Discussion of RTTF Policy Guidance to Date:
Comparison of System Reduction Scenarios

Regional Transit Task Force
September 2, 2010

Presentation Purpose

- **Compare two scenarios that maximize productivity**
  - ✓ System-wide basis
  - ✓ Subarea basis per current policy

- **Modify those scenarios to reflect the Task Force's policy direction and "use of guidelines" approach and discuss**

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Existing Conditions (Fall 2009 Baseline)

	Hours	% of Total	Riders	% of Total
East	595,000	17%	10,415,000	9.5%
South	745,000	21%	18,995,000	17.5%
West	2,150,000	62%	79,085,000	73%
Total	**3,490,000**	**100%**	**108,495,000**	**100%**

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Scenario Definitions

- **R0: Maximize Productivity** - Service reductions based exclusively on productivity, applied on a system wide basis.

- **R2: Current Policy, Maximize Productivity** - Distribute service hour reductions to the subareas consistent with current system-wide reduction policy. Apply a screen that reduces service based exclusively on productivity (to provide comparability with R0). That policy states :
  - ✓ *"Any system-wide reduction in service investment shall be distributed among the subareas in proportion to each subarea's share of the total service investment."*

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R0: Maximize Productivity

- Each route's 2009 performance data is separated into the three performance reporting time periods (peak, midday, evening/weekend).

- All route/time period data is listed in order of riders per hour on a system-wide basis.

- Route/time periods in the bottom 400,000 hours are eliminated.

R2: Current Policy, Maximize Productivity

- Each route's 2009 performance data is separated into the three performance reporting time periods (peak, midday, evening/weekend).

- Three lists of route/time period data, for each subarea, in order of riders per hour.

- Route time periods in the bottom 400,000 hours are eliminated, 62% from the west, 21% from the south and 17% from the east.

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Comparison of "Maximize Productivity" Scenarios (R0 & R2)

- Impacts on service families
- Coverage and connectivity gaps
- Network adjustments not included
- Productivity thresholds
- System ridership and productivity
- Subarea based results

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Impacts on Service Families

- **Most hourly service is eliminated**
- **Commuter and local services are reduced significantly**
- **Frequent service is impacted proportionately less**

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Impacts on Service Families

Commuter Peak   Frequent Arterial   Local   Hourly

R0: Maximize Productivity

R2: Current Policy, Maximize Productivity

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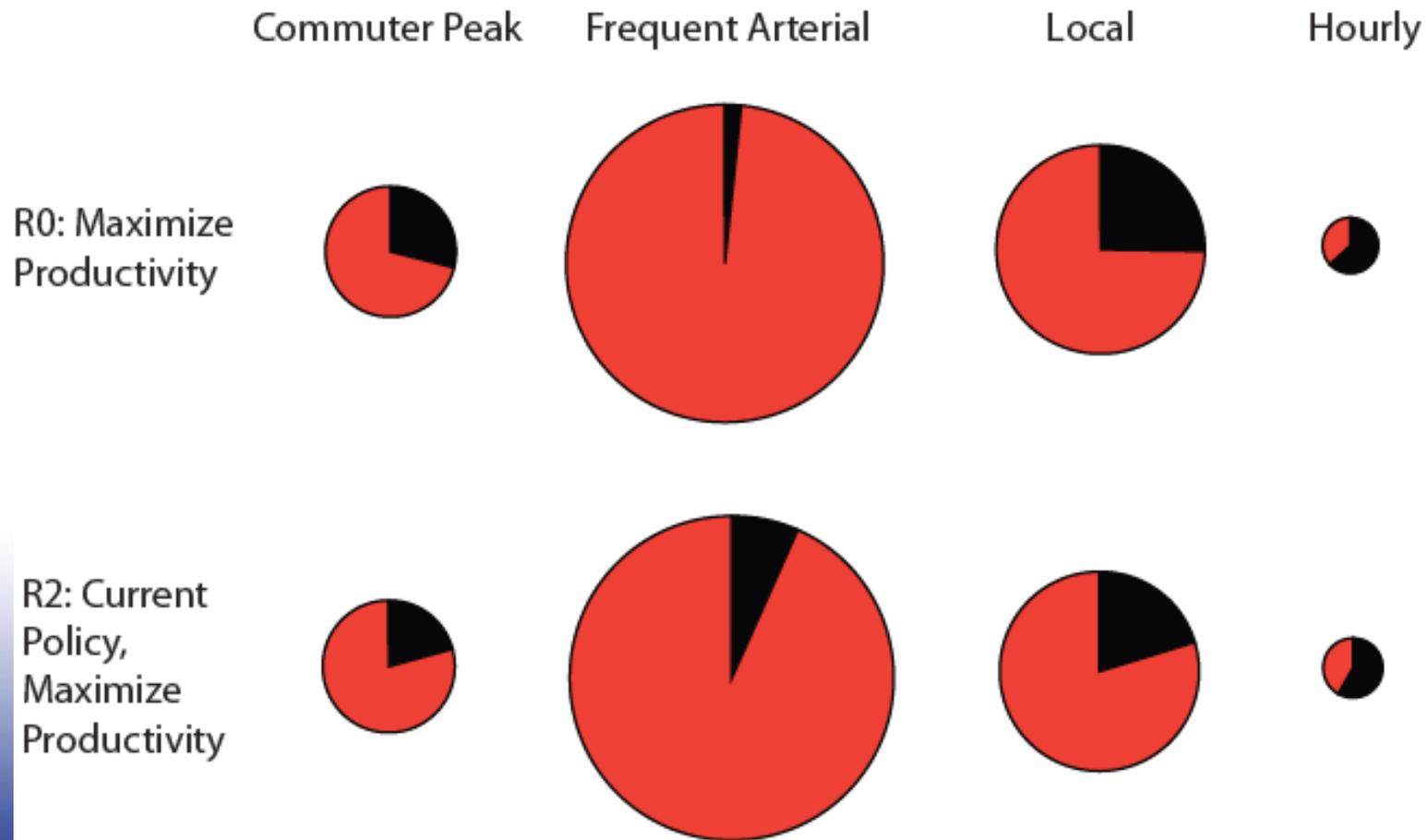
Coverage and Connectivity

- Loss of most service to low density urban and rural areas.

- Significant loss of night service (East in R0, West in R2).

- Reductions in hours of operation (span) make transferring more difficult.

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Network adjustments not included

- Does not take full advantage of Sound Transit integration or network efficiency opportunities:
  - ✓ Routes serving common markets operating in close parallel corridors and serving lower ridership "tails."
  - ✓ Peak Commuter routes overlapping with Sounder/Link.

- Continues to provide rider choices we may not be able to afford:
  - ✓ Peak Commuter, Frequent Arterial and Local routes in the same corridor.

- Does not connect some designated growth centers and some areas with larger low-income and minority populations.

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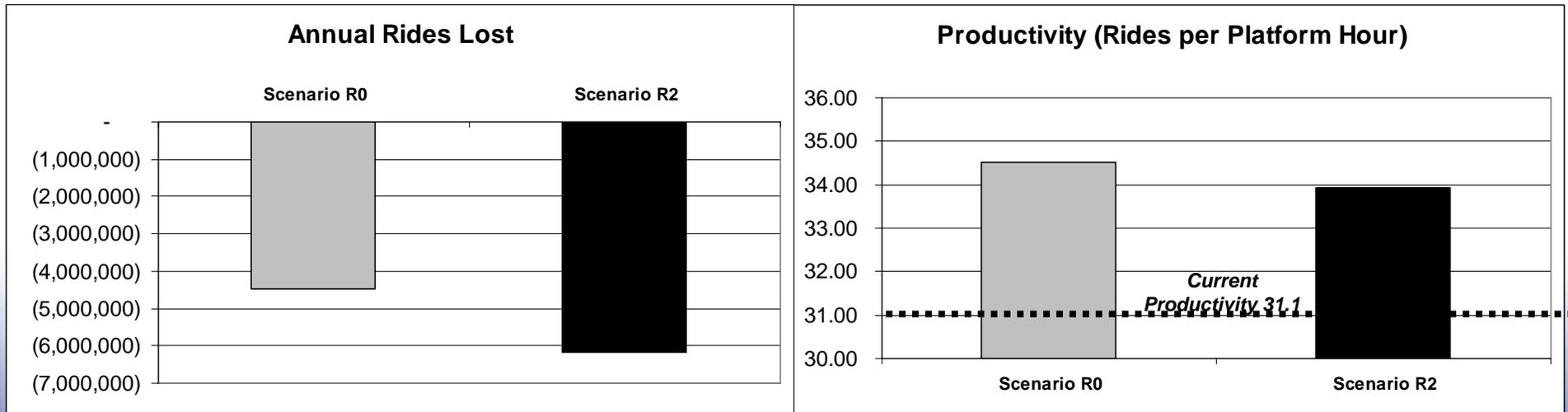# Productivity Thresholds

- In R0, the productivity threshold is the same across the entire system.

- In R2, the productivity threshold in each subarea is different, with the threshold lowest in the east and highest in the west. As a result, some services with few riders in the east are retained while services with many more riders in the west are cut.

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Productivity Thresholds

Scenario R0

EAST	SOUTH	WEST
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14.9*	**14.9***	**14.9***
xxxxxxx xxxxxxx	xxxxxxx xxxxxxx	xxxxxxx xxxxxxx
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Scenario R2

EAST	SOUTH	WEST
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	xxxxxxx xxxxxxx	xxxxxxx **23.2***
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	xxxxxxx xxxxxxx	xxxxxxx xxxxxxx
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xxxxxxx xxxxxxx	**13.3***	xxxxxxx xxxxxxx
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8.1*	xxxxxxx xxxxxxx	xxxxxxx xxxxxxx
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*Rides per platform hour

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Ridership and productivity

R2 impacts more riders and has lower productivity than R0

Annual Rides Lost

Productivity (Rides per Platform Hour)

Current Productivity 31.1

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Subarea impacts

- Geographic subareas do not follow or determine transportation patterns or mobility needs; a subarea constraint may lead to poor service design.

- R0 eliminates a much higher proportion of the east service compared to other subareas.

- R2 eliminates an equal proportion of service in each subarea (by definition).

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Subarea impacts (Annual Service Hours)

	EAST	SOUTH	WEST

R0:
Maximize
Productivity

Fall 2009: 595,000 (17%)
Change: -263,000
Remain: 332,000 (11%)

Fall 2009: 746,000 (21%)
Change: -129,000
Remain: 617,000 (20%)
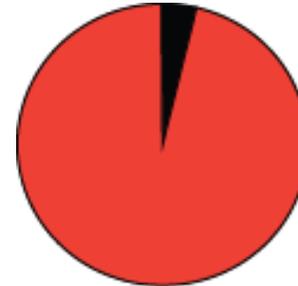
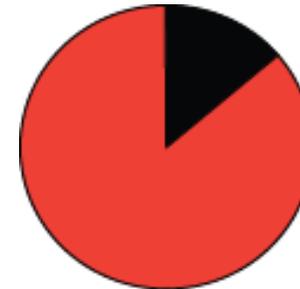Fall 2009: 2,150,000 (62%)
Change: -86,000
Remain: 2,064,000 (69%)

R2:
Current
Policy,
Maximize
Productivity

Current: 595,000 (17%)
Change: -81,000
Remain: 514,000 (17%)

Current: 746,000 (21%)
Change: -100,000
Remain: 646,000 (21%)

Current: 2,150,000 (62%)
Change: -301,000
Remain: 1,849,000 (62%)

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July 15th Task Force Meeting: Evolving Policy

- Emphasize **productivity** due to its linkage to **economic development, land use** and **financial sustainability.**

- Acknowledge the need to address **social and geographic balance.**

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August 19th Task Force Meeting: Guidelines, Transparency and Measurement

- Discussion of service growth also provides framework for reduction scenarios

- Review Policy Assumptions

- Employ Standards and Guidelines to:
  - ✓ Implement policy direction
  - ✓ Guide service investments or changes
  - ✓ Create an objective and transparent decision-making process

- Focus on Performance Measurement/Evaluation: Outcomes and Results

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Retention Process – Application of Guidelines

Guideline 1 – Provides Coverage

Density (HH per acre)	# of Residents	Type of Route
3 or more	More than 10,000	At least one Frequent Arterial route
	More than 3,000	At least one Local route
	Less than 3,000	At least one Peak Commuter route
Less than 3	More than 5,000	At least one Peak Commuter or Hourly route
Suburban or Rural	More than 1,500	At least one Hourly route

Guideline 2 – Serves as an Important Network Connection

Provides a unique connection between at least two other routes where transfers are expected.

Guideline 3 – Serves an Important Park-and-Ride

Provides the only service to a high utilization (over 250 boardings per day) Park-and-Ride.

Guideline 4 – Is a Partnership/Potential RapidRide Route

Part of a partnership agreement; or is a potential future RapidRide route.

Guideline 5 – Serves low income/minority census tracts

More than 50% of the census tracts served by the route classified as low income or minority.

Scenario Definitions

- **R1: New Approach based on RTTF Policy** - Service reductions based on policy framework of productivity, social equity and geographic balance, with consideration for system connectivity issues.

- **R3: Current Practice, with RTTF Policy Overlay** - Consistent with current system-wide reduction policy. Service reductions based on policy framework of productivity, social equity and geographic balance, with consideration for system connectivity issues (to provide comparability with R1).

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R1: New Approach based on RTTF Policy Guidance to Date

- **STEP ONE: Productivity Screen**
  - ✓ Each route's 2009 performance data is separated into the three performance reporting time periods (peak, midday, evening/weekend).

  - ✓ All route/time period data is listed in order of riders per platform hour.

  - ✓ Route/time periods in the bottom 400,000 hours are eliminated.

- **STEP TWO: Network Considerations**
  - ✓ Apply the task force guidance for geographic coverage and social equity, and include network considerations for system connectivity (retention process).

- **STEP THREE: Identify Efficiencies**
  - ✓ Take advantage of efficiency opportunities with the remaining system.

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R3: Current Practice, with RTTF Policy Overlay

- **STEP ONE: Productivity Screen**
  - ✓ Each route's 2009 performance data is separated into the three performance reporting time periods (peak, midday, evening/weekend).

  - ✓ Three lists of route/time period data, one for each subarea, are created in order of riders per platform hour.

  - ✓ Route time periods in the bottom 400,000 hours are eliminated, 62% from the west, 21% from the south and 17% from the east.

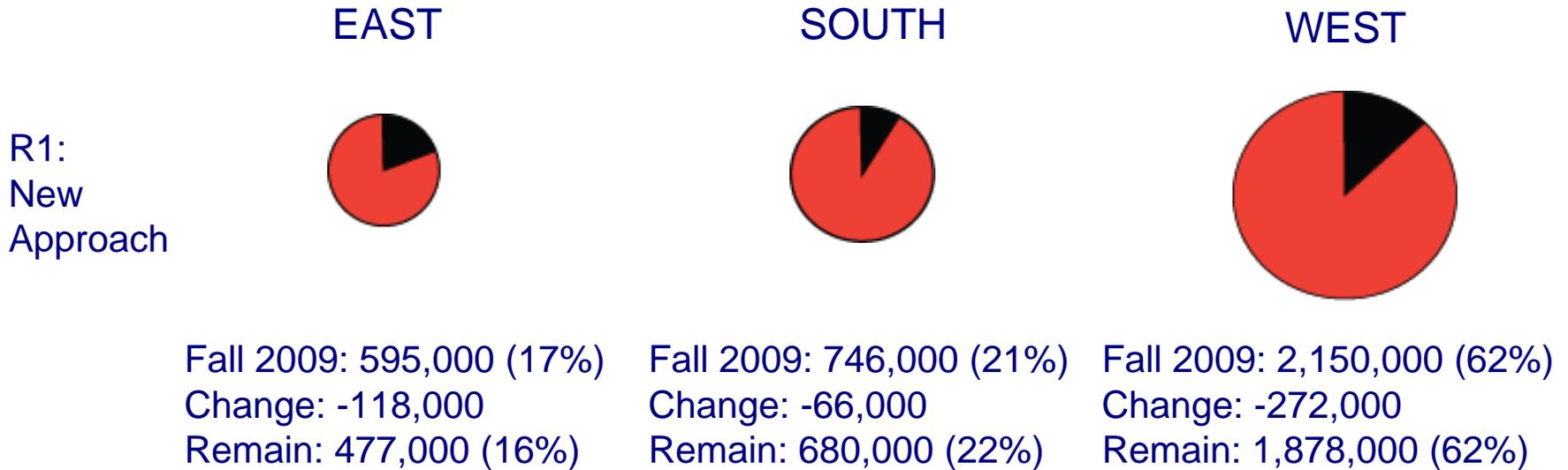- **STEP TWO: Network Considerations**
  - ✓ Revise R2 to apply the Task Force guidance for geographic coverage and social equity, and include network considerations for system connectivity (retention process).
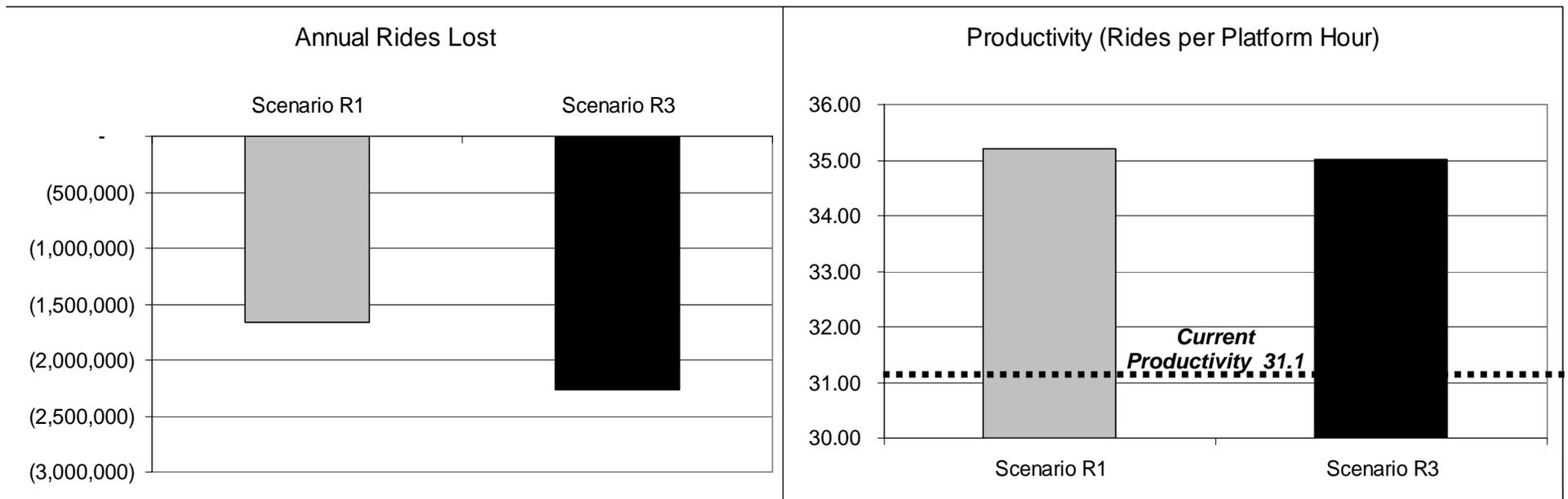
- **STEP THREE:**
  - ✓ Take advantage of efficiency opportunities with the remaining system.

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Productivity Thresholds

Scenario R1

EAST	SOUTH	WEST
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14.9*	**14.9***	**14.9***
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Scenario R3

EAST	SOUTH	WEST
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xxxxxxx xxxxxxx	xxxxxxx xxxxxxx	xxxxxxx xxxxxxx
8.1*	xxxxxxx xxxxxxx	xxxxxxx xxxxxxx
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*Rides per platform hour

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Subarea impacts (Annual Service Hours)

	EAST	SOUTH	WEST
R1: New Approach			
	Fall 2009: 595,000 (17%)	Fall 2009: 746,000 (21%)	Fall 2009: 2,150,000 (62%)
	Change: -118,000	Change: -66,000	Change: -272,000
	Remain: 477,000 (16%)	Remain: 680,000 (22%)	Remain: 1,878,000 (62%)
R3: Current Practice			
	Fall 2009: 595,000 (17%)	Fall 2009: 746,000 (21%)	Fall 2009: 2,150,000 (62%)
	Change: -62,000	Change: -73,000	Change: -320,000
	Remain: 533,000 (18%)	Remain: 672,000 (22%)	Remain: 1,830,000 (60%)

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Ridership and productivity

Annual Rides Lost

	Scenario R1	Scenario R3

Productivity (Rides per Platform Hour)

Current Productivity 31.1

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Policy Implications of R1 and R3 Service Reduction Scenarios

- R1
  - ✓ Uses clear, objective and transparent guidelines (still to be developed formally).
  - ✓ Can be designed to result in an integrated county-wide system that values productivity, fairness to riders (i.e. less ridership impact) and geographic fairness, without a formula.

- R3
  - ✓ Uses a formula to ensure that each geographic subarea shares a proportional amount of any system-wide reduction.
  - ✓ Limits network considerations based on geography rather than transportation patterns and mobility needs.

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Service Reductions: Next Steps

- **Task Force Charge**: Develop policy recommendations (not a scenario) for "systematically reducing the transit system should revenues not be available."

- **Task Force Policy Direction (from July):**
  - ✓ Emphasize productivity due to its linkage to economic development, land use and financial sustainability.
  - ✓ Address social equity and geographic balance.

- **Transparent Guidelines**: Shaped by policy direction, would be used to make service reduction recommendations.

- **Potential Scenarios**: A range of scenarios have been provided to demonstrate how the scenario changes if one policy direction is emphasized over another.

- **Question**: Is the task force ready to recommend this policy guidance, and this approach for making service reduction decisions?

Continued Discussion of Service Growth Policy

Regional Transit Task Force
September 2, 2010

Presentation Purpose

Respond to Council Charge to the RTTF: Recommend Criteria for Service Growth

Concept for Service Growth

- Review Policy Assumptions
- Introduce Standards and Guidelines Concept to:
  - Implement policy direction
  - Guide service investments and changes
  - Create an objective and transparent decision-making process
- Outcomes and Results
- Service Restoration

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August 5, 2010 Meeting: Next steps – Applying the Growth Concept

- **"Next 10 Years" investment to support:**
  - ➤ Population and employment distribution expected by 2020
  - ➤ Investment to meet peak ridership demand; as reflected in 2008 ridership data

- **Network description and map**
  - ➤ Assume Sound Transit Rail and Bus per ST2
  - ➤ King County Metro core connections of Frequent Arterial service
  - ➤ Description of Integration with ST2

Proposed Policy Direction

Through the establishment of performance metrics, standards and guidelines, develop a growth scenario that accomplishes RTTF policy direction to date.

- Emphasize **productivity** due to its linkage to **economic development, land use** and **financial sustainability**

- Ensure **social equity**

- Provide **geographic** balance by supporting land use and growth assumptions in Vision 2040

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Guidelines for Growth **Concept** 2012 to 2020

Two Types of Service Growth

1) Respond to Ridership Demand *(aka Follow)*
- By addressing crowded bus routes using service guidelines

2) Support Regional Growth *(aka Lead)*
- Point system considers centers' employment, housing density, social equity and network connectivity guidelines
- Sum of individual guidelines produces **minimum** service threshold.
  - 4 to 5 -- 10-15 minute peak, 15-minute midday and 30-minute evening
  - 3 to 3.9 -- 15-minute peak, 30-minute midday and 30-minute evening
  - 2 to 2.9 -- 30-minute peak, 30-minute midday and 30-minute evening
  - 1 to 1.9 -- 60-minute peak and 60-minute midday (no evening minimum)
  - <1.0 -- no minimum service level is specified.
- Example applied only to Frequent Arterial routes with varying Guideline thresholds to apply to Local, Hourly and Peak Commuter Routes

Conceptual Results

Estimated Hours Necessary to Meet Minimum Frequency Targets and Estimated Ridership Demand				
	East	**South**	**West**	**Total**
Hours to Reach Minimum Frequency	130,000	125,000	69,000	324,000
Hours to Respond to Demand (2008 ridership)	10,000	9,000	51,000	70,000
Total Hours	140,000	134,000	120,000	394,000
	36%	34%	30%	100%

* Redeployment within the West Area from North Link not included

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Emerging Consensus

- Support approach
- Support approach – focus will be on guidelines
- Cautiously support approach but concerned about geographic fairness

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Restoration of Service

- **Three options following service reductions:**

  - ➢ Restore service on the same routes that were cut

  - ➢ Restore the service investment in the same area from which it was cut

  - ➢ Grow from the new base using the new service growth concept

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Defining Geographic Balance

- Performance Measure Definition of Geographic Equity – Distribution and delivery of services, including fixed route bus service as well as other transit and ridesharing services, is appropriate to the land use and the market.

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Provide Geographic Balance

- Local and hourly service targeted to areas with lower population density

- Feeder services intended to connect communities to the transit network

- Use lower cost options to better match demand

- Minimal or no fixed route service provided where route productivity is poor

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Defining Social Equity

- **Performance Measure Definition of Social Equity – The proportionate distribution of transit service among people of color and those of low income within the areas that have more than the county's proportion of these populations.**

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