arrangement is not governed by an agreement that states the conditions and expectations, and commitments of involved parties.
 - There is no joint mechanism established for the involved parties to iron out difficulties, and make needed clarifications and adjustments overtime. Possible joint mechanisms include: an agreed upon annual review of rates and charges, an annual meeting of a joint committee (with representatives from operating staff,

administrative and elected officials), or an agreed upon procedure for resolving problems that arise in the cooperative arrangement.

The absence of such a tool led to a breakdown of the agreement between the two municipalities which undermined the ability of the two groups to explore vehicle maintenance alternatives together.

3. **Privatization.** Officials from both the City and the County indicated that little exploration had been done to evaluate contracting out all light vehicle (cars and pickup trucks) maintenance to private vendors. Other nearby municipalities use private vendors for light vehicle maintenance. Both municipalities would benefit from at least exploring this option. Cayuga County in particular has been through a variety of changes to its motor pool operations and has consistently had to use general revenues to fill the gap between total costs of motor pool operation and revenue from service charges (see Figure 1, above).

This case study effort did not uncover evidence that any systematic management analysis of options has been done by the county. The motor pool's recordkeeping system could be used to conduct good analysis of cost trends and evaluate options for vehicle maintenance. Given the existence of many private vendors in this area, it appears that this would be an option to explore. Both the city and county have other in-house facilities and options for maintenance of larger trucks and heavy equipment. Perhaps a cooperative arrangement for servicing heavier equipment would be warranted (this also may be an efficient opportunity for privatization).

Case Study Documents

Below is a list of all legal, budget and organizational documents collected for the case study. Documents marked with an asterisk in the list below are appended to this report.

Official Cayuga County Budget Documents for: 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996.

**Report: City of Auburn Vehicle Maintenance Team (Graphics Only).* Sponsor: Chief Quill, Facilitator: Tim Cottrell, Leader: Jim Moore, Team Members: Lisa Green, George Holbert, Bruce Ross, Patti Schillace, Gary Winslow.

**Agreement Regarding County Repair to City Vehicles.* (unsigned, 1996 draft agreement proposed by Cayuga County).

**Micro Vehicle Management Agency Code Report.* 9/26/96. Motor pool computerized list of current local governments and organizations that use the Cayuga County Motor Pool for vehicle maintenance and/or gasoline purchase.

**Garage Plan Prompts Debate.* Article in the Syracuse Post Standard, Tuesday, September 24, 1996, page B-1.

Persons Interviewed

Administrative Assistant, Cayuga County Motor Pool

Al Emy, Interim City Manager, City of Auburn

George Holbert, Head Mechanic, Sewer Department, City of Auburn (member of city quality committee on vehicle maintenance)

William Lupien Jr., Director of Streets and Buildings, City of Auburn

Joe Michaud, Legislator, Cayuga County, member of the Highway committee

John Ozolins, Cayuga County Highway Superintendent

Ralph Standbrook, Chairman, Cayuga County Legislature and former member of the Highway Committee

Dave Wilzek, Mechanic, Cayuga County Motor Pool

Other Project Reports

Overview of the Case Study Project

This report is part of a larger research project funded by the New York State Department of Transportation (NYSDOT). The Department sought proposals on the “Cost-Effectiveness of Consolidating Government Highway Services.” The issue of jurisdictional realignment, combining units of government, was not to be the focus of the study. NYSDOT was interested in identifying both service functions that are appropriate for consolidation and methods of achieving this consolidation. The Department wanted to identify the institutional and political barriers that adversely affect decisions based on economic factors and to suggest methods for dealing with such barriers (including recommendations for change in state laws and regulations). To achieve these goals a case study design was proposed by the investigator and selected by NYSDOT. A Project Advisory Group (PAG) was recruited to give advice on the selection of case studies. PAG members included a town highway superintendent, a county highway superintendent, a NYSDOT regional maintenance engineer, a staff member from a metropolitan planning organization, staff from the Cornell Local Roads Program, and a staff member from the New York State Legislative Commission on Rural Resources.

A mail survey with telephone follow-up was conducted in the fall of 1995 to identify cases of intergovernmental cooperation in the provision and production of highway services. A list of ten examples were selected for possible case study analysis and refined through consultation with the Project Advisory Group and the NYSDOT Consultant Manager. Six case studies were conducted and the final reports are included in the list of reports below.

A review of current reports and findings on existing statutory and regulatory barriers to service delivery cooperation was also conducted as a part of this project. The results of this review were combined with relevant findings from the case studies in a report on barriers and recommendations for change. See the summary report or executive summary listed below for a review of the projects overall findings and recommendations.

List of Project Reports

Case Study Report: Suggested Cases of Highway Cooperation and Consolidation for Further Study. Michael Hattery and David Kay. Local Government Program, Department of Agricultural, Resource, and Managerial Economics, College of Agriculture and Life Sciences, Cornell University. November 9, 1995.

Appendix to Case Study Report: Data Base of Cases Identified through the Interview Process. Michael Hattery and David Kay. Local Government Program, Department of Agricultural, Resource, and Managerial Economics, College of Agriculture and Life Sciences, Cornell University. November 9, 1995.

Case Design Report: Research Design for Cases of Highway Cooperation and Consolidation. Michael Hattery. Local Government Program, Department of

Agricultural, Resource, and Managerial Economics, College of Agriculture and Life Sciences, Cornell University. May 15, 1996.

Contract for Street Maintenance and Repair between the Town and Village of Bergen, Genesee County. Cooperative Highway Services Case Study Report Number 1. Michael Hattery. Local Government Program, Department of Agricultural, Resource, and Managerial Economics, College of Agriculture and Life Sciences, Cornell University. December, 1996.

Chautauqua County Bridge Program. Cooperative Highway Services Case Study Report Number 2. Michael Hattery. Local Government Program, Department of Agricultural, Resource, and Managerial Economics, College of Agriculture and Life Sciences, Cornell University. December, 1996.

Cayuga County Vehicle Maintenance Pool Service to the City of Auburn. Cooperative Highway Services Case Study Report Number 3. Michael Hattery. Local Government Program, Department of Agricultural, Resource, and Managerial Economics, College of Agriculture and Life Sciences, Cornell University. December, 1996.

Town of Esperance Contract with Schoharie County. Cooperative Highway Services Case Study Report Number 4. Michael Hattery. Local Government Program, Department of Agricultural, Resource, and Managerial Economics, College of Agriculture and Life Sciences, Cornell University. December, 1996.

Jefferson County Contracts With Towns for Major Improvements. Cooperative Highway Services Case Study Report Number 5. Michael Hattery. Local Government Program, Department of Agricultural, Resource, and Managerial Economics, College of Agriculture and Life Sciences, Cornell University. December, 1996.

Fostering Exchange with Local Governments: New York State Department of Transportation Region 7 Office of the Regional Maintenance Engineer. Cooperative Highway Services Case Study Report Number 6. Michael Hattery. Local Government Program, Department of Agricultural, Resource, and Managerial Economics, College of Agriculture and Life Sciences, Cornell University. December, 1996.

Recommendations for Legislative and Regulatory Change to Promote Highway Service Cooperation and Consolidation. Duane Wilcox, Michael Hattery, and Kevin Crawford. Local Government Program, Department of Agricultural, Resource, and Managerial Economics, College of Agriculture and Life Sciences, Cornell University. December, 1996.

Summary Report of Case Study Findings and Recommendations for Legislative and Regulatory Change. Michael Hattery. Local Government Program, Department of Agricultural, Resource, and Managerial Economics, College of Agriculture and Life Sciences, Cornell University. December, 1996.

Project Executive Summary. Michael Hattery. Local Government Program, Department of Agricultural, Resource, and Managerial Economics, College of Agriculture and Life Sciences, Cornell University. December, 1996.

Appendix