Public Life Data - Metadata

Keywords

About: Public life, public space, sidewalks, streets, vibrancy, pedestrian counts, people moving, people staying, transportation, survey, SDOT, livability, action plan

Abstract

The City of Seattle Department of Transportation (SDOT) is providing data from the public life studies it has conducted since 2017. These studies consist of measuring the number of people using public space and the types of activities present on select sidewalks across the city, as well as several parks and plazas. The data set is continually updated as SDOT and other parties conduct public life studies using Gehl Institute's Public Life Data Protocol.

This dataset consists of four component spreadsheets and a GeoJSON file, which provide public life data as well as information about the study design and study locations:

1. **Public Life Study:** provides details on the different studies that have been conducted, including project information.
2. **Public Life Location:** provides details on the sites selected for each study, including various attributes to allow for comparison across sites.
3. **Public Life People Moving:** provides data on people moving through space, including total number observed, gender breakdown, group size, and age groups.
4. **Public Life People Staying:** provides data on people staying still in the space, including total number observed, demographic data, group size, postures, and activities.
5. **Public Life Geography:** A GeoJSON file with polygons of every location studied.

Background

The Gehl Institute defines public life as the "activity that takes place in everyday public spaces—on streets, in parks and plazas, and in spaces between buildings." Public life consists of all the interactions in public spaces, whether they are necessary (e.g., walking to work) or recreational (e.g., watching a street performer). As such, public life can take many forms, such as eating at a street café, reading on a bench, window shopping, or talking to others while waiting for a bus. The types of activities and number of people engaging in public life in various areas can illuminate the degree to which a community is livable, social, and prosperous.

One of the most important settings for public life is our streets and sidewalks. As the department in charge of managing and planning for the use of our streets and sidewalks, the Seattle Department of Transportation (SDOT) has a keen interest in how people use these public spaces. By studying public life in a variety of urban neighborhood contexts, we can collect people-centered data that measures how our streets and sidewalks are used and how the vibrancy of these public spaces changes over time. It will help us understand—and hopefully address—the race and social justice issues attendant to the way we invest in and use the right of way as public space.

Methodology

Why Collect Public Life Data?

A public life study is a type of research that focuses on measuring human activity and characterizing how public space is used by people moving through or staying still within a specific study area. This ongoing research effort collects data to measure public life across Seattle and is designed to capture the activities present in a broad array of urban contexts. Public life studies are focused on collecting data relevant to SDOT's guiding values for the role of the right-of-way as a vibrant public space, as identified in the Move Seattle Strategic Plan, Comprehensive Plan, Pedestrian Master Plan, and Streets Illustrated. Example study objectives include:

- Understand who is using public space
- Understand the types of activities present in public space
- Understand how social the public space is

- Understand the degree to which people engage in commercial activity in public space
- Understand the degree to which available pedestrian infrastructure provided in public space is utilized

Example Data Collection Schedule

The Public Life Data Protocol does not dictate when observations must take place or how much time observers must spend at each location. Time periods for public life data collection depend on the study objectives, but typically they are collected within specific time windows coinciding with anticipated peak usage. Data should be collected on a schedule to understand typical public space usage, so collection times exclude holidays, holiday weekends, or whenever there are anticipated activities in the right-of-way (e.g., construction, special events, festivals).

For instance, a typical data collection schedule for a study location could look like this:

	SUN	MON	TUES	WED	THURS	FRI	SAT
MORNING			8 – 10 AM	8 – 10 AM			
MID-DAY			11 - 2 PM	11 - 2 PM			11 - 2 PM
EVENING			4 – 7 PM	4 – 7 PM			4 – 7 PM

Based on best practices of public life data collection established by Jan Gehl and utilized by the City of San Francisco[1], observations can be conducted during samples of time in the data collection windows. As an example, SDOT has previously completed public life studies using the following snapshots of time within the data collection windows.

1. People moving observations – two 10-minute counts
2. People staying observations – one 20-minute count
3. Current conditions

Data structure

It is important to note that the two datasets with observational data (public_life_people_moving and public_life_people_staying) are structured in different ways and should be analyzed with these different structures in mind, as described below.

	public_life_people _moving	public_life_people_staying
Description	Data on people moving through space, including total number observed, gender breakdown, and group size.	Data on people staying still in the space, including total number observed, demographic data, group size, postures, and activities.
What each record represents	One row represents a single observational period for people moving through the study area. The row will include the total number of people counted (moving_row_total) as well as any sub-totals included in the data (e.g., sub-totals by age groups or gender).	One row represents the data collected on one person observed staying still during an observational period.

	For each row of data, the row_ID field indicates the type of data collected (e.g., gender, age, group size) and the time period it represents (e.g., 10 minute count, 15 minute count). See key included in the row_id description below for more detail.	
Calculating total counts per data entry shift	Since each record is already a summary of number of people observed moving through the study area, use row_total for counts. Each of these sums can represent different lengths of time (e.g., 10 minutes, 15 minutes), so it is important to understand the length of observation when conducting comparative analysis across sites.	To calculate the number of people observed within each data collection shift, add the row_total fields for each unique data collection shift (using location_id and study_id). If row_total=0, there were no people observed during this data collection shift. Because observation periods can vary in length (e.g., 20 minutes, 30 minutes), it is important to understand the observational period when conducting comparative analysis across sites.

Data notes

The public life data were collected via in-person observation, and thus the time periods observed represent a sample of time to be interpreted for illustrative purposes. It is important to note that this data does most likely not mirror all public life activity at any given time. It is also worth noting that the observational methods are not entirely objective in nature, so some categories should be interpreted with this in mind, such as demographic data. Although demographic information is collected for people recorded in this study, the study did not collect personally identifiable information. This study completed a Privacy Assessment through the City of Seattle IT Department.

A mixed methods approach that includes intercept surveys, focus groups, and an assessment of the physical space can also be utilized in order augment and validate observational data. For more information on public life studies SDOT has done, assistance on how to conduct your own studies, and other resources – please visit the homepage for SDOT's Public Life Program:

https://www.seattle.gov/transportation/projects-and-programs/programs/urban-design-program/public-life-program

You can also explore the data using this Public Life Dashboard:

https://public.tableau.com/profile/city.of.seattle.open.data.program#!/vizhome/2018_public_life/Overview

Purpose

This dataset has been published by the Seattle Department of Transportation of the City of Seattle and **data.seattle.gov**. The mission of **data.seattle.gov** is to provide timely and accurate City information to increase government transparency and access to useful and well organized data by the general public, non-governmental organizations, and City of Seattle Employees.

Specifically with respect to the Public Life dataset, SDOT is providing these spreadsheets to encourage the public to explore the data to understand public life dynamics, determine local community needs, and leverage the data to advocate for built environment changes. SDOT hopes that data will catalyze conversations around the importance of public life—and pedestrian infrastructure to support it.

Access constraints

The data is publicly available and accessible.

Use constraints

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Point of contact

Departmental first line point of contact. This is usually the departmental PIO or delegate and serves as triage for incoming questions. The business owner/technical owner would be second point of contact for a specific dataset.
Information should contain:
Department: Seattle Department of Transportation (SDOT)
Name: Susan McLaughlin
Business phone: 206-733-9649
Mailing address:
Fax number:
Business hours:

Credits

City of Seattle Office of the Chief Technology Officer (OCTO), data.seattle.gov staff

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Entity

Public Life Study (SDOT)

Attribute Information

Table: public_life_study

COLUMN	DATA TYPE	DESCRIPTION
agency_id	string	Unique identifier for agency conducting study
study_id	string	Unique identifier specifying the study, used to link tables together
study_title	string	Title or name of study as given by the conducting agency

study_project	string	Title or name of the project that the study is a part of
study_start_date	date	Date of the first survey taking place within a study
study_end_date	date	Date of the last survey taking place within a study
study_protocol_version	string	Version of the Public Life Data Protocol that the study used
study_scale	string	Approximate scale of the entire study area, regardless of the amount of survey locations with that study area
study_notes	string	Notes that regard the entirety of the study

Table: public_life_location

COLUMN	DATA TYPE	DESCRIPTION
location_id	string	Unique identifier to link tables to indicate where data was collected.
location_name_primary	string	Official name of the survey location
location_name_secondary	string	Secondary or specifying name of the survey location
location_detail	string	Further information for location (ie. side of the street, specific area for counts)
location_blockface_elmntkey	integer	Unique SDOT identifier for the city street segment where the survey location is located, join with “elmntkey” in Blockface dataset.
location_sidewalk_compkey	integer	Unique SDOT identifier for sidewalk segment where survey location is located, join with “compkey” in Sidewalks dataset.
location_transit_stop_present	string	Indication of whether there is a transit stop located in the survey location
location_neighborhood_type	string	Urban Village designation at the survey location
location_neighborhood	string	Neighborhood of survey location
location_character	string	Primary character of the survey location’s immediate surroundings
location_line_typology_vehicular	string	Typology of the space assigned for vehicles that the line geometry intersects, as defined by Streets Illustrated.
location_area_typology	string	Typology of the space defined within the area geometry
location_area_typology_subcategory	string	Further specifying typology of space
location_total_sqft	integer	Total square feet of location

location_average_number_commercial_seats	integer	Average number of commercial seats present at study location during observation periods
location_average_number_public_seats	integer	Average number of public seats present at study location during observation periods
location_Country	string	Country that the survey location is based within
location_Region	string	State, county, or municipal boundary of the location
location_City	string	Name of the city that the survey location is based within.

Table: public_life_people_moving

COLUMN	DATA TYPE	DESCRIPTION
unique_moving_id	integer	Unique identifier for this table
study_id	string	Name of study
location_id	string	Unique identifier to link tables by location site where data was collected
moving_time_start	date	Exact date and time that the survey count started, in ISO 8601 format, yyyy-mm-ddThh:mm
moving_time_end	date	Exact date and time that the survey count ended in ISO 8601 format, yyyy-mm-ddThh:mm
moving_time_start_protocol	date	Exact date and time that the survey count started in Public Life Data Protocol format,, yyyymmdd:hhmm
moving_time_end_protocol	date	Exact date and time that the survey count ended, in Public Life Data Protocol format, yyyymmdd:hhmm
moving_day_of_week	string	Indicates the type of day the data was collected in (weekend or weekday)
moving_time_of_day	string	Indicates the time of day the data was collected in: Morning (8-10am), Midday (11-2pm), and Evening (4-7pm)
moving_count_surveyor	string	Name of the person or entity collecting the survey data
moving_conditions	string	Indicates if anything out of the ordinary took place at the specific time of the survey count that may have impacted the results
moving_microclimate	string	Perceived whether condition on the specific survey location
moving_temperature	integer	Temperature measured in the survey location at the time of the survey, in Fahrenheit

moving_row_id	integer	Unique identifier for each row of people surveyed. Based on the study design, different types of data can be collected for people moving, represented in the various counts defined by row_id below. New row_ids can be added in the future to represent different data points collected based on future study designs. moving_row_id Key 1 – represents the 10-minute people moving count with group size data. 2 – represents the 10-minute people moving count with gender, and mobility assistance 3 – represents the 10-minute people moving count with age groups 4 – represents the 10-minute people moving count totals only 5 – represents the 10-minute people moving count with gender and age groups (filter with moving_row_id 2 and 3 to combine)
moving_row_total	integer	Indicates the total number of people counted
moving_male	integer	People who are perceived by surveyors as male
moving_male_mobility_assist	integer	People who are perceived by surveyors as male who are using a mobility assist device (e.g., wheelchair, walker, cane)
moving_female	integer	People who are perceived by surveyors as female
moving_female_mobility_assist	integer	People who are perceived by surveyors as female who are using a mobility assist device (e.g., wheelchair, walker, cane)
moving_other_unsure	integer	People who are perceived by surveyors as non-binary or whom the surveyors do not feel comfortable assuming the gender of. Infants and toddlers may fall in this category.
moving_other_unsure_mobility_assist	integer	People who are perceived by surveyors as non-binary or whom the surveyors do not feel comfortable assuming the gender of, and who are using a mobility assist device (e.g., wheelchair, walker, cane). Infants and toddlers may fall in this category.
moving_total_mobility_assist	integer	People who use a mobility assistance device (e.g., wheelchair, walker, cane)
moving_group_size_1	integer	People who are traveling as a single person

moving_group_size_2	integer	People who are traveling in a pair of people
moving_group_size_3	integer	People who are traveling in a small group of 3 people
moving_group_size_4	integer	People who are traveling in a small group of 4 people
moving_group_size_5	integer	People who are traveling in a small group of 5 people
moving_group_size_6	integer	People who are traveling in a small group of 6 people
moving_group_size_7	integer	People who are traveling in a small group of 7 people
moving_group_size_8	integer	People who are traveling in a small group of 8 people
moving_group_size_9	integer	People who are traveling in a small group of 9 people
moving_group_size_10+	integer	People who are traveling in a small group of at least 10 people
moving_0-4	integer	People who were perceived by surveyors as being between the ages of 0 and 4 (Infants, toddlers, often in strollers, or baby carriers, as well as small children).
moving_5-14	integer	People who were perceived by surveyors as being between the ages of 5 and 14 (young children who could be in elementary school, or middle school).
moving_15-24	integer	People who were perceived by surveyors as being between the ages of 15 and 24 (high school through college age).
moving_25-44	integer	People who were perceived by surveyors as being between the ages of 25 and 44 (young adults who look older than college age).
moving_45-64	integer	People who were perceived by surveyors as being between the ages of 45 and 64 (middle aged adults, mid/late career, not yet retired).
moving_65+	integer	People who were perceived by surveyors as being between the ages of 65 and over (retired, older adults).
moving_notes	string	Comments that may serve to clarify the content of the survey data

Table: public_life_people_staying

COLUMN	DATA TYPE	DESCRIPTION
staying_unique_id	integer	Unique identifier for this table

study_id	string	Name of study
location_id	string	Unique identifier to link tables to indicate the block face site where data was collected
staying_time_start	date	Exact date and time that the survey count started, in ISO 8601 format, yyyy-mm-ddThh:mm
staying _time_end	date	Exact date and time that the survey count ended in ISO 8601 format, yyyy-mm-ddThh:mm
staying _time_start_protocol	date	Exact date and time that the survey count started in Public Life Data Protocol format, yyyymmdd:hhmm
staying _time_end_protocol	date	Exact date and time that the survey count ended, in Public Life Data Protocol format, yyyymmdd:hhmm
staying_day_of_week	string	Indicates the type of day the data was collected in (weekend or weekday)
staying_time_of_day	string	Indicates the time of day the data was collected in: morning (8-10am), midday (11-2pm), and evening (4-7pm)
staying_count_surveyor	string	Name of the person or entity collecting the survey data
staying_conditions	string	Indicates if anything out of the ordinary took place at the specific time of the survey count that may have impacted the results
staying_microclimate	string	Perceived whether condition on the specific survey location
staying_temperature	integer	Temperature measured in the survey location at the time of the survey, in Fahrenheit
staying_row_total	integer	Indicates the total number of people counted
staying_group_size	integer	Indicates the group size of individuals
staying_race_ethnicity	string	People who are perceived by surveyors to be a race or ethnicity. staying_race_ethnicity Key A - Asian B – Black or African American L – Latino/a or Hispanic M – Multiple N – Native American or Alaskan Native

		P – Pacific Island or Native Hawaiian U – Unsure W – White
staying_gender	string	The perceived gender of people observed (Female, male, unsure).
staying_age	string	The perceived age of people observed.0-4 – Infants, toddlers, (often in strollers, or baby carriers), as well as small children 5-14 –Young children who could be in elementary school, or middle school 15-24 – High school through college age 25-44 – Young adults who look older than college age 45-64 – Middle aged adults, mid/late career, not yet retired 65+ – Retired, older adults
standing	integer	Standing freely in space. They can either be staying still or pacing yet remaining in a small area, unassisted (by wheelchair, etc.), without leaning on anything.
leaning	integer	Standing while leaning against an object or building, typically in a leisurely way.
sitting_formal_all	integer	Formal sitting postures, regardless of type of seating
sitting_formal_public	integer	Sitting down on something designed as public seating (benches, picnic tables, etc.).
sitting_formal_public_fixed_bench	integer	Sitting down on a fixed bench available to the public.
sitting_formal_public_fixed_wall_with_seats	integer	Sitting down on a fixed seat wall or other structure available to the public.
sitting_formal_public_movable_seat	integer	Sitting down on moveable seating, like bistro chairs, available to the public.
sitting_formal_commercial	integer	Sitting on furniture that is owned by a commercial establishment. Sitting is typically accepted after a purchase of goods or food, or with the intent of purchasing goods or food. Typically, this is sidewalk café seating.
sitting_formal_private	integer	Sitting on furniture intended for seating, but which is privately owned, where the right to sit cannot be purchased by an exchange of goods or money. This can be a chair or a bench in someone's front garden, furniture that people have brought themselves into public space

		and which they will take with them upon leaving the public space, or objects intended for sitting on which provide heavy support like a stroller or a wheelchair.
sitting_informal	integer	Sitting in places not primarily designed for seating, like on the ground, street fixtures, planter, curb, or step. This can include squatting down in space.
lying	integer	Lying down on any surface, awake or asleep
staying_mobility_assist	integer	Anyone supported by a mobility device. Wheelchairs, canes, walkers, seeing eye dogs, white canes, and if they're being assisted by another person (do not count infants/children being carried in this category).
Commercial_all	integer	Engaged in any commercial activity
commercial_selling	integer	Selling food or goods in an established/legal setting. Person doing backend activities related to commercial activities, like a waiter busting tables, a person loading commercial goods, or a person setting up a commercial stall.
commercial_selling_informal	integer	Selling food or goods in a self-constructed/unpermitted/illegal manner.
commercial_buying	integer	In the process of buying foods and goods. Both the person performing a transaction, and the people queuing are counted as buyers.
commercial_observing	integer	A person who is participating in a commercial situation, without being either a provider or a buyer/shopper in the moment of the survey, is counted as participating by being an observer. This could be a person browsing the produce at a market stall, but who has not yet committed to making a purchase, either by an exchange of money or by queuing up to making a transaction of money.
eating_drinking	integer	Engaged with consuming food or drinks, either by being in the process of preparing for consumption, being mid-consumption, or post-consumption.
talking_to_others	integer	Conversing with another person at any tone of voice.
smoking	integer	Smoking any type of object or substance, whether legal or illegal. Only people visibly smoking should be registered in this category. Some surveys may also categorize people smoking in the activity "Disruptive – intoxicated" if the person smoking is also influenced by the smoked substance to a degree that may cause other people inconvenience or discomfort.
cultural	integer	Performing, observing, or participating in cultural activities of artistic, communal, political, or religious character (e.g.,

		outdoor movie, food festival, political rally, music, religious gathering, dance).
recreation_active	integer	Exercising or playing, either informally or in formally designated areas.
recreation_ passive	integer	Includes a variety of activities associated with recreational activities typically occurring in place, including: people watching, playing cards, being affectionate with others, reading/writing, creating art (e.g., draining, painting) for personal use or purposes, resting, relaxing, and hanging out.
waiting_transportation	integer	Waiting for transportation, whether it is public (e.g., bus, streetcar), private (e.g., car), or commercial (e.g., taxi or rideshare such as Uber, Lyft).
working_civic	integer	Working to upkeep or take care of the public spaces. This could include fixing potholes, sweeping the street, directing traffic, or helping others directions.
disruptive	integer	Displaying abusive behavior towards another person or to no one in particular. Total number.
disruptive_aggressive	integer	Displaying abusive behavior towards another person or to no one in particular. The behavior can be verbal, physical, or other. The behavior must be assessed as abusive or highly uncomfortable within the context of the survey location.
disruptive_intoxicated	integer	Visibly ingesting alcohol or drugs in an unsanctioned context, depending on the survey location. Showing clear signs of uncontrolled intoxication such as slurred speech, unfocused eyes, aggressiveness, etc.
living_public	integer	Encamping, lying, or sleeping in an undesignated camping/sleeping location, like on the street or in a square. This type of activity is typically associated with homelessness, and can be recognized by the accompaniment of most personal belongings. Engaged in otherwise private sanitary activities within the public realm. Could be urinating or showering in full or partial visibility of others, in areas that are not designated for these types of activities. This category covers any kind of informal behavior related to sanitary purposes that do not typically take place in public.
using_electronics	integer	Engaging with technology, electronics, and digital gadgets in either an introverted (e.g., listening to audio via headphones, conversing on a phone, or reading/writing/playing/working on a computer) or extroverted fashion (e.g., listening to audio via speakers, photographing the surroundings, or interacting with

		screens in the public realm). Any digital gadget may be included in this category, including but not limited to watches, phones, tablets, and laptops.
soliciting	integer	Can include begging for food or money, campaigning, or sex work.
staying_notes	string	Comments that may serve to clarify the content of the survey data

Provided by

Metadata provided by Ellie Smith (SDOT), and reflects the fields in the Public Life Data Protocol, with some SDOT-specific additions.