

TAS

**STUDENT TRANSPORTATION
EFFICIENCY STUDY**

FINAL REPORT



**BEEKMANTOWN
CENTRAL SCHOOL DISTRICT**

February, 2014

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INTRODUCTION

Transportation Advisory Services (TAS) was engaged to perform a review of the student transportation program of the Beekmantown Central School District (hereinafter referred to as “District”). The purpose of this Study is to provide a third-party perspective on the efficiency and effectiveness of the transportation services.

The District’s liaison for the project was Daniel Mannix, Superintendent. The transportation contact was Shane Brink, Transportation Supervisor. Christopher Andrews served as the Project Consultant for TAS.

STUDY PROFILE

The District operates on a double-tier system, transporting approximately 1,680 students to 4 buildings, as follows:

School	Buses Released	Instruction Begins	Instruction Ends	Bus Dismissal
Middle School Grades 6-8	7:30 a.m.	7:42 a.m.	2:19 p.m.	2:19 p.m.
High School Grades 9-12	7:30 a.m.	7:45 a.m.	2:22 p.m.	2:22 p.m.
Beekmantown Elementary Grades UPK-5	9:05 a.m.	9:25 a.m.	3:10 p.m.	3:12 p.m.
Cumberland Head Elementary Grades UPK-5	9:05 a.m.	9:25 a.m.	3:10 p.m.	3:12 p.m.

There are also 4 late buses dismissed at 3:15 from the MS/HS.

Additionally, the District transports 12 Special Education students to BOCES, and 15 students to 3 non-public schools. Transportation is also provided for a wide variety of sports and field trips during the school year, as well as summer transportation. The students are transported on 29 District operated route vehicles, for a 2012-13 total transportation operating expenditure of \$1,980,151, exclusive of bus purchases.

We commend the District for their willingness to conduct a third-party review of the program. We often caution districts... “Don’t ask the question if you don’t want to hear the answer”. The Beekmantown Central School District has been willing to be open and cooperative in our review of the District’s transportation services. Throughout this report we have provided insights and opinions based upon our

experience and perspectives. Overall it appears that the District is providing a responsive, high quality student transportation service to the community. Everyone involved was extremely cooperative and provided us with everything we requested. We would like to thank those individuals for their assistance in this study process.

METHODOLOGY

Upon the request of the District, TAS submitted a detailed proposal for a Transportation Efficiency Study. November 13, 2013 we were issued a Purchase Order authorizing funding for this Study.

Subsequent to the proposal's acceptance the following activities were undertaken as part of our analysis:

- 1) TAS submitted to the District a request for certain background information and program details in order to form a basis for the review.
- 2) The District provided the requested data prior to our on-site visit.
- 3) The on-site portion of the engagement occurred December 16th – 17th, 2013. During this visit TAS interviewed a number of stakeholders to gain their perspectives on the transportation programs. The following persons met with **TAS** during this trip, or responded to our questions via fax/email:
 - Superintendent
 - Assistant Superintendent for Business
 - Transportation Supervisor
 - Bus Drivers (group meeting)
 - Mechanics (group meeting)
 - Athletic Coordinator
 - Director of Special Services
 - Purchasing Clerk
 - Board Member
 - Assistant Superintendent of Plattsburgh City Schools
 - Supervisor of Buildings, Grounds and Transportation for Plattsburgh City Schools
- 4) The Consultant conducted a walk thru of the transportation facility. The visit concluded with an exit meeting with the Superintendent.
- 5) Numerous additional documents and analyses were provided by the District in response to questions raised during the analysis

process. Throughout the review process numerous items were discussed or provided through the use of telephone conversations, letters, fax communications, or email.

- 6) This document constitutes our written report to the District. A master and several copies of this report are being provided to the Superintendent. This report is intended to serve as an advisory document and resource for the District, and as such it should be reviewed and evaluated by the District for its applicability to the circumstances at the time of review.
- 7) The following information was utilized as a part of our analysis of the District's transportation program:
 - ❑ Driver/Route sheets
 - ❑ Fleet listing
 - ❑ Financial reports
 - ❑ Enumeration of payroll and benefit costs
 - ❑ Labor Agreement
 - ❑ Transportation Aid Output Report (TRA)
 - ❑ Board Transportation Policies
 - ❑ Miscellaneous District-prepared analyses and reports

TAS uses available information and its experience and knowledge to estimate the potential costs and/or savings of particular transportation service arrangements described in this study. Although past experience can be an excellent basis for projections, TAS does not warrant that the costs or savings estimated herein will be realized if implemented.

EXECUTIVE SUMMARY

As stated in the Introduction section of this report, the comments contained herein pertain to those aspects of the engagement that are within the scope of the study as determined by the District. Within this report we have made recommendations geared towards further improving the effectiveness and/or efficiency of the Transportation Department. Each recommendation ends with a code: “ST” and/or “LT”. ST represents those Short-Term changes that we believe can be made within 90 days, while LT represents those Long-Term changes that will take longer to implement.

Recommendations pertaining to each section of this report are embodied in those sections. They are also included here in summary for easy reference. For a more definitive discussion of each topic, please refer to the section itself.

Section 5 - FLEET

- Reduce the spare fleet by 2-3 buses. **ST**
- Continue to replace 3 or 4 vehicles each year (3 one year, 4 the other), unless fleet needs change. **ST**
- Consider the purchase of alternative fuel buses. **LT**
- Start a shared maintenance program with Plattsburgh City Schools. **ST**
- Consider security cameras and/or police refueling as a precautionary measure. **LT**

Section 6 - LABOR

- Upgrade routing software and licenses that provide read-only access at the Principals offices. **LT**
- Make the Transportation Clerk position full time, driving as needed. **LT**
- Customize and utilize the “Monthly Reports” provided in the Appendix. **ST**
- Promote one of the Mechanics to a working Head or Lead Mechanic. **ST**

- Pursue ASE Certification for at least one Mechanic per shift. **ST**
- Automate fleet maintenance record-keeping. **LT**
- Utilize the “ABC’s of Driver Recruitment” found in the Appendix. **ST/LT**
- Seek out additional Driver training programs. **LT**
- Consider implementing an Attendance Incentive Day program to boost attendance. **LT**
- Work diligently to reduce the costs associated with paid non-worked days during the next round of contract negotiations. **LT**
- Continue to move towards a more equitable allocation of benefit costs. **LT**

**Section 7 –
ROUTING**

- Evaluate the impact of an extra 15 minutes of route time between afternoon bell times. **LT**
- As retirements occur, attempt route consolidation before filling the position. **LT**
- Consider using the Beekmantown ES afternoon buses as late buses for the MS/HS. **ST**
- Continue to contact neighboring districts and BOCES to ascertain their interest in developing common routes for out-of-district run sharing. **LT**
- Ensure that regulated safety zones have been established. **LT**
- Meet with Plattsburgh City Schools to discuss possible route combinations. **ST**

**Section 8 –
MANAGEMENT
OPTIONS**

- Modify Transportation Policies to reflect any changes made to the transportation program. **LT**
- Remain District operated, implementing as many recommendations as possible, while keeping future contract options available. **ST**

OPERATIONAL/FINANCIAL REVIEW

OPERATIONAL

Within this report we have made specific recommendations where applicable. In general, we found the District to be sincerely interested in the quality and efficiency of the transportation program, and eager to implement any changes that would improve either of these areas.

As a means of evaluating the performance of the Department, we surveyed the Building Principals, as they experience the services of the Department on a daily basis, and as such their feedback is important. Copies of their responses can be found in the Appendix. The number preceding the answer box indicates how they answered each particular question:

1. Regarding the morning delivery of students to your building:
 - Always on time
 - 4 Usually on time
 - Regularly late

2. Regarding the afternoon pick-up of students at your building:
 - 2 Always on time
 - Usually on time
 - 2 Regularly late

3. Regarding mid-day transportation (shuttles, field trips, etc.):
 - 3 Always on time
 - 1 Usually on time
 - Regularly late

4. Regarding the Department's handling of student discipline:
 - 1 Always reliable information and communication
 - 3 Usually reliable information and communication
 - Too much misinformation and poor communication

5. Regarding general lines of communication with the Department:
 - 2 Always available and great to work with
 - 1 Usually available and good to work with
 - Hard to reach, but good to work with
 - Hard to reach and hard to work with
 - 1 No response

6. Are you provided with bus lists and student lists prior to the first day of school, and updated versions during the year?

- 1 Always
- Usually
- 2 We get them, but they are late
- 1 No response

7. Which of the following best describes the overall attitudes of the transportation employees with whom you have contact?

- 2 Positive
- 1 Ambivalent
- Negative
- 1 Other – “frustrated”

8. In general, how would you rate the transportation services that you have experienced in the last 18 months:

- 1 Great
- 2 Good
- Average
- Poor
- 1 No response

As is evidenced by the responses to these questions, the majority of students usually get delivered to school on schedule, but there appear to be some problems with the afternoon pick-up. Bus/student lists are provided, but not in a timely manner, and there are concerns about Driver attitudes. These issues will be addressed in their respective sections of this report.

To further evaluate the program, we first established the operating conditions. The District operates on a double-tier system, transporting approximately 1,680 students to 4 buildings, as follows:

<u>School</u>	<u>Classes Start</u>	<u>Classes End</u>
Middle School <i>Grades 6-8</i>	7:42a.m.	2:19p.m.
High School <i>Grades 9-12</i>	7:45a.m.	2:22p.m.
Beekmantown Elementary <i>Grades UPK-5</i>	9:25a.m.	3:10p.m.
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There are also 4 late buses dismissed at 3:15 from the MS/HS.

Additionally, the District transports 12 Special Education students to BOCES, and 15 students to 3 non-public schools. Transportation is also provided for a wide variety of sports and field trips during the school year, as well as summer transportation. The students are transported on 29 District operated route vehicles, for a 2012-13 total transportation operating expenditure of \$1,980,151, exclusive of bus purchases.

The fleet is parked, maintained and refueled at a District-owned facility. The Department is staffed with 35 employees:

1	Transportation Supervisor
1	P/T Clerk
4	Mechanics
<u>29</u>	Drivers
35	

There are also 7 Substitute Bus Drivers with varying availability.

FINANCIAL

As part of our study of the District's program, we reviewed the expenditures listed on the we reviewed the *Transportation Aid Output Report* (TRA) issued by the State Education Department. The most currently available report is for 2013-2014. This detailed report identifies transportation related expenses, and is used as the basis for the calculation of transportation aid to the District.

Transportation aid is payable in the school year following the actual expense. Therefore, the transportation aid payable to the District during the 2013-2014 school year is based on actual expenses that occurred during the 2012-2013 school year. A copy of the referenced *TRA* is included in the Appendix to this report.

The District has a transportation aid ratio of 67.3%, which is down from 69.4% the previous year, a trend we're seeing Statewide. Transportation aid ranges from the minimum of 6.5% to the maximum of 90%. This means that "eligible" transportation expenses are reimbursed by the State on the basis of six and one-half cents up to ninety cents on the dollar. This reimbursement rate is determined by the State based on either a Resident Wealth Index calculation (line 18 RWADA – 66.3%), a formula based on a multiple of basic operating aid and Adjusted Sharing Aid (line 20 – 62.8%), or the enrollment wealth ratio (line 25 EWR – 61.7%). For Beekmantown, the RWADA Ratio of

66.3% was the Selected Ratio (line 26) and a Sparsity Factor of 1.0% (line 31) was added to it to arrive at the State Share Ratio of 67.3% (line 32).

Certain expenses are not “eligible” expenses under the reimbursement guidelines and are considered to be local taxpayer costs. For example, common non-allowable expenses include athletic trips (known as “other purpose” miles), and services provided to students who reside less than 1.5 miles from school, or are transported more than 15 miles (known as non-allowable miles).

According to the 2013-2014 Transportation Aid Output (TRA) Report (the most current report), the total operating cost (exclusive of vehicle purchases) for the Transportation Department the previous year (it uses previous year data to estimate current year aid) was \$1,980,151, detailed as follows:

Line 80	Personal Services (labor)	\$978,442
Line 81	Employee Benefits	415,676
Line 82	Supplies/Materials (parts, fuel, etc.)	415,521
Line 83	Contractual Expense	97,364
Line 142A	Transportation Office Staff	52,391
Line 142B	Employee Benefits Office Staff	<u>20,757</u>
Line 177	Grand Total Trans. Expenses	\$1,980,151

From this total, the deductions are calculated as follows:

Line 89	Other Purpose Miles	\$36,423
Line 93	Non-allowable Pupil Decimal	9,165
Line 100	Revenue Deduction	34,516
Line 145 less Line 149 Trans Office Costs		<u>3,073</u>
Total Operating Cost Deductions		\$83,177

By subtracting the deductions of \$83,177 from the expenses of \$1,980,151, we arrive at Total Non-Capital Expenses Approved for Aid of \$1,896,974 (Line 157).

Similar calculations were performed for Capital Expenses yielding Assumed Capital Expenses Aidable of \$276,534 (Line 158). The two combined totals (Lines 157 & 158) are shown on Line 159 - \$2,173,508. Applying 67.3% to this number yields your Transportation Aid of \$1,462,771 (Line 163).

We're often asked how District costs compare to State-wide costs. A recently published "Policy Brief" regarding NYS transportation costs (copy in the Appendix) reported that the average annual cost of transporting a student (excluding NYC) in 2010 was \$1,141. Taking the total aidable TRA expenses above of \$2,173,508 and dividing that by the 1,707 students the District transports daily yields an annual cost of \$1,273 per student. Given the size of the District, and the combined rural/suburban geography, it would be expected that the District might have above average costs. (Note: In the mid-1990's, the State stopped paying transportation aid on the District cost of family and 2-person health insurance, but continued to aid the District cost of employee coverage. The difference in cost is therefore not reflected on the TRA.)

Although the focus of this study is not about comparisons, this information can be useful when attempting to isolate costs that can be controlled. In the remaining sections of this report we will discuss what is driving District costs and what can be done to reduce them.

FLEET/FACILITY

FLEET

The District reports that it has 44 student transportation vehicles – 29 used on routes, and 15 spares. The shop also maintains 1 school car and 1 non-DOT truck owned/operated by the District. We have included in this section a Bus Profile which shows the vehicles by age, and the number of vehicles per model year, with the oldest vehicle being 15 years old (1999), the newest vehicles being 3 year old (2011), and an average age of 8 years (7.84).

Spares vehicles are used as replacements during maintenance down time, and as supplemental vehicles when additional program demands occur (sports and field trips). Industry standards would typically have a spare ratio of approximately 15% to 20% of the route vehicles (5-6 vehicles). The ratio can vary depending on extra-curricular demands, specialized vehicle requirements (lift equipped), seating capacities, and the age/mileage of the fleet (older/higher mileage fleets need more spare buses due to maintenance issues). The District maintains 15 spare vehicles, yielding a ratio of 52%. However, rural fleets tend to have higher ratios due to the demands of sports programs, and districts located away from major metropolitan areas tend to have more spares due to the lack of back-up vehicles when needed (accidents, breakdowns, lengthy repairs, etc). The District is also considering providing maintenance for Plattsburgh City Schools, and may want to use a spare bus to swap out when servicing one of their buses. For these reasons we don't suggest drastically reducing the number of spares, but feel that a ratio of 40% is more practical, resulting in our **recommendation to reduce the spare fleet by three (3) buses**. However, should you begin maintaining buses for Plattsburgh, you or they will need an extra spare to swap out for maintenance, in which case **reduce the spare fleet by two (2) buses**.

FLEET REPLACEMENT

In the past, the District had been fairly consistent in its replacement of vehicles, replacing 4 per year on average, or roughly 10% of the fleet. For the past three years, no buses have been replaced. There is no industry formula for replacement; we conducted an informal poll of national contractors a few years ago and found that their preference was for replacing vans/small buses every 5 years, and big buses every 8 years, with the reason given that this is when they felt the breakeven point was reached on repairs versus replacement. They also felt that trade-in value diminished substantially after this point.

In larger fleets (100+ buses), a younger fleet can reduce staffing costs, but in smaller fleets age doesn't have as much of an impact.

However, school districts around the country tend to keep smaller buses 5-10 years, and big buses up to 12-15 years. Statewide, we are seeing a trend towards school districts maintaining vehicles up to 10 years old on routes and 12 years old as spares. At the current size of the fleet **we recommend that the District replace 3 or 4 vehicles every year (3 one year, 4 the other year), unless fleet needs change.** We also **recommend that the District consider the purchase of alternative fuel buses.** Propane buses are growing in popularity, and the purchase price is not significantly higher than a standard diesel bus. As of this writing there is a federal tax subsidy on the cost of propane that makes it worth considering, and most propane dealers will provide the tank/pump at no cost to earn your business. The July, 2013 issue of *School Transportation News* magazine has an article dealing with current information regarding alternatively fueled school buses entitled "alternative STATE". It can also be viewed digitally at www.stnonline.com.

The fleet has been standardized (primarily International) to reduce the need for an extensive collection of dedicated parts inventory necessary for a varied fleet. Despite this, a recent inventory count discovered an excess of parts valued at over \$300,000, some of it obsolete. This inventory has been built up over the years, and the Department is working towards a measurable reduction thru the sale of older, usable inventory back to the dealer (Leonard) and disposing of unusable inventory. We will discuss fleet maintenance/inventory software in the Labor Section.

All buses are equipped with two-way radios; twenty-one buses have digital cameras. Having access to digital recordings of bus incidents protects both drivers and innocent students. Be aware that newer model buses have higher seat backs to meet Federal Standards, which may require a second or third camera to allow for improved video coverage. GPS devices are gaining in popularity, due to their ability to track engine performance, idling practices, and route adherence. The Department currently accesses this data occasionally via flash drives, and we were told that your Regional BOCES is evaluating the expanded use of data available from this resource.

FACILITY

As part of our review, we toured the District-owned transportation facility. There are two work bays with bus lifts, one work bay with a small vehicle lift, one bay with no lift, one body shop bay, and a wash bay. There are two parts rooms and areas elsewhere in the building for tires, brake drums, and tail pipes. The office space is sufficient for an operation of this size. Parking is limited, and would need to be expanded should all buses be parked on site. The majority of the buses are currently “parked out” at driver homes, which we don’t see much of anymore due to Federal regulations requiring that drivers be observed as they inspect their buses and head out on their runs. There appears to be sufficient land, but the paved area would need to be increased.

During our interviews, it became apparent that there was interest in providing maintenance services for neighboring schools and municipalities. We certainly agree that shared resources makes a lot of sense, and with that in mind we met with the Assistant Superintendent of Plattsburgh City Schools. They have a small fleet of seven (7) full size buses, but no staff or facility for maintenance. Fortunately, Beekmantown makes three trips daily to the Plattsburgh area, transporting students to/from BOCES and parochial schools. A bus needing maintenance – either a preventative maintenance check or scheduled repair – could be swapped with a spare bus, and returned on a later run or the following day. The same process would occur when a bus is in for inspection. This would have minimal impact upon the parking area.

We recommend that shared maintenance be implemented between the two districts. Once the start-up kinks have been worked out, expanded transportation sharing opportunities can be explored (shared staffing with Plattsburgh, shared maintenance with other neighboring districts and municipalities, etc.) A flat fee per vehicle, plus labor and parts costs with a slight administration fee, should enable Beekmantown to offset expenses and generate a surplus (net of aid deduction), while at the same time lowering Plattsburgh costs. In the Appendix, we have provided a Sample Shared Maintenance Agreement for your review, and we also provided it in a Word document for customization. Staffing accommodations have been addressed in the Labor section of this report. Once this type of sharing proves itself, it may be advisable to consider expanding it to include operating some or all of the routes for Plattsburgh (see Routing Section).

The refueling area is located on site; the diesel pumps are automated. Gasoline is purchased at the Town gas pumps. If the District fuel service is shared with others, an automated dispensing and tracking system can generate invoices to users.

To improve the security of this area, we are seeing more schools with building mounted security cameras covering the refueling area, with digital memory that saves the recording for a determined amount of time – say 72 hours – before recycling itself. This enables the users to review the recordings only on an as-needed basis. The Department currently has no cameras. We are also seeing schools inviting local and/or State police agencies to refuel on-site and invoicing them monthly. This can serve as a deterrent to crime in the area. **We recommend that the District consider one or both of these alternatives as a precaution against fuel theft and/or fleet vandalism.**

BEEKMANTOWN FLEET PROFILE

Year	Route	Spare
1999	-	1
2000	-	2
2001	-	3
2002	-	-
2003	1	3
2004	1	3
2005	3	1
2006	4	-
2007	2	1
2008	6	1
2009	4	-
2010	4	-
2011	4	-
2012	-	-
2013	-	-
Total	29	15

Route Vehicles	29
Spare Vehicles	<u>15</u>
Total	44

LABOR

As with any District operation, labor plays a vital role in the success or failure of the transportation program. There are three areas of importance – Supervision, Maintenance, and Driving, as detailed below.

SUPERVISION

Given the limited time frame that studies such as this work within, it was not intended that individuals be evaluated, but rather the positions themselves be studied, with recommendations made wherever improvements appeared possible. To that end, positions were reviewed, procedures were evaluated, and individuals were interviewed within the Department, and at the District level.

As part of this phase of the study, we met all of the Transportation Department employees that were available during our visit, either individually or in groups. Based upon the discussions held during these interviews and meetings, our overall impression of the Department is positive. Most individuals stated that communication with the Department was good, with the Department being responsive and accommodating. The buses appear to be clean and well maintained, with few reported mechanical issues.

We reviewed the routing process, which is performed using Transfinder. It is one of the most popular packages available, recognized for its affordability, ease of use, and support. We often find it in “one man” offices, as it doesn’t take as much time to maintain as the more expensive, sophisticated programs. The District previously had VersaTrans routing software, which although more powerful, required more time and effort to maintain. Given the number of students, the bell schedules, and the size of the District, the payback from your investment in routing software should not be difficult to validate. The Drivers indicated that they get updated route sheets and student lists every year, and when they provide the Supervisor with changes he updates the lists accordingly. Two of the Principals stated that they get their lists late. Aside from the obvious suggestion that they be provided the necessary information in a more timely manner, we **recommend that the District consider purchasing the available software upgrade (Infofinder 1e) and licenses that provide read-only access to the Principals office computers.**

The transportation office is currently staffed by the Supervisor, and a part-time shared Clerk. Although there are “down times” at certain

periods throughout the year, for the most part the transportation office is quite busy with routing changes, parent calls, sports and field trip assignments, covering driver absences, maintaining Driver 19A files, etc. **For a program of this size we recommend that the role of Transportation Clerk be a full time position, serving as a Substitute Driver as needed.** However, during the summer that individual could have a daily summer program run if one is available.

In order to provide the Board and Administration with a monthly recap of transportation activities, we **recommend that the Supervisor complete a “Monthly Report”** see sample provided in the Appendix. (It has also been emailed to the District for customization.)

MAINTENANCE

In all of our staff meetings and interviews, the overall impression of the vehicle maintenance program was very high. No breakdowns in recent memory, and supportive staff, were the comments heard. The most recent NYS-DOT Operator Profile for 2012-13 reflected a 97.8% inspection passing rate (copy provided in the Appendix). This is an indication that the Mechanics are staying on top of the maintenance program. With 44 DOT-inspected vehicles, the bus:mechanic ratio is 11:1. Statewide, we’re seeing a trend moving towards 15:1 ratio (up from 10:1 years ago), while nationally it’s closer to 20:1. NYS ratios have historically been lower due to stringent inspection requirements, considered by many to be the toughest in the nation.

In the Fleet/Facility section we recommended a shared maintenance program. Given the bus:mechanic ratio noted above, increasing the workload should not require an increase in shop staffing. With an addition of 7 vehicles, the total will become 51, for a ratio of 12.75:1. **We recommend that one of the Mechanics assume the role of a working Head or Lead Mechanic**, as currently no such position exists in the shop. This individual should also be capable of learning and maintaining a fleet maintenance software package, recommended below, that includes inventory control. Assuming this individual works hands-on 50% of his time, the ratio of 51 vehicles to 3.5 Mechanics becomes 14.57:1 – more in line with industry trends.

Although it would appear that the Mechanics have a good knowledge of the bus fleet, they are not certified as ASE Certified Bus Mechanics. Within the transportation industry, this certification is highly regarded as a method for insuring that the individual is knowledgeable about the type of vehicles he works on, and is current in the latest technology for maintaining and repairing these vehicles. A well trained ASE certified

mechanic can more accurately diagnose problems, and can positively impact the vehicle repair and replacement program. The school bus technician certification process tests in seven areas: body systems, diesel engines, drive train, brakes, suspension/steering, electrical/electronic systems, and air conditioning systems. The National Institute for Automotive Service Excellence is based in Virginia, but has 700 test sites nationally. At the present time, registration is \$36.00, and each test is \$30.00. To maintain their certification, mechanics are recertified every five years to ensure that they are staying current. **We recommend that at least one Mechanic on each shift obtain such certification, and be reimbursed by the District for the costs associated with the process.** For more information, contact them at ASE.com or (703) 669-6600.

The cost of bus repair parts during the previous school year was \$130,655. According to the TRA report, the fleet was driven 505,449 miles during the 2012-13 school year, for an estimated cost of .26 cents per mile – on the high end of the industry average of \$0.15 - \$0.30/mile. This may be attributed to a combination of an aging fleet and/or the fact that the Mechanics do their own tire and brake work in-house, which not a lot of school bus garages do. Parts purchasing is done thru the St. Lawrence-Lewis BOCES, which is a popular purchasing cooperative. The Mechanics record parts cost per vehicle, but not labor costs – quite common in a school garages. But to facilitate sharing, **we recommend that fleet maintenance record-keeping and PM scheduling be automated.** Once installed, it will require weekly updating of work orders, a task usually shared between the Head/Lead Mechanic and the Transportation Clerk. We frequently see EasyBus fleet maintenance and scheduling software in school district operations, and Transfinder offers a package called Servicefinder. Regardless of the one selected, make sure it interfaces with the fuel dispensing software you utilize. It should also include an inventory module. As with any purchase within transportation, check with SED prior to purchase for aid approval.

In order to provide the Board and Administration with a monthly recap of transportation maintenance, we **recommend that the Mechanic complete a “Monthly Report”** – see sample provided in the Appendix. (It has also been emailed to the District for your customization.)

DRIVERS

It is important to note the perspective that we take toward these positions. It is essential that a District employ highly qualified personnel in sufficient numbers to meet the on-going needs of the District. At the

same time, it is important that any agreements or procedures provide the District with the flexibility needed to adjust programs to change service levels with an accompanying change in labor costs. Most significantly, the labor agreement should support and facilitate the provision of quality services to the students and the education community.

It was noted that at times it can be difficult to recruit and retain Drivers – especially substitutes. To assist in this effort, we have provided in the Appendix the “ABC’s of Driver Recruitment”, assembled from our studies of hundreds of other school districts around the country, and **we recommend its use.**

Everyone interviewed appeared to be pleased with the quantity and quality of training provided. There was an interest on the part of the Drivers to receive special needs specific training when applicable; they felt the training they currently receive was helpful. The handling of student discipline issues was raised as an important issue by the Drivers – especially when the cameras don’t work. To stay on top of these issues, **we recommend that the District seek out additional training programs** from organizations such as PTSL.org, SchoolBusSafetyCo.com and NHTSA.dot.gov. There is also a training package entitled *The Peaceful Bus Program* available at Hazelden.org. Training should be mandatory, with participants paid for their time. To avoid overtime, many districts schedule such training on days when school is closed for in-service training. Most school districts report that discipline is best when the standards are similar for the classroom and the bus. Many schools report success when utilizing seating charts on buses, and we have included a sample chart in Appendix C.

We have reviewed the labor agreement between the District and NYSUT, which was effective July 1, 2010 thru June 30, 2013, and the Memorandum Of Understanding that extended that agreement thru June 30, 2016, with changes noted in the MOU. Following are our perspectives from a transportation viewpoint. Our comments only relate to transportation issues, and do not reflect any review of the other employee groups that may be covered or impacted by this agreement. We understand the critical and important nature of negotiations, and the difficulty to all parties in making changes to historical practices, yet we strongly believe that an agreement needs to be consistent with the goal of providing quality, affordable transportation services. Additionally, we believe that an agreement must provide the District’s Administration with the flexibility to modify assignments and costs to reflect the realities of program demands, student enrollment, and economic conditions.

1) Paid time off - bus driving is essentially a part-time job, in that the majority of transportation services are required less than 8 hours/day, 180 days/year. It is a relatively unique function in that an absent employee must be replaced by a sub. This not only creates the incremental cost for the substitute employee, but it impacts the quality of the service, given that the best transportation service has the same Drivers on the same buses, every day. In this way, they know the students; the students know what to expect from the Drivers; and the Drivers know what looks “right or wrong” along a route or at a stop. Pay for non-worked days is more common among public sector jobs, but not often found in private sector, part-time employment.

As ten month employees, it appears that covered employees are eligible for 14 holidays, 10 sick days, 4 family leave days and 4 personal days for a total of 32 paid, non-work days. With 29 Drivers eligible, this benefit can result in up to 928 paid days off per school year. Excluding holidays, 522 of these absences (29 x 18) requires the use, and extra cost, of substitutes.

Due to absenteeism related to the available days off, **we recommend that the District consider implementing an Attendance Incentive.** A typical plan calls for employees who take no days off during a selected period of time getting one extra day’s pay. Districts have informed us that they get more participation if it is paid out twice/year, depending upon participation July 1-December break, and January 1- end of school.

This analysis is not meant to disparage the Drivers and Monitors, as they are only benefitting from a contract they worked hard to negotiate over the years. It is provided as a means to answer the often asked question – “Can we compete with the private sector?”. While it is possible to do so, it will prove difficult unless some of these provisions of the Agreement are addressed. **We recommend that the District and the Union work diligently in future contract renewals to eliminate or significantly lower this type of cost.**

2) Health Insurance – this is one of the fastest growing transportation costs in many school districts, and Beekmantown is no exception. The District currently provides the individual and family coverage for employees working a minimum of 20 hours/week. Of these costs, only the District cost of individual coverage is eligible for transportation aid, with the difference between Individual and Family premiums being a local taxpayer cost. This changed in the mid-1990’s; previous to that that 100% of insurance premiums were eligible for transportation aid. In some

cases, these insurance packages have resulted in benefit costs exceeding wages for this group of part-time employees. We commend the District for attempting to control these costs by increasing the employee premiums for new hires to 10% of family premiums and 13% of individual premiums, and for existing employees 6.7% of family premiums and 8.7% of individual premiums.

We are seeing a trend where districts are taking the position that there should be an allocation based upon hours worked. For example, if a full time position in the District is 8 hours/day, and an 8 hour employee has 90% of his/her premium paid for by the District, then an employee working 4 hours/day would be eligible for 50% of that benefit, or 45%, paid for by the District.

Although we understand that benefits are a primary reason some employees work for the District, **we recommend that the District continue to pursue savings in benefit costs, such as moving towards a more equitable allocation of benefits and limits on future costs, in the next round of negotiations.** As the National Health Care Act is implemented, the District may find that it has to reduce the level of benefits or pay a penalty.

3) Hourly pay rates – pay rates for 2010-2011 for Drivers started at \$25.47/hour, and go as high as \$33.05/hour for a long-time Driver, with annual increases as negotiated. Depending upon hire date, they receive extra/additional pay for certain routes, and can take on sports and field trips. Monitors pay rates for 2010-2011 started at \$23.50/hour, and go as high as \$30.33/hour for long-time Monitors, with annual increases as negotiated. In comparison to the chart found in the Appendix from salary.com, it would appear that these employees enjoy an above average wage and benefit package for the region. Due to increasing wage and benefit costs, we're starting to see a return to shared positions, such as custodians and cafeteria workers who also have CDL's and drive a regular run every day.

4) Athletic trips – the current system of assigning Drivers based upon seniority appears to work well. Industry-wide, we are seeing a shift towards “trip” rates, whereas Drivers get paid one rate for driving their regular runs, and a lower rate for sports and field trips. At times, this is broken down in to “driving time” and “sitting time”, as Drivers wait for an event to culminate. We are also seeing a move nationally towards allowing – even encouraging – Coaches to drive. The common practice now is to have a Coach ride on the bus with the Driver. In some districts,

included in the Coaches job description is a requirement for a CDL, so that they can drive a school bus on sports runs. In some cases they are paid a small stipend to do so, but it is viewed as a budgetary procedure to keep the sports programs alive. In the event some Coaches are not comfortable driving a bus during inclement weather, then Bus Drivers take the runs. Although some Coaches don't like driving, they do like to keep their bus at the game.

In summary, while a strong wage and benefits package enables the District to attract and retain long term employees, it also increases the cost of providing transportation services.

ROUTING

CURRENT PROGRAM

The District is double tripped, transporting approximately 1,680 students on 2 runs to 4 buildings, as follows:

School	Buses Released	Instruction Begins	Instruction Ends	Bus Dismissal
Middle School Grades 6-8	7:30 a.m.	7:42 a.m.	2:19 p.m.	2:19 p.m.
High School Grades 9-12	7:30 a.m.	7:45 a.m.	2:22 p.m.	2:22 p.m.
Beekmantown Elementary Grades UPK-5	9:05 a.m.	9:25 a.m.	3:10 p.m.	3:12 p.m.
Cumberland Head Elementary Grades UPK-5	9:05 a.m.	9:25 a.m.	3:10 p.m.	3:12 p.m.

There are also 4 late buses dismissed at 3:15 from the MS/HS.

BELL TIMES

Additionally, the District transports 12 Special Education students to BOCES, and 15 students to 3 non-public schools.

Several factors drive transportation costs – the labor agreement, which was discussed in the previous section of this report, bell times, out-of-district placements, and transportation policies.

Evaluating the pro’s and con’s of various bell time options is not an easy task for a district to undertake. There are many factors to consider, such as mileage, road conditions, policies, enrollment, riding times, vehicle capacities, population density, location of campuses, contractual agreements, etc. As noted above, the District is double tripped (also referred to as two tiered). Based upon our review of the route sheets (see page 3 below) and ridership levels, coupled with our interviews, it appears that the current route structure designed to accommodate double tripping enables the Transportation Department to make the most efficient use of the fleet.

Of the 500+ reviews we’ve conducted over the past twenty-seven years, the vast majority of schools are multiple tripped, with the most common configuration being double tripping, as it is an efficient use of

labor and equipment. Fewer than 5% of districts State-wide are single tripped, and they are primarily very small enrollment districts, or in very large geographic locales. Additionally, until the mid-'90's, transportation aid was a flat 90% Statewide. That has now become dependent on a combination of local wealth factors, resulting in many schools seeing a reduction in this aid – currently 67.3% in Beekmantown. With State transportation aid at \$1.6 billion this year, and the current belt-tightening environment in Albany, further aid reductions can be expected in the years ahead. This projected decrease in aid, combined with the current decrease in overall aid as a result of GAP Elimination Adjustments, has all districts looking at ways to improve efficiency.

Under “true” double tripping, the entire fleet makes two trips throughout the district, transporting students in different grade levels at the same time. However, the reality of school bus routing is that there are very few examples of “true” routing, whether it is single, double or triple tripping. The reasons are varied, but are usually caused by:

- Fluctuating enrollment levels
- Age and size of students at each grade level
- Certain programs offered at different grade levels
- Growth in private, parochial and special ed. programs
- Labor agreements with teachers and drivers
- Breakfast programs
- Fleet configuration
- Geographic size of district (i.e.: short vs. long runs)
- Federal/State/local mandates (NCLB, Choice, etc.)
- After school activities – sports, jobs, etc.

To analyze routing efficiency, we typically look at the number of seats available per bus and the number of students per bus, per run. For example, under “double” double tripping, each bus has two runs. As seen on the Routing Analysis table below, some buses do not have a second in-District run, although they may have an out-of-District run.

Of the 29 vehicles on routes, 2 are 6p, 2 are w/c vehicles, and 25 are 65p. When we look at routing efficiency, we only measure the full size buses. It is not possible to fit 65 students on a 65 passenger school bus, as the seats are designed for three 13” passengers. As a result, buses at the HS level are typically rated 2 per seat, yielding

44p. Although it is technically possible to fill all seats at the elementary level, the common use of backpacks, combined with longer times at bus stops, results in most buses being routed at no more than 90%, yielding 60p. The District reports that the fleet transports approximately 1,680 students in-District, for a capacity utilization rate of 81% in the morning and 77% in the afternoon. For a double-tripped fleet, anything over 70% is considered efficient.

ROUTING EFFICIENCY ANALYSIS

Bus #	AM High School	AM Elementary	PM High School	PM Elementary
214	x		x	
218	x	x	x	x
220	x	x	x	x
221	x		x	x
222	x		x	
223	x	x	x	x
224	x	x	x	x
225				x
226	x		x	
227	x	x	x	x
228	x		x	
229	x		x	
231	x	x	x	x
232	x	x	x	x
233	x	x	x	x
236	x	x	x	x
237	x	x	x	x
238	x	x	x	x
240	x	x	x	x
241	x	x	x	x
242	x	x	x	x
243	x	x	x	x
244	x	x	x	x
245	x		x	
246	x	x	x	x
25 buses 65p 66% HS 90% ES	24 <u>x44p</u> 1,056	17 <u>x60p</u> 1,020	24 <u>x44p</u> 1,056	19 <u>x60p</u> 1,140

AM Run Utilization:

1,680 students transported/2,076 seating capacity = 81% utilization

PM Run Utilization:

1,680 students transported/2,196 seating capacity = 77% utilization

It should be noted that 2 extra buses operate in the afternoon at the ES level. This is a result of a more compressed bell schedule in the afternoon. The buses have 100 minutes between HS and ES in the morning, and 58 minutes between HS and ES in the afternoon. Less run time equates to the need for more buses. If the ES day were lengthened by 15 minutes, the extra buses may not be required. **If such a change is possible, we recommend that the routes be evaluated for the impact on bus requirements.**

Although 1,680 students are estimated to ride daily, it fluctuates depending upon weather conditions, after school activities, etc. **As retirements occur, we recommend an attempt to consolidate routes by eliminating a run, as opposed to automatically replacing that Driver.** If not successful, then replace the employee.

When looking for routing efficiencies, it can be useful to occasionally audit ridership. Some schools have enjoyed success by making it a statistical project for a senior high math class. Every day for a week, students rotate among the buildings recording the number of students that get on and off each bus at each building, tabulating average ridership of each bus for a week.

We noticed that the Beekmantown ES dismissal occurs at the same time two buses arrive at the HS/MS for the late run. Many schools use the ES run as a late bus run for the upper grade levels. **If room is available on these ES buses, we recommend that 1 or 2 of the late bus runs be eliminated with those students riding home on the ES buses.**

From a historical perspective, transportation policies throughout NYS have been developed as a result of regulations and transportation aid calculations. For many years, most schools have followed the commonly held perception that it was necessary to reserve a seat on each bus for every eligible student. Effective January 1, 2012, the State clarified this topic by issuing subsection 8 of Section 3635 of the Education Law, stating that the "... board of education may, at its

discretion, provide student transportation based upon patterns of actual ridership.” This relieves the District from having to operate a larger than necessary fleet. They advise having an additional 10% of seats available in case of unanticipated riders. Given the utilization rate noted above, the District is heeding that advice.

While filling a bus is the goal of efficient routing, it is not always feasible due to the varying size of students in the lower grades versus the upper grades, and the common practice of carrying backpacks, as well as musical instruments. The practice of allowing students to ride different buses at different times (daycare and babysitter changes, the use of route buses as late buses, etc.) also affects the utilization, as multiple seats may be assigned to one student. Further, if ride times are limited or capacities reduced, then efficiency is lower, as shorter ride times equates to more buses required. It should also be noted that Kindergarten students typically take longer to load and unload, resulting in slower route times, which prevents filling buses to capacity.

Regular route vehicles are primarily full size buses, which facilitates ease of routing due to the consistent seating capacity. For example, while it may appear inefficient to send a full size bus on a run with a handful of students, that same bus may be filled to capacity on its return run.

It was mentioned during our study that the District was considering re-aligning the two ES, making one a P-2 building, and the other a 3-5 building. What this does is make both schools District-wide buildings, as opposed to splitting up the District as is now the case. This would result in longer runs for some students, and additional buses, as students would be drawn from the entire District for each building.

OUT OF DISTRICT PLACEMENTS

The District reports that only 27 students are transported out-of-district, and all of them attend programs in nearby Plattsburgh. The District is very fortunate in that regard, as many districts in the State spend 40-50% of their transportation dollars on out-of-district runs. The 2011 tax cap legislation amended Education Law 1709(25)(h), making it permissible for one district to transport the students of another district to any legally allowable out-of-district location. Prior to this change, districts were restricted to providing services only to locations where they were sending their own students. Given the District’s location adjacent to Plattsburgh, with other schools

traveling by en route to BOCES, **we recommend that the District continue to contact neighboring districts and work with BOCES each year to ascertain interest in developing common routes for as many of the programs as possible.** Sharing of these runs has been proven to significantly lower associated costs. (Sample agreement is provided in the Appendix.)

POLICIES

The District's transportation policy states "Transportation shall be provided at District expense to those students who are eligible as authorized by the Board, which currently means all students." NYS regulations state that school districts may require students in grades K-8 to walk a distance of up to two miles, and students in grades 9-12 to walk a distance of up to three miles, from their homes to their schools. If they choose to provide a higher level of service, transportation aid is not provided for those transported less than 1.5 miles from their school, although hazardous exceptions can be made thru the use of regulations governing established child safety zones. **We recommend that the Department ensure that such regulated safety zones have been established.** Voter approval is required for the transportation of other non-eligible students that will not be aided.

SHARED ROUTES

As part of the study, we visited Plattsburgh City Schools. During our conversation about shared maintenance, it was mentioned that some of their runs might be eliminated if Beekmantown buses that are already there on a daily basis could transport some of their students. **We recommend that the two Transportation Directors meet to review this possibility.** If able to absorb that work without additional staff and equipment, billing could be accomplished by charging a flat amount per student, or on a run basis for any additional hours/miles. If that is successful, it may be feasible to take over full responsibility for their transportation program with minimal employee transition from one school to the other. If that proves troublesome, there may be an opportunity to phase out Drivers through retirements. They also employ some Monitors; if they are picked up and dropped off at the beginning and end of each City run, then they may be best left as Plattsburgh employees. As for the buses themselves, we suggest that they remain under Plattsburgh ownership until such time as they need replacing, and the two districts decide at that time how to best handle replacements. Should Beekmantown buy or lease them, be sure to include in billing to Plattsburgh such replacement costs (amortization). For example, a \$100,000 bus driven for 12 years would have a straight-line amortization cost of \$8,333.33 annually.

To summarize this section, it is our belief that the current routes are quite efficient given the current bell time structure, and sharing out-of-district runs whenever possible is most the effective means for lowering costs. **We recommend that any changes resulting from these efforts be incorporated in the District's Transportation Policies**, as it is difficult for the District to defend a position on policy if none exists.

MANAGEMENT OPTIONS

Our review of the transportation program includes an analysis of management options available to the District. While this was not a major focus of the study, we have included an evaluation of the pro's and con's of operating alternatives that may be of interest to the Board and Administration in the years ahead, given the uncertainty of funding being continued at the current level:

1. Continue to operate as is, with recommended changes.
2. Consider contracting - full, management, or partial.
3. Share services with neighboring schools and municipalities.

On the following pages, we have described the options that we evaluated in this report, highlighting the results that the District may expect from each decision.

1. CONTINUE TO OPERATE AS IS, WITH RECOMMENDED CHANGES.

Under this option, you would make some or all of the changes to the way you currently operate the transportation program.

Pro's: You would not have major labor related consequences that may result from changes to the program; savings may be realized, particularly from sharing resources with neighboring schools.

Con's: The District will be unable to realize efficiencies often associated with privatization, and would continue to face budgetary concerns associated with the economy and increasing demands for services.

2. CONSIDER CONTRACTING – FULL, MANAGEMENT, OR PARTIAL

Either process can work effectively, provided the specifications clearly define service expectations.

2.1 Full Contracting

Under this option, the District would sell the fleet and terminate employment with the majority of staff members. The contractor(s) would be responsible for providing a fleet, facility (or renting yours), and staff.

Pro's: The District would, relatively speaking, be out of the transportation business. A significant amount of administrative time and effort now devoted to transportation (payroll processing, accounts payable, benefits administration, budgeting, purchasing, etc.) would be eliminated. The District would receive a cash infusion the first year due to the sale of the fleet. A competitive bid environment may result in savings. Labor related issues such as recruitment and training would become the responsibility of the contractor. Annual contract cost increases would be controlled by market pricing and/or annual price caps.

Con's: The District could expect quite an emotional period of upheaval among the staff, and some members of the community. Day to day operation of the program would be out of District control, which could result in a loss of flexibility. Service levels are often reported to be not as high as those provided in-house, especially early in the conversion. The costs of sports and field trips typically increase faster than the cost of home to school transportation. It is difficult to get back into transportation should the District ever desire to do so. As the National Health Care Act is implemented starting 2014/2015, the mandated health care costs may negate some of the savings. The size and location of the District make it an unattractive target for most contractors.

2.2 Management Contracting

Under this option, the District would continue to own the fleet, but would contract out all labor. You would have the option of replacing the vehicles as they age out, or rebidding as a full contract.

Pro's: You effectively contract out the most expensive aspect of student transportation – the labor – while you continue to control the assets. This type of bid is attractive to some contractors because a sizeable investment is not involved. Should it become advisable to retake the program in the future, it is much easier because you have retained ownership of the fleet.

Con's: You are still in the transportation business; you must still invest in fleet replacements. Some savings may be realized, but they would not equal those of full contracting due to continued ownership of the fleet, which would preclude additional use of the fleet by the contractor. Some contractors may not bid due to the ability of the District to re-take the program. The same mandated health care costs are a concern.

2.3 Partial Contracting

Under this option, a District continues to provide transportation for a portion of the program (in-District transportation only, for example), while contracting out the other parts of the program (out-of-District non-public runs).

Pro's: The District would only need to maintain the fleet and staff necessary to transport students within District boundaries. Some of the fleet replacement costs in future years could be reduced. Competitive bids may result in lower costs. Contract costs are more easily controlled due to your ability to retake some runs if service and/or costs are unsatisfactory. Sports and field trip costs can be contained due to having a District fleet.

Con's: The routing and responsibility for these runs would remain with the District. The cost for such services must be monitored, and the quality of services provided must be watched closely. Although there are not that many runs that would be affected, there may be negative community reaction to terminating some District employees.

To accurately evaluate potential savings from any contracting, bid specifications or RFP's would have to be developed, with prices compared to District costs at that time. Legal advice would be necessary regarding Taylor Law privatization restrictions before proceeding, as these restrictions effectively require the District to negotiate both the decision to contract, and the impact of that decision, with the Union. These labor laws, plus the size and location of the District, make privatization unlikely.

3. SHARE SERVICES WITH NEIGHBORING SCHOOLS AND MUNICIPALITIES

Under this option, you would consider sharing transportation resources with neighboring schools and municipalities. This may involve fleet, facility and/or labor.

Pro's: Costs may be reduced by developing opportunities for shared use of assets currently in place.

Con's: Some partners in sharing may have more to gain than others, although it must be a win-win for all participants.

Based upon the findings of this report, **it is our recommendation that the District should continue to operate the program in-house with recommended changes (Option 1), while pursuing shared service opportunities (Option 3), and keeping contract options available for future consideration as unfunded mandates increase and funding decreases.**

APPENDIX

- A DISTRICT PROVIDED DATA
- B TRANSPORTATION AID OUTPUT REPORT
- C SAMPLE FORMS and MONTHLY REPORTS
- D ABC'S OF DRIVER RECRUITMENT
- E BUS ROUTING INFORMATION
- F PRINCIPAL FAX SURVEY
- G POLICY BRIEF ON TRANSPORTATION AID

The complete Appendix is on file in the District Business Office.