Mexico Demographic Essentials

Vintage

Release 2025

Purpose

The Mexico Demographic Essentials (MDE) is the initial data offering of AGS for the United Mexican States. It covers the essentials of demographics including population, households, dwellings, and income statistics. This product provides unsuppressed information at a geographic level of detail unavailable to the general public.

Content

The Mexico Demographic Essentials (MDE) currently covers the major components of demographics for 2020 and the current year (2025). Tables include:

Population

- Population by age by sex
- Marital status
- Labor force status
- Educational attainment and enrollment
- Literacy
- Religion
- Migration status
- Indigenous affiliation
- Afro-Mexican or African descent
- Disability and limitation status

Households

- Age and sex of householder
- Population in households by householder age and sex
- Households and household population by tenure (own, rent, etc.)

Mexico Demographic Essentials

Dwellings

- Occupancy status
- Vacant dwellings by reason
- Type of occupied dwellings
- Utility presence
- Vehicle presence
- Amenity presence

Income

- Households by income
- Aggregate, average, and median household income
- Income per capita

Methodology

The core estimates methodology combines the best historical and current information from a wide range of public and private data sources. These sources are carefully compiled and modeled by a highly respected and internationally known data team with decades of experience. The result of hundreds of individual models is a superior quality series of estimates and projections that is unrivaled both in accuracy and content.

A summary of the methodology for each of the major variable groups is included in the sections that follow.

Population

The basis for the current population of Mexico is obtained from the INEGI 2020 Census (Censo de Población y Vivienda 2020) and the most recent population estimates after the census. Municipio (county) totals derived from the most recent post-2020 census population estimates are balanced to these counts and serve as the foundation for projection and estimation at lower levels of

geographic detail. These post-census estimates were sourced from the National Population Council (CONAPO) and INEGI.

At lower geographic levels of detail where no official population estimate was available, population was distributed from its parent geography by compiling settlement data from satellite imagery and other spatial indicators of population presence. See the Geography methodology for details.

The result is a comprehensive set of population estimates and projections which incorporates the information on municipios from CONAPO while ensuring that the total population is consistent with INEGI estimates, which have proved to be the most reliable over time.

The base for the characteristics of the population is sourced from the results of the INEGI 2020 Census and related post-census surveys. These 2020 census variables were meticulously unsuppressed (see Suppression methodology section) and balanced against their parent totals across the geographic hierarchy.

Current year estimates from INEGI surveys have been reviewed and cleaned for inconsistencies. These cleaned estimates were then used as controls to balance the 2020 variables through their geographical hierarchy, down to the block group level.

Households

INEGI defines a household (hogar censal) as “the unit formed by one or more people, related or not, who usually live in the same private dwelling (vivienda particular).” In the 2020 Mexican census as published, households are effectively treated as a renamed

count of occupied private dwellings (viviendas particulares habitadas).

Household counts were unsuppressed from the 2020 census and balanced using hierarchical controls and age-by-sex estimates. Household population and householder age-by-sex counts were unsuppressed and balanced in a similar manner, while also tracking underlying population patterns. Changes in householder counts and household characteristics were controlled and rebalanced to updated state and municipio estimates derived from post-census survey data.

Dwellings

INEGI splits total dwellings into occupied (private and collective) and unoccupied (vacant or seasonal). As mentioned previously, private dwellings correspond to households in the 2020 census, while collective dwellings would be a rough equivalent of group quarters housing in the United States. Collective dwellings are defined as units which provide housing for groups of people who submit themselves to living and behavioral norms (for example, prisons, hospitals, orphanages, military bases, and similar institutions).

Identification of the unsuppressed collective dwellings was carefully performed through a combination of automated checks and manual review of all affected AGEBs and localities, including examination of special-use facilities and institutional populations.

Counts for all forms of dwellings were unsuppressed, estimated, and balanced based on higher-level control totals and building footprint counts. Variables describing dwelling characteristics (such as utilities, amenities, and basic housing conditions) were

unsuppressed and balanced for 2020 as well. For current-year estimates, these dwelling and utility variables were rebalanced to updated state totals based on post-census surveys and observed changes in total dwellings and households.

Income

The household income variables are based primarily on the National Survey of Household Income and Expenditure (ENIGH), supplemented by other official income series for Mexico. All income estimates in the Core Estimates of Mexico are expressed in current pesos for the reference year. That is, the estimates incorporate both an inflation component and a “real” component associated with underlying changes in wages, employment, and household incomes.

For the base year, state-level income deciles and related measures were derived from ENIGH microdata. These were combined with municipio-level income indicators from sources such as the ICMM (Current Income for the Municipalities of Mexico) and macro-level distributional information from the WID (World Inequality Database) to define consistent income levels and shapes of the income distribution at the state and municipio level.

Within each municipio, these income controls were then allocated to block groups using statistical models trained from ENIGH microdata. These relate income to detailed census household and population characteristics, along with other commercial activity signals such as points of interest, transportation networks, etc. The resulting block-group income distributions were constrained to match household counts, municipio totals, and key summary

measures (mean, median, and per capita income), while preserving realistic variation between neighboring areas.

For the current year, new state and municipio income targets and distributional curves were calibrated using the latest releases of ENIGH, ENOE, ICMM, and related official series, together with observed changes in inflation and wages. These updated controls were used to shift and scale the 2020 block-group income distributions forward to 2025. The process maintains consistency with official aggregates while allowing for differential growth across areas and income levels in line with the survey and macro-economic evidence.

The result is a set of block-level household income values and distributions that are not available directly from the census or from other commercial products, but remain aligned with the demographic, housing, and economic patterns observed in Mexico's official data.

Suppression

In its 2020 census, INEGI suppressed detailed cells at very small geographies (AGEBs and localidades) to protect confidentiality. By law, any published figure must be aggregated enough that no person or household can be identified. This suppression appears as negative "flag" values in the census data instead of real counts. These were treated as missing values that needed to be reconstructed.

An iterative process was used to uncover these suppressed values. Related variables, cross-tabulations, and higher-level totals (for example, locality, municipio, state, or national totals) were used to logically infer missing values, subject to arithmetic and

demographic constraints. In some cases, this required manual review and cleaning of problematic records.

The result is a set of complete, clean datasets that remains faithful to the official census aggregates while providing plausible values for cells where suppression previously existed.

Geography

Most of the geography layers provided in the Core Estimates of Mexico are derived from the sampling framework of INEGI's 2020 census. This framework was modified for improved geographic coverage and to ensure consistency with the frameworks used in other countries by AGS.

Geographies are identified by their ID, which is broken down below. This ID is derived from the "cvegeo" identified used by INEGI.

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State		**Municipio**			**Locality**				**Block Group (AGEB)**				**Block (Manzana)**		

See the Geography methodology section for further details and a full list of layers.

The largest deviation between the AGS framework and INEGI's Geostatistical Framework occurs at the locality (localidad) level, which is roughly equivalent to a US place or settlement. Despite most of Mexico's population living in urban areas, localities classified as urban in 2020 (~5,000) make up only about 2.5% of all localities (~190,000). On their own, these localities do not provide much more practical detail than municipios (~2,500), while also

introducing discrepancies with administrative boundaries and privacy limitations.

At the rural level, the INEGI 2020 census provides only point locations for many locality boundaries, and suppression is introduced in the associated data as well. Because the 2020 census does not define polygon boundaries for most rural localities, boundaries for these areas were derived through a multi-step process. This process first involved scanning alternate government sources for official locality boundaries. Where no official sources were found, the locality's boundary was derived through a contour-style algorithm based on satellite imagery, building footprints, the known population of the locality, and neighboring boundaries.

Urban localities are neatly divided into urban AGEBs (the equivalent of US block groups), which form the base of the AGS block-group system. Rural localities, however, do not have AGEBs defined within them. The "rural AGEBs" that INEGI provides are statistical groupings of many localities, rather than subdivisions of individual localities. In some cases, INEGI publishes block (manzana) polygons within rural localities, but without any detail or population counts.

Because there are no consistent lower-level units with population data inside rural localities, these localities were converted into "rural block groups" and paired with the urban AGEBs to form a unified block-group system.

The centroids of blocks (manzanas) within urban block groups, along with their population proportions, were computed to form consistent allocation points for urban areas. These points were cleaned and reviewed to maintain consistency with the

boundaries provided by INEGI, as well as additional extension polygons (Polígonos de Extensión) included in the official results.

Since there are no blocks with actual data in rural areas, population allocation points for rural block groups were generated through a model that identifies and quantifies population clusters from similar sources. Outputs from satellite imagery, building footprint datasets, and other gridded population products were compared to identify the most likely concentrations of population. These clusters were then combined with the urban block centroids to form a unified point allocation system suitable for detailed spatial analysis and modeling.

The table below summarizes the geographic layers used in the Core Estimates of Mexico:

Layer	Type	Notes
Blocks	Area / Point	Derived from manzanas where available; inconsistently defined in urban areas
Block Groups	Area	Derived from Urban AGEBs & Rural Localidades; not defined in unpopulated rural areas
Localidades	Area / Point	Usage not recommended; can be found from the INEGI MG; inconsistent definitions; equivalent to US locality or place/settlement
Municipios	Area	Roughly equivalent to a county
State	Area	Roughly equivalent to a Canadian province or US state
Nation	Area	
Metropolitan Zone	Area	Roughly equivalent to a US or Canadian Metropolitan Area

Postal Area	Area	Roughly equivalent to a US Zip Code
Hexagon Level 3	Area	
Hexagon Level 4	Area	
Hexagon Level 5	Area	
Hexagon Level 6	Area	
Hexagon Level 7	Area	

Sources

AGS uses a wide range of public data sources in constructing its core estimates, including:

- INEGI Census of Population and Housing (CPV) (2020)
- INEGI Geostatistical Framework (Marco Geoestadístico)
- ENIGH National Survey of Household Income and Expenditure (2020, 2022, 2024)
- ENADID National Survey of Demographic Dynamics (2023)
- ENOE National Survey of Occupation and Employment (2020, 2024, 2025)
- ICMM Current Income for the Municipalities of Mexico (2020, 2022)
- DENUE National Statistical Directory of Economic Units
- WID – World Inequality Database
- Google Open Buildings
- Microsoft Building Footprints
- WorldPop gridded population estimates
- Global Human Settlement Layer (GHSL)

Mexico Demographic Essentials

In addition, AGS uses a number of key proprietary data sources that include:

- Commercial-sourced satellite imagery data
- Commercial-sourced POI locations

Further Information

Additional information from AGS national parcel is available on the AGS website (www.appliedgeographic.com).

Contact customer service at 877-944-4AGS or email support@appliedgeographic.com.