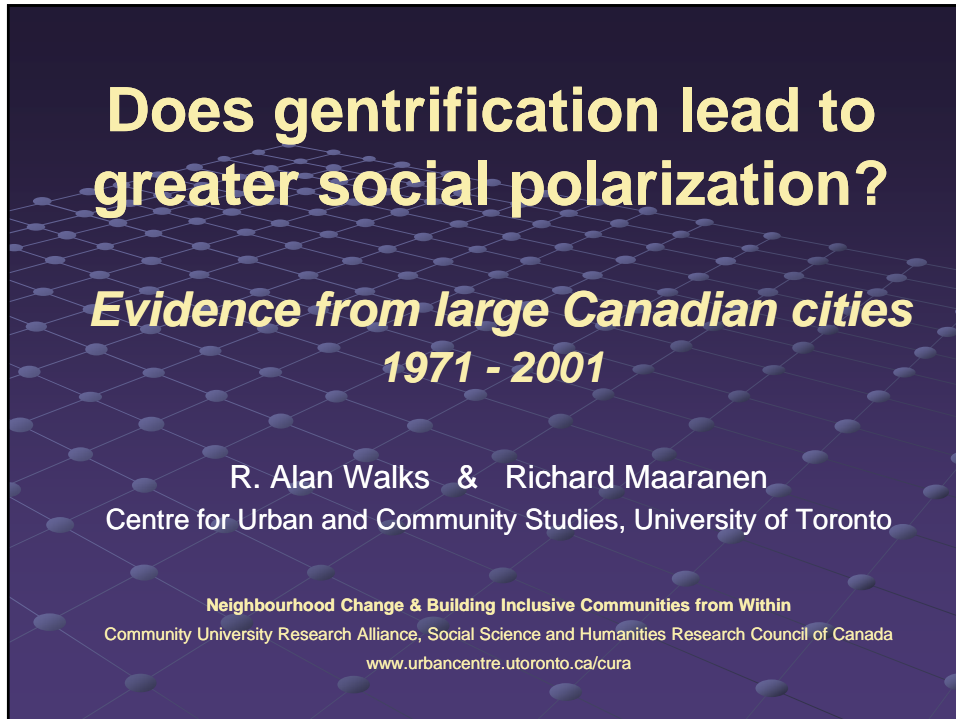


# Does Gentrification Lead to Greater Social Polarization?

R. Alan Walks and Richard Maaranen, April 2006



## **Does gentrification lead to greater social polarization? Evidence from Large Canadian cities 1971 - 2001**

Outline:

1. Research questions:  
Does Gentrification → Social Polarization?  
How do the stages of gentrification → shifts in polarization?
2. Methods:   a) defining and measuring gentrification  
                  b) defining and measuring polarization (and inequality)
3. Results: Indices of income polarization and inequality
4. Conclusions: tentative

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## Defining and Measuring Gentrification

- Census tract data, Census of Canada 1961, 1971, 1981, 1991, 1996, 2001

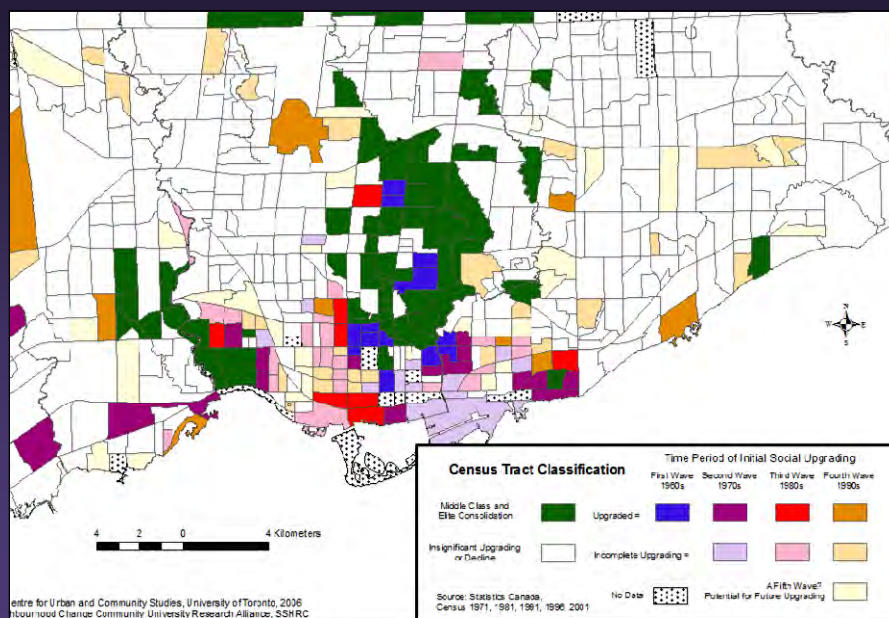
- Principal Components Analysis (PCA) with 4 variables:

1. Social Status (LQ of professional/managerial occupations, and university education)
2. Average Personal Income (persons aged 15+)
3. Tenure Composition (% Tenants)
4. LQ for Artists

- PCA analyzed changes between 1971, 1981, 1991, 1996 and 2001 Censuses

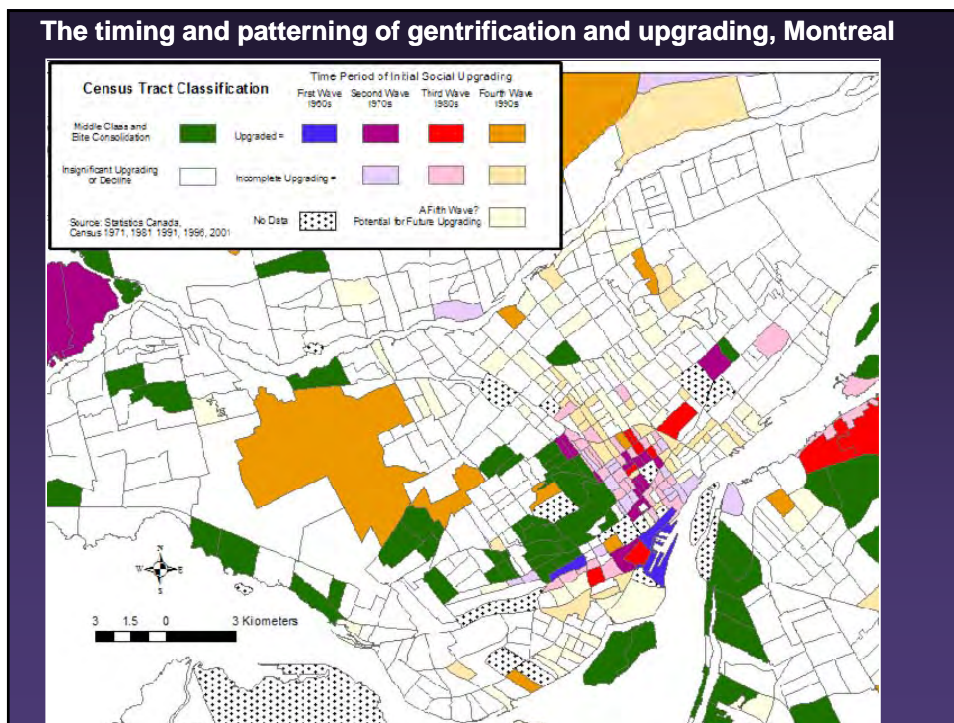
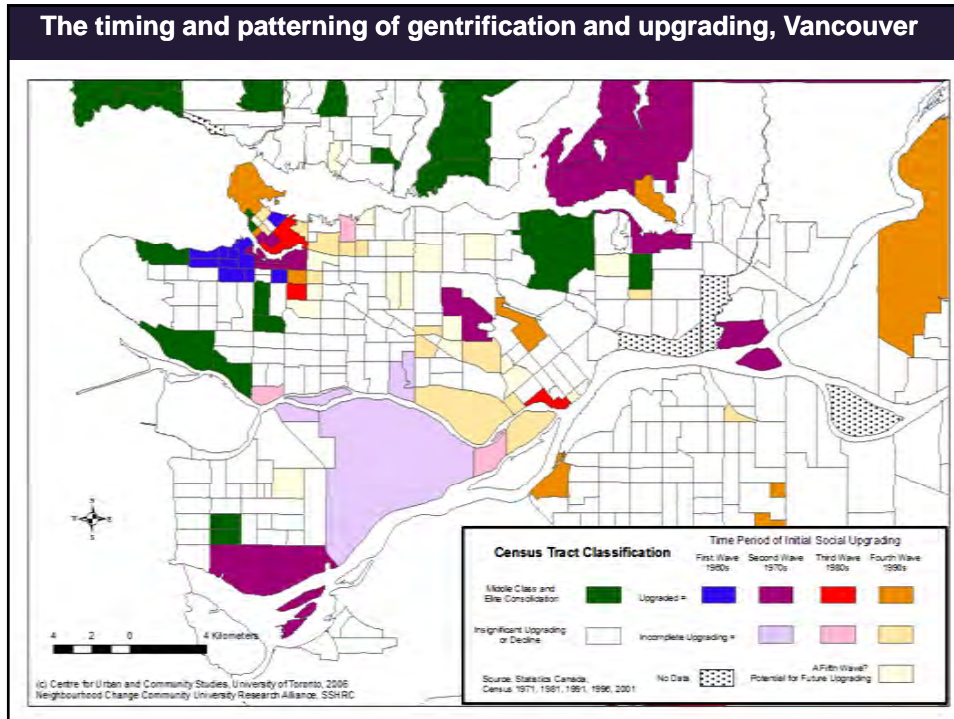
- Settled on 5 components, indicating changes between Census years

## The timing and patterning of gentrification and upgrading, Toronto



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## Defining and Measuring Polarization & Inequality

- Census tract data, census of Canada 1971, 1981, 1991, 1996, 2001
  - Census tracts as proxies for neighbourhoods
- Polarization and Inequality between *households* within census tracts
  - Calculated from data on income ranges – but many *limitations*

### Inequality Indices:

1. Gini concentration ratio (Gini CR)
2. Exponent (Exp)
3. Coefficient of Variation squared (CV<sup>2</sup>)
4. General Entropy (GE0) (Theil L)
5. Skewness Ratio (Mean/Med)

### Polarization Indices:

1. Wang-Tsui (WT)
2. Coefficient of Polarization (CoP)

- Measured social diversity as a function of a) LQ of 3 groups over time (Chinese, Blacks, South Asians) and 2) Canadian/Foreign Born

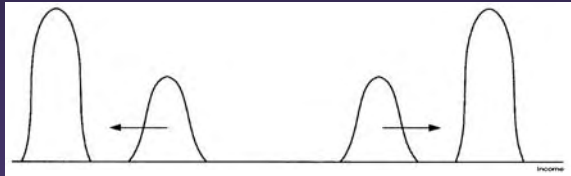
## Defining and Measuring Polarization & Inequality

*Inequality and Polarization are distinct concepts*

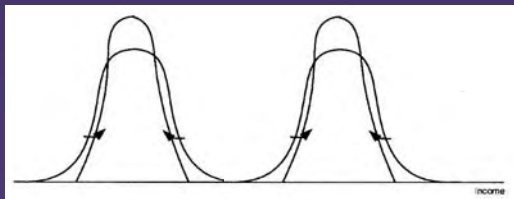
**Inequality:** Pigou-Dalton axiom = transfers from richer to poorer must always decrease inequality

**Polarization:** 2 axioms:

- 1) 'Spread'



- 2) 'Bipolarity'

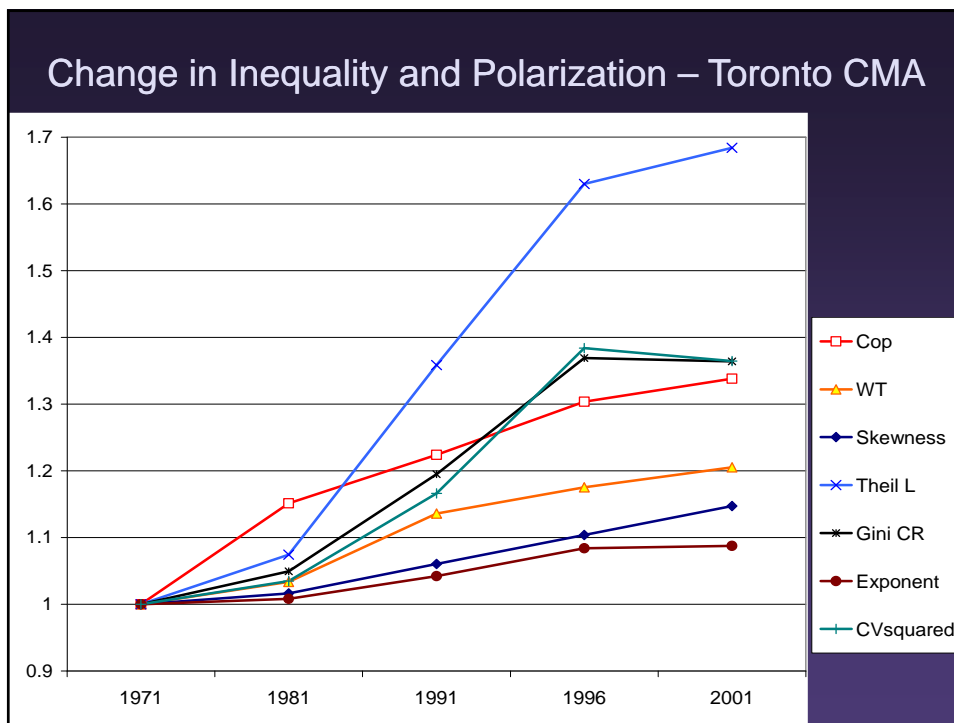


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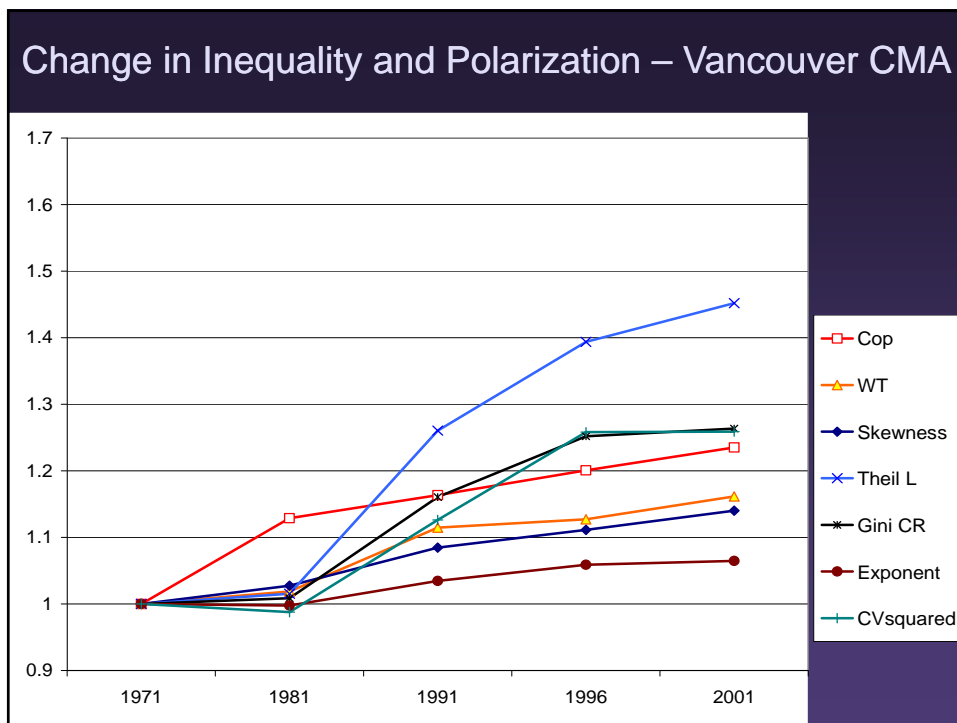
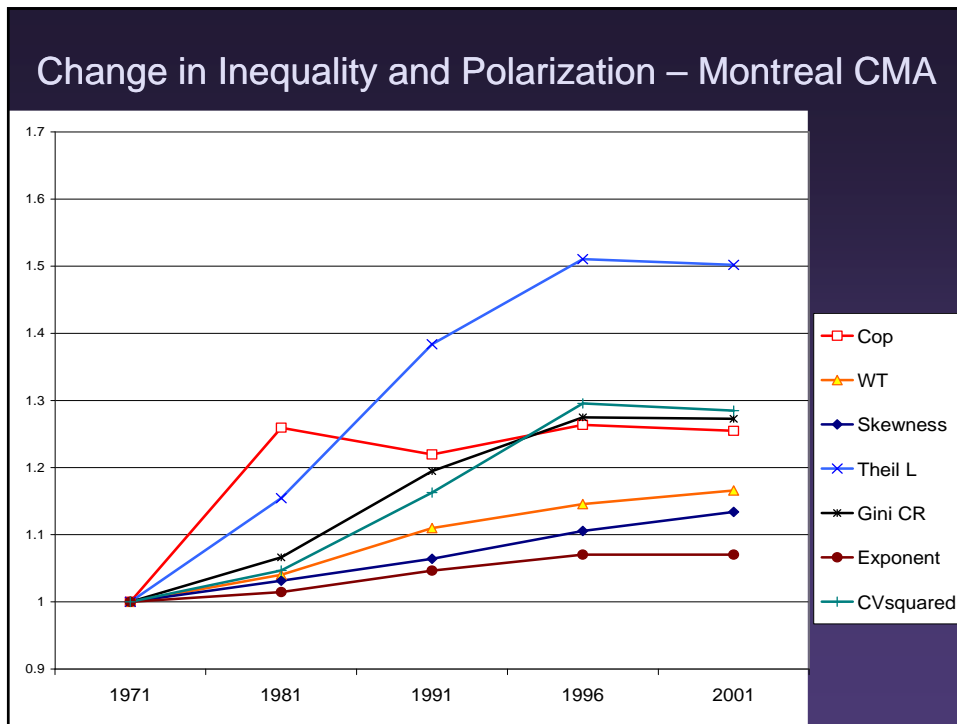
## Results

Changes in polarization and inequality in large Canadian cities



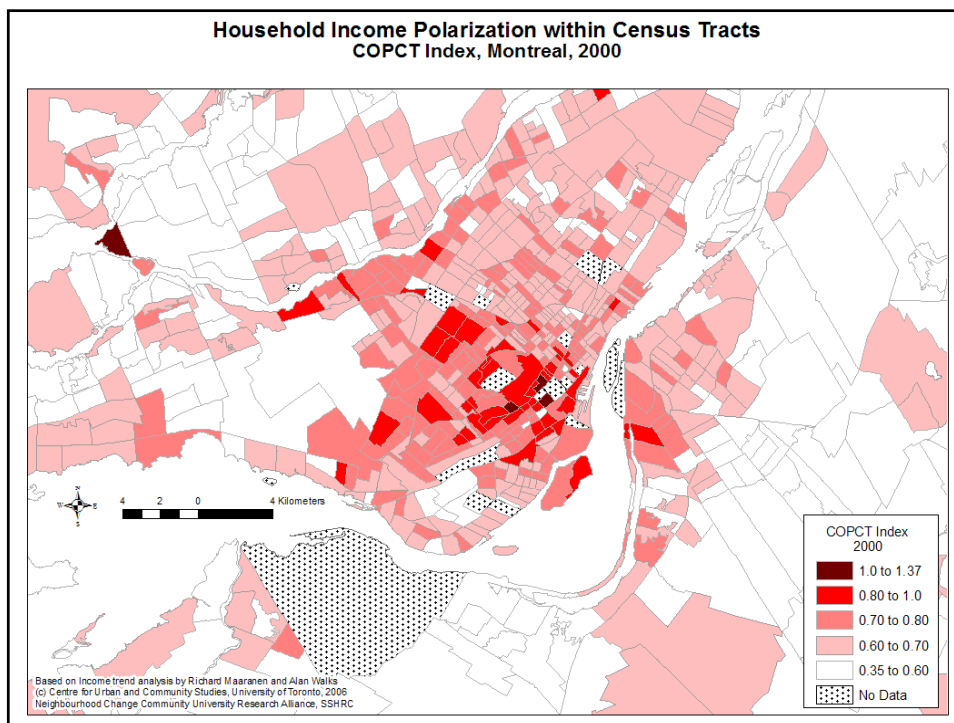
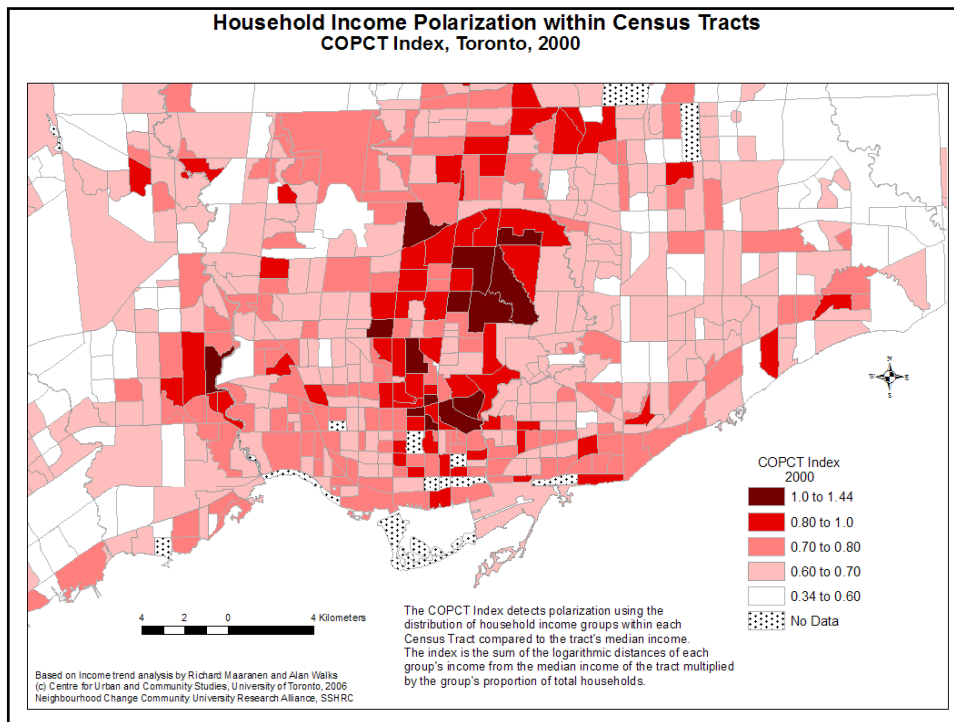
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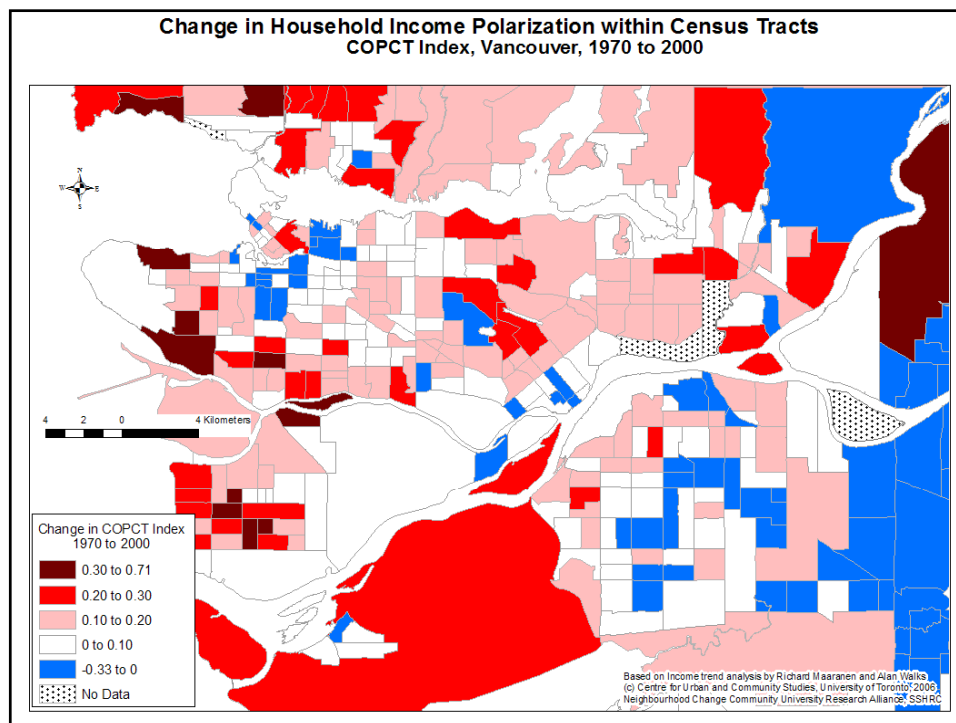
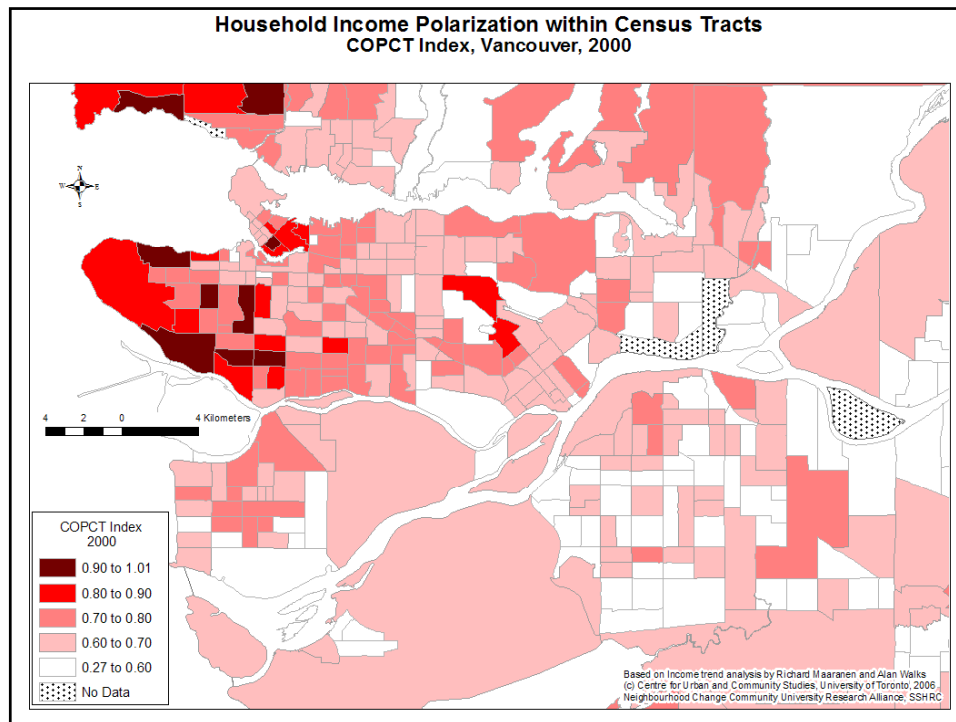
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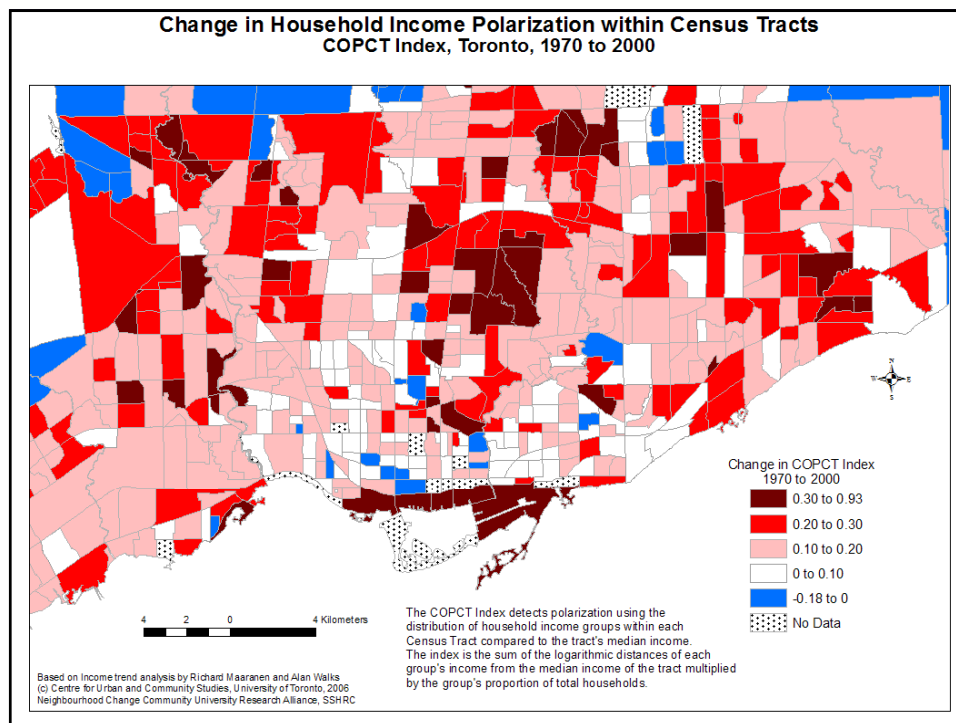
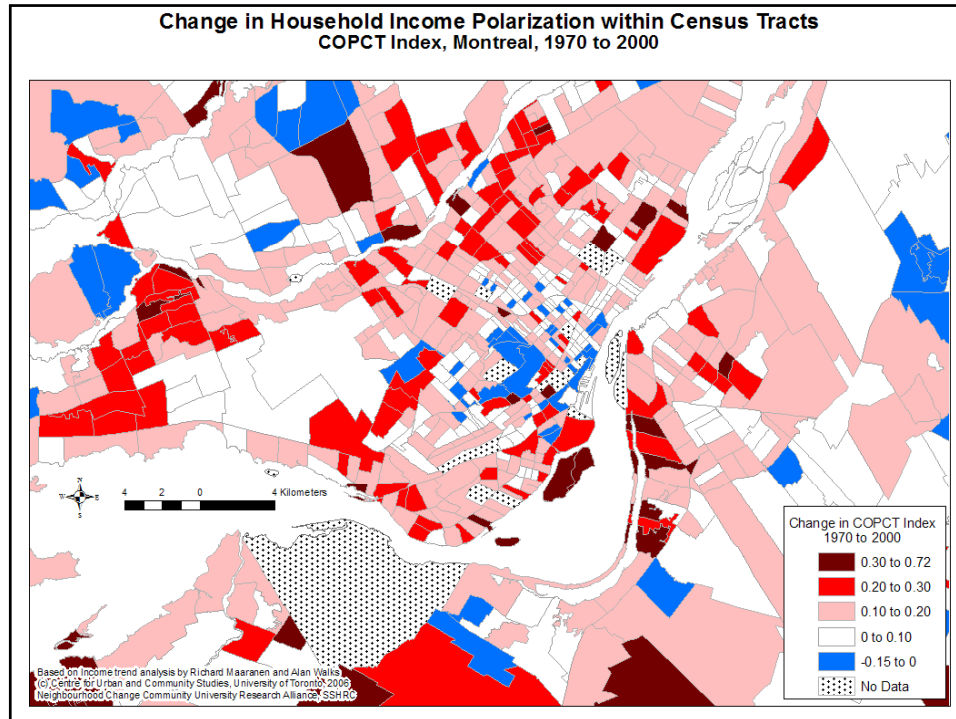
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## Focus on Toronto:

## Stages of Gentrification in Toronto:

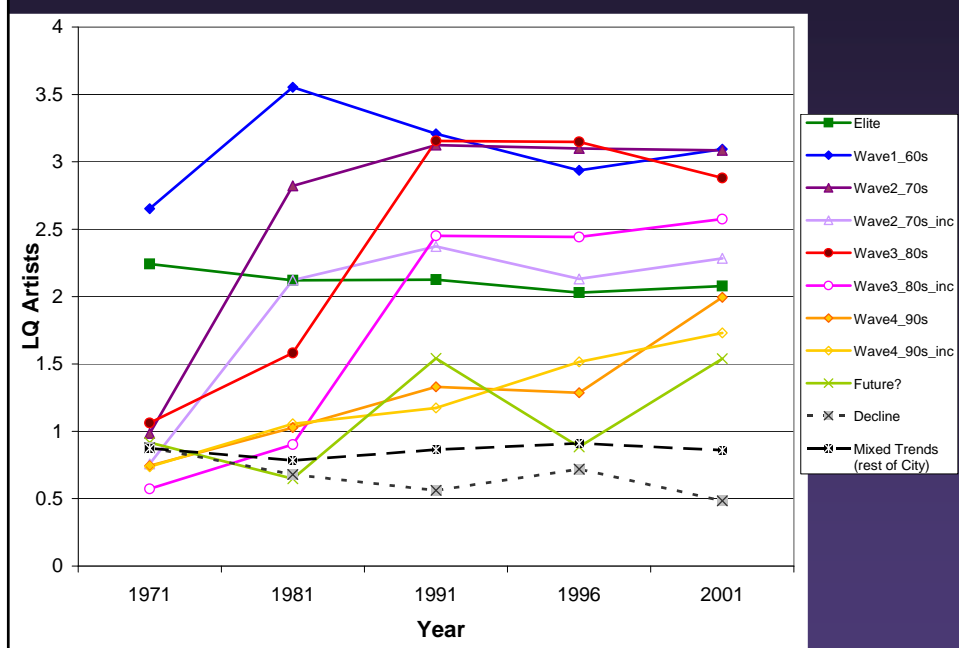
LQ Artistic occupations

LQ Social Status (occupation and education)

% Tenants (residual is Owner %)

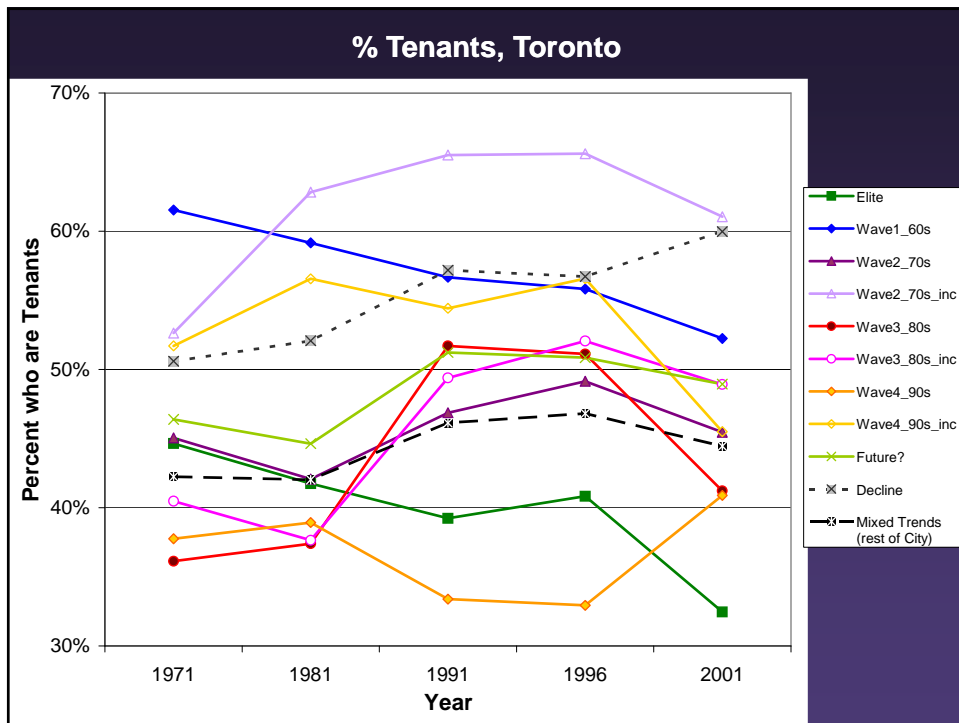
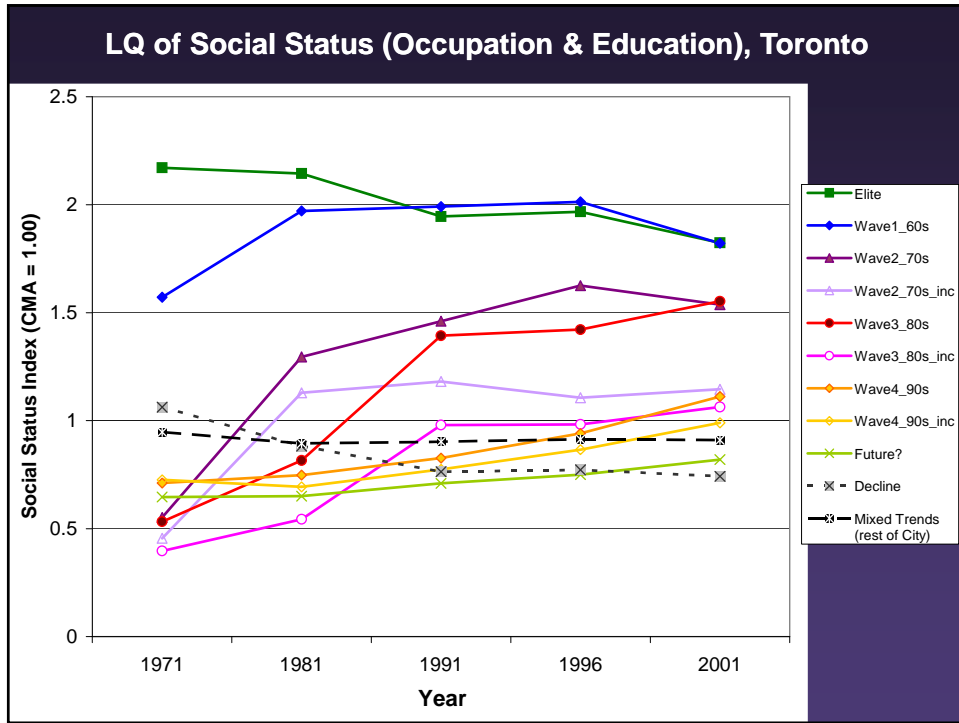
Personal Income Ratio

## LQ for those employed in Artistic occupations, Toronto



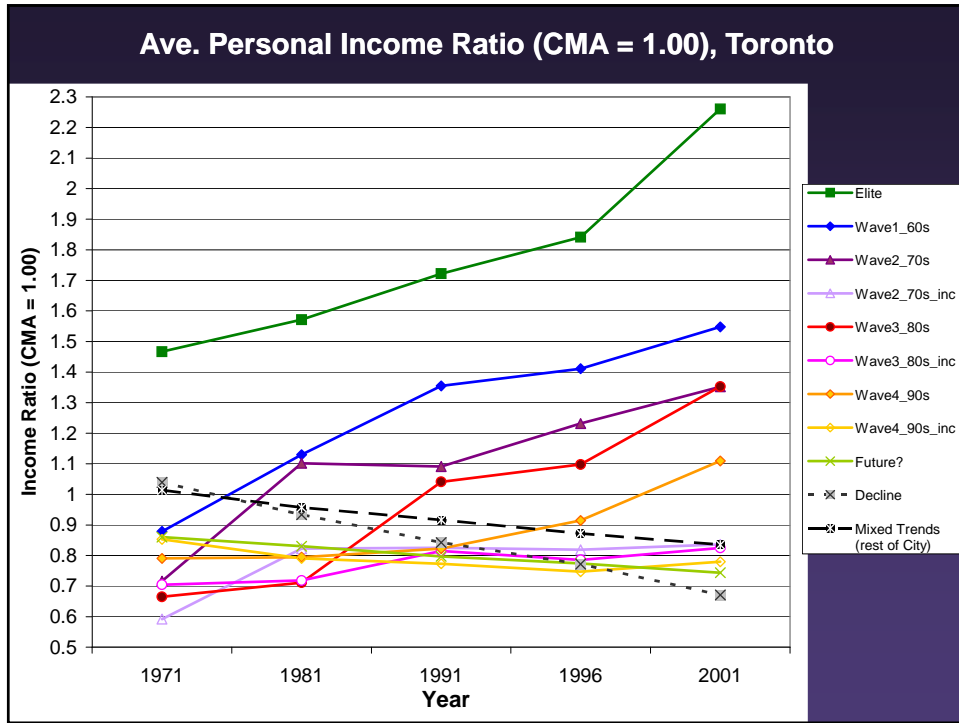
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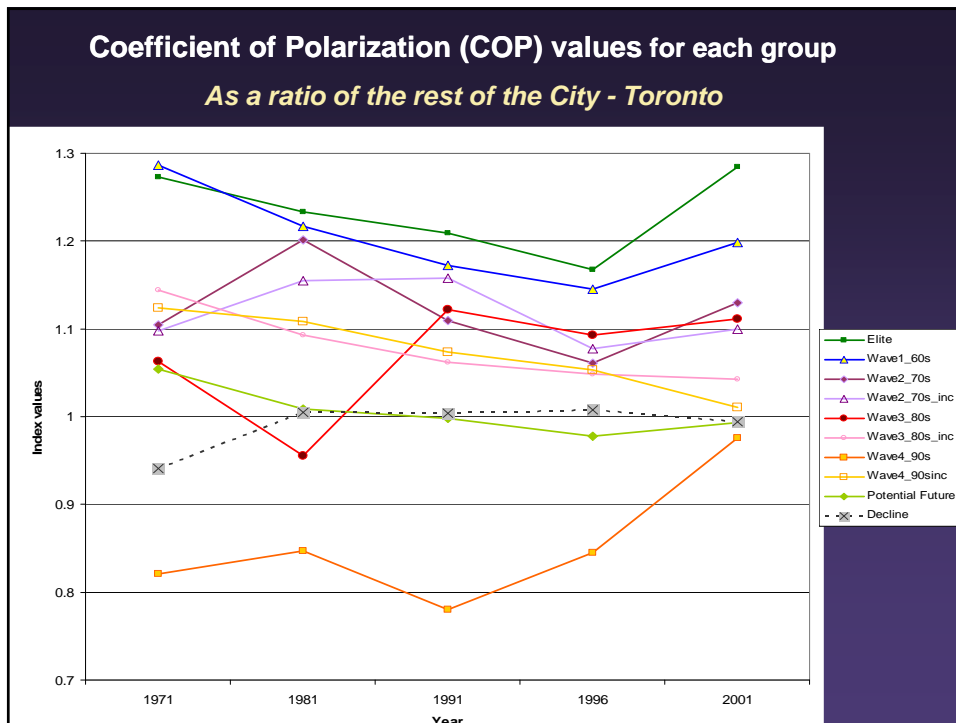
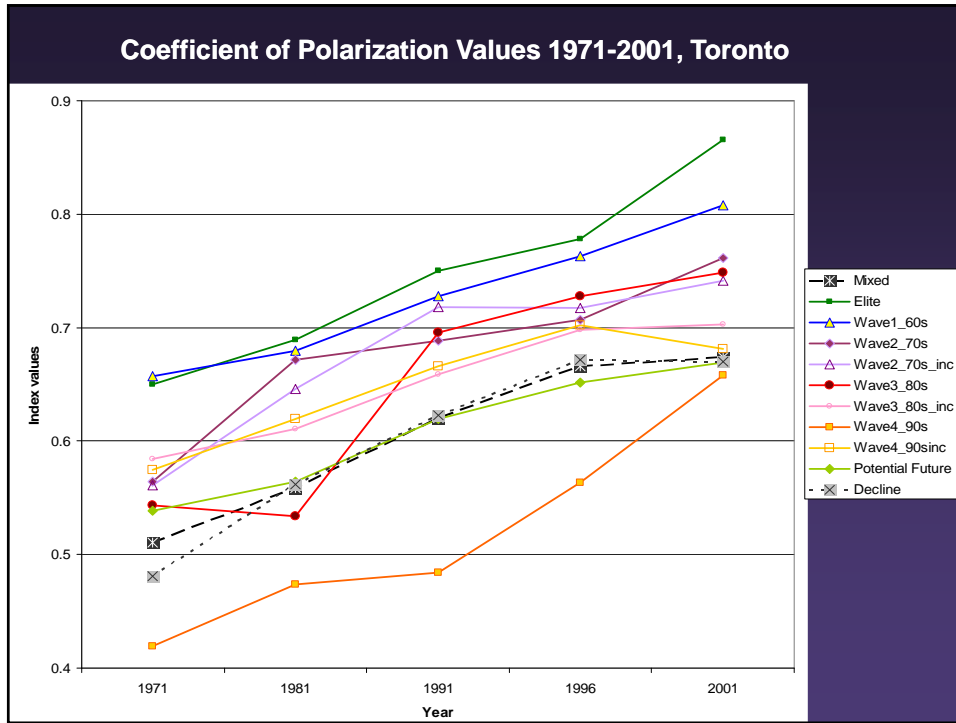
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## Shifts in Income Polarization - Toronto

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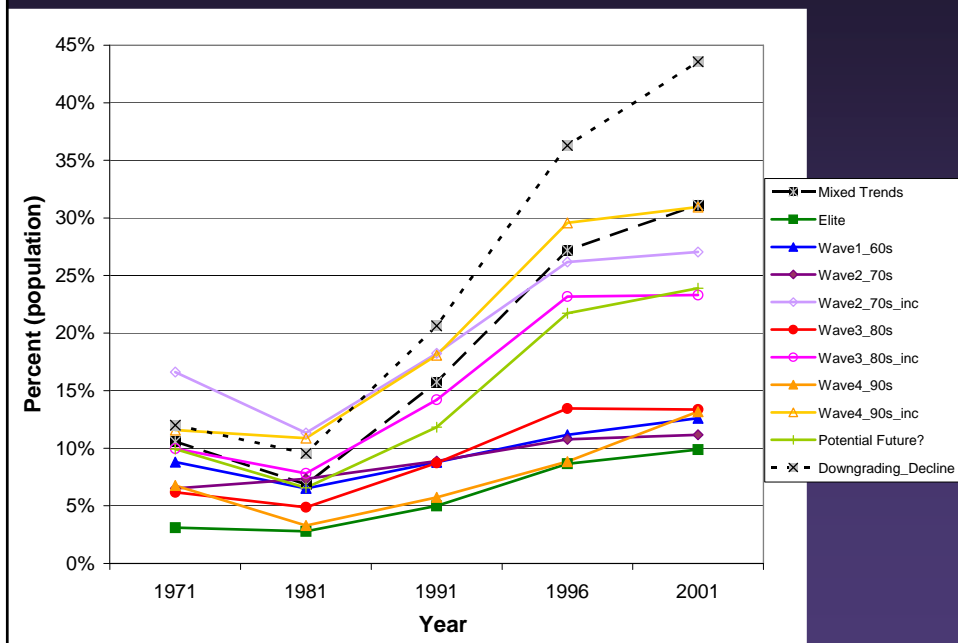


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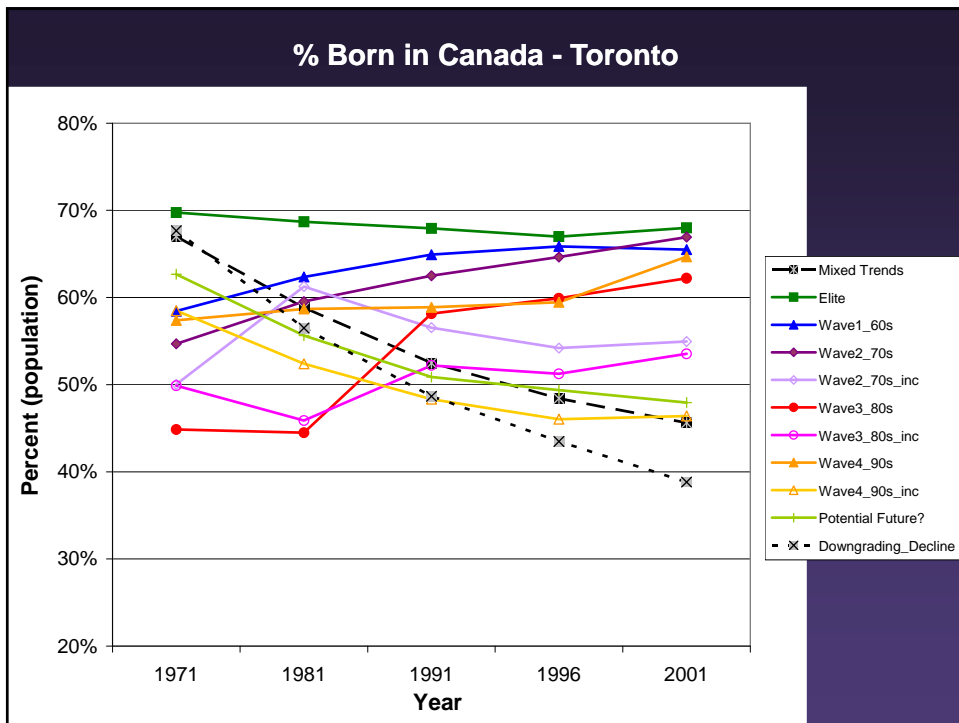
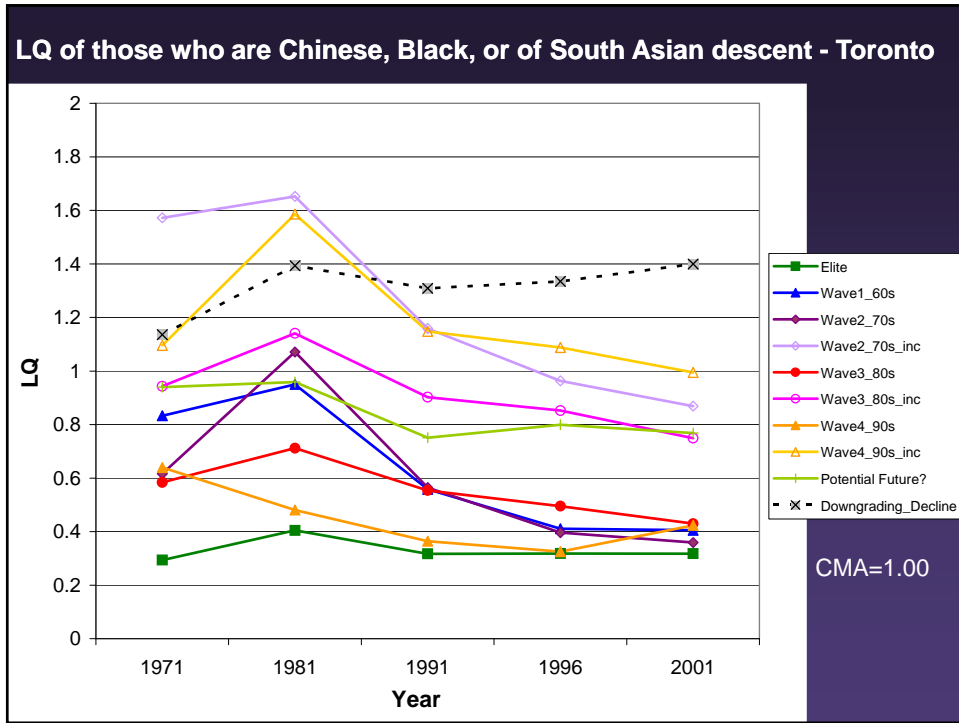
## Shifts in Social Diversity - Toronto

### % who are Chinese, Black, or of South Asian descent - Toronto



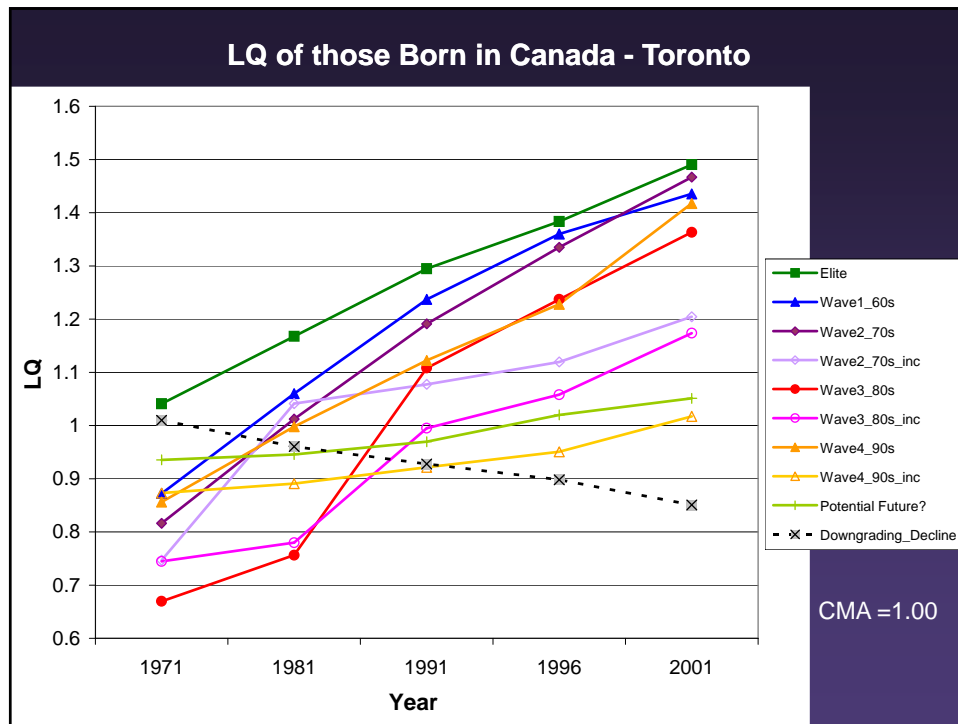
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## Does gentrification lead to greater social polarization? Evidence from Large Canadian cities 1971 - 2001

### Conclusions

1. Polarization trends in gentrified neighbourhoods are different from other forms of upgrading
2. Gentrification linked with particular trajectory:
  - A) Before onset of gentrification, polarization levels significantly lower than average
  - b) rapid increase in income polarization during the primary period of upgrading
  - c) followed by stable or declining levels of income polarization (until late 90s when polarization increased across higher income neighbourhoods)
3. Neighbourhoods with 'incomplete upgrading', show greater stability over time, though higher-than-average polarization levels
4. Social diversity, in *relative* terms, is lower and declined faster in gentrified neighbourhoods, though the process is slower than for polarization