

National Neighborhood Data Archive (NaNDA): Health Care Services by Census Tract and ZCTA, United States, 1990-2021



Overview and Data Dictionary

Documentation Version: 1.3

Last updated: 09/27/2024

Dataset Overview

Description

This dataset contains measures of the number and density health care services per United States Census Tract or ZIP Code Tabulation Area (ZCTA) from 1990 through 2021. The dataset includes four separate files for four different geographic areas (GIS shapefiles from the United States Census Bureau). The four geographies include:

- Census Tract 2010
- Census Tract 2020
- ZIP Code Tabulation Area (ZCTA) 2010
- ZIP Code Tabulation Area (ZCTA) 2020

Information about which dataset to use can be found in the Usage Notes section of this document.

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Funding Sources

- National Institutes of Health/National Institute of Nursing Research and the National Institute on Minority Health and Health Disparities (NINR/NIMHD U01NR020556)
- National Institute on Aging Pathway to Independence Award (NIA K99AG075152, R00AG075152)

Data Sources

Business establishment data were taken from the National Establishment Time Series (NETS) database produced by Walls and Associates (2022) using archival establishment data from Dun & Bradstreet. NETS is a time-series database based on snapshots taken every January of the full Duns Marketing Information (DMI) file of over 80 million private for-profit and nonprofit establishments and government agencies. These snapshots used the DMI file to determine which establishments were active in January of each year from 1990 to 2021. This longitudinal data source classifies establishments by Standard Industrial Classification (SIC) code and provides detailed business microdata and address history (D. Walls & K. Perez, personal communication, October 4, 2022).

We determined each establishment's Census Tract or ZCTA for each year by mapping its latitude and longitude to the 2010 and 2020 TIGER/Line shapefiles from the US Census Bureau (United States Census Bureau, 2021a, 2021b). There are four versions of this dataset: Census Tract 2010, Census Tract 2020, ZCTA 2010, and ZCTA 2020. Each dataset is standardized to a single US Census geography; as a result, the variables are commensurable across all of the years in each dataset.

The population denominator for the per capita density variables came from the American Community Survey (ACS) or Decennial Census (United States Census Bureau, 2015a, 2015b, 2015c, 2016, 2017, 2020, 2023a). ACS data were used for available years; Decennial Census data were used when ACS data were not available (1990-2005, 2020-2021). A detailed description of the denominator used in the per capita density variables can be found in the [Appendix](#) of this document.

Data for the land area denominator came from the land area of the Census Tract or ZCTA from the 2010 or 2020 TIGER/Line shapefiles (United States Census Bureau, 2021a, 2021b). The IPUMS NHGIS crosswalks (Manson et al., 2023) were used to normalize data longitudinally.

Coverage

Each file contains one observation per Census tract or ZCTA in the fifty United States including Alaska and Hawaii and the US island territories.

Methodology

NETS Data Cleaning

Due to known limitations and inaccuracies in the NETS source data (Finlay et al., 2019; Hirsch et al., 2021; Kaufman et al., 2015), we followed a rigorous data cleaning protocol described in brief below (a more detailed, reproducible description of our NETS cleaning methodology is forthcoming).

Following Kaufman et al. (2015), we:

1. re-geocoded the NETS business addresses to increase geolocation accuracy,
2. assigned one SIC code to a given business throughout its existence in NETS to resolve inconsistencies in coding, and
3. collapsed multiple records for businesses in the same researcher-defined category, in the same year, and at the same location into a single record.

Additionally, we corrected errors due to businesses located at residential addresses by linking all business establishments to Zillow's ZTRAX data ("Zillow's Transaction and Assessment Database (ZTRAX)," 2023) to identify and remove businesses located in a residential parcel.

Variable Creation

After the NETS data were cleaned, we used SIC codes to identify health care services annually from 1990-2021 (*NAICS & SIC Identification Tools*, 2023). SIC codes were used to classify businesses by industry until they were replaced by NAICS codes in 1997. Using SIC codes allows for historical, longitudinal analysis with NETS data since 1990 (Hirsch et al., 2021).

We drew on our previously published NaNDA datasets to identify and categorize SIC codes for business types. In general, we focused on public-facing businesses. We also referred to the categories of SIC codes in Kaufman et al. (2015) where appropriate. Our research team identified the following SIC codes representing health care services and grouped them into the categories listed below:

NaNDA category: All offices or clinics of physicians

(variables ending in "_allphysicians")

[Includes SIC: 80110000 80110100 80110101 80110102 80110103 80110104 80110105 80110106 80110107 80110108 80110109 80110110 80110202 80110205 80110400 80110401 80110402 80110403 80110500 80110501 80110502 80110503 80110504 80110505 80110506 80110507 80110508 80110509 80110510 80110511 80110512 80110513 80110514 80110515 80110516 80110517 80110518 80110519 80110520 80110521 80110522 80110523 80110524 80119901 80119902 80119903 80119904 80119905 80310000]

Establishments of licensed practitioners having the degree of M.D. (doctor of medicine) or D.O. (doctor of osteopathy) engaged in the practice of general or specialized medicine and surgery.

NaNDA category: All offices or clinics of physicians excluding mental health and osteopathic physicians

(variables ending in "_physicalhealthphys")

[Includes SIC: 80110000 80110100 80110101 80110102 80110103 80110104 80110105 80110106 80110107 80110108 80110109 80110110 80110500 80110501 80110502 80110503 80110504 80110505 80110506 80110507 80110508 80110509 80110510 80110511 80110512 80110513 80110514 80110515 80110516 80110517 80110518 80110519 80110520 80110521 80110522 80110523 80110524 80119901 80119902 80119903 80119904 80119905]

Physicians (except mental health and osteopathy), including family medicine and general/internal medicine practitioners as well as specialists such as cardiologists, oncologists, pediatricians, obstetrician/gynecologists, ophthalmologists, and dermatologists.

NaNDA category: All offices or clinics of mental health physicians

(variables ending in "_mentalhealthphys")

[Includes SIC: 80110400 80110401 80110402 80110403]

Mental health physicians, such as psychiatrists and psychotherapists with medical degrees (but excluding those without a medical degree such as psychologists and counselors).

NaNDA category: All offices or clinics of health practitioners

(variables ending in "_allhealthpractitioners")

[Includes SIC: 80490000 80490100 80490101 80490102 80490200 80490201 80490300 80490301 80490302 80490400 80490401 80490402 80490403 80490404 80490500 80490501 80490502 80499901 80499902 80499903 80499904 80499905 80499906 80499907 80499908 80499909 80499910 80499911 80499912 80410000 80420000 80420100 80420101 80420102 80420103 80420104 80420105 80429901 80430000]

Offices of clinics of general health practitioners (not physician), including physical therapists, occupational therapists, speech pathologists, clinical psychologists, psychotherapists, registered nurses, chiropractors, podiatrists, acupuncturists, massage therapists, and other non-physician health practitioners.

NaNDA category: Offices or clinics of mental health practitioners (non-physician)

(variables ending in "_mentalhealthpractitioners")

[Includes SIC: 80490400 80490401 80490402 80490403 80490404]

non-physician mental health practitioners, such as clinical psychologists and mental health social workers, but excluding psychiatrists.

NaNDA category: Offices or clinics of rehabilitation health practitioners and podiatrists

(variables ending in "_rehabpractitioners")

[Includes SIC: 80490200 80490201 80490300 80490301 80490302 80499909 80499902 80430000]

Includes physical, occupational, and speech therapists and audiologists, and podiatrists (those holding D.P.M. [doctor of podiatric medicine] degrees).

NaNDA category: Offices or clinics of complementary and alternative medicine practitioners

(variables ending in "_altmedicinepractitioners")

[Includes SIC: 80490100 80490101 80490102 80499908 80499912]

Includes acupuncturists, nutrition specialists, naturopaths, and massage therapists.

NaNDA category: Offices or clinics of chiropractors

(variables ending in "_chiropractors")

[Includes SIC: 80410000]

Establishments of licensed practitioners having the degree of D.C. (Doctor of Chiropractic) and engaged in the practice of chiropractic medicine.

NaNDA category: Offices or clinics of optometrists

(variables ending in "_optometrists")

[Includes SIC: 80420000 80420100 80420101 80420102 80420103 80420104 80420105 80429901]

Establishments of licensed practitioners having the degree of O.D. (Doctor of Optometry) and engaged in the practice of optometry.

NaNDA category: Dental offices or clinics

(variables ending in "_dentists")

[Includes SIC: 80210000 80210100 80210101 80210102 80210103 80210104 80210105 80210106 80210107 80210108 80210200 80210201 80210202 80219901 80219902]

Establishments of licensed practitioners having the degree of D.M.D. (doctor of medicine in dentistry) or D.D.S. (doctor of dental surgery) or D.D.Sc. (doctor of dental science) and engaged in the practice of general or specialized dentistry and dental surgery, including dentists, orthodontists, and periodontists.

NaNDA category: ALL outpatient medical clinics and centers including Urgent Care centers and HMOs

(variables ending in "_outpatientclinics")

[Includes SIC: 80110200 80110201 80110204 80110302 80920000 80930000 80930100 80930101 80930102 80930103 80930200 80930201 80930202 80930300 80930301 80930302 80930303 80939901 80939902 80939903 80939904 80939905]

Includes ambulatory surgical centers, freestanding emergency medical centers, HMOs, and other outpatient medical centers; also includes kidney dialysis centers and other outpatient specialty clinics, such as physical therapy clinics, mental health clinics, respiratory therapy clinics, and weight loss clinics.

NaNDA category: Outpatient physical medicine and rehabilitation treatment centers

(variables ending in "_physicaltherapyclinics")

[Includes SIC: 80939903]

Includes all physical outpatient rehabilitation treatment centers.

NaNDA category: Outpatient mental health clinics and substance abuse clinics

(variables ending in "_mentalhealthclinics")

[Includes SIC: 80939902 80930100 80930101 80930102 80930103]

Includes outpatient mental health clinics and substance abuse clinics.

NaNDA category: Home health services

(variables ending in "_homehealth")

[Includes SIC: 80820000 80829901 80829902]

Establishments providing home health services, such as those providing in-home personal care and visiting nurses.

NaNDA category: Retail pharmacies and drug stores

(variables ending in "_pharmacies")

[Includes SIC: 59120000 59129901 59129902]

Establishments engaged in the retail sale of prescription drugs, proprietary drugs, and non-prescription medicines, and which may also carry a number of related lines, such as cosmetics and toiletries.

NaNDA category: Optical goods stores

(variables ending in "_opticalgoods")

[Includes SIC: 59950000 59959901 59959902 59959903]

Establishments primarily engaged in the retail sale of eyeglasses and contact lenses to prescription for individuals.

NaNDA category: Durable medical equipment stores and suppliers

(variables ending in "medequipment")

[Includes SIC: 59990900 59990901 59990902 59990903 59990904 59990905 59990906 59990907 59990908 59990909]

Establishments primarily engaged in the retail sale of medical supplies and apparatus, such as hearing aids, hospital and convalescent equipment, wheelchair lifts, and orthopedic and prosthetic applications.

NaNDA category: All residential care facilities

(variables ending in "_allrescarefacilities")

[Includes SIC: 80510000 80519901 80519902 80519903 80520000 80529901 80529902 80590000 80599901 80599902 80599903 80599904 80599905 80599906 83610000 83610100 83610101 83610102 83610103 83610104 83610105 83610106 83610200 83610201 83610202 83610203 83610300 83610301 83610302 83610303 83610304 83610400 83610401 83610402 83610403 83619901 83619902 83619903 83619904 83619905]

All establishments primarily engaged in providing residential social, medical, and personal care to patients.

NaNDA category: Residential nursing facilities

(variables ending in "_resnursingfacilities")

[Includes SIC: 80510000 80519901 80519902 80519903 80520000 80529901 80529902 80590000 80599901 80599902 80599903 80599904 80599905 80599906]

Establishments primarily engaged in providing residential nursing and rehabilitative services to patients who require health care, but not hospital services. Includes skilled and intermediate nursing facilities, as well as other nursing and personal care facilities that supervise the delivery of health services prescribed by a physician. Included are establishments certified to deliver skilled or intermediate nursing care under the Medicare and Medicaid programs.

NaNDA category: Other residential care

(variables ending in "_otherresidentialcare")

[Includes SIC: 83610000 83610100 83610101 83610102 83610103 83610104 83610105 83610106 83610200 83610201 83610202 83610203 83610300 83610301 83610302 83610303 83610304 83610400 83610401 83610402 83610403 83619901 83619902 83619903 83619904 83619905]

Establishments primarily engaged in the provision of residential social and personal care for older adults, children, and persons with some limits on ability for self-care, but where medical care is not a major element. Examples include group foster homes, homes for people with disabilities, juvenile correctional facilities, and assisted living facilities.

For each group of SIC codes we identified, we queried the NETS database for all establishments that were open at some time between 1990 and 2021 and their location during each year.

For each NaNDA category, we created four variables:

1. Count of the total number of establishments within a category in the tract or ZCTA (variables beginning with "count_").
2. Per capita density of the number of establishments within a category in the tract or ZCTA per 1000 population (variables beginning with "den_"). For tracts and ZCTAs with zero population in a given year, per capita density was set to missing.
3. Area density of the number of establishments within a category in the tract or ZCTA per square mile (variables beginning with "aden_").
4. Count of the total number of people employed in each category in the tract or ZCTA (variables beginning with "emps_").

Usage Notes

Choice of dataset (Census Tract 2010, Census Tract 2020, ZCTA 2010, or ZCTA 2020) depends on the geographic scale of interest and on the Census geography used in any linked dataset. For example, users should use the 2020 Census Tract data if they are linking NaNDA data with survey data that has geographic identifiers at the Census Tract based on 2020 geography. For survey data with geographic identifiers based on 2010 geography, users should use the 2010 Census Tract or ZCTA dataset.

Zip Codes and ZIP Code Tabulation Areas

Users should be aware that ZCTAs are not equivalent to ZIP codes. ZIP codes are linear mail delivery routes created by the US Postal Service. ZIP code tabulation areas are spatial features consisting of Census blocks grouped by the predominant ZIP code found on the block (United States Census Bureau, 2023b).

In some cases, a location's address is not the same as its ZCTA. For example, some ZIP codes represent single-point addresses such as large post offices or office buildings. Also, the ZIP code for an address may not match its ZCTA if the ZIP code is not the most common ZIP code on the block. See the [Census Bureau's ZCTA overview](#) (United States Census Bureau, 2022) for more information on how ZCTA boundaries are calculated.

Users wanting to combine this dataset with ZIP code geocoded data must use a ZIP code to ZCTA crosswalk. Such a crosswalk is available on the [UDS Mapper website](#) (John Snow, Inc, 2023). Sample code for merging the UDS Mapper crosswalk with NaNDA datasets is available in the ICPSR Linkage Library (Chenoweth & Khan, 2021).

Census Tract 2010 Variables

Variable	Type	Obs	Unique	Mean	Min	Max	Label
tract_fips10	str11	2369088	74034	.	.	.	Census tract FIPS code, 2010
year	float	2369088	32	2005.5	1990	2021	Year
totpop	float	2339313	595279	4050.918	0	75506.54	Total population
aland10	float	2337792	72559	48.34518	0	85425.73	Census land area, square miles
count_allphysicians	float	2369088	256	3.758257	0	269	Total counts: All offices or clinics of physicians
emps_allphysicians	float	2369088	47651	26.95314	0	10045	Total employees: All offices or clinics of physicians
den_allphysicians	float	2327632	527444	1.445507	0	29230.77	All offices or clinics of physicians per 1000 people
aden_allphysicians	float	2327648	297952	6.295031	0	3360.169	All offices or clinics of physicians per sq mile
count_physicalhealthphys	float	2369088	236	3.353837	0	248	Total counts: Offices or clinics of physicians (except mental health)
emps_physicalhealthphys	float	2369088	45767	22.97436	0	10015	Total employees: Offices or clinics of physicians (except mental health)
den_physicalhealthphys	float	2327632	492877	1.290282	0	23846.15	Offices or clinics of physicians (except mental health) per 1000
aden_physicalhealthphys	float	2327648	273717	5.685493	0	3209.714	Offices or clinics of physicians (except mental health) per sq mile
count_mentalhealthphys	float	2369088	23	0.0931958	0	22	Total counts: Offices or clinics of mental health physicians
emps_mentalhealthphys	float	2369088	812	0.6146994	0	3000	Total employees: Offices or clinics of mental health physicians
den_mentalhealthphys	float	2327632	63640	0.0391786	0	1250	Offices or clinics of mental health physicians per 1000 people
aden_mentalhealthphys	float	2327648	15644	0.2001768	0	309.2646	Offices or clinics of mental health physicians per sq mile
count_allhealthpractitioners	float	2369088	131	2.217791	0	161	Total counts: All offices or clinics of health practitioners
emps_allhealthpractitioners	float	2369088	8064	7.61731	0	6056	Total employees: All offices or clinics of health practitioners
den_allhealthpractitioners	float	2327632	452232	0.7718985	0	8461.539	All offices or clinics of health practitioners per 1000 people
aden_allhealthpractitioners	float	2327648	250205	3.407474	0	1772.719	All offices or clinics of health practitioners per sq mile
count_mentalhealthpractitioners	float	2369088	59	0.3363906	0	63	Total counts: Offices or clinics of mental health practitioners (non-MD)
emps_mentalhealthpractitioners	float	2369088	3520	0.9080139	0	6012	Total employees: Offices or clinics of mental health practitioners (non-MD)
den_mentalhealthpractitioners	float	2327632	138199	0.1265938	0	2307.692	Offices or clinics of mental health practitioners (non-MD) per 1000 people

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Variable	Type	Obs	Unique	Mean	Min	Max	Label
aden_mentalhealthpractitioners	float	2327648	48447	0.7083305	0	936.2531	Offices or clinics of mental health practitioners (non-MD) per sq mile
count_rehabpractitioners	float	2369088	27	0.4265937	0	27	Offices or clinics of rehabilitation health practitioners and podiatrists
emps_rehabpractitioners	float	2369088	1302	2.034474	0	5008	Total employees: Offices/clinics of rehab health practitioners and podiatrists
den_rehabpractitioners	float	2327632	177837	0.1600391	0	3076.923	Offices/clinics of rehabilitation health practitioners/podiatrists per 1000 peop
aden_rehabpractitioners	float	2327648	68870	0.70453	0	405.6223	Offices/clinics of rehabilitation health practitioners/podiatrists per sq mile
count_altmedicinepractitioners	float	2369088	13	0.0539001	0	12	Total counts: Offices or clinics of complementary and alternative medicine
emps_altmedicinepractitioners	float	2369088	141	0.1667119	0	2501	Total employees: Offices or clinics of complementary and alternative medicine
den_altmedicinepractitioners	float	2327632	34373	0.0204971	0	887.2222	Offices or clinics of complementary and alternative medicine per 1000 people
aden_altmedicinepractitioners	float	2327648	16066	0.0835603	0	91.57726	Offices or clinics of complementary and alternative medicine per sq mile
count_chiropractors	float	2369088	36	0.6857179	0	37	Total counts: Offices and clinics of chiropractors
emps_chiropractors	float	2369088	1161	1.930302	0	1004	Total employees: Offices and clinics of chiropractors
den_chiropractors	float	2327632	261637	0.2194098	0	2000	Offices and clinics of chiropractors per 1000 people
aden_chiropractors	float	2327648	96108	0.8154005	0	390.5992	Offices and clinics of chiropractors per sq mile
count_optometrists	float	2369088	18	0.2975124	0	17	Total counts: Optometrists
emps_optometrists	float	2369088	725	1.298749	0	1718	Total employees: Optometrists
den_optometrists	float	2327632	156586	0.1037028	0	3076.923	Optometrists per 1000 people
aden_optometrists	float	2327648	43811	0.3535198	0	162.4938	Optometrists per sq mile
count_dentists	float	2369088	83	1.741425	0	82	Total counts: Dentists
emps_dentists	float	2369088	9419	9.270823	0	3067	Total employees: Dentists
den_dentists	float	2327632	411934	0.5942606	0	6923.077	Dentists per 1000 people
aden_dentists	float	2327648	166957	2.685309	0	1563.059	Dentists per sq mile
count_outpatientclinics	float	2369088	51	0.5678793	0	62	Total counts: All outpatient medical clinics including Urgent Care and HMO
emps_outpatientclinics	float	2369088	3764	10.01696	0	10127	Total employees: All outpatient medical clinics including Urgent Care and HMO

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Variable	Type	Obs	Unique	Mean	Min	Max	Label
den_outpatientclinics	float	2327632	195670	0.2244145	0	7000	All outpatient medical clinics including Urgent Care centers and HMO per 1000 pp
aden_outpatientclinics	float	2327648	96880	0.8049215	0	624.1687	All outpatient medical clinics including Urgent Care centers and HMO per sq mile
count_physicaltherapyclinics	float	2369088	22	0.1295583	0	24	Total counts: Outpatient physical medicine and rehabilitation treatment centers
emps_physicaltherapyclinics	float	2369088	771	1.454699	0	6047	Total employees: Outpatient physical medicine and rehabilitation treatment center
den_physicaltherapyclinics	float	2327632	63128	0.0508154	0	3000	Outpatient physical medicine and rehabilitation treatment centers per 1000 ppl
aden_physicaltherapyclinics	float	2327648	32947	0.1759246	0	142.4509	Outpatient physical medicine and rehabilitation treatment centers per sq mile
count_mentalhealthclinics	float	2369088	19	0.1349642	0	21	Total counts: Outpatient mental health clinics and substance abuse clinics
emps_mentalhealthclinics	float	2369088	759	1.921938	0	2424	Total employees: Outpatient mental health clinics and substance abuse clinics
den_mentalhealthclinics	float	2327632	76977	0.0458721	0	769.2308	Outpatient mental health clinics and substance abuse clinics per 1000 people
aden_mentalhealthclinics	float	2327648	24925	0.2014146	0	312.0844	Outpatient mental health clinics and substance abuse clinics per sq mile
count_homehealth	float	2369088	37	0.3097145	0	38	Total counts: Home health services
emps_homehealth	float	2369088	3102	7.641717	0	4932	Total employees: Home health services
den_homehealth	float	2327632	130230	0.112248	0	2000	Home health services per 1000 people
aden_homehealth	float	2327648	60726	0.3853917	0	312.0844	Home health services per sq mile
count_pharmacies	float	2369088	27	0.673094	0	26	Total counts: Retail pharmacies and drug stores
emps_pharmacies	float	2369088	1314	8.131478	0	7785	Total employees: Retail pharmacies and drug stores
den_pharmacies	float	2327632	280186	0.2197868	0	2308.737	Retail pharmacies and drug stores per 1000 people
aden_pharmacies	float	2327648	91001	1.131061	0	270.5358	Retail pharmacies and drug stores per sq mile
count_opticalgoods	float	2369088	23	0.2466941	0	23	Total counts: Optical goods stores
emps_opticalgoods	float	2369088	789	1.144074	0	1970	Total employees: Optical goods stores
den_opticalgoods	float	2327632	135278	0.1003909	0	2307.692	Optical goods stores per 1000 people
aden_opticalgoods	float	2327648	38842	0.3933054	0	199.2094	Optical goods stores per sq mile
count_medequipment	float	2369088	21	0.1845271	0	22	Total counts: Medical equipment stores and suppliers
emps_medequipment	float	2369088	484	0.8769586	0	6366	Total employees: Medical equipment stores and suppliers

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Variable	Type	Obs	Unique	Mean	Min	Max	Label
den_medequipment	float	2327632	110419	0.0653111	0	1606.116	Medical equipment stores and suppliers per 1000 people
aden_medequipment	float	2327648	34175	0.2112305	0	163.334	Medical equipment stores and suppliers per sq mile
count_allrescarefacilities	float	2369088	28	0.6922786	0	27	Total counts: All residential care facilities
emps_allrescarefacilities	float	2369088	4194	31.80081	0	5504	Total employees: All residential care facilities
den_allrescarefacilities	float	2327632	264880	0.2101271	0	2000	All residential care facilities per 1000 people
aden_allrescarefacilities	float	2327648	93896	0.7360197	0	157.3709	All residential care facilities per sq mile
count_resnursingfacilities	float	2369088	20	0.4205563	0	20	Total counts: Residential nursing facilities (eg, nursing home)
emps_resnursingfacilities	float	2369088	3511	25.63535	0	5350	Total employees: Residential nursing facilities (eg, nursing home)
den_resnursingfacilities	float	2327632	191647	0.1286853	0	2000	Residential nursing facilities (eg, nursing home) per 1000 people
aden_resnursingfacilities	float	2327648	60056	0.4071454	0	136.3223	Residential nursing facilities (eg, nursing home) per sq mile
count_otherresidentialcare	float	2369088	14	0.2717223	0	13	Total counts: Other residential care
emps_otherresidentialcare	float	2369088	1287	6.165456	0	5454	Total employees: Other residential care
den_otherresidentialcare	float	2327632	142316	0.0814418	0	1000	Other residential care per 1000 people
aden_otherresidentialcare	float	2327648	43451	0.3288743	0	92.35115	Other residential care per sq mile

Census Tract 2020 Variables

Variable	Type	Obs	Unique	Mean	Min	Max	Label
tract_fips20	str11	2736896	85528	.	.	.	Census tract FIPS code, 2020
year	float	2736896	32	2005.5	1990	2021	Year
totpop	float	2707830	1012868	3501.883	0	39017	Total population
aland20	float	2732640	84776	41.41299	0	85554.74	Census land area, square miles
count_allphysicians	float	2736896	274	3.25319	0	334	Total counts: All offices or clinics of physicians
emps_allphysicians	float	2736896	47239	23.33094	0	10015	Total employees: All offices or clinics of physicians
den_allphysicians	float	2686713	720484	1.831376	0	35081.52	All offices or clinics of physicians per 1000 people
aden_allphysicians	float	2721088	310513	6.094926	0	3360.169	All offices or clinics of physicians per sq mile
count_physicalhealthphys	float	2736896	252	2.903119	0	303	Total counts: Offices or clinics of physicians (except mental health)
emps_physicalhealthphys	float	2736896	45401	19.88687	0	10015	Total employees: Offices or clinics of physicians (except mental health)
den_physicalhealthphys	float	2686713	670174	1.651674	0	33132.55	Offices or clinics of physicians (except mental health) per 1000
aden_physicalhealthphys	float	2721088	285150	5.498107	0	3209.714	Offices or clinics of physicians (except mental health) per sq mile
count_mentalhealthphys	float	2736896	23	0.0806713	0	22	Total counts: Offices or clinics of mental health physicians
emps_mentalhealthphys	float	2736896	801	0.5320907	0	3000	Total employees: Offices or clinics of mental health physicians
den_mentalhealthphys	float	2686713	75467	0.0398518	0	1250	Offices or clinics of mental health physicians per 1000 people
aden_mentalhealthphys	float	2721088	15869	0.1972469	0	309.2622	Offices or clinics of mental health physicians per sq mile
count_allhealthpractitioners	float	2736896	127	1.919744	0	161	Total counts: All offices or clinics of health practitioners
emps_allhealthpractitioners	float	2736896	7841	6.59363	0	6056	Total employees: All offices or clinics of health practitioners
den_allhealthpractitioners	float	2686713	641651	0.9570073	0	17540.76	All offices or clinics of health practitioners per 1000 people
aden_allhealthpractitioners	float	2721088	259453	3.330879	0	1772.719	All offices or clinics of health practitioners per sq mile
count_mentalhealthpractitioners	float	2736896	59	0.2911835	0	63	Total counts: Offices or clinics of mental health practitioners (non-MD)

National Neighborhood Data Archive (NaNDA) Health Care Services by Census Tract and ZCTA, United States, 1990-2021

Variable	Type	Obs	Unique	Mean	Min	Max	Label
emps_mentalhealthpractitioners	float	2736896	3397	0.7859871	0	6012	Total employees: Offices or clinics of mental health practitioners (non-MD)
den_mentalhealthpractitioners	float	2686713	174397	0.1678368	0	5846.92	Offices or clinics of mental health practitioners (non-MD) per 1000 people
aden_mentalhealthpractitioners	float	2721088	49456	0.7011798	0	765.0938	Offices or clinics of mental health practitioners (non-MD) per sq mile
count_rehabpractitioners	float	2736896	27	0.3692643	0	27	Offices or clinics of rehabilitation health practitioners and podiatrists
emps_rehabpractitioners	float	2736896	1270	1.761064	0	5008	Total employees: Offices/clinics of rehab health practitioners and podiatrists
den_rehabpractitioners	float	2686713	237827	0.2021078	0	4872.434	Offices/clinics of rehabilitation health practitioners/podiatrists per 1000 peop
aden_rehabpractitioners	float	2721088	70267	0.6762243	0	405.6223	Offices/clinics of rehabilitation health practitioners/podiatrists per sq mile
count_altmedicinepractitioners	float	2736896	12	0.0466565	0	11	Total counts: Offices or clinics of complementary and alternative medicine
emps_altmedicinepractitioners	float	2736896	137	0.1443077	0	2501	Total employees: Offices or clinics of complementary and alternative medicine
den_altmedicinepractitioners	float	2686713	40940	0.0184714	0	758.1755	Offices or clinics of complementary and alternative medicine per 1000 people
aden_altmedicinepractitioners	float	2721088	16266	0.0837335	0	91.57726	Offices or clinics of complementary and alternative medicine per sq mile
count_chiropractors	float	2736896	36	0.5935651	0	37	Total counts: Offices and clinics of chiropractors
emps_chiropractors	float	2736896	1106	1.670892	0	1004	Total employees: Offices and clinics of chiropractors
den_chiropractors	float	2686713	365739	0.2386302	0	2000	Offices and clinics of chiropractors per 1000 people
aden_chiropractors	float	2721088	98363	0.7923926	0	390.5992	Offices and clinics of chiropractors per sq mile
count_optometrists	float	2736896	18	0.2575301	0	17	Total counts: Optometrists
emps_optometrists	float	2736896	697	1.124211	0	1718	Total employees: Optometrists
den_optometrists	float	2686713	207174	0.141113	0	3076.923	Optometrists per 1000 people
aden_optometrists	float	2721088	44495	0.3488996	0	162.4928	Optometrists per sq mile
count_dentists	float	2736896	83	1.507397	0	82	Total counts: Dentists
emps_dentists	float	2736896	9184	8.024928	0	3067	Total employees: Dentists
den_dentists	float	2686713	567418	0.7166964	0	12668.33	Dentists per 1000 people

National Neighborhood Data Archive (NaNDA) Health Care Services by Census Tract and ZCTA, United States, 1990-2021

Variable	Type	Obs	Unique	Mean	Min	Max	Label
aden_dentists	float	2721088	172206	2.585915	0	1563.059	Dentists per sq mile
count_outpatientclinics	float	2736896	51	0.4915627	0	62	Total counts: All outpatient medical clinics including Urgent Care and HMO
emps_outpatientclinics	float	2736896	3677	8.670792	0	10127	Total employees: All outpatient medical clinics including Urgent Care and HMO
den_outpatientclinics	float	2686713	271883	0.2847393	0	7000	All outpatient medical clinics including Urgent Care centers and HMO per 1000 pp
aden_outpatientclinics	float	2721088	99098	0.786586	0	350.6618	All outpatient medical clinics including Urgent Care centers and HMO per sq mile
count_physicaltherapyclincs	float	2736896	22	0.1121471	0	24	Total counts: Outpatient physical medicine and rehabilitation treatment centers
emps_physicaltherapyclincs	float	2736896	748	1.259204	0	6047	Total employees: Outpatient physical medicine and rehabilitation treatment center
den_physicaltherapyclincs	float	2686713	80430	0.0606884	0	3000	Outpatient physical medicine and rehabilitation treatment centers per 1000 ppl
aden_physicaltherapyclincs	float	2721088	33425	0.1740312	0	176.8924	Outpatient physical medicine and rehabilitation treatment centers per sq mile
count_mentalhealthclinics	float	2736896	19	0.1168265	0	21	Total counts: Outpatient mental health clinics and substance abuse clinics
emps_mentalhealthclinics	float	2736896	753	1.663651	0	2424	Total employees: Outpatient mental health clinics and substance abuse clinics
den_mentalhealthclinics	float	2686713	97403	0.0611848	0	989.6718	Outpatient mental health clinics and substance abuse clinics per 1000 people
aden_mentalhealthclinics	float	2721088	25184	0.1940202	0	132.9102	Outpatient mental health clinics and substance abuse clinics per sq mile
count_homehealth	float	2736896	37	0.2680924	0	38	Total counts: Home health services
emps_homehealth	float	2736896	3007	6.614756	0	4932	Total employees: Home health services
den_homehealth	float	2686713	175269	0.1435062	0	2000	Home health services per 1000 people
aden_homehealth	float	2721088	61911	0.3739411	0	270.3988	Home health services per sq mile
count_pharmacies	float	2736896	27	0.5826378	0	26	Total counts: Retail pharmacies and drug stores
emps_pharmacies	float	2736896	1288	7.038699	0	7785	Total employees: Retail pharmacies and drug stores
den_pharmacies	float	2686713	390747	0.2503116	0	5000	Retail pharmacies and drug stores per 1000 people
aden_pharmacies	float	2721088	93544	1.087508	0	397.3978	Retail pharmacies and drug stores per sq mile
count_opticalgoods	float	2736896	23	0.2135412	0	23	Total counts: Optical goods stores

National Neighborhood Data Archive (NaNDA) Health Care Services by Census Tract and ZCTA, United States, 1990-2021

Variable	Type	Obs	Unique	Mean	Min	Max	Label
emps_opticalgoods	float	2736896	777	0.9903234	0	1970	Total employees: Optical goods stores
den_opticalgoods	float	2686713	171180	0.1640995	0	3918.597	Optical goods stores per 1000 people
aden_opticalgoods	float	2721088	39590	0.384038	0	215.1242	Optical goods stores per sq mile
count_medequipment	float	2736896	21	0.1597288	0	22	Total counts: Medical equipment stores and suppliers
emps_medequipment	float	2736896	477	0.7591052	0	6366	Total employees: Medical equipment stores and suppliers
den_medequipment	float	2686713	141087	0.0875873	0	2000	Medical equipment stores and suppliers per 1000 people
aden_medequipment	float	2721088	34775	0.2043512	0	162.2393	Medical equipment stores and suppliers per sq mile
count_allrescarefacilities	float	2736896	26	0.5992442	0	26	Total counts: All residential care facilities
emps_allrescarefacilities	float	2736896	4093	27.52714	0	5504	Total employees: All residential care facilities
den_allrescarefacilities	float	2686713	372552	0.2245847	0	2000	All residential care facilities per 1000 people
aden_allrescarefacilities	float	2721088	95893	0.7106503	0	182.9604	All residential care facilities per sq mile
count_resnursingfacilities	float	2736896	20	0.3640383	0	20	Total counts: Residential nursing facilities (eg, nursing home)
emps_resnursingfacilities	float	2736896	3438	22.19025	0	5350	Total employees: Residential nursing facilities (eg, nursing home)
den_resnursingfacilities	float	2686713	261241	0.1381305	0	2000	Residential nursing facilities (eg, nursing home) per 1000 people
aden_resnursingfacilities	float	2721088	61064	0.3932159	0	136.5869	Residential nursing facilities (eg, nursing home) per sq mile
count_otherresidentialcare	float	2736896	13	0.2352059	0	12	Total counts: Other residential care
emps_otherresidentialcare	float	2736896	1254	5.336888	0	5454	Total employees: Other residential care
den_otherresidentialcare	float	2686713	190287	0.0864542	0	1000	Other residential care per 1000 people
aden_otherresidentialcare	float	2721088	44118	0.3174344	0	182.9604	Other residential care per sq mile

ZCTA 2010 Variables

Variable	Type	Obs	Unique	Mean	Min	Max	Label
zcta10	str5	1060608	33144	.	.	.	ZIP Code Tabulation Area, 2010
year	float	1060608	32	2005.5	1990	2021	Year
totpop	float	1055648	866462	8926.375	0	137755.5	Total population
aland10	float	1055648	32975	86.89605	0.0019668	13467.65	ZCTA land area, square miles
count_allphysicians	float	1060608	414	8.622601	0	538	Total counts: All offices or clinics of physicians
emps_allphysicians	float	1060608	130255	62.35136	0	10751.9	Total employees: All offices or clinics of physicians
den_allphysicians	float	1051936	511462	1.632396	0	48000	All offices or clinics of physicians per 1000 people
aden_allphysicians	float	1055648	171026	2.212955	0	2776.829	All offices or clinics of physicians per sq mile
count_physicalhealthphys	float	1060608	389	7.697629	0	511	Total counts: Offices or clinics of physicians (except mental health)
emps_physicalhealthphys	float	1060608	118955	52.94545	0	10599.51	Total employees: Offices or clinics of physicians (except mental health)
den_physicalhealthphys	float	1051936	483210	1.475676	0	47000	Offices or clinics of physicians (except mental health) per 1000
aden_physicalhealthphys	float	1055648	159280	1.997349	0	2578.484	Offices or clinics of physicians (except mental health) per sq mile
count_mentalhealthphys	float	1060608	36	0.2127157	0	38	Total counts: Offices or clinics of mental health physicians
emps_mentalhealthphys	float	1060608	2859	1.403644	0	3043.351	Total employees: Offices or clinics of mental health physicians
den_mentalhealthphys	float	1051936	104097	0.030419	0	1000	Offices or clinics of mental health physicians per 1000 people
aden_mentalhealthphys	float	1055648	13023	0.079323	0	382.0605	Offices or clinics of mental health physicians per sq mile
count_allhealthpractitioners	float	1060608	230	5.083505	0	319	Total counts: All offices or clinics of health practitioners
emps_allhealthpractitioners	float	1060608	65198	17.46085	0	6437	Total employees: All offices or clinics of health practitioners
den_allhealthpractitioners	float	1051936	460476	0.6492705	0	11000	All offices or clinics of health practitioners per 1000 people
aden_allhealthpractitioners	float	1055648	148911	1.214949	0	2578.484	All offices or clinics of health practitioners per sq mile

National Neighborhood Data Archive (NaNDA) Health Care Services by Census Tract and ZCTA, United States, 1990-2021

Variable	Type	Obs	Unique	Mean	Min	Max	Label
count_mentalhealthpractitioners	float	1060608	104	0.7685101	0	116	Total counts: Offices or clinics of mental health practitioners (non-MD)
emps_mentalhealthpractitioners	float	1060608	10573	2.071897	0	6084	Total employees: Offices or clinics of mental health practitioners (non-MD)
den_mentalhealthpractitioners	float	1051936	190015	0.1174426	0	1500	Offices or clinics of mental health practitioners (non-MD) per 1000 people
aden_mentalhealthpractitioners	float	1055648	35531	0.2882918	0	991.7246	Offices or clinics of mental health practitioners (non-MD) per sq mile
count_rehabpractitioners	float	1060608	64	0.971951	0	66	Offices or clinics of rehabilitation health practitioners and podiatrists
emps_rehabpractitioners	float	1060608	9711	4.64547	0	5010	Total employees: Offices/clinics of rehab health practitioners and podiatrists
den_rehabpractitioners	float	1051936	276971	0.1466558	0	4000	Offices/clinics of rehabilitation health practitioners/podiatrists per 1000 peop
aden_rehabpractitioners	float	1055648	51236	0.2377523	0	991.7246	Offices/clinics of rehabilitation health practitioners/podiatrists per sq mile
count_altmedicinepractitioners	float	1060608	19	0.1232331	0	18	Total counts: Offices or clinics of complementary and alternative medicine
emps_altmedicinepractitioners	float	1060608	851	0.3798221	0	2519	Total employees: Offices or clinics of complementary and alternative medicine
den_altmedicinepractitioners	float	1051936	80054	0.0091924	0	95.2381	Offices or clinics of complementary and alternative medicine per 1000 people
aden_altmedicinepractitioners	float	1055648	13576	0.0244205	0	196.0479	Offices or clinics of complementary and alternative medicine per sq mile
count_chiropractors	float	1060608	55	1.585545	0	55	Total counts: Offices and clinics of chiropractors
emps_chiropractors	float	1060608	9808	4.476994	0	1023	Total employees: Offices and clinics of chiropractors
den_chiropractors	float	1051936	374988	0.1616638	0	3000	Offices and clinics of chiropractors per 1000 people
aden_chiropractors	float	1055648	68104	0.2680459	0	793.3797	Offices and clinics of chiropractors per sq mile
count_optometrists	float	1060608	29	0.6780432	0	29	Total counts: Optometrists
emps_optometrists	float	1060608	4387	2.965161	0	1758	Total employees: Optometrists
den_optometrists	float	1051936	274543	0.090989	0	3000	Optometrists per 1000 people
aden_optometrists	float	1055648	34617	0.1378984	0	294.3168	Optometrists per sq mile
count_dentists	float	1060608	149	3.953359	0	176	Total counts: Dentists
emps_dentists	float	1060608	41841	21.05085	0	3071	Total employees: Dentists

National Neighborhood Data Archive (NaNDA) Health Care Services by Census Tract and ZCTA, United States, 1990-2021

Variable	Type	Obs	Unique	Mean	Min	Max	Label
den_dentists	float	1051936	449674	0.6308977	0	10344.83	Dentists per 1000 people
aden_dentists	float	1055648	103530	1.022685	0	3514.965	Dentists per sq mile
count_outpatientclinics	float	1060608	80	1.295436	0	83	Total counts: All outpatient medical clinics including Urgent Care and HMO
emps_outpatientclinics	float	1060608	20499	23.1282	0	10181	Total employees: All outpatient medical clinics including Urgent Care and HMO
den_outpatientclinics	float	1051936	313951	0.2267915	0	11000	All outpatient medical clinics including Urgent Care centers and HMO per 1000 pp
aden_outpatientclinics	float	1055648	72042	0.2787175	0	588.6337	All outpatient medical clinics including Urgent Care centers and HMO per sq mile
count_physicaltherapyclinics	float	1060608	39	0.2937485	0	41	Total counts: Outpatient physical medicine and rehabilitation treatment centers
emps_physicaltherapyclinics	float	1060608	2456	3.3285	0	6047	Total employees: Outpatient physical medicine and rehabilitation treatment center
den_physicaltherapyclinics	float	1051936	147137	0.0265399	0	333.3333	Outpatient physical medicine and rehabilitation treatment centers per 1000 ppl
aden_physicaltherapyclinics	float	1055648	26839	0.0557641	0	396.6898	Outpatient physical medicine and rehabilitation treatment centers per sq mile
count_mentalhealthclinics	float	1060608	21	0.3077688	0	22	Total counts: Outpatient mental health clinics and substance abuse clinics
emps_mentalhealthclinics	float	1060608	3365	4.45969	0	2431	Total employees: Outpatient mental health clinics and substance abuse clinics
den_mentalhealthclinics	float	1051936	168410	0.0378794	0	2000	Outpatient mental health clinics and substance abuse clinics per 1000 people
aden_mentalhealthclinics	float	1055648	21313	0.0673158	0	477.7695	Outpatient mental health clinics and substance abuse clinics per sq mile
count_homehealth	float	1060608	51	0.708702	0	51	Total counts: Home health services
emps_homehealth	float	1060608	10454	17.57213	0	4958.75	Total employees: Home health services
den_homehealth	float	1051936	247894	0.131139	0	7000	Home health services per 1000 people
aden_homehealth	float	1055648	47728	0.1365064	0	477.7695	Home health services per sq mile
count_pharmacies	float	1060608	64	1.546935	0	66	Total counts: Retail pharmacies and drug stores
emps_pharmacies	float	1060608	15302	18.71534	0	7840	Total employees: Retail pharmacies and drug stores
den_pharmacies	float	1051936	427827	0.2272658	0	3000	Retail pharmacies and drug stores per 1000 people
aden_pharmacies	float	1055648	63287	0.3291285	0	588.6337	Retail pharmacies and drug stores per sq mile

National Neighborhood Data Archive (NaNDA) Health Care Services by Census Tract and ZCTA, United States, 1990-2021

Variable	Type	Obs	Unique	Mean	Min	Max	Label
count_opticalgoods	float	1060608	31	0.5673208	0	30	Total counts: Optical goods stores
emps_opticalgoods	float	1060608	5919	2.65618	0	1970	Total employees: Optical goods stores
den_opticalgoods	float	1051936	218822	0.1087269	0	4000	Optical goods stores per 1000 people
aden_opticalgoods	float	1055648	30506	0.1721854	0	719.1082	Optical goods stores per sq mile
count_medequipment	float	1060608	26	0.4228216	0	33	Total counts: Medical equipment stores and suppliers
emps_medequipment	float	1060608	3882	2.01984	0	6370	Total employees: Medical equipment stores and suppliers
den_medequipment	float	1051936	192900	0.0743088	0	5000	Medical equipment stores and suppliers per 1000 people
aden_medequipment	float	1055648	26822	0.0632348	0	207.8559	Medical equipment stores and suppliers per sq mile
count_allrescarefacilities	float	1060608	51	1.58697	0	55	Total counts: All residential care facilities
emps_allrescarefacilities	float	1060608	33088	72.38467	0	6345.5	Total employees: All residential care facilities
den_allrescarefacilities	float	1051936	417220	0.2237774	0	3000	All residential care facilities per 1000 people
aden_allrescarefacilities	float	1055648	69705	0.2368078	0	391.3551	All residential care facilities per sq mile
count_resnursingfacilities	float	1060608	39	0.9608564	0	38	Total counts: Residential nursing facilities (eg, nursing home)
emps_resnursingfacilities	float	1060608	18015	58.24603	0	5498.501	Total employees: Residential nursing facilities (eg, nursing home)
den_resnursingfacilities	float	1051936	350361	0.1280053	0	3000	Residential nursing facilities (eg, nursing home) per 1000 people
aden_resnursingfacilities	float	1055648	47751	0.1366885	0	391.3551	Residential nursing facilities (eg, nursing home) per sq mile
count_otherresidentialcare	float	1060608	27	0.6261135	0	26	Total counts: Other residential care
emps_otherresidentialcare	float	1060608	11332	14.13863	0	5636	Total employees: Other residential care
den_otherresidentialcare	float	1051936	273474	0.0957722	0	2000	Other residential care per 1000 people
aden_otherresidentialcare	float	1055648	35536	0.1001193	0	382.0605	Other residential care per sq mile

ZCTA 2020 Variables

Variable	Type	Obs	Unique	Mean	Min	Max	Label
zcta20	str5	1081312	33791	.	.	.	ZIP Code Tabulation Area, 2020
year	float	1081312	32	2005.5	1990	2021	Year
totpop	float	1080768	920664	8745.349	0	135256	Total population
aland20	float	1081312	33779	83.58216	0.001371	13678.38	ZCTA land area, square miles
count_allphysicians	float	1081312	411	8.459047	0	527	Total counts: All offices or clinics of physicians
emps_allphysicians	float	1081312	130276	61.17123	0	10751.9	Total employees: All offices or clinics of physicians
den_allphysicians	float	1072868	517090	2.522572	0	48000	All offices or clinics of physicians per 1000 people
aden_allphysicians	float	1081312	172611	2.304844	0	2776.829	All offices or clinics of physicians per sq mile
count_physicalhealthphys	float	1081312	392	7.551573	0	493	Total counts: Offices or clinics of physicians (except mental health)
emps_physicalhealthphys	float	1081312	119059	51.94056	0	10601.88	Total employees: Offices or clinics of physicians (except mental health)
den_physicalhealthphys	float	1072868	488061	2.307013	0	47000	Offices or clinics of physicians (except mental health) per 1000
aden_physicalhealthphys	float	1081312	160939	2.085653	0	2578.484	Offices or clinics of physicians (except mental health) per sq mile
count_mentalhealthphys	float	1081312	39	0.2087168	0	39	Total counts: Offices or clinics of mental health physicians
emps_mentalhealthphys	float	1081312	2842	1.377413	0	3043.351	Total employees: Offices or clinics of mental health physicians
den_mentalhealthphys	float	1072868	104469	0.0710658	0	1666.667	Offices or clinics of mental health physicians per 1000 people
aden_mentalhealthphys	float	1081312	13104	0.084913	0	479.983	Offices or clinics of mental health physicians per sq mile
count_allhealthpractitioners	float	1081312	228	4.986722	0	318	Total counts: All offices or clinics of health practitioners
emps_allhealthpractitioners	float	1081312	65122	17.12798	0	6437	Total employees: All offices or clinics of health practitioners
den_allhealthpractitioners	float	1072868	463930	0.826695	0	7500	All offices or clinics of health practitioners per 1000 people
aden_allhealthpractitioners	float	1081312	149357	1.212002	0	2578.484	All offices or clinics of health practitioners per sq mile
count_mentalhealthpractitioners	float	1081312	102	0.7539193	0	116	Total counts: Offices or clinics of mental health practitioners (non-MD)
emps_mentalhealthpractitioners	float	1081312	10534	2.032454	0	6087	Total employees: Offices or clinics of mental health practitioners (non-MD)

National Neighborhood Data Archive (NaNDA) Health Care Services by Census Tract and ZCTA, United States, 1990-2021

Variable	Type	Obs	Unique	Mean	Min	Max	Label
den_mentalhealthpractitioners	float	1072868	190602	0.1803993	0	3333.333	Offices or clinics of mental health practitioners (non-MD) per 1000 people
aden_mentalhealthpractitioners	float	1081312	35653	0.2831944	0	991.7246	Offices or clinics of mental health practitioners (non-MD) per sq mile
count_rehabpractitioners	float	1081312	65	0.9534103	0	69	Offices or clinics of rehabilitation health practitioners and podiatrists
emps_rehabpractitioners	float	1081312	9667	4.556827	0	5010	Total employees: Offices/clinics of rehab health practitioners and podiatrists
den_rehabpractitioners	float	1072868	278599	0.1848638	0	2765.832	Offices/clinics of rehabilitation health practitioners/podiatrists per 1000 peop
aden_rehabpractitioners	float	1081312	51439	0.2407942	0	991.7246	Offices/clinics of rehabilitation health practitioners/podiatrists per sq mile
count_altmedicinepractitioners	float	1081312	19	0.1209207	0	18	Total counts: Offices or clinics of complementary and alternative medicine
emps_altmedicinepractitioners	float	1081312	857	0.3726738	0	2519	Total employees: Offices or clinics of complementary and alternative medicine
den_altmedicinepractitioners	float	1072868	80146	0.0126502	0	833.3333	Offices or clinics of complementary and alternative medicine per 1000 people
aden_altmedicinepractitioners	float	1081312	13601	0.0267807	0	335.6211	Offices or clinics of complementary and alternative medicine per sq mile
count_chiropractors	float	1081312	54	1.555324	0	54	Total counts: Offices and clinics of chiropractors
emps_chiropractors	float	1081312	9786	4.391321	0	1023	Total employees: Offices and clinics of chiropractors
den_chiropractors	float	1072868	376888	0.1893028	0	1666.667	Offices and clinics of chiropractors per 1000 people
aden_chiropractors	float	1081312	68216	0.2661617	0	793.3797	Offices and clinics of chiropractors per sq mile
count_optometrists	float	1081312	29	0.6651244	0	29	Total counts: Optometrists
emps_optometrists	float	1081312	4379	2.908657	0	1758	Total employees: Optometrists
den_optometrists	float	1072868	275255	0.1105361	0	2587.322	Optometrists per 1000 people
aden_optometrists	float	1081312	34777	0.140681	0	294.3168	Optometrists per sq mile
count_dentists	float	1081312	153	3.877933	0	185	Total counts: Dentists
emps_dentists	float	1081312	41699	20.64903	0	3279.115	Total employees: Dentists
den_dentists	float	1072868	453103	0.6767933	0	10000	Dentists per 1000 people
aden_dentists	float	1081312	104080	0.9495621	0	1474.337	Dentists per sq mile
count_outpatientclinics	float	1081312	79	1.270826	0	85	Total counts: All outpatient medical clinics including Urgent Care and HMO

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Variable	Type	Obs	Unique	Mean	Min	Max	Label
emps_outpatientclinics	float	1081312	20420	22.69013	0	10181	Total employees: All outpatient medical clinics including Urgent Care and HMO
den_outpatientclinics	float	1072868	315755	0.2935676	0	6000	All outpatient medical clinics including Urgent Care centers and HMO per 1000 pp
aden_outpatientclinics	float	1081312	72347	0.3015709	0	588.6337	All outpatient medical clinics including Urgent Care centers and HMO per sq mile
count_physicaltherapyclinics	float	1081312	40	0.2881268	0	41	Total counts: Outpatient physical medicine and rehabilitation treatment centers
emps_physicaltherapyclinics	float	1081312	2466	3.264784	0	6047	Total employees: Outpatient physical medicine and rehabilitation treatment center
den_physicaltherapyclinics	float	1072868	147108	0.0388782	0	753.6751	Outpatient physical medicine and rehabilitation treatment centers per 1000 ppl
aden_physicaltherapyclinics	float	1081312	26908	0.0589955	0	396.6898	Outpatient physical medicine and rehabilitation treatment centers per sq mile
count_mentalhealthclinics	float	1081312	21	0.3019082	0	22	Total counts: Outpatient mental health clinics and substance abuse clinics
emps_mentalhealthclinics	float	1081312	3341	4.375264	0	2431	Total employees: Outpatient mental health clinics and substance abuse clinics
den_mentalhealthclinics	float	1072868	168647	0.0486194	0	833.3333	Outpatient mental health clinics and substance abuse clinics per 1000 people
aden_mentalhealthclinics	float	1081312	21334	0.0759011	0	477.7695	Outpatient mental health clinics and substance abuse clinics per sq mile
count_homehealth	float	1081312	50	0.6951888	0	49	Total counts: Home health services
emps_homehealth	float	1081312	10408	17.2372	0	4958.75	Total employees: Home health services
den_homehealth	float	1072868	248929	0.1303893	0	2222.222	Home health services per 1000 people
aden_homehealth	float	1081312	47869	0.1427163	0	477.7695	Home health services per sq mile
count_pharmacies	float	1081312	65	1.517852	0	66	Total counts: Retail pharmacies and drug stores
emps_pharmacies	float	1081312	15363	18.36414	0	7866	Total employees: Retail pharmacies and drug stores
den_pharmacies	float	1072868	431766	0.2817894	0	3000	Retail pharmacies and drug stores per 1000 people
aden_pharmacies	float	1081312	64152	0.3267763	0	588.6337	Retail pharmacies and drug stores per sq mile
count_opticalgoods	float	1081312	31	0.55656	0	31	Total counts: Optical goods stores
emps_opticalgoods	float	1081312	5953	2.606502	0	1970	Total employees: Optical goods stores
den_opticalgoods	float	1072868	220023	0.1322699	0	2576.95	Optical goods stores per 1000 people
aden_opticalgoods	float	1081312	30715	0.1741739	0	719.1082	Optical goods stores per sq mile
count_medequipment	float	1081312	26	0.4147952	0	33	Total counts: Medical equipment stores and suppliers

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Variable	Type	Obs	Unique	Mean	Min	Max	Label
emps_medequipment	float	1081312	3920	1.981507	0	6370	Total employees: Medical equipment stores and suppliers
den_medequipment	float	1072868	193699	0.0649979	0	2000	Medical equipment stores and suppliers per 1000 people
aden_medequipment	float	1081312	27001	0.0656787	0	207.8559	Medical equipment stores and suppliers per sq mile
count_allrescarefacilities	float	1081312	50	1.556707	0	55	Total counts: All residential care facilities
emps_allrescarefacilities	float	1081312	33007	71.00294	0	6345.5	Total employees: All residential care facilities
den_allrescarefacilities	float	1072868	420440	0.2421788	0	2000	All residential care facilities per 1000 people
aden_allrescarefacilities	float	1081312	70120	0.2415364	0	402.5784	All residential care facilities per sq mile
count_resnursingfacilities	float	1081312	39	0.9425291	0	38	Total counts: Residential nursing facilities (eg, nursing home)
emps_resnursingfacilities	float	1081312	17987	57.13343	0	5498.501	Total employees: Residential nursing facilities (eg, nursing home)
den_resnursingfacilities	float	1072868	351723	0.1395335	0	1000	Residential nursing facilities (eg, nursing home) per 1000 people
aden_resnursingfacilities	float	1081312	47921	0.1375224	0	391.3551	Residential nursing facilities (eg, nursing home) per sq mile
count_otherresidentialcare	float	1081312	27	0.614178	0	26	Total counts: Other residential care
emps_otherresidentialcare	float	1081312	11256	13.86951	0	5636	Total employees: Other residential care
den_otherresidentialcare	float	1072868	275267	0.1026453	0	2000	Other residential care per 1000 people
aden_otherresidentialcare	float	1081312	35789	0.1040139	0	382.0605	Other residential care per sq mile

References

- Chenoweth, M., & Khan, A. (2021). *National Neighborhood Data Archive (NaNDA): Code for merging ZCTA level datasets with the UDS Mapper ZIP code to ZCTA crosswalk* (Version v2) [dataset]. ICPSR - Interuniversity Consortium for Political and Social Research. <https://doi.org/10.3886/E120088V2>
- Finlay, J., Esposito, M., Kim, M. H., Gomez-Lopez, I., & Clarke, P. (2019). Closure of 'third places'? Exploring potential consequences for collective health and wellbeing. *Health & Place*, 60, 102225. <https://doi.org/10.1016/j.healthplace.2019.102225>
- Hirsch, J. A., Moore, K. A., Cahill, J., Quinn, J., Yuzhe, Z., Bayer, F. J., Rundle, A., & Lovasi, G. S. (2021). Business data categorization and refinement for application in longitudinal neighborhood health research: A methodology. *Journal of Urban Health*, 98(2), 271–284. <https://doi.org/10.1007/s11524-020-00482-2>
- John Snow, Inc. (2023). *ZIP Code to ZCTA Crosswalk – UDS Mapper*. American Academy of Family Physicians. <https://udsmapper.org/zip-code-to-zcta-crosswalk/>
- Kaufman, T. K., Sheehan, D. M., Rundle, A., Neckerman, K. M., Bader, M. D. M., Jack, D., & Lovasi, G. S. (2015). Measuring health-relevant businesses over 21 years: Refining the National Establishment Time-Series (NETS), a dynamic longitudinal data set. *BMC Research Notes*, 8(1), 507. <https://doi.org/10.1186/s13104-015-1482-4>
- Manson, S., Schroeder, J., Van Riper, D., Knowles, K., Kugler, T., Roberts, F., & Ruggles, S. (2023). *National Historical Geographic Information System: Version 18.0* (18.0) [dataset]. [object Object]. <https://doi.org/10.18128/D050.V18.0>
- NAICS & SIC Identification Tools. (2023). NAICS Association. <https://www.naics.com/search/>
- United States Census Bureau. (2015a, April 29). *Index of 2005 ACS Summary Files*. https://www2.census.gov/programs-surveys/acs/summary_file/2005/
- United States Census Bureau. (2015b, May 1). *Index of 2009 ACS Summary Files*. https://www2.census.gov/programs-surveys/acs/summary_file/2009/data/

National Neighborhood Data Archive (NaNDA) Health Care Services by Census Tract and ZCTA, United States, 1990-2021

United States Census Bureau. (2015c, December 3). *Index of 2014 ACS Summary Files*.

https://www2.census.gov/programs-surveys/acs/summary_file/2014/data/

United States Census Bureau. (2016, December 2). *Index of 2000 Decennial Census Summary Files*.

<https://www2.census.gov/programs-surveys/decennial/2000/>

United States Census Bureau. (2017, February 16). *Index of 1990 Decennial Census Summary Files*.

<https://www2.census.gov/programs-surveys/decennial/1990/>

United States Census Bureau. (2020, December 3). *Index of 2019 ACS Summary Files*.

https://www2.census.gov/programs-surveys/acs/summary_file/2019/data/

United States Census Bureau. (2021a, February 1). *Index of TIGER/Line Shapefiles: Census Tract*.

<https://www2.census.gov/geo/tiger/TIGER2020/TRACT/>

United States Census Bureau. (2021b, July 15). *Index of Tiger/Line Shapefiles: ZCTA*.

<https://www2.census.gov/geo/tiger/TIGER2020/ZCTA520/>

United States Census Bureau. (2023a, August 2). *Index of 2020 Decennial Census Summary Files*.

<https://www2.census.gov/programs-surveys/decennial/2020/>

United States Census Bureau. (2023b, August 10). *ZIP Code Tabulation Areas (ZCTAs)*. Census.Gov.

<https://www.census.gov/programs-surveys/geography/guidance/geo-areas/zctas.html>

Walls & Associates. (2022). *National Establishment Time-Series (NETS) Database*.

Walls, D., & Perez, K. (2022, October 4). *2021 NETS Database Has Been Released!* [Personal communication].

Zillow's Transaction and Assessment Database (ZTRAX). (2023, October 2). *Zillow*.

<https://www.zillow.com/research/ztrax/>

Appendix

Population Denominators for the Per Capita Density Variables

Years	Data Sources	Interpolated by year
1990-2000	<ul style="list-style-type: none"> • 1990 Decennial Census • 2000 Decennial Census 	Yes
2001-2004	<ul style="list-style-type: none"> • 2000 Decennial Census • 2005-2009 American Community Survey 	Yes
2005-2009	<ul style="list-style-type: none"> • 2005-2009 American Community Survey 	No
2010-2014	<ul style="list-style-type: none"> • 2010-2014 American Community Survey 	No
2015-2019	<ul style="list-style-type: none"> • 2015-2019 American Community Survey 	No
2020-2021	<ul style="list-style-type: none"> • 2020 Decennial Census 	No

Land Area Denominators

All data were downloaded, normalized, and standardized to four geographic levels using IPUMS NHGIS tools (Manson et al., 2023).

Census Tract 2010

Total population data for 1990-2009 and 2020-2021 census tracts were normalized to 2010 geography using IPUMS NHGIS crosswalks. (Data for 2010-2019 were collected using 2010 geography and therefore were not normalized.)

Census Tract 2020

Total population data for 1990-2009 census tracts were normalized to 2010 geography and again normalized to 2020 geography using IPUMS NHGIS crosswalks. Data for 2010-2019 were normalized to 2020 geography using IPUMS NHGIS crosswalks. (Data for 2020-2021 were collected using 2020 geography and therefore were not normalized.)

ZCTA 2010

Total population data at the ZCTA geographic level that had been standardized to 2010 geography from the 1990, 2000, 2010, and 2020 censuses were downloaded from the time series tables feature on the IPUMS NHGIS Data Finder.

ZCTA 2020

Total population data at the Census Block level were downloaded from the IPUMS NHGIS Data Finder for the 1990, 2000, 2010, and 2020 censuses. The 1990, 2000, and 2020 censuses were normalized to 2010 Census Blocks. (Data for the 2010 Census were collected using 2010 geography and therefore were not normalized.) The data were then normalized to 2020 Census Blocks using IPUMS NHGIS crosswalks, which were finally aggregated to the geographic boundaries for ZCTA 2020.