

**Residential Segregation of Racial-Ethnic Groups:
Preliminary Findings and Research Opportunities
Based on Restricted Historical Microdata**

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Overview of the Presentation

Share preliminary findings from ongoing research examining segregation in US urban areas 1940 and earlier.

Highlight opportunities for research giving attention to both new data and new computing infrastructure that makes working with the data easier.

Shamelessly pitch an invitation/offer to organize working groups to review data and methods for conducting research on residential segregation.

So many possibilities, so little time.

I enjoy working on methods and am happy to assist people undertaking research projects of small and large scale.

Preview Some Preliminary Findings

White-Black segregation is more varied in 1940 than is widely appreciated.

It is not as universally high as one might expect based on the literature of the day.

It is possible White-Black segregation today is greater than in 1940, depending on how segregation is conceived and measured.

Back-alley integration complicates comparisons across regions and over time.

White-Asian segregation in 1940 is fundamentally different – much higher – in comparison to post-1990 White-Asian segregation.

Segregation of European immigrant groups is varied.

Segregation from Native-Born Whites is modest.

Segregation from Blacks is Very High

Segregation from other European immigrant groups is often Very High

Preview of Selected Research Opportunities

Historical microdata provide rich information far beyond what is available for contemporary data.

Historical methods can document and analyze aspects of segregation which cannot be studied directly today.

The foundations of research on the residential segregation are built on surprisingly thin quantitative analysis.

Studies of the era can be replicated and extended to perform superior analysis and hypothesis testing.

Longitudinal analysis of individual-level spatial assimilation and neighborhood change is feasible.

Sophisticated modeling approaches can be applied more easily to these data than to contemporary data.

Residential Segregation – Relevance

The simple existence of segregation is a basic social fact that carries many potential implications and invites analysis.

The major assumption stimulating research on residential segregation is this.

The spatial distribution of population has broad and important consequences for life chances and well-being across many domains.

The domains of direct and indirect impact include include ...

- **neighborhood-based outcomes – amenities, social services, property values, etc.**
- **impacts on education and later life socioeconomic attainment**
- **impacts on health and health behaviors**
- **exposure to crime and social problems**
- **vulnerability to natural and human-made hazards**
- **and more**

Residential Segregation – Demographic Perspectives

For better or worse, the terms segregation and integration are not used precisely by sociologists and social scientists.

Many uses of the terms segregation and integration are not only inconsistent, some are logically incompatible.

Demographers strive to use terminology carefully and consistently. But habits of language can lead to “slip ups”.

Within demography, residential segregation focuses on the spatial distribution of population in urban space.

“[R]esidential segregation is the degree to which two or more groups live separately from one another, in different parts of the urban environment.”

(Massey & Denton 1988, emphasis added)

This is not necessarily the only viable approach to studying residential segregation, but it is useful and widely accepted.

Eras of Research on Residential Segregation

Research on the residential segregation of social groups is one of the oldest empirical traditions in demography and sociology.

Demographers are prominent in this research tradition. But they do not – and should not – have exclusive dominion over research on residential segregation.

The origins of empirical research on segregation are more eclectic. Its development can be grouped into three eras.

Thick Description and Intensive Case Studies

Thick demographic description and intensive empirical case studies were a hallmark of segregation research until the Post WWII era.

***The Philadelphia Negro: A Social Study* (W.E.B. Du Bois, 1899) combined demographic description with ethnographic methods in the first empirical study of Negro population distribution.**

“Chicago School” studies of the 1920-1940 era also included thick demographic description of individual neighborhoods and cities.

Hallmarks of the Era

Detailed tabulations of population characteristics for small areas were not available on a comprehensive basis.

Methods of measuring and analyzing segregation were impressionistic.

Inferences and hypothesis testing were crude by contemporary standards.

The Demographic Research Tradition – I

The 1st Quantitative Revolution in the 1950s, 1960s, and 1970s

- **Advances and consensus on measurement (e.g., Duncan and Duncan 1955)**
- **Emergence of a dominant paradigm for large-scale analysis of trends and comparisons across cities (Taeuber & Taeuber 1965)**

Hallmarks included:

- **Increasing focus on quantitative analysis of trends and cross-city variation in segregation using aggregate-level measures**
- **Overwhelming reliance on a particular measure: namely, the Dissimilarity Index (D)**

The Demographic Research Tradition – II

Refinement of the Aggregate-Level Paradigm (1980-present)

- **Massey and Denton (1988) identified multiple dimensions of segregation.**

But most aggregate-level studies continue to rely on D, often exclusively, despite technical criticisms.

- **Steady expansion of the aggregate analysis paradigm to include new groups, subgroups, and new settings**

Emerging Dilemmas

- **Problems of measurement (e.g., index bias)**
- **Difficulty of taking account of individual-level characteristics relevant for residential attainments**

The Demographic Research Tradition – III

Emergence and Refinement of Location Attainment Research

- **Directs attention to location attainments that are relevant to segregation (Alba and Logan 1992; 1993)**
- **A response to the difficulty of incorporating individual-level covariates (beyond race) in aggregate-level studies**
- **Refinement of national-level data sets (e.g., NLSY)**

Emerging Dilemmas

- **Data sets cannot sustain city-level analysis**
- **Implications for aggregate-level segregation overall and/or for individual communities are indirect and general rather than direct and specific (so far)**

Recent Advances in Methods & Data

Many of the major obstacles limiting demographic research on residential segregation are recently overcome.

New advances in methods of measurement eliminate major problems with index bias that limited the scope of segregation studies (Fossett 2017).

New advances in methods of analysis combine the micro-macro traditions into a single unified quantitative framework (Fossett 2017).

New advances in availability of micro data open the door to opportunities for research never before possible.

Restricted historical microdata from the IPUMS project.

Restricted contemporary microdata available in FSRDC's.

In short, we're all dressed up AND there is some place to go!

Residential Segregation – Dimensions

Segregation is understood to involve multiple dimensions (Stearns and Logan 1986; Massey and Denton 1988)

Two Dimensions are Most Widely Studied

- **Uneven Distribution** – maximized when groups do not “share a common area of residence” (Massey & Denton 1988)
- **Exposure/Isolation** – Other- and same-group contact (P*)

Fossett (2017) endorses an important distinction between two aspects of uneven distribution (noted by Stearns & Logan 1986).

- **Differential displacement from “parity”**
(simple departure from exact even distribution)
- **Group separation (“living apart”)**

Others Recognized Dimensions Are Less Widely Studied

- **Clustering** – Presence of expansive regions of homogeneity
- **Concentration** – Crowded into limited space
- **Centralization** – Differential distribution near the city center

Restricted Microdata at the Texas RDC at TAMU

All the latest advances can be used to great effect with contemporary restricted microdata available at the Texas RDC.

The major advantage of these data is that they are the only way one can simultaneously know two things:

- Detailed characteristics of individuals/households**
- Details of residential location (potentially block-level)**

Recent articles by Crowell and Fossett (2018; 2020) demonstrate some of the possibilities.

The research commitment for conducting research in RDCs is non-trivial. But, the potential payoff can easily justify the effort.

Attend the December 7 virtual workshop to learn more.

Go to the following link for more details:

<https://liberalarts.tamu.edu/txrdc/2020/10/30/december-7th-proposal-development-workshop/>

Historical Restricted IPUMS Microdata at TAMU RDC

The IPUMS project at the University of Minnesota Population Center (MPC) has created the potential to access to a wealth of historical microdata for 1940 and earlier.

Has all the data advantages of data in the RDC, and is superior in many ways, especially in 1940.

100% coverage microdata files cover most decades 1880-1940.

Major limitations are:

Gaining access to the restricted files.

Finding acceptable computing arrangements at TAMU.

Contact Mark Fossett (m-fossett@tamu.edu) to discuss what is involved.

1940 US Census of Population - The Unicorn Census

The 1940 US Census of Population –the first “modern” census.

- First US Census to measure education and income**
- It introduced modern constructs for labor force participation, occupation, and industry**
- Most detailed items were full coverage (100%)**
- It low-level geographic tabulations for small areas including census tracts and census blocks**
- It introduced sample items**

1940 IPUMS Public and Restricted Versions

The U. Minnesota Population Center prepared a 100% IPUMS file

- IPUMS – Integrated Public Use Microdata Series**
- Items were coded directly from original archived manuscript records**
- This makes digital/electronic processing of the 1940 Census possible for the first time**
- Public version is available through IPUMS website**

The restricted version has low level geography and other information relevant for segregation analysis.

- Restrictions on use are based on proprietary concerns (not confidentiality)**
- Gaining access requires applying to obtain a license from the MPC.**
- TAMU has a license (through M. Fossett) and files for 1940 and 1930 are available here.**
- Files for earlier years are also possible.**

Census Enumeration Districts

The GOOD

Census Enumeration Districts (ED) provide the primary attractive option for small area population analysis.

- They are comparable to contemporary census block groups.**
- They can be linked to census tracts if desired.**
- They provide complete coverage of the country.**

The NOT SO GOOD

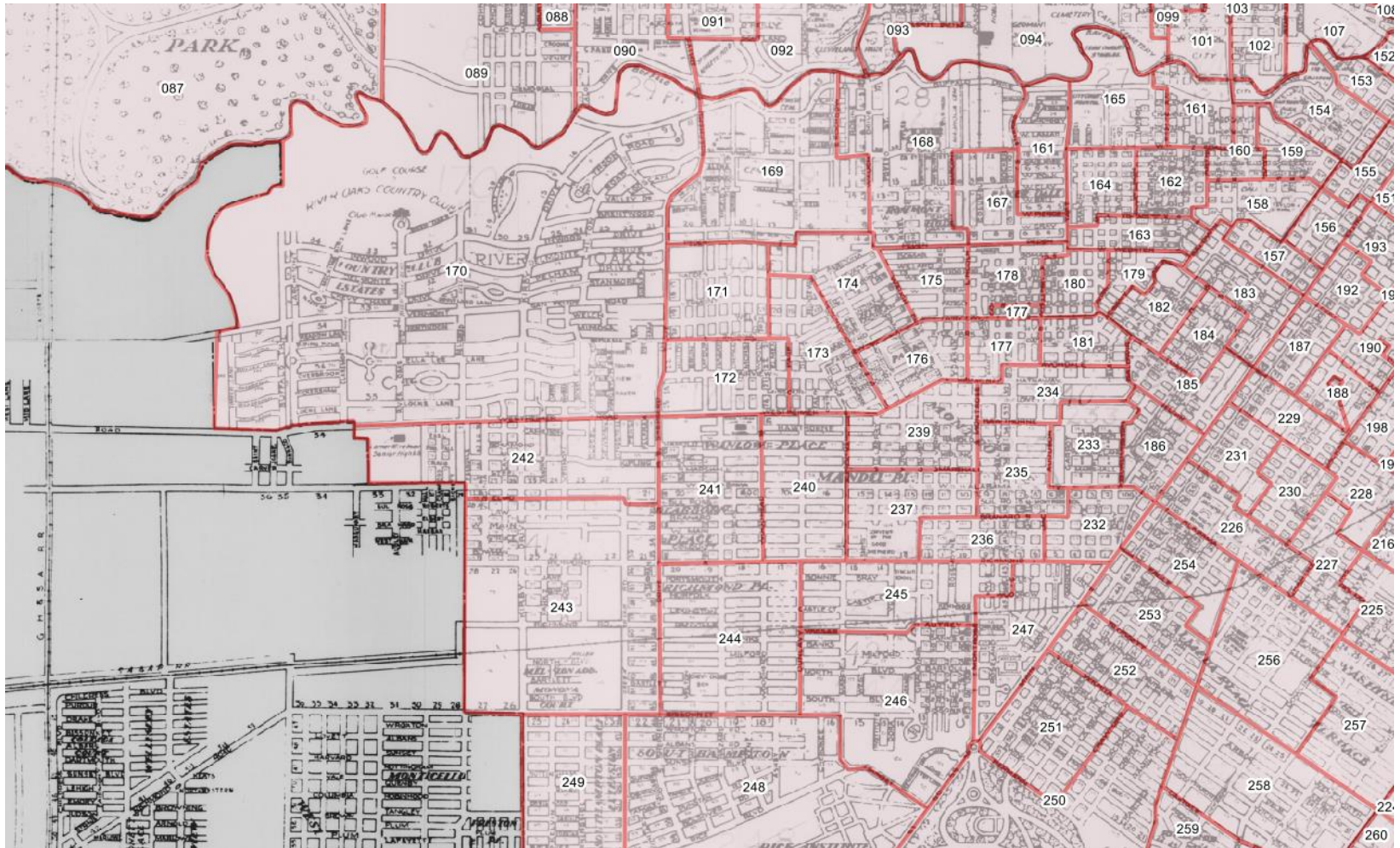
**Census never prepared small area tabulations for EDs.
Neither did IPUMS.**

Back to the GOOD

M. Fossett has been preparing ED-level tabulations comparable to contemporary summary file tabulations.

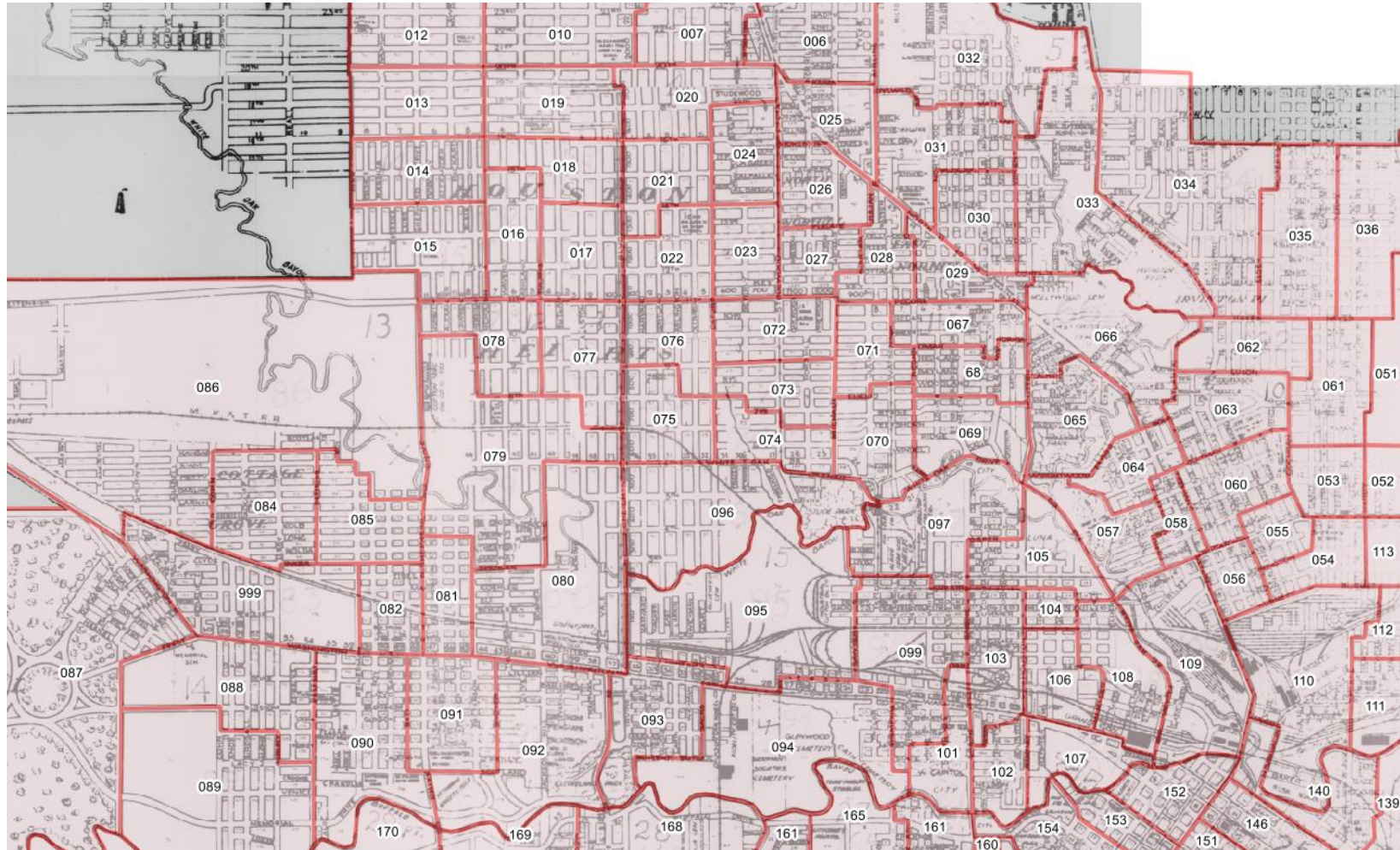
The tabulations are designed to facilitate segregation studies

Houston TX EDs -River Oaks & Rice Univ. Areas

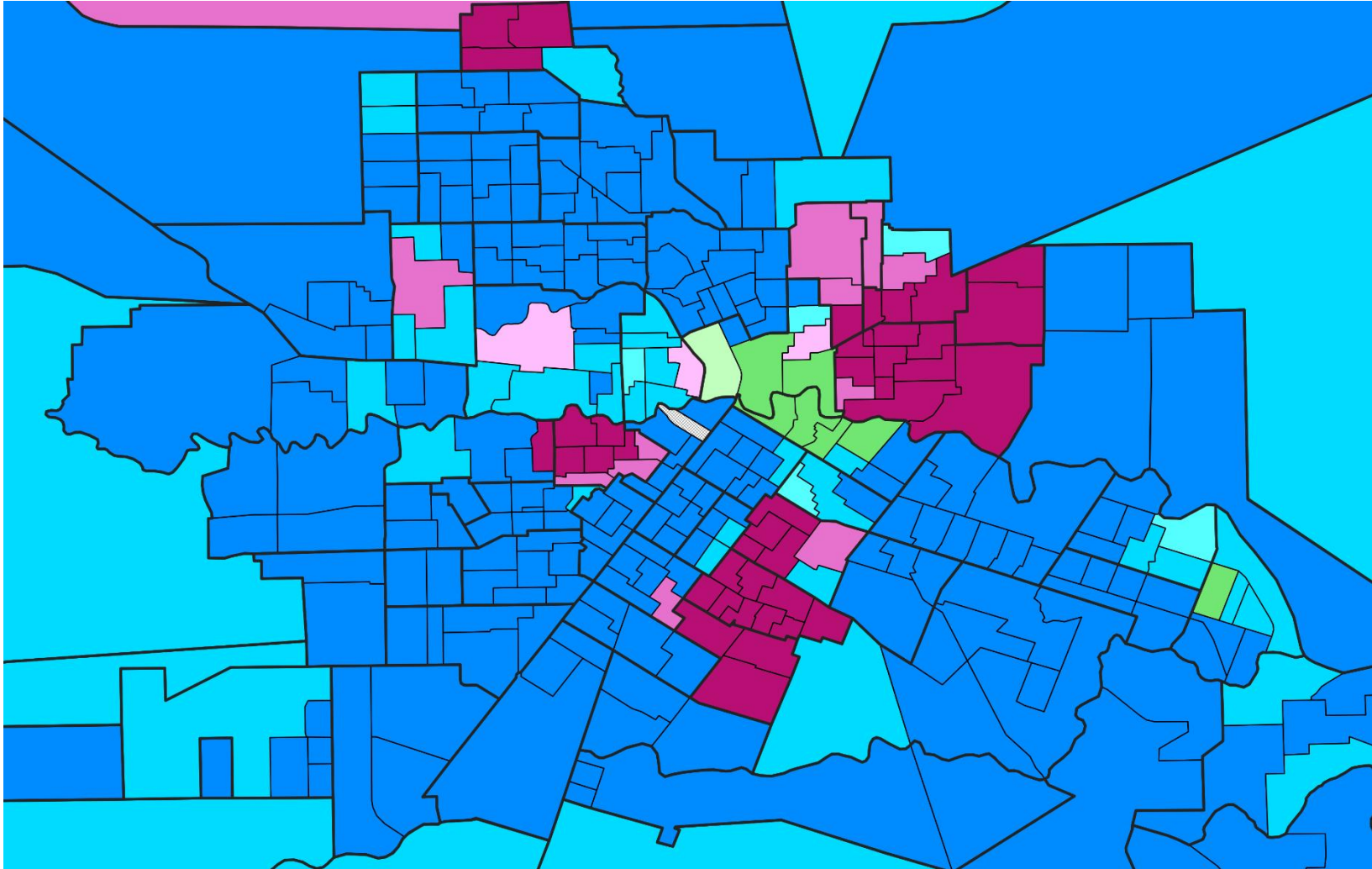


EDs are useful units for revealing segregation patterns.

Houston TX EDs –Houston Heights Area



TAMU Grant Supports Creation of ED GIS Resources



TAMU Triad Program funds creating ED boundary files for 12 cities.

Manuscript Record "Sheet Blocks"

Data within EDs were collected on "manuscript records"

- **Two pages (A and B side) with 80 entry lines for persons.**
- **Comparable to census blocks in terms of N of households**
- **Can be identified by and ID number in the restricted IPUMS file**

MR Sheet Blocks cover small geographic regions within EDs

- **Houses are enumerated by an enumerator walking house-to-house in sequence in a small area.**
- **Tabulations for MR Sheet Blocks can sustain segregation analysis in smaller area.**

Manuscript Records – Detail

Your report is required by Act collected will be used solely for












































State Texas Incorporated place Houston City Ward of city _____ Unincorporated place _____
(Name of unincorporated place having 100 or more inhabitants)

County Harris Township or other division of county Justice Precinct 1 Block Nos. 24-25 Institution _____
(Name of institution and lines on which entries are made)

U. S. GOVERNMENT PRINTING OFFICE 16-11576

Line No.	LOCATION		HOUSEHOLD DATA				NAME	RELATION	PERSONAL DESCRIPTION				EDUCATION	PLACE OF BIRTH	CITIZENSHIP	RESIDENCE			
	Street, avenue, road, etc.	House number (in cities and towns)	Number of household in order of visitation	Home owned (O) or rented (R)	Value of home, if owned, or monthly rental, if rented	Does this household live on a farm? (Yes or No)			Sex—Male (M), Female (F)	Color or race	Age at last birthday	Marital status—M, Single (S), Widowed (Wd), Divorced (D)					Attended school or college any time since March 1, 1940? (Yes or No)	Highest grade of school completed	CODE (Leave blank)
1	2	3	4	5	6	7	8	A	9	10	11	12	13	14	B	15	C	16	17
1	cont'd					Kayser, Elizabeth	Daughter	2	F	W	8	S	Yes	2	2	Texas	87	Same House	
2						Jean	Daughter	2	F	W	8	S	Yes	2	2	Texas	87	Same House	
3			195	R	20	Chaney, Bernice	Maid	0	F	Reg	28	S	No	8	8	Louisiana	85	Same Place	
4			106	R	20	Carlin, James	Servant	0	M	Reg	30	S	No	7	7	Texas	87	Same Place	
5		3237	198	O	30000	Campbell, W. J.	Head	0	M	W	44	M	No	11	11	Texas	87	Same House	
6						Lula	Wife	1	F	W	42	M	No	10	10	Texas	87	Same House	
7			199	R	20	Lewis, Adel	Maid	1	F	Reg	26	M	No	14	14	Texas	87	Same Place	
8						Claude	Servant	0	M	Reg	37	M	No	12	12	Texas	87	Same Place	
9		327	200	O	25000	Smith, A. J.	Head	0	M	W	52	M	No	11	11	Kansas	78	Same House	
10						Amelia E	Wife	1	F	W	50	M	No	14	14	Kansas	78	Same House	
11						Leota	Daughter	2	F	W	30	S	No	13	13	Missouri	66	Same House	
12			201	R	20	Linsley, Roy	Servant	0	M	Reg	23	S	No	8	8	Louisiana	85	Same Place	
13						Here Ends Block 24 and Begins Block 25													

Selected Findings – Legends for GIS Maps

Ethnic Mix	Group Percentage	Ethnicity & SES
<ul style="list-style-type: none">  Percent White 80-100  Percent White 50-79  Percent White 30-49%  Percent Black 80-100  Percent Black 50-79  Percent Black 30-49  Percent Latino 80-100  Percent Latino 50-79  Percent Latino 30-49  Percent Asian 80-100  Percent Asian 50-79  Percent Asian 30-49  Percent Other 30-100  Mixed (All Groups < 30%)  N/A - Unpopulated  Missing or Only GQ 	<ul style="list-style-type: none">  Group Percent 80-100  Group Percent 60-79  Group Percent 50-59  Group Percent 40-49  Group Percent 30-39  Group Percent 20-29  Group Percent 10-19  Groupo Percent 01-09  Group Percent < 1  No Population (Non-GQ) 	<ul style="list-style-type: none">  Plurality White & Educ Rank 80-100%  Plurality White & Educ Rank 50-79%  Plurality White & Educ Rank 15-49%  Plurality White & Educ Rank 0-14%  Plurality Black & Educ Rank 85-100%  Plurality Black & Educ Rank 15-49%  Plurality Black & Educ Rank 0-14%  Plurality Latino & Educ Rank 85-100%  Plurality Latino & Educ Rank 15-49%  Plurality Latino & Educ Rank 0-14%  Plurality Asian & Educ Rank 85-100%  Plurality Asian & Educ Rank 15-49%  Plurality Asian & Educ Rank 0-14%  Plurality Other  Mixed (All < 30%)  N/A - Unpopulated  Missing or Only GQ

Houston TX – Roots of Contemporary Segregation

Maps for group distributions for Houston TX in 1940 show that contemporary patterns of segregation (circa 2020) are anticipated by residential patterns 80 years earlier.

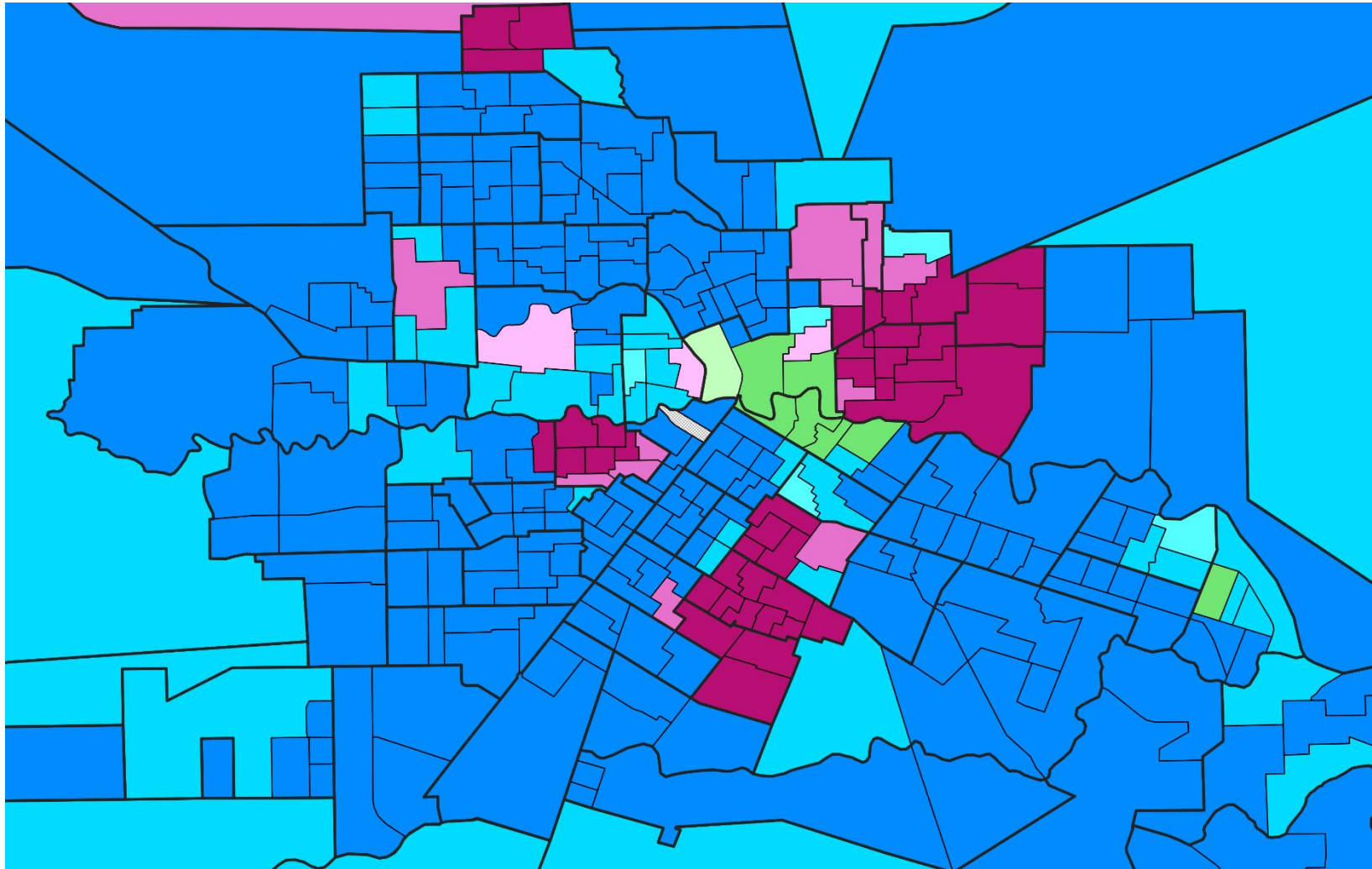
Predominantly Black areas in Third Ward (south of downtown) and Fifth Ward (northeast of downtown) remain predominantly black and have expanded.

Emergent Latino area in Second Ward (southeast of downtown) grew dramatically expanding into working class White areas to the southeast.

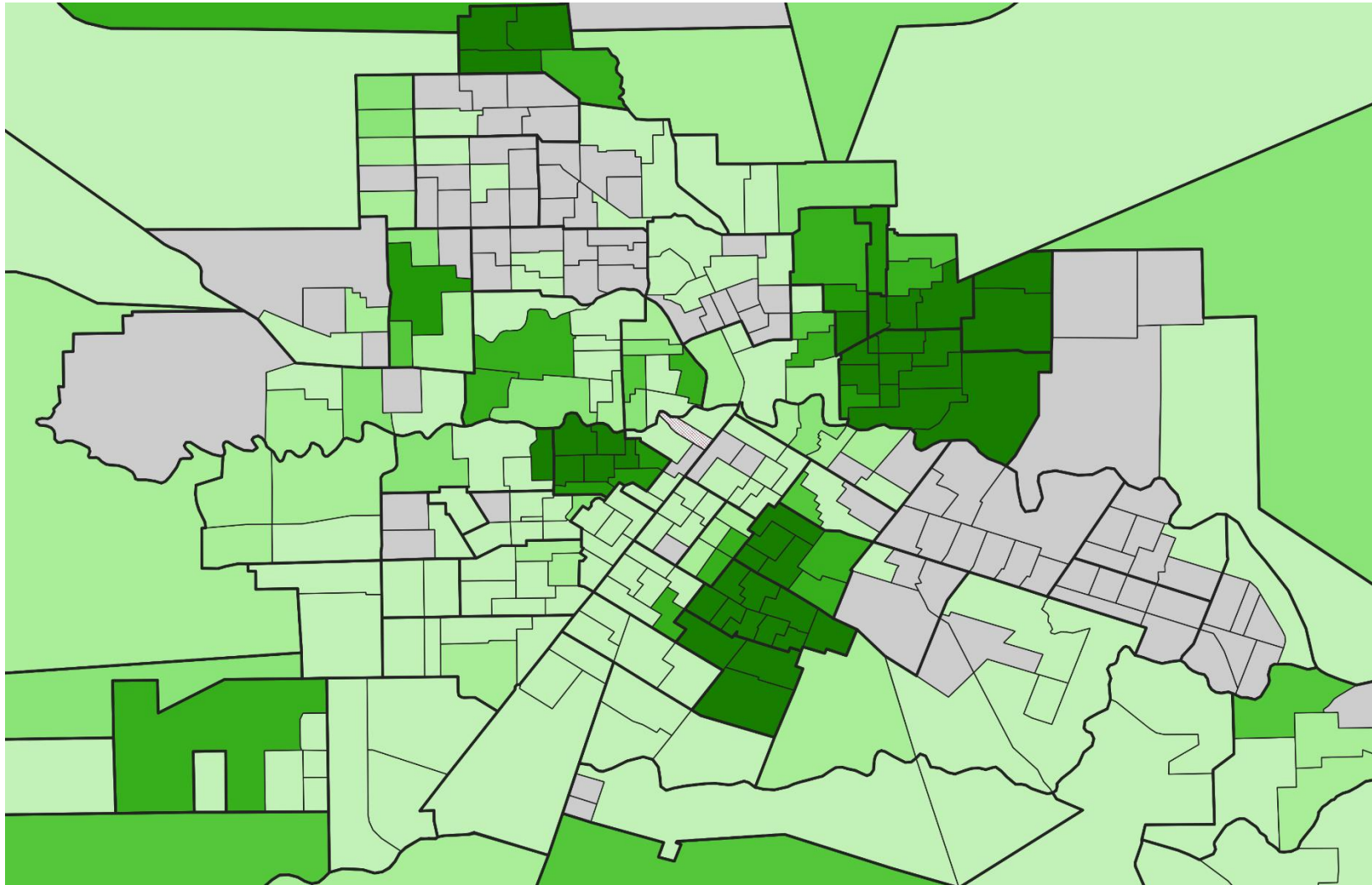
High status White areas to west of downtown (River Oaks, Rice University, Montrose, Memorial Park, etc.) remain high status White today.

Expansion of minority areas is into working class White areas.

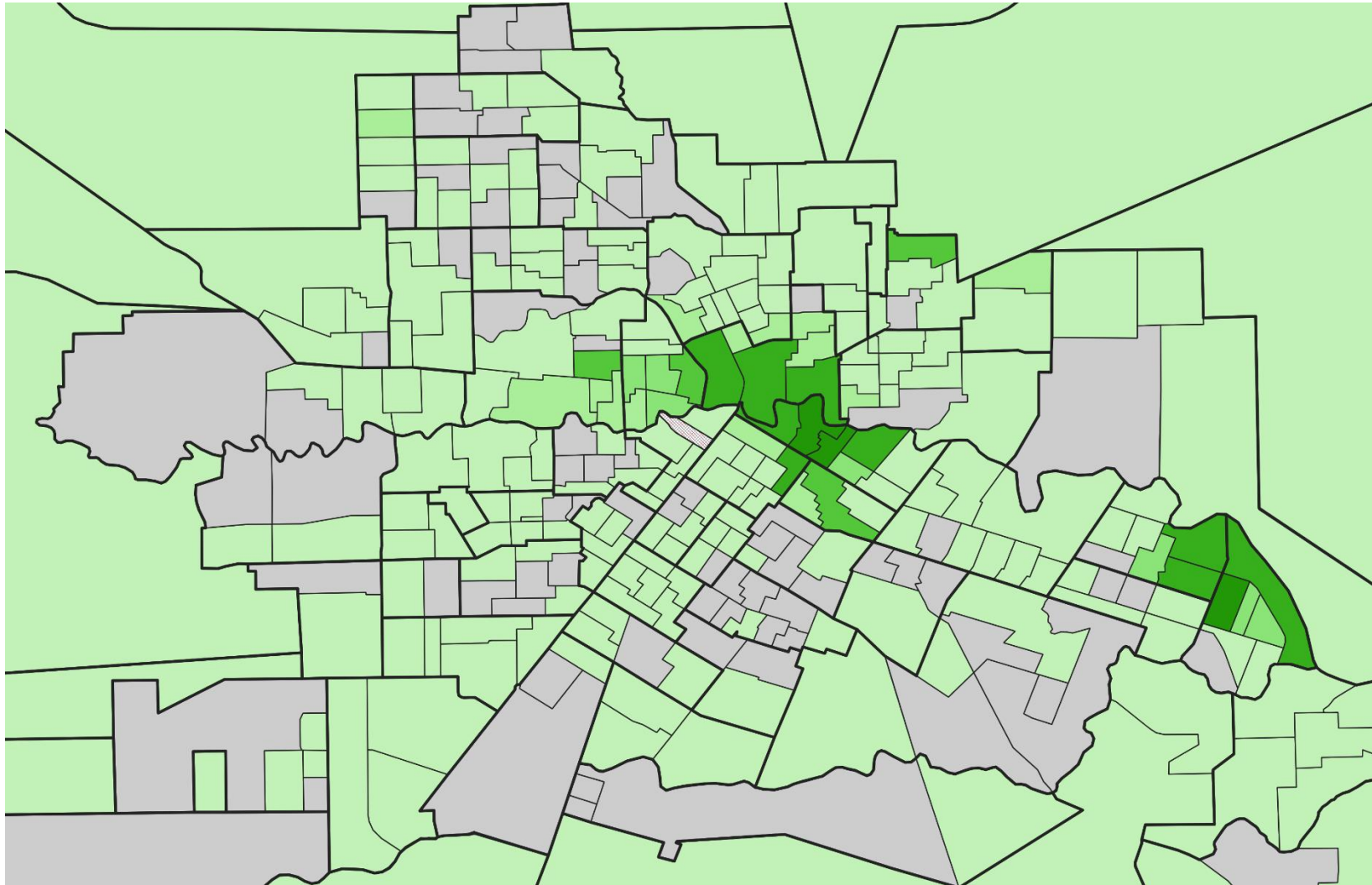
Houston TX 1940 – Ethnic Mix



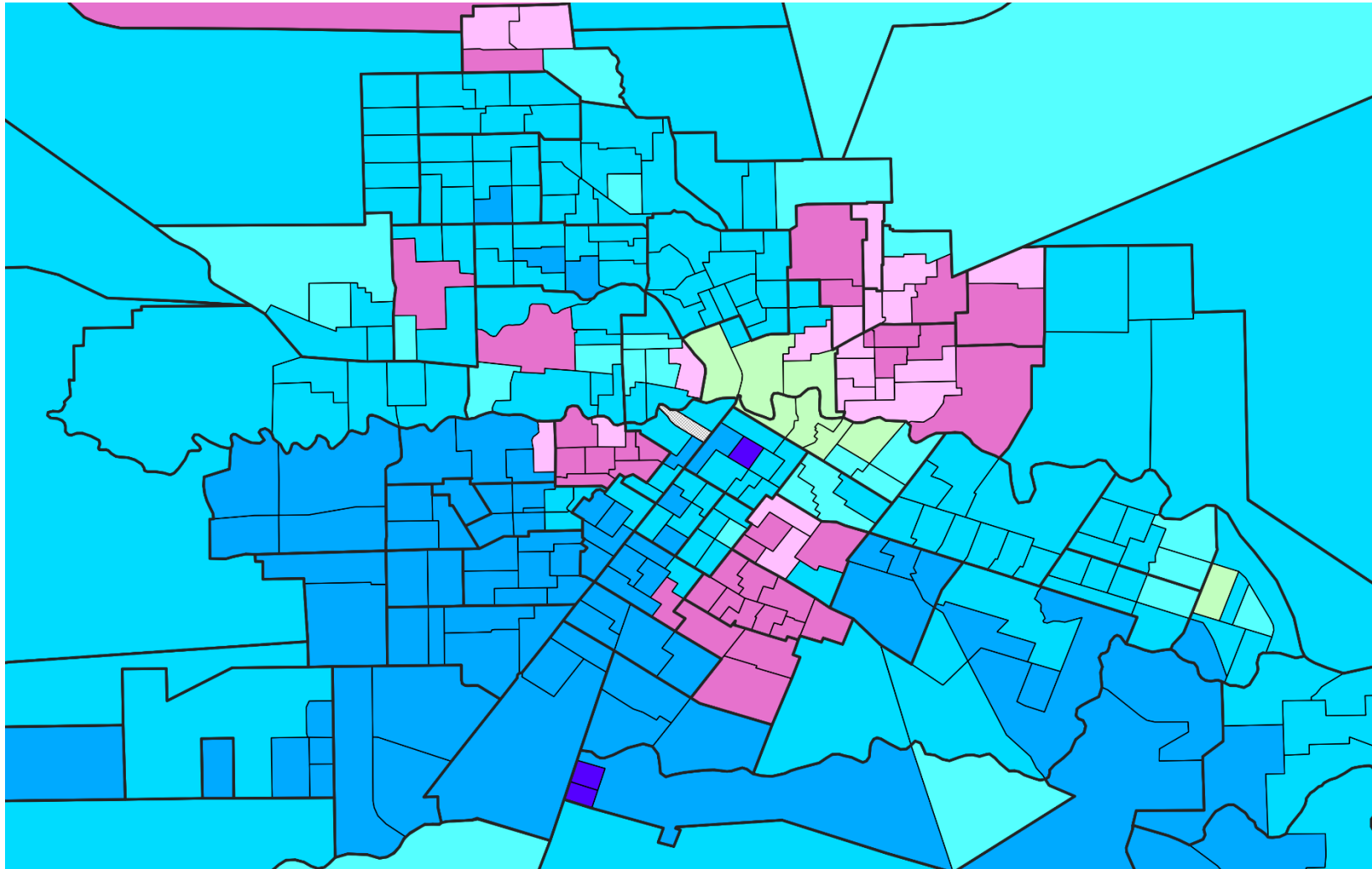
Houston TX 1940 – Percent Black



Houston TX 1940 – Percent Latino



Houston TX 1940 – Ethnicity and SES (Education)



Unrecognized Variation in White-Black Segregation

In 1940, White-Black segregation varies more across cities than is currently appreciated.

- **Specifically, in many cities White-Black segregation takes a milder form than most would assume.**

The segregation literature overwhelmingly relies on the Dissimilarity Index (D) to measure segregation.

- **D can be misleading when examined alone (Fossett 2017)**
- **This is not widely appreciated. It is a big problem.**
- **Compare D with the Separation Index (S) to get a more complete understanding of the pattern (Fossett 2017)**

Segregation creates conditions for INEQUALITY and STRATIFICATION when it involves GROUP SEPARATION

- **D is not a reliable indicator of group separation**
- **S provides a reliable signal of group separation**

Illustration of D-S Contrast: Tulsa OK & Akron OH

Tulsa OK has "Prototypical" Segregation

- D is very high (81) AND S is very high (71)
- The high value of S indicates Whites and Blacks live apart; they are separated across different areas of the city

Prototypical Segregation (High-D, High S)

- Most Blacks live in "below-parity" areas (High D)
- The below-parity areas are far from parity

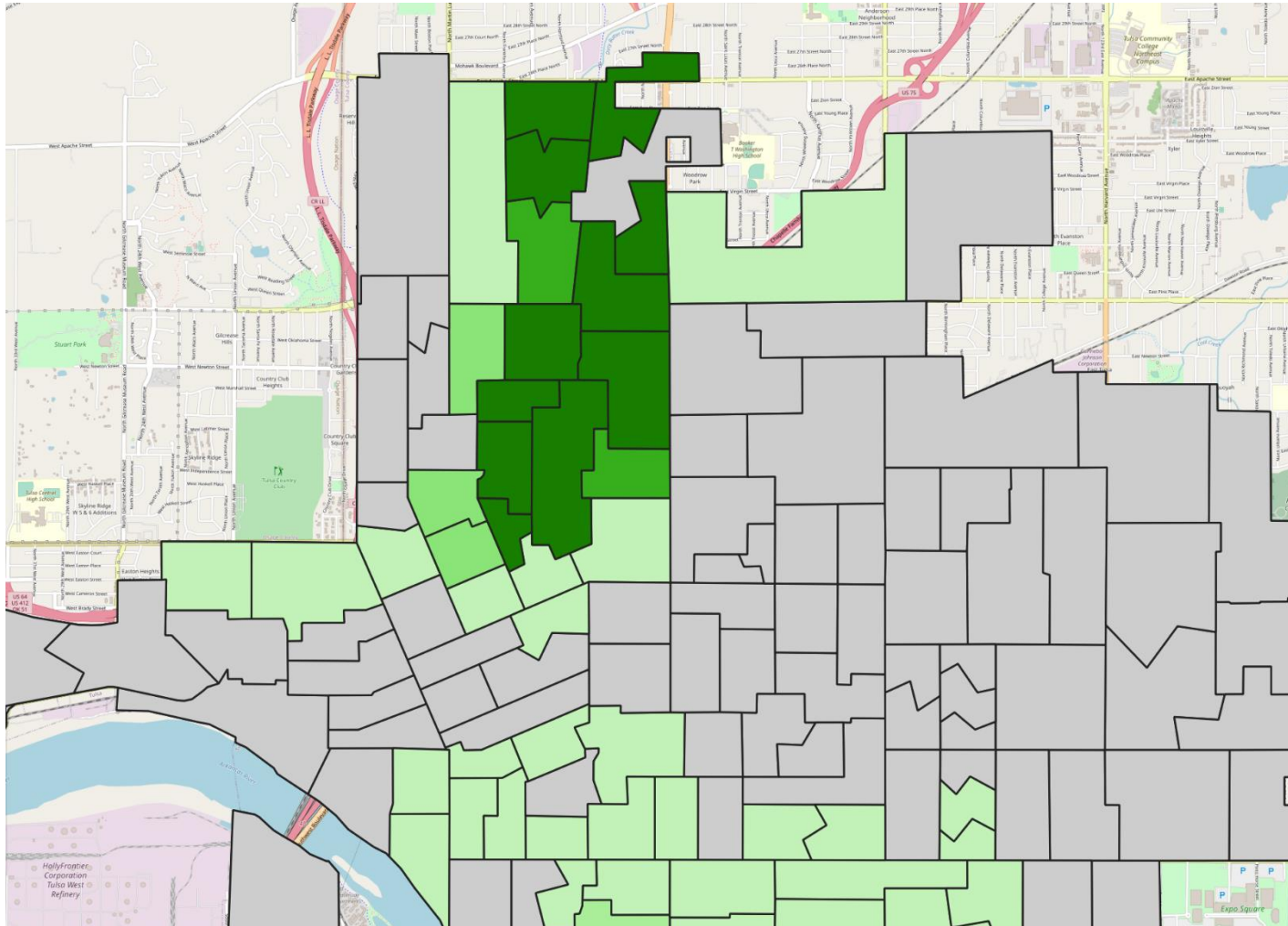
Akron OH has a milder pattern of "Dispersed Displacement"

- D is very high (75), but S is low (25)
- The low value of S indicates Whites and Blacks generally live in the same neighborhoods

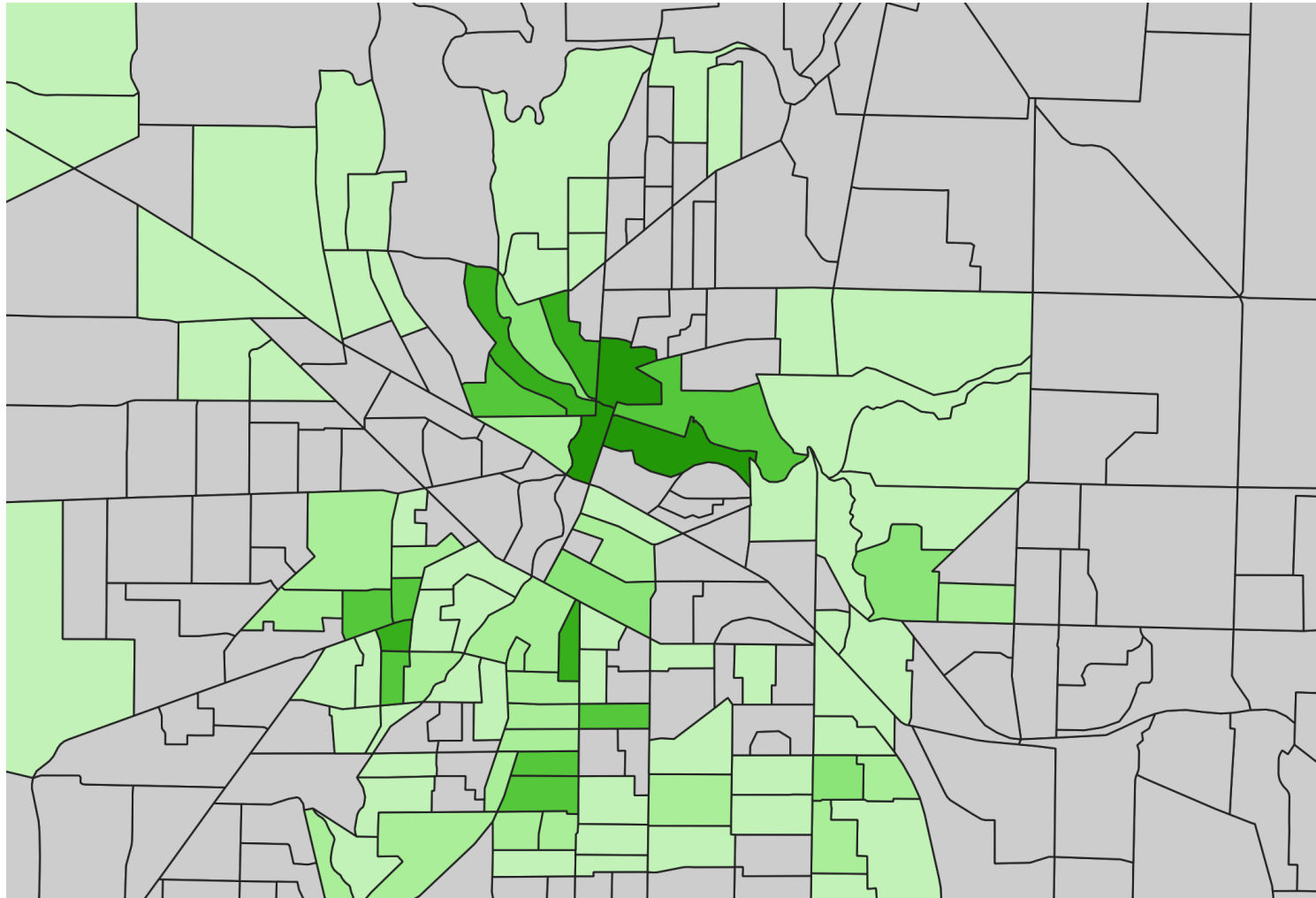
Dispersed Displacement Segregation (High-D, Low S)

- Most Blacks live in below-parity areas (High D)
- The below-parity areas are relatively close to parity

Tulsa OK – Percent Black, “Prototypical” Segregation

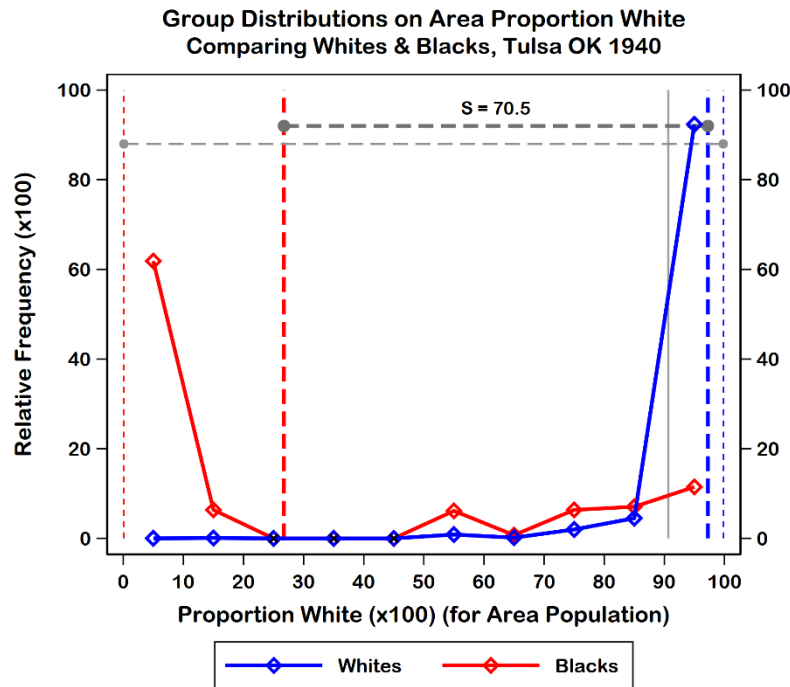


Akron OH – Percent Black, “Dispersed Displacement”



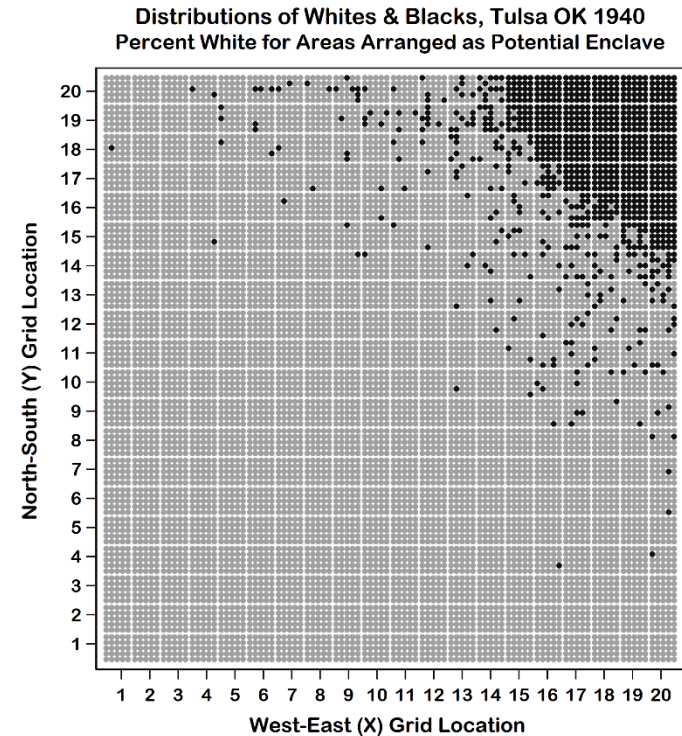
Tulsa OK – Graphical Analysis

Separation/Polarization Plot



Notes: Standard $S = 70.5 = (Y_1 - Y_2) = (97.2 - 26.7)$ for $y_i = p_i$ based on area population.
Dashed lines denote group means (thick) & medians (thin). ($S_{P50} = 99.7$, $D = 80.9$, $P = 90.7$.)

Neighborhood Grid Plot

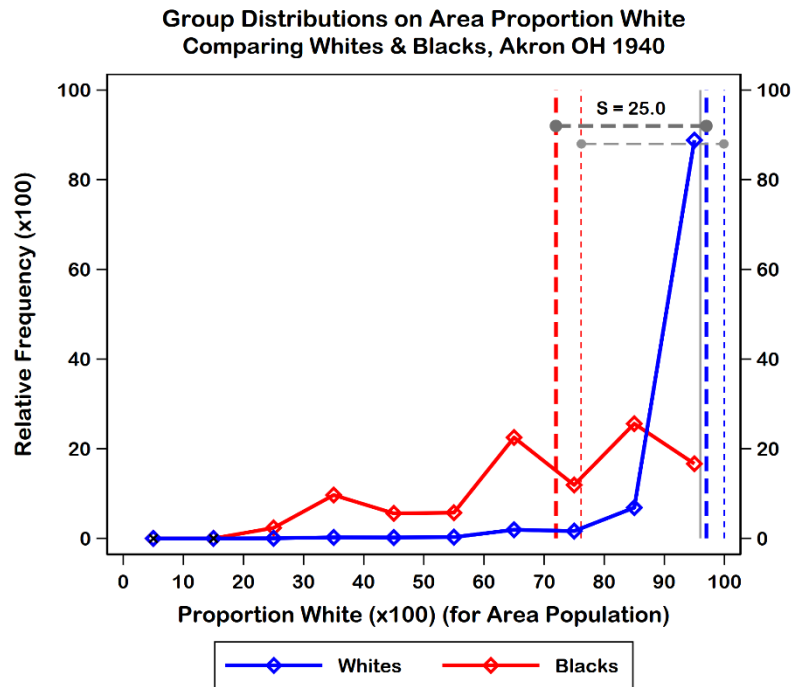


Notes: $P=90.7$, $D=80.9$, and $S=70.5$. Density of light dots reflects reference group percentage in area. Area arrangement indicates maximum enclave potential.

In Tulsa, Blacks live apart from Whites in “below-parity” areas (i.e., $p < P$) that are predominantly Black and far from parity.

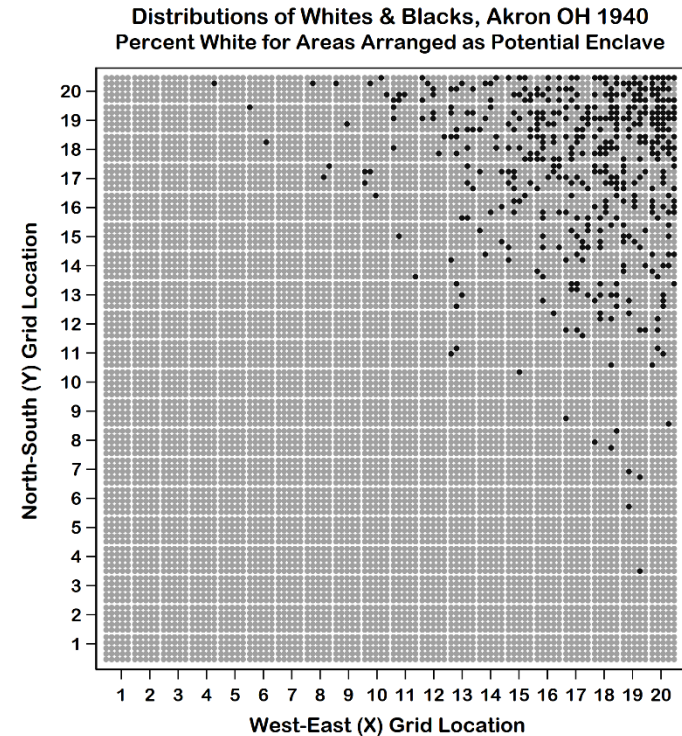
Akron OH– Graphical Analysis

Separation/Polarization Plot



Notes: Standard $S = 25.0 = (Y_1 - Y_2) = (97.0 - 72.0)$ for $y_i = p_i$ based on area population.
Dashed lines denote group means (thick) & medians (thin). ($S_{P50} = 23.8$, $D = 75.4$, $P = 96.0$.)

Neighborhood Grid Plot



Notes: $P=96.0$, $D=75.4$, and $S=25.0$. Density of light dots reflects reference group percentage in area. Area arrangement indicates maximum enclave potential.

In Akron, Blacks intermixed with Whites in “below-parity” areas (i.e., $p < P$) that are majority White and relatively close to parity.

“Place” & “Back Alley” Segregation in Southern Cities

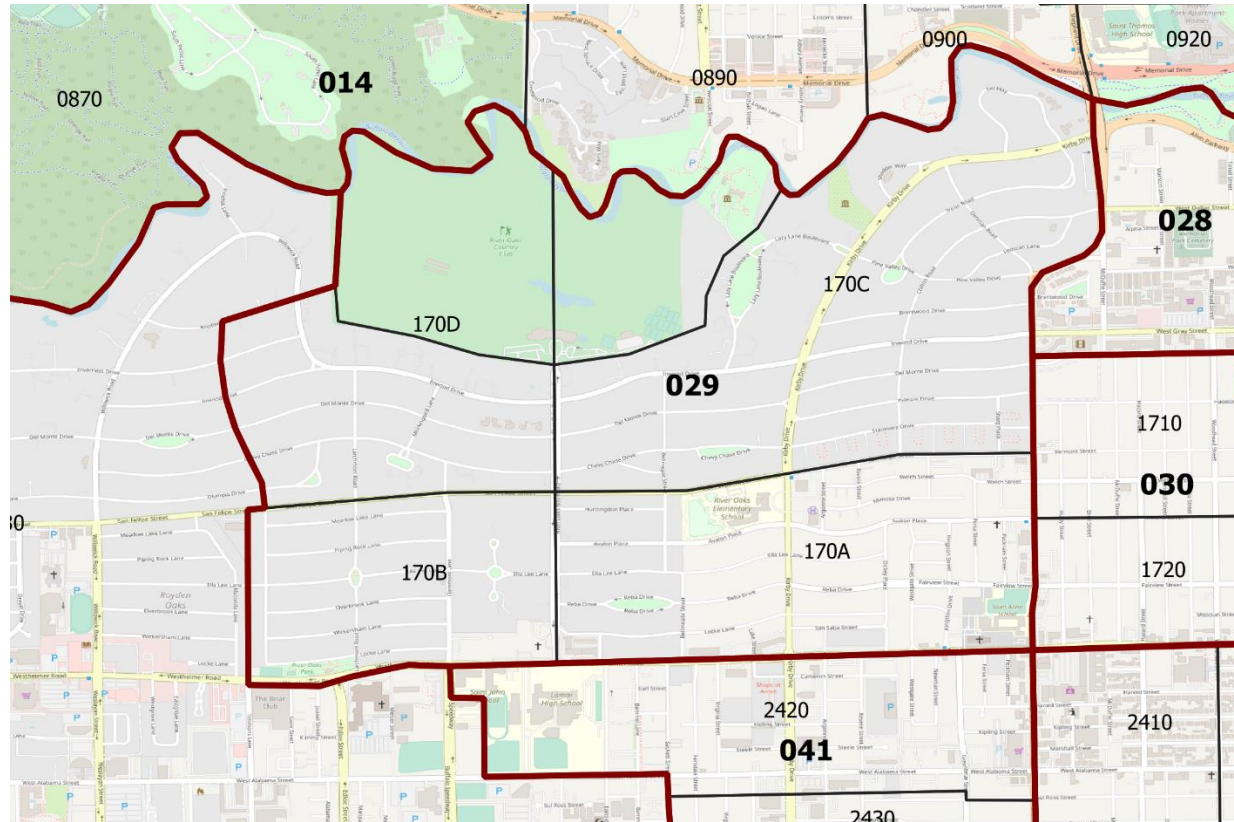
Major studies reported White-Black segregation in 1940-1960 is lower in Southern cities compared to Northern/Midwestern cities (e.g., Taeuber and Taeuber 1965).

This finding is at least partly misleading.

- Closer review shows index scores for Southern cities should not be interpreted in the same way as for Northern cities.**
- Many Southern cities have a pattern of “back alley” integration where Black domestic service workers reside in back alley living quarters**
- This pattern is not common in Northern cities. Black domestic service workers reside in different neighborhoods from their White employers.**

Ironically, the monolithic racial stratification of Jim Crow segregation “permits” residential mixing of Whites and Blacks so long as the racial etiquette of “Place” is maintained.

Houston TX – The River Oaks Neighborhood



In 1940, the River Oaks neighborhood had the highest income census tract (29) and the highest income ED (170C).

Technically, the area is “integrated” ($p \approx P$) on White/Black racial mix; 83/17 for River Oaks is close to 80/20 for Houston overall.

Inspecting Manuscript Records

State Texas Incorporated place Houston City Ward of city _____ Unincorporated place _____
 County Harris Township or other division of county Justice Precinct 1 Block Nos. 24-25 Institution _____

U. S. GOVERNMENT PRINTING OFFICE 16-11576

Line No.	LOCATION		HOUSEHOLD DATA			NAME	RELATION	PERSONAL DESCRIPTION				EDUCATION	PLACE OF BIRTH	CITIZENSHIP	RESIDENCE			
	Street, avenue, road, etc.	House number (in cities and towns)	Number of household in order of visitation	Home owned (O) or rented (R)	Value of home, if owned, or monthly rental, if rented			Does this household live on a farm? (Yes or No)	CODE (Leave blank)	Sex - Male (M), Female (F)	Color or race					Age at last birthday	Marital status (M, Single (S), Widowed (W), Divorced (D))	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	B	15	C	16	17
1	cont'd					Kayser, Elizabeth	Daughter	2	F	W	8	S	Yes	2	Texas		87	Same House
2						Jean	Daughter	2	F	W	8	S	Yes	2	Texas		87	Same House
3			15	R	20	Chaney, Bernice	Maid	0	F	neg	28	S	No	8	Louisiana		85	Same Place
4			196	R	20	Sarbo, James	Servant	0	M	neg	30	S	No	7	Texas		87	Same Place
5		3237	198	O	30000	Campbell, W. J.	Head	0	M	W	44	M	No	CS	Texas		87	Same House
6						Lula	Wife	1	F	W	42	M	No	04	Texas		87	Same House
7			199	R	20	Lewis, Adel	Maid	1	F	neg	28	M	No	H4	Texas		87	Same Place
8						Claude	Servant	0	M	neg	37	M	No	H2	Texas		87	Same Place
9		327	200	O	25000	Smith, A. J.	Head	0	M	W	52	M	No	H1	Kansas		70	Same House
10						Amelia E.	Wife	1	F	W	50	M	No	H4	Kansas		70	Same House
11						Leota	Daughter	2	F	W	30	S	No	H5	Missouri		66	Same House
12			201	R	20	Linsley, Roy	Servant	0	M	neg	23	S	No	8	Louisiana		85	Same Place
13						Here Ends Block 24 and Begins Block 25												

Many White families in River Oaks have Black servants living in the same address as "R" (renters). How common is this? VERY!

Back Alley Integration in the River Oaks (ED 170C)

Tallies for Manuscript Records (A+B sheets; "Sheet Blocks) - ED 170C

Sheet ID	Sheet Seq N	White Households				Non-White Households	Total Households
		Black dsw	B & W dsw	White dsw	No dsw		
1	1	12	2	1	3	0	18
2	3	13	0	1	3	0	17
3	5	10	1	1	4	0	16
4	7	3	0	5	12	0	20
5	9	3	0	1	2	0	6
6	11	3	2	4	8	0	17
7	13	8	0	4	4	0	16
8	15	4	1	2	8	0	15
9	17	11	0	0	6	0	17
10	19	8	1	4	2	0	15
11	21	10	1	1	3	0	15
12	23	6	2	3	11	0	22
13	25	3	1	3	4	2	13
14	27	8	2	2	0	0	12
15	29	10	1	3	2	0	16
16	31	6	1	5	4	0	16
17	33	3	1	6	5	0	15
Totals		121	16	46	81	2	266
Percentages		45.5	6.0	17.3	30.5	0.8	100.0
		66.1	8.7	25.1	---	---	100.0

Note: "dsw" -Household includes one or more domestic service workers (maid, cook, servant).

Back Alley Integration in the River Oaks (ED 170C)

Of 266 Total households only two are Non-White

The two Non-White householders are domestic service workers. But they are not listed as living at the same address as a White householder.

None of the 218 Black residents in ED 170C are “similar status”.

100% of Black residents in River Oaks with occupations are domestic service workers (e.g., maid, cook, housekeeper, servant, gardener, chauffeur, etc.)

Other Black residents are children or dependent relatives.

Implications

The presence of domestic service workers (dsw) residing in predominantly White areas lowers segregation index scores.

There is no consensus on how to handle this.

For now, it requires nuanced interpretation based on “side information”.

Segregation of White Ethnics in 1930 and 1940

The 1940 Census records country of birth for 100% of respondents.

The 1930 Census records both country of birth and parent's country of birth for 100% of respondents.

This permits assessment of segregation for:

- First generation immigrants from Native-Born Whites in 1940.**
- First & second generation immigrants (foreign stock) from third generation Whites (native born-native parents) in 1930.**

1940 has the advantage of detailed socioeconomic information for analyzing segregation.

1930 has advantage of more detailed ancestry.

Segregation of White Ethnics – 5,000+ Comparisons

White ethnics have low segregation from Native-born Whites

The pattern is “dispersed displacement” ($D > S$)

White ethnics are highly segregated from Blacks

The pattern is “prototypical” segregation ($D \approx S$)

White ethnics are highly segregated from each other

The pattern is “prototypical” segregation ($D \approx S$)

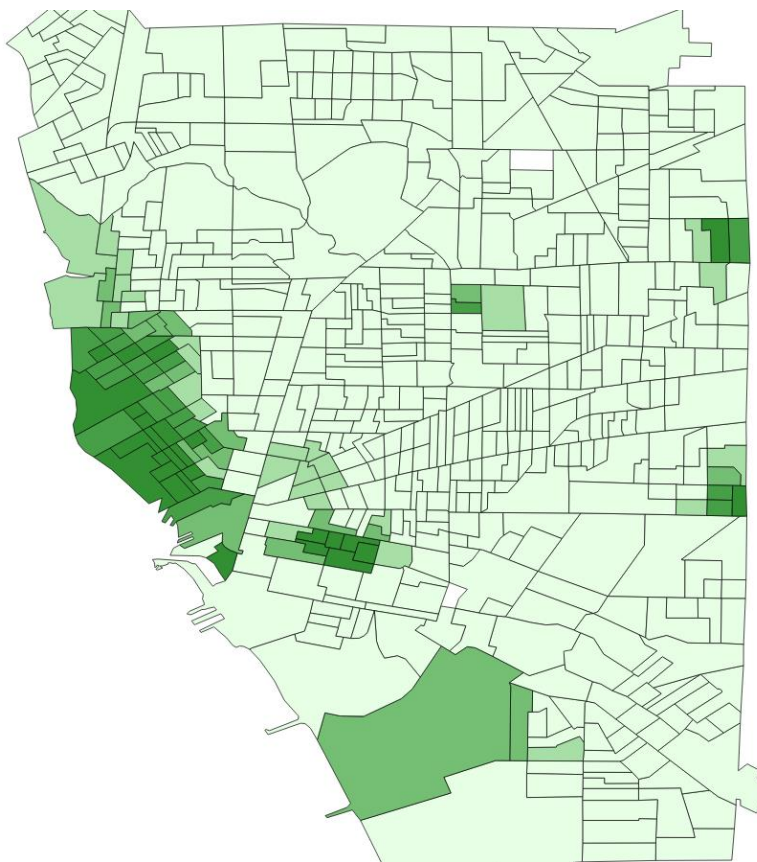
This parallels contemporary segregation of Non-White groups

Some Implications

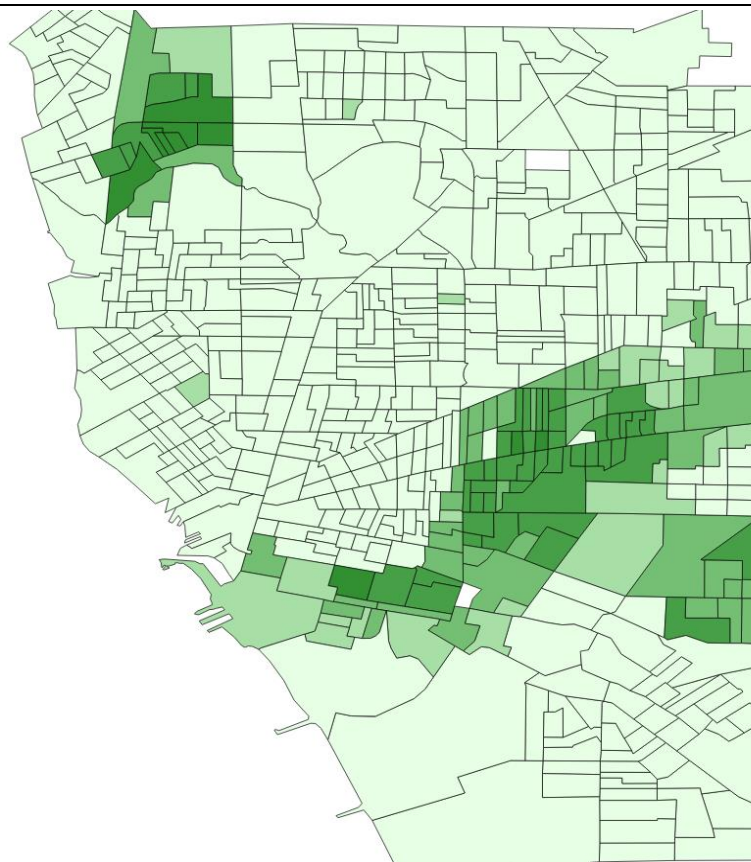
- Blacks stand out as exceptionally separated from all groups.**
- Segregation research does not give adequate attention to minority-minority segregation.**
- Contemporary segregation theory emphasizes the role of discrimination and exclusion by Whites. While clearly important, it does not explain minority-minority segregation.**

Graphical Examples – Buffalo NY 1940

Foreign-Born –Italy

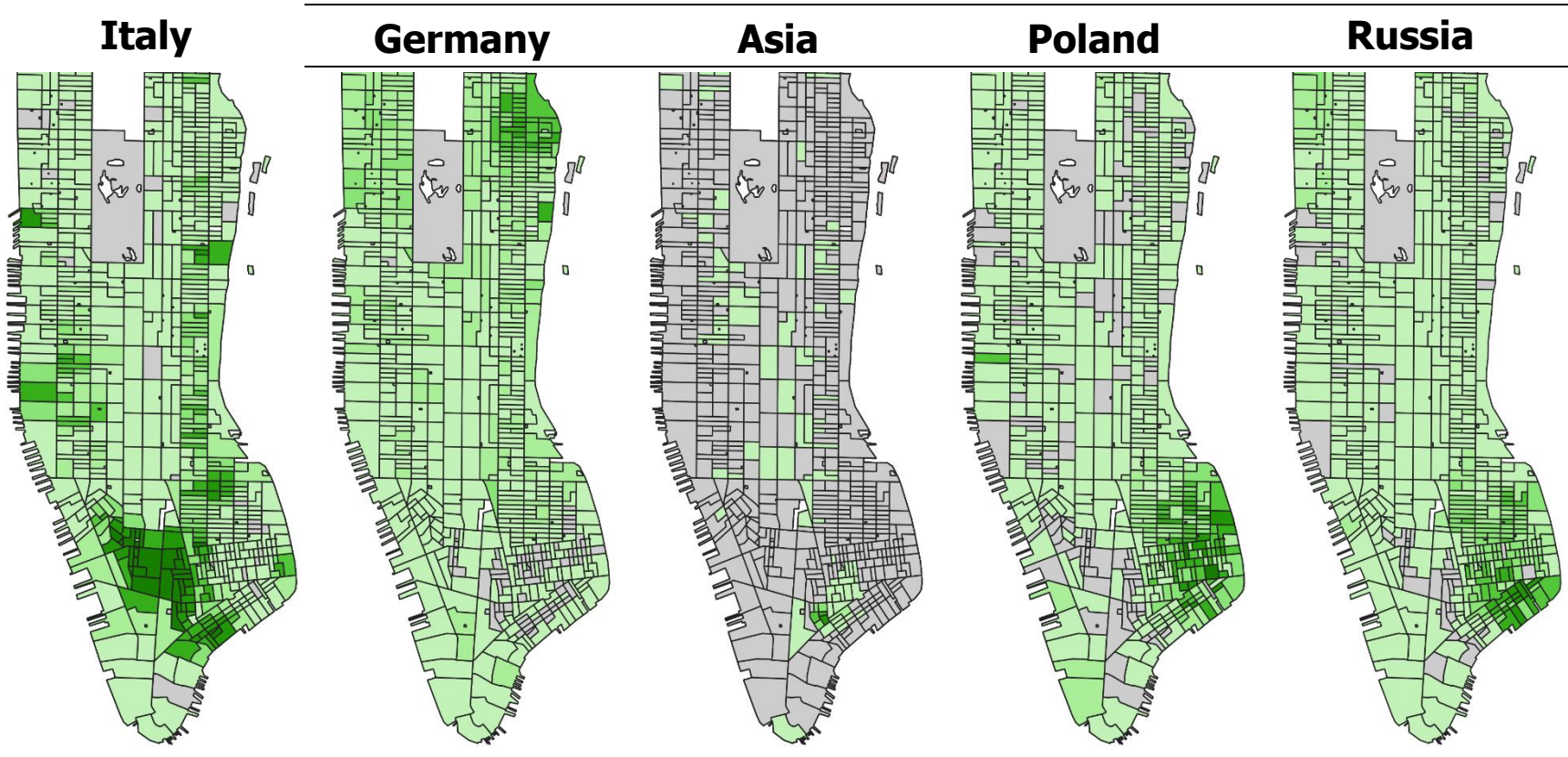


Foreign Born -Poland



High separation of Italians and Poles in Buffalo NY 1940

Graphical Examples – Foreign Stock Manhattan 1930



High separation of several groups in “Lower” Manhattan in 1930.

D-S Contrasts Vary over Group Comparisons in 1940

Patterns of uneven distribution vary systematically across the type of group comparison.

- Some can be characterized as “prototypical segregation”.**
- Others can be characterized as “dispersed displacement”.**

The Data – 5,090 Group Comparisons

180 Metropolitan Areas (per 1950 definitions)

Comparisons involving all possible comparisons of

Native-Born Whites

Foreign-Born White Groups (16 countries)

Native-Born Blacks

Selection Criteria

Minimum group size is 500 (age 16+)

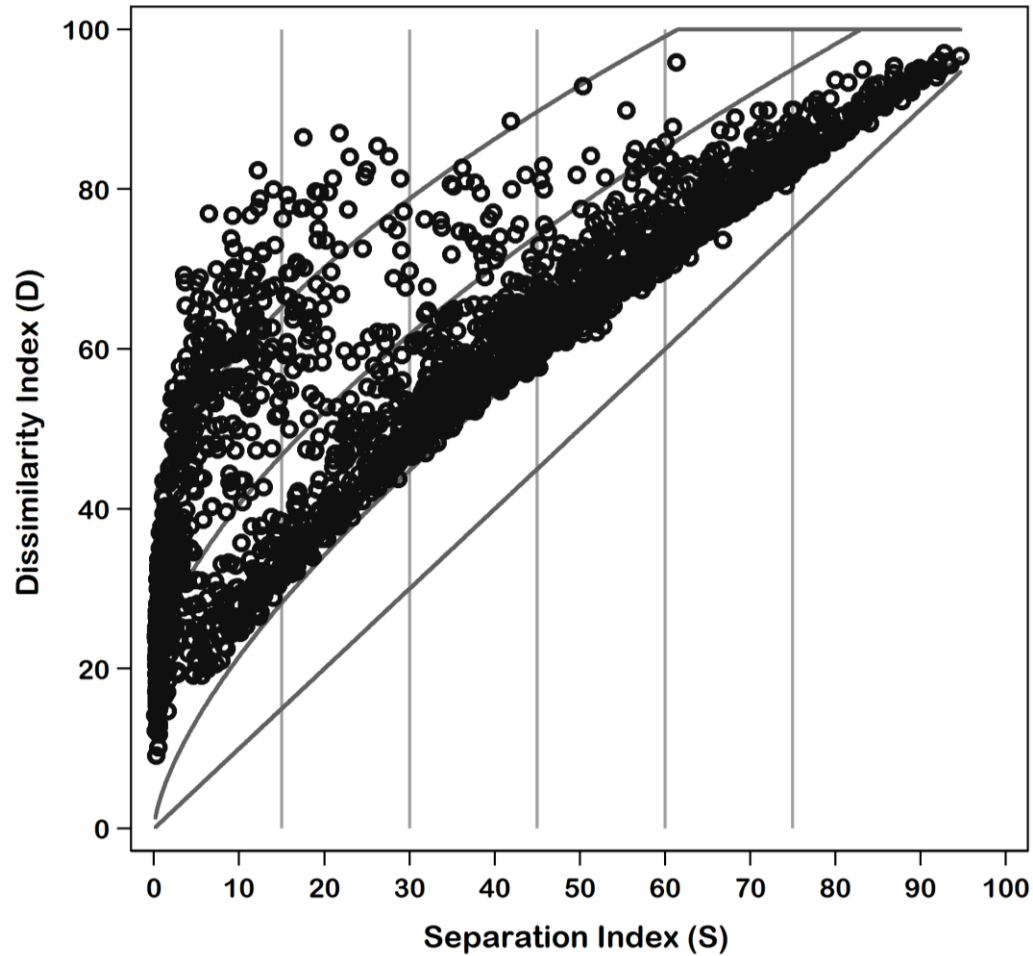
Minimum group relative size (pairwise percentage ≥ 1)

Averages for Selected Group Comparisons

Averages for D and S from 5,090 Group comparisons across 180 Metropolitan Areas in 1940

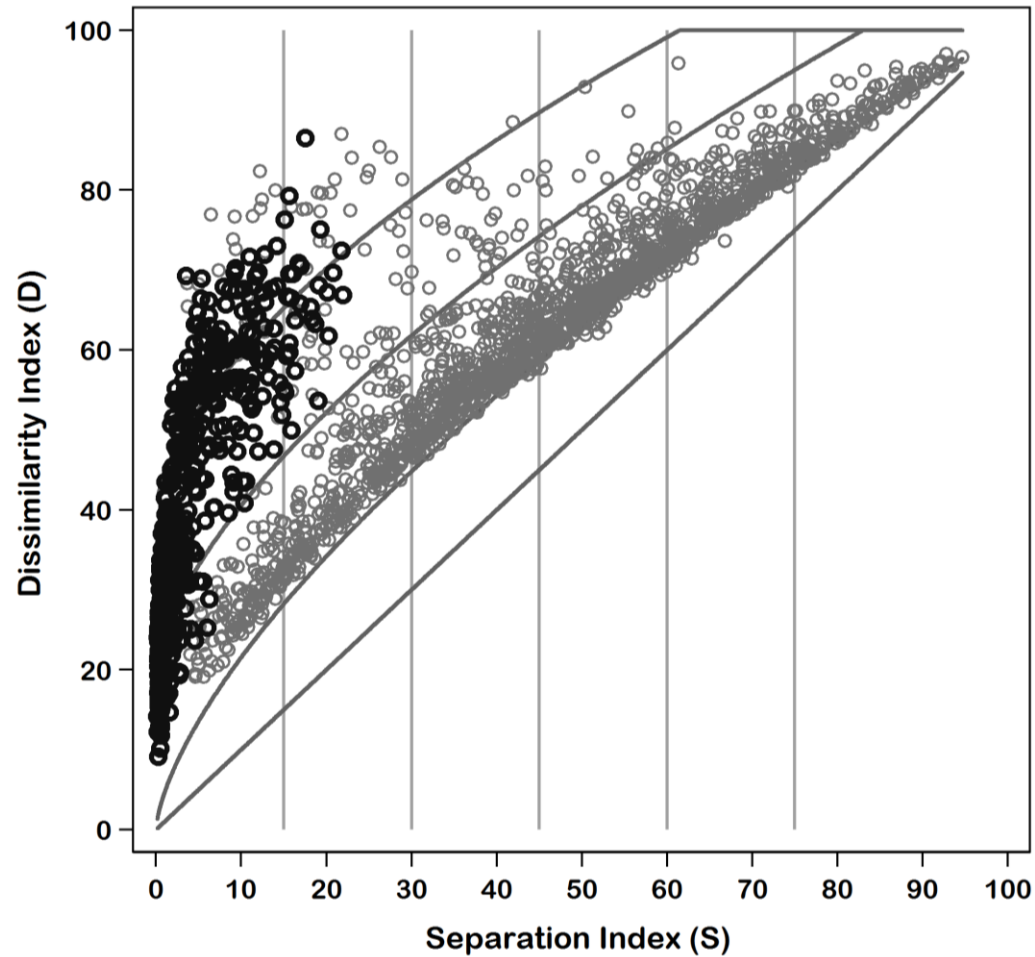
Group	<u>Native-Born White</u>			<u>Foreign-Born White (Other)</u>			<u>Native-Born Black</u>		
	D	S	N	D	S	N	D	S	N
Canada & UK	22.1	1.2	110	50.4	32.1	388	80.5	66.5	89
Germany	28.1	1.4	100	49.7	31.9	366	80.3	68.3	82
Ireland	35.4	2.1	37	54.0	35.2	193	79.4	68.4	31
Sweden	35.6	2.5	29	49.5	30.8	142	82.4	72.3	22
Austria	46.4	3.4	36	55.5	37.1	210	80.2	69.3	31
Czechoslovakia	59.8	7.3	24	63.8	47.1	143	82.8	73.5	18
Poland	57.3	8.1	59	62.8	46.0	288	80.0	70.0	48
Italy	55.4	10.5	83	63.2	44.6	353	74.9	59.5	67
Native-Born Black	73.5	38.7	152	79.4	67.0	415	---	---	---

D by S over All Group Comparisons



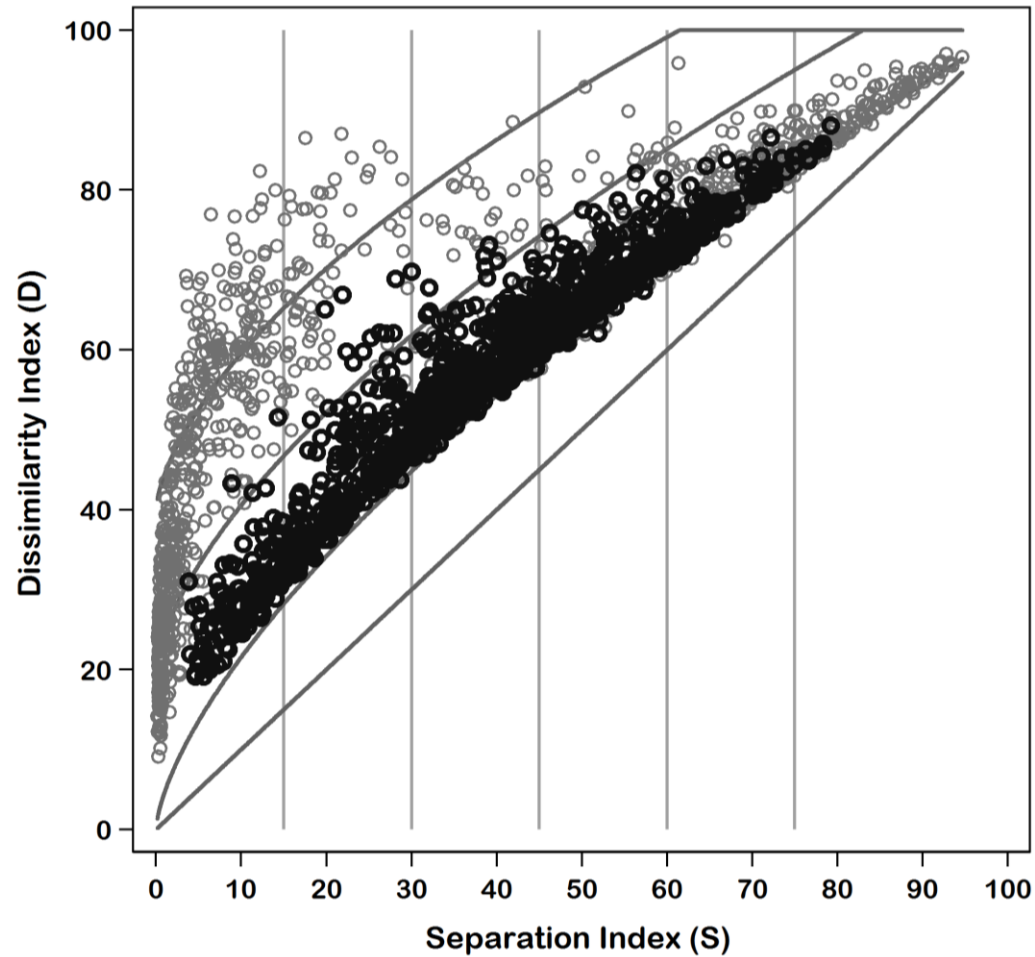
Cases of both "Prototypical" & "Dispersed Displacement" patterns

D by S: Native-Born Whites vs. Foreign-Born Whites



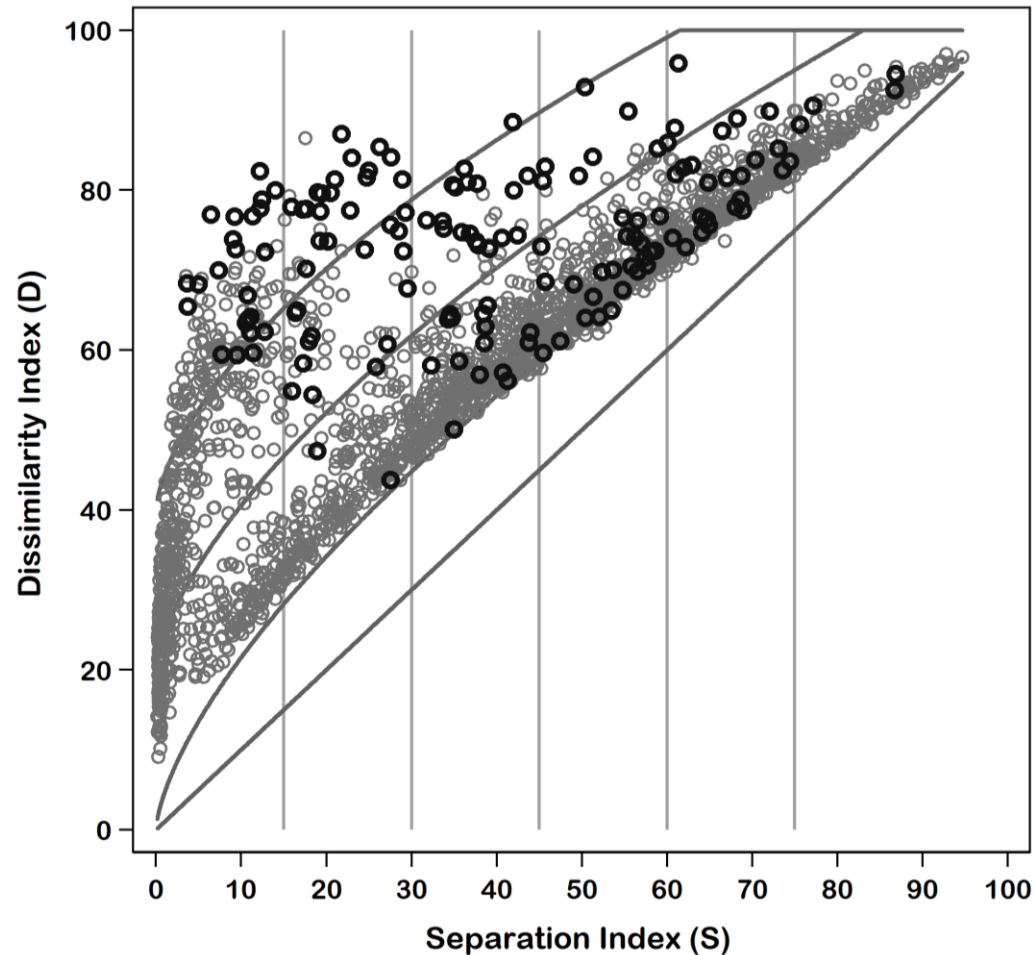
The only pattern is Dispersed Displacement ($D > S$)

D by S: Comparisons of Foreign-Born White Groups



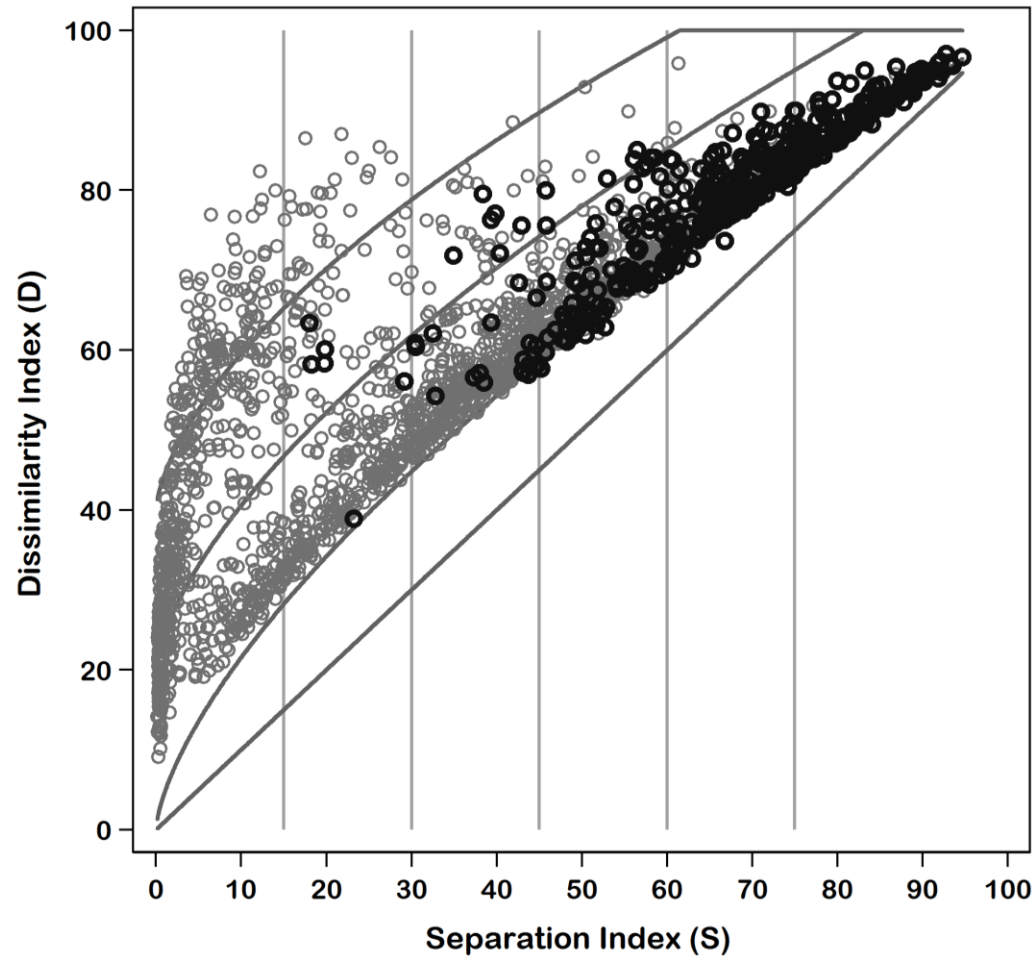
The only pattern is Prototypical Segregation ($D \sim S$)

D by S: White vs. Black (Native Born)



**Cases of both “Prototypical” & “Dispersed Displacement” patterns.
The many dispersed displacement cases are larger unrecognized.**

D by S: Foreign-Born White vs. Native-Born Black



The only pattern is Prototypical Segregation ($D \approx S$)

Summing Up Opportunities/Concerns to Be Addressed

Concerns

- **Change prevailing practices of index use. Always compare D & S and identify cases where the D-S difference is large.**
- **Give more attention to segregation of a wider range of group comparisons over a wider range of community contexts.**
- **Give more attention to minority-minority segregation.**

Opportunities

- **Historical and contemporary restricted microdata permit major advances in the sophistication and nuance of segregation research**
- **Historical segregation patterns have yet to be analyzed using contemporary research methods.**
- **Historical data for 1940 are superior to contemporary data in many respects (e.g., 100% coverage of detailed characteristics) that permit application of more sophisticated quantitative analyses of segregation patterns.**

End

Thank you for your patient attention

Extra Slides

The next slides provide information about the historical restricted IPUMS microdata files.

New Restricted Data Sources

Newly released micro-data from historical censuses are providing amazing new opportunities for research.

Multiple large-scale data production projects led by Steve Ruggles at the University of Minnesota Population Center (MPC) are producing important new data sets

In 2016-2017, MPC released IPUMS 100% restricted files for the decennial censuses of 1920, 1930, and 1940.

Steven Ruggles, Katie Genadek, Ronald Goeken, Josiah Grover, and Matthew Sobek. *Integrated Public Use Microdata Series: Version 6.0* [Machine-readable database]. Minneapolis: University of Minnesota, 2015.

1940 IPUMS 100% Sample, Restricted File.

Disclaimers for Using Restricted IPUMS Files

Disclaimer for research using Restricted 1940 Census Data:

Statistical analyses reported here were conducted under the guidelines and review policies of a project approved by the Minnesota Population Center (MPC).

The views expressed in this research, including those related to statistical, methodological, technical, or operational issues, are solely those of the authors and do not necessarily reflect views of MPC.

All results have been reviewed to ensure that no confidential information is disclosed.

The authors accept responsibility for all errors.

Extra Slides

The slides below provide additional discussion of how values of D and S can agree or diverge and what the different patterns indicate.

Thought Experiment for D-S Contrasts

Start with integrated city. All neighborhoods are at parity.

Implement residential exchanges to create a 70 point difference on group percentages residing in areas at or above parity (i.e., $D=70$).

Scenario 1: Differential Displacement is Polarized/Concentrated

Implement the exchanges to produce as many homogeneous or homogeneous areas as possible.

D will be 70 and S will be 70

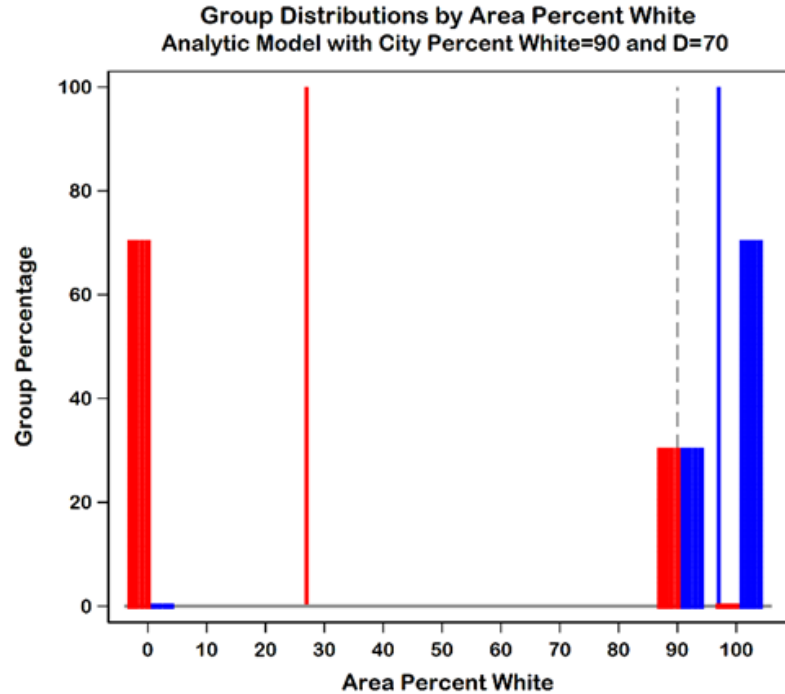
Scenario 2. Differential Displacement is Dispersed

Implement the exchanges to produce areas as close to parity as possible.

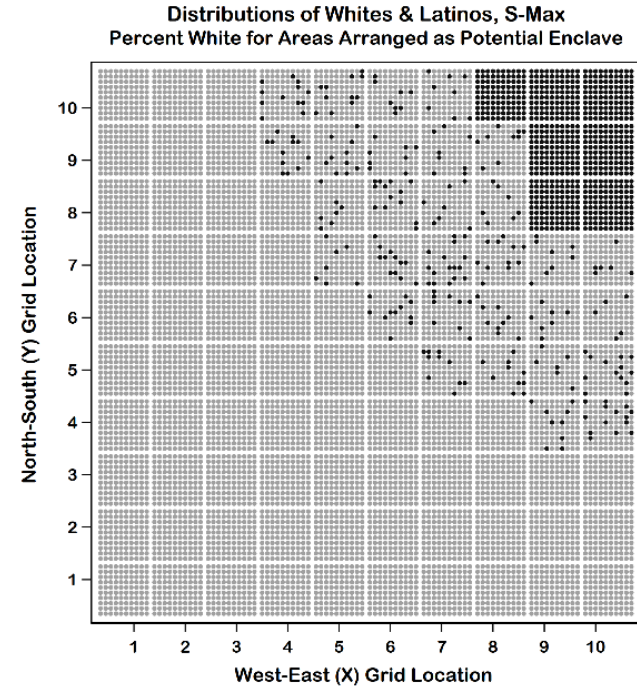
D will be 70 but S will be much lower.

Differential Displacement is Polarized/Concentrated

P=90, D=70, S=70



City-level characteristics: P=90.0, G=91.0, D=70.0, R=70.0, H=70.0, S=70.0.
S terms: Overall $Y_w=97.0$, $Y_L=27.0$.

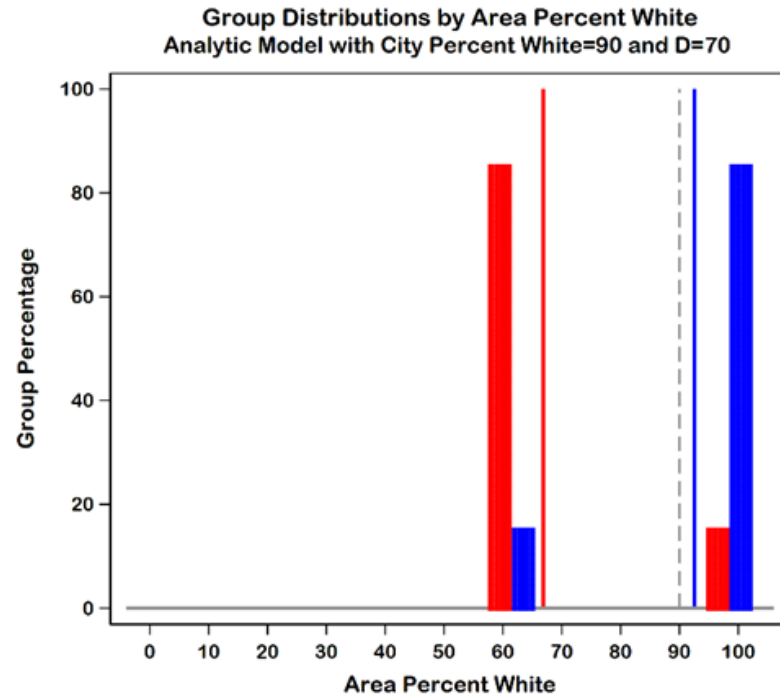


Notes: P=90.0, D=70.0, and S=70.0. Density of light dots reflects reference group percentage in area. Areas are arranged to indicate the potential for enclaves.

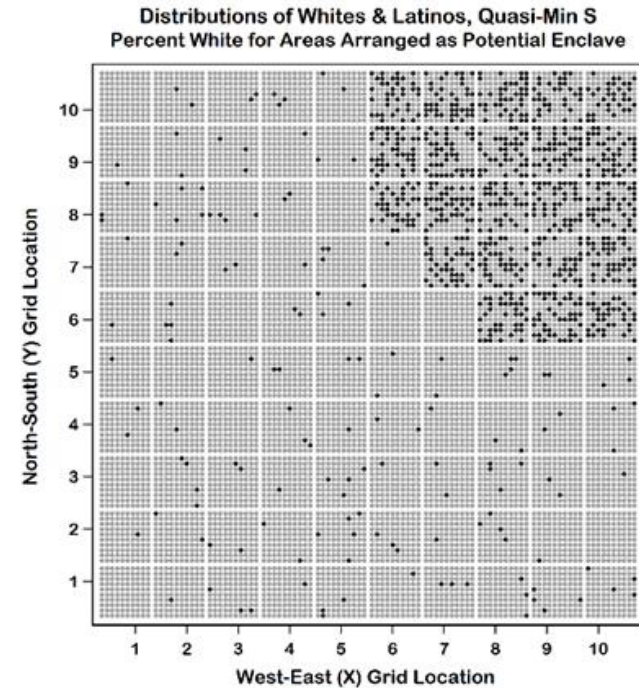
Possible Scenario: A minority population is mostly comprised of low-SES immigrants who reside separate from Whites in homogeneous immigrant enclave neighborhoods and also has smaller assimilated segment that co-resides with middle and working class Whites (but not high-SES Whites).

Differential Displacement is Dispersed

P=90, D=70, S=26



City-level characteristics: P=90.0, G=70.0, D=70.0, R=28.6, H=32.1, S=25.7.
S terms: Overall $Y_w=92.6$, $Y_c=66.9$. Below parity $Y_w=61.4$, $Y_e=61.4$. Above parity $Y_w=98.1$, $Y_e=98.1$.



Notes: P=90.0, D=70.0, and S=25.7. Density of light dots reflects reference group percentage in area. Areas are arranged to indicate the potential for enclaves.

Possible Scenario: Most of a minority population resides in predominantly White working-class areas and some higher-SES minority households are scattered across middle-class White areas.

Dispersed vs. Polarized/Concentrated Displacement

Concentrated Displacement is "Prototypical Segregation"

- **The value of D is high and the value of S also is high**
- **This pattern is standard in examples depicting high segregation**
- **This pattern is observed in empirical examples of high segregation such as White-Black segregation in Chicago**

The Pattern of Dispersed Displacement is "Off the Radar"

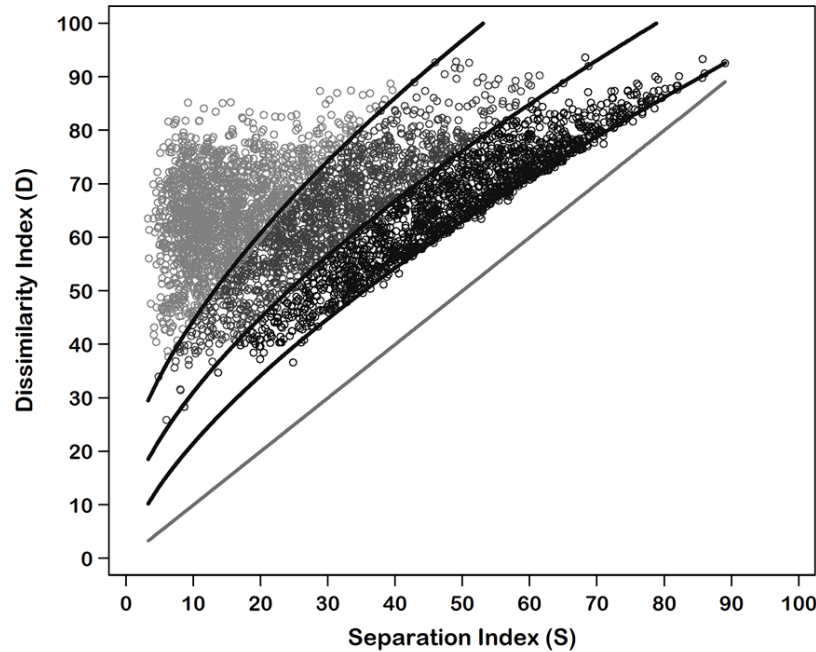
- **The value of D is high and the value of S is low**
- **Examples depicting this pattern are rare**
- **Empirical examples can be easily found, but they are rarely if ever noted in the literature**

Broad audiences and segregation researchers routinely presume high values of D imply a pattern of prototypical segregation

This assumption is incorrect and promotes misunderstanding

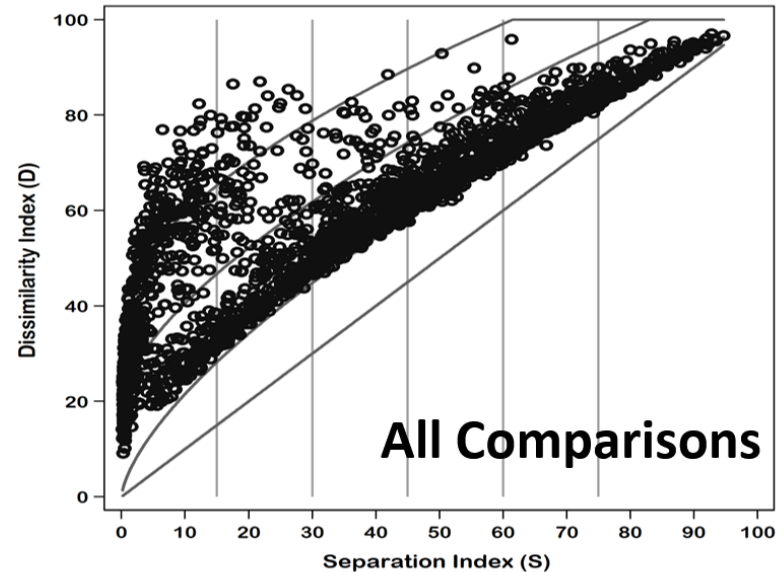
D-S Disagreement is Not Rare

D by S



**4,319 White-Minority
Comparisons 1990-2010,
block data
(Fossett 2017)**

Correspondence of Dissimilarity (D) and Separation (S)
All Group Comparisons



Notes: Segregation computed using data for enumeration districts in 1940.
Reference lines are used to classify D-S combination as divergent or concordant.

**2,428 Comparisons
Various Groups, 1940
enumeration district data
(Fossett and Zou 2017)**

Why is D Used over S?

Why is D *So* Popular *Despite* Its Well-Known Technical Flaws?

- Key endorsements by Duncan and Duncan (1955), Taeuber and Taeuber (1965), and Massey and Denton (1988)
- Ease of computation and interpretation
- Relationship to the segregation curve (a popular, but poorly understood graphical representation of uneven distribution)

Does It Matter Whether D or S is Used? YES!

- Classic statements say “No”
(Duncan and Duncan 1955; Taeuber and Taeuber 1965; and Massey and Denton 1988)
- In this case, the “Gods” are wrong.
- In fairness, index choice does not matter for White-Black segregation in cities with prototypical segregation patterns (e.g., Chicago, Cleveland, Milwaukee, Newark, etc.). But ...
This result does not generalize to (a) all group comparisons or (b) to comparisons over a broader range of communities.

Practical Advice I – Check for D-S Agreement

When D and S correspond ($S \geq D^{3/2}$) ...

- **The pattern of “Prototypical” Segregation is present**
- **Segregation involves groups living apart from each other in separate areas across the city**
- **Neighborhoods are polarized on racial composition**
- **Index choice does not matter (correlations are high; $r > 0.9$)**

When D and S disagree ($S < D^{3/2}$) ...

- **The pattern of “Dispersed Displacement” is present**
- **Segregation involves groups living together, not apart; neighborhoods are not polarized on racial composition**
- **Index choice matters (correlations can be very low; $r < 0.5$)**

Practical Advice II – Understand D-S Agreement

S is a reliable signal for Prototypical Segregation (separation)

D is NOT a reliable signal for Prototypical Segregation

A high value of D can involve Dispersed Displacement

Consequently, studies that examine only D cannot speak to the question of whether groups are residentially separated.

At best, results are ambiguous until other indices are examined.

The measurement literature is partly to blame for this situation.

The literature fails to highlight and emphasize ...

- **D is not a valid or reliable measure of group separation**
- **D and S can rank group comparisons very differently**
- **D and S can trend in different directions**

Due to these omissions, the measurement literature implicitly creates the impression that D measures group separation and thus encourages mischaracterization of segregation patterns and trends

Practical Advice III – Take Care to Not Mislead

Studies that use D exclusively should be explicit and clear that they are not necessarily measuring group separation.

Failure to be clear and explicit on this point encourages potential misinterpretation and misunderstanding of results.

Studies that highlight high values of D when S is low should provide clear justification for doing so.

- **I do not know what this could be. The groups in question are living together and have similar neighborhood outcomes.**
- **The measurement literature provides no accepted basis for assigning high substantive importance to a high-D, low-S pattern residential pattern.**

To the contrary, the pattern is rarely if ever discussed

End – (This time for real)
