Tracking and Analyzing Regional Equity: 
The ACS and Ambiguities of Time and Space 
Experiences of the Regional Equity Atlas and Greater Portland Pulse

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Presentation Outline

• Overview of the Regional Equity Atlas and Greater Portland Pulse
• Criteria for measuring equity
• Equity Analysis Sweet Spot and Implications of the ACS
• Examples:
  – Long Form to ACS: Child Poverty
  – Dealing with Uncertainty: Examples from the Regional Equity Atlas 2.0
Regional Equity Atlas 2.0

- **Partnership**: Coalition for a Livable Future, Metro, PSU
- **Region**: bi-state; 4 counties; 40 cities
- **Focus**: social equity
- **Indicator priority**:  
  - *spatial resolution* over temporal resolution
- **Primary funders**: Metro; PSU; cities of Portland, OR and Vancouver, WA

Greater Portland Pulse

- **Partnership**: Metro, PSU
- **Region**: bi-state; 4 counties; 40 cities
- **Focus**: 9 consensus-based outcomes – *social equity embedded*
- **Indicator priority**:  
  - *temporal resolution* over spatial resolution
- **Primary funders**: Robert Wood Johnson; Kaiser Permanente; NW Health Foundation
In an Equitable Region . . .

- Coalition for a Livable Future

**All people** have **access to the resources** necessary for meeting their basic needs and advancing their health and well-being.

**All people** have the **power to shape the future** of their communities through public decision-making processes that are transparent, inclusive, and engage the community as full partners.

**All communities experience the benefits and share the costs** of growth and change.

**All people** are able and have the **opportunity to achieve their full potential** and realize their vision for success.
Greater Portland Pulse’s Equity Panel’s Criteria

• **Disaggregation**: whenever possible the indicator data should be broken down by *race, ethnicity, age*, and *income*

• **Mapping**: to understand the effects of place-based issues, it is critical to map as many indicators as possible to a *neighborhood level*

• **Data Availability**: to address the lack of disaggregated data at the neighborhood level, a list of “*aspirational*” indicators should be developed

• **Community Perspective**: the issues must be seen from the perspective of *diverse communities*
Equity Analysis and Implications of the ACS

Equity Analysis Sweet Spot

- High Temporal Resolution
- Demographic Specificity
- High Spatial Resolution
Regional Equity: Child Poverty

*From the Census Long Form to the ACS*
10-year data

Temporal Resolution

Demographic Specificity

Spatial Resolution

Blockgroup (converted to grid)

2 Factors

Total change within circle 2/3 mile wide:
-338 to -151
-150 to -66
-65 to -31
-30 to -6
-5 to 6
7 to 30
31 to 65
66 to 150
151 to 336

Regional Equity Atlas 1.0
1990 and 2000 Census Long Form Data

Regional Equity Atlas 1.0
1990 and 2000 Census Long Form Data

Change 1990-2000:
Distribution, Children in Poverty
Portland-Vancouver PMSA (central)

Colors identify locations around which total change in child poverty (<18 yrs) equals the value stated above. Calculations are based on "focal statistics" using a 1/3 mile search radius. Variability based on U.S. Census Bureau STF3 1990 P117 & SF3 2000 P87 reclassified by block-to-blockgroup ratio of children under 18 for whom poverty status is determined. Average and standard deviation based on data within UGBA (gray areas) only.

2006, K. Rudin
PORTLAND STATE UNIVERSITY
Population Research Center
% Children in Poverty by Race & Ethnicity, Portland-Vancouver MSA

Greater Portland Pulse ACS 1-year MSA Data

1-year data
3 Factors
Temporal Resolution
Demographic Specificity
Spatial Resolution
7-County MSA
Temporal Resolution

Spatial Resolution

Demographic Specificity

Greater Portland Pulse
ACS 3-year County-level Data

3-year data

2 Factors

Temporal Resolution

Demographic Specificity

Spatial Resolution

Counties
10-year data

Temporal Resolution

Demographic Specificity

Spatial Resolution

Census Blocks (converted to grid)

1 Factor
Regional Equity Atlas 2.0

10-year census
5-year estimates

Temporal Resolution
Demographic Specificity
Spatial Resolution

2 datasets

Census Blocks (converted to grid)
Census Tracts

The fuzziness of uncertainty
Regional Equity Atlas 2.0
Dealing with Uncertainty:
- Aggregating up
- Adding other data sources
Regional Equity Atlas 1.0
1990 and 2000 Census
Long Form Data

Change 1990-2000: Cost-burdened Renter Household Rate
by Neighborhood or City
Portland-Vancouver
PMSA (central area)

Percentage-points:
- <15
- 15 to -7.6
- -7.5 to -1.1
- -1 to 3.1
- +3.1 to RV
- 3.2 to 7.5
- 7.6 to 15
- >15 insufficient data

Percentage cost-burdened renter households (spending 30% or more of households income on rent & utilities) in 2000 minus percentage cost-burdened renter households in 1990. Variable based on U.S. Census Bureau STF3 1990 HS & SF3 2000 H71 blockgroup data reallocated to blocks by block-to-blockgroup ratio of households & summarized by zones. A few Neighborhoods simplified from original spatial data for clarity, updated city-data: EX: new City of Damascus cuts into Rock Creek Neighborhood, City of Happy Valley has numerous holes or fragments; thus, Happy Valley merged with Rock Creek, Damascus shown in its entirety. Other: Metro RUS 2005, ESRI 2004.

2005, K. RADIN
PORTLAND STATE UNIVERSITY
Population Research Center
Temporal and Spatial Ambiguities

Time

Space
In our quickly changing world, as local governments are increasingly interested in tracking social equity conditions in ways that allow them to *geographically and demographically target* and address problems, demographic data (particularly race/ethnicity, *income*, and age) that are reliable at the neighborhood level (Census tracts) and *comparable over time* are increasingly important.

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