## Transportation

School Board Report January 30, 2012

## Quick Facts:

28,215 students transported in 2010-2011 (ODE report)
3,295,960 miles driven in 2010-2011 (ODE report) Current fleet - 314 vehicles ( 252 routes daily, 62 spare buses).

142 Regular Education Routes, 110 Special Needs Routes.
Drivers - 267 and 10 On Call
Office Staff and Mechanics - 11 part time and 29 full time
Facilities: Transportation Support Center (NW 167th PL)- Shop \& Offices,
Fifth Street Station (SW 5th Street) offices only, SW Allen Blvd-shop only
Hours of Operation: M - F 5:00 AM to 10:30 PM; Weekends-open for trips and OSSD in Salem We provide local attendance service to District schools, plus extended (across District service) to both K-8 and Options Schools. We provide shuttles for Health Careers, Math Programs, and Auto Shop.

Beaverton Pupil Transportation is cost effective and efficient. Oregon Department of Education tracks all Districts Pupil Transportation costs per student on the ODE website.
Beaverton's cost per student is lower than Portland Public, Hillsboro, Tigard-Tualatin, North Clackamas, Reynolds, Oregon City, West Lynn, David Douglas, and Gresham-Barlow School Districts. (Source - ODE Report - Actual Transportation Expenditures per student 2009-2010, Budgeted Transportation Expenditures per student 2010-2011).
We do a tremendous job serving an increasing number of students and programs with increasingly broad parameters while managing our costs effectively.

2007-2008 budget - \$16,466,974 Students Enrolled - 37,812
2011-2012 budget - \$15,933,988 Students Enrolled - 39,054
Cleanest publicly owned School Bus fleet in the State (ULSD and particulate traps).
204 Low emission buses (65percent of the fleet)
228 Low emission buses with CMAQ (Congestion Mitigation and Air Quality Improvement program) retrofits (73 percent of the fleet)
$61-2007$ and 2010 Low emission buses (19 percent of the fleet)
143 Low emission buses with, ARRA , EPA and district funded retrofits (46 percent of the fleet)
24 CMAQ (Congestion Mitigation and Air Quality Improvement program) retrofits pending release of program funding (8 percent of the fleet)

## Budget

 2011-2012\$15,153,386.00 Total Budget \$1,774,838.00 Fuel \$12,409,305.00 Salary \& Benefits

Fuel Contract:
Currently in the 2nd year of a 5 year annual renewable contract with Bretthauer Oil. Diesel for school districts receives a combined Federal and State tax exemption of \$0.55/ gallon.

Bus Purchases are achieved through RFPs or the use of permissive cooperative purchasing agreements from other districts.


## Approved Transportation Costs (ORS 327.043)

Approved transportation costs shall include those costs incurred in transporting pupils to and from instructional programs during the regularly scheduled school term within the limitations specified by ORS 327.006 and 327.033. Approved transportation costs may include costs incurred in transporting students participating in extended school year programs eligible for funding from the State School Fund.

Approved transportation costs shall include those district expenditures associated with:
(a) Home-to-school transportation of elementary school pupils who live at least one mile from school;
(b) Home-to-school transportation of secondary school pupils who live at least one and one-half miles from school;
(c) Transportation of pupils between educational facilities either within or across district boundaries, if the facilities are used as part of the regularly-scheduled instructional program approved by the Board;
(d) Transportation of pupils for in-state field trips when such represents an extension of classroom activities for instructional purposes, and shall include out-of-state destinations within 100 miles of the Oregon border;
(e) Transportation of pupils home to school for whom a supplemental plan has been approved by the State Board of Education in addressing safety, health, and special education needs;
(f) Transportation of preschool children in Early Childhood Special Education Services having an Individual Family Service Plan requiring transportation and preschool children receiving Early Intervention Services under the authority of ORS 343.533.
(g) School to home transportation following extended school day instructional programs for:
(A) Elementary school pupils who live at least one mile from school;
(B) Secondary school pupils who live at least one and one-half miles from school.

## Approved Transportation Costs (OAR 581-023-0040)

Pupil Transportation Salaries. Salaries and wages paid school bus drivers, assistants to driver, and that portion of salaries paid mechanics and other bus maintenance employees, supervisors of transportation, secretarial and clerical assistants, and persons assigned transportation oversight and coordination responsibilities attributable to the transportation program and documented through position descriptions and payroll records. No school district General Administration salaries may be included in this area;

Pupil Transportation Supplies, Equipment, Repairs, and Maintenance. Costs of gasoline, oil, lubricants, tires, tire repair, batteries, vehicle diagnosis and repair equipment identified as capital expenditures in the "Program Budget Manual," vehicle repair parts and supplies, repair of vehicles by other than the school district, garage maintenance and operation, and garage equipment repair and maintenance;

Travel of Pupil Transportation Personnel. Meals, lodging, mileage, per diem and other travel expenses of pupil transportation personnel, and private car mileage if paid to bus drivers for travel to and from the point where school bus is parked if other than the central garage. The same travel expenses plus tuition or registration are included for attendance at Department of Education sponsored or presented pupil transportation training programs and seminars;

Employee Benefits on Pupil Transportation Salaries. The district's contributions for employee benefits including social security and retirement, employee health insurance, workers' compensation, and unemployment insurance;

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## Excluded Costs:

Approved transportation costs shall exclude those district expenditures associated with transportation for the following unless the school program is required under provisions of the Individuals with Disabilities Education Act, ORS 343.533 or 339.010 through 339.090 and 339.250:

Pupils living within the limits prescribed in ORS $327.006(2)$ for whom no supplemental plan has been approved by the State Board;

Activity trips other than for instructional purposes;
Athletic trips; School lunch purposes; Summer school;
Adult education;
Evening school;
Preschool and/or nursery school;

## Depreciation

For purposes of computing depreciation, capitalized cost is defined to include the unit cost of the asset, exclusive of interest, for such assets purchased outright, by conventional contract, or by lease-purchase agreement if such agreement contains any provision to acquire ownership at the end of the agreement by application of a portion of the rentals paid or a terminal payment. The computation of the capitalized cost and the depreciation shall be according to the following:
(A) Portions of Garages and Other Buildings Used for Approved Pupil Transportation:
(i) Outright purchase (including purchase by conventional contract). For each outright purchase or purchase by conventional contract, each district shall report to the Oregon Department of Education, on the forms provided, the unit cost of the garage or other building purchased and the dollar amount of interest payments associated with such purchase. The capitalized value shall represent the unit cost, exclusive of interest. Depreciation shall be computed at an annual rate of four percent;
(ii) Lease-purchase agreements. For each lease-purchase agreement, the district shall report to the Oregon Department of Education, on the forms provided, the dollar amount of the agreement, the interest payments contained in the agreement, and the schedule of such interest payments contained in the agreement. Subsequent to July 1,1975 , the capitalized value shall represent the lease-purchase price less any interest payments contained in the agreement. Depreciation shall be computed at an annual rate of four percent.
(B) Buses and Other Vehicles Used for Approved Pupil Transportation:
(i) Outright purchase (including purchase by conventional contract). For each outright purchase or purchase by conventional contract, each district shall report to the Oregon Department of Education, on the forms provided, the unit cost of the vehicle (s) purchased and the dollar amount of interest payments associated with such purchase. The capitalized value shall represent the unit cost, exclusive of interest. Depreciation shall be computed at an annual rate of ten percent;

## General School Bus Information:

## Safety

Riding in a school bus is much safer than using any other form of transportation - including personal vehicles and railroad and airline travel. The National Academy of Sciences, The U.S. Department of Transportation and other authorities agree that school buses are the safest form of transportation for getting children to and from school. Some 480,000 school buses transport 26 million children - more than half of America's school children - each day, and complete 10 billion passenger trips and 4.3 billion miles per year, almost always without a serious incident. According to the Transportation Research Board, a part of the National Academy of Sciences, a child is 13 times safer in a school bus than in other modes of travel. Children driving to school or riding with other teenage drivers are 44 times more likely to be fatally injured than in a school bus. ("The Relative Risks of School Travel," 2002).

## Environmentally Responsible

By providing convenient transportation for millions of school children, school buses reduce the number of cars that would otherwise be on the road. The school bus helps parents save money on gasoline, reduces traffic congestion (especially around school walking zones, where our children are most vulnerable) and also reduces the nation's dependence on oil.
Model year 2007 school buses are 96 times cleaner than those built before 1994, and, as older buses are replaced with newer, cleaner burning ones, they will further reduce our pollution and fuel usage. If all 26 million children who ride the school bus each day were driven by their parents instead, a substantial amount of additional carbon monoxide would pollute the air each year. School bus manufacturers also are making large investments in new diesel, natural-gas, electric hybrid and other engines to further reduce pollution.

Imagine the impact to traffic and air quality if the approximately 1400 students we transport to and from Westview High School each day travelled by car.
We serve this school with 28 regular education buses.

## Personnel

From dispatcher to driver to mechanic, there is a trained professional looking after the District's students safety at every step of the trip.

School bus drivers are the most highly trained, tested and scrutinized drivers on the road. All school bus drivers must obtain a Commercial Driver's License (CDL) and must pass written and skills tests to obtain a School Bus Endorsement.

Once they have their licenses, drivers receive specialized classroom and behind-the-wheel training in driving a school bus, student loading/unloading procedures, student evacuation, student behavior and security management, and emergency medical procedures. They are required to attend a minimum of 8 hours of training a year. School bus drivers are carefully monitored by the District and the Oregon Department of Education.

In addition, all school bus drivers are required to participate in pre-employment, random and post-accident drug and alcohol testing, frequent driving record checks, and pass periodic medical exams to ensure they are physically qualified. These drivers also must pass background checks prior to employment.

## Transportation has eight internal departments:

## 1) Dispatch:

## 2 full time \& 4 part time

Buses are dispatched via radio for regular, special education, fieldtrips and athletics.

Two-way radio communication between buses and our dispatch centers is an essential component of student transportation. These radios allow our dispatchers to relay information to and from our drivers, to parents, schools, and emergency services. Dispatchers generally work in two person teams to manage the high volume of radio traffic and phone calls.

Beaverton Transportation operates two dispatch centers, each of which is responsible to monitor one of our two radio frequencies. 5th Street Dispatch monitors 118 drivers serving Special Needs programs, while TSC Dispatch monitors 149 drivers serving regular education schools.

On an average day, our dispatch centers will handle approximately 1800 radio transmissions to and from our drivers. During the first day of the 2011-2012 school year, our dispatch centers handled 3,903 radio transmissions.

## 2) Routing:

7 full time

The routing department produces regular education, special needs, kindergarten, afterschool, snow, options and summer routes. In addition they process thousands of parent and driver requests each year.

Routing underwent a very ambitious evaluation of all regular education routes during the summer of 2011. The rapid urban development in Beaverton, especially the replacement of large rural lots with high density housing, along with population changes, meant that many of our routes were no longer optimal and efficient. Many stops were removed in accordance with School Board Guidelines in order to save fuel, time, and maintenance costs. This resulted in an estimated $\$ 500,000$ in savings annually.

A new Routing System RFP was finalized last summer, Implementation of the new system will be done gradually this school year. This system should greatly improve efficiency through a much easier user interface that allows changes to be made faster without some of the current system's bugs. Summer 2012 routes will be created and run on the new system. Full implementation for all routes will occur this Fall.

## 3)Training:

1 full time and 3 part time

The training department maintains records and assures compliance of nearly 300 drivers, It runs ODE classes and tests for DMV. In addition, they conduct physical agility tests for all drivers and do recertification for drivers age 70 plus.

Each trainer is State ODE certified as a Behind the Wheel Trainer, DMV 3rd Party Tester, and 3 are ODE certified Classroom Instructors for classes such as Medic First Aid, Defensive Driving, Winter Driving, and Student Management courses. They teach 23 different classroom courses to drivers, average 65 classes a year and instruct approximately 815 drivers in a school year.

## Training (con't)

We train an average of 42 new bus drivers annually. Each training averages between $25-30$ hours of behind the wheel training and 10-12 hours of class room time per trainee. Behind the Wheel Training also includes instruction, demonstration and practice of proper chaining of tires, proper pre-trip and how to transport Special Needs Education students.

We are involved in Safety Exercises (Bus Road-e-o) at the regional and state level. We have produced award winning BSD teams at both.

We are active members in the Oregon Pupil Transportation Association. We maintain training records on all licensed employees (approximately 300) electronically and by hard copy files. The records include all District, State and Federal training, classroom and licensing requirements. We also monitor drivers (approximately 215 drivers) who must renew their physical/medical examination and Agility Test annually.

We perform bi monthly OR-DMV Driver History checks to ensure that our drivers CDL are valid to drive the school bus. that they have no collisions or citations in the past 60 days.

The Training Dept. produces a monthly Newsletter from August through May for Transportation employees. We submit articles to the School Parent Newsletters monthly on Transportation articles.
We support, teach and advocate the PBIS program (student management) used by most of our schools. We are involved in District and Community activities: in the Beaverton Parade, school charities, attend school nights and perform semi annual State mandated school bus emergency evacuation drills at the schools. We complete 100 or more Driver Performance Evaluations a year. This evaluation allows for a consistent high quality driver for the District by reducing vehicle abuse, accidents and improve student management.

The Training Dept. is knowledgeable in all District, State and Federal laws, rules, and regulations related to pupil transportation.

## 4) Safety

## 1 Fulltime and 3 part time

Safety assists with driver evaluations, assesses bus stops and safe walk routes to school. They measure school attendance areas for supplemental plans and respond to and investigate accidents. They are responsible for the department Safety Committee and assist with road observation and ride evaluations. They plan and conduct driver in-services. In addition they review bus video and assist drivers and schools.

All members of the Safety Department have taken additional training to perform their various tasks. All are Behind the Wheel Trainers with the Oregon Department of Education. and have taken the Crossing Guard Class. All have taken the Signs and Symptoms of Drug Use/Alcohol Misuse.

## 5) School Bus Maintenance

The District's School Bus maintenance team is comprised of two service technicians, nine repair technicians, one foreman, one operations assistant (parts and materials acquisitions), one office assistant and a maintenance supervisor. Technicians and supervisors are all Oregon Department of Education certified school bus technicians. Collectively this group of technicians has 184 years of experience maintaining the districts school buses. This team excels at maintenance for the District's fleet and keeping up with State and Federal regulatory guidelines for school bus maintenance and operation.

Maintenance is completed at the TSC and Allen facilities. Routine inspections occur at 2500 mile intervals for large engine buses and lubrication maintenance occurs in conjunction at 7500 mile intervals. Routine inspection and lubrication maintenance occurs each 3000 miles for small engine buses. At one year intervals annual inspections are scheduled. These are extensive inspections that involve wheel and brake drum removal for brake inspections.

With little exception all repair requirements are accomplished in house.
In addition to scheduled maintenance the maintenance team will manage and complete repair tasks from over 7,000 driver reports and repair orders.

## 6) Field Trip and Billing

2 Part time
Handle all field and athletic trip scheduling. Trips run 24/7. They track driver hours and trip rotation for drivers as well as billing for schools.

## 7) IT

1 full time
Transportation has its own support specialist dedicated to meeting the unique needs of transportation. He provides desktop assistance to transportation employees, creates custom applications, and uses SQL and report writing skills to analyze data for the management team, which saves countless hours of labor. He also administrates and provides support for applications that are unique to transportation, such as our routing, payroll, fleet management, and multiple video security systems. He's involved in the strategic planning of certain projects, such as implementing the new routing system, and the re-routing project that was carried out in 2011.

## 8) Payroll

One full time
Handles all payroll for nearly 300 drivers.
Assures that missing punches are accounted for and absences correctly recorded.

## Fleet

Beaverton school buses come in various designs and capacities. Some are constructed on van chassis and carry less than 20 passengers. Others are built on unique school bus chassis and can carry up to 84 passengers. Additionally, school buses have numerous differences in terms of standard and optional equipment, and manufacturer types. The school bus fleet is composed of buses of various ages with different mileage accumulations. It is a remarkable fleet of vehicles.

## Fleet Age

Special Education buses
126 buses ranging from 1989 to 2011 (Based on delivery year)
Average age: 9.5 years

## Regular Education Buses

188 buses ranging from 1992 to 2011 (Based on delivery year)
Average age: 8.9 years

Fleet average age for 2012: 9.1 years

52 buses have been in service for 15 to 20 years.
142 buses are 10 years old and older ( 45 percent). Depreciation ended

The school District is working to reduce fleet emissions. The first diesel particulate filter was installed during February 2004. Since that date an additional 135 buses have had diesel particulate filters added and all open crankcase engine buses were retrofitted with closed crankcase ventilation systems. In addition 68 new buses were added that were equipped with diesel particulate filters from the manufacturer. This equates to 204 clean exhaust ( $95 \%$ emissions reduction) school buses out of the 314 buses that make up the districts school bus fleet. It is anticipated that an additional 21 buses will receive retrofit devises with the release of CMAQ (Congestion Mitigation and Air Quality) improvement program grant funding.

## National School Bus Facts:

The nations fleet of 480,000 Yellow School Buses provides safe and environmentally friendly transportation to 26 million children everyday

Each bus travels an average of 12,000 miles annually
The yellow fleet represents the largest, most heavily regulated and safest mass transit operation in North America
There are more school buses than planes, trains and transit buses combined Every school bus reduces traffic by 36 cars
For the 180 school day year, national fuel savings are 2.3 billion gallons or 6.0 billion dollars (See attached for Beaverton data)
Yellow School Buses support academic achievement with equal access to educational opportunities
School bus drivers are the first and last student contact each day
New diesel standards make today's buses $96 \%$ cleaner than buses manufactured in 1994

They offer a unique combination of safety features, some of which are:
Highly visible color
The overall size and height of the school bus
The traffic control devices such as the flashing warning lights and stop arms
Window, door and roof emergency exits
Passenger safety devices such as compartmentalized seating
Steel framed fuel tanks
Strong construction techniques such as reinforced sides, roofs and rear ends

## Challenges:

## McKinney-Vento (NCLB) Transportation

Currently we are transporting 61 shelter students and there (6)awaiting transportation. Of these six: One is waiting for transportation to Elmonica ES and lives out on Germantown Road. Transportation has been difficult to provide due to location and unsafe turnaround for our buses. One is waiting for transportation to Kinnaman ES and lives on Straughan Rd. Transportation has been difficult to provide due to location and unsafe turnaround for our buses. Other difficulties and challenges we are faced with are the time frame in which services are required. The furthest NCLB students we are transporting now are in Tigard, at the Good Neighbor Center. In addition we are required to transport students to school of choice in the 2nd year of a failing grade for their existing school. This will place an additional burden on the transportation system.

## Aging Fleet

52 of our buses are 15 years or older
87 of our buses are between 10 and 15 years
There are increased costs associated with an older fleet. No warranty claims to file. Parts become more difficult to find and there are more break downs. In addition older buses do not have the newer safety features and many cannot be retrofitted for emission reduction.

## Driver Shortage

Most years we run from between 10 and 20 drivers short. Although we actively recruit, we are not able to find enough suitable candidates. One of the draw backs of the position is the split shift. The driver shortage places a burden on office staff. Most staff are licensed as school bus drivers. They are frequently called on to drive routes and trips. These interruptions negatively impact their workload.

## Narrowbanding

The FCC Narrowbanding goes into effect January 1, 2013. Nationwide licensees operating on 25 kHz radios systems will need to operate using 12.5 kHz efficiency channels. This will allow for the creation of additional channel capacity within the same radio spectrum and support more users. Many of our existing bus radios are not narrow band capable. In addition we will need to add repeaters to adjust for the resulting coverage change. The estimated cost to the District is $\$ 100,000$.

## Allen Shop

The Allen shop is over forty years old. Most of the structure is outdated and there are some safety concerns. The inground hoists need to be replaced. They leak and some have failed to support the weight of a bus.

## Petroleum Products

There has been a dramatic increase in the cost of petroleum based products. As an example, the price of our most commonly used bus tire has increased by $60 \%$.

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Each bus travels an average of 12,000 miles annually
The yellow fleet represents the largest, most heavily regulated and safest mass transit operation in North America

There are more school buses than planes, trains and transit buses combined
Every school bus reduces traffic by 36 cars
For the 180 school day year, national fuel savings are 2.3 billion gallons or 6.0 billion dollars (See attached for Beaverton data)
Yellow School Buses support academic achievement with equal access to educational opportunities

School bus drivers are the first and last student contact each day
New diesel standards make today's buses $96 \%$ cleaner than buses manufactured in 1994

Yellow school buses are very unique vehicles, yellow being the operative word! They offer a unique combination of safety features, some of which are:
The overall size and height of the school bus
The traffic control devices such as the flashing warning lights and stop arms Passenger safety devices such as crossview mirrors and walk gates that enhance the visibility of the students outside the bus
Strong construction techniques such as reinforced sides, roofs and rear ends

