

Tom,

Here is an initial list (more to follow as we receive them from the committees) of service level parameters for your assessment of the relative cost impact. As we discussed last Wednesday, I think it would be helpful, since you have advised that it would be virtually impossible to provide the cost, if the impact could be measured based on an estimate of the relative increase/decrease in the number of buses using the current system as the baseline. I understand the numbers will not/ cannot be precise. In this regard, you should list any appropriate assumptions/caveats.

We will need this info by Wednesday evening/Thursday morning so that we can make it available to the TTF members to review before Saturday morning. Here is the initial list:

1. End transportation service for grandfathering
2. A minimum of 10 students are required for each pick-up point of service to Academies or Alternative programs
3. Eliminate the exception to ride program or start it in the second quarter
4. De-couple TJHS from high school start times & provide it with a dedicated route supervisor
5. GT transportation service is provided only to students whose base school does not have a GT Center program
6. GT students eligible for service are picked-up at centralize pick-up points or the nearest in-boundary bus stop of their GT Center school
7. Institute a Consortia plan at the elementary & middle school levels within the scope of the current Consortia High School plan/program
8. Require a user fee of \$150 for some FCPS Transportation services, such as service to Administratively placed students
9. Arrival time before first bell for elementary students is 5-15 minutes
10. Arrival time before first bell for middle students is 5-20 minutes
11. Arrival time before first bell for high school is 5-30 minutes
12. Maximum length of bus ride for elementary students is 30 minutes
13. Max length of bus ride for elementary students is 45 minutes
14. Max length of bus ride for elementary students is 60 minutes.
15. Max length of bus ride for middle school students is 45 minutes
16. Max length of bus ride for middle school students is 60 minutes.
17. Max length of bus ride for high school students is 45 minutes
18. Max length of bus ride for high school students is 60 minutes.
19. Buses should depart schools 10-15 minutes after the last bell.

Thanks, Mike

Overall comments regarding responses:

- You have asked for cost impacts or the “number of buses” that would be affected. These are really one and the same. We estimate cost changes on the basis of the unit cost of owning and operating a bus.
- I would need to receive information on the number of students being transported under some of these programs in order to estimate the magnitude of the impact. I have tried to place our assessment in an appropriate context so that you can draw reasonable conclusions.

End transportation service for grandfathering

I do not know how many students are provided with this service. Conceptually, however, this service is analogous to all out-of-boundary transportation services currently being provided. Our work in Phase 2 on GT and Magnet programs illustrates how out-of-boundary programs can have a disproportionate cost impact on the system. The analysis we conducted indicated that eliminating out-of-boundary GT and Magnet transportation, which accounted for approximately 7% of total students transported, *could* reduce resource requirements by 12%. We recommend considering this proportion (roughly 1.7 to 1) as a maximum impact in evaluating the impact of eliminating all other out-of-boundary transportation services. Thus, assuming out-of-boundary grandfathered students represent 1% of the transported population (by means of example), eliminating this service could represent as much as a 1.7% system-wide cost offset.

A minimum of 10 students are required for each pick-up point of service to Academies or Alternative programs

I do not think that a parameter such as this would be practical to implement as it would result in a different level of service for students in the same population. Regardless, my recollection is that these services are currently provided via a shuttle system from the students' home schools. As such, the Task Force should consider this as an incremental cost; eliminating or reducing this service *does not* eliminate transportation for the population of students attending these programs. Rather, the core transportation service that gets these students to their home school would still be required. Coupled with the fact that you would only be eliminating the service for a subset of students rather than the entire population, we believe the resulting cost savings would be marginal.

Eliminate the exception to ride program or start it in the second quarter

I do not understand precisely what this program is, but it sounds like a courtesy ride program that is provided on a space available basis. If this interpretation is correct, eliminating it would likely have a small overall impact on cost *unless* there is a large number of riders in this category. Courtesy programs such as this are predicated on space availability. Thus, the base bus routes are determined first, and rides are offered only if they do not interfere with these runs. That is not to say that these rides are free. They have a cost in terms of the time required to pick these students up. In the aggregate, if there are a large number of students, eliminating this category of transportation may provide an opportunity to shorten and consolidate routes, but I suspect that this would be a marginal impact unless, as I said, the number of students being transported is very large.

De-couple TJHS from high school start times & provide it with a dedicated route supervisor

This is unlikely to have any positive impact on reducing costs. On its own, it does not change the nature or magnitude of service being provided.

GT transportation service is provided only to students whose base school does not have a GT Center program

I don't think this makes sense. It is the out of boundary transportation that is costly. Transporting students to their home school, whether they attend a GT program or not, is part of the core service being provided by FCPS transportation and I don't understand how eliminating this service could be considered. If, however, you meant to say transportation would only be provided if it is to a program in the student's home school, then this was fully analyzed in Phase 2, and would result in cost offsets as high as 12% of total system costs.

GT students eligible for service are picked-up at centralized pick-up points or the nearest in-boundary bus stop of their GT Center school

These are really two different parameters. In both cases, however, you are continuing to transport this population of students but with a service level significantly below that in the current system. Since we already evaluated the impact of eliminating this service, you should assume that the impact of these two parameters would be less than the impact of entirely eliminating service to this category of students. That said, the impact could still be significant (i.e., less than 12% but greater than 0%). Providing service only from an existing bus stop within the school boundary would likely have a larger positive impact than the hub (centralized pickup point) approach, assuming these hubs are still to be placed outside the school boundary.

Institute a Consortia plan at the elementary & middle school levels within the scope of the current Consortia High School plan/program

I do not understand the construct of this program, and cannot provide an assessment as a result.

Require a user fee of \$150 for some FCPS Transportation services, such as service to Administratively placed students

Conceptually, charging a user fee for any service provides a direct cost offset that can in turn be used for enhancing service in another area. An annual fee of \$150 per student, however, represents only a small portion of the actual cost of providing regular transportation services (currently in excess of \$700 per student on an annual basis), much less an enhanced service such as cross-boundary transportation. The magnitude of the cost offset would be dependent on the number of students in the category.

Arrival and departure windows, maximum ride times

You asked a number of specific questions regarding the impact of these parameters, including:

- Arrival time before first bell for elementary students is 5-15 minutes
- Arrival time before first bell for middle students is 5-20 minutes
- Arrival time before first bell for high school is 5-30 minutes
- Maximum length of bus ride for elementary students is 30 minutes
- Max length of bus ride for elementary students is 45 minutes
- Max length of bus ride for elementary students is 60 minutes.
- Max length of bus ride for middle school students is 45 minutes
- Max length of bus ride for middle school students is 60 minutes.
- Max length of bus ride for high school students is 45 minutes
- Max length of bus ride for high school students is 60 minutes.
- Buses should depart schools 10-15 minutes after the last bell.

None of these can be answered with any precision absent a complete analysis, but I can offer some general observations. There are direct and proportional tradeoffs between service levels and cost for these parameters. In addition, bell times, arrival and departure windows, and ride times are all interrelated and dependent on each other. In general, the shorter you make the maximum ride time, the

more expensive the system will be. This is because a shorter ride limits the number of stops that can be made on any given run, in turn limiting capacity utilization and increasing the number of buses required to operate the system. But ride times are self limiting to a certain extent because of the time windows available that are in turn based on school bell times and arrival/departure windows. The impact of setting maximum ride times for elementary schools at 60 minutes, for example, will be negated if the time between the start of middle school (on the preceding tier) and the elementary school start time is less than 60 minutes. This concept also applies to arrival and departure windows. Increasing the arrival window without increasing the time available between tiers does not have a large impact. These interrelationships are what make these parameters so difficult to evaluate.