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BUY AMERICA ISSUES ASSOCIATED WITH STATE DOT PROCUREMENT OF PARATRANSIT VEHICLES USING FTA FUNDS

This digest summarizes the results of NCHRP Project 20-65 (8A), "Buy America Issues Associated with the State DOT Procurement of Paratransit Vehicles Using FTA Funds."

Nathan Macek, Senior Consultant, AECOM Consult, was the Principal Investigator. He was supported by Scott Baker, Senior Consulting Manager, AECOM Consult, as well as Robin Stevens, Principal, Robin Stevens Consulting, Ltd., and Tom Rochon, A. W. Scates Associates.

Several states contributed information for this digest. Major contributing state departments of transportation were Arizona, Connecticut, Florida, Idaho, Illinois, Missouri, North Carolina, Ohio, Oregon, Pennsylvania, Texas, Vermont, and Washington. Representatives from an additional 25 states completed web-based surveys for this effort. In addition, several transit agencies, vehicle vendors, and manufacturers participated in telephone interviews.

SUMMARY OF FINDINGS

State departments of transportation (DOTs) and their funding subrecipients are subject to federal Buy America requirements. Buy America requirements mandate that recipients of federal mass transportation funds conducting procurements totaling \$100,000 or more certify that grant-funded vehicles contain more than 60 percent domestic parts content and that final vehicle assembly occurs within the United States. Alternatively, grant recipients can obtain a waiver from the Federal Transit Administration (FTA). The guidelines apply equally to all motor vehicles purchased with federal funds, including station wagons, minivans, full-size vans, and small and large buses.

The purpose of this research is (1) to examine the Buy America requirements applicable to state DOTs and their subrecipients in purchases of paratransit vehicles and (2) to consider opportunities for change. Vehicles procured by state DOTs or their grant recipients with grants from the federal Section 5310 (49 U.S.C § 5310, hereafter referred to as Section 5310) Elderly and Persons with Disabilities program and the Section 5311 (49 U.S.C § 5311, hereafter referred to as Section 5311) Rural and Small Urban Areas program are the primary focus of this study. Note, however, that Buy America regulations apply equally to all motor vehicles purchased with FTA grant funds, regardless of the program through which the grant was awarded.

To investigate this topic, researchers conducted a literature review of relevant legislation, regulations, FTA guidance and interpretations, handbooks, and other publications describing Buy America regulations. In addition, procurement officials at state DOTs, transit agencies, Section 5310

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and Section 5311 grant recipient agencies, vehicle vendors, and in-plant vehicle inspectors were surveyed and/or interviewed.

The Buy America requirements applicable to vehicles purchased through Section 5310 and Section 5311 are those for rolling stock. They are found at 49 C.F.R., Part 661, "Buy America Requirements," and 49 C.F.R., Part 663 (2006), "Pre-Award and Post-Delivery Audits of Rolling Stock Purchases" (2006). Part 661 sets out the general Buy America requirements applicable to steel, iron, and manufactured products as well as those applicable to rolling stock. The regulations cover all forms of rolling stock, including "buses, vans, cars, railcars, locomotives, trolley cars and buses, ferry boats, and vehicles used for guideways and incline planes." For ease, this digest will refer to "rolling stock," but will not discuss the requirements related to railcars.

The FTA administers compliance with federal Buy America provisions. To be considered a domestic product under Buy America regulations, there are two requirements for rolling stock: (1) the cost of components produced in the United States must be more than 60 percent of the cost of all components and (2) final assembly must take place in the United States.²

Each grantee must certify to the FTA that it will conduct pre-award and post-delivery audits of revenue rolling stock purchased with funds obligated by the FTA on or after October 24, 1991. The grantee may conduct these audits itself or arrange for another party to conduct them. The regulation defines an audit as a "review resulting in a report containing the necessary certifications of compliance with Buy America standards, purchaser's requirements specifications, and, where appropriate, a manufacturer's certification of compliance with or inapplicability of the Federal Motor Vehicle Safety Standards" (emphasis added).³ This definition is critical: grantees are required to review the manufacturer's certification. There is no requirement to determine whether the manufacturer's representations are truthful, i.e., no requirement to review invoices of component and subcomponent suppliers. This definition is amplified in 49 C.F.R. § 663.25 (2006), which states that the recipient must be satisfied that the rolling stock meets the applicable requirements after having itself reviewed, or having someone other than the manufacturer or its agent review, the manufacturer's documentation of "(1) component and subcomponent parts of the rolling stock to be purchased identified by manufacturer of the parts, their country of origin, and costs; and (2) the location of the final assembly point for the rolling stock, including a description of the activities that will take place at the final assembly point and the cost of final assembly."

Regulations also require that a resident inspector be at the vehicle manufacturer's site for all procurements except those in which 10 or fewer buses (the regulation says "buses," but this has been broadly construed by FTA to refer to all vehicle types, including vans and other types of paratransit vehicles) or any number of primary manufacturer standard production vans and unmodified vans are procured. The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) amended this provision to apply to procurements of 10 or fewer buses or 20 or fewer vehicles serving rural (i.e., non-urbanized) areas or urbanized areas of 200,000 people or fewer. The FTA subsequently implemented this change.⁴

The FTA also has the authority to issue waivers of certain Buy America requirements. It may do so under the following conditions:

- When it determines that the application of the requirements would not be in the public interest;
- When the steel, iron, or goods produced in the United States are not of a satisfactory quality, or they are not produced in the United States in sufficient and reasonably available quantities; or
- When the inclusion of a domestic item or domestic material will increase the cost of the applicable contract by more than 25 percent.⁵

Small buses (less than 30 feet long) and vans purchased through the Section 5310 Elderly and Persons with Disabilities program and the Section 5311 Rural and Small Urban Areas programs totaled 2,191 vehicles in federal fiscal year (FY) 2004 and \$75.8 million in grants, amounting to 30 percent of federally funded vehicles for 2004 and 8 percent of federally funded vehicle expenditures in 2004. The number of paratransit vehicles purchased with federal Section 5310

¹49 C.F.R. § 663.3 (2006).

²49 C.F.R. § 611.11 (2006).

³⁴⁹ C.F.R. § 663.5 (2006).

⁴⁴⁹ C.F.R. § 663.37 (2006).

⁵49 C.F.R. § 661.7 (2006).

and Section 5311 funds in federal FY 2004, as reported by 34 states in response to a survey conducted for this study, ranged from as many as 927 in California and nearly 500 in North Carolina and Missouri to less than 10 in Vermont, New Hampshire, and South Dakota. The average number of vehicles purchased across all states responding to the survey was 131, or 106, excluding California. As these figures indicate, the degree to which paratransit vehicle procurement represents a major purchase varies greatly from state to state.

There are several processes that states apply to procure paratransit vehicles funded by Section 5310 programs, Section 5311 programs, and other programs. These processes, outlined below along a spectrum from most centralized to most decentralized, include the following:

- Centralized "Turn-Key" State Procurement Process, in which the state has complete responsibility for paratransit vehicle purchase. The state notifies applicants of grant award and then handles all aspects of procurement and purchasing directly, including Buy America pre-award and post-delivery audits and in-plant vehicle inspection, if required.
- Grant Recipient Vehicle Purchase via Central State-Procured Contract, in which the grant recipient purchases off a central state-procured paratransit vehicle contract. The state retains responsibility for procurement of the vehicle, but the grant recipient takes responsibility for placing a vehicle order under the contract and inspecting the vehicle on delivery. In this arrangement, the state, as procurement agent, generally conducts the Buy America pre-award audit, while the purchasing entity generally conducts the post-delivery audit. In some instances, the post-delivery audit is conducted with assistance from the state DOT.
- Dual Process, in which Section 5310 grant recipients have the option to purchase vehicles through a centrally procured state paratransit vehicle contract or a decentralized procurement process. Responsibility for compliance with Buy America regulations is generally commensurate with each party's role in the process, with procuring agencies responsible for preaward audits and purchasing entities responsible for post-delivery audits and in-plant vehicle inspection, if required.

- Decentralized Third-Party/Consortium Procurement Process, in which two or more grant recipients form a procurement consortium to purchase vehicles, the state DOT designates a lead agency to conduct the procurement on behalf of some or all Section 5310 grant recipients in the state, or a third-party agency procures vehicles on behalf of grant recipients. Responsibility for Buy America compliance varies, but the pre-award audit is generally the responsibility of the procuring entity and the post-delivery audit is the responsibility of the agencies that ultimately purchase each vehicle.
- Decentralized Independent Procurement Process, in which a grant recipient independently develops its own vehicle specifications, usually following the guidance of the state DOT. All steps in the procurement process, including preparation of vehicle specifications, solicitation of offers, procurement, contract award, and Buy America pre-award and post-delivery audits are conducted by the grant recipient, with state oversight along the way.

In-plant vehicle inspections, required for federally funded purchases of more than 10 vehicles by a single agency (or more than 20 vehicles when they will be used to serve metropolitan areas with a population of 200,000 or less) are generally needed only when the state DOT purchases vehicles directly on behalf of grant recipients. Inspections are rarely needed when grant recipients purchase through a central state-procured contract because Section 5310 and Section 5311 grant recipients seldom purchase more than 10 grant-funded vehicles at once.

Likewise, in-plant inspections are seldom required for vehicles procured through decentralized processes because few grant recipients procure sufficient vehicles to require in-plant inspection. In occasional instances, a lead agency, third-party procurer, or another party to a purchasing consortium must conduct an in-plant inspection if it purchases more than 10 vehicles for its own use (or more than 20 vehicles when used to serve metropolitan areas with a population of 200,000 or less). Often, this is the case when vehicles funded by the Section 5311 program or other federal grant sources are being purchased by an agency. In such instances, those agencies for which an in-plant inspection is required generally bear the cost of the inspection.

All interviewed agencies that currently conduct in-plant vehicle inspections for paratransit vehicle

procurements—mainly state DOTs that conduct centralized turn-key state procurement processes—said that even if they were not required to conduct an in-plant vehicle inspection as part of Buy America compliance, they most likely would perform such inspections because they have found them to be a good procurement practice.

Few agencies were able to report the effort required to comply with Buy America requirements in terms of labor hours or dollars expended for the average vehicle procured or the typical procurement process. Most respondents reported that the time requirements were "minimal" in light of the overall time and expense required to conduct a satisfactory procurement. Moreover, several of the procedures mandated by Buy America—such as the in-plant and post-delivery inspection requirements—were described by many respondents as good procurement practices that they would likely adhere to even if they were not federally required to do so.

Interviewees provided a number of comments on Buy America requirements:

- Several respondents praised the Buy America compliance process for providing a methodology by which to control content and quality of transit vehicles. One interviewee stated that required in-plant inspections create a baseline for ensuring vehicle quality.
- Several grant recipients that acquired vehicles through centralized state contracts or a third-party/consortium process had no opinion of Buy America requirements, mostly because of their limited exposure to the regulation. Several had high praise for the state DOT or purchasing consortium lead agency responsible for their procurement, citing the smoothness of the process from their perspective. This indicates that several state DOTs and lead agencies have successfully shielded grant recipients from the intricacies of Buy America compliance and have placed responsibility on the shoulders of agencies best able to manage it.
- Some interviewees and multiple survey respondents stated that Buy America regulations limit competition by effectively prohibiting the purchase of innovative vehicles from the international marketplace because they meet neither the domestic content nor final assembly requirements of Buy America and therefore are not eligible for federal grant funding.

- Some respondents identified an apparent contradiction between Buy America regulations and other federal policies, such as the North American Free Trade Agreement (NAFTA). In part because of NAFTA, many manufacturers have moved production of motor vehicles and automotive parts to Canada and Mexico. However, although the policy of the United States is to allow free trade with these nations, under Buy America regulations, there are no special exceptions for vehicles or componentry manufactured elsewhere in North America and imported free of tariff into the United States.
- Several interviewees have suggested that ensuring compliance with Buy America regulations should be the responsibility of a different level of government than is currently the case or should be the responsibility of vendors or manufacturers. Several grant recipients in decentralized procurement states commented that the state DOT should certify that vehicles or components comply with Buy America regulations. At the same time, some state DOT interviewees suggested that the FTA should be responsible for Buy America compliance audits so that one agency has responsibility for conducting the process instead of 50 states and hundreds of designated recipients of federal funds.

Based on the survey responses, interviews, and considerations of the research team, there were six potential options identified for improving Buy America implementation. These include the following:

 Broadening State DOT Assistance with Buy America Compliance. Given the complexity of Buy America requirements, the time and expertise required to conduct a proficient procurement, and the small size of many Section 5310 and Section 5311 program recipients, state DOTs should consider how they and their subgrantees will comply with Buy America requirements as they work with those subgrantees to structure vehicle procurement processes. Because either the grant recipient or a third party (other than the manufacturer or its agent) may conduct both pre-award and post-delivery audits, agencies planning the procurement process for themselves and other organizations can structure procurements so that such audits are conducted on behalf of other recipients ordering the same vehicle. One agency could conduct an audit on behalf of others, an agency could retain a consultant to conduct the audit on behalf of multiple purchasers, or each recipient could conduct its own audit.

- Raising the Dollar Value Threshold at Which Buy America Regulations Apply or **Redefining the Threshold.** Presently, Buy America regulations apply to all procurements of manufactured products totaling \$100,000 or more that are purchased with the aid of FTA grant funds. This threshold could be raised above \$100,000 to limit the impact of Buy America compliance on agencies conducting very small procurements. Alternately, a threshold specified in terms of the number of vehicles procured, instead of, or in addition to, the dollar value of the procurement, could be created. However, FTA's ability to change the threshold without Congressional action is unclear.
- Establishing Direct FTA Review of Vehicles for Buy America Compliance. Another possible option is for the federal government to conduct vehicle reviews and post listings of compliant vehicles and/or components or to conduct Buy America reviews at the Altoona bus-testing facility. However, given the large variety of paratransit vehicles supported by federal grants, the effort involved in FTA inspection of these vehicles would be substantial. This option would require significant funding to establish and maintain a system for vehicle or componentry certification.
- Developing and Maintaining a Registry of **Vehicle Procurements That Are Compliant** with Buy America Requirements. Many survey respondents suggested a national registry of vehicle audits to eliminate multiple audits of the same vehicle. This method was perceived to have the potential to streamline the efforts of state DOTs and grant recipients responsible for certifying Buy America compliance. For vehicles that are exactly alike and vehicles for which manufacturers could identify models that are the same, a registry would be possible. The difficulty would be in the identification of models; a small change in a component or subcomponent would mean a different Buy America content calculation.

Instability of vehicle models, difficulty in configuration control, and other manufacturing factors could pose problems for creating a useful registry. Also, manufacturers will be concerned about the public disclosure of proprietary pricing information for vehicles listed on the registry.

There are two potential avenues for implementing this option. One is for FTA to establish a registry; purchasers would certify that the vehicles they were purchasing were identical to vehicles listed on the registry or would list the vehicles that they were purchasing in the registry, if they were not yet there. Alternatively, an entity other than the FTA could create a registry. If such a registry included information on vehicle models purchased by agencies at the subcomponent and final assembly level of detail, subsequent buyers could rely on prior audits of Buy America content (as long as the audits in question were conducted by a recipient or third party other than the manufacturer or its agent).

This option would require funding to establish and maintain the registry. In addition, it is possible that obtaining the documentation required to establish whether a vehicle purchase matched any existing registry listing would be no more efficient than the current process of vendor documentation and purchaser certification.

• Having the Vendor or Manufacturer Certify Buy America Compliance. Another option is vendor certification of Buy America compliance, which is how Buy America compliance is handled for non-rolling stock items. This option, which would require Congressional action, would relieve vehicle purchasers of responsibility for Buy America certification; however, they would still need to ensure that documentation was received from manufacturers.

There are three potential options for manufacturer certification. The first would be for a manufacturer to make a direct certification to FTA that the vehicles it sells to FTA grant recipients are Buy America compliant, much as manufacturers presently certify disadvantaged business enterprise (DBE) compliance directly to FTA. Another option, which would preserve certification for each vehicle purchase, is for

manufacturers to present a signed certification letter to purchasers stating that the vehicle's final assembly took place in the United States and that the vehicle meets Buy America's domestic componentry requirements, without listing the details of vehicle componentry. This would resemble the documentation currently provided by manufacturers to certify compliance with Buy America requirements for non-rolling stock items. A third option would maintain documentation of Buy America compliance for each vehicle by including the componentry listing, but shift certification from the purchaser to the manufacturer. Manufacturers would essentially provide to purchasers the same documentation that they do at present with the addition of a signature line certifying that the domestic content and final assembly requirements have been met. Limited, if any, additional financial resources would be required to implement any of these three options.

Maintaining Buy America Compliance **Processes as Currently Established.** A final option is to maintain Buy America compliance processes as currently established. Interview responses, from state DOTs, grant recipients, and vendors alike, included few calls for changing compliance processes. Indeed, most respondents found the requirements to be minimal in light of the sum of tasks required to conduct a satisfactory procurement. Maintaining the status quo would mean continuing to place the burden of certification on vehicle purchasers; however, leaving the process as it is also means avoiding the difficult and timeconsuming task of determining how to establish and maintain a centralized certification system, how to fund such a system, and what agency should have responsibility for managing it. Moreover, maintaining the established Buy America compliance process avoids the necessity of Congressional action.

1 INTRODUCTION AND RESEARCH APPROACH

Paratransit may be generally defined as flexible passenger transportation that does not follow fixed routes or schedules and can include demand-response, deviated fixed-route, shuttle, and van services. In many instances, paratransit services are provided by small buses (less than 30 feet long) and vans, including minivans, full-size vans, and conversion vans. In some instances, however, large buses (greater than 30 feet long), school buses, intercity or commuter buses, or sedans and station wagons (including taxis) support paratransit services. Generally, paratransit services are provided to passengers unable to use fixed-route transit service (such as some elderly persons and persons with disabilities) or are provided in areas without fixed-route transit service (such as rural areas). Many of the vehicles used to provide paratransit service have wheelchair lifts or ramps and tie-downs to transport disabled passengers.

Paratransit vehicles are purchased with the support of federal funds through several grant programs. Some vehicles are purchased with Section 5307 (49 U.S.C. § 5307, hereafter referred to as Section 5307) Urbanized Area Formula program funds and Section 5309 (49 U.S.C. § 5309, hereafter referred to as Section 5309) Bus and Bus-Related Capital program fund, while others are funded through the Section 5310 (49 U.S.C. § 5310, hereafter referred to as Section 5310) Elderly and Persons with Disabilities program and the Section 5311 (49 U.S.C. § 5311, hereafter referred to as Section 5311) Rural and Small Urban Areas program (often referenced as the Non-Urbanized Area Formula program). In the case of the latter two programs, federal grants are made directly to state departments of transportation (DOTs), which have the responsibility of making secondary awards to eligible recipients. 6 Often, recipients of Section 5310 and Section 5311 grants will use grant funds to purchase vehicles directly, or state DOTs will purchase vehicles on behalf of grant recipients. Funds from these programs may also be applied to a variety of other uses. Section 5310 funds support preventive maintenance, contracting for services, fixed-route paratransit service, leasing equipment or facilities, safety equipment and facilities, facilities that incorporate community services (such as day care or health care), and transit enhancements. Section 5311 funds may be applied to capital, operating, and administrative costs.

⁶Paratransit vehicle grant programs in most states are administered by the DOT. In some states, however, the program may be under the purview of another state agency. For example, Georgia's Department of Human Resources and Virginia's Department of Rail and Public Transportation administer these programs in lieu of the DOT. Throughout this digest, references to the DOT should be inferred as referring to the state agency responsible for administering a state's paratransit vehicle grant programs, regardless of whether this is actually the DOT.

State DOTs and their funding subrecipients are subject to federal Buy America requirements, which mandate that recipients of federal mass transportation funds who conduct procurements totaling \$100,000 or more certify that grant-funded vehicles contain more than 60 percent domestic parts content and that final vehicle assembly occurs within the United States. Alternatively, recipients of federal mass transportation funds can obtain a waiver of Buy America requirements from the Federal Transit Administration (FTA). The guidelines apply equally to all motor vehicles purchased with federal funds, including station wagons, minivans, full-size vans, and small and large buses.

The purpose of this research is to examine the Buy America requirements applicable to state DOTs and their subrecipients in their purchases of paratransit vehicles, to weigh the implications of those requirements in practice, and to consider opportunities for change. Vehicles purchased with federal Section 5310 and Section 5311 program grants and procured by state DOTs or their grant recipients are the primary focus of this study. Note, however, that Buy America regulations apply equally to all motor vehicles purchased with FTA grant funds, regardless of the program through which the grant was awarded.

The objectives of this study are to (1) describe current Buy America requirements and new Buy America provisions resulting from the passage of the Safe, Accountable, Flexible, Efficient Transportation Act: A Legacy for Users (SAFETEA-LU) because these requirements relate primarily to the procurement of paratransit vehicles by state DOTs and their federal funding subrecipients; (2) identify common issues faced by state DOTs and their funding subrecipients as a result of meeting current Buy America provisions as well as issues resulting from proposed changes stemming from SAFETEA-LU for the procurement of vans and body-on-chassis buses; and (3) develop options for handling with the issues identified.

To investigate this topic, researchers conducted a literature review of relevant legislation, regulations, FTA guidance and interpretations, handbooks, and other publications describing Buy America requirements. In addition, procurement officials at state DOTs, transit agencies, Section 5310 and Section 5311 grant recipient agencies, vehicle vendors, and in-plant vehicle inspectors were surveyed and/or interviewed. Several instruments were developed to facilitate these surveys and interviews:

 A web-based survey of paratransit vehicle procurement practices was distributed to members

- of the Multi-State Technical Assistance Program (MTAP), an organization affiliated with the American Association of State Highway and Transportation Officials (AASHTO) for state DOT transit staff and program managers to exchange technical information on public transportation, funding, operations, and Section 5311, 5310, 5307, and 5309 program management. In the case of states without MTAP membership, a representative of the AASHTO Standing Committee on Public Transportation (SCOPT) was contacted. This survey asked states to provide the number of vehicles for which the state DOT conducted a Buy America compliant procurement process. In addition, states were asked to describe the strengths and challenges of the current Buy America compliance process for any paratransit vehicle procurements undertaken by the agency and to suggest any changes to the process. In total, 38 survey responses were received out of 50 states contacted. The survey is included as Appendix A.
- Telephone interviews were conducted with representatives of 12 states: Arizona, Connecticut, Idaho, Illinois, Missouri, North Carolina, Ohio, Oregon, Pennsylvania, Texas, Vermont, and Washington. The telephone interviews were aimed at understanding the details of each state's paratransit vehicle procurement process, including the size and scope of the program, vehicle requirements, and roles and responsibilities of the DOT and grant recipients. The interview focused on the state DOTs' perspectives on Buy America requirements, including the strengths and challenges of the current compliance process and suggested changes to the process. Names and contact information for grant recipients and paratransit vehicle vendors in the state were requested so that researchers could gather information on Buy America requirements from different perspectives. Interviewees were also queried regarding Section 5310 paratransit vehicle procurement processes as part of a concurrent investigation by the research team. The interview guide for states with centralized procurement processes is included as Appendix B and for decentralized processes as Appendix C.
- Telephone interviews were conducted with representatives of 10 organizations that have

received federal grant funds for paratransit vehicles. Interviewed organizations included rural transit agencies, agencies on aging and senior centers, and nonprofit service organizations assisting individuals with disabilities. The interviews focused on grant recipients' perspectives on Buy America requirements, including the strengths and challenges of the current compliance process and suggested changes. The grant recipient interview guide is included as Appendix D.

- Telephone interviews were also conducted with representatives of five transit vehicle vendors. These interviews were aimed at understanding how vendors perceive Buy America compliance requirements. The paratransit vehicle vendor interview guide is included as Appendix E.
- Telephone interviews were conducted with representatives of four Buy America and vehicle inspection consultants. These interviews were aimed at understanding general perceptions of Buy America requirements from the perspective of individuals specifically tasked with ensuring their clients' compliance.

Section 2 of this digest presents the findings of the literature review, including the changes to Buy America requirements legislated in SAFETEA-LU. The surveys and interviews provide a wide range of perspectives on, and experiences with, Buy America compliance for paratransit vehicle procurements; these perspectives and experiences are described in Section 3. The digest concludes with Section 4, which describes options for revising Buy America compliance procedures.

2 LITERATURE REVIEW

This section presents an overview of the federal Section 5310 and Section 5311 programs, as well as the findings of a literature review of relevant legislation, regulations, FTA guidance and interpretations, handbooks, and other publications describing the requirements of Buy America and the federally mandated processes developed to ensure compliance.

Overview of Federal Section 5310 and Section 5311 Programs

Vehicles purchased with federal Section 5310 and Section 5311 program grants and procured by state DOTs or their grant recipients are the primary

focus of this study. To provide an overview, these programs are described below. As noted earlier, however, Buy America regulations apply equally to all motor vehicles purchased with FTA grant funds, regardless of the program through which the grant was awarded.

Section 5310 Elderly and Persons with Disabilities Program

The federal Section 5310 Elderly and Persons with Disabilities program provides formula grants to meet the special transportation needs of elderly persons and individuals with disabilities. These funds are apportioned to the states annually by a formula based on the number of elderly persons and persons with disabilities in each state. The program has enabled countless individuals to achieve greater mobility and independence.

The Elderly and Persons with Disabilities program is administered through the states, and specific funding decisions are made at the state level. Capital assistance is provided on an 80-percent federal, 20-percent local matching basis, except for vehicle-related equipment needed to meet Americans with Disabilities Act (ADA) and Clean Air Act Amendment (CAAA) requirements, which may be funded on a 90-percent federal, 10-percent local matching basis. The vast majority of funds from this program are applied to support vehicle purchases, but other capital expenditures supported by the program may include preventive maintenance, contracting for services, provision of a fixed-route paratransit service, leasing of equipment or facilities, safety equipment and facilities, facilities that incorporate community services (such as day care or health care), and transit enhancements.

Organizations eligible to receive Section 5310 funding include private nonprofit agencies, public bodies approved by the state to coordinate services for elderly persons and persons with disabilities, or public bodies that certify to the state governor that no nonprofit corporations or associations are readily available in an area to provide the service. Typical recipients include social service organizations (such as senior centers); agencies on aging; and organizations providing long-term care, rehabilitation, job training, and/or employment opportunities to individuals with physical, developmental, emotional, behavioral, and/or mental disabilities. In some instances, transit providers that are eligible for the federal Section 5311 Rural and Small Urban Areas program grant funds are also recipients of Section 5310 grants.

Vehicles procured with grant funds range from unmodified minivans to purpose-built, body-on-chassis vehicles longer than 30 feet, seating more than 25 passengers. Most vehicles purchased with Section 5310 grant funds are modified vans and minivans and body-on-chassis cutaway buses. Approximately 76 percent of the vehicles funded through the program have wheelchair lifts. The buses are generally less than 30 feet long and often seat no more than 14 or 15 passengers; a vehicle of this size is the largest that can be driven without a commercial driver license (CDL).

Section 5311 Rural and Small Urban Areas Program

The federal Section 5311 Rural and Small Urban Areas program (often referenced as the Non-Urbanized Area Formula program or sometimes the Formula Grants for Other Than Urbanized Areas program) provides formula funding to states for the purpose of supporting public transportation in areas with populations of less than 50,000. Funding is apportioned in proportion to each state's non-urbanized population. Funding may be used for capital, operating, state administration, and project administration expenses. Each state prepares an annual program of projects, which must provide for fair and equitable distribution of funds within the state, including Indian reservations, and must provide for maximum feasible coordination with transportation services assisted by other federal sources.

Funds may be used for capital, operating, and administrative assistance to state agencies, local public bodies, nonprofit organizations (including Indian tribes and other groups), and operators of public transportation services. The state must use 15 percent of its annual apportionment to support intercity bus service, unless the governor certifies that this need is adequately met. Projects to meet the requirements of the ADA, the Clean Air Act, or bicycle access projects, may be funded at 90-percent federal match. The maximum FTA share for operating assistance is 50 percent of the net operating costs.

Vehicles procured with Section 5311 grant funds are mostly modified and unmodified vans and minivans and body-on-chassis cutaway buses less than 30 feet long. However, a few buses longer than 30 feet, intercity and commuter buses, and trolley-style buses have been purchased with the support of Section 5311 grants.

Buy America Requirements

The Buy America requirements applicable to FTA grantees have a long history, which TCRP Legal Research Digest 17: Guide to Federal Buy America Requirements recounts in some detail. TCRP Legal Research Digest 17 traces the history of Buy America requirements to an 1875 statute regarding preferential treatment of material used in public improvement contracts and goes on to discuss the 1933 Buy American Acts, the legislation establishing the Urban Mass Transportation Administration (UMTA) in 1964, and the Surface Transportation Assistance Acts of 1978 and 1982, noting that Congress had been motivated to act because of concerns about foreign price supports and cheap labor costs and their effect on the U.S. worker. The Buy America requirements apply to all manufactured goods purchased with FTA grants.

The Surface Transportation and Uniform Relocation Assistance Act of 1987 (STURAA) made significant changes to the requirements applicable to buses and other rolling stock. The STURAA

- Required that more than 50 percent of the cost of a component's subcomponents be of U.S. origin for the component to be considered of U.S. origin.
- Increased the domestic content requirement from 50 percent to 55 percent as of October 1989 and increased the domestic content requirement to 60 percent as of October 1, 1991.
- Increased the price differential waiver from 10 percent to 25 percent.
- Required pre-award and post-delivery audits to ensure compliance with Buy America requirements, Federal Motor Vehicle Safety Standards (FMVSS), and the purchaser's specifications.

The requirement for pre-award and post-delivery audits has had the most operational impact on FTA grantees. In Section 319 of the STURAA, Congress directed that

Section 12 of the Urban Mass Transportation Act of 1964 is further amended by adding at the end thereof the following new subsection:

"(j) PRE-AWARD AND POST-DELIVERY AUDIT OF BUS PURCHASES.—For the purpose of assuring compliance with Federal motor vehicle safety

⁷Johnson, J. P. and J. B. McDaniel. *TCRP Legal Research Digest 17: Guide to Federal Buy America Requirements*. Transportation Research Board, National Research Council. September 2001.

requirements, the requirements of section 165 of the Surface Transportation Assistance Act of 1982 (relating to purchases of American product), and bid specifications requirements of recipients of grants under this Act, the Secretary shall issue regulations requiring a pre-award and post-delivery audit with respect to any grant under this Act for the purchase of buses and other rolling stock. For the purposes of such audit, manufacturer certification shall not be sufficient, and independent inspections and auditing shall be required."

UMTA made the breadth of the statute's reach clear in the implementing regulation.8 The regulation stated that its purpose was to require recipients of federal financial assistance made available under the Federal Mass Transit Act as amended to purchase rolling stock that complied with Buy America regulations and defined rolling stock to mean "buses, vans, cars, railcars, locomotives, trolley cars and buses, ferry boats, and vehicles used for guideways and incline planes." It has been suggested that Congress did not intend for these requirements to pertain to vehicles purchased through Section 5310 and Section 5311.9 There is, however, no indication in the statute that Congress intended that vehicles purchased through Section 5310 and 5311 programs would be exempt. Moreover, Congress has not directed a change in the expansive definition of rolling stock in the implementing regulation in the many years since its implementation. Accordingly, there is now no room to argue that Congress did not intend for the Buy America statute to include the smaller vehicles often purchased with Section 5310 and Section 5311 funds. Any exclusion of such vehicles from Buy America requirements would require a statutory change.

The rule also required that a resident inspector be at the vehicle manufacturer's site for all procurements except those in which 10 or fewer buses (the regulation says "buses," but this has been broadly construed by FTA to refer to all vehicle types, including vans and other types of paratransit vehicles) or any number of primary manufacturer standard produc-

tion vans and unmodified vans are procured. SAFETEA-LU amended this provision to apply to procurements of 10 or fewer buses or 20 or fewer vehicles serving rural (other than urbanized) areas or urbanized areas of 200,000 people or fewer. The FTA subsequently implemented this change.¹⁰

The FTA also has the authority to issue waivers of certain Buy America requirements. It may do so under the following conditions:

- When it determines that the application of the requirements would not be in the public interest;
- When the steel, iron, or goods produced in the United States are not of a satisfactory quality, or they are not produced in the United States in sufficient and reasonably available quantities; or
- When the inclusion of a domestic item or domestic material will increase the cost of the applicable contract by more than 25 percent.¹¹

The FTA granted a general public interest waiver for certain Chrysler vans in 1984 to ensure competition in the market for 15-passenger vans, which at the time were only produced by Ford and Chrysler. The waiver permitted final assembly of Chrysler vans in Canada but did not waive domestic content requirements. SAFETEA-LU removed this waiver, and the FTA amended the regulation accordingly. Another public interest waiver was issued in 1995 tying the threshold for the application of Buy America requirements for all manufactured products, including rolling stock, to the federal government's Simplified Acquisition Threshold, or \$100,000, as presently defined by federal statute.

It is clear from the legislative history of the 1987 STURAA that Congress intended "that any paperwork requirements imposed by this provision will not create a significant cost burden." Despite that admonition, as this digest will discuss, the requirements of this policy have affected recipients of Section 5310 and Section 5311 funds differently than the recipients of funds used for other buses and railcars. The vehi-

⁸⁴⁹ C.F.R. § 663.3(e).

⁹The Multi-State Technical Assistance Program's Letter of October 10, 1997, written in response to a request for comments on the FTA Pre-Award/Post-Delivery Review Program in "FTA Docket Number 97-2839," *Federal Register*, August 26, 1997, p. 43286.

¹⁰⁴⁹ C.F.R. § 663.37 (2006).

¹¹⁴⁹ C.F.R. § 661.7 (2006).

¹²49 Fed. Reg. 13944 (April 9, 1984).

¹³71 Fed. Reg. 14117, (March 21, 2006); 49 C.F.R. § 661.7 (2006).

¹⁴49 C.F.R. § 18.36 (2005); 60 Fed. Reg. 37930, (July 24, 1995); 61 Fed. Reg. 6300 (Feb. 16, 1996); 41 U.S.C. § 403 (2003).

¹⁵H. R. Conf. Rep. No. 27, 100th Congress, 1st Sess. (1987).

cles used to transport elderly persons and persons with disabilities (Section 5310) and deliver service in non-urbanized areas (Section 5311) come in more makes and models than other buses and railcars, they tend to be purchased in smaller quantities and more frequently than are other buses and railcars, and they are purchased from dealers more frequently than are other buses and railcars. All of these factors appear to result in the pre-award and post-delivery audit requirements having a significantly higher cost per vehicle on a percentage basis than the costs of those audit requirements for other buses and railcars.

Buy America Requirements for Buses, Cars, and Vans

The requirements applicable to vehicles purchased through Section 5310 and Section 5311 are those for rolling stock. They are found at 49 C.F.R., Part 661 (2006), "Buy America Requirements," and 49 C.F.R., Part 663 (2006), "Pre-Award and Post-Delivery Audits of Rolling Stock Purchases" (2006). Part 661 sets out the general Buy America requirements applicable to steel, iron, manufactured products, and rolling stock. The regulations cover all forms of rolling stock, from railcars to ferry boats. For ease, this digest will refer to "rolling stock," but will not discuss the requirements related to railcars.

To be considered a domestic product under Buy America, there are two requirements for rolling stock: (1) the cost of components produced in the United States must be more than 60 percent of the cost of all components and (2) final assembly must take place in the United States.¹⁶

Components and Subcomponents

Under Buy America requirements, the definition of "domestic" is more stringent for components than subcomponents; accordingly, the distinction between them is important.

A component is any article, material, or supply, whether manufactured or unmanufactured, that is directly incorporated into the end product at the final assembly location. Appendix B to Section 661.11 lists the typical components of buses, which can be helpful in determining those items that are components and those that are subcomponents (the list is not intended to be all inclusive). ¹⁷ The list includes items

such as engines, transmissions, front-axle assemblies, rear-axle assemblies, and drive-shaft assemblies. A subcomponent is any article, material, or supply, whether manufactured or unmanufactured, that is one step removed from a component in the manufacturing process and that is incorporated directly into a component.

For a component to be considered domestic, more than 60 percent of the subcomponents of that component, by cost, must be of domestic origin, and the manufacture of the component must take place in the United States. A component is considered to be manufactured if there are sufficient activities taking place to advance the value or improve the condition of the subcomponents of that component, that is, if the components have been substantially transformed or merged into a new or functionally different article. A component may be manufactured at the final assembly location if the manufacturing process to produce the component is an activity separate and distinct from the final assembly of the end product. If a component is determined to be domestic, its entire cost may be used in calculating the cost of domestic content of an end product, which is the item that is to be acquired by the grantee.

For a subcomponent to be considered domestic, the only requirement is that it be manufactured in the United States. If a subcomponent manufactured in the United States is exported for inclusion in a component that is manufactured outside the United States and the subcomponent receives tariff exemptions under the procedures set forth in 19 C.F.R. §10.11 through §10.24, the subcomponent retains its domestic identity and can be included in the calculation of the domestic content of the end product even if such a subcomponent represents less than 60 percent of the cost of a particular component. If a subcomponent manufactured in the United States is exported for inclusion in a component manufactured outside the United States and does not receive the tariff exemption, the subcomponent loses its domestic identity and cannot be included in the calculation of the domestic content of the end product. Raw materials produced in the United States and then exported for incorporation into a component are not considered to be subcomponents for the purpose of calculating domestic content. The value of such raw materials is to be included in the cost of the foreign component.

If a component is manufactured in the United States but contains less than 60 percent domestic subcomponents, by cost, the cost of the domestic

¹⁶49 C.F.R. 611.11(2006).

¹⁷49 C.F.R. 661.11 (2006).

subcomponents and the cost of manufacturing the component may be included in the calculation of the domestic content of the end product.

Whether something is regarded as a component, subcomponent, or end product is dependent on the grantee's specification. An end product is defined as any item subject to the provisions of Buy America requirements that is to be acquired by a grantee, as specified in the overall project contract. A bus operator seat, purchased alone, is an end product. When purchased as part of a bus, the bus is the end product and the seat is a component.

Final Assembly

Final assembly is the creation of an end product from individual elements brought together for that purpose through application of manufacturing processes. If a system is being procured as the end product by the grantee, the installation of the system qualifies as final assembly. In a March 18, 1997, "Dear Colleague" letter, the FTA Administrator noted that many grantees did not provide a description of the manufacturer's final assembly activities. Appended to the letter was guidance about final assembly for both railcars and buses. The portion about buses stated:

In the case of a new bus, final assembly would typically include, at a minimum, the installation and interconnection of the engine, transmission, axles, including the cooling and braking systems; the installation and interconnection of the heating and air conditioning equipment; the installation of pneumatic and electrical systems, door systems, passenger seats, passenger grab rails, destination signs, wheelchair lifts; and road testing, final inspection, repairs, and preparation of the vehicles for delivery. (www.fta.dot.gov/laws/leg_reg_469.html)

The letter further noted that if a manufacturer's final assembly processes do not include all the activities that are typically considered the minimum requirements, the manufacturer can request that the FTA determine compliance and the FTA would review such requests on a case-by-case basis.

Cost of Components and Subcomponents

Section 661.11(m) of the Buy America requirements sets forth the provisions relating to determining the cost of components and subcomponents. The cost of a component or subcomponent is the price that a

bidder or offeror must pay to a subcontractor or supplier for that component or subcomponent. Transportation costs to the final assembly location must be included in calculating the cost of foreign components or subcomponents. If a component or subcomponent is manufactured by the bidder or offeror, the cost of the component is the cost of labor and materials incorporated into the component or subcomponent, an allowance for profit, and the administrative and overhead costs attributable to that component or subcomponent under normal accounting principles. The cost of a component of foreign origin is set using the foreign exchange rate at the time the bidder or offeror executes the appropriate Buy America certificate. The cost of a subcomponent that retains its domestic identity will be the cost of the subcomponent when last purchased, freight on board (f.o.b), United States port of exportation or point of border crossing as set out in the invoice and entry papers or, if no purchase was made, the value of the subcomponent at the time of its shipment for exportation, f.o.b., United States port of exportation or point of border crossing as set out in the invoice and entry papers. Labor costs involved in final assembly shall not be included in calculating component costs. The actual cost, not the offer price, of a component is to be considered in calculating domestic content.

Examples. The FTA's handbook entitled *Conducting Pre-Award and Post-Delivery Audits for Bus Procurements* (hereafter referred to as the Handbook) provides examples of the calculations necessary to determine compliance with Buy America regulations. ¹⁸ Table 1 shows how compliance with Buy America regulations is calculated for a transmission in which more than 60 percent of the subcomponents are domestic. Table 2 shows the calculation for a transmission in which less than 60 percent of the subcomponents are domestic. In both examples, the total cost of all bus components is \$100,000.

In Table 1, the cost of domestic subcomponents totals \$2,720, or 68 percent of the \$4,000 total cost of all subcomponents, domestic and non-domestic, contained in this transmission. The cost of domestically manufacturing the component (assembling the

¹⁸Booz Allen & Hamilton, Inc. *Conducting Pre-Award and Post-Delivery Audits for Bus Procurements.* FTA DC-90-7713-93-1, Revision B. Prepared for the Office of Grants Management of the FTA. FTA, U.S. Department of Transportation. May 1, 1995.

Table 1 Sample content calculation for a component (transmission) manufactured in the United States with more than 60 percent domestic subcomponents

Component	Manufacturer	Origin	Cost	
TRANSMISSION				
Subcomponents				
Gear Box	C Co.	U.S.A.	\$1,040 (26%)	
Clutch	F Co.	U.S.A.	\$ 560 (14%)	
Housing	C Co.	U.S.A.	\$1,120 (28%)	
Subtotal Domestic Subcomponents			\$2,720 (68%)	
Non-Domestic Subcomponents	Various	Various	\$1,280 (32%)	
Total Cost of Subcomponents	Various	Various	\$4,000 (100%)	
Total Cost of Manufacturing	C Co.	U.S.A.	\$1,000	
TOTAL COMPONENT COST	C Co.	U.S.A.	\$5,000	
TOTAL DOMESTIC CONTENT (ENTIRE COMPONENT COST)			\$5,000	
DOMESTIC CONTENT AS % OF VEHICLE CONTENT			5.0%	

Adapted from Booz Allen & Hamilton, Inc., *Conducting Pre-Award and Post-Delivery Audits for Bus Procurements*, FTA DC-90-7713-93-1, Revision B, Prepared for the Office of Grants Management of the FTA. FTA, U.S. Department of Transportation. May 1, 1995.

subcomponents) is \$1,000, bringing the total cost of the transmission to \$5,000. Because the cost of the domestic subcomponents totals *more than* 60 percent of the cost of the transmission's subcomponents, the entire component may be considered domestic for the purposes of calculating the vehicle's domestic content. The costs included in the total cost of the component that may be counted when the cost of the domestic subcomponents total more than 60 percent of the cost include direct labor costs, direct materials costs (for both domestic and non-domestic subcomponents), freight-in costs, sales costs, general and administrative costs, and an allowance for profit

attributable to manufacturing the transmission. In this example, the total cost of this transmission, or 5 percent of the \$100,000 total cost of all bus components, is counted as domestic content.

Table 2 presents a Buy America calculation for a transmission manufactured in the United States with less than 60 percent domestic subcomponents.

In Table 2, the cost of domestic subcomponents totals \$1,600, or only 40 percent of the \$4,000 total cost of all subcomponents, domestic and non-domestic, contained in this transmission. The cost of manufacturing the component (assembling the subcomponents) is \$1,000, bringing the total cost of the transmission

Table 2 Sample content calculation for a component (transmission) manufactured in the United States with less than 60 percent domestic subcomponents

Component	Manufacturer	Origin	Cost
TRANSMISSION			
Subcomponents			
Gear Box	C Co.	U.S.A.	\$1,040 (26%)
Clutch	F Co.	U.S.A.	\$ 560 (14%)
Subtotal Domestic Subcomponents			\$1,600 (40%)
Non-Domestic Subcomponents	Various	Various	\$2,400 (60%)
Total Cost of Subcomponents	Various	Various	\$4,000 (100%)
Total Cost of Manufacturing	C Co.	U.S.A.	\$1,000
TOTAL COMPONENT COST	C Co.	U.S.A.	\$5,000
TOTAL DOMESTIC CONTENT (DOMESTIC SUBCOMPONENTS			\$2,600
AND DOMESTIC MANUFACTURING COSTS ONLY) DOMESTIC CONTENT AS % OF VEHICLE CONTENT			2.6%

Adapted from Booz Allen & Hamilton, Inc., *Conducting Pre-Award and Post-Delivery Audits for Bus Procurements*, FTA DC-90-7713-93-1, Revision B, Prepared for the Office of Grants Management of the FTA. FTA, U.S. Department of Transportation. May 1, 1995.

once again to \$5,000. Because the domestic subcomponents are *less than* 60 percent of the cost of the transmission's subcomponents, the calculation of the vehicle's domestic content may include only the direct labor costs, *domestic* direct materials costs (or the *domestic* subcomponent costs), freight-in costs, an allowance for profit, and the sales, general and administrative costs attributable to manufacturing the transmission. In this example, only the cost of the domestic subcomponents (\$1,600 or 40 percent of the total transmission subcomponent cost) plus the \$1,000 cost of manufacturing the transmission domestically may be counted as domestic content, which equals \$2,600 or 2.6 percent of the \$100,000 cost of all components used in the bus.¹⁹

Pre-Award Audit, In-Plant Vehicle Inspection, and Post-Delivery Audit

Each grantee must certify to the FTA that it will conduct pre-award and post-delivery audits of revenue rolling stock purchased with funds obligated by the FTA on or after October 24, 1991; the grantee may conduct these audits itself or arrange for another party to conduct them. The regulation defines an audit as a "review resulting in a report containing the necessary certifications of compliance with Buy America standards, purchaser's requirements specifications, and, where appropriate, a manufacturer's certification of compliance with or inapplicability of the Federal Motor Vehicle Safety Standards" (emphasis added).²⁰ This definition is critical: grantees are required to review the manufacturer's certification. There is no requirement to determine whether the manufacturer's representations are truthful, i.e., no requirement to review invoices of component and subcomponent suppliers. This definition is amplified in 49 C.F.R. § 663.25 (2006), which states that the recipient must be satisfied that the rolling stock meets the applicable requirements after having itself reviewed, or having someone other than the manufacturer or its agent review, the manufacturer's documentation of "(1) component and subcomponent parts of the rolling stock to be purchased identified by manufacturer of the parts, their country of origin, and costs; and (2) the location of the final assembly point for the rolling stock, including a description of the activities that will take place at the final assembly point and the cost of final assembly." In addition, some grantees are required to complete an in-plant vehicle inspection, as described below.

Pre-Award Audit. A grantee purchasing revenue service rolling stock with FTA funds must ensure that a pre-award audit is complete before entering into a formal contract for the purchase of the rolling stock. The pre-award audit will include a Buy America certification, a purchaser's requirements certification, and, when appropriate, a manufacturer's FMVSS certification. The grantee may conduct the audit itself or may retain a consultant to do the audit. The grantee itself, however, must complete the required certification. Tasks involved in the pre-award audit are the following:

- For the Buy America certification, the grantee must verify that the buses will meet the Buy America content requirements by cost and that final assembly will take place in the United States unless a waiver is obtained from the FTA. To determine whether the manufacturer will comply with Buy America requirements, the grantee must review the Buy America information that the proposed manufacturer must provide. That information must include a listing of the bus components and subcomponents that will be used to calculate the percentage of domestic content, the proposed final assembly location, activities that will take place during final assembly, and the proposed total cost of final assembly. Each component and subcomponent on the list must be identified by manufacturer, country of origin, and cost (in either a dollar or percentage format). The grantee may conduct this review itself or may have it done by someone other than the manufacturer or its agent.
- For the purchaser's requirements certification, the grantee must verify that the manufacturer's bid or proposal specifications are in compliance with the specifications in the grantee's solicitation and that the proposed manufacturer is responsible and capable of building the bus to the grantee's solicitation specifications.
- For the FMVSS certification, the grantee must obtain either a letter from the bus manufacturer stating the information that will be reported on

¹⁹Booz Allen & Hamilton, Inc. *Conducting Pre-Award and Post-Delivery Audits for Bus Procurements.* FTA DC-90-7713-93-1, Revision B. Prepared for the Office of Grants Management of the FTA. FTA, U.S. Department of Transportation. May 1, 1995.

²⁰49 C.F.R. 663.5(f).

the FMVSS vehicle sticker (including the name of the vehicle manufacturer, date of manufacture, gross vehicle weight rating, vehicle identification number, and vehicle type) or a letter from the manufacturer stating that the buses are not subject to FMVSS.

In-Plant Vehicle Inspection. For certain vehicles, there must be an inspector resident during the manufacturing process. However, this requirement does not apply to procurements of 10 or fewer buses, procurements of 20 or fewer vehicles serving rural (i.e., nonurbanized) areas or urbanized areas of 200,000 people or fewer, or any number of primary manufacturer standard production vans and unmodified vans. For all other procurements, a resident inspector (other than an agent or employee of the manufacturer) must be at the manufacturing site throughout the period of manufacture of the rolling stock to be purchased. The resident inspector must monitor the manufacture of the rolling stock and complete a report that provides, at a minimum, accurate records of all vehicle construction activities and a description of how the construction and operation of the vehicles fulfills the contract specifications. The Handbook explains the resident inspector requirement as follows:

It [the regulation] is not meant to require that the resident inspector remain "full-time" at the "manufacturer's site throughout the period of manufacture." Although this may be recommended for some vehicle procurements, the resident inspector requirement may be fulfilled through the use of periodic visits.²¹

Post-Delivery Audit. The grantee purchasing revenue rolling stock with FTA funds must ensure that a post-delivery audit is complete before title to the rolling stock is transferred to the grantee. The audit includes a post-delivery Buy America certification, a post-delivery purchaser's requirements certification, and when appropriate, a manufacturer's FMVSS self-certification. Descriptions of these three certifications are the following:

- For the post-delivery Buy America certification, the grantee must keep on file either a waiver from the FTA or a document stating that, having reviewed documentation provided by the manufacturer, the grantee is satisfied that the rolling stock meets the Buy America requirements. That document must list components and subcomponent parts of the rolling stock showing the manufacturer of the parts, their country of origin, and costs. The document also must specify the location of the final assembly of the rolling stock, including a description of the activities that took place at final assembly and the cost of the final assembly.
- Grantees must keep on file a post-delivery purchaser's requirements certification stating that after visual inspection and road testing, the vehicles meet the contract specification. In addition, the purchaser's requirements certification must document and certify completion of an in-plant vehicle inspection, if required.
- The recipient is required to keep on file a copy of the manufacturer's self-certification that the vehicle complies with the relevant FMVSS or the manufacturer's statement that such standards are not applicable.

Continuing Evolution of Buy America Regulations

FTA's Buy America regulations continue to evolve. A Second Notice of Proposed Rulemaking (SNPRM) issued by FTA on November 30, 2006, addresses several issues, including the following:²²

- A publication process for public interest waivers to provide an opportunity for public comment;
- New provisions to permit post-award waivers in cases in which extenuating circumstances make compliance with Buy America regulations difficult or costly;
- Clarifications in the definition of "end products" with regard to (a) components and subcomponents, (b) major systems, and (c) a representative list of end products; and
- A clarification of the requirements for final assembly of rolling stock and a list of representative examples of rolling stock items.

²¹Booz Allen & Hamilton, Inc. *Conducting Pre-Award and Post-Delivery Audits for Bus Procurements*. FTA DC-90-7713-93-1, Revision B. Prepared for the Office of Grants Management of the FTA. FTA, U.S. Department of Transportation. May 1, 1995.

²²71 Fed. Reg. 69412 (November 30, 2006).

This SNPRM followed a Notice of Proposed Rulemaking (NPRM) issued by FTA in March 2006 that addresses the following issues:²³

- The definition of "negotiated procurement" as "a contract awarded using other than sealed bidding procedures";
- Certification under negotiated procurements in which compliance with the Buy America requirements shall be determined on the basis of the certification submitted with the final offer or final revised proposal, except in situations in which a grantee awards on the basis of initial proposals without discussion, in which case the certification submitted with the initial proposal shall control:
- The definition of "contractor" as "a party to a third-party contract other than the grantee";
- Repeal of the general waiver for Chrysler vehicles; and
- Waiver of in-plant inspection requirements for procurements of 20 or fewer vehicles serving rural (i.e., non-urbanized) areas or urbanized areas of 200,000 people or fewer.

3 SURVEY AND INTERVIEW FINDINGS

This section presents the findings of the web-based survey of state DOTs on paratransit vehicle procurement practices and the Buy America stakeholder interviews of state DOTs, transit agencies, and other federal grant recipients; vehicle vendors; and consultants specializing in in-plant vehicle inspections and Buy America audits.

Size and Scope of Paratransit Vehicle Procurements

Table 3 illustrates the total number and dollar amount of vehicles purchased with FTA funds in federal fiscal year (FY) 2004. Small buses (less than 30 feet long) and vans purchased through the Section 5310 Elderly and Persons with Disabilities program and the Section 5311 Non-Urbanized Area program (also called the Rural and Small Urban Areas program) together totaled 2,191 vehicles in FY 2004 and \$75.8 million in grants, amounting to 30 percent of federally funded vehicles and 8 percent of federally funded vehicle expenditures that year, respectively.

Paratransit Vehicle Procurement Processes

There are several processes that states apply to procure paratransit vehicles funded by Section 5310, Section 5311, and other programs. These processes, outlined below along a spectrum from most centralized to most decentralized, include the following:

- Centralized Turn-Key State Procurement Process, in which the state has complete responsibility for paratransit vehicle purchase. The state notifies applicants of grant award and then handles all aspects of procurement and purchasing directly, including Buy America pre-award and post-delivery audits and in-plant vehicle inspection, if required.
- Grant Recipient Vehicle Purchase via Central State-Procured Contract, in which the grant recipient purchases off a central stateprocured paratransit vehicle contract. The state retains responsibility for procurement of the vehicle, but the grant recipient takes responsibility for placing a vehicle order under the contract and inspecting the vehicle on delivery. In this arrangement, the state, as procurement agent, generally conducts the Buy America preaward audit, and the purchasing entity generally conducts the post-delivery audit (with assistance from the state DOT in some instances). An in-plant vehicle inspection is rarely required under this model; however, if it is necessary, it is generally the responsibility of the purchasing entity.
- Dual Process, in which Section 5310 grant recipients have the option to purchase vehicles through a central state-procured paratransit vehicle contract or a decentralized procurement process. Responsibility for Buy America requirements is generally commensurate with each party's role in the process, with procuring agencies responsible for pre-award audits and purchasing entities responsible for post-delivery audits and in-plant vehicle inspection, if required.
- Decentralized Third-Party/Consortium Procurement Process, which includes situations in which two or more grant recipients form a procurement consortium to purchase vehicles, the state DOT designates a lead agency to conduct the procurement on behalf of some or all Section 5310 grant recipients in the state, or a

²³71 Fed. Reg. 14118 (March 21, 2006).

Table 3 FY 2004 federally supported motor vehicle purchases by vehicle type and grant program

Program		40 ft. Bus	35 ft. Bus	30 ft. Bus	< 30 ft. Bus	Articulated Bus	Van	Sta. Wagon/ Sedan	Trolley Bus	Intercity/ Comm. Bus	Other
Urb. Area Formula	#	682	154	183	839	100	729	13	50	103	117
(Section 5307)	\$	\$232,700,239	\$36,832,816	\$35,503,512	\$56,863,115	\$38,861,004	\$28,813,079	\$265,096	\$5,683,184	\$34,987,557	\$109,619,687
Capital	#	291	161	168	381	38	936	16	41	28	24
(Section 5309)	\$	\$72,542,851	\$33,933,351	\$32,036,500	\$20,117,982	\$14,504,408	\$30,170,805	\$239,971	\$9,009,986	\$10,445,068	\$12,863,639
Elderly/Disabled	#	22	0	2	868	0	938	6	0	0	1
(Section 5310)	\$	\$1,992,080	\$0	\$102,121	\$33,541,267	\$0	\$26,599,850	\$96,498	\$0	\$0	\$55,400
Non-urb. Area	#	5	4	13	209	0	176	0	5	4	3
Formula											
(Section 5311)	\$	\$975,906	\$630,200	\$1,205,657	\$10,239,160	\$0	\$5,438,191	\$0	\$337,278	\$1,041,107	\$14,516,975
Job Access/	#	0	0	0	3	0	19	0	0	0	1
Rev. Com.											
(Section 5316)	\$	\$0	\$0	\$0	\$122,000	\$0	\$319,500	\$0	\$0	\$0	\$3,000
Total	#	1,000	319	366	2,300	138	2,798	35	96	135	146
	\$	\$308,211,076	\$71,396,367	\$68,847,790	\$120,883,524	\$53,365,412	\$91,341,425	\$601,565	\$15,030,448	\$46,473,732	\$137,058,701
Percent of Total	#	13.6	4.4	5.0	31.4	1.9	38.2	0.5	1.3	1.8	2.0
	\$	33.8	7.8	7.5	13.2	5.8	10.0	0.1	1.6	5.1	15.0

 $Source: Federal\ Transit\ Administration\ 2004\ Statistical\ Summary,\ Table\ 10-Type\ of\ Motor\ Vehicle\ and\ Program.\ http://www.fta.dot.gov/documents/t-10-11.xls.$

third-party agency procures vehicles on behalf of grant recipients. Responsibility for Buy America requirements varies, but the pre-award audit is generally the responsibility of the procuring entity, and the post-delivery audit is the responsibility of the agencies that ultimately purchase each vehicle. An in-plant vehicle inspection is rarely required; however, if necessary, it is generally the responsibility of the purchasing entity.

• Decentralized Independent Procurement Process, in which a grant recipient independently develops its own vehicle specifications, usually following the guidance of the state DOT. All steps in the procurement process, including preparation of vehicle specifications, solicitation of offers, procurement, and contract award, as well as Buy America preaward and post-delivery audits, are conducted by the grant recipient, with state oversight along the way. An in-plant vehicle inspection is rarely required; however, if necessary, it is the responsibility of the grant recipient.

Note that in some cases, states apply different processes for different grant programs—for example, using a centralized turn-key state procurement process for Section 5310 and using a dual procurement process for Section 5311.

Most states and agencies purchase vehicles on a low-bid basis—issuing an invitation for bid (IFB) and awarding a contract to the lowest responsive and responsible supplier. A few states issue requests for proposals (RFPs) for vehicles. RFPs include evaluation factors in addition to price, such as quality and projected life cycle vehicle costs.

Number and Type of Vehicles Procured. Table 4 shows the number of paratransit vehicles purchased (in FY 2004) with federal Section 5310 and Section 5311 funds in 33 states by procurement approach, as reported in response to the survey of paratransit vehicle practices conducted for this study. The number of paratransit vehicles procured ranges from as many as 927 in California and nearly 500 in North Carolina and Missouri to less than 10 in Vermont, New Hampshire, and South Dakota. The average number of vehicles purchased across all states responding to the survey was 131, or 106, excluding California.

States with a centralized process, on average, purchased 123 vehicles in FY 2004; grant recipients

in states with decentralized processes purchased an average of 69, and states with dual processes purchased an average of 285, or 70, excluding California.

As these figures indicate, the degree to which paratransit vehicle procurement represents a major purchase varies greatly from state to state, depending on the size of the state, the extent to which grant funds are applied to vehicle purchases, and the determinants of Section 5310 and Section 5311 funding—in particular, the populations of rural, elderly, and disabled residents.

The number of vehicle types available to grant recipients varies by state. Generally, the more decentralized a state's paratransit vehicle procurement process, the greater the number of vehicle types procured.

Some states will procure a few vehicle types, with all the vehicles of each type being identical. For instance, in Illinois, grant recipients may select from one of four types of vehicles—a lowered-floor minivan;, a light-duty, 10-passenger, body-on-chassis vehicle; and medium-duty 14-passenger and 22-passenger body-on-chassis vehicles. All the minivans are identical, as are the body-on-chassis vehicles of each length.

Most states employing grant recipient vehicle purchase via central state-procured contract or a decentralized third-party/consortium procurement process procure several vehicle types, but have multiple floor plans from which grant recipients may select. Ohio, for example, procures five types of paratransit vehicles, and each has a different number of floor plans available. Two floor plans are offered for standard and modified minivans; four floor plans are offered for conversion vans; five floor plans are offered for narrow-bodied, light transit vehicles; and six floor plans are offered for wide-bodied, light transit vehicles. In all, 19 combinations are offered. In Missouri, 33 such combinations are available.

In the case of decentralized vehicle procurement or dual process states, in which grant recipients have the option to conduct a decentralized vehicle procurement process if they desire, there is generally greater variation in vehicle types because each grant recipient specifies the vehicle appropriate to its circumstances.

Procurement Cycle. Most states apply a multiyear contract with vendors—an initial contract year and the option of four additional contract years—up to the 5-year maximum permitted by the FTA. The maximum duration of some states' multiyear contracts may

Table 4 Number of paratransit vehicles purchased in federal FY 2004 with Section 5310 and Section 5311 funds by procurement approach (reported by surveyed states)

Agency	Total Paratransit Vehicles Purchased	Type of Procurement
North Carolina Department of Transportation/Public Transportation Division	484	Centralized
Missouri Department of Transportation	462	Centralized
Florida Department of Transportation	325	Centralized
Illinois Department of Transportation	232	Centralized
Arizona Department of Transportation	162	Centralized
Minnesota Department of Transportation	149	Centralized
Wisconsin Department of Transportation	134	Centralized
Mississippi Department of Transportation	116	Centralized
Ohio Department of Transportation	112	Centralized
West Virginia Division of Public Transit	103	Centralized
Delaware Transportation Commission	98	Centralized
Arkansas Highway and Transportation Department	70	Centralized
Indiana Department of Transportation	70	Centralized
Virginia Department of Rail and Public Transportation	65	Centralized
Maryland Transit Administration	64	Centralized
Alabama Department of Transportation	53	Centralized
Montana Department of Transportation	43	Centralized
Oklahoma Department of Human Services	42	Centralized
Nebraska Department of Roads	25	Centralized
New Mexico Department of Transportation	15	Centralized
Hawaii Department of Transportation	12	Centralized
New Hampshire Department of Transportation	2	Centralized
South Dakota Department of Transportation	1	Centralized
Texas Department of Transportation	227	Decentralized
Pennsylvania Department of Transportation	75	Decentralized
Tennessee Office of Public Transportation	22	Decentralized
Idaho Transportation Department	16	Decentralized
Vermont Agency of Transportation	6	Decentralized
California Department of Transportation	927	Dual Process
Oregon Department of Transportation, Public Transit Division	148	Dual Process
Washington State Department of Transportation	35	Dual Process
Wyoming Department of Transportation	28	Dual Process
Georgia Department of Human Resources	0	N/A

Note: Georgia applies its funds to contracting for services and does not purchase any vehicles.

be less than 5 years, and some states must procure annually, per state procurement regulations.

Decentralized third-party/consortium procurement agencies may apply multiyear contracts or single-year contracts, depending on whether the consortium is an ongoing or ad hoc concern. Decentralized independent procurement contracts are generally of a short duration.

Vehicle Vendors. Agencies generally purchase vehicles from dealerships, but occasionally purchase

from manufacturers that sell directly to the ultimate customer. This is especially true for manufacturers of conversion vans and some manufacturers of body-on-chassis vehicles. Purchasing directly from manufacturers may occur with greater frequency in Midwestern states, where many vehicle manufacturers are based.

Large bus and railcar purchases, unlike purchases of paratransit vehicles, are usually made directly from the vehicle manufacturer. Dealers place an additional link in the communications chain between the ultimate vehicle user and the manufacturer; this is a situation that some interviewees reported as interfering with the manufacturer meeting vehicle specifications.

In the Buy America process, dealers function as intermediaries between the vehicle manufacturer, which provides vehicle component documentation for Buy America certification, and the purchasing agency, which ultimately certifies Buy America compliance. Some survey respondents reported that this additional link can be problematic, as there can be miscommunication between the agency and manufacturer not only about vehicle specifications but also about Buy America documentation requirements. One consultant, who specializes in Buy America pre-award and post-delivery audits, has found that vendors can be slow in responding to requests for post-delivery audit documentation after they have been paid. Many agencies avoid this situation by withholding payment to the vendor until all obligations of the contract have been satisfied, including receipt of any required documentation, such as Buy America componentry lists.

In general, interviewees indicated that vendors—including both dealers and manufacturers—have a high degree of familiarity with the Buy America process in general and vendor requirements in particular. However, one state DOT interviewee stated that at times it is difficult to obtain componentry documentation from vendors and that it is a challenge to get vendors to understand component documentation requirements and complete forms correctly.

Grant Recipients. In general, grant recipient familiarity with Buy America requirements is a function of a grant recipient's involvement in the procurement process, i.e., only respondents from agencies that were *not* involved in ensuring Buy America compliance were unfamiliar with the requirements. In general,

- Most grant recipients that obtained their vehicles through centralized turn-key procurement or decentralized third-party/consortium procurement processes had never heard of Buy America requirements prior to the interview.
- Agencies that procured vehicles through central state-procured contracts were generally familiar with the post-delivery audit requirements if not the pre-award audit that was conducted by the state DOT.

- Lead agencies of third-party/consortium procurements and agencies in dual process states that opted to conduct their own procurement were generally very familiar with Buy America requirements and grant recipients' role in compliance.
- Grant recipients in decentralized independent procurement states and agencies in dual process states that had conducted their own procurement processes were very familiar with Buy America requirements.

Buy America Compliance Processes

Under a centralized procurement process, the state is responsible for auditing pre-award certifications required by federal Buy America regulations, which nearly always apply because of the quantities of vehicles procured under a centralized process and the threshold at which Buy America is triggered. The federally required Buy America post-delivery audit is the responsibility of the entity purchasing the vehicles, i.e., the state when the state purchases vehicles directly with a centralized turn-key process and grant recipients when they purchase vehicles via a state-procured central contract. Some states take an active role in assisting grant recipients with the post-delivery audit, even when the grant recipient purchases the vehicle through a central state-procured contract.

In a decentralized independent procurement process and in a dual process, when an agency decides to conduct its own vehicle procurement, grant recipients may be responsible for conducting both preaward and post-delivery audits, unless the purchase is below the \$100,000 threshold at which Buy America applies.

In a decentralized third-party/consortium procurement process, the lead agency may take responsibility for pre-award audits while grant recipients take responsibility for post-delivery audits, if, once again, Buy America regulations apply.

States monitor compliance with Buy America and other federal regulations closely and may assist with the inspection process. For example, the Idaho Transportation Department sends staff to grant recipient sites to assist with post-delivery vehicle inspections.

In-Plant Inspection Requirements

In-plant vehicle inspections are required for federally funded purchases by a single agency of more than 10 vehicles (or more than 20 vehicles when used to serve metropolitan areas with a population of 200,000 or less), except when any number of primary manufacturer standard production vans and unmodified vans are procured. In-plant inspections are generally needed only when the state DOT purchases vehicles directly on behalf of grant recipients. Inspections are seldom needed when grant recipients purchase through a central state-procured contract because Section 5310 and Section 5311 grant recipients seldom purchase more than 10 grant-funded vehicles at once.

Likewise, in-plant inspections are seldom required for vehicles procured through decentralized processes because few grant recipients procure enough vehicles to require inspection. Occasionally, a lead agency, third-party procurer, or another party to a purchasing consortium must conduct an in-plant inspection because it is purchasing more than 10 vehicles for its own use (or more than 20 vehicles that will be used to serve metropolitan areas with a population of 200,000 or less). Often, this is the case when vehicles funded by the Section 5311 program or other federal grant sources are being purchased by an agency. In such instances, the agency for which an in-plant inspection is required generally bears the cost of the inspection, and the inspection is limited to that agency's vehicles.

All interviewed agencies that currently conduct in-plant vehicle inspections for paratransit vehicle procurements—mainly state DOTs that conduct centralized turn-key state procurement processes—said that even if they were not required to conduct in-plant vehicle inspections as part of Buy America compliance, they most likely would do it anyway because they have found it to be a good procurement practice. Arizona DOT, for example, noted that an in-plant inspection is a standard operating procedure for any large capital procurements it conducts.

In-plant vehicle inspection has been credited by many agencies with improving the quality of the final product. Several veterans of in-plant inspections reported that the process has resulted in early detection of problems with vehicles, which are more easily resolved while the vehicle is still in the plant than at final delivery. Florida DOT reports that in-plant inspections ensure that the manufacturer correctly interprets and understands the technical specifications. Florida DOT further notes that in-plant inspections create an ongoing line of communication between the Florida Vehicle Procurement Program's inspec-

tors and the vehicle manufacturers during the build process. Pre-delivery inspections at the agency's Spring Hill facility serve to verify the manufacturers' build quality and dealers' actions in correcting any noted deficiencies.

Some grant recipients suggested that in-plant inspection requirements should be relaxed for all vehicles that are not heavy-duty buses or railcars because smaller vehicles are less complex and have fewer systems, a lower overall value, and a shorter useful life. As reported earlier, small buses and vans purchased with Section 5310 and Section 5311 funds represented 30 percent of motor vehicles funded by federal grants in FY 2004, but represented only 8 percent of motor vehicle expenditures. However, one state DOT commented that small vehicles are often operated by small and/or rural agencies that require longer life cycles from their fleets because of budgetary limitations and that lack full maintenance facilities. In-plant inspections help to ensure that a vehicle is properly constructed and equipped and thereby increase the likelihood that it will have the longest life cycle possible. Few interviewed agencies reported that the provision in SAFETEA-LU eliminating the in-plant vehicle inspection requirement for purchases of 20 or fewer vehicles when used to serve rural and metropolitan areas with a population of 200,000 or less would affect their paratransit vehicle procurement practices. There are very few agencies servicing communities smaller than 200,000 people that purchase more than 10 vehicles at once.

Combined/Shared Inspections

No agencies reported that they have combined in-plant vehicle inspections (when required) with vehicle inspections being conducted in the same plant by parties to separate procurements. According to the state transit vehicle program managers interviewed for this study, in general, it was not a redundant effort for representatives from another agency or another state to conduct inspections on the same vehicle make and model in a given factory at same time because the purchaser's requirements are generally different, so both inspectors would need to be in the plant anyway. In addition, the componentry installed in two seemingly identical vehicles generally differs, which (under current requirements) necessitates separate inspection processes. In the view of the state transit vehicle program managers, the advantages of separate inspections outweighed

the advantages of travel or other cost savings associated with shared inspectors.

Triggering Buy America Regulations

As noted in Section 2, Buy America regulations only apply to vehicle procurements of greater than \$100,000. Some decentralized independent procurements, in which less than \$100,000 in vehicles is being procured, avoid triggering the Buy America requirements. The vast majority of centralized, third-party, and consortium procurements, however, are greater than \$100,000, so Buy America requirements nearly always apply. State DOTs that conduct centralized procurement processes (both turn-key and central state-procured contracts) report that they always conduct a procurement that is compliant with Buy America because there is very little likelihood that less than \$100,000 of any given vehicle type would be procured under state contracts.

Documentation of Parts Sourcing

Buy America regulations require a domestic parts content of more than 60 percent. Generally speaking, agencies expect vendors to show a minimum domestic parts content threshold in their documentation submitted for pre-award certification of 60 percent; agencies don't look for a "cushion" or additional increment in a pre-award audit in the event that the source of the vehicle's componentry changes between the grant award and the commencement of production. Several interviewed agencies reported that in most cases domestic content is well beyond 60 percent, so there is generally ample clearance above the minimum requirements. In addition, respondents indicated that instances of a manufacturer's postdelivery componentry listing differing from the preaward listing are rare; thus, there is limited utility to requiring contingent domestic componentry.

Effort Required for Compliance

Few agencies were able to report the effort required by their agency to comply with Buy America regulations in terms of labor hours or dollars expended for the average vehicle procured or the typical procurement process. Most respondents reported that the time requirements were "minimal" in light of the overall time and expense required to conduct a satisfactory procurement, and several of the procedures mandated by Buy America requirements—

such as the in-plant and post-delivery inspection requirements—were described by many as good procurement practices that the agency would likely conduct even if it was not federally required to do so. A representative from one state commented that the administrative process of ensuring compliance with Buy America requirements is one process among so many others that it does not stand out as a huge impediment.

One state DOT transit administrator estimated that the time required to review Buy America certification for each vehicle type procured by the agency was less than 1 hour. Another estimated that it took between 1 and 2 person-days of effort to review Buy America pre-award documentation for any given procurement, depending on the number of offers to examine, and another hour to examine the initial delivery vehicle for Buy America compliance post-delivery—excluding the time necessary to conduct other elements of the required post-delivery vehicle inspection.

Some agencies employ outside consultants to conduct elements of their procurement processes, and the expense for these consultants to perform tasks related to Buy America requirements provides the best window into the cost of compliance. The lead agency of a statewide decentralized consortium procurement estimates that in 2006 it paid about \$1,000 per vehicle for its Buy America audit, including inplant and post-delivery inspections. This represents approximately 2.5 percent of this agency's average paratransit vehicle cost. Note that the incremental cost of compliance with Buy America is less if in-plant inspection costs are excluded.

Comments on Buy America Requirements

Interviewees provided a number of comments on Buy America requirements.

Several respondents praised the Buy America compliance process for providing a methodology to control content and quality of transit vehicles. One interviewee stated that required in-plant inspections create a baseline for ensuring vehicle quality.

Several grant recipients that acquired vehicles through centralized state contracts or a third-party/consortium process had no opinion of Buy America, mostly because of their limited exposure to the regulations. Several grant recipients had high praise for the state DOT or purchasing consortium lead agency responsible for their procurement because of the

smoothness of the process from their perspective. This indicates that several state DOTs and lead agencies have successfully shielded grant recipients from the intricacies of Buy America compliance and have placed responsibility on the shoulders of agencies best able to manage it.

One state DOT respondent in a state with a decentralized vehicle procurement process described the \$100,000 threshold at which Buy America applies as a sensible cutoff. From the vendors' perspectives, however, there were divergent views on whether there should be a \$100,000 threshold for Buy America requirements to apply. One vendor stated that there should *not* be an exemption for vehicle purchases of less than \$100,000, and the policy should apply equally to all vehicles. Another argued in favor of raising or eliminating the threshold to allow more vehicles to qualify for an exemption from Buy America, given that purchases that do not meet the \$100,000 threshold are already exempt. These opinions broke down according to each vendor's product lines: The first vendor sells only vehicles that are Buy America compliant, whereas the second vendor sells noncompliant vehicles in addition to vehicles that meet Buy America requirements.

Some interviewees and multiple survey respondents stated that Buy America requirements limit competition by prohibiting the purchase of innovative vehicles from the international marketplace. One particular vehicle that was mentioned by five state survey respondents is not eligible for federal grant funding because it does not meet either the domestic content requirement or the final assembly requirement of Buy America. The vehicle has a low center of gravity, which limits the incidence of rollover accidents; a low floor, which eases loading of mobility-impaired passengers; and above average fuel economy. Many survey respondents and interviewees are disappointed that this vehicle cannot be purchased with federal grant funds unless an agency procures less than \$100,000 worth of these vehicles (in effect, no more than two vehicles) in a single year. The issue with this particular vehicle may be resolved if the manufacturer proceeds with tentative plans to produce the vehicle in the United States. However, the broader issue of the difficulty of introducing innovative or lower-cost foreign vehicles to serve domestic transit needs remains.

Another issue identified regarding Buy America requirements is the apparent contradiction with other federal policies, such as the North American

Free Trade Agreement (NAFTA). In part because of NAFTA, many manufacturers have moved production of motor vehicles and automotive parts to Canada and Mexico. However, while the policy of the United States is to allow free trade with these nations, under Buy America requirements, there is no special exception for vehicles or componentry manufactured elsewhere in North America and imported free of tariff into the United States. As noted earlier, compliance with Buy America requirements for some types of vehicles—notably minivans—has been problematic because final assembly no longer occurs within the United States. Final assembly no longer occurs in the United States, in part, because of NAFTA's elimination of tariffs on goods manufactured in Mexico and Canada.

While nonavailability waivers exist, some vendors are not aware of this and avoid submitting an offer. One state DOT reported that when vendors see in the vehicle specifications for minivans that final assembly must occur within the United States, most will decline to submit an offer even though no vendor is able to comply with this requirement. In the event that only one offer is received and that lone offer meets the vehicle specifications except for domestic content and final assembly location, an agency must obtain a nonavailability waiver and demonstrate that the price of the vehicle is fair and reasonable. Demonstrating that the price is fair and reasonable may require a cost analysis or a price analysis, the latter of which is more difficult to do.

Three additional concerns were raised that appear to be issues only when grant recipients exceed Buy America requirements. These issues are the following:

• Several comments focused on the technical procedure for complying with Buy America requirements. One state DOT interviewee commented that there is no way to verify that a component will be (or was) manufactured where the manufacturer claims by examining the component lists that vehicle manufacturers supply as part of the pre-award and post-delivery audits. Moreover, inspecting the vehicle at delivery and verifying that the post-delivery component list matches components installed in the vehicle does not verify that the manufacturer's claims regarding the point of manufacture of the vehicle's componentry are correct either.

- A grant recipient in another state raised a similar concern, reporting that it was impossible to verify the accuracy of Buy America documentation provided by manufacturers. He stated that while his agency complies with Buy America regulations because compliance is a requirement for federal grants, he could not justify expending effort beyond existing practices on Buy America's required audits because the state DOT has found their process to be sufficient.
- One state comments that getting accurate documentation of domestic content and point-of-assembly data for the major componentry installed in its vehicles was a challenge. However, it appears that this state in particular may be conducting post-delivery audits that are more thorough than required by federal Buy America regulations, as discussed in the section "Pre-Award Audit, In-Plant Vehicle Inspection, and Post-Delivery Audit" in Section 2.

Suggested Changes to the Buy America Compliance Process

Interviewees offered several suggestions to facilitate the Buy America compliance process, with the most commonly mentioned suggestion being changing the party responsible for certifying Buy America compliance. This and other suggestions are described in Section 4 and evaluated along with several other potential options for improving Buy America implementation.

4 IMPLEMENTATION OPTIONS FOR IMPROVING BUY AMERICA COMPLIANCE

Several interviewees have suggested that ensuring compliance with Buy America requirements should be the responsibility of a different level of government than is currently the case or should be the responsibility of vendors or manufacturers. Several grant recipients in decentralized procurement states commented that the state DOT should certify that vehicles or components comply with Buy America. At the same time, some state DOT interviewees suggested that FTA should be responsible for Buy America compliance audits so that only one agency is responsible for conducting the process instead of 50 states and hundreds of designated recipients of federal funds.

Based on survey responses, interviews, and the considerations of the research team, there are six potential options for improving Buy America implementation. These include the following:

- 1. Broadening state DOT assistance with Buy America compliance,
- 2. Raising the threshold at which Buy America requirements apply or redefining the threshold,
- 3. Establishing direct FTA review of vehicles for Buy America compliance,
- 4. Developing and maintaining a registry of vehicle procurements that are compliant with Buy America requirements,
- 5. Having the vendor or manufacturer certify Buy America compliance, and
- 6. Maintaining Buy America compliance processes as currently established.

A separate consideration is what the role of the FTA should be in any restructured protocol for Buy America compliance. For each option outlined below, the implementation role of the FTA is addressed.

Broadening State DOT Assistance with Buy America Compliance

The requirements often referred to as "Buy America" embrace more than compliance with the domestic content requirements for rolling stock; they also include certifications that the rolling stock will meet or has met the purchaser's requirements and the FMVSS standards. The requirements particularly affect recipients of Section 5310 and Section 5311 funds in decentralized procurement situations. The cost of conducting pre-award and post-delivery audits is generally higher for recipients of Section 5310 and Section 5311 grants as a percentage of vehicle costs than the cost of conducting audits is for grantees that are buying more (and more expensive) vehicles. In addition, many of the Section 5310 and Section 5311 grantees are small organizations with limited procurement experience for which regulatory compliance can be quite challenging. Unlike larger transit agencies, small organizations lack the requisite staff expertise and do not have the size necessary to facilitate its acquisition.

State DOTs should consider how they and their subgrantees are to comply with Buy America requirements as they work with those subgrantees to structure vehicle procurement processes. Because either the grant recipient or a third party (other than the manufacturer or its agent) may conduct both pre-award and post-delivery audits, agencies planning the procurement process for themselves and other organizations can structure procurements so that such audits are conducted on behalf of other recipients ordering the same vehicle. One agency could conduct an audit on behalf of others, an agency could retain a consultant to conduct the audit on behalf of multiple purchasers, or each recipient may conduct its own audit.

As noted earlier, several states have successfully shielded grant recipients—especially the smallest agencies—from Buy America requirements and other procurement details by employing centralized state processes and consortium procurement processes. Beyond consideration of Buy America requirements, however, the many advantages and disadvantages of the various centralized and decentralized procurement processes should be fully considered by any agency contemplating a different approach. These issues are explored in greater detail in NCHRP Research Results Digest 315: Centralized versus Decentralized State Procurement of Paratransit Vehicles for the Federal Section 5310 Program. This option does not require any action by FTA.

Raising the Dollar Value Threshold at Which Buy America Requirements Apply or Redefining the Threshold

Presently, Buy America requirements apply to all procurements of manufactured products totaling \$100,000 or more that are purchased with the aid of FTA grant funds. This threshold could be raised above \$100,000 to limit the impact of Buy America compliance on agencies conducting very small procurements.

Another option would be to specify the threshold in terms of the number of vehicles procured, instead of, or in addition to, the dollar value of the procurement. Under such a policy, Buy America regulations would apply only to procurements greater than the specified dollar threshold, and/or number-of-vehicles threshold. The threshold(s) could be informed by the number and dollar value of vehicles procured by grant recipients through indirect procurement processes such that the impact of compliance with Buy America by these small procurers could be limited. The ability of FTA to change the threshold without Congressional action is unclear, however.

Establishing Direct FTA Review of Vehicles for Buy America Compliance

Some have suggested that the FTA should itself conduct reviews and post information listing compliant vehicles or components and have further suggested that Buy America reviews could be conducted at the Altoona bus-testing facility. However, this would be very costly. Because a small change in a component or subcomponent would mean a different Buy America content calculation, essentially each vehicle would have to be reviewed. Although the Altoona bus facility tests new models of buses, a simple change in a component or subcomponent is not enough to render a bus a "new model" for purposes of the Altoona test requirement. Also, Pennsylvania State University, which operates the facility, conducts its responsibilities pursuant to a legislative mandate; adding Buy America compliance to its mission arguably could require Congressional action.

This option would require significant funding to establish and maintain a system for vehicle or componentry certification.

Developing and Maintaining a Registry of Vehicle Procurements That Are Compliant with Buy America Requirements

Many survey respondents suggested a national registry of vehicle audits to eliminate multiple audits of the same vehicle. Such a registry was perceived as a method of eliminating significant effort on the part of state DOTs and grant recipients responsible for certifying Buy America compliance.

To the extent that there are vehicles that are exactly alike and to the extent that manufacturers could identify models that are the same, a registry would be possible. The difficulty would be in the identification of models; a small change in a component or subcomponent would mean a different Buy America content calculation. Nonetheless, it would seem possible for manufacturers to identify Model XYZ, Version 1; Model XYZ, Version 2, and so on. To be considered the same version, models would have to be the same to the subcomponent level, and final assembly would have to occur in the same place.

Instability of vehicle models, difficulty in configuration control, and other manufacturing elements could pose problems for creating a useful registry. Also, manufacturers will be concerned about the

public disclosure of proprietary pricing information for vehicles listed on the registry.

There are two potential avenues for implementing this option. One is for FTA to establish a registry and for purchasers to certify that the vehicles they are purchasing are identical to vehicles listed on the registry or, if the vehicle they are purchasing is not yet in the registry, to list it. Alternatively, an entity other than the FTA could create a registry. If such a registry included information on vehicle models purchased by agencies at the subcomponent and final assembly level of detail, subsequent buyers could rely on prior audits of Buy America content (as long as the audits in question were conducted by a recipient or third party other than the manufacturer or its agent).

This system would rely on voluntary reporting of vehicle componentry by purchasers whose vehicles were not yet listed. It would be preferable for the FTA to issue guidance regarding this second way of implementing a registry to allay grantee concerns regarding the acceptability of such a method.

This option would require funding to establish and maintain the registry. In addition, it is possible that obtaining the documentation required to establish whether a vehicle purchase matches any existing registry listing would be no more efficient than the current process of vendor documentation and purchaser certification.

Having the Vendor or Manufacturer Certify Buy America Compliance

Another possible option, albeit one that would require Congressional action, originates from the Buy America compliance process for non-rolling stock items. For those items, the grantee may rely on the certification of the manufacturer that the item is compliant. There is no requirement for a component listing and no requirement for an audit.

Manufacturer certification of Buy America compliance is attractive for several reasons. First, manufacturers already certify that vehicles purchased with federal grant funds comply with several federal regulations, including the Clean Air Act, disadvantaged business enterprise (DBE) and woman-owned business enterprise (WBE) participation, and FMVSS requirements. Second, the audit for rolling stock already relies heavily on the manufacturer as it is basically a review of the manufacturer's certification, which is in essence a review of the manufacturer's

calculations, taking as true the manufacturer's representations about country of origin (as grantees are entitled to do). Third, several interviewees reported that it is difficult for state DOTs and grant recipients to verify the accuracy of the information provided by manufacturers, which places state DOTs and grant recipients in the position of making certifications based on data over which they have no oversight. Finally, because of the numbers of grantees conducting procurements for rolling stock using Section 5310 and Section 5311 funding, this audit requirement falls more heavily on them than on buyers of other transit vehicles.

Given the severity of penalties for falsifying certifications (i.e., debarment from selling vehicles), manufacturers have every incentive to provide accurate certifications of vehicle componentry. Accuracy and the rate of compliance could be augmented by routine federal audits of manufacturer's records.

There are three potential options for manufacturer certification. The first would be for manufacturers to make a direct certification to FTA that the vehicles it sells to FTA grant recipients are Buy America compliant. Manufacturers would maintain a relationship with FTA separate from their dealings with grant recipients, much as manufacturers presently certify DBE compliance directly to FTA. This option would require dedication of resources by FTA to maintain and ensure manufacturers' Buy America compliance, but would likely require less effort by manufacturers than is currently the case. Significantly, it would reduce certification and assurance burdens on both state DOTs and grant recipients.

Another option, which would preserve certification for each vehicle purchase, is for manufacturers to present a signed certification letter to purchasers that states that the vehicle's final assembly took place in the United States and meets Buy America's domestic componentry requirements, without listing the details of vehicle componentry. This would resemble the documentation currently provided by manufacturers to certify compliance with Buy America for non-rolling stock items. No additional financial resources would be required for this option, and it would require less effort by manufacturers than is currently the case.

A third option would be to maintain documentation of Buy America compliance for each vehicle by including the componentry listing, but shift certification from the purchaser to the manufacturer. Manufacturers would essentially provide to purchasers the same documentation that they do at present with the addition of a signature line certifying that the domestic content and final assembly requirements have been met. No additional financial resources would be required for this option, as it essentially resembles the existing protocol for Buy America documentation with the exception of the shift in certification responsibility.

Maintaining Buy America Compliance Processes as Currently Established

A final option is to maintain Buy America compliance processes as currently established. Among all the interview responses—from state DOTs, grant

recipients, and vendors—the calls for changing compliance processes were limited. Indeed, most respondents found the requirements to be minimal in light of the sum of tasks required to conduct a satisfactory procurement. Maintaining the status quo would mean continuing to place the burden of certification on vehicle purchasers; however, leaving the process as it is also means avoiding the difficult and time-consuming task of determining how to establish and maintain a centralized certification system, how to fund such a system, and what agency should have responsibility for managing it. Moreover, maintaining the established Buy America compliance process avoids the necessity of Congressional action.

APPENDIX A: STATE PARATRANSIT VEHICLE PROCUREMENT SURVEY

As part of two studies for NCHRP Committee 20-65, AECOM Consult is conducting this brief survey of state DOTs regarding paratransit vehicle procurement. Your kind response to the questions below is appreciated. If you are not the best person within your agency to answer these questions, please forward the email message you received regarding this survey to the person(s) who is.

Please complete this online survey by Friday, March 17, 2006. Direct any questions to Nate Macek at

AECOI	VI Consult at 70	3/645-6849 or <u>nathan.mad</u>	ek@aecomconsult.com.			
Thank	you for your as:	sistance with this research				
Conta	ct Information					
Na Titl Ag Sta En Ph Ma	me: de: ency: ate: nail Address: one Number: diling Address:	tact information below.				
Sectio	n 5310 State V	ehicle Procurement Proc	ess			
1.			nicles funded by the Section 5310 Elderly and Persons d for use by agencies in your state in Federal Fiscal Year			
		nicles for most recent year	al FY 2004 below; if none in FY 2004, then provide the in which Section 5310 vehicle procurement occurred and			
2.	Of the vehicles reported in the previous question, what percentage (approximately) were procured directly by the state?					
3.	Were the remainder of vehicles procured by a subrecipient of the state (a state grantee) or another entity besides the state?					
	Yes	No	Don't Know Not Applicable			
4.		through a third-party procu	Section 5310-funded vehicles were procured by rement ("piggy backing," consortium, or some other			
	Yes	No	Don't Know			
Buy A	merica-Compli	ant Paratransit Vehicle F	rocurement			
Tho no	vt set of allestic	one refere to FTA Ruy Ame	rica procurement requirements for paratransit vehicles			

regardless of whether they were funded through the Section 5310 program or another federal grant program.

FTA Buy America provisions require (in contracts of \$100,000 or greater) that vehicles contain no less than 60 percent domestic parts content and that final vehicle assembly occurs within the United States, unless FTA grants a waiver. Federal regulations require both a pre-award and post-delivery review.

5. Please indicate the number of the following types of paratransit vehicles for which your agency conducted a Buy America-compliant procurement process in the past two years (either calendar or fiscal), regardless of whether they were funded by Section 5310 or another grant program.

Note that for the purposes of this study:

Thank you for your assistance with this research.

- Stock vans are procured from the manufacturer without modification
- Modified vans are stock vans modified to include chair lifts, raised roofs and/or other features
- Cutaway vans have a chassis and partial cab obtained from a truck manufacturer and a body placed on the chassis by a specialist body builder

	Sedan/Station Wagon: Stock Van: Modified/Cutaway Vans: Small Bus (<30'): Large Bus (>=30'): School Bus: Other (specify number and type):
6.	What are the challenges your agency faces with the current Buy America compliance process for any paratransit vehicle procurements?
7.	Can you suggest any changes to streamline the Buy America compliance process?
8.	Are you willing to discuss Section 5310 vehicle procurement or the Buy America-compliant paratransit vehicle procurement processes with us further?
	Yes No
Please	complete your survey by Friday, March 17, 2006.
Click "E	Done" below to submit your survey when responses are complete.

APPENDIX B: CENTRALIZED VEHICLE PROCUREMENT STATE DOT INTERVIEW GUIDE

Memorandum

Date: July 24, 2006

To: State DOT Paratransit Vehicle Procurement Officials

From: Nathan Macek, Principal Investigator

Subject: State Procurement of Paratransit Vehicles and Buy America

As part of two studies for NCHRP Committee 20-65, AECOM Consult is conducting telephone interviews with selected state DOTs regarding paratransit vehicle procurement practices.

The first study investigates centralized versus decentralized Section 5310 Elderly and Persons with Disabilities Program vehicle procurement in an effort to identify the advantages and disadvantages of each system, and to outline the decision factors that state DOTs should consider in selecting centralized or decentralized procurement. The second study investigates common issues faced by state DOTs and their funding subrecipients in meeting Buy America provisions in paratransit vehicle procurements regardless of the grant program through which the vehicles were funded.

I will contact you directly via telephone at the designated date and time for your interview. If you have any questions in the meantime, please contact me at 703/682-5074, or by email at nathan.macek@aecomconsult.com.

Thank you very much for your assistance with this study.

Contact Information:

Name:

Agency:

Division:

Phone:

Email:

Section 5310 State Vehicle Procurement Process

The first few questions are aimed at understanding the nature of your state's Section 5310 program.

- 1. Please describe the types of Section 5310 transit assistance offered by your state. *Response:*
- 2. What is the total number of transit providers that receive Section 5310 assistance? What types of organizations are they? Response:

- 3. What is the range of vehicles required by your state's Section 5310 provider programs? *Response:*
- 4. What is the extent to which vehicle modification is required for procurements supporting Section 5310 programs? Response:
- Please describe the institutional relationship between the provider programs and the state transportation program. Response:

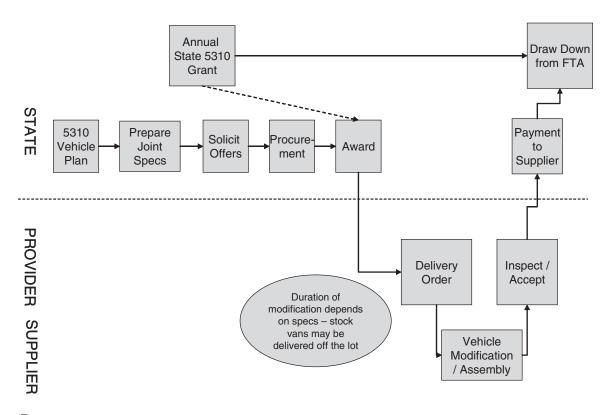
The next set of questions relates to the procurement process that your state employs for Section 5310 vehicles.

- 6. You indicated that your state employs a centralized procurement process, in which the state directly procures vehicles on behalf of Section 5310 grant recipients. Other states employ a decentralized process, in which grant recipients or third-party agencies procure vehicles instead of the state DOT. Can you provide any background on your state's choice of a centralized process? Response:
- 7. What would you list as the advantages of a centralized procurement process for the Section 5310 program? And the disadvantages? Are there grant recipients or situations where a different process would be advantageous? Response:
- 8. Have you considered any advantages or disadvantages associated with the decentralized procurement process? If so, what are they?

 Response:

9. The diagram below indicates the typical direct state procurement process. Can you walk me through how the process in your state differs from the typical process depicted in the diagram? If you use more than one process, why?

Direct State Procurement



Response:

- 10. Please describe your state's annual process to develop vehicle specifications for this program. *Response:*
- 11. How does your state advertise and select vendors for this procurement? *Response:*
- 12. Please describe how you ensure compliance with federal pre-award and post-delivery requirements. *Response:*
- 13. How does your state accept vehicles? Response:

14. As part of our study, we are interested in discussing experience of grant recipients (or local coordinating agencies) and suppliers. Please provide the contact information (name, firm, city/state, telephone number, and email address are sufficient) for one service provider for which your agency has procured vehicles under the Section 5310 program, as well as one supplier from which you have purchased vehicles.

Service Provider:

Supplier:

Buy America-Compliant Paratransit Vehicle Procurement

The next set of questions focuses on paratransit vehicles procured by the state DOT to support a variety of transit programs, including Section 5309 discretionary grants, the Section 5310 Elderly and Persons with Disabilities Program, the Section 5311 Non-Urbanized Area Formula Program, and others.

- How many different configurations or makes/models of paratransit vehicles have you procured within the last two years? Within each configuration or make/model pair, how many different types of paratransit vehicles were procured (for example, "15-passenger Ford Econoline vans: 17 with and 12 without wheelchair lifts"). Response:
- 2. From whom does your agency generally purchase paratransit vehicles—directly from the manufacturer, or from dealers? Do the firms from which you generally purchase your paratransit vehicles have any familiarity with the Buy America process? Response:
- 3. How often is your agency in the market for paratransit vehicles—semi-annually, annually, bi-annually, or some other frequency? Response:
- 4. Do you purchase paratransit vehicles as part of a consortium, or does your agency purchase all of its vehicles directly? Response:
- 5. Have you ever combined Buy America compliance inspection efforts with other agencies? What was your experience with this? Response:
- 6. What is your experience with reviews simultaneously being conducted by your agency and other agencies on the same vehicles?
 Response:
- 7. How do you investigate Buy America compliance? Does your agency engage an auditor on a contract basis or does it conduct the compliance review internally? Response:

- 8. To what extent do you document parts sourcing—to 60%, 70%, all the way to 100%, or some other percentage? *Response:*
- 9. If your agency were not required to perform the federal Buy America inspection process, how would it certify manufacturers' compliance with the specifications of the bid?

 Response:
- 10. Have you procured any vehicles that avoided triggering Buy America certification? *Response:*
- 11. Have you applied for waivers to the Buy America process? Please describe your experience. *Response:*
- 12. Do you believe the SAFETEA-LU-legislated change in in-plant inspection requirements—from purchases of 10 vehicles or more to purchases of 20 vehicles or more—will in any way impact the process by which you document compliance with Buy America? Response:
- 13. Can the effort by your agency to comply with Buy America be estimated in labor hours and/or dollars of expense for the average vehicle or procurement process? Can this be further broken down into effort required for pre-award and post-delivery reviews?

 Response:
- 14. What are the strengths associated with the current Buy America compliance process? *Response:*
- 15. What challenges to your agency are presented by the current Buy America compliance process? Be specific about any confusion, problems, interpretations, paperwork, or other situations that have arisen.

 Response:
- 16. Can you provide specific examples of inefficiencies borne by your agency to satisfactorily comply with Buy America? Response:
- 17. What changes would you suggest to streamline Buy America compliance procedures? *Response:*
- 18. Are there any other issues you can describe associated with Buy America provisions? *Response:*

APPENDIX C: DECENTRALIZED VEHICLE PROCUREMENT STATE DOT INTERVIEW GUIDE

Memorandum

Date: July 24, 2006

To: State DOT Paratransit Vehicle Procurement Officials

From: Nathan Macek, Principal Investigator

Subject: State Procurement of Paratransit Vehicles and Buy America

As part of two studies for NCHRP Committee 20-65, AECOM Consult is conducting telephone interviews with selected state DOTs regarding paratransit vehicle procurement practices.

The first study investigates centralized versus decentralized Section 5310 Elderly and Persons with Disabilities Program vehicle procurement in an effort to identify the advantages and disadvantages of each system, and to outline the decision factors that state DOTs should consider in selecting centralized or decentralized procurement. The second study investigates common issues faced by state DOTs and their funding subrecipients in meeting Buy America provisions in paratransit vehicle procurements regardless of the grant program through which the vehicles were funded.

I will contact you directly via telephone at the designated date and time for your interview. If you have any questions in the meantime, please contact me at 703/682-5074, or by email at nathan.macek@aecomconsult.com.

Thank you very much for your assistance with this study.

Contact Information:

Name:

Agency:

Division:

Phone:

Email:

Section 5310 State Vehicle Procurement Process

The first few questions are aimed at understanding the nature of your state's Section 5310 program.

- 1. Please describe the types of Section 5310 transit assistance offered by your state. *Response:*
- 2. What is the total number of transit providers that receive Section 5310 assistance? What types of organizations are they? Response:

- 3. What is the range of vehicles required by your state's Section 5310 provider programs? *Response:*
- 4. What is the extent to which vehicle modification is required for procurements supporting Section 5310 programs? Response:
- Please describe the institutional relationship between the provider programs and the state transportation program. Response:

The next set of questions relates to the procurement process that your state employs for Section 5310 vehicles.

- 6. You indicated that your state employs a decentralized procurement process, in which vehicles are procured by grant recipients or by a third-party on behalf of grant recipients instead of the state DOT. Other states employ a centralized process, in which the state DOT procures vehicles instead of the grant recipients or third-party agencies. Can you provide any background on your state's choice of a decentralized process? Response:
- 7. What would you list as the advantages of a centralized procurement process for the Section 5310 program? And the disadvantages? Are there grant recipients or situations where a different process would be advantageous? *Response:*
- 8. Have you considered any advantages or disadvantages associated with the centralized procurement process? If so, what are they? *Response:*

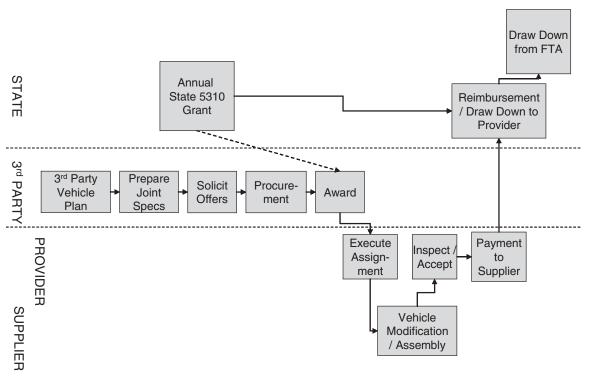
9. The diagrams below indicate two models of decentralized paratransit vehicle procurement processes. Which process is most like that employed by your state—the provider procurement or the third-party procurement model? Please walk me through how the process in your state differs from the process depicted in the diagram. If you use more than one process, why?

Provider Procurement

Annual Draw Down State 5310 from FTA Grant Reimbursement / Draw Down to State Oversight / Assistance Provider PROVIDER SUPPLIER 5310 Payment Prepare Solicit Procure-Delivery Inspect / Vehicle Award to **Specs** Offers ment Order Accept Plan Supplier Vehicle

Modification / Assembly

Third-Party Procurement



Response:

- 10. Does the state have a standardized process to develop vehicle specifications for this program? *Response:*
- 11. Does the state have a standardized process to advertise and select vendors for this procurement? *Response:*
- 12. Please describe how you ensure compliance with federal pre-award and post-delivery requirements. *Response:*
- 13. Does the state have a standardized process for accepting vehicles? *Response:*

14. As part of our study, we are interested in discussing experience of grant recipients (or local coordinating agencies). Please provide the contact information (name, firm, city/state, telephone number, and email address are sufficient) for three service providers receiving Section 5310 program grants.

Service Provider #1: Service Provider #2: Service Provider #3:

Buy America-Compliant Paratransit Vehicle Procurement

The next set of questions focuses on paratransit vehicles procured by the state DOT to support a variety of transit programs, including Section 5309 discretionary grants, the Section 5310 Elderly and Persons with Disabilities Program, the Section 5311 Non-Urbanized Area Formula Program, and others. As you indicated that your state applies a decentralized paratransit vehicle process, many of these questions may not apply to your agency. However, we would like your feedback on how these issues are addressed by service providers in your state.

- How many different configurations or makes/models of paratransit vehicles have been procured by your agency or service providers in your state over the last two years? Within each configuration or make/model pair, how many different types of paratransit vehicles were procured (for example, "15passenger Ford Econoline vans: 17 with and 12 without wheelchair lifts"). Response:
- 2. From whom are paratransit vehicles generally purchased—directly from the manufacturer, or from dealers? Do the firms from which paratransit vehicles are generally purchased have any familiarity with the Buy America process?

 **Response:*
- 3. How often are your agency or service providers in the market for paratransit vehicles—semi-annually, annually, bi-annually, or some other frequency?

 Response:
- 4. Are paratransit vehicles purchased as part of a consortium, or are all of vehicles procured directly? Response:
- 5. Have Buy America compliance inspection efforts ever been coordinated with other agencies? What was your experience with this? *Response:*
- 6. What is your experience with reviews simultaneously being conducted by your agency and/or service providers and other agencies or service providers on the same vehicles? *Response:*

- 7. How do your agency or service providers investigate Buy America compliance? Does either engage an auditor on a contract basis or does it conduct the compliance review internally? *Response:*
- 8. To what extent do your agency or service providers document parts sourcing—to 60%, 70%, all the way to 100%, or some other percentage? *Response:*
- 9. If your agency or service providers were not required to perform the federal Buy America inspection process, how would they certify manufacturers' compliance with the specifications of the bid? *Response:*
- 10. Have your agency or service providers procured any vehicles that avoided triggering Buy America certification? Response:
- 11. Have your agency or service providers applied for waivers to the Buy America process? Please describe your experience? *Response:*
- 12. Do you believe the SAFETEA-LU-legislated change in in-plant inspection requirements—from purchases of 10 vehicles or more to purchases of 20 vehicles or more—will in any way impact the process by which your agency or service providers document compliance with Buy America? *Response:*
- 13. Can the effort by your agency or service providers to comply with Buy America be estimated in labor hours and/or dollars of expense for the average vehicle or procurement process? Can this be further broken down into effort required for pre-award and post-delivery reviews? Response:
- 14. What are the strengths associated with the current Buy America compliance process? *Response:*
- 15. What challenges to your agency or service providers are presented by the current Buy America compliance process? Be specific about any confusion, problems, interpretations, paperwork, or other situations that have arisen.

 Response:
- 16. Can you provide specific examples of inefficiencies borne by your agency or service providers to satisfactorily comply with Buy America? Response:
- 17. What changes would you suggest to streamline Buy America compliance procedures? *Response:*
- 18. Are there any other issues you can describe associated with Buy America provisions? *Response:*

APPENDIX D: SECTION 5310 GRANT RECIPIENT INTERVIEW GUIDE

Memorandum

Date: August 2, 2006

To: Section 5310 Paratransit Provider Program Officials

From: Nathan Macek, Principal Investigator
Subject: Procurement of Paratransit Vehicles

As part of two studies for the National Cooperative Highway Research Program, AECOM Consult is conducting telephone interviews with selected state departments of transportation (DOTs) and Section 5310 paratransit provider programs regarding paratransit vehicle procurement practices.

The first study investigates centralized versus decentralized Section 5310 Elderly and Persons with Disabilities Program vehicle procurement in an effort to identify the advantages and disadvantages of each system, and to outline the decision factors that state DOTs should consider in selecting centralized or decentralized procurement. The second study investigates common issues faced by state DOTs and their funding subrecipients in meeting Buy America provisions in paratransit vehicle procurements regardless of the grant program through which the vehicles were funded.

I will contact you directly via telephone at the designated date and time for your interview. If you have any questions in the meantime, please contact me at 703/682-5074, or by email at nathan.macek@aecomconsult.com.

Thank you very much for your assistance with this study.

Contact Information:

Name:

Agency:

Division:

Phone:

Email:

Section 5310 State Vehicle Procurement Process

- Is your organization a social service agency, a non-profit, a Section 5311 rural transit provider, or another type of organization? Response:
- 2. What types of services does your agency provide? *Response:*

- 3. What is the number and range of vehicle types required to support your agency's services? *Response:*
- 4. How often does your agency purchase new vehicles? When was the last time your agency procured vehicles? Response:
- 5. Does you agency procure vehicles 1) directly and independently, 2) directly using state-procured contract, 3) via joint procurement or consortium with another agency's procurement, or 4) indirectly by the state DOT, which handles procurement and purchase on the agency's behalf. *Response:*
- 6. How would you assess the paratransit vehicle procurement process in your state? *Response:*
- 7. Are there any changes you would recommend making to your state's paratransit vehicle procurement process?
 Response:
- 8. What would the impact on your agency be if the state were to switch to a different procurement process—from direct to indirect procurement or vice-versa, depending on the situation in your state? *Response:*
- 9. As part of our study, we are interested in learning the experience of vehicle suppliers. Please provide the contact information (name, firm, city/state, telephone number, and email address are sufficient) for one supplier from which you have recently procured vehicles. If your agency did not conduct the vehicle procurement directly (i.e., it was handled by the state DOT or peer agency), please disregard this question. Supplier:

Buy America-Compliant Paratransit Vehicle Procurement

- Do you have any involvement in ensuring that the vehicles your agency purchases are Buy America compliant? If so, what is your involvement? Response:
- Are the state and federal guidelines that your agency follows to comply with Buy America clear and straightforward to follow? Response:
- 3. If you interact with vehicle vendors, do you believe they have a clear understanding of the Buy America requirements and their role in the compliance process?

 Response:

- 4. Do you believe the SAFETEA-LU-legislated change in in-plant inspection requirements—from purchases of 10 vehicles or more to purchases of 20 vehicles or more serving communities with populations of 200,000 or less—will in any way impact the process by which your organization complies with Buy America?

 Response:
- 5. Can the effort by your organization to comply with Buy America be estimated in labor hours and/or dollars of expense for the average vehicle or procurement process? Can this be further broken down into effort required for pre-award and post-delivery reviews? Response:
- 6. Given your exposure to Buy America requirements, what would you identify as the strengths associated with the current Buy America compliance process?

 Response:
- 7. What challenges to your agency or service providers are presented by the current Buy America compliance process? Be specific about any confusion, problems, interpretations, paperwork, or other situations that have arisen.

 Response:
- 8. What changes would you suggest to streamline Buy America compliance procedures? *Response:*
- 9. Are there any other issues you can describe associated with Buy America provisions or with paratransit procurement processes or practices in general? Response:

APPENDIX E: PARATRANSIT VEHICLE VENDOR INTERVIEW GUIDE

Memorandum

Date: August 4, 2006

To: Section 5310 Paratransit Vehicle Vendors
From: Nathan Macek, Principal Investigator
Subject: Procurement of Paratransit Vehicles

As part of two studies for the National Cooperative Highway Research Program, AECOM Consult is conducting telephone interviews with selected state departments of transportation (DOTs), transit agencies, and vehicle vendors regarding paratransit vehicle procurement practices.

The first study investigates centralized versus decentralized Section 5310 Elderly and Persons with Disabilities Program vehicle procurement in an effort to identify the advantages and disadvantages of each system, and to outline the decision factors that state DOTs should consider in selecting centralized or decentralized procurement. The second study investigates common issues faced by state DOTs and their funding subrecipients in meeting Buy America provisions in paratransit vehicle procurements regardless of the grant program through which the vehicles were funded.

I will contact you directly via telephone at the designated date and time for your interview. If you have any questions in the meantime, please contact me at 703/682-5074, or by email at nathan.macek@aecomconsult.com.

Thank you very much for your assistance with this study.

Contact Information:

Name:

Title:

Firm:

Phone:

Email:

Section 5310 State Vehicle Procurement Process

- Please describe your firm, including a general description of the types of vehicles you sell and the types of clients you serve. Response:
- 2. How would you assess the paratransit vehicle procurement process in your state? *Response:*

- 3. Are there any changes you would recommend making to your state's paratransit vehicle procurement process?

 Response:
- 4. What would the impact on your firm be if the state were to switch to a different procurement process—from direct to indirect procurement or vice-versa, depending on the situation in your state? *Response:*

Buy America-Compliant Paratransit Vehicle Procurement

- 1. Do you have any involvement in ensuring that the vehicles your firm sells are Buy America compliant? If so, what is your involvement? *Response:*
- 2. Do you have a clear understanding of the Buy America requirements and your firm's role in the compliance process?

 Response:
- 3. Given your exposure to Buy America requirements, what would you identify as the strengths associated with the current Buy America compliance process? *Response:*
- 4. What challenges are presented by the current Buy America compliance process? Be specific about any confusion, problems, interpretations, paperwork, or other situations that have arisen. *Response:*
- 5. What changes would you suggest to streamline Buy America compliance procedures? *Response:*
- 6. Are there any other issues you can describe associated with Buy America provisions or with paratransit procurement processes or practices in general? *Response:*





These digests are issued in order to increase awareness of research results emanating from projects in the Cooperative Research Programs (CRP). Persons wanting to pursue the project subject matter in greater depth should contact the CRP Staff, Transportation Research Board of the National Academies, 500 Fifth Street, NW, Washington, DC 20001.

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