

# The Inequity of Sound Transit Subarea Equity

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By James W. MacIsaac, P.E. June 11, 2011

## What is Subarea Equity?

Here's how Subarea Equity is described in the December 2009 Sound Transit "Report on Subarea Equity":

*One of the unique features of the Sound Transit plan is that it formally commits to creating a balanced regional transit system that provides benefits to the residents of each of Sound Transit's five geographic areas... The principle of subarea equity assures that Sound Transit taxes raised within an area are used for capital projects and operations that benefit the residents of that area. ... Changing the subarea equity principle would take two-thirds, or 12 votes, of the 18-member Sound Transit Board.*

**But there is no definition of how "balance" or "benefit" is determined.**

Strangely, so far as I know no suburban subarea has ever contested Sound Transit's twisted Subarea Equity policy.

The implication is that all benefit of an ST transit project accrues to the residential end of the transit trips. The further implication is that ALL users of ST Seattle-centric transit routes from the suburban subareas are residents of the suburban subareas. This may have been a reasonable interpretation of transit benefit back in the 1950s and 1960s era of "bedroom communities" outside of Seattle. But it was totally inapplicable by the 1990s when Sound Transit was created and even less so when ST2 was born in 2008. Few voters that approved Sound Move in 1996 and ST2 in 2008 had any knowledge as to how project "benefits" were being assigned to their subareas.

**All Benefit of Seattle-centric transit routes are assigned to the suburban end of the routes**

The residential "trip production" user of public transit benefits from a high public subsidy of his/her transit trip and free park-ride for those that access transit by car. However, the commercial "attraction" end of the trip benefits equally if not more so by economic benefit, reduction of parking supply needs, reduction of vicinity bus and auto traffic and likely other benefits. It may not be possible to determine which end of the see-saw bears more weight, but certainly it would be fair to assume that each end of the transit trip shares equally in its benefit. In other words, transit benefit should be assigned by subarea location of trip "boardings".

## Current Application of Subarea Policy

From the beginning of Sound Transit it has chosen to assign all "benefit" of its new transit routes between North King and the suburban subareas to the suburban subareas. Sounder North capital and operating costs have been assigned 100% to the Snohomish subarea, even though nearly 100% of its users have Seattle as one end of their trips. South King and Pierce have been assigned 100% of the capital and operating costs of Sounder South, even though over 90% of its users have Seattle as one end of their trips.

All Sound Transit Regional Express bus routes with one end in Seattle have their capital and operating costs assigned to the suburban subarea ends of the routes. There is no **benefit equity** in this assignment of capital and operating costs. The planned East Link light rail line from downtown Seattle has 99% of its capital cost and all future operating costs assigned to the East King subarea. Is this equitable even though a significant portion of the line is located in Seattle with users traveling between the Rainier Station and downtown Seattle? And 51% of the East Link boardings will occur in Seattle.

### Even the Current Subarea Equity Policy has been Breached

The current subarea equity policy assigns all benefit of a transit route to the residential user (production end) of the transit trips. But for routes serving Seattle it assumes that 100% of the users are residents of the suburban subarea. This assumption is an artifact of the 1950s that must be contested by the suburban subareas of Sound Transit.

The table shows the residential “production” ends of inter-subarea transit trips as established by the PSRC in the 2006 calibration of its transportation models. Only 78% of all transit trips between the North King and suburban subareas have the residential production ends of the trips in the suburban subarea; 22% of all trips are produced by residents of the Seattle/North King subarea. By 2040 the ratio is expected to be more like 70%/30%. So, if the current definition of user benefit were to be properly applied, the Seattle/North subarea should be funding at least 25% of the capital and operating costs of all suburban transit routes that serve Seattle.

2006 Transit Trips to/from Seattle			
2006 Weekday Transit Trips			
Subarea	To N.King	From N.King	Two-Way
Snohomish	17,540	2,620	20,160
	87%	13%	100%
East King	21,540	8,310	29,850
	72%	28%	100%
South King	21,665	7,465	29,130
	74%	26%	100%
Pierce Co	5,300	170	5,470
	97%	3%	100%
<b>Totals</b>	<b>66,045</b>	<b>18,565</b>	<b>84,610</b>
	78%	22%	100%

### East King Beware

East King elected officials and taxpayers should strongly contest the inequity of assigning 100% of the East Link capital and future operating costs to the East King subarea. Sound Transit’s models show 35% of its users during the AM peak period as outbound from Seattle. That means that under the current definition of subarea equity 35% of the capital and future operating costs of East Link should be assigned to the Seattle/North King subarea.

The PSRC models show up to 65% of the East Link users during the AM peak period as outbound from Seattle to Eastside employment destinations. That is because nearly all existing Sound Transit and Metro Transit trans-lake bus routes are oriented to moving Eastside residents to Seattle employment destinations. East Link will be a poor competitor for trips to Seattle employment centers. On the other hand, East Link would provide a much better Seattle “inside-out” service to the major Eastside employment centers of downtown Bellevue, the Bel-Red corridor, the Overlake/Microsoft campus area, and eventually to employment in the vicinity of downtown Redmond.

Sound Transit would say that this is a major benefit of East Link, as would we all. But the current Sound Transit subarea equity policy assigns all benefit of its transit projects to the residential origin ends of its transit users. Therefore, from the findings of the PSRC models, the Seattle/North King subarea could be assigned up to 65% of the capital and future operating costs of East Link under current Sound Transit subarea equity policies.

## **Proposed Restructure of Subarea Equity Policy**

As the least restructure of the Sound Transit subarea equity policies, the benefits of its transit projects should be modified to reflect the residential trip origins of its transit users, per the apparent definition of its current subarea equity policy.

Given the reasonable assumption that the benefits of transit routes accrue equally to each end of all user trips, the suburban subareas should diligently pursue a major revision of the current Sound Transit subarea equity policies. Benefits of the Sounder and Link light rail projects should be assigned by boardings at the rail stations and accrued to each subarea by the station subarea locations.

Benefit allocations of the Sound Transit Regional Express bus routes may be more difficult since records of hundreds of route boardings locations are likely unavailable. But benefits could be determined by route loadings at each subarea boundary. For example, East King REx routes to/from Seattle would likely show that 80% or more of each route users cross lake Washington to/from Seattle. Quite likely 40% of all such route users board in Seattle, and the Seattle/North King subarea should be assessed accordingly.

### **What is Done is Done, But Change is Doable**

We cannot change the sunk capital expense project costs of the Sound Move program. But we can pursue a change in the way future operating costs of those projects are assigned among the benefitted subareas. For example, the Snohomish subarea is obligated to fund 100% of the O&M cost of Sounder North in perpetuity. Yet nearly all user trips of Sounder North have Seattle as the benefitted trip ends. The Snohomish subarea should diligently pursue the assignment of at least 45% of all future Sounder North O&M costs to the Seattle/North King subarea as the proportional benefactor.

The Pierce, South King, East King and Snohomish subareas should also diligently pursue such adjustments for the future O&M costs of their Regional Express bus routes serving Seattle. A fair estimate is that with 50% of benefit allocated to each transit route trip end, Seattle derives at least 40% of the benefit of each suburban REx route that serves Seattle.

### **East King Should be Especially Concerned about the Benefits of East Link**

The East Link SDEIS and its supporting data found that 51% of all 2030 East Link boardings will occur in Seattle. Only 11% of all boardings will be trips between Eastside origins and destinations. East Link will primarily serve trans-lake users. But as noted above, up to 65% of those trans-lake users could be Seattle residents. No matter who boards, over half of all boardings will benefit Seattle.

East King officials need to approach the Sound Transit Board with a demand that an equitable allocation of East Link benefits will accrue to the Seattle/North King subarea; therefore half of the capital and future operating costs of East Link should be assigned to the Seattle/North King subarea.

## **Other Subarea Equity Issues**

Eastside elected officials should also be aware of the other violations of subarea equity that fully bypass its policy implications. The first is the misallocation of FTA New Start grants for rail transit projects. Another is the misuse of Sound Transit bonding commitments. The following table compares Sound Transit tax revenues by subarea for the period from 1997 thru 2023 to its current and planned uses of FTA New Start grants and bond revenues.

<b>Inequity of New Start Grants and Bond Revenue</b>						
YOE \$000s	1997-2023	Percent	New Start	Percent	Bond	Percent
Subarea	Tax Revenue	of Total	Grants	of Total	Revenue	of Total
Snohomish	1,869,600	12.3%	124,100	6.1%	557,000	8.0%
North King	4,327,200	28.5%	1,635,600	80.0%	3,077,300	44.0%
South King	2,518,200	16.6%	147,600	7.2%	575,300	8.2%
East King	3,913,000	25.8%	99,900	4.9%	2,452,400	35.1%
Pierce	2,555,000	16.8%	36,200	1.8%	325,700	4.7%
<b>Totals</b>	<b>15,183,000</b>	100.0%	<b>2,043,400</b>	100.0%	<b>6,987,700</b>	100.0%

Source: Sound Transit 2011 Financial Plan.

For the period from 1997-23, North King has and will generate 28.5% of systemwide tax revenue. But it has been allocated 80% of all FTA New Start grants and 44% of all bond revenue commitments. East King will generate 26% of all tax revenue but receive only 5% of the FTA New Start grants. The South King proportion of New Start grants and bond revenue is less than half of its proportional share of tax revenues. The Pierce subarea fairs out worst of all.

There is no subarea equity in the way Sound Transit has allocated New Start grant funds and bond sales revenues – North King has been greatly favored with both funding sources. But bonding commitments are backed by the tax revenues of all five subareas. So all subareas are on the hook for any default on bonded debt in proportion to their tax revenues.

### Seattle Gets Highly Subsidized Tunnels

Seattle has been given over 6 miles of tunnels. The 3-mile U-Link tunnel is being 50% funded by FTA capital grants. The lion’s share of the planned \$600 million FFGA3 will go to extending that tunnel under the U of W and the University District. Yet East King is being forced by Sound Transit to fund its own tunnel options.

We should also be aware that all King County taxpayers funded the \$800+ million downtown Seattle Transit tunnel – about 65% of that tax funding came from the South and East King subareas. Yet the tunnel has been virtually given over to exclusive Sound transit rail use, with North King as the primary benefactor.

### East King officials should be particularly diligent ...

... in pursuing a fair share of New Start grant funding for East Link. Even though North King has received 90% of the FFGA1 and FFGA2 grant funding, Sound Transit plans to allocate 80% of the planned \$600 million FFGA3 funds to North King. **For equitable use of FTA New Start grants, East King should demand at least 80% of that funding be applied to East Link.** That would more than cover the cost of the Bellevue preference for a tunnel segment under downtown Bellevue – a tunnel alternative that Sound Transit insists must be paid for with additional local funding. It would cover the potential East King revenue shortfall for East Link caused by the Recession; and it would cover all other mitigation costs for the B3 or B7 alignments that Bellevue is requesting. And finally, it would assure funding of East Link planning and design for extension to downtown Redmond.

### Seattle Support of Additional “ST3” Funding Unlikely

Finally, we should be aware that with completion of the ST2 light rail program, Seattle/North King will have completed its portions of the light rail core system. It will have no interest in approving another tax increase to further extend light rail in the suburban subareas, UNLESS additional rail lines are pursued in Seattle. But Seattle taxpayers will probably say “enough tax burdens for Sound Transit”.

### It is Time to Reform Subarea Equity

It is time for the four Sound Transit subareas outside of Seattle to demand reform of the Subarea Equity policies. As noted above the Sound Move Sounder and REx capital program commitments are sunk costs that likely cannot be compensated for benefits that accrued to the Seattle/North King subarea. **But we can demand that Seattle/North King be obligated to fund a fair share of the perpetual ongoing O&M and capital reserve costs of the Sounder and Regional Express bus systems. And East King officials should demand that a 50% benefit share for East Link be assigned to the Seattle/North King subarea along with a 50% share of its capital and operating costs.**

From 2009 thru 2040 the suburban subareas are estimated to incur \$7.4 billion in O&M costs for Sounder and the Regional Express bus routes. It is estimated that 75% of all riders will be to and from Seattle. If Seattle were to be assessed its benefit share of these O&M costs, it should be obligated to share about 37% of the \$7.4 billion in Sounder and REx O&M costs.

As noted above, the Sound Transit models find that about 35% of East Link users during the 3-hour morning peak period are Seattle residents destined to East King attractions. The PSRC models find that up to 65% of East Link users during the morning peak period originate from Seattle. **Even under Sound Transit’s current definition of subarea equity, at least 35% of the capital and operating costs of East Link should be assigned to the Seattle/North King subarea.**

O&M Costs of Sounder and Regional Express Routes			
YOE \$000s	O&M Costs	No. King Share	
	2009-40	% Share*	Cost
<b>O&amp;M Costs</b>			
Sounder North	341,500	48%	163,900
Sounder S. King	555,100	45%	249,800
Sounder Pierce	969,100	40%	387,600
Regional Express	5,549,000	35%	1,942,700
Snohomish	686,000	35%	240,100
South King	599,700	10%	60,000
East King	2,759,100	35%	965,700
Pierce Co	1,504,200	45%	676,900
<b>Total O&amp;M Costs</b>	<b>7,414,700</b>	<b>37%</b>	<b>2,744,000</b>

\* Based upon estimated rider boardings in North King.

Likewise, East King officials should demand that \$500 million of the planned \$600 million FTA FFGA3 grant funds be assigned to the East Link project rather than to the North King subarea that has already received 90% of all ST1 and ST2 FTA New Start grant funding.

**If all Eastside elected officials and the ETP were to stand hard on the Sound Transit Board to amend the great inequities of its Subarea Equity policies, they may find the shift of systemwide funding could get East Link extended to downtown Redmond within the amended ST2 program.**

### ETP Action Urgently Needed

**This information does not only reflect the concerns of the ETA, but those of all taxpayers of the East King subarea and the presumed concerns of all Eastside elected officials. We strongly urge the ETP to take appropriate action.**