Land Use Vision Growth Projections

May 24, 2022
Land Use Technical Advisory Committee

Puget Sound Regional Council

Outline

- Growth targets and the Regional Growth Strategy
- Modeling Geographies & Parameters
- Release Content
- Next Steps

Recap: Land Use Vision (LUV.3) scope of work

- Goals - Produce a new policy-directed land use projection with:
  - Control totals consistent with new growth targets & Regional Growth Strategy
  - Updated base year inputs
  - 2050 horizon and additional intermediate year outputs
  - Accessibility from 2022 Regional Transportation Plan system plans

- Intended uses:
  - Primary travel modeling and analysis inputs for comp plan updates
    - Consistent representation of external areas
    - Jurisdiction outputs replaced with in-house land use scenarios
  - Serve as PSRC's primary land use projections until 2024/2025 (post comp-plan update)

Asking LUTAC today for feedback on:

- Adjustments to growth targets and the Regional Growth Strategy: reasonable interpretations for modeling purposes?
  - Any suggested modifications?
  - Any requests for additional details to review?
    - Likely post-LUTAC follow-ups with each county

- Proposed modeling methodologies for:
  - Additional regional geographies (military bases, tribal lands, natural resource areas)
  - Areas around HCT stations

- Final product content
  - Publish 2044 (instead of 2045) and control to the regional forecast?

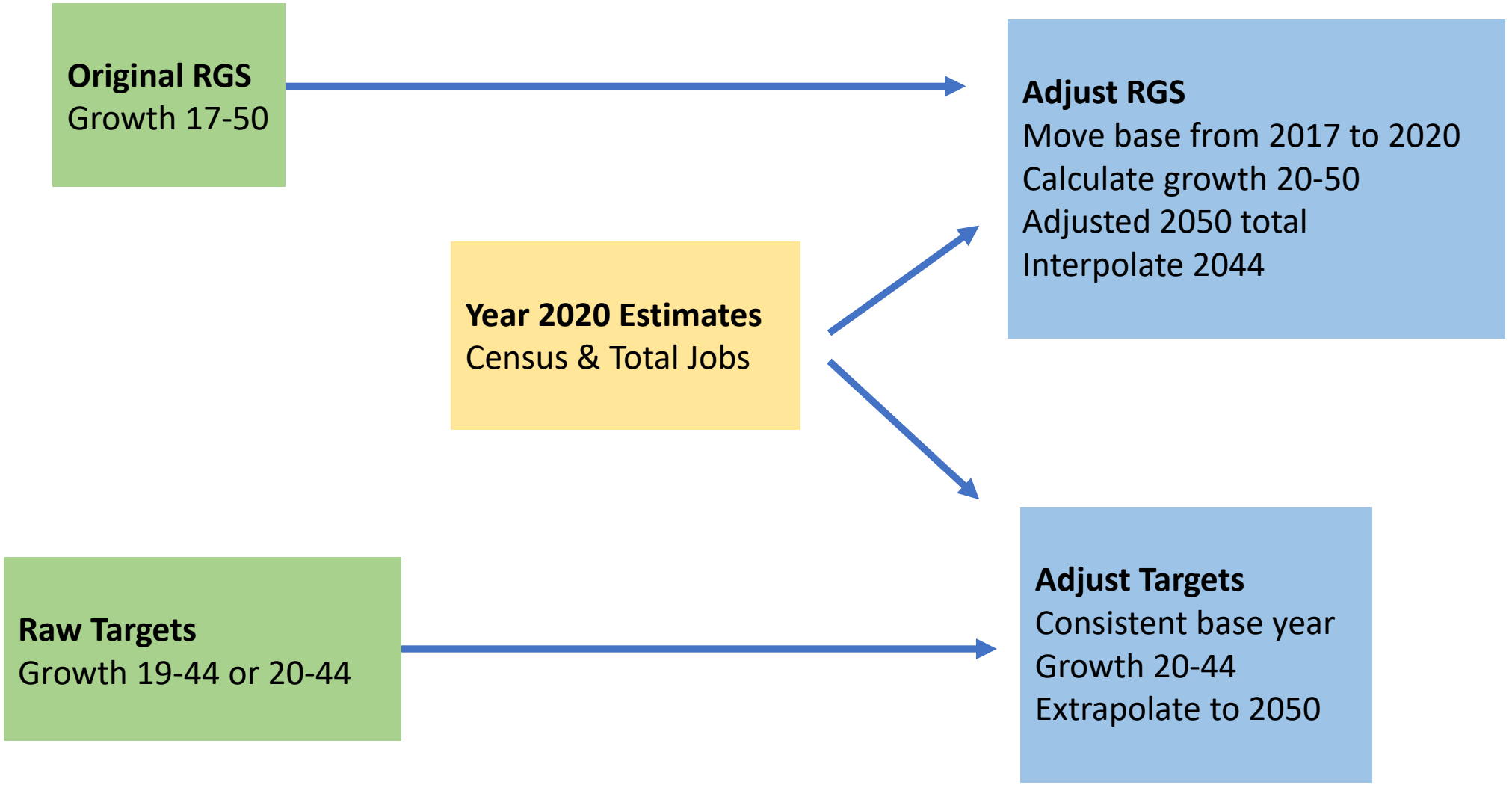
Growth targets and the Regional Growth Strategy: Adjustments and Comparisons

Why Adjust Targets and RGS?

- Translate local targets into a regionally consistent representation of population and employment
- Reflect unique timelines used by counties in applying the V2050 Regional Growth Strategy
- Recognize the 2020 Census as the latest and best available data source for current population
- Establish 2020 as a common base year for moving technical work forward

	Pop/Hsg Inputs	Emp Inputs	Horizon Year	Determine County-level Growth Amount
King	2019 OFM	2019 TotEmp w/o ResCon	2044	Reg Change 19-44 x RGS % Share
Kitsap	2020 Census	2020 TotEmp	2044	Reg Change 20-44 x RGS % Share
Pierce	2020 Census	2020 TotEmp	2044	Reg Change 20-44 x RGS % Share
Snohomish	2020 Census	2019 TotEmp w/o ResCon	2044	Reg Change 17-50 x RGS % Share, Interpolate 2044
RGS	2017 OFM	2017 TotEmp	2050	Reg Change 17-50 x RGS % Share

Adjusting and Comparing, Targets and RGS



Adjusting growth targets

Adjust Targets	King	Kitsap	Pierce	Snohomish
Current Data	April 2022 (Sammamish HU Increase)	As of April 2022 (Table labeled 2/4/22 DRAFT)	May 2022 DRAFT (Core Cities increases)	2/23/22 Final Approved
Primary Adjustments	• Convert from HU to Pop & HHs • Add back in Res/Con jobs • Shift both Res & NonRes to 2020 base • Adjust both Res & NonRes targets to 20-44			• Add back in Res/Con job • Adjust Emp target to 20-44
Questions or Remaining Issues:	• Handling of Rural Cities UGA areas • Future year PPH values		• Confirm removal of JBLM 2020 data from Pierce UGA geography	

Details on King County HU Conversion

Start

19-44 HU Targets

Adjust Target to 20-44 by applying change 2019 OFM – 2020 Census

2044 HU

Apply to 2020 Census estimates to get 2044 Total HU.

Derive 2044 HH, HH pop, GQ Pop, and Total Pop:

2044 HHs

Apply vacancy rates to get 2044 HHs
Use same values as King used in target development work

2044 HH Pop

Apply PPH to get 2044 HH Pop
Factor 2020 Census PPH by 2044/2020 change (King 2044 RegGeog assumptions / Census 2020 RegGeog results)

2044 GQ Pop

Factor Juris 2020 Census GQ Pop by 2044/2020
(2044 and 2020 Reg Forecast GQ projections)

2044 Tot Pop

Add GQ Pop and HH Pop to get 2044 Total Pop

2050 All Values

Extrapolate 2044 to 2050

Key Input to Review: PPH for Seattle & Bellevue

Aggregate targets vs regional forecasts in 2044

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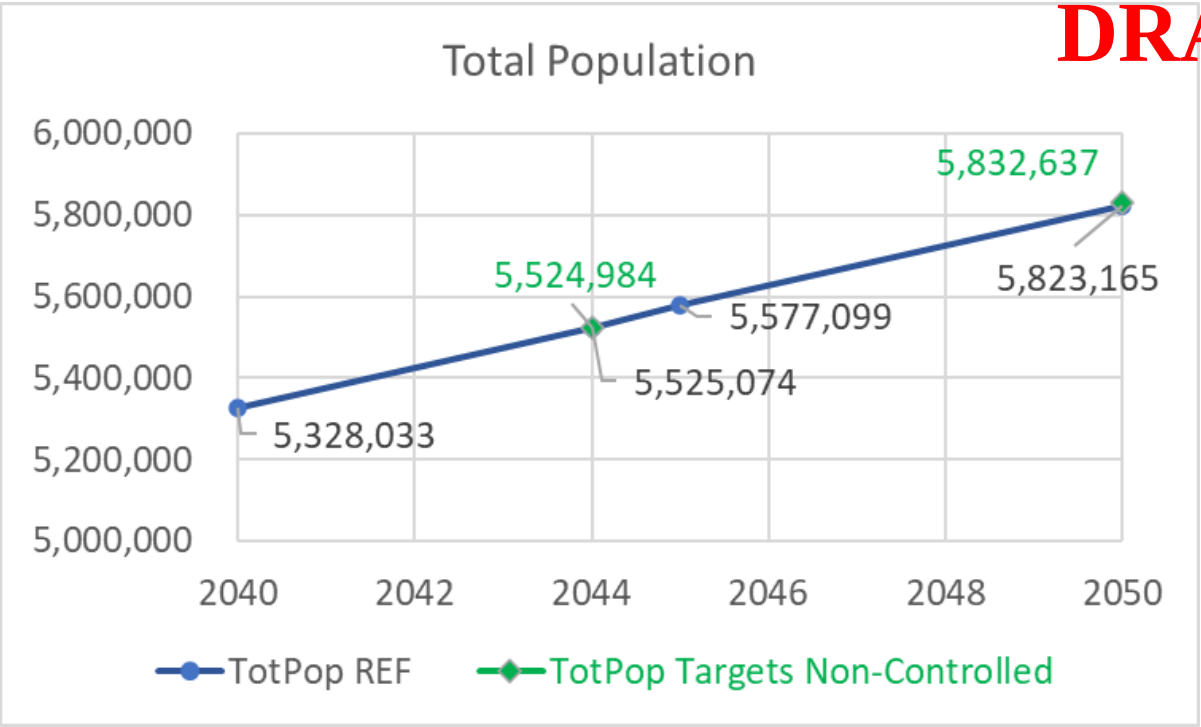

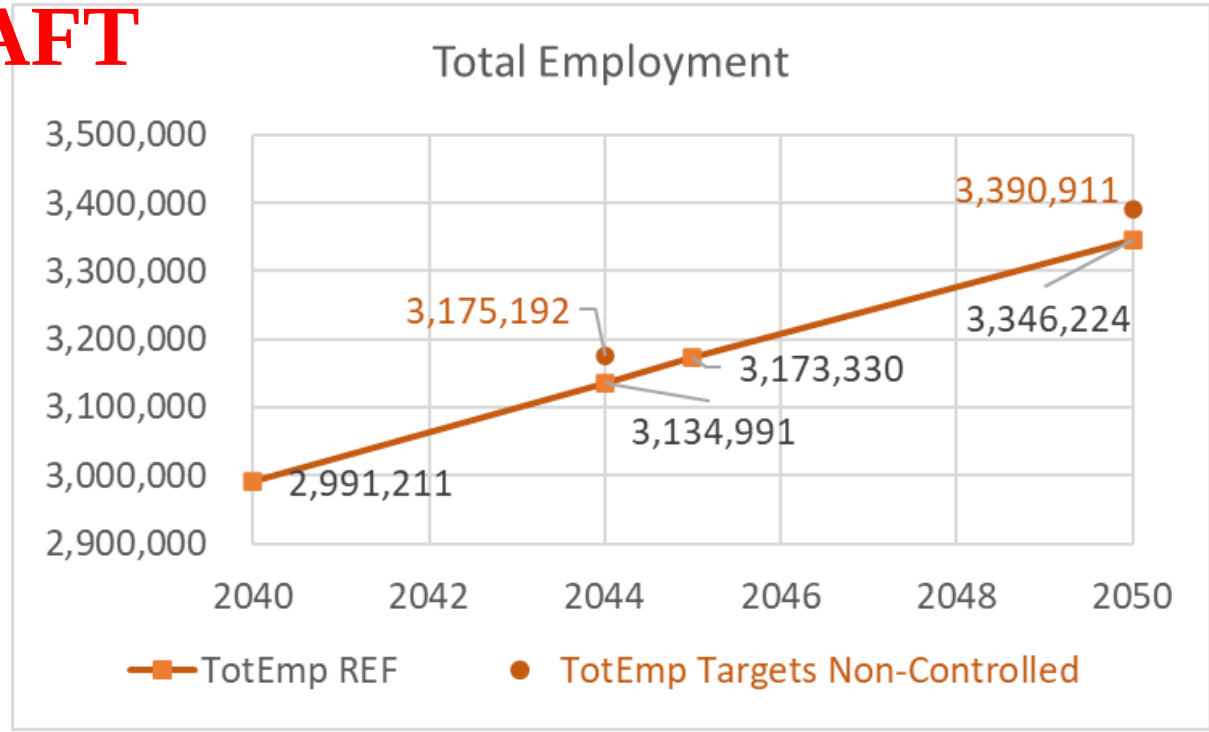

- Total Population nearly a match
- Total Employment fits between 2045 and 2046 (frontloaded)

Adjusting the RGS – Regional change

- Where it better aligns with how targets were developed
  - Shift the base year from 2017 to 2020
  - Recompute the 'size of the pie' to distribute from 2017-2050 to 2020-2050
- Vary approach in Snohomish to reflect use of 2017 starting point for interpolation
  - Reflect annexation adjustments

Total Population

Year	Orig RGS	Reset RGS
2017	4,066,800	
2020 (OFM)		4,264,200
2020 Census		4,294,400
20 Census - 17 OFM		227,600
20-50		1,528,800
17-50	1,756,400	
2050	5,823,200	5,823,200

Total Employment

Year	Orig RGS	Reset RGS
2017	2,187,800	
2020		2,312,300
2020 Est - 2017 Est		124,500
20-50		1,033,900
17-50	1,158,400	
2050	3,346,200	3,346,200

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Adjusting the RGS – County level

- Where it better aligns with how targets were developed
  - Shift the base year from 2017 to 2020
  - Recompute the 'size of the pie' to distribute from 2017-2050 to 2020-2050
- Vary approach in Snohomish to reflect use of 2017 starting point for interpolation
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Total Population

	% Share	Orig RGS	Reset RGS
King	50%	871,800	758,900
Kitsap	5%	96,500	84,000
Pierce	21%	363,700	316,500
Snoh	24%	424,400	369,400
TOT	100%	1,756,400	1,528,800

Total Employment

	% Share	Orig RGS	Reset RGS
King	59%	681,900	608,600
Kitsap	5%	56,500	50,400
Pierce	17%	195,200	174,300
Snoh	19%	224,800	200,600
TOT	100%	1,158,400	1,033,900

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Closer look at 2017-2020

Total Population

	Change			Growth Distributions		
	2017 - 2050	2017 - 2020 (Census)	2020 (Census) - 2050	2017 - 2050	2017 - 2020 (Census)	2020 (Census) - 2050
King	871,830	115,980	758,870	49.6%	51.0%	49.6%
Kitsap	96,510	11,310	84,010	5.5%	5.0%	5.5%
Pierce	363,660	61,730	316,540	20.7%	27.1%	20.7%
Snohomish	424,360	38,560	369,380	24.2%	16.9%	24.2%
Region	**1,756,360**	**227,580**	**1,528,800**	**100.0%**	**100.0%**	**100.0%**

Total Employment

	Change			Growth Distributions		
	2017 - 2050	2017 - 2020	2020– 2050	2017 - 2050	2017 - 2020	2020 – 2050
King	681,850	87,090	608,570	58.9%	70.0%	58.9%
Kitsap	56,510	5,890	50,440	4.9%	4.7%	4.9%
Pierce	195,250	20,300	174,270	16.9%	16.3%	16.9%
Snohomish	224,790	11,220	200,630	19.4%	9.0%	19.4%
Region	**1,158,400**	**124,500**	**1,033,910**	**100.0%**	**100.0%**	**100.0%**

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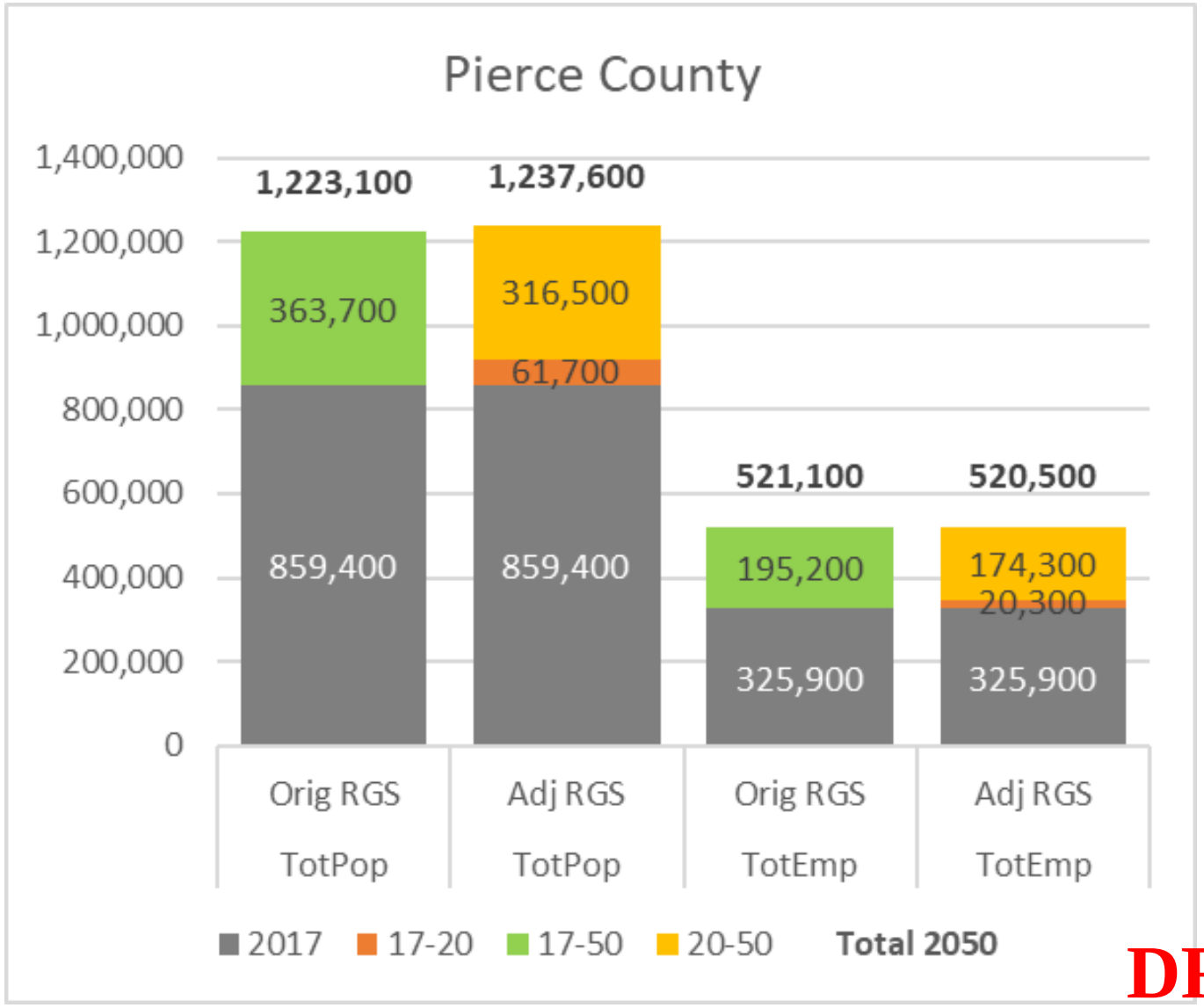
- Higher or lower shares of growth from 2017-2020 than called for by RGS can impact 2050 totals
  - Average Annual Percent Change, 17-50 vs 17-20
    - Population: 1.1% vs 1.8%
    - Employment: 1.3 vs 1.9%

Adjusting the RGS: Before/ After example



- Pierce County Original and Adjusted RGS for 2017-2020 change
  - From prior slide: 27% of regional population change 2017-2020 compared to 21% RGS
  - Employment share 17-20 of 16% close to RGS's 17%

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Plots: Aggregate Targets vs RGS

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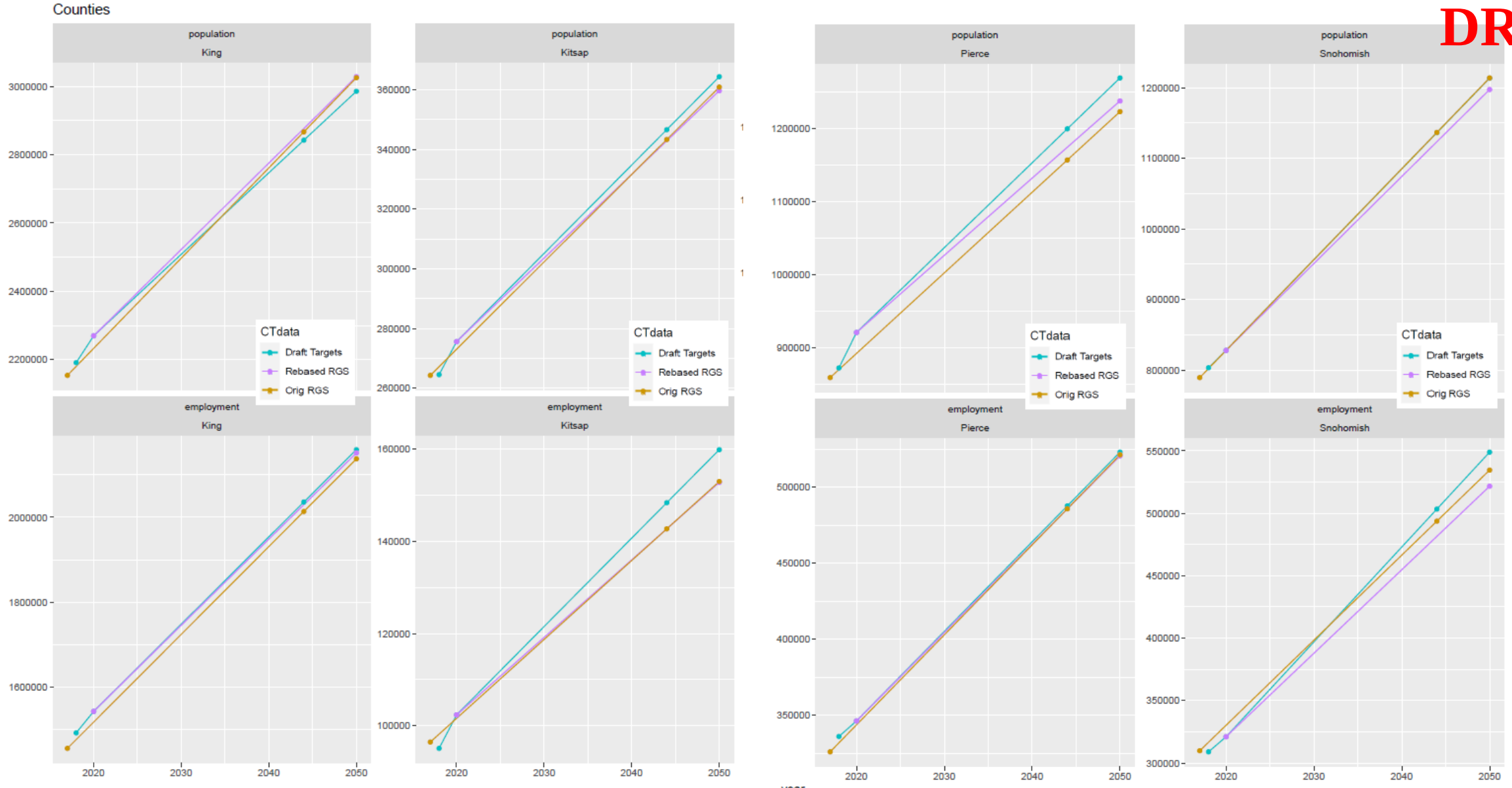
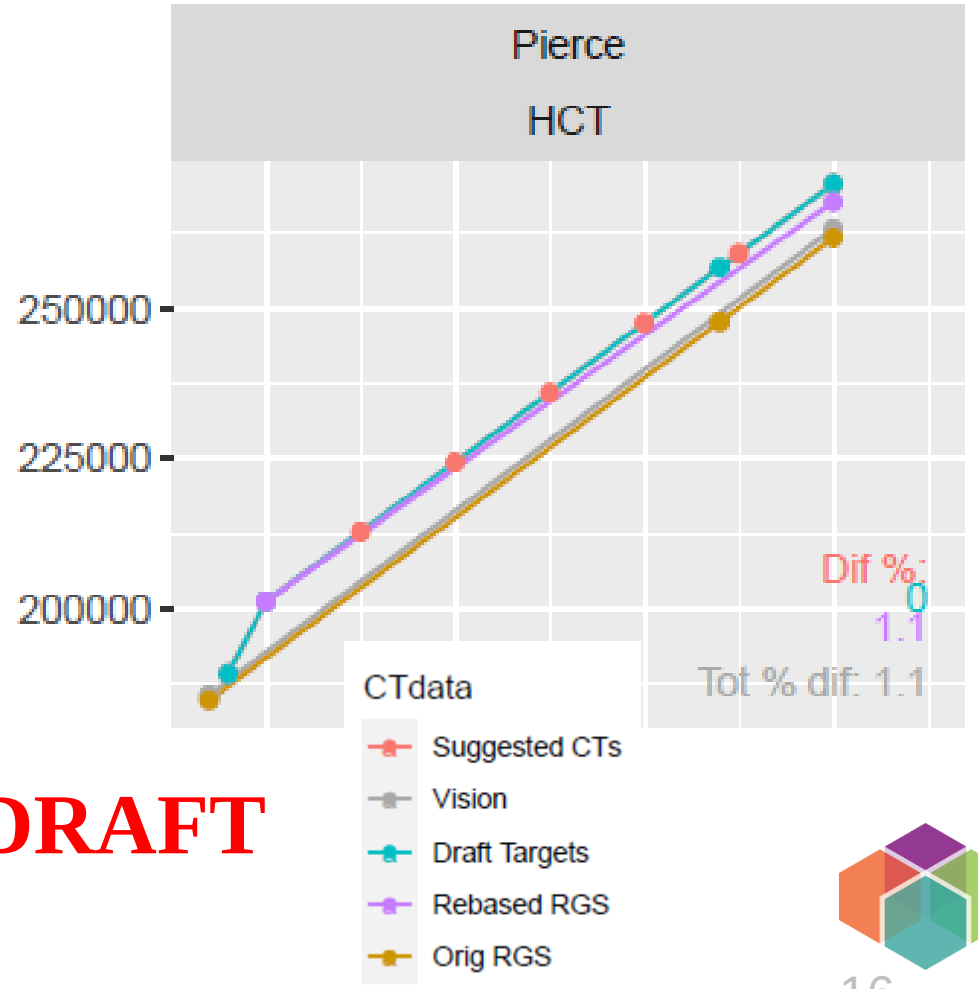


Next steps: Developing control totals

- Continue to explore straightforward approach
  - Targets as control totals if within 5% of RGS
  - Most County x Regional Geographies within this range
- Review technical inputs
  - Individual county meetings
- Wait for ongoing revisions to draft targets to wrap up
  - How to close gaps greater than 5%

Example: Pierce HCT Population



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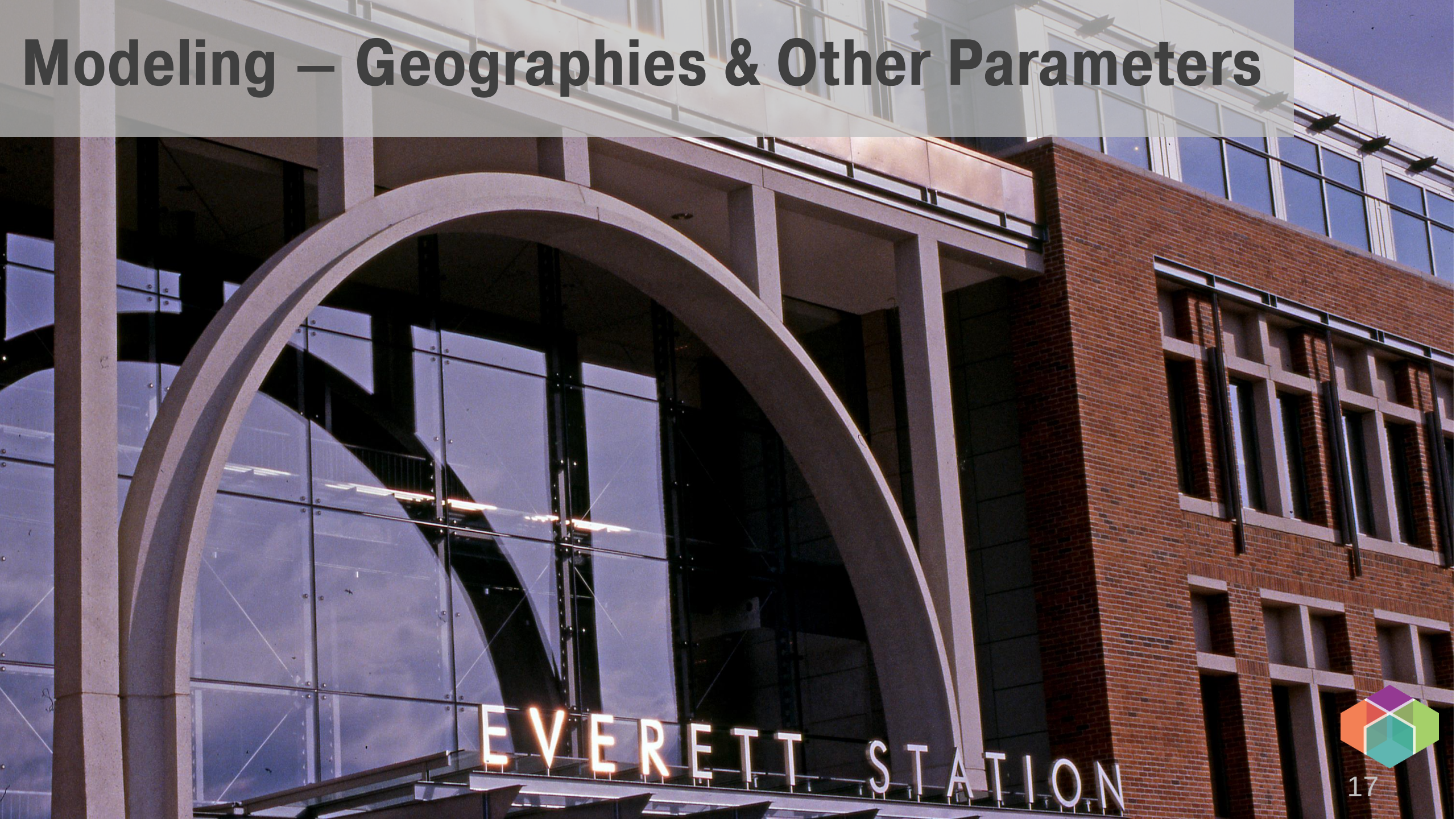
Modeling – Geographies & Other Parameters



Vocabulary

- Target Geographies
  - Literally any jurisdiction or sub-jurisdiction with a growth target
  - Starting point for ….
- Control Total Geographies
  - Go beyond published growth targets
  - Additional controlled geographies to better align with growth policies
- Reporting Geographies
  - Geographies where model is deciding how much growth is allocated
    - Prior examples: growth centers, zones, tracts, etc.
  - Larger UGA aggregations – monitoring results

Control total geographies

- Starting point: published targets (Target Geographies)
  - Break out Natural Resource lands – model as no growth subset of Rural

	King	Kitsap	Pierce	Snohomish
Natural Resource Acres	877,821	5,310	591,801	1,001,680
Remaining Rural Areas Acres	229,904	261,060	382,765	256,184

  - Break out military bases – model as no growth subset of 'parent' jurisdictions

Kitsap	Pierce	Snohomish
Naval Base Kitsap (Bremerton)	JBLM (Pierce UGA)	Naval Station Everett (Everett)
Bangor (Kitsap Rural)		

  - City boundaries as of Jan 2022

Control total geographies

- Specific county notes:
  - King
    - UGA's modeled with parent cities: Carnation, Covington, Duvall, Enumclaw, North Bend, Snoqualmie – Let model allocate between city and UGA & monitor results
    - Seattle PAA merged with North Highline UGA
    - Additional no-growth UGAs: Bear Creek UPD, Milton PAA, Tukwila PAA
  - Kitsap
  - Pierce
    - Noted JBLM population removed from targets basis & growth target work – added back in for comparison purposes but will model as zero growth military base.
  - Snohomish

Reporting geographies

- Report on growth allocated by model:
  - Tribal lands – modeled as part of location jurisdiction's growth target

King	Kitsap	Pierce	Snohomish
Muckleshoot	Port Gamble S'Klallam	Muckleshoot	Sauk-Suiattle
Snoqualmie	Suquamish	Nisqually	Stillaguamish
Puyallup		Puyallup	Tulalip

  - Merged UGA areas
    - For QC work – TBD whether part of final published forecasts
    - Select King Cities & Towns (per previous slides)
    - Pierce UGA subareas (original RGS breakouts)
    - Growth concentration areas (RGCs, MICs, HCT stations & stops)

Representing growth policy

- Policy Boosts
  - Prior work boosted capacity by 25% in regional growth centers – proxy for policy concentrating growth in centers
    - Test & evaluate, see if continue using in LUV.3 (needed with updated FLU?)
    - Adjust for RGC changes if needed (Kirkland)

- HCT stations & stops
  - Updated to reflect minor changes from 2022 RTP
  - Monitor growth in draft assignments

- Reminder growth can exceed capacity constraints
  - Built-in methods to allocate additional HHs and Jobs as needed.

Controlling to the regional forecasts

- Previous approaches have factored inputs for all control total years (every 5 years) to match regional forecast totals
  - Factor by county or regional as a whole?
  - How to handle 2044

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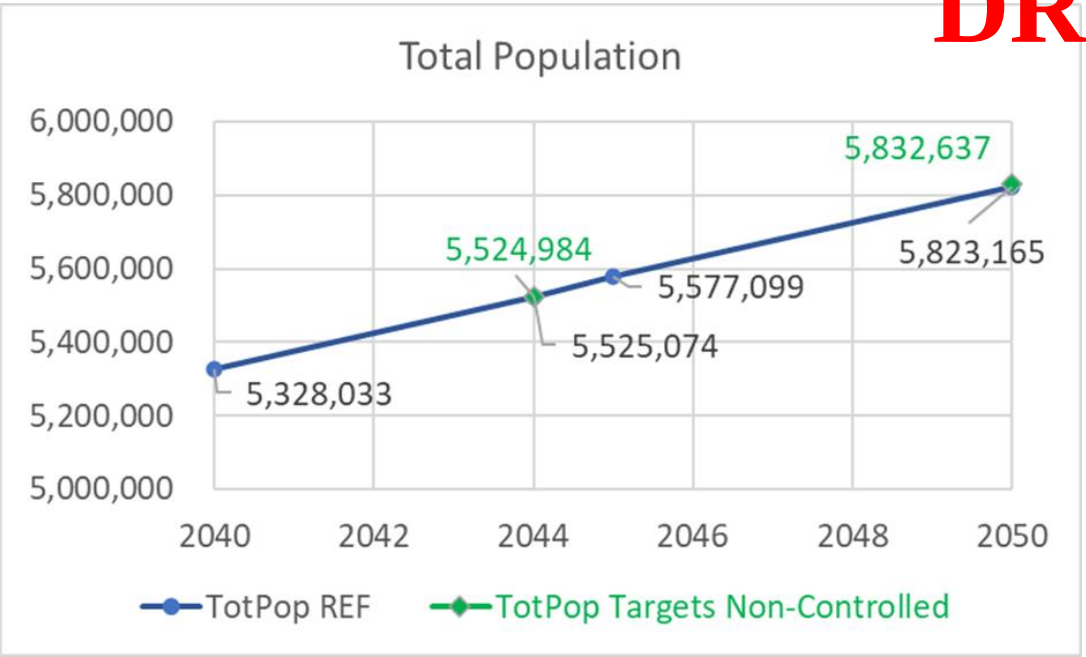

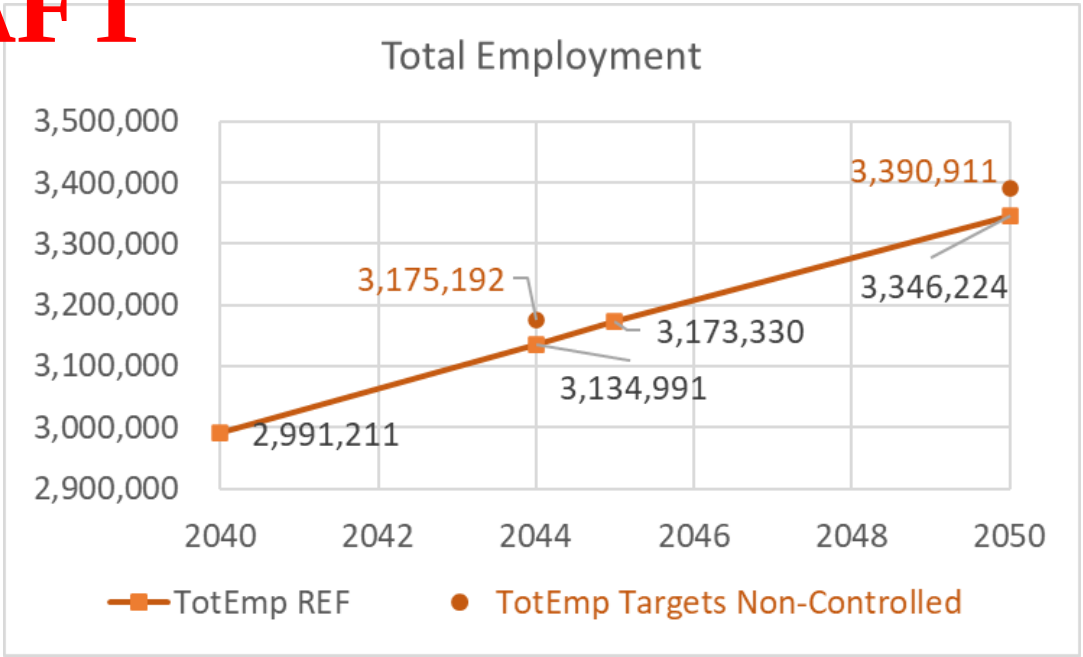

Endgame & Next Steps

LUV.3 content

- Simulation Years
  - Simulate 2020-2050 every 5 years
  - Replace 2045 with 2044?
  - Interpolate intermediate year jurisdiction control totals
- Publication
  - 2018, 2020 (controlled @ jurisdiction level to actual estimates)
  - 2025, 2030, 2035, 2040, 2044, 2050
- Geographies
  - Tracts, FAZs, TAZs
  - Counties and Cities
  - Target Geographies
  - Additional Geographies ? (Natural Resource, Tribal, Military)

Going forward

- Post May LUTAC:
  - Follow up discussions
    - Deeper technical review (inputs, targets, adjustments, geographies)
  - Fold in remaining updates / final versions of growth targets

- June – August:
  - Draft and final control totals
  - Initial modeling results, work towards draft

- Sept-Oct:
  - Review opportunity
  - Window for product release

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Thank you.