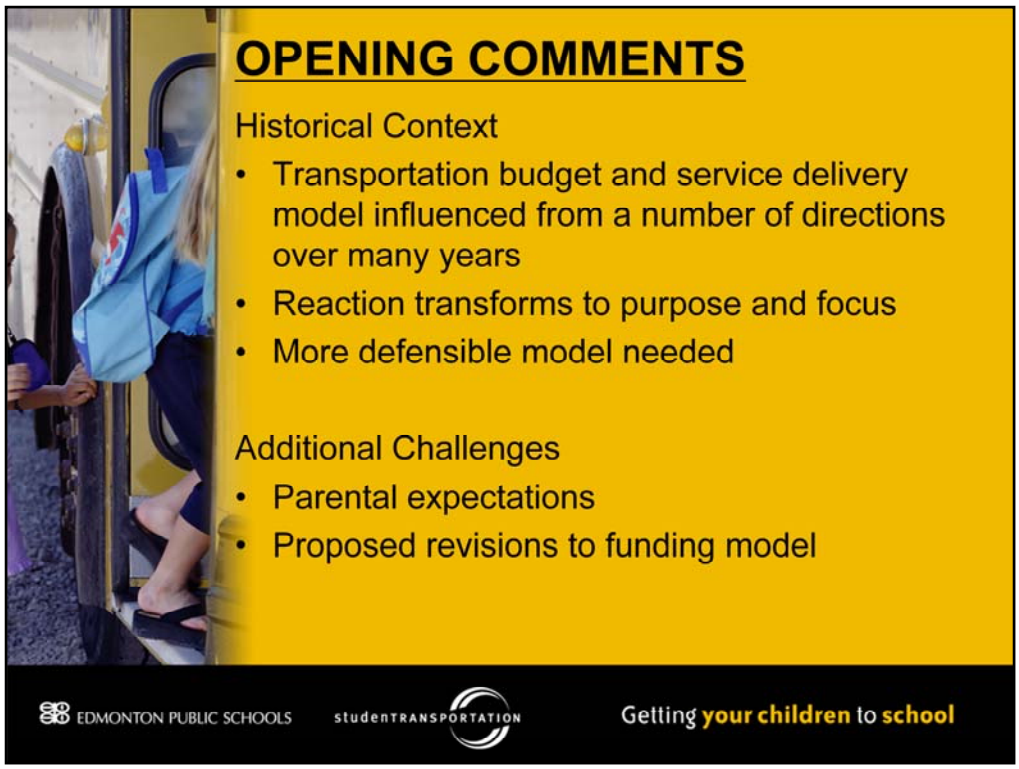

Student Transportation
ACTION PLAN
EDMONTON PUBLIC SCHOOLS
Getting your children to school
studentTRANSPORTATION



Good Evening, Mr. Chair, Trustees, Superintendent Schmidt,

Joining me this evening in the presentation is Mr. Chris Wright – Manager of Student Transportation.

Prior to the main body of the presentation, I want to frame some of the challenges facing our transportation service delivery model in a broader historical context.

Historical Context

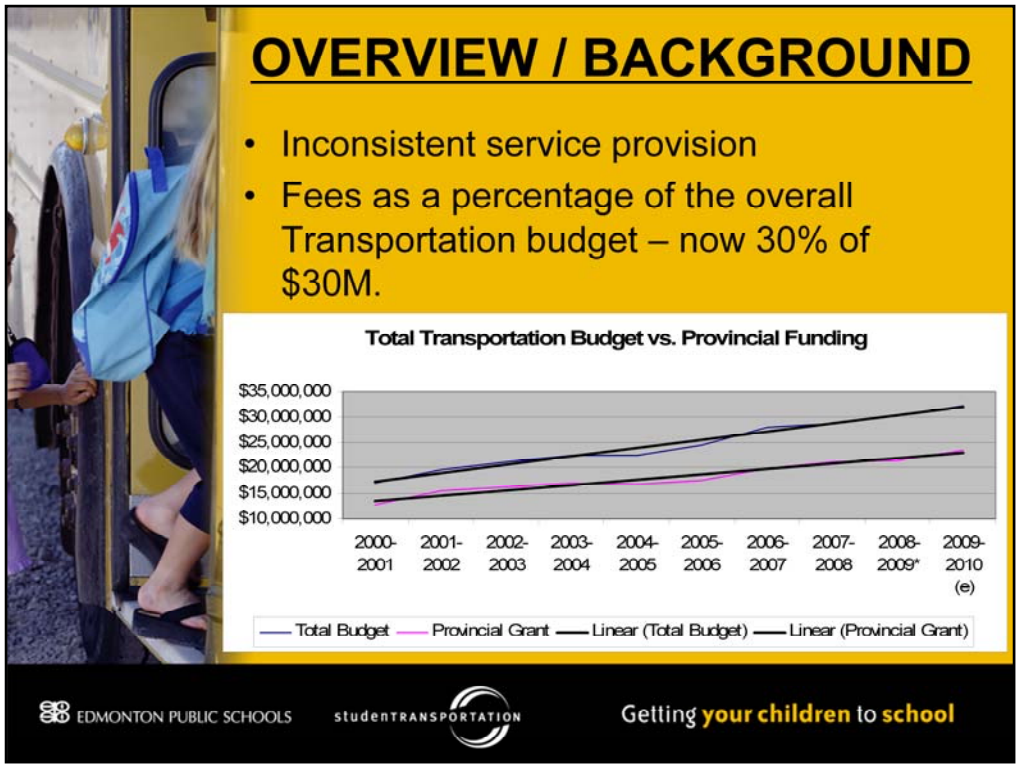
The current service delivery model is a cumulative result of input, redesign, and revision spanning more than 2 decades … all designed to respond to increasing demands for transportation.

Many decision makers have influenced the current transportation service delivery model and budget. New initiatives and programs influence transportation and set new precedents in service delivery.

The Student Transportation Action Plan represents an effort to shift from reaction and 1-off solutions to purposeful design generated from a District-wide perspective. A more defensible transportation model is needed. A drift in service design and exceptions made along the way have resulted in a system that lacks consistency, clarity and transparency.

The Action Plan articulates challenges and proactive initiatives centred around:

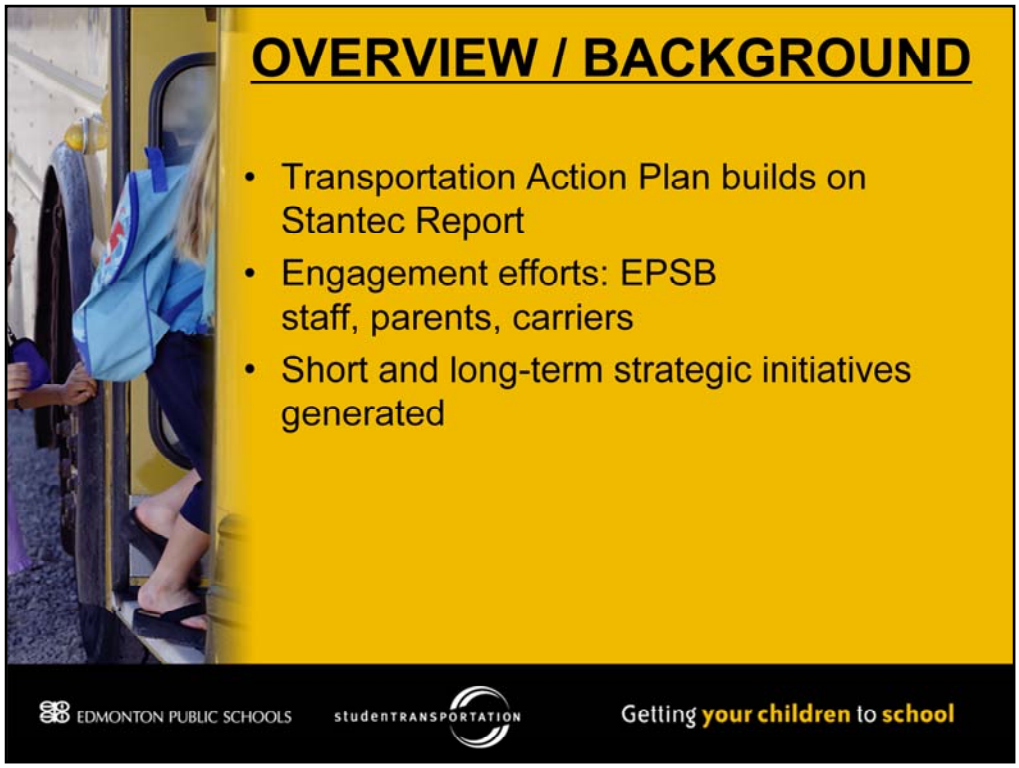
•A model for transportation that bridges proposed provincial funding, elements of our current service delivery model, increasing parental expectations, and the necessity to provide a safe, efficient, and sustainable student transportation



Thank-you Dr. Parker. I would like to briefly acknowledge the Student Transportation staff members in attendance this evening. Their tireless work on the Student Transportation Action Plan has resulted in the presentation being made this evening.

The basis for the Student Transportation Action Plan is to implement constructive systemic revisions founded on principles of safe, fair, sustainable student transportation. As such, a primary goal of the Student Transportation Action Plan is to generate a more consistent delivery model for transportation services. Student Transportation's core business of safe, efficient transportation depends on achieving a balance between accommodating individual needs while not allowing District priorities to be diluted to the point of inefficiency.

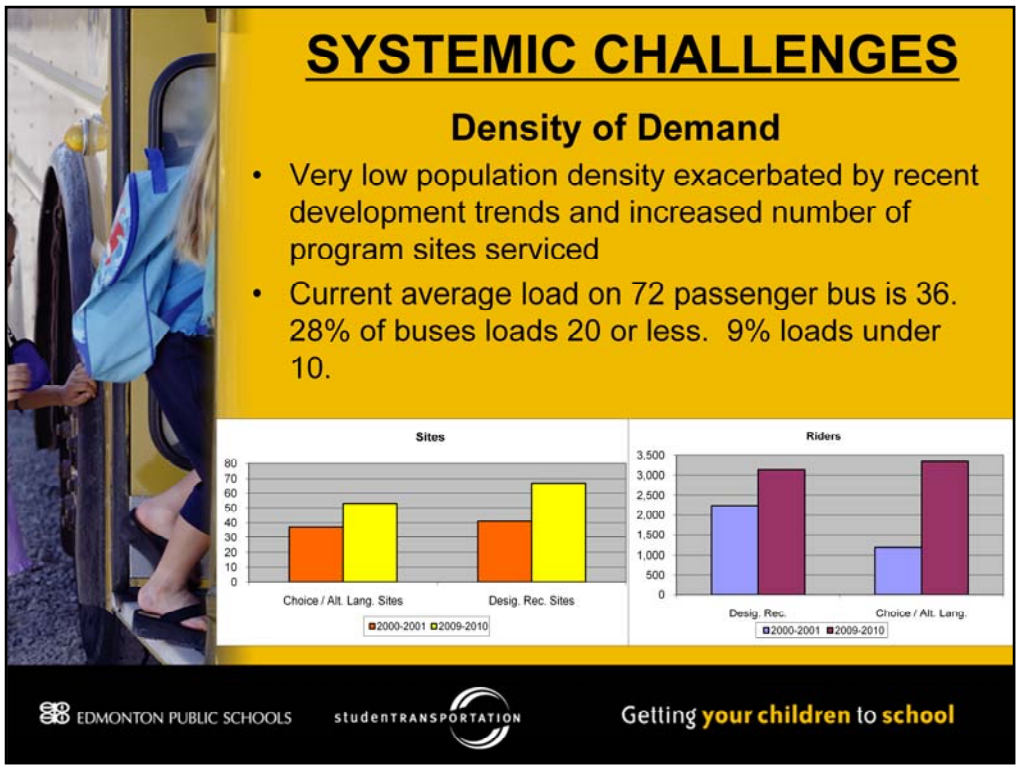
In addition, the relationship between provincial funding and the total costs associated with the EPSB transportation delivery model must ultimately be addressed. A historical comparison of the gap between funding levels and the total budget for transportation services reveals a widening gap over the past decade. In short, user fees required to cover operating costs not included in the provincial grant have increased from approximately 20% of a $20 Million budget to approximately 30% of a $30 Million budget during that time. If changes to the District's service delivery model are not undertaken, transportation services will become cost prohibitive for a large number of EPSB families in the very near future.



The Student Transportation Action Plan frames and extends a number of concepts covered in the October 2009 Stantec Service Review.

A series of engagement efforts were undertaken during the formation of the Student Transportation Action plan, including consultation with EPSB professionals, parent groups, and carrier contractors.

This evening's presentation will focus on both the main challenges moving forward and the short and long term initiatives required if the transportation of students is to successfully negotiate increasing demands, revisions to funding, shifting school designations around the District, and Edmonton's growing civic geography.



We begin with the fundamental systemic challenge that Student Transportation faces in trying to generate transportation solutions for EPSB students. The most significant obstacle in designing a sustainable, efficient transportation system is the low density of demand. Density of Demand, briefly defined, is the measure of how the potential demand for a good or service is concentrated or dispersed in the different geographical segments of a market.

In terms of student transportation, three factors determine Density of Demand:

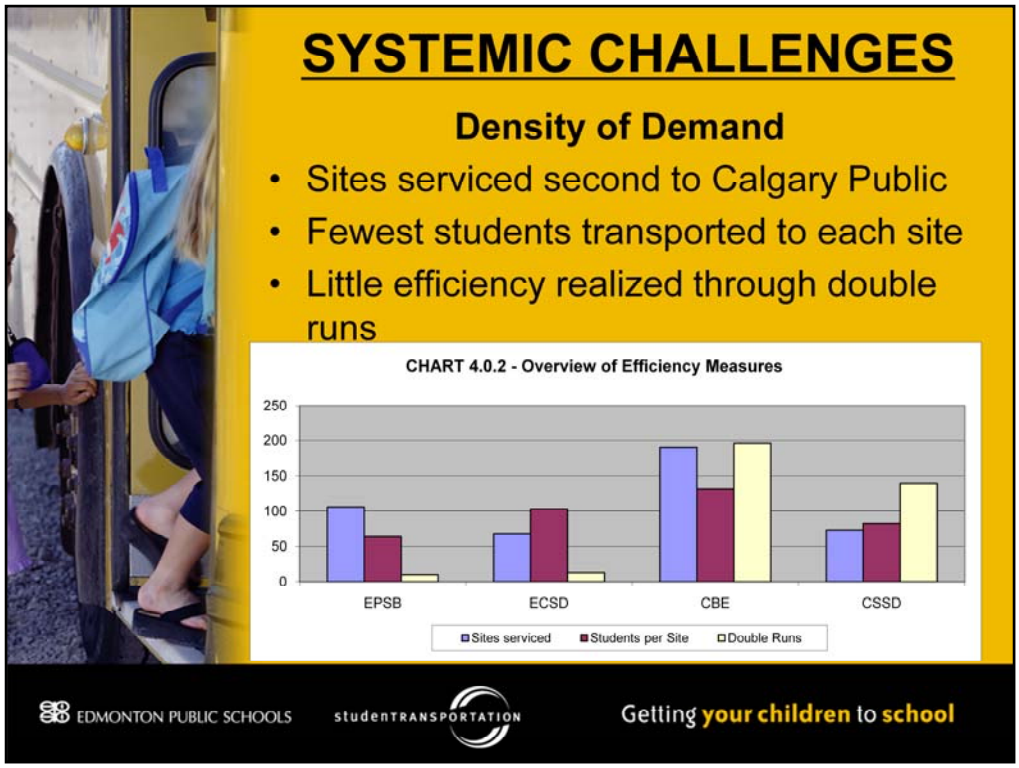
•Number of program sites

•Student loads

•Route distance

Edmonton has one of the lowest population densities of any city in North America. According to 2006 Canadian census data, Edmonton is ranked 104th out of Canadian municipalities, behind centres such as St. Albert, Regina, Calgary, Red Deer and Saskatoon. The fact that EPSB's District of Choice philosophy and variety of program options exacerbate the already fragmented demand. Low population density is further diluted when concentrations of riders are spread out amongst a large number of sites. The result is increased route distances and lower loads for each bus, resulting in increased operating costs and extended ride times.

On the 2 charts shown, growth in both program sites and ridership is



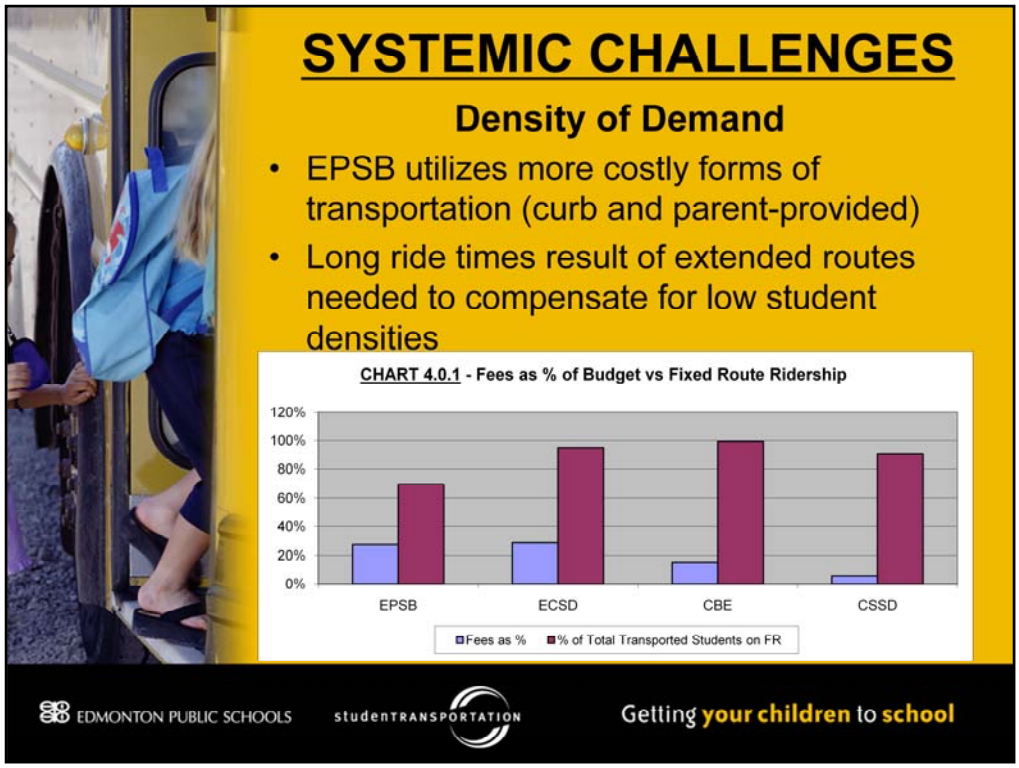
In response to the need to service numerous sites, a number of efficiencies are possible in an effort to improve the sustainability of service. We must maintain ride times and costs that are acceptable to students and parents.

The chart on this slide shows a relationship between program sites serviced by fixed route busing, the average number of students transported to each site, and the ability to use an additional measure of efficiency known as a "double-run".

The blue bars represent the number of program sites serviced by fixed route student transportation in each of the four metro jurisdictions in Alberta (Edmonton Public, Edmonton Catholic, Calgary Public, and Calgary Catholic). Edmonton Public (at 106 sites) serves the second highest number of sites in the province behind Calgary Public.

The red bars show the average number of students transported to each of the sites where service is provided. With an average of 63.2 fixed route students transported to each school, EPSB has the lowest average number of students going to each site. As an example of the density of demand principle, EPSB is operating at approximately 50% of Calgary Public where 131.6 students are transported to the average program site.

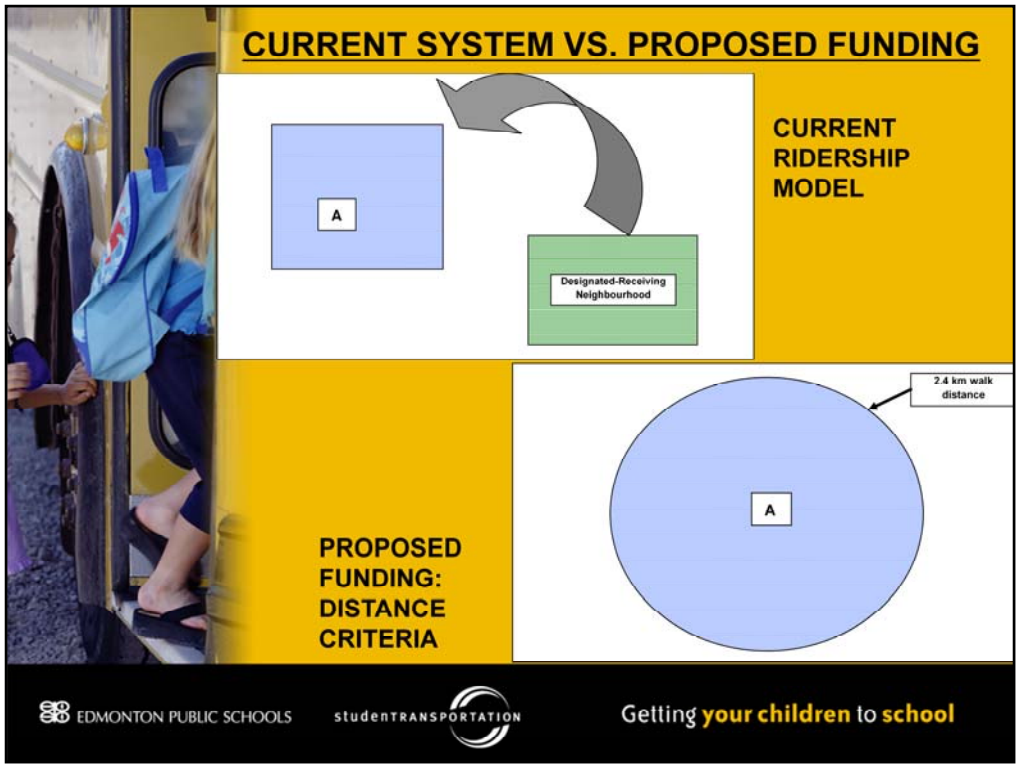
The white bars compare the ability of each jurisdiction to utilize an effective routing practice known as a double runs. Double runs are situations in which a bus is able to run a fixed route, deliver a group of students to their school,



A comparison of the EPSB fixed route system and fees with the other three metro jurisdictions in the Province indicates a further example of the effect of diversified service.

The red columns on the graph show the percentage of transported students that utilize fixed-route busing in each of the four metro jurisdictions. When density of demand is more localized, regular fixed route busing becomes more feasible. If demands are too spread out, alternate forms of busing are often required to augment service. With only 67% of the transported EPSB students accessing fixed route busing, many students are transported through more expensive means such a curb service and parent-provided transportation.

Related to efficiencies is the need to collect fees in order to offset provincial funding shortfalls. As such, the blue column shows the percentage of the overall transportation budgets for each jurisdiction that is made up by bus pass fees. For both Edmonton Public and Edmonton Catholic Schools, approximately 30% of the revenue needed to fund student transportation is derived through bus pass fees. The two Calgary jurisdictions are not as reliant on fees to help top off provincial funding.

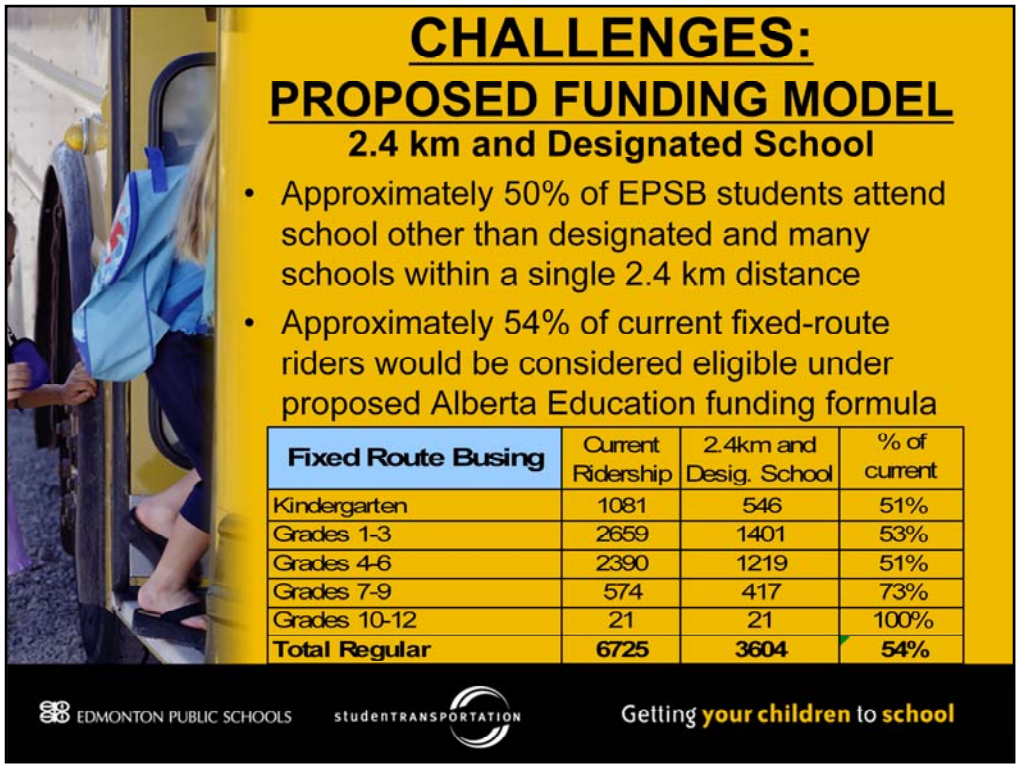


In advance of a number of slides that will layout the funding challenges expected in the near future, a brief review of the manner in which student ridership is currently determined is warranted.

Top diagram - The current EPSB transportation model for regular fixed-route busing is premised on the concept of students accessing schools in their resident neighbourhood. If a neighbourhood (the blue patterned area) has a school building located within its boundaries (represented in the diagram by the letter “A”), students are considered to be within walk distance and transportation services are not provided. For students residing in a neighbourhood without a school (represented in the diagram by the green patterned area), yellow busing is provided to the “designated-receiving” school (letter “A” again) in instances where ETS is not accessible. Neighbourhood attendance areas are established by Planning. The attendance areas are derived through several criteria, including: available student capacity, municipal neighbourhood designations, and physical barriers such as ravines or major arterial roads.

Bottom diagram - The proposed provincial funding model that will be discussed over the next several slides will be based on the eligibility of individual students. In part, the eligibility of a student will be determined through a fixed walk distance of 2.4 km from a school. No consideration for neighbourhood boundaries or natural barriers is provided. The walk distance is an absolute measure.

Given factors such as the designation of multiple neighbourhoods to the six



Edmonton Public Schools will face several significant challenges under the funding model being proposed by the Province.

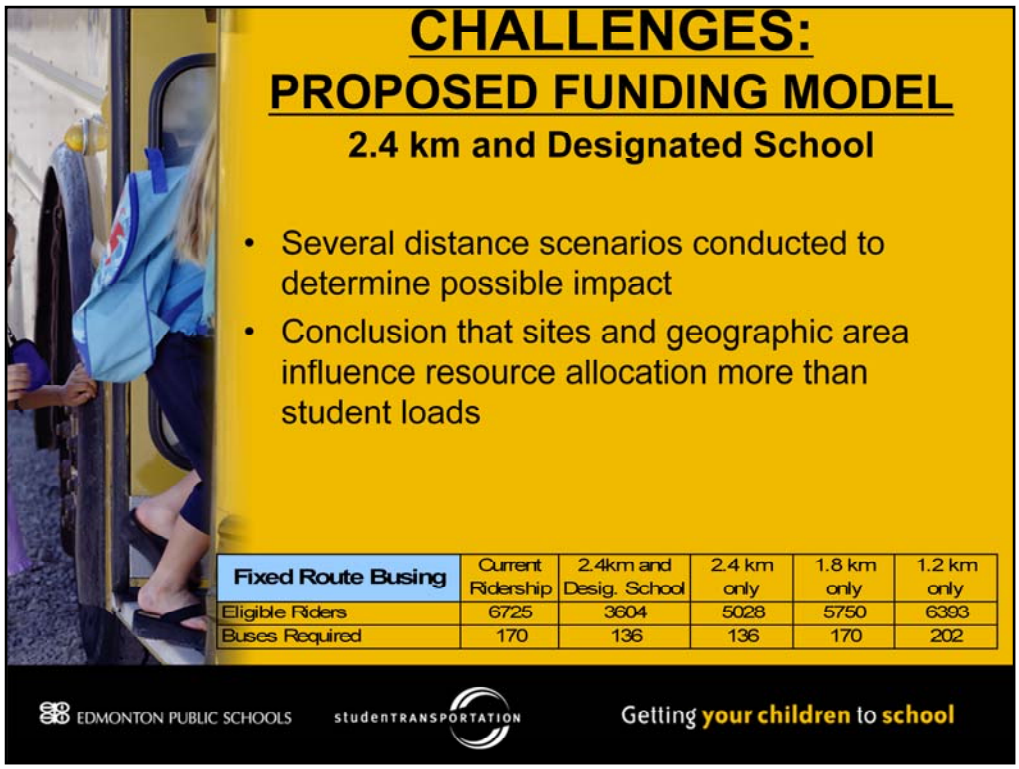
Current funding is calculated through a provincial formula known as the Metro Urban “block” Funding Formula. The “block” formula is used exclusively for the four metro boards in Alberta. The “block” estimates the number of eligible riders as a result of total enrolment. Because the Alberta Education Funding Manual must coincide with parameters set out in the School Act, the “block” formula is assumed to be linked to the 2.4 km distance as well.

Alberta Education is proposing a move to a funding formula which will involve the “eligibility” of individual riders. The proposed formula is currently in use with other smaller jurisdictions around the province, but will now be applied to the four large metro Boards. Two criteria will be in place to determine eligibility:

•First, Students must attend their designated school, and second,

•A student’s permanent resident address must be 2.4 km or greater from the designated school.

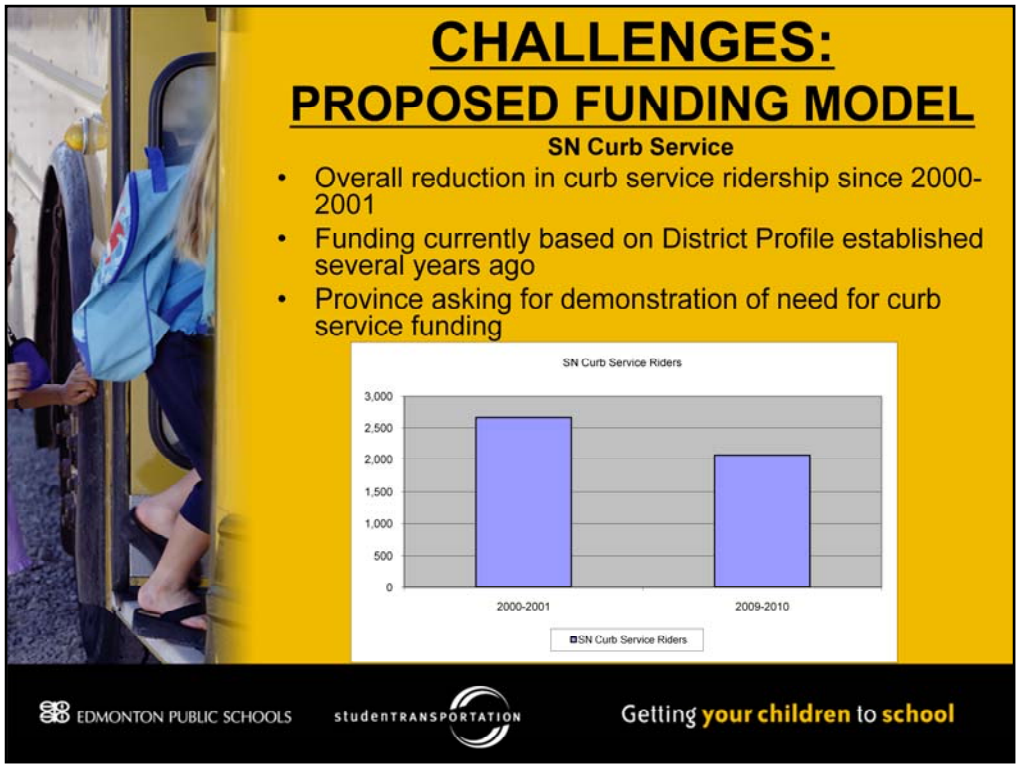
Given these criteria, the attendance patterns of EPSB students and the density of EPSB school buildings will present challenges. On average, half the students in Edmonton Public do not attend their designated school and many students live closer than 2.4 km from their designated school. At the elementary and junior high levels in particular, 2.4 km walk distances drawn



Student Transportation undertook several scenarios to determine the effect fixed distance criteria would have on current ridership and the number of buses required. Distances utilized in the scenarios included 1.8km (determined through a calculation of the current average maximum walk distance for neighbourhood walk boundaries), the provincial criteria of 2.4km, and 1.2km. Estimates were made as to the number of buses required and the number of students that would be considered eligible.

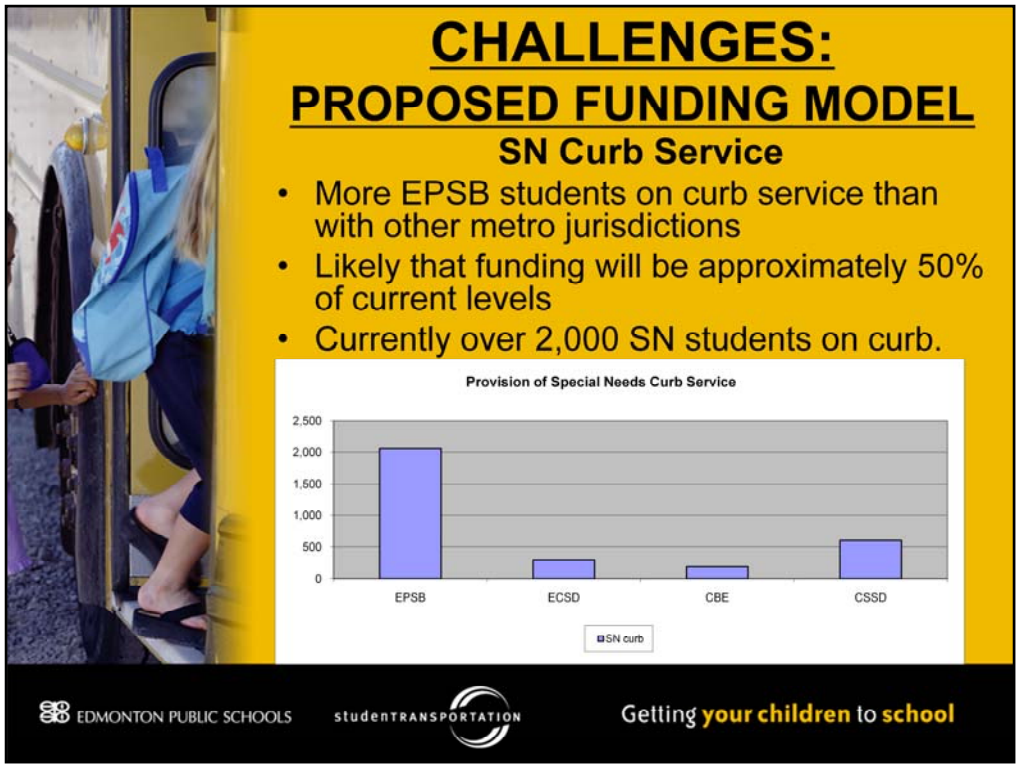
Regardless of the walk-out distance applied, an imbalance between ridership and buses resulted.

The results were scrutinized in order to understand why so many buses were retained even though eligible riders were significantly reduced. Ultimately, a return to the demand principle outlined earlier lead to the conclusion that the transportation system is forced to accommodate land area and programs rather than student ridership. Regardless of the number of students being serviced, the allocation of resources is generally driven by the distances covered to collect students and the broad number of destinations serviced.



A second funding challenge involves the provision of curb service busing to special needs students.

Curb service ridership has decreased over the past 10 years, yet the District's provision of this service type will still represent a challenge when we are asked to justify need on an individual student basis. Funding for special needs curb service is presently based on a District profile that Alberta Education created to estimate the number of special needs riders. Moving forward, the District will be asked to demonstrate that students on curb service are not able to access an alternate form of transportation such as fixed route yellow bus or ETS due to the severity of a student's disability or delay.

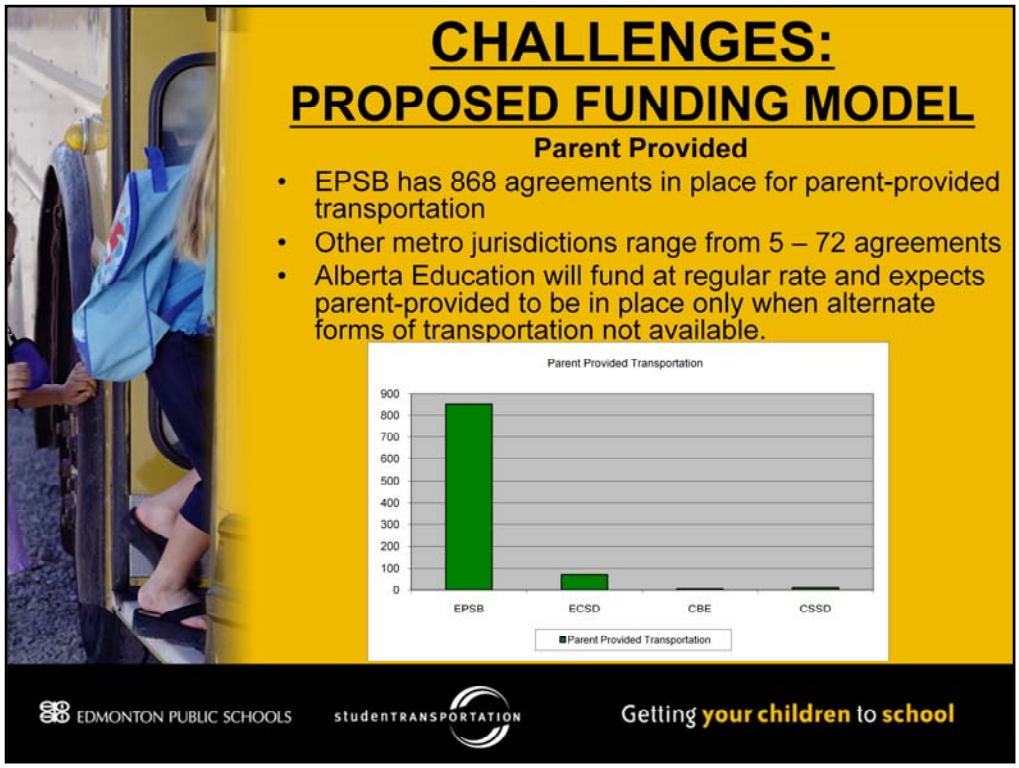


Relating back to the statistic concerning the number of transported students on fixed route busing, a look at the provision of curb service across the four metro jurisdictions reinforces the assertion that EPSB costs are impacted by the number of students utilizing more expensive forms of transportation.

With approximately 2,058 curb service riders, EPSB is significantly above the other jurisdictions. Special Needs curb service is approximately triple the cost of fixed route service.

Through the submission of last year's grant data, it was clear that the Province will be funding far fewer curb service riders than are presently funded. In short, the concept of individual student eligibility must again be applied and we will need to employ District-wide criteria to assist principals in determining "eligibility" for curb service. Curb service can not be an automatic provision when a student attends a particular program.

Shortly, criteria will be created in conjunction with District educational experts. During the 2010-2011 school year, a review of curb service ridership will be undertaken and a transition plan implemented for students that will be re-directed to fixed route or ETS services.

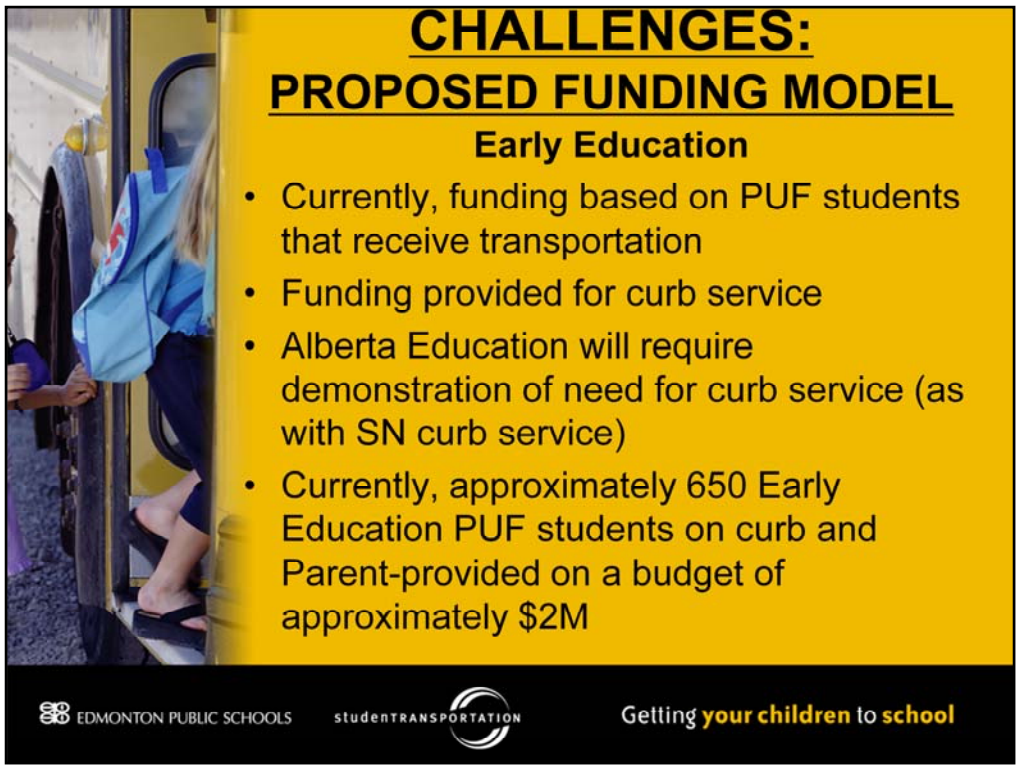


A third funding challenge involves Parent-Provided Transportation

Relating back to the statistic concerning the number of transported students on fixed route busing, a look at the provision of parent-provided transportation across the four metro jurisdictions reinforces the assertion that EPSB costs are impacted by the number of students utilizing more expensive forms of transportation.

Alberta Education expects that Parent Provided transportation will only be used when all other forms of transportation offered by the District are not available. Parent Provided will be funded at the regular transportation funding rate, unless it can be demonstrated that a special needs rate is warranted due to the nature of the disability or delay. At the regular transportation rate, current EPSB parent-provided agreements would only be funded to about 25% of what is currently paid out each day.

The chart appearing on the slide again depicts a comparison with our peer jurisdictions in the Province. Parent provided is used to a far greater extent in Edmonton Public than in other metro centres. Given the diversity of programming and number of sites serviced, eliminating parent provided transportation will be difficult, but limiting the number of parent-provided agreements is instrumental moving forward.

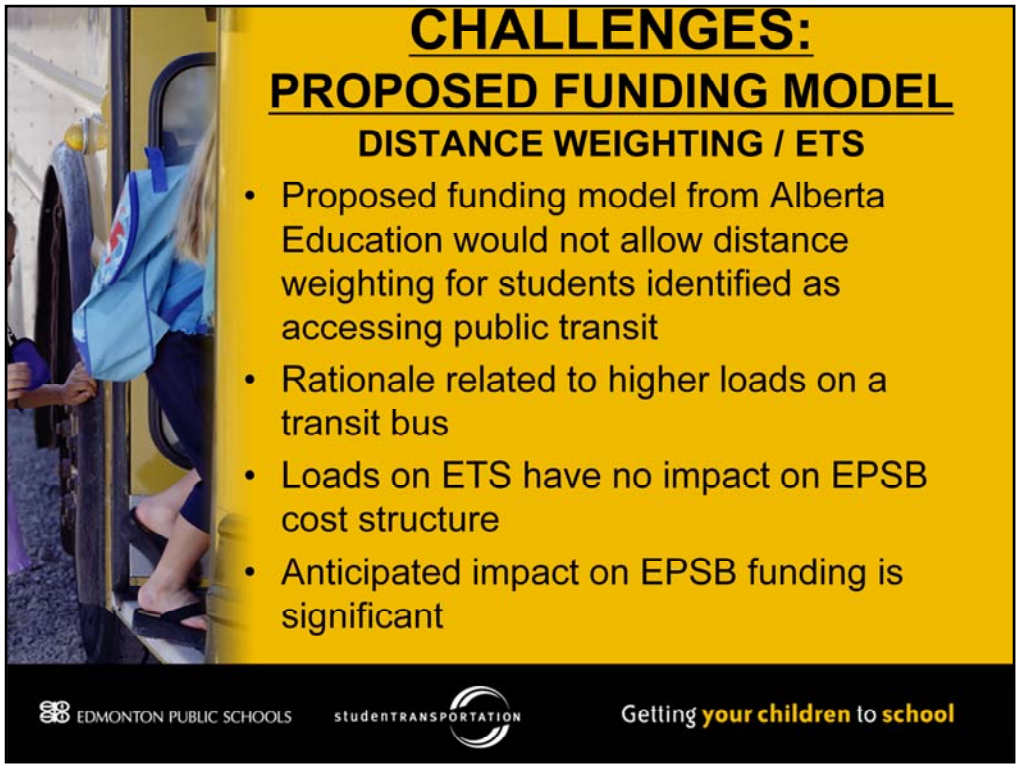


A fourth funding challenge involves the transportation of Early Education students.

Alberta Education is indicating that funding for students in Early Education programs will also be reviewed.

Currently, Early Education students that are PUF funded and receive transportation are funded by Alberta Education for curb service. Under the proposed funding formula, EPSB will again need to demonstrate a need for severe transportation services (curb service).

A detailed review of individual student profiles will be required in order to estimate the impact on funding. Currently, transportation for 650 Early Education students is supported on an annual budget of approximately $2M.

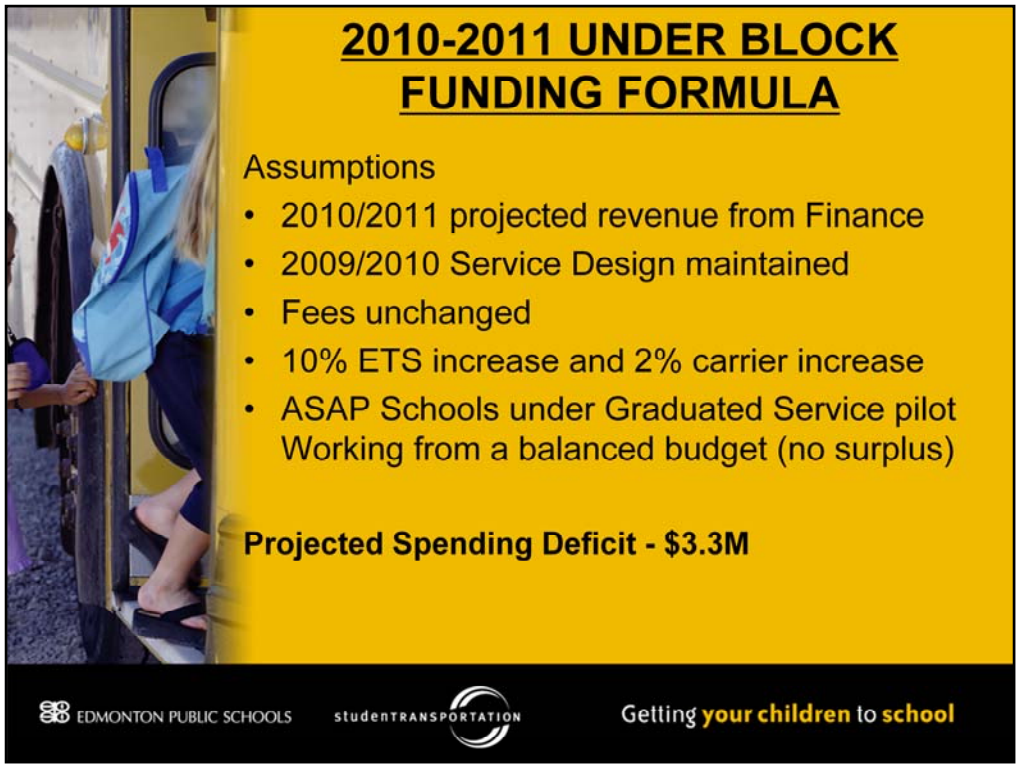


A fifth funding challenge involves a recently included weighting factor based on distance.

Through a distance weighting formula, students transported on yellow bus will receive additional funding, over the recently reduced base rate. The additional funding received will correspond with the distance their home address is from school. Students identified as accessing public transit, however, will not benefit from the distance weighting and will receive the lower base rate only.

Alberta Education's assumed rationalization may be related to higher student loads on transit buses. The cost of an ETS pass is fixed, however, and not proportionate with any loads or efficiencies experienced by ETS. Any decrease in funding unit rates for ETS riders would simply act to reduce the overall grant received from Alberta Education and further increase the potential deficit under the new funding formula.

EPSB has approximately 16,500 ETS riders each month. Of those, approximately 11,000 will be considered eligible once the funding model changes. Based on the projected reduction to each eligible student, the loss in funding resulting from the revised ETS unit rates would be approximately $800,000 - $1M.



The impact of continuing the current service delivery model into the 2010-2011 school year will result in a deficit spending. Based on the assumptions listed:

•meaning fees were to remain constant

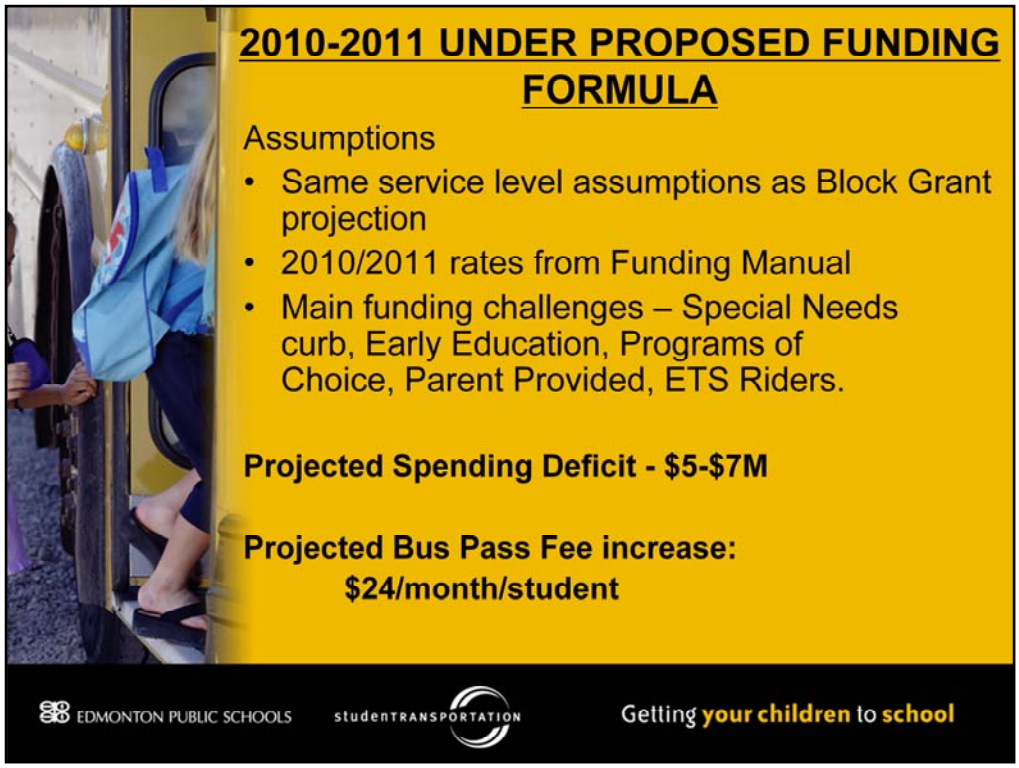
•the 10% increase to ETS rates (which is a certainty)

•a 2% increase in contract carrier rates

•the implementation of the GSM for the ASAP schools, and

•a budget surplus is not factored into the projection

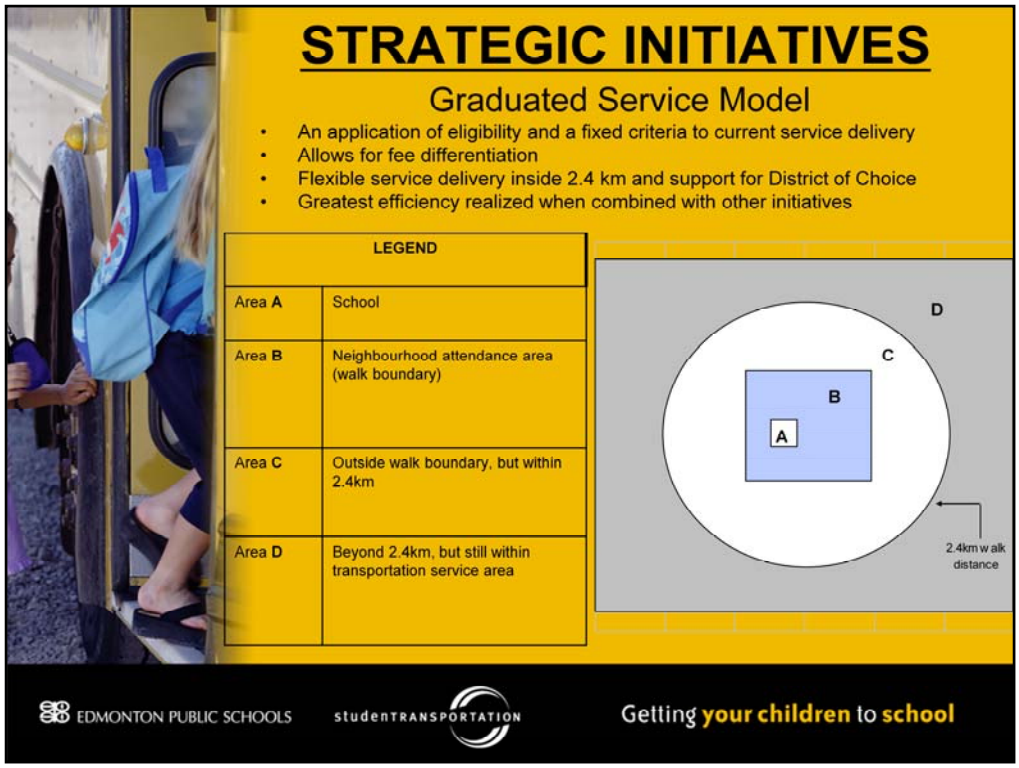
ST will operate under a spending deficit of $3.3M.



If we were to extend our projection to incorporate the proposed new funding formula (in place of the block grant) the spending deficit would be much more significant.

If all the assumptions captured in the previous slide are retained, and underlined the funding challenges discussed this afternoon were taken into consideration, ST's spending would be projected between $5 and $7M.

This shortfall, if covered by transportation fees, would require andaverage monthly increase in bus pass prices of approximately $24.00. In some cases, this would nearly double the current price.



Student Transportation has generated a number of strategic initiatives in response to the challenges outlined this afternoon. One of the more significant initiatives will be the piloting of the Graduated Service Model – a diagram of which can be seen on this slide. The pilot program will take place during the 2010-2011 school year for the new ASAP schools.

The GSM will retain the current neighbourhood approach for determining access to transportation services and not require students to attend their designated school. As a result, the GSM will allow for continued support of the District of Choice philosophy, and minimize the impact on existing riders by continuing transportation services to alternative programs. Students will be able to access transportation services if their permanent resident address is outside a school's neighbourhood walk boundary (area B on the Diagram), yet still within a Program Attendance Boundary and Transportation Service Area. The walk boundary, as with other schools in the District, coincides with the neighbourhood boundary for the school – as determined by Planning. The boundary mirrors the neighbourhood boundary set by the City. The school's placement inside the neighbourhood boundary is determined through the municipal development process. EPSB has some input into the process, but the final approval of the location of a school and park site within the neighbourhood boundary rests with the City of Edmonton.

An important component of the GSM is the addition of the 2.4 km walk distance perimeter. Students residing inside the 2.4 km walk distance (Area C on the diagram)may access yellow bus service at centralized stop locations within their neighbourhood. Walk distances to stops will increase,

When applied to a map, the GSM is clear and defensible. The walk boundary (green area) corresponds with the neighbourhood boundary established by Planning. The yellow area represents those students residing inside the 2.4 km walk distance, while the pink area represents households outside the 2.4 km walk distance. Only the communities within the attendance area are subject to the distance gradients. Communities outside the attendance area shown are not impacted by the Graduated Service levels for this school – they are part of another school's attendance area.

The greatest initial challenge associated with the GSM will be answering inquiries from parents about why a distance calculation results in one household having a differentiated fee from their neighbours. In order to address the anticipated questions, 2 components in particular must be strictly adhered to:

•The distance calculation generated by Student Transportation routing software will be the only method by which distance is generated

•The frequency and location of centralized bus stops inside of the 2.4 km boundary will not be altered due to change requests

Concurrent with our work on the STAP ST has endeavored to implement a number of new initiatives during the 2009-2010 school year.

Briefly, these initiatives include:

•GSM pilot project for ASAP schools

•collaborative service delivery pilot with Edmonton Catholic Schools

•SNAP process / electronic application

•customer service P.D. for all ST staff

•strategic planning retreats for route designers

•increase outreach/inservicing for schools

•revised Transportation Administrative Regulation and Transportation Services Handbook, and

•additional carrier contractors identified and registered with Purchasing

Additional strategic initiatives that will be finalized, well communicated, and diligently rolled out over the next one to two years include:

•criteria for SN curb service

•expansion of electronic application process

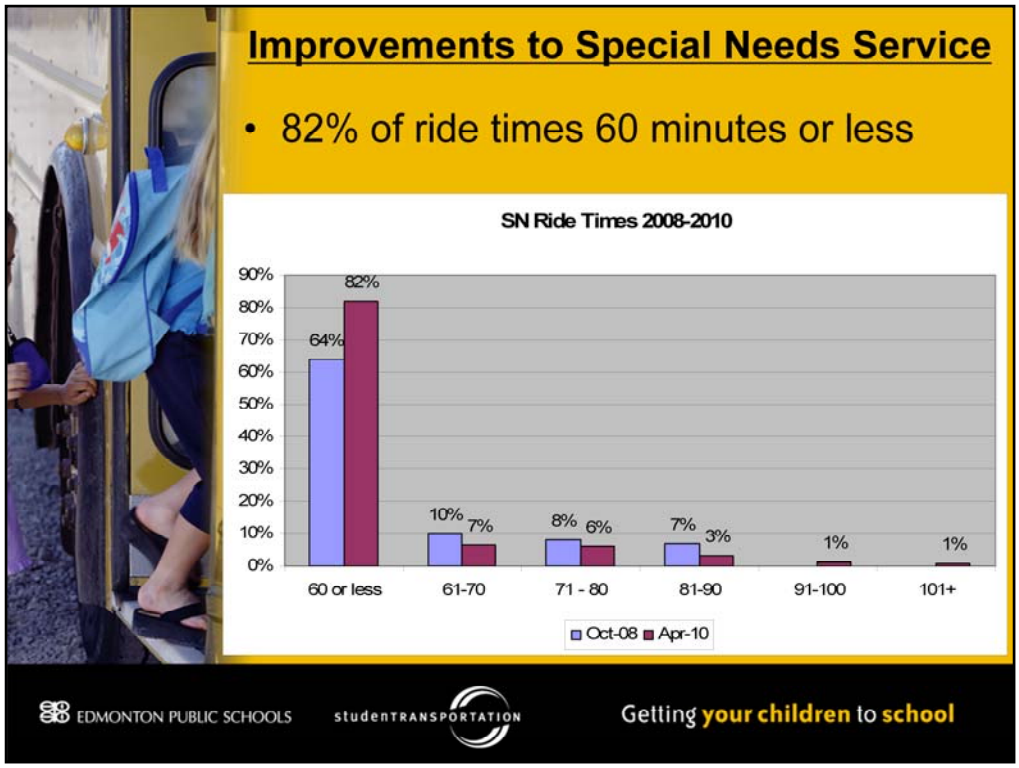
•formation of a Transportation Advisory Committee

•additional leveraging of technology (GPS, school zone, rider eligibility tool)

•review of SN transportation zones

•ongoing emphasis on improved data (clean, well organized, accurate, and easily mined), and

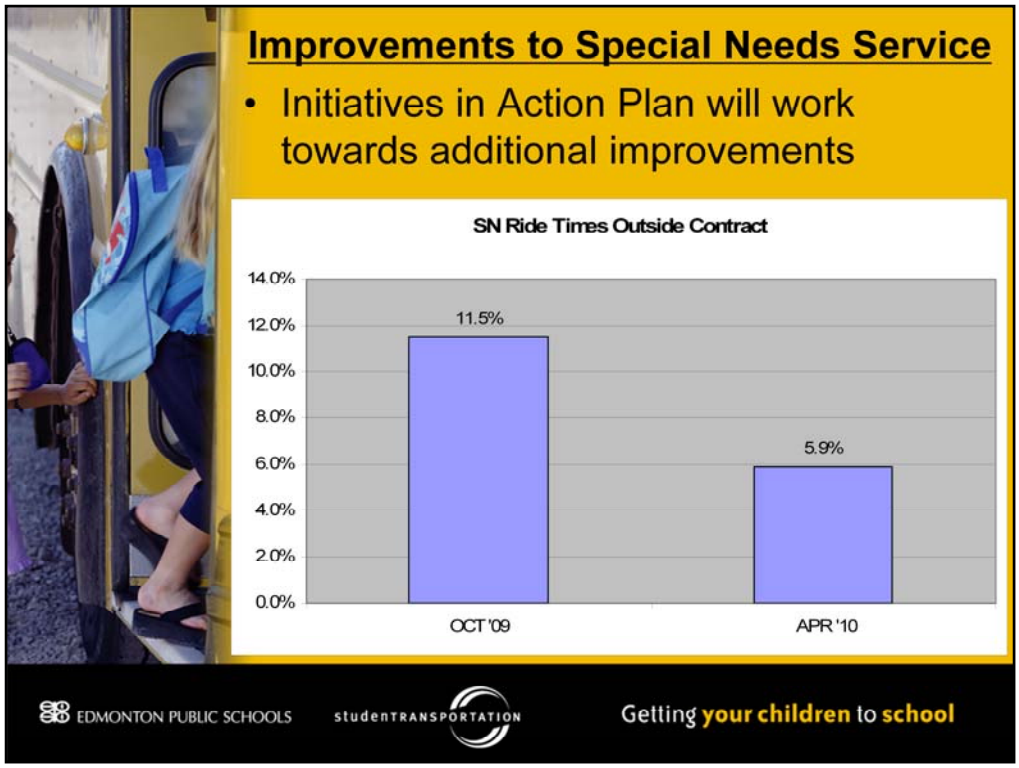
•the comprehensive tendering process in early 2011 for contract carriers



Specific to improvements and initiatives relating to special needs transportation, Student Transportation Services continues to work towards reducing ride times for curb service riders.

An analysis of the April 2010 curb service ride times (represented by the red bars on the chart) indicates that 82 per cent of all ride times are now 60 minutes or less. This marks an improvement from 79 per cent in the Fall and a significant improvement since the Fall of 2008 when a Request For Information provided to the Board indicated that 64 per cent of curb service ride times were 60 minutes or less.

The overall average ride time for curb service students has also improved. The average ride time is currently 40 minutes. The average ride time in Fall 2009 was 42 minutes. The average ride time at the time of the Fall 2008 Request For Information was 54 minutes.



Several initiatives are responsible for the improvements in special needs ride times, and will continue to positively influence ride times in the future:

<u>As outlined in the Student Transportation Action Plan</u>

•Student Transportation Services involvement in the Special Needs Assisted Placement (SNAP) process has resulted in a more informed placement process for students travelling to District centres.

•Continued collaboration with Leadership Services has resulted in identification of exceptionally long ride times and resolution where possible.

•Special needs transportation zones will continue to be reviewed and amended as needed.

•Student Transportation Services has been involved in the Sector Review process and discussions around program distribution to provide input as needed.

•Student Transportation Services continues to increase accountability with contract carriers and will work to ensure greater accuracy in reporting and monitoring ride times.

Additional considerations that were not directly discussed in the Student Transportation Action Plan include:

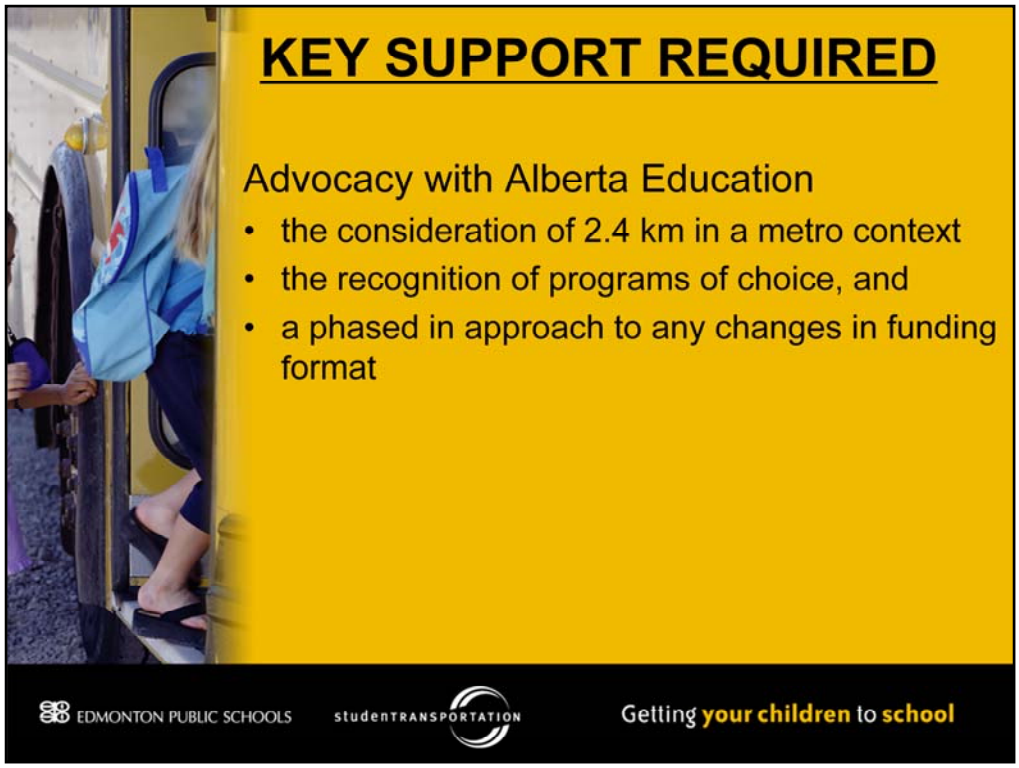
•the ability of contract carriers to attract and retain drivers has improved greatly over the past 2 years

•A transition of special needs students to alternate forms of transportation has reduced the pressure on the curb service system as a whole. Additional movement of students to alternate forms of transportation where appropriate in the future will likely continue this trend.

Student Transportation continues to monitor and enforce the District's position of zero-tolerance for missed instructional minutes. In instances where program scheduling conflicts with proposed transportation arrangements, the responsibility to alter services has falls exclusively on the carrier.

Finally, Student Transportation Services continues to improve the ability to monitor and react to late buses. Outside of school start up in September, late bus incidents were most common during December 2009 and January 2010. The extreme cold during that time was a significant obstacle to timely operations, but there were also incidents that were preventable and required direct attention. After a number of efforts to remedy a recurring pattern of late buses, Student Transportation Services took action by reassigning routes in late January and mid-February. The result has been a significant improvement in all busing services with very few late buses reported since.

And with that, Mr. Chair, I would like to turn our presentation back over to Dr. Parker for final remarks.



Thank-you Mr. Wright.

Mr. Chair, the issues covered in the Student Transportation Action Plan are wide ranging and complex. The concerns we have brought forward this evening are emergent and still require additional exploration and refinement.

This evening's presentation articulates the challenges and proactive measures being taken to:

•Identify a service delivery model that retains current ridership where possible, yet considers proposed provincial funding and the necessity to provide a safe, efficient, and sustainable student transportation

•minimize the dependency on fees paid by parents

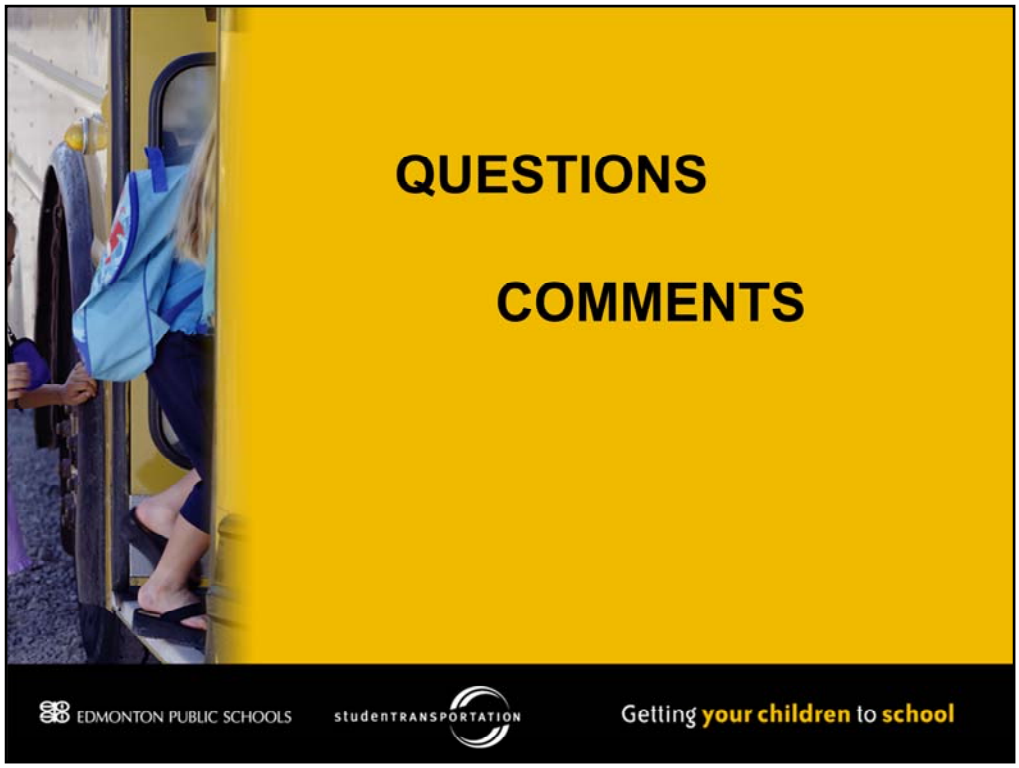
•Minimize ride times, and

•Address issues around the transportation of students with special needs

A key support requested of the Board involves advocacy with Alberta Education in three specific areas:

- the consideration of 2.4 km in a metro context
- the recognition of programs of choice, and
- a phased in approach to any changes in funding format

As referenced. advocacy at the administration level will continue as we work



Mr. Chair,

That concludes our overview of the Action Plan.

At this time, we would like to conclude our presentation and address any questions or comments Trustees may have.