The Public Life Diversity Toolkit

Gehl
Institute

The
Public Life
Diversity
Toolkit

Project Team:

Gehl
Institute

Project Partner:

KF Knight Foundation

Front Cover: Living Innovation Zone, photo: The Exploratorium. Back Cover: Market Street Prototyping Festival, Arena Play. This page: Market Square, Pittsburgh, PA

Toolkit Contents

Overview

New methods to understand how a robust public life and a high quality public realm contribute to mixing between people of different socioeconomic backgrounds

A new focus on Socioeconomic Mixing

For 15 years, Gehl has been an evidence-based design firm, based on 50 years of Jan Gehl's research on how a high quality public realm contributes to quality of life. We use empirical data to inform design and programming decisions to make cities better for people. Our Public Space/Public Life survey is a set of methods that collects quantitative and qualitative data on people moving and staying in space, and their age and gender.

As the issues in cities change, and the tone of public discourse changes, many of today's cities are pressed to address increasing economic inequality and spatial divisions of race, class and opportunity. Gehl's tools need to adapt to respond to these issues.

This project challenged us to tackle one facet of quality of life: diversity and social mixing. To what extent does robust public life and a high quality public realm contribute to socioeconomic mixing and public life diversity?

While experts in other urban disciplines, from housing, to transportation, to economic development, have written treatises on how to re-unite our socioeconomically-fractured cities, few from the design community have shared expertise on the relationship between built form and inequality.

We believe the public realm is one of our great civic equalizers and that public space design and programming can be a tool to address issues that divide our cities. When we walk out our front door we enter the public realm and interact with people who are different from ourselves. Our commutes to work, walks in the park, exchanges on the sidewalk, dance classes in plazas - these are moments when we are part of the civic commons, whether we know it or not.

We believe that experiences with people who are different from one another in public space is a fundamental building block of a more tolerant and inclusive society where opportunity for human flourishing is available to everyone.

But, if social mixing and diversity in public space matters, why don't we have the tools to measure what we care about?

Why measurement matters

A robust set of tools that measure public life, public space, social mixing and diversity allows urban change makers to set higher standards for public life.

Generating data on these timely questions allows values to infuse into conversations about urban change from high-level strategic planning to urban prototyping.

The Public Life Diversity Toolkit enhances our Public Space/Public Life survey, tested over 50 years, with new tools to help generate data to answer this timely question. It helps us test ideas about diversity and social mixing in public space and how catalyzing these things through design and programming might be possible.

Sharing the tools

At the end of this document is a plan for disseminating the Toolkit to the urban planning and design community.

Project Timeline

Fall 2014

Kick off collaboration with Next City on article series about the opportunity and challenges of measuring socioeconomic mixing in public space, and the interplay between public life and public space.

April 2015

Release Public Life Diversity Toolkit 1.0, a prototype of a methodology

January 2016

Release Public Life Diversity Toolkit 2.0, an improved toolkit

Next Steps

Experiments with new partners to generate insights into the interplay between socioeconomic mixing and public space design. Select information shared via a database. Read more in the last section of this document.

The Public Life Diversity Toolkit

Gehl always measures life and space together. Toolkit methods telescope from the large, citywide scale where we look at socioeconomic trends and street networks, to the small, fine-grain scale of street furnishings.

Life

How + who moves through space and interacts with one another

- Intercept Survey, including Favorite Places and Familiar Stranger questions
- In-depth interviews

Individual

- Pedestrian & Cyclists
- Stationary Activities
- Age & Gender
- Group Activity

Groups

- Census for City Streets

Networks

....

Research Questions

1. Do people from different socioeconomic groups spend time in this place?

2. Are they interacting? If so: What is the nature of their interaction? (from passive to casual to familiar stranger) What prompted their interaction?

3. How do findings compare to other places?

4. What types of design and programming are cues for social interaction among socio-economically different people?

Space

The conditions that support people moving through space and interacting with one another

Scale   Method

Streetscape

- Furnishings, Landscape, and Program Analysis

Blocks

- Quality Criteria
- Neighborhood Price Variety
- Entries & Building Facade Activation

Urban Form

- Neighborhood Socioeconomic Mix
- Urban Connectivity

The Toolkit uses three scales of analysis. At the biggest scale it helps a researcher ask: are neighborhoods diverse, and is the urban fabric set up in such a way that it provides the preconditions for the people living in a city easy access to a range of public places around them?

At the block and group level, it allows us to ask: once people are in an area, are they invited by high-quality spaces, diverse price points of businesses that attract a range of socioeconomic groups, and other block- and group-level measures?

Finally, at the smallest scale, once people are in a space, are they invited by the furnishings, landscape, and programming to stay and linger. And do these public space and programming elements invite not only a mix of people, but mixing between these people?

Looking at a mix of these indicators at different scales helps researchers identify places where social mixing is occurring, and learn more about the variables that influence public life diversity.

What is social mixing?

Social mixing occurs on a spectrum from aloneness to close friendships.

The survey tools contained in this Toolkit focus on Civic Mixing, or, mixing between different groups. They focus on this spectrum because under appropriate conditions, interpersonal contact is an effective way to reduce prejudice between groups.

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Civic Mixing

1	2	3	4	5
No Contact	Passive Contact	Chance Contact	Familiar Stranger	Friends
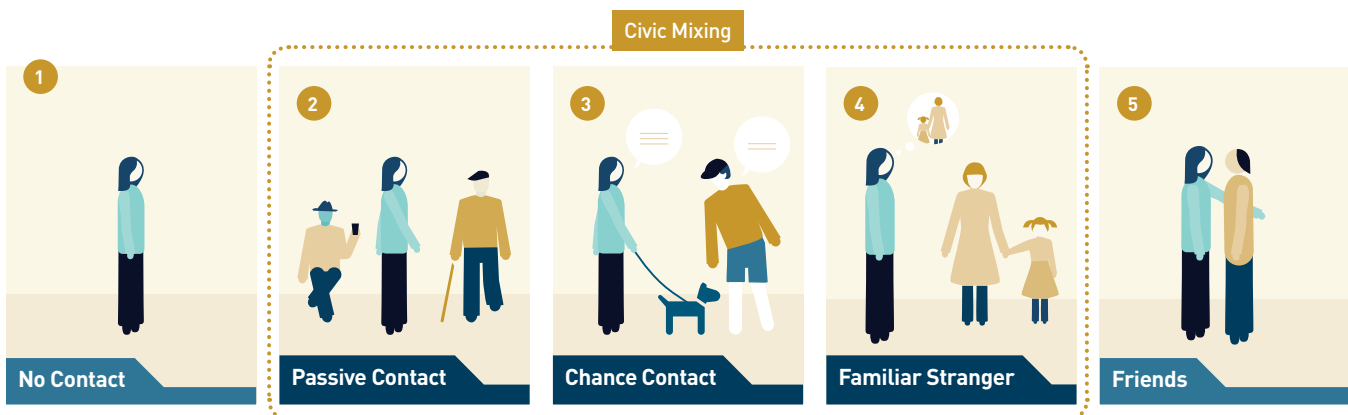
Passive Contact

Whenever someone is in the presence of others, they are experiencing Passive Contact.

Passive Contact is measured by observational analysis, which captures volumes of people, as well as certain demographic characteristics of age and gender.

Chance Contact

A Chance Contact is when someone picks up the scarf you dropped, asks you for the time, or another non-personal interaction.

Chance Contacts are measured by Intercept Surveys which ask participants if they interacted with anyone they didn't know, and by observation, which captures people interacting.

Familiar Stranger

The Familiar Stranger is someone who you recognize, but who you do not know by name. Familiar Strangers are place-based affiliations: maybe you have your coffee shop group or your bus stop group. You could be in completely different age groups, income brackets, or political parties, but for a certain bubble in space and time, you are in the same group because you are in the same place.

Familiar Strangers are measured by a custom survey tool.

Sample Research Question
What is the relationship between the
design of small-scale furnishings and
social mixing?

Photo: Mile-end, Montreal

Why Study
Social Mixing?

We believe that good urban design, from street networks to benches, plays a role in creating tolerant and inclusive communities where the opportunity for human flourishing is shared by everyone. However, until now, we have not had the tools to measure whether or not this mixing was taking place - and if it had anything to do with public space.

Many advocates use a "theory of change" framework to describe the impact of their work.

The Public Life Diversity Toolkit creates metrics about the relationship between urban design and public life diversity and social mixing.

These metrics are important for evaluating the impact of urban design against the goals of public life diversity and social mixing.

The "theory of change" flow chart at right shows how the Toolkit helps describe the link between urban design and socioeconomic mixing, and broader social outcomes.

Theory of Change

Challenge

Unequal and polarized cities

Goal

Empathetic and inclusive communities where opportunity is shared by everyone

Objectives

To foster opportunity, talent, and engagement in the public realm

Methods for measuring demographics, activity and quality of urban design and their impacts on socioeconomic mixing

The Public Life Diversity Toolkit

Activities

Urban design and programming that invite socioeconomically diverse mix of people to use the public realm

Outputs

Socioeconomic mixing in public space

Lit Review

Research describing the link between socioeconomic mixing and social outcomes (see next section)

Outcomes

Tolerance, physical and economic mobility, equal access to public space and services

Impacts

Empathetic and inclusive communities where opportunity is shared by everyone

What are the benefits of social mixing?

Most urban designers are unable to measure the specific social outcomes of their work, which often take decades or generations to manifest. However, proxy research from parallel fields can provide a lens to understanding the benefits of social mixing, which might include greater tolerance between groups and greater economic mobility. The following literature review looks at how others have quantified the impact of social mixing. What are the lessons from these parallel studies for social mixing in public space?

Does social mixing between groups increase tolerance and empathy?

Some studies suggest that exposure to people who are different from one's self - including differences in race, sexual preference, or religion - increases tolerance and empathy towards others.

In one study, white athletes playing on racially integrated teams were less racially prejudiced than white athletes who played individual sports [Brown, K.T., 2003]. Various studies by G.M. Herek and colleagues show that contact with homosexual individuals are associated with more favorable and accepting attitudes by heterosexual individuals. One national study showed that increased contact with gay men predicted positive attitudes towards gay men better than any other demographic or psychological factor studied - including religion or political ideology [Herek, G.M., 1996]. Research in the Netherlands, and Czech and Slovak universities, shows that

contacts with Muslim peers reduced anti-Muslim attitudes [Savelkoul, Scheepers, Novotny, J., 2011].

Does mixing in public space bestow the same benefits?

Do mixed-income neighborhoods provide economic benefits to low income people?

Some studies suggest that mixed-income neighborhoods benefit low income people.

David Kirk's research on recidivism after Katrina in New Orleans found that formerly incarcerated persons who came from the Lower 9th Ward, then an economically struggling neighborhood, who moved to more economically mixed neighborhoods after they were released had a 15% decrease in recidivism compared to those who returned to the Lower 9th Ward [Gladwell, M., 2015].

In his work on the geography of economic mobility between generations, Raj Chetty writes that there is a correlation between areas with high economic mobility between generations and "less residential segregation, less income inequality, better primary schools, greater social capital, and greater family stability." Although a correlation does not mean that less segregation causes great social capital and stability, it does suggest a relationship between socioeconomically integrated neighborhoods and positive social outcomes [Chetty, R., 2014, 2015].

Do public spaces operate in some of the same ways as residential neighborhoods?

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What are the economic benefits of social mixing in public space?

Under the right conditions, the weak ties that are fostered through casual, spontaneous interactions between people in public spaces, sometimes called Familiar Strangers, have been shown to increase job opportunities, higher wages and employment, and the exchange of diverse views. Sociologist Mark Granovetter, who has written extensively on this topic, wrote a seminal paper showing that weak ties, defined as non-frequent and transitory social relations, were more important than strong ties in finding employment and occupational mobility. Other researchers have confirmed that weak ties are positively related to higher wages and higher aggregate employment rates. He also showed, however, that this was strongest for high-status (i.e. wealthy) individuals and that the longer people were unemployed, the more important strong ties became. [Granovetter, M., 1973, Montgomery, J.D., 1994]

How can we design public spaces that foster these types of interactions?

The Porch at 30th Street Station

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What is the relationship between social mixing and civic engagement?

Strong ties between people may inspire civic engagement and collective action. For example, researcher Doug MacAdam showed that strong ties were more important than weak ties in recruitment during Freedom Summer in the 1960s. [McAdam, D., 1988]

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What is the role of socially homogeneous spaces?

While social mixing between socioeconomic groups may bestow benefits upon low- and high-income people alike, "mixing" may also disrupt existing family and social ties, particularly in a neighborhood context.

This topic has been debated in affordable housing advocate communities. While on the whole there is agreement that families that move from high poverty neighborhoods to low poverty neighborhoods through programs like Moving to Opportunity experience economic and social

benefits, some studies have revealed that older children do not receive the same benefits, likely because moving to a new context is highly disruptive to social networks [Chetty, R. 2014, 2015].

What are the implications of the value of social ties and socially homogeneous spaces on how we view public space?

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More research on the impact of ephemeral social mixing is needed

How might the social and economic impacts bestowed on those with weak ties and residents of mixed-income neighborhoods teach us about impacts of social mixing in the public realm, which is by definition often spontaneous and ephemeral?

The lack of concrete findings on this topic, combined with increasing pressures and socioeconomic segregation in many American cities, confirms the urgent need for new methods to understand the presence, catalysts, and impact of public life diversity.

Sample Research Question

How does public programming impact the variety of people who spend time in public space?

What types of programming cause the most "civic mixing" between people, from passive contact, to chance encounters, to familiar strangers?

Photo: Market Square, Pittsburgh, PA

Public Life
Metrics

Individual Data

Why do people use public space? How did they arrive there? Who did they talk to there and why? Do they feel comfortable, safe, and even delighted in a space? Why or why not? What are their personal sociodemographic qualities? There are some things you can only learn about a space by asking someone directly. Our intercept survey asks these questions, and allows us to compare these "invisible" qualities about the public life of a space to things we can observe and measure.

Method

Intercept Survey

Scale

The Individual

Metrics

1 Volume of people who recognize familiar strangers

2 Volume of people who have spoken to a person outside of their social group

3 Areas in a space that invite social mixing

4 Catalysts for social mixing

5 Mode of transport to place

6 Rates of Instagram use in the space

7 Demographics: age, race, income, educational attainment, gender, home location

8 Favorite places

9 Qualitative information from in-depth interviews

Method

The surveyor approaches visitors at random, approximately every third person, and asks them to take a short paper survey. The surveyor tracks who declines the survey to understand the bias of the data.

The survey asks questions about demographics, how visitors use the public space, if they recognize any "familiar strangers", or if they talked to a new person. This intercept survey can be adapted to measure any number of variables, from favorite places to questions about trust, public realm quality, or research questions specific to a place.

By capturing demographics, the survey also provides data on who we are missing through digital methods.
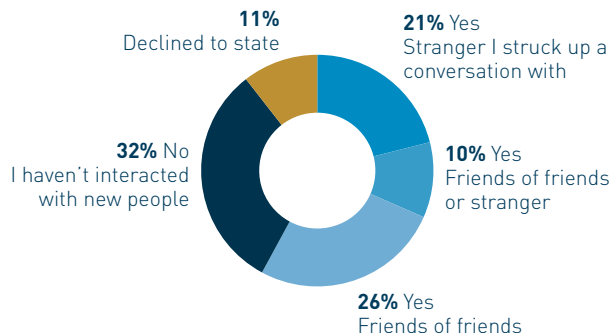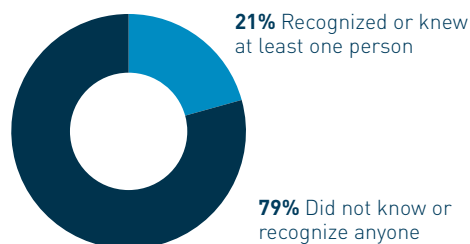
Market Street Prototyping Festival

Have you talked with strangers at this place?

11% Declined to state

21% Yes Stranger I struck up a conversation with

32% No I haven't interacted with new people

10% Yes Friends of friends or stranger

26% Yes Friends of friends

Do you recognize or know anyone at this place?

21% Recognized or knew at least one person

79% Did not know or recognize anyone

Left: Results from Intercept Survey on 9/3/15 and Right: Familiar Stranger Intercept Survey on 9/3/15, both at Patricia's Green

Intercept Survey: sample findings

In a test in Hayes Valley, San Francisco, we found that 32% of all respondents recognized a few faces and over half had spoken with a stranger. We can correlate this data with other public life and public space data to begin to learn about the catalysts for social mixing.

Familiar Stranger Survey

The Toolkit borrows Eric Paulos' methodology for measuring the presence of the Familiar Stranger.

The method: take photographs of people spending time in a space at a given time and date. Return one week later at the same time with a survey that shows a photo of each person spending time in that space.

Ask respondents if they recognize or know anyone in the space.

For our test site in Hayes Valley, we took photos at 3:30pm on Tuesday 11/10/15 and returned at the same time on Friday 11/15/15.

Out of 29 responses, we found that 21% of all people (6 out 29) recognized or knew at least one person. 14% of all respondents recognized a Familiar Stranger. All 6 respondents who knew or recognized someone had a "Somewhat Positive/Pleasant" or "Strongly Positive" perception of the place, and visited at least weekly.

Public life volume, age/gender, duration, sociability

Surveyors observe public life in public space to understand the nuance of how people move and use a space. This ethnographic method records how people 'vote with their feet' and uncovers use patterns among different demographics and modes.

Method

Observation

Scale

Groups

Metrics

1. Pedestrian and cyclist volume

2. Volume and diversity of stationary activities

3. Age and gender split

4. Rates of social groups

5. Duration of stay

Method

Gehl's ethnographic and observational analysis methods, developed over 50 years, are used to observe behavior of people spending time in test sites.

In the field, volunteers observe people going about their daily routines, count people, and make notes of anything unusual. Counts are made on a weekend and weekday, often for 8-12 hours each day. These methods capture age and gender, stationary activities, and mode-split between pedestrians and cyclists.

These tools have been used in cities around the world and provide baseline, comparative data.

The toolkit also includes methods to capture groups of people engaging in observable social activity, and duration of stay, which allows researchers to estimate how "sticky" a space is by measuring how much time people spend in a space.

Counting Pedestrians and Cyclists
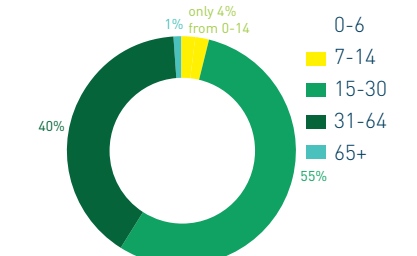
Findings from the field

Sample data from Patricia's Green in San Francisco found that most people spending time were enjoying the place by either sitting or standing, many attending children playing. Most people spent less than five minutes in the space. This data could be compared with a furnishings study to understand the impact of children's play structures on duration of stay in a public space.

In Somerville, Public Space Public Life data uncovered weekday commuting peaks at 8am and 6pm. When looking at the demographics of cyclists, most are adult men, with few women or older or younger cyclists. Comparing this data with area demographics would help a researcher see if public life demographics are representative of city demographics.

Sample data from Somerville, MA
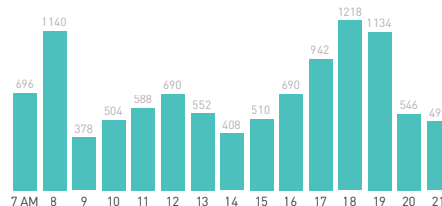
Weekday pedestrian volumes in Davis Square in Somerville

Sample data from Patricia's Green

How long did people spend in this place? (Patricia's Green)

Age of Cyclists in Somerville

0-6
7-14
15-30
31-64
65+

only 4% from 0-14
1%
40%
55%
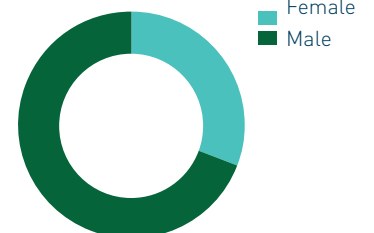
Gender of Cyclists in Somerville

Female
Male

20% Children Playing
5% Physical
10% Cultural
5% Commercial
10% Waiting For Transit
50% Being
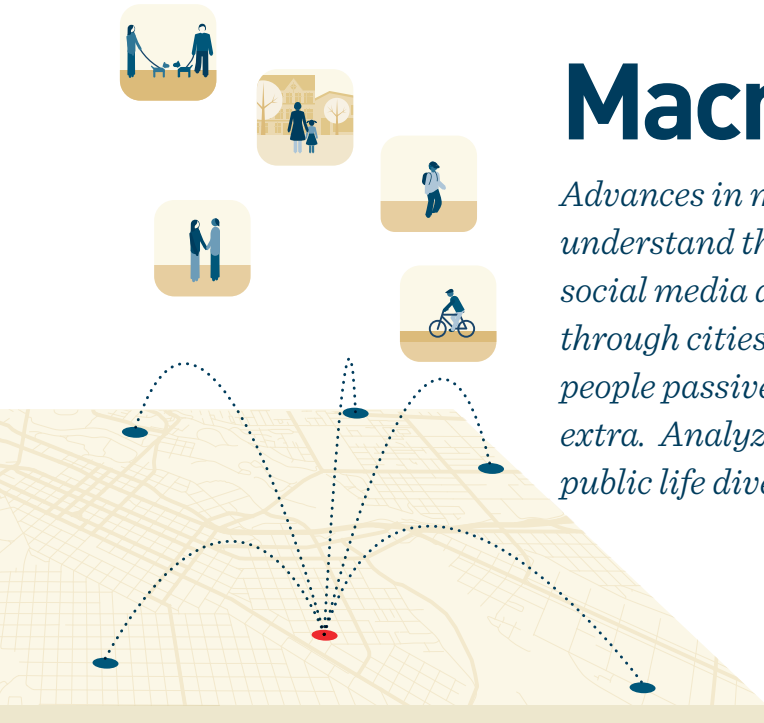
Macro-trends

Advances in mobile technologies allow researchers to understand the real-time dynamics of public life through social media and other big data about how people move through cities. This method engages a large number of people passively, without asking them to do anything extra. Analyzing this data opens up new ways to map public life diversity at the macro scale.

Method

Census for City Streets

Scale

Networks

Metrics

1   Social-shed of a place

2   Socioeconomic diversity of a place: socioeconomic characteristics of the home neighborhoods of the people who spend time in a space (in development)

Method

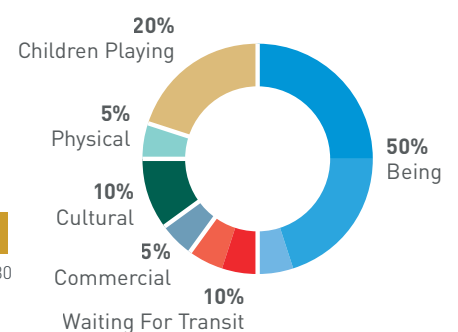A bounding box is drawn around a place of interest. For example, a square, a park, or a large boulevard. Using this bounding box, information is collected from various geo-tagged data sources collected from mobile phones.

This data is used in two ways, described below:

Socioeconomic diversity

One tool brings census data down to the street level by looking at the socioeconomic mix of the people in a place.

Once data is collected about who has been in a place, each visitor's home neighborhood is estimated based on their travel patterns.

Then, the socioeconomic characteristics of this neighborhood are summarized and combined with all

1 mile
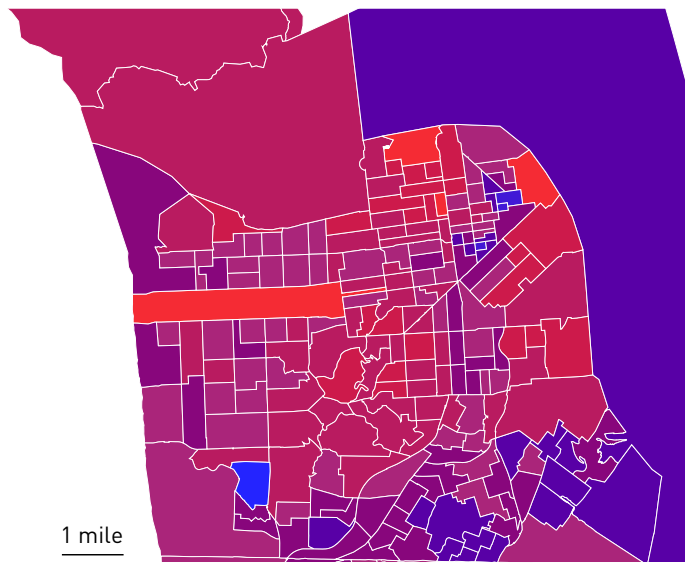
Median Income, ACS 2013

- ◄ < $10,000
- ◄ $10,000-14,999
- ◄ $15,000-24,999
- ◄ $25,000-34,999
- ◄ $35,000-49,999
- ◄ $50,000-74,999
- ◄ $75,000-99,999
- ◄ $100,000 +

Bringing the census down to the street level

Instagram Data (1,000,000 most recent photos)

Click here for
Public Life
Database

other users of the space to develop a socioeconomic profile of the place (see our Neighborhood Socioeconomic Mix for more details on this method).

Initially, Instagram data was used as a potential data set for this method because it satisfied selection criteria: Instagram is designed for people to post about places they love, while they are there. It has high and racially diverse usership, is smart-phone only so it captures people on-the-go, and was easy to capture data for this test (see previous report for more details).

However, Instagram data does not represent a viable data set for estimating the home neighborhoods of public space users. In tests, 152 different home location algorithms were compared against a group of 13

user home locations. In all iterations, there were no correct matches to a user's census tract. Further, 95% of user photos in tests were taken from over 1 km from the reported home location. We have high standards for accuracy, and Instagram's data is not the right fit for this tool.

We are still seeking a better data set for our Census for City Streets.

Social-Shed + Heat-Mapping

Instagram offers a great data set for other storytelling about the social mix and "social-shed" of places.

Data about where people post can be used to make heatmaps of where people go and where they have been in

the past.

The location of a user's other Instagram posts can be connected with census characteristics of these other places to get a sense of the socioeconomic mix of the places a person visits.

Finally, hot spots of where people post throughout the day can tell a story about how instagram users move through the city. While these people are not a representation of everyone in public space, they can help researchers tell new stories about how people use cities and help identify sites for further study.

Sample Research Question

How does the public realm support public life diversity?

Are there ways to correlate public life volumes to public space elements and public life diversity to draw conclusions about critical thresholds for supporting public life diversity?

What is the ideal ratio of benches to pedestrian volumes? How many doors per street is the right rhythm to keep pedestrians interested? How connected does the street grid need to be to connect people to the places they love?

Photo: Liberty Avenue, Pittsburgh, PA

Public Space Metrics

Furnishings, Landscape, and Program
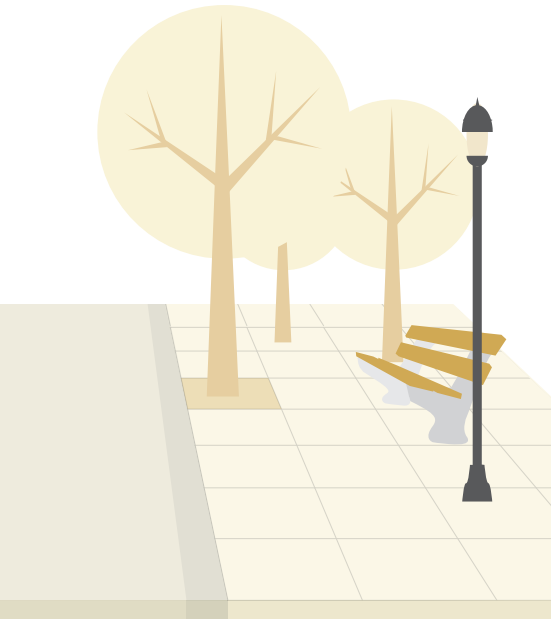
A close look at invitations to participate in public life reveals a relationship between public life and public space. If there is nowhere to sit, people will not sit. If there is no tree canopy to mediate temperature or create visual interest, walking will be less pleasant and therefore less prevalent. If there is not inclusive programming, some people will never find a reason to spend time in public space in the first place. This layer of data helps uncover relationships between the built environment and the ability of a place to foster social mixing.

Method

Furnishings, Landscape, and Program Analysis

Scale

Streetscape

Metrics

1. Seating
2. Lighting
3. Trees
4. Bus stops
5. Programming
6. Pavement Quality
7. Pavement Material
8. Sidewalk Width

Method

Surveyors go to the place under study (or reference a photo survey) and catalog invitations for public life in design, furnishings, sidewalk, and programming elements of the space. They measure types of seating, commercial and cultural invitations, sidewalk and paving characteristics and programming.

This data can be correlated with observational analysis to understand how the public life and social mixing is responding (or not responding) to invitations from the public realm at this fine-grain scale. This tool has been tested in Denver on the 16th Street Mall, as well as in New York City's plazas as part of the World Class Streets 2.0 project.

Unfurnished bus stop on Liberty Street, Pittsburgh

Market Square, Pittsburgh

Click here for Survey Sheet template download

Findings from the field

As part of a Public Space Public Life survey of Downtown Pittsburgh, Gehl performed a careful inventory of a number of furnishings on key corridors, including public benches.

Market Square, in which the city has invested heavily, has most of downtown's public benches. It also exhibits some of the highest pedestrian and staying activity numbers in the city. Inversely, Liberty Avenue, the city's major transit spine, has few benches, which contributes to negative perception of this street as a place to stay and enjoy - there are simply no invitations from the public furnishings to do this.

Public Seats
- 25
- 50
- 100
- 200 e Seats

Cafe Seats
- 25
- 50
- 100
- 200 +100 Publ
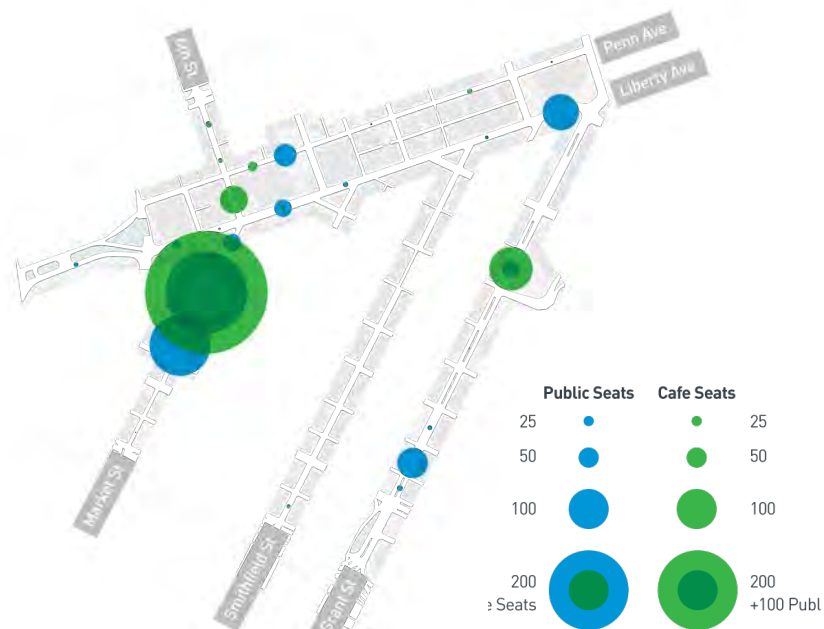
Above: Public seat map for downtown Pittsburgh reveals there are hardly any public seats on Liberty Avenue, a major bus route, while Market Square has many public seats. The lack of seats on Liberty helps explain the poor perception of this street as a place to stay and enjoy, and, inversely, the positive perception of Market Square and the many "staying activities" this place invites.

Quality Criteria

The 12 Quality Criteria help us understand and compare quality in the built environment and its ability to either contribute to the flourishing of public life diversity or hinder it. The criteria can be correlated with the amount of public life diversity in a space.
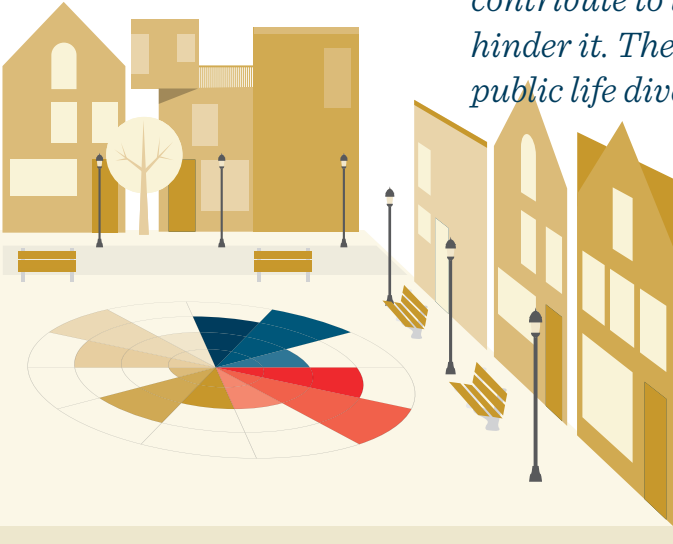
Method

Quality Criteria

Scale

Blocks

Metrics

1 Quality of a place, including:

Protection
- Protection against Vehicular Traffic
- Protection against Crime + Violence
- Protection against Unpleasant Sensory Experiences

Comfort
- Invitations for Walking
- Invitations for Standing and Staying
- Invitations for Sitting
- Invitations for Seeing
- Invitations for Hearing + Talking
- Invitations for Play + Recreation

Enjoyment
- Dimensioned at a Human Scale
- Positive Aspects of Climate
- Aesthetic Quality

Method

Surveyors assess the quality of a specific space according to the 12 Quality Criteria.

These Criteria were developed by Jan Gehl in the 1960s and have been used by Gehl's practice for the past 15 years to collect qualitative data about a place. This survey complements quantitative data and can be correlated with the amount of public life diversity in a space.

An inviting place that encourages public life has elements of protection, comfort, and enjoyment. These categories are further detailed into 12 Quality Criteria at left.

Kay Fiskers Plads
8,000 pedestrians per day
19 people spending time

	PROTECTION	PROTECTION AGAINST VEHICULAR TRAFFIC	PROTECTION AGAINST CRIME & VIOLENCE	PROTECTION AGAINST UNPLEASANT SENSORY EXPERIENCES
	INVITATION	INVITATIONS FOR WALKING	INVITATIONS FOR STANDING AND STAYING	INVITATIONS FOR SITTING
		INVITATIONS FOR VISUAL CONTACT	PLAY, RECREATION & INTERACTION	DAY/EVENING/NIGHT ACTIVITY
		AUDIO & VERBAL CONTACT		VARYING SEASONAL ACTIVITY
	DELIGHT	DIMENSIONED AT HUMAN SCALE	POSITIVE ASPECTS OF CLIMATE	AESTHETIC & SENSORY

Straedet
8,000 Pedestrians per day
258 people spending time

	PROTECTION	PROTECTION AGAINST VEHICULAR TRAFFIC	PROTECTION AGAINST CRIME & VIOLENCE	PROTECTION AGAINST UNPLEASANT SENSORY EXPERIENCES
	INVITATION	INVITATIONS FOR WALKING	INVITATIONS FOR STANDING AND STAYING	INVITATIONS FOR SITTING
		INVITATIONS FOR VISUAL CONTACT	PLAY, RECREATION & INTERACTION	DAY/EVENING/NIGHT ACTIVITY
		AUDIO & VERBAL CONTACT		VARYING SEASONAL ACTIVITY
	DELIGHT	DIMENSIONED AT HUMAN SCALE	POSITIVE ASPECTS OF CLIMATE	AESTHETIC & SENSORY

Findings from the field

While it is not essential for each category to be perfect for a place to be inviting, ranking places by these categories can help identify why some work so well, and why others need attention.

For example, these two streets above, both in Copenhagen, have the same volume of people moving through them per day, but the one that satisfies all 12 Quality Criteria also has more people spending time.

Neighborhood Price Diversity

A diverse place invites people from all economic levels. By measuring the price-points of businesses, and finding areas that have a variety of price points, we can identify places that invite a diverse array of people, creating the preconditions for a diverse public life.

Method

⚒ Neighborhood Price Variety

Scale

▲ Blocks

Metrics

① Price variety of neighborhood amenities

Method

The price variety method classifies areas in a city by the variety of price points for consumer-facing businesses. It may be used as a proxy for the economic diversity of people in a place.

First, a 200 x 200 meter grid is overlaid on a study area. In the middle of each grid cell, a point is dropped. A 500-meter buffer around each point is used to collect the price classification of the consumer-facing business, from $ to $$$$ from Google's Places API.

If the nearby businesses are all inexpensive or all expensive, the parent grid cell of the buffered point is given a low price variety score (Colored green on the map at right).

If the nearby businesses are a mix of expensive, affordable, and in-between, then the parent grid cell of that buffered point is given a high price variety score. (Colored brown on the map at right)

low price variation

balanced mix of high and low prices

Low price variety

High price variety

Price Diversity in San Francisco
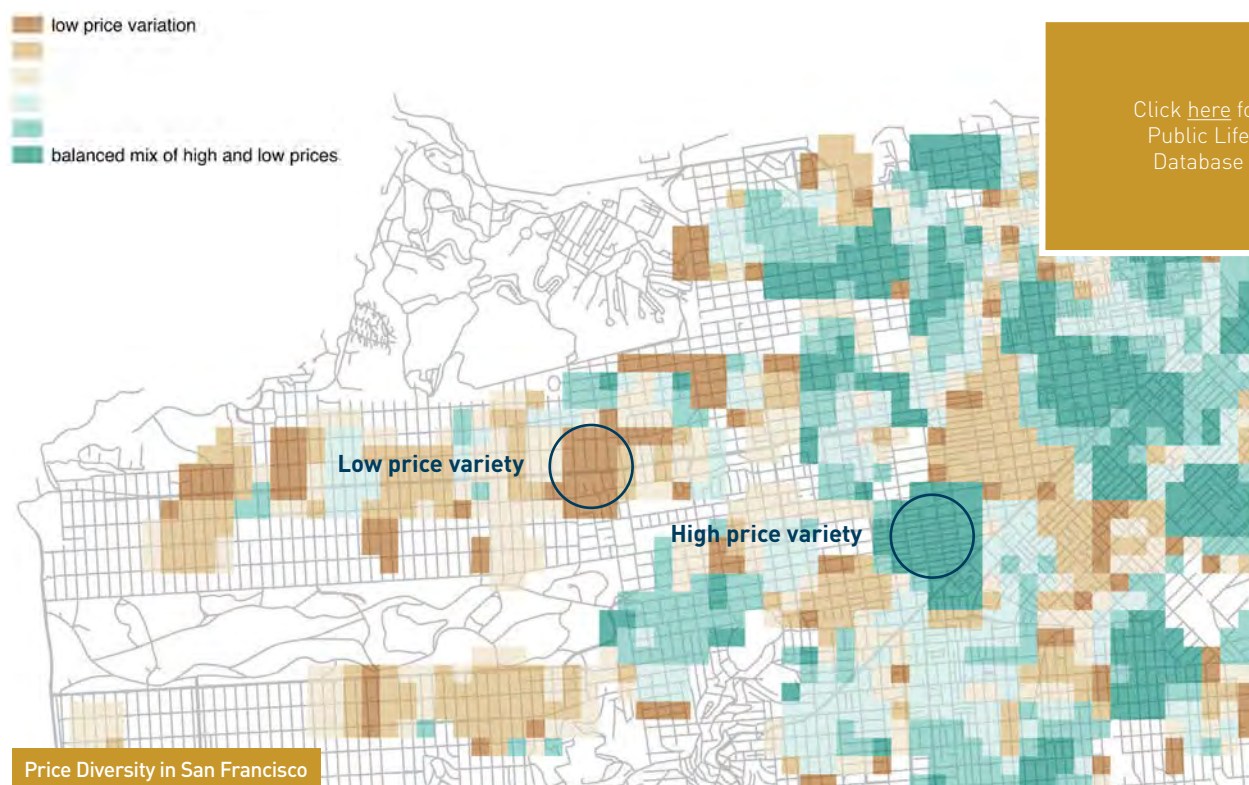
Customer-facing place types collected include: haircare, store, spa, food, lodging, shoe_store, laundry, movie_theater, or bar. The data set is further filtered for businesses that have a value for price, ranked from 1 (affordable, like a 7-11) to 4 (expensive, like a 5-star restaurant).

This method works well as a "site-selection tool" applied at the beginning of an analysis to identify places that attract people from a variety of different socioeconomic backgrounds.

Data from the field

About 27% of businesses in the above study area for northern San Francisco had price values. Cells with no color indicate there was not enough price or business data to run the method on those areas.

There are clear divisions between places that are price-diverse and places that are not. For example, the Inner Richmond has low price variation. Hayes Valley and Mid-Market has a wide range of prices.

The next step with this method is to compare price variety with the variety of people spending time in this place and determine if there is a relationship between price variety and public life diversity.

Building Facade Activation + Entries

The activation of a facade and the number of entrances is a strong predictor of when people will slow down and engage in activities other than simply walking. An active facade presents opportunities for strangers to meet and mix, and provides an attraction for different types of people. Facade quality may be an essential precondition to creating places that invite all types of people and encourage social mixing.

Method

Entries & Building Facade Activation

Scale

Blocks

Metrics

1   Building Facade Activation rating

2   Number of entries per linear foot

Method

A surveyor walks along a street and ranks facades according to a scale of activation based on the qualities of the building facade itself.

Quality is ranked according to transparency of windows and doors, unit width, number of doors, articulation of the facade, and inviting 'spillover' into the sidewalk in the form of signage, seating, and other exterior furnishings. Facades are ranked Vibrant, Active, Full, Inactive. There are separate categories for parking, parks, open spaces, and monuments or historic buildings. Facade categories can be calibrated to local criteria.

Activation of each facade is ranked and mapped. In addition, doors are counted and used as a quantitative indicator for granularity.

Liberty Ave

- ● Vibrant
- ● Active
- ● Dull
- ● Inactive

10%
38%
31%
21%

Penn Ave
Liberty Ave
6th St
Market St
Smithfield St
Grant St
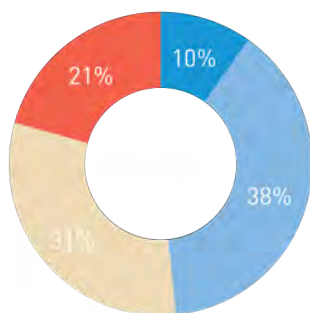
Facade Activity Pittsburgh

Data from the field

In Pittsburgh, Gehl staff walked each street downtown, categorizing facade activity and entries. We found that key corridors were slightly more active than the citywide average, with some corridors, like Liberty Avenue performing better than others.

1 VIBRANT

- Small units with many doors
- High transparency
- No vacant or passive units
- Lots of character
- Good articulation, materials and details
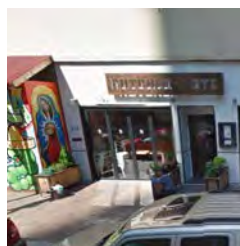
2 ACTIVE

- Relatively small units
- Some transparency
- Few passive units
- Some articulation and detail
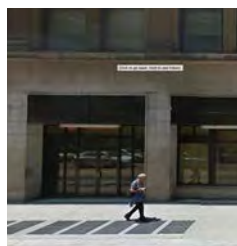
3 DULL

- Large units with few doors
- Low transparency
- Some passive units
- Few or no details

4 INACTIVE

- Parking or vacant lot
- Large units with few doors
- Very little or no transparency
- Many passive units
- Uniform facades with no details or nothing to look at

5 MONUMENT

- A historic or visually interesting facade that may not be very active or transparent, but is visually remarkable

Neighborhood Socioeconomic Mix

The ability of a place to attract a variety of users is informed by the demographics of the neighborhoods that surround it. By looking at ambient census characteristics we can hypothesize how much variety we are likely to see in a place, and compare this with people in the space by cross-referencing our Intercept Survey tool.

Method

Neighborhood Socioeconomic Mix

Scale

Urban Form

Metrics

Socioeconomic neighborhood character looking at:

1. Median household income

2. Educational attainment

3. Race + Ethnicity

Household Income

Race/ethnicity

Socioeconomic Status

Educational Attainment

Method

Census data (American Community Survey 2014 5-year estimates) is used to develop categories of socioeconomic status. Categories are determined using a cluster analysis to identify common groupings of income, education, and race/ethnicity characteristics at the census tract level.

The categories that result from this cluster analysis synthesize 16 unique data points into non-hierarchical groups. At right are each of the 16 variables included into the composite group number. Looking at one composite indicator instead of 16 unique indicators means researchers can use a more nuanced definition of socioeconomic status when talking about diversity of places, neighborhoods, cities, and regions.

This method helps benchmark the diversity present in a place compared to the neighborhood or region it is in.

Legend:
- 0 - white or hispanic/latino with mix of incomes
- 1 - white, wealthy, highly educated
- 2 - asian, low income, low education
- 3 - white, most wealthy but with income gap, highly educated
- 4 - lower income, black or hispanic/latino
- 5 - mix of races, most lower income, most high school graduates
- 6 - mostly white, upper-middle class, highly educated
- 7 - black, mostly high school graduates
- 8 - mix of incomes and races
- 9 - asian or hispanic, middle income
- 10 - mix of incomes
- 11 - low income, asian or white
- 12 - mostly white and upper-middle class
- 13 - low education, even mix of black and white, middle income

Socioeconomic Status in the Bay Area

Findings from the Field

The categories in the test analysis were generated using a cluster analysis for census tracts in the San Francisco Bay Area. The socioeconomic status describes the neighborhood character, not each person living in the census tract.

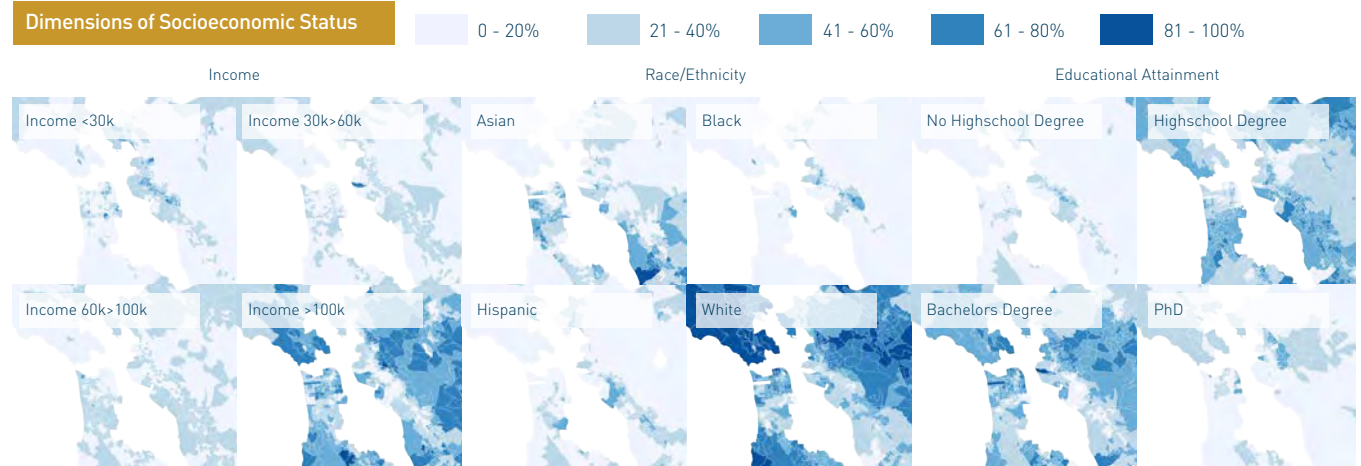In the study area, 55% of the population lives in a census tract that is mostly white, upper-middle class or wealthy, and highly educated, Socioeconomic group #1 or #6. Neighborhoods with this socioeconomic makeup include much of Marin County, South San Francisco, and the Berkeley Hills.

13% of all people in the study area. live in census tracts that are an even mix of incomes, socioeconomic group #10. Example neighborhoods include Daly City.

11% of all people in the study area. live in census tracts that are white or hispanic/latino with a good mix of incomes, socioeconomic group #0. An example neighborhood is Tomales Bay and pieces of San Leandro.

Areas where very different socioeconomic groups are adjacent to one another, for example in much of San Francisco, can help identify areas for intervention to foster social mixing between groups.

Dimensions of Socioeconomic Status

| 0 - 20% | 21 - 40% | 41 - 60% | 61 - 80% | 81 - 100% |

Income

Income <30k
Income 30k>60k
Income 60k>100k
Income >100k

Race/Ethnicity

Asian
Black
Hispanic
White

Educational Attainment

No Highschool Degree
Highschool Degree
Bachelors Degree
PhD

Urban Connectivity

The ability of the street grid to foster mobility is an important precondition for places that attract public life from adjacent neighborhoods. The Urban Connectivity measure identifies how well the street grid facilitates neighborhood connections.

Method

⚒ Urban Connectivity Measure

Scale

▲ Urban Form

Metrics

① Urban Connectivity value

Method

This method measures the connectivity of the street network. Areas with short blocks and connected streets are given a high score. Areas with large blocks or a disjointed street network are given a low score.

Network connectivity refers to the combined length of a trip if one went 500 meters in every direction from a single starting point. If one walked a total of 500 meters in every possible combination of directions in a network from the same starting point, how far is the total walking distance?

To achieve this measure, the street network is divided into 20-meter segments. Then, from any point in the network, all of the streets 500 meters in every possible combination of directions are selected. The lengths of the selected streets are added together - this is the network connectivity value. This process is repeated for every segment in the street network. Data is from county-level 2015 federal Tiger Roads data, filtered to remove

High Connectivity
Chinatown

Medium Connectivity
Mission District

Low Connectivity
Midtown Terrace
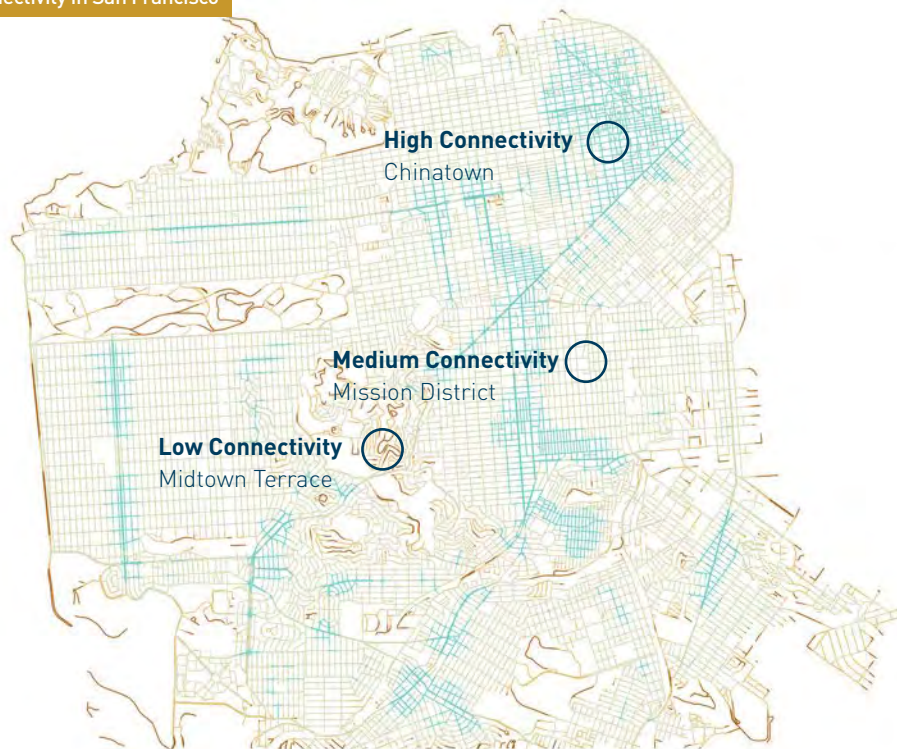
Click here for
Public Life
Database

High Connectivity ——
>7,500 meters

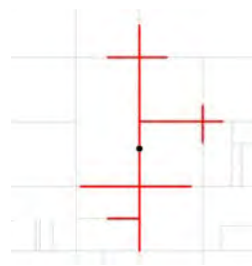*Kensington, Philadelphia*

Medium Connectivity ——
3,500 > 7,500 meters

Downtown Portland, OR

Fair Connectivity ——
2,000 > 3,500 meters

Downtown Salt Lake City

Low Connectivity ——
<2,500 meters

Suburbs, Salt Lake City

highways and on-ramps.

Connectivity is broken into four major categories, above. For example, San Francisco's Chinatown has a high network reach, 10,000 meters, because of its fine-grained street network with some alleys and short blocks. Midtown Terrace has a low network reach, only 2,500 meters, because many of its streets loop back on one another and connect in a limited way to a street network. In San Francisco's Mission District, it's double that, at 5,000 meters.

This data helps researchers get a sense of the granularity of an area's urban form.

Sample Neighborhoods

Chinatown
High -10,000 meters

Mission District
Medium - 5,000 meters

Midtown Terrace
Low - 2,500 meters

How to use these tools: Turning Data Into Knowledge

Photo: Surveyor, Market Street Prototyping Festival

Applying the Tools

This section highlights ways of applying the methods from the Toolkit to questions about diversity and social mixing in public life.

....

Pairing methods to ask good questions

The methods in the Toolkit are intended to be mixed-and-matched, and applied to an intervention or a public place to answer questions about relationships between the public life, public space, and public life diversity.

The diagrams in this section represent how different metrics might be paired in order to answer questions about the relationship between public life, public space, and social mixing, based on project goals.

The tools might be applied to measure an intervention in the public realm in order to generate data to iterate its design or demonstrate its impact. They also might be applied to a site to simply understand baseline conditions - or to compare two sites.

Often times the first method used is Observational Analysis, which captures pedestrian and stationary activity volumes, and age and gender diversity. A variety of other methods may be layered on top of this.

....

Research Question

How many people move through and choose to stay in a place? What are their demographics? How does reconfiguring street furniture change this public life profile?

Experiment

Adjusting benches in the public right of way

Method

Observational Analysis

Furnishings, Landscape, and Program Analysis

How to Use these Tools

Research Question

Do people recognize more "familiar strangers" when there are more regular users of a public space?

Experiment

Moving a bus-stop from a congested street to a public space that has the potential for greater use

Method

Observational Analysis

Intercept Interview

Furnishings, Landscape, and Program Analysis

Research Question

What is more effective at inviting a more diverse audience to a place, periodic arts programming or a cafe?

Experiment

Choose two public spaces with similar socioeconomic diversity profiles and similar neighborhood demographic profiles, neither of which has programming or food/drink amenities. Introduce periodic arts programming to one space. Introduce a cafe to the other space. Re-test at 6 weeks, 6 months, and 1 year.
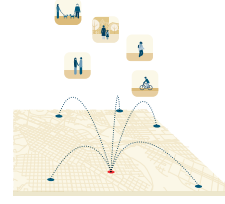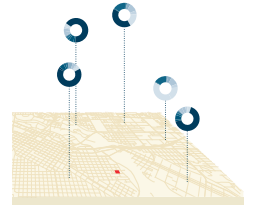
Method

Observational Analysis

Intercept Interview

Census for City Streets

Neighborhood Socioeconomic Mix

Furnishings, Landscape, and Program Analysis

Research Question

What has a stronger impact on public life diversity of a place, the diversity of neighborhood business price points near that place, or the socioeconomic profile of the neighborhood the place is in?

Experiment

Observe the public life diversity of several places. Identify the mix of price points and neighborhood socioeconomic profile where these places are located. Compare public life diversity to these two factors - which is a stronger determinant of public life diversity?
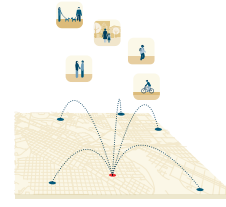
Method

Observational Analysis

Intercept Interview

Census for City Streets
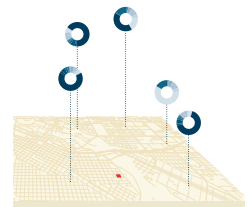
Neighborhood Socioeconomic Mix
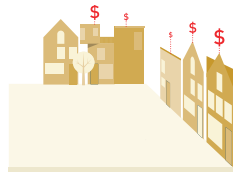
Neighborhood Price Variety

Research Question

Are there more "familiar strangers" in a more diverse public place or a less diverse public place?

Experiment

Observe the public life diversity of a number of places. Observe the socioeconomic variety of the neighborhoods and cities where these places are located. Perform an intercept survey with familiar stranger questions in these places. Compare the presence of familiar strangers to public life diversity and neighborhood diversity - which is a stronger determinant of the presence of the familiar stranger?

Method

Observational Analysis

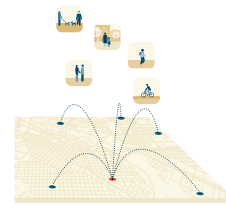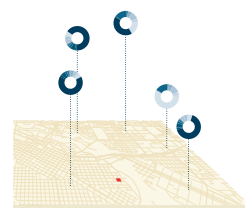Intercept Interview

Census for City Streets

Neighborhood Socioeconomic Mix

Next
Steps

Photo: Tenderloin ExerTrail, Market Street Prototyping Festival

Test Tools with Partners

Measuring impact of public life experiments

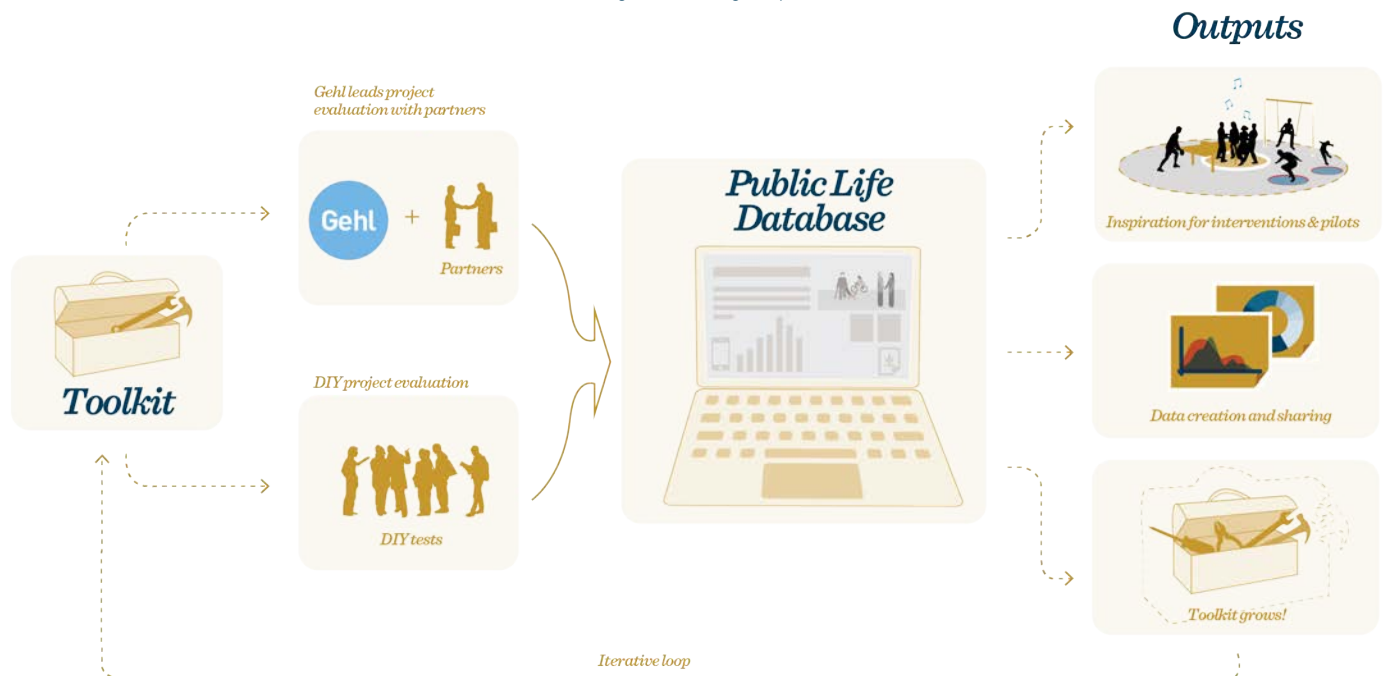### A Framework for Experimentation

Over the next two years, Gehl Institute will embark upon a number of experiments to test the impact of design and program interventions on public life. These experiments have specific research questions and goals, which will be tested using methods from the Toolkit.

Gehl will partner with other research organizations and community partners to perform experiments and evaluate their impact. The outcome and analysis from the experiments and their evaluation will be included in the Public Life Database.

LEXperiment, Lexington KY: Research Question: How does creating a new destination for children to play in a socioeconomically-divided area of the city catalyze social mixing between adults living in different neighborhoods?

World Class Streets II, New York City: Research Question: How does turning an underutilized piece of the vehicular right-of-way into a plaza and even an urban "park" foster social mixing?

Public Life Officers, West Palm Beach, FL: Research Question: How does performance, humor, and even satire, introduced into the public realm by performance artists, catalyze new perceptions about the public realm, and greater social mixing between groups?

Outputs

Gehl leads project evaluation with partners

Gehl + Partners

DIY project evaluation

DIY tests

Toolkit

Public Life Database

Inspiration for interventions & pilots

Data creation and sharing

Toolkit grows!

Iterative loop

Public Life Database

An online platform to compare and analyze public life data from around the world

Public Life Database

Access

- Individual
- University
- Institution
- Government
- Community Org.

User Name
Password

Download

Gehl

Gehl data

PSPL Survey

Intercept Survey

Diversity Measure

Hotspot Finder

Fund/Code A New Tool

Address:

Intercept Survey

Public Space Public Life Survey

PSPL APP

User-generated Public Space Public Life data

Output

Data Nerds

Raw Data

Stakeholders

Insights

Decision-makers

Recommendations

Sharing Data: filtering data for different audiences

The Public Life Database will be a portal for public life data from around the world.

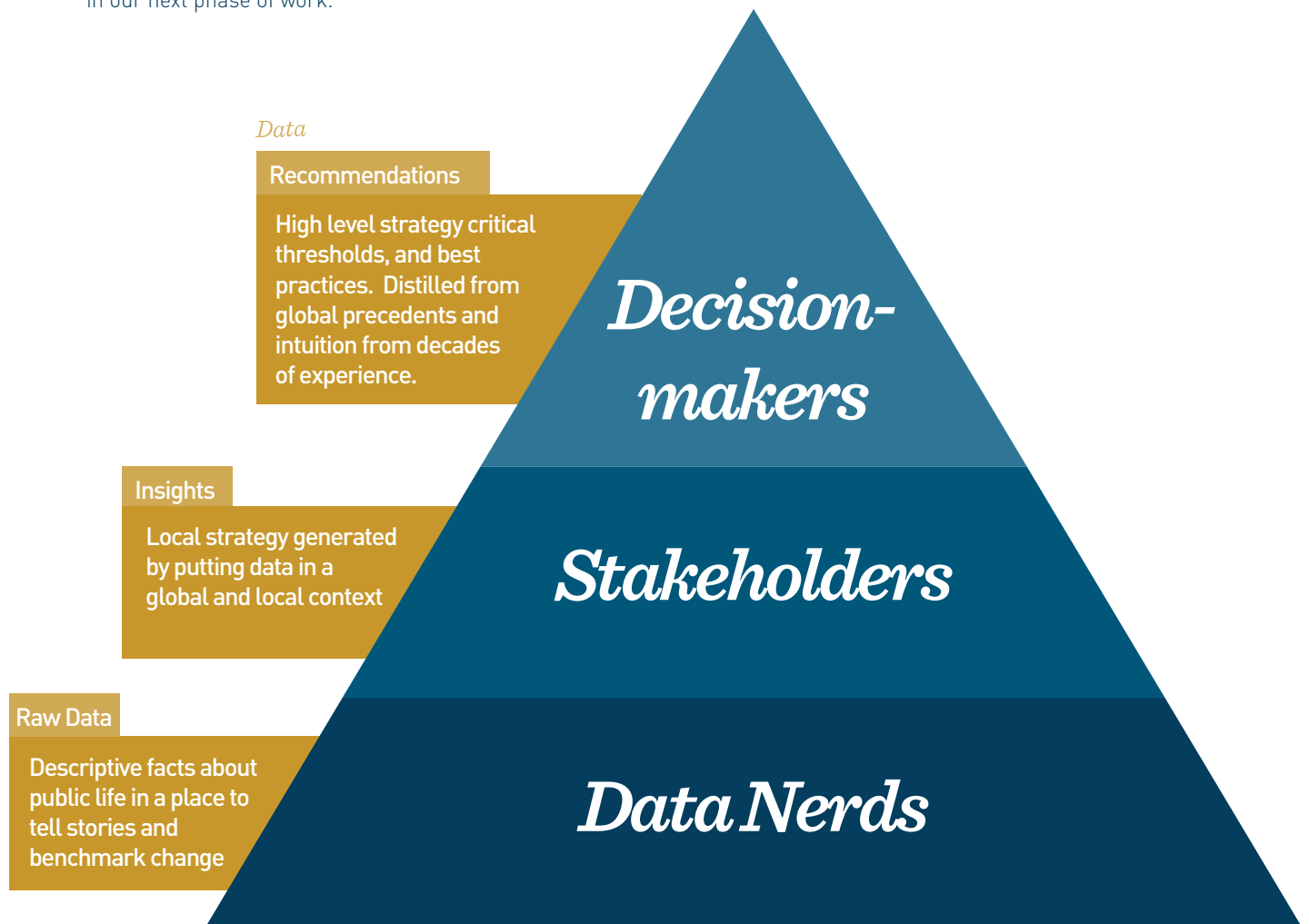Recognizing that different types of data are useful to different audiences, the below "pyramid of knowledge' helps to identify the types of data that are most helpful for different stakeholders, from data nerds and hackers who want raw data for their own analysis, to decision-makers who want high-level insights distilled from years of analysis and best-practices.

We will develop the database and a framework for sharing it with partners in our next phase of work.

Sharing Methods: survey tools

As part of our database framework, we will also develop a method for sharing select survey tools. Survey tools made available through the Database might be: Public Space / Public Life Surveys, Intercept Surveys, and other observational methods described in the Toolkit.

Public life data will be collected and analysed by users and fed back into the database where it will be visualized and compared against other public life data in the database.

Data

Recommendations

High level strategy critical thresholds, and best practices. Distilled from global precedents and intuition from decades of experience.

Insights

Local strategy generated by putting data in a global and local context

Raw Data

Descriptive facts about public life in a place to tell stories and benchmark change

Decision-makers

Stakeholders

Data Nerds

Appendix

Photo: Surveyors Market Street Prototyping Festival

Works Cited

Barbera, M.; Epasto, A.; Mei, A.; Perta, V.; Stefa, J. (2013) "Signals from the Crowd: Uncovering Social Relationships through Smartphone Probes". http://conferences.sigcomm.org/imc/2013/papers/imc148-barberaSP106.pdf

Brown, K.T; Brown, T.N.; Jackson, J.S.; Sellers, R.M.; Manuel, W.J. (2003). "Teammates on and off the field? Contact with Black teammates and the racial attitudes of White student athletes". Journal of Applied Social Psychology 33: 1379–1403.

Chetty, R.; Hendren, N.; Kline, P.; Saez, E. (2014). "Where is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States." Quarterly Journal of Economics 129(4): 1553-1623, 2014.

Chetty, R.; Hendren, N.; Katz, L. (2015). "The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment." http://scholar.harvard.edu/files/hendren/files/mto_paper.pdf

Choudhury, T.; Pentland, A. "The Sociometer: A Wearable Device for Understanding Human Networks". MIT Media Lab Human Design Group. http://hd.media.mit.edu/tech-reports/TR-554.pdf

Dean, J.; (2008) "Six Degrees of Separation: Do We Really Live in a 'Small World'?" 5 August 2008 http://www.spring.org.uk/2008/08/six-degrees-of-separation-do-we-really.php

Gladwell, M. (August 24, 2015). "Starting over". The New Yorker.

Granovetter, M. (1973). The strength of weak ties. Am. J. Sociol., 78, 1360±1380.

Herek, G. M. (1987). "The instrumentality of attitudes: Toward a neofunctional theory". Journal of Social Issues 42: 99–114.

Herek, G. M.; Glunt, E. K. (1993). "Interpersonal contact and heterosexuals' attitudes toward gay men: Results from a national survey". Journal of Sex Research 30: 239–244.

Herek, G. M.; Capitanio, J. P. (1996). "Some of my best friends": Intergroup contact, concealable stigma, and heterosexuals' attitudes toward gay men and lesbians Personality". Social Psychology Bulletin 22: 412–424.

Holland, C.; Clark, A.; Katz, J.; Peace, S.; (2007) "Social interactions in urban public places". https://www.jrf.org.uk/report/social-interactions-urban-public-places

McAdam, Doug (1988). Freedom Summer. Oxford University Press.

Montgomery, J.D. (1992). "Job Search and Network Composition: Implications of the Strength-of-Weak-Ties Hypothesis," American Sociological Review, 57 (Oct.): 586-96.

Montgomery, J.D. (1994). "Weak Ties, Employment, and Inequality: An Equilibrium Analysis," American Journal of Sociology, 99 (Mar.): 1212-36.

Novotny, J., Polonsky, F. (2011): The Level of Knowledge about Islam and Perception of Islam among Czech and Slovak University Students: does Ignorance Determine Subjective Attitudes? Sociologia, 43, 6, 674-696.

Onnela, J-P.; Waber, BN.; Pentland, A(S).; Schnorf, S.; Lazer, D. (2014) "Using sociometers to quantify social interaction patterns" Submitted 15 Oct 2014. http://arxiv.org/pdf/1405.6224v2.pdf

Oppenheimer, M.; (2014) "Technology is not driving us apart after all". New York Times Magazine. January 17, 2014.

Paulos, E.; Goodman, L.; (2004) "The Familiar Stranger: Anxiety, Comfort, and Play in Public Places". http://www.paulos.net/research/intel/familiarstranger/

Read, J.; Edmunds, W.J.; Riley, S.; Lessler, J.; Cummings, D. (2012) "Close encounters of the infectious kind: Methods to measure social mixing behaviour" Epidemiology and Infection (Impact Factor: 2.54). 06/2012; 140(12):1-14. DOI: 10.1017/S0950268812000842

Savelkoul, Scheepers; Tolsma, J.; Hagendoorn, L. (2011). "Anti-Muslim Attitudes in The Netherlands: Tests of Contradictory Hypotheses Derived from Ethnic Competition Theory and Intergroup Contact Theory". European Sociological Review 27 (6): 741–758.

Smieszek, T.; Burri, EU; Scherzinger, R.; Scholz, RW.; (2011) "Collecting close-contact social mixing data with contact diaries: reporting errors and biases". Epidemiol Infect. 2012 Apr;140(4):744-52. doi: 10.1017/S0950268811001130. Epub 2011 Jun 21.

Smieszek, T.; Barclay, VC.; Seeni, I.; Rainey, JJ.; Gao, H.; Uzicanin, A.; Salathé, M. (2014) "How should social mixing be measured: comparing web-based survey and sensor-based methods". BMC Infect Dis. 2014; 14: 136. Published online 2014 Mar 10. doi: 10.1186/1471-2334-14-136 PMCID: PMC3984737

Smieszek, T.; Barclay, VC.; Seeni, I.; Rainey, JJ.; Gao, H.; Uzicanin, A.; Salathé, M. (2014) "How should social mixing be measured: comparing web-based survey and sensor-based methods". BMC Infect Dis. 2014; 14: 136. Published online 2014 Mar 10. doi: 10.1186/1471-2334-14-136 PMCID: PMC3984737. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3984737/

Sun, L. ; Axhausen, K. .; Lee, D.; Huang, X. (2013) "Understanding metropolitan patterns of daily encounters". http://arxiv.org/pdf/1301.5979v3.pdf

Existing methods of measuring social mixing public space

Researchers in fields from sociology to epidemiology also have an interest in understanding causes and implications of social mixing. Some of these disciplines have developed their own measurement methods. To inform the Toolkit, we reviewed the potential applications and drawbacks of four existing measurement frameworks and incorporated learnings into the Toolkit.

Familiar Stranger

Measuring Familiar Strangers

Several methods have been developed by researchers who were also interested in the Familiar Stranger phenomenon. Researchers in Singapore tracked when people tapped transit cards at similar times in citywide transit systems, finding that 85% of repeated encounters happened at the same time each day, and most happened in the morning [Sun, 2013]. Researchers in Rome created a wifi sniffer that detects when people's phones or devices are in the same place at the same time repeatedly [Barbera, M, 2013].

Researchers in Berkeley, CA conducted photo surveys of places, then showed the photos to people in these places, asking them if they recognize anyone in the public space, recreating Stanley Milgram's famous experiments. In Milgram's experiments, eighty-nine percent of those surveyed recognized at least one person. The Berkeley study found lower (77.8%) but still high recognition, with an average 3.1 people recognized out of 63 pictured. Lunchtime participants recognized on average 3.9 people, far more than their counterparts at the bus stop, who recognized 2.3 people on average. [Paulos, 2004]

Applicability to the Toolkit:
The Toolkit measures correlates to the Familiar Stranger phenomenon: The number of familiar strangers one knows is directly correlated to how often that person visits a place and how often others visit a place, indicators the Toolkit measures. We can adjust our intercept survey to ask about familiar strangers in a space

Drawbacks:
- Does not take into account socioeconomic status
- Does not capture interaction between strangers, only recognition
- Many repeat visits are because of convenience, schedule, and necessity, and not because of the conviviality of a place, something we seek to understand
- Many familiar strangers may be repeat visitors because of a negative extenuating circumstance, like homelessness.

Qualitative measurement of social engagement

In-depth, longitudinal, mixed-method research in a discrete site or social network can yield nuanced findings about social engagement. This was the case with the Joseph Rowntree Foundation's year-long research project of public spaces in Aylesbury in the south of England. [Holland, C., 2007] The study included discussions with stakeholders, street surveys with members of the public, and observation by 46 members of the general public at nine sites in residential neighborhoods, green open spaces, and town-center spaces. Researchers concluded, among other things, that public spaces have a democratic and civic function, and that over-regulating them can hinder vibrancy, diversity and integration.

William Whyte's classic methods of building-mounted cameras observing public space were revived recently by Keith Hampton at Rutgers, who performed direct observations of people in space by coding video footage. His biggest findings were that over 30 years, Americans have become less socially isolated while using public spaces. He found an increase in the proportion of women in public space, and a corresponding increase in the tendency for men and women to spend time together in public. [Oppenheimer,

2014]

Applicability to our study:

Many features of social mixing are best captured by field observation, and are more easily and completely described by qualitative impressions. Observational methods described in Rowntree's study and Whyte's methods are similar to Gehl's in that the survey was undertaken by members of the community and rely on ethnographic, observational analysis.

Drawbacks:

• Difficult to code and quantify qualitative data

• Repeated observations over several seasons and weather conditions requires a dedicated team of observers and a long time period

• In an extended observational time-frame, the observer begins to potentially affect the system observed, more so than in more passive or short-term methods.

Direct Contact and Duration of Contact

Epidemiologists and others who track the spread of disease have developed methods for measuring direct contact between people, and the duration of this contact, a method potentially useful to the Toolkit. Methods developed by epidemiologists and other public health researchers include direct observation of a study group; proximity sensors worn by

subjects that track proximity and frequency of interaction; and contact diaries kept by subjects. [Choudhury; Onnela, 2014; Read, 2012; Smieszek, 2011, 2014, 2014]

Applicability to our study:

These methods often successfully measure direct face-to-face contact and duration of contact, something that is very difficult to measure. They can also track where people are lingering, with whom, in what group sizes, and for how long.

Drawbacks:

• These metrics are often successful only with a tightly controlled group that opts in to the experiment, making these methods impossible studying the general public.

• Technology-driven sensors are prone to mechanical failure, false positives, and over- or under-reporting instances of social mixing.

• In the case of contact diaries, short-term memories are highly fallible, and half of all contacts are forgotten after 5 minutes, making the error rate high.

Degrees of Separation

Stanley Milgram first studied 'six degrees of separation' by sending a letter to a random person in Nebraska or Boston, with a goal of returning that letter to a random target person in Massachusetts. People were instructed to only forward the letter to someone they knew on a first name basis. On average it took 5.2 intermediaries to reach the target recipient. Similar results have been replicated via email, and instant messaging. [Dean, 2008]

Applicability to our study:

Degrees of separation is a measure of how connected people are, and could be combined with a socioeconomic survey to determine the socioeconomic mix of social networks.

Drawbacks:

• The method does not measure mixing or connectedness in public space.

• The rate of "broken chains" was high for both letters and emails.

Resources: *Familiar Stranger Survey*

EXAMPLE:

I see her during my morning commute.

INSTRUCTIONS:

If you **recognize** any of these people but do not know their names, **please write an "R"** in the corresponding blank circle and use the connected box to tell us why you recognize them or anything else you want to tell us about them.

If you **know** the names of any of these people, **please write a "K"** in the blank circle and use the connected box to tell us how you know them or anything else you want to tell us about them.

If you **do not recognize** a person, please leave their circle blank.
If you have any questions, just ask me!

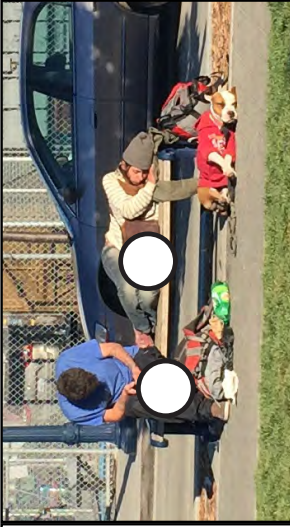Thank you for participating in this survey about comfort in public space. Your responses will be kept strictly confidential.

48 – Appendix

Let us know how you feel about this place!

1. How often do you visit this place?

☐ Daily
☐ Weekly
☐ Every few months
☐ Rarely (once per year)

2. How much time do you typically spend here?

☐ Walk through   ☐ 15 min.
☐ 5 min.   ☐ 30 min.
☐ 10 min.   ☐ 1 hour or more

3. How do you use this place?

☐ Just passing through ☐ Shopping
☐ Work nearby   ☐ Hanging out
☐ Public Transit   ☐ Lunch
☐ Meeting up with friends
☐ Other _____

4. How do you feel about this place?

☐ Strongly Negative
☐ Somewhat Negative/Unpleasant
☐ Neutral
☐ Somewhat Positve/Pleasant
☐ Strongly Positive

Thank You!
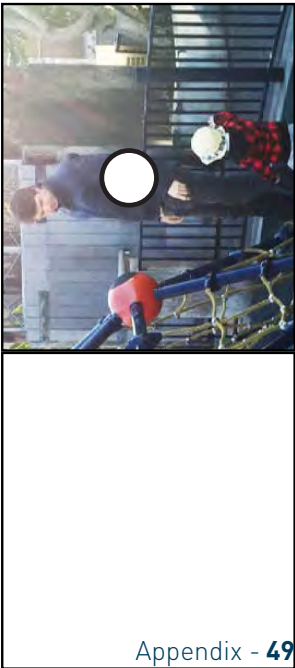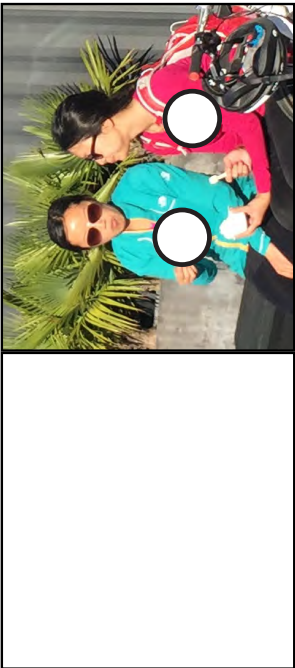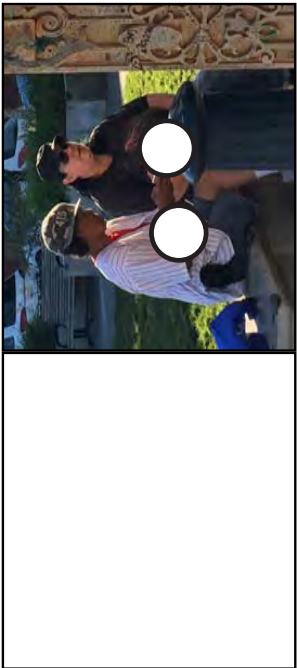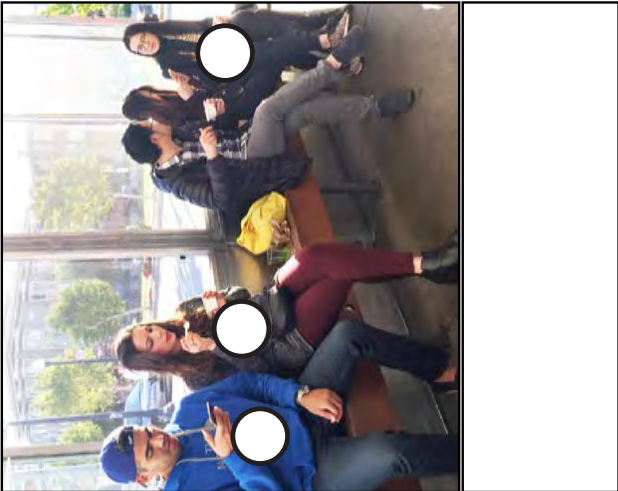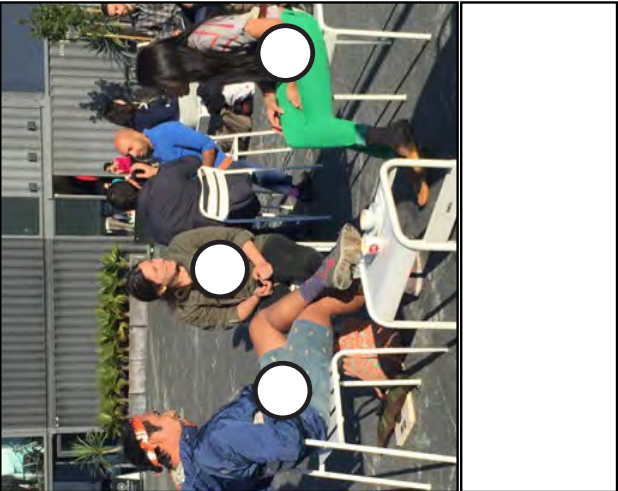
Resources: *Intercept Survey instructions*

FOR SURVEYORS

Procedure

1. Approach people in this space, with priority given to people engaging in stationary activities.

2. Identify yourself as a public life researcher, ask if the person has three minutes to answer an anonymous survey about the social life of this space.

3. Note age & gender of surveyed people and people who decline your survey. *(see table on right)*

4. You may deliver survey questions verbally, or hand the surveyee the form - especially the questions that relate to income, age, race, or gender.

5. Have the person place the form in a manila folder to ensure anonymity.

6. If you survey groups, indicate which surveys you give them by circling the appropriate numbers *(see below)*

7. Note hour. *(see below)*

8. Obtain 20 surveys through the course of your shift.

Survey Demographics

Did they fill out your survey?

Age + Gender	YES	NO
15-19 Male		
15-19 Female		
20-30 Male		
20-30 Female		
31-40 Male		
31-40 Female		
41-64 Male		
41-64 Female		
65+ Male		
65+ Female		

Surveyed Groups   Each survey has a unique number found on the bottom right of the second page. If you distribute surveys to a group, circle the appropriate numbers below.

Hour   Note the time when you distribute surveys.

Hour		Hour		Hour		Hour		Hour	
----------	1	----------	13	----------	25	----------	37	----------	49
----------	2	----------	14	----------	26	----------	38	----------	50
----------	3	----------	15	----------	27	----------	39	----------	51
----------	4	----------	16	----------	28	----------	40	----------	52
----------	5	----------	17	----------	29	----------	41	----------	53
----------	6	----------	18	----------	30	----------	42	----------	54
----------	7	----------	19	----------	31	----------	43	----------	55
----------	8	----------	20	----------	32	----------	44	----------	56
----------	9	----------	21	----------	33	----------	45	----------	57
----------	10	----------	22	----------	34	----------	46	----------	58

Thank you for participating in this survey about comfort in public space. Your responses will be kept strictly confidential.

INSTRUCTIONS:

If you **recognize** any of these people but do not know their names, **please write an "R"** in the corresponding blank circle and use the connected box to tell us why you recognize them or anything else you want to tell us about them.

If you **know** the names of any of these people, **please write a "K"** in the blank circle and use the connected box to tell us how you know them or anything else you want to tell us about them.

If you **do not recognize** a person, please leave their circle blank.
If you have any questions, just ask me!

R: 4
K: 1

EXAMPLE:

I see her during my morning commute.

"maybe" like seems a regular

Homeless cape w/dog "recently" caring - very nice people

Gehl

Turn over for page 2

www.gehlarchitects.com   @citiesforpeople

ROXANE → shelley

Let us know how you feel about this place!

1. How often do you visit this place?
- ☑ Daily
- ☐ Weekly
- ☐ Every few months
- ☐ Rarely (once per year)

2. How much time do you typically spend here?
- ☐ Walk through
- ☐ 5 min.
- ☐ 10 min.
- ☐ 15 min.
- ☐ 30 min.
- ☑ 1 hour or more

3. How do you use this place?
- ☐ Just passing through
- ☐ Work nearby
- ☐ Public Transit
- ☑ Meeting up with friends
- ☐ Shopping
- ☑ Hanging out
- ☐ Lunch
- ☑ Other BEER & Coffee
- Live NEARBy 94103

4. How do you feel about this place?
- ☐ Strongly Negative
- ☐ Somewhat Negative/Unpleasant
- ☐ Neutral
- ☐ Somewhat Positive/Pleasant
- ☑ Strongly Positive

God Bless the ♡ and doggies - No Hate Here!

Thank You!

2

Resources: *Intercept Survey*

Thank you for participating in this survey about social mixing and public life. Your responses will be kept strictly confidential.

1. How often do you visit this place?

- ☐ Daily
- ☐ Weekly
- ☐ Every few months
- ☐ Rarely (once per year)
- ☐ I am a tourist

2. How much time do you typically spend here?

- ☐ Walk through
- ☐ 5 min.
- ☐ 10 min.
- ☐ 15 min.
- ☐ 30 min.
- ☐ 1 hour or more

3. Please take a few moments to look at the people around you. Do you recognize people that you did not plan to meet?

- ☐ No, I don't recognize anyone here right now. **(please skip to #4)**
- ☐ Yes, I can count **(insert #)**_____ people that I recognize who I did not plan to meet.

   3a. Of these familiar faces, do you know anyone by name?

   - ☐ No, I don't know anyone here by name.
   - ☐ Yes, I know **(insert #)**_____people here by name.

   3b. Of these familiar faces, have you ever talked with any of them? (Not counting your surveyor.)

   - ☐ No, I haven't talked with any new people here **(please skip to #4)**
   - ☐ Yes - friends of friends
   - ☐ Yes - stranger I struck up conversation with
   - ☐ Yes, I have made **(insert #)**_____ new friends that I met here

   3c. What brought about your interaction with them?

   - ☐ Pets
   - ☐ Sports / physical exercise
   - ☐ Children
   - ☐ Event / concert / class
   - ☐ Volunteering / religious event
   - ☐ Buying something / shopping
   - ☐ Struck up conversation in line
   - ☐ Sat on bench together
   - ☐ Other **(please describe):** _____

If Yes - Show us where!

4. How do you use this place?

- ☐ Just passing through
- ☐ Work nearby
- ☐ Public Transit
- ☐ Meeting up with friends
- ☐ Other_____
- ☐ Shopping
- ☐ Hanging out
- ☐ Lunch

5. How do you feel about this place?

- ☐ Strongly Negative
- ☐ Somewhat Negative/Unpleasant
- ☐ Neutral
- ☐ Somewhat Positve/Pleasant
- ☐ Strongly Positive

Gehl
Studio San Francisco

8. How did you get here today? (check all that apply)

☐ Walk

☐ Bike

☐ Bus

☐ Train / Subway

☐ Private Car

☐ Taxi / Rideshare

☐ Other **(please write):** _____

9. Do you use Instagram?

☐ Yes - I have posted from here

☐ Yes - I have not posted from here

☐ No - I don't use Instagram

10. (Optional) What is your Instagram handle? _____

11. Do you identify as?

☐ Male

☐ Female

☐ Other

12. What is your age?

☐ 15-19

☐ 20-30

☐ 31-40

☐ 41-64

☐ 65+

13. What is the highest level of education you have completed?

☐ Less than 9th grade

☐ Some High School

☐ Completed High School (through grade 12)

☐ Some college, no degree

☐ Bachelors or Associate's degree

☐ Graduate or Professional Degree

14. What is your race? (mark one or more boxes)

☐ White

☐ African American

☐ American Indian or Alaska Native

☐ Asian

☐ Native Hawaiian or Pacific Islander

☐ Other race **(please write):** _____

17. Are you of Hispanic, Latino, or Spanish origin?

☐ No, not of Hispanic, Latino, or Spanish origin

☐ Yes, Mexican, Mexican American, Chicano

☐ Yes, Puerto Rican

☐ Yes, Cuban

☐ Yes, another Hispanic, Latino, or Spanish origin

  (print origin): _____

16. What is the combined annual income of all working adults in your household?

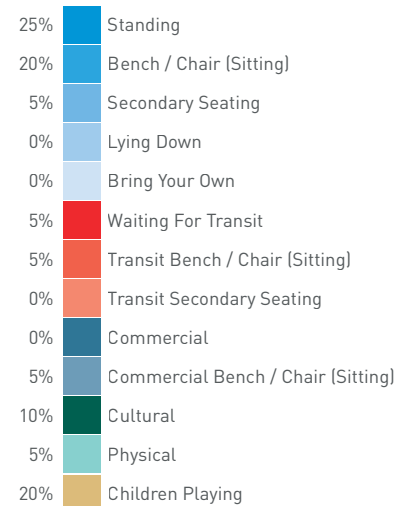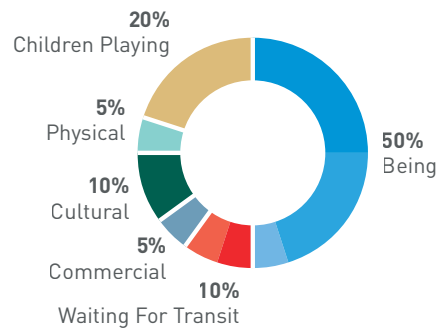|		
☐ $0 - 10K	☐ $50 - 75K	☐ $250 - 300K
☐ $10 - 15K	☐ $75 - 100K	☐ $300 - 350K
☐ $15 - 25K	☐ $100 - 150K	☐ $350 - 400K
☐ $25 - 35K	☐ $150 - 200K	☐ $400K or more
☐ $35 - 50K	☐ $200 - 250K	

17. What is the street intersection closest to your home? _____ & _____

18. What is your home zip code? _____

Thank You!

Methods: *A new framework for measuring Stationary Activities*

Building off the classic Gehl methods of categorizing stationary activities, this methods uses a new framework to capture the nuance of how people participate in different activities by separating the position of the body (standing, sitting) from the activity (waiting for transit, commercial activities), etc. This approach reduces surveyor error and inter-rater reliability. Data are from a test in Hayes Valley.

20% Children Playing
5% Physical
50% Being
10% Cultural
5% Commercial
10% Waiting For Transit

25%	Standing
20%	Bench / Chair (Sitting)
5%	Secondary Seating
0%	Lying Down
0%	Bring Your Own
5%	Waiting For Transit
5%	Transit Bench / Chair (Sitting)
0%	Transit Secondary Seating
0%	Commercial
5%	Commercial Bench / Chair (Sitting)
10%	Cultural
5%	Physical
20%	Children Playing

New Famework

POSITION		ACTIVITY					
		BEING (OTHER)	WAITING FOR TRANSIT	COMMERCIAL	CULTURAL	PHYSICAL	CHILDREN PLAYING
	STANDING	X	T	□	△	P	o
	BENCH OR CHAIR (SITTING)	X$_B$	T$_B$	□$_B$	△$_B$		
	SECONDARY SEATING	X$_S$	T$_S$	□$_S$	△$_S$		
	LYING DOWN	X_	T_		△_		
	BRING YOUR OWN	X$_{BYO}$	T$_{BYO}$		△$_{BYO}$		

use as necessary

Classic Framework

ACTIVITY		DESCRIPTION
X	Standing	STANDING, WAITING IN LINE, TALKING, SMOKING, ETC. (NOT WALKING)
T	Waiting for Transit	STANDING OR SITTING WAITING FOR TRANSIT
Xb	Bench Seating	SITTING ON A BENCH OR OTHER OFFICIAL FURNITURE (INCLUDES MOVABLE SEATING)
Xs	Secondary Seating	SITTING ON OBJECTS THAT ARE NOT DESIGNED AS FURNITURE (CURBS, STEPS)
Xc	Café Seating	PAID SEATING (MUST BE CUSTOMER TO USE)
Xm	Bring Your Own Seating	CHAIRS THAT PEOPLE HAVE BROUGHT FROM HOME
l	Lying Down	LYING DOWN (INCLUDES SUNBATHING, RESTING, & HOMELESS SLEEPING)
o	Children Playing	CHILDREN (0-10 YEARS OLD) PLAYING
□	Commercial Activity	PERSON SELLING SOMETHING OR HANDING OUT FLYERS
△	Cultural Activity	PERSON ENTERTAINING (INCLUDES PLAYING GUITAR, PAINTING, ETC)
⊙	Physical Activity	PERSON PLAYING SPORTS OR WORKING OUT

New framework for Stationary Activity mapping:

The primary function of Stationary Activity mapping is to understand the variety of activities in space. However, the classic model conflates activities (from waiting for transit to simply being in space) with the ways they are expressed by the human body (standing, sitting, etc). This new framework for Stationary Activity mapping more clearly defines these two ways of classifying staying activities in space. On the horizontal axis activities taking place are mapped, which indicates programmatic invitations. On the vertical axis, the position of bodies, indicating comfort or physical/design invitations in the

Stationary Activity by Duration   Patricia's Green: 11/10/15   3:20pm - 3:50pm
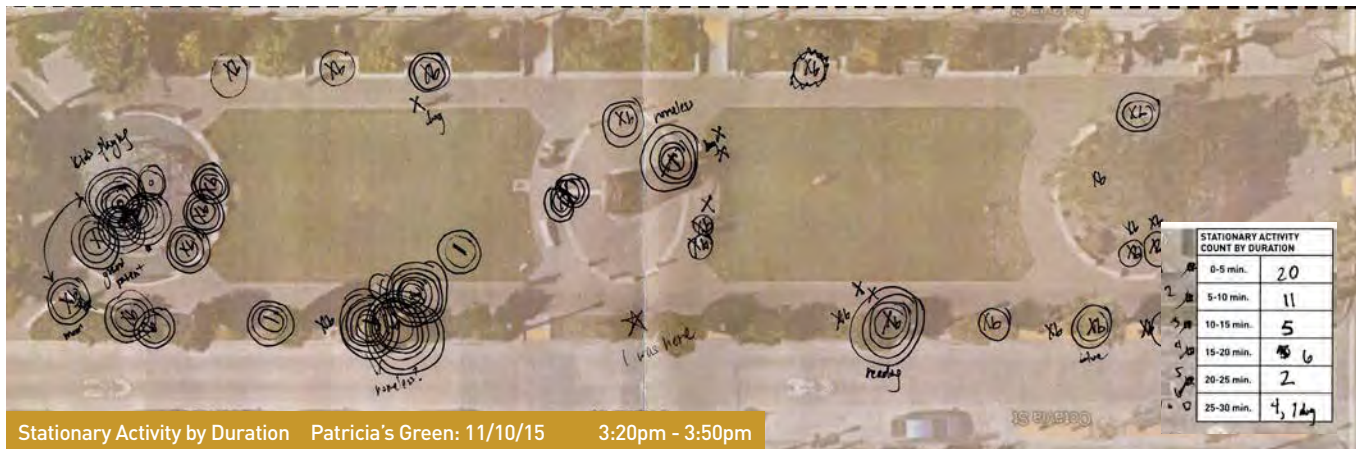
public realm, is mapped. All of the classic categories are intact, and some new ones appear. This new framework allows researchers to look at program separately from how people are engaging in them, or together, by collapsing data into X or Y axis. This framework was developed as a response to confusion from partners and survey volunteers who were confused about how to register activities that may be expressed in different ways. For example, if someone is sitting down and waiting for transit, which symbol should a surveyor use? The new framework allows for both to be captured and for both stories to be told, depending on the context.

Mapping social groups

By simply drawing circles around stationary activity symbols representing groups of people who are actively socializing with one another in a space, surveyors can add a layer of data to a stationary activity registration survey sheet that helps tell the story of social life in a space.

Stationary Activity and Duration

Understanding how long people spend in a space helps surveyors understand how inviting it is. This measure provides greater nuance to a standard stationary activity registration. A space where the vast majority of people spending 5 minutes or less is more of a passing-through place than a place that encourages people to sit, talk, and linger for 15 minutes or more.

This method also provides data to help make evaluations of whether a space encourages lingering or loitering.

DURATION	5 min.	10 min.	15 min.	20 min.	25 min.	30 min.
Every 5 min, circle each person continuing an activity from the previous 5 min.	⊗	⊗	⊗	⊗	⊗	⊗
	1 RING	2 RINGS	3 RINGS	4 RINGS	5 RINGS	6 RINGS

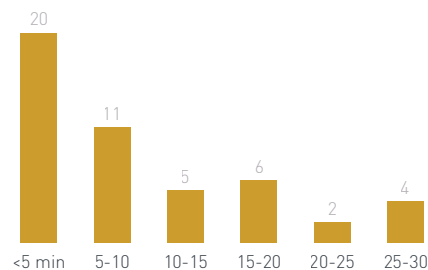**PROCEDURE:**

REGISTER STATIONARY ACTIVITIES WITHIN THE SITE BOUNDARIES THROUGHOUT 30 MIN.

MARK EXACT LOCATIONS OF EACH ACTIVITY ON MAP USING GIVEN SYMBOLS. DRAW A LOOP AROUND PEOPLE TOGETHER IN A GROUP.

EVERY 5 MIN., CIRCLE THE SYMBOL FOR EACH PERSON CONTINUING A STATIONARY ACTIVITY FROM THE PREVIOUS 5 MIN.

Findings from experiment above

How long did people spend in this place?

Methods: *Socioeconomic Status categories, in detail*

Combining many variables into one:
A detailed description of socioeconomic clusters in the Bay Area.

Cluster #	Description	Sample neighborhood/tract	avg white	avg black	avg asian	avg hispanic latino
0	white or hispanic/latino with a good mix of incomes	Davis	45%	11%	18%	27%
1	white, wealthy, highly educated	Marin County	63%	4%	25%	8%
2	asian, low income, low education	Golden Gate Ave. and Webster St.	20%	20%	49%	11%
3	white, mostly wealthy but with income gap and many low income households, highly educated	Presidio Heights	62%	6%	22%	10%
4	lower income, black or hispanic/latino	Brookfield Village Near Oakland Airport	36%	21%	14%	29%
5	mix of races, mostly lower income but a good mix of incomes, mostly high school graduates	around Market Street	30%	23%	29%	18%
6	mostly white, upper-middle class, high education	SoMa	54%	5%	25%	16%
7	black, mostly high school graduates	South Basin	19%	48%	15%	17%
8	good mix of incomes and races	Geary at Webster	42%	17%	21%	20%
9	asian or hispanic, middle income	Excelsior	33%	3%	32%	32%
10	good mix of incomes	Daly City	49%	9%	23%	18%
11	low income, asian or white	Taylor at Eddy	38%	10%	39%	13%
12	mostly white and upper-middle class	Around Upper San Leandro Reservoir	52%	6%	22%	20%
13	low education, even mix of black and white, middle income	Redwood Junction	43%	2%	2%	53%

Key				
Minimum value (specific to column): red				
Maximum value (specific to column): green				

avg under 30k	avg 30k to 60k	avg 60k to 100k	avg over 100k	avg no high school	avg yes high school	avg bachelor master	avg phd professional	population in this category	% bay area population	count of tracts in bay area
22%	32%	23%	23%	19%	53%	25%	3%	509246	11.7%	111
8%	12%	18%	62%	4%	32%	53%	11%	1140942	26.2%	247
70%	14%	7%	10%	34%	44%	20%	2%	25006	0.6%	8
19%	8%	19%	53%	7%	30%	53%	10%	103522	2.4%	30
39%	30%	18%	13%	28%	51%	19%	2%	337190	7.7%	76
55%	22%	13%	11%	26%	47%	25%	2%	130636	3.0%	35
15%	19%	23%	42%	10%	45%	39%	6%	1259187	28.9%	259
34%	4%	20%	42%	26%	55%	18%	2%	357	0.0%	1
36%	20%	21%	22%	19%	43%	32%	6%	126343	2.9%	34
12%	35%	22%	30%	18%	57%	22%	3%	3627	0.1%	1
25%	21%	23%	31%	14%	45%	37%	5%	596939	13.7%	128
80%	10%	3%	7%	28%	38%	30%	3%	9508	0.2%	4
9%	27%	24%	39%	11%	53%	33%	3%	114955	2.6%	26
25%	47%	23%	5%	46%	44%	10%	1%	3241	0.1%	1

Gehl
Institute