

TAS

**STUDENT TRANSPORTATION
EFFICIENCY STUDY**

FINAL REPORT



CENTRAL BUCKS SCHOOL DISTRICT

February, 2018

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INTRODUCTION

Transportation Advisory Services (TAS) was engaged to perform a review of the student transportation program of the Central Bucks 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 Dave Matyas, Business Administrator. The transportation contact was Jim Czyz, Transportation Director. Christopher Andrews served as the Project Consultant for TAS.

STUDY PROFILE

The District operates on a two-tier system, transporting the 8,931 HS/MS students first, followed by the 7,139 ES students on split schedules, as follows:

	<u>Start Bell</u>	<u>End Bell</u>
<u>High Schools</u> (3) East, West, South <i>Grades 10-12</i>	7:25a.m.	2:30p.m.
<u>Middle Schools</u> (5) Tohickon <i>Grades 7-9</i> Holicong <i>Grades 7-9</i> Lenape <i>Grades 7-9</i> Tamanend <i>Grades 7-9</i> Unami <i>Grades 7-9</i>	7:30a.m.	2:30p.m.
<u>Elementary Schools</u> (15) “A” Schools Bridge Valley, Cold Spring, Doyle, Gayman, Jamison, Mill Creek, Pine Run, Titus	8:35a.m.	3:15p.m.
“B” Schools Buckingham, Kutz	8:50a.m.	3:30p.m.
“C” Schools Barclay, Butler, Groveland, Linden, Warwick <i>Grades K-6</i>	9:05a.m.	3:45p.m.

The District is also responsible for transporting 1,481 non-public students to 50 locations, and 598 special needs students to 42 locations.

Transportation is also provided for approximately 3,000 sports and field trips during the school year, as well as summer transportation. The students are transported on 161 District owned and 143 contracted buses, for a total 2016-17 transportation operating expenditure of \$18,748,491, including the cost of sports and field trips.

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 Central Bucks 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 on July 10, 2017. On August 30, 2017 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 and during our on-site visit.
- 3) The on-site portion of the engagement occurred October 24-25, 2017. During this visit **TAS** interviewed a number of stakeholders to gain their perspective on the transportation program. The following persons met with **TAS** during this trip, or responded to our questions via phone/fax/email:
 - Business Administrator
 - Director of Special Education
 - Athletic Director
 - Director of Transportation
 - Transportation Office Staff
 - Bus Mechanics
 - Bus Drivers/Sub Drivers & Unit President
 - First Student Manager/Dispatcher
 - Building Principals (via fax survey)
- 4) The Consultant visited several school campuses to observe the ingress and egress of each bus staging area. A follow-up meeting with the Business Administrator occurred at the conclusion of the on-site visit.
- 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 via 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:
 - ❑ Routing data
 - ❑ Fleet listing
 - ❑ Labor Agreement
 - ❑ State report
 - ❑ Transportation contracts and/or invoices
 - ❑ 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. In some cases, both codes will appear, indicating that there may be some short and long-term implementation.

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/FACILITY

- Continue to replace 12-15 buses every year, unless fleet needs change. **LT**
- Evaluate the level of transportation services to provide. **LT**

Section 6 - LABOR

- Address the optimization issue with Edulog. **ST**
- Consider moving Dispatchers/Routers to a different bargaining unit. **LT**
- Utilize the “ABC’s of Driver Recruitment” found in the Appendix to resolve the Driver shortage. **ST/LT**
- Gain the assistance of the Human Resources office in recruitment efforts. **ST**
- Have at least one Mechanic maintain ASE School Bus Certification. **ST**
- Customize and utilize the “Monthly Reports” provided in the Appendix. **ST**

- Seek out additional Driver training programs. **LT**
- To be competitive in the labor market, implement as many of the best practices provided as possible. **ST/LT**
- Restructure the way the pay package is presented. **ST**

**Section 7 – FS
CONTRACT**

- Consider the use of additional penalties. **LT**

**Section 8 –
ROUTING**

- Manually record actual ridership. **LT**

**Section 9 –
MANAGEMENT
OPTIONS**

- Continue to operate as is with a split program, making as many of the recommended changes as possible. **ST**

To summarize, we believe that the Department is well managed, and operated efficiently given the current bell time structure. The employees appear to be service oriented towards students, parents and building administrators. As an example, call centers are utilized to facilitate communication with parents during the weeks leading up to and following the start of school. The Drivers are well trained, and the Mechanics are providing high quality service to a variety of vehicles. We're told that recent State audits have indicated no transportation findings, which is a good indication of the status of the program. Implementing as many of our recommendations as possible will only enhance the quality of the services provided by the Department.

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; we had 22 responses – 5 HS, 5 MS and 12 ES. The number preceding the answer box indicates how the respondents answered each particular question:

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

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

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

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

5. Regarding general lines of communication with the Department:
 - 15 Always available and great to work with
 - 7 Usually available and good to work with
 - Hard to reach, but good to work with
 - Hard to reach and hard to work with

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

- 16 Always
- 5 Usually
- We get them, but they are late/inaccurate
- 1 No - we don't get them

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

- 22 Positive
- Ambivalent
- Negative
- Other

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

- 10 Great
- 12 Good
- Average
- Poor

As is evidenced by the responses to these questions, the majority of students get delivered to and from school on schedule most of the time. All but one of the respondents stated that they usually receive bus and student lists in a timely manner. All participants stated that attitudes within the Department are positive (commendable, and unusual), and the services are considered better than average by all of the respondents (again commendable, and unusual). Copies of the survey can be found in the Appendix.

To further evaluate the program, we first established the operating conditions. The District operates on a two-tier system, transporting the HS/MS students first, followed by the ES students on split schedules, as follows:

	<u>Start Bell</u>	<u>End Bell</u>
<u>High Schools</u> (3) East, West, South <i>Grades 10-12</i>	7:25a.m.	2:30p.m.
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Elementary Schools (15)

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“C” Schools Barclay, Butler, Groveland, Linden, Warwick <i>Grades K-6</i>	9:05a.m.	3:45p.m.

The District-owned fleet is parked at the Operations Center and an Annex facility, which is overseen by an on-site Dispatcher. At the time of the on-site visit, the Department was staffed with 173 employees:

- 1 Director of Transportation
- 1 Assistant Director of Transportation
- 1 Transportation Supervisor
- 2 Administrative Secretaries
- 5 Dispatchers/Routers
- 1 Lead Mechanic
- 4 Bus Mechanics
- 1 Automotive Mechanic
- 127 Drivers, including Sub’s
- 29 EA’s
- 173

FINANCIAL

As part of our study of the District’s program, we reviewed the Pupil Transportation Subsidy Report (PDE-2576) payable in 2016-2017 for 2015-2016, the most currently available report at the time of this study. 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 2016-2017 school year was based on actual expenses that

occurred during the 2015-2016 school year. A copy of the referenced report is included in the Appendix to this report.

Transportation subsidy is based upon a number of factors, including but not limited to route mileage, age of the vehicles, capacity utilization of said vehicles, the number of non-public students transported, and calculations based upon a State devised formula for approved costs of District and contracted vehicles. For the 2015-2016 operating year the approved cost for to/from school transportation was \$9,615,954, of which the State provided a subsidy of \$2,785,136, or 29% (28.96).

We also reviewed the Annual Financial Report for the year ending 6/30/2017, with reported costs as follows:

2700-100 Salaries	\$5,282,135
2700-200 Benefits	\$4,092,203
2700-300 Prof/Tech Svc	\$ 2,854
2700-400 Prop Svc	\$ 135,454
2700-500 Purchased Svc	\$8,880,865
2700-600 Supplies	\$ 354,880
2700-800 Other	\$ <u>100</u>
Total 2700	\$18,748,491

As noted above, the cost of Benefits is approaching the cost of Salaries. Within Purchased Svc is the cost of contracted services... \$7,910,268.

Although the focus of this study is not just about cost, the information above 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 currently has 161 student transportation vehicles – 123 buses, 21 lift buses, and 17 small buses. There are also 12 cars that can be used to transport students. There are a variety of manufacturers, with the predominant bus chassis being International, and a variety of seating capacities: 11-78p, 97-77p, 15-48p, 6-42p, 8-36p, 2-30p, 16-29p, and 6-24p. We have included in this section a Vehicle Profile which shows the vehicles by age, and the number of vehicles per model year, with the oldest vehicle being 12 years old (2007), the newest vehicles being 0 year old (2019), and an average age of 6.86 years. 122 of these vehicles are considered route vehicles, with 39 designated as sports/spares vehicles.

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 10% to 20% of the route vehicles (10-20 vehicles). The ratio can vary depending on extra-curricular demands, specialized vehicle requirements (lift equipped, undercarriage storage, etc.), seating capacities, and the age/mileage of the fleet (older/higher mileage fleets need more spare buses due to maintenance issues). Since the District covers all of the extra work and covers routes the contractor cannot due to their driver shortage, the 124 buses currently provided by the contractor would have to be factored into this ratio. Using 20% as the route/spare ratio for the District fleet (24), and 10% of the contract fleet (12) we would expect to find 36 vehicles used for spare/sports. The District currently maintains 39 such vehicles, an acceptable level given the number of specialized vehicles utilized. The fleet appears to be well optimized considering the size of the district, the number of schools served, and the associated sports and extra-curricular activities.

FLEET REPLACEMENT

In the past, the District had been inconsistent in its replacement of vehicles, buying as few as 0 in some years and as many as 27 another year. This fluctuation results in “age bubbles” that can result in an aging fleet and the need for large fleet purchases every so often – for example, the 20 buses purchased in 2015 and the 26 buses purchased recently.

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.

However, schools around the country tend to keep smaller buses 5-10 years, and big buses 12-15 years. In Pennsylvania, transportation aid is determined in part by amortization of the fleet at \$700/year, capped at \$10,500, or 15 years. The District has been diligent about keeping the maximum bus age at 12 years, resulting in the average age of 6.86 years. Given the current size of the fleet **we recommend that the District continue to replace 12-15 vehicles every year, unless fleet needs change.** Doing so will avoid the need to replace a large number of vehicles when those “age bubbles” appear. Fleet purchases should continue to be standardized to reduce the need for a collection of dedicated parts inventory needed for a varied fleet. Consideration may be given to replacing a few 77p buses with 90p buses with undercarriage storage, as using these buses for sporting events may reduce the number of buses needed on some sports trips.

The comment “unless fleet needs change” is intentional. As the District looks to the future, **we recommend that the District evaluate the level of transportation services it should provide,** as this determines the size of the fleet. For example, in Section 8 we note that 68% of your route fleet transports 88% of your students, with the remaining 32% of the fleet transporting the other 12% of students. The District could service the vast majority of students with a smaller District-owned fleet if it chose to contract out more runs. It would not be necessary to do this all at once, but it could be seen as a way to address Driver shortages and fleet replacements by contracting out the runs as they become available. Additionally, as mentioned in Section 8, a move to a triple-tripped fleet and bell times could also reduce the size of the fleet.

The District has researched the viability of alternative fuel buses, and we concur with its findings - given the low cost of diesel, and the higher cost of the vehicles, the decision for using these types of vehicles should be delayed until such time as they are more comparable in price, more grants are available, and/or fuel prices

change significantly. When that occurs, we suggest that districts consider the purchase of alternative fuel buses. We're seeing districts try CNG, Propane, Electric, and even going back to gasoline. As of this writing the most popular of these is Propane, due primarily to a federal tax subsidy on the cost of propane that makes it worth considering, and the fact that many propane dealers will provide the tank/pump at no cost to earn your business. The July, 2013 issue of *School Transportation News* magazine had an article dealing with current information regarding alternatively fueled school buses entitled "alternative STATE". They updated that information in the July, 2015 issue with an article entitled "Consuming Greens". Both can be viewed digitally at www.stnonline.com.

All buses – District and contracted - are equipped with GPS, two-way radios, and working 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 has resulted in the need for multiple camera heads to allow for improved video coverage. GPS devices have gained in popularity, due to their ability to track engine performance, idling practices, and route adherence. Newer buses and digital cameras come equipped with GPS, which when tied to routing software can enhance routing capabilities. Access to live data costs a monthly fee per bus, but the routing information can be downloaded without the monthly fee after the bus returns to the yard.

FACILITY

As part of our review, we toured the Operations Center that makes up the office, Drivers space, and garage. It has 5 work bays with 3 in-ground lifts, 2 above-ground lifts, and 1 portable lift. It is used to maintain the District fleet as well as Buildings and Grounds equipment, and is also a District-wide central receiving and storage facility. The shop is open from 5:30am-6:00pm. According to the Drivers, the Mechanics are reportedly very responsive to maintenance requests.

The District parks buses at the Operations Center and an Annex facility, and provides two parking lots for First Student use – the Tech School and New Britain garage. The District is starting to think about the feasibility of adding another parking lot for contracted buses. The justification for making this investment is that when the District rebids its transportation contract, having the ability to provide parking for the majority of the contracted fleet to all bidders

would in all likelihood increase the number of bidders, which usually results in a more competitive bid. We have found this to be the case in more heavily populated areas such as this.

We are seeing more schools with building mounted security cameras covering fueling and parking areas, and we commend the District for installing cameras at both locations as a precaution against fleet vandalism.

CENTRAL BUCKS FLEET PROFILE

Year	# Vehicles
2007	25
2008	11
2009	27
2010	6
2011	15
2012	13
2013	-
2014	-
2015	20
2016	12
2017	3
2018	26
2019	3
Total	161

Route Vehicles 107
 Spare Vehicles 54 (spares, sports and field trips)
 Total 161

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 Edulog routing software. Only one of the Building Principals reported not getting updated routing information. This software is regarded within the industry as very powerful, and as a result it takes time and training to master. The District has invested in continued training as it becomes available. It was mentioned that the route optimization feature has not been operating in the most recent software update, so **we recommend that this be addressed with the software company.**

The transportation office is currently staffed by a Director, Assistant Director, Supervisor, two Secretaries, and five Dispatchers/Routers. Although this may appear over-staffed at first glance, it is balanced out when factoring in the routing and oversight of 143 contracted buses. 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 files, filing State reports, etc. It is unusual to find Dispatchers/Routers represented by the same union as the Drivers, considering their responsibility for assigning runs and tracking

absences. **We recommend that these positions be considered for a move to a different bargaining unit.**

A key component of any operation is proper staffing levels, and it appears that the District has periodically been short Drivers. This can result in a scramble to get routes covered, typically by doubling up runs or having office and/or shop staff drive, which negatively impacts operational effectiveness. The contractor is also experiencing Driver shortages, with the District picking up those runs. To address this problem, the District has been using on-call subs on a semi-permanent basis since school start-up. Although any program can survive in a crisis mode for a short time, trying to do so long term can result in low morale, poor delivery of services, and cost overruns. We believe that it is imperative that the Director make resolving this issue his primary goal, and **we recommend that he utilize the *ABC's of Driver Recruitment and Retention* provided in the Appendix** to accomplish this objective. Some of the “ABC’s” may require Board/Administrative funding support, while others simply require a creative mind set. **We also recommend that he have the assistance of the Human Resources office for advertising job openings and planning recruitment events.** There is a severe driver shortage nationwide, so recruitment has to be considered an on-going activity, as opposed to a one shot endeavor. Many schools are finding success with referral fees and signing bonuses – much like sports teams, but without as many dollars. See the “ABC’s” for more information. There may be a benefit in sharing these best practices with the contractor.

One event quite popular in most schools is the use of annual safety awards, which is typically sponsored in part by the company that provides the District fleet insurance. Drivers want to work, and they want to be proud of where they work, and creating this type of work environment will foster improved recruitment/retention. A unique approach is to set up an online store where all District employees could order wearables with the District logo printed on them or embroidered. As an incentive for attendance, safe driving, going above and beyond, meeting certain goals, etc., the District could offer to reimburse that employee for a set dollar amount of purchases. For more information visit www.qbonlinestores.com. The start-up cost is only \$150 and includes uploading your logo.

MAINTENANCE

The shop is staffed with a Lead Mechanic, four Bus Mechanics, and one Auto Mechanic, responsible for the maintenance of the fleet of 161 DOT inspected route vehicles and 12 cars, as well as assisting Building and Grounds as needed with maintaining 46 utility vehicles

and 15 trailers. Counting the cars and utility vehicles as ½ bus each, and counting the Lead Mechanic as ½ time in the shop due to time needed for office duties, the bus to Mechanic ratio is 35:1 (190/5.5). Although not an unusual workload in Pennsylvania, it does indicate that they don't have much down time.

Within the transportation industry, ASE School Bus Certification is highly regarded as a method for insuring that an individual is knowledgeable about the type of vehicles he/she 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 most tests are \$41.00. To maintain their certification, mechanics are recertified every five years to ensure that they are staying current. Although it appears that the Mechanics have a good knowledge of the school bus fleet, and several have been certified in the past, **we recommend that at the very least, one Mechanic obtain and maintain 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.

In order to provide the Board and Administration with a monthly recap of transportation operations and maintenance, we **recommend that the Director complete a "Monthly Report"** - see sample in the Appendix.

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, any employment agreement should support and facilitate the provision of quality services to the students and the education community.

For the most part, 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. The handling of student discipline issues was raised as an important issue by both Principals and Drivers. Most school districts report that discipline is best when the standards are similar for the classroom and the bus, and that communications and follow up be consistent as well. Drivers expressed a need for improved communication between management and staff.

To stay on top of training 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 an affordable training package entitled *The Peaceful Bus Program* available at Hazelden.org. Training should be mandatory for District employees, with participants paid for their time. It can also be offered to contractor employees so that all are on the same page. Communication can be enhanced thru the use of a Department newsletter, employee updates inserted in their paystubs, and/or weekly/monthly/quarterly meetings – each focused upon a particular topic of interest. For other moral boosters, refer to the “ABC’s” referenced above.

We have reviewed the Collective Bargaining Agreement of July 1, 2016 – June 30, 2020. 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. We understand the critical and important nature of such employment, and we strongly believe that such employment needs to be consistent with the goal of providing quality, affordable transportation services. Additionally, we believe that such employment 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. At the same time the Agreement needs to reflect the realities of the labor marketplace.

Wages/Benefits – although bus driving is considered by many to be a part-time job, due to the extensive training, testing and licensing requirements, combined with the am/pm shift hours, most Drivers try to make it their full time job. They do so by attempting to pick up extra work outside of their shifts, such as mid-day shuttles, field trips, after school activity/sports runs, etc. For most it’s a ten month job, unless they can get some summer school runs.

Bus Drivers are guaranteed a minimum of 4 hours/day, with a current rate of \$20.80 - \$22.38/hour, depending upon hire date before/after 7/1/1996, with a \$.50/hour differential after 5 years of service. Mid-day

runs have a 1 or 2 hour minimum, depending upon the classification, and are paid at the regular rate of pay. Extra work is paid at \$17.50/hour with a 2 hour minimum. Very few Drivers work the minimum, with most working between 5-8 hours/day. Van Drivers earn \$18.14/hour.

Drivers are eligible for 7 sick days per year. Those who do not use any sick days in a school year will receive a \$1,000 attendance incentive payment. Those who use 1 or 2 sick days in a school year will receive a \$750 attendance incentive. Those who use 3 sick days in a school year will receive a \$500 attendance incentive. Drivers are also eligible for 1 personnel day per year. Bereavement leave is also available for 1-3 days per family member.

Health benefits are available to 10 month employees, with the District paying 86% of the employee coverage, and 60% of dependent coverage (40% if working 20 hours or more but less than 30).

They are also eligible for District provided Income Protection Plan, Life Insurance Plan, and the State Retirement System.

The District is commended for the attempts at controlling costs, such as sharing the cost of health coverage, lower sports/field trip rate, etc., but it has a downside, and that's Driver recruitment/retention. As seen below, the median base salary for a full time school bus driver in the Philadelphia area is \$35,053, plus a benefit package that brings the total compensation to \$52,426 annually. **To compete in this market, we suggest that the District attempt to implement as many of the best practices found in the ABC's provided as is feasible.**

School Bus Driver PHILADELPHIA, PA

Core Compensation Median % of Total

Base Salary \$35,053 66.9%

Bonuses \$0 0.0%

Value of Benefits

Social Security \$2,682 5.1%

401K/403B \$1,262 2.4%

Disability \$315 0.6%

Healthcare \$6,592 12.6%

Pension \$2,208 4.2%

Time Off \$4,314 8.2%

Total Compensation \$52,426 100%

Source: Salary.com

As a means for attracting Drivers, **we recommend that you restructure how the pay package is presented.** For example, if an employee is making \$20,000 in salary, and getting \$5,000 in insurance benefits, and \$X,XXX in retirement benefits, and \$X,XXX in paid days off, market the

position in such a way that it reflects the total compensation package, as opposed to stating \$XX.00 plus benefits. Advertising for a 4 hours/day position that may generate an annual compensation package of up to \$40,000 sounds more attractive than a position offering \$23/hour plus benefits.

The District offers an Attendance Incentive Plan. It calls for employees who take none, or a limited number days off during the school year, getting extra 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.

Regarding extra trips – We are 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.

FIRST STUDENT CONTRACT

The District has in place a contract with First Student, Inc. that replaced and superseded a similar 2007 agreement. The effective date of the existing contract is July 1, 2012 – June 30, 2018, with the option to extend by nine additional one year terms. Any extension beyond the initial six year term shall require the mutual agreement of the District and the Contractor.

The Contractor is required to provide the necessary buses and Drivers to fulfill the terms of the contract. The District is to provide the routing. The contract initially called for the Contractor to provide 90, 72p buses. That has grown to approximately 143 at the time of this study. Unfortunately, the Contractor has been unable to secure enough Drivers to fulfill the contract, leaving it to the District to fill the routes... as many as 15/day in recent months.

Certain penalties are in place should problems occur, summarized below:

6.1 When the Contractor fails to complete any route or any portion of any route, the amount of payment normally due shall be deducted, as will any costs incurred by the District.

8.7 If the depot manager is not available, a fee of \$600/day shall be deducted. If a bus leaves the depot 15 minutes or later than its designated time, a fee of \$150 per occurrence shall be deducted.

To encourage better compliance with the terms and conditions of the contract, **we recommend that the District consider the following penalty language in future contract renewals:**

The District has included non-performance damages in the event that financial remedies are needed to ensure a high-quality transportation service. It is not the District's intention, nor desire, to utilize this option unless it is deemed necessary. Prior to the implementation of any penalty, the District will attempt to meet with the Contractor to determine if there are any mitigating circumstances that have caused the service issue that might lead to the issuance of a penalty.

In view of the difficulty the District will suffer by reason of defaults on the part of the Contractor, the following sums are hereby agreed upon and shall be deemed damages for breach of this Contract:

- A. If at any time the Contractor fails to provide the approved number of vehicles or personnel as required by the Contract, the Board of Education shall deduct from it's monthly payment \$200.00 per day per/bus or per person/day for each occurrence said personnel is not supplied; plus there will be no payment for the services that were not provided.
- B. If the Contractor does not supply the necessary spare vehicles to operate the home-to-school program within a 20-minute reporting requirement, the District shall deduct from the monthly payment the pro-rata cost of the vehicle(s) for that day, plus \$50.00. In the event the spare vehicle does not arrive within one (1) hour, the penalty shall be increased from \$50.00 to \$100.00.
- C. This Contract envisions a quality, responsive transportation program that minimizes the District's involvement in the day-to-day operation of the program. Should operating problems occur which require the involvement of the District, the District reserves the right to officially notify the Contractor of such problems. Should similar operating problems reoccur within thirty (30) days, the District reserves the right to deduct \$100.00 from the monthly payment for each such occurrence.
- D. If at any time the Contractor uses a driver in the performance of this Contract who has not been approved by the District and/or does not meet the requirements of the State, the Contractor is liable for deductions of \$300.00 per day from the monthly billing for service for each driver so employed.
- E. A reliable transportation system is important to meet the educational requirements of the students and the District. To this end, students must be picked up in the AM in a timely and consistent manner, and students must be delivered home in the PM in an efficient manner. If a bus is more than 15 minutes late in the AM, or PM, the District reserves the right to deduct \$100 from the monthly billing. Should situations beyond the control of the Contractor cause the late pick-up (weather; traffic), the penalty will not be assessed.
- F. Extra-curricular transportation is an important element of the District's educational program. Therefore, it is expected that the Contractor will meet the District's needs given that the District duly informs the Contractor of any trip at least 24 hours ahead of said trip. Failure by the Contractor to provide the necessary driver(s) will result in non-payment by the District for the trip, a \$250 per missed trip penalty deduction from any payments due to the Contractor under this Contract, and a reimbursement to the District for any financial damages that the District may incur as a result of the missed trip (e.g., referee fees, entrance fees, etc.).

- G. The District requires that all buses that are utilized in the performance of this Contract(s) have operating and active two-way radios, or comparable communication devices (cellular phones). The District shall be provided the frequency by the Contractor (or the phone number), and the District reserves the right to operate a District-provided scanner. Additionally, the District requires that all out-of-district buses be equipped with effective communications equipment (radios or cell phones). A \$50 per day per bus penalty may be assessed for any vehicle that does not comply with this requirement. Buses are also required to have working cameras and recorders. A \$200 penalty shall be assessed whenever a request for a recording cannot be provided.
- H. All vehicles shall be GPS equipped, and failure to provide unlimited access to the GPS system information shall result in a \$100/day penalty.
- I. As noted in these Specifications, the Bidder and/or drivers are prohibited from changing any routes without prior District approval. If such unauthorized changes are made, the District reserves the right to withhold payment for any runs that are modified in an unauthorized fashion. In the event substitute drivers are utilized, and the routes are not followed due to poor directions or unauthorized changes, payment for those runs may be withheld.
- J. Buses are required to carry proper route identification signs. This identification is essential for the school staffs and pupils to identify the buses. Buses displaying no identification at all or more than one identification, or the wrong identification, generates confusion, inefficiency, and is sometimes costly in duplicating transportation. In order to enforce the requirements to display the prescribed identification, the School District reserves the right to levy a cost of \$50 per day as liquidated damages for each bus run operating in violation of these requirements.
- K. The District requests that the Contractor supply a Monthly Report (sample in the Appendix) to the Administration by the 5th day of each month. Failure to provide this report in a timely manner shall result in a penalty of \$100.00 day for every day it is late.
- L. The School District shall have the right to terminate the Contract at the end of the current school year where the Bidder has failed to meet its obligation under the Contract, as evidenced by non-performance damages pursuant to these specifications, which equals or exceeds \$5,000 in any Contract Year. It is understood and agreed by the Bidder that the assessment of penalties set forth in these specifications shall be in addition to the right of the District to

terminate this Contract for any of the reasons set forth herein, and that in the event of termination, the above penalties will be applied for the full period of non-compliance within any applicable notice period. In the case of termination under this Contract, the School District shall also have the remedies to which it is entitled pursuant to these Contract documents. The rights of the School District under this paragraph shall not impede or limit the rights of the School District pursuant to any applicable sections of the Contract documents and shall be in addition thereto.

- M. All vehicles are to be equipped with digital cameras that provide complete coverage of the interior of the bus. Upon request, digital recordings requested by the District are to be provided within 24 hours. Failure to provide the equipment shall result in a penalty of \$50.00 per day, per vehicle. Failure to provide the requested recording within 24 hours shall result in a penalty of \$100.00 per request.

As stated, it is not the District's desire to utilize the penalty provisions unless it is deemed necessary. To this end, the District shall accumulate any penalties and delay any assessment to the Contractor unless and until the accumulated penalties reach or exceed \$1,500 in any school year. Should the assessment level be reached, the District reserves the right to assess all accumulated penalties. During the term of any accumulation, the District will provide the Contractor notice of penalties assessed and provide the Contractor an opportunity to respond to the District's determination.

These provisions for liquidated damages shall not be regarded as a waiver by District of any other rights to which it may be entitled in the event of Contractor's default, but rather, such remedy shall be in addition to any other remedy lawfully available to District.

It is expressly understood by the Bidder that the Board of Education, by not exercising its rights, or by waiving any of the provisions of this Contract, or by exercising the provisions of this Contract in a particular way, the Board shall not be deemed to have waived any of its rights or the Contract requirements.

ROUTING

CURRENT PROGRAM

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

BELL TIMES

The District operates on a two-tier system, transporting the 8,931 HS/MS students first, followed by the 7,139 ES students on split schedules, as follows:

	<u>Start Bell</u>	<u>End Bell</u>
<u>High Schools</u> (3) East, West, South Grades 10-12	7:25a.m.	2:30p.m.
<u>Middle Schools</u> (5) Tohickon Grades 7-9 Holicong Grades 7-9 Lenape Grades 7-9 Tamanend Grades 7-9 Unami Grades 7-9	7:30a.m.	2:30p.m.
<u>Elementary Schools</u> (15) “A” Schools Bridge Valley, Cold Spring, Doyle, Gayman, Jamison, Mill Creek, Pine Run, Titus	8:35a.m.	3:15p.m.
“B” Schools Buckingham, Kutz	8:50a.m.	3:30p.m.
“C” Schools Barclay, Butler, Groveland, Linden, Warwick Grades K-6	9:05a.m.	3:45p.m.

The District is also responsible for transporting 1,481 non-public students to 50 locations, and 598 special needs students to 42 locations, as well as 15 McKinney Vento (homeless) students.

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 two tiered (also referred to as double tripped). Based upon our review of

the route data provided (included in the Appendix), coupled with our interviews, it appears that although the current route structure as designed is making efficient use of the vehicles available to transport the in-District students, triple tripping the fleet would allow the same number of students to be transported on fewer buses.

Of the 500+ reviews we've conducted over the past thirty years, the vast majority of schools are multiple tripped. Some smaller districts are single tripped, but transporting all students at the same time naturally requires a much larger fleet. Decreases/elimination in transportation subsidies, combined with increases in mandated transportation, have all districts looking at ways to improve efficiency. A triple-tripped fleet requires fewer buses and drivers to transport the same number of students as a single or double-tripped fleet. This results in the remaining buses having more miles, and the remaining drivers having more hours – typically 6 hours/day for am/pm drivers. Since most buses “age out” before they “wear out”, the additional miles are not usually a negative factor.

Under “true” triple tripping, the entire fleet makes three trips throughout the district, transporting students in different grade levels at the same time. However, the reality of school bus routing is that due to reasons noted below, there are very few examples of “true” fleet tripping of routes, 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 and after school activities
- Fleet configuration
- Geographic size of district (i.e.: short vs. long runs)
- Federal/State/local mandates (NCLB, Choice, etc.)

To analyze routing, we typically look at the number of seats available per bus and the number of students per bus, per run. For example, a 77 passenger bus may be able to seat 77 elementary grade students, but only 51 secondary grade students, as the seats are designed for three 13” passengers. 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 less than capacity. While filling a bus is the goal of efficient routing, it is not always feasible due to these reasons. The practice of allowing students to ride different buses at different times (daycare and babysitter changes, the use of route buses as shuttle 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. Too many individual route stops also slows things down, further compounding the tight timeframes.

To evaluate routing efficiency, we only look at buses serving regular education students, as vehicles used for other purposes (Special Education, private/parochial, Head Start, etc) cannot always be routed for efficiency. Due their specialized use, we do not include them in our calculations, even though some may be used for regular runs. For this analysis, we focused on the full size buses used on District routes*, as seen below:

$$\begin{aligned}
 78p \times 5 \text{ buses} &= 780p \quad (5 \times 2 = 780p) \\
 77p \times 66 \text{ buses} &= 10,857p \quad (7 \times 1 = 539) + (43 \times 2 = 6,622) + (16 \times 3 = 3,696) \\
 36p \times 1 \text{ bus} &= 72p \quad (1 \times 2 = 72) \\
 72 \text{ buses} &= 11,709p \text{ seating capacity on District buses}
 \end{aligned}$$

Of the fleet provided by First Student, we found:

$$72p \times 101 \text{ buses} = 12,600p \quad (34 \times 1 = 2,448) + (60 \times 2 = 8,640) + (7 \times 3 = 1,512)$$

**Some buses are single tripped, double tripped, or triple tripped and the appropriate multiplier is used in the formulas above.*

Total capacity of the combined fleet is 24,309 students. Although it can be possible to fill the buses at the elementary level, due to backpacks, musical instruments, etc., most often a lower percentage is used, typically 85%, or 65 students on a 77p bus. At the secondary level, due to the seat design of 13" per student, a lower percentage is used, typically 65%, or 50 students. Again, these are averages.

To measure projected efficiency levels against actual, it is necessary to determine how many students are being transported at each of the

grade level groupings. Based upon the information provided, of the 18,206 students enrolled, 17,657 are eligible for transportation, and 15,626 regular education students are assigned – 8,742 at the HS/MS level, and 6,884 at the ES level. Given that roughly 50% of the students eligible are HS/MS students, for the sake of projected capacity need we would estimate a routed capacity of 75% (50% of the difference of the 65% and 85% averages noted above), or 58 students on a 77p bus (or 54 students on a 72p bus). With a total capacity of 24,309 x 75%, the fleet as currently utilized should be transporting 18,232 students to be considered efficient. This compares favorably to the 17,657 students that are eligible for transportation (97%), of which 15,626 are assigned (86%).

The District reports that it currently uses a few more buses on the HS/MS AM runs than on the PM runs. This not uncommon, as those students tend to participate in after school activities, decreasing the need for as many school-to-home buses in on the PM runs. Some of these same buses are used to transport non-public school students, which helps to explain the higher number of buses used overall. Currently HS and MS students are transported together, resulting in most buses being double tripped, although varied bell times at the ES level has allowed a limited number of buses to triple trip (16 District buses and 7 contracted buses). If the HS and MS students were transported separately at different bell times – perhaps to allow for a later start time for the HS students – then fewer buses and Drivers would be needed. As an optimistic estimate, with 103 double tripped buses currently utilized, District-wide triple tripping could result in the need for 5-10 fewer buses and Drivers. The number of buses that can be saved will depend in part how the non-public runs can be integrated with the new District runs.

We understand that consideration is being given to a later start time for HS students, and the only way we see that it could be done without increasing costs significantly would be to move the routing structure to a true triple tripped bell time schedule District-wide. If the bells are only adjusted for the HS students, given your current load factors more buses would be needed to transport those students at a bell time similar to the ES students. Consideration also needs to be given to the impact a later start and end time will have on after school activities and related transportation. **We recommend that triple-tripping be considered as a way for reducing or controlling costs.**

It is worth noting that of the 122 District route buses, 96 are utilized on regular routes, and of the 129 contracted buses, 75 are utilized on regular routes. Therefore, 68% of your regular route fleet transports 88% of your students, with the remaining 32% of the fleet transporting the other 12% of students (SpEd, non-public, homeless). The District could service the vast majority of students with a smaller District-owned fleet if it chose to contract out more of the runs dedicated to the 12% of students. It would not be necessary to do this all at once, but it could be seen as a way to address Driver shortages and fleet replacements by contracting out additional runs as they become available. Of course it would be necessary for the contractor(s) to have the ability to properly staff for the additional workload.

It was noted during the study that although a student ridership count is performed periodically, there is no tracking of who actually rides the buses every day. To track actual ridership, there are two methods. One is by purchasing the necessary equipment and software to scan student ID's as they enter and exit the bus. This is effective, but quite expensive. **We recommend the second method, which is manually recording ridership for one week to get the information.** Some schools make this a HS project for math/statistics class, assigning students to buses in the AM and PM for the survey week. Using the results, routes can be adjusted as needed.

**POLICIES
&
PRACTICES**

Transportation is provided for Elementary School students living beyond 1.5 miles, and for Middle School and High School students living beyond 2.0 miles, from their schools. Furthermore, any student who must walk along hazardous routes must be transported (as determined by PennDOT), as well as students attending nonpublic or charter schools not more than 10 miles from the District boundary, and any student transported as the result of special needs designation, and homeless students eligible for such transportation. These policies do not preclude students from walking to group bus stops.

We're told that stops are evaluated every summer, as well as when questions come up. To aid in the evaluation of stops, we have provided guidelines in the Appendix.

MANAGEMENT OPTIONS

Our review of the transportation program includes an analysis of management options available to the District. We have included an evaluation of the pro's and con's of operating alternatives that may be of interest to the District in the years ahead:

1. Continue to operate as is, making recommended changes.
2. Convert to more contracting.
3. Grow the in-District operation.

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 the other options; savings may be realized, particularly from changing some bell times.

Con's: The District can expect initial pushback from some parents and teachers in regards to changing bell times. The District may continue to face budgetary concerns associated with the economy and increasing demands for services.

2. CONVERT TO MORE CONTRACTING.

Under this option, you would downsize your fleet and reduce your staff. You could choose to contract more of one aspect of the program – out of District runs, for example, while focusing on providing just in-District runs. (You are restricted to adding new routes and/or filling vacated District positions until the end of the current labor agreement in 2020.)

Pro's: The District would, relatively speaking, be less involved in the business of transportation. A significant amount of administrative time and effort now devoted to transportation (payroll processing, accounts payable, benefits administration, budgeting, purchasing,

etc.) could be reduced. The District would receive a cash infusion due to the sale of some of the fleet. A competitive bid environment may result in savings. Labor related issues such as recruitment and training would become less of a responsibility. Annual contract cost increases could 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 more of the program would be out of District control, which may 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 expansion. The cost of sports and field trips that you don't run yourselves typically increases faster than the cost of home to school transportation.

3. GROW THE IN-DISTRICT OPERATION.

Under this option, you would cancel some or all contracts, build or lease another facility, buy or lease a fleet of buses, and hire enough staff members to operate the program.

Pro's: The District would be in complete control of the program, not having to rely upon outside vendors to provide the required services.

Con's: The District could expect to initially spend a considerable sum of money to get into a new facility, and purchase or lease additional buses. Just replacing the First Student fleet would require an outlay approaching \$12,000,000, and a facility large enough to park and maintain that fleet could add at least another \$2,000,000. Based upon in-District labor/benefit costs, the overall cost of operating transportation could increase.

Based upon the findings of this report, **it is our recommendation that unless contract costs rise significantly, the District should continue to operate the program as is, with a program split between in-house and contracted services, making as many of the recommended changes as possible (Option 1).**

APPENDIX

- A DISTRICT PROVIDED DATA
- B BUS STOP GUIDELINES
- C SAMPLE FORMS and MONTHLY REPORTS
- D ABC'S OF DRIVER RECRUITMENT
- E BUS ROUTING INFORMATION
- F PRINCIPAL FAX SURVEY

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