

Seoul Data Catalogue

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Preface

Hello, welcome to my website! This site offers a handful of geospatial data of Seoul, including population, housing, landuse, industry, traffic, society, hospitality, and environment. Feel free to browse through this book, and drop me a note if you have any enquiries.



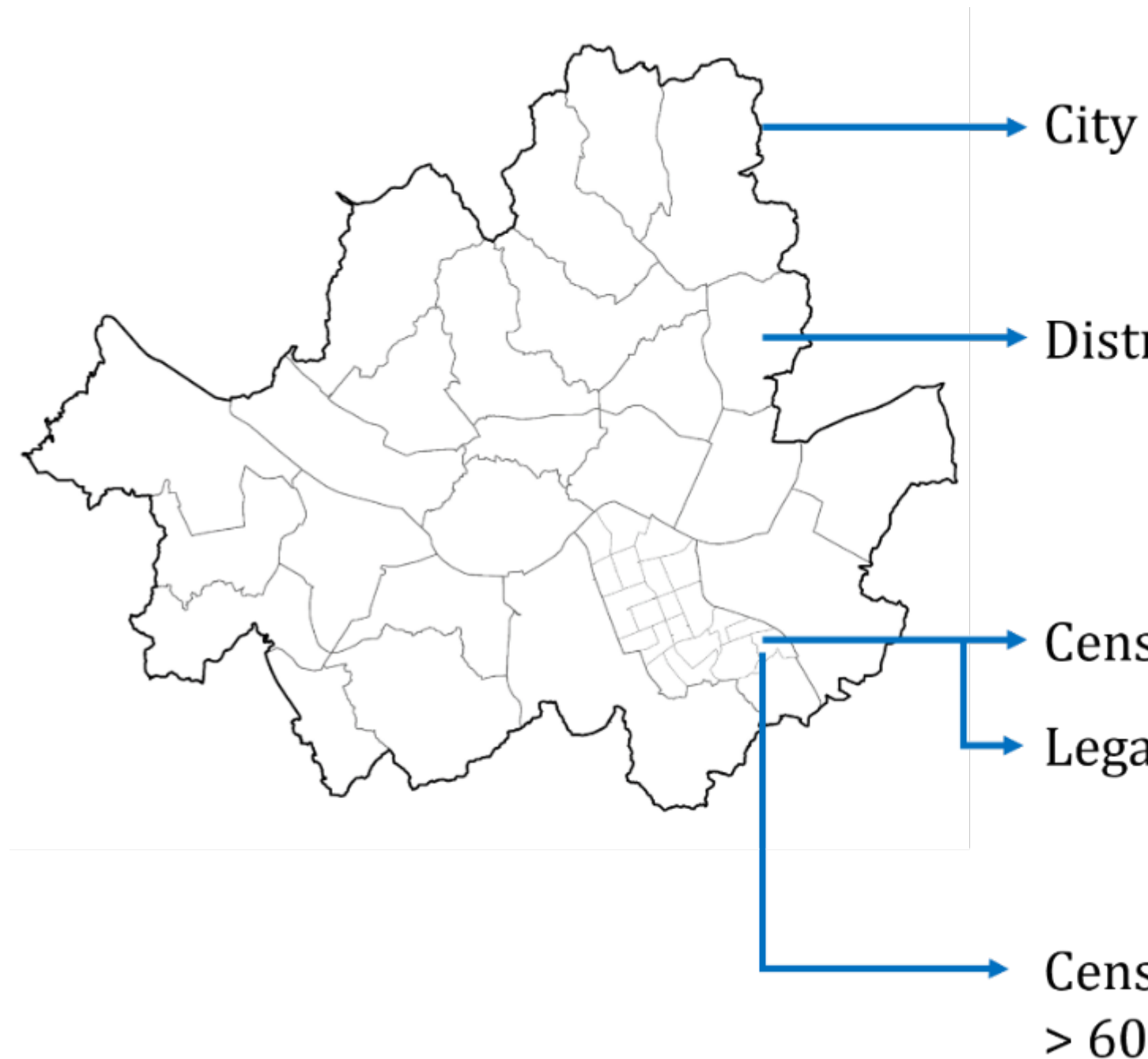
Chapter 1

Introduction of Seoul

1.1 Overview

- Capital of South Korea
- Area: 605.21 km² (233.67 sq mi)
- Population: 9,971,111 (678,102 international residents, 2015 NSO)
- Language: Korean
- Currency: Won

1.2 City Hierarchy



The city has four hierarchies, Si, Gu, Dong, and *Jipgegu*, from city to block level. Within the *Si*(city) scale, Seoul has 25 administrative districts, gu, of which the spatial size is similar to the boroughs in London. The river Han penetrates horizontally through the city centre, from east to west, which divides 14 gus to the north, and 11 to the south. Each gu comprises two types of boundaries as *Hengjeong dong*s and *Beopjeong dong*s. *Hengjeong dong*s were established for administrative convenience, such as resident registration. These *dongs* could be consolidated, divided, or founded due to population increase or decrease. *Beopjeong dong*s are towns

or villages that were left for historical significance (Legal donges were based on cadastral maps made from the Land investigation project during the Japanese colonial years). As of 2014, Seoul has 424 administrative donges and 467 legal donges. The finest scale is *Jipgegu*, or census block. This boundary is mainly to retrieve the population from a minimum statistical area, thus does not function as an administrative unit. Each Jipgegu consists of 60-500 residents, and the boundaries are renewed every year. As of 2013, Seoul has 16,470 jipgeguas. All boundary data were provided in a shapefile in a 5-year period from 1975-2015, except the *Jipgegu* where the last update was in 2015.

Chapter 2

Spatial Boundary

2.1 Administrative District (*Gu*)

A sub municipal unit in South Korea. Cities over 500,000 people are allowed to have a gu.

- Total number in Seoul: 25
- Coordinate system: Korean Central Belt 2000 (EPSG: 5181)
- Columns: City code, Gu code, Gu name, Gu area
- Largest / Smallest
- Area: Seocho(47km²) / Jung(9.96km²)
- Population: Songpa(640,830) / Jung(117,781)

2.2 Census tracts (*Dong*)

The smallest level of urban government to have its own office and staff in South Korea

Types: administrative dong, legal-status dong

- Administrative dong: Name of the community office that controls the place. All administrative works as well as clinics are based on this level
- Legal-status dong: A traditional area (town, village) name. The name of a unique region that serves as an address

Total number

- Administrative dong (2014): 423
- Legal-status dong (2014): 469
- Coordinate system: Korean Central Belt 2000 (EPSG: 5181)
- Columns: Base year, admin code, admin name
- Largest / Smallest
- Population: Gil-dong, Songpa-gu (49,535) / Sogong-dong, Jung-gu (735)



Figure 2.1: Gu in Seoul

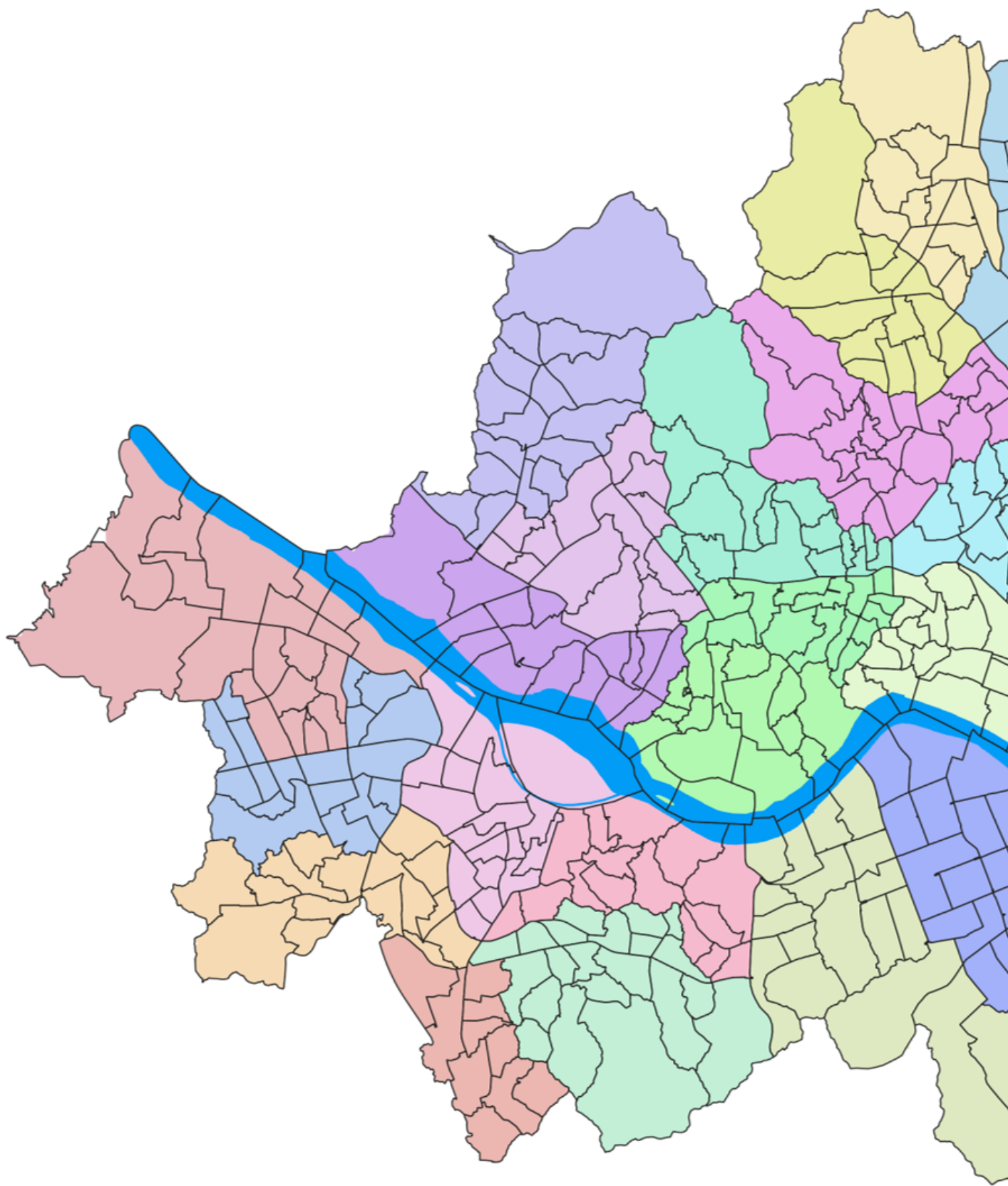


Figure 2.2: Census tracts in Seoul

2.3 Administrative Census Block (*Jipgegu*)

Developed boundary map of the smallest(block) unit among the boundaries announced by the National Statistic Office(NSO)

- Reference : NSO
- Time Period : 2015
- Data Collected: 1 year
- Data Type : .csv, .shp
- Spatial range : Seoul
- Coordinate system: Korean Central Belt 2000 (EPSG: 5181)

Table 2.1: Jipgegu Attribution field

Field	Field Description
Block code	Name of block
Block name	X-coord of block cell centre
Centriod X-coord	X-coord of block cell centre
Centriod Y-coord	Y-coord of block cell centre
Census tract code	Tract code
City code	City code
Type of block	Large, Medium, Small
Type of block buffer	Large, Medium, Small
Station influenced area	Block proximity to Station
University area	Block proximity to a University zone

Providing a spatial unit that understands a specific area (100 persons per block) Providing a spatial unit that further subdivides administrative boundaries, such as dong, for finer analysis of market characteristics in the region The number of block accounts for 20% of NSO block Resident blocks in non-apartment accounts for 60-80 persons

Chapter 3

Population

3.1 Population Census

Population data of residence

- Reference: Korean Statistics Office
- Time Period : 2011 - 2015
- Data Collected: Monthly
- Data Type : .csv
- Spatial range : Seoul

Field	Description
std_yy	Baseline year
std_mt	Baseline month
sexdstn_cd	Sex
agrde_cd	Age group
rspop_cnt	Population
adstrd_cd	Census tract code
signgu_cd	City code

3.2 Employees at Working place

Data on the number of employees per census block, based on the basic survey data of the business

- Reference: Seoul city
- Time Period : 2011 - 2013
- Data Collected: Annually
- Data Type : .csv
- Spatial range : Seoul

3.3 De Facto Population

: / : : (csv) : 2017.01.01-2018.04.18 : : : KT
 : - : SE_SPOP_LOCAL_RESID_YMMM - : SE_SPOP_TEMP_RESID_YMMM - :
SE_SPOP_LONG_RESID_YMMM - : SE_SPOP_ORGN_CT_YMMM - :
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Chapter 4

Traffic

Traffic GIS DB - O-D Matrix - Traffic Volume (67 within Seoul) - Road network - Bus(Regular, Intercity)

4.1 Traffic facilities

Traffic facilities are the geographic locations of bus stops and subway stations in Seoul. This dataset is provided by Seoul TOPIS(Transport Operation and Information Services, [http://topis.seoul.go.kr](#)), and KAIS(Korean Address Information System, [http://khis.go.kr](#)), during the period of January 2015 - August 2016. The data are saved in an excel sheet and a shape format.

- EPSG(Coordinates): 5181(Korea 2000 Central Belt)

In the folder, you will probably notice two sets of files, which either starts with TB_O_SB_STATN or TB_E_BUSSTOP:

Type	Description	Code
Facilities	Subway location	TB_O_SB_STATN
Facilities	Bus location	TB_E_BUSSTOP

* Bus stop: Attributes

NO	Attribute Name	Note
1	ID	
2	Bus stop number	
3	Bust stop name	
4	Year	Jan.2015-Aug.2016
5	TM-X	
6	TM-Y	

- Bus stop: Shape file attributes (EPSG:5181)

NO	Column Code	Column Name
1	YYYYMM	Year+Month

NO	Column Code	Column Name
2	LINE_NO	Bus number
3	SEQ_NO	Order
4	BUS_STA_NM	Bus stop name
5	X_COORD	X coordinate
6	Y_COORD	Y coordinate
7	ARSID	Reference

- Subway: Attributes

NO	Attribute Name	Note
1	ID	
2	Station name	
3	Line number	
4	Year	Jan.2015-Aug.2016
5	TM-X	
6	TM-Y	

- Subway: Shape file attributes (EPSG:5181)

NO	Column Code	Column Name
1	GU_NM	Year+Month
2	GU_CD	Bus number
3	SUB_STA_SN	Order
4	KOR_SUB_NM	Bus stop name
5	Point_X	X coordinate
6	Point_Y	Y coordinate

Chapter 5

Pollution

Chapter 6

Patients

HIRA data