



693 | 21 | 0
Views | CrossRef citations to date | Altmetric

Methods, Models, and GIS

Measuring Ethnic Clustering and Exposure with the Q Statistic: An Exploratory Analysis of Irish, Germans, and Yankees in 1880 Newark

Antonio Páez, Manuel Ruiz, Fernando López & John Logan

Pages 84-102 | Received 01 Sep 2010, Accepted 01 Mar 2011, Published online: 09 Nov 2011

🗨️ Cite this article 🔗 <https://doi.org/10.1080/00045608.2011.620502>

📖 Sample our Global Development journals, sign in here to start your access, latest two full volumes FREE to you for 14 days

📄 Full Article

📊 Figures & data

📖 References

🗨️ Citations

📊 Metrics

📄 Reprint

We Care About Your Privacy

We and our 907 partners store and access personal data, like browsing data or unique identifiers, on your device. Selecting "I Accept" enables tracking technologies to support the purposes shown under "we and our partners process data to provide," whereas selecting "Reject All" or withdrawing your consent will disable them. If trackers are disabled, some content and ads you see may not be as relevant to you. You can resurface this menu to change your choices or withdraw consent at any time by clicking the ["privacy preferences"] link on the bottom of the webpage [or the floating icon on the bottom-left of the webpage, if applicable]. Your choices will have effect within our Website. For more details, refer to our Privacy Policy. [Here](#)

We and our partners process data to provide:

...

I Accept

Reject All

Show Purpose Identification



some intermingling between Yankee and Irish residents. In contrast, the exposure of Germans to individuals of other groups is found to be more limited.

对人口模式的研究多年来已经掀起了城市社会研究的热潮。这些研究文献的一个重要组成部分是有关隔离模式的识别和测量。近期已产生有力的呼吁，以制定能够更好地捕捉人口模式地理的措施。这篇文章的目的是展示为分析定性变量的空间关联而开发的 Q 统计对于监测民族聚类和曝光模式的应用。该应用分析美国纽瓦克从 1880 年以来的历史数据，个人按种族分类和由居住地编码。考虑到三个民族，即爱尔兰，德国，和洋基人。用 Q 统计的探索分析，确定了在个人的倾向和建设居住种族集群上的显著性差异。特别是有证据显示，在民族集群内和在一些洋基人和爱尔兰的居民之间，有一个很强的亲和力。相比之下，德国人与其他群体的个人接触较为有限。

A través del tiempo, el estudio de los patrones de población ha construido un abultado cuerpo de investigación social urbana. Buena parte de esta literatura se ocupa de la identificación y medida de los patrones de segregación. Recientemente, son notables los llamados enfáticos que propenden por medidas más efectivas que capten la geografía de los patrones de población. El propósito de este artículo es demostrar la aplicación de la estadística Q , desarrollada para analizar la asociación espacial de variables cualitativas, con la cual detectar la agrupación étnica y patrones de exposición. La aplicación se hace a datos históricos de la Newark de 1880 en los Estados Unidos, clasificando los individuos por etnicidad y geocodificados por lugar de residencia. Se tomaron en cuenta tres grupos étnicos, denominados irlandeses, alemanes yanquis. El análisis exploratorio con la estadística Q identifica diferencias significativas en la tendencia de los individuos y ocupación de edificaciones a agruparse por etnicidad. En particular, existe evidencia de una fuerte afinidad al interior de los agrupamientos étnicos. Lo mismo que de cierta mezcla de residentes yanquis y alemanes.

Key Word

clustering

关键词:

关键词



Palabras

agrupamie



Acknowledgments

The authors express their appreciation to three anonymous reviewers for their valuable comments on previous versions of this article. The work of Manuel Ruiz was partially supported by MCI (Ministerio de Ciencia e Innovación) grant MTM2009-07373, Fundación Séneca of Región de Murcia and by grant 861-2009-2010 from the Social Sciences and Humanities Research Council of Canada. Fernando López received financial support from the project ECO-2009-10534-ECON of Ministerio de Ciencia y Tecnología and from the project 11897/PHCS/09 of Fundación Séneca de la Región de Murcia. John Logan was supported by research grants from the National Science Foundation (0647584) and the National Institutes of Health (1R01HD049493-01A2). The usual disclaimer applies: The authors alone are responsible for the contents of this article.

Notes

1. MATLAB code to calculate and test Q is available as supplementary material that accompanies Ruiz, López, and Páez (2010). The code can also be downloaded at <http://www.science.mcmaster.ca/geo/faculty/paez/publications.html#journals>
2. As noted above, the model is not perfect. It is not able to capture all the spatial heterogeneities but also the model is able to capture the main spatial patterns. For a more thorough analysis, a more complex model is highly recommended. However, the model is highly well suited for the purpose of this study. As well, the model is able to capture the relative spatial patterns of the variables. Detailed description of the model is available in the supplementary material.
3. We are grateful to the anonymous reviewers for their valuable comments and suggestions.
4. We are grateful to the anonymous reviewers for their valuable comments and suggestions.



Relat

The M

Source: American journal of Sociology

American Apartheid: Segregation and the Making of the Underclass, by Douglass S.

Massey and Nancy A. Denton

Source: Political Science Quarterly

Research Note—Measuring Ethnic Residential Segregation: Putting Some More Geography In

Source: Urban Geography

Research in Ethnic Segregation I: Causal Factors

Source: Urban Geography

Evaluating the geographic concentration of industries using distance-based methods

Source: Journal of Economic Geography

Spatial segregation, segregation indices and the geographical perspective

Source: Population Space and Place

Moving On from Indices, Refocusing on Mix: On Measuring and Understanding Ethnic Patterns of Residential Segregation

Source: Journal of Ethnic and Migration Studies

Research in Ethnic Segregation II: Measurements, Categories and Meanings

Source: Urban Geography

Statistics of Racial Segregation: Measures, Evidence and Policy

Source: Urban Studies

Exploring the Variability of Segregation Index D with Scale and Zonal Systems: An Analysis of Thirty US Cities

Source: Environment and Planning A Economy and Space

Introduction to the Special Issue on Research in Ethnic Segregation

Source: Urban Geography

SPATIAL

Source: Urban Geography

Meas

Intro

Source: Urban Geography

Mode

S

De

Source: Urban Geography

A dist

Source: Urban Geography

A Tale

1970

Source: Urban Geography

The s

Source: Demography



3. Measures of Spatial Segregation

Source: Sociological Methodology

Testing for spatial association of qualitative data using symbolic dynamics

Source: Journal of Geographical Systems

Is the Melting Pot Still Hot? Explaining the Resurgence of Immigrant Segregation

Source: Review of Economics and Statistics

The Analysis of Spatial Association by Use of Distance Statistics

Source: Unknown Repository

RACIAL SEGREGATION: A REPLY

Source: Journal of Regional Science

Immigrant Enclaves and Ethnic Communities in New York and Los Angeles

Source: American Sociological Review

Comparing Traditional and Spatial Segregation Measures: A Spatial Scale Perspective¹

Source: Urban Geography

Slippery Segregation: Discovering or Manufacturing Ghettos?

Source: Journal of Ethnic and Migration Studies

Race Relations and Residential Segregation in New Orleans: Two Centuries of Paradox

Source: The Annals of the American Academy of Political and Social Science

Measuring the Spatial Pattern of Residential Segregation

Source: Urban Studies

Do measures matter? Comparing surface-density-derived and census-tract-derived measures of racial residential segregation

Source:

Intro

Half-C

Source

The C

Coun

Source

Form

S

Lo

Source

Global

Source

GEOS

Source

Ethni

Source

Racial and Ethnic Residential Segregation in Boston 1830-1970



Source: The Annals of the American Academy of Political and Social Science

2. Measures of Multigroup Segregation

Source: Sociological Methodology

THE GHETTO MODEL AND ETHNIC CONCENTRATION IN AUSTRALIAN CITIES

Source: Urban Geography

Exploring population spatial concentrations in Northern Ireland by community background and other characteristics: an application of geographically weighted spatial statistics

Source: International Journal of Geographical Information Science

RACIAL SEGREGATION: A COMMENT

Source: Journal of Regional Science

Change in Elderly Residential Segregation in Canadian Metropolitan Areas, 1981-91

Source: Canadian Journal on Aging / La Revue canadienne du vieillissement

The Intensity of Ethnic Residential Clustering: Exploring Scale Effects Using Local Indicators of Spatial Association

Source: Environment and Planning A Economy and Space

The Dynamics of Racial Residential Segregation

Source: Annual Review of Sociology

Mapping America in 1880: The Urban Transition Historical GIS Project

Source: Historical Methods A Journal of Quantitative and Interdisciplinary History

The geographic scale of Metropolitan racial segregation

Source: Demography

The D

Source

Racia

Source

Urban

in a U

Source

MEAS

S

A

Source

Are th

Source

A His

Source

MEAS

TO M

Source: Tijdschrift voor Economische en Sociale Geografie



gation


MEASURE

Linking Integration and Residential Segregation

Source: Journal of Ethnic and Migration Studies

Global and local spatial indices of urban segregation

Source: International Journal of Geographical Information Science

Linking provided by 

Related research

People also read

Recommended articles

Cited by
21



Information for

- Authors
- R&D professionals
- Editors
- Librarians
- Societies

Opportunities

- Reprints and e-prints
- Advertising solutions
- Accelerated publication
- Corporate access solutions

Open access

- Overview
- Open journals
- Open Select
- Dove Medical Press
- F1000Research

Help and information

- Help and contact
- Newsroom
- All journals
- Books

Keep up to date

Register to receive personalised research and resources by email

 Sign me up



Copyright

Accessib

Registered
5 Howick Pl

or & Francis Group
orma business

